



Committee of the Whole

March 9, 2021

8:30 a.m.

Hybrid Meeting - Virtual – Via Zoom &
Council Chambers, Town Hall
359 Main Street

Agenda

1. **Approval of Agenda**
2. **Approval of Minutes**
 - a. Special Committee of the Whole Minutes, February 26, 2021
3. **Presentation**
 - a. Andrew Garrett – Valley Waste Resource Management
4. **Public Input / Question Period**

PLEASE NOTE:

 - Public Participation is limited to 30 minutes
 - Each Person is limited to 3 minutes and may return to speak once, for 1 minute, if time permits within the total 30-minute period
 - Questions or comments are to be directed to the Chair
 - Comments and questions that relate to personnel, current or potential litigation issues, or planning issues for which a public hearing has already occurred, but no decision has been made by Council, will not be answered.
5. **Committee Reports (Internal)**
 - a. Accessibility Advisory Committee
 - b. Art in Public Spaces Committee



c. Planning Advisory Committee

6. Staff Reports for Discussion

- a. RFD 011-2021: 2021-22 Operations Plan and Budget
- b. RFD 012-2021: Debt Guarantees – Valley Waste
- c. RFD 013-2021: COVID Safe Reopening Grant
- d. RFD 014-2021: Spring Debenture Pre-Approval
- e. RFD 015-2021: Flood Risk Final Report
- f. RFD 016-2021: Development Agreement Discharges

7. CAO Report

8. Committee Reports (External)

- a. Kings Transit Authority (KTA)
- b. Annapolis Valley Trails Coalition (AVTC)
- c. Diversity Kings (DK)
- d. Wolfville Business Development Committee (WBDC)

9. Public Input / Question Period

10. Adjournment to In-Camera Meeting under *section 22(2)(e) Of the Municipal Government Act.*

- a. Contract Negotiation

11. Adjournment of In-Camera and Regular Meeting



COMMITTEE UPDATE

Title: Accessibility Advisory Committee
Date: March 9, 2021
Department: Committee of the Whole



UPDATE

The Accessibility Advisory committee met on Feb 8, 2021

The next meeting will be March 8/21

This meeting was an addition to the proposed schedule for AAC. Each member of the committee introduced themselves as this was the first meeting of new and returning members.

Dwayne MacLeod self nominated and was appointed chair, and myself (Jennifer Ingham) self nominated and was appointed vice chair of the AAC.

Omar, our climate mitigation coordinator gave a presentation of the results of our Mobility survey, and the most common modes of transportation in Wolfville. He specifically focused on the areas as they pertain to accessibility. We discussed and provided feedback in these areas:

1. Better clearing of sidewalks in the winter months, so as to have better accessibility to businesses.
2. Accessible washrooms were indicated an issue.
3. More accessible parking was noted and appreciated in downtown.
4. Feedback was given on how support could be given to a bike routes with people of disabilities and how can we incorporate accessibility points, as well as what signage would be beneficial.
5. The curb cuts and color striping, and let downs on sidewalks were discussed.

James Sanford from Acadia gave an update on their accessibility plan and auditing the accessibility of all buildings on campus. He thought some businesss in town may like to look at this also. He suggested a working group be set up with Acadia.

Submitted by:

Councillor Jennifer Ingham

COMMITTEE UPDATE

Title: Art in Public Spaces
Date: March 9, 2021
Department: Committee of the Whole



UPDATE

- The Art in Public Places committee held both its regular quarterly meeting and a brainstorming session in recent weeks. We were pleased to welcome a new committee member and long time Wolfville artist Jane Lutes.
- The committee discussed placement of the Brad Hall sculptural work, which will go at the eastern gateway. It is anticipated later this fall due to COVID-19. Some consultation with community groups is planned ahead of time.
- The town does not know when the box car, which was gifted to us, will arrive. We discussed the fact that the Wolfville Memorial Library may prove a fruitful location for a mural.
- Acadia Art Gallery director Dr. Laurie Dalton invited the committee to visit the fascinating virtual exhibit that just opened. <https://www.artsteps.com/view/60103f3f92f9ac58a1a2d497>
- The next meeting of the committee is set for April 15.

Respectfully yours,
Councillor Wendy Elliott

COMMITTEE UPDATE

Title: PAC
Date: February 11, 2021
Department: Committee of the Whole – March 2021



- As this was the first meeting of the new make-up of the committee, each member introduced themselves. It is a terrifically eclectic group of people bringing a variety of experiences and perspectives to the conversation and the work of the committee.
- Climate Change Mitigation Coordinator, Omar Bhimji and Neill Spencer from Bicycle Nova Scotia. provided an overview of the Mobility Planning Survey and the results from the public. Neill advised Bicycle Nova Scotia has teamed up with the Town of Wolfville on a HUB project which is active Bicycle trails and linking up routes with communities in Nova Scotia. They are trying to develop a minimum grid to come up with a way to link the communities. It was a lengthy presentation and discussion that ended with the suggestion that the last three questions be circulated to the committee members for feedback.
- Next was a discussion about flood risk. The province is working on a Coastal Protection Director Lake advised CBCL has completed most of the Flood Risk Assessments in Nova Scotia and this work is aligning with the forthcoming Coastal Protection Act. It was agreed by the Committee to move further discussion to the next meeting.
- Director Lake asked the Committee to review information surrounding Housing issues on the Nova Scotia Housing website. He noted he would appreciate any feedback from the Committee and would provide further information. It was agreed by the Committee to move further discussion to the next meeting. Devin has made arrangements for Russ Sanche to attend the next meeting.
- The next meeting is planned for March 11, 2021 – 4:00 p.m.

REQUEST FOR DECISION 011-2021

Title: 2021/22 Operations & Budget

Date: 2021-03-09

Department: Office of CAO & Finance



SUMMARY

2021/22 Operations Plan and Budget

Annually the Town is required to approve a *balanced* budget for the upcoming fiscal year. The Town of Wolfville has a well-established practice of budget approval by the regular March Council Meeting. This has allowed the organization to start each new fiscal year with direction and spending authority in place before the operational year begins on April 1st. From a financial perspective, this is a best practice that the organization should continue to adhere to.

The process itself occurs year-round, with Council and staff interacting with the public in various formats. As occurs every four years, the 2021/22 budget process benefits from municipal elections and the feedback that candidates hear from the public while on the campaign trail. The formal process, in accordance with Standard Operating Procedure, started with Council at the November Committee of the Whole (COW) meeting. At that point in time

- an early draft of the 10-Year Capital Investment Plan (CIP) was reviewed/discussed,
- preliminary assumptions were set by COW for staff to build into the first draft of the operating budget, e.g. initial position on tax rates, tax increases and impact of Cost of Living Adjustments (COLA)

This year's process included the usual budget review at a Special COW meeting in January followed by another review at the regular February COW meeting. Council also decided to have an extra COW meeting in February to provide more time to review the draft Operations Plan and consider final revisions to the draft budget(s). The span of November to March COW has provided time for members of Council to review, discuss, debate and provide direction to staff for changes. A key consideration this year has been the impact of the COVID pandemic, from both a public perspective as well as the Town organization itself.

The final draft before COW on March 9th is the result of hours of discussion with members of Council and represents the plan for 2021/22 along with budget projections for 2022/23, 2023/24, & 2024/25.

The draft Operations Plan for 2020-2024 has also been included. This document provides text details of budget initiatives and projects for the upcoming 4 years. The two documents work together as a complete budget package. As discussed at the Special COW meeting on February 26th this document is still in draft form, with final updates occurring between the March COW and Council meetings.

REQUEST FOR DECISION 011-2021

Title: 2021/22 Operations & Budget

Date: 2021-03-09

Department: Office of CAO & Finance



DRAFT MOTION:

That Council approve the 2021/22 Town Operations Plan and related Operating Budget, Ten Year Capital Investment Plan, and the Water Utility Three Year Operating and Capital Budget, including the following details:

- Town Operating Budget with revenue & expenditures in the amount of \$11,261,900;
 - Residential Tax Rate of \$1.475 per hundred dollars of assessment applied to taxable residential and resource assessments;
 - Commercial Tax Rate of \$3.585 per hundred dollars of assessment applied to taxable commercial assessments;
 - Taxes to be billed by way of Interim Tax Bill (issued in April, due May 31, 2021) and Final Tax Bill (issued in August, due the September 30, 2021);
 - Interest on overdue amounts to be charged at a rate of 1.00% per month;

- Town Capital Budget with Year 1 totaling \$4,641,500, including capital reserve funding of \$1,582,417, operating reserve funding of \$292,500, long term debt funding of \$1,124,750, Federal Gas Tax grant funding of \$810,000, ACOA grant funding of \$343,333, Provincial grant funding of \$43,000, and other/external grant/contribution funding of \$5,000, and \$400,500 from the Town's Water Utility for its share of street infrastructure projects.

- Water Utility Operating Budget with revenues of \$1,133,300, operating expenditures of \$981,700, and non-operating expenditures of \$176,300.

- Water Utility Capital Budget totaling \$865,500, including Depreciation Reserve Funding of \$385,500, Capital from Revenue Funding of \$70,000, Long Term Debt of \$230,000, and Accumulated Surplus funding of \$180,000.

- Fire Protection Area Rate (pursuant to Section 80 of the Municipal Government Act) of \$0.056 per hundred dollars of assessment

- Business Development Area rate (pursuant to Section 56 of the Municipal Government Act) of \$0.28 per hundred dollars of commercial assessment

- Sewer fees
 - Sewer usage rate of \$4.41 per 1,000 gallons of water used by customer;
 - Flat Rate fee of \$85.30 per quarter;
 - Minimum quarterly charge for any metered customer \$22.00;
 - Sewer connection fee of \$3,500, if only sewer hook up
 - Sewer connection fee of \$1,000 if hook up combined with water

REQUEST FOR DECISION 011-2021

Title: 2021/22 Operations & Budget

Date: 2021-03-09

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- Low Income Property Tax Exemption
 - Income threshold to qualify a maximum of \$30,000;
 - Maximum exemption of \$750.

- Grants to Organizations under General Government/Community Development (*not part of Community Partnership Policy*)
 - Acadia Scholar Bursaries \$11,000
 - Wolfville Historical Society \$5,000
 - Acadia University
 - MOU main grant allotment \$35,000
 - MOU Events hosting contribution \$10,000
 - One-time contributions to 3rd Party Capital Projects (per application of Town Policy)
 - Community Oven (pending MOU) \$24,400

REQUEST FOR DECISION 011-2021

Title: 2021/22 Operations & Budget

Date: 2021-03-09

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1) CAO COMMENTS

The CAO supports the recommendations of staff. As noted in this RFD, the Operations Plan will be finalized prior to Council in March.

2) LEGISLATIVE AUTHORITY

- Municipal Government Act (MGA) Section 65 – Adoption of Budget

3) STAFF RECOMMENDATION

Staff recommend approval of the 2021/24 Operations Plan & Budget V4.

4) REFERENCES AND ATTACHMENTS

- Draft 2021/22 Budget Documents V4 (attached)
- Draft 2021/22 Operations Plan (attached)
- Committee of the Whole Agenda Packages – Nov 2/20, Jan 14/21, Feb 2/21 and Feb 26/21

5) DISCUSSION

Each year, the budget process has recurring themes as well as new discussion/hurdles. The preceding five month process has been no different. This year has been unique in dealing with the impact of a global pandemic on both the Town organization and the Wolfville community. Council has once again had hours of discussion debate on high level budget goals and specific budget direction. Draft V4 of the budget results from the original goals set by Council in November, as well as direction provided staff as the process worked its way to the balanced budget document presented with this RFD. Key areas of direction included:

- *Keeping residential tax increase within a reasonable cost of living adjustment (COLA).* The Town annually uses the average change in the NS Consumer Price Index (CPI) for the preceding calendar year. For the 2021/22 budget this equates to a *COLA of 0.3%*.
 - *The COLA value is extremely low which limited a natural increase in the base tax revenue from the preceding year. At the same time members of Council have been cognizant of the COVID impact on the community and have remained firm on avoiding an addition to the tax rate.*
- Another change in assumption for annual increase to *capital budget funding*. In order to meet funding requirements of projects identified in the Ten Year Capital Investment Plan (CIP), an *annual increase 6% needed starting in Year 2 of the Operations Plan*.
- Recognition of refinement of capital dollars needed for flood mitigation efforts in the coming years. The Flood Risk Mitigation Study has numerous recommendations that will inform next year's 2022/23 budget process.

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Within the financial constraints of the budget process, priorities heading into the 2021/22 fiscal year include:

- Redesign of Council Strategic Plan and corresponding redesign of the annual Operations Plan to align with Council's key areas of focus.
- Added resources included in key areas of Town operation.
 - 2021/22 budget provides for two Building Inspectors (up from one), addressing need to work thru Fire Inspections in the community and to manage new construction file inspections. This also forms part of a succession plan process with the Town returning to one building inspector in the next couple of years. The budget contemplates using Operating Reserves to fund on position so as not to impact tax rates for a temporary process.
 - New Manager position in Public Works Department, with main focus to support the annual Capital Budget projects. No immediate impact on taxes as the intent is to reduce a portion of the cost of external consultants to administer civil engineering contracts. It may be possible to reduce the overall cost of selected civil engineering projects through the use of inhouse resources. For example, in the fiscal year 2019/20, the total cost of civil engineering consultants on capital projects was just over \$321,000.
 - Special Projects Coordinator in the Office of the CAO (replacing Administrative Assistant position moved to Planning & Development Department) will become support to numerous Town projects/initiatives.
 - The original two-year term position of Climate Change Mitigation Coordinator has been extended 6 months to ensure original mandate of work can be completed, i.e. development of a Climate Action Plan under the funding of an Federation of Canadian Municipalities (FCM) grant. That two-year grant expires in 2020/21, however use of COVID Safe Reopening funds will enable to the work to be completed, as key elements could not be completed in the current year due to the impact of COVID on the process being followed.
 - Continued resources in Public Works to address pavement conditions throughout the Town street system. Combined with major street infrastructure replacement projects (e.g. Highland Avenue in next two years), the Town continues to improve the overall condition of Town streets.

Not included in the final budget document is grant funds for the Devour organization. This does not mean the Town is not supporting the request from Devour for \$100,000. This particular decision has been moved from the budget process to its own process to allow more time for Staff to bring back more details for Council to help arrive at the optimal decision affordable by the Town while still showing solid support to Devour. This process will carry into the new fiscal year.

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Also not included is any allowance to provide financial contribution to the Acadia Pool. Any decision on this issue will come later once more details are known and a report is brought to Council.

At the end of any budget process, it is always important that Council feels they have achieved an equitable balance of the services desired with the inherent limitations of property tax burden to the community.

The final document will be an Operations Plan & Budget, providing Council and the community textual information on goals for the upcoming year (2021/22), as well as intended projects/initiatives for the following three years. Also included is a 4 year Budget Projection Summary. Years 2-4 of this summary are not meant to be balanced, but rather show the result that is likely *based on assumptions* built into the future years. Typically, one of the assumptions is to show no use of Operating Reserves for year's 2-4. The closer the projected results in year 2-4 are to break-even, the more likely future Councils may have an opportunity to make strategic decisions involving taxes and services.

It's important to review changes between each version of the budget. The key changes are in the Town's Operating budget, with a couple of changes in the Town's CIP and Water Utility Capital budget. The changes in the Town Operating numbers can be summarized as follows:

Net Surplus (Deficit) V3		(9,100)
<u>Revenue Changes</u>		
Grants	9,000	
		9,000
<u>EXPENSES</u>		
Seasonal/Term wages	16,700	
Employee Benefits - seasonal/term	1,700	
Insurance	(12,000)	
Vehicle Insurance	(7,000)	
Operational Material & Supplies	5,000	
Contracted Services	(5,000)	
Grants To Organizations	102,600	
Partner Contributions - AVRL	(2,300)	
Partner Contributions - Regional Housing	3,000	
		102,700
<u>Capital Program & Reserves</u>		
Transfer from Operating Reserves		(102,600)
Net Surplus (Deficit) V4		\$ -

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The changes above include:

- Additional grant revenues based on confirmations received on Friday, Feb 26th. To be split equally between Parks and Festival & Events for summer staff.
- Reduction in seasonal wages & benefits for the Welcome Centre (formerly called Visitor Information Centre)
- Increased budget estimate for both general insurance and vehicle insurance.
- Change in estimate for Operational Materials & Supplies in the Sewer Collection Dept yielding a small savings of \$5,000.
- Change in estimate of Contracted Service for Planning Dept, additional \$5,000 allocated to Department resources.
- Reduction in Grants to Organizations in the General Government Division. Relates to:
 - Remove of \$100,000 allowance for grant to Devour. NOTE: This request has been moved from the budget process to come back to Council at a later date. After a number of discussions starting with January Committee of the Whole Special Budget meeting, it is clear the magnitude of this request requires more information to be brought back to Council before a decision can be made.
 - Small reduction in the budgeted amount of the grant for the Community Oven. Budget V4 had a value of \$27,000, and the grant request was amended to \$24,400.
- Adjustment to the Annapolis Valley Regional Library contribution of \$2,300. New funding formula now shows an increase in annual funding requirement.
- Adjustment to Regional Housing Authority to lower budget allowance by \$3,000.
- Reduction in budgeted use of Operating Reserves reflecting deferral of Devour grant and adjustment of Community Oven Grant.

The Operations Plan provides many details on what staff expects to complete over the next year, as well as goals for the succeeding three years.

Other budget highlights and points to consider include:

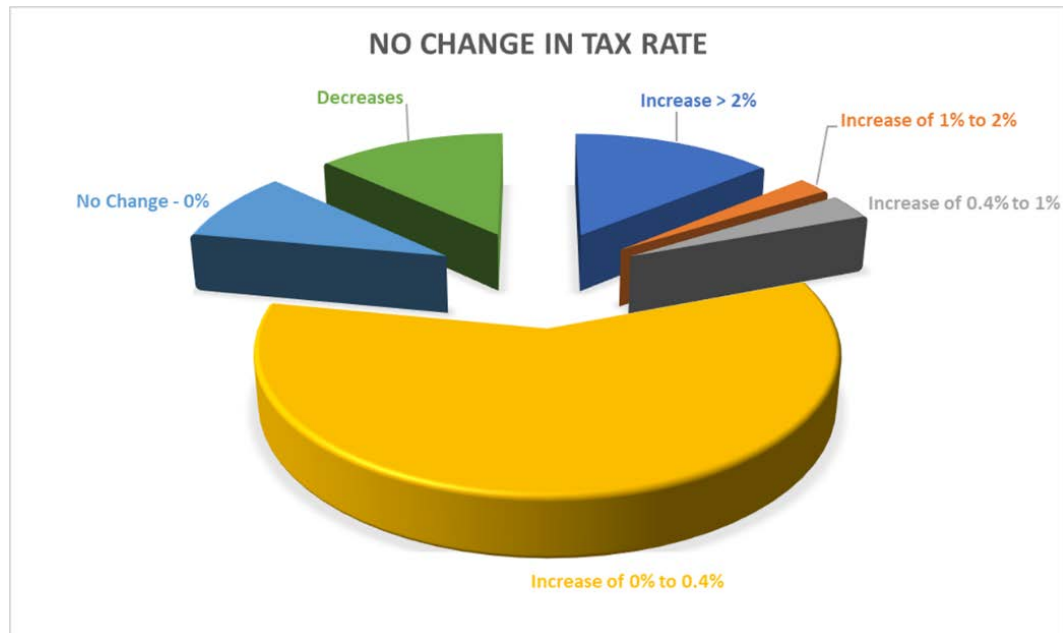
- **No change in commercial or residential tax rates.** Approximately 81% (1292 of the 1602 total accounts) of residential accounts will see an increase of no more than 0.4%. The average CPI (or COLA) change for 2020 was 0.3%.
 - 210 of these accounts see decreased taxes related to drop in assessment value.

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- Economic development efforts continue with
 - Continuation of WBDC funding at \$100,000 by way of an area rate levy. The levy remains unchanged at \$0.28/'00 of assessment.
 - \$10,000 grant available to Acadia University by way of MOU related to hosting major regional/national event(s).
 - Both Dept of Recreation and Planning Dept provided dollar resources to support Economic Development initiatives.
- Sewer rate increase of 17% required to cover operational costs as well as increasing capital contributions for debt repayments. A key impact relates to lower revenues caused by the COVID pandemic shutdowns. Approximately 4% of the overall increase relates to the drop in revenues.
- Major Street Infrastructure projects include Highland Avenue over the next 2 years.
- The Town continues to rely on Operating Reserves to balance its annual budget. Staff have previously identified this as a risk if continued over the long term, if reserves are depleted below best practice benchmarks. The current draft budget (V4) will leave the reserves within 98% of the provincial benchmark.

REQUEST FOR DECISION 011-2021

Title: 2021/22 Operations & Budget

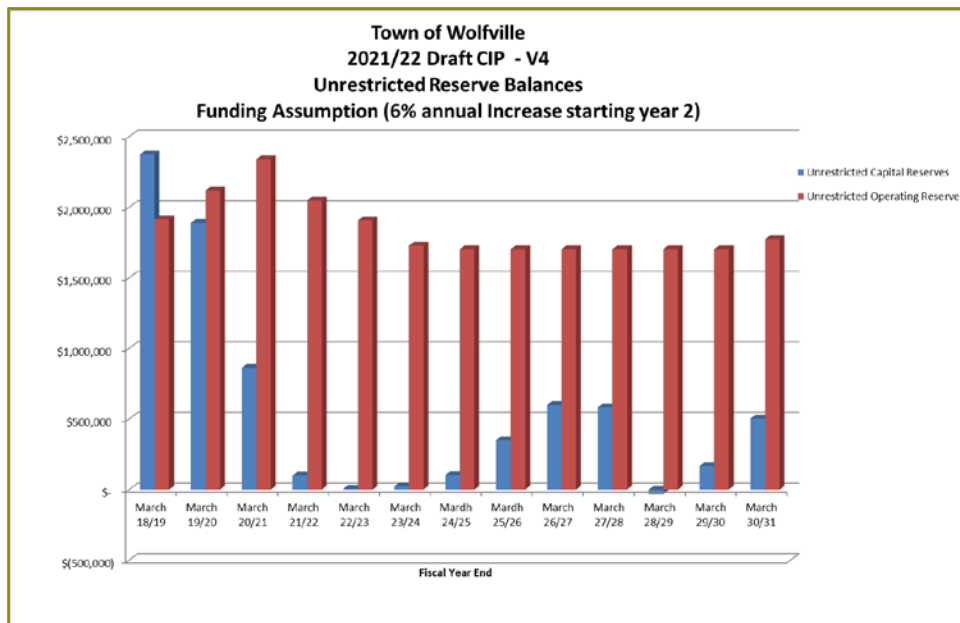
Date: 2021-03-09

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Operating Reserves, March 31/20		2,163,200
ADD: 20/21 Forecast Surplus <i>draft estimate, will change</i>		527,600
Already Committed - 20/21 or previous		
Landmark - pending actual development	50,000	
Acadia Turf	60,000	
Chrysalis House	20,000	(130,000)
		<hr/>
Op Reserve, Estimated March 31/21		2,560,800
Already Committed - next 10 years		
Town's '21/22 Operating Budget V4	234,600	
Town's draft CIP - 10 year capital	637,500	(872,100)
		<hr/>
Op Reserve, not yet committed to future projects		<u>\$ 1,688,700</u> 98% of FCI benchmark
Minimum need to keep FCI 20% benchmark		<u>\$ 1,722,800</u>

- As noted in last year’s RFD 010-2020 (March 2020 COW) *the use of operating reserves to fund grants to outside organizations has continued. Though possible now, this ability will not always be possible which may limit future Councils in issuing similar grants.*
- *Annual increase to capital funding is 5% for fiscal 2021/22, and then 6% per year for the balance of the ten year CIP.* If this goal is not met, notwithstanding any new grants obtained, then the funding shortfall for the 10 Year CIP will grow significantly.



REQUEST FOR DECISION 011-2021

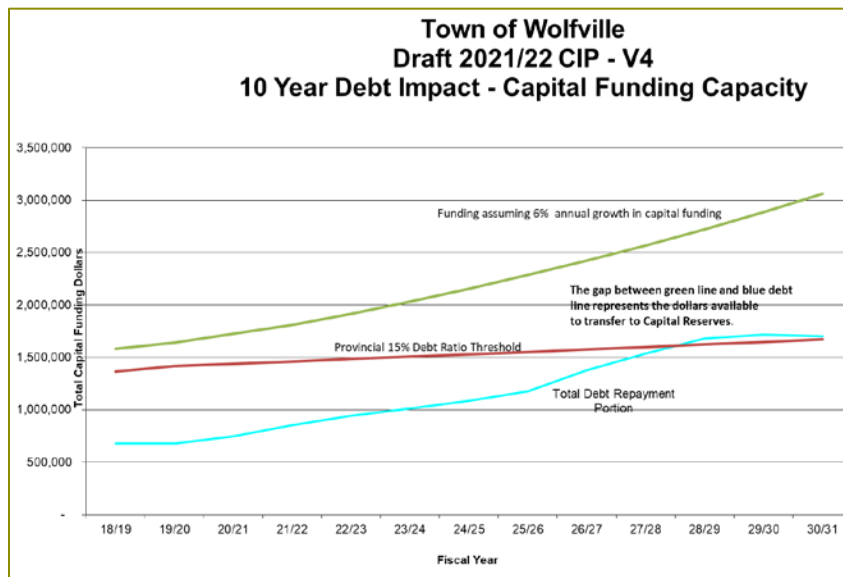
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- In addition, the current funding of the CIP will push the Town's debt ratio above 10% within four years (resulting in a moderate risk rating within the provincial Financial Condition Indicators), and 15% by year 8 (high risk).



Water Utility Budgets

The Water Utility operating and capital budget figures are included in the draft budget document. Of note for fiscal 2021/22:

- There is no rate increase in this budget. The last Rate Study approved by the NS Utility and Review Board (NSUARB) provided for rate increase up to and including fiscal 2020/21. No changes can be made to rates until another submission to the NSUARB.
- Additional dollars are budgeted under Power & Pumping Dept to cover cost of decommissioning of old wells over the next couple of years.
- **Overall the Water Operating Fund is budgeted to have a deficit of \$24,700. This combined with projected deficits for the following three years indicates the need for a Rate Study.**
- The COVID pandemic had a negative impact on the Water Utility revenues with significant drops by typical large consumption customers. Lower revenue estimates reflect this trend to continue in 2021/22.
- The Utilities capital budget for 2021/22 includes two small projects. One continues the installation of RF meters which allows more efficient meter reading for billing purposes. The second item is a generator for the utility use with well pumps.

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- As noted a year ago, the Water Utility's transmission line requires replacement. The first section of the line was replaced during the Westwood Street Capital Project in summer 2019. The Water's Capital Budget now includes a four year phasing to allow remainder of the line to be replaced. This has a significant impact on the Utilities budget requiring use of Accumulated Surplus Funds, Long Term Debt, and depletion of the Capital Reserves.

Municipal Fees Policy 140-015

- Clause 5.3 of the Policy notes that the document will be reviewed annually.
- Management has not had a chance to review the Policy in detail and therefore no recommendation is being brought forward to this meeting. A separate RFD will be brought forward in early 2021/22 with recommendations on fees. This may include amended fee structures noted in the Town's Accessibility Plan.

6) FINANCIAL IMPLICATIONS

This year's budget process had a number of important considerations to work through in order to achieve a balanced budget. The COVID pandemic was one of these, and it is expected this issue will continue to impact the Town over at least the next year.

Although the budget has been balanced, and the CIP funded for next ten years, this has been achieved with potential risks in future years. As noted over the last few years, continued reliance on Operating Reserves to balance the annual Town operating budget is not sustainable. The CIP requires full use of Capital Reserves within the term of this Council, with a small recovery in the last six years of the ten year CIP. The Water Utility as noted during this year's budget process will require depletion of its capital reserves and a significant portion of Accumulated Surplus.

Council can expect to see a few Financial Condition Indicators move into the yellow in the next year or two and potentially red.

Council and Staff will need to work towards lowering the above noted risks during the next couple of years to ensure the Town does not overextend itself financially.

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7) REFERENCES TO COUNCIL STRATEGIC PLAN AND TOWN REPORTS

Ultimately the annual Operations Plan and Budget represents all aspects of Council's Strategic Plan to the extent of balancing Strategic Goals that do not always move in the same direction. The proposed plan is this year's best effort at striking the right balance involving all goals under current circumstances.

To see direct linkages to the Strategic Plan refer to the Operations Plan details.

8) COMMUNICATION REQUIREMENTS

Nothing provided at this time

9) ALTERNATIVES

Not approve current draft budget, with direction to staff of what changes might be desired.

- This is not recommended. Best practice is to have an approved budget prior to start of the fiscal year. Delays do not typically result in easier decisions, they simply get delayed. **No one budget can satisfy all service levels desired and/or public request for services and still meet the goal of minimizing tax increases.**
- As with past years, to the extent that actual results in 2021/22 start to vary significantly from budget, staff will work with Council to manage any major negative variances.

Wolfville Operations Plan

2021-2025

April 1, 2021



A cultivated experience for the mind, body, and soil

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DRAFT

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LETTER FROM CHIEF ADMINISTRATIVE OFFICER

This year marks the first Operational Plan and Budget under the Council that was elected in October 2020. Over the past few months, Council has reflected on feedback that was given during the election campaign, have reviewed the former Council Strategic Plan 2016-2020, and have considered the community priorities as identified in the newly-adopted Municipal Planning Strategy. As a result of these reflections, Council has drafted a new strategic plan to guide the priorities of Council and Staff over the next four-year term. This Operational Plan ensures that progress will be made in the strategic areas that Council have identified.

The Operational Plan is intended to provide a four-year snapshot of projects and initiatives that will be undertaken by the Town, in addition to the many core services and day-to-day operations. Year 1 activities are typically more definitive and detailed, while Years 2-4 initiatives are less defined in many cases and may be awaiting further study and information to fully populate. However, all efforts have been made to provide as much detail as possible for those years beyond 2021-22 so that Council, staff and the public have an understanding of work that is likely to be undertaken and where efforts will be focused.

This Operational Plan is also a living document. With a new format and new strategic directions this year, more time is required to adequately assess key performance metrics and how success will be measured. As such, it will continue to be refined throughout the year as required and as more information is known and developed. Future amendments will be shared with Council, staff and the public as they are updated. I am very excited to get the many projects and initiatives identified for 2021-22 underway. We have established an aggressive plan that tackles a variety of priority areas that will hopefully move the needle on a variety of fronts.

Erin Beaudin

COUNCIL'S STRATEGIC PLAN

In February 2021, Council adopted a new Strategic Plan to guide where the Town will prioritize efforts over the next four-year term and how future Council decisions will be made. A copy of the Strategic Plan is attached as **APPENDIX 1**. Key highlights of the plan include:

VISION

A vibrant, progressive town at the centre of a thriving and sustainable region, where residents, visitors, businesses and university thrive and grow.

The vision identifies four equally important elements – residents, visitors, businesses, and the university. All operate in harmony and provide mutual support and benefit. None is expendable, none more important than the other. All must be healthy and stable for this vision to be achieved. The vision statement acknowledges that the Town exists within a sustainable region that supports the Town's health which in turn is necessary to the region's wellbeing.

MISSION

To provide leadership and collaborative governance for the responsive and responsible allocation of public resources for the greater good of Wolfville.

This mission outlines the purpose of this Council – to provide leadership for the Town's decisions, to do so in collaboration with the important segments of the community – residents, businesses, the University, and the greater region. Those decisions will be made understanding our role is the responsive and responsible management and expenditure of public funds entrusted to the town for the good of the town.

PRINCIPLES

Key principles guide Council's work. There are five principles that were identified in the Strategic Plan:

1. **Sustainability:** Decisions will be made with a view to long-term viability of the Town and its sectors.
2. **Transparency:** Decisions will be made openly and in public.
3. **Accountability:** Council is responsible for decisions and their impact. Decisions are a function of the whole of Council.
4. **Well-Communicated:** Council decisions and the processes leading to decisions will be well communicated using the media and mediums available to ensure the decision processes are shared.
5. **Evidence-Based:** Decisions will be based on factual evidence, the importance an issue is to the community, and other realities of our community life.

STRATEGIC DIRECTIONS

The Strategic Directions found in the new Municipal Planning Strategy – Economic Prosperity, Social Equity and Climate Action, along with an additional priority of Community Wellness, have been adopted by Council as primary or strategic focuses for the Town's services. Decisions will be made with consideration to these broad goals.

PRIORITY INITIATIVES

Council's Priority Initiatives are initiatives that a majority of Council members heard in the community as priorities. It is hoped that at the end of this Council term Council members can look at the achievements of the term and see clear evidence of achievement on each of these priorities. They will hold a special place in the operations and resource allocation of the Town.

Council's Priority Initiatives for 2021-2024 are:

1. Priority Area 1 (PA1) - Multi-purpose regional complex to include at minimum an aquatic facility. May also include other recreation and cultural indoor facilities.
2. Priority Area 2 (PA2) - Clear plan to address, in a timely manner, the revitalization and maintenance of road, sidewalk, crosswalk infrastructure and traffic management including addressing the issue of the 4-way stop.
3. Priority Area 3 (PA3) - Economic sector growth and support for commercial, business and entrepreneurial opportunities including retention and attraction of new economic opportunities.
4. Priority Area 4 (PA4) - Climate management related initiatives to reduce carbon emissions, support local transportation, local food security and environmental protection.

While the priority initiatives figure significantly in the Town's annual Operations Plan, they are not the only things that the Town will achieve. Ongoing work of service departments is a major component of each annual budget. These, and other projects for which need and/or opportunity arises during the term of Council, will be incorporated as appropriate and as possible in each annual Operations Plan and Budget.

WHERE TAX \$\$ GO /KEY CHANGES FROM 2020-21

Mike to insert between COW and Council in March for final version at adoption by Council in March.

DRAFT

RESOURCING THE OPERATIONS PLAN – MUNICIPAL DEPARTMENTS AND COMMITTEES

The following section provides an outline of the structure of the Town of Wolfville, at the departmental and committee level. These resources, along with strategic partnerships, will enable the successful implementation of this Operational Plan.

Within each Department, there are key day-to-day deliverables and functions that are at the core mandate of the Town. These are listed in each section and are key to the Town's daily operations.

These deliverables can take up a great deal of internal capacity, which limits the Town's abilities to take on additional priorities and initiatives. It is important to recognize that while this Operations Plan has endeavoured to address the priorities of Council and maintain the day-to-day service level requirements of the municipal operation, that the day-to-day activities must not get sacrificed while implementing the various other initiatives and projects outlines in the Plan.

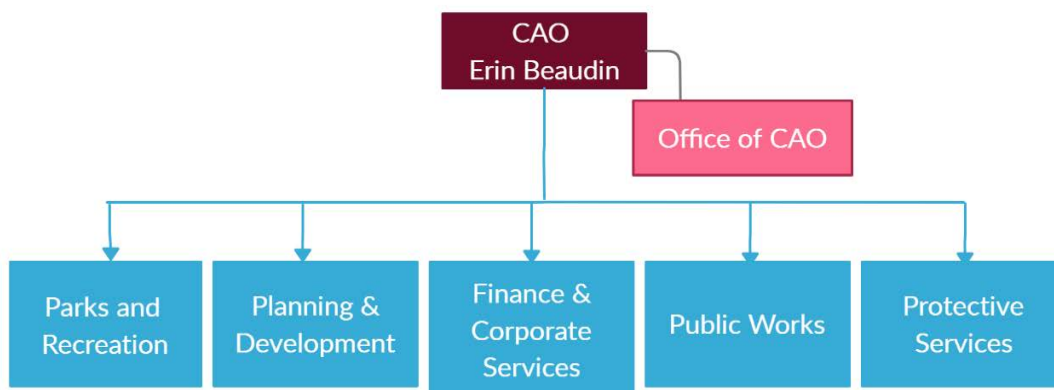
Chief Administrative Officer

Erin Beaudin, CAO


The Chief Administrative Officer is the senior appointed official of the municipality providing organizational leadership to municipal staff and is the sole employee of Council. This position is responsible to Council for administration and coordination of the delivery of services to the municipality's residents and businesses in a manner that will ensure the effective utilization of the human, financial and physical resources of the municipality.

The Chief Administrative Officer is responsible for the proper administration of all the business affairs of the Town in accordance with the bylaws, policies and plans, approved and established by the Council and responsibilities as legislated by the Province of Nova Scotia.

Roles & Responsibility	Human Resources
<ul style="list-style-type: none">• Administering the business affairs of the Town• Advising Council on Town issues and on agenda items during meetings• Directing the exercise of general financial control of all departments• Directing the development and implementation of corporate policies, programs and services• Ensuring Council receives the appropriate reports and information necessary for their decision making• Assisting Council in strategic planning• Liaising with officials, groups, agencies and other municipalities and the provincial and federal governments• Responsible for communications• Responsible for corporate customer service• Responsible for human resources	<ul style="list-style-type: none">• 4 Directors• Fire Chief• 1 Coordinator of Administrative Services• 1 Community Liaison and Compliance Coordinator• 1 Special Projects Coordinator• 1 Administrative Assistant (Shared with Planning & Development)• 24 Permanent Employees• 14 Union Employees• 12 Casual Employees• 7 Permanent Seasonal Employees



Office of the CAO Administrative Services

 Office of the CAO Administrative Services provides an internal focus and priority for the Town’s Human Resource Policies and Standard Operating Procedures, contract management, records management and support for Council and Committees of Council.

Operational Statistics	Human Resources
<ul style="list-style-type: none">• 40 + Personnel Files• 44 Bylaws• 61 Policies• 26 HR Policies• 4 IT Servers• 5 Core Software Systems	<ul style="list-style-type: none">• 1 Coordinator of Administrative Services• 1 Community Liaison and Compliance Coordinator• 1 Special Projects Coordinator• 1 Administrative Assistant (Shared with Planning & Development)

Council and Committee Support

Office of the CAO Administrative Services provides support to the Mayor and Council by overseeing a yearly schedule of meetings, and providing direct support for agenda preparation and minute taking of all Council and Committee of Council meetings.

Human Resource Management

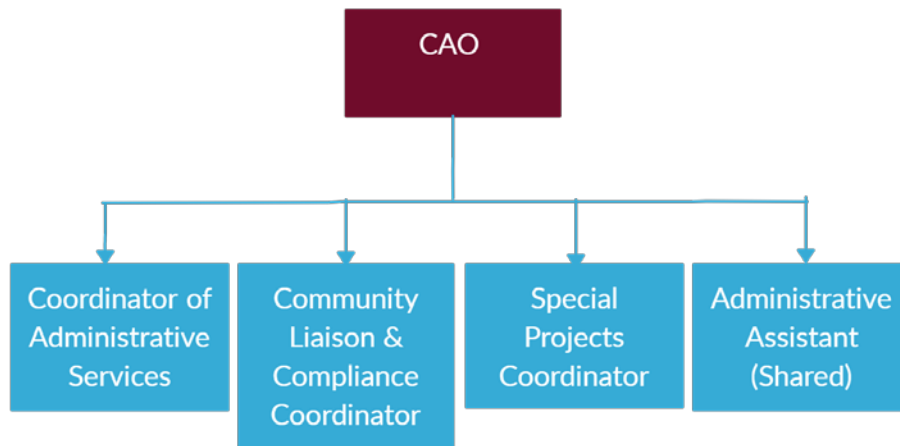
Office of the CAO Administrative Services main responsibilities with HR are to maintain complete and accurate documentation related to HR functions including personnel files, the performance management system, employee compensation plan, personnel policies, recruiting and hiring, and new employee orientation. Administrative Services also manages the Town’s training and development plan. The Town’s benefit plans and employee pensions are coordinated though Corporate Services and the Finance Department, however, Morneau Shepell and Manulife administer these programs for the Town.

Records Management

Office of the CAO Administrative Services is responsible for ensuring the maintenance and retention of corporate records through the Records Management Policy and Standard Operating Procedure. A key role of records management is the retention of Council minutes, Policies, Bylaws, Town Contracts, etc. through the Town Clerk.

Compliance

The Town is committed to gaining compliance with Council’s by-laws on infractions such as Noise, Minimum Standards, Parking and Animal Control in a more proactive manner through community education, partnership development, community engagement and other programs. Strong partnerships with Acadia University have been developed as a way to educate and engage the youth demographic in complying with noise regulations. The Town contracts animal control services from the SPCA, which the Compliance Officer oversees.



Planning & Development

Devin Lake, Director

The Planning & Development department strives to achieve cohesion between the planning, and economic development functions of the Town. Planning & Development is responsible for long range planning and policy development, sustainability and climate change work, economic development, land use and development control, building and fire inspection, and dangerous and unsightly administration.

Operational Statistics

- Manages the implementation of the Municipal Planning Strategy, Land Use By-law, and Subdivision By-law.
- Manages the ongoing Climate Change action planning and implementation
- Manages strategic land use initiatives (e.g. downtown development, library expansion, farmers market area)
- Manages over 200 existing Development Agreements
- Average of 6 development agreements issued annually
- Average of 63 development permits issued annually
- Average of 45 building permits issued annually
- Average of 9.5 new lots approved annually since 2011
- Manages a registry of approximately 35 registered heritage properties in Wolfville
- Supports the Planning Advisory Committee and Environmental Sustainability Committee.

Human Resources

- 1 Director
- 1 Administrative Assistant (Shared with Office of CAO)
- 1 Development Officer
- 1 Senior Building and Fire Inspector
- 1 Junior Building and Fire Inspector
- 1 Climate Change Mitigation Coordinator – (ext. to Sept, 2021)
- Various Casual/summer positions as needed

Planning and Development

After 5 years of consultation and Council direction, the Town adopted new planning documents in September of 2020. These documents should be reviewed in detail to understand where the focus of the planning and development staff will be moving forward. See <https://www.wolfville.ca/growing-together.html> to find the recently approved documents.

Planning and development control is responsible for the fair, reasonable and efficient administration of Part VIII of the MGA, the Town's Municipal Planning Strategy, Land Use Bylaw, Subdivision bylaw, Vendor Bylaw and Heritage Bylaw and the establishment of a consultative process to ensure the right of the public to have access to information and to participate in the formulation of planning strategies and bylaws made under Part VIII of the MGA.

Section 243 of the *Municipal Government Act* requires Council to appoint a Development Officer to administer its land-use bylaw and the subdivision bylaw. Council has appointed Devin Lake and Marcia Elliott as the Town's Development Officers. Marcia Elliott is the full-time Development Officer and Devin Lake provides planning guidance and oversight.

In the past, the Town contracted planning and development control services to the Town of Windsor. Currently Building and Fire Inspection services are being offered through an agreement to the Town of Middleton. Working regionally with other municipal units on planning and development services may be something that comes and goes depending where other units are with capacity and interest.

Climate Action and Sustainability

The Town employs a Climate Change mitigation coordinator working on both Climate Change mitigation and adaption efforts. The Town is working through the Federation of Canadian Municipalities (FCM) Partners for Climate Protection program. See here: <https://fcm.ca/en/programs/partners-climate-protection>. Given the term position (the majority of which has been funded through FCM for the past two years) that we have currently, resourcing this area on a go forward basis will be a future decision of Council. The budget currently supports the term position for a six-month term in 2021-22.

Economic Development

The function of economic development is to support growth and development within the Town of Wolfville. The Director of Planning & Development and other staff work collaboratively with existing and potential businesses and the Wolfville Business Development Corporation to achieve this mandate. Economic Development, for a Town, is often the outcome of good governance, planning, smart fiscal decisions, quality infrastructure and recreation.

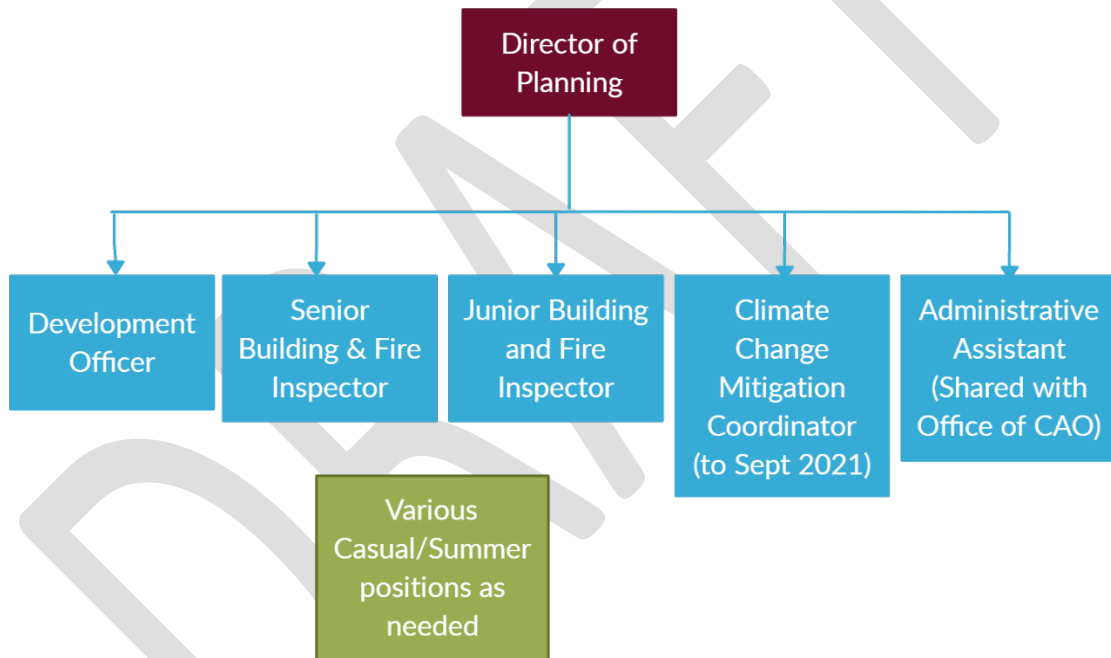
Building and Fire Inspection Services

The Town currently employs a Senior building and fire inspector; Mark Jamieson, and also have recently began a succession planning process through training James Collicutt to be a Building and Fire Inspector, learning from Mark's many years of experience. The Building Code and by-law and Fire Code and system

of fire inspections are the responsibility of our Building and Fire Officials. The Town is working toward improving their system of fire inspections to ensure the safety of our residents, particularly those living in rental accommodations.

Compliance

The Community Liaison & Compliance Officer is now working out of the Office of the CAO but had been working closely with Planning and Development staff on compliance and enforcement issues. It is anticipated the new Compliance Officer will continue to coordinate with Planning and Development Staff on issues that impact various roles within the organization.



Finance & Corporate Services

Mike MacLean, Director

The Finance & Corporate Services Departments core services include accounting, budgeting/financial reporting, customer service/cash receipting, property tax and water utility billings, accounts receivable collections, payroll and insurance policy administration. The department also assists in the development of Town policies as they relate to financial matters/management. The department is responsible for the management of the Town's financial records in accordance with:

- Council policies and by laws;
- The provincial Municipal Government Act (MGA);
- Provincial guidelines as published in the Financial Reporting and Accounting Manual (FRAM);
- Nova Scotia Utility and Review Board guidelines for Water Utilities; and,
- Professional Generally Accepted Accounting Principles (GAAP) as issued through the Public Sector Accounting Board (PSAB).

Finance & Corporate Services acts as a resource for Council, other Town Departments, and the general public. In addition, the department is responsible for annual financial reporting to Council, provincial and federal government, and other outside agencies.

Finance & Corporate Services staff are also the Town's first point of contact with members of the public who visit Town Hall and the Director also carries out the duties of Treasurer and Freedom of Information and Protection of Privacy (FOIPOP) Responsible Officer as defined in the MGA.

Operational Statistics

- 1,596 Residential Tax Accounts
- 107 Commercial Tax Accounts
- 1,575 Water Accounts
- Average of 3 FOIPOP requests annually
- \$11.2 m Town Operating Budget
- \$6.32 m Town Capital Budget
- \$1.15 m Water Operating Budget
- \$700,000 Water Capital Budget

Human Resources

- 1 Director
- 1 Accounting Technician
- 1 60% Accounting Clerk – Accounts Payable
- 1 Accounting Clerk – Utilities & Taxes
- 1 IT Manager
- 1 GIS Technician

Accounting

- Carry out the day to day functions around data input of all financial activity for the various funds for which the Town is responsible:
 - Town Operating and Capital Funds
 - Water Utility Operating and Capital Funds
 - Operating and Capital Reserve Funds
 - Trust Accounts administered by the Town

- Process payroll for all employees of the Town including honourarium pay to Council, Firefighters, EMC, etc.
- Develop and refine accounting processes to ensure accurate records are maintained. This includes implementation of internal controls to ensure the integrity of the financial records. If applicable, recommend to Council policies to guide processes.

Budgeting/Financial Reporting

Finance is responsible for the overall preparation and management of the Town's Operating, Capital and Water Utility Budgets. In 2020/21, the Town has an operating budget of \$11.2 million; 87% of revenue is generated by taxes and grants in lieu of taxes with the balance coming from sale of service, sewer rates and provincial and federal grants.

The Town's capital budget for 2020/21 is \$6.32 million. The Water Utility Operating budget in 2020/21 is \$1.15 million, and the Capital Budget is \$700,000.

Finance is also responsible for:

- Assisting all departments with preparation of their department budgets.
- Participating in all public input sessions related to the budget process.
- Preparing and presenting the budget documents for Council approval.
- In accordance with Town Policy, providing Council and Management Team with financial reports which include comparison of actual results to budgeted results.
- Preparing all annual reporting required including audited financial statements, Gas Tax Reporting to Federal Government, and provincial reporting to Service Nova Scotia

Property Tax and Water Utility Billing

The Department administers approximately 1,596 residential and 107 commercial tax accounts and processes tax billings twice a year.

- Process and issue all billings related to Town services. Mainly involves tax and water/sewer bills, but can also involve any other sundry billing required by a Town department.
- Facilitate customer inquiries regarding amounts owed to the Town.
- Maintain and update assessment information/property water service for tax and water billings.
- Provide monitoring of accounts receivable monthly and collection procedures as required.

Geographical Information System (GIS)

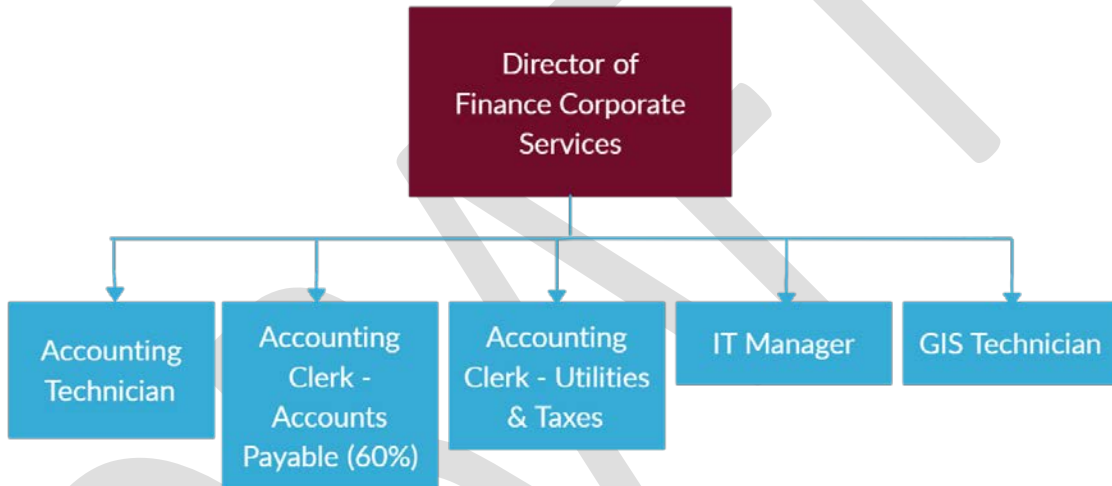
The Town's Planning Technician is responsible for the gathering, maintenance and analysis of the Town's GIS data sets and for providing planning analysis and reporting. This would include demographic information, permit statistics and support to planning applications. GIS services include, but are not limited to:

- Preparation of complex maps, graphics, tables and other materials to assist staff
- Managing and updating of the civic address system.

- Making the datasets available and functional to the entire organizations and partners
- Continuing development and updating of records of the Town’s infrastructure (e.g. road network, sewer system, water system, trees, streetlights, etc.)
- Updating and development of various mapping layers in the GIS system – approximately 132 layers at present.

IT Infrastructure and Equipment

IT is responsible for operating the Town’s core software systems, IT Servers, System Security, IT equipment purchasing and maintenance, IT solutions for business processes, etc.



Public Works

Kevin Kerr, Director

Public Works consists of both Public Works and the Water Utility. The Department is responsible for the provision of quality water and sewer services as well as the maintenance of Town owned infrastructure including buildings, water, sewer and storm water systems, streets and sidewalks within the Town of Wolfville.

Operational Statistics	Human Resources
<ul style="list-style-type: none">• 33.2 km of Roads• 24.6 km of Sidewalks• 50.6 km Water Main and Lateral Pipe• 32.2 km of Storm Water Main and Lateral Pipe• 41.5 km of Sewer Main and Lateral Pipe• 6 Lift Stations• 2 Water Pumping Stations• 27 Pieces of Town equipment• 7 Town Facilities• 11 Town Parking Lots	<ul style="list-style-type: none">• 1 Director• 1 Manager of Public Works• 1 Administrative Assistant (Shared with Parks & Recreation)• 1 Public Works Lead Hand• 1 Operator Mechanic• 7 Operator/Labourers Class 1• 2 Water/Waste Water Technicians• 2 Crossing Guards• 1 Seasonal Summer Staff

Public Works

The Public Works department is responsible for maintaining, repairing and replacing municipal infrastructure. This includes roads, sewer infrastructure, buildings and vehicle fleet. Public Works is responsible for operating and maintaining Town-owned infrastructure and facilities as follows:

Transportation

- Summer and winter maintenance streets, sidewalks and 11 parking lots
- Traffic control including signage and pavement markings
- Street lighting

Sewer

- Operate and maintain 41.5 kilometers of sewage collection piping, six (6) sewage lift stations and one aerated sewage treatment facility.
- Maintain 32.2 kilometers of storm water collection system throughout Town.

Facilities

- Together with Parks & Recreation, maintain and repair Town-owned facilities as required including the Town Hall, Public Works Building, Visitor Information Centre, Recreation Centre, RCMP office, Fire Hall and the Public Library.

Fleet

- Maintain and repair 27 pieces of Town-owned equipment operated by the Parks, Public Works and Community Development Departments

Capital

- Direct the design, manage and administer an annual capital program of approximately \$1.5 million for street improvements.

Community Events

- Assist other Departments and organizations with festivals and events such as Mud Creek Days, Canada Day, Valley Harvest Marathon, Devour! The Food Film Fest and Deep Roots Music Festival.

Water Utility

An effective computerized SCADA (Supervisory Control and Data Acquisition) system is used to monitor the water and wastewater system 24 hours per day, 365 days of the year. The utility operators are both trained as water treatment and water distribution operators in accordance with provincial regulations. The water is sampled and tested regularly in accordance with provincial regulations and the Guidelines for Canadian Drinking Water Quality. The utility operators are required to maintain an acceptable level of training and attend continuing education sessions as required throughout the year.

The Water Utility is responsible for providing quality potable water to Wolfville residents and maintaining all infrastructure owned by the Utility.

Water Utility

- Operate and maintain two water production wells, one water treatment facility and maintain approximately 44 km of water distribution mains and 6 kilometers of water transmission mains throughout Town.
- Provide meter reading services to assist with billing and participate in source water protection planning.

Pumping

- The Utility operate two wells that pump water from an underground aquifer to the water treatment plant and reservoir located on Wolfville Ridge.

Treatment

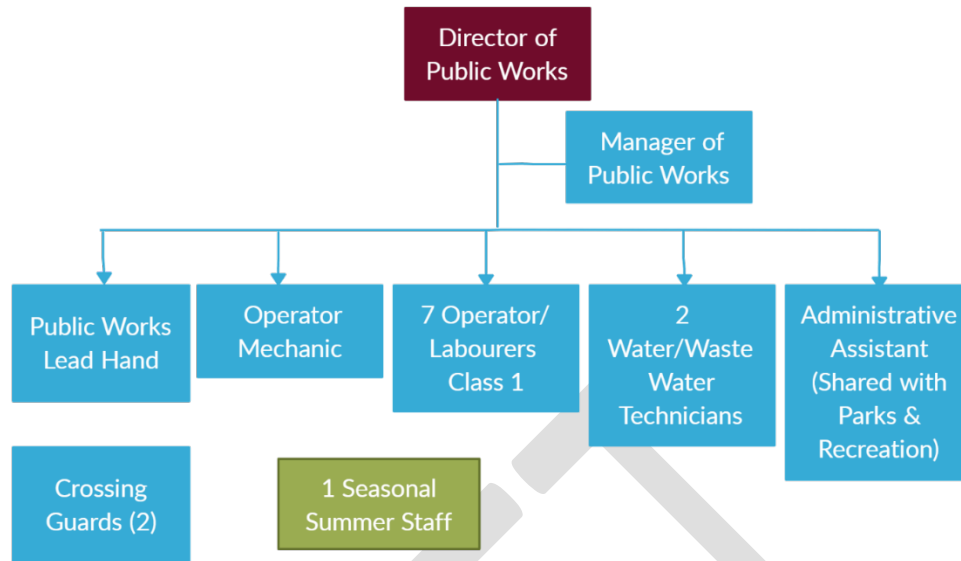
- All water provided is disinfected with chlorine to eliminate any bacteria that may be present and reduce the risk of waterborne diseases. A minimum chlorine residual is maintained throughout the system to ensure the water safety.
- Fluoride is added to help promote dental health and sodium hydroxide is used to adjust the pH of the water. Once treated the water is stored in a three million gallon reservoir.

Distribution

- Water is provided to the residents of Wolfville through approximately 44 kilometers of water main. The water is gravity fed from the reservoir located on Wolfville Ridge. The utility is responsible for the maintenance of the water mains, all valves and hydrants that make up the distribution system.

Meter Reading and Testing

- All water provided is metered and meters are read by the Utility Operators quarterly. A number of water samples are taken daily, weekly, monthly and annually in accordance with governing regulations to ensure the water provided is safe for our customers.



Parks & Recreation

Kelton Thomason, Director

Parks and Recreation is responsible for the provision of maintenance of green spaces, playing fields, playgrounds, trails, buildings, planters and trees, recreation, tourism, and festivals and events within the Town of Wolfville.

Operational Statistics	Human Resources
<ul style="list-style-type: none"> Operates the Recreation Centre and Visitor Information Centre 92.3 acres of Parks & Recreation Spaces 7.8 km of Trails Supports Art in Public Spaces Committee 	<ul style="list-style-type: none"> 1 Director 1 Community Recreation Health & Wellness Coordinator 1 Community Engagement & Tourism Coordinator 1 Administrative Assistant (Shared with Public Works) 1 Parks Lead Hand 7 Seasonal Labourers 3 Visitor Information Centre Staff 1 Solid Waste Technician and Labourer 2 – 5 After School Instructors

The Parks and Recreation Department is responsible for the maintenance, repair and construction of Town owned parks, playgrounds and playing fields and some privately owned spaces that allow public access. They also maintain the flower beds, urban forest, and the trails. There are currently 21 parks, playing fields and open spaces and 7.8 km of trails. Parks and Recreation is responsible for maintaining Town owned green spaces which includes:

Parks

- Landscape design and maintenance of Town owned parks, playgrounds and playing fields; repair facilities and equipment as required. These areas include but are not necessarily limited to Reservoir Park, Willow Park, Rotary Park and the Millennium Trail system.
- Maintain waste receptacles throughout Town.

Flower Beds

- Design, plant and maintain all flower beds throughout Town. Plant and maintain all baskets and perennial planters throughout the Business District.

Urban Forest

- Plant new trees, prune and remove dying or diseased limbs and trees throughout Town.

Community Events

- Assist other Departments and organizations with festivals and events such as Mud Creek Days, Canada Day, Valley Harvest Marathon, Devour! The Food Film Fest and Deep Roots Music Festival, Heritage Day and Night of Lights.

Tourism

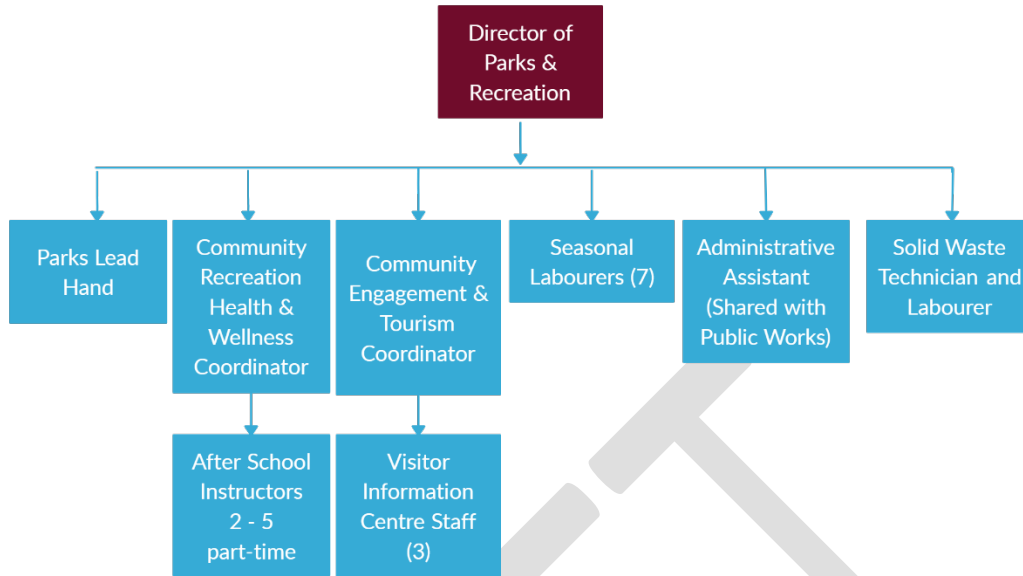
- Tourism is responsible for managing the Town's Visitor Information Centre (VIC) and Information Kiosks, as well, as identifying tourism opportunities that promote and attract visitors to Wolfville. The VIC is open from May to October and is the second busiest centre in the Annapolis Valley; next to Digby. In 2019 the centre had over 16,000 visitors pass through.

Recreation

- The Town provides an after-school program.
- The Town partners with Acadia to deliver Summer and March Break Programming. The Town has developed and delivers a series of summer youth Environmental Leadership Camps.
- The Town administers the "Try it in Wolfville" Program.

Festivals and Events

- In attracting and supporting festivals and events in Wolfville, the department is responsible for coordinating Town festivals and events such as Mud Creek Days, Canada Day, the Tree Lighting Ceremony and Heritage days events. The department supports other festivals and events through funding or in-kind contributions (i.e., staff time, use of facilities or equipment) and has formalized support for our signature events (Devour!, Valley Harvest Marathon and Deep Roots Music Festival).
- In 2016 Council passed a Grants to Organization Policy that identifies Strategic Partnerships with local organizations and commits funding to these partners over a four-year period which will expire in the beginning of the fiscal year of 2021 and will require a renewal process.



Protective Services: Fire Department

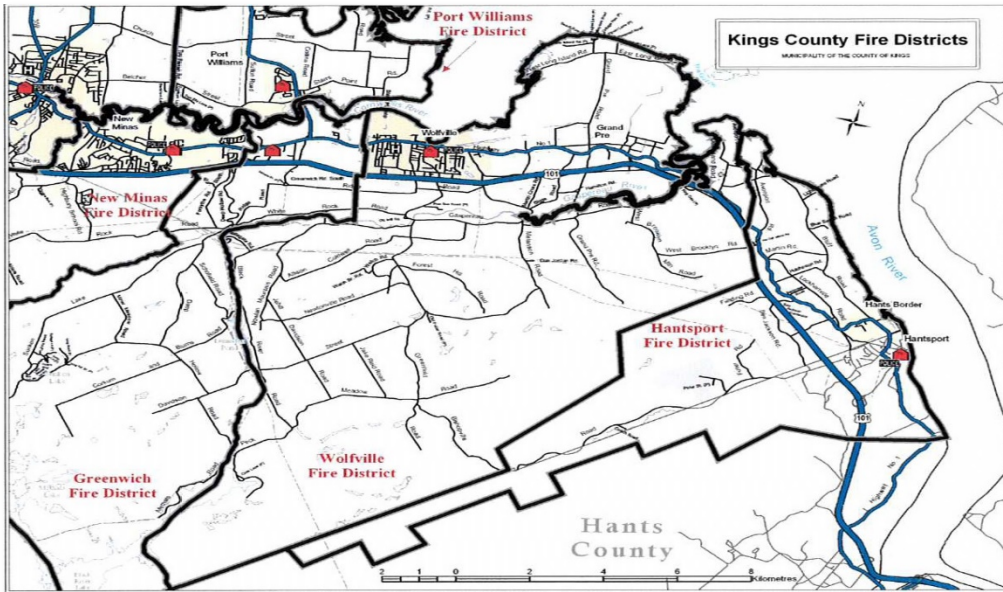
Todd Crowell, Fire Chief

The Wolfville Fire Department is a department of the Town and all of the major assets are owned by the Town, whereas in many communities, the Fire Department is established as a separate non-profit society. The only employee of the Town is the Operator/Mechanic. The Chief is a volunteer and is paid an honorarium to serve. The Department consists of forty-three Volunteer Firefighters, who provide not only the 'usual' firefighting duties but in concert with neighboring departments (Kentville and New Minas Volunteer Fire Departments), have developed a special team to provide Hazardous Materials Emergency Response service across Kings County. The Department is subject to all Town policies but otherwise, the operation is autonomous.

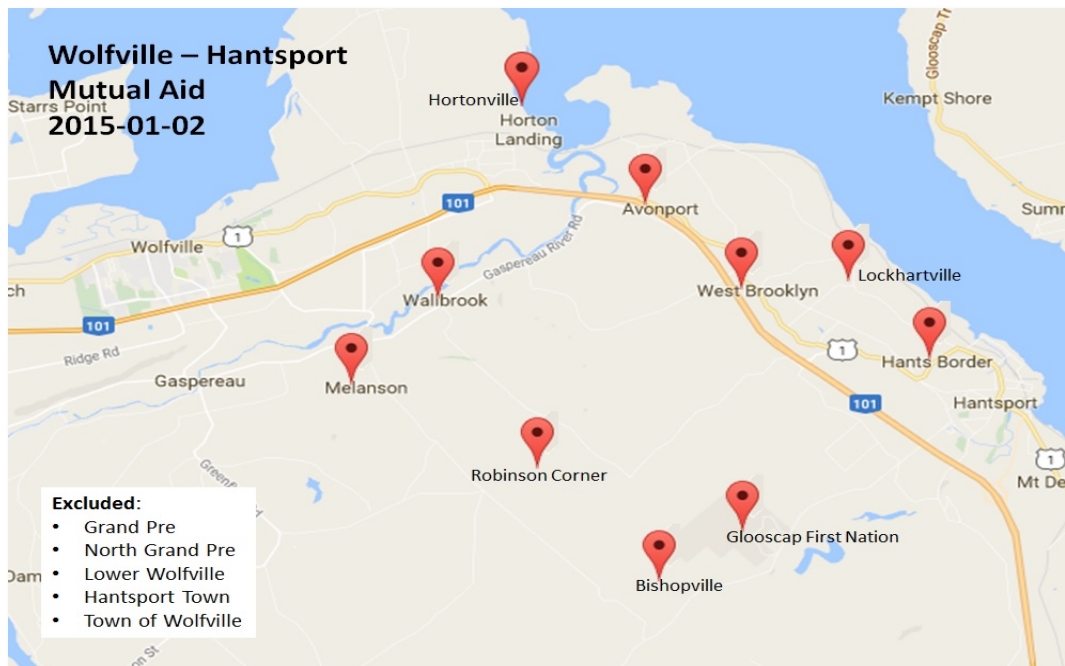
The Town also employs an Operator/Mechanic for the Fire Department who is responsible for the operation of fire apparatus for 40+ volunteer fire fighters throughout daytime hours Monday to Friday under the supervision of the CAO. This position is also responsible for performing mechanic and janitorial functions.

There is an agreement in place with Kings County to cost share on calls that occur outside the Town boundary and are responded to by the Wolfville department. This formula utilizes a five-year average of call data. **In 2016/17 the County of Kings paid 50.5%.** This arrangement works well for both parties as Wolfville receives contributions to overheads such as vehicles and equipment and the County is relieved of having to establish a fire station in the most eastern part of the County. The Wolfville Fire Department is made up of 1 Fire Chief, 2 Deputy Chiefs, 4 Captains, 2 Lieutenants and approximately 40 firefighters.

Wolfville Fire Department District Service Area Map



Wolfville – Hantsport Mutual Aid Map



Protective Services: RCMP

Sgt Ryan Kelly

Wolfville had its own police force until 2000 when a decision was made to switch to the Provincial police force, the RCMP. The Province of Nova Scotia has a contract with Public Safety Canada for the services of the RCMP as a provincial police force. By utilizing this existing arrangement, Wolfville enjoys a 70/30 cost split with the federal government on the total RCMP costs. The RCMP police 36 municipalities under this agreement, nine municipalities have a direct contract with the RCMP and ten municipalities have their own police force.

The Wolfville office is part of the larger Kings County detachment and this allows flexibility in staffing for major events in Wolfville beyond the dedicated compliment. The officers assigned to Wolfville include 1 Sergeant, 8 Constables and 1 Detachment Assistant.

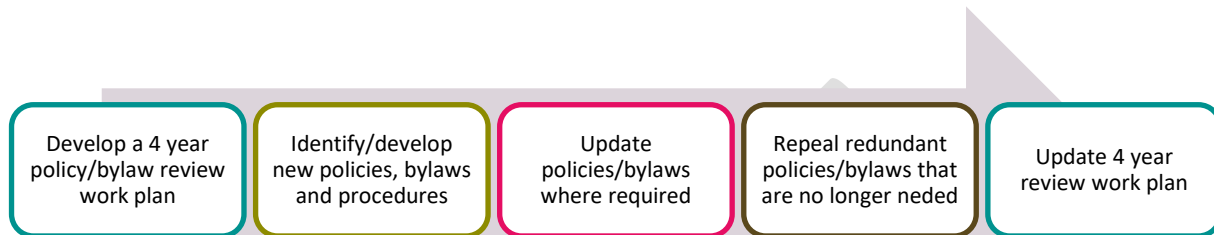
Committees of Council

Council currently has nine **Committees of Council, including Committee of the Whole**. Each Committee serves in an advisory capacity to Council and has established priorities for the 2021/22 year to support the implementation of the Operations Plan. **Add section on IMSA and External Committees**

COMMITTEES OF COUNCIL		
AUDIT	ACCESSIBILITY	ART IN PUBLIC SPACES
Review and provide input into the Low- Income Tax Property Tax Exemption Policy and the Procurement Policy.	Provide guidance on the implementation of the Accessibility Plan and in any revisions of the plan. Prepare an annual report card of progress.	Identify one small scale community art project to implement.
DESIGN REVIEW	ENVIRONMENTAL SUSTAINABILITY	PLANNING ADVISORY
To inform the planning process by providing peer review of development applications that require interpretation of the Town’s architectural guidelines.	Provide leadership and expertise on key projects in the Operational Plan.	Conduct role in accordance with MGA and MPS requirements.
RCMP ADVISORY BOARD	SOURCE WATER PROTECTION	TOWN & GOWN
Develop and enforce further community policies in regards to: Traffic Crosswalk/Pedestrian Safety RCMP Visibility at key weekend events Relationship with youth Noise Prevention Crime Reduction	Review the recommendations of the 2008 Source Water Protection Plan to determine what is still relevant and develop a revised implementation plan.	Serve as stewards of the Acadia and Town Partnership Agreement.

BYLAW & POLICY PRIORITIES

Policy and bylaw development is a key role of Town Council and provides the Town with the tools it requires to run the Town effectively. The Town is constantly reviewing its policies and bylaws to ensure they remain relevant and best serve the needs of our residents and business community. Our review process is depicted below:



The following depicts the bylaws and policies that will be created and/or reviewed in the new four-year Operations Plan with Year 1 being 2021-22.

BYLAWS:

<p>YEAR 1 - 2021-2022</p> <ul style="list-style-type: none"> • Bill 177 • REMO • Vending • Residential Rental Licensing • Skateboard • Taxi 	<p>YEAR 2 - 2022-2023</p> <ul style="list-style-type: none"> • RCMP Advisory Board • Town Seal • Dog • Procedures of Council • Streets • Sewer
<p>YEAR 3 - 2023-2024</p> <ul style="list-style-type: none"> • Electronic Voting • Election Candidates Deposit • Nuisance Party 	<p>YEAR 4 - 2024-2025</p> <ul style="list-style-type: none"> • Outdoor Fire • Heritage Property • Idling

POLICIES:

YEAR 1 - 2021-2022

- Deputy Mayor
- Grants to Organizations
- Procurement
- Committees of Council & Associated Terms of Reference
- Collective Agreement Bargaining Policy
- Snow and Ice Clearing Policy
- HR Various

YEAR 2 - 2022-2023

- Renting Recreational Space Policy
- Open Spaces Fund Policy
- HR Various
- Council Professional Development

YEAR 3 - 2023-2024

- Municipal Fees Policy
- IT Usage Policy
- Property Tax Exemption
- HR Various

YEAR 4 - 2024-2025

- Council Remuneration Policy
- Signing a Code of Conduct for Elected Officials
- HR Various

CONTRACT & LEASE REVIEW

Staff have been reviewing all contract, lease and agreement files on record and have developed a four-year plan for addressing expired or soon-to-expire documents. There are many contracts that automatically renew after the initial time frame and have been renewing for several years. The following plan identifies those contracts that are to be reviewed during the next four-year Operations Plan with Year 1 being 2021-22.

CONTRACTS & AGREEMENTS:

YEAR 1 - 2021-2022

- Sewer Agreement with Kings
- Regional IMSAs
- WBDC Agreement
- Stile Park Lease Wolfville Rotary
- Bank Agreement BMO
- Office Interiors – Neopost
- Pitney Bowes, Inserter
- Collective Agreement SEIU

YEAR 2 - 2022-2023

- Investing in Canada Infrastructure Program
- Lease Renewal 24 Harbourside Drive
- Acadia/ASU/Wolfville MOU Review
- Boundary Review

YEAR 3 - 2023-2024

- Gas Tax Agreement
- Info Sharing Elections NS
- SPCA

YEAR 4 - 2024-2025

- Mutual Aid Firefighting Agreement with Kings
- Legal Services Agreements

DRAFT

ECONOMIC PROSPERITY

Council has established economic prosperity as a strategic direction. Through this direction, Council is seeking to leverage the opportunities enabled in the Town’s commercial zoning areas, specifically in the C2 Zone; to maintain and grow our position as a premier destination for culinary and beverage experiences; to continually make improvements to our downtown core; and to ensure that the Town works in support of other entities mandated in economic development. This section includes general economic development activities as well as tourism-related initiatives.

Tourism Development

Tourism development is a key economic driver for Wolfville, and the Annapolis Valley as a whole. It is a collective goal of our region to bring people into the area to enjoy all that we have to offer, including our culinary, wine and craft beverage industries, for which the town strives to be a premier destination. It is important that Wolfville collaborate with surrounding municipalities and agencies on tourism development as the benefits and opportunities clearly extend beyond our boundaries and we will be more successful if we work together.

Initiative	<i>Tourism Development – Destination Acadia</i>		
Description	The Town will work with Acadia to better define the Town’s role on Destination Acadia. The Town will work collaboratively with Acadia to support minimally one significant event in Wolfville per year.		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Finance Office of the CAO
Budgetary Implications	\$10,000	Annual contribution to Acadia for events hosting. This event will be identified and agreed to between the Town and Acadia prior to funds being released.	
Future Work		Initiatives	Anticipated Budget
	Year 2	Continued participation on Destination Acadia	\$10,000
	Year 3	Continued participation on Destination Acadia	\$10,000
	Year 4	Continued participation on Destination Acadia	\$10,000

Initiative	Tourism Development – Welcome Centre		
Description	<p>The former Visitor Information Centre is evolving into a new Welcome Centre. This Welcome Centre will rely on staff to serve as ambassadors for the Town. It will also leverage new technology to enhance the visitor experience.</p> <p>A new retail space will be developed to make this a shopping spot for Wolfville “memory” purchases. It will also provide space for local crafters and create opportunities for local merchants in the “off season” as part of a special event or holiday promotion.</p> <p>The Centre is planned to be open late summer 2021, with a pop-up VIC serving the public prior to that date. The Centre will close at the beginning of November after Devour! It is envisioned that the Wine Bus will remain an integral part of this experience.</p> <p>The Welcome Centre will also include the installation of a new splash pad, which will also be operational summer 2021.</p>		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Finance Department
Budgetary Implications	\$76,800 operating costs	New revenues from the sale of Wolfville branded items, books, and local wares have been identified and added to budget. Operational costs include a VIC position, building maintenance and summer students.	
Future Work		Initiatives	Anticipated Budget
	Year 2	Increase retail sales	\$8,500
	Year 3	Increase retail sales	\$10,000
	Year 4		

Move to general section potentially

Initiative	Tourism Development – Grants Programs
Description	<p>The Town provides various grants to external organizations, many of them with an events and tourism focus.</p> <p>The Town will continue to support our grant program. A policy review will be undertaken to ensure financial stability as it pertains to all grants and the capital grant program specifically.</p> <p>The Town currently has four grant programs:</p> <p>Strategic Partnership Program – provides stable, longer term commitment to those organizations, facilities, and events that the Town has identified as being an integral part of the Town.</p> <p>Community Partnership Program – provides annual support to organizations for events and programming.</p> <p>One time Capital Requests – supports capital initiatives of community benefit within Wolfville.</p>

	One-time Operating Requests – supports unique opportunities that are not part of regular operations for community organizations, including those in the SPP program.		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Finance Department and Office of CAO
Budgetary Implications	SPP – \$47,000 CPP – \$12,000 Operating One Time – N/A Capital One Time - \$127,000 Requested	SPP/CPP will remain the same value as in 2020-21 pending a review of the Grants Policy.	
Future Work		Initiatives	Anticipated Budget
	Year 2	Define limits and expectations on capital grant program	TBD
	Year 3		
	Year 4		

Initiative	<i>Tourism Development – Town Led Events</i>		
Description	<p>2021/22 will still see some events potentially impacted by COVID-19. Heritage Day in 2022 will be significant as “Grand Pre” will be the theme for celebration and staff will be planning a day of activities to mark the occasion.</p> <p>Mud Creek Days will potentially allow for in-person events and could allow for fireworks. Mud Challenge could be considered although format might need to be adjusted.</p> <p>The Night of Lights and the Town’s holiday celebrations will continue to be supported as a month-long celebration with additional decorations to be purchased. Due to the popularity of the event in 2020, Santa will also return in 2021, driving through Town on successive weekends.</p> <p>In partnership with Acadia University, 2021/22 will also see the return of the annual New Year’s Levee.</p> <p>Delivery and promotion of all Town events will be COVID-19 dependent and based on guidelines from the Province.</p>		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Art in Public Spaces
Budgetary Implications	\$88,900 operation expense – includes the New Years Levee	Budgets can be adjusted to reflect size and scope of an event. It would be reasonable to assume an approved event budget will not go up to support provincial health guidelines. Programing would need to be adjusted.	
Future Work		Initiatives	Anticipated Budget
	Year 2	Art Centered Event	5000.00
	Year 3	Growth and development of town delivered events	7500.00
	Year 4		

Economic Development

Council has clearly established a key priority area for supporting economic sector growth for the commercial sector, with a focus on both retention and attraction initiatives. The Town is currently not a member of the Valley Regional Enterprise Network (VREN) but this will be re-evaluated in 2021-22 as the municipal partners review all Inter-Municipal Service Agreements (IMSA) for all IMSA organizations, including the VREN. The Town continues to be a strong partner and supporter of the Wolfville Business Development Corporation and the Valley Chamber of Commerce and will seek to partner with any strategic economic-development focused group that will serve to deliver on the initiatives contained in this plan.

Initiative	<i>Economic Development – Partnership with WBDC (PRIORITY AREA 3)</i>		
Description	<ul style="list-style-type: none"> The Town is working in a collaborative manner with the WBDC, acknowledging a strong business community is integral to the success of the Town. The WBDC will complete their Strategic Plan in March 2021, which will form the basis for a re-negotiated agreement between the Town and the WBDC. The Agreement that is slated to expire on March 31, 2021 will be extended until March 31, 2022 under the same terms to allow for sufficient time to get a revised agreement in place. The Town will work with the WBDC to continue to improve communications, connections and linkages in the community. The ASU will be invited to participate in WBDC meetings as a non-voting member to serve to identify opportunities for students and businesses to become more connected. The Town will focus this year on a wayfinding initiative for local businesses, advancing a business registry and collaborating on the Welcome Centre and how this new facility can support business success. <ul style="list-style-type: none"> Parking will continue to be discussed, with improvements to parking slotted for 2022/23 and future years. The WBDC will work with the Town on the Town website re-design to better align efforts in promoting local businesses. 		
Lead Department	Planning and Development	Supporting Departments/Committees	Parks and Recreation
Budgetary Implications	\$100,000 Business Development Area Rate Wayfinding – Capital Welcome Centre – Capital	Wayfinding improvements and the Welcome Centre are budgeted in other areas of this Operational Plan. Contributions amounts to support these projects from the WBDC are not yet determined. The Town will work with the WBDC to develop an implement a Business License Registry. This work will be largely supported by a summer student employed by the WBDC. The WBDC is currently developing a new strategic plan. Once completed, this Plan will inform work for 2021-22 and beyond.	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD – informed by strategic plan	

	Year 3		
	Year 4		

Initiative	<i>Economic Development – Developing Tools for Success (PRIORITY AREA 3)</i>		
Description	<ul style="list-style-type: none"> The Town will promote opportunities in the C2 zone (e.g. new grads, entrepreneurship opportunities, live-work for professionals), which will serve to expand the existing commercial area. Future infrastructure needs, such as additional sidewalks, that will be required will be built into the 10 Year CIP. C2 property owners will be engaged in the process. Bill 177 (tax incentives for commercial improvements/conversions) will be developed to provide incentives for development in targeted C2 commercial areas. A targeted stakeholder working group will be developed to explore opportunities for enhanced business development (C-2 zone) and attraction. A four-year work plan will be developed and incorporated into the Operations Plan. The Town will give consideration into our future participation on the Valley REN. 		
Lead Department	Planning and Development	Supporting Departments/Committees	Finance
Budgetary Implications	None	May be future budget allocation subject to ongoing work.	
Future Work		Initiatives	Anticipated Budget
	Year 2	4-year work plan forthcoming	
	Year 3		
	Year 4		

Initiative	<i>Economic Development – Implementing the new Municipal Planning Strategy (PRIORITY AREA 3)</i>		
Description	<ul style="list-style-type: none"> Since the adoption of our overhauled planning documents in September 2020, Staff have been working with potential developers on project planning and implementation. This is primarily done through the provisions of the Land Use By-law. (Note: Large or complex developments will take a substantial amount of Staff time and may impact capacity on other planning initiatives). Planning issues (e.g. Development Agreements, Rezoning, Heritage matters) will still come to The Heritage Advisory/Planning Advisory Committee and Council for approval. It is likely that the use of the site plan approval process will see a fewer development applications appearing in front of Council for approval. Planning Staff and the PAC are working with 2 groups of students from Waterloo on research and best practice around Plan Implementation and Monitoring. Staff will use this work to inform a Plan Implementation report in the fall of 2021. This will also include issues 		

	<p>that Council may want to consider revising / minor implementation issues that may arise as we continue to work with the new documents.</p> <ul style="list-style-type: none"> Large ongoing development (e.g. 292 Main Street, West End Lands) will require a significant amount of planning and building inspection services in the coming year. Staff are beginning to look at ways to better enable development on the large undeveloped Comprehensive Development areas in the east end of Town (e.g. vacant land along Maple Ave). 		
Lead Department	Planning and Development	Supporting Departments/Committees	Public Works, Parks and Recreation
Budgetary Implications	TBD		
Future Work		Initiatives	Anticipated Budget
	Year 2	Ongoing as per above	
	Year 3		
	Year 4		

Initiative	<i>Economic Development – Leveraging our Designations</i>		
Description	<p>Fair Trade: Staff will complete the renewal process of the Fair-Trade Town Certification. The Environment and Sustainability Committee will operate as the interim steering committee for the 2021/2022 fiscal year. Staff will coordinate Fair Trade events that coincide with Acadia University's 2021 Fair Trade Campus Week.</p> <p>Cittaslow: Staff will complete the renewal process of the Cittaslow Town Certification. Staff will reinstate a Cittaslow community committee and offer a Cittaslow Sunday community celebration in September of 2021, within the public health and safety guidelines.</p>		
Lead Department	Parks and Recreation	Supporting Departments/Committees	
Budgetary Implications	\$2,150	Cittaslow – Budget allows for the annual recertification fee and to support the planned event.	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD	
	Year 3		
	Year 4		

SOCIAL EQUITY

It is critically important to Council and the Town that all residents can enjoy the many services and amenities that the Town provides, regardless of social-economic status, transportation barriers, or barriers related to accessibility. It is also key that diversity within the Town is welcomed, celebrated and is recognized as the reason that Wolfville is the town that it is. Inclusion, community harmony and access are key elements of the initiatives contained in the Operational Plan to help achieve this goal.

Initiative	<i>Celebrating Diversity</i>		
Description	<p>The Town will continue to participate on Diversity Kings and will explore future work through the potential creation of a new IMSA.</p> <p>The Town will continue to support local events, awareness, and education. In 2021/22 we will start with what we already celebrate and make improvements.</p> <p>The Town will be deliberate in its outreach when seeking support and guidance in terms of developing and nurturing its relationships within the indigenous community.</p> <p>The Town will provide Internal education on diversity and inclusiveness for staff and Council.</p> <p>The Town will explore targeting one of the \$5000 Acadia Scholar bursaries we fund to support an under-represented student group - specifically African Nova Scotian and Nova Scotian Mi'kmaq students attending Acadia University.</p> <p>We will re-paint Town Hall Entrance and purchase updated Pride Flags.</p>		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Office of the CAO
Budgetary Implications	\$5,000	Dollars will be required for PD in this area.	
Future Work		Initiatives	Anticipated Budget
	Year 2	\$5,000	
	Year 3	\$5,000	
	Year 4	\$5,000	

Initiative	Accessibility		
Description	The Town is working into the final year of its inaugural Accessibility Plan. Work has been accomplished as outline in the plan, but more work is required. It has been identified that a complete inventory of Town owned built environment assets and public park spaces needs to be completed to establish baseline. This inventory will allow for future decision making. Accessibility is noted as a Council priority.		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Office of the CAO and Finance Department
Budgetary Implications	\$5,000	This will allow for the completion of the built form inventory with the assistance of external consultants, which will be an official Rick Hanson assessment. Funding for this will come out of the CAO contracted services budget.	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD with revised plan	
	Year 3		
	Year 4		

Initiative	Mudley Fund Development		
Description	The Mudley Fund provides financial support to families with children interested in participating in sport and recreation activities but face financial barriers will excludes them. Staff are committed to developing the Fund through a number of initiatives over the next three years. Year one includes a review of the program and potentially adjustments to criteria, as well as a direct mail campaign and some local “do-good” sponsorships. The Town is looking to generate \$10,000 annually which in turn supports families and children by providing access.		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Office of the CAO
Budgetary Implications	\$2,000	Costing related to year one - \$2,000 (direct mail campaign)	
Future Work		Initiatives	Anticipated Budget
	Year 2	Formal fundraising event	6,500 (cost recovered)
	Year 3	Program review and linkages to estate planning and giving.	
	Year 4		

Initiative	<i>Inclusive and Accessible Programming</i>		
Description	Recreational programming will be developed with inclusivity in mind. Specific initiatives include: <ul style="list-style-type: none"> • The continuation of the Memory Café program for people experiencing memory issues and their caregivers; • Trail Blazers provided free afterschool programming on Wednesdays • Try it in Wolfville – provides free programming for residents to try various physical and cultural activities throughout Town • Senior connectivity – recognizing the impact COVID-19 has had on the senior population, programming will be targeted to bring seniors together in a safe and fun manner. 		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Office of the CAO
Budgetary Implications		Programs are budgeted for within the Parks and Receptions Programming Budget.	
Future Work		Initiatives	Anticipated Budget
	Year 2		
	Year 3		
	Year 4		

Initiative	<i>Affordable Housing</i>		
Description	The new planning documents have provided a start for Council in how to consider their role in the provision of Affordable Housing Discussions with the Province, PAC and interested members of the community this year will better define our role and future priorities in this area. NS Housing (Province) has various initiatives ongoing (e.g. Housing Commission) that should create more clarity. The Director of Planning is currently part of Valley Homeless No More group. Discussions leading up to the fall will form part of MPS implementation report to Council in Fall 2021. Work this year will inform more strategic use of resources, future budget implications and a better understanding for Council		
Lead Department	Planning and Development	Supporting Departments/Committees	PAC
Budgetary Implications	None		
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD – informed by year 1 work	
	Year 3		
	Year 4		

Initiative	Community Harmony		
Description	<p>Ensuring all residents are able to safely and peacefully enjoy their properties is a key goal of the Town. As such, key stakeholders meet every Monday to discuss issues of concern and to collaborate on innovative solutions to improve neighbourhoods.</p> <p>The Town will continue to employ a Community Liaison and Compliance Coordinator to work with all stakeholders and address concerns.</p>		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	\$99,200	The Compliance Office Budget supports a full time staff person as well as an allowance for contracted support during key events within the community.	
Future Work		Initiatives	Anticipated Budget
	Year 2		\$100,000
	Year 3		\$100,000
	Year 4		\$100,000

CLIMATE ACTION

Council has established Climate Action as an area of focus for the next four-year term. The Town is currently in the process of completing a Climate Action Plan, which is anticipated to be presented to Council in September 2021. The Town is also examining opportunities to continue to work on climate-related initiatives through a regional partnership on a go-forward basis. Council will make decisions on how to best resource this work on a go forward basis after the Climate Action Plan is completed and discussions on a potential regional approach are completed.

Initiative	Reducing Carbon Emissions (PRIORITY AREA 4)		
Description	<p>The Town has set Climate mitigation targets (February 2021) and Staff will be working with the Environmental Sustainability Committee and the Planning Advisory Committee to deliver a Climate Action Plan pursuant to the targets set by Council. Council will be asked to make a decision on how to move forward with this work (implementation) once the Climate Action Plan is delivered</p> <p>Staff have secured Provincial funding to work with the Towns of Berwick, Kentville and the County of Kings on a regional Climate Mitigation Inventories and a final report</p> <p>The Property Assessed Clean Energy (PACE) program should be running during this fiscal year and will initially focus on fuel switching in our wellhead protection areas.</p>		
Lead Department	Planning & Development	Supporting Departments/Committees	All Departments, ESC, PAC

Budgetary Implications	6-month extension to Staff person	A decision will be made by Council on how to resource this work in the future after the adoption of the Climate Change Plan. This work was previously funded through an FCM Grant, with the current budget for the six-month extension of the term position funded through reserves. The IMSA review will also examine the potential of creating an IMSA to undertake this work on a regional level.	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD by Climate Plan and Council decision on future resourcing of this work	
	Year 3		
	Year 4		

Initiative	Supporting Local Transportation (PRIORITY AREA 4)		
Description	<p>Staff are working through consultation that will inform a minimum AT grid that will be brought to Council for endorsement in the Spring of 2021</p> <p>Staff have budgeted to get realistic costing on the implementation of the minimum grid to be included in the Town's capital budgeting process The Province may support this work and contribute to the exercise of getting the various components costed for budget purposes</p> <p>The Highland Avenue Street re-build (Prospect to Catherine Court) is included in the capital budget. Options for integration of enhanced active transportation infrastructure, including the potential integration of Acadia University property, are being investigated. There may be grant funding opportunities to ensure the active transportation component is implemented. Details will be brought back to Council for consideration once known.</p> <p>Staff are looking at conducting a micro-Transit feasibility study – if the Provincial funding stream is still active for this work (grant and capacity contingent)</p>		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Planning Public Works
Budgetary Implications		Planning contracted services covering AT planning work	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD	
	Year 3		
	Year 4		

Initiative	Environmental Protection (PRIORITY AREA 4)		
Description	<p>Staff are working on the implementation of the Town's Flood Risk study. Communications and Education will be the focus of year 1 and staff are working on integrating the other recommendations of the study into the 10-year CIP. The Study contains recommendations around connecting the 2 dyke systems and living shorelines; protecting sewer lift stations and our treatment plant; a flood forecasting and warning system; and monitoring and future actions on infiltration, conveyance, storage, and development measures</p> <p>The new Planning documents introduced a Stormwater Management Guide for the Town. The implementation of this will be tested this year and also communications/education included with the flood risk work.</p> <p>Well-head protection is a focus of the PACE program (outlined under mitigation)</p> <p>Other environmental protection measures (e.g. steep slopes, water courses, well heads, agricultural land) are included in the Town's new planning documents as well.</p>		
Lead Department	Planning & Development	Supporting Departments/Committees	PW, Parks, PAC
Budgetary Implications	\$5,000	Communications and engagement on flood risk work	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD from Flood Study, Climate Action Plan	
	Year 3	Urban Forest Management baseline and report to Council for direction	
	Year 4		

Initiative	Food Security (PRIORITY AREA 4)		
Description	<p>Our new MPS outlines Council's aspirations around contributing to increased food security in the region. The MPS implementation report (fall 2021) will look at this area and potential avenues for future years.</p> <p>Staff will continue to support the Farmers Market on the feasibility of their expansion. This work involves collaboration with both the Farmers Market and Acadia University (academic and administrative).</p> <p>Future projects may involve working in partnership with the Acadia Farm, assessing our role in Community Gardens, looking at the Town owned Agricultural land behind Home Hardware, and recreational programming around food and wellness.</p>		
Lead Department	Planning, Parks	Supporting Departments/Committees	ESC, PAC
Budgetary Implications	Contribution toward Market feasibility	Planning contracted services/in-kind	

Future Work		Initiatives	Anticipated Budget
	Year 2	TBD	
	Year 3		
	Year 4		

COMMUNITY WELLNESS

Ensuring the well being of our community through programming, facility development and health and wellness initiatives has been identified as a priority of Council. Improving and maintaining our existing recreational offerings as well as adding new opportunities that are sustainable and strategic are key elements of this Plan.

Initiative	<i>Alcohol Strategy</i>		
Description	The Alcohol Working Group will finalize the draft Community Alcohol Strategy in the spring of 2021 and will bring it forward for consideration by Council and other stakeholders. Once adopted, the actions of the plan will be implemented over the next four years.		
Lead Department	Office of the CAO	Supporting Departments/Committees	Alcohol Working Group
Budgetary Implications	\$5,000	Implementation of Strategy	
Future Work		Initiatives	Anticipated Budget
	Year 2	5,000	
	Year 3	5,000	
	Year 4	5,000	

Initiative	<i>Regional Recreational Opportunities (PRIORITY AREA 1)</i>		
Description	In 2021-22, the four municipalities within Kings County will undertake a Regional Recreation Study to look at the feasibility of constructing a regional recreational complex, which would include an aquatics facility, within Kings County. This will be a two-phase study that will inform next steps.		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	\$30,000	\$30,000 has been budgeted to contribute towards the cost of the study.	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD	
	Year 3		
	Year 4		

Initiative	<i>Library and Town Hall</i>		
Description	<p>An RFP will be issued to look at how both the Library could expand (consistent with the Library Needs Assessment - new build, addition to existing building) and also include in the scope how or if Town Hall should be integrated in the Library project. This work will better determine our Town Hall needs into the future. Both the existing Town Hall lands and the Library and surrounding Town-owned lands will be looked at in this study.</p> <p>This work will better inform the Town's 10-year Capital Investment Plan and provide Council an opportunity to hear from the public on these important public assets. There are currently uncertainties around exactly how we will direct future investment at the Town Hall property (Fire Hall, RCMP, Town Hall), proposed improvements to the Public Works building, and the envisioned Public Library expansion. Included in the scope will be consideration to sell one of these properties if Council feels everything we need can be accommodated on a single site.</p>		
Lead Department	Planning and Development	Supporting Departments/Committees	Parks, Public Works, Finance, PAC, Design Review Committee
Budgetary Implications	\$75,000	Library/Town Hall study to inform future investment.	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD – see Capital Plan for where future investments stand currently	
	Year 3		
	Year 4		

Initiative	<i>Acadia Pool</i>		
Description	<p>The Town, along with other municipal partners, will work with Acadia University to both provide financial support and enhance community aquatics programming in the short-medium term while the region undertakes the Feasibility Study for the Regional Recreation Complex.</p> <p>It is anticipated that financial support will be required on an annual basis to keep the pool open during the late spring/summer months and to continue community access during the academic term.</p>		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	TBD	Proposal to follow.	
Future Work		Initiatives	Anticipated Budget
	Year 2		
	Year 3		
	Year 4		

Initiative	<i>Camps Programming</i>		
Description	<p>Staff will evaluate the arrangement with Acadia for camps delivery. 2021-2022 will be status quo.</p> <p>Staff will host Environmental Leadership Camps – 5 one week camps this summer, each with different theme (10-15 campers per camp). It is anticipated that we will receive external funding support for this initiative.</p>		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Office of CAO
Budgetary Implications	\$15,000 – Acadia \$24,100 - ESC	Currently the Town has budgeted \$24,100 for operational costs of Environmental Leadership Camps and \$7,500 in revenue thereby investing \$16,600 into program. Grant requests are being explored to off-set some of the shortfall.	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD	
	Year 3		
	Year 4		

Initiative	<i>Parks Planning and Amenities</i>		
Description	<p>One of the capital projects in the 21/22 year is the addition of Pickleball Courts at the Rotary Park field – just to the south of the Rec Centre. The number of courts will be dependent on grant funding – either two or three. In addition, the Tennis Club has been asking about the addition of a practice wall – this is also being explored.</p> <p>Practice space would be enclosed separate from the pickleball courts and could also be used for youth programming and lessons.</p> <p>Additional work is being planned for improvements to the Bike Skills Park in Reservoir Park.</p> <p>Parks and Recreation staff (depending on Council decisions) will engage community in a park planning process for two new parks in the West end.</p>		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	\$140,000 Pickleball in Capital \$20,000 Capital improvements to Bike skills park.	The Town will fund the development of 2 pickleball courts, three is grant funding is secured.	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD	
	Year 3	TBD	
	Year 4	TBD	

Initiative	<i>Parks Maintenance</i>		
Description	Park's maintenance is being identified as a key priority for the Parks team and in support of the user experience. This comes with both additional costs and the management of risks and expectations. Nevertheless, we will continue to improve and plan for better and safer parks and trails within Wolfville. Specifically, staff will be seeking direction from Council on expectations surrounding winter maintenance.		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Finance Department, Accessibility Committee
Budgetary Implications	\$17,500	Parks has added dollars this year start to address parks maintenance – primarily in Reservoir Park. In discussions with Finance Department maintenance should be an operational line item each year. Staff will also review the feasibility, potential service level and required improvements that would be associated with winter trail maintenance on the Harvest Moon Trail and come back to Council will a report for a decision.	
Future Work		Initiatives	Anticipated Budget
	Year 2	TBD	
	Year 3	TBD	
	Year 4	TBD	

Initiative	<i>Public Art</i>		
Description	A piece of Public Art has been tendered for the Town and is planned to be installed late summer early fall in the green space north of main street across from Willow Park, near the trail head. The Town manages an annual contribution to reserves for the purchase of larger art pieces. Consideration of how we fund and support smaller purchases (murals for example) and/or events requires either a larger commitment to funding flexibility or limited expectations beyond larger installations. This will be reviewed in 2021-22.		
Lead Department	Parks and Recreation	Supporting Departments/Committees	Finance Department
Budgetary Implications	\$28,000	Art has been purchased (by direction of the art in Public Spaces committee) for installation in 2021.	
Future Work		Initiatives	Anticipated Budget
	Year 2		
	Year 3		
	Year 4		

Initiative	<i>Heritage</i>
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Description	<p>Staff will work with the Heritage Advisory Committee and the Randall House Museum, resource and capacity dependent to move this area of focus forward. Ensuring a heritage lens is applied to ongoing initiatives is essential for both Council and staff.</p> <p>Future initiatives may include:</p> <ul style="list-style-type: none"> • Update Town’s built heritage inventory – this will point out what is not included currently (that should be?); and how we move forward. • Update Town’s heritage property program, incentives and tools based on the inventory and preservation goals • Work on expanding heritage programming to include Mi’Kmaq, Acadian, African Nova Scotian and other groups important to the formation of our region. 		
Lead Department	Planning, Parks and Recreation	Supporting Departments/Committees	Heritage Advisory Committee
Budgetary Implications	None		
Future Work	Initiatives		Anticipated Budget
	Year 2	TBD - Summer student / University project may be valuable	
	Year 3		
	Year 4		

DRAFT

INFRASTRUCTURE MANAGEMENT

Managing our infrastructure in a strategic and safe way, while maximizing limited dollars, is an essential priority for the Town of Wolfville.

Include stats from asset management plan?

Initiative	Crosswalk Safety (PRIORITY AREA 2)		
Description	<p>A crosswalk review is currently being completed by Fathom Studio and recommendations will be reviewed and implemented as resources allow. This work will assist in prioritizing crosswalk improvements on a go-forward basis and will assist in identifying the location and requirements of existing and future crosswalks. This review will also examine existing crosswalks from an accessibility perspective and make recommendations for improvements and standards for existing and future crosswalks.</p> <p>Two new RRFB Crosswalk lighting systems are included in the year 1 capital budget. Their location will be confirmed as part of the crosswalk review that is underway.</p> <p>Crosswalk signs are being replaced with hi intensity reflective signs.</p>		
Lead Department	Public Works	Supporting Departments/Committees	
Budgetary Implications	\$80,000	This will support two new RRFB crosswalk lighting systems.	
Future Work		Initiatives	Anticipated Budget
	Year 2	Implement recommendations	TBD
	Year 3	Implement recommendations	TBD
	Year 4	Implement recommendations	TBD

Initiative	Traffic Management (PRIORITY AREA 2)		
Description	<p>Council has expressed a desire to review the options at the four way stop sign on Main and Harbourside.</p> <p>In 2021-22 staff will review all work and studies done to date, will conduct consultation with key stakeholder groups and the public and will identify the feasibility of a pilot project, if practical. A summary of all findings will be provided to Council in advance of budget deliberations for 2022-23, at which time direction can be given by Council around the inclusion of traffic lights in the 10-Year CIP.</p> <p>As mentioned in other sections of this Operational Plan, staff will also continue to work with the WBDC on Wayfinding improvements, primarily in the core area.</p>		
Lead Department	Public Works	Supporting Departments/Committees	
Budgetary Implications	N/A	Much of this work can be done in house. Should a pilot project be feasible, the CAO contracted services budgeted \$\$ can be used to assist.	
Future Work		Initiatives	Anticipated Budget
	Year 2	Implement the direction of Council on the four-way stop	
	Year 3	Continue wayfinding improvements	
	Year 4		

Initiative	Sidewalk Improvements (PRIORITY AREA 2)		
Description	<p>Continue to rebuild and repair sidewalks throughout Town.</p> <p>Approx 800 m of new concrete sidewalk will be added on Highland Avenue.</p> <p>Approx 950 m of asphalt sidewalk repairs are scheduled (but may be subject to change) on the following streets:</p> <ul style="list-style-type: none"> • Main St West (Landmark East to Whidden - north) • Downtown Core • Acadia (Highland to Wolfville School -south) • Hillside (Bay to Fairfield) • Winter 		
Lead Department	Public Works	Supporting Departments/Committees	
Budgetary Implications	Highland – included in capital project Repairs - \$42,000		
Future Work		Initiatives	Anticipated Budget
	Year 2	New concrete – 660 m Asphalt repairs – 770 m	New – included in capital Repairs - \$37,000

	Downtown core, Skyway (University to Basin - north), Pleasant (Riverview to Gaspereau), Acadia (Linden to Gaspereau - north)	
Year 3	New Concrete – 350 m Asphalt repairs – 790 m Downtown core, Main (Stirling to Kent - south), Main (Earnscliffe to Westwood - south), Main (Sherwood to Maple - north), Pleasant (Hillside to Evangeline)	New - included in capital Repairs - \$38,000
Year 4	New concrete – 330 m Asphalt repairs – 650 m Downtown core, Main (Landmark East to West end – north), Main (Earnscliffe to Westwood – north), Main (Maple to Laura Moore – north), Pleasant (Orchard to Huron)	New – included in capital Repairs - \$31,000

Initiative	Street Improvements (PRIORITY AREA 2)		
Description	<p>Continue to rebuild and repairs streets throughout Town.</p> <p>Approx 3000 sq m of new street construction.</p> <p>Approx 13,700 sq m of asphalt mill and paving is scheduled (but may be subject to change) on the following streets:</p> <ul style="list-style-type: none"> ● Chestnut ● Sherwood (Alline – Kencrest) ● Huron ● Iona ● Fowler (Civic 26 – end) ● Riverview ● Maple 		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	New included in capital Mill & Pave - \$275,000		
Future Work		Initiatives	Anticipated Budget
	Year 2	New 2400 sq m	New – included in capital

	<p>Mill & pave – 15,100 sq m Fairfield (Highland to Hillside) Olsen (Cobbler to Carriage Way) Gaspereau (Pleasant to 101) Minas View (Cape View to End) Beckwith (Wickwire to end) Beckwith (Chestnut to Grandview) Beckwith (Grandview to Wickwire) Hillside (Fairfield to Pleasant) Maple</p>	<p>Repairs - \$318,000</p>
Year 3	<p>New 2400 sq m</p> <p>Mill & pave – 11,100 sq m Riverview Chestnut (Beckwith to Riga) Chestnut (Riga to Skyway) Acadia (Highland to Linden) Hillside (Bay to Fairfield) Hillside (Fairfield to Pleasant) Glooscap Terrace Maple Avenue</p>	<p>New - included in capital</p> <p>Repairs - \$234,000</p>
Year 4	<p>New 2400 sq m</p> <p>Mill & pave – 12,100 sq m Robie Tufts Huron Chestnut (Queen to Beckwith) Kinley Close Westwood (Park Street – End) Basinview Terrace Maple Avenue</p>	<p>New – included in capital</p> <p>Repairs - \$254,000</p>

Initiative	Asset Management (PRIORITY AREA 2)		
Description	<p>The Town's AMP is used to guide decisions on maintenance and replacement of Town owned infrastructure to ensure infrastructure is safe, sustainable and responsive to the community.</p> <p>Staff will continue to update and verify existing condition assessment data using excavation reports, video inspection and other field verification methods.</p>		
Lead Department	Public Works	Supporting Departments/Committees	Finance (GIS)
Budgetary Implications	N/A		
Future Work		Initiatives	Anticipated Budget
	Year 2	Continue to improve condition assessment data and development of long term financial plan Include climate change considerations as part of risk assessment and asset management	
	Year 3	Formalize levels of service	
	Year 4	Develop and implement Performance Measures Program	

Initiative	Source Water Protection		
Description	<p>The Town's Source Water Protection Plan has been integrated into the MPS as a first step to better manage and protect Wolfville's water supply.</p> <p>Staff will review the Source Water Protection Plan and develop a revised implementation plan and schedule.</p> <p>Staff will work alongside the PACE program to assist residents switch from fuel-based heat to low carbon energy sources to help eliminate potential hazards in the wellfield protection areas.</p>		
Lead Department	Public Works	Supporting Departments/Committees	Planning and Development
Budgetary Implications			
Future Work		Initiatives	Anticipated Budget
	Year 2	Continue to monitor and make recommendations to protect the Town's potable water supply	
	Year 3		
	Year 4		

GENERAL INITIATIVES

In addition to the many initiatives outlined in previous sections of the Operational Plan, there are also many general operational-type initiatives that will be undertaken in 2021-22 and beyond.

Initiative	<i>Regional Partnerships</i>		
Description	The Town of Wolfville will work with the other municipalities from the Annapolis Valley to review existing Inter-Municipal Service Agreements and to examine opportunities for new partnerships, including in the areas of Diversity and Climate Action.		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	N/A	Financial support for this project will be covered with \$\$ that were provided in 2018 by all municipalities and the Province to review governance of KTA, Valley Waste and the VCFN.	
Future Work		Initiatives	Anticipated Budget
	Year 2		
	Year 3		
	Year 4		

Initiative	<i>Human Resource Management</i>		
Description	<p>Collective Bargaining – The existing Collective Agreement expires on March 31, 2022. The Town will strive to begin negotiations in the fall and have a new agreement in place prior to the end of the existing contract.</p> <p>Salary/Pension Review – Staff will undertake a review of salaries and benefits and will come back to Council with recommendations for the 2022-23 budget. It has become evident that in particular the pension benefits need discussion and direction from Council.</p>		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	\$5,000	Allowance for legal to assist with collective bargaining. Salary/Pension review done in-house.	
Future Work		Initiatives	Anticipated Budget
	Year 2		
	Year 3		
	Year 4		

Initiative	Website Re-Development		
Description	The Town’s website will be redesigned to both enhance the user experience but to also make it more simplified to update and maintain. Special attention will be given to accessibility features, video integration, information pertaining to our local business community and improved search functions.		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	\$25,000	This is carried over from 2020-21.	
Future Work		Initiatives	Anticipated Budget
	Year 2		
	Year 3		
	Year 4		

Initiative	Enhancing Communications		
Description	<p>Improving communications and engagement has been clearly identified as a priority for Council. As such, a key role of the newly created Special Projects Coordinator will be focused on external communications.</p> <p>The Town will refine its social media and communications strategy, will serve to improvement engagement opportunities on its new website, and will continue to improve ways in which we communicate with residents across all communication mediums.</p>		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	N/A	<p>There is no specific “communications” budget, but pockets of \$\$ throughout the Operating Budget in various Departments for marketing, promotion, etc.</p> <p>Should an unbudgeted initiative be identified, the CAO contracted services budget can be utilized.</p>	
Future Work		Initiatives	Anticipated Budget
	Year 2	Citizen Satisfaction Survey	\$15,000
	Year 3		
	Year 4		

Initiative	<i>Water Rate Study</i>		
Description	<p>In order to ensure financial stability of the utility, regular (every 3-5 years) rate studies should be carried out to ensure operational and capital costs are being covered.</p> <p>The Water Utility CIP now includes 1.6 million to replace the transmission lines. In addition, COVID has adversely affected meter-based sales.</p> <p>The last review was conducted in 2018.</p>		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications	\$8,000	This is budgeted in the Water Budget.	
Future Work		Initiatives	Anticipated Budget
	Year 2		
	Year 3		
	Year 4		

Initiative	<i>Geographic Information Systems</i>		
Description	<p>GIS is a corporate resource available to all Departments to enhance their work and ability to provide information and data to both the public and to Council to improve decision making.</p> <p>Priorities for 2021-22 include:</p> <p>Asset Management Building Inspection Tracking (maybe 2020-21) Complaints Tracking Compliance Tracking Ongoing support for Departments</p>		
Lead Department	Office of the CAO	Supporting Departments/Committees	
Budgetary Implications		The Town employs a full time GIS Technician. This position supports this work.	
Future Work		Initiatives	Anticipated Budget
	Year 2		
	Year 3		
	Year 4		

ACADIA PARTNERSHIP AGREEMENT

In the fall of 2018, the Town signed an MOU with Acadia and the ASU to collaborate on areas of priority and mutual interest. While many of these initiatives have been highlighted in previous sections of this Operational Plan, it is important to understand, at a glance, what initiatives will be undertaken in 2021-22 in support of furthering collaborative work.

In 2021-22, the key initiatives proposed to be undertaken include:

Communications

- Improve joint and integrated communications where practical;
- Rejuvenate the Council/ASU pairings;
- Continue to host an annual community forum to provide details on what is happening in the Town and at Acadia and allow members of the public to engage and ask questions.

Economic Development

- Define the Town's role in Destination Acadia;
- Develop and support one major event in Wolfville;
- Pursue opportunities to partner with the Acadia Entrepreneurship Centre and other economic development stakeholders;
- Have ASU representation attend WBDC Board meetings;
- Continue to support the efforts of the Farmers Market;
- Promote opportunities for co-op placements within the local business community.

Facilities/Infrastructure

- Determine a plan for short and medium term access to the pool for community members;
- Complete the new turf project at Raymond Field;
- Review the Day Camps arrangement to ensure that it is working for both partners
- Explore the feasibility/future of the Acadia Farm.

Academic Opportunities

- Promote the opportunity for community members to attend lectures;
- Foster relations between Town staff, the ASU and the Department of Community Development;
- Develop list of subject matter experts at Acadia.

Strategic Planning

- Key Performance Indicators to measure the success of the MOU will be developed.

Community Harmony

- Finalize and begin implementing the Alcohol Strategy;
- Better educate students on their rights/responsibilities as a town member and tenant;
- Utilize the Code of Conduct to address off-campus behavioural issues as suitable;
- Utilize the Nuisance Party Bylaw to address nuisance parties as suitable;
- Conduct two ‘walkabouts’ annually for key members of each organization and the community to meet and talk to students living off campus;
- Continue to conduct weekly stakeholder meetings to debrief and address issues of concern, as well as to plan for upcoming events;
- Maintain printed materials related to community harmony and being good neighbours to each other;
- Make Acadia events, such as Cheaton Cup and Homecoming safer, experience less negative community impact and be hosted in improved physical event space.

OPERATING & CAPITAL DRAFT BUDGET V4

TOWN OF WOLFVILLE

FISCAL 2021/22

March 9th Committee Of The Whole



A cultivated experience for the mind, body, and soil

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Town of Wolfville
2021/22 Draft Operating Budget - V4
All Divisions

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	2021/22	2020/21		2019/20	
	Budget	Forecast/Actual	Budget	Actual	Budget
REVENUES					
Taxes and grants in lieu of taxes	\$ 9,724,500	\$ 9,606,500	\$ 9,546,000	\$ 9,252,059	\$ 9,177,400
Sale of service/cost recoveries	929,800	867,400	979,400	1,027,625	912,500
Sewer Rates	509,000	420,300	451,500	432,233	430,000
Provincial, Federal & other grants	98,600	587,400	175,200	194,504	170,200
	11,261,900	11,481,600	11,152,100	10,906,421	10,690,100
EXPENSES					
Salary and wages	2,227,100	1,943,800	2,064,700	2,031,414	2,082,300
Employee Benefits	443,300	389,900	411,000	421,559	401,500
Seasonal/Term Wages	370,200	364,100	556,300	424,678	369,000
Employee Benefits Seasonal wag	58,500	64,900	80,300	54,512	58,600
Meetings, Meals and Travel	24,000	10,600	25,600	16,458	25,300
Professional Development	66,900	42,600	95,000	72,132	83,500
Membership Dues & Fees	19,600	19,500	15,800	17,510	20,700
Advertising	27,800	13,200	32,900	27,003	36,900
Telecommunications	38,300	36,200	47,400	39,421	43,000
Office Expense	57,600	45,500	66,000	51,800	78,800
Legal	52,700	49,300	42,700	50,312	50,200
Insurance	154,500	118,700	96,000	105,883	91,400
Marketing and Communications	4,500	400	3,400	1,125	200
Audit	21,500	25,100	20,000	16,647	18,000
Stipends & Honorariums	207,900	200,000	205,400	197,283	203,300
Miscellaneous	1,400	2,500	2,600	2,859	1,900
Heat	26,200	24,600	28,500	25,431	27,100
Utilities	138,200	119,000	124,600	133,971	129,400
Repairs and Maintenance	136,600	121,300	108,800	120,473	101,800
Vehicle Fuel	47,700	40,200	50,400	46,269	50,200
Vehicle Repairs & Maintenance	144,100	150,100	140,800	172,455	126,400
Vehicle Insurance	19,200	12,800	11,900	10,039	10,100
Operational Equip & Supplies	563,100	531,600	598,300	513,118	523,400
Equipment Maintenance	10,000	17,300	10,000	17,952	10,000
Equipment Rentals	5,000	2,700	-	10,379	-
Program Expenditures	80,100	61,700	77,600	52,122	86,100
Contracted Services	2,693,600	2,494,400	2,635,600	2,443,478	2,580,000
Grants to Organizations	154,200	107,900	245,200	139,150	178,900
Licenses and Permits	3,300	3,300	3,300	3,055	3,300
Tax Exemptions	111,800	103,300	112,500	104,172	107,600
Election	-	24,500	35,000	-	-
Partner Contributions	1,823,900	1,689,900	1,767,100	1,814,913	1,788,100
Other debt charges	10,100	2,500	10,300	15,375	10,000
Doubtful accounts allowance	2,500	2,500	2,500	-	2,500
	9,745,400	8,835,900	9,727,500	9,152,948	9,299,500
Net Operational Surplus (Deficit)	1,516,500	2,645,700	1,424,600	1,753,473	1,390,600
Capital Program & Reserves					
Principal Debenture Repayments	601,800	562,900	562,900	538,366	538,400
Debenture interest	180,400	166,200	162,400	157,844	155,500
Principal/Interest Future Debt	-	-	-	-	-
Transfer to Operating Reserves	5,000	389,700	5,000	5,000	5,000
Transfer to Capital Reserves	769,900	740,300	740,300	729,300	729,300
Transfer to Cap Reserve - Fire Equip	259,000	259,000	259,000	219,000	219,000
Transfer to Capital Fund	-	-	-	-	-
Transfer from Operating Reserves	(234,600)	-	(305,000)	(145,485)	(256,600)
Transfer from COVID Reserve	(65,000)	-	-	-	-
	1,516,500	2,118,100	1,424,600	1,504,025	1,390,600
Net Surplus (Deficit)	\$ -	\$ 527,600	\$ -	\$ 249,448	\$ -

Town of Wolfville
Operating Budget ~ Tax Revenue Requirement Draft Presentation
2021/22 Draft Operating Budget - V4

	BUDGET		
	Current Yr 2021/22	Required Increase	Prior Yr 2020/21
<i>Total to be funded by Property Tax Rates</i>	7,804,600	153,800	7,650,800
		2.01%	

		Budget 2021/22	\$ Increase	Budget 2020/21
RESULTING TAXES				
Residential ~ No Change to Rate	1.475	6,481,000	120,400	6,360,600
Resource	1.475	13,500	300	13,200
Subtotal from residential sector		6,494,500	120,700	6,373,800
			1.89%	
Commercial	3.585	1,277,100	100	1,277,000
		-	-	-
Subtotal from commercial sector		1,277,100	100	1,277,000
			0.01%	
TOTAL		7,771,600	120,800	7,650,800
			1.58%	
Revenue surplus (shortfall)		(\$33,000)		\$0

Overall Increase in Tax Revenue	1.58%
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Tax Rate Change Assumption

Residential - 1 cent increase	1.475	1.475
Commercial - 1 cent increase	3.585	3.585

BUDGETED TAXABLE ASSESSMENTS (net of allowance for appeals)

Residential	1.89%	439,388,400	431,230,500
Commercial	0.01%	35,623,600	35,619,500
Resource	2.23%	913,900	894,000
Business Occupancy		-	-
TOTAL		475,925,900	467,744,000

2019 PVSC ASSESSMENT ROLL

	Per Roll (net of Cap)	Allowance For Appeals & Bus Closings & Adjustments	Expected Taxable Assessment
Residential	440,388,400	(1,000,000)	439,388,400
Commercial	35,623,600	-	35,623,600
Resource	913,900	-	913,900
TOTAL	476,925,900	(1,000,000)	475,925,900

Town of Wolfville
2021/22 Draft Operating Budget - V4
All Divisions

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	2021/22 Budget	PROJECTION		
		2022/23 Budget Projection	2023/24 Budget Projection	2024/25 Budget Projection
REVENUES				
Taxes and grants in lieu of taxes	\$ 9,724,500	\$ 9,919,850	\$ 10,124,300	\$ 10,309,700
Sale of service/cost recoveries	929,800	924,000	930,400	934,600
Sewer Rates	509,000	514,000	519,000	524,000
Provincial, Federal & other grants	98,600	98,600	77,600	89,800
	11,261,900	11,456,450	11,651,300	11,858,100
EXPENSES				
Salary and wages	2,227,100	2,284,200	2,264,900	2,326,300
Employee Benefits	443,300	453,700	448,400	458,900
Seasonal/Term Wages	370,200	368,300	375,100	382,100
Employee Benefits Seasonal wag	58,500	58,800	59,900	61,000
Meetings, Meals and Travel	24,000	25,100	25,300	25,500
Professional Development	66,900	80,500	86,200	91,900
Membership Dues & Fees	19,600	19,800	20,000	20,000
Advertising	27,800	28,000	28,400	28,800
Telecommunications	38,300	38,900	39,200	39,500
Office Expense	57,600	59,500	60,500	61,600
Legal	52,700	48,700	49,300	49,900
Insurance	154,500	169,200	185,600	203,600
Marketing and Communications	4,500	5,000	5,100	5,200
Audit	21,500	22,400	22,800	23,300
Stipends & Honorariums	207,900	211,500	215,700	220,000
Miscellaneous	1,400	1,400	1,400	1,400
Heat	26,200	26,600	27,000	27,100
Utilities	138,200	140,100	142,300	144,400
Repairs and Maintenance	136,600	139,200	140,600	101,000
Vehicle Fuel	47,700	48,600	49,500	50,400
Vehicle Repairs & Maintenance	144,100	149,900	149,900	149,900
Vehicle Insurance	19,200	19,900	20,500	21,200
Operational Equip & Supplies	563,100	572,000	576,800	581,600
Equipment Maintenance	10,000	10,200	10,400	10,600
Equipment Rentals	5,000	5,000	5,000	5,000
Program Expenditures	80,100	86,200	95,200	96,900
Contracted Services	2,693,600	2,752,000	2,795,800	2,835,300
Grants to Organizations	154,200	27,700	32,700	57,700
Licenses and Permits	3,300	3,300	1,800	3,300
Tax Exemptions	111,800	114,000	116,400	119,000
Election	-	-	-	40,000
Partner Contributions	1,823,900	1,874,100	1,934,100	1,992,300
Other debt charges	10,100	15,100	20,100	20,100
Doubtful accounts allowance	2,500	2,500	2,500	2,500
	9,745,400	9,861,400	10,008,400	10,257,300
Net Operational Surplus (Deficit)	1,516,500	1,595,050	1,642,900	1,600,800
Capital Program & Reserves				
Principal Debenture Repayments	601,800	-	-	-
Debenture interest	180,400	-	-	-
Principal/Interest Future Debt	-	940,000	1,011,000	1,085,700
Transfer to Operating Reserves	5,000	5,000	5,000	5,000
Transfer to Capital Reserves	769,900	720,800	765,000	812,400
Transfer to Cap Reserve - Fire Equip	259,000	259,000	259,000	259,000
Transfer to Capital Fund	-	-	-	-
Transfer from Operating Reserves	(234,600)	(97,000)	-	-
Transfer from COVID Reserve	(65,000)	-	-	-
	1,516,500	1,827,800	2,040,000	2,162,100
Net Surplus (Deficit)	\$ -	\$ (232,750)	\$ (397,100)	\$ (561,300)

Year 2 thru 4 projections are based upon assumptions that may not match future events. Intended to illustrate possible results based on current budget structure and modest assessment growth.

Town of Wolfville
2021/22 Draft Operating Budget - V4
General Government Division

Changed from V1 to V2

Changed V2 to V3

Changed V3 to V4

	2021/22	2020/21		2019/20	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Residential & resource taxes	6,494,500	6,372,900	6,373,800	6,016,056	6,018,100
Commercial taxes	1,363,400	1,356,600	1,345,600	1,320,635	1,318,800
Deed Transfer Tax	400,000	446,400	340,000	427,936	340,000
Business development area rate	100,000	30,400	100,000	101,546	100,000
Grant in lieu of taxes	970,500	1,009,100	990,500	981,513	992,500
Kings County Fire Protection	141,200	142,100	141,200	121,100	121,100
Cost recoveries	107,900	109,400	109,400	111,530	112,200
Interest on investments & o/s taxes	92,000	68,900	117,000	149,913	90,000
Other revenues	68,500	72,900	68,500	91,218	69,400
Equilization Grant	70,000	69,800	70,000	69,869	70,000
Farm Acreage Grant	1,100	1,200	1,100	1,168	1,100
Other conditional grants	-	404,700	-	350	-
	<u>9,812,900</u>	<u>10,087,900</u>	<u>9,660,600</u>	<u>9,396,334</u>	<u>9,236,700</u>
EXPENSES					
Salary and wages	644,000	619,000	629,300	611,939	609,300
Employee Benefits	133,300	124,700	128,600	124,400	118,200
Seasonal Wages	12,000	-	50,000	-	-
Employee Benefits Seasonal wag	1,200	-	5,000	-	-
Meetings, Meals and Travel	6,700	3,000	10,100	4,731	7,900
Professional Development	51,900	36,200	80,000	60,251	68,500
Membership Dues & Fees	8,800	10,100	7,000	8,511	7,600
Advertising	8,500	7,500	7,900	8,941	7,900
Telecommunications	14,900	13,800	16,800	16,023	16,700
Office Expense	30,600	31,300	36,800	32,237	44,200
Legal	30,000	22,100	15,000	29,458	20,000
Insurance	147,000	112,300	90,000	96,726	85,000
Marketing and Communications	1,000	100	2,400	1,125	-
Audit	21,500	25,100	20,000	16,647	18,000
Mayor and Council Remuneration	167,500	165,900	167,000	168,854	164,900
Miscellaneous	1,400	2,500	2,600	2,723	1,900
Heat	15,100	14,500	15,400	14,126	13,300
Utilities	5,700	5,300	5,700	5,356	5,700
Repairs and Maintenance	20,000	55,900	23,000	35,950	11,700
Operational Equip & Supplies	122,000	87,100	99,600	78,319	69,600
Program Expenditures	12,000	-	2,000	-	2,500
Contracted Services	91,100	57,800	95,000	16,608	80,000
Grants to Organizations	73,900	59,500	145,500	68,750	100,000
Tax Exemptions	111,800	103,300	112,500	104,172	107,600
Election	-	24,500	35,000	-	-
Other debt charges	10,100	2,500	10,300	15,375	10,000
Doubtful accounts allowance	2,500	2,500	2,500	-	2,500
	<u>1,744,500</u>	<u>1,586,500</u>	<u>1,815,000</u>	<u>1,521,222</u>	<u>1,573,000</u>
Net Division Surplus (Deficit)	\$ 8,068,400	\$ 8,501,400	\$ 7,845,600	\$ 7,875,112	\$ 7,663,700
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	47,600	-	190,000	25,000	80,000
Net Surplus (Deficit)	\$ 8,116,000	\$ 8,501,400	\$ 8,035,600	\$ 7,900,112	\$ 7,743,700

Town of Wolfville
2021/22 Draft Operating Budget - V4
Legislative ~ 110

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
TOTAL REVENUE	-	-	-	-	-
EXPENSES					
Employee Benefits - CPP	6,600	5,100	6,500	6,325	3,000
Meetings, Meals and Travel	4,300	2,000	6,100	3,481	4,400
Professional Development	16,900	12,300	25,000	19,696	23,500
Membership Dues & Fees	6,100	5,700	5,000	5,509	5,000
Advertising	300	500	300	1,358	300
Telecommunications	3,400	3,000	3,500	3,490	3,900
Stipends & Honorariums	167,500	165,900	167,000	168,854	164,900
Miscellaneous	1,200	2,400	2,200	400	1,500
Contracted Services	-	-	-	353	-
	<u>206,300</u>	<u>196,900</u>	<u>215,600</u>	<u>209,466</u>	<u>206,500</u>
Net Department Surplus (Deficit)	<u>\$ (206,300)</u>	<u>\$ (196,900)</u>	<u>\$ (215,600)</u>	<u>\$ (209,466)</u>	<u>\$ (206,500)</u>
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	-	-	-	-	-
Net Surplus (Deficit)	<u>\$ (206,300)</u>	<u>\$ (196,900)</u>	<u>\$ (215,600)</u>	<u>\$ (209,466)</u>	<u>\$ (206,500)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Office of the CAO/General Gov't Administration

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	<u>Budget</u>	<u>Forecast/Act</u>	<u>Budget</u>	<u>Actual</u>	<u>Budget</u>
		Restated	Restated	Restated	Restated
<u>REVENUES</u>					
Cost recoveries from Water Util	-	-	-	-	-
Cost recoveries from Sewer Dept	-	-	-	-	-
TOTAL REVENUE	-	-	-	-	-
<u>EXPENSES</u>					
Salary and wages	258,700	248,700	253,800	243,810	241,100
Employee Benefits	49,800	43,800	47,200	40,745	40,900
Term/Seasonal Wages	-	-	50,000	-	-
Employee Benefits Seasonal wag	-	-	5,000	-	-
Meetings, Meals and Travel	1,000	100	2,500	352	3,000
Membership Dues & Fees	1,900	3,400	1,200	2,658	2,200
Advertising	8,000	7,000	7,200	7,583	7,000
Telecommunications	3,500	3,700	3,300	3,081	3,900
Office Expense	1,200	800	1,200	1,299	1,200
Legal	15,000	12,400	10,000	11,531	15,000
Marketing and Communications	1,000	100	2,400	1,125	-
Miscellaneous	-	-	-	2,275	-
Program Expenditures	12,000	-	2,000	-	2,500
Contracted Services	55,000	20,000	50,000	1,357	40,000
Election	-	24,500	35,000	-	-
	407,100	364,500	470,800	315,816	356,800
Net Department Surplus (Deficit)	\$ (407,100)	\$ (364,500)	\$ (470,800)	\$ (315,816)	\$ (356,800)
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	-	-	110,000	-	30,000
Net Surplus (Deficit)	\$ (407,100)	\$ (364,500)	\$ (360,800)	\$ (315,816)	\$ (326,800)

Town of Wolfville
2021/22 Draft Operating Budget - V4
Human Resources ~ 130

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Miscellaneous	-	-		13	
Other conditional grants	-		-	350	
	<u>-</u>	<u>-</u>	<u>-</u>	<u>363</u>	<u>-</u>
EXPENSES					
Salary and wages	-				
Employee Benefits	9,000	12,000	9,000	9,423	6,000
Meetings, Meals and Travel	900	400	900	898	-
Professional Development	35,000	23,900	55,000	40,555	45,000
Membership Dues & Fees		300		-	
Office Expense	-	300	-	651	-
Legal	15,000	9,700	5,000	17,927	5,000
Operational Equip & Supplies	10,000	21,000	9,600	9,050	9,600
Contracted Services		-		1,565	
	<u>69,900</u>	<u>67,600</u>	<u>79,500</u>	<u>80,069</u>	<u>65,600</u>
Net Department Surplus (Deficit)	<u>\$ (69,900)</u>	<u>\$ (67,600)</u>	<u>\$ (79,500)</u>	<u>\$ (79,706)</u>	<u>\$ (65,600)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Finance ~ 140

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Tax Certificates & ByLaws	1,800	1,100	1,800	1,750	1,200
Cost recoveries from Water Util	66,700	66,700	66,700	64,730	65,400
Miscellaneous	-	2,000	-	3,935	-
	<u>68,500</u>	<u>69,800</u>	<u>68,500</u>	<u>70,415</u>	<u>66,600</u>
EXPENSES					
Salary and wages	239,900	233,700	233,400	234,506	229,200
Employee Benefits	41,200	39,300	40,100	43,326	41,200
Meetings, Meals and Travel	300	200	400	-	300
Membership Dues & Fees	800	700	800	344	400
Telecommunications	1,100	1,100	1,100	1,079	1,100
Office Expense	2,900	1,600	2,800	2,402	3,800
Audit	21,500	25,100	20,000	16,647	18,000
Miscellaneous	200	100	400	48	400
	<u>307,900</u>	<u>301,800</u>	<u>299,000</u>	<u>298,352</u>	<u>294,400</u>
Net Department Surplus (Deficit)	<u>\$ (239,400)</u>	<u>\$ (232,000)</u>	<u>\$ (230,500)</u>	<u>\$ (227,937)</u>	<u>\$ (227,800)</u>

**Town of Wolfville
2021/22 Draft Operating Budget - V4
Information Technologies ~ 150**

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	<u>Budget</u>	<u>Forecast/Act</u> <small>Restated</small>	<u>Budget</u> <small>Restated</small>	<u>Actual</u> <small>Restated</small>	<u>Budget</u> <small>Restated</small>
REVENUES					
Job Cost billings			-		-
Cost recoveries from Water Util	34,000	30,800	30,800	29,800	29,800
Cost recoveries from Sewer Dept	3,800	3,500	3,500	3,500	3,500
Miscellaneous		800			
	<u>37,800</u>	<u>35,100</u>	<u>34,300</u>	<u>33,300</u>	<u>33,300</u>
EXPENSES					
Salary and wages	134,100	130,700	132,300	127,603	129,000
Employee Benefits	24,600	23,900	24,000	24,221	25,200
Seasonal Wages	12,000	-		-	
Employee Benefits Seasonal wag	1,200	-		-	
Meetings, Meals and Travel	200	-	200	-	200
Telecommunications	5,000	4,200	7,000	5,945	5,900
Operational Equip & Supplies	110,000	66,100	80,000	67,188	50,000
Contracted Services	36,100	37,800	45,000	12,916	40,000
	<u>323,200</u>	<u>262,700</u>	<u>288,500</u>	<u>237,873</u>	<u>250,300</u>
Net Department Surplus (Deficit)	<u>\$ (285,400)</u>	<u>\$ (227,600)</u>	<u>\$ (254,200)</u>	<u>\$ (204,573)</u>	<u>\$ (217,000)</u>
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	23,200	-	-	-	-
Net Surplus (Deficit)	<u>\$ (262,200)</u>	<u>\$ (227,600)</u>	<u>\$ (254,200)</u>	<u>\$ (204,573)</u>	<u>\$ (217,000)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
General Government Common Costs ~ 160

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Cost recoveries from Water Util	7,200	11,900	11,900	17,000	17,000
TOTAL REVENUE	7,200	11,900	11,900	17,000	17,000
EXPENSES					
Salary and wages	11,300	5,900	9,800	6,020	10,000
Employee Benefits	2,100	600	1,800	360	1,900
Meetings, Meals and Travel	-	300	-	-	-
Advertising	200	-	400	-	600
Telecommunications	1,900	1,800	1,900	2,428	1,900
Office Expense	26,500	28,600	32,800	27,885	39,200
Heat	15,100	14,500	15,400	14,126	13,300
Utilities	5,700	5,300	5,700	5,356	5,700
Repairs and Maintenance	20,000	55,900	23,000	35,950	11,700
Operational Equip & Supplies	2,000	-	10,000	2,081	10,000
Contracted Services	-	-	-	417	-
	84,800	112,900	100,800	94,623	94,300
Net Department Surplus (Deficit)	\$ (77,600)	\$ (101,000)	\$ (88,900)	\$ (77,623)	\$ (77,300)

Town of Wolfville
2021/22 Draft Operating Budget - V4
Other General Government ~ 190

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	2021/22	2020/21		2019/20	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Residential Tax	6,481,000	6,360,500	6,360,600	6,005,858	6,007,200
Resource Tax	13,500	12,400	13,200	10,198	10,900
Commercial Tax	1,277,100	1,295,500	1,277,000	1,251,819	1,249,800
NSLC - exempt assessment	24,300	-	-	-	-
Aliant	20,500	20,500	20,000	20,203	20,000
NSPI Grant	4,500	4,400	3,600	4,285	3,600
HST Offset Grant	37,000	36,200	45,000	44,328	45,400
Fire Protection Rate	-	-	-	-	-
Deed Transfer Tax	400,000	446,400	340,000	427,936	340,000
Commercial Area Rate	100,000	30,400	100,000	101,546	100,000
Post Office GILT	20,500	20,500	20,500	20,558	20,500
Acadia GILT	950,000	988,600	970,000	960,955	972,000
Kings County Fire Protection	141,200	142,100	141,200	121,100	121,100
License & fee revenue	-	-	-	-	-
Facility Rental	16,500	17,800	16,500	16,581	18,000
Land Leases	200	200	200	200	200
Interest on investments	20,000	24,100	45,000	75,403	25,000
Interest on outstanding taxes	72,000	44,800	72,000	74,510	65,000
Miscellaneous	50,000	51,000	50,000	68,739	50,000
Equilization Grant	70,000	69,800	70,000	69,869	70,000
Farm Acreage Grant	1,100	1,200	1,100	1,168	1,100
Other conditional grants		404,700			
TOTAL REVENUE	9,699,400	9,971,100	9,545,900	9,275,256	9,119,800
EXPENSES					
Insurance	147,000	112,300	90,000	96,726	85,000
Miscellaneous	-	-	-	-	-
Grants to Organizations	73,900	59,500	145,500	68,750	100,000
Tax Exemptions	111,800	103,300	112,500	104,172	107,600
Other debt charges	10,100	2,500	10,300	15,375	10,000
Debenture interest	-	-	-	-	-
Doubtful accounts allowance	2,500	2,500	2,500	-	2,500
	345,300	280,100	360,800	285,023	305,100
Net Department Surplus (Deficit)	\$ 9,354,100	\$ 9,691,000	\$ 9,185,100	\$ 8,990,233	\$ 8,814,700
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	24,400		80,000	25,000	50,000
Net Surplus (Deficit)	\$ 9,378,500	\$ 9,691,000	\$ 9,265,100	\$ 9,015,233	\$ 8,864,700

Town of Wolfville
2021/22 Draft Operating Budget - V4
Protective Services Division

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Fire Protection Rate	396,100	391,100	396,100	404,373	408,000
Kings County Fire Protection	167,600	176,100	167,600	165,200	165,500
License & fee revenue	5,000	3,800	5,000	4,132	5,000
Parking fines	10,000	3,000	26,000	36,787	26,000
Other fines	10,000	15,300	10,000	12,601	10,000
EMO 911 Cost Recovery	1,900	1,600	1,600	1,924	1,600
	<u>670,600</u>	<u>654,100</u>	<u>686,300</u>	<u>708,782</u>	<u>696,100</u>
EXPENSES					
Salary and wages	210,100	199,300	207,000	201,210	197,500
Employee Benefits	35,200	31,200	34,500	32,374	31,700
Seasonal Wages	16,700	11,100	16,600	14,705	14,700
Employee Benefits Seasonal wag	1,700	1,000	1,700	974	1,500
Meals and Travel	7,700	2,500	7,100	4,403	7,200
Professional Development	15,000	6,400	15,000	11,881	15,000
Membership Dues & Fees	1,700	1,400	1,400	605	2,200
Advertising	-	-	-	2,476	-
Telecommunications	9,400	9,300	10,000	9,134	11,100
Office Expense	7,800	200	9,400	2,052	11,500
Legal	7,700	7,000	7,700	7,827	10,200
Insurance	7,500	6,400	6,000	9,157	6,400
Honorariums	40,400	34,100	38,400	28,429	38,400
Heat	4,100	3,400	4,100	4,112	4,800
Utilities	17,200	15,100	17,200	16,837	17,500
Repairs and Maintenance	11,600	16,500	16,400	28,843	19,000
Vehicle Fuel	6,200	4,700	6,000	4,706	6,000
Vehicle Repairs & Maintenance	46,500	49,100	47,100	51,103	44,100
Vehicle Insurance	9,100	6,100	4,900	4,882	4,900
Operational Equip & Supplies	69,500	62,100	76,400	89,634	74,500
Equipment Maintenance	10,000	17,300	10,000	17,681	10,000
Contracted Services	1,957,500	1,920,200	1,942,200	1,902,283	1,928,200
Licenses and Permits	1,800	1,800	1,800	1,711	1,800
Debenture interest	2,500	4,000	4,000	4,853	5,300
	<u>2,497,900</u>	<u>2,410,500</u>	<u>2,505,900</u>	<u>2,451,872</u>	<u>2,463,700</u>
Net Division Surplus (Deficit)	<u>\$ (1,827,300)</u>	<u>\$ (1,756,400)</u>	<u>\$ (1,819,600)</u>	<u>\$ (1,743,090)</u>	<u>\$ (1,767,600)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Police Service ~ 210

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Parking fines	-		-		
Other fines	10,000	15,300	10,000	12,601	10,000
	<u>10,000</u>	<u>15,300</u>	<u>10,000</u>	<u>12,601</u>	<u>10,000</u>
EXPENSES					
Salary and wages	6,800	4,300	5,600	4,202	4,400
Employee Benefits	1,400	400	1,100	215	900
Legal	6,500	7,000	4,500	6,465	4,200
Utilities	3,500	3,200	3,500	3,157	4,000
Repairs and Maintenance	2,700	3,700	3,200	2,593	6,000
Contracted Services	1,517,000	1,472,000	1,478,400	1,435,948	1,462,900
	<u>1,537,900</u>	<u>1,490,600</u>	<u>1,496,300</u>	<u>1,452,580</u>	<u>1,482,400</u>
Net Department Surplus (Deficit)	<u>\$ (1,527,900)</u>	<u>\$ (1,475,300)</u>	<u>\$ (1,486,300)</u>	<u>\$ (1,439,979)</u>	<u>\$ (1,472,400)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Compliance (By Law Enforcement) Dept ~ 215

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Parking fines	10,000	3,000	26,000	36,787	26,000
Other fines			-	-	-
	<u>10,000</u>	<u>3,000</u>	<u>26,000</u>	<u>36,787</u>	<u>26,000</u>
EXPENSES					
Salary and wages	63,600	63,700	62,600	63,256	61,000
Employee Benefits	12,700	9,700	12,500	9,218	12,200
Meetings, Meals and Travel	200	200	200	-	200
Membership Dues & Fees	100	200	200	100	200
Telecommunications	1,000	1,000	1,200	1,002	1,200
Office Expense	1,600	200	1,000	1,001	1,000
Legal	1,200	-	3,200	610	6,000
Marketing and Communications	1,000	300	1,000	-	200
Vehicle Fuel	500	300	600	500	600
Vehicle Repairs & Maintenance	900	1,600	500	810	500
Vehicle Insurance	600	400	300	272	300
Operational Equip & Supplies	1,000	1,300	1,500	1,470	500
Contracted Services	15,000	21,900	38,600	25,967	26,000
Grants to Organizations	-	-	20,000	-	-
	<u>99,400</u>	<u>100,800</u>	<u>143,400</u>	<u>104,206</u>	<u>109,900</u>
Net Department Surplus (Deficit)	<u>\$ (89,400)</u>	<u>\$ (97,800)</u>	<u>\$ (117,400)</u>	<u>\$ (67,419)</u>	<u>\$ (83,900)</u>

**Town of Wolfville
2021/22 Draft Operating Budget - V4
Fire Services ~ 220**

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Fire Protection Area Rate	396,100	391,100	396,100	404,373	408,000
Kings County Fire Protection	167,000	175,500	167,000	164,100	164,400
Miscellaneous	-	500	-	1,375	
Other conditional grants	-	-	-	12,995	
	<u>563,100</u>	<u>567,100</u>	<u>563,100</u>	<u>582,843</u>	<u>572,400</u>
EXPENSES					
Salary and wages	84,700	79,400	83,900	80,941	82,100
Employee Benefits	12,300	13,100	12,100	14,803	10,600
Meeting, Meals and Travel	2,500	2,100	1,900	2,270	2,000
Professional Development	15,000	6,400	15,000	11,881	15,000
Membership Dues & Fees	1,600	1,200	1,200	505	2,000
Telecommunications	8,400	8,000	8,800	7,694	9,900
Office Expense	500	-	1,000	243	1,500
Insurance	7,500	6,400	6,000	9,157	6,400
Stipends & Honorariums	40,400	34,100	38,400	28,429	38,400
Heat	4,100	3,400	4,100	4,112	4,800
Utilities	13,700	11,900	13,700	13,680	13,500
Repairs and Maintenance	8,900	12,800	13,200	26,250	13,000
Vehicle Fuel	5,700	4,400	5,400	4,206	5,400
Vehicle Repairs & Maintenance	45,600	47,500	46,600	50,293	43,600
Vehicle Insurance	8,500	5,700	4,600	4,610	4,600
Operational Equip & Supplies	60,000	57,700	68,000	85,050	65,000
Equipment Maintenance	10,000	17,300	10,000	17,681	10,000
Contracted Services	410,500	411,300	410,200	425,368	424,000
Licenses and Permits	1,800	1,800	1,800	1,711	1,800
	<u>741,700</u>	<u>724,500</u>	<u>745,900</u>	<u>788,884</u>	<u>753,600</u>
Net Department Surplus (Deficit)	<u>\$ (178,600)</u>	<u>\$ (157,400)</u>	<u>\$ (182,800)</u>	<u>\$ (206,041)</u>	<u>\$ (181,200)</u>

Note: \$396,100 (\$396,100 in 20/21) of contracted services expense relates to Fire Hydrant Fee paid to Wolfville Water Utility, as per UARB approved formula. The full amount of this fee is recovered by the Town through the Fire Protection Area Rate, noted in revenues above.

Town of Wolfville
2021/22 Draft Operating Budget - V4
EMO ~ 230

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>REVENUES</u>					
Miscellaneous	80,000	62,700	80,000	69,395	80,000
	<u>80,000</u>	<u>62,700</u>	<u>80,000</u>	<u>69,395</u>	<u>80,000</u>
<u>EXPENSES</u>					
Salary and wages	52,800	51,600	52,700	52,220	50,000
Employee Benefits	8,500	7,900	8,500	7,870	8,000
Meeting, Meals and Travel	5,000	200	5,000	2,133	5,000
Advertising		-	-	2,476	-
Telecommunications		300	-	438	-
Office Expense	5,700	-	7,400	808	9,000
Legal		-	-	752	-
Operational Equip & Supplies	8,000	2,700	6,400	2,698	8,000
	<u>80,000</u>	<u>62,700</u>	<u>80,000</u>	<u>69,395</u>	<u>80,000</u>
Net Department Surplus (Deficit)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Other Protective Services ~ 290

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>REVENUES</u>					
Kings County Fire Protection	600	600	600	1,100	1,100
License & fee revenue	5,000	3,800	5,000	4,132	5,000
EMO 911 Cost Recovery	1,900	1,600	1,600	1,924	1,600
	<u>7,500</u>	<u>6,000</u>	<u>7,200</u>	<u>7,156</u>	<u>7,700</u>
<u>EXPENSES</u>					
Salary and wages	2,200	300	2,200	591	
Employee Benefits	300	100	300	268	
Seasonal Wages	16,700	11,100	16,600	14,705	14,700
Employee Benefits Seasonal wag	1,700	1,000	1,700	974	1,500
Operational Equip & Supplies	500	400	500	416	1,000
Contracted Services	15,000	15,000	15,000	15,000	15,300
Debenture interest	2,500	4,000	4,000	4,853	5,300
	<u>38,900</u>	<u>31,900</u>	<u>40,300</u>	<u>36,807</u>	<u>37,800</u>
Net Department Surplus (Deficit)	<u>\$ (31,400)</u>	<u>\$ (25,900)</u>	<u>\$ (33,100)</u>	<u>\$ (29,651)</u>	<u>\$ (30,100)</u>

**Town of Wolfville
2021/22 Draft Operating Budget - V4
Public Works Division**

Changed from V1 to V2

Changed V2 to V3

Changed V3 to V4

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Job Cost billings	7,000	4,500	10,000	8,500	10,000
Cost recoveries from Water Util	115,100	115,100	115,100	111,700	111,700
Cost recoveries from Sewer Dept	45,300	45,300	45,300	43,100	43,100
Land Leases	3,900	3,400	4,000	1,975	4,000
TOTAL REVENUE	171,300	168,300	174,400	165,275	168,800
EXPENSES					
Salary and wages	568,600	503,700	550,400	538,968	580,600
Employee Benefits	124,200	109,700	120,300	111,474	122,800
Seasonal Wages	-	-	12,000	-	12,000
Employee Benefits Seasonal wag	-	-	1,200	-	1,200
Meals and Travel	3,300	3,100	2,300	2,912	2,400
Membership Dues & Fees	1,400	1,200	1,100	521	1,500
Advertising	-	300	-	357	-
Telecommunications	3,800	3,800	4,200	4,241	4,200
Office Expense	4,000	4,500	3,600	3,628	4,100
Legal	5,000	3,500	-	1,281	-
Heat	7,000	6,700	9,000	7,193	9,000
Utilities	33,000	33,200	32,500	37,748	35,500
Repairs and Maintenance	40,000	40,200	50,400	42,947	54,800
Vehicle Fuel	34,000	28,500	36,900	33,065	36,900
Vehicle Repairs & Maintenance	69,500	64,600	65,300	84,327	57,000
Vehicle Insurance	4,900	3,300	4,200	3,804	4,200
Operational Equip & Supplies	147,000	171,500	177,300	136,626	153,800
Equipment Rentals	5,000	-	-	391	-
Contracted Services	425,000	435,800	441,000	318,807	390,700
Licenses and Permits	1,500	1,500	1,500	1,344	1,500
Debenture interest	136,200	133,700	133,500	130,747	133,500
	1,613,400	1,548,800	1,646,700	1,460,381	1,605,700
Net Division Surplus (Deficit)	\$ (1,442,100)	\$ (1,380,500)	\$ (1,472,300)	\$ (1,295,106)	\$ (1,436,900)
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	30,000	-	100,000	73,959	95,000
Net Surplus (Deficit)	\$ (1,412,100)	\$ (1,380,500)	\$ (1,372,300)	\$ (1,221,147)	\$ (1,341,900)

Town of Wolfville
2021/22 Draft Operating Budget - V4
Public Works Common Costs ~ 310

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Cost recoveries from Water Util	80,900	80,900	80,900	81,400	81,400
Cost recoveries from Sewer Dept	24,800	24,800	24,800	24,900	24,900
TOTAL REVENUE	<u>105,700</u>	<u>105,700</u>	<u>105,700</u>	<u>106,300</u>	<u>106,300</u>
EXPENSES					
Salary and wages	178,900	170,400	168,300	168,364	167,300
Employee Benefits	30,000	30,400	27,900	26,791	27,400
Meetings, Meals and Travel	300	100	300	-	400
Membership Dues & Fees	1,400	1,200	1,100	521	1,500
Advertising		300	-	357	-
Telecommunications	3,800	3,800	4,200	4,241	4,200
Office Expense	4,000	4,500	3,600	3,628	4,100
Legal	5,000	3,500	-	1,281	-
Heat	7,000	6,700	9,000	7,193	9,000
Utilities	10,000	10,400	11,000	15,236	13,100
Repairs and Maintenance	40,000	40,200	50,400	42,947	54,800
Operational Equip & Supplies	3,000	100	3,000	100	3,000
Contracted Services	1,500	-	4,200	448	4,200
Licenses and Permits	1,500	1,500	1,500	1,344	1,500
	<u>286,400</u>	<u>273,100</u>	<u>284,500</u>	<u>272,451</u>	<u>290,500</u>
Net Department Surplus (Deficit)	<u>\$ (180,700)</u>	<u>\$ (167,400)</u>	<u>\$ (178,800)</u>	<u>\$ (166,151)</u>	<u>\$ (184,200)</u>
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	<u>-</u>	<u>-</u>	<u>-</u>	<u>4,159</u>	<u>13,000</u>
Net Surplus (Deficit)	<u>\$ (180,700)</u>	<u>\$ (167,400)</u>	<u>\$ (178,800)</u>	<u>\$ (161,992)</u>	<u>\$ (171,200)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Roads and Streets ~ 320

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Cost recoveries from Water Util	34,200	34,200	34,200	30,300	30,300
Cost recoveries from Sewer Dept	20,500	20,500	20,500	18,200	18,200
	<u>54,700</u>	<u>54,700</u>	<u>54,700</u>	<u>48,500</u>	<u>48,500</u>
EXPENSES					
Salary and wages	388,700	333,100	381,100	370,038	408,900
Employee Benefits	94,000	79,300	92,200	84,594	94,400
Seasonal Wages	-	-	12,000	-	12,000
Employee Benefits Seasonal wag	-	-	1,200	-	1,200
Meetings, Meals and Travel	3,000	3,000	2,000	2,912	2,000
Vehicle Fuel	34,000	28,500	36,900	33,065	36,900
Vehicle Repairs & Maintenance	69,500	64,600	65,300	84,327	57,000
Vehicle Insurance	4,900	3,300	4,200	3,804	4,200
Operational Equip & Supplies	125,000	126,600	111,400	116,717	96,600
Equipment Rentals	5,000	-	-	391	-
Contracted Services	385,000	390,400	385,000	264,102	344,700
	<u>1,109,100</u>	<u>1,028,800</u>	<u>1,091,300</u>	<u>959,950</u>	<u>1,057,900</u>
Net Department Surplus (Deficit)	<u>\$ (1,054,400)</u>	<u>\$ (974,100)</u>	<u>\$ (1,036,600)</u>	<u>\$ (911,450)</u>	<u>\$ (1,009,400)</u>
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	30,000	63,000	100,000	54,800	67,000
Net Surplus (Deficit)	<u>\$ (1,024,400)</u>	<u>\$ (911,100)</u>	<u>\$ (936,600)</u>	<u>\$ (856,650)</u>	<u>\$ (942,400)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Street Lighting ~ 330

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>EXPENSES</u>					
Utilities	23,000	22,800	21,500	22,512	22,400
Operational Equip & Supplies	5,000	3,100	9,600	2,161	9,600
Contracted Services	1,500	300		2,039	
	<u>29,500</u>	<u>26,200</u>	<u>31,100</u>	<u>26,712</u>	<u>32,000</u>
Net Department Surplus (Deficit)	<u>\$ (29,500)</u>	<u>\$ (26,200)</u>	<u>\$ (31,100)</u>	<u>\$ (26,712)</u>	<u>\$ (32,000)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Traffic Services ~ 340

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>REVENUES</u>					
Job Cost billings	-	-	-	-	-
<u>EXPENSES</u>					
Salary and wages	1,000	200	1,000	566	4,400
Employee Benefits	200	-	200	89	1,000
Operational Equip & Supplies	14,000	41,000	48,500	12,700	29,000
Contracted Services	37,000	38,600	44,500	45,876	34,500
	<u>52,200</u>	<u>79,800</u>	<u>94,200</u>	<u>59,231</u>	<u>68,900</u>
Net Department Surplus (Deficit)	<u>\$ (52,200)</u>	<u>\$ (79,800)</u>	<u>\$ (94,200)</u>	<u>\$ (59,231)</u>	<u>\$ (68,900)</u>
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	-	-	-	15,000	15,000
Net Surplus (Deficit)	<u>\$ (52,200)</u>	<u>\$ (79,800)</u>	<u>\$ (94,200)</u>	<u>\$ (44,231)</u>	<u>\$ (53,900)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Other Roads & Street ~ 350

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>EXPENSES</u>					
Professional Development		-			
Operational Equip & Supplies	-	700	4,800	4,938	15,600
Contracted Services	-	6,500	7,300	6,342	7,300
	-	7,200	12,100	11,280	22,900
Net Department Surplus (Deficit)	\$ -	\$ (7,200)	\$ (12,100)	\$ (11,280)	\$ (22,900)

Town of Wolfville
2021/22 Draft Operating Budget - V4
Other Transport ~ 390

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Job Cost billings	7,000	4,500	10,000	8,500	10,000
Land Leases	3,900	3,400	4,000	1,975	4,000
	<u>10,900</u>	<u>7,900</u>	<u>14,000</u>	<u>10,475</u>	<u>14,000</u>
EXPENSES					
Operational Equip & Supplies	-	-	-	10	-
Debenture interest	136,200	133,700	133,500	130,747	133,500
	<u>136,200</u>	<u>133,700</u>	<u>133,500</u>	<u>130,757</u>	<u>133,500</u>
Net Department Surplus (Deficit)	<u>\$ (125,300)</u>	<u>\$ (125,800)</u>	<u>\$ (119,500)</u>	<u>\$ (120,282)</u>	<u>\$ (119,500)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Sewer & Solid Waste Division

Environmental Health

Changed from V1 to V2
Changed V2 to V3
Changed V3 to V4

	2021/22	2020/21		2019/20	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUE					
Sewer Rates	509,000	420,300	451,500	432,233	430,000
Kings County Sewer Contribution	2,000	2,000	2,000	2,604	2,000
TOTAL REVENUE	511,000	422,300	453,500	434,837	432,000
EXPENSES					
Salary and wages	87,500	93,300	85,800	87,665	82,900
Employee Benefits	20,300	17,200	19,900	14,566	18,200
Utilities	62,500	45,000	52,700	51,385	52,400
Vehicle Repairs & Maintenance	17,600	21,400	17,900	20,029	17,900
Operational Equip & Supplies	107,800	93,200	109,500	94,932	111,700
Contracted Services	66,000	33,500	63,400	75,491	62,100
Debenture interest	28,200	20,800	17,300	14,043	9,500
	390,900	327,000	366,500	367,182	358,700
Net Division Surplus (Deficit)	\$ 120,100	\$ 95,300	\$ 87,000	\$ 67,655	\$ 73,300

Town of Wolfville
2021/22 Draft Operating Budget - V4
Sewer Administration ~ 410

	<u>2021/22</u> Budget	<u>2020/21</u> Forecast/Act Budget		<u>2019/20</u> Actual Budget	
<u>EXPENSES</u>					
Salary and wages					
Employee Benefits					
Contracted Services	24,800	28,300	24,800	49,033	25,000
	<u>24,800</u>	<u>28,300</u>	<u>24,800</u>	<u>49,033</u>	<u>25,000</u>
Net Department Surplus (Deficit)	<u>\$ (24,800)</u>	<u>\$ (28,300)</u>	<u>\$ (24,800)</u>	<u>\$ (49,033)</u>	<u>\$ (25,000)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Sanitary & Storm Sewer Collection ~ 420

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>EXPENSES</u>					
Salary and wages	46,500	44,300	45,600	42,523	43,300
Employee Benefits	10,800	9,100	10,600	7,304	9,500
Vehicle Repairs & Maintenance	12,300	12,300	12,600	10,920	12,600
Operational Equip & Supplies	48,000	28,000	27,000	18,844	27,000
Equipment Rentals	-	-		6,390	
Contracted Services	25,000	-	27,000	18,468	25,500
	<u>142,600</u>	<u>93,700</u>	<u>122,800</u>	<u>104,449</u>	<u>117,900</u>
Net Department Surplus (Deficit)	<u>\$ (142,600)</u>	<u>\$ (93,700)</u>	<u>\$ (122,800)</u>	<u>\$ (104,449)</u>	<u>\$ (117,900)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Lift Stations ~ 430

	<u>2021/22</u> Budget	<u>2020/21</u> Forecast/Act Budget		<u>2019/20</u> Actual Budget	
<u>EXPENSES</u>					
Salary and wages		4,000		1,183	
Employee Benefits		500		163	
Utilities	20,300	16,600	20,300	19,227	20,000
Operational Equip & Supplies	23,800	15,400	33,500	23,593	27,400
Contracted Services	3,400	600		1,802	
	<u>47,500</u>	<u>37,100</u>	<u>53,800</u>	<u>45,968</u>	<u>47,400</u>
Net Department Surplus (Deficit)	<u>\$ (47,500)</u>	<u>\$ (37,100)</u>	<u>\$ (53,800)</u>	<u>\$ (45,968)</u>	<u>\$ (47,400)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Sewer Treatment ~ 440

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>REVENUES</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>EXPENSES</u>					
Salary and wages	41,000	45,000	40,200	43,959	39,600
Employee Benefits	9,500	7,600	9,300	7,099	8,700
Telecommunications		600		590	
Utilities	42,200	28,400	32,400	32,158	32,400
Repairs and Maintenance		-	-	287	4,000
Vehicle Fuel		1,400	-	1,804	-
Vehicle Repairs & Maintenance	5,300	9,100	5,300	9,109	5,300
Vehicle Insurance	1,000	600			
Operational Equip & Supplies	16,000	29,400	29,000	34,064	37,200
Contracted Services	4,000	1,900	2,800	3,158	2,800
	<u>119,000</u>	<u>124,000</u>	<u>119,000</u>	<u>132,228</u>	<u>130,000</u>
Net Department Surplus (Deficit)	<u>\$ (119,000)</u>	<u>\$ (124,000)</u>	<u>\$ (119,000)</u>	<u>\$ (132,228)</u>	<u>\$ (130,000)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Solid Waste Department ~ 450

	<u>2021/22</u> <u>Budget</u>	<u>2020/21</u>		<u>2019/20</u>	
		Forecast/Act	Budget	Actual	Budget
<u>REVENUES</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>EXPENSES</u>					
Operational Equip & Supplies	-	400	-	208	-
Contracted Services	5,000	2,700	5,000	3,030	5,000
	<u>5,000</u>	<u>3,100</u>	<u>5,000</u>	<u>3,238</u>	<u>5,000</u>
Net Department Surplus (Deficit)	<u>\$ (5,000)</u>	<u>\$ (3,100)</u>	<u>\$ (5,000)</u>	<u>\$ (3,238)</u>	<u>\$ (5,000)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Other Environmental ~ 490

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>REVENUES</u>					
Sewer Rates	509,000	420,300	451,500	432,233	430,000
Kings County Sewer Contribution	2,000	2,000	2,000	2,604	2,000
	<u>511,000</u>	<u>422,300</u>	<u>453,500</u>	<u>434,837</u>	<u>432,000</u>
<u>EXPENSES</u>					
Operational Equip & Supplies	20,000	20,000	20,000	18,223	20,100
Contracted Services	3,800	-	3,800		3,800
Debenture interest	28,200	20,800	17,300	14,043	9,500
	<u>52,000</u>	<u>40,800</u>	<u>41,100</u>	<u>32,266</u>	<u>33,400</u>
Net Department Surplus (Deficit)	<u>\$ 459,000</u>	<u>\$ 381,500</u>	<u>\$ 412,400</u>	<u>\$ 402,571</u>	<u>\$ 398,600</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Planning & Development Division ~ 610

Environmental Development

Changed from V1 to V2
Changed V2 to V3
Changed V3 to V4

	2021/22	2020/21		2019/20	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Zoning & Subdivision approvals	600	900	600	655	600
Bldg Insp. & Development Revenues	-	2,900	-	2,800	
License & fee revenue	1,500	1,000	1,500	2,580	1,500
Building & development permits	16,000	12,300	16,000	23,041	16,000
Development agreements	1,000	-	1,000		1,000
Land Leases	900	-	900		900
Miscellaneous	-	-		1,200	-
Employment grants	-	-	8,400	1,619	
PNS conditional grants	-	30,000	30,000	30,000	30,000
Other conditional grants	-	46,500	46,500	42,900	46,500
	20,000	93,600	104,900	104,795	96,500
EXPENSES					
Salary and wages	339,600	268,400	269,500	288,584	301,700
Employee Benefits	58,800	61,200	47,500	58,205	54,000
Seasonal Wages	30,000	67,800	91,600	69,369	58,000
Employee Benefits Seasonal wag	3,000	-	9,700	6,307	5,800
Meetings, Meals and Travel	5,000	700	5,000	1,261	5,000
Membership Dues & Fees	2,500	2,300	3,000	2,507	2,100
Advertising	8,000	2,100	8,000	4,951	8,000
Telecommunications	5,300	3,500	5,300	3,760	5,300
Office Expense	13,200	7,000	13,200	11,401	13,200
Legal	10,000	15,000	20,000	11,746	20,000
Miscellaneous	-	-	-	136	
Operational Equip & Supplies	-	20,500	1,000	-	
Program Expenditures	-	32,400	20,000	7,389	30,000
Contracted Services	55,000	200	25,000	65,413	45,000
	530,400	481,100	518,800	531,029	548,100
Net Division Surplus (Deficit)	(510,400)	\$ (387,500)	\$ (413,900)	\$ (426,234)	\$ (451,600)
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	129,000	-	15,000	10,000	30,000
Net Surplus (Deficit)	\$ (381,400)	\$ (387,500)	\$ (398,900)	\$ (416,234)	\$ (421,600)

Town of Wolfville
2021/22 Draft Operating Budget - V4
Community Development Division

Recreation & Cultural

	Changed from V1 to V2	Changed V2 to V3	Changed V3 to V4	2021/22	2020/21		2019/20	
				Budget	Forecast/Act	Budget	Actual	Budget
REVENUES								
Kings County Recreation Contrib				15,000	10,000	15,000	29,647	10,000
Program fees				15,000	5,800	20,000	15,542	16,000
Festival & events revenues				-	-	-	2,025	500
Facility fees & cost recoveries				12,000	4,600	12,300	11,581	11,000
Tourist Bureau revenues				8,500	100	7,500	2,832	1,500
Miscellaneous				-	1,300	-	1,092	-
Employment grants				4,500	7,000	-	1,619	-
PNS conditional grants				-	18,000	-	13,448	-
Other conditional grants				21,100	8,600	17,600	18,612	21,000
TOTAL REVENUE				76,100	55,400	72,400	96,398	60,000
EXPENSES								
Salary and wages				377,300	260,100	322,700	303,048	310,300
Employee Benefits				71,500	45,900	60,200	80,540	56,600
Seasonal/Term Wages				311,500	285,200	386,100	340,604	284,300
Employee Benefits Seasonal wag				52,600	63,900	62,700	47,231	50,100
Meals and Travel				1,300	1,300	1,100	3,151	2,800
Membership Dues & Fees				5,200	4,500	3,300	5,366	7,300
Advertising				11,300	3,300	17,000	10,278	21,000
Telecommunications				4,900	5,200	11,100	5,673	5,700
Office Expense				2,000	2,500	3,000	2,482	5,800
Legal				-	1,700	-	-	-
Marketing and Communications				2,500	-	-	-	-
Utilities				19,800	20,400	16,500	22,645	18,300
Repairs and Maintenance				65,000	8,700	19,000	12,446	12,300
Vehicle Fuel				7,500	5,600	7,500	6,694	7,300
Vehicle Repairs & Maintenance				10,500	15,000	10,500	16,996	7,400
Vehicle Insurance				4,200	2,800	2,800	1,353	1,000
Operational Equip & Supplies				116,800	97,200	134,500	113,607	113,800
Equipment Maintenance				-	-	-	271	-
Equipment Rentals				-	2,700	-	3,598	-
Program Expenditures				68,100	29,300	55,600	44,733	53,600
Contracted Services				99,000	46,900	69,000	64,876	74,000
Grants to Organizations				80,300	48,400	79,700	70,400	78,900
Debenture interest				13,500	7,700	7,600	8,201	7,200
				1,324,800	958,300	1,269,900	1,164,193	1,117,700
Net Division Surplus (Deficit)				(1,248,700)	\$ (902,900)	\$ (1,197,500)	\$ (1,067,795)	\$ (1,057,700)
Reserve Funding								
Transfer from Operating Reserves & Accumulated Surplus				61,000	-	-	22,783	51,600
				61,000	-	-	22,783	51,600
Net Surplus (Deficit)				\$ (1,187,700)	\$ (902,900)	\$ (1,197,500)	\$ (1,045,012)	\$ (1,006,100)

Town of Wolfville
2021/22 Draft Operating Budget - V4
Parks Dept ~ 510

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	2021/22	2020/21		2019/20	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Miscellaneous	-	1,300	-	940	-
Employment grants	4,500	3,500			
TOTAL REVENUE	4,500	4,800	-	940	-
EXPENSES					
Salary and wages	161,600	63,400	111,700	43,159	67,500
Employee Benefits	32,500	15,700	22,500	37,371	13,200
Seasonal Wages	204,300	218,200	238,000	236,310	193,000
Employee Benefits Seasonal wag	40,800	54,100	43,600	33,420	35,700
Meetings, Meals and Travel		1,000	-	1,016	-
Telecommunications		800	-	738	
Office Expense		200		132	
Utilities	5,400	7,000	5,400	5,647	5,200
Repairs and Maintenance		-		128	
Vehicle Fuel	6,500	5,600	6,500	5,582	6,300
Vehicle Repairs & Maintenance	8,500	14,700	8,500	15,979	5,400
Vehicle Insurance	3,600	2,700	2,400	946	1,000
Operational Equip & Supplies	88,200	85,300	89,200	91,327	82,700
Equipment Maintenance		-		271	
Equipment Rentals		2,700	-	3,598	
Contracted Services	72,500	36,200	42,500	44,995	46,000
Debenture interest	10,400	4,300	4,300	4,452	
	<u>634,300</u>	<u>511,900</u>	<u>574,600</u>	<u>525,071</u>	<u>456,000</u>
Net Division Surplus (Deficit)	<u>\$ (629,800)</u>	<u>\$ (507,100)</u>	<u>\$ (574,600)</u>	<u>\$ (524,131)</u>	<u>\$ (456,000)</u>
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	15,000			13,743	41,600
Net Surplus (Deficit)	<u>\$ (614,800)</u>	<u>\$ (507,100)</u>	<u>\$ (574,600)</u>	<u>\$ (510,388)</u>	<u>\$ (414,400)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Economic Development Department ~ 710

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>EXPENSES</u>					
Salary and wages	-		-	109,912	90,700
Employee Benefits	-	200	-	22,636	16,300
Meetings, Meals and Travel	-	-	600	1,027	1,200
Membership Dues & Fees	-	400	2,800	1,082	2,800
Advertising	-	-	9,500	5,981	9,500
Telecommunications	-	100	500	779	900
Office Expense	-	-	1,500	1	3,500
Operational Equip & Supplies	-	-	5,000	1,158	10,000
Contracted Services	-	-	5,000	-	10,000
Grants to Organizations	10,000	-	10,000	10,000	10,000
Debenture interest	-	100	100	251	300
	<u>10,000</u>	<u>800</u>	<u>35,000</u>	<u>152,827</u>	<u>155,200</u>
Net Operational Dept. Surplus (Deficit)	<u>\$ (10,000)</u>	<u>\$ (800)</u>	<u>\$ (35,000)</u>	<u>\$ (152,827)</u>	<u>\$ (155,200)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Festival & Events Department ~ 720

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Festival & events revenues	-		-	2,025	500
PNS conditional grants		10,000	-	4,148	-
Other conditional grants	4,500	1,800	-	2,400	-
	<u>4,500</u>	<u>11,800</u>	<u>-</u>	<u>8,573</u>	<u>500</u>
EXPENSES					
Salary and wages	3,500	-	5,600	953	5,600
Employee Benefits	700	-	700	161	700
Seasonal Wages	9,300	8,800	9,300	13,567	8,900
Employee Benefits Seasonal wag	1,000	800	1,200	1,096	1,100
Advertising	6,000	2,600	5,500	3,160	6,000
Operational Equip & Supplies	12,000	7,000	27,000	17,427	10,000
Program Expenditures	54,000	23,000	47,000	33,861	44,000
Grants to Organizations	35,300	26,000	35,300	41,900	35,300
	<u>121,800</u>	<u>68,200</u>	<u>131,600</u>	<u>112,125</u>	<u>111,600</u>
Net Department Surplus (Deficit)	\$ (117,300)	\$ (56,400)	\$ (131,600)	\$ (103,552)	\$ (111,100)
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	-	-	-	9,040	10,000
	<u>-</u>	<u>-</u>	<u>-</u>	<u>9,040</u>	<u>10,000</u>
Net Surplus (Deficit)	<u>\$ (117,300)</u>	<u>\$ (56,400)</u>	<u>\$ (131,600)</u>	<u>\$ (94,512)</u>	<u>\$ (101,100)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Parks and Recreation Adm Department ~ 730

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
<u>REVENUES</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>EXPENSES</u>					
Salary and wages	200,500	188,000	194,200	138,448	133,900
Employee Benefits	36,300	28,800	35,100	18,177	24,100
Seasonal Wages	-	400	25,000	5,276	-
Employee Benefits Seasonal wag	-	100	2,500	2,605	-
Meetings, Meals and Travel	800	-	-	23	1,000
Membership Dues & Fees	4,700	4,100	-	4,284	4,000
Advertising	3,300	-	-	30	3,500
Telecommunications	2,300	2,200	8,000	2,105	2,400
Office Expense		1,600	-	1,199	1,100
Legal		1,700	-	-	-
Marketing and Communications	2,500	-	-		-
Utilities	5,800	6,000	2,500	5,591	3,000
Repairs and Maintenance	4,000	3,800	4,000	3,576	3,000
Operational Equip & Supplies		-	-	86	2,500
Contracted Services	1,500	-	1,500	243	15,000
Debenture interest	100	100	100	290	3,600
	<u>261,800</u>	<u>236,800</u>	<u>272,900</u>	<u>181,933</u>	<u>197,100</u>
Net Department Surplus (Deficit)	<u>\$ (261,800)</u>	<u>\$ (236,800)</u>	<u>\$ (272,900)</u>	<u>\$ (181,933)</u>	<u>\$ (197,100)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Recreation Programs Department ~ 740

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Kings County Recreation Contrib	15,000	10,000	15,000	29,647	10,000
Program fees	15,000	5,800	20,000	15,542	16,000
Festival & events revenues	-	-	-	-	-
Facility fees & cost recoveries	12,000	4,600	12,300	11,581	11,000
Employment grants	-	3,500	-	1,619	-
PNS conditional grants	-	1,800	-	4,300	-
Other conditional grants	1,500	1,800	2,000	11,212	2,000
	<u>43,500</u>	<u>27,500</u>	<u>49,300</u>	<u>73,901</u>	<u>39,000</u>
EXPENSES					
Seasonal Wages	65,900	20,800	58,100	41,635	30,100
Employee Benefits Seasonal wag	7,600	1,800	7,000	3,614	3,900
Meetings, Meals and Travel	500	300	500	773	500
Advertising	2,000	700	2,000	1,107	2,000
Vehicle Fuel	1,000	-	1,000	1,112	1,000
Vehicle Repairs & Maintenance	2,000	300	2,000	1,017	2,000
Vehicle Insurance	600	100	400	407	-
Operational Equip & Supplies	3,100	2,600	2,200	2,568	3,500
Program Expenditures	14,100	6,300	8,600	10,872	9,600
Contracted Services	25,000	6,500	20,000	15,000	3,000
Grants to Organizations	25,000	12,400	24,400	8,500	23,600
	<u>146,800</u>	<u>51,800</u>	<u>126,200</u>	<u>86,605</u>	<u>79,200</u>
Net Department Surplus (Deficit)	<u>\$ (103,300)</u>	<u>\$ (24,300)</u>	<u>\$ (76,900)</u>	<u>\$ (12,704)</u>	<u>\$ (40,200)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Tourism Department ~ 750

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	<u>2021/22</u>	<u>2020/21</u>		<u>2019/20</u>	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Tourist Bureau revenues	8,500	100	7,500	2,832	1,500
PNS conditional grants	-	6,200	-	5,000	-
Other conditional grants	10,100	-	10,600	-	14,000
	<u>18,600</u>	<u>6,300</u>	<u>18,100</u>	<u>7,832</u>	<u>15,500</u>
EXPENSES					
Salary and wages	3,300	2,400	3,300	3,448	7,300
Employee Benefits	400	300	400	1,851	1,300
Seasonal Wages	32,000	37,000	55,700	43,816	52,300
Employee Benefits Seasonal wag	3,200	7,100	8,400	6,496	9,400
Meetings, Meals and Travel	-	-	-	312	100
Membership Dues & Fees	500	-	500	-	500
Telecommunications	2,000	1,600	2,000	1,552	1,700
Office Expense	1,000	200	1,000	277	1,100
Utilities	2,000	2,900	2,000	4,935	2,000
Repairs and Maintenance	1,000	1,400	1,000	4,311	5,000
Operational Equip & Supplies	13,000	2,300	10,600	650	4,300
Contracted Services	-	4,200	-	4,170	-
	<u>58,400</u>	<u>59,400</u>	<u>84,900</u>	<u>71,818</u>	<u>85,000</u>
Net Department Surplus (Deficit)	<u>\$ (39,800)</u>	<u>\$ (53,100)</u>	<u>\$ (66,800)</u>	<u>\$ (63,986)</u>	<u>\$ (69,500)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Library ~ 760

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	2021/22	2020/21		2019/20	
	Budget	Forecast/Act	Budget	Actual	Budget
REVENUES					
Miscellaneous				152	
Other conditional grants	5,000	5,000	5,000	5,000	5,000
	<u>5,000</u>	<u>5,000</u>	<u>5,000</u>	<u>5,152</u>	<u>5,000</u>
EXPENSES					
Salary and wages	8,400	6,300	7,900	7,128	5,300
Employee Benefits	1,600	900	1,500	344	1,000
Telecommunications	600	500	600	499	700
Office Expense	1,000	500	500	873	100
Utilities	6,600	4,500	6,600	6,472	8,100
Repairs and Maintenance	60,000	3,500	14,000	4,431	4,300
Operational Equip & Supplies	500	-	500	391	800
Contracted Services	-	-	-	468	-
Debenture interest	3,000	3,200	3,100	3,208	3,300
	<u>81,700</u>	<u>19,400</u>	<u>34,700</u>	<u>23,814</u>	<u>23,600</u>
Net Department Surplus (Deficit)	<u>\$ (76,700)</u>	<u>\$ (14,400)</u>	<u>\$ (29,700)</u>	<u>\$ (18,662)</u>	<u>\$ (18,600)</u>
Reserve Funding					
Transfer from Operating Reserves & Accumulated Surplus	46,000	-	-	-	-
	<u>46,000</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net Surplus (Deficit)	<u>\$ (30,700)</u>	<u>\$ (14,400)</u>	<u>\$ (29,700)</u>	<u>\$ (18,662)</u>	<u>\$ (18,600)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Museum & Historical ~ 770

	<u>2021/22</u> Budget	<u>2020/21</u> Forecast/Act Budget		<u>2019/20</u> Actual Budget	
<u>EXPENSES</u>					
Grants to Organizations	10,000	10,000	10,000	10,000	10,000
	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>
Net Department Surplus (Deficit)	<u>\$ (10,000)</u>	<u>\$ (10,000)</u>	<u>\$ (10,000)</u>	<u>\$ (10,000)</u>	<u>\$ (10,000)</u>

Town of Wolfville
2021/22 Draft Operating Budget - V4
Partner Contributions ~ 840

Changed from V1 to V2
 Changed V2 to V3
 Changed V3 to V4

	2021/22	2020/21		2019/20	
	Budget	Forecast/Act	Budget	Actual	Budget
EXPENSES					
<u>Local partners</u>					
Grant to WBDC	100,000	30,000	100,000	100,000	100,000
<u>Regional partners</u>					
Regional Solid Waste	512,600	505,800	509,600	542,931	520,200
Transit services	217,000	174,900	172,900	168,317	152,700
Valley Community Fibre	2,000	2,000	2,000	(3,202)	1,500
Regional Development	-	-	-	-	-
Kings Region -cooperative Initiatives	30,000	15,800	20,800	9,349	25,800
<u>Provincial partners</u>					
Annapolis Valley Regional Libra	30,300	25,000	25,000	24,320	25,000
Education	722,000	724,400	736,800	763,704	763,900
Corrections	82,000	81,700	82,000	81,976	82,000
Regional Housing Authority	50,000	53,000	40,000	50,786	40,000
Assessment services	78,000	77,300	78,000	76,732	77,000
	<u>1,823,900</u>	<u>1,689,900</u>	<u>1,767,100</u>	<u>1,814,913</u>	<u>1,788,100</u>
Net Department Surplus (Deficit)	<u>\$ (1,823,900)</u>	<u>\$ (1,689,900)</u>	<u>\$ (1,767,100)</u>	<u>\$ (1,814,913)</u>	<u>\$ (1,788,100)</u>

NOTE: Increased Transit Costs to be offset by use of COVID Safe Reopening Grant Funds

**Town of Wolfville
2021/22 Ten Year Capital Investment Plan V4
Fiscal 2021/22 to 2030/31**

	BUDGET FOCUS									
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	<u>2021/22</u>	<u>2022/23</u>	<u>2023/24</u>	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>	<u>2030/31</u>
Information Technology										
Servers	-	-	-	-	-	15,000	-	-	-	-
Other IT Upgrades										
Video/Audio improvements to Chambers	15,000									
Total Other	15,000	-	-	-	-	-	-	-	-	-
Information Technology	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ -
Municipal Buildings										
Town Hall Civic Complex										
New or Major Renovated Facility		-	-		50,000	50,000	-	2,100,000		
Community Development/Public Works										
Accessibility/Reno upgrade - cfwd	700,000									
Dykeland Facility - Yard Upgrades Salt Shed & Parks Shed	430,000									
Fire Hall										
New Facility			-	25,000	50,000		2,500,000	-		
RCMP Detachment										
Library										
New Facility	75,000	50,000	50,000			0	2,362,500			
Total Municipal Buildings	\$ 1,205,000	\$ 50,000	\$ 50,000	\$ 25,000	\$ 100,000	\$ 2,412,500	\$ 2,500,000	\$ 2,100,000	\$ -	\$ -
Protective Services										
Fire Department										
Trucks										
Aerial Ladder Truck				1,350,000	-					
Pumper 1 E-One Cyclone										
Ford 4*4 Utility Vehicle										
Pumper 3 E-One Cyclone			800,000							
Tanker 6 Int'l Pumper/Tanker										500,000
Rescue 4 Pumper Rescue								750,000		
Ford Haz Matt vehicle									120,000	
Fire Trucks	-	-	800,000	1,350,000	-	-	-	750,000	120,000	500,000

Accessibility
Deadline

changes after Nov COW Draft

**Town of Wolfville
2021/22 Ten Year Capital Investment Plan V4
Fiscal 2021/22 to 2030/31**

changes after Nov COW Draft

Accessibility

Deadline

Transportation Infrastructure

includes active transport corridors, street, sidewalk, sanitary & storm sewer where applicable

		BUDGET FOCUS									
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
		<u>2021/22</u>	<u>2022/23</u>	<u>2023/24</u>	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>	<u>2030/31</u>
Earncliffe Ave. - civic 16 to end	150 m			-	600,000						
Earncliffe Ave. Main to civic 16	180 m		-	720,000							
Gaspereau - civic 128 to Fowler	170 m									-	-
Gaspereau - civic 94 to civic 128	180 m								-		720,000
Highland - Prospect to Catherine Ct	405m	\$ 1,620,000									
Highland - Catherine Ct to Skyway	330 m		1,320,000								
Maple Ave - civic 43 to Civic 83	230 m										
Maple Ave - Main to civic 19	210 m						630,000				
Maple Ave -civic 19 to civic 43	210 m									630,000	
Maple Ave -civic 83 to end	250 m										
Pleasant - Huron to Orchard	240 m								960,000		
Pleasant - Sherwood to Huron	180 m				540,000						
University - civic 18 to Crowell Dr	200 m									800,000	
University - Main to civic 18	200 m							800,000			
Victoria - Main to King	170 m			680,000							
Westwood - Main to Irving Centre	350 m										
Wickwire - Little to Beckwith	300 m						1,200,000				
Parking lots ~ Dykeland/Elm											
Guard Rail - Orchard Ave		40,000									
In House - Project Mgt position		-	-	-	-	-	-	-	-	-	-
Engineering - design work year in advance		66,000	70,000	57,000		91,500	40,000	48,000	71,500	36,000	118,500
		1,726,000	1,390,000	1,457,000	1,140,000	91,500	1,870,000	848,000	1,031,500	1,466,000	838,500
Land Acquisitions/Disposals											
		-	-	-	-	-	-	-	-	-	-
Streets, Sidewalks, Parking Lots		1,726,000	1,390,000	1,457,000	1,140,000	91,500	1,870,000	848,000	1,031,500	1,466,000	838,500

**Town of Wolfville
2021/22 Ten Year Capital Investment Plan V4
Fiscal 2021/22 to 2030/31**

		BUDGET FOCUS									
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
		<u>2021/22</u>	<u>2022/23</u>	<u>2023/24</u>	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>	<u>2030/31</u>
	changes after Nov COW Draft									Accessibility	
										Deadline	
Other Transportation											
	Decorative Light Posts - to Willow, & Up Gaspereau	100,000	235,000								
	Wayfinding - might be op	50,000									
	Flood Risk Mitigation - partial cfwd			50,000	1,000,000			-			
	Generator replacements - Town Hall Main Lift Station		80,000								80,000
	Crosswalks										
	Upgrades, eg. RRB/accessibility	80,000									
	Storm Water Mgt Plan										
		230,000	315,000	50,000	1,000,000	-	-	-	-	-	80,000
	Other Transportation										
	TOTAL TRANSPORTATION	\$ 2,076,000	\$ 2,266,500	\$ 1,937,000	\$ 2,305,000	\$ 279,500	\$ 2,045,000	\$ 1,143,000	\$ 1,351,500	\$ 1,691,000	\$ 1,368,500
Environmental Health Services											
	Storm Water Management										
	included in Street infrastructure above										
	Storm Water System	-	-	-	-	-	-	-	-	-	-
	Sewage Treatment/Collection										
	Sewer Treatment										
	Treatment plant expansion	-			-	2,500,000					
	Flood Mitigation @ STP		50,000	400,000							80,000
	Generator - STP										
		-	50,000	400,000	-	2,500,000	-	-	-	-	80,000
	Sanitary Sewer Collection										
	included in Street infrastructure above										
	Condition Assessment - video sewer lines	75,000									
		75,000	-	-	-	-	-	-	-	-	-
	TOTAL Environmental Health Services	\$ 75,000	\$ 50,000	\$ 400,000	\$ -	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	\$ 80,000

**Town of Wolfville
2021/22 Ten Year Capital Investment Plan V4
Fiscal 2021/22 to 2030/31**

	BUDGET FOCUS									
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	<u>2021/22</u>	<u>2022/23</u>	<u>2023/24</u>	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>	<u>2030/31</u>
Community Infrastructure										
Infrastructure										
<u>West End Gateway</u>										
Clock Park Lighting										
Old Burial Ground - Entrance Pathway/Seating	-									
<u>East End Gateway</u>										
Replace VIC - partial cfwd	600,000									
Other Gateway Upgrades - sidewalk/street lighting	340,000	250,000								
Public Art Project	28,000									
Nature Preserve - dam upgrade	50,000	-	-	400,000	400,000					
<u>West End Parkland & Trail</u>	10,000									
Trail system neighborhood	-	20,000	30,000	10,000						
neighborhood	-	150,000								
<u>Reservoir Park</u>										
Washroom/Change Rooms	-	100,000								
Trails and bike Skills Park	20,000									
Main walking trails, steps into large pond,	-									
Paving of parking Lot	20,000									
<u>Rec Centre</u>										
Add two pickleball courts	145,000									
<u>Farmers Market - open space enhancements</u>										
Parking Lot - Dykeland/Elm cul de sac	-	175,000								
Pond & Park area			100,000							
<u>Basinview</u>										
Community Engagement & Design	7,500									
Park Build		100,000								
Allow for Future Park Development					-	100,000	100,000	100,000	100,000	100,000
	\$ 1,220,500	\$ 795,000	\$ 130,000	\$ 410,000	\$ 400,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
GRAND TOTAL ALL PROJECTS	\$ 4,641,500	\$ 3,211,500	\$ 3,337,000	\$ 4,110,000	\$ 3,299,500	\$ 4,592,500	\$ 3,763,000	\$ 4,321,500	\$ 1,931,000	\$ 2,068,500
								\$ 39,531,500		\$ 35,276,000

Accessibility
Deadline

Town of Wolfville
Capital Budget
2021/22 Funding Summary

PROJECT	Total Budget Cost	Internal Sources			External Sources				Town Water Utility
		Current & Past Years Budget		Future Years Budget	Fed Grant Gas Tax	Energy Grants	Fed/Prov other	Other	
		Capital Reserves	Operating Reserves	Long Term Debt					
Information Technology									
Infrastructure Upgrades	15,000	15,000							-
Municipal Buildings									
Dykeland Facility - Pwks/Community Dev	700,000	500,000		200,000					
Dykeland Facility - Salt & Parks shed/storage	430,000	180,000		250,000					
Library	75,000	-	75,000						
Fire Services									
Equipment Upgrades	50,000	50,000							
Vehicles	-								
Public Works Equipment									
Vehicle/Equipment replacement	120,000	80,000							40,000
Street reconstruction projects	1,726,000	270,750	40,000	204,750	810,000		-		400,500
Other	230,000	40,000	90,000	70,000			30,000		
Environmental Health Services									
Sewage Treatment	-	-		-	-				
Sewage Collection	75,000	75,000							
Storm Water Management									
Community Services									
Replace VIC	600,000	-		400,000			200,000		
Other East End Gateway	340,000	226,667					113,333		
Public Art	28,000	28,000							
Nature Preserve	50,000	-	50,000						
West End Park & Trails	10,000	-	10,000						
Reservoir Park	40,000	20,000	20,000						
Rec Centre - pickleball	145,000	97,000					43,000	5,000	
Farmers Market/Dykeland - Parking Lot	-	-							
Basin Drive Neighborhood Park	7,500	-	7,500						
Totals	\$ 4,641,500	\$ 1,582,417	\$ 292,500	\$ 1,124,750	\$ 810,000	\$ -	\$ 386,333	\$ 5,000	\$ 440,500

Town of Wolfville
Capital Budget
2022/23 Funding Summary

PROJECT	Total Budget Cost	Internal Sources			External Sources				Town Water Utility
		Current & Past Years Budget		Future Years Budget	Fed Grant Gas Tax	Energy Grants	Fed/Prov other	Other	
		Capital Reserves	Operating Reserves	Long Term Debt					
Information Technology									
Infrastructure Upgrades	-	-						-	
Municipal Buildings	50,000	-	50,000						
Fire Services									
Equipment Upgrades	50,000	50,000							
Vehicles	-	-		-					
Public Works Equipment									
Vehicle/Equipment replacement	561,500	477,300						84,200	
Street reconstruction projects	1,390,000	270,000	-	270,000	520,000		-		330,000
Other	315,000	-		240,000			75,000		
Environmental Health Services									
Sewage Treatment	50,000	-	50,000				-		
Sewage Collection	-	-							
Storm Water Management									
Community Services	795,000	221,000	40,000	451,000			83,000		
Totals	<u>\$ 3,211,500</u>	<u>\$ 1,018,300</u>	<u>\$ 140,000</u>	<u>\$ 961,000</u>	<u>\$ 520,000</u>	<u>\$ -</u>	<u>\$ 158,000</u>	<u>\$ 84,200</u>	<u>\$ 330,000</u>

**Town of Wolfville
Capital Budget
2023/24 Funding Summary**

PROJECT	Total Budget Cost	Internal Sources			External Sources				Town Water Utility
		Current & Past Years Budget		Future Years Budget	Fed Grant Gas Tax	Energy Grants	Fed/Prov other	Other	
		Capital Reserves	Operating Reserves	Long Term Debt					
Information Technology									
Infrastructure Upgrades	-	-						-	
Municipal Buildings	50,000	50,000							
Fire Services									
Equipment Upgrades	20,000	20,000							
Vehicles	800,000	800,000							
Public Works Equipment									
Vehicle/Equipment replacement	430,000	365,500						64,500	
Street reconstruction projects	1,457,000	482,500		482,500	322,000		-		170,000
Other	50,000	-	50,000						
Environmental Health Services									
Sewage Treatment	400,000	-		400,000					
Sewage Collection	-	-							
Storm Water Management									
Community Services	130,000	-	130,000						
Totals	<u>\$ 3,337,000</u>	<u>\$ 1,718,000</u>	<u>\$ 180,000</u>	<u>\$ 882,500</u>	<u>\$ 322,000</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 64,500</u>	<u>\$ 170,000</u>

**Town of Wolfville
Water Utility
2021/22 Draft Operating Budget V4**

	2020/21		2021/22	2022/23	2023/24	2024/25
	Forecast	Budget	Budget	Three Year Budget Projection		
Operating Revenue: Dept 950						
Metered Sales	693,200	721,200	700,000	721,200	721,200	721,200
Fire Protection Charges	396,000	396,000	396,000	396,000	396,000	396,000
Sprinkler Service	10,800	8,900	10,800	10,800	10,800	10,800
Other	16,400	4,500	15,000	15,000	15,000	15,000
Job Cost Billings	3,000	12,000	3,000	6,000	6,000	6,000
Interest on Arrears	1,300	1,800	3,000	3,000	3,000	3,000
Investment Income	5,200	12,000	5,500	6,000	6,500	6,500
	1,125,900	1,156,400	1,133,300	1,158,000	1,158,500	1,158,500
Operating Expenditures:						
Power & Pumping 962						
Salary and wages	8,700	11,800	12,000	12,200	12,400	12,600
Employee Benefits	1,600	2,400	2,400	2,400	2,500	2,500
Utilities	83,500	91,000	85,000	86,700	88,400	90,200
Operational equipment & supplies	4,000	8,000	8,000	8,000	8,000	8,000
Contracted Service	300	16,000	16,000	8,000	8,000	8,000
	98,100	129,200	123,400	117,300	119,300	121,300
Treatment 964						
Salary and wages	17,200	15,700	17,500	17,900	18,300	18,800
Employee benefits	3,000	3,200	3,500	3,600	3,700	3,800
Professional Development						
Utilities	6,000	6,500	6,500	6,700	6,900	7,100
Repairs & maintenance - Bldg	-	2,400	2,400	1,000	1,000	1,000
Operational equipment & supplies	55,100	50,000	60,000	60,600	61,200	61,800
Equipment Maintenance	-					
Contracted Service	16,900	17,800	18,000	18,200	18,400	18,600
	98,200	95,600	107,900	108,000	109,500	111,100
Transmission & Distribution 966						
Wages	110,500	106,200	111,300	113,500	115,800	119,000
Employee Benefits	18,800	21,000	22,300	22,700	23,200	23,800
Meetings, Meals and Travel	200	1,000	1,000	1,000	1,000	1,000
Telecommunications	800	1,500	1,500	1,500	1,500	1,500
Vehicle Fuel	1,100	3,000	3,000	3,000	3,000	3,000
Vehicle Repairs & Maintenance	18,800	14,400	14,400	14,400	14,400	14,400
Vehicle Insurance	600	400	400	400	400	400
Operational equipment & supplies	118,500	71,000	80,000	80,000	80,000	80,000
Equipment Maintenance	2,000	5,000	5,000	5,000	5,000	5,000
Contracted Service	26,000	30,000	30,000	30,300	30,600	30,900
	297,300	253,500	268,900	271,800	274,900	279,000
Administration And General 970						
Salary/wages	148,000	145,000	149,900	153,600	157,400	161,300
Employee Benefits	29,400	29,000	30,000	30,700	31,500	32,300
Meetings, Meals & Travel	100	400	400	400	400	400
Professional development	-	5,000	5,000	5,000	5,000	5,000
Membership dues & fess	500	500	500	500	500	500
Advertising	-	200	200	200	200	200
Office expense	31,500	34,000	34,000	34,300	34,600	34,900
Legal	-	300	300	300	300	300
Insurance	13,300	10,500	10,500	10,600	10,700	10,800
Audit	6,000	6,000	6,000	6,000	6,000	6,000
Miscellaneous	-					
Contracted services	20,000	20,000	30,000	20,000	20,000	20,000
Doubtful accounts allowance	1,000	1,000	1,000	1,000	1,000	1,000
	249,800	251,900	267,800	262,600	267,600	272,700
Depreciation	160,000	160,000	160,000	160,000	160,000	160,000
Property Taxes	53,200	56,500	53,700	54,800	55,900	57,000
Operating Expense total	956,600	946,700	981,700	974,500	987,200	1,001,100
NET OPERATING REVENUE:	169,300	209,700	151,600	183,500	171,300	157,400

**Town of Wolfville
Water Utility
2021/22 Draft Operating Budget V4**

	2020/21		2021/22	2022/23	2023/24	2024/25
	Forecast	Budget	Budget	Three Year Budget Projection		
Non Operating Expenditures:						
Debenture Interest	20,500	20,500	18,800	18,000	17,200	16,300
Debenture Principle	80,400	80,400	37,000	37,000	37,000	37,000
Future debt repymts	-	-	-	9,200	35,100	72,500
Other Debt Charges	1,000	500	500	500	500	500
Capital From Revenue	20,000	45,000	70,000	70,000	70,000	-
Dividend to Town	50,000	50,000	50,000	50,000	50,000	50,000
	<u>171,900</u>	<u>196,400</u>	<u>176,300</u>	<u>184,700</u>	<u>209,800</u>	<u>176,300</u>
Net Surplus (Deficit)	<u>\$ (2,600)</u>	<u>\$ 13,300</u>	<u>\$ (24,700)</u>	<u>\$ (1,200)</u>	<u>\$ (38,500)</u>	<u>\$ (18,900)</u>
Accumulated Surplus, Op Fund, Opening	<u>\$ 584,266</u>		<u>\$ 581,666</u>	<u>\$ 376,966</u>	<u>\$ 254,366</u>	<u>\$ 215,866</u>
Transfer to Water Capital Projects			(180,000)	(121,400)	-	-
Accumulated Surplus, Op Fund, Opening	<u>581,666</u>	<u>-</u>	<u>376,966</u>	<u>254,366</u>	<u>215,866</u>	<u>196,966</u>
Capital Reserve Fund at Year End						
Water Depreciation Reserve Acct Balance	<u>\$ 239,100</u>	<u>\$ -</u>	<u>\$ 13,600</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 10,000</u>

Town of Wolfville
Water Utility -Draft Five Year Capital Plan
 Fiscal 2021/22 to 2025/26

	Year 1 <u>2021/22</u>	Year 2 <u>2022/23</u>	Year 3 <u>2023/24</u>	Year 4 <u>2024/25</u>	Year 5 <u>2025/26</u>
Equipment					
Remote Meter System	30,000	35,000			
Generator	80,000				
veh #30 - 1/2 pick up	40,000				
Total Other	150,000	35,000	-	-	-
				Ph II STP	
Collection System					
Highland - Prospect to Catherine Court	400,500		-		
Highland - Catherine Court to Skyway		330,000			
Earnscliffe - Main to civic 16			180,000		
Victoria - Main to King			170,000		
Earnscliffe - civic 16 to end				150,000	
	400,500	330,000	350,000	150,000	-
Treatment System					
<u>Transmission Line to WTP</u>					
Westwood to University Ave	315,000				
University Ave to Skyway		360,000			
Cherry Lane to Westwood			495,000		
Skyway to WTP				400,000	
	315,000	360,000	495,000	400,000	-
GRAND TOTAL ALL PROJECTS	\$ 865,500	\$ 725,000	\$ 845,000	\$ 550,000	\$ -
Funding					
Depreciation Reserve Funds - current year	160,000	160,000	160,000	150,000	
Depreciation Reserve Funds - accumulated	225,500	13,600			
Capital From Revenue	70,000	70,000	70,000	-	
Long Term Debt	230,000	360,000	615,000	400,000	-
Capital From Surplus	180,000	121,400			
	865,500	725,000	845,000	550,000	-

REQUEST FOR DECISION 012-2021

Title: Debt Guarantee - VWRM

Date: 2021-03-09

Department: Finance



SUMMARY

Debt Guarantee – Valley Waste Resource Management

Annually the Town is involved in the budget process for Valley Waste Resource Management (VWRM), including any debt guarantees that may be required in relation to the VWRM capital budget. This can involve debt related to the current year capital projects, or can relate to prior years and related debenture balloon payments.

The request before Council with this report relates to a balloon payment/refinancing of the principal outstanding on VWRM Debenture 36A-1. Part of the process for VWRM in arranging debenture financing is to have the Intermunicipal Service Agreement (IMSA) partners provide debt guarantees during the process leading up to the debenture issue.

This is a housekeeping matter that involves required paperwork related to a debenture previously approved by all the partners. VWRM debenture 36A-1 was first dealt with by Wolfville Council by way of RFD 049-2015.

DRAFT MOTION:

That Council guarantees a share of the Valley Waste Resource Management Authority's February Temporary Borrowing Resolution/Debenture Refinance 36A-1 (in the amount of \$462,731), with Wolfville's share being 8.31% or \$38,453 as per attached loan guarantee form.

REQUEST FOR DECISION 012-2021

Title: Debt Guarantee - VWRM

Date: 2021-03-09

Department: Finance



1) CAO COMMENTS

The CAO supports the recommendations of staff.

2) LEGISLATIVE AUTHORITY

- Municipal Government Act - Section 88
- VWRM IMSA

3) STAFF RECOMMENDATION

- That Council approve the loan guarantee requested by VWRM to address the balloon payment refinance requirement of debenture 36A-1.

4) REFERENCES AND ATTACHMENTS

- Standard (new) loan guarantee resolution provided by VWRM (attached)
- VWRM TBR – Refinance debenture 36A-1, including schedule A showing breakdown of guarantees, and schedule B noting the Capital Budget items originally funded by way of debt (attached)
- RFD 049-2015 Debt Guarantee (July 2015)

5) DISCUSSION

Similar to the Town, VWRM must go through the process required to access debenture funding for its capital program. As one of the IMSA parties, Wolfville must guarantee its share of any long term borrowings of VWRM. This paperwork deals with the documentation needed to ensure the TBR can be approved by the Minister. The VWRM Board approved this refinance at their Feb. 17th meeting.

The breakdown of guarantees by the IMSA group is:

MUNICIPAL PARTNER	GUARANTEE PERCENTAGE	GUARANTEE AMOUNT
Municipality of the County of Kings	74.56%	345,012.00
Town of Kentville	10.05%	46,504.00
Town of Wolfville	8.31%	38,453.00
Town of Berwick	3.53%	16,335.00
Town of Middleton	2.50%	11,568.00
Town of Annapolis Royal	1.05%	4,859.00
Total Capital Requirements for Borrowing Resolution	100%	462,731.00

REQUEST FOR DECISION 012-2021

Title: Debt Guarantee - VWRM

Date: 2021-03-09

Department: Finance



6) FINANCIAL IMPLICATIONS

There is no immediate budget impact to the Town as the annual budget of VWRM takes into account debenture repayments.

7) REFERENCES TO COUNCIL STRATEGIC PLAN AND TOWN REPORTS

None provided for this RFD.

8) COMMUNICATION REQUIREMENTS

Once approved guarantee is signed, advise VWRM staff of Councils decision and provide duly signed documentation to VWRM.

9) ALTERNATIVES

Not provide the guarantee. This option would require VWRM to seek a different mechanism to fund its refinancing of an already approved debenture issue. Since Council has already approved their budget, not providing the guarantee is not a practical.

**VALLEY REGION SOLID WASTE-RESOURCE MANAGEMENT AUTHORITY
MUNICIPAL PARTNER GUARANTEE RESOLUTION
COUNCIL OF
Town of Wolfville**

Guarantee Share Amount: \$ 38,453.00 Purpose: Refinance 36-A-1Balloon Payment(Per Sch.B)

WHEREAS the Valley Region Solid Waste-Resource Management Authority (hereinafter referred to as the Authority) was incorporated on October 1, 2001 pursuant to Section 60 of the Municipal Government Act;

WHEREAS the Authority has determined to borrow the aggregate principal amount of Four Hundred Sixty Two Thousand, Seven Hundred and Thirty One Dollars (\$ 462,731.00) for purpose of Refinance 36-A-1Balloon Payment(Per Sch.B) ;

WHEREAS the Authority has requested the Council of the Town of Wolfville, a municipality that executed the instrument of incorporation of the Authority, to guarantee said borrowing; and,

WHEREAS pursuant to Section 88 of the Municipal Government Act, no guarantee of a borrowing by a municipality shall have effect unless the Minister of Municipal Affairs and Housing has approved of the proposed borrowing or debenture and of the proposed guarantee;

BE IT THEREFORE RESOLVED

THAT the Council of the Town of Wolfville does hereby approve the borrowing of the aggregate principal amount of Four Hundred Sixty Two Thousand, Seven Hundred and Thirty One Dollars (\$ 462,731.00) for the purpose set out above;

THAT subject to the approval of the Minister of Municipal Affairs and Housing of the borrowing by the Authority and the approval of the Minister of Municipal Affairs and Housing of the guarantee, the Council unconditionally guarantee repayment of Thirty Eight Thousand, Four Hundred and Fifty Three Dollars (\$ 38,453.00) for the purpose set out above; and

THAT upon the issue of the debentures, the Mayor and Chief Administrative Officer of the Municipality do sign the guarantee attached to each of the debentures and affix thereto the corporate seal of the Municipality.

THIS IS TO CERTIFY that the foregoing is a true copy of a resolution read and duly passed at a meeting of the Council of the Town of Wolfville held on the ____ day of _____, 2021.

GIVEN under the hands of the Clerk and under the seal of the Municipality this ____ day of _____, 2021.

Clerk

VALLEY REGION SOLID WASTE-RESOURCE MANAGEMENT AUTHORITY

TEMPORARY BORROWING RESOLUTION

Amount: \$ 462,731.00

Refinance 36-A-1, Balloon Payment

WHEREAS the Valley Region Solid Waste-Resource Management Authority (hereinafter referred to as the Authority) was incorporated on October 1, 2001 pursuant to Section 60 of the Municipal Government Act;

WHEREAS the Town of Berwick, the Town of Kentville, the Town of Middleton, the Town of Wolfville, the Town of Annapolis Royal, and the Municipality of the County of Kings entered into an inter-municipal services agreement pursuant to Section 60 of the Municipal Government Act;

WHEREAS the Authority pursuant to the inter-municipal agreement states that the body corporate shall be vested with the power to borrow money for the purpose of capital projects, including the paying or retiring of debentures, the specific amounts and descriptions of which are contained in Schedule B;

WHEREAS any borrowing and/or entering into debt obligations of the municipal body corporate must be approved by the municipal units and the Municipal Guarantee percentages and amounts for each of the six municipal parties are attached at Schedule "A"; and,

WHEREAS pursuant to Section 88 of the Municipal Government Act no money shall be borrowed by a municipality, village, committee by an inter-municipal agreement or service commission pursuant to this Act or another Act of the Legislature until the proposed borrowing and associated municipal guarantees have been approved by the Minister of Municipal Affairs and Housing;

BE IT THEREFORE RESOLVED

THAT under the authority of Section 92 of the Municipal Government Act, and subject to the approval of the Minister of Municipal Affairs and Housing, the Authority borrow a sum or sums not to exceed Four Hundred Sixty Two Thousand, Seven Hundred and Thirty One Dollars (\$ 462,731.00) for the purpose set out above;

THAT the sum be borrowed by the issue and sale of debentures of the Authority of an amount as the Authority deems necessary;

THAT pursuant to Section 92 of the Municipal Government Act, the issue of debentures be postponed and that a sum or sums not to exceed Four Hundred Sixty Two Thousand, Seven Hundred and Thirty One Dollars (\$ 462,731.00) in total be borrowed from time to time from any chartered bank or trust company doing business in Nova Scotia;

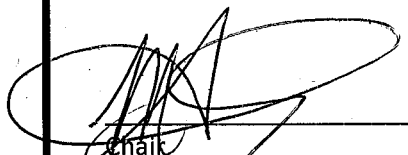
THAT the sum be borrowed for a period not exceeding Twelve (12) Months from the date of the approval of the Minister of Municipal Affairs and Housing of this resolution;

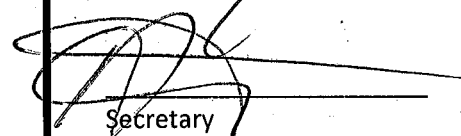
THAT the interest payable on the borrowing be paid at a rate to be agreed upon; and,

THAT the amount borrowed be repaid from the proceeds of the debentures when sold.

THIS IS TO CERTIFY that the foregoing is a true copy of a resolution read and duly passed at a meeting of the Valley Region Solid Waste-Resource Management Authority held on the 17 day of February, 2021.

GIVEN under the hands of the Chair and the Secretary and under the seal of the Authority this 17 day of FEBRUARY 2021.


Chair


Secretary

VALLEY REGION SOLID WASTE-RESOURCE MANAGEMENT AUTHORITY

TEMPORARY BORROWING RESOLUTION

Amount: \$ 462,731.00

Refinance 36-A-1, Balloon Payment

SCHEDULE "A"

MUNICIPAL GUARANTEES

MUNICIPAL PARTNER	GUARANTEE PERCENTAGE	GUARANTEE AMOUNT
Municipality of the County of Kings	74.56%	345,012.00
Town of Kentville	10.05%	46,504.00
Town of Wolfville	8.31%	38,453.00
Town of Berwick	3.53%	16,335.00
Town of Middleton	2.50%	11,568.00
Town of Annapolis Royal	1.05%	4,859.00
Total Capital Requirements for Borrowing Resolution	100%	462,731.00

VALLEY REGION SOLD WASTE-RESOURCE MANAGEMENT AUTHORITY

TEMPORARY BORROWING RESOLUTION

Amount: \$462,731.00

Refinance 36-A-1, Balloon Payment

SCHEDULE "B"
CAPITAL PROJECTS

Item	Term	\$
Weigh Scale	5	38,212.00
Wind Turbine	15	424,519.00
Total:		462,731.00

REQUEST FOR DECISION 013-2021

Title: COVID Safe Restart Agreement - Grant

Date: 2021-03-09

Department: Finance



SUMMARY

COVID Safe Restart Agreement (SRA) Grant

In response to the impact of the COVID-19 pandemic, the Government of Canada worked with provincial governments to provide support to municipalities across the country. The Province of NS and the federal government have provided \$67.5 million to support municipalities in this province.

On November 25th, the Town of Wolfville received \$384,657 towards the pressures this Town is facing due to COVID. Note these pressures have been experienced during the past year and are expected to continue into next year at a minimum. Financially we may experience issues into 2022/23. The amount received was broken into two components:

- Town operations \$322,257
- Transit related \$62,400

The use of the grant funding provided has restrictions to help ensure the funding is appropriately used to meet COVID related financial impacts, both in the current year as well as in the coming year(s).

DRAFT MOTION:

That Council approve the framework included in this RFD for use of COVID SRA funds for fiscal 2020/21 and acknowledge a portion of the funds will be placed in an Operating Reserve to be used in the next fiscal year as per the framework recommended.

REQUEST FOR DECISION 013-2021

Title: COVID Safe Restart Agreement - Grant

Date: 2021-03-09

Department: Finance



1) CAO COMMENTS

The CAO supports the recommendations of staff.

2) LEGISLATIVE AUTHORITY

As per January 22, 2021 correspondence from NS Department of Municipal Affairs and Housing.

3) STAFF RECOMMENDATION

Staff recommend the framework outlined in this report to guide the use of COVID SRA funds in the current fiscal year and continuation of that framework into next year (2021/22) at a minimum.

It should be acknowledged that some funding may remain in a Reserve account until 2022/23 to support financial impacts anticipated arising in that year.

4) REFERENCES AND ATTACHMENTS

N/A

5) DISCUSSION

Early in the COVID pandemic lockdown the Nova Scotia Federation of Municipalities (NSFM) worked with municipalities to estimate the potential financial impact of COVID on municipal operations. At that time expected negative impacts involved reduced/lost revenues in areas of Deed Transfer Tax, interest on investments, interest on customer arrears, and programming revenues, and increased operating costs for facilities (cleaning, plexi-glas, masks, etc). Each municipality provided best guess estimates to the NSFM to help frame the impact by dollar magnitude. Many of the impacts were experienced as anticipated, while others were not. In addition, a number of impacts were experienced that were not initially identified.

Ultimately, the Province of NS worked with the Government of Canada to secure \$67.5 million to support municipalities with COVID-19 *operating* costs. The outline provided by the province to the municipalities states, *"The SRA funding is to help the Town:*

- address increased operating costs resulting from a reduction in revenue due to COVID-19;
- continue to implement social distancing and infection prevention and control protocols required to operate facilities, public spaces and effectively deliver services to citizens;
- support safe transit operations and innovative solutions required to adjust to modified capacity; and
- acquire additional PPE.

REQUEST FOR DECISION 013-2021

Title: COVID Safe Restart Agreement - Grant

Date: 2021-03-09

Department: Finance



Based on a teleconference by DMAH with municipalities on January 27th (attended by the CAO and Director of Finance), as well as follow up conversations with counterparts throughout the province, staff identified a need to be clear in the manner in which the funds would be used by the Town and that such use should be clearly communicated to Council. Council approval, much like the year end audited financial statements, is sought to allow formal recognition.

The following list summarizes the intended use of the COVID SRA funds.

- Lost water/sewer revenues
 - Although not part of the initial information provided to the NSFM, it became apparent after the June 2020 Water/Sewer billing run that consumption had dropped below normal and expectations.
 - Key to this impairment in revenues were customers in the commercial sector and Acadia University. A review of 21 such accounts showed an average drop in consumption of almost 50% compared to the same period the year before.
 - Overall (all customers), the Utility had billings that were 2.7% to 5.4% less than budget each quarter.
 - Final impact will be determined after the March billing run in a few weeks.
- Lost interest on investments
 - The Bank of Canada made multiple prime rate decreases in the early days of the pandemic, impacting the return on investment of the Town's cash balances.
 - Documentation is being compiled to support this COVID related impact.
- Decreased interest on arrears during the period Council waived the requirement to charge the penalty on customer accounts. This was directly related to trying to help the community with the financial impact of COVID.
- Allowance to cover expected reductions in commercial assessments in 2021/22 and 2022/23 as PVSC starts to deal with reduced business incomes, ultimately impacting assessment valuations.

- Increased operating costs
 - The Town had to obtain appropriate Personal Protective Equipment (PPE) to ensure required services were maintained for the public. Examples here would include face masks, hand sanitizer and plexi-glas.
 - Increased signage at Town Hall to ensure public health protocols being followed.
- Costs to adapt to a virtual meeting platform for Town Meetings
 - Initially this involved the addition of Zoom to the Town's available IT infrastructure
 - It also relates to work currently underway in adapting technology in the Council Chambers to provide a higher quality virtual link to the public.

REQUEST FOR DECISION 013-2021

Title: COVID Safe Restart Agreement - Grant

Date: 2021-03-09

Department: Finance



- Additional costs of election process for things such as extra staff resources at polling stations to ensure social distancing protocols were in place. Supplies for signage to help ensure public health protocols were being followed.
- The Town's Stay Healthy Main Street Pilot Project in July of 2020 was originally conceived as a way to provide additional space within the downtown core to aid adherence to public health protocols around social distancing. Although it had aspects of active transportation/mobility elements it's focus was to provide additional space for both pedestrians and businesses who would be able to extend their services to a wider patio space.
- Six month extension of the original two year term contract (dating back to early 2019) of the Town's Climate Mitigation Coordinator. This position was originally tied to FCM grant funding with a goal of developing a Climate Action Plan for the Town by March 2021. The COVID pandemic, especially the lockdown periods, has impacted the completion of the full scope of public engagement of this initiative. An additional six months is needed to properly complete the work in order to bring a Climate Action Plan to Council September.

A summary of expected dollar is noted later in this report. It is an *estimated* magnitude of the above items, knowing that many won't be finalized until the completion of the year end financial process.

Municipalities have been informed that any funds not used in the current year are to be carried forward to future years by way of an Operating Reserve. Based on this, staff expect to bring back updates to Council to outline actual dollars used in each fiscal year. This will provide accountability and transparency to the management of the grant funds.

It is also expected that external audits may be performed on individual municipal units to verify proper use of the grant funding.

In terms of Transit portion of the funds, it is expected that approximately half of the amount received will be needed to offset the increase of the Town share of Kings Transit Authority for their 2021/22 Operating Budget. This budget is still in development so the exact amount is unknown at this time. The Transit SRA funds of \$62,400 will be carried forward to be utilized in the Town's 2021/22 budget year.

The estimated impact would be as follows for the Town share of SRA funds:

REQUEST FOR DECISION 013-2021

Title: COVID Safe Restart Agreement - Grant

Date: 2021-03-09

Department: Finance



Revenue Shortfalls

Metered Water revenues	28,000
Metered Sewer revenue	31,200
Interest on Investments	
Town Op Bank	20,000
Reserve accounts	32,000
Water Utility	8,300
Interest on Arrears	27,000

Increased Operaitng Costs

PPE	12,416	
Additional cost for election		TBD
Stay Healthy Main St project, net of prov grant		TBD
Six month extension for Climate coordiantor	33,000	
Total 2020/21 use of SRA funds	<u>191,916</u>	
Total SRA funds rece'd (non Transit)	<u>322,257</u>	
Balance to carry forward in reserve	<u>\$ 130,341</u>	

6) FINANCIAL IMPLICATIONS

For the current fiscal year, the legitimate use of COVID SRA funds will indirectly improve the Town's bottom line result for 2020/21. This will have the effect of increasing the Town's overall net surplus for the year. Any net surplus realized by the Town will go into the Town's own Unrestricted Operating Reserve to be used at Council discretion in the future. Final dollar impact will not be available until year end is complete.

7) REFERENCES TO COUNCIL STRATEGIC PLAN AND TOWN REPORTS

Nothing provided for this Report.

8) COMMUNICATION REQUIREMENTS

REQUEST FOR DECISION 013-2021

Title: COVID Safe Restart Agreement - Grant

Date: 2021-03-09

Department: Finance



Part of the Town's year end financial reporting submissions to the province will include a schedule noting the use of COVID SRA funds. Staff will also review with the Town's year end auditor the possible inclusion of a Note Disclosure in the March 31/21 Consolidated Financial Statements.

9) ALTERNATIVES

No alternatives exist at this time. Staff will continue to review possible options to expand the allowable use of funds.

REQUEST FOR DECISION 014-2021

Title: 2021 Spring Debenture Pre-Approval

Date: 2021-03-09

Department: Finance



SUMMARY

2021 Spring Debenture Pre-Approval

Annually the Municipal Finance Corporation (MFC) provides two opportunities for municipalities to participate in debenture issues to meet their long-term debt funding requirements. There is a spring and a fall debenture issue. The dollar amounts leveraged through the combined debt requirements of the province’s municipalities allow participants to obtain borrowing rates not otherwise available.

The Town of Wolfville typically participates in the spring issue to obtain long term debt funding for capital projects completed in the previous fiscal year (or completed early in current year). This is the process being followed again this year for a portion of the 2020/21 capital program.

So, the purpose of this report is to complete the process for long term borrowing approved by Council in the 2020/21 Capital Budget. **This is the last formal step required** in order to participate in the 2021 Spring Debenture Issue issued through the MFC. Depending on capital projects that do not get completed within the next month, there may be a need to participate in the fall debenture issue.

The pre-approval process sets the maximum that can be borrowed for the upcoming debenture issue. If projects are incomplete and therefore not eligible to be included, then the full maximum borrowings will not be incurred.

DRAFT MOTION:

That Council approve the attached resolution for pre-approval of participation in the Spring Debenture Issue, with the following **maximum** parameters:

Solar Panels – Public Works Building	\$160,000	10 years
Land Acquisition – East End Gateway	<u>\$208,600</u>	15 years
TOTAL BORROWING	<u>\$368,600</u>	

Maximum average interest rate set at 5.5%

REQUEST FOR DECISION 014-2021

Title: 2021 Spring Debenture Pre-Approval

Date: 2021-03-09

Department: Finance



1) CAO COMMENTS

The CAO supports the recommendations of staff.

2) LEGISLATIVE AUTHORITY

- MGA Section 66 - Power to Borrow Money
- MGA Section 88 – Ministerial Approval

3) STAFF RECOMMENDATION

That Council approve the 2021 Spring Debenture Issue funding requirements.

4) REFERENCES AND ATTACHMENTS

- MFC Pre-Approval Resolution Wording (attached)
- Borrowing Certificate – TBR #20/21-01 in amount of 4,268,600 (attached)
- Capital Asset Funding Policy
- RFD 021-2020 – Temporary Borrowing Resolution, 2019/20 Capital (May/19 Council)
- 2020/21 Capital Budget and related funding requirements

5) DISCUSSION

This is one of the steps required in order to participate in the debenture issues processed by the Nova Scotia Municipal Finance Corporation (MFC) each year. ***This is a housekeeping matter at this stage*** as it relates to the 2020/21 capital projects previously approved by Council.

As in past years, this matter is time sensitive. The MFC has set a deadline of April 16th to submit commitment letters for the spring issue.

Last year Council approved Temporary Borrowing Resolution (TBR) #20/21-01. This covered the capital projects included in the 2020/21 Capital Budget for the Town. The TBR was broken down as follows:

Wastewater Treatment Plant Expansion (full project cost, debenture will be net of grant)	\$3,500,000
Visitor Information Centre	\$400,000
Solar Panels – Public Works Building	\$160,000
Land Acquisition – East End Gateway	<u>\$208,600</u>
Total TBR	<u>\$4,268,600</u>

NOTE: The amount included for the Wastewater Treatment Plant represents the full budget estimate for that project. The actual long term borrowings will be net of Investing in Canada Infrastructure Grant Program. Expected borrowings on this project will be in the area of \$1,300,000.

REQUEST FOR DECISION 014-2021

Title: 2021 Spring Debenture Pre-Approval

Date: 2021-03-09

Department: Finance



Typically, the spring debenture covers all projects included in the TBR for the previous year, however this iteration of the process has only the two smaller projects ready for the debenture process.

- The VIC project did not occur over the last year as tender results were well over budget. The project has now been included in the 2021/22 Capital budget.
- The Waste Water Treatment Plant project was undertaken in the past year, however the Director of Public Works now indicates it will not be complete by year end. In fact the completion date may extend into June or July. Only completed projects qualify for participation in the debenture process. This will require the Town to look at the fall debenture issue to pick up the debt funding for this project.
 - This will require some additional work with the province and the bank to extend the TBR currently in place covering this project.
 - It will also require the Town to carry a significant loan balance for an additional six months beyond what would have occurred if the project was completed on schedule. The interest costs will become part of the project costs to be financed in the fall.

As expected, based on funding projections using the Towns Ten Year Capital Investment Plan (CIP), the above noted borrowings can occur without negatively impacting the Town's Debt Service Ratio, which has been in the 7.6% range (according to provincial FCI Report) for last few years. The Province has a guideline that flags a municipality when their Debt Service Ratio exceeds 15%.

As noted during annual capital budget discussions, the Town's Debt Ratio will continue to increase over the next 10 years. This relates to Council's focus to address the existing infrastructure deficit in Town and the need to fund major infrastructure projects. Based on current capital funding model assumptions, the Town will not reach a 15% Debt Ratio until sometime after 2027.

The noted maximum interest rate is the figure suggested by the MFC given current market conditions. In the last two years the final debenture terms have included interest rates lower than the annually suggested threshold. The "maximum" is simply set to ensure the Town is able to participate in the spring debenture issue without having to revise documentation. Timelines do not allow councils to revise parameters and resubmit to the Municipal Finance Corporation (MFC).

6) FINANCIAL IMPLICATIONS

The financial impact of this year's debt requirement was considered as part of the 2020/21 budget approval process. No further analysis is provided here.

REQUEST FOR DECISION 014-2021

Title: 2021 Spring Debenture Pre-Approval

Date: 2021-03-09

Department: Finance



7) REFERENCES TO COUNCIL STRATEGIC PLAN AND TOWN REPORTS

Not applicable at this stage. Refer back to Council approval of Annual Operations Plan and related budget documentation.

8) COMMUNICATION REQUIREMENTS

Staff will communicate, in the required format, all information to the NS Municipal Finance Corporation

9) ALTERNATIVES

At this stage no alternatives, as the budget plan included debt financing for the items identified

Name of Unit: Town of Wolfville

Resolution for Pre-Approval of Debenture Issuance Subject to Interest Rate

WHEREAS Section 91 of the *Municipal Government Act* provides that a municipality is authorized to borrow money, subject to the approval of the Minister of Municipal Affairs (hereinafter "the Minister);

AND WHEREAS the resolution of council to borrow for TBR 20/21-01 Various Purposes was approved by the Minister June 17, 2020;

AND WHEREAS clause 91(1)(b) of the *Municipal Government Act* authorizes the council to determine the amount and term of, and the rate of interest, on each debenture, when the interest on a debenture is to be paid, and where the principal and interest on a debenture are to be paid;

AND WHEREAS clause 91(2) of the *Municipal Government Act* states, that in accordance with the *Municipal Finance Corporation Act*, the mayor or warden and clerk or the person designated by the council, by policy, shall sell and deliver the debentures on behalf of the municipality at the price, in the sums and in the manner deemed proper;

BE IT THEREFORE RESOLVED

THAT under the authority of Section 91 of the *Municipal Government Act*, the

Town of Wolfville
(Name of Unit)

borrow by the issue and sale of debentures a sum or sums not exceeding \$ 368,600, for a period not to exceed 15 years, subject to the approval of the Minister;

THAT the sum be borrowed by the issue and sale of debentures of the

Town of Wolfville
(Name of Unit)

in the amount that the mayor or warden and clerk or the person designated by the council deems proper, provided the average interest rate of the debenture does not exceed the rate of **5.5%**;

THAT the debenture be arranged with the Nova Scotia Municipal Finance Corporation with interest to be paid semi-annually and principal payments made annually;

THAT this resolution remains in force for a period not exceeding twelve months from the passing of this resolution.

THIS IS TO CERTIFY that the foregoing is a true copy of a resolution duly passed at a meeting of the Council of the

Town of Wolfville
(Name of Unit)

held on the _____ day of _____ 20____

GIVEN under the hands of the Mayor/Warden and the Clerk of the

(Name of Unit)

this _____ day of _____ 20____

Mayor/Warden

Clerk

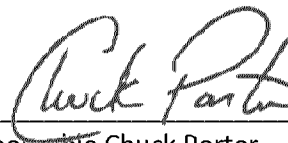
Certificate

TEMPORARY BORROWING RESOLUTION

Municipality of the Town of Wolfville

This is to certify that, pursuant to Section 88 of the *Municipal Government Act*, the resolution passed at a duly convened meeting of the Council of the Town of Wolfville on the 28th day of April, 2020 with a request to borrow a sum or sums not exceeding Four Million Two Hundred Sixty-Eight Thousand Six Hundred Dollars (\$4,268,600) for purposes and under the terms and conditions as set out within the resolution, is hereby approved.

DATED this 17th day of June, 2020.



Honourable Chuck Porter
Minister of Municipal Affairs and Housing

REQUEST FOR DECISION 015-2021

Title: Flood Risk Study Final Report
Date: 2021-03-09
Department: Planning & Development / Public Works



SUMMARY

Flood Risk Study (Final Report)

Staff have been working for the past year on a detailed Flood Risk Study for the Town, including the inclusion of the study into our new Planning documents (in effect September 2020).

The report's recommendations revolve around:

- Educating and Communicating with our residents and other stakeholders;
- Connecting the two dyke systems through Waterfront Park and 'living shorelines';
- Protecting Sewer Lift Stations and our Treatment Plant;
- Working with REMO on a Flood forecast and warning system (subject to further study with REMO and our Regional Partners);
- Monitoring and future actions (infiltration, conveyance, storage, development measures).

The full report is attached. Council is being asked to adopt the report for decision making/budget purposes.

DRAFT MOTION:

That Council adopt the recommendations of the attached Town of Wolfville Flood Risk Mitigation Plan, prepared by CBCL Consulting Engineers, to inform regulatory approaches to development, operational and capital budget decision making and other relevant matters.

REQUEST FOR DECISION 015-2021

Title: Flood Risk Study Final Report
Date: 2021-03-09
Department: Planning & Development / Public Works



1) CAO COMMENTS

The CAO agrees with the recommendation of Staff. Future budgets will better incorporate the recommendations found in this important piece of work.

2) LEGISLATIVE AUTHORITY

The Municipal Government Act provides authority for Council to study and expel funds on these matters.

Both the forthcoming Coastal Protection Act, Marsh Bodies Act and the NS Department of Agriculture will be key to the future of this work.

3) STAFF RECOMMENDATION

That Council adopt the recommendations of the attached Town of Wolfville Flood Risk Mitigation Plan, prepared by CBCL Consulting Engineers, to inform regulatory approaches to development, operational and capital budget decision making and other relevant matters.

4) REFERENCES AND ATTACHMENTS

1. Town of Wolfville Flood Risk Mitigation Plan (attached)

5) DISCUSSION

The attached report provides both a simplified explanation of the work (see appendices), an executive summary and implementation plan. Staff will provide a high-level summary of the work through a presentation at Committee of the Whole for Council.

An earlier version of this study was presented to Council by CBCL consultants – the study has just been fine-tuned since that time. This work has also been reviewed multiple times by the Environmental Sustainability Committee and Planning Advisory Committee. Other stakeholders (e.g. Dept of Agriculture) have also been engaged in the development of the study. Staff will finish providing an overview of the study and lead a discussion on the communications/education pieces with our Planning Committee on March 11, 2021. The implications of the study will continue to be worked into our budget process.

Recommendations from the study focus on:

- Educating and Communicating with our residents and other stakeholders
- Connecting the two dyke systems through Waterfront Park and living shorelines
- Protecting Sewer Lift Stations and our Treatment Plant

REQUEST FOR DECISION 015-2021

Title: Flood Risk Study Final Report
Date: 2021-03-09
Department: Planning & Development / Public Works



- Working with REMO on a Flood forecast and warning system
- Monitoring and future actions (infiltration, conveyance, storage, development measures)

It should be noted that a flood forecasting and warning system is subject to discussions with REMO and our other municipal partners readiness before any implementation would proceed.

6) FINANCIAL IMPLICATIONS

Various implications, some already outlined in the 10-year Capital Plan (estimates). Detailed design and costing will be required. Operational budget dollars have been allocated to the Education and Communication aspects (2021-22 fiscal year). Given when the final report is being received in the budget cycle, future budgets will better incorporate this study.

7) REFERENCES TO COUNCIL STRATEGIC PLAN AND TOWN REPORTS

Climate Management is a priority of Council. Adapting to Sea Level Rise and other impacts of Climate Change is essential to the resilience and sustainability of our Town.

The new [Municipal Planning Strategy](#) (September 2020) has integrated the findings of this study and outlines the importance of Climate Change to the community.

8) COMMUNICATION REQUIREMENTS

Communication and education is a key recommendation from the study. Staff are working on how to carry this out in the 2021-22 budget year. At a minimum:

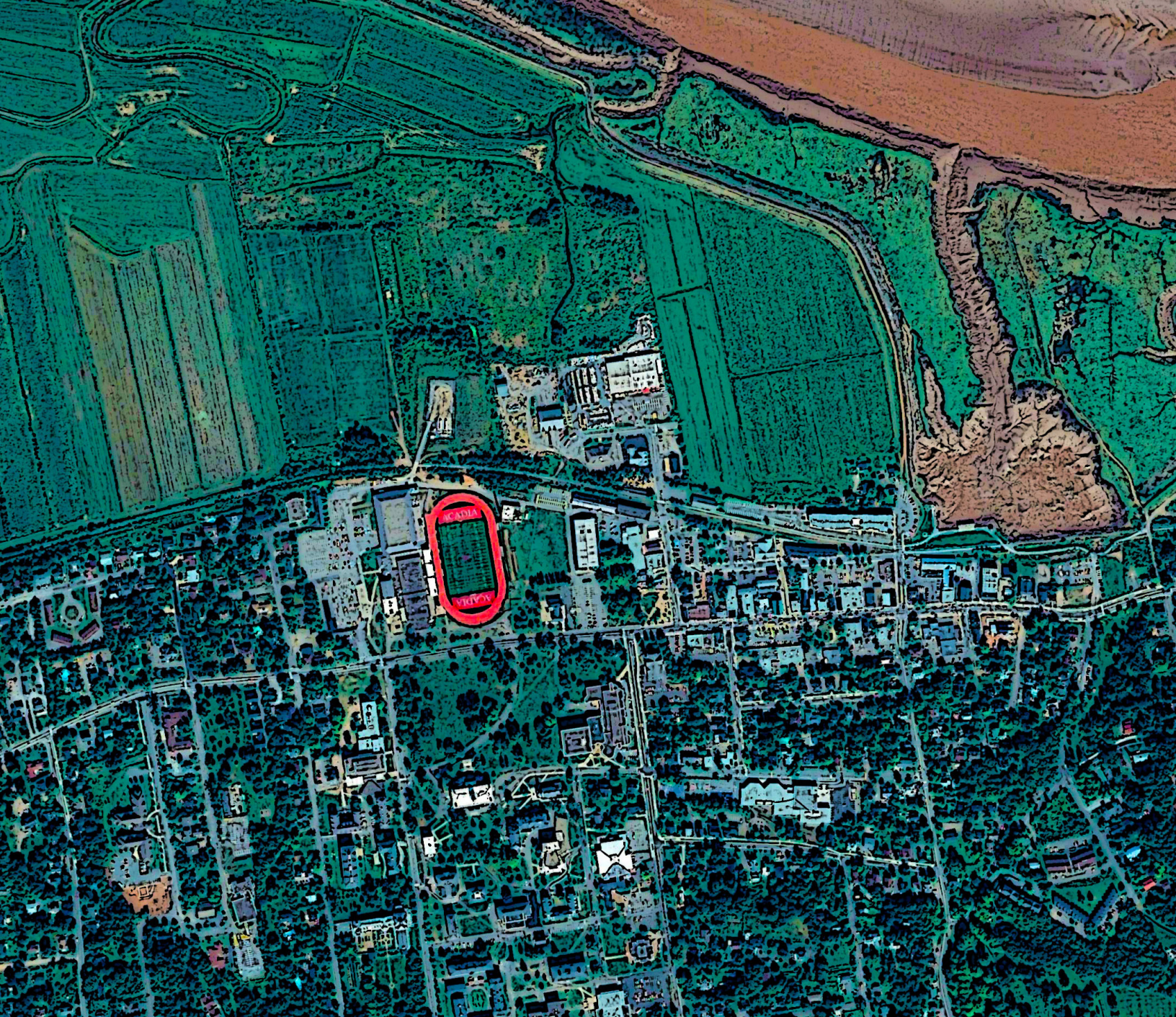
- Resident and landowner notification/education (2021-2022 fiscal after study finalized)
- Site-level stormwater guidance (2021-2022 website, mailing)
- Educational Signage along waterfront and future high-water markers (2021-22 fiscal)

A discussion is set to happen with the planning Advisory Committee, focused on the communication and education on March 11, 2021.

9) ALTERNATIVES

Council may consider alternative options to the recommended decision as follows:

- Not adopt the study;
- Adopt portions of the study and send back to staff for amendment; or
- Other action(s) as defined by Council.




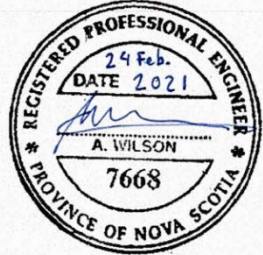


Town of Wolfville Flood Risk Mitigation Plan

Final Report



201101.00 • Final Report • February 2021

				
	Final Report	Alexander Wilson	26/02/2021	Lauren Fleet
	Draft ver.3 Report	Alexander Wilson	12/15/2020	Lauren Fleet
	Draft ver.2 Report	Alexander Wilson	08/31/2020	Lauren Fleet
	DRAFT Report	Alexander Wilson	03/07/2020	Lauren Fleet
	Issue or Revision	Reviewed By:	Date	Issued By:
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Devin Lake
Director of Planning and Development
Town of Wolfville
200 Dykeland Street
Wolfville, NS B4P 1A2

Dear Mr. Lake:

RE: Town of Wolfville Flood Risk Mitigation Plan – Final Report

CBCL Limited is pleased to provide the following final report for the Town of Wolfville Flood Risk Mitigation Plan. The report presents an analysis of flood risk within the Town of Wolfville and provides mitigation and adaptation options to reduce this risk. The report outlines the recommended actions for the Town based on an assessment of the proposed flood mitigation option presented. We thank you very much for your comments, and have endeavoured to address them fully in this final version of the report.

Please feel free to contact the undersigned at any time to discuss the report at your convenience.

Yours very truly,

CBCL Limited

Alexander Wilson, M.Eng., P.Eng.
Practice Lead – Water Resources

Project No: 201101.00

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SCOPE OF WORK

CBCL was contracted to respond to the following scope of work for this project. The table below provides a quick reference to relevant information:

Project Scope Component	Final Report Reference
Consultation with local, regional, and provincial stakeholders.	Chapter 10.1 Stakeholder Consultations
The identification and analysis of flood hazards, highlighting specific areas of vulnerability within the town.	Chapter 7 Vulnerability Assessment
The development and modelling of current and future flood scenarios.	Chapter 4 Coastal Water Level Analysis and Chapter 5 Hydrologic and Hydraulic Analysis
Determining the consequences of developed flood scenarios, in terms of who and what would be impacted, and the nature and severity of those impacts.	Chapter 7 Vulnerability Assessment
A workplan with a mitigation investment strategy, including a prioritized list of identified projects for implementation; and adaptation strategies, covering the areas of land-use planning, protection/relocation/resilience of critical infrastructure, development, personal/household safety and planning measures, and emergency response and service management.	Chapter 8 Flood Risk Mitigation Options and Chapter 9 Preliminary Evaluation of Mitigation Options
Updating current flood maps and models for the Town.	Chapter 6 Flooding Analysis and Appendix A
Recommendations for integration with provincial and regional plans.	Section 3.3: Documentation Review
A public education and engagement component, which could include a community workshop and/or the development of a public-facing communication strategy and materials.	Section 10.2: Community Education and Communication. Appendix B

Executive Summary

A Flood Risk Mitigation Plan has been completed for the Town of Wolfville. The Plan identifies current and future flood risks, including impacts of climate change, and evaluates a list of proposed solutions to mitigate flood risks to the Town. The Plan was developed through communication with both stakeholders and the Town and included a review of the Town's municipal operations and priorities, relevant reports, by-laws, guidelines and strategies.

Inland and coastal flooding within the Town of Wolfville can occur as a result of extreme rainfall events and extreme coastal water levels. Inland flooding occurs when the stormwater collection system has insufficient capacity to convey stormwater runoff downstream during extreme rainfall events resulting in overflow onto areas such as roads, municipal infrastructure and private properties. Coastal flooding occurs when extreme tides reach inland areas either through backup through the stormwater system, overtopping dykes, or between the two dyke systems.

A suite of computer models was used to assess flood risks within the Town, estimate current and future risks and evaluate potential flood mitigation options. A range of rainfall and tidal scenarios were assessed under current and future conditions to evaluate the risks of flooding.

The effects of climate change on both precipitation and sea level rise were considered when examining future conditions (i.e., the year 2100 time horizon). To date, global green-house gas concentrations have most closely tracked the Representative Concentration Pathway (RCP) 8.5, which was used to generate the higher range of climate change projections featured in the Intergovernmental Panel on Climate Change's Fifth Assessment Report. The 1-in-100-year rainfall event is projected to increase by approximately 60% by 2100 under RCP8.5 (95th percentile) according to the Western University IDF-CC Tool.

Existing and projected Future Rainfall intensities using the IDF_CC tool

Peak Rainfall Intensity	1-in-2-year (mm/hr)	1-in-100-year (mm/hr)
Existing	68.57	174.00
Future	88.45	280.12

Extreme coastal water levels include high tide, sea level rise (SLR), storm surge and tidal amplification. Regional sea level rise for the year 2100 "High" scenario is projected to be 1.58m for the Town of Wolfville.

Peak Coastal Total Water Levels for Existing and Future (2100) Conditions

Peak Water Level	1-in-2-year (m CVGD 2013)	1-in-100-year (m CVGD 2013)
Existing (2020)	7.57	7.76
Future (2100)	9.15	9.35

Implementation Plan

A flood mitigation implementation plan has been assembled as part of this study, which is summarized in the following table, according to the timeline for implementation.

	High Priority Action	Timeline	Class "D" Opinion of probable Cost*	Report Reference
Connecting the dyke system & integrating living shorelines				
	Conduct topographic survey of top of dykes and waterfront in-between	1-3 Years	~\$20k	Section 3.2 Stormwater Drainage
	Contact rail line owner to assess feasibility of acquiring land for new dyke	1-3 Years	-	Section 8.1.1 Connecting the Dyke System and Applying Living Shorelines
	Land negotiations, pending results of above discussions	1-3 Years	-	
	Hold discussions with Department of Agriculture about raising of dykes	1-3 Years	-	10.1.2 Nova Scotia Department of Agriculture
	Following the above, select option for new dyke (in mudflat or rail ROW)	1-3 Years	-	
	Tender and award detailed design for new dyke	1-3 Years	~\$50k	
	Investigate financing options for new dyke	1-3 Years	-	
	Design and tender stormwater pipe extensions to reduce erosion and support development of living shoreline	1-3 Years	~\$20k	
Raising land around Sewage Lift Stations (SLSs) and new berm around WWTF				
	Review permitting and land requirements based on WWTF berm alignment and footprint	1-3 Years	-	

	Tender and award detailed design for new berm	1-3 Years	~\$50k	
	Regrade land around SLSs	1-3 Years	~\$10k	
Flood forecasting and warning system in partnership with REMO				
	Discuss with REMO scope and integration of system in existing SCADA	1-3 Years	-	8.2 Flood Forecasting and Warning System
	Tender flood forecasting and warning system	1-3 Years	~\$50k	
	Install water level monitoring and recording system with connection to SCADA	1-3 Years	~\$50k	
Community education and communication				
	Public Education: <ul style="list-style-type: none"> - Review Summary Document - Educational Signage about Sea Level Rise - Mail out leaflets to home and building owners in flood risk areas - Prepare open house when feasible 	1-3 Years	~\$10k	10.2 Community Education and Communication
Construction of new dyke and berm				
	Tender construction of new dyke	3-5 Years	~\$600k on bank ~\$6M in mudflat	8.1 Coastal Flood Protection Measures and
	Remove and dispose of old wooden beams		~\$20k	9.2.1 Coastal Flood Protection Measures
	Tender extensions of stormwater pipe outfalls		~\$600k	
	Tender construction of new berm	3-5 Years	~\$300k	8.3.2 Wastewater Treatment Facility
	Coordinate topping of existing dykes with Department of Agriculture	3-5 Years	-	10.1.2 Nova Scotia Department of Agriculture

Future steps				
	Evaluate recorded water level data and assess Sea Level Rise projections	35-45 Years	~\$5k	-
	Design and construct (or coordinate with Department of Agriculture) additional raising of the dyke system	35-45 Years	Depends on findings	10.1.2 Nova Scotia Department of Agriculture

	Actions Subject to Further Monitoring	Class "D" Opinion of probable Cost*	Report Reference
Increasing infiltration measures			
	Identifying opportunities wherever pipes, sidewalks or parking lots are replaced or maintained	Will vary	9.2.5 Best Management Practices or Low Impact Development
Increasing storage capacity			
	Construct detention pond in Little Brook Lane area	~\$250k	8.5.2 Increasing Storage Capacity
Increasing stormwater conveyance capacity			
	Minor upgrades with street work	Will vary	
	University and Main Street (identified as largest increase in pipe diameter)	~\$300k	8.5.3 Increasing Pipe Capacity
Protecting future development			
	Monitoring latest information (data, climate science) and update plans accordingly		5.1.2 Impacts of Climate Change Rainfall Events
	Evaluate recorded water level data and assess Sea Level Rise projections		4.1.2 Climate Change Impacts on Coastal Water Levels

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Chapter 1 Introduction

The increasing risks and costs associated with flooding, extreme weather and climate change on public safety, human health, environment and infrastructure resilience are key considerations in municipal planning. Climate change and extreme weather adaptation strategies are building the foundation for informed risk mitigation investments.

The Town of Wolfville (Town) is seeking to understand the risks associated with flooding and climate change through the implementation of a Flood Risk Mitigation Plan (Plan). This Plan aligns with the priorities set out in the Municipal Planning Strategy and associated planning documents developed by the Town. The Plan has considered both current and future flooding impacts on flooding extents, herein referred to as floodlines, for planning and outlining mitigation strategies to reduce risk and improve resilience. In order to encompass the specific interests and main concerns of the Town, community stakeholders were consulted during Plan development.

Increasing community resilience to coastal flooding and extreme weather events will provide safeguards for important economic, residential, environmental, cultural, and social infrastructure and assets. The Plan identifies and addresses the current and potential future risks and impacts related to coastal flooding and large rainfall events within the Town. The mapping includes flooding impacts to residential properties and assets within the Town. The flood maps will provide decision-makers, engineers, planners, emergency responders, infrastructure owners, and property owners with the information required to make informed decisions pertaining to flood risk.

The Plan also involves a flood risk and vulnerability assessment to inform a broader flood risk mitigation and climate change adaptation plan for the Town. Incorporating projected climate change to produce future floodlines will aid in Plan design and, though the Plan is in draft form, has already supported long-term decision making. Floodline mapping which includes the effects of climate change provides community officials, engineers, asset owners, and planners information to make informed decisions around climate change adaptation initiatives for new and existing infrastructure. The Plan outlines specific measures for protecting existing infrastructure and proposed developments from the identified flooding risks within the Town.

1.1 Climate Change

In the past, Canada has warmed by approximately two times the magnitude of global warming, and this trend is projected to continue into the future (Bush & Lemmen, 2019). Over the period of 1948 to 2016 Canada has experienced a mean annual temperature increase of 1.7°C (Bush & Lemmen, 2019). Atmospheric warming is linked to changes in precipitation, sea level, inland water levels, sea ice, permafrost, and extreme weather events (Palko, 2016). Climatic variability is creating both opportunities and challenges for Canadian municipalities.

According to the Insurance Bureau of Canada (2019), flooding incurs the greatest amount of financial damage and losses. Nationally, the insured losses related to flooding totalled \$405 million between 1983 and 2008 and increased to a total of \$1.8 billion between 2009 and 2017. Flooding related costs have quadrupled in 40 years and account for 40% of all the Disaster Financial Assistance Arrangements (DFAA) expenses. Furthermore, in 2018 the damage covered by insurance from extreme weather was approximately \$2 billion (Insurance Bureau of Canada, 2019).

In the context of climate change, Nova Scotia has experienced rising average temperatures, higher intensity precipitation events, rising sea levels, and amplified coastal erosion and flooding. Overall, climate scientists predict that Atlantic Canada will experience increasingly wetter, warmer, and stormier weather in the future (Bush, 2019).

The Town of Wolfville is on the coast of the Minas Basin. The Minas Basin is part of the Bay of Fundy, which is renowned for having the largest tides in the world. The Town is set back in some areas behind protective dykes and agricultural land, which serve as a buffer from high coastal water levels. However, due to rising sea levels and the potential for larger and more frequent surge events in the future, the current height of the dyke systems may be inadequate to protect against future coastal water levels. Adaptation measures to reduce the impacts of climate change will work to protect current infrastructure and guide planning for sustainable future development.

Chapter 2 Study Approach

Flooding within the Town is a result of two independent events: high intensity rainfall and extreme coastal water levels. Temporal and spatial patterns of flooding are influenced by local hydrology, coastal water elevations, topography, hydraulic structures (e.g., stormwater system), and dyke elevations. To inform an effective Flood Mitigation Plan, a representation of the local hydrologic and hydraulic processes was created using modelling software. The models produced detailed flood maps, which were used to support risk and vulnerability assessments of Town assets and consider options for reducing flood risk.

The study approach includes:

- ▶ **Review of Available and Relevant Information:** the Town's current municipal operations and priorities, applicable reports, by-laws, past studies, GIS data, Town assets, federal and provincial data, and historical references.
- ▶ **Consultation:** engaging with stakeholders and Town staff to understand the current and potential impacts of sea level rise and flooding on infrastructure, operations, and plans, as well as discussing future development and strategic plans.
- ▶ **Hydrologic Assessment:** calculation of rainfall events with varying return periods using climate information from the Environment and Climate Change Canada Kentville climate station.
- ▶ **Coastal Water Levels Assessment:** calculation and modelling of extreme coastal water levels including high tide, sea level rise, storm surge and tidal amplification within a 2D hydrodynamic model of the Bay of Fundy.
- ▶ **Hydraulic Model Development and Analysis:** development of a hydrologic and hydraulic model of the Town stormwater drainage system, including piped and surface drainage, the dyke system and associated outfalls.
- ▶ **Flood Mapping:** flood simulation modelling, floodline delineation mapping, and identification of the potential flooding hazards that are present within the Town of Wolfville. Floodplains were modelled under various precipitation and storm surge scenarios, including the 1-in-2-year, 1-in-20-year and 1-in-100-year events under current and future climate conditions.
- ▶ **Risk and Vulnerability Assessment:** identification of important infrastructure that is currently vulnerable, or may become vulnerable, to flooding impacts.
- ▶ **Development and Assessment of Mitigation Options:** assessing the effectiveness and feasibility of flood mitigation options to protect priority infrastructure and mitigate flooding.

To ensure that the Plan is consistent with ongoing initiatives, the following relevant documents were referred to in the development of the Plan:

- ▶ The current municipal operations and priorities of the Town;
- ▶ Applicable reports, by-laws, past studies, GIS data, assets, federal and provincial data; and
- ▶ References including the Town's Stormwater Management Guide, the Nova Scotia Coastal Protection Act, the Municipal Planning Strategy and associated documents such as the Land Use By-law, Design Guidelines, and the Subdivision By-law.

Chapter 3 Background

3.1 The Town of Wolfville

The Town of Wolfville is located in Kings County, Nova Scotia, along the shore of the Minas Basin. The Minas Basin is part of the Bay of Fundy, which hosts the world's largest tides. Agricultural dykes (shown in Figure 3.1 below), built by the Acadians in the 17th century, generated rich agricultural land and protected it from coastal waters. The dykes are used by the community as walking trails and provide a scenic landscape.



Figure 3.1: Wolfville Dyke System

The Town is located along Highway 1, covering an area of approximately 6.46km². Primary land uses include Residential (49%), Agricultural (26%), and Institutional/University (12%) (Town of Wolfville Department of Community Development, 2017). The Town has a population of 4,195 people according to the 2016 Canadian Census, with 2,655 people between the ages of 15 and 65 and 1,150 people that are 65 years and older.

The Municipal Planning Strategy (MPS) that was recently adopted (approved by Council June 2020, provincial review completed and administered since September 2020) projects a 2% future increase in the population of the Town (Town of Wolfville Department of Community Development, 2017). According to the MPS, the priorities of the community include economic prosperity, social equity, climate action, and land use and design. The Town supports a variety of important infrastructure assets, including local and tourist attractions such as wineries and craft beer vendors, restaurants, cafes, parks, green spaces, and trails (e.g., the Harvest Moon Trail).

According to the MPS, Residential and Commercial Zones are the main sources of revenue for the Town. In conjunction with the university and tourism, agriculture has been a defining factor in shaping the local economy.

Sustainable planning and development are a priority of the Town. The Town has invested in developing strategies and documentation regarding land use, municipal planning, and development policies in order to regulate and plan for future growth through residential expansion and development.

3.2 Stormwater Drainage

The stormwater drainage system is owned, operated, and maintained solely by the Town of Wolfville Department of Public Works and Services or in combination with private landowners (Hatch Ltd, 2019). The stormwater drainage network is comprised of a major and minor system. The minor system consists of the underground pipe network, gutters, catch basins, roof gutters, and swales. Minor drainage systems are designed with the capacity to convey runoff from frequent storm events (e.g., 1-in-2-year, or 1-in-5-year storms) without ponding of water. The major system consists of natural water courses, streets, swales, channels and ponds. The purpose of the major system is to accommodate larger rainfall events (e.g., 1-in-100-year storm) in order to eliminate flooding risks and loss of life. As described within the MPS, stormwater has historically been managed through a series of small brooks and natural water courses.

The stormwater drainage system was designed to collect and distribute the stormwater to these natural drainage paths. The Town has fairly steep downhill slopes, which are greater than 20% in some locations. As illustrated in Figure 3.2, runoff is directed north to the Minas Basin (Town of Wolfville, 2020).

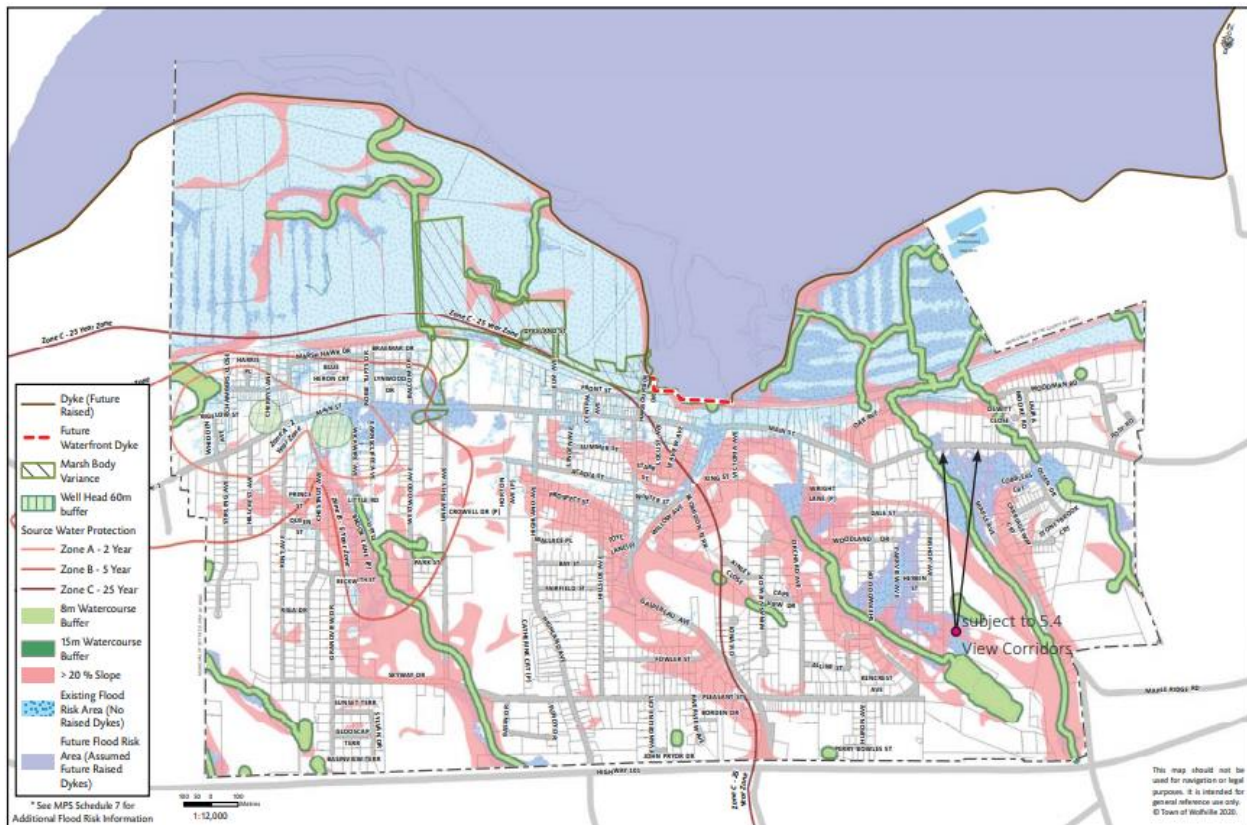


Figure 3.2: Land Use By-law: Schedule B

Stormwater is released to the Minas Basin through a series of aboiteaux along the dyke systems. Aboiteaux consist of a culvert through the dyke with a tide gate which operates on a pressure differential generated between the tide and stream. During low tide, upstream fresh water (e.g., stormwater or natural streams) drain out into the basin. During high tide the gate is closed to prevent saltwater intrusion into agricultural lands and the Town south of the dyke. However, during high tides, freshwater drainage cannot occur, which allows freshwater flows to accumulate, and increases the risk of flooding.

Coastal dykes are built to accommodate tidal fluctuations, storm surge and wave run up. The dyke systems protecting the Town of Wolfville from coastal waters vary in height, as seen in Figure 3.3, where the lowest points are highlighted. This survey dates from 2007, so the values are somewhat out of date, and will need to be surveyed again before any design work is completed.

Wolfville Harbour lies between two unattached dyke systems: the Grand Pre system to the east and the Bishop Beckwith system to the west. There are five aboiteaux in the Grand Pre system and four aboiteaux in the Bishop Beckwith system. It is understood that the upstream areas may be vulnerable to high water levels in the Minas Basin. Historically, frequent flooding has not occurred in the Town of Wolfville; however, low elevations or gaps within the dyke system (identified through a Department of Agriculture asset mapping

study), sea level rise, and climate change (e.g., more frequent and intense storm events) all elevate the risk of coastal flooding.

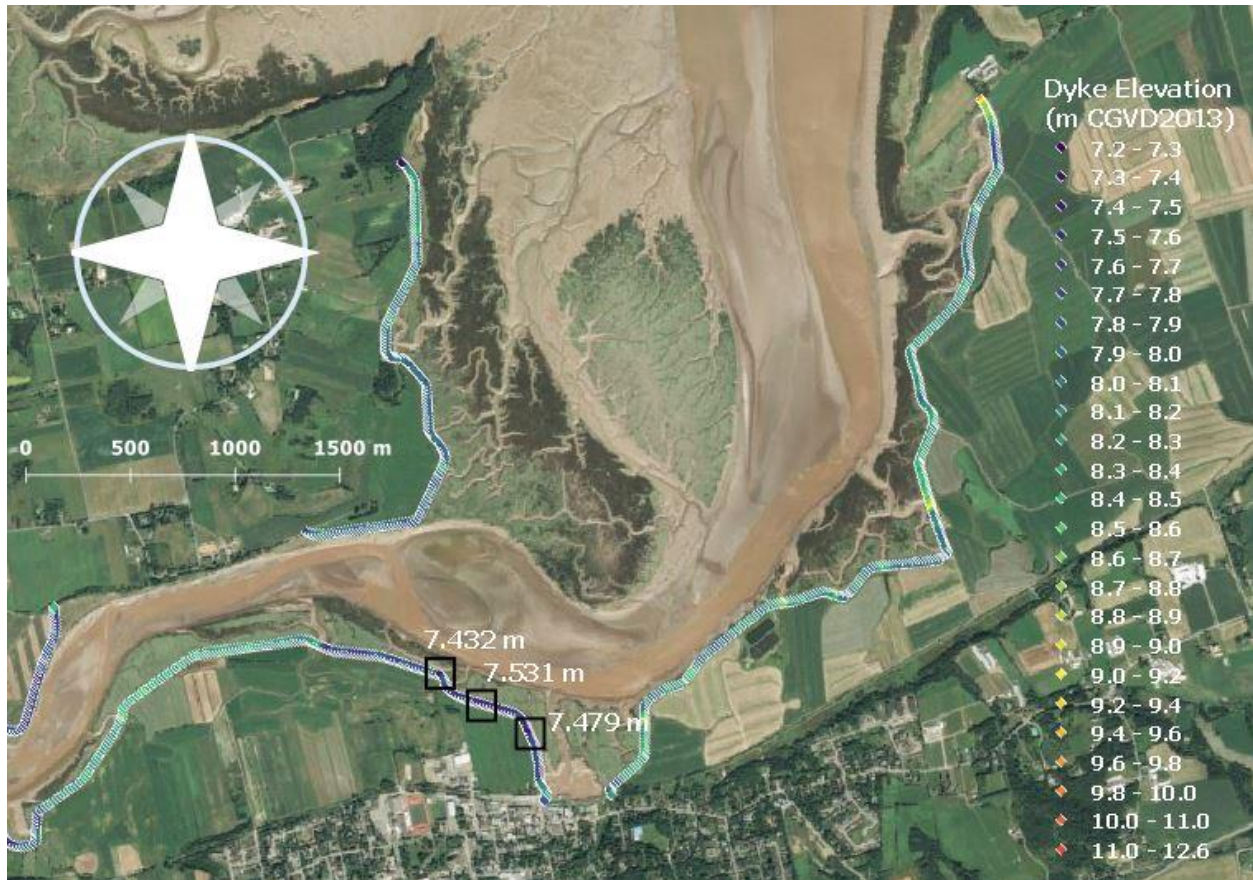


Figure 3.3: Wolfville Dyke System – Lowest Points Highlighted

3.3 Documentation Review

The Town has developed a number of planning documents which were reviewed internally to understand municipal operations, priorities, as well as planning and development. This was done to incorporate and align the Flood Risk Mitigation Plan with the planning goals and priorities of the Town.

The Town currently addresses flood risks, development requirements, and constraints through a set of policies outlined in the updated MPS and through Floodplain Development Standards in the Land Use By-laws. The MPS, land use and subdivision by-laws provided by the Town were the focus of the review.

3.3.1 Stormwater Management Design Guidelines

The Town adopted the Stormwater Management Design Guidelines (Guidelines) prepared by Hatch (2019). The purpose of the Guidelines is to outline design criteria for the stormwater drainage system, in order to achieve the following objectives:

- ▶ Prevent loss of life and protect structures and property from damage due to flood events;
- ▶ Provide safe and convenient use of streets and lot areas during and following precipitation and snow melt events;
- ▶ Adequately convey stormwater runoff from upstream sources;
- ▶ Mitigate the adverse effects of stormwater runoff, such as flooding and erosion, onto downstream properties;
- ▶ Preserve designated natural watercourses and natural wetland environments; and
- ▶ Minimize the long-term effects of development on the receiving surface waters and groundwater regimes from both a quantity and quality perspective.

The Guidelines stipulate the recommended approach for assessing the hydrology and hydraulics of the site area and outline design criteria for standard major and minor drainage systems. A requirement for a net-zero increase in runoff through development is also stipulated, and the Guidelines recommend the adoption of low impact developments¹ (LIDs) or runoff control measures as necessary. In this way, although the extent of impervious surface areas may increase as a result of development, its influence on peak flood conditions may be offset proportionally. Broadly, LIDs are techniques and technologies which work to reduce the impacts of increased runoff and stormwater pollution post urbanization. LID controls include measures that facilitate infiltration and reduce peak flows, such as permeable pavements, grass swales, rain gardens, and bio-retention cells. The flood mitigation options presented in this report are in line with these stipulations, and flood mitigation strategies are further discussed in Chapter 8 of this report.

The Guidelines address the impacts of climate change on the management and design of the stormwater drainage system. It is outlined that climate change, which includes projected sea level rise and the increased frequency and intensity of storms, shall be considered in terms of stormwater quantity and quality within the Stormwater Management Report. This may include identifying vulnerable infrastructure and implementing mitigation measures to reduce the risk of flooding. The recommended approaches in the Guidelines were considered in the Flood Risk Mitigation assessment.

¹ Low Impact Developments (LIDs) are commonly related to, or directly synonymous with, the terms stormwater Best Management Practices (BMPs) and Green Infrastructure.

3.3.2 Municipal Planning Strategy

The MPS update was initiated in 2015, and is part of a series of planning documents written in accordance with Chapter 18 of the Statutes of Nova Scotia, 1998. The updates address concepts such as climate change, floodplains, and development constraints. Information from the present report (while in draft form) was included in the updates to the MPS. A public hearing and 2nd reading have now been completed and the documents were approved by Council in June 2020. The MPS has been established as a 'living document' to adapt to the needs and priorities of the community over time.

The intent of the MPS is to guide and manage growth in line with the Town's vision for future development. The goal of the MPS is to stimulate high-quality design, sustain and develop the Core Area, embrace the history of the Town, enhance economic vitality, and promote social and environmental sustainability. The MPS also serves as the Town's Integrated Community Sustainability Plan (ICSP).

The MPS consists of policies and maps, which outline regulations and specifications regarding the intent of the MPS, and includes the Land Use By-law, Design Guidelines, and the Subdivision By-law.

Land Use policies are illustrated through the use of communication documents and maps. The maps include:

- ▶ Future Land Use
- ▶ Future Parks and Trails
- ▶ Open Space and Mobility Network
- ▶ Future Streets
- ▶ Land Use (zoning)
- ▶ Development Constraints Area Overlay
- ▶ Design Guidelines Overlay

Climate change and associated risks have been identified and incorporated in the MPS as climate actions and strategies to manage and mitigate the associated impacts. These strategies include controlling land use to sustain open spaces and protect the natural environment, development of stormwater management plans, and regulation of development. Climate actions also include undertaking adaptation and mitigation measures to build community resilience, including development requirements in flood prone areas, and establishing minimum building heights. The MPS outlines development constraints in Schedule B of the Land Use By-law.

The MPS addresses development in areas at risk of flooding through two sets of policies:

- ▶ **Part 4.2 Development Constraints** to ensure that residential institutions such as a hospital, senior citizen home, home for special care, or similar facility, or a use associated with the warehousing or production of hazardous materials are not located where flooding could pose a significant threat to the safety of the Town of Wolfville's

residents or environment. Also, that all new developments on or immediately adjacent to environmentally sensitive areas conduct environmental studies that show no negative environmental impacts related to flooding.

- ▶ **Part 4.3 Agriculture and Greenbelt** designate Agriculture (A) areas located on the Dykelands, excluding areas within the Core Commercial or Neighbourhood Designation, as per Map 1- Future Land Use Map. Within the Agriculture zone, only agricultural uses shall be permitted.

The MPS document refers to the current Flood Risk Mitigation Plan in Schedule 7, and contextualizes the mapping in the Land Use By-law. The flood delineation mapping is presented in Schedule B of the Land Use By-law document. The summary of the main findings is a stand-alone document prepared for a wider audience and includes content on sea level rise, flooding risks, typical approaches to flood mitigation, and specific measures homeowners can take to protect themselves against water intrusion within their home.

Land Use By-law

The purpose of the Land Use By-law is to establish regulations described in the MPS, in accordance with the Municipal Government Act. The By-law outlines application requirements for new developments. Part of this requirement includes a Site Grading and a Stormwater Management Plan which work to control overall stormwater drainage within the Town. General requirements may differ depending on the site zoning, which were classified as Neighbourhood, Commercial (each with Core areas), Agricultural, and University within Schedule 1.

CBCL worked with the Town planning staff to update the now adopted planning documents. The findings and recommendations of this study, which include better definitions and an Undertaking Form, have been integrated within the new planning documents.

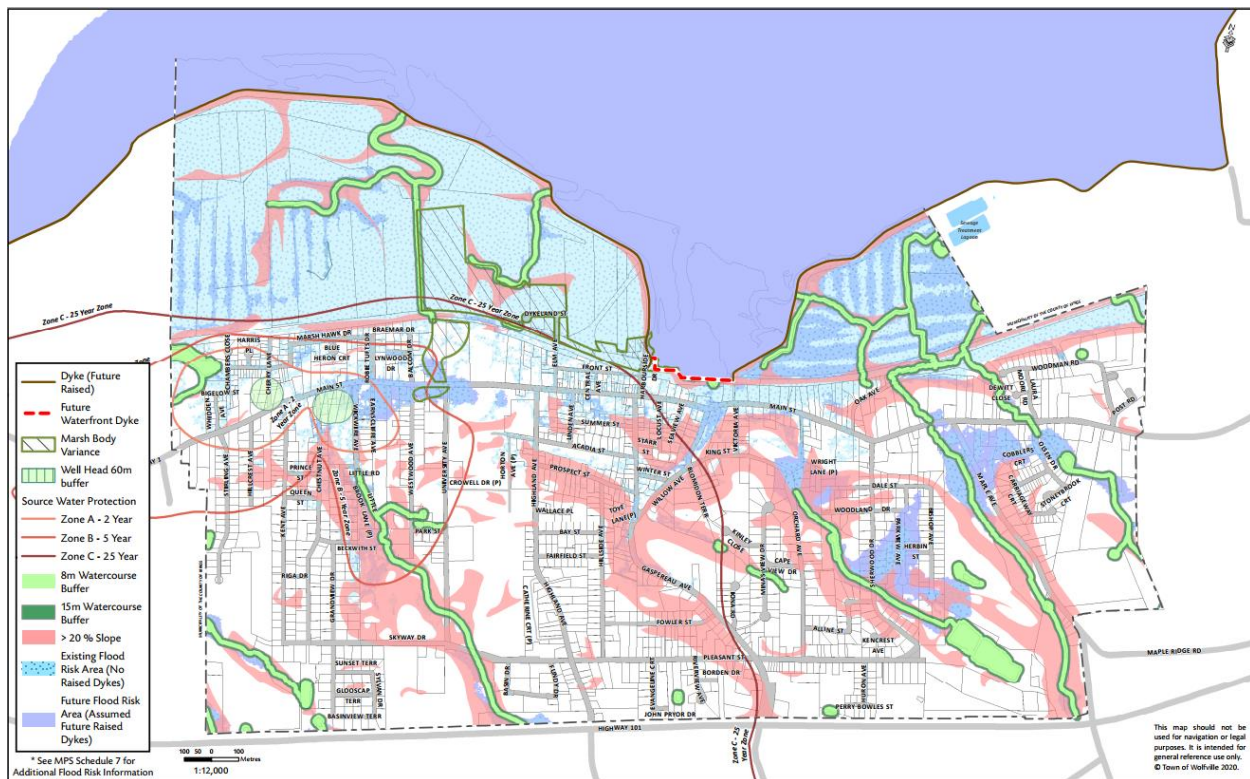


Figure 3.4: Development Constraints (Source: Town of Wolfville Land Use By-law)

Aside from the Agricultural zoning designation in the Dykeland District, flood risk mitigation is explicitly addressed under Land Use By-law Section 5.1 - Floodplain Development Standards. The By-law prohibits hospitals, seniors care facilities, special care facilities, schools, warehousing or storage of hazardous materials and essential services in the floodplains shown in Schedule “B” (Development Constraints) Overlay. Schedule “B” delineates a number of boundaries associated with development constraints. The Schedule “B” Constraints were updated as part of this project to define and delineate floodplain boundaries.

The By-law permits new development in areas within the floodplain shown on Schedule “B”, where a Floodplain Development Undertaking Form is to be signed acknowledging recognition of risks, and confirming:

- ▶ The development’s finished floor elevation is no lower than 8m geodetic (CGVD28);
- ▶ The walls and floor below 12m geodetic should be constructed to be flood tolerant; and that
- ▶ Consideration be given to placement of mechanical equipment.

The By-law also promotes the utilization of natural green spaces and features to increase stormwater infiltration. These measures are directly related to flood mitigation Best Management Practices (BMPs) as outlined in Chapter 8 of this report.

Design Guidelines

The Design Guidelines act to align future development with the priorities and plans presented within the MPS. The Guidelines follow all regulations and strategies outlined within the MPS and the Land Use By-law and relevant policies. Sustainability and resilience are guiding principles. The Guidelines address sustainable building practices in Section 3.3.4. Included are directions to accommodate climate change and increasing flood risk by minimizing impervious surfaces, incorporating green technologies (e.g., green roofs), and utilizing natural water catchment and filtration features. These design actions align with the mitigation and adaptation plans presented within this Flood Risk Mitigation Plan.

Subdivision By-laws

The Subdivision By-law applies to all subdivisions within the Town of Wolfville and outlines all requirements for development and planning of new subdivisions. The by-law follows all regulations and strategies outlined in the MPS and the Land Use By-law and relevant policies. A drainage plan must be developed as part of the application for approval. Required in the drainage plan is a detailed plan of the stormwater runoff within the proposed subdivided land, including all watercourses, channels, and floodplains for all tributary and upstream areas.

3.3.3 Nova Scotia Coastal Protection Act

The Nova Scotia Coastal Protection Act – Bill 106 (CPA) is new legislation enacted in 2019 by the Government of Nova Scotia. The Act was developed based on the increasing identification that sea level rise, coastal flooding, storm surge and coastal erosion pose significant threats to the safety of future development in coastal areas. The purpose of the Act is to protect the provincial coastal environment by preventing development and activity in locations that damage the environment by interfering with the natural dynamic of the coast and put residents and buildings at risk from sea level rise, coastal flooding, storm surges and coastal erosion.

The Act has not yet been proclaimed into law and will come into effect once regulations are approved by the Governor and Assembly. Regulations within the Act were actively being developed during the writing of this report. CBCL is currently contracted by Nova Scotia Environment to develop a “Coastal Erosion Risk Factor Assessment Standard” to identify vertical and horizontal areas of application of the regulations. Notice was given to municipalities that upcoming regulations under the Act will have an impact on development permitting. The Act has been undertaken in parallel with the Province’s Municipal Flood Line Mapping project (also developed with CBCL), which aims at producing flood mapping specifications according to standard methods and guidelines for the entire Province.

The CPA defines a ‘Coastal Protection Zone’ (CPZ) as the area of land, including land covered by water, on the coast that is lying seaward of the ordinary high-water mark and

the area in the landward direction immediately adjacent. The boundaries of the CPZ will constrain development. Delineation of the CPZ will be determined based on vertical and horizontal setbacks. The description of these setbacks has not been legislated and are subject to change.

The Act includes certain exemptions for development within the CPZ, such as agricultural activities (e.g., marsh bodies and dykes), public infrastructure, industrial and commercial activity requiring direct access to water as a functional part of the business plan, and shoreline structures placed by Lands & Forestry. Additionally, certain types of structures may be exempt from the requirement for a Community Environmental Response Facilitation Act Report as provided for under the CPA regulations.

In addition, there is a Minimum Building Elevation (MBE), that will be described in the regulations, that sets the minimum elevation of the ground onto which construction can occur. The description of the MBE is as shown in the Figure 3.5 below.

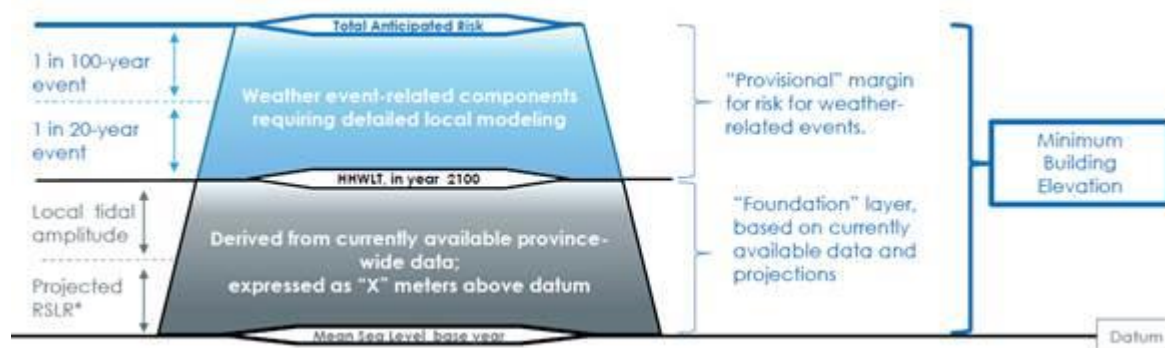


Figure 3.5: Current Description of the Minimum Building Elevation

Following the description above, using the values in the subsequent analyses, the MBE for Wolfville may be set at an approximate elevation of 9.34m CGVD2013. Discussions between the Town and NSE are currently being held.

Chapter 4 Coastal Water Level Analysis

To estimate the extreme coastal water levels influencing flooding risks, coastal water levels were broken down into several components:

- ▶ **Tide:** The local astronomical tide was assessed based on the WebTide Tidal Prediction Model (v0.7.1) from Fisheries and Oceans Canada (DFO). Tides in the Bay of Fundy are the highest in the world, with amplitudes of up to 16 metres during spring tides.
- ▶ **Storm Surge:** Storm surges are created by meteorological effects on sea level, such as wind set-up and low atmospheric pressure, and can be defined as the difference between the observed water level during a storm and the predicted astronomical tide. The local storm surge levels were derived from CBCL's local hydrodynamic model based on the extreme wind speeds. The extreme storm surge levels in Wolfville were calculated using the MIKE 21 model.
- ▶ **Wave Run-up and Overwash:** The wave run-up is the vertical distance a wave travels up the shoreline above the still water level. This was derived using the numerical model XBeach.
- ▶ **Sea-Level Rise (SLR):** Nova Scotia coastlines are experiencing SLR which is expected to accelerate due to climate change, causing increased risks of coastal erosion and flooding. As a result, extreme water level events are expected to become more common in a few decades. SLR projections from the recent scientific literature applicable to the Upper Bay of Fundy region was compiled by CBCL and used in the analysis.

Simulations were performed for the year 2100 planning horizon in combination with Annual Exceedance Probabilities (AEP) of 1% and 5%, which correspond to return periods of 100 and 20 years, respectively. The various components above are described individually in detail below, and then assembled and discussed in Section 4.1.5: *Considerations for Raising Dykes or New Dyke Construction*.

4.1.1 Extreme Wind Analysis

Wind speed and direction were obtained from the Environment Canada MSC50 offshore wind and wave model hindcast for the period 1954-2018, which contains hourly time series of wind and wave parameters at a location at the Upper Bay of Fundy (45.3°N, 64.6°W). The dataset is a state-of-the-art hindcast, wherein data computed from all existing wind and wave measurements were re-analysed and input into a 0.1-degree resolution model that

considered the effect of depth and ice cover (Swail et al. 2006). This dataset also includes hurricane wind fields. The MSC50 hindcast is developed by Oceanweather Inc. and is distributed by Environment Canada.

Figure 4.1 shows the schematization of the yearly wind climate in a wind rose diagram, where each line represents the percentage of occurrence of the different wind speeds and originating directions. As illustrated in Figure 4.1, storm events are predominantly originating from the West, with the highest peaks from the North-West.

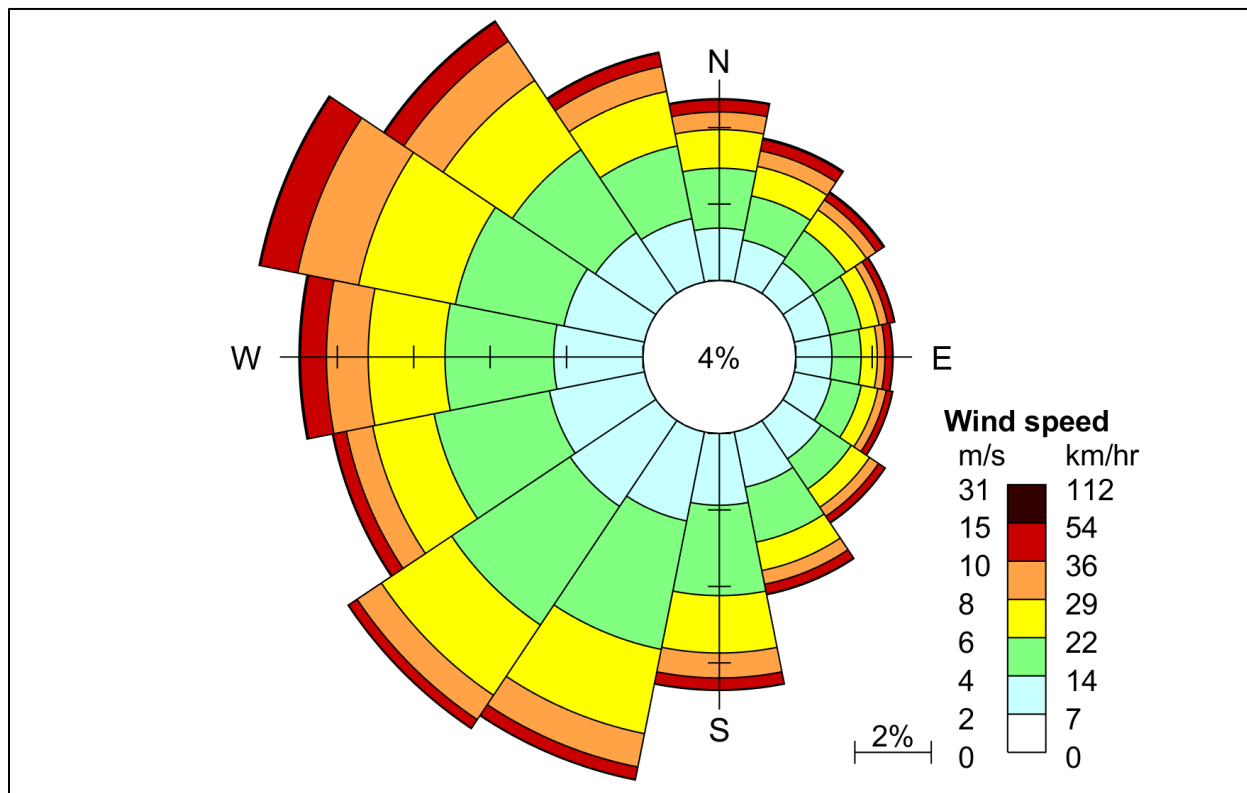


Figure 4.1: MSC50 Wind Rose (datapoint M6008430 45.3N 64.6W, 1954-2018)

Extreme value analyses were conducted on the MSC50 wind data to derive extreme wind conditions. The annual probability of occurrence of wind speed were estimated based on an analysis of storm peaks using the “Peak-Over-Threshold” method for each direction of exposure. For this project, directions of winds originating from North to East were analysed.

The probabilities derived from the wind analysis were then combined with the AEP of given tide levels. This step is important because extreme wind events do not necessarily coincide with the high tide. Since both wind and tide events are independent, the joint probability was calculated simply by multiplying the annual probability of occurrence of wind speed with the AEP of water levels. Figure 4.2 shows the different combination of wind speeds and water levels for each return period.

The joint probability analysis method can be applied to the Town of Wolfville because in the Minas Basin, extreme storm surge events and extreme waves are caused by different storms. Numerical modelling has indicated that the extreme storm surges in the area are typically caused by winds coming up the Bay of Fundy from the southwest, which pile up water into the Minas Basin. Conversely, the highest waves along the Wolfville waterfront are caused by Northeast winds, for which the fetch distance is greatest.

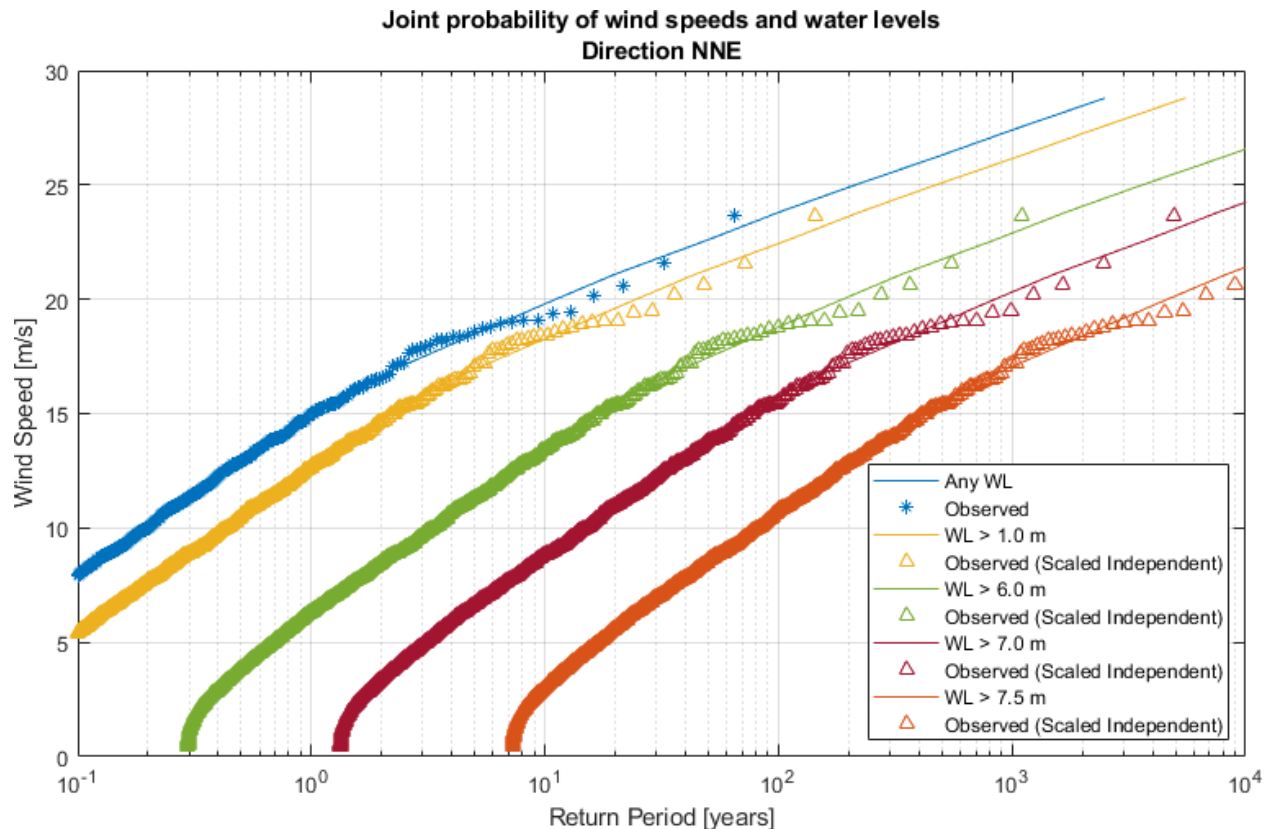


Figure 4.2: Joint Probability of Water Levels and Wind Speeds Coming from the North-Northeast

Summary of Extreme Wind Analysis

An extreme wind analysis was conducted, which included the consideration of high water levels occurring at the same time as high winds. The analysis provided more realistic values for extreme wind effects on high water levels than available in the literature.

4.1.2 Climate Change Impacts on Coastal Water Levels

Sea levels have been rising in the Maritimes since the end of the last ice age, approximately 10,000 years ago. This trend has accelerated in recent years and is expected to continue to accelerate with climate change.

Consensus Intermediate Sea Level Rise (SLR) Projections

The Intergovernmental Panel on Climate Change's Fifth Assessment Report (IPCC AR5 2013) estimated that the upper-bound Global Mean Sea Level (GMSL) rise could be in the order of 1.0m by year 2100. This projection, using process-based models, was for the RCP8.5 high-emission scenario. To derive a relative SLR, DFO then developed the online Canadian Extreme Water Level Adaptation Tool (CAN-EWLAT), based on work by James et al. (2014), which accounts for local factors. CAN-EWLAT is a science-based planning tool for climate change adaptation of coastal infrastructure related to future water-level extremes. Water level calculations were based on IPCC AR5 projections and improved upon by incorporating information on land subsidence measured with high-precision GPS instruments. It was developed to provide SLR allowances for DFO harbours across Canada. Allowances are estimates of changes in the elevation of a site that would maintain the same frequency of inundation that the site has experienced historically. Updated global estimates from the IPCC's Special Report on the Ocean and Cryosphere in a Changing Climate (SROCCC) report, (Oppenheimer et al 2019) remain generally consistent with AR5.

For the Upper Bay of Fundy, tidal expansion should be added as a SLR component. Greenberg et al. (2012) examined long-term tide gauge observations that show that the amplitude of Bay of Fundy tides has been slowly increasing. By 2100, the combination of Vertical Land Motion (VLM) and amplitude change may increase the amplitude of Bay of Fundy tides by 0.3m in the Upper Bay. They assumed a VLM component of 0.2 m/century, leaving 0.1m for tidal amplitude change.

Upper-End Projections with High Uncertainty

Recent studies tend to support higher GMSL upper-end projections based on potential rapid Greenland and West Antarctic Ice Sheet (AIS) reduction. These upper-end SLR projections (DFO Han et al. 2016, or NOAA Sweet et al. 2017) are based on probabilistic projections of the factors driving GMSL rise, which is different than the process-based model approach from IPCC AR5. NOAA's year 2100 GMSL projections range from Low (0.3m), Intermediate (1.0m), High (2.0m) to Extreme (2.5m). These projections carry higher uncertainty. The consensus values from the 2019 IPCC SROCCC report are lower, with up to 0.3m AIS contribution by 2100, in addition to AR5 RCP8.5 contributions. Given these findings, the 2014 DFO CAN-EWLAT estimates based on IPCC AR5 RCP8.5 could be considered intermediate projections. The Greenan et al. report for Canada (2018) propose to add an additional 0.65m by 2100 of GMSL rise to RCP8.5.

Selection of Scenarios

The appropriate scenario to select for a project depends on the ultimate purpose of the projection, such as for a planning time horizon or to evaluate risk tolerance of an area or infrastructure assets. The following approach, which uses two scenarios as a general planning envelope could be considered, as per NOAA 2017.

- ▶ Define an *intermediate* SLR projection for short-term and medium-term planning. We propose that this scenario be the CAN-EWLAT estimate, which would represent an intermediate projection typically close to 1m to the end of the century. This intermediate scenario may be used for defining the elevation of coastal protection structures and potentially roads, which could be built for a shorter design life and/or have built-in flexibility to allow incremental raising.
- ▶ Define an upper-bound scenario, which in the present case could be the *high or extreme* GMSL rise projection that includes AIS reduction and use it as a guide for overall risk and long-term adaptation strategy. The upper-bound scenario can be used for guiding the selection of minimum site elevations required for siting of future and potentially vulnerable permanent infrastructure.

Table 1 illustrates the expected SLR by decade for the two scenarios presented above.

Finally, the science of SLR will keep evolving with updated observations and improving model predictions. Implications for infrastructure and coastal flooding will need to be re-evaluated with periodic updates in SLR projections.

For the Wolfville study, the intermediate SLR scenario for the year 2100 was selected to be suitable in the estimation of the water levels due to climate change, with the intent of carrying out incremental raising of the dykes.

Table 1: SLR Scenarios

Relative SLR Scenario	SLR (m) by Time Horizon							
	2030	2040	2050	2060	2070	2080	2090	2100
(1) Intermediate SLR from CAN-EWLAT RCP8.5 + Bay of Fundy tidal expansion	0.12	0.19	0.29	0.39	0.50	0.64	0.78	0.93
(2) High = (1) + AIS reduction (+0.65m by 2100)	0.21	0.3	0.49	0.67	0.86	1.09	1.33	1.58

Summary of Climate Change Impacts on Coastal Water Levels

Current knowledge on SLR was reviewed. Due to the uncertainty associated with the sea level rise projections, the “Intermediate” scenario was selected, based on the CAN-EWLAT science-based planning tool, IPCC AR5 scenario.

4.1.3 Numerical Modelling Methodology

MIKE 21 Hydrodynamic Model

CBCL developed a 2D hydrodynamic model of the Bay of Fundy (Figure 4.3), which has been calibrated and validated against measured tide gauge data. For this study, this model was refined in the Minas Basin and extended to include part of the Cornwallis River and the Avon River Estuary. The model resolution near the study area was approximately 15m x 15m. The local model bathymetry was schematized based on the high-resolution Lidar mapping provided by the Town and Canadian Hydrographic Service bathymetric maps.

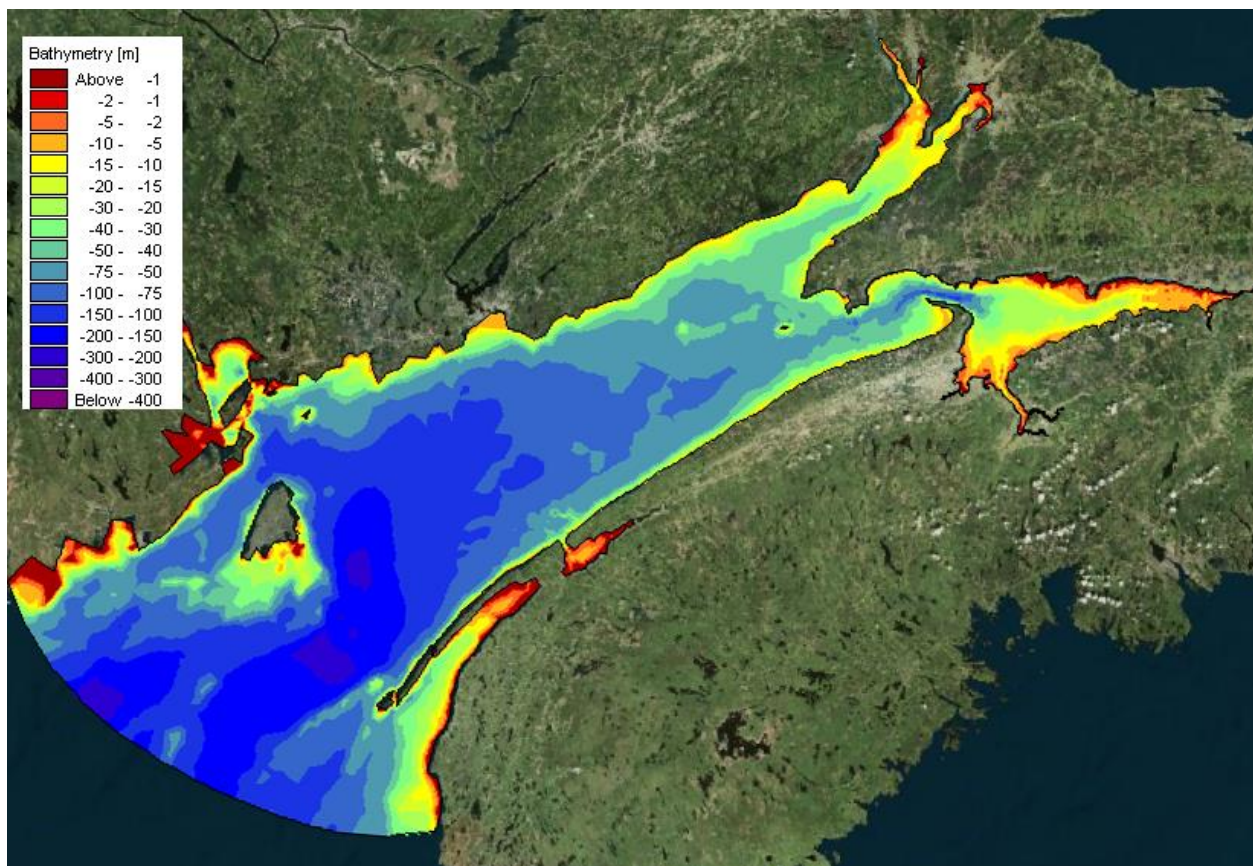


Figure 4.3: Model Domain Depths in CGVD28

The hydrodynamic model includes inputs from Webtide, water level correction due to SLR and air pressure, extreme wind speeds derived from the MSC50 dataset, and extreme discharge from the Cornwallis River derived from the regional hydrological model. The Environment Canada MSC50 offshore wind model hindcast was used to define extreme wind conditions (as noted in Section 4.1.1 above).

The model provides extreme (still) water levels along the existing dykes of Wolfville, to calculate wave run-up levels. The maximum wave run-up height above the still water level defines the expected flood level.

The full tidal model was run for two-weeks to determine the peak tidal levels near Wolfville. The outputs of the tidal model were used as the initial conditions for the surge model, which was run over a period of 12 hours. The surge model used the calculated extreme wind values combined with a low-pressure field based on Hurricane Dorian. To be conservative it was assumed that the maximum storm surge could occur at any point in the tidal cycle.

XBEACH Wave Runup Model

XBeach (Smit et al., 2010; Roelvink et al., 2017) is a powerful open-source numerical wave model, which includes the following hydrodynamic processes:

- ▶ Short wave transformation (i.e., refraction, shoaling and breaking);
- ▶ Long wave (infragravity wave) transformation (i.e., generation, propagation and dissipation);
- ▶ Wave-induced setup and unsteady currents; and
- ▶ Overtopping.

The original XBeach application (surfbeat mode), funded by the U.S. Army Corps of Engineers, was developed to assess hurricane impacts on sandy beaches. Since then, the model has been extended, applied and validated for storm impacts on urbanized coasts for the purpose of flood risk assessments, the non-hydrostatic version has been validated with laboratory experiments and field measurements to estimate overtopping.

For this project, a 1D non-hydrostatic XBeach model was developed to calculate the contribution of waves to coastal flooding. The model comprises a schematized profile based on a combination of a representative dyke cross-section and adjacent bathymetry (DEM, Lidar) provided by the Town of Wolfville (Figure 4.4). This model was used to calculate wave runup and overtopping over the dyke.

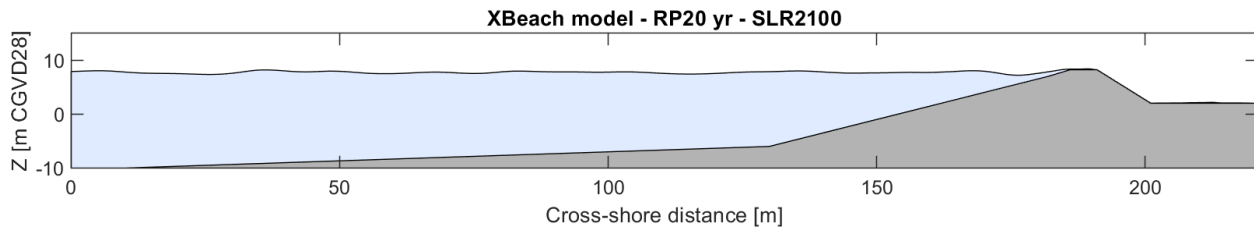


Figure 4.4: Schematized Cross-Shore Profile for the XBeach Wave Overtopping Model

The model was forced with nearshore significant wave height (H_s) and peak wave period (T_p) calculated by the MIKE21 SW model and still water level from the MIKE HD model. Three combinations of water level and wind speed scenarios were simulated per return period and per sea level rise scenario. The different scenarios are shown in Table 2. Only two 1-in-100-year events were simulated as the wave height was expected to be low based on the trends observed for the 1-in-20-year event.

Table 2: Scenarios Simulated with the XBeach Model

Run	Still Water Level (m CGVD28)	Still Water Level (m CGVD2013)	Sea Level Rise Time Horizon	Return Period (years)	Wind Speed (m/s)	H_s (m)	T_p (s)
1	6.0	5.35	Present	20	15.3	1.2	4.7
2	7.0	6.35	Present	20	11.0	0.7	3.5
3	7.5	6.85	Present	20	5.6	0.3	2.1
4	7.7	7.05	2100	20	15.3	1.3	4.7
5	8.8	8.15	2100	20	11.0	0.7	3.6
6	9.2	8.55	2100	20	5.6	0.3	2.3
7	6.0	5.35	Present	100	18.8	1.5	5.4
8	7.0	6.35	Present	100	15.5	1.3	4.7

Note: return period is associated with wind speed at particular still water level threshold (see Figure 4.1). This joint probability analysis is specific only to the wave runup calculations.

Since the waves near Wolfville are generally small, wave overtopping over the dyke only occurs in the model during rare events, for a very limited time (a few seconds), and very small volumes of intruding water. Overtopping occurred in the model by pairing extremely high water levels and the 2100 SLR time horizon. Without sea level rise, no wave overtopping is computed by the model. Therefore, wave runup levels were not included in the total coastal flood levels.

Summary of Numerical Modelling Methodology

Wave runup (the maximum vertical extent of wave uprush on a beach or structure above the still water level) and potential overtopping by waves was estimated with a combination of a Bay of Fundy model and a local wave model. The modelling and joint probability analyses showed that wave runup was not sufficient (only a few seconds) to be a concern for this dyke system, even in future conditions.

4.1.4 Coastal Storm Surge and Waves

The 2D MIKE21 coastal surge model of the Bay of Fundy and Minas Basin was used to simulate storm surge events which were used in the 2D flood model to determine the potential flooding extents.

The surge level was determined at 4 locations (Figure 4.5) for input into the flood model. Wave runup was not included in this estimate as it was determined that wave overtopping occurred only under extreme conditions and with small volumes. It was found that the results were very similar between locations, but the four locations were kept for input to the flood model, since they can slightly affect flood flow direction.



Figure 4.5: Locations of surge outlets used for PCSWMM flood model

A comparison of the modelled surge and the normal tidal elevation shows that the surge can range from 0.62m to 0.81m above the existing Higher High Water Large Tide (HHWLT) when forced by present day 1-in-2 and 1-in-100-year events. Figure 4.6 shows the tidal inputs used for the SWMM model at location 1 and the approximate average dyke elevation. Figure 4.7 shows the Bay of Fundy water levels during the 1-in-100-year storm surge event. Maximum surge levels are presented in Table 3, and coastal extreme water levels are presented in Table 4. Figure 4.6 shows that there is already a risk of overtopping

the dykes and the ground between the two, which is at the same elevation, and that this risk may increase in the future if the dyke system is not upgraded.

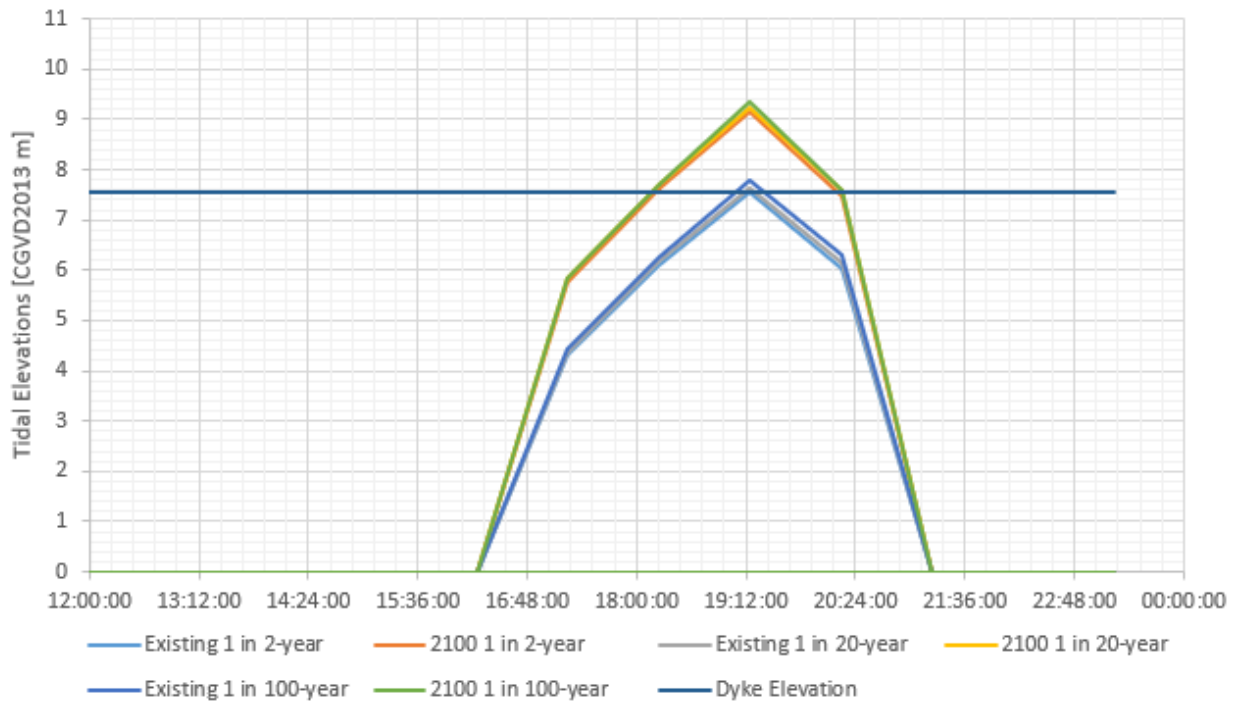


Figure 4.6: Tidal Inputs for SWMM Model at Location 1

Table 3: Maximum Surge at Location 1 for existing conditions and by 2100 for design surges with return periods of 1 in 2, 1 in 20, and 1 in 100 years.

Time Horizon	Maximum Surge at Location 1 (m CGVD28) by Return Period*		
	1 in 2 year	1 in 20 year	1 in 100 year
Existing	Approximate Dyke Elevation	8.29	8.41
2100	9.79	9.89	9.99
Time Horizon	Maximum Surge at Location 1 (m CGVD2013) by Return Period		
	1 in 2 year	1 in 20 year	1 in 100 year
Existing	7.57	7.65	7.76
2100	9.15	9.25	9.35

* The Town currently uses CGVD28 as a vertical reference system, but the provincial standard is now CGVD2013, which is a change of 0.64m in Wolfville. Both systems are included to simplify comparison with existing Town maps.

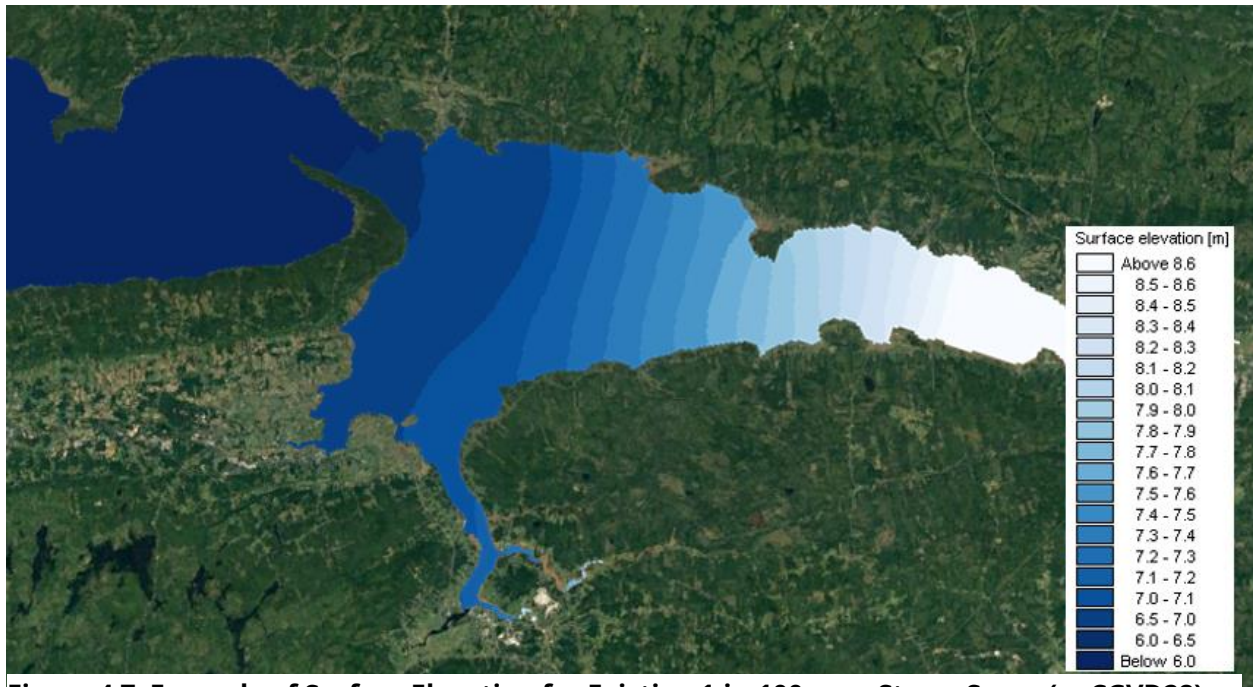


Figure 4.7: Example of Surface Elevation for Existing 1-in-100-year Storm Surge (m CGVD28)

Table 4: 2020 Tidal and Extreme Coastal Water Level Estimates

Extreme Values by Return Period [years]	Meters above CGVD28	Meters above CGVD2013
1 in 100 years	8.41	7.76
1 in 20 years	8.29	7.64
1 in 2 years	8.22	7.57
Tidal Elevations		
Higher High Water Large Tide (HHWLT)	7.60	6.95
Higher High Water Mean Tide (HHWMT)	5.11	4.46
Mean Water Level (MWL)	0.43	-0.22
Lower Low Water Mean Tide (LLWMT)	-4.21	-4.86
Lower Low Water Large Tide (LLWLT)	-5.27	-5.92

Note: wave runup was not included, since most areas are well sheltered from wave action

Summary of Coastal Storm Surge and Waves

Storm surges (increase in water level associated with a low-pressure weather system) were analysed with a 2D coastal storm surge model for various return periods, to be used as input to the Wolfville flood model. It was found that the increase in water level due to storm surges ranges from 0.62m to 0.81m, for the 1-in-2-year and 1-in-100-year events, respectively. It was found that there was a small risk of overtopping the dykes and Waterfront Park in current conditions, and that SLR would make overtopping unavoidable in the coming years.

4.1.5 Considerations for Raising Dykes and New Dyke Construction

As sea level rises, dyke overtopping risks will gradually increase, as illustrated in Figure 4.6. Instead of designing for the sea level as it is projected for the year 2100, it may be more prudent, and more socially acceptable, to design the new dyke level (and raising the existing dykes) to an intermediate scenario. An analysis of incremental increase in overtopping risks was conducted for the intermediate and high Sea Level Rise scenarios, and the results are presented in Figure 4.8. This analysis allows the selection of a level that will provide a consistent level of safety until the year 2070. Figure 4.8 shows that with no new dyke or raising, there may be an average overtopping frequency of twice a year by the year 2035 (in 15 years), if the intermediate sea level rise scenario happens. The same frequency of overtopping is projected to occur by the year 2028 (in 8 years) if the high sea level rise scenario transpires.

Flood mapping for dyke overtopping in the future is presented in Chapter 6 and shows the extent of flooding reached by future sea levels if the dyke system is not overtopped. Chapter 7 presents a discussion on the vulnerability of the various municipal assets and land uses, identifying that the flooding of particular areas with saltwater may compromise key assets, such as the wastewater conveyance and treatment systems.

Depending on the rate of SLR, the elevation of new and existing dykes should be between 8.2 and 8.6m CGVD2013. Since the elevation of the top of the existing dykes and connecting ground is currently between 7.8m and 8.9m CGVD 2013, a design that involves an average increase in top level of approximately 500mm would be suitable. This evaluation can be analysed in more detail at the pre-design level if this option is selected.

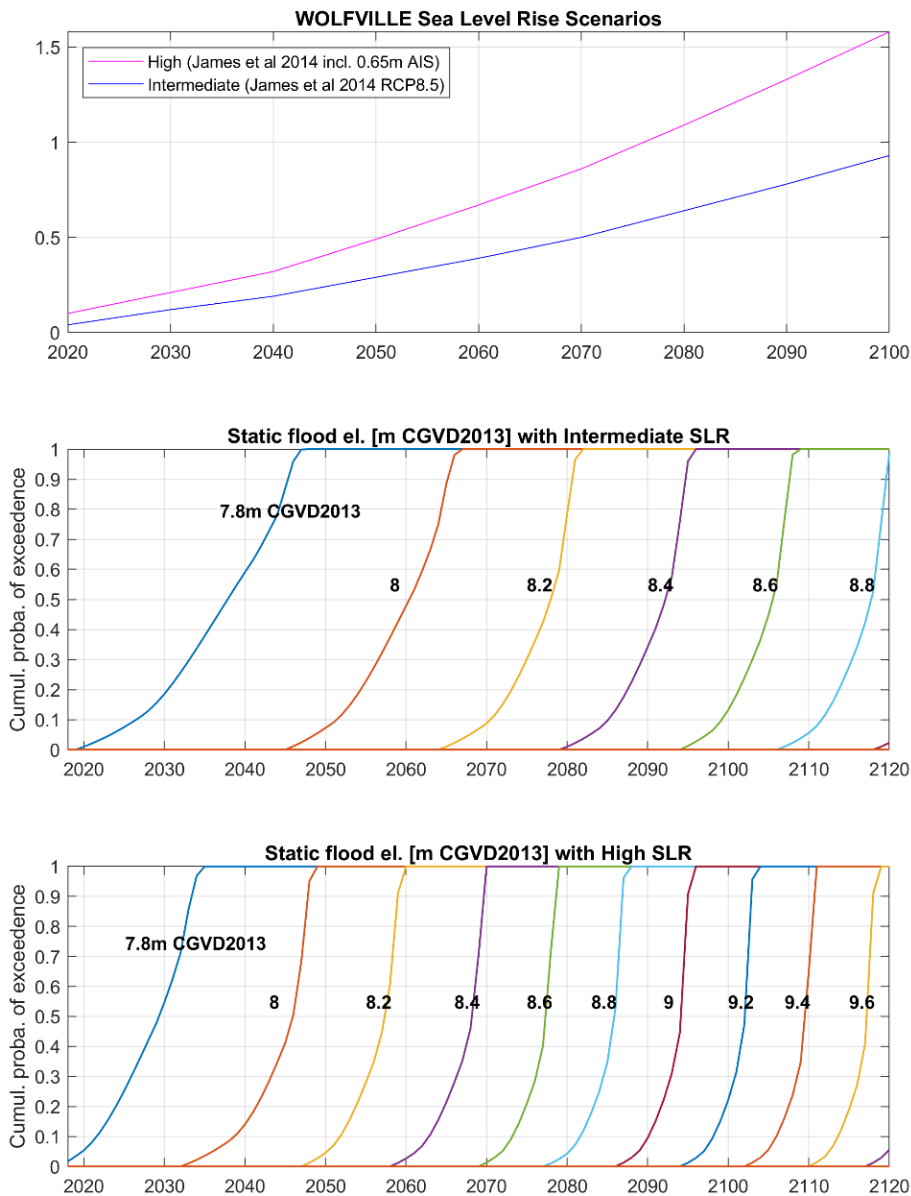


Figure 4.8: Gradually Increasing Risks of Dyke Overtopping with Sea Level Rise

In order to place projected water levels in the context of the current elevations of the ground level around the Waterfront Park area, Figure 4.9 shows colour shading on a map of the Waterfront Park that corresponds to the elevations shown in Figure 4.8. Figure 4.9 also illustrates the potential alignment of a new dyke that would border the outside edge of the park and then follow the railway alignment. It was selected during discussions with the Town to protect the pathways, vegetation, gazebo and electrical infrastructure of the Waterfront Park from regular flooding in the future. Figure 4.10 shows the existing ground elevation (based on the 2012 Lidar data) along that alignment, emphasizing that the ground will need to be raised by approximately 0.5m on average to reach the elevation of 8.5m CGVD2013.

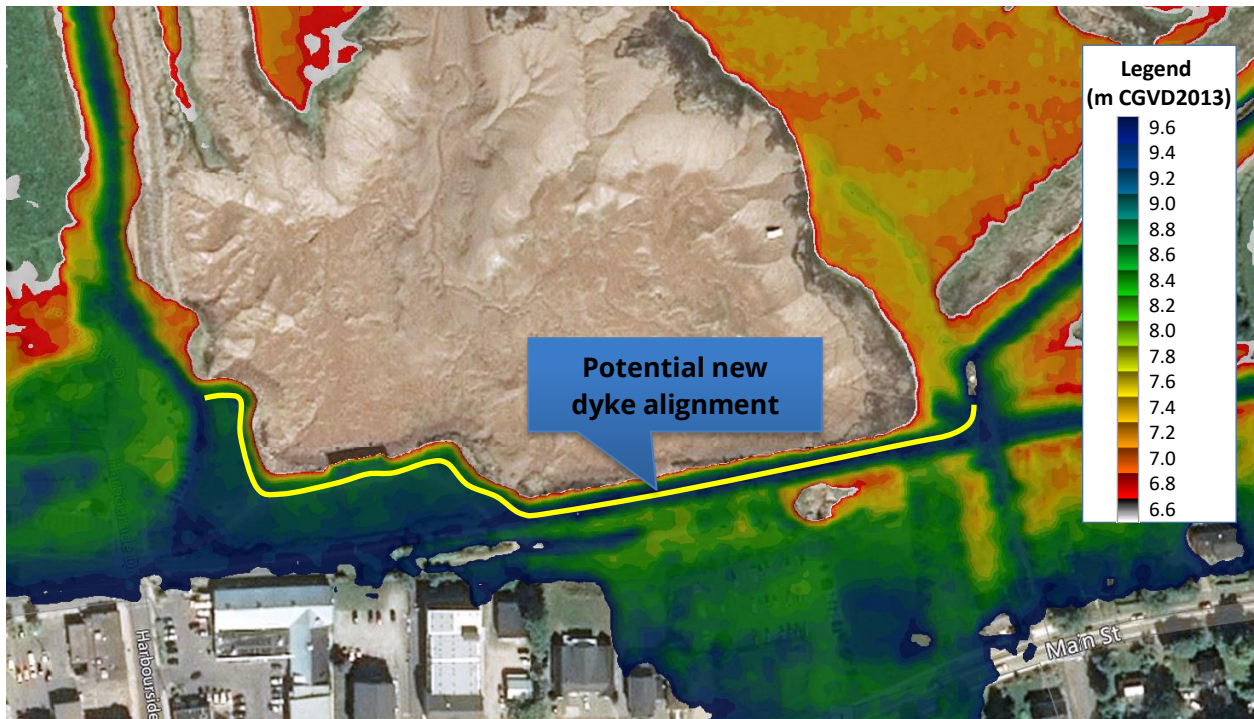


Figure 4.9: Waterfront Park with Ground Elevations and Potential New Dyke Alignment

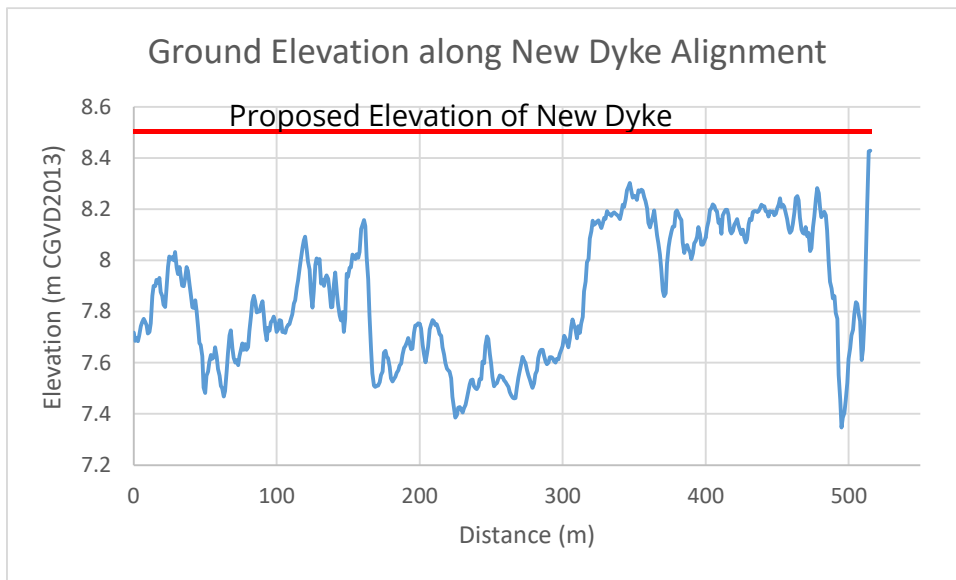


Figure 4.10: Ground Elevation along Potential New Dyke Alignment

Summary of Recommendations for Raising the Dykes, and New Dyke Construction

This analysis shows that without the construction of a new dyke or raising of the existing dykes, the system would be overtopped, leading to saltwater flooding in Wolfville an average of twice a year by:

- ▶ 2035 (in 15 years), if the intermediate SLR scenario occurs, and
- ▶ 2028 (in 8 years) if the high SLR scenario occurs.

Constructing a new dyke (raising the existing ground) to an elevation of 8.5m CGVD2013, and raising the existing dykes by 500mm on average in the next 3 to 5 years, will provide a suitable level of safety for the next 45 to 65 years, depending on the rate of SLR.

Chapter 5 Hydrologic and Hydraulic Analysis

Hydrologic modelling involves simulating the process of rainfall on a watershed, including infiltration, gradual buildup of runoff, and discharge to the main drainage system. Hydraulic analysis refers to the assessment of water levels, flows, and drainage influenced by the characteristics of the drainage system, its capacity, and relevant tidal effects.

The modelling software PCSWMM was used to assess the potential extents of flooding. PCSWMM is a hydrologic and hydraulic modelling software from Computational Hydraulics International (CHI [2019]), based on the US EPA's Storm Water Management Model 5 (SWMM5). SWMM5 is an industry standard software for semi-urban stormwater management and flooding analyses. The model was used to estimate the extent of flooding due to the combination of extreme precipitation events and extreme coastal water levels.

5.1 Hydrologic and Hydraulic Modelling

In 2003, CBCL prepared the Stormwater System Master Plan for the Town of Wolfville. A hydrologic/hydraulic model was created for that study using PCSWMM. The 2003 model was updated to incorporate more current information, including:

- ▶ Rainfall data: current climate and future climate change data
- ▶ Watershed Characterization: area, slope, maximum flow length, soil conditions, surface roughness, and percent imperviousness. Additional spatial data included:
 - Lidar (2m resolution CGVD28 datum) obtained from the Municipality of the County of Kings
 - GIS layers of Town infrastructure, including some stormwater and wastewater features and zoning
- ▶ Stormwater Drainage Network Site Survey: engineering drawings and hand drawn sketches
- ▶ 2D Model: development based on the Lidar topography

Note: The Town of Wolfville has disclaimed that the storm sewer data provided may be missing data or be inaccurate in some locations.

5.1.1 Existing Rainfall Events

The hydrologic part of the model receives time series of precipitation data as input to simulate rainfall and runoff processes. Environment and Climate Change Canada's Kentville climate station (Station # 8202810) is the closest (spatially) to the Town of Wolfville. The

Intensity Duration Frequency (IDF) curve for the Kentville climate station includes 40 years of data (1960-2016). This was compared with the Western University IDF_CC tool (Schardong et al., 2018), and both were found to be in agreement. Since the climate station is located close to Wolfville, it was the most representative data available for this assessment.

For this study the 1-in-2-year, 1-in-20-year and 1-in-100-year flood events were of interest. The 1-in-2-year rainfall event was modelled in combination with extreme coastal water levels to evaluate the flood extents; likewise, the 1-in-20-year and 1-in-100-year rainfall events were used in combination with the 1-in-2-year coastal water level. The selected ensemble of simulations was designed to assess a range of probable rainfall and coastal water level combinations. Figure 5.1 illustrates the hyetographs, which were prepared using the Chicago Method with a 5-minute discretization interval. The Chicago Method is a widely-used standard design storm that reflects the intensity-duration relationship of the IDF curve, which is developed using historical storm data.

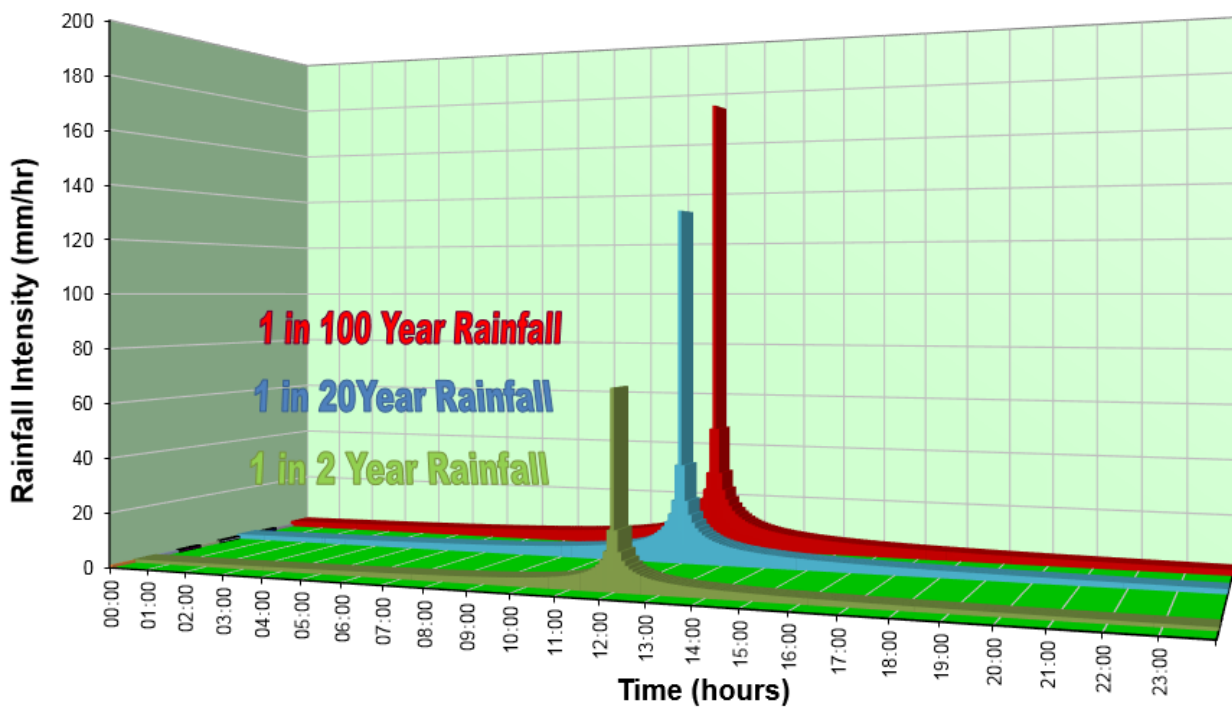


Figure 5.1: Existing Conditions Rainfall Hyetographs

Summary of Existing Rainfall Events

Environment and Climate Change Canada's Kentville Climate Station is the closest (spatially) to the Town of Wolfville, and its Intensity-Duration-Frequency (IDF) curve was used to estimate the extreme precipitation events for the Town. The Chicago method was used to model 1-in-2-year, 1-in-20-year, and 1-in-100-year design storms.

Table 5: Peak Rainfall Intensities (5-min interval) of the Design Storms Used to Model Current Conditions in this Study (Values Based on the Kentville Climate Station IDF Curve)

Peak Rainfall Amount	1-in-2-year (mm/hr)	1-in-20-year (mm/hr)	1-in-100-year (mm/hr)
Existing Climate	69	107	174

5.1.2 Impacts of Climate Change Rainfall Events

Future climate change is expected to increase the intensity of rainfall events, which suggests a potential increase in the severity and frequency of flooding. Therefore, analysis of flood risks requires the consideration of climate change effects.

General Circulation Models (GCMs) are global climate change estimates used to represent existing and future climate dynamics within the Earth's atmosphere. Such models are often based on a 250km by 250km resolution grid. A range of extreme precipitation projections are obtained from the combination of different GCMs and RCPs. High and intermediate projections are derived from RCP8.5 and RCP4.5, respectively.

Given the resolution of GCMs, there is a high level of uncertainty inherent in the application of GCM results at a point location. Therefore, it is important to consider and compare different approaches to assessing the impacts of climate change on projected rainfall. This assessment calculates the potential effect of climate change on sub-daily rainfall intensity by using the Western University IDF_CC tool (Schardong et al., 2018), the Clausius-Capeyron equation (Westra et al., 2014), both of which apply the results of GCMs. The results of each method are described below:

- ▶ The Western University Intensity Duration Frequency Climate Change Tool Version 4 (IDF_CC Tool):
 - Estimates potential impacts of climate change on IDF curves by downscaling GCM outputs to current IDF curves (derived from either gauged locations or from interpolation tools).
 - Was used with the Kentville Climate Station IDF curve. Calculations using the IDF_CC Tool were based on the outcome of a range of bias-corrected GCMs and climate scenarios.

- Outputs suggested a 24% to 61% increase in the 1-in-100-year, 24-hour precipitation for the 2071-2100 time horizon.
- ▶ **The Clausius-Clapeyron Equation:**
 - Converts projected temperature changes (Westra et al., 2014) to precipitation increase due to the tendency of air to hold more water as the temperature increases. The capacity of the atmosphere to hold water is governed by the Clausius-Clapeyron equation, which can be associated with an increase in precipitation intensity by 6% to 7% per degree Celsius. This equation was recommended by Environment Canada because of the lack of certainty in climate change models regarding precipitation.
 - Resulted in a range of 12% to 46% increase in the 1-in-100-year, 24-hour precipitation for the 2071-2100 time horizon.

The IDF_CC Tool results reported higher percent increases in rainfall in all cases. The IDF_CC Tool results were used for the future design storm scenarios, following the precautionary principle. Three emission scenarios were selected for sensitivity analysis and are presented in Table 6. Figure 5.2 illustrates the hyetographs for the three emission scenarios described in Table 6.

Table 6: Projected Increase in the 1-in-100-year, 24-hour Rainfall Intensity by the Year 2100 for Three Projected Scenarios

Emission Scenario	Method	Percentile	Projected Rainfall Intensity (mm)	% Increase from Baseline
			1-in-100-year, 24-hr	1-in-100-year, 24-hr
RCP8.5	IDF_CC	95 th	280 mm	61%
RCP8.5	IDF_CC	50 th	216 mm	24%
RCP4.5	IDF_CC	95 th	261 mm	50%

Of the three emission scenarios presented in Figure 5.2 and Table 6, RCP8.5 (95th percentile) projected the largest increase in rainfall intensity of 61% above the historical baseline, which represents a likely “worst-case scenario”. The IDF_CC Tool was also used to project rainfall intensities for both the 1-in-2 and 1-in-20-year events under the RCP8.5 (95th percentile) scenario, which resulted in an estimated 29% and 35% increase in rainfall, respectively. Hyetographs for these projected rainfall events were used as input to the hydrologic model to evaluate future floodlines.

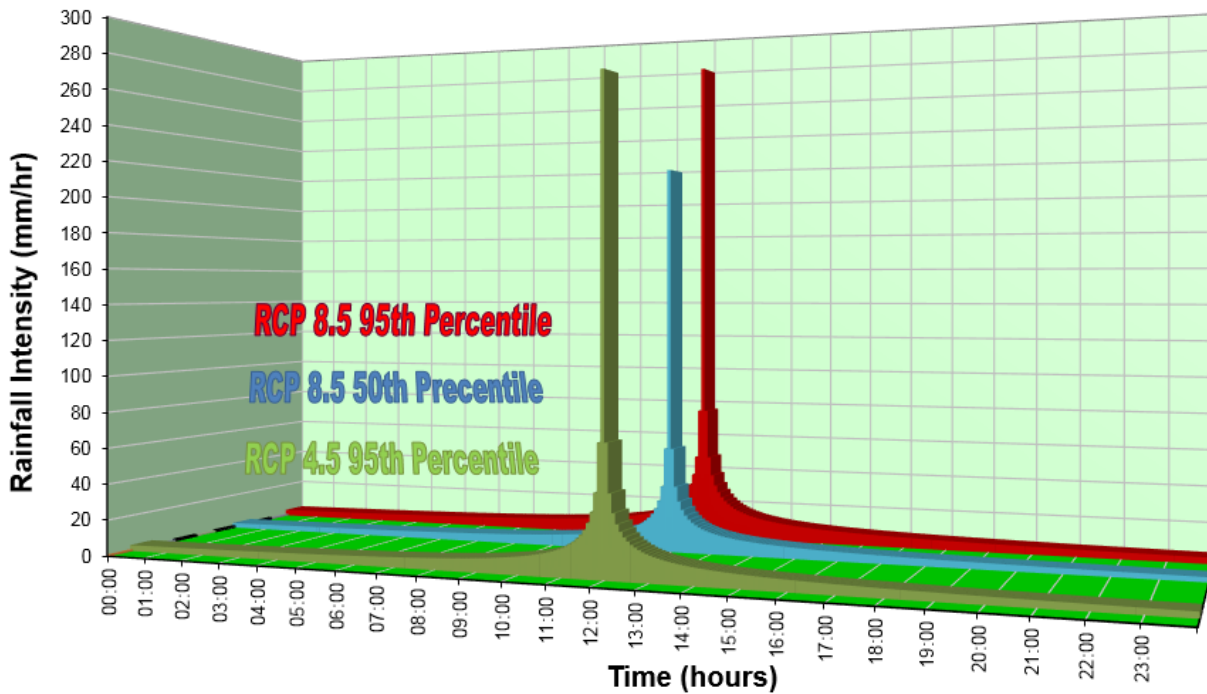


Figure 5.2: Comparison of 1-in-100-year Rainfall Projections for 2100

Summary of Impacts of Climate Change Rainfall Events

The effects of climate change on both precipitation and sea level rise were considered when examining future conditions (i.e., the year 2100 time horizon). To date, global greenhouse gas concentrations have most closely tracked the Representative Concentration Pathway (RCP) 8.5, which was used to generate the higher range of climate change projections featured in the Intergovernmental Panel on Climate Change’s Fifth Assessment Report. The 1-in-100-year rainfall event is projected to increase by approximately 61% by 2100 under RCP8.5 (95th percentile) according to the Western University IDF-CC Tool (Table 7).

Table 7: Future and Existing Rainfall Projections of the IDF_CC Tool

Peak Rainfall Intensity	1-in-2-year (mm/hr)	1-in-100-year (mm/hr)
Existing	68.57	174.00
Future	88.45	280.12

5.1.3 Watershed Characterization

Watershed areas supplying key points along the storm sewer drainage network were delineated for the 2003 model by CBCL. Aerial photography was used to identify the land cover in each watershed, from which the surface roughness (combined using an area-weighted average) and percentage of impervious surface could be determined. Slope and maximum overland flow length for each watershed were estimated using the Lidar data. The Green-Ampt infiltration method was selected for infiltration calculations. This method is used to estimate depth of infiltration as a function of soil suction head, porosity and hydraulic conductivity, all of which were estimated based on the soil type.

Although future development will increase the percentage of impervious surfaces, which generally leads to greater runoff, the Town has a net-zero increase in stormwater runoff policy that requires the post-development runoff from a site to meet its pre-development rate. Therefore, future developments will require stormwater detention facilities, or other means of limiting runoff to pre-development rates. As such, the simulation of future conditions in the PCSWMM model did not involve modifying the percent of impervious area or the pervious and impervious roughness values of any watershed. However, rainfall input did include the effects of future climate change (Figure 5.2).

Summary of Watershed Characterization

Watershed delineation had been previously carried out in a 2003 Stormwater Master Plan prepared by CBCL. Watershed characteristics for input to the hydrologic model were extracted from aerial photography, land cover, Lidar data, and soil databases. The net-zero runoff policy of the Town gives reason to expect that runoff will not increase significantly as a result of future development.

5.1.4 Stormwater Drainage Network Update



Figure 5-1: Locations of the Stormwater Conduits that Require Updates Based on Recent Design Drawings



Figure 5-2: Locations of the Stormwater Conduits that Require Updates Based on Recent Design Drawings (Cont'd Figure 5-1)

The Stirling and Hillcrest Avenue developments include four (4) stormwater detention ponds to control stormwater flow. These stormwater ponds were integrated into a 1D hydraulic model to represent storage and release of stormwater during a storm event. No other significant developments were identified within the Town of Wolfville.

In total, 28 as-built or record drawings of the stormwater drainage network were compared to the 2003 model to identify differences. Six (6) surveys were used to update stormwater pipes in eight (8) locations in the model, as shown in Figure 5.1 and Figure 5.2, and outlined in Table 8. Following these updates, the conduit diameters of the stormwater model were reviewed to ensure consistency throughout the downstream network.

Table 8: Stormwater Conduit Geometries of Pre-Established Model (in 2003) and the Updated Model

Number	Location	Type of Conduit in 2003 Model	Diameter of Conduit in 2003 Model	Type of Updated Conduit	Diameter of Updated Conduit	Consultant	Year of Drawing
1	Harbourside Dr.	Circular	0.45 m	Circular	0.9 m	Hatch	2016
2	King St.	Circular	0.375 m	Circular	0.3 m	Hatch	2018
3	Orchard Ave.	Trapezoidal	-	Circular	0.6 m	Hatch	2016
4	Sherwood Ave. (north)	Circular	0.45 m	Circular	0.375 m	CBCL	2007
5	Sherwood Ave. (south)	Circular	0.3 m	Circular	0.375 m	CBCL	2007
6	Skyway Dr.	Circular	0.3 m	Circular	0.375 m	Town of Wolfville	2005
7	Stirling Ave.	Trapezoidal	-	Circular	0.375 m	Hiltz and Seamone II Ltd	2014
8	Stirling Ave. (to the detention pond)	Trapezoidal	-	Circular	0.45 m	Hiltz and Seamone II Ltd	2014

Summary of Stormwater Drainage Network Update

The hydraulic model of the drainage system built by CBCL in 2003 was updated with recent information on the stormwater pipe upgrades. Twenty-eight (28) as-built or record drawings of the stormwater drainage network were reviewed and 8 modifications to the model were made. Four detention ponds were also added in the hydraulic model.

5.1.5 2D Model Development

Both the 1D and 2D modelling capabilities of PCSWMM were used in the flood risk assessment. The 1D model includes underground infrastructure, detention ponds and river channels. The 1D model calculates the flooding in manholes and along the surface drainage network (such as ditches) that may occur during each modelled rainfall event.

A 2D hexagonal hydraulic mesh was generated over the potential flood inundation area using 2m-resolution Lidar data. Any flooding generated in the storm sewer network (1D model) during each rain event is routed to the 2D mesh. The 2D mesh then calculates overland flow, depth, and velocity of the flooded water over time. The maximum extent of flooding is used to generate the flood maps for each scenario evaluated.

Summary of 2D Model Development

The existing 1D model of the drainage network was enhanced with a 2D hexagonal mesh of the topography of the potential flood inundation area. Where the 1D model has insufficient capacity, it will direct water to the 2D model of the ground surface. Overland flow, depth and velocities are calculated over the duration of the flood events, and the maximum extent of flooding is used to generate the flood maps.

Chapter 6 Flooding Analysis

Flooding within the Town of Wolfville is a result of two independent events: high coastal water levels and large precipitations. Coastal flooding can result from a combination of the astronomical tide, storm surge and sea level rise. In general, areas behind the lowest points in the dyke system are the most vulnerable to coastal flooding impacts. Flooding from large rainfall events occurs when the stormwater drainage network has insufficient capacity to convey water to downstream outlets.

The risk and vulnerability of coastal communities continues to rise as climate change causes sea levels and the intensity and frequency of extreme storms to increase. Climate change can threaten public safety, the economic and social benefits of the coastal environment, as well as cause significant damage to infrastructure.

6.1 Flooding Scenarios

The model of the Town’s stormwater drainage network and floodplain areas was used to simulate the flood scenarios presented in Table 9. Each extreme event (tide or rainfall) is accompanied by a “high” event (1-in-2-years) from the alternate mechanism (tide or rainfall) to be conservative, while not radically skewing the probabilities.

Table 9: Flooding Scenarios Assessed under Existing and Future Conditions

Climate Condition	Flooding Scenario	Annual Exceedance Probabilities	
		Rainfall Event	Tide Event
Existing Conditions	Tidal Flooding	1 in 2 years	1 in 100 years
	Tidal Flooding	1 in 2 years	1 in 20 years
	Rainfall Flooding	1 in 20 years	1 in 2 years
	Rainfall Flooding	1 in 100 years	1 in 2 years
Future Conditions	Tidal Flooding	1 in 2 years	1 in 100 years
	Tidal Flooding	1 in 2 years	1 in 20 years
	Rainfall Flooding	1 in 20 years	1 in 2 years
	Rainfall Flooding	1 in 100 years	1 in 2 years

The flooding scenarios outlined in Table 10 were assessed to evaluate the performance of the proposed flooding mitigation strategies (described in Chapter 8). The flood mitigation

options were assessed for existing conditions (2020). In order to compare the relative effectiveness of each option, the same set of extreme events was used (i.e., a 1-in-100-year rainfall, associated with a 1-in-2 coastal water level). The flood-mitigation techniques evaluated addressed mostly rainfall-dominated effects (i.e., stormwater storage is intended to alleviate flooding from extreme rainfall, not extreme coastal water levels), except for the option of constructing a new dyke and raising the existing dykes. In this case, the coastal water levels will be held back by the upgraded dyke system, and the main risk to be mapped is the effect of the extreme rainfall event.

Table 10: Flood Mitigation Options Assessed

Mitigation Strategy	Annual Exceedance Probabilities	
	Rainfall Event	Tide Event
Implementation of Best Management Practices	1 in 100 years	1 in 2 years
Increased Storage Capacity	1 in 100 years	1 in 2 years
Increased Pipe Capacity	1 in 100 years	1 in 2 years
Upgraded Dyke System (Raising + Closing Gap)	1 in 100 years	1 in 2 years

6.2 Floodplain Mapping

Model simulation results for the scenarios are presented in Figure 6.1. Data found in Table 9 and Table 10 were used to produce floodplain maps, presented in Appendix A: Flood Mapping. The maximum water levels and extents of flooding along the stormwater drainage network were used to delineate floodlines for each flood scenario. The high-resolution Lidar allows the floodlines to be defined with a high level of precision for each flood scenario. The floodplains, as presented in Appendix A, do not represent the flood extents for a single moment in time, but rather the extent of the floodplain at its maximum during the event. The floodlines have also been provided to the Town in GIS format.

In many instances, the floodlines for the 1-in-20 and 1-in-100-year flood events for existing conditions are very similar. This can be seen in Figure 6.1, which depicts a portion of Drawing Number 1 (Appendix A). In terms of planning regulations, the 1-in-20-year and the 1-in-100-year events define the floodway and floodway fringes, respectively. In this case, since the two floodlines were found to be close together, it was decided, during discussions with the Town, that it would be clearer and simpler to use only the 1-in-100-year floodlines to define the flood boundaries in the Constraints Map in the Land Use By-laws.

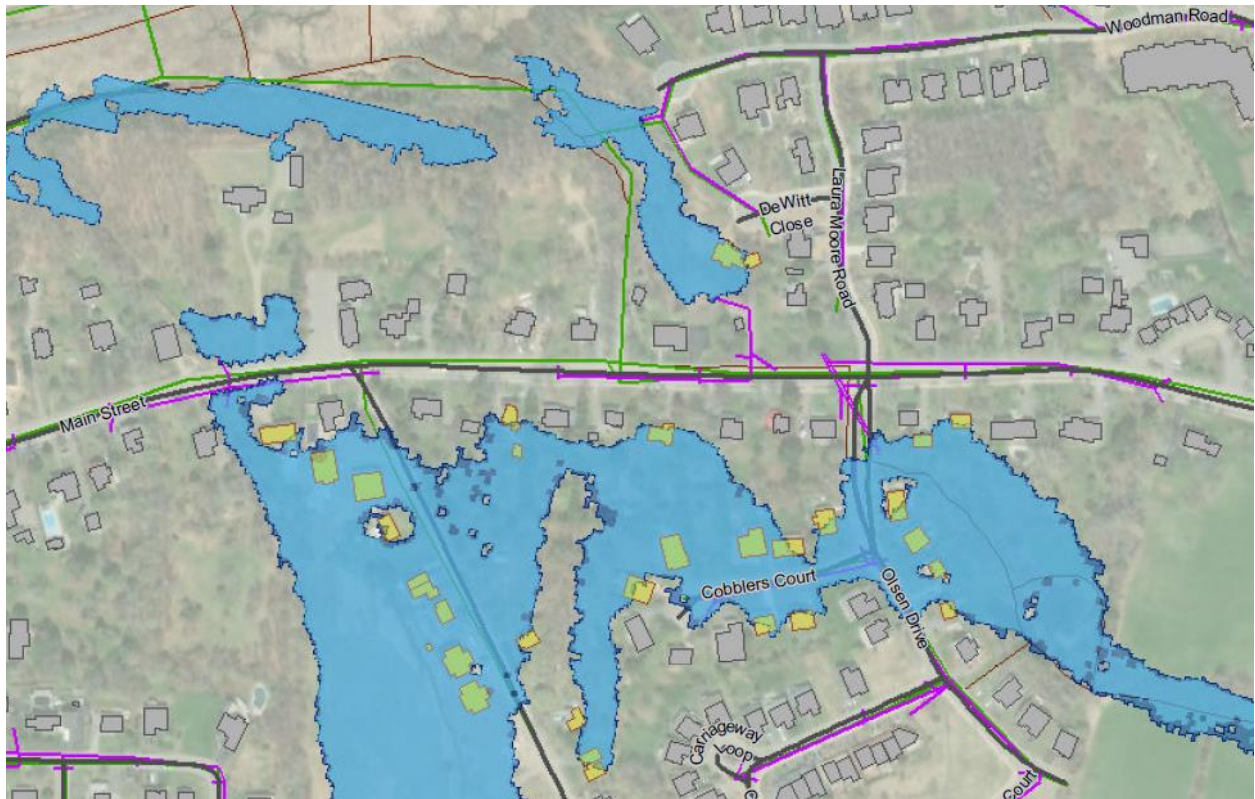


Figure 6.1: Extract of Map 1 – Existing Conditions, 1-in-20-year and 1-in-100-year Floodplains

Chapter 7 Vulnerability Assessment

The vulnerability assessment identifies municipal assets, infrastructure, and areas which are, or may become, vulnerable to extreme weather events and climate change. Adaptation options can be prioritized based on the infrastructure that is at the highest risk of flooding.

The Town provided the following GIS layers which were used to assess flooding impacts to infrastructure:

- ▶ Regulatory Zoning
- ▶ Sewer Collection System Network
- ▶ Stormwater Collection System Network
- ▶ Base Mapping
- ▶ Assets
- ▶ Water Distribution System
- ▶ Marshland
- ▶ Survey
- ▶ Street Index
- ▶ Transportation Routes

Assets within the floodplains expected of current climate conditions, with the existing dyke heights, were identified as vulnerable to flooding impacts, such as damage or loss. The focus of the risk and vulnerability assessment is on the impacts of flooding to critical municipal infrastructure and operations. Upholding public safety and the protection of Regional Emergency Management Organization (REMO) facilities is considered to be a top priority, followed by the protection of vital municipal services (e.g., drinking water and sewer collection).

Mitigation measures to protect vulnerable infrastructure are presented in the following chapter. This section represents a high-level risk assessment for critical assets and does not identify nor address all municipal assets comprehensively.

7.1 Historical Vulnerability

Historically, the Town of Wolfville has not experienced frequent or extreme flooding. The existing dykes have historically provided adequate protection from extreme coastal waters during high tide. Any flooding that has been recorded, has been found to occur when:

- ▶ Extreme tidal events back up through the stormwater system, or
- ▶ Extreme rainfall leads to flooding of the stormwater system due to insufficient pipe capacity or maintenance of the storm sewer system.

The following areas in the Town of Wolfville were identified to have experienced some level of flooding historically:

- ▶ Orchard Avenue,
- ▶ Willow Avenue,
- ▶ Sherwood Drive,
- ▶ Main Street,
- ▶ Wickwire Avenue near Main Street, and
- ▶ University Avenue at Main Street.

It is important to note at this point that even though the Town has not suffered critical damage to residential, municipal or commercial infrastructure in the past, the present assessment has identified that this risk is now present and growing every year with climate change. For example, Hurricane Teddy occurred on the 22nd September, 2020, and it did not carry much rain but had a notable storm surge. The storm surge was high, but did not seem to cause widespread flooding. However, the following photos show that the coastal water level rose fairly close to the dyke level, and that a larger event could easily overtop the dykes.



Figure 7.1: Photos of High Coastal Water Levels During Hurricane Teddy

The extract from the map of future flooding conditions shown in Figure 7.2 represents a 1-in-100-year coastal water level event, and it suggests that a significant amount of residential, municipal and commercial infrastructure is at risk of significant flooding with saltwater, which would cause a significant threat to public safety and is very damaging to all assets involved. This figure demonstrates the importance of protection from extreme coastal water levels, which is addressed in Chapter 8. Because this is such a critical item, it is assumed in subsequent maps that connecting and raising the dykes is carried out in the short term, and remaining flooding risks are related to rainfall events.

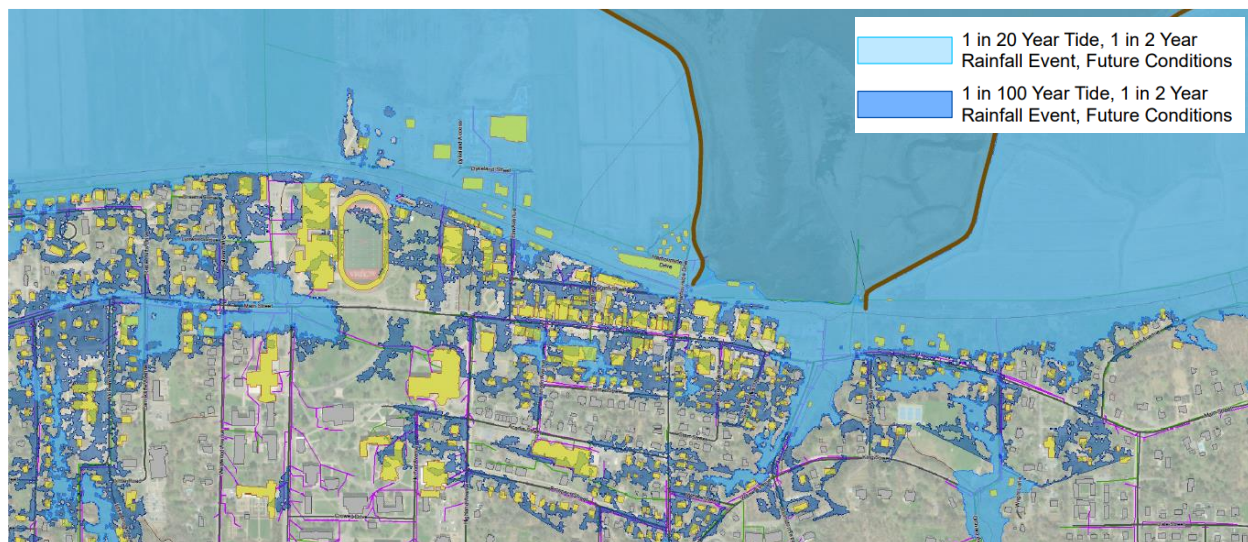


Figure 7.2: Areas at Risk of Saltwater Flooding in Future 1-in-100-Year Event

7.2 Municipal Assets

Integrating floodplain mapping into land use planning and asset management is critical for the long-term viability of municipal assets. According to the MPS, municipal assets are defined in two sets of inventories: the Water Utility and the General Fund. The Town maintains an Asset Management Plan (AMP) that provides the municipality with essential information required to ensure the safe and sustainable management of important assets. Incorporating the findings of this flood risk analysis will further improve asset management planning.

The flood analysis identified vulnerable areas and important infrastructure assets at risk in the Town. The existing 1-in-100-year rainfall and future (climate change) 1-in-100-year rainfall (RCP8.5 95th percentile) events were used to identify areas vulnerable to flooding, today and in the future, if the existing or proposed raised dyke systems were in place. Buildings affected by flooding are identified as yellow on the flood maps in Appendix A. An extract showing the assets on the future 1-in-100-year flood map (with dykes raised) is presented below in Figure 7.3. Assets shown relate to emergency response, water supply, wastewater conveyance and treatment, and transportation/trails. Assets that were identified as being vulnerable to flooding are highlighted with the red text in the labels of Figure 7.3.

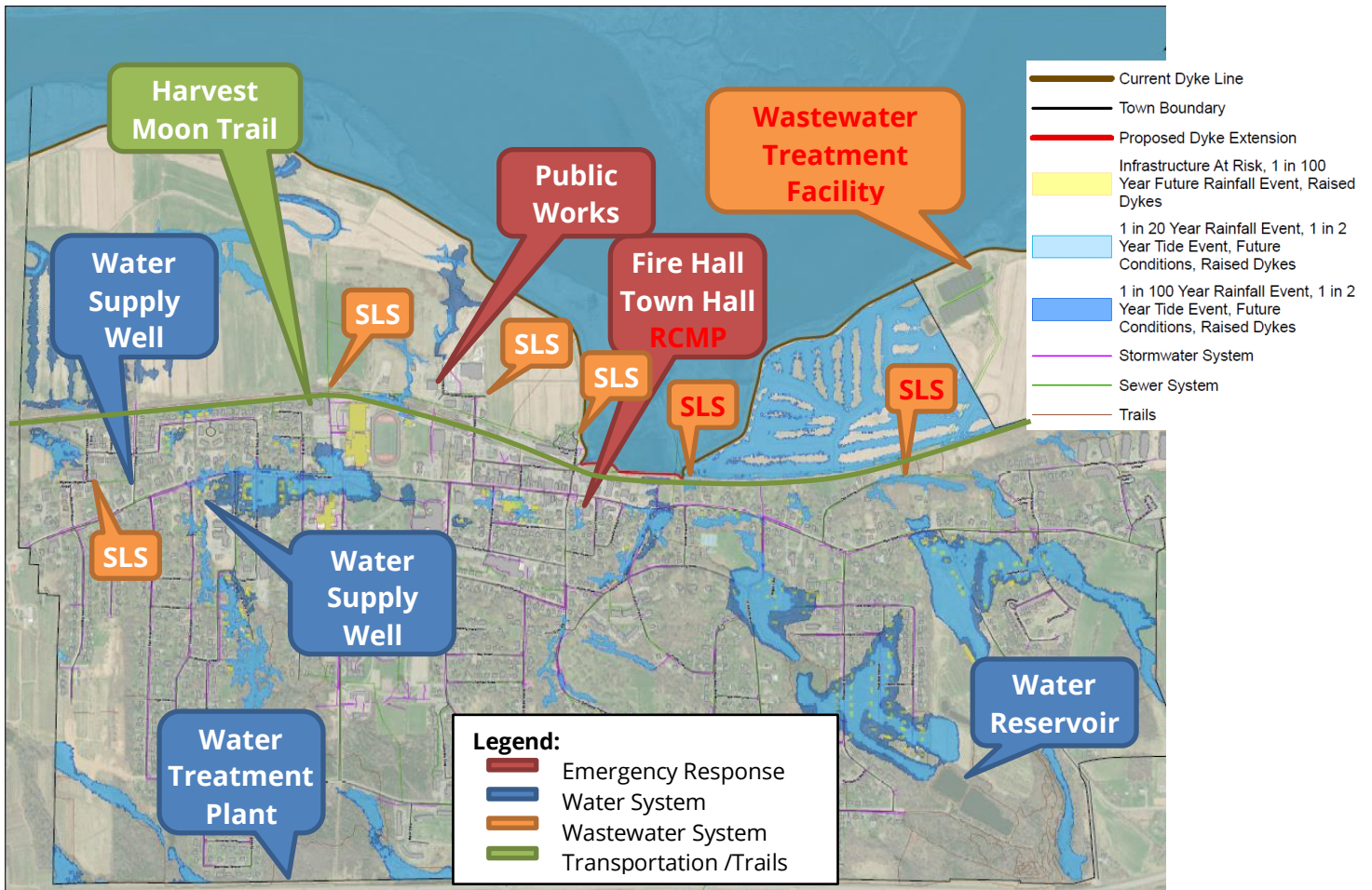


Figure 7.3: Municipal Assets on Future Flood Map (Red Text Shows Risk of Being Flooded). Sewage Lift Stations (SLS); Royal Canadian Mounted Police station (RCMP).

7.2.1 Emergency Response and Recovery

Police, fire protection and regional emergency management are considered essential services for the Town and are treated with the utmost importance. The RCMP office, as well as the Wolfville Volunteer Fire department, are located on Main Street near Gaspereau Avenue and provide 24-hour service for the community. During an extreme flooding event, the fire department needs to maintain access to most areas of the Town and the community emergency center made accessible.

The Wolfville Fire Department is connected to the Town Hall building, and neither are directly at risk of flooding, although the RCMP parking lot and corner of the garage are exposed to some shallow flooding risks, as shown in Figure 7.4.



Figure 7.4: RCMP Building and Parking Lot at Risk of Shallow Flooding

The public works building also houses a fleet of vehicles that need access to other areas in the Town. The modelling suggests that this facility is not exposed to current flooding risks or future flooding risks if the dyke system is raised.

The results of this flood risk mapping exercise can be incorporated into an Emergency Response Plan to determine how access can be maintained for all critical infrastructure during a flood.

7.2.2 Water System

The Water Utility includes the water treatment facility, wells, water reservoir, water mains, and supporting equipment. The Water Utility is owned and operated by the Town of Wolfville and financially operates separately through collected user revenues. The local water supply consists of two wells located in the area of West Main Street, which is pumped to a 12 ML concrete storage reservoir located on Ridge Road. The water is treated through chlorination at the Water Treatment Plant (WTP) and is supplied to residents through approximately 41km of gravity-fed water distribution lines from the reservoir.

As shown in Figure 7.3, none of the municipal water system assets are directly at risk of flooding. Even though the water supply wells are located in a fairly low-lying area close to flooded areas, they are not themselves flooded during either of the existing or future flood events.

7.2.3 Wastewater System

According to the AMP, there are six (6) sewage lift stations (SLSs) in the Town, which are used for pumping wastewater from lower to higher elevations to the wastewater treatment facility (WWTF). The WWTF is an aerated lagoon located northeast of the Town, directly south of the dyke system (elevated to be protected from flooding). It is noted that in 2019 the Town began a substantial capital upgrade to the wastewater treatment plant.

Considering the WWTF lagoons and buildings, the berms of the lagoons are at a safe elevation for current flooding risks, but they will not be at an adequate elevation for future flooding risks if the dyke system is not raised. Conversely, some of the older WWTF buildings are positioned in a low-lying area that is at risk of flooding. This the case for the existing blower and UV buildings. Conversely, the new screener building is at an elevation of 8.5m, which is safe from flooding. Figure 7.5 below shows the expected flood depths produced by existing 1-in-100-year extreme coastal water levels. Protection of the low-lying buildings is discussed in Chapter 8.

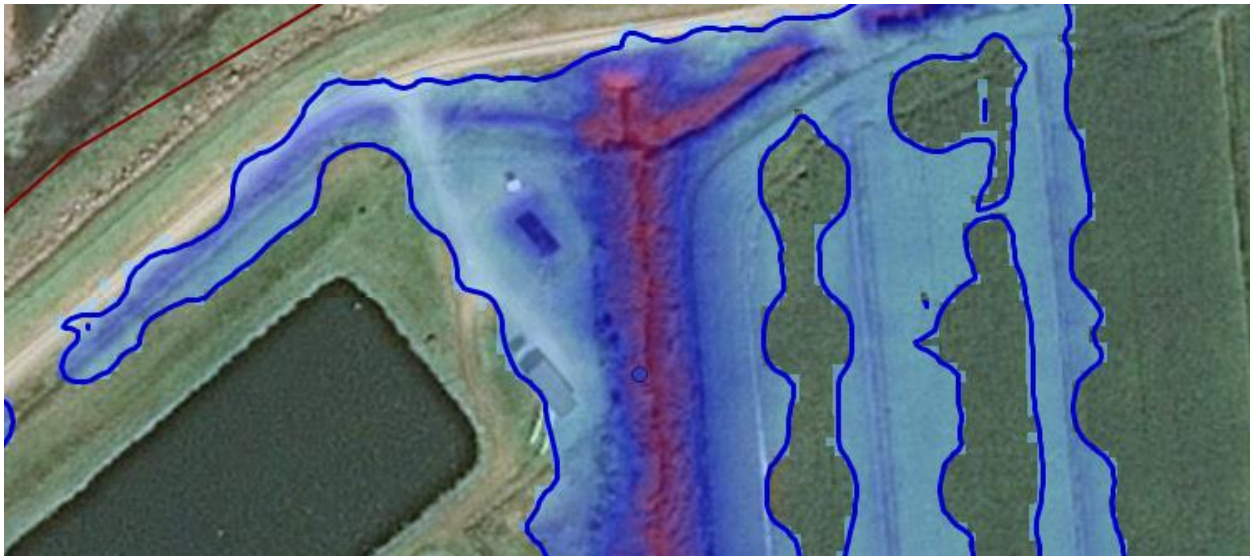


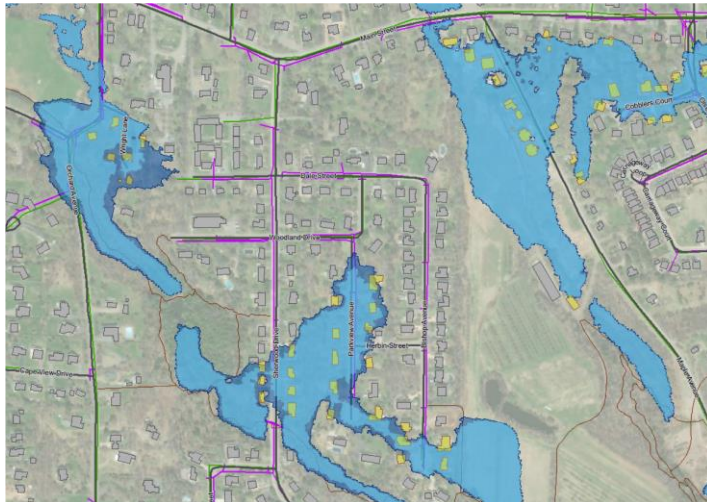
Figure 7.5: Flooded WWTF Buildings in 1-in-100-year Coastal Water Levels

Two SLSs are also just within, or very close to, the floodplain, both in existing conditions (involves the potential for salt water), and in future conditions, as shown in Figure 7.3. Flooding the SLSs would place the overall system at risk of being surcharged, overflowing wastewater to areas accessible by the public, treating excess stormwater, and damaging the wastewater conveyance and treatment infrastructure with saltwater. If electrical and instrumentation infrastructure within the SLS buildings are submerged, significant damage or loss may result. Typically, operation staff may opt to turn the pumps off to prevent damage to them when an SLS is flooded. This will result in untreated wastewater overflows to the environment, which is a public health concern. As discussed in Chapter 8, protecting areas with small berms is recommended. Although sewers are unlikely to sustain significant damage from inundation, flood water can also enter the sanitary sewers through holes in the manhole covers and cracks in the frame, potentially resulting in excessive flows, overwhelming the conveyance system and leading to wastewater overflows.

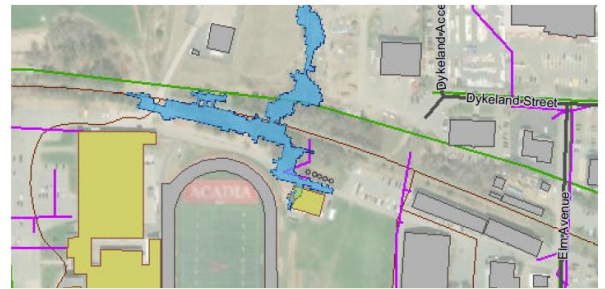
7.2.4 Transportation and Buildings

The Town's road infrastructure consists of local, collector, private and shared streets. The Town has a public transit system provided by Kings Transit, which services other

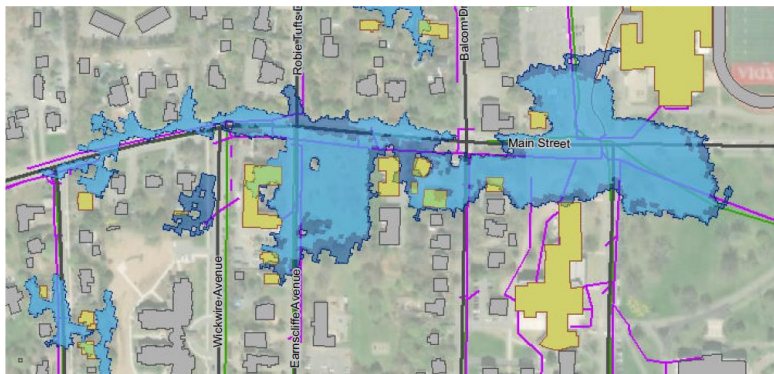
surrounding counties. A historic railway system runs along the north end of the Town, along which a popular public walking trail now exists. The Harvest Moon Trail is a 110km-long trail providing local active transportation, fitness opportunities, and views of the local natural setting. Flooding risks have not historically been a concern, with the areas in Figure 7.6 below identified as only being at risk of shallow, temporary flooding.



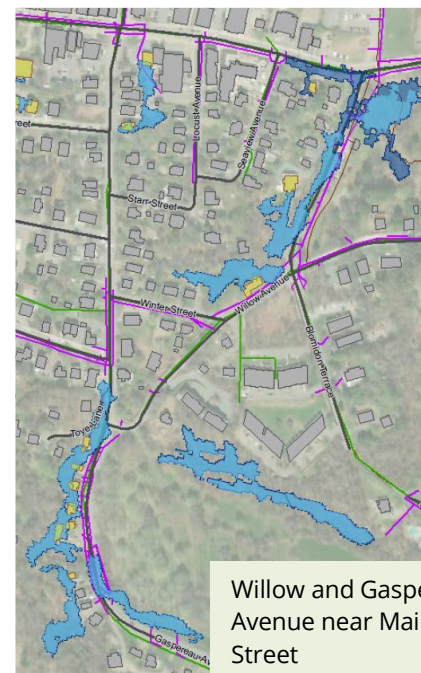
Orchard, Sherwood Parkview, Maple Avenues near Main Street



Short sections of the Railway by the Acadia sports field



Wickwire, Earnsccliffe, Westwood and University Avenues near Main Street



Willow and Gaspereau Avenue near Main Street

Figure 7.6: Transportation Infrastructure Vulnerable to Flooding

7.2.5 Agriculture and Commercial

Low-lying portions of agricultural fields were identified to be vulnerable to flooding during the existing 1-in-20 and 1-in-100-year coastal water level events (with some saltwater flooding) and future 1-in-20-year and 1-in-100 rainfall events (with some freshwater flooding).

Even though dyke overtopping has not been noted by the Town as a historic occurrence, the modelling shows that some overtopping could occur during the current 1-in-20-year and 1-in-100-year coastal water level events, as shown in Figure 7.7 below. This figure shows that a fairly significant amount of agricultural land is at risk of flooding with saltwater under existing climate conditions. A discussion on flood protection from extreme coastal water levels is presented in Chapter 8.

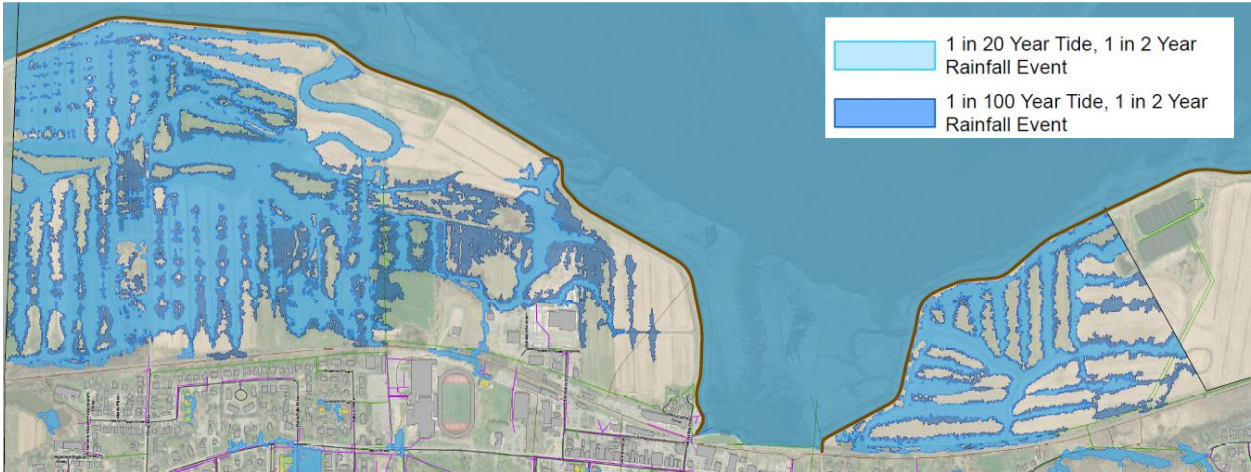


Figure 7.7: Agricultural Land Flooded in Existing Conditions Extreme Events

There are few commercial buildings currently at risk of flooding. The Wolfville Nursing Homes on Main St and Wickwire Ave. was identified as being at risk, as shown on the Figure 7.8 below. The figure also shows the “Town Centre” commercial area on Main St, opposite Central Avenue, also being at risk of flooding, together with the jewellery and photography stores across Linden Ave. It is worth noting that this risk is expected to increase slightly with climate change, as rainfall is expected to increase as well.

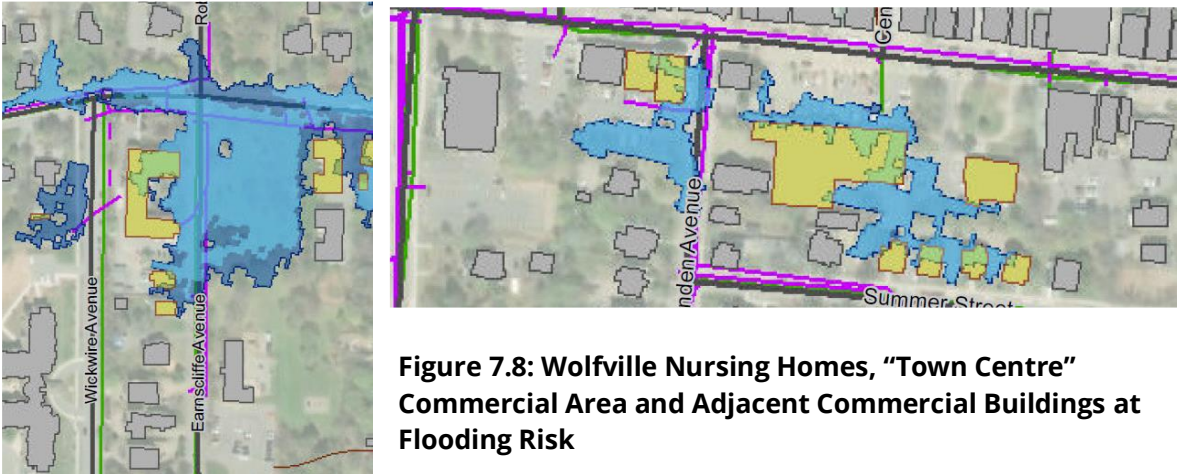


Figure 7.8: Wolfville Nursing Homes, “Town Centre” Commercial Area and Adjacent Commercial Buildings at Flooding Risk

Chapter 8 Flood Risk Mitigation Options

A number of flood mitigation options were identified and assessed. This section reviews the available options to mitigate the flooding of vulnerable areas identified in Chapter 7. Chapter 9 then evaluates the options presented here to support the development of a flood mitigation plan.

When developing a mitigation plan to reduce the impacts of flooding, determining the mitigation approach greatly depends on the infrastructure in question, the associated level of risk, as well as the cost-benefit of the various options. The Town has been proactive in addressing flooding through the implementation of development control measures, such as the net-zero increase in runoff requirement, which has been approved in the updated MPS document. Short term critical items now include connecting and raising the dyke system, as well as constructing a berm to protect the WWTF buildings.

The flood mitigation options for The Town include:

- ▶ Updating the Town’s Municipal Planning Strategy to include updated floodlines, net-zero runoff development requirements, and limitations on the types of development permitted in floodplains. These changes have already been implemented by the Town in a document that received the Canadian Institute of Planners’ Award for Planning Excellence.
- ▶ Coastal flood protection measures:
 - Connecting the dyke systems and implementing living shorelines; and
 - Increasing dyke elevations.
- ▶ Flood forecasting and warning system.
- ▶ Protecting municipal assets.
- ▶ Adapting existing buildings.
- ▶ Additional flood reduction measures:
 - Implementation of Best Management Practices;
 - Increasing storage capacity; and
 - Increasing pipe capacity.

8.1 Coastal Flood Protection Measures

The following actions are proposed to mitigate the risk of coastal flooding in the Town of Wolfville. Each action is discussed further in the following sections.

- ▶ Connect the dyke system, and apply erosion protection using a living shoreline.
- ▶ Coordinate with NS Department of Agriculture to raise existing dyke elevations:
 - Build up identified low elevations in the dyke system; and
 - Incrementally increase dyke elevations to accommodate increasing sea levels.

8.1.1 Connecting the Dyke System and Applying Living Shorelines

As shown in Chapter 7, the risk of flooding by overtopping the dykes is currently high, resulting in some flooding of farmland and WWTF infrastructure, and very significant in the future, resulting in flooding of most of downtown Wolfville. To mitigate flood risks in the Town during extreme coastal water levels, it is recommended to connect the Grand Pre and the Bishop Beckwith dyke systems, as roughly outlined in red in Figure 8.1. Connecting the two dyke systems provides a continuous elevated structure, which provides protection from the increasing risk associated with sea level rise and wave action. The dyke can be constructed to include a community trail that would connect with the existing trail, which is frequently used by residents.

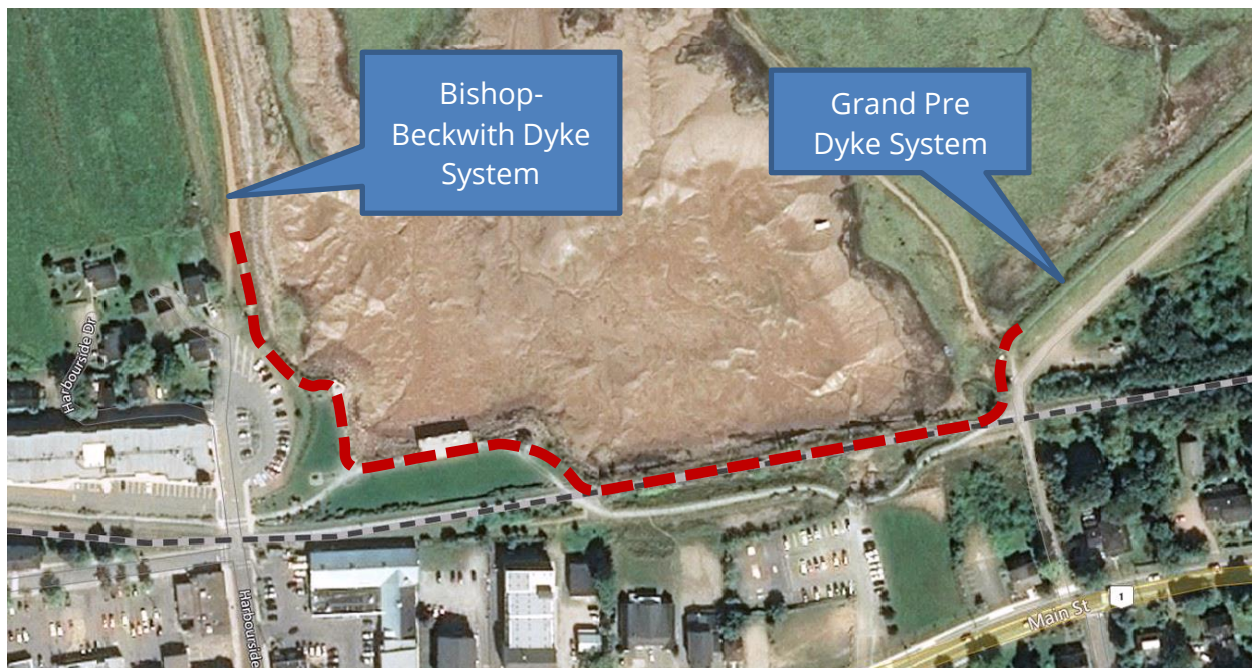


Figure 8.1: Connection between the Two Dyke Systems

There are two main options available to construct a new dyke:

- ▶ Construction of a new 8.5m full-height dyke in the mudflat, which will include the removal of (potentially deep) unsuitable material. Shallow side slopes will mean that the footprint of the new dyke could extend up to 75m in width (almost half the area of the mudflat in front of the park), along the 400m stretch of coastline between the two ends of the existing dykes. Allowances for settling over time will also need to be made. This represents a large volume of structural fill, and would lead to significant costs.
- ▶ Raising the existing ground connecting the two dyke systems, which is composed of trails and the former railroad. Since the existing ground would only need to be raised by 500mm on average, it would be simple from a construction perspective, require a much smaller volume of material, and would therefore be less expensive. The pending issue is the existing land ownership, since the land where the old rail line is still present does not belong to the Town. Discussions will need to take place between the land owner and the Town before this option can be finalized.

Raising the existing ground for a shallow dyke, following the path shown in Figure 8.1, would also mean that some existing structures would need to be moved or modified to adapt to the change, as they lie within the alignment of the proposed dyke. This would include moving an electrical panel, raising the wharf, and raising the wooden interpretive plazas. The gazebo is already raised, so it would not need to be modified.

Both a dyke in the mudflat and a shallow dyke will result in the same level of protection for the Town. Since the level of effort and cost is significantly different between options, it may be prudent to initiate discussions as early as possible with the landowner to assess the feasibility of the second option.

In terms of erosion protection of the outward facing slope, both options will need to include some surface treatment to reduce the energy of any incoming waves and minimize the risk of wave erosion and overtopping, even though it is very low. Both options will need to be protected in the same manner. Therefore, the subsequent erosion protection approaches are applicable to both options.

For the shoreline below the neap tide level (HHW-MT level of 4.46m CGVD2013), the existing riprap protection can be kept. Therefore, the option of elevating the existing ground by 500mm would not require replacing the existing riprap. However, there is the potential to use a more permanent approach to bank stabilization above this elevation where there currently is no riprap. A more resilient form of bank protection would take the form of a living shoreline. This would simply be an extension of the existing plant growth that already exists on the western and eastern banks of the Waterfront Park mudflat. Candidate locations to implement the living shorelines are noted in Figure 8.2 below. Some general information about living shorelines is also presented below for reference.



Figure 8.2: Candidate Locations for Living Shorelines

Some of the north-facing bank is currently eroding where the railroad abuts the mudflat, as seen in Figure 8.3, and could benefit from being readjusted or reinforced. The old wooden beams are likely coated with creosote and leaching toxins, so those should be removed as part of the dyke construction project.



Figure 8.3: Erosion on the Bank by the Railroad

This may not seem intuitive, but the erosion process in a mudflat is by far dominated by freshwater flows, rather than tidal flows, as shown in Figure 8.4. Therefore, the erosion of this bank is caused by the stormwater pipe outlets and not the incoming tidal flows and waves. Similarly, it is clear that the erosion within the mudflat by Waterfront Park (Figure 8.5) is caused by the stormwater pipe outfalls (shown in pink in Figure 8.5).

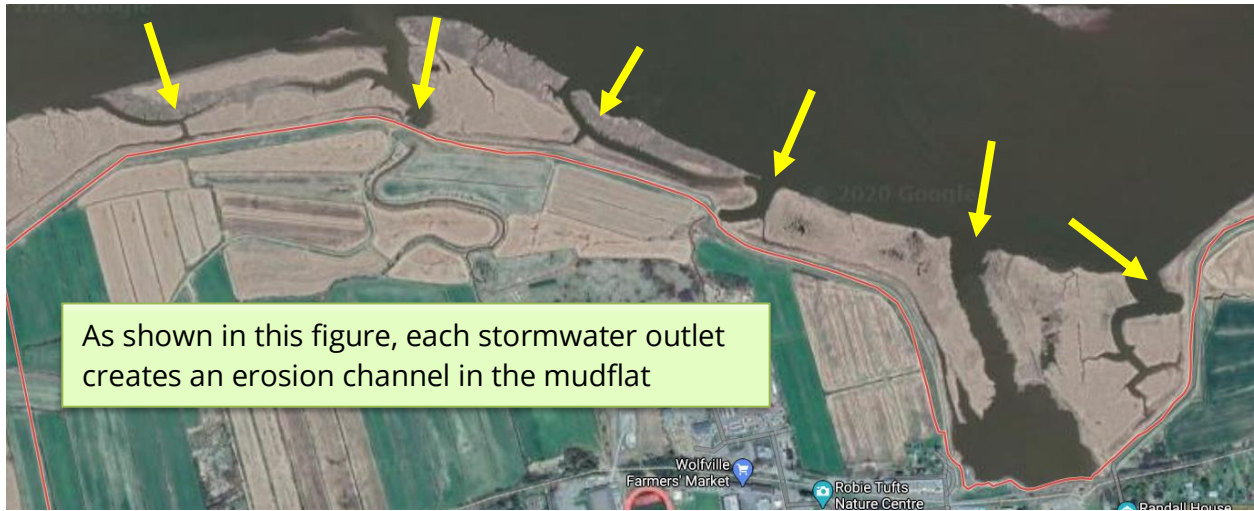


Figure 8.4: Typical Erosion Patterns in the Mudflats Originating at Stormwater Outfalls

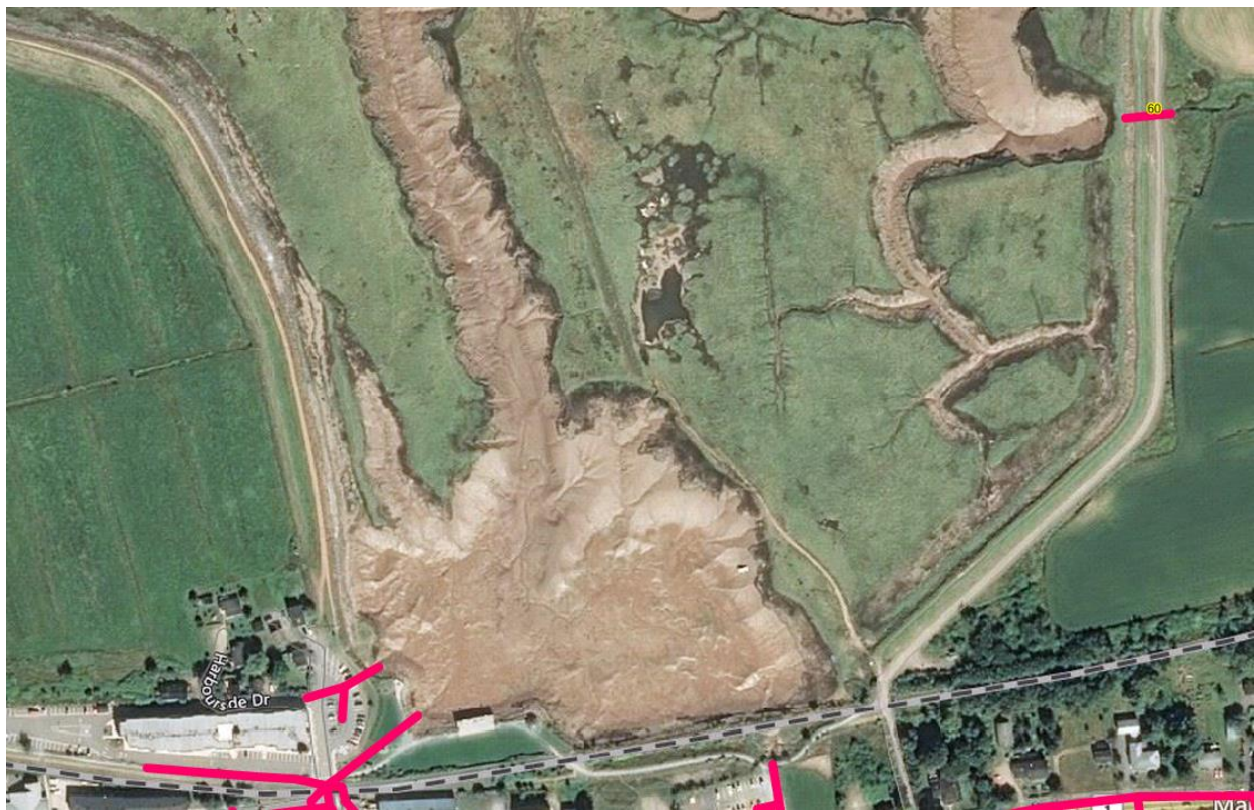


Figure 8.5: Erosion in Waterfront Mudflat and Stormwater Pipe Outfalls

The proposed approach to restoring the banks to their original shapes, which will allow the former salt marshes to re-establish themselves, is to extend the stormwater pipe outfalls by 50m to 75m. The tidal flows will then deposit sediment along the disturbed shorelines and restore the natural slopes. Following this, the salt marshes will then naturally re-establish themselves. Figure 8.6 below shows that some natural slopes in the area that have not been eroded have maintained their shallow slopes and salt marsh growth.



Figure 8.6: Existing Salt Marsh on Western and Eastern Banks of the Waterfront Mudflat

8.1.2 Notes About Living Shorelines as an Erosion Protection Approach

Natural or green infrastructure, also known as living shorelines, such as foreshore salt marsh, can provide protection to infrastructure such as dykes, while increasing shoreline resilience and providing ecosystem and cultural benefits. The plant communities that form the foundation foreshore marsh ecosystems depend on a number of factors including the frequency and duration of flooding, salinity, elevation, and the composition of nearby marshes that act as a seed source. Natural foreshore marshes in the Upper Bay of Fundy



are typically composed of low and high marsh zones. The low marsh is characterized by salt marsh cordgrass (*Spartina alterniflora*), while the high marsh usually has a more diverse community that includes salt meadow hay (*Spartina patens*), seaside goldenrod (*Solidago sempervirens*), and blackgrass (*Juncus gerardii*).

Figure 8.7: Source: NOAA living Shoreline Guidance

Salt marshes can protect infrastructure and enhance coastal resilience to the effects of climate change, including storms and sea level rise, by stabilizing soils, storing water, maintaining/increasing elevation by trapping sediment, and dampening wave energy. Salt marshes are known for their ability to accrete sediment and build soils at rates that can keep pace with sea level rise (under certain conditions), which can mitigate the loss of coastal land and risks posed to infrastructure. The salt marsh vegetation creates drag that can dampen wave energy and reduce wave heights, particularly during the growing season. The extent of wave reduction depends on factors such as vegetation type, vegetation density, and foreshore marsh width. The presence of a foreshore marsh can reduce wave impacts to infrastructure such as dykes and can enhance the protection afforded by a dyke (Vuik et al., 2019).

In Europe, vegetated foreshore marshes are an integral part of dyke engineering designs (Vuik et al., 2016). In North Carolina, marshes have been shown to perform better than bulkheads for reducing erosion from a Category 1 hurricane (Gittman et al., 2014). Natural, restored or created salt marshes and related coastal habitats have also been shown to be more resilient to hurricane damage than hardened shorelines or built infrastructure. This is because they have the ability to absorb and dissipate a significant portion of the incoming wave energy and can recover (self-repair) and maintain form and function with little to no human intervention (Smith et al., 2018).

Salt marshes provide significant ecosystem benefits such as habitat for fish, forming the base of the coastal and marine food chains, and climate regulation through long-term carbon storage in marsh soils (McLeod et al., 2011). Invertebrates and crustaceans that use salt marshes provide a vital link between the nutrients produced by salt marsh plants and higher levels of the food chain (i.e., fish and birds). Salt marshes in Nova Scotia provide habitat for numerous commercial, recreational and aboriginal fish species (i.e., Striped Bass (*Morone saxatilis*), Flounder (*Pleuronectidae*), American eel (*Anquilla rostrata*), and Tomcod (*Microgadus tomcod*)). Salt marshes can also provide cultural benefits such as nature observation, opportunities for wild food collection, and outdoor classrooms for hands-on learning.

Restoration of salt marshes has the potential to achieve diverse goals including reducing climate risks, increasing the resilience and sustainability of the coastal community and ecosystem, as well as providing many cultural and economic benefits.

The current salt marsh in front of the existing dykes provides a highly aesthetic feature in the heart of downtown Wolfville. Developing a living shoreline will allow the current salt marsh to expand and reconnect both sides of the marshes in front of the existing dykes. Furthermore, the salt marsh provides an opportunity for the large student population, as well as interested residents, to learn about ecosystem restoration and Building with Nature techniques.

8.1.3 Design Elevations for New Dyke and Raising Existing Dykes

As noted in Section 4.1.5, the current average dyke and ground elevation surrounding the Town of Wolfville is approximately 8.15m CGVD2013 according to a Department of Agriculture survey completed in 2008. However, sections of the dyke system have been identified to have lower elevations. The minimum elevation of the dykes surrounding the Town of Wolfville is approximately 7.6m CGVD2013 (8.2m CGVD28) based on Lidar data collected in 2007. The 1-in-100-year storm surge elevation (approximately 7.8m CGVD2013), is slightly higher than the minimum dyke elevation. Sections of the existing dykes having a top elevation equal to, or lower than, the 1-in-100-year storm surge elevations do not meet design standards as there is no freeboard for safety. It is therefore critical to connect the dyke system and raise the existing dykes in the short term.

Since sections of the existing dykes may have settled since the collection of the survey (2008) and Lidar (2007), it is recommended that a new survey be conducted to obtain current minimum elevations to be used to support design.

Since coastal water levels and storm surge elevations will increase gradually as a result of climate change, it is recommended that both the construction of the new dyke and raising of the existing dykes be conducted in stages to gradually introduce the increased dyke elevation to the Wolfville waterfront. For the first stage, it is recommended that the Town construct a new dyke to an elevation of 8.5m CGVD2013 within the next 3 to 5 years, which corresponds to an average increase in ground level of approximately 500mm on the Kings County Rail Trail and edge of the Waterfront Park. This would be carried out with a cross-section similar to the schematic shown in Figure 8.8 below.

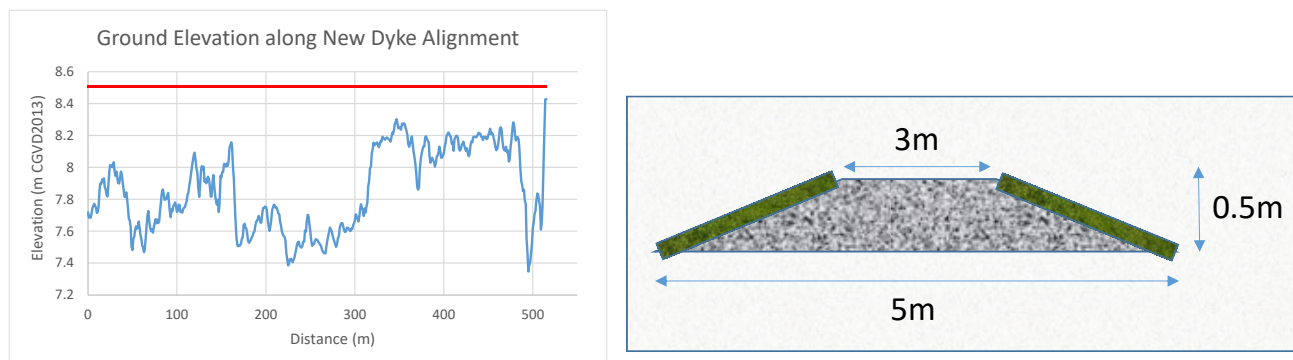


Figure 8.8: Schematic Profile and Cross-Section of Elevated Path

In conjunction with the development of the new dyke, it is recommended that the Town coordinate with the Nova Scotia Department of Agriculture (NSDA), who is responsible for maintaining the existing dykes, to raise the existing dykes by an average of 500mm to a consistent elevation of at least 8.5m CGVD2013. This will provide protection to the Town for the next 45 to 65 years, depending on the rate of SLR.

Discussions with the NSDA will also need to include the new *Guidelines for Safety of Coastal and Estuarine Dykes and Aboiteaux in New Brunswick and Nova Scotia* (Amec Foster Wheeler, February 2018), and how/if those would be incorporated in this design. Implementing those would likely mean that dykes would be constructed to a much greater height, since they consider dykes to be similar to dams.

Due to the critical importance of SLR in this context, it is recommended that continuous monitoring of the water levels behind the dykes be implemented and regularly analysed to track the rate of SLR. Based on this information, a safe timeframe to conduct a new analysis and design the next stage of upgrades for the system can be identified. It is generally expected that a safe timeframe to conduct a new study and design would be within the next 30 to 40 years. Monitoring will however be needed to review potentially changing or new information, and a study or specific intervention may be required sooner.

8.2 Flood Forecasting and Warning System

Although this study considered the 1-in-100-year event, events larger than this are still possible and happen regularly throughout the world. Furthermore, the intensity and frequency of events may be anticipated to gradually increase due to climate change. A greater coastal water level event may not be stopped by the dyke system should it occur before the recommended dyke system upgrade or subsequent future upgrades. The other uncertain risk is the rate of climate change. So far, greenhouse gas concentrations have most closely tracked RCP8.5. There are now some sea level rise projections that, even though unlikely, predict a sea level rise of 3.0m within the next 100 years (NOAA). An important consideration in this case is that even though the likelihood is very low (less than 1% chance each year), the potential consequences could be devastating. There is a balance between the acceptable level of risk, given the likelihood and potential consequences. This study considers the 1-in-100-year likelihood as establishing that balance, but assumes that risks that are not protected against, called residual risks, are understood and managed.

Management of residual risks can happen in a number of ways. Public information, preparation of emergency services, and building resilience in the existing infrastructure are the examples recommended in this study. During an extreme event that exceeds the design event, time is a very critical commodity, and it has to be managed extremely carefully to focus and deploy emergency efforts where they are most needed as fast as possible. The greatest benefit of a flood forecasting and warning system is that it provides a much longer timeframe (up to 5 days) to prepare emergency management efforts, providing time to inform the public and businesses, protect the municipal infrastructure, evacuate certain areas if necessary, and mobilize Regional Emergency Management Organization (REMO) staff and vehicle fleets. The cost of a flood forecasting and warning system is very low compared to any capital works expenditure recommended in this study.

It is therefore recommended that a flood forecasting and warning system be implemented to manage the current risks, as well as the growing risks associated with climate change. A flood forecasting and warning system can directly inform the REMO, who will then decide how to manage the warning.

Such a system can be developed to various levels of sophistication but, in its simplest form, it is a mapping tool that extracts the rainfall and storm surge forecast from Environment Canada and runs it in the model created for this study. Water levels are automatically extracted, mapped, and published on a password-access webpage. For better effectiveness, it should connect to the WWTF's SCADA system and connect to a tidal water level monitoring system. Figure 8.9 shows a diagram of the structure of such a system.

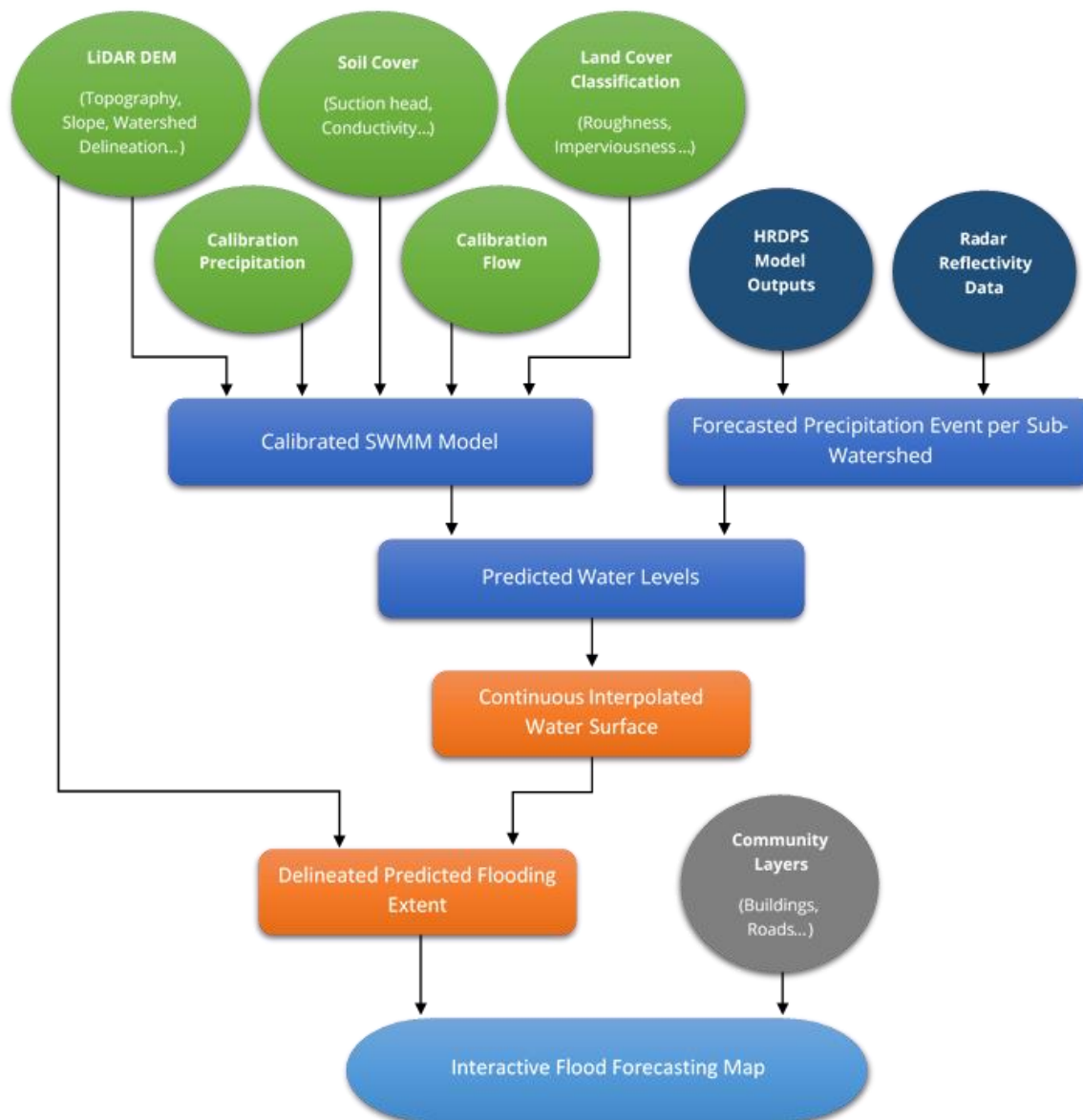


Figure 8.9: Flood Forecasting and Warning System Flow Chart

This can then become a useful tool for emergency management staff, such that informed emergency planning can take place and resources can be effectively allocated in advance.

8.3 Flood Protection Measures for Municipal Assets

The municipal assets identified as being vulnerable to flooding included the parking lot and corner of the RCMP garage, two sewage lift stations (SLS) and the wastewater treatment facility (WWTF). It is not expected that a small amount of flooding of the parking lot and corner of the vehicle garage during an extreme rainfall event requires flood mitigation. The flood extent or depth is not expected to increase in the future, even with the effects of climate change. Therefore, the only municipal assets that require flood protection involve the wastewater collection and treatment system.

The wastewater collection infrastructure includes pipes, manholes, and lift stations. The wastewater treatment plant is an aerated lagoon facility located directly south of the dyke system to the North-East of the Town, which has associated facilities, including a blower and UV building, and chlorine contact building. As noted in Chapter 7, those buildings are highly vulnerable to flooding risks with saltwater, and flooding will severely disrupt the quality of the treatment system and result in very costly repairs if it occurs. A new screening facility building is being designed at a much higher elevation, safe from flooding risks. In addition, sanitary manholes can also be a vulnerable point of entry of flood water into the conveyance system and result in overflows and decreased life of the system. This section provides high level mitigation and adaptations options to protect wastewater infrastructure from flood risks.

The Town's WWTF is protected both by the dyke system as well as berms surrounding the lagoon. During the existing 1-in-100-year sea level event, the model suggests that the dyke is overtopped and that the berms surrounding the lagoon are very close to being overtopped. However, the WWTF lagoon berms will be overtopped and the lagoons flooded with saltwater under future coastal water conditions (RCP8.5 95th percentile) if the dykes are not raised. Flooding of the WWTF could lead to service disruptions, complete loss of wastewater treatment services, raw sewage leakage, washout, and/or foul odour. Additional pumping, sand-bagging and associated costs to keep critical infrastructure dry during a flood event may be required. This may require diesel generators during a power outage.

WWTFs have significant subsurface infrastructure such as pipes, electrical components, tanks, and liners. Critical infrastructure located outdoors would be directly exposed during a flooding event. Critical mechanical and electrical/instrumentation equipment located within control buildings are also vulnerable if situated below flood elevations.

The mitigation and adaptation options presented below were identified to mitigate flooding impacts to the wastewater collection and treatment system.

8.3.1 Sewage Lift Stations:

Two sewage lift stations (SLS) have been identified as being vulnerable to flooding risks, notably by saltwater. Both SLSs are located in areas that can flood when dykes are overtopped, which is currently a risk for the 1-in-20-year and 1-in-100-year events, until the dyke system is connected and raised. Figure 8.3 below shows the locations of the two SLSs with respect to the flooding anticipated due to extreme coastal water levels.



Figure 8.10: Sewage Lift Stations at Risk of Flooding

Both SLSs are located north of Main Street in the low-lying floodplain that used to be salt marsh before the dykes were first built. The natural topography causes it to be one of the first areas to flood, whether by dyke overtopping or during extreme rainfall events, when the tide gates are closed during high tides.

Fortunately, the locations of the SLSs are not highly urbanized, and some small amount of land regrading around the stations should ensure that flooding risks are averted. It is recommended to raise the ground level around the stations by 0.5m, and allow slopes to be directed outwards from the SLSs.

8.3.2 Wastewater Treatment Facility

As noted in Chapter 7, the lagoons will be at risk of flooding if the dykes are not raised. The associated buildings are currently at risk of severe flooding, both during extreme rainfall events and during extreme coastal water level events.

Protection of the lagoons cannot be approached with emergency pumping, simply because the floodwaters involve a significant volume of water and will rise against the entire circumference of the lagoon berms. Essentially, a second, higher berm would need to be

built around the lagoons to keep them protected, which is not feasible in an emergency situation.

Alternatively, the option of connecting and raising the dyke system will allow the continued protection of the lagoon into the future, as long as it is carried out within the next 3 to 5 years. This is therefore the recommended flood protection measure for the lagoons.

The associated blower and UV buildings are located at a much lower elevation. The UV disinfection building in particular is closer to the drainage ditch and is at risk of being flooded to a depth of up to 1.5m under existing conditions. This is a significant risk and should be addressed in the short term. The connection and raising of the dyke system will reduce flooding risks, but not eliminate them.

It is not feasible to raise the blower and UV buildings to protect them against flooding, due to the high costs of modifying the piped connections, tanks, electrical and mechanical systems, etc. It is much more effective to construct another berm around those buildings to protect them from high water levels in existing and future climate conditions. The height of the new berm should be at least 7.2m CGVD2013, which is the average height of the lagoon berms. The proposed berm can be integrated into the functionality of the area, and its footprint minimized, by connecting the lagoon berms to the access road along the dyke and following the edge of the drainage ditch on the eastern side, as shown by the red dashed line in Figure 8.11 below. The proposed new Screening Building is intended to be built at an elevation of 7.9m CGVD2013, which is even higher and safer. The proposed berm can then function as an access road and lead to the higher elevated ground around the building (as shown in Figure 8.11). Figure 8.12 shows a schematic cross-section through the proposed berm. The berm would have a 3m-wide top for vehicle access and 1:1.5 side slopes to reduce its footprint, but it would still encroach on the brook, which would have to be diverted approximately 5m, as shown in Figure 8.12.

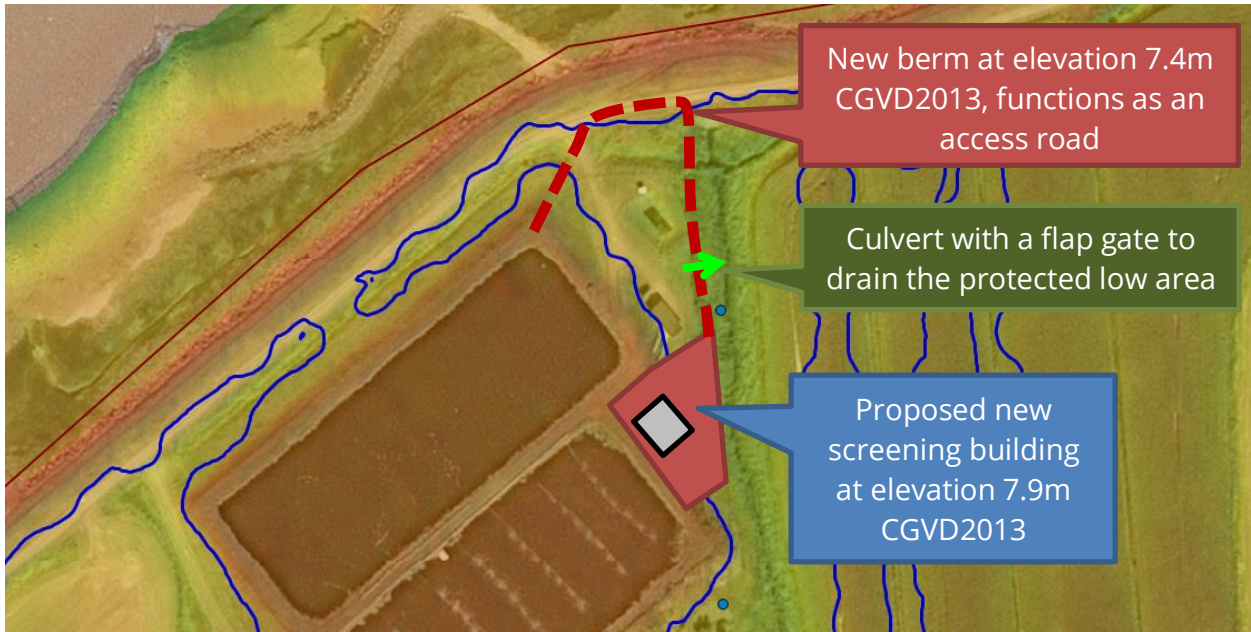


Figure 8.11: Proposed Berm to Protect WWTF Buildings

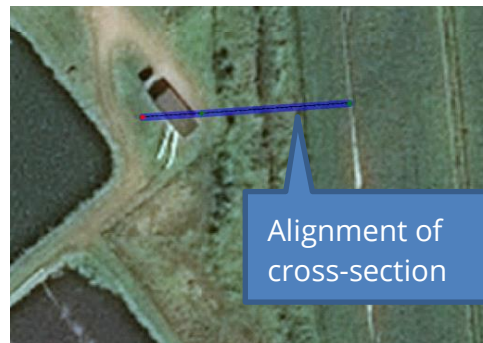
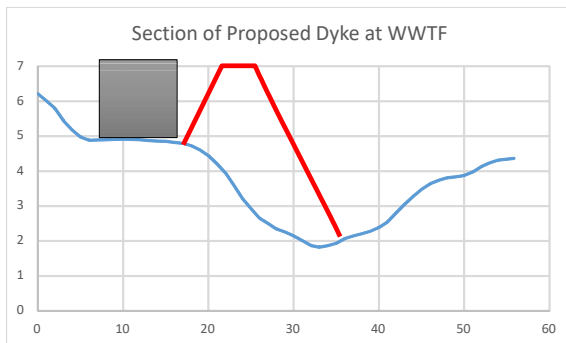


Figure 8.12: Schematic Cross-Section of Proposed Berm

8.4 Adapting Existing Buildings

As discussed in Chapter 7 and presented in Appendix A, flooding was not found to impact any municipal buildings. The back corner of the RCMP building and parking lot could receive some shallow flooding, but this would be temporary and would not increase in the future (as long as the dyke system is raised). Some commercial and private buildings are nevertheless exposed to shallow flooding risks, as identified in the flood mapping in Appendix A. A key example is the Wolfville Nursing Home, which is at risk of flooding in both existing and future climate conditions.

High water levels from extreme precipitation events alone, or in combination with high sea levels, may directly enter a building, and can also cause sewer backups into the basement.

Inflow and infiltration of clean surface water or groundwater into sewer manholes and pipes are issues in the Wolfville sanitary system that constantly require maintenance efforts to be kept to manageable amounts. During extreme rainfall events, inflow and infiltration will increase, potentially also exceeding the sanitary system capacity. This can create a risk of sewer backup in some low-lying buildings where the sewage pressurises the sanitary pipe, flows back up towards the building, overflows the toilets, and causes the basement to flood with sewage. In such instances, a backwater valve can be key to protecting buildings, including private residences, from sewer backups.

Adapting existing infrastructure to flooding vulnerabilities involves modifying construction to increase resilience to flood events. Development within the floodplain can be generally adapted by:

- ▶ Locating essential systems or infrastructure off the ground floor;
- ▶ Prescribing a minimum elevation (e.g., minimum freeboard above applicable flood elevation) as is currently the case;
- ▶ Raising buildings;
- ▶ Extending the foundation walls to above flood elevations; or
- ▶ Abandoning basements if they experience frequent flooding (Proverbs & Lamond, 2017).

General approaches towards flood-proofing individual buildings include raising the house off the foundations, wet flood-proofing, and dry flood-proofing. While raising a typical wood-frame house with a crawlspace and basement may cost \$60,000 - \$100,000 per house, basements may be proofed against occasional flooding for approximately \$20,000 or rebuilt with waterproofed foundations for approximately \$50,000. It does not look like raising structures would be necessary in Wolfville, although some landowners may decide to waterproof their basements.

The following list outlines general adaptation options which may prevent basement flooding in the event of extreme storm events and increased water levels. The selection of adaptations for each building depends on each specific building, as well as the level of risk that each building owner is willing to accept. The following adaptation options are available to building owners to manage flooding risks and are outlined for information purposes.

- ▶ **Foundation Grading:** Proper grading of the property away from the foundation at a minimum slope can improve drainage and prevent flooding and associated damage. Reverse driveways should also be avoided if possible.
- ▶ **Installing Sump Pumps:** A backup power source or generator may be required to keep the sump pump in operation during power outages. The sump pump discharge point should be at least 2m away from the foundation.
- ▶ **Installing a Backup Sump Pump:** A backup sump pump will prevent flooding in the event the primary sump pump is out of order.

- ▶ **Gutters and Downspouts:** Flow should be diverted at least 2m from the foundation. Installation of a back-flow preventer on the sewer lateral (if applicable).
- ▶ **Repairing Cracks in Foundations:** Cracks or openings may be sealed with a waterproof sealing material, such as an epoxy resin, to prevent infiltration.
- ▶ **Window Wells Installation:** Installation of window well covers on basement windows can prevent flooding. It is recommended that basement window wells extend 10-15cm above the surface of the ground and are sealed at the foundation.
- ▶ **Alternative Insulation Materials:** Spray foam is the preferred insulation material if the basement is not finished. When a basement is finished, then spray foam insulation may not be practical. An adaptive measure against water damage in basements is to select a closed cell foam insulation (cellulose) that is water resistant for installation at or below grade. A waterproofing sealant on the exterior of basement walls to protect the insulation may also mitigate losses from flooding or water infiltration.

Figure 8.13 below shows some additional measures that were included in the public communication summary document that will help building owners and homeowners better prepare against flooding risks.



Figure 8.13: Local Flood Reduction Measures for Buildings and Homes

8.5 Additional Flood Mitigation Measures for Consideration

The Town has recently developed Stormwater Management Design Guidelines (Hatch Ltd, 2019), which state a requirement for a net-zero increase in stormwater runoff policy. The objective of the policy is to limit the peak discharge rate from a new development to the pre-development rate; the flood mitigation options presented here are consistent with this objective. Under those Guidelines, Best Management Practices, or Low Impact Development measures, are presented, as well as increasing storage capacity. In addition, increasing pipe capacity is also presented as an option (although not part of the guidelines).

8.5.1 Best Management Practices or Low Impact Development

It is noted that in this context, Best Management Practices or Low Impact Development measures refer to infiltration systems (perforated pipes, infiltration swales, rain gardens, etc.) as opposed to detention ponds, which are not designed to infiltrate water.

An efficient approach to dealing with flooding risks from stormwater, as a result of development, is to manage the issue of high runoff at its source. Flooding is amplified when runoff is allowed to increase and infiltration of water into the ground is decreased. The more water is encouraged to infiltrate in the ground, the more the stormwater runoff from a site is controlled.



Figure 40: Vegetative Filter Strip Example

For example, street renewals can include:

- new perforated stormwater pipes;
- permeable sidewalks (pavers, asphalt or concrete);
- gravel beds under the sidewalks that connect to the stormwater main for added infiltration; and/or
- draining (perforated) catch basins.

Parking lot construction or renewals can include:

- permeable surfaces (pavers, asphalt or concrete);
- drainage system using perforated pipes, catch basins and manholes;
- infiltration strips;
- permeable linear drains connected to infiltration media; and/or
- rain gardens, infiltration swales, bioswales accessed with low curb inlets.

New buildings can include:

- green roofs;
- blue roofs;
- cisterns to collect rain water and reuse as grey water; and/or
- downspouts draining to the ground surface, with infiltrating media.

There is a vast array of measures that can be implemented, where the objective is to allow the runoff an opportunity to infiltrate the soil, mimicking natural conditions. Each site is unique, and a customized approach is needed for each site. Examples, and more information on those measures are available in the Stormwater Management Design Guidelines (Hatch Ltd, 2019).

Stormwater Best Management Practices and Low Impact Development techniques have the following benefits for the overall watershed and the Town:

- ▶ Decrease flooding risk and associated risks to infrastructure, land value, liability and public safety;
- ▶ Decrease peak flows, resulting in lower infrastructure costs;
- ▶ Aquifer recharge reduces the strain on water supply sources;
- ▶ Reduce pollution to drinking water supplies, recreational waters and wetlands, saving future expenditures for restoration of valuable water resources;
- ▶ Protect water quality and increase low flows in the natural drainage systems;
- ▶ Can reduce energy costs by constructing new green roofs or retrofitting existing roofs; and
- ▶ Through the above results, improve quality of life and increase property value.

Gradually implementing stormwater Best Management Practices would take many years to make an impact at the Town scale, but it would gradually reduce the volume of runoff from new development and therefore reduce the amount of flooding. The impact on the flood extents was estimated by the model to be limited, but this approach nevertheless helps additional development to not compound the flooding risks for existing landowners, which is a key aspect.

8.5.2 Increasing Storage Capacity

Storage is generally added to a stormwater system through ponds, underground storage, or constructed wetlands, in combination with a flow control structure at the outlet. The flow control structure increases the volume of storage and retention time of stormwater runoff, delaying the timing of the peak flow downstream.

In total, four (4) locations in the Town were identified for potential implementation of additional storage as identified in Table 11, , Figure 8.17, and Figure 8.18. The preliminary estimated dimensions of these structures are outlined in Table 11 and are included in the flood scenarios presented in Appendix A. The potential locations for the stormwater control structures were selected in order to mitigate identified areas of downstream flooding within the Town.

Table 11: Proposed Stormwater Storage/Retention Areas

Location Description	Approximate Coordinates	Proposed Area (m ²)	Proposed Depth (m)
Expansion of Little Brook natural water course near the southern end of Little Brook Lane	Latitude: 45.09 Longitude: -64.37	4,000	1.5
Expansion of natural waterbody located between Orchard Avenue and Sherwood Drive	Latitude: 45.09 Longitude: -64.35	5,000	1.5
Open Space at the Top of Willow Avenue	Latitude: 45.09 Longitude: -64.36	6,000	1.5
Open Space west of the Reservoir near Pleasant Street	Latitude: 45.08 Longitude: -64.34	6,000	1.5

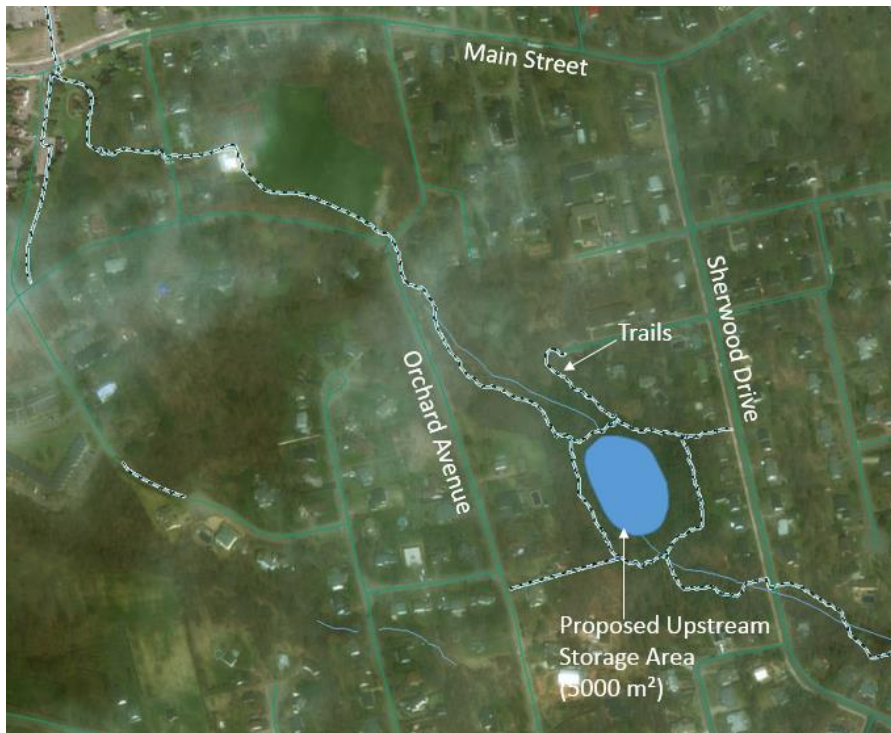


Figure 8.15: Proposed Stormwater Storage Area near Little Brook Lane



Figure 8.16: Proposed Stormwater Storage Area between Orchard Avenue and Sherwood Drive



Figure 8.17: Proposed Stormwater Storage Area in open space near top of Willow Avenue

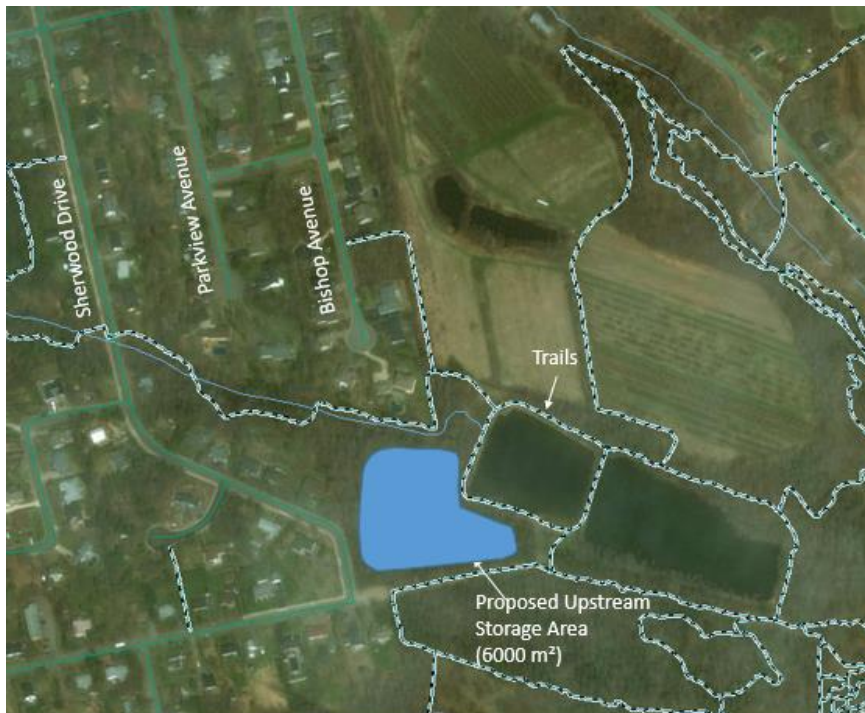


Figure 8.18: Proposed Stormwater Storage Area in Open Space west of the Reservoir near Pleasant Street

Recommended design of the stormwater storage and retention areas will need to follow the Stormwater Management Design Guidelines (Hatch Ltd, 2019).

The modelling conducted for the inclusion of storage systems indicated that the four potential sites presented above for storage, were all able to slightly reduce flood extents in the downstream areas, more notably in the Wickwire to University Avenue section of Main Street.

8.5.3 Increasing Pipe Capacity

Areas of recurring flooding were identified from consultation with the Town and evaluated through the model results. Insufficient capacity in the stormwater drainage system was indicated by the model results as a potential source of flooding. Pipe sizes in the model were increased in the locations identified in Figure 8.19, Figure 8.20, and Figure 8.22 to assess the potential impact of increased stormwater conveyance within the minor system on local flooding. The changes implemented to the stormwater drainage network are outlined in Table 12, and results are presented in Appendix A. All of the potential changes investigated are relatively minor increases in pipe diameter, meaning that the current system is very close to having sufficient capacity. The largest increase in pipe diameter is identified as number 5: University Avenue and Main Street (Table 12).

The modelled results show only a very minor decrease in the total area flooded as a result of capacity upgrades. Therefore, it may only be economical to replace the identified pipes with larger pipes when they are nearing the end of their useful life. The largest improvement, even though limited, is indicated by the model results to be at the corner of Main Street and University Avenue.

Table 12: Modelled Stormwater Pipe Upgrades

Identifier	SWMM Conduit Label	Original Pipe Diameter (m)	Upgraded Pipe Diameter (m)
1	C203D	0.75	0.9
2	C204D	0.9	1.2
3	C220E	0.3	0.45
4	C221E	0.75	0.9
5	C222E	0.9	1.5
6	C224E	0.45	0.6
7	C124I	0.3	0.6
8	C125I	0.3	0.6
9	C1_LF	0.45	0.6
10	C127I	0.45	0.6
11	C83J	0.3	0.45
12	C89J	0.6	0.75
13	C99J	0.6	0.75
14	C92J	0.45	0.6
15	C70K	0.45	0.6
16	C71K	0.45	0.6
17	C72K	0.45	0.6

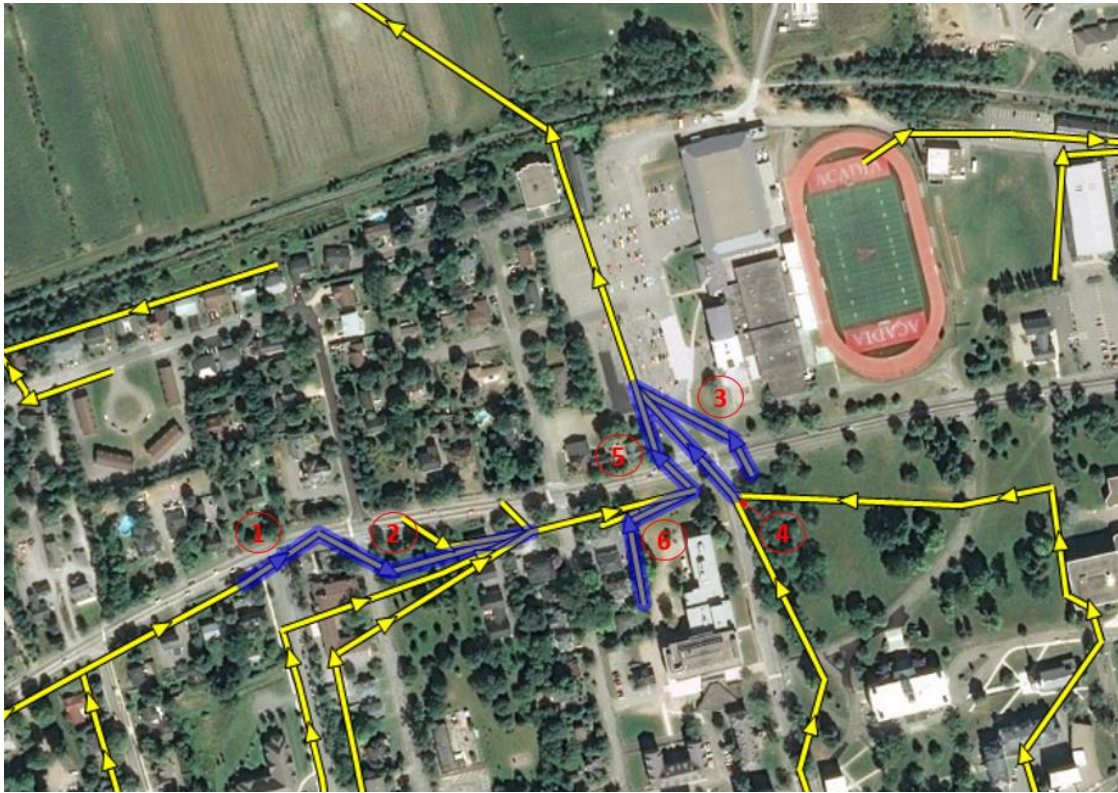


Figure 8.19: Proposed Upgrades for Stormwater Pipes near University Avenue and Main Street



Figure 8.20: Proposed Upgrades for Stormwater Pipes near Willow Avenue and Main Street



Figure 8.21: Proposed Upgrades for Stormwater Pipes near Orchard Avenue and Main Street



Figure 8.22: Proposed Upgrades for Stormwater Pipes near Main Street and Sherwood Drive

Chapter 9 Preliminary Evaluation of Mitigation Options

The flood mitigation and adaptation options presented in Chapter 8 were evaluated based on set criteria to determine recommended actions for the Town of Wolfville. Many of the options reviewed in Chapter 8 were clearly more suitable than others, however, a cost-benefit analysis of the options reviewed will better support the preparation of the flood mitigation plan. The ranking of the preferred options is presented below in Section 9.1, with supporting logic presented in Section 9.2.

9.1 Mitigation Option Ranking

The mitigation options were evaluated and ranked as *high priority* or *subject to further monitoring* as follows:

High Priority Measures:

1. **Coastal Flood Protection Measures:** includes connecting the dyke systems by raising the existing ground in the park and on the railroad. Also includes coordinating with the NSDA to raise the existing dyke system and periodically increase the dyke elevation to accommodate increasing sea levels. Optional inclusion of salt marsh restoration by extending the stormwater outfall pipes.
2. **Flood Protection of Municipal Assets:** protecting the 2 sewage lift stations (SLS) with land regrading, and constructing a new berm to protect the WWTF existing and new buildings.
3. **Flood Forecasting and Warning System:** informing the REMO of potential rainfall flooding or dyke overtopping risks. Includes monitoring water levels and connection with the WWTF SCADA system.
4. **Incentivize Local Flood Protection for Private Buildings:** includes site specific flood mitigation efforts to reduce the risk of flooding within private buildings.
5. **Community Education and Communication:** includes mailing of flood study overview, household education and actions, and waterfront signage and markers.

Actions Subject to Further Monitoring:

1. **Best Management Practices – Infiltration Measures:** includes promoting stormwater infiltration by identifying opportunities wherever pipes, sidewalks or parking lots are replaced or maintained.
2. **Increasing Stormwater Storage Capacity:** includes the construction of stormwater detention facilities and outlet control structures to control the release of flow downstream.
3. **Increasing Pipe Capacity:** includes upgrading identified undersized stormwater pipes.

9.2 Review of Mitigation Options

9.2.1 Coastal Flood Protection Measures

Coastal flood protection measures include connecting the Grand Pre and the Bishop Beckwith dyke systems, coordinating with the NSDA to raise the existing dyke system, and periodically increasing the dyke elevation to accommodate rising sea levels. A trail can be designed on top of the new dyke to connect with the current trail, which is a popular attraction for residents. This mitigation measure was evaluated in Table 13.

Extension of the outfalls for restoration of the natural banks with a living shoreline will allow for the restoration of valuable salt marsh habitat, which had formerly existed at the site. Salt marshes provide continued protection from the increasing risks of sea level rise and provide an added protection against wave action on the dyke.

Table 13: Review of Coastal Flood Protection as a Flood Mitigation Measure

Evaluation Criteria	Rank	Details
Flood Reduction Effectiveness	Very High	Eliminates the risk of coastal flooding impacts up to the 1-in-100-year event
Project Cost:		Requires detailed design and construction of approximately 400m of dyke
- New Dyke in existing mudflat	High (>\$5M)	
- New Dyke over Existing rail bed	Low (<\$1M)	Use of Existing trail and rail bed means significantly reduced volume of fill can be used. For both, optional extension of the stormwater outfalls to support restoration of natural banks
Operational Cost	Low	No operational requirements
Management Requirements	Low	Management includes maintaining the trail on top of the dyke and period

		topping of the dyke to accommodate increasing sea levels
Environmental Considerations and Regulatory Requirements	High (positive)	Constructing a new dyke in the Salt Marsh will impact a large area of fish habitat, and will require a significant amount of habitat compensation. Raising the existing ground would have no environmental impact. Implementing salt marsh restoration will have positive environmental impacts. Regulatory bodies such as NSDA and the Marsh Body will need to be consulted and requirements under the Agricultural Marshland Conservation Act and all applicable regulatory documents followed.
Economic Impacts	Low	Will significantly reduce the cost of flooding impacts to vulnerable infrastructure. The net benefits of recreational activities can potentially increase with the newly joined trail system and natural feature. The University may use the salt marsh restoration for educational purposes about environmental sustainability and Nature Based solutions.
Social Acceptance	High	The newly joined trail system including the implementation of salt marsh restoration provides a natural aesthetic feature to the landscape is a major added benefit to the Town

As per this analysis, it is recommended to construct a new dyke to an elevation of 8.5m CGVD2013 within the next 3 to 5 years, which corresponds to an average increase in ground level of approximately 500mm on the Kings County Rail Trail and edge of the Waterfront Park. In conjunction with this, it is recommended that the Town coordinate with the NSDA to raise the existing dykes by an average of 500mm to reach a consistent elevation of at least 8.5m CGVD2013. NSDA will need to be consulted about the potential implementation of the new *Guidelines for Safety of Coastal and Estuarine Dykes and Aboiteaux in New Brunswick and Nova Scotia* (Amec Foster Wheeler, February 2018). A new dyke at an elevation of at least 8.5m CGVD2013 will provide protection to the Town for the next 45 to 65 years, depending on the rate of SLR.

9.2.2 Flood Protection Measures for Municipal Assets

As noted in Section 8.3, the municipal assets at risk of flooding involve two SLSs (low risk) and the existing WWTF buildings (significant risk). Land regrading around the SLSs to increase the land height by approximately 500mm, which is considered to require a minimal amount of capital budget (~\$2,000), is one mitigative measure that was considered. Conversely, a berm may be required to protect the WWTF buildings, as described in Section 8.3. This flood protection infrastructure is considered critical for maintaining the essential functions of the Town and is therefore recommended for implementation in the short term (i.e., within the next 3 to 5 years). Further evaluation of these options is presented in Table 14.

Table 14: Review of Flood Protection Measures for Municipal Assets

Evaluation Criteria	Rank	Details
Flood Reduction Effectiveness	High	Critical infrastructure to protect essential service. A new berm will eliminate flooding risks up to the 1-in-100-year tidal event.
Project Cost	Low (<\$1M)	Detailed design and construction requirements
Operational Cost	Low	These structures typically have no to low operational requirements
Management Requirements	Low	Period maintenance and inspection required
Environmental Considerations and Regulatory Requirements	High	Regulatory requirements as well as environmental impact assessments may need to be undertaken. Some watercourse alteration permitting may be required, and if agricultural land is affected, regulatory bodies such as NSDA and the Marsh Body will need to be consulted and requirements under the Agricultural Marshland Conservation Act and all applicable regulatory documents followed
Economic Impacts	Medium	Averts medium economic impacts of a flood event
Social Acceptance	Low	Project is not expected to encounter strong interest from the public.

9.2.3 Flood Forecasting and Warning System

As noted in Section 8.2, a flood forecasting and warning system would support the management of flooding risks of events greater than the 1-in-100-year flood, as well as provide warnings for the shallower floods, within the 1-in-100-year event, that can still occur with the proposed flood mitigation measures. As the sea levels rise, tracking the gradually increasing risk of dyke overtopping from extreme coastal water levels will be complex and difficult to estimate. A flood forecasting and warning system will connect to the Environment and Climate Change Canada rainfall and storm surge forecasts, run the flood models, and prepare flood maps on a website accessible by Regional Emergency Management Organization (REMO) staff to inform them on potential risks and support effective allocation of resources. For better effectiveness, it should connect to the WWTFs SCADA system and a tidal water level monitoring system. This measure is also recommended for implementation within the next 3 to 5 years and is reviewed in Table 15.

Table 15: Review of Flood Forecasting and Warning System Implementation as a Flood Mitigation Option

Evaluation Criteria	Rank	Details
Flood Reduction Effectiveness	High	Supports flood preparation, allows to increase public safety
Project Cost	Low (<\$0.1M)	Coordination with REMO needed
Operational Cost	Low	Regular maintenance needed, server and website costs
Management Requirements	Low	Regular monitoring, QA/QC, calibration, updates
Environmental Considerations and Regulatory Requirements	Low	Only include those taken by the EMO for flood preparations to protect public safety
Economic Impacts	Low	Reduces economic impacts of a flood event
Social Acceptance	High	Project is expected to see positive interest from the public.

9.2.4 Adapting Existing Buildings

The adaptation of existing buildings involves site specific options to reduce flood risk to specific infrastructure. None of the buildings at risk in the Town involve municipal infrastructure, they are commercial or private, and the risks are limited to temporary, shallow flooding. Therefore, the assessment of costs and impacts is specific to the site and adaptation option selected, as described in Section 8.4, and will depend on individual owner's intentions for the management of flood risks. This differs from the other flood

mitigation strategies provided as they aim to reduce flooding throughout the entire watershed areas. Nevertheless, since the risk exists, the Town may decide to incentivize the implementation of local flood proofing measures as listed in Section 8.4, and as such, the general public may feel this is a high-priority flood mitigation measure. Reference to the Homeowner Residential Rehabilitation Assistance Program (RRAP) is already made in the community summary document presented in Appendix B, a section of which is reproduced in Section 8.4.

9.2.5 Best Management Practices or Low Impact Developments

The Stormwater Management Guidelines (Hatch Ltd, 2019) are already referred to in the updated Land Use By-laws, and therefore, are already required to be implemented in all future development.

Modelling results indicate that increasing the amount of stormwater infiltration slightly reduces the amount of flooding within the Town of Wolfville. Further review of these options is available in Table 16.

Table 16: Review of Best Management Practices or Low Impact Developments as a Flood Mitigation Measure

Evaluation Criteria	Rank	Details
Flood Reduction Effectiveness	Medium	Flood risks are slightly reduced but vulnerable areas are still at risk
Project Cost	Low	Already Implemented
Operational Cost	Low	
Management Requirements	Low	
Environmental Considerations and Regulatory Requirements	Low	Low Impact Development measures typically reduce damage to downstream environment.
Economic Impacts	Medium	Even though such measures slightly increase the cost of development, flood protection and sustainable methods are expected to improve land value.
Social Acceptance	High	Low Impact Development measures are typically well accepted by the community.

9.2.6 Increasing Storage Capacity

Model results indicate that implementing the proposed storage facilities and flow control structures, as described in Section 8.5.2, were all able to slightly reduce flood extents in the downstream areas, more notably in the Wickwire to University Avenue section of Main Street. An evaluation of increasing the storage capacity of the watersheds as a flood mitigation option is available in Table 17.

Table 17: Review of Increasing the Storage Capacity of the Watershed as a Flood Mitigation Measure

Evaluation Criteria	Rank	Details
Flood Reduction Effectiveness	Low	Limited effectiveness, but more notable in the Wickwire to University area on Main St.
Project Cost	Low (per pond): ~\$0.3M	Detailed design and construction requirements
Operational Cost	Low	These structures typically have no to low operational requirements
Management Requirements	Medium	Periodic maintenance and inspection required
Environmental Considerations and Regulatory Requirements	High	Regulatory requirements as well as environmental impact assessments may need to be undertaken
Economic Impacts	Low	Reduce the cost of flood impacts in downstream areas
Social Acceptance	Medium	Large project undertaking and may have push back to large construction project and structure near residences

9.2.7 Increasing Pipe Capacity

Model results indicate that increasing the size of select storm sewer pipes increases the conveyance capacity of the storm sewer network and slightly reduces localized flooding. The storm sewer upgrades evaluated are outlined in Section 8.5.3 and include upgrades to seventeen (17) pipes. The limited reduction in flooded areas is related to the fact that the capacity of the system is reduced to zero when the tide is high.

As noted in Section 8.5.3, it may be most economical to replace the identified pipes (with larger pipes) only when they are nearing the end of their useful life, or if street repairs are planned. The largest reduction in flooding, even though limited, was indicated by the model results to be at the corner of Main Street and University Avenue. An evaluation of

increasing the pipe capacity of the municipal stormwater system as a flood mitigation measure is presented in Table 18.

Table 18: Review of Increasing Pipe Capacity as a Flood Mitigation Measure

Evaluation Criteria	Rank	Details
Flood Reduction Effectiveness	Low	Very limited, with some reduction noted in the University Ave/Main St area
Project Cost	Low (~\$0.3M) for University/Main	Detailed design and construction requirements
Operational Cost	Low	No operational cost
Management Requirements	Low	Period maintenance and inspection
Environmental Considerations and Regulatory Requirements	Low	Storm sewer design requirements and construction requirements
Economic Impacts	Low	Limited reduction in flood impacts expected
Social Acceptance	Medium	Disruption to areas such as sidewalks and roads during construction

Chapter 10 Stakeholder Consultations and Community Communication

10.1 Stakeholder Consultations

Stakeholder consultations plays an important role in a study that involves potential modifications to infrastructure that is not owned by the Town, or connects with land or infrastructure that is not owned by the Town. There can be land transfer, infrastructure operation, and management or maintenance considerations to take into account. In addition, some propositions for new infrastructure may not be consistent with future plans of various stakeholders. To minimize such risks, coordination with the various stakeholders is a key step in the development of a flood mitigation plan for the Town.

Prior to this study, 5 years of consultations were carried out through the review of the Town's planning documents, which included an assessment of the flood risk of the Town. The findings of these consultations were consolidated in the recently implemented update to the MPS and Land Use By-laws. This process involved a flood risk workshop and multiple committee and council reviews.

As part of the current study, a number of stakeholders were contacted. The objective was to inform them of the current study and give them an opportunity to provide comments on the study.

The following stakeholders were contacted for an opportunity to provide feedback:

- ▶ Acadia University,
- ▶ Municipality of the County of Kings,
- ▶ Nova Scotia Department of Agriculture,
- ▶ Nova Scotia Transportation and Infrastructure Renewal,
- ▶ Bishop Beckwith Marsh Body,
- ▶ Grand Pre Marsh Body.

Responses were obtained from the Municipality of the County of Kings and the Nova Scotia Department of Agriculture. After several attempts, no responses were obtained from the other stakeholders by the time this report was completed. This could be related to the challenging conditions associated with COVID-19, or it could also mean that no potential issues were identified by the respective stakeholders.

10.1.1 Municipality of the County of Kings

The Municipality of the County of Kings provided feedback and expressed its appreciation for being contacted and informed of this study. They expressed interest in being informed of its progress and its next steps, including planning considerations, as well as potential flood mitigation options that could be implemented. At this time, no potential issues were found to exist with the proposed flood mitigation options.

10.1.2 Nova Scotia Department of Agriculture

The NSDA is a key stakeholder in this project, since the main flood mitigation option identified in this study is the extension and topping of the existing dyke system owned by the NSDA. The NSDA was contacted and various considerations were discussed and addressed, including:

- ▶ Current plans from NSDA to top (raise) the existing dyke system to offer continued protection against SLR;
- ▶ Ability to allow walking trails on the dyke system;
- ▶ Ownership of the potential new dyke; and
- ▶ Maintenance of new dyke.

The NSDA noted that it currently had plans to address increasing risks of SLR at both the Grand Pre and Bishop-Beckwith dyke systems. No timeline is available yet, but the NSDA is also interested in looking at the findings of the current study to inform their future plans.

Considering the ability to allow walking trails on the dyke system, the NSDA noted that walking on dykes can damage the vegetation, which is a key component of the erosion protection for the dyke and provides structural stability. In addition, access for maintenance of the dykes can be more difficult if it is open to the public. This notwithstanding, the NSDA has previously allowed the construction of walking trails on its dykes and has developed some adaptations that are necessary for the inclusion of a walking trail. These adaptations include a slightly higher top elevation (to compensate for erosion risks), some geotextile fabric, and erosion-resistant material (coarse gravel) that is covered with finer material for the trail surface (crusher dust). Increased monitoring efforts would be required by the Town, and maintenance is more difficult, but the possibility will certainly be considered by the NSDA.

Regarding ownership of the new dyke, which would link the Grand Pre and Bishop-Beckwith dyke systems, if the Town designs and builds a new dyke that follows the NSDA dyke design guidelines, NSDA are open to receiving ownership of it and providing maintenance.

From a maintenance perspective, while NSDA will provide some general maintenance of the dykes, to the same level as the remainder of the dyke system around the Bay of Fundy, erosion caused by pedestrian traffic would have to be monitored, and if necessary, repaired by the Town.

These considerations show that it is certainly feasible to implement the construction of a new dyke to close the existing gap between the dykes, as long as the design is closely coordinated with the NSDA.

10.2 Community Education and Communication

A public-facing communication strategy and materials have been prepared in draft form and are presented below.

10.2.1 Public Communication Summary Document

A summary document was assembled touching on the main points in the report (available in Appendix B). It is designed to be concise, clear, and accessible. The document includes the following information:

- ▶ Introduction to climate change;
- ▶ Description of existing and future flooding risks;
- ▶ Flood mapping;
- ▶ Flood mitigation measures recommended in this report, including:
 - New dykes and raised dykes;
 - Infiltration systems;
 - Increasing stormwater storage capacity; and
 - Increasing pipe capacity;
- ▶ Flood-proofing measures at the building or household level, including:
 - Explanation of sources of stormwater into the household;
 - Lot and building level flood mitigation and flood proofing measures; and
 - Reference to the Homeowner Residential Rehabilitation Assistance Program (RRAP).

10.2.2 Layout of Document to be Sent to Residents in a Flood-Affected Area

Communication documents can take many different forms. Typically, the most helpful documents prepared for communication are those that are focused on the main questions that readers are likely to be asking themselves, for example:

- ▶ Why is there a flooding risk in the Town?
- ▶ Am I at a risk of flooding?
- ▶ How much flooding am I at risk of experiencing?
- ▶ Am I likely to suffer damages to my home?
- ▶ Are my loved ones and me at risk?
- ▶ How can I prepare for a potential flood?
- ▶ What can I do to my home and property to reduce risks of damage?
- ▶ How can I access help to pay for the costs of those measures?

It may be helpful to directly include the questions in the mail-out document so that the readers can see that those questions will be answered and feel that the document is helpful.

The answers to the questions are in the summary document and in the flood maps. Even though flood maps could be sent to residents, it is typically the case that members of the public at large are not familiar with maps or how to find their home on a map.

Since the flood risks to the buildings identified in the mapping is very consistent and involves only temporary, shallow flooding, it may be more effective to focus on the risks, rather than asking readers to understand the details of a map. For example, it could be noted that their home has been identified as being at risk of flooding, but that the flooding will only be temporary (in the order of a few minutes to a few hours) and it will not involve deep water or place any lives at risk.

Preparation measures for a flood are detailed at the beginning of Section 8.4, while flood protection measures at the lot and building level are presented further down in the same section.

Access to financial support is also noted in the community summary document referencing the Homeowner Residential Rehabilitation Assistance Program (RRAP), and the Town could also provide some financial incentives.

As noted in Section 8.2, residual risk would also need to be managed and communicated. It may include noting that the dyke system would be designed up to a certain level of protection (in this report, the 1-in-100-year event is used as a design basis). Regardless of the design event used to construct the new dyke, and/or to raise the existing dykes, there will always be a risk that an event greater than the design event occurs. In this case, the risk

is managed by the REMO, through preparation, response, and recovery. A flood forecasting system would then include a warning response procedure, where the public is warned if the dykes are at risk of being overtopped. Since this type of flooding would involve deep water and fast-moving water, any persons within the area at risk would have to be evacuated (this would include any building North of the railroad and a handful of buildings West of Old Dyke Lake and North of Main St, including the Southwest Nova Insurance Group up to Orchard Avenue).

Perhaps it can be noted with an explanation that the dykes are built to reduce the risk, but will never eliminate the risk of overtopping, and/or failing. This risk is managed by the REMO, who will provide alerts if necessary, and ensure that any necessary evacuations will take place.

This communication will need to take place with any owner of a building or home that has been identified as being at risk of flooding in existing conditions by the 1-in-100-year event, or the future conditions (with dykes raised) 1-in-100-year event. The mapping in Appendix A has identified those buildings by colouring them in yellow. In addition, communication with owners of any building and home that is within the future 1-in-100-year flood extents (scenario with no dyke raised) will also need to be informed that they would be at risk of being evacuated if an event greater than the 1-in-100-year event occurred, and/or if the dykes were to fail.

10.2.3 Draft Education Signage for Waterfront Showing Future Water Levels

The Public Communication Summary Document (presented in Appendix B) is a good document to draw from to produce education signage. The first two pages address climate change, sea level rise and storm surge related flooding. Some slight wording changes to adapt the document from a summary of a study to an informative panel would be needed and may involve the following edits:

- ▶ Changing “Town of Wolfville Flood Mitigation Plan” to “Climate Change and Peak Water Levels in Wolfville”; and
- ▶ Changing “Climate change projections have been incorporated into this study to determine how flood risk will increase over time and how these risks can be reduced” to “Climate change projections have been analysed to determine how flood risk will increase over time”.

A standard signage showing potential future peak water level could look something like Figure 10.1 below:

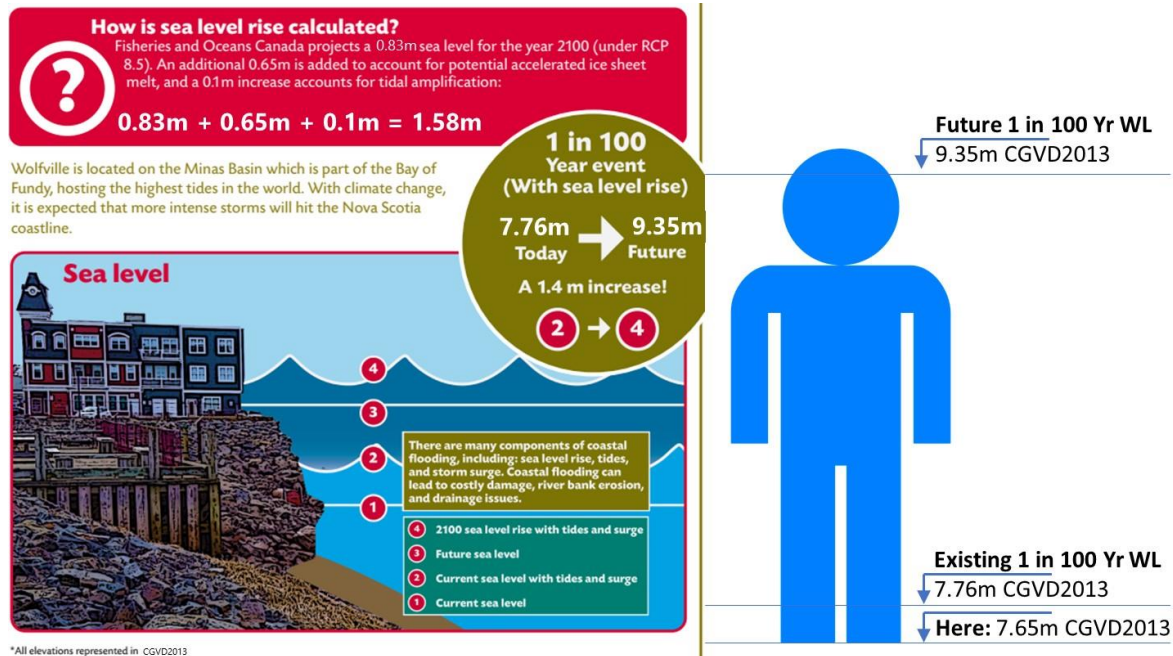


Figure 10.1: Example of Water Level Signage and Marker

10.2.4 Considerations for Leaflet Mailed to Residents About Flood Proofing their Properties

The information and layout presented in the last page of the Public Communication Summary Document (in Appendix B, and presented below in Figure 10.2) is a good starting point. It could be a stand-alone document, but it would be considered more effective if this is directly included in the mailed information to building owners that have been identified as being at risk of flooding. The measures listed in the document apply to both buildings and homes, especially since many businesses are homes converted for that purpose. Another version can perhaps be kept at the Town Hall for additional information to any resident curious about flood proofing their home.

Town and Residents: Partners in Flood Protection

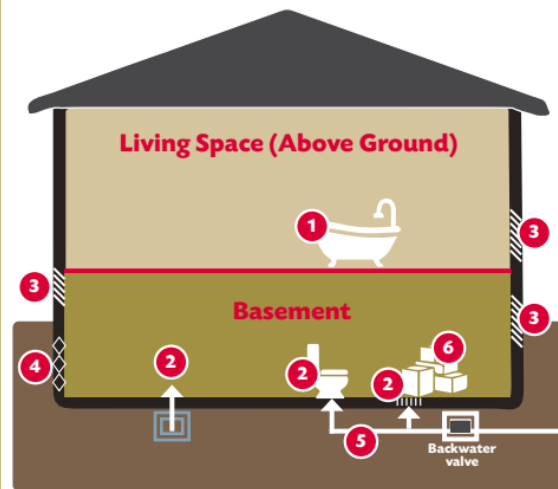
The actions taken by the Town of Wolfville in combination with actions taken by residents will be vital to protect homes from flood risk. Homeowners can undertake practical and cost effective flood protection measures to mitigate flood risk to their properties and protect valuables and assets. Flood Protection Measures by priority and cost include:

1 Maintain \$0					
2 Simple Upgrades >\$250					
3 Complex Upgrades <\$250					

Additional Resources

Review Flood Maps to determine if you're at risk of flooding. Refer to the Home Flood Protection Toolkit by the Impact Centre for Climate change for checklists, step-by-step guides, insurance claim information and more. (https://www.intactcentreclimateadaptation.ca/programs/home_flood_protect/resources/) In Nova Scotia under the Homeowner Residential Rehabilitation Assistance Program (RRAP) forgivable loans up to \$18,000 and can be forgiven over a maximum of five years to assist eligible homeowners who own and occupy homes that do not meet the minimum health and safety levels. For Details contact Housing Nova Scotia at 844-424-5110

Sources of water damage and home flood risks



- | | |
|---|--|
| 1 Rupture of plumbing pipes and fixtures | 4 Groundwater infiltration through seepage and cracks in the foundation |
| 2 Sewer back-up through sump-pit or backup from the closed backwater valve | 5 Rupture of sewer lines |
| 3 Overland water through cracks or openings around doors, windows or the above ground foundation | 6 Poor maintenance and housekeeping |
- Reference: University of Waterloo. (2020). Home Flood Protection Program. Retrieved from Intact Centre on Climate Adaptation: https://www.intactcentreclimateadaptation.ca/programs/home_flood_protect/



This is a summary. For more information, please request a copy of the full technical report.

Figure 10.2: Section of Community Summary Document that Addresses Flood Proofing Measures

10.2.5 Considerations for Effective Communication of Flooding Risks and Flood Protection

Communication of flooding risk is a complex and delicate process. While it is very important to carry out, it is also important to take care in preparing a communication plan that is both informative and considerate of various individuals' circumstances. An effective plan could include several methods of contacting building owners and homeowners, including:

- ▶ Town's planning documents (already on the Town website);
- ▶ Document mailed directly to those affected by flooded area (as describe above);
- ▶ Leaflet with flood proofing measures (as described above) to be published on the Town website and made available to anyone who walks in the Town Hall;

- ▶ Community summary document to be published on the Town website and made available as a leaflet to anyone who walks in the Town Hall;
- ▶ Education signage and markers of high water levels (as discussed above);
- ▶ A public open house to present this analysis and new flood maps; and
- ▶ A contact phone number to call if any further questions arise.

While communicating the fact that there is a risk and providing mitigation measures is key, it is also important to communicate the information, facts and science behind the flood elevations and mapping presented. This is not a simple undertaking and can easily lead to confusion. This is likely best addressed through a combination of making available the summary community document, the markers and education signage, holding an open house, and making available the full technical report on the Town website. The open house, in particular, would be the most suitable setting for any member of the public to ask any question, and it would allow the Town/CBCL technical staff to walk the person through the key steps of the analyses in simple, clear terms. A public open house is typically the most effective setting to allow each person to ask any question they like and have an informative one-on-one conversation. Projected presentations in an auditorium setting are much less effective and seldom achieve the goal of effectively informing members of the public. Of course, this open house will necessarily be delayed until the COVID-19 pandemic is over, but it should still be held once safe to do so.

Chapter 11 Conclusions and Recommendations

11.1 Summary

A Flood Risk Mitigation Plan has been completed for the Town of Wolfville. The Plan identifies current and future flood risks, including impacts of climate change, and evaluates a list of proposed solutions to mitigate flood risks to the Town. The Plan was developed through communication with both stakeholders and the Town, and it included a review of the Town's municipal operations and priorities, relevant reports, by-laws, guidelines and strategies.

Inland and coastal flooding within the Town of Wolfville can occur as a result of extreme rainfall events and extreme coastal water levels. Inland flooding occurs when the stormwater collection system has insufficient capacity to convey stormwater runoff downstream during extreme rainfall events resulting in overflow onto areas such as roads, municipal infrastructure and private properties. Coastal flooding occurs when extreme tides reach inland areas either through backup through the stormwater system, overtopping dykes, or between the two dyke systems.

A suite of computer models was used to assess flood risks within the Town, estimate current and future risks, and evaluate potential flood mitigation options. A range of rainfall and tidal scenarios were assessed under current and future conditions to evaluate the risks of flooding.

The effects of climate change on both precipitation and sea level rise were considered when examining future conditions (i.e., the year 2100 time horizon). To date, global greenhouse gas concentrations have most closely tracked RCP8.5, which was used to generate the higher range of climate change projections featured in the IPCC's AR5. The 1-in-100-year rainfall event is projected to increase by approximately 61% by 2100 under RCP8.5 (95th percentile) according to the Western University IDF-CC Tool (Table 19).

Table 19: Future and Existing Rainfall Projections of the IDF_CC Tool for a 1-in-2 and 1-in-100-year Occurrence Probability

Peak Rainfall Intensity	1-in-2-year (mm/hr)	1-in-100-year (mm/hr)
Existing	68.57	174.00
Future	88.45	280.12

Extreme coastal water levels include high tide, sea level rise (SLR), storm surge and tidal amplification. Regional SLR for the year 2100 is projected to be 1.58m for the Town of Wolfville. Extreme coastal water levels included high tide, SLR and storm surge (“High” Scenario), as presented in Table 20.

Table 20: Future and Existing Sea Level Projections for a 1-in-2 and 1-in-100-year Occurrence Probability

Peak Water Level	1-in-2-year (m CVGD 2013)	1-in-100-year (m CVGD 2013)
Existing	7.57	7.76
Future	9.15	9.35

A list of key recommendations separated under “high priority”, and “subject to further monitoring” was developed and is presented in Table 21 and Table 22. In addition, the main items requested in the Request for Proposals are listed below, with each relevant sections of the report noted for simplified reference.

Scope of Work

CBCL was contracted to respond to the following scope of work for this project. The table below provides quick reference to relevant information:

Project Scope Component	Final Report Reference
Consultation with local, regional, and provincial stakeholders.	Chapter 10.1 Stakeholder Consultations
The identification and analysis of flood hazards, highlighting specific areas of vulnerability within the town.	Chapter 7 Vulnerability Assessment
The development and modelling of current and future flood scenarios.	Chapter 4 Coastal Water Level Analysis and Chapter 5 Hydrologic and Hydraulic Analysis
Determining the consequences of developed flood scenarios, in terms of who and what would be impacted, and the nature and severity of those impacts.	Chapter 7 Vulnerability Assessment
A workplan with a mitigation investment strategy, including a prioritized list of identified projects for implementation; and adaptation strategies, covering the areas of land-use planning, protection/relocation/resilience of critical infrastructure, development, personal/household safety and planning measures, and emergency response and service management.	Chapter 8 Flood Risk Mitigation Options and Chapter 9 Preliminary Evaluation of Mitigation Options
Updating current flood maps and models for the Town.	Chapter 6 Flooding Analysis and Appendix A
Recommendations for integration with provincial and regional plans.	Section 3.3: Documentation Review
A public education and engagement component, which could include a community workshop and/or the development of a public-facing communication strategy and materials.	Section 10.2: Community Education and Communication. Appendix B

11.2 Recommended Implementation Plan

A recommended flood mitigation implementation plan has been assembled as part of this study, which is summarized in Table 21 and Table 22, and includes a timeline for implementation, opinions of probable costs, and report references. These recommended actions are divided into a High Priority Table (Table 21) and Actions Subject to Further Monitoring Table (Table 22).

Table 21: Recommended Flood Mitigation Plan – High Priority Actions

	High Priority Action	Timeline	Class “D” Opinion of probable Cost*	Report Reference
Connecting the dyke system & integrating living shorelines				
	Conduct topographic survey of top of dykes and waterfront in-between	1-3 Years	~\$20k	Section 3.2 Stormwater Drainage
	Contact rail line owner to assess feasibility of acquiring land for new dyke	1-3 Years	-	Section 8.1.1 Connecting the Dyke System and Applying Living Shorelines
	Land negotiations, pending results of above discussions	1-3 Years	-	
	Hold discussions with Department of Agriculture about raising of dykes	1-3 Years	-	10.1.2 Nova Scotia Department of Agriculture
	Following the above, select option for new dyke (in mudflat or rail ROW)	1-3 Years	-	
	Tender and award detailed design for new dyke	1-3 Years	~\$50k	
	Investigate financing options for new dyke	1-3 Years	-	
	Design and tender stormwater pipe extensions to reduce erosion and support development of living shoreline	1-3 Years	~\$20k	
Raising land around SLs and new berm around WWTF				
	Review permitting and land requirements based on WWTF berm alignment and footprint	1-3 Years	-	

	Tender and award detailed design for new berm	1-3 Years	~\$50k	
	Regrade land around SLSs	1-3 Years	~\$10k	
Flood forecasting and warning system in partnership with REMO				
	Discuss with REMO scope and integration of system in existing SCADA	1-3 Years	-	8.2 Flood Forecasting and Warning System
	Tender flood forecasting and warning system	1-3 Years	~\$50k	
	Install water level monitoring and recording system with connection to SCADA	1-3 Years	~\$50k	
Community education and communication				
	Public Education: <ul style="list-style-type: none"> - Review Summary Document - Educational Signage about Sea Level Rise - Mail out leaflets to home and building owners in flood risk areas - Prepare open house when feasible 	1-3 Years	~\$10k	10.2 Community Education and Communication
Construction of new dyke and berm				
	Tender construction of new dyke	3-5 Years	~\$600k on bank ~\$6M in mudflat	8.1 Coastal Flood Protection Measures & 9.2.1 Coastal Flood Protection Measures
	Remove and dispose of old wooden beams		~\$20k	
	Tender extensions of stormwater pipe outfalls		~\$600k	
	Tender construction of new berm	3-5 Years	~\$300k	8.3.2 Wastewater Treatment Facility
	Coordinate topping of existing dykes with Department of Agriculture	3-5 Years	-	10.1.2 Nova Scotia Department of Agriculture
Future steps				
	Evaluate recorded water level data and assess Sea Level Rise projections	35-45 Years	~\$5k	-
	Design and construct (or coordinate with Department of Agriculture) additional raising of the dyke system	35-45 Years	Depends on findings	10.1.2 Nova Scotia Department of Agriculture

Table 22: Recommended Flood Mitigation Plan – Actions Subject to Further Monitoring

	Actions Subject to Further Monitoring	Class “D” Opinion of probable Cost*	Report Reference
Increasing infiltration measures			
	Identifying opportunities wherever pipes, sidewalks or parking lots are replaced or maintained	Will vary	9.2.5 Best Management Practices or Low Impact Development
Increasing storage capacity			
	Construct detention pond in Little Brook Lane area	~\$250k	8.5.2 Increasing Storage Capacity
Increasing stormwater conveyance capacity			
	Minor upgrades with street work	Will vary	
	University and Main Street (identified as largest increase in pipe diameter)	~\$300k	8.5.3 Increasing Pipe Capacity
Protecting future development			
	Monitoring latest information (data, climate science) and update plans accordingly		5.1.2 Impacts of Climate Change Rainfall Events
	Evaluate recorded water level data and assess Sea Level Rise projections		4.1.2 Climate Change Impacts on Coastal Water Levels

Should you have any questions about this analysis, please do not hesitate to contact the undersigned. We thank you again for the opportunity to conduct this very interesting analysis.

Yours very truly,

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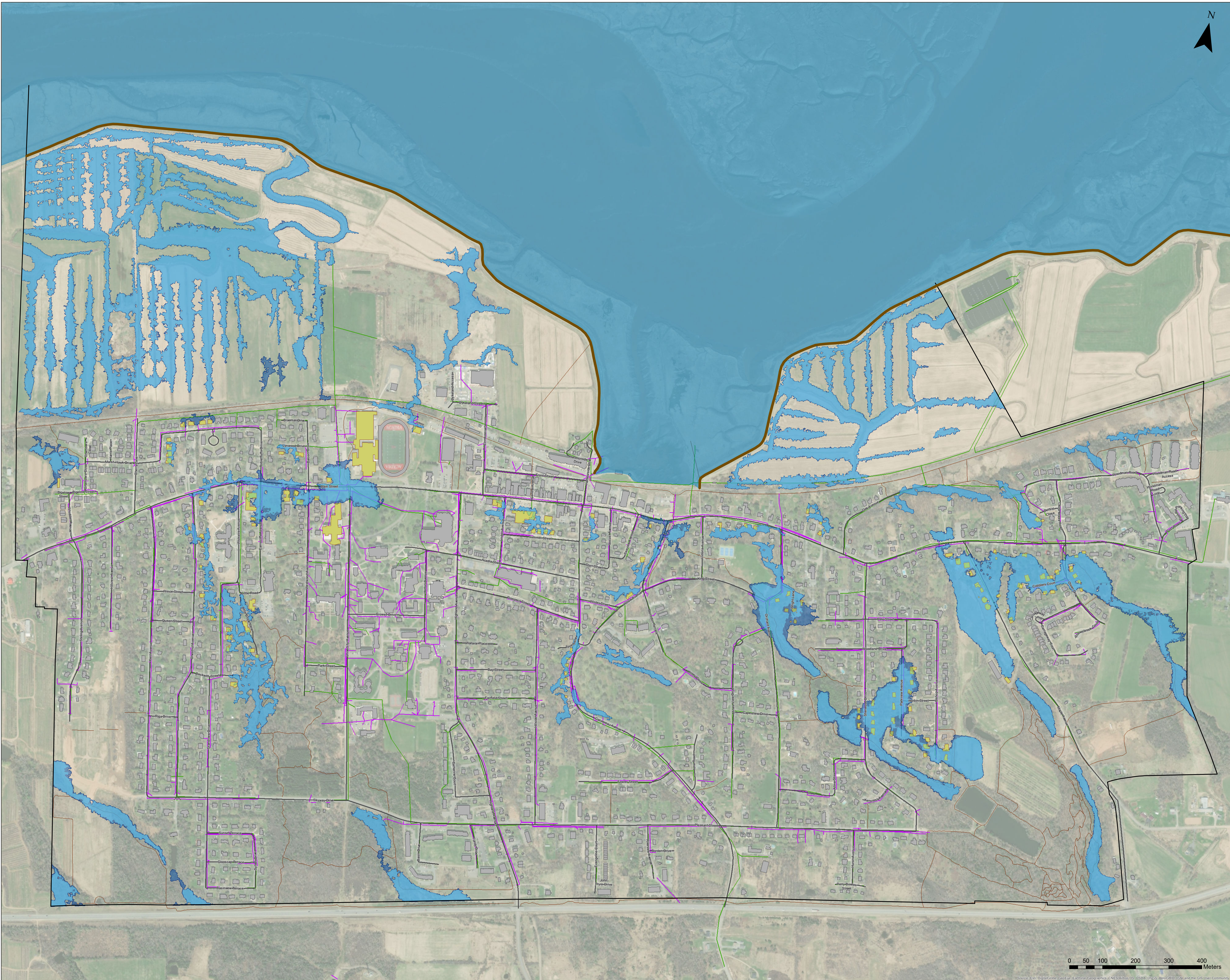
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APPENDIX A

Floodline Delineation Maps



- Current Dyke Line
- Town Boundary
- Infrastructure at Risk in 1 in 100 Year Rainfall Event
- 1 in 20 Year Rainfall Event, 1 in 2 Year Tide
- 1 in 100 Year Rainfall Event, 1 in 2 Year Tide
- Stormwater System
- Sewer System
- Trails

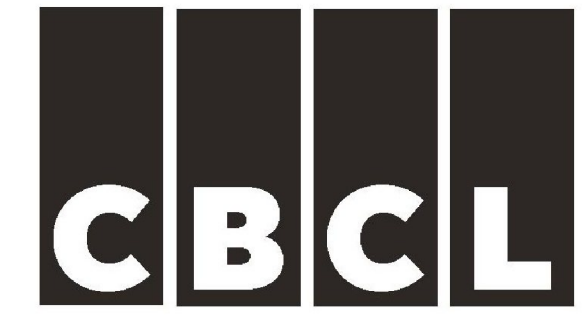
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Revision or Issue



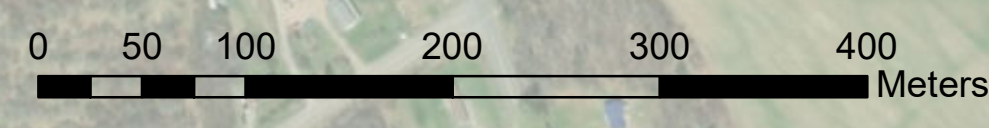
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FLOOD RISK PROFILE**

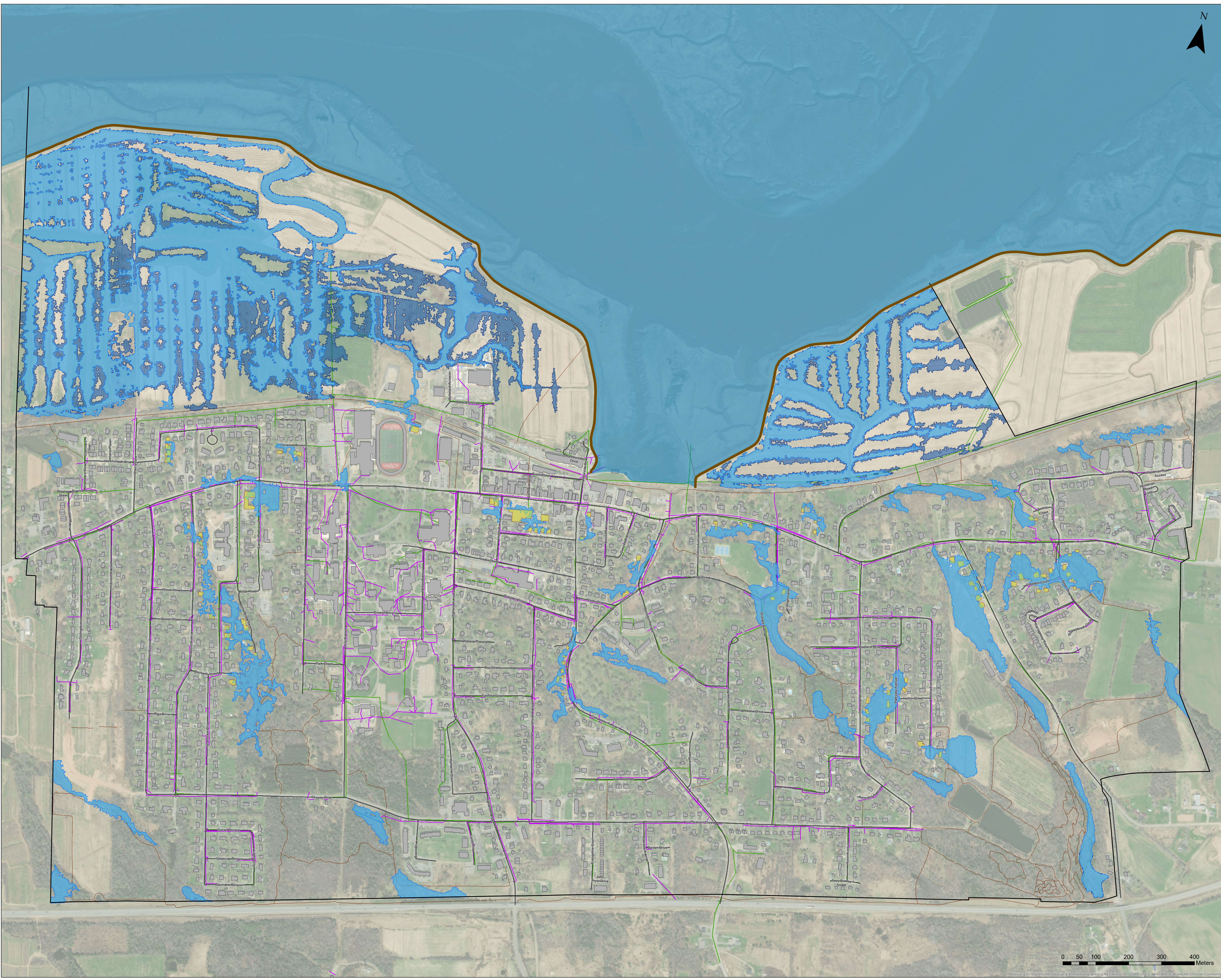
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**EXISTING CONDITIONS
1 in 20 AND 1 in 100 YEAR
RAINFALL EVENTS**











Date: MAY 2020 Scale: 1:3,650

Project No: 201101.00 Drawing No: 1





-  Current Dyke Line
-  Town Boundary
-  Infrastructure at Risk in 1 in 100 Year Tide
-  1 in 20 Year Tide, 1 in 2 Year Rainfall Event
-  1 in 100 Year Tide, 1 in 2 Year Rainfall Event
-  Stormwater System
-  Sewer System
-  Trails

1	04/15/2020	Issued for Report
No	Date	Description

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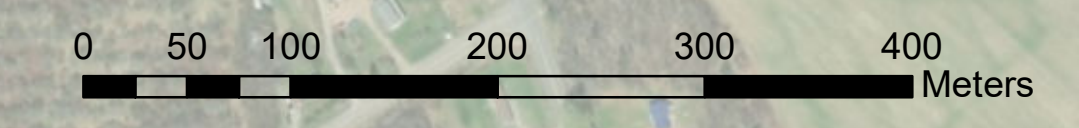


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 FLOOD RISK PROFILE**

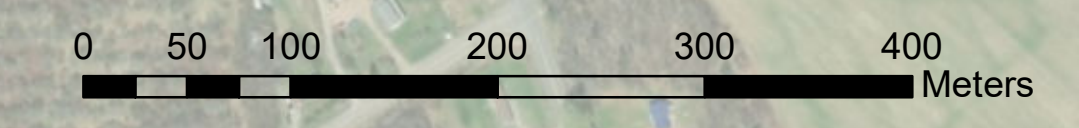
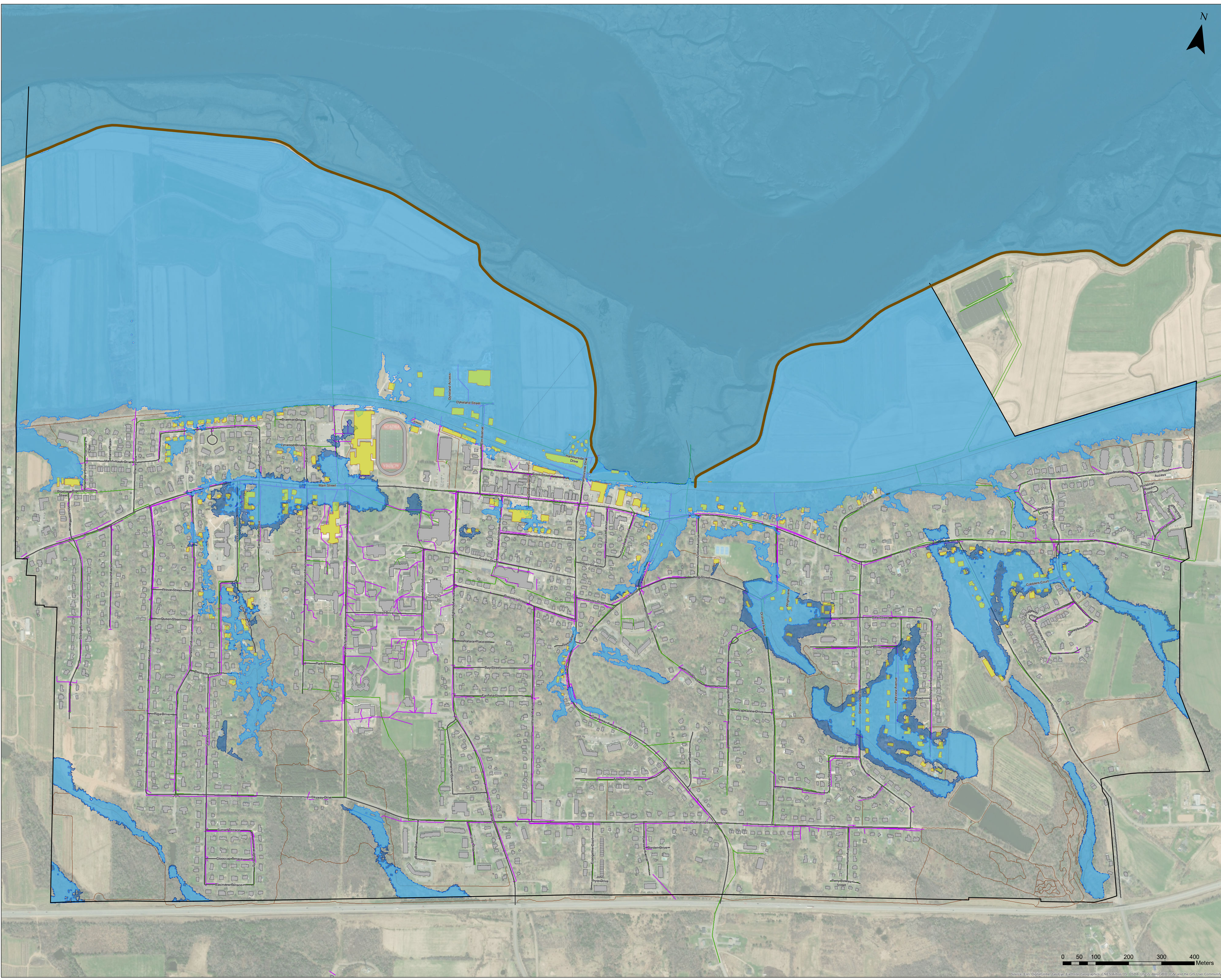
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 1 in 20 AND 1 in 100 YEAR
 TIDE EVENTS**



Date: MAY 2020 Scale: 1:3,650



Project No: 201101.00 Drawing No: 2



- Current Dyke Line
- Town Boundary
- Infrastructure at Risk in Future 1 in 100 Year Rainfall Event
- 1 in 20 Year Rainfall Event, 1 in 2 Year Tide, Future Conditions
- 1 in 100 Year Rainfall Event, 1 in 2 Year Tide, Future Conditions
- Stormwater System
- Sewer System
- Trails

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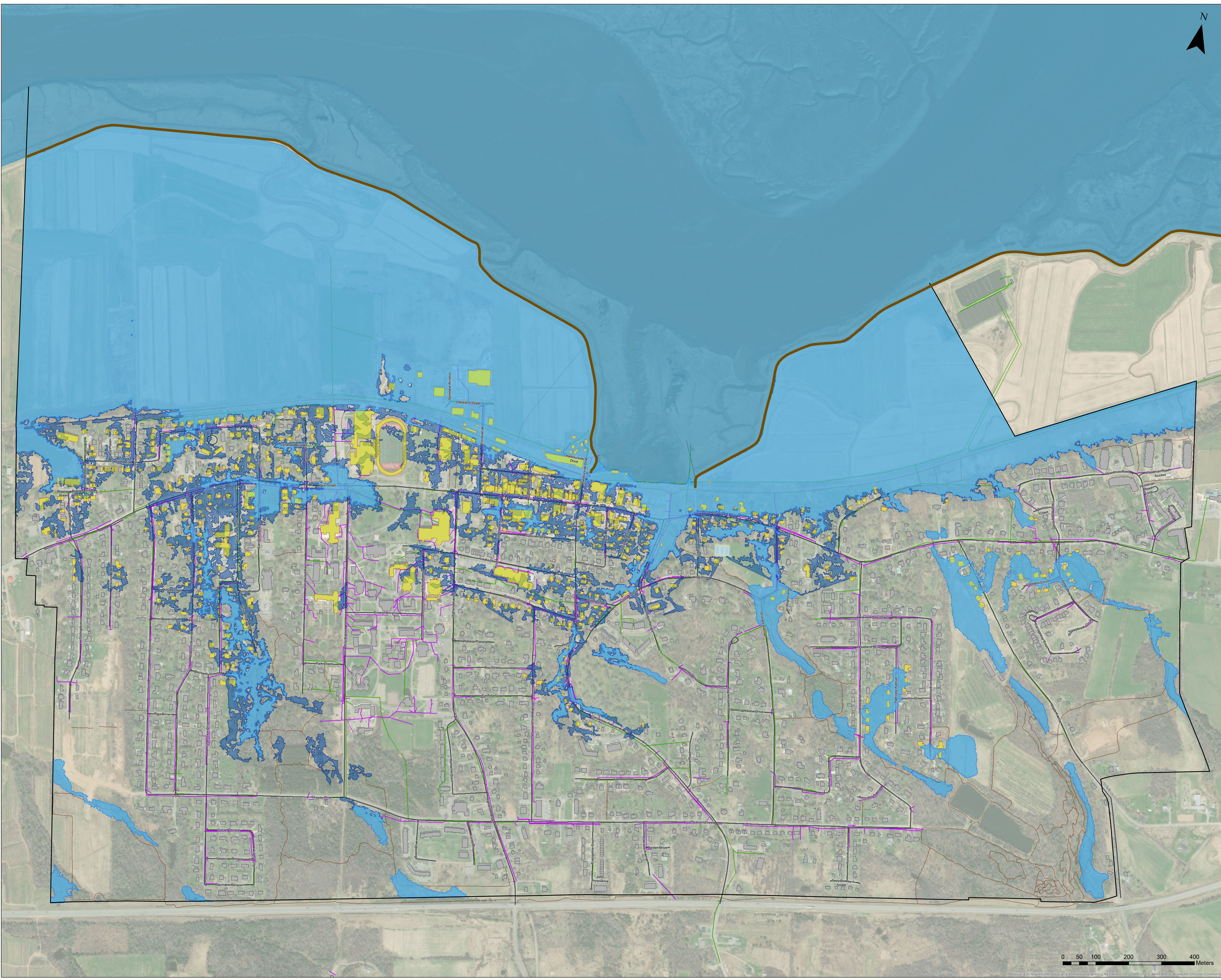
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FLOOD RISK PROFILE**

Drawing Title:
**FUTURE CONDITIONS
1 in 20 AND 1 in 100 YEAR
RAINFALL EVENTS**



Date: MAY 2020 Scale: 1:3,650

Project No: 201101.00 Drawing No: 3



- Current Dyke Line
- Town Boundary
- Infrastructure at Risk in Future 1 in 100 Year Tide
- 1 in 20 Year Tide, 1 in 2 Year Rainfall Event, Future Conditions
- 1 in 100 Year Tide, 1 in 2 Year Rainfall Event, Future Conditions
- Stormwater System
- Sewer System
- Trails

No	Date	Description
1	04/15/2020	Issued for Report

Revision or Issue



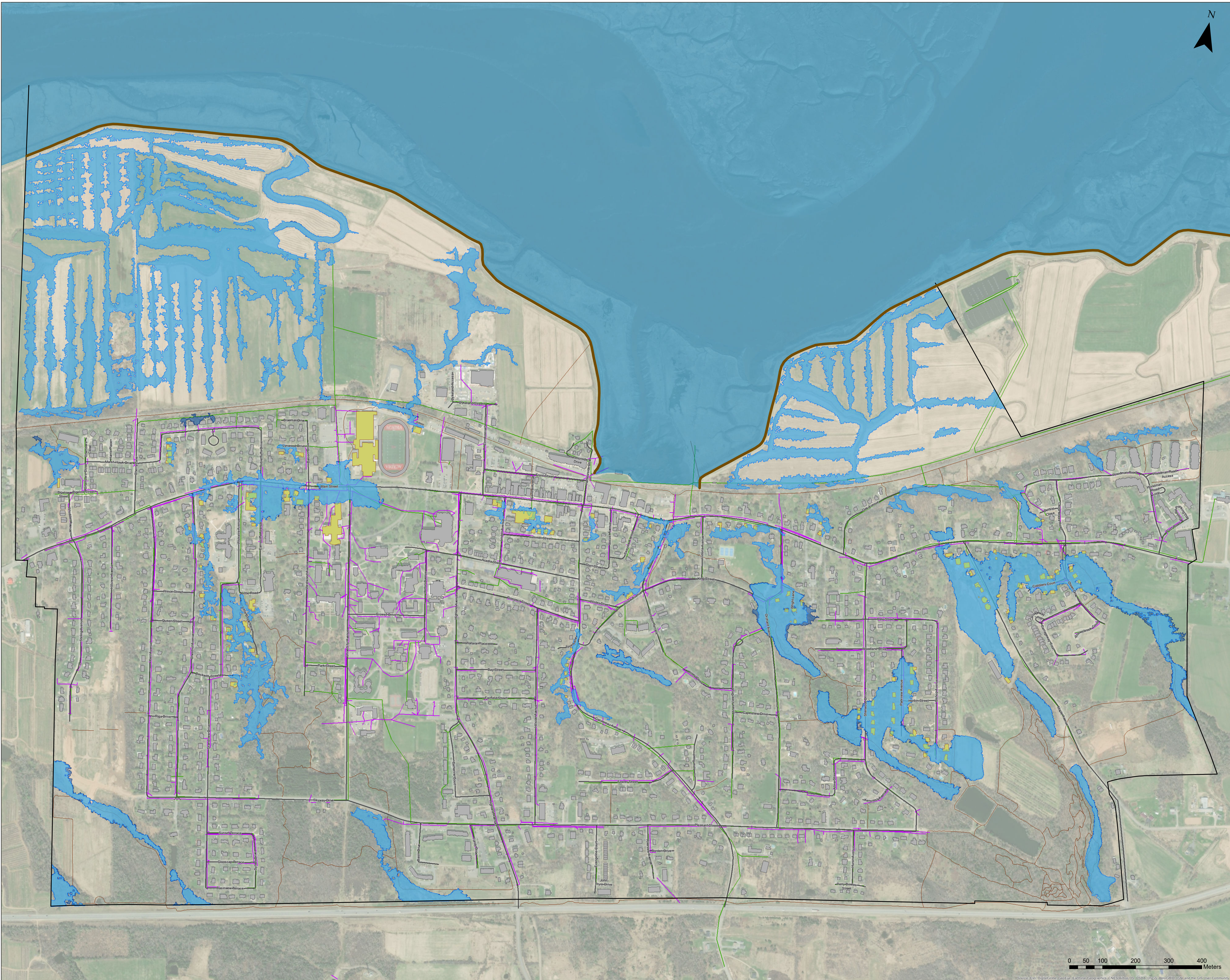
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FLOOD RISK PROFILE**

Drawing Title:
**FUTURE CONDITIONS
1 in 20 AND 1 in 100 YEAR
TIDE EVENTS**



Date: **MAY 2020** Scale: **1:3,650**

Project No: **201101.00** Drawing No: **4**



- Current Dyke Line
- Town Boundary
- Infrastructure at Risk 100 Year Rainfall with BMPs
- 1 in 100 Year Rainfall Event, 1 in 2 Year Tide, BMPs
- 1 in 100 Year Rainfall Event, 1 in 2 Year Tide, Existing Conditions
- Stormwater System
- Sewer System
- Trails

1	04/15/2020	Issued for Report
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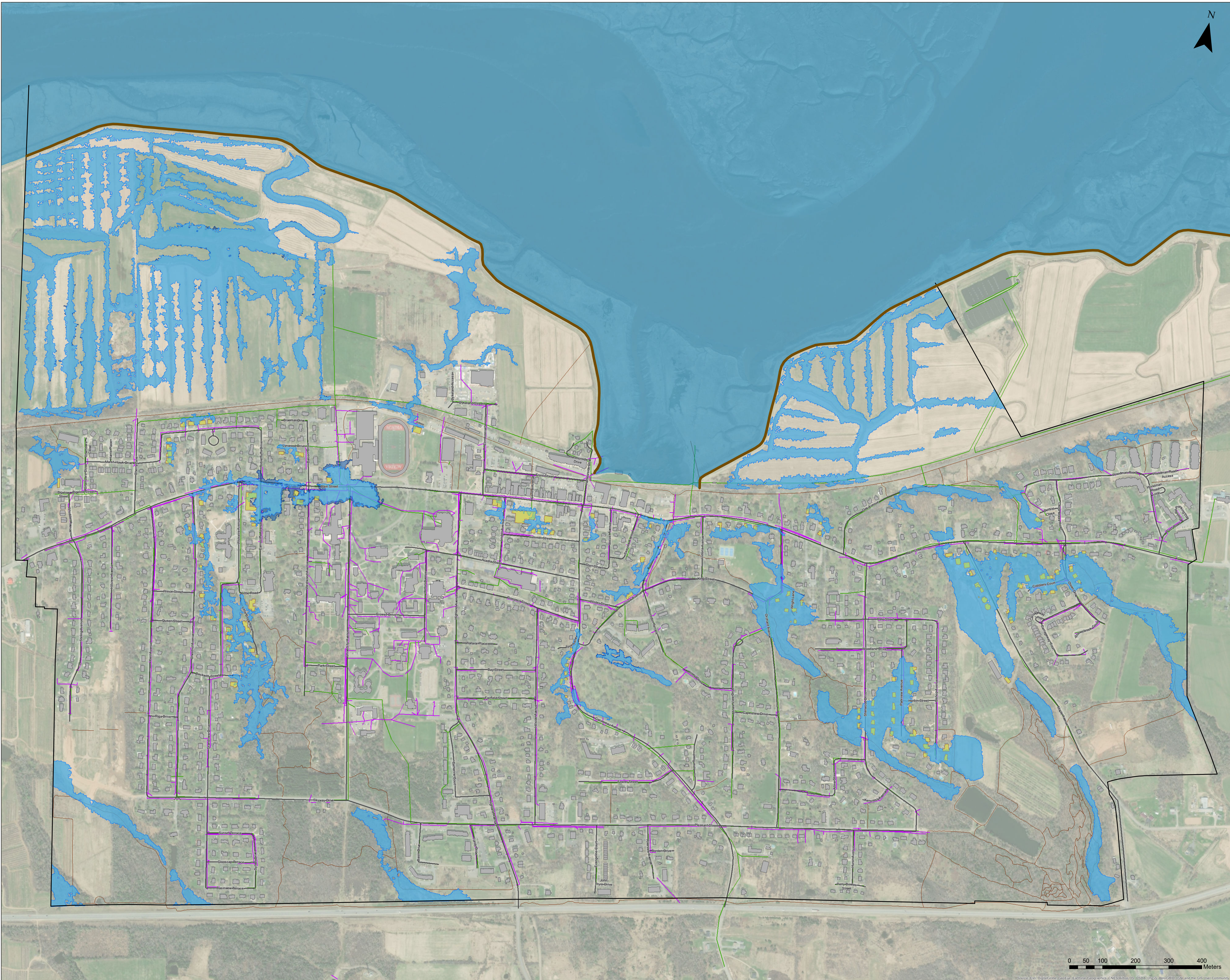
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 FLOOD RISK PROFILE**



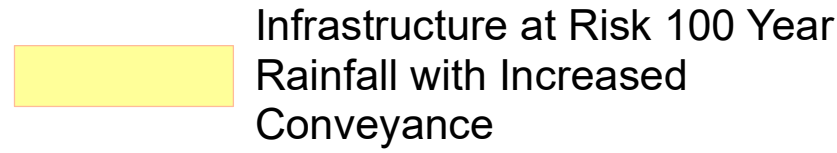
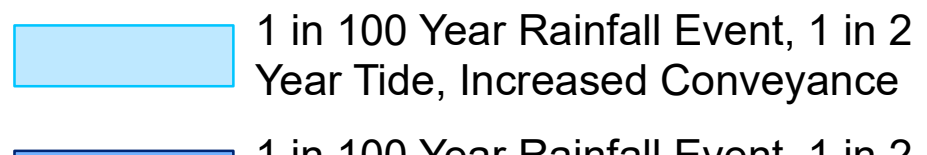
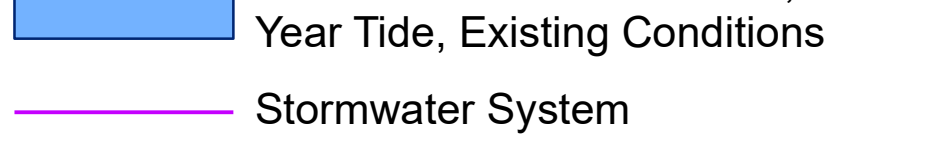



Drawing Title:
**EXISTING CONDITIONS
 MITIGATION OPTION
 1 in 100 YEAR RAINFALL EVENT
 WITH BMPs**



Date: MAY 2020 Scale: 1:3,650

Project No: 201101.00 Drawing No: 5



-  Current Dyke Line
-  Town Boundary
-  Infrastructure at Risk 100 Year Rainfall with Increased Conveyance
-  1 in 100 Year Rainfall Event, 1 in 2 Year Tide, Increased Conveyance
-  1 in 100 Year Rainfall Event, 1 in 2 Year Tide, Existing Conditions
-  Stormwater System
-  Sewer System
-  Trails

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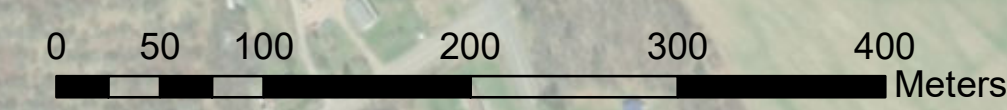
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 FLOOD RISK PROFILE**

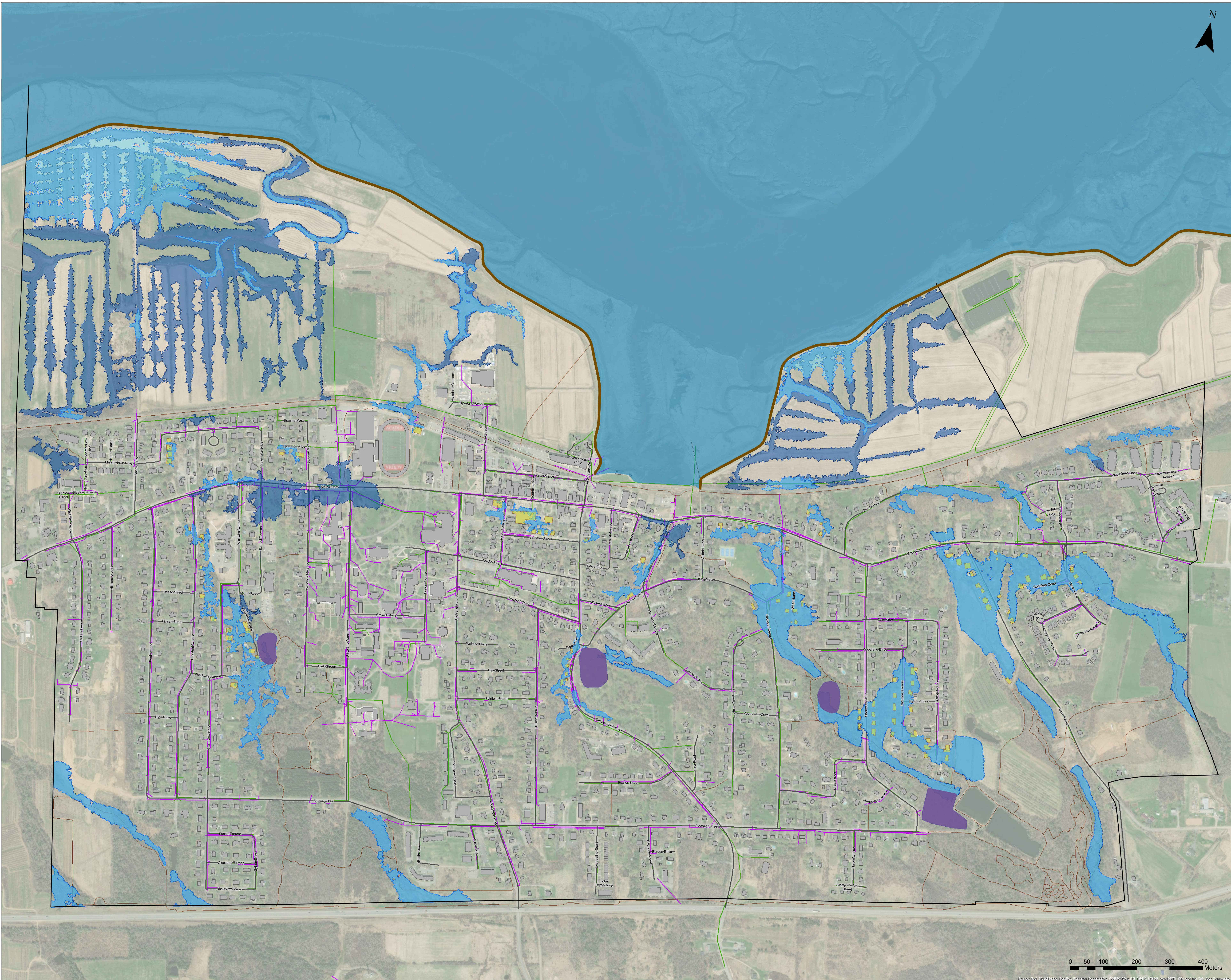
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 MITIGATION OPTION
 1 in 100 YEAR RAINFALL EVENT
 INCREASED CONVEYANCE**



Date: MAY 2020 Scale: 1:3,650

Project No: 201101.00 Drawing No: 6





- Current Dyke Line
- Town Boundary
- Infrastructure at Risk 100 Year Rainfall with Increased Storage
- Proposed Stormwater Pond Locations
- 1 in 100 Year Rainfall Event, 1 in 2 Year Tide, Increased Storage
- 1 in 100 Year Rainfall Event, 1 in 2 Year Tide, Existing Conditions
- Stormwater System
- Sewer System
- Trails

No	Date	Description
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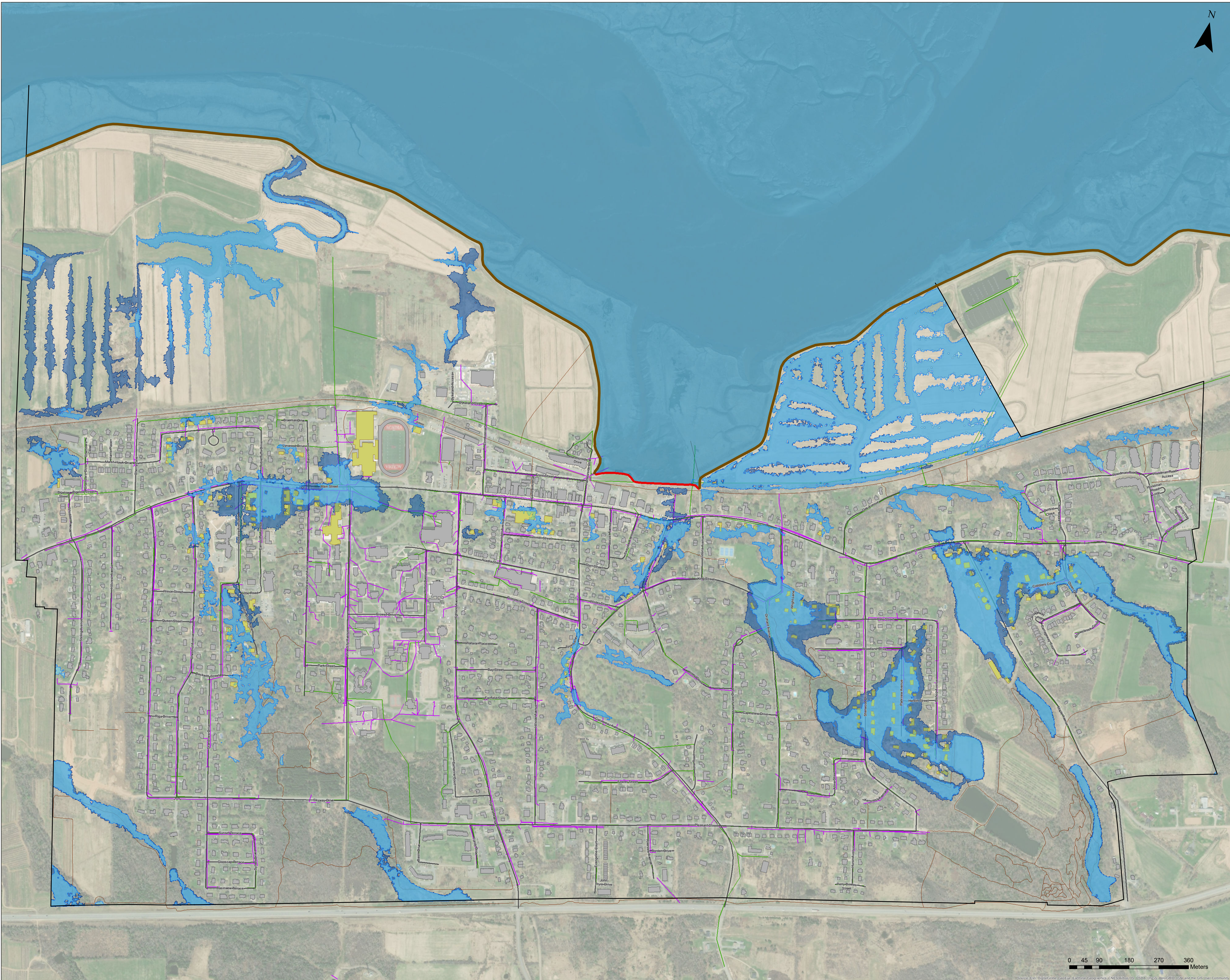
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**TOWN OF WOLFVILLE
FLOOD RISK PROFILE**

Drawing Title:
**EXISTING CONDITIONS
MITIGATION OPTION
1 in 100 YEAR RAINFALL EVENT
INCREASED STORAGE**



Date: MAY 2020 Scale: 1:3,650

Project No: 201101.00 Drawing No: 7



- Current Dyke Line
- Town Boundary
- Proposed Dyke Extension
- Infrastructure At Risk, 1 in 100 Year Future Rainfall Event, Raised Dykes
- 1 in 20 Year Rainfall Event, 1 in 2 Year Tide Event, Future Conditions, Raised Dykes
- 1 in 100 Year Rainfall Event, 1 in 2 Year Tide Event, Future Conditions, Raised Dykes
- Stormwater System
- Sewer System
- Trails

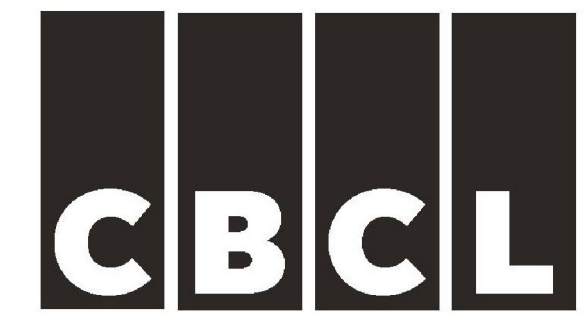
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Revision or Issue



Project:
**TOWN OF WOLFVILLE
 FLOOD RISK PROFILE**

Drawing Title:
**FUTURE CONDITIONS
 MITIGATION OPTION
 RAISED DYKES**



Date: MAY 2020 Scale: 1:3,650

Project No: 201101.00 Drawing No: 8



APPENDIX B

Public Communication Summary Document

Town of Wolfville Flood Mitigation Plan



Flooding in Nova Scotia can impact public safety, the economy, agriculture, and the environment.

It can lead to damage and costly upgrades for municipal infrastructure and residential home owners.

Like many communities across Atlantic Canada, Wolfville is situated along a prominent coastline which poses a flood risk if not monitored and mitigated. Flooding in Wolfville can occur during a storm surge event or extreme rainfall. Flood risk will increase with climate change. For this reason, Wolfville engaged CBCL Limited to complete a comprehensive analysis of flooding in our town and to develop a flood mitigation plan that will protect the community and help reduce flood risk today and in the future. This document highlights key findings from this study.

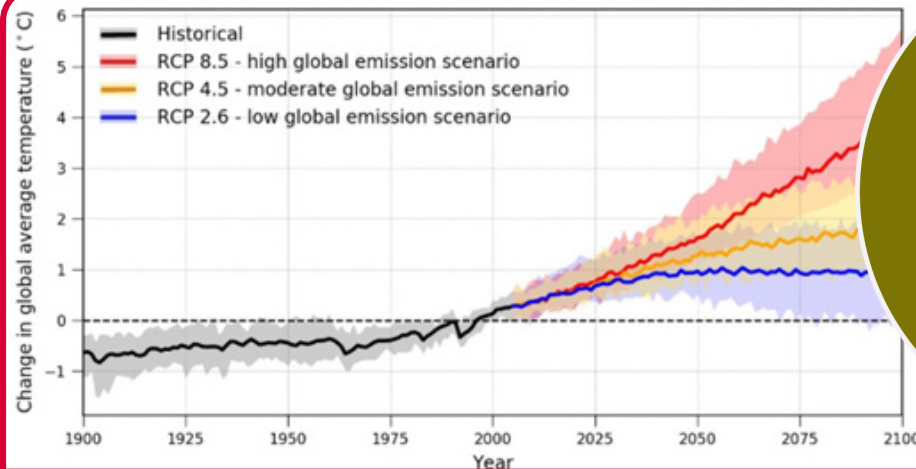
How Climate Change Impacts Flooding

Climate scientists have studied how climate change will impact rainfall patterns, sea level, and storm surge in the future. Climate change projections have been incorporated into this study to determine how flood risk will increase over time and how these risks can be reduced.

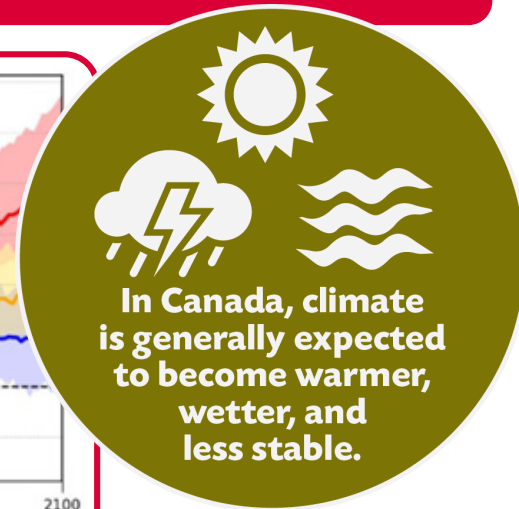


What causes Climate Change?

Climate change is a change in global and regional climate patterns as a result of both natural cycles and human activity. Burning of fossil fuels increases the amount of heat trapping gases within our atmosphere leading to rising temperatures. This is called the **greenhouse gas effect**.



Change in Global Average Temperature Relative to the 1986-2005 Reference Period for RCP 2.6, RCP 4.5, and RCP 8.5 (Canadian Centre for Climate Services)



Predicting Climate Change in Wolfville

Global emissions have most closely tracked along the highest projected emission scenario (RCP 8.5, red line) which was used in the Flood Mitigation Plan.

Sea Level Rise and Storm Surge Flooding

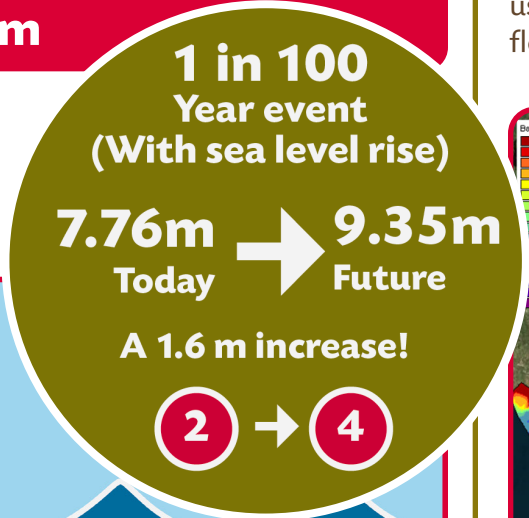
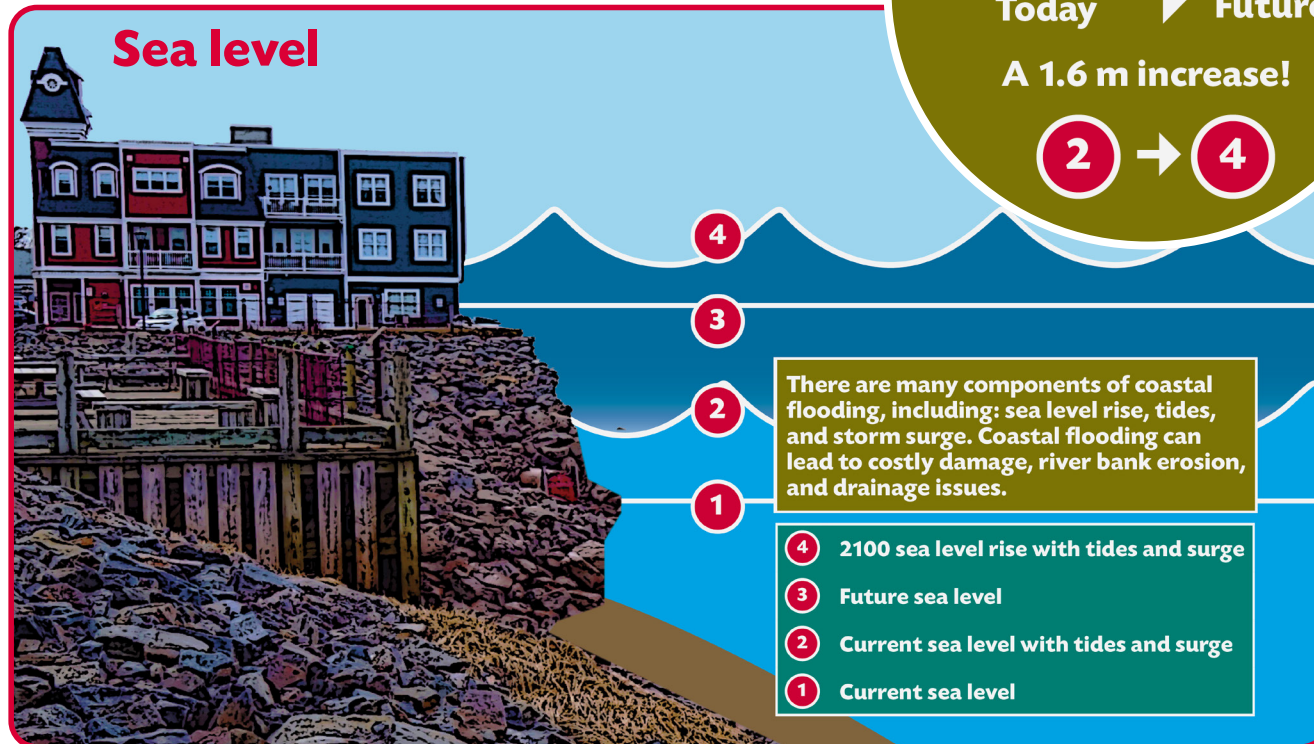
Sea levels have been rising in the Maritimes since the end of the last ice age 10,000 years ago. This trend is expected to accelerate with climate change, notably from melting of the polar ice caps. Sea level is expected to rise to 1.46 m by 2100 at the Town of Wolfville.

How is sea level rise calculated?

Fisheries and Oceans Canada projects a 0.83m sea level for the year 2100 (under RCP 8.5). An additional 0.65m is added to account for potential accelerated ice sheet melt, and a 0.1m increase accounts for tidal amplification:

$$0.83\text{m} + 0.65\text{m} + 0.1\text{m} = 1.58\text{m}$$

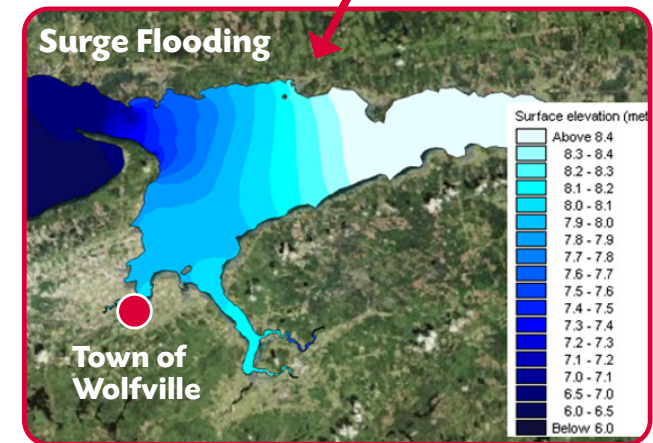
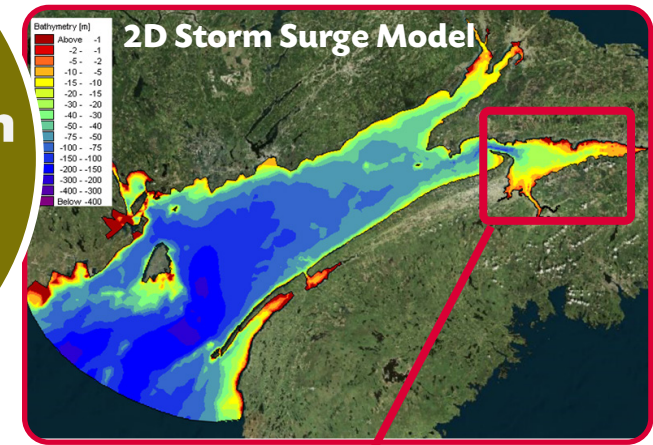
Wolfville is located on the Minas Basin which is part of the Bay of Fundy, hosting the highest tides in the world. With climate change, it is expected that more intense storms will hit the Nova Scotia coastline.



Assessing Flood Risk

Historically, flooding has not been a common occurrence within the Town of Wolfville; this is due to the dyke system that acts as a wall of protection against tides and storm surge flooding. However, the risk of flooding increases over time as sea levels rise, rainfall becomes more intense, and storm surge events increase.

CBCL analyzed the risk of the dyke overtopping using a model of the Bay of Fundy to run future flooding scenarios with rising sea levels.

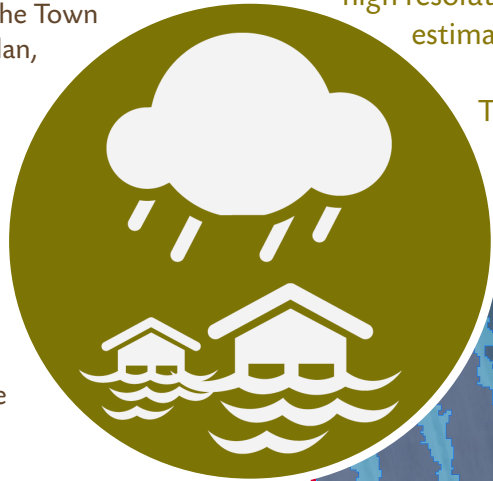


*All elevations represented in CGVD28

Communicating the likelihood of extreme weather

Climate events such as extreme sea levels, wind, and rainfall are communicated by their annual exceedance probabilities (or AEP). A 1 in 100 year rainfall event means that there's a 1% chance every year of this extreme rainfall happening. For the Town of Wolfville's Flood Mitigation Plan, the future 1 in 100 year rainfall event was used to understand potential future stormwater flood risks.

Rainfall events are expected to increase as a result of climate change. CBCL used the IDF-CC tool developed by the University of Western Ontario to determine how climate change will increase rainfall by 2100 (RCP 8.5):



1 in 100 Year rainfall event

174 mm/hr Today



280 mm/hr Future

With Climate Change

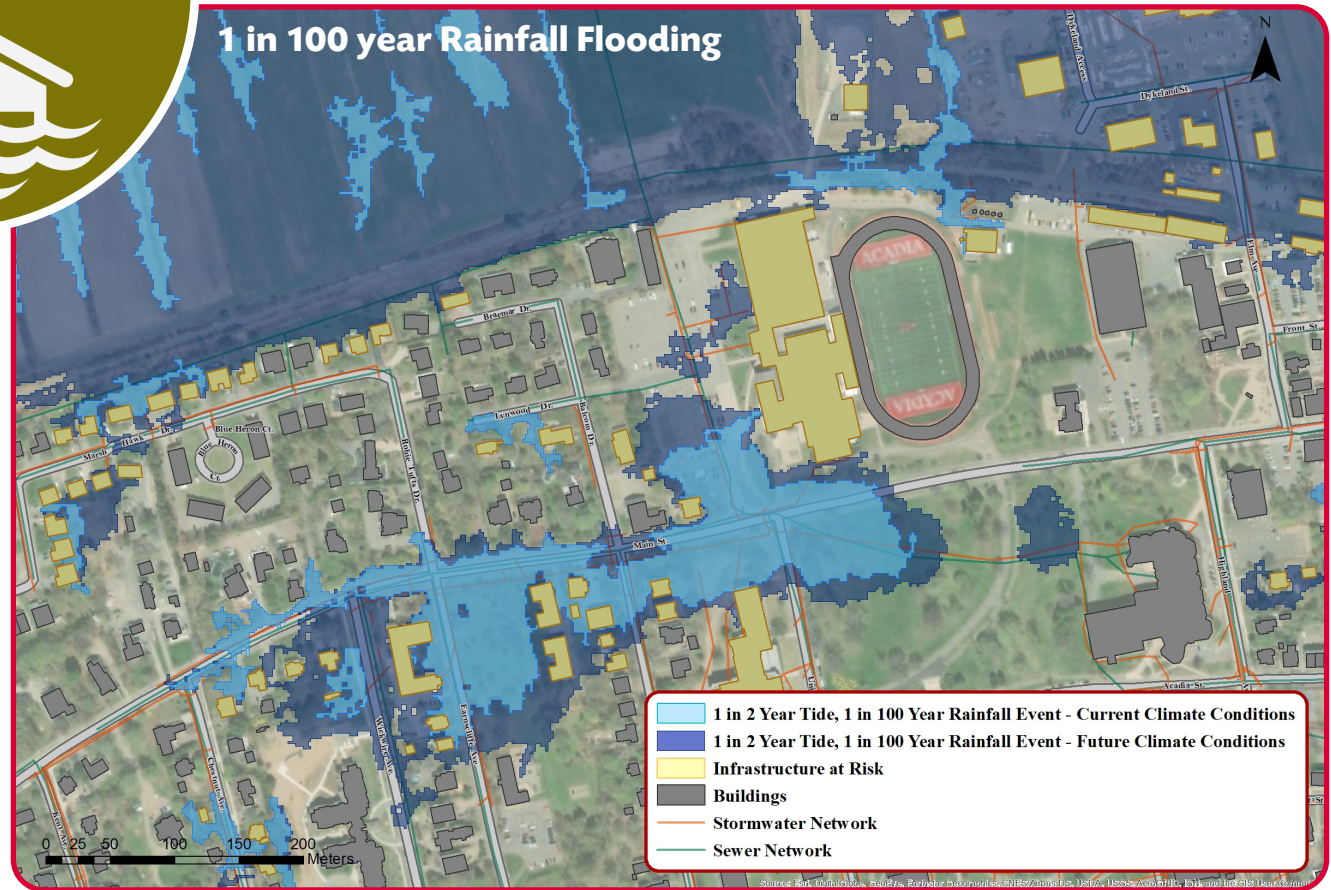


Flood Risk Mapping

Flooding in the Town of Wolfville occurs during large rainfall events combined with high tide. Water drains over lawns and in ditches, eventually being captured into the Town's storm water collection system. If rainfall exceeds the capacity of this system, flooding occurs on roads and private property.

CBCL developed a model of the town's stormwater drainage network to assess the risk of flooding during extreme rainfall and tidal events to identify strategies to mitigate flood risk. The model uses high resolution topography of the town along with underground infrastructure to produce flood estimates.

The map below is a snapshot of future flooding results for the highest risk area of the Town. This flooding can be reduced using engineering approaches, such as raising the dykes or carrying out storm water drainage network enhancements, as shown on the following pages.



How do we Mitigate Coastal Flood Risk?

The Town of Wolfville has been protected from extreme coastal water levels by the Grande Pré and Bishop Beckwith dyke systems. Coastal dykes are large embankments built to prevent coastal flooding during high tides and storm surge. Currently, the average height of the dykes along the Town of Wolfville is approximately 8.75m and the two dyke systems are not connected. This presents a heightened risk of coastal flooding to adjoining areas.



As coastal water levels continue to rise, the risk of overtopping or breaching of the dykes increases

Raising and connecting the dyke system is a recommended approach for protection of the Town.

Typical ways to limit flood risk

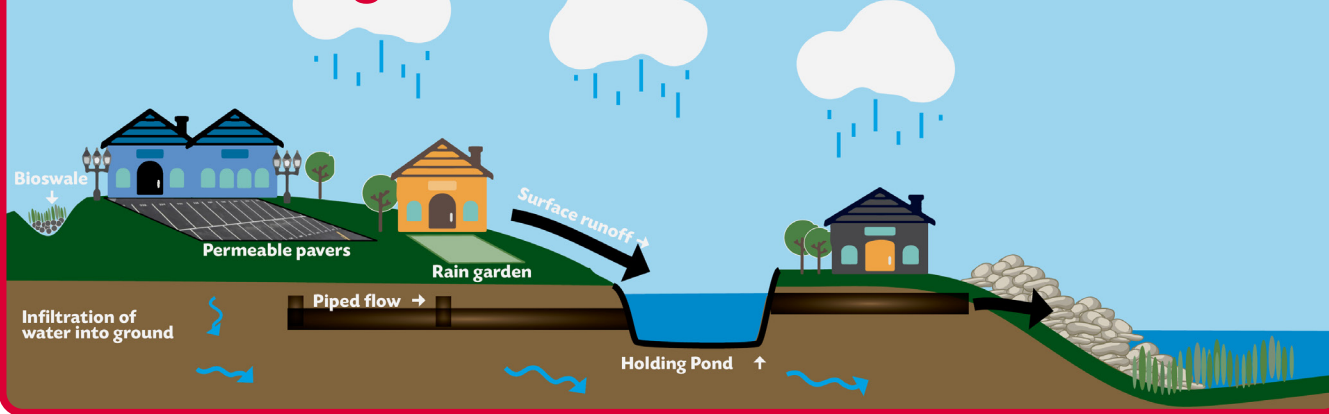
Protect: Build-up and defend shoreline with artificial structures

Accommodate: Modify existing practices to tolerate and/or minimize risk

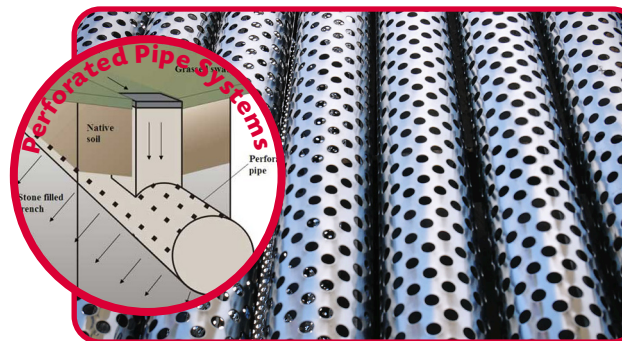


As part of the Municipal Planning Strategy Review, the Town has developed a Stormwater Management Guide. This plan addresses updated constraints mapping, development regulations, and management of flood risk for development within the flood plain.

Storm Drainage Network Enhancements



Flooding due to large rainfall events occurs as a result of overland flow and storm sewer backup. Storm sewer backup occurs when there is insufficient capacity within the drainage network to convey flow downstream to the Minas Basin. As our communities expand and develop, less water has the opportunity to infiltrate, causing runoff to increase. Best management practices can be implemented to increase infiltration, which in turn reduces the amount of runoff from large rainfall events. These practices include:

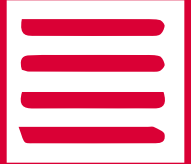


The Town can construct pond systems to hold stormwater during large rainfall events and reduce downstream flooding.



Storm Drainage Network Upgrades

The subsurface pipe network can be upgraded in areas where there is insufficient capacity.



Town and Residents: Partners in Flood Protection

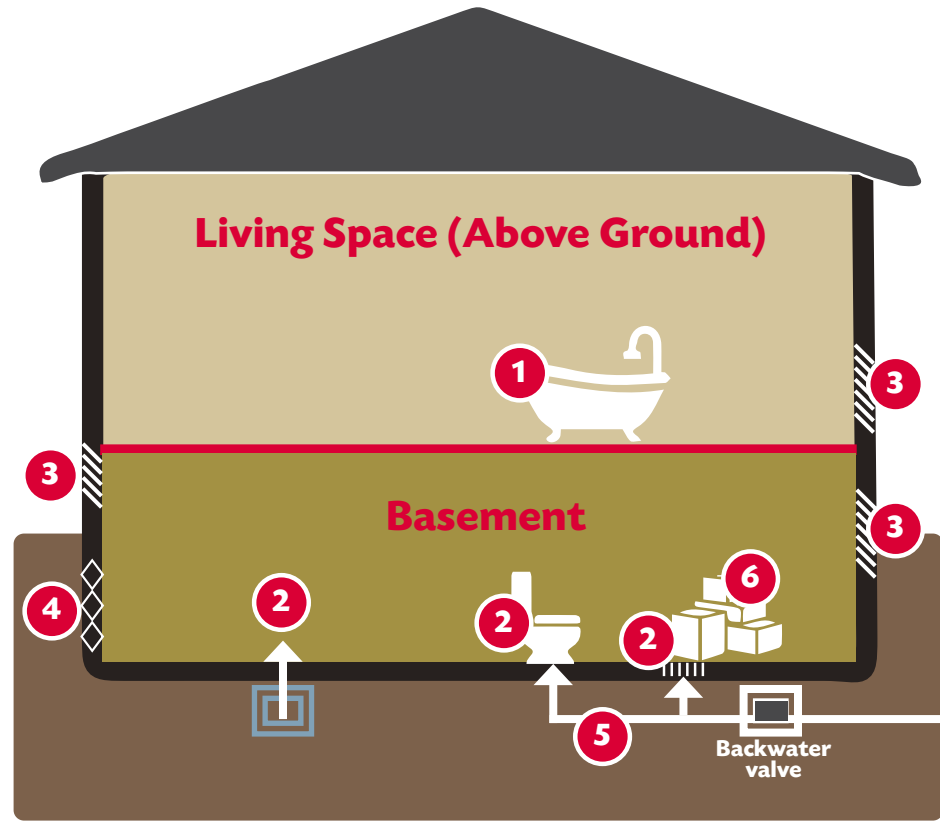
The actions taken by the Town of Wolfville in combination with actions taken by residents will be vital to protect homes from flood risk. Homeowners can undertake practical and cost effective flood protection measures to mitigate flood risk to their properties and protect valuables and assets. Flood Protection Measures by priority and cost include:

<p>1</p> <p>Maintain</p> <p>\$0</p>	<p>Remove debris from nearest storm drainor ditch & culvert</p>	<p>Clean out eaves troughs</p>	<p>Check for leaks in plumbing, fixtures and appliances</p>	<p>Test your sump pump</p>	<p>Clean out your backwater valve</p>
<p>2</p> <p>Simple Upgrades</p> <p><\$250</p>	<p>Install window well covers (where fire escape requirements permit)</p>	<p>Extend downspouts and sump discharge pipes at least 2m from foundation</p>	<p>Store valuables and hazardous materials in watertight containers & secure fuel tanks</p>	<p>Remove obstructions to floor drain</p>	<p>Install and maintain flood alarms</p>
<p>3</p> <p>Complex Upgrades</p> <p>>\$250</p>	<p>Install window well covers (where fire escape requirements permit)</p>	<p>Disconnect downspouts, cap foundation drains and extend downspouts to direct water at least 2m from foundation</p>	<p>Correct grading to direct water at least 2m away from foundation</p>	<p>Install backwater valve</p>	<p>Install backupump pump and battery</p>

Additional Resources

Review Flood Maps to determine if you're at risk of flooding. Refer to the Home Flood Protection Toolkit by the Impact Centre for Climate change for checklists, step-by-step guides, insurance claim information and more. (https://www.intactcentreclimateadaptation.ca/programs/home_flood_protect/resources/) In Nova Scotia under the Homeowner Residential Rehabilitation Assistance Program (RRAP) forgivable loans up to \$18,000 can be forgiven over a maximum of five years to assist eligible homeowners who own and occupy homes that do not meet the minimum health and safety levels. For Details contact Housing Nova Scotia at 844-424-5110

Sources of water damage and home flood risks



- | | |
|--|---|
| <p>1</p> <p>Rupture of plumbing pipes and fixtures</p> | <p>4</p> <p>Groundwater infiltration through seepage and cracks in the foundation</p> |
| <p>2</p> <p>Sewer back-up through sump-pit or backup from the closed backwater valve</p> | <p>5</p> <p>Rupture of sewer lines</p> |
| <p>3</p> <p>Overland water through cracks or openings around doors, windows or the above ground foundation</p> | <p>6</p> <p>Poor maintenance and housekeeping</p> |

Reference: University of Waterloo. (2020). Home Flood Protection Program. Retrieved from Intact Centre on Climate Adaptation: https://www.intactcentreclimateadaptation.ca/programs/home_flood_protect/



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REQUEST FOR DECISION 016-2021

Title: Development Agreement Discharges – Whispering Creek and Pompano Estates
Date: 2021-03-09
Department: Planning and Development



SUMMARY

Development Agreement Discharges

During the course of the Municipal Planning Strategy Review (2015-2020), a number of areas of Town with existing Development Agreements in place were identified as being mostly or completely built out and it was recommended that these areas be zoned to encompass the intent of the new planning documents and subsequently discharge the Development Agreements. These areas are now zoned in the new Land Use Bylaw. This report covers two of these areas – Whispering Creek (Carriageway and Stoneybrook Court and a portion of Olsen Drive) and Pompano Estates (Chambers Close, Bigelow Street and a portion of Whidden Ave). These are shown with the new zoning below.

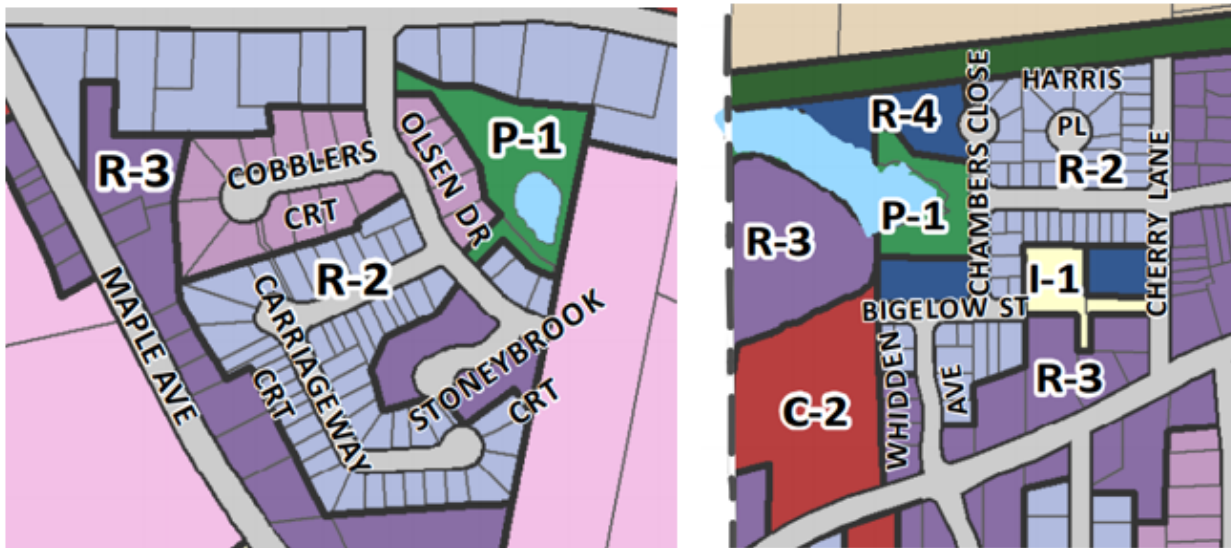


FIGURE 1: Excerpts from new Land Use By-law Zoning Map showing relevant DA areas: LEFT 'Whispering Creek' (Carriageway and Stoneybrook Court and a portion of Olsen Drive) and RIGHT 'Pompano Estates' (Chambers Close, Bigelow Street and a portion of Whidden Ave).

(NOTE: Link to full zoning map provided in this report)

Staff continue to work on other Development Agreement Discharges and will be bringing others forward as they are prepared and reviewed with the Town Solicitor.

REQUEST FOR DECISION 016-2021

Title: Development Agreement Discharges – Whispering Creek
and Pompano Estates
Date: 2021-03-09
Department: Planning and Development



DRAFT MOTION:

That Council approve the discharge of the following Development Agreements including subsequent amendments:

- DA-02-04 Whispering Creek Village - AAC Developments Inc. or mixed density development.
- DA-02-06 Pompano Estates – MIR I Developments Inc. for a mixed density development.

1) CAO COMMENTS

The CAO supports the recommendation of Staff.

2) LEGISLATIVE AUTHORITY

The Municipal Planning Strategy grants Council the authority to enter into development agreements. The Municipal Government Act guides Council when discharging a development agreement. It states:

Discharge of development agreement

- 229 (1) *A development agreement is in effect until discharged by the council.*
- (2) *A council may discharge a development agreement, in whole or in part, in accordance with the terms of the agreement or with the concurrence of the property owner.*
- (3) *After a development agreement is discharged, the land is subject to the land-use by-law. 1998, c. 18, s. 229*

3) STAFF RECOMMENDATION

Staff recommend that the DA-02-04 Whispering Creek Village and DA-02-06 Pompano Estates be discharged.

4) REFERENCES AND ATTACHMENTS

1. Discharge Agreements (attached)

5) DISCUSSION

The previous Municipal Planning Strategy (MPS) designated areas of Town that required a Development Agreement (DA) to be developed. These areas were zoned Residential Comprehensive Development Districts (RCDD) in the Land Use Bylaw (LUB). As part of the recent [Municipal Planning Strategy review](#) the RCDD areas that have DAs in place were examined and any that were mostly or completely built-out

REQUEST FOR DECISION 016-2021

Title: Development Agreement Discharges – Whispering Creek
and Pompano Estates
Date: 2021-03-09
Department: Planning and Development



were identified and Staff recommended that zoning these properties and discharging the development agreements would bring these areas more in line with Council's goals and objectives - as outlined in the new MPS.

The new Planning documents were approved in June 2020 (in effect September 2020) with the acknowledgment from Council that the discharges of existing DAs would be forthcoming.

This RFD covers two areas - Whispering Creek (Carriageway and Stoneybrook Court and a portion of Olsen Drive) and Pompano Estates (Chambers Close, Bigelow Street and a portion of Whidden Ave).

DA-02-04 - Whispering Creek Village was approved in December 2002 for a mixed density development in the Whispering Creek subdivision – Carriageway and Stoneybrook Court and a portion Olsen Drive. The development included single detached, semi-detached and townhouse dwellings. R-2 zoning has been applied to Carriageway Court and the upper portion of Olsen Drive and R-3 zoning has been applied to Stoneybrook Court where the developer proposes to put townhouses.

The development conditions as laid out in the DA are similar to that of R-2 zoning with the exception of an allowance for 60% hard surface coverage (50% in LUB) and a 6m front yard setback (4.5m in LUB).

The building design conditions require that building heights shall be similar with a maximum of one story and an allowance for a second storey on other sides as a result of a walk out basement level/grade change; roof pitches between 4/12 and 7/12; cladding to be horizontal and comprised of clapboard, vinyl, or something similar no greater than five inches to the weather; trim to be identical style and size to those of existing buildings; and garages shall be flush or recessed from the main wall of the building. Staff are of the opinion that these design requirements are either already covered in the LUB as is the case with the requirement for recessed garages or are no longer consistent with design standards for areas outside our design control areas in the LUB.

One clause still outstanding is the requirement for street trees. Clause 4.6.1 of the DA requires that street trees be installed to certain specifications. While all of the developed lots have been landscaped, except for those currently under construction (3 lots), not all of the property owners have installed the required street trees (see map below) and this part of the DA had not been enforced in the past (~20 years since adoption).

REQUEST FOR DECISION 016-2021

Title: Development Agreement Discharges – Whispering Creek and Pompano Estates
Date: 2021-03-09
Department: Planning and Development



Staff have been in contact with the Developer and he will be contacting the property owners that have yet to install a tree and has agreed to add a requirement to lots not sold (covenant) that requires trees to be planted. Having said that, the Town has no jurisdiction over covenants that the Developer puts in place, so any enforcement of this would be up to the Developer. Staff feel comfortable with the level of landscaping that is being carried out and feel with such old agreements, enforcement action at this point is difficult.

As an alternative to discharging the entire agreement, Council could consider a partial discharge where the requirement for street trees remains in effect and the other development aspects of the agreement would then be subject to the requirements of the zone as laid out in the Land Use Bylaw. Administratively, a partial discharge is not ideal.

(As a relevant side note to this file: the learning here should be that for future development – if street trees are deemed to be something that is desirable, then they should be planted in the right-of-way by the developer, a warranted attached and maintained in the Town-owned right of way).

REQUEST FOR DECISION 016-2021

Title: Development Agreement Discharges – Whispering Creek and Pompano Estates
Date: 2021-03-09
Department: Planning and Development



Whispering Creek – existing conditions (aerial):



DA-02-06 - Pompano Estates was approved in October of 2002 for a mixed density development on Chambers Close, Bigelow Steet and a portion of Whidden Ave. The development included single detached, semi-detached and multi-unit apartment buildings. The single and semi-detached lots have been zoned R-2 and multi-unit lots have been zoned R-4 which is consistent with the DA. This development has been mostly built out with the exception of three lots on Whidden Avenue.

The lot standards for the single and semi-detached lots are similar to the R-2 zone standards with the exception of 6m front and flankage yard setback (4.5 and 4m in the LUB) and 33.3% lot coverage (40% in LUB).

The requirements for the apartment buildings have been met.

REQUEST FOR DECISION 016-2021

Title: Development Agreement Discharges – Whispering Creek
and Pompano Estates
Date: 2021-03-09
Department: Planning and Development



As with the Whispering Creek DA, there is a clause for street trees; however in this case, the developer has supplied the Town with a deposit for the planting of the street trees on the remaining lots, therefore the requirements of the DA have been met.

Pompano Estates – existing conditions (Aerial):



Staff Recommendation

Staff are of the opinion that the requirements of these DAs have been met or are similar to the lot standards for the zone and discharging the DAs and having the lands subject to the LUB would complement existing neighbourhoods.

Section 229 of the MGA says that *“A council may discharge a development agreement, in whole or in part, in accordance with the terms of the agreement or with the concurrence of the property owner.”*

REQUEST FOR DECISION 016-2021

Title: Development Agreement Discharges – Whispering Creek and Pompano Estates
Date: 2021-03-09
Department: Planning and Development



Clause 7.1 of each of these development agreements states:

7.1 *Portions of the development agreement or the development agreement in its entirety may be discharged by the Town.*

Staff are recommending the full discharge of the Development Agreements.

6) FINANCIAL IMPLICATIONS

There will be a cost of approximately \$500.00 to cover legal fees to complete the registration of the discharge documents in the Land Registry.

7) REFERENCES TO COUNCIL STRATEGIC PLAN AND TOWN REPORTS

The Town's new planning documents can be found [here](#).

- [Municipal Planning Strategy](#)
- [Land Use By-law](#)
- [Zoning Map](#)

8) COMMUNICATION REQUIREMENTS

This is housekeeping following the adoption of our new planning documents. Communication and engagement during the planning document review has been carried out and was extensive.

9) ALTERNATIVES

- That Council not approve the discharges and the Development Agreements remain in place.
- That Council partially discharge one or both of the Development Agreements, removing certain clauses from the agreement leaving the remainder of the agreement in effect, as follows:

That Council approve the discharge of Development Agreement DA-02-06 Pompano Estates – MIR 1 Developments Inc. for a mixed density development including any subsequent amendments; and

That Council approve the partial discharge of Development agreement DA-02-04 Whispering Creek Village – AAC Developments Inc. deleting clause 4. *Development Details*, including sub-clauses, except sub-clause 4.6 *Street Trees and other Landscaping*, which will remain in effect.

THIS PARTIAL DISCHARGE OF DEVELOPMENT AGREEMENT is made this ___ day of _____, 2021

WHEREAS:

- A. The Town of Wolfville (the "Town") entered into a Development Agreement with AAC Development Incorporated dated January 23, 2003, which was registered at the Kings County Registry of Deeds on February 3, 2003 at Book 1363, Pages 840-856, document 662, and on other dates and other book and page numbers and/or document numbers (the "Development Agreement");
- B. The Development Agreement was subsequently amended, which amendment was registered at the Kings County Registry of Deeds on September 5, 2007 as document #88747788 and on other dates and other book and page numbers and/or document numbers;
- C. Pursuant to section 229 of the *Municipal Government Act* and Section 7.1 of the Development Agreement, the Town may discharge all or portions of the Development Agreement;
- D. Town Council passed a resolution discharging portions of the Development Agreement at a meeting held on the XXth day of XXXX, 2021.

NOW THEREFORE:

- 1. The Town of Wolfville hereby discharges the following portions of the Development Agreement:
 - a. Sections 4.1 through 4.5 inclusive, including sub-clauses;
 - b. Sections 4.7 through 4.9 inclusive, including sub-clauses.

BEFORE WITNESSES the party to this Partial Discharge has executed it on the date set out above.

SIGNED, SEALED AND DELIVERED
In the presence of:

Witness

)
)
) TOWN OF WOLFVILLE
)
)
)By _____
) Mayor
)
)
)By _____
) Town Clerk

**CANADA
PROVINCE OF NOVA SCOTIA
COUNTY OF KINGS**

I certify that on _____, 2021, _____ a witness to this discharge came before me, made oath, and swore that the TOWN OF WOLFVILLE caused the same to be executed by its proper officers who affixed its Corporate Seal and subscribed their hands in its name and in its behalf in his/her presence.

A Commissioner of the Supreme Court of Nova Scotia

THIS DISCHARGE OF DEVELOPMENT AGREEMENT is made this ___ day of _____, 2021

WHEREAS:

- A. The Town of Wolfville (the "Town") entered into a Development Agreement with AAC Development Incorporated dated January 23, 2003, which was registered at the Kings County Registry of Deeds on February 3, 2003 at Book 1363, Pages 840-856 and on other dates and other book and page numbers and/or document numbers (the "Development Agreement");
- B. The Development Agreement was subsequently amended, which amendment was registered at the Kings County Registry of Deeds on September 5, 2007 as document #88747788 and on other dates and other book and page numbers and/or document numbers (the "Amendment");
- C. Pursuant to section 229 of the *Municipal Government Act* and Section 7.1 of the Development Agreement, the Town may discharge the Development Agreement;
- D. Town Council passed a resolution discharging the Development Agreement, including the Amendment, at a meeting held on the XXth day of XXXX, 2021.

NOW THEREFORE:

- 1. The Town of Wolfville hereby discharges the Development Agreement, including the Amendment.

BEFORE WITNESSES the party to this Discharge has executed it on the date set out above.

SIGNED, SEALED AND DELIVERED
In the presence of:

Witness

)
)
) TOWN OF WOLFVILLE
)
)
)By _____
) Mayor
)
)
)By _____
) Town Clerk

**CANADA
PROVINCE OF NOVA SCOTIA
COUNTY OF KINGS**

I certify that on _____, 2021, _____ a witness to this discharge came before me, made oath, and swore that the TOWN OF WOLFVILLE caused the same to be executed by its proper officers who affixed its Corporate Seal and subscribed their hands in its name and in its behalf in his/her presence.

A Commissioner of the Supreme Court of Nova Scotia

THIS DISCHARGE OF DEVELOPMENT AGREEMENT is made this ___ day of _____, 2021

WHEREAS:

- A. The Town of Wolfville (the "Town") entered into a Development Agreement with M.I.R. 1 Developments Inc. and 3079714 Nova Scotia Limited dated July 23, 2003, which was registered at the Kings County Registry of Deeds on August 25, 2003 at Book 1397, Pages 1-19 and on other dates and other book and page numbers and/or document numbers (the "Development Agreement");
- B. The Development Agreement was subsequently amended, which amendment was registered at the Kings County Registry of Deeds on January 18, 2005 as document #81225303 and on other dates and other book and page numbers and/or document numbers (the "Amendment");
- C. Pursuant to section 229 of the *Municipal Government Act* and Section 7.1 of the Development Agreement, the Town may discharge the Development Agreement;
- D. Town Council passed a resolution discharging the Development Agreement, including the Amendment, at a meeting held on the XXth day of XXXX, 2021.

NOW THEREFORE:

- 1. The Town of Wolfville hereby discharges the Development Agreement, including the Amendment.

BEFORE WITNESSES the party to this Discharge has executed it on the date set out above.

SIGNED, SEALED AND DELIVERED
In the presence of:

Witness

)
)
) TOWN OF WOLFVILLE
)
)
)By _____
) Mayor
)
)
)By _____
) Town Clerk

**CANADA
PROVINCE OF NOVA SCOTIA
COUNTY OF KINGS**

I certify that on _____, 2021, _____ a witness to this discharge came before me, made oath, and swore that the TOWN OF WOLFVILLE caused the same to be executed by its proper officers who affixed its Corporate Seal and subscribed their hands in its name and in its behalf in his/her presence.

A Commissioner of the Supreme Court of Nova Scotia

1. Improving Quality of Life for All

- Staff in partnership with Acadia Kinesiology students organized the Morning Exercise Program at Wolfville School. The program has been well-received and plans are to continue until the end of Acadia's school year;
- Staff in partnership with Wolfville School implemented a Yoga program that is well-attended and receiving great feedback. 15-20 students have been participating weekly. Possibility of offering another 6-week session in the spring will be explored;
- Staff in partnership with Wolfville School organized an Afterschool Ukulele Club with maximum participation (13 students);
- Staff have organized a Learn to Drum program (two 4-week sessions) starting in March and May at Wolfville Rec Centre;
- Staff have completed the second session (of four) of Winter Virtual Memory Café series with new artistic component (delivered art supplies to all participants so that they could participate in creating their own art piece). This was very popular and can be recreated for other applications;
- Staff are planning to offer Virtual Memory Café to Wickwire Place and Wolfville Nursing Home residents starting later in March, using similar model to current offering;
- In partnership with the Wolfville Curling Club, staff coordinated and offered a Try it in Wolfville - Learn to Curl session;
- Staff offered two Women, Girls and Female-Identifying Hikes;
- Staff and consultants from Bicycle Nova Scotia have been conducting stakeholder engagement discussion sessions on the Town's mobility planning strategy, including with the Planning and Accessibility citizen advisory committees, the Acadia Students Union, and the Eastern Kings Community Healthy Board. Discussions sessions with the Wolfville Business Development Corporations Board and membership, and with the Wolfville School community, are planned for March;

2. Maximizing Our Infrastructure Investments

- Staff have received the final version of the flood risk study that will be presented to Council (March Committee of the Whole). The findings have, and will continue to, inform the Town's Capital Budget;
- Staff are clearing brush along outfalls from the Earth dam at the Nature Trust as part of the Dam project;
- Wastewater Treatment Plant work is approximately 60% complete with completion scheduled for the end of May;
- Traffic engineer is scheduled in town to review crosswalk locations and conditions as part of the crosswalk review;
- Parking adjustments on Westwood have been made;



3. Leveraging our Economic Opportunities

- Valley Recreation partners are exploring options for collaborating on a large equipment purchase to be shared among various departments, which could benefit Wolfville for next season;
- Staff are working with the Wolfville Farmers Market and Acadia University on longer-term strategic planning and funding applications, including working toward the utilization of the DeWolfe building or other expansion area;
- Staff are working closely with the Wolfville Business Development Corporation (WBDC) and attending their monthly meetings. An upcoming meeting is scheduled to discuss wayfinding. Staff and Councillor Madeira-Voss are also participating in their strategic planning exercise;
- Staff have confirmed funding from the Nova Scotia Department of Mines and Energy for the Regional GHG Emissions Reduction Opportunity Study, along with funding from and participation by the other Municipalities in Kings County;

4. Operational Updates

- Staff are busy with Version 4 of the budget to be reviewed at March COW, with an eye to approving the document at March Council;
- Staff have started preparing for the Town's year end of March 31st and the audit that will occur in the months immediately after that;
- T4s have been issued to all Town employees;
- Staff made application to Nova Scotia Federation of Municipalities to present on "collaborative efforts" (Town of Wolfville, community and business partners, Town of Kentville, medical community) towards the Memory Café project at their Spring Virtual Conference;
- Staff completed a funding application to NS Department of Communities, Culture and Heritage for Pickleball Court project and received permission from Rotary Club of Wolfville (landowner, leased to Town of Wolfville) to proceed with pursuing this project;
- Staff attended Valley Connect software information Training;
- Staff continued to meet with Recreation staff from the Town of Kentville and the Municipality of Kings County to continue to plan action steps for intentional and successful Youth Engagement;
- Staff welcomed and supported a 6-week Community Development student placement working as the Parks and Recitation Events and Program Design Coordinator. Placement end date April 2nd, 2021;
- In collaboration with the Magic Winery Bus, staff began to plan for the 2021 temporary Visitors Information Centre - to be in place during the construction of the new Wolfville Welcome Centre;
- Staff have confirmed support for two co-op students;

CAO REPORT

March 9, 2021

Department: Office of the CAO



-
- Staff will be removing the remaining holiday decorations in the Town;
 - Staff continue to provide building and development services (permitting, fire inspections, etc) and have wrapped up the limited services that were being provided to the Town of Middleton while they work on a longer-term solution;
 - Staff are having discussions on Economic Development and will be bringing forward a report in the coming weeks;
 - Staff are working with 2 student teams from Waterloo on a plan implementation and monitoring project. The students will present to our PAC as their final assignment (April meeting). This work should help inform Staff's work on MPS implementation and progress monitoring more generally;
 - Staff have submitted a funding application for a Community Transit Feasibility Study to the Nova Scotia Transit Research Incentive Program;
 - Staff have added pages on Climate Change to the Town's website;
 - Staff have initiated the financial modelling (budgeted 2020-21) of the Town's low carbon scenario with our consultants, the Sustainability Solutions Group. This will be a key component of our forthcoming Climate Action Plan;
 - Staff are preparing annual tenders for the upcoming fiscal year;
 - Postings for the Public Works Manager's position and Special Projects Coordinator closed March 3;
 - Wickwire well pump is down and will be pulled to determine what went wrong and if it can be repaired or needs to be replaced. The Cherry Lane well is on.
 - Staff are continuing to work on program details for the Town's Property Assessed Clean Energy Program (PACE), with PACE Atlantic CIC, and as an internal multi-departmental working group.

Kings Transit Committee Submission

Committee met on Feb 24th at 5 pm

We will be scheduling a meeting in person to go over the budgets for next year. This was moved off the agenda as it is difficult to dive into the depths of this over zoom. We wanted to ensure we are totally engaged and informed. This was also suggested as a good idea from our respective CAO group.

An Audit Committee was chosen, and will be made up of Councillor Huntley (Kentville) and Councillor Windsor (County of Kings).

General Manager Selection Committee was chosen – Councillor MacKay (Town of Wolfville/Chair), Councillor Harding (County of Kings) and Councillor Huntley (Town of Kentville).

Gerald Walsh was selected as the recruitment Search Committee Lead. The Interim General Manager will act in an advisory role. The search will commence very soon – first meeting to hopefully happen March 5th.

The Interim General Manager's report on operations is attached as well. The last paragraph is where the Board will prioritize and spend it's energy in the coming months with the new General Manager.

Respectfully Submitted,

Councillor Jodi MacKay

GM Report to Board of Directors – February 24, 2021

1. Daily significant cleaning of the buses, and operations centre in New Minas
2. Maintaining safety of our drivers – still Covid/mask issues - fewer
3. Monitoring the ridership statistics, in preparation of the budgets for CORE and partners
4. Preparation of operating and capital budgets – draft prepared for Board review and approval; reviewed draft at a ZOOM meeting of some of the CAO/Finance staff – made recommendations to improve the data.
5. Maintenance, regular and special ongoing – Digby bus collision with deer is being repaired – insurance claim over \$5m deductible
6. 3 buses delivery now end May/June timeframe – future capital purchases planning critical due to Covid impact on manufacturers and parts suppliers – probably 18 months needed from time of decision to buy until delivery.
7. Corporate/Human resources/finance/policy development/general administration:

Accounting in good shape, although pressed at times

Vacant positions – drivers (full/PT), administration, filled

Still major vacancy in the resources to carry out backlog in corporate (HR) policy development, ridership studies, marketing/promotion, asset management plan, information technology strategy, rate review, route reviews, micro transit study June 2020, applications for transit funding/energy/climate – bus types, Yarmouth route, rural rideshare Field Testing (Dept of Energy)

COMMITTEE UPDATE

Title: Valley Trails

Date: March 8/21

Department: Committee of the Whole



UPDATE: The last meeting of Valley Trails met via Zoom on Feb.11/21

The next meeting is scheduled for April 1/21

This was my first meeting on Valley Trails.

Firstly, we went over the financial statement as of January 31/21. Keeping in mind the goal of maintenance of trails. Everything appears on track with good accounts receivable. Liabilities already paid to Receiver General.

Rick Jacques discussed the work plan and the priorities which were broken down into very high, high, and medium. Very high and high with the hope of 80% complete this year, and medium planning component at the end of a certain season. We talked about estimated vs. Actual project values. The values associated with each project doesn't take into consideration maintenance, or catastrophic events. It was noted how important volunteers are in this area.

In our priorities, we discussed trails etiquette, safe usage, snowmobile safety and Kings County AT plan consultation.

Tyler Perrier-Ehrlich, the Western Regional coordinator, gave a report and the TCT registrations are getting completed. 29 groups, and 15 fully registered, further ahead than anticipated.

Emily Lutz spoke about the County of Kings role in AVTC and their MOU which will come before council. They are talking about core operations being a standard piece of their budget.

Submitted by:

Councillor Jennifer Ingham

COMMITTEE UPDATE

Title: Valley Trails

Date: March 8/21

Department: Committee of the Whole



COMMITTEE UPDATE

Title: Diversity Kings
Date: March 9, 2021
Department: Committee of the Whole



UPDATE

- The last meeting of Diversity Kings was held on March 1/21
- The next meeting is scheduled for April 5/21. We have had two meetings since the last COW report in February.
- The meeting in February focused on a presentation from Craig Gibson, a retired RCMP Chief Superintendent. He talked about African Nova Scotian History in the Annapolis Valley. Many historically important African Nova Scotians were discussed. Many deceased, but many alive today. Interesting to me was how many people attended Acadia University, including the Honourable Donald Oliver. A map highlighting historic African Nova Scotian communities was also presented. We had a fun interactive quiz at the end, which sparked our competitiveness.
- Next, we had a presentation from VANDSA new hire Steve Johnson who will be the new student liaison for Central Kings and Horton High. He talked about education and the importance of teaching interviewing skills.
- The March meeting was held in council chambers, the first one this year, the attendance was low, but quorum was achieved.
- Britney gave an Action plan update, noting the deadline is approaching to have it approved, and implemented by March 21/21.
- Britney presented the employment opportunities for the upcoming summer and noted the Inclusive Communities Intern position available.

Submitted by:

Councillor Jennifer Ingham

COMMITTEE UPDATE

Title: WBDC
Date: March 9, 2021
Department: Committee of the Whole



UPDATE

- WBDC February, 2021

Report and Updates

February 9, 2021 Board Meeting

Church Brewing Co. and Virtual

1. Geena Luckett provided an update on social media activities and the new “When In Wolfville” brand. Social media reach was up on both Facebook and Instagram, and discussion followed on the need to promote the WBDC as a separate entity, beyond the TOW website.
2. Presentation by Devour! on plans for their new permanent location at the former CUTS property. In addition to programming information and partnerships, the presentation highlighted monthly revenue streams and other funding sources that speak to a sustainable model. Also noted were the variety of activities expected, from events (both small and large) to social enterprises and rental spaces for creative endeavours.
3. A draft letter of support regarding Devour!’s request to the Town of Wolfville 100K one-time capital funding grant was resented and discussed. Members were asked to provide feedback. A final version will be discussed at a later date.
4. Updates were provided by Directors Lake and Thomason regarding; vending by-law changes, VIC, mobility slides, Wayfinding Signage Project, budget discussions and WBDC membership directory.
Discussion followed on the Membership Directory issue and the need to compile this as soon as possible.
5. Reminder to all members that the Strategic Planning Session (UP Public Relations) is scheduled on February 23 at Al Whittle Theatre.

Strategic Planning Session (day 1)

Tuesday, February 23, 2021

Al Whittle Theatre

1. WBDC members were interviewed in advance to this meeting and all comments gathered were shared in advance.
2. Comments were reviewed and categorized, followed by small group discussions. Groups were limited to existing “bubbles” and proper social distancing measures were adhered to throughout the day.
3. Some questions were raised regarding current membership information and how best to develop a comprehensive profile of the WBDC membership community.
4. The success of recent WBDC activities was noted, such as the Christmas events and greening efforts.

COMMITTEE UPDATE

Title: WBDC
Date: March 9, 2021
Department: Committee of the Whole



5. Next session will focus on new priorities moving forward and the resources/structure needed to advance these.