



February 10, 2025

Sussex Region Flood Diversion Project  
Impact Assessment Agency of Canada  
200-1801 Hollis Street  
Halifax, Nova Scotia B3J 3N4

Email: [SussexRegion-RegiondeSussex@iaac-aeic.gc.ca](mailto:SussexRegion-RegiondeSussex@iaac-aeic.gc.ca)

**RE: Project Reference#89179**

The Kennebecasis Watershed Restoration Committee (KWRC) felt it was important to provide the Impact Assessment Agency of Canada (IAAC) with some thoughts on the proposed Sussex Flood Mitigation Project (#89179). This plan is an expensive undertaking (\$36M+) and will likely have ongoing costs as well though those have not yet been provided at this stage. The plan will leave the most vulnerable properties in harms way (as stated in early documentation in the plan) and puts other properties at greater risk. These most vulnerable homes are the ones that, when flooding occurs, cost us the most money and will continue to cost us money in the future if left in harms way. This means the cost savings and mitigation created by this proposed “mitigation plan” will likely be minimal and thus the KWRC asks why this approach. Has the thought of removing homes from the flood risk areas and reclaiming those areas as functioning floodplain been investigated and costed out?

In a CTV news release it was stated that “*Desjardins Group announced that as of Feb. 1, it would no longer offer new mortgages for properties in “0-20 year” flood zones — where there is a five per cent chance of flooding in any given year — because of what it called the rising impact of climate change. (Mar 10, 2024).*” If, other lending bodies follow this same principle then helping residents who live in the most impacted areas relocate now through a buyout program is a much wiser use of resources and energy. At the same time it would provide better mitigation for the rest of the region and not simply shift the problem onto someone else.

Here is a link to the CTV story: <https://www.ctvnews.ca/montreal/article/rising-water-quebec-lender-ending-new-mortgages-in-flood-zones-just-the-beginning/#:~:text=Desjardins%20Group%20announced%20that%20as,rising%20impact%20of%20climate%20change>.

The KWRC has no engineers on staff. When we need one, we contract one out. However, our organization has over 30 years of completing watershed assessments, water quality monitoring, habitat restoration work and more. We know the rivers very well and are very familiar with the flooding and how it occurs within Trout Creek and across the Kennebecasis watershed. We don't have all the answers, and we know that it is not an easy problem and that a solution is challenging due to the variable human factor. We applaud the Town for taking difficult steps forward and hosting difficult discussions, but we would encourage them to consider the option of "retreat" as a better option. Take time to investigate the numbers, both in economic and mitigation terms, and present them to your constituents and it might be easier and more beneficial than you think.

Following a review of the documents presented to the IAAC the KWRC came up with several points of concern and questions. We encourage the IAAC to look at the comments below regarding the Sussex Flood Mitigation Plan. These are comments from our committee members and our review of the flood mitigation plan. Some of these were highlighted above. The KWRC would appreciate a response on each the points below.

1. Moving flood water from Parson's Brook into Trout Creek via a proposed diversion channel will raise the water level in Trout Creek and it is uncertain as to whether this is addressed in the proposed diversion channel from Trout Creek to Kennebecasis. The modelling data seems to use the current 1:100-year flood levels as the model but by introducing Parson's Brook flow into Trout Creek above the Trout Creek diversion, the model should consider this change in the design. The increased flood levels will mean that the diversion channel will receive water more frequently. Further, there is discussion around a berm around the Meadow Crescent subdivision and this will remove active floodplain and again further alter the amount of water that might enter the proposed Trout Creek diversion channel, and it is uncertain whether this change is noted in the modelling.
2. With the increased flow in Trout Creek from the Parson's Bk drainage and due to the proposed berm around Meadow Crescent, has there been any modelling done to determine how this will impact the facilities downstream of the Post Road Bridge. That greater amount of water could impact Brown's Paving on the true left bank and the trailer park on the right bank of Trout Creek. Have these property owners and lot renters been notified and had the plan explained to them? Are they aware of the increased risk they now face?
3. While there is mention of the berm through the online portal, none of the reports outline the berm or its proposed location, nor how much flood plain it will remove from the Trout Creek. If the flood water can't access that area, where will it be pushed to? This berm and the Parson's Brook diversion channel increase the risk of flooding major infrastructure such as a Provincially Designated Wellfield and pumping station, the only senior sized baseball field, and the Sussex Corner Elementary School. The 2014 flood event demonstrated how Parson's Brook could flood the school. New road construction is not permitted under NB Wellfield Designation within the A Zone of a designated well field and construction of a diversion channel would be very comparable.

For information on the wellfield designation check this link:

[www2.gnb.ca/content/dam/gnb/Departments/env/pdf/Water-Eau/WellfieldProtection.pdf](http://www2.gnb.ca/content/dam/gnb/Departments/env/pdf/Water-Eau/WellfieldProtection.pdf)

The well field that could be impacted if the Parson's Brook diversion channel is constructed is outlined here: [www2.gnb.ca/content/dam/gnb/Departments/env/pdf/Water-Eau/Wellfield-ChampsDeCaptage/SussexCorner.pdf](http://www2.gnb.ca/content/dam/gnb/Departments/env/pdf/Water-Eau/Wellfield-ChampsDeCaptage/SussexCorner.pdf)

4. In the past we have asked the question, how will you keep the flood water from the Kennebecasis from flowing into the Trout Creek diversion channel and thus creating a plug on that channel? Is there modelling done to show how the diversion channel might back up? It is possible the Kennebecasis River could act as a plug to the Trout Creek diversion channel and when that water has no where to go, it will flood the diversion channel, possibly putting many homes and businesses along the path of the diversion channel at higher risk.
5. While the proposal and documents discuss the need to update the Hwy 1, Leonard Dr, and Route 890 crossing points to facilitate flow changes from the Trout Creek diversion channel, there is no mention of the CN Rail line and how the water also has to pass under that bridge. Has this been reviewed or was it determined that the CN bridges could convey enough water at current levels? If so, why is there no documentation or statements from the engineering firm to illustrate this?
6. Staying with the infrastructure and considering cost projections, bridges on Hwy 1, a bridge on Hwy 890, and a culvert/bridge on Leonard Dr are expensive undertakings. Are those costs included in the proposed price tag of the project? If so, could a breakdown of each be provided? It is felt that the original \$36M price tag likely wouldn't cover all those infrastructure costs. Further, some of that infrastructure is outside of Town limits, but it should still be the responsibility of the Town to ensure that infrastructure is safe from possible impacts from this project. It is worth noting that a "retreat" plan would not require any changes to existing infrastructure outside of the individual homes.
7. Still with costs, there has been little to no information provided on the cost of maintaining the flood diversion channels. It is expected that silt and debris will build up in the channels following each flow event (this is a natural process of rivers and streams) and if so, will this material have to be removed? What is the expected annual maintenance costs of the pumps and flow control structures? The public is being asked to provide "social license" on this project without knowing the cost to them.
8. The proposed berm around Meadow Crescent will likely back water up on Trout Creek as it pushes through the narrower floodplain, will that impact areas around the Sussex Corner Elementary School? Or the wellfield and pump house behind the school? Or the only senior sized baseball field in the Town? If these facilities have to be replaced what will the cost of those be? This point is similar as #3 but is focused on the costs of having to possibly replace the ballfield, the wellfield, and possibly (not likely) the school, or the associated parking lots.
9. Historically the Meadow Crescent/Cunningham Avenue area floods were two-fold, ground water inflow and surface water. The data to date has not been provided to show how much groundwater flows into that area during highwater events. How can we be certain the pump

station being proposed is sufficient to move that much water. If the homes are still going to flood due to ground water, is the berm needed especially if its presence means other properties are at greater risk?

10. Has the idea of "retreat" been fully considered and explored? Leaving the most vulnerable homes still in the floodplain and at risk means we are still facing extensive costs when they flood. Costs for rescue, for repair, and more will still be high and public safety still at risk with the implementation of this plan so is it worth it? Could we move those most at risk homes out of the floodplain to another area and thus keep people safe and at the same time build floodplain connectivity in that reclaimed space to protect additional homes from flood impacts? If you spend \$30,000,000 on purchasing those most vulnerable homes and provide each property owner \$200,000 you could remove 150 of the most vulnerable homes from the floodplain. This leaves you with \$6M to complete floodplain restoration which would likely greatly reduce the risk for another 200+homes. Further, this approach doesn't put new properties at risk, it wouldn't require adjusting bridges, highways, and historical landmarks, and has a limited impact on stream hydraulics.
11. Another concern is the diversion channel from Trout Creek being directed into the Kennebecasis River above the Town of Sussex. The resulting flows will still need to flow downstream past the town and other infrastructure when the main stem of the Kennebecasis is likely already at flood stage and thus will increase the impact of flooding in this area. What is being done to let those in that area know about this potential and what is being planned to help them if they now flood? Businesses like the KOA, Irving Sawmill, Frenchy's and Kingsco Trucking will likely be at higher risk if this diversion channel is put in place.
12. What does the regulatory body say about moving water from one jurisdiction to another (Sussex to Kings Rural District/Butternut Valley/Valley Waters)? Has the potential change in hydraulic equilibrium and how that could impact downstream municipalities been considered? New erosion sites, channel re-alignments, and deposition zones are likely to occur and impact other areas and there is no mention of this in the reports.
13. The flood diversion channels will also alter the timing and amount of water flowing into wetlands and has this impact on those ecosystems been considered? The Parson's Brook diversion channel could essentially leave some wetland areas now dry. While the GeoNB map resource does not show wetlands on the lower end of the Parson's Brook, the KWRC can confidently state that wetland features do exist in that area, especially near the old "artillery range."
14. Though not likely to be frequent, it is possible that during high water events, fish may migrate into the flood diversion channels. Is there a plan in place to monitor for this or provide fish rescue when needed?
15. The KWRC was invited to a landowner meeting on this topic recently (February 8, 2025) where 13 home and business owner attended. Many of the landowners who are along the lower end of the proposed Trout Creek diversion channel stated that they were not informed of this project by the Town but only found out about it through neighbors and social media. There are

no examples of letters sent to landowners or stakeholders provided in the report, so has the Town provided proof to the IAAC that they properly consulted and engaged stakeholders before this point? Could the Town be asked to expand their defined impact zone beyond simply the path of the diversion channel?

16. Lastly, the Town of Sussex states that it wants to take any measure that helps alleviate flooding, but their municipal plan does not prohibit future development in floodplains, it does not conserve existing wetland features which mitigate climate change, and there have been recent examples where they have allowed in-filling of wetlands and floodplains. Before they are permitted to send floodwaters into someone else's backyard, should they not be asked to look after their own?

The Kennebecasis Watershed Restoration Committee again understands the complexity of projects such as this and we thank the IAAC for taking time to consider our points. If you would like to discuss these further, please feel free to reach out to me.

Respectfully,

<Original signed by>

Ben Whalen  
Executive Director