

Rennies River Flood Mitigation Project

Phase II Information Session

November 17, 2020

Summary of Questions and Answers

Q. The images are deceptive because they do not show the height of the bridge. If you install a 19 m elevation low side to the river and the bridge is at 18 m, how can you put a barrier and not have water flow out over at some point in time?

A. We have considered the hydrology of the river and are confident in what we are proposing, we understand where the question of elevation is coming from. It may appear the water will go over, but in fact as the water builds up a head and will go underneath the bridge. The water is contained with these measures in place.

Q. What has been done with the ground water flow study in the areas?

A. The hydrology was considered and “we” are confident in what we are proposing. It may appear that the water will go over, but as the water builds up it will go underneath. Water is contained with these measures in place.

Q. Is there risk that the assessment this needs to go through will be held up by the Province?

A. There is always a risk, this will be determined after feedback is received from the first submission and whether it needs to go to the next level of environmental assessment.

Q. With no weir being build and the Waterford hospital being constructed and replacing the marsh land that accommodates the accumulation of water, has this been factored into the design and plan? Should we wait until the Province allows the weir to be built and do the berms after the weirs are built?

A. Additional modelling was completed that reflects where the adult mental health facility is going to be constructed. There is a wet area there that has been backfilled and flood protection berm on both sides of Leary’s Brook upstream from Long Pond South of the Health Sciences Centre. All these facts have been taken into account in the design of these current improvements.

Q. How have you done the flood volume underneath the bridge with the amount of water seen in the past such as Igor with a pipe that is 2 inches thick and feeding an 8 inch pipe, only 2 inches can come through as the rest stays in the pipe or goes back? How can this bridge accommodate this flow?

A. The water builds up and it changes how it behaves. We can get more water through the bridge opening if it builds up a head at the bridge.

Q. Will all the vegetation have to be removed from the channel that you walled off to keep Mannings End at a level where the water can flow freely? The images show a lovely area with vegetation. How will the river channel be cleaned out once you have it walled off?

A. Considered this based on good engineering and science. In terms of removing materials, the City has on occasion had to remove materials beneath bridges and culverts. This is a regular and ongoing process completed by the City. In an urban environment it is common that this occurs. We have also taken into account the various items including roughness of the river and vegetation in establishing the hydraulics of the river.

Q. How would water get through the 4-5 foot wall if needed? What is the nature of the wall and how will it be designed?

A. An impermeable liner on the riverside will be tied to the ground and come up behind the back of the wall so water wouldn't get through. Where we have the liner there is that impermeability. Our purpose of the flood protection system is to control surface water levels, not ground water levels. It is in a flood event we want to control water.

Q. Is there any plan to mediate the riverbank across from the Riverdale Tennis Courts?

A. We haven't shown that work in the presentation, it will be included the environmental assessment registration document and plan to continue with an armour stone protection and will have to look at the detailed design and have to extend down 30-40 ft downstream. It is being looked at.

Q. Phase I on the bike plan fits into the Rennie's River Trail, how can money be spent on this in Jan before we know how phase I and II of the bike plan will be implemented?

A. The design for the bike trail is ongoing.

Q. How long has the City been waiting for the weir?

The City is not waiting on the province to build the weir, the City is planning on building the weir once we get the environmental approval. The process is still ongoing, and it is hard to put a timeframe on when or if it will ever be released for construction.

Construction of the weir, where it doesn't impact the effectiveness of the downstream flood mitigation works because the CBCL has modelled that, these flood mitigation measures that are proposed are constructed sort of alleviates the flooding concerns down in that area even without the weir in place. Even just building the weir and not doing the downstream improvements doesn't solve the problem down there. The downstream walls and berming need to happen to solve the overland flooding.

Q. Will the berm be wide enough for multiuse trails? Will you use the draft design for the bike plan to develop the design?

A. The proposed multi use trail width will be given consideration when designing the berms.

Q. Can one assume some of this work will facilitate the contested bike plan and possible make mute some of the arguments against it like environmental, aesthetics before consultation can occur?

A. The projects are interrelated, we will know more once we get the plan finalized. The bike plan is ongoing. It is difficult to know until we get more into the detailed design and start to make decisions on what we will do with those locations.

Q. What has changed since the 2014 study? Why would we now proceed without the weir that was recommended in Phase I at the time?

A. The City is still moving ahead with the weir, that has not changed. The process is still ongoing. The City has funding for this project. We are still of the opinion that the weir is an integral part. This project is looking to contain flood waters for very short periods of time when we have peak flooding. If there are lengthy technical comments, anyone who has a background and wants to make a technical comment should do so for consideration.

Q. Have you considered head waters?

A. It has been considered and dealt with through hydraulic modelling.

Q. Is the proposed infrastructure sufficient to handle projected climate change impacts?

A. It is a tricky business, but yes we have addressed climate change. A 1:100 Year Design Storm including Climate Change, was utilized for the modelling and design.

Q. Did we adjust estimates based on the Province's decision to fill in the wetland by the Health Sciences Centre?

A. Yes, we had to go back and redo our modelling based on that area being filled in and changed from a wetland to dryland. Some of the figures reported in the 2014 tables are not accurate now as we had to change the modelling. The recommendations are still valid.

Q. Where will the width come from for the trail to be expanded for multiuse? The bike plan is recommending 12 feet of space.

A. The design work hasn't started yet. The section mentioned is not a part of the current Kelly's Brook alignment. Based on work in the bike master plan this is a challenging section to make accessible because of the stairs further upstream near Larch Park. One option is taking the multiuse trail and putting it on the opposite side of the river, not part of the work we are currently doing for the Kelly's Brook Trail. Options will be investigated, but we are still a couple of years out.

Q. If you are spending money now on weirs and berms, will we have to tear it all up again in a few years for the bike trail?

A. During the design process we will figure out what can go there, that may inform the decision on whether the trail goes through that area or if we bring the trail up on the street to Empire Avenue.

Q. How long have we been waiting on results for the weir project?

A. We received comments back from the province mid-summer, looking at revised EPR submission to the province that will kick start the EPR process again.

Q. What measure are being taken to deal with runoff water from roads and streets and parking lots upstream of Kelsey Drive into Rennie's River?

A. With the design of these flood protection measures we have considered the head waters which is Kelsey Drive area and Kenmount Terrace area, north of Kenmount Road has been considered and will be dealt with.

Q. Can Pippy Park stall this project further?

A. Pippy Park is a commission of government and is a large stakeholder and yes they could delay completion of the Long Pond Weir.

Q. Will the river back up and flow over the land of the homes opposite the berms? At the Carpasian bridge.

A. Upstream from the bridge the land is high enough on that side. The yards along the river near Empire Avenue have been considered. The homes are higher than the projected flood levels. The homes would be okay in a peak flood situation, consideration was given to the yards and it was decided to not add berms on that side.

Q. How will we know when the environmental assessment is submitted?

A. We can make an update to the engage page when we make a submission.

Q. Did you consider alternatives to putting the weir dam in Pippy Park?

A. We looked at different options and studied it extensively. The challenge is the need for a large area, we need an existing body of water like Long Pond to add water to the top of that pond. We need a big area to have any significant effect on controlling flood water and reducing the peak in a flood event.

Other note: Residents on 3, 5 and 6 Pringle Place would like to see things left alone until such time that something is done to control the amount of water coming into the river.