

DECISION/DIRECTION NOTE

Title: Rennies River Flood Mitigation Alternate Project Phasing Sequence

Date Prepared: September 24, 2019

Report To: Committee of the Whole

Councillor and Role: Councillor Ian Froude, Public Works & Sustainability

Ward: Ward 4

Decision/Direction Required:

Council Decision to approve an alternate project phasing sequence for implementation of the Rennies River flood mitigation measures downstream of Long Pond. This will allow flood mitigation to proceed while awaiting Provincial approval of the Long Pond weir.

Discussion – Background and Current Status:

The Rennies River Catchment Stormwater Management Plan (RRCSWMP - April 2014) was issued for implementation of the project recommendations per Council Directive CD# R2014-05-26/5. The list below is an excerpt of the recommended projects in the noted study.

Priority	Description of Location
1	Location 3: Weir at outlet of Long Pond
2	Location 1, Option A: Kings Bridge Road to Portugal Cove Road & Upstream of Portugal Cove Road – Berms & Walls only (Recommended Option)
	Location 1, Option B: Kings Bridge Road to Portugal Cove Road & Upstream of Portugal Cove Road – New Channel and bridge
	Location 1, Option C: Kings Bridge Road to Portugal Cove Road & Upstream of Portugal Cove Road – Raised parking lot
2	Location 2: Upstream of Carpasian Road Bridge
3	Location 4: Clinch Crescent East to Clinch Crescent West
4	Location 5: Wicklow Street to Thorburn Road
5	Location 7: O'Leary Avenue Bridge
6	Location 8: Downstream of Mews Place

The report recommended that the weir at Long Pond be given first priority and the two problem areas located downstream of Long Pond be given second priority.

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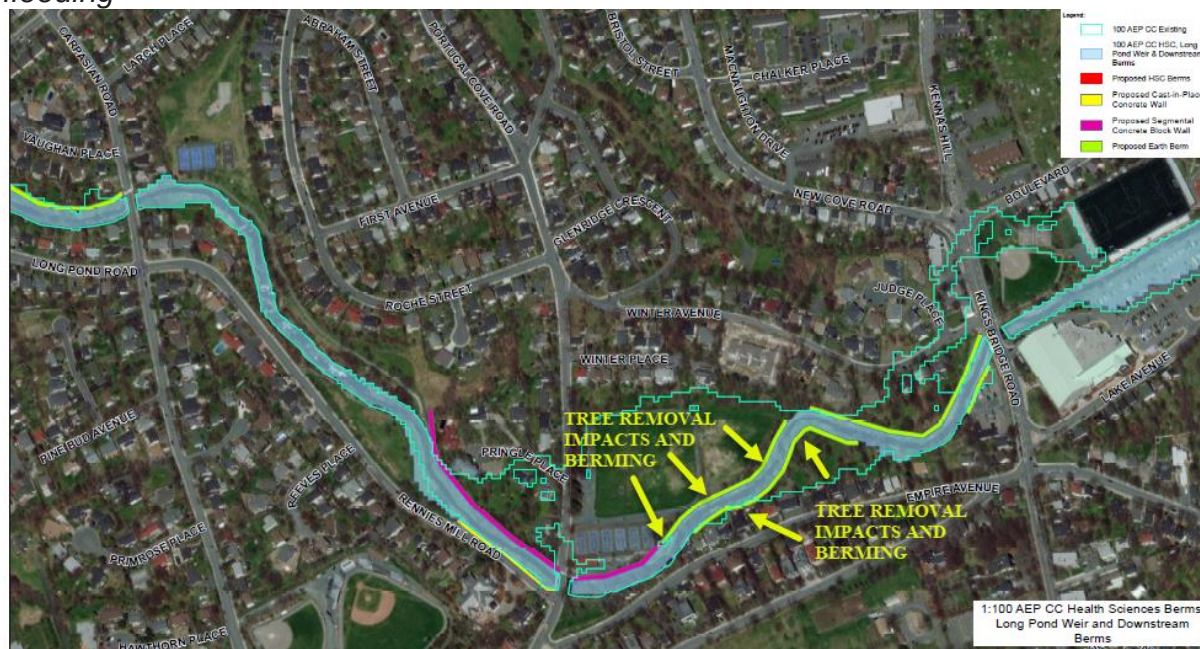
With funding approved for the construction of the Long Pond Weir in 2014, the City has been working through the provincial Environmental Approval process for the Long Pond Weir Project since that time. The process is still ongoing. The most recent progress has been the issuance of a revised Environmental Preview Report Guideline (June 2020) by the Province that will require revisions and updating to the Environmental Preview Report. Based on these new EPR Guidelines, a revised EPR will be required to continue the Environmental review and approval process for the Long Pond Weir Project.

In 2018, the City received funding for Phase 2A under the New Building Canada Fund. The scope of work was presented to the COTW meeting on December 19, 2018. One of the concerns raised during that meeting was what would be the affect with proceeding with Phase 2A flood mitigation works prior to the completion of the Long Pond Weir Project. CBCL were subsequently hired to undertake additional storm water modelling to review the impact of the downstream phasing sequence in the absence of the Long Pond Weir being completed.

Revised Modelling Output

The flood mitigation measures presented in the RRCSWMP were based on the premise that the floodwater would be entirely contained within the Rennies River corridor in an effort to protect private properties and rear yards from flooding. To proceed in this manner would require the removal for many large mature trees that provide shade to the river ecosystem, as well, it could have a negative effect on the enjoyment on some properties rear yards, due to the removal of large private trees and the construction of large earthen berms. See Figure 1 below.

Figure 1: Feildian Grounds, Riverdale Tennis Courts & Empire Ave rear yards protected from flooding



After completing various modelling scenarios, it was determined that a two phased approach could be undertaken for the flood mitigation measures in the area downstream of Long Pond Weir. The alternate scenario being presented would see the flood mitigation measures completed upstream of the Portugal Cove Rd bridge, as well as, the berming required along the rear of some Winter Ave properties and the NF Power substation upstream of the Kings Bridge Rd bridge. This approach will remove the properties along Pringle Place, Vaughan Place, Winter Ave, Kings Bridge Rd and The Boulevard from the floodplain; however the Fieldian Grounds, Riverdale Tennis Courts and some of the rear yards of properties along Empire Ave will remain in the floodplain until such time as the Long Pond Weir receives provincial approval and is subsequently constructed.

Figure 2: Feildian Grounds, Riverdale Tennis Courts & Empire Ave rear yards allowed to flood (Maintain Status Quo)



By allowing the Fieldian Grounds and Riverdale Tennis Courts to continue flooding, this alternate sequencing will substantially reduce the wall and berming heights by comparison of Figures 3 and 4 below. After the Long Pond Weir is approved and constructed, the remaining flood control measures downstream of Long Pond could be undertaken if Council, local area stakeholders and regulatory authorities (ie. DFO) are accepting of the required tree removals and additional berming / retaining walls required. An increase to the wall heights for the flood mitigation measures upstream of Portugal Cove Rd bridge would also be required for this subsequent phase, per Figure 3 below.

Figure 3: Wall / Berms Heights Per Original Project Sequencing (After Long Pond Weir Constructed)

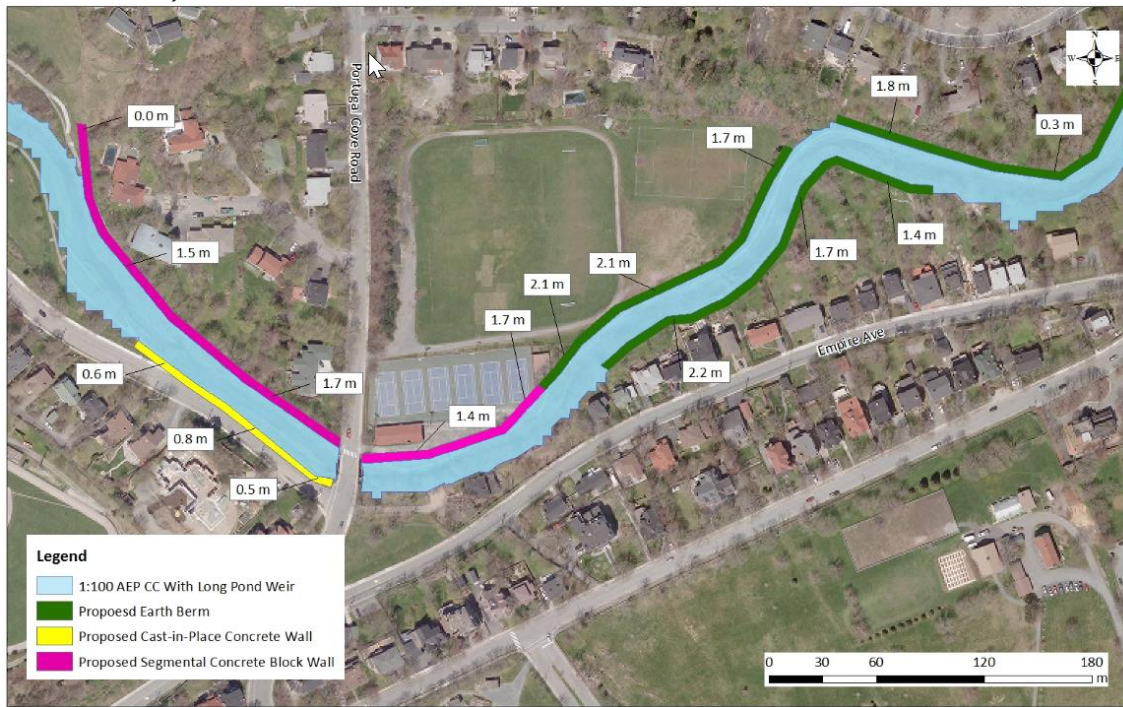


Figure 4: Wall / Berm Heights Per Alternate Project Phase Sequence (Maintain Status Quo – Long Pond Weir Not Constructed)



Current Project Sequence (Long Pond Weir to be constructed, followed then by downstream flood mitigation improvements below Long Pond)

Pros	Cons
Provides flood protection for houses & backyards along Vaughan Pl, Pringle Pl, Winter Ave, Empire Ave, Kings Bridge Rd, The Boulevard, Feildian Grounds and Riverdale Tennis Courts.	Earthen berms encroach onto one of the Riverdale Tennis Courts.
	Mature trees must be removed to accommodate berms (loss of fish habitat and trail enjoyment).
	Property must be acquired at backyards along Empire Ave properties to accommodate berming.
	Provincial EA approval has been ongoing since 2014. It is unknown when, or if, the Long Pond Weir will be approved; thus, preventing any downstream flood mitigation work from proceeding.

Alternative Project Sequencing (Modified downstream flood mitigation improvements completed as first priority, before the Long Pond Weir)

Pros	Cons
Provides flood protection for houses & backyards along Vaughan Pl, Pringle Pl, Winter Ave, Kings Bridge Rd, and The Boulevard. As well as, flood protection for houses along Empire Ave.	Flood protection not provided to Feildian Grounds, Riverdale Tennis Courts and rear yards of Empire Ave properties.
Construction of berms will not result in removal of mature trees.	
Berms do not encroach onto Riverdale Tennis Courts.	
No property acquisition required.	
This approach will allow downstream flood mitigation projects to proceed while waiting for the Long Pond Weir to be approved	
Long Pond Weir could be constructed at a later date with necessary regulatory approvals in place for the Long Pond Weir. Flood protection measures for Feildian Grounds, Riverdale Tennis Courts and rear yards of Empire Ave properties could also proceed at a later date if negative impacts are deemed acceptable to Council, property stakeholders and regulatory authorities.	

Key Considerations/Implications:

1. Budget/Financial Implications:

The project is funded under the New Building Canada Fund (\$1.9M). Additional funding would be required for the subsequent phase of construction after the Long Pond Weir is completed.

2. Partners or Other Stakeholders:

- Residents along Empire Ave, Pringle Place, Vaughn Place and Winter Ave
- Feildians Athletic Association
- Riverdale Tennis Club

3. Alignment with Strategic Directions/Adopted Plans:

The Rennies River Flood Mitigation Project aligns with the Strategic Goal:

- A Sustainable City

4. Legal or Policy Implications:

The Development Regulations generally prohibits development in the floodplain and restricts development in the buffer. Implementation of this project may result in the removal of properties from the identified floodplain or buffer, potentially allowing development in those areas that are removed.

5. Engagement and Communications Considerations:

Stakeholders to be engaged during the planning and construction phase of the project.

6. Human Resource Implications: N/A

7. Procurement Implications:

Public Procurement Act to be followed for the design and construction stages of the project as per standard procedure.

8. Information Technology Implications: N/A

9. Other Implications: Environmental Assessment Process

The Department of Municipal Affairs & Environment (MAE) has advised that The Environmental Assessment Regulations, 2003, Section 35 (4b) define this project as an undertaking requiring environmental review pursuant to the Environmental Protection

Act, SNL 2002, cE-14.2. Following through with the Environmental Assessment review process, it will need to be determined by MAE what level of environmental assessment is required. Depending on the Ministers decision, the following are the four options:

- i) The undertaking may be released from further environmental review.
- ii) An Environmental Preview Report (EPR) may be required.
- iii) An Environmental Impact Statement (EIS) may be required.
- iv) The undertaking may be rejected.

This approval process could add months or years to the completion of the proposed flood mitigation works.

Recommendation:

That Council, approve the alternate project phasing sequence for implementation of the Rennies River flood mitigation measures downstream of Long Pond prior to the construction of the Long Pond Weir

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Report Approval Details

Document Title:	Rennies River Flood Mitigation - Alternative Project Phase Sequencing.docx
Attachments:	
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This report and all of its attachments were approved and signed as outlined below:

No Signature - Task assigned to Jason Sinyard was completed by workflow administrator Shanna Fitzgerald

Jason Sinyard - Aug 28, 2020 - 9:15 AM