## SPC on Utilities and Corporate Services - May 15, 2019 - Agenda item 7.4

Charlie Lund, representing the Hillhurst Sunnyside Community Association

During the last agenda item I spoke of the positive experiences working with the City as the Northwest Inner City Stormwater Improvements were developed.

Now I must speak about the frustrations we continue to experience with the development of the Sunnyside flood barrier.

In the simplest terms, Sunnyside needs a flood barrier higher than we have today and high enough to protect our community while we wait for the construction and commissioning of new upstream storage on the Bow River which could be 10-20 years in the future.

It has been almost six years since the 2013 flood. New flood barriers have been completed at the Zoo and Eau Claire. A new downtown flood barrier east past Centre Street is well under development. Sunnyside is still waiting.

In 2017 Water Resources brought forward a proposal for a flood barrier that will, on its own, provide protection against a 1:20 river flood. This means no material increase to the Sunnyside barrier height. This was a surprise to us.

With the 1:20 barrier height there is about a 30% probability of a catastrophically damaging flood while we wait for new upstream storage to come on line. We have made reasonable assumptions for the benefit of the TransAlta agreement (300cms), the expected time to operation of new upstream storage (15 years) and we have used standard equations to calculate the 30% probability. A ~30% chance of major flood damage to our homes is unacceptably high. It seems obvious to me that a higher barrier is required for Sunnyside.

In 2018 SPC-UCS directed Administration to conduct robust public engagement with impacted communities prior to finalizing the height and design details of the four community barriers identified in the flood mitigation measures assessment.

Instead of consultation based on flood risk, avoided damages and preliminary cost estimates, as has been the practice for other barrier projects, Administration has decided that preliminary engineering by a consultant should be undertaken on a number of height options. This has been going on for a year and is continuing. Sunnyside is still waiting.

Aa significant source of aggravation is that the inadequate 1:20 option remains under consideration and remains prominent in city communications. Our understanding is that it must be worked because it was explicitly approved in 2017.

We request that the committee explicitly relieve Administration of the requirement to evaluate the 1:20 option.

In addition to the risk exposure while waiting for new upstream storage there are other points that support a higher flood barrier for Sunnyside. I will quickly summarize some.

Triple Bottom Line (TBL) economics support a Sunnyside barrier of 1:50 or better (per city engineering consultant). Even a 1:350 barrier shows positive TBL economics.

The majority of Calgary communities with barriers have protection of 1:50 or better. For example the Eau Claire and downtown barriers provide 1:200 protection, the Zoo barrier is 1:100 and the rebuilt 3<sup>rd</sup> street to Centre street barrier, which protects the "field of crosses", is 1:50. Sunnyside is at the bottom of the list with a 1:20 barrier.

The provincial standard for flood protection is 1:100. We understand that provincial ACRP funding is not available to projects not meeting the standard. Even after reasonable consideration of existing upstream mitigation, i.e. the TransAlta agreement, the 1:20 barrier fails to meet the standard.

Better than 1:20 community protection is required to avoid costly mitigation in individual buildings. This property level mitigation is rendered redundant with an adequate flood barrier.

Climate change is expected to mean more frequent severe climate events. However, its effect is not factored into the return periods nor the river flows used in the flood barrier projects, even though an estimate has been quantified. Factoring in the effect of climate change would reduce the protection provided by the existing barrier to something closer to 1:10.

Sunnyside already has a flood barrier, albeit an inadequate one. Concerns with the aesthetics of a higher barrier are minimal. There will be limited incremental environmental issues with an incrementally higher barrier. The barrier is entirely on city owned property. In short there are virtually no negative considerations for Sunnyside residents to offset the benefits of better flood protection.

Sunnyside needs a higher flood barrier and we need it now.

On a more positive note I want to acknowledge and thank the city for their commitment to groundwater protection for Sunnyside.

Thank you.

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