HALIFAX

Re: Item No. 12.1

Sackville Rivers Floodplain Public Hearing Case 21402

Regional Council

Project Overview



- Project History
- Floodplain Mapping
- Proposed Land Use Policies & Regulations

Project History

1983

· Canada-Nova Scotia Flood Damage Reduction Program Maps Produced

2008

 Sackville **Business** Association Request to Update Floodplain Map



• CBC Floodplain Study Phase

2020

 Design Point Mitigation Study

2024

 Design Point Map Update

2025

 Draft policies & regs refined

































1987-1994

• Flood plain Zones 2015

Floodplain Study

• GHD Phase I 2018

Council

• Open

Initiates

Houses Held

2023 (Fall)

> Project Restart

2024

• Draft policies & regs and Public Meetings

April 29, 2025

• Public Hearing

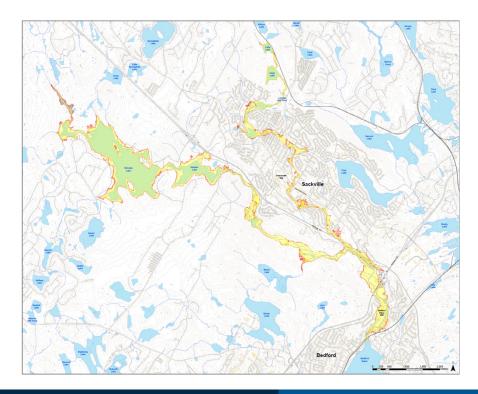
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2017 Sackville Rivers Floodplain Study

Phase II Modelling

50+ scenarios modelled

- Recommended Base Flood Map
- August 2018
 - Regional Council directed staff to amend planning documents per study recommendations





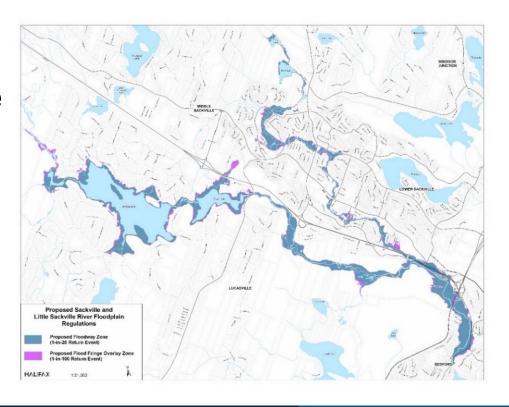
2024 Floodplain Mapping Update

- Response to feedback from Open Houses and other meetings
- Based on 2017 model recommended base flood conditions
- New survey and hydraulic info for updated structures
- New LiDAR (2019) + Digital Elevation Model (DEM)
- No other changes to 2017 model
- Results:
 - Generally similar to 2017 map
 - Most noticeable changes at structures that have changed since 2017
 - Changes not considered significant



2024 Floodplain

- Visualisation of a combination of ways the river system may flood under a combination of conditions
- Based on 2017 study recommendations





Public Engagement

Notifications Mailed x 3



Webpage Views



19048

3 Open Houses 2018



100

6 Public Meetings 2024



241

What We Heard

- Protection from flooding
- Initial concern about data & need for update
- Property values
- Overland flood insurance loss
- Prioritize other floodplain recommendations

- Development rights on vacant lands
- Allow uses permitted in adjacent designations in the Flood Fringe
- Flood impacts from development
- Emergency exits during a flood



Response to Feedback

- Updated Floodplain Maps 2024
- Consideration of uses permitted in the abutting designation in the Flood Fringe
- Consideration of innovative designs for land development
- Development controls are needed before infrastructure upgrades
- Requesting federal/provincial assistance for (buyouts)
- Region-wide emergency access assessment in progress

Floodplain Management Strategy

Adaptation Approach

- Protect people, property & infrastructure
- Recognize existing nonresidential development
- Allow Innovative design
- Restore the natural floodplain



Regional Plan Amendment

Proposed Policy E-21 states that where the Municipality has identified flood risk areas, municipal planning strategies & land use by-laws have to be reasonably consistent with the Nova Scotia Statement of Provincial Interest (SPI) for Flood Risk Areas.

Statement of Provincial Interest Requirements

- Maintain Canada/NS Flood Damage Reduction Program (FRDP) Floodplains
- New floodplains are Known Floodplains
- Hydrotechnical Studies needed to consider development or alteration of land

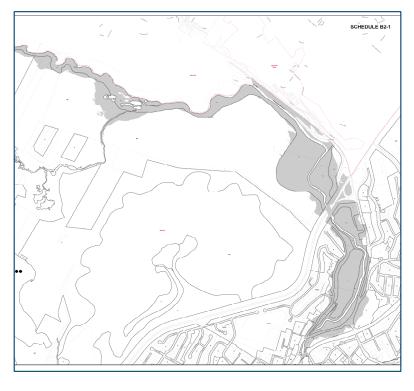
Municipal Planning Strategies and Land Use By-laws

- > Bedford
- **>**Sackville
- ➤ Sackville Drive
- ➤ Beaver Bank/Hammonds Plains/Upper Sackville (BB/HP/US)

Floodplain Designation

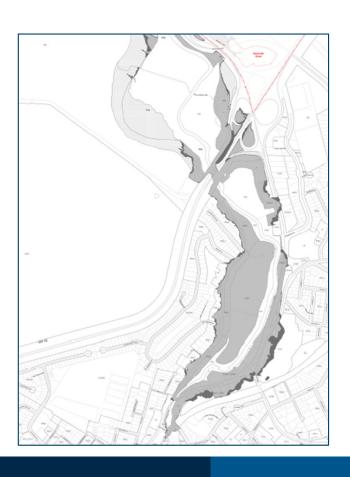
Includes

- All existing Flood
 Damage Reduction
 Program (FRDP)
 Floodplains
- All new Floodplains



Floodplain Zones

- **2024 Floodway Overlay** (FWO) Zone 1-in-20-year floodplain
- 2024 Flood Fringe Overlay (FFO) Zone – 1-in-100-year floodplain
- Modified Floodproofing Area



2024 Floodway Overlay Zone - Permitted Uses

- Resource uses (where appropriate)
- Conservation uses
- Roads
- Public utilities

- Recreation uses
- Trails
- Parking lots
- All <u>existing</u> nonresidential uses

2024 Floodway Overlay Zone - Existing Non-Residential Uses

- Permitted as legal conforming uses
- No expansion, but may redevelop
- Change to a use permitted in the underlying zone
- No Residential Type Institutions
- No use of hazardous material

16

2024 Floodway Overlay Zone Conditions

- No new buildings or structures
- No off-site fill
- Grade alterations with a hydrotechnical study

2024 Flood Fringe Overlay Zone - Permitted Uses

All uses permitted in the underlying zone **except**:

Residential Type Institutions

- Hospitals & Clinics
- Shared Housing
- Hotels
- Daycares

Hazardous Material Use

- Automotive Repair
- Heavy equipment services
- Gas Stations & Dry cleaners
- Industrial Uses
- Construction & demolition

18



2024 Flood Fringe Overlay Zone - Conditions

- Off-site fill permitted for floodproofing
- Grade alterations allowed
- Placement of fill and grade alterations requires a hydrotechnical study

Floodproofing

- Elevate floors above the nearest upstream 1-in-100 flood elevation
- Elevate electrical and mechanical equipment above the 1-in-100 flood level unless designed to withstand a flood

Areas No Longer in Floodplain

- Proposed to be rezoned to the adjacent nonfloodplain zone
- Modified floodproofing required



Modified Floodproofing



- Structures below the 1-in-100year flood elevation designed to withstand a flood
- Habitable floorspace above the 1-in-100 flood elevation
- Electrical and mechanical equipment above the 1-in-100 flood elevation

Development Agreements

- Hydrotechnical study
- Floodproofing
- Designed to withstand a flood
- Site design mimics natural services
- Evacuation Plan



Policy Review

Review policy every ten years.



Staff Recommendation

Adopt the proposed amendment to the Regional Plan as set out in Attachment A

Adopt the proposed amendments to the BB/HP/US, Bedford, Sackville, & Sackville Drive Municipal Planning Strategies & Land Use By-laws as set out in Attachments B1 to B4 and C1 to C4.

HALIFAX

Thank You

Maureen Ryan, Planner Helen Langille, Engineer

Planning and Development