

BOWNESS FLOOD BARRIER COMMUNITY WORKING GROUP

**April 6, 2020 – 7 to 9 p.m.
Meeting 10 – Online via Zoom**

Working Group Attendees

David Burton
Cherie Deur
Sydney Empson
Jane Kahler
Jolene Moran
Patti Peck
Josie Stiles
Hank Vrielink
Jean Woeller

Working Group Resources

Mariel Higuerey
Judy Hoad
Lauren Minuk
Amy Stansky
Frances Welsh

Apologies

Anne Campbell
Sheila Clayden
Jacqui Esler
Rae McKenzie
Jeff Riedl
Ralph Smith

Guests

Andrew Chan
Robert Cheetham
Carmen Janzen

Meeting Notes

1. Introductions

2. Review of Meeting 9 Notes

- Meeting notes accepted

3. Stormwater 101

The City made a presentation about stormwater. Highlights included:

- The rainfall in 2005 recorded in Bowness was: June 6-8, 20.6-yr. return; June 12, less than 2-yr. return; June 17-18, 38.6-yr. return; June 27, 3.2 yr. return.
- Purpose of statistical analysis was to give a starting point for the model; more modelling in the future would not be out of the question if needed and would be in the next stage
- Matrix did a 1:50-year, 4-hour storm, as well as a 1:5-year and considered overland flooding and design for peak capacity

After the presentation, the Working Group members had the following questions and comments:

- BRFM raised concerns with groundwater rising into storm sewers themselves
 - The system is not sealed and there will be water ingress into the pipes

- The magnitude of infiltration getting into the pipe system depends on the condition of the pipe. Groundwater input would be small in comparison to rainfall.
- Will have some groundwater that gets into the stormwater trench and that gets into the storm sewers, but system is sized for larger rainfall events and can manage groundwater
- If seepage is coming to the surface level, wouldn't that be a conduit?
 - The conduit to pull it away is stronger than for groundwater to flow in, if the pipes are closed then things will start to fill out, but that would be part of the mitigation
- Concern that the model doesn't seem to take into account the volume of water being pumped onto streets from home sump pumps during a flood event; BRFM believes that the volume from sump pumps will be considerable; Need to consider everyone in the flood area who have sump pumps
 - Sump pumps will be included in the next phase of design
 - Matrix looked at the sump pumps to get a sense of what it is in terms of stormwater flows
 - Looking at a 3000 gallons per minute pump – for those 130-160 houses depending on the barrier alignment – 500 L per second (this was considered too low by Working Group member)
 - Sump pumps would be pumped on to the surface - whether it goes to streets or yard the mitigation would consider this – this would be a design input
- Community concerned about storm outfalls being closed for an extended period; BRFM wants to ensure consider the length of time the storm outfalls may be closed, resulting in stormwater sitting inside the berm
- Want to confirm the 5-7 days as the community thinks TransAlta would have a long period of high water
 - Matrix confirmed this is a consideration of design
- No mitigation refers to storm system mitigation, not about TransAlta
- How did City conclude about the likelihood of a big rain event during a flood event?
 - Another team did a statistical analysis for the Sunnyside study. We used that as per the advice given by The City's lead stormwater engineer
 - Charted rainfall data from the past 60 years (only available data) to see associated rainfall events with flood events
 - More frequent, lower rain flow events are important to look at – good sensitivity test

- What are the next steps in the process?
 - Once the barrier alignment is determined, we will model the proposed barrier in place in more detail than we currently have to start looking at mitigation options for backyards and upland
- How did we decide on design conditions/scenarios? Doesn't seem like a lot of scenarios
 - Gates open – gates open means the stormwater is flowing into the river, were
 - Gates closed – stormwater is not flowing into the river. Gates closed will be in any design, these are for existing states
- Curious about back lot options like French drains and the swales – size?
 - A French drain is a perforated pipe – close to the surface but buried – anywhere from 200 mm pipe to 300-450 mm, about 2-foot-wide strips
 - Concrete swales – flows collected would need to be contained within the swale – usually about 2 feet wide, .5 feet deep approximately
- The City has a gate maintenance program, freeze/thaw would be considered in the design and may ask homeowners for input

4. Project Manager Update

Working group reviewed the engagement timeline and had the following questions/comments:

- Concerns that information will be presented to riverfront property owners before groundwater results are ready which is the most important question
 - This is just an update, not the engagement opportunity/not discussing barrier designs. This can be clarified on the timeline
- From an optics perspective, need to have a placeholder for face to face discussion with riverfront owners
- TBL criteria online engagement does it refer to the evaluation or development of criteria. Concern that next meeting on April 20 is a tight timeline for developing options
 - Discussed having a workshop where members could invite others. This won't be possible, considering alternatives to present in April for the working group to give feedback on the TBL
- Need to ensure pop up events and TBL sessions, have a balanced perspective from both The City and BRFM that is identifiable by the community
 - Judy to work with The City to give time for Working Group to review
- An option to communicate the options online – Manitoba using a platform called Next Door to engage with community members

- When will the stormwater results be available?
 - Next phase depends on having the recommended option – in progress
- Groundwater results are into June, why not earlier?
 - Still waiting for results
- There is a need for riverfront property owner input into some of the backyard pieces for the stormwater that might impact the costs. Would the recommendation to the Standing Policy Committee have the cost-benefit included?
 - First, need to talk to Matrix a bit more to understand the options and cost implications. Stormwater costs will be part of cost estimate
- What class of estimate is required for the Q4 report?
 - Typically, will be close to a preliminary and higher – class 3-4
 - AE report was a class 5 – high level conceptual
 - After class 2 you'd expect to be at the detailed design, and class 1 is a pre-tender estimate
 - Amy looking into if community have an opportunity to review cost estimate prior to the report
- Understanding from the last meeting is that there won't be a barrier alignment even at Q4 - will you have a class 3/4 cost for all the options?
 - All the options will have the same level of estimate for the TBL
- April 15 update – Standing Policy Committee meeting is still moving ahead. Sunnyside will have a recommendation, but Bowness' studies are still ongoing so no recommendation included. The intent is to have a separate report in Q4.
- What We Heard/What We Did report online late this week, further update on engagement will be in Q4 2020
- Discussion of funding in the report - with the conclusion of ACRP, there is no funding identified from provincial sources – the budget will be considered if an option is possible. No financial decisions for Bowness have been made
- The land cost will be included in the class 3 estimate
 - Does class 3 generally include costs like legal for estimated expropriation and environmental appeal costs?
 - Will be based on negotiated land acquisition
- A member stated that The City should assume negotiated land access is not reasonable given the feedback received and property owners have been clear they are not interested in an easement
 - Need to continue with the studies and continue engaging people/show people what the options are, looking at something much more detailed than the AE report

- Third-party review – will it include cost info, is that considered a technical document? Heard that if a construction project goes past \$25M there's an audit. Can foresee people thinking the construction costs are estimated too low
 - Cost estimate – Amy will look into it
 - \$25M piece is a value engineering session – post preliminary design, not part of the feasibility – generally with higher-cost projects. The design gets to see if there are ways to get better value. This will come after the recommendation to Council if we move forward with the project
- The City would also like to give an update about what studies take place in this phase and what is potentially moved to the next phase
- When will we hear of the common good as in the benefits analysis – important before looking at the cost-benefit?

5. Engagement Update

- The timeline was developed for internal use/working group and will be edited with feedback from the meeting
- Distill timeline to a slightly more succinct graphic for the community at large
- The City has written an e-Newsletter – thought it was important to touch base with the community again – will send to the working group first and then will send to the subscriber list
- Suggestion to share BRFM groundwater video on City site
 - It wasn't produced with any input from The City – don't typically share non-City documents or information
- Is there a link to the BRFM website on The City's website?
 - BRFM linked on working group website and working group website linked on City website

Final Items

- Presentation from tonight will be posted to Working Group website
- Offer to have a one-on-one meeting for working group members with Amy
- Judy will also update the membership list with new members
- Next meeting is in 2 weeks