

Stakeholder Report Back: What We Heard, What We Did
April 2020

### **Executive Summary**

Sunnyside is one of several vulnerable locations along the Bow River that remains at risk from another 2013-level flood. Over the last two years, we worked with the community to explore different options for a flood barrier in Sunnyside to help reduce the impacts to the community from another devastating flood like Calgary experienced in 2013. This report outlines the engagement process, the recurring themes heard throughout the engagement program from community members who elected to participate, and how their feedback helped shaped the project team's recommendation to Council.

The engagement program, from initiation to close, spanned approximately two years. The project team interacted with over 1,000 individuals and received more than 1,870 comments or pieces of input through three online engagement opportunities, two open houses, three pop-up events, four Q&A online sessions and six stakeholder check-ins with the Hillhurst Sunnyside Community Association (HSCA) – Emergency Planning and Response Committee.

Throughout the program, we consistently heard from residents the desire for a higher flood barrier. That feedback helped re-shape the barrier options being evaluated, and ultimately, the recommended flood level height that will be presented to Council on April 15, 2020.

The evaluation of options included a full social, economic and environmental assessment. With this analysis, we will be recommending to Council to move forward with the design and construction of a 1 in 100-year flood barrier for the Sunnyside community.

	LEVEL	RANK	
	1 in 20-year flood level	4th	
	1 in 50-year flood level	3rd	
2	1 in 100-year flood level	*The 1 in 100-year flood barrier level will include the ability to expand the height, if necessary, in the future.	
	1 in 200-year flood level	2nd	



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The 1 in 100-year option is the recommended barrier height for Sunnyside because it's reflective of the best balance between social, environmental and economic considerations. It's an investment that enhances the safety of residents and our ability to protect those most vulnerable, while having a lesser impact to the community look and feel.

The 1 in 100-year option meets the federal and provincial flood protection standards. When constructed, it will immediately reduce Sunnyside's risk from a 2013-level flood. This option will be further enhanced by current and future upstream reservoirs on the Bow River, allowing it to manage even larger floods.

The engagement program facilitated conversations that helped refine the options to provide the community with the best balance of enhancing their safety while minimizing impacts to the look and feel of Sunnyside and the natural environment. Moving forward, the results from this process will help City Council's decision regarding flood mitigation in Sunnyside, but also it will help guide the next phases of the project.

### **Project overview**

The Bow River is an integral part of Calgary and the Sunnyside community. As a neighbourhood located so close to the river, there will always be a risk of flooding in Sunnyside. During the 2013 flood, Sunnyside was inundated with water. Many in the community were evacuated for more than a week, and approximately 400 residences in the area were damaged.

In 2016, The City hired external consultants to update the Provincial Flood Damage Assessment study for Calgary and to assess and recommend future resiliency and mitigation measures. The resulting document, the Flood Mitigation Measures Assessment (FMMA) report, was approved by Council in the spring of 2017. Recommendations included the following combination of mitigation solutions to create a flexible and adaptable flood risk management program to reduce Calgary's flood risk:

- Watershed-level mitigation (The Province):
  - 1. Enhanced operations at Ghost Reservoir as part of the current five-year agreement with TransAlta.
  - 2. A new an upstream reservoir on the Bow River.
- Community-level mitigation (The City)
  - 3. Permanent flood barriers in select communities.
    - The height of the barriers will vary depending on the location. The City's Flood Mitigation Strategy is aimed at achieving – at a very minimum – protection against a 2013-level flood event.
- Property-level mitigation and policy implementation (Citizens and The City)
  - 4. Policies, bylaws, land use regulations, building codes, possible incentive programs for floodproofing and public education.



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Work completed on the community flood barriers projects before fall 2018 was part of the conceptual design phase. In that phase, it was determined that flood barriers were a feasible option for the community. Still, limited details about the barriers were determined and this was based on information available at the time.

Sunnyside was identified as one of the communities requiring community-level mitigation. Since 2018 The City has been working with the community to explore different options for a flood barrier to ensure the recommended option to Council is reflective of community values and priorities.

Groundwater studies for the Sunnyside Barrier are still underway. Once completed, results will be evaluated and, if required, potential mitigations could be incorporated into the recommended flood barrier in the future.

In addition to the flood barrier, The City has been working on other drainage projects in the community to reduce stormwater flooding in the area (see map below).

- 1 Upper Plateau Separation
  - To help prevent flooding of the lower plateau of Sunnyside/Hillhurst, The City is building dedicated stormwater infrastructure for the upper plateau.
- Sunnyside Sanitary Lift Station Replacement This lift station was upgraded for flood resiliency.
- 3 Sunnyside Storm Lift Station 04A Upgrade (Pump Station #2)
  The lift station is being upgraded for flood resiliency and will more than double its pumping capacity.
- 4 New Sunnyside Storm Lift Station (Pump Station #1)

  A new lift station will alleviate overland flooding on Memorial Drive, and localized flooding in the southeast area of Sunnyside.

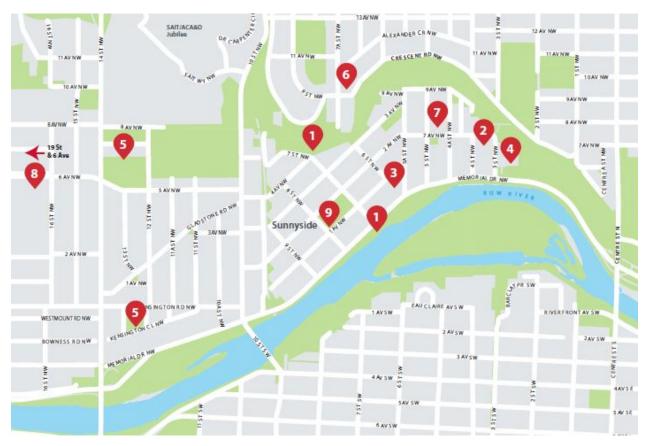
#### **Northwest Inner-City Community Drainage Improvement**

Various projects in Sunnyside and Hillhurst will address stormwater capacity issues of the existing system

- 6 Kensington
- 6 10 Street N.W.
- 7 Avenue N.W.
- 8 West Hillhurst
- 9 1 Avenue N.W.



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### Sunnyside Flood Barrier

The proposed location for the barrier is on the left/north bank of the Bow River. There is an existing berm along the proposed alignment that would be upgraded to meet the recommended barrier flood height. The current stone block retaining wall running parallel to the pathway system, south of the Prince's Island Park pedestrian bridge, would be replaced with a flood wall.

The proposed Sunnyside flood barrier is a foundational piece of the City's Flood Mitigation and Resiliency Plan. It looks to reduce the flood risk for Sunnyside residents and critical infrastructure in the area with a solution that:

- Reflects the values and priorities of the community
- Enhances the well-being of the community
- Provides good value for money invested
- Minimizes impact to the natural environment
- Works in tandem with upstream reservoirs, a new reservoir on the Bow and modified operations of TransAlta's Ghost reservoir, to mitigate a minimum 2013-level flood



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- Is adaptable to future uncertainties like climate change
- Balances the community-specific needs with the need for a strong, city-wide flood resilience plan

This project is now nearing the end of Phase 1, the preliminary design stage, which began in 2018. Over the last two years, The City, along with design and engineering consultants, gathered detailed information about the area, conducted site surveys and completed engineering studies and analyses. In addition, we have worked with community members, businesses, and local interest groups to explore different options and develop a recommendation for what the barrier could look like. On April 15, 2020, the project team will bring forward the recommendation for the Sunnyside Flood Barrier to Council via the Utilities and Corporate Services Committee. The timeline for the project activities is shown below.



2016	2017	2018 – 2020	2020	2021 – 2022
Community engagement on Flood Mitigation Measures Assessment	Council approval – Calgary's Flood Mitigation Strategy	Phase 1 Studies and community engagement	Phase 2 Final design and regulatory approvals	Phase 3 Construction (pending regulatory approvals)

Working with the community, we explored four different flood barrier height options; 1 in 20-year, 1 in 50-year, 1 in 100-year and 1 in 200-year flood level. The table below shows the total length, average height, and some of their trade-offs for each option.



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	l <b>←→l</b> Total length	Average height	Impact on river views	Impact on trees	\$ Cost
1 in 20-year flood level	1.1 km	0.3 m (1 ft)	All views maintained	Least	\$8 M
1 in 50-year flood level	2.3 km	0.8 m (2.6 ft)	All views maintained	Moderate	\$19 M
1 in 100-year flood level	2.5 km	1.1 m (3.6 ft)	Street-level views reduced	Moderate	\$28 M
1 in 200-year flood level	2.7 km	1.6 m (5.2 ft)	Street-level views reduced	Most	\$38 M

### **Public & Stakeholder Engagement**

For this project, The City took a multi-year engagement and communications approach to explore the different options for a flood barrier in Sunnyside. The engagement strategy was developed to facilitate multiple touch points and ensure inclusivity for all who want to provide input and learn about the project.

The feedback collected over the last two years was used to help the project team analyze opportunities and challenges. It also helped look at and refine the options to provide the community with the best balance of enhancing their safety while minimizing impacts to the look and feel of Sunnyside and the natural environment.

### **Engagement Spectrum of Participation**

The Engage Spectrum level for the project's public engagement was 'Consult' which is defined as "We will consult with stakeholders to obtain feedback and ensure their input is considered and incorporated to the maximum extent possible. We undertake to advise how consultation impacted the decisions and outcomes".



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#### Goals

Through our engagement and communications program, we focused on:

- 1. Building trust and relationships with stakeholder ad groups impacted by the project
- 2. Building a shared understanding of Calgary's overall Flood Mitigation Plan, the benefits of the Sunnyside barrier and the policy environment in which decisions are made
- 3. Engaging with the Sunnyside community to collect local knowledge and get input on community values, areas of sensitivity, and other factors that should be considered in the preliminary design
- 4. Gathering feedback on the benefits and concerns for each of the four different flood barrier height options as perceived in the community
- 5. Obtaining input from the broader community on the Triple Bottom Line social criteria and their importance to assist in the barrier option evaluation process
- 6. Engaging with the community as a whole to ensure broad feedback was received and that final recommendation considered and responded to feedback from across the community

#### 2018 Activities – Introduction to the project and the community's lived experience

During this stage, we worked with the community to gather input on community values, key concerns and other factors that should be considered in the design. Our activities included:



**Two** stakeholder check-ins with the HSCA – Emergency Planning and Response Committee



**One** community open house with a parallel online survey opportunity

#### What we asked

The stakeholder check-ins focused on continuing to build the relationship with HSCA – Emergency Planning and Response Committee and leveraging their knowledge of the community to design inclusive engagement opportunities and mitigate participation burn-out. We asked Committee members:

- What was the best engagement you ever participated in?
- What made it good?
- What are your expectations for this engagement?

The open house and online survey opportunities with the community asked the same questions of participants. We asked participants:

• What is most important to you about your community that The City needs to understand when planning flood mitigation projects for Sunnyside?



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What we heard

The community's feedback clearly showed residents desire for a higher flood barrier to address overland flooding. Most stakeholders that provided input were interested in learning more about the barrier height and the comparison of the south and north banks of the river.

The community's knowledge and lived experience were highlighted as a critical element to consider in all stages of the project. We heard about the community's general drainage issues, as well as the importance of the stormwater projects taking place in Sunnyside, and how a flood barrier could further support those efforts.

We also heard about different elements and characteristics of the community's area and population valued by the participants. The environment, climate change, upstream mitigation, anxiety over delayed timelines, river access, viewscapes, and accessibility were some of the considerations put forward by participants for the project team to consider during the design of barrier options.

#### How input was used

Through the open house and online engagement, we received over 250 comments from the community that were used to help inform future engagement and project progress. Input was used in the following ways:

- Comments about barrier height encouraged the team to consider additional flood barrier protection levels, taking the evaluation to four different level protection options
- The community's lived experience was used to further inform and refine the technical studies including geotechnical, groundwater, river modelling and the environmental review
- All the feedback shared by the participants, helped the project team develop social criteria that reflected the community's values and concerns

### 2019 Activities - Presentation of Flood Barrier options and Social Criteria evaluation

During this stage, we shared the design options with the community and gathered their feedback on the benefits and trade-offs. Our activities included:



One stakeholder check-in with the HSCA

– Emergency Planning and Response

Committee



**One** community open house with a parallel online survey opportunity



Three project pop-ups in the community

What we asked

Both the HSCA – Emergency Planning and Response Committee and the community input opportunities asked the same questions:



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- Participants were asked to read the social criteria and definitions and to rank each in order of importance. A scale of 1 through 6 was used with #1 being the most important, and #6 being the least important.
- Participants were also asked to describe the benefits and concerns they had for each of the four flood barrier height options.

We also used the engagement activities as an opportunity to hear from community members and the HSCA – Emergency Planning and Response Committee about their experiences with groundwater in Sunnyside.

#### What we heard

The community's feedback on the social criteria showed equity of protection, impact on vulnerable populations, and the impact on the mental well-being of residents as the most important criteria. Impacts on recreational areas, pathways and the community fabric were considered less important.

We also heard about the community's perceived benefits and concerns with each flood barrier protection option. In general, while residents appreciated how the lower flood barriers options were less intrusive to the overall look and feel of the area, they were concerned these solutions didn't reduce the risk of flooding in Sunnyside enough. They were also concerned that these lower flood barrier options were more dependent on an upstream reservoir on the Bow River, leading to heightened fear and anxiety.

As the level of protection increased, residents were more satisfied with the equality of flood protection and the sense of security it afforded. There were concerns that building the highest level of protection could disrupt the community fabric and aesthetics of the natural environment. In addition, while a higher flood barrier could reduce their stress and anxiety in the long-term, they were also concerned about the potential long timeline for construction.

#### How input was used

Through the open house and online engagement, we received over 500 comments from the community that were used in our triple bottom line social analysis of each barrier option:

- The criteria ranking and feedback was taken into consideration as the project team finalized the weighting of the social criteria
- The community's perspective and insight for each option and their trade-offs were used by the project team to evaluate the flood barrier protection levels from a social perspective
- Feedback related to groundwater helped inform the geotechnical drilling program for the project

The evaluation of options included a full social, economic and environmental assessment. With this analysis, we will be recommending to Council to move forward with the design and construction of a 1 in 100-year flood barrier for the Sunnyside community.

### 2020 Activities – Flood Barrier options evaluation results

During this stage, we shared the results of the various engineering studies which informed the design options, as well as the recommended barrier height before its presentation to Council. Due to the



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announcement of COVID-19 as a pandemic and the measures taken by The City and Province to help to limit the spread of the virus through physical distancing, the scheduled March 31 in-person information session was cancelled. We shifted our focus to provide the community with an online opportunity to learn how we arrived at the 1 in 100-year flood recommendation, provide comments and ask questions to the project team. Our activities included:



**Three** stakeholder check-ins with the HSCA – Emergency Planning and Response Committee



**Four** online Q&A sessions with the project manager and technical team **One** online survey opportunity

#### What we asked

The stakeholder check-ins focused on continuing to build the relationship with HSCA – Emergency Planning and Response Committee and sharing study results as well as the Triple Bottom Line weighting and results.

Both the committee and the community were asked:

What are your comments or questions about this recommendation?

#### What we heard

Participants provided feedback on the barrier design, groundwater solutions and the project timelines to complete engagement, the remaining studies and construction. A listing of all the input that was provided can be found in the <u>Verbatim Responses</u> section.

#### How input will be used

The comments and questions received from the community will be used to help inform future engagement and the next stages of the project, including project design and construction.

### **Recommendation & Next Steps**

The evaluation of the barrier options with the triple bottom line analysis can be viewed in Appendix A and breaks-down each flood option based on criteria. The results from this evaluation indicate a 1 in 100-year flood level is the preferred option for Sunnyside for the following reasons:



Reduces 2013-level flood risk, which will be further reduced by current and future upstream reservoirs on the Bow River



Less disruptive to the community look and feel



Increases the ability to protect vulnerable populations



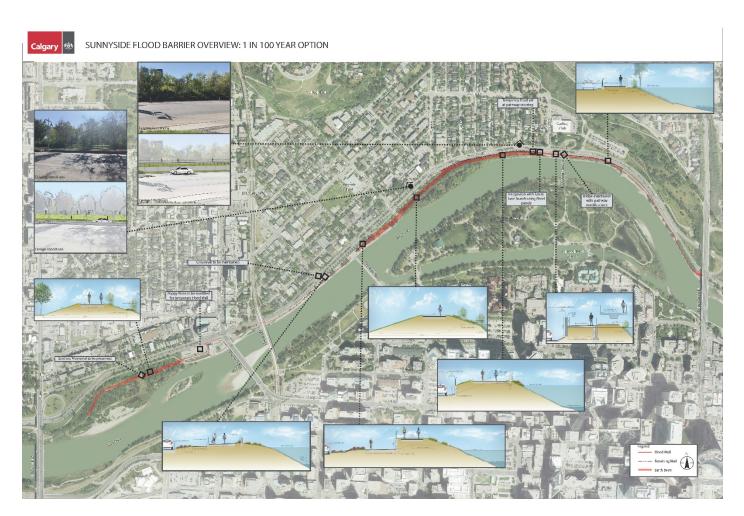
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Meets the provincial and federal flood standard



Provides building block for future climate resiliency



The map above shows the 1 in 100-year option profiles along the Sunnyside riverbank.

On April 15, 2020, Administration will be bringing forward the 1 in 100-year barrier height recommendation for Sunnyside to Council via the Utilities and Corporate Services Committee. Pending Council approval, we would aim to complete the construction of the flood barrier in time for the spring 2022 flood season.



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### Appendix A

#### Flood Barrier Evaluation Process

The City uses a Triple Bottom Line approach to guide all decision-making. Each of the Triple Bottom Line policy themes – social, economic and environmental – has guiding questions that help identify both positive and negative implications. This means the project team considers the social, economic and environmental impacts of all project to achieve sustainable development. Depending on each project, the policy themes will have relevance and a weighting.



For the Sunnyside Barrier Project, the economic and environmental evaluation was informed by regulatory requirements and analysis from experts in each discipline. The evaluation of the social criteria was informed by the input we received from the community. The policy themes are described below and accompanied by a percentage. This percentage shows how much of the evaluation was comprised of that specific criteria once the weightings for each were totaled.

### Economic (40%)

An affordable and cost-effective infrastructure investment that provides good value for money. It promotes an environment that attracts and retains local businesses and makes it a desirable area where citizens want to live. The evaluation criteria for this theme included:

- Protects critical infrastructure, essential services and roads
- Protects homes and businesses
- Cost
- Relies on upstream flood mitigation to achieve provincial and federal flood standard (1 in 100-year flood level)
- Requires additional funding beyond the current budget



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- Construction timeline and impact on the risk of exposure to flood, disruption to community and amenities
- Provides greater flexibility for emergency response planning

Based on the above criteria, the four different flood barrier height options ranked as follows:

Level	Rank	Rationale
1 in 20-year flood level	3 <sup>rd</sup>	<ul> <li>Increased risk to critical infrastructure, essential services and roads compared to other options</li> <li>Relies on a new upstream reservoir on the Bow River to meet the provincial and federal standard for level of protection (1 in 100-year flood level)</li> </ul>
1 in 50-year flood level	4 <sup>th</sup>	<ul> <li>Relies on a new upstream reservoir on the Bow River to meet the provincial and federal standard for level of protection (1 in 100-year flood level)</li> <li>The risk to critical infrastructure, essential services and roads is less than the 1 in 20-year option, but it remains</li> </ul>
1 in 100-year flood level ⋘	1 <sup>st</sup>	<ul> <li>Project costs can be funded with some additional budget. Options for funding for this project are currently being explore, including external funding sources, federal government grants and prioritizing the barrier with The City's existing water utility capital plan</li> <li>Flood protection benefits significantly outweigh the costs compared to the 1 in 20-year and 1 in 50-year options</li> <li>Independently meets the provincial and federal standard for level of protection (1 in 100-year flood level)</li> </ul>
1 in 200-year flood level	2 <sup>nd</sup>	<ul> <li>Provides high level of protection for homes, businesses and critical infrastructure</li> <li>Projected cost is 4.5x more than 1 in 20-year flood option. This would significantly impact The City's ability to deliver other community drainage projects in Sunnyside and other communities</li> </ul>

### **Social (40%)**

Flood mitigation that supports the community's protection and enhances the neighbourhood, health and well-being of residents, and recreational opportunities. The evaluation criteria for this theme included:

- Provides the same flood protection amongst residential communities
- Protects vulnerable populations and services
- Improves mental well-being
- Maintains recreation and river access
- Maintains community fabric
- Maintains aesthetics of the area and pathways

Based on the above criteria, the four different flood barrier height options ranked as follows:



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Level	Rank	Rationale	
1 in 20-year flood level	4 <sup>th</sup>	<ul> <li>Does not improve flood-related stress and anxiety amongst residents</li> <li>Provides the least protection for vulnerable populations</li> </ul>	
1 in 50-year flood level	3 <sup>rd</sup>	<ul> <li>Minimal improvement in flood-related stress and anxiety</li> <li>Vulnerable populations remain more at risk</li> </ul>	
1 in 100-year flood level ‱	1 <sup>st</sup>	<ul> <li>Achieves the best balance of reducing the flood risk while maintaining the community fabric</li> <li>Protects major emergency routes</li> <li>Supports equality of flood protection amongst residential communities</li> </ul>	
1 in 200-year flood level	2 <sup>nd</sup>	<ul> <li>Greatest impact on the existing community fabric</li> <li>Creates inequality by providing a greater level of protection than other residential communities</li> <li>More disruptive to the community aesthetics and river access</li> </ul>	

### **Environmental (20%)**

Flood mitigation that minimizes impacts to our rivers, natural areas and wildlife. The evaluation criteria for this theme included:

- Protects the surrounding land adjacent to the river
- Supports a healthy river and allows room for the river to flow
- Protects the river water quality by reducing the risk of contamination from overland flooding
- Minimizes the impact on trees

Based on the above criteria, the four different flood barrier height options ranked as follows:

Level	Rank	Rationale
1 in 20-year flood level	1 <sup>st</sup>	Least impact on trees and the natural environment
1 in 50-year flood level 1 in 100-year flood level	2 <sup>nd</sup> 2 <sup>nd</sup>	<ul> <li>Moderate loss of trees and more disruptive to the natural environment</li> <li>The loss of trees for the 1 in 50-year and 1 in 100-year flood level options are 1 in 100-year comparable</li> </ul>
1 in 200-year flood level	3 <sup>rd</sup>	Substantial loss of trees. Nearly double the number of trees would be lost compared to the 1 in 100-year and 1 in 50-year flood level options.



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### **Appendix B**

To read verbatim comments from 2018 activities, visit the What We Heard report here.

To read verbatim comments from 2019 activities, visit the What We Heard report here.

Verbatim comments from the 2020 online question and answer can be viewed below.

- Did the Eau Claire 1:200 year barrier project have any public consultation? Why did the smaller Sunnyside barrier project need years of consultation? Was there a public consultation process before the Eau Claire 1:200 year berm was built? If not, please explain why the smaller Sunnyside berm required years of public consultation. We are confused. This seems like a clear example of the city providing two-tier emergency protection levels based on politics, not science. The part of the city where City Hall is located and Nenshi and Druh Farrell work is receiving 2x better emergency protection than Sunnyside where no politician works or lives!
- How is a two-tier emergency flood barrier system legally allowed, given that Calgary does not have any other two-tier emergency protective services? Calgary does not have two-tier fire department response or two-tier police or ambulance services. It does not have two-tier snow clearing, park access, library access or any other 2-tier city services. So we are confused how you can justify two-tier emergency flood protection. The city must not allow vastly better emergency protection for one part of the city than another, especially when the extra cost for a 1:200 Sunnyside barrier is only \$500,000 a year when divided over 20 years.
- Can you tell us in detail why a 1:200 year barrier costs \$10 million more than a 1:100 year barrier, given that a 1:200 barrier is only 18" higher? We do not understand how building a berm a mere 18" higher than the 1:100 year barrier could possibly cost an extra \$10 million. Please supply some details- for example, the estimated cost of raising the concrete wall portion another 18". The concrete forms would already be in place for the 1:100 year berm, so just raising them a bit would not be a large cost. Extra dirt for the dirt part of the berm does not cost much. So we are looking for details. Otherwise we are confused.
- What does the 100 year option look like? A picture is worth a thousand words!
- Build a better river In Calgary For example in Santiago Chile or Columbia they have higher beams of the canal where the river goes through their city and hope someday we can do this

Notes from the 2020 online Q&A sessions can be viewed below.

- When is the final decision that would allow for continuing on the process? SPC would just be giving a recommendation to Council
- Worried that with the coronavirus if this will go on for a while and cause significant delay is that a likely delay?
- Groundwater as with anything else what is the target? From last meeting it was daylighted groundwater, understanding of Council approval was also including basements



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- Groundwater is fundamentally different than the barrier height. With the barrier height City has a
  mandate to do the engagement. With groundwater, it's approved so if it comes back way over
  budget/infeasible then that's one thing but otherwise it's approved and you just have to build it
- Groundwater needs to be integrated with the stormwater lift stations
- While The City normally doesn't provide protection for basement seepage the reason Sunnyside
  was approved was that the most expensive part (pump stations) it was relatively inexpensive to add
  the basement seepage protection. Understand that it won't be 100% protection but would be good to
  look at the probabilities. I've spent a lot of time on that and would be happy to talk about how that
  would work in the design
- Evaluation should depend on the type of options that can be integrated into the system
- In the final recommendation information slides, groundwater studies results are listed in late Spring. Do you have anything firmer than that time?
- When do you expect to finalize the design and what is the design?
- How long will the construction take?
- Where will the Funding money come from?
- Are you planning to regurgitate the existing berm to know what is there?
- Aesthetics and feasibility are important at the end of the day. Has there been any discussion about
  putting in basic mitigation (minimum) in terms of cost big ugly wall? Hops vines grow like crazy, not
  native plant to Alberta. If you had a bare concrete wall it could grow along that and make it look
  better it grips well in winter, it dies off but it comes back (seasonal). Rusted steel that was used in
  Poppy plaza could be used as an element along the barrier design all the way to Centre street
  (continuation of the theme/idea)
- City has constructed a partial berm (median) in the middle of Memorial Drive. Bolt on some rusted steel along that median and you got your berm built
- The south side of Memorial Drive will need to closed for construction it will make noise but there are ways to mitigate the noise, it is important to get the barrier built
- Will the RFP for construction of the barrier come out in the fall?
- Do you know about all the riprap in the area? Before outlet Pump Station #2 and just before riprap start before pedestrian bridge. If you can't see the edge of the berm there isn't any riprap
- My understanding is that there will be a boat landing in the area
- River surfing, probably an underutilized recreational benefit that Calgary has not taken advantage of.
   The kayak area around Inglewood seems well received. If you wanted to create a good surfing area you need some concrete structures
- Groundwater no recommendations at this point results to be shared late spring 2020 –
  understanding is that groundwater is part of the Sunnyside barrier project not two separate
  projects groundwater not specifically mentioned in the Committee report but part of the project at
  the recommended service level (1:100) how does that relate to the groundwater piece?
- Recommendation doesn't connect height to groundwater. Doesn't say to proceed with the barrier at the height service level while the groundwater is still under study does that mean we're going back



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to what was presented to Council before? Lots of options with any given service level – last time service level was dealing with basement seepage.

- The community is looking for consultation around the service level for groundwater. Need to get the seepage/daylighting piece clear and community also desires consultation on the process not just being informed of the recommendations. [Community member] pleased with all that he heard at the groundwater EPARC meeting thought the geology was much more attractive than his worst fears. A bunch of options for design. I didn't see anything that would rule off any option but which option gets chosen is less of the concern than what the service level is. What the service level is should involve the community. How The City achieves it isn't as much of a concern. Focused on service level rather than how it's achieved.
- One of the big advantages of 1:100 is that it should mean that the community isn't subject to
  development restrictions because they are protected by the community level barrier. Seems silly to
  make people build houses that protect against 1:100 flood while the barrier protects against 1:100 –
  does the project team know who the contact is with the province for the flood hazard maps and will
  The City be able to meet with them to ensure that Sunnyside isn't included in the development
  restrictions?
- [City staff] already on record in a presentation (perhaps given to BOMA) communities protected to the 1:100 would not have development restrictions at that time Sunnyside wasn't considered one of those communities. Would this still apply to Sunnyside?
- Report to Committee has an item there saying that one of the achievements was finding \$1M savings with lift station #2. Congrats! where did that savings come from?