

SPECIAL ASSEMBLY COMMITTEE OF THE WHOLE

May 12, 2025 at 12:00 PM

Assembly Chambers/Zoom Webinar



Assembly Committee of the Whole Worksession - No Public Testimony will be taken.

<https://juneau.zoom.us/j/95424544691> or 1-253-215-8782 Webinar ID: 954 2454 4691

A. CALL TO ORDER

Mayor Weldon called the meeting to order at 12:00 p.m.

B. LAND ACKNOWLEDGEMENT

Mr. Kelly provided the following land acknowledgement: We would like to acknowledge that the City and Borough of Juneau is on Tlingit land and wish to honor the indigenous people of this land. For more than ten thousand years, Alaska Native people have been and continue to be integral to the well-being of our community. We are grateful to be in this place, a part of this community, and to honor the culture, traditions, and resilience of the Tlingit people. Gunalchéesh!

C. ROLL CALL

Assemblymembers Present: Mayor Beth Weldon, Deputy Mayor Greg Smith (Zoom), Wade Bryson, Paul Kelly, Ella Adkison, Neil Steininger, and Maureen Hall

Assemblymembers Absent: Christine Woll

Staff Present: City Manager Katie Koester, Deputy Manager Robert Barr, City Attorney Emily Wright, Municipal Clerk Beth McEwen, Meeting Tech Kevin Allen

D. APPROVAL OF AGENDA – Approved by unanimous consent

E. AGENDA TOPICS

1. GLOF Inundation Maps and HESCO Barrier Installation Phase 1A and 1B

Release of Glacial Lake Outburst Flooding (GLOF) Inundation Maps

Inundation Maps website link: <https://juneau.org/engineering-public-works/flood-inundation-maps>

Manager Koester stated that the purpose of today's meeting was to formally present the inundation maps with the Assembly and the community. She noted that Michael Baker International would be presenting data, and that attendees also included personnel from the U.S. Army Corps of Engineers (USACE), the National Weather Service, and the Central Council of the Tlingit & Haida Indian Tribes of Alaska. She further explained that, based on the data and staff assessment, there is a need for additional barrier work, which should begin as soon as possible.

[Alicia Hughes-Skandijs arrived at 12:03 pm]

Garret Jager, the Surface Water Manager with Michael Baker International, provided an overview of the firm's experience in surface modeling, noting their role as a FEMA technical service provider for over 50 years. He explained that early on early in the project two key issues were identified: the existing flood inundation maps were inadequate, and the HESCO barrier onset plan required re-evaluation.

Mr. Jager explained that a two-dimensional water surface model was the best tool, as the original maps were one-dimensional. He said a 2D map looks at the lateral spread of water out into the flood plain and how it might

navigate islands or objects, which was aided by the Light detection and ranging Radar (LiDAR) data that was collected.

Mr. Jager explained that the selected modeling software, HEC-RAS—developed by the U.S. Army Corps of Engineers—is widely used for floodplain mapping. He clarified that the current model represents an initial effort and that further refinement will continue. Data from the 2023 and 2024 events, provided by community partners, enabled the Corps to calibrate and validate the model.

Mr. Jager explained that the hydrology data was supplied by the National Weather Service, which has experience in glacier outburst flood modeling and has developed hydrographs for these events. Additional data was supplied by the United States Geological Survey (USGS) stream gauge, which serves as the elevation reference for the models.

Mr. Jager also noted that the models are being updated to incorporate tidal influence, as the tides can reach as far as Montana Creek. Simulations were conducted with the HESCO barriers so they could compare existing conditions with barrier conditions. He informed members about the assumptions and limitations of the model, including reliance on local input and anecdotal data, the inability of LiDAR to penetrate water, and variability in basin release volumes. He noted that underground storm water infrastructure was not included in this model, though major culverts were. He explained that events exceeding 19-20 feet are beyond the upper end of the USGS rating curve, making predictions for such scenarios uncertain. He concluded with a brief walkthrough of the updated flood maps.

Mr. Smith asked if atmospheric river rainfall events were accounted for in the models. Mr. Jager responded that they have taken the largest release of volume that the National Weather Service (NWS) has produced for an outburst event and supplemented it with rainfall discharge.

Mr. Jager continued guiding members through the map and concluded his portion of the presentation.

Mr. Barr informed members about a new *Juneau Glacier Flood Dashboard* website, developed in partnership between the City and Borough of Juneau (CBJ) and the University of Alaska Southeast. He highlighted new interactive features, including elevation and flood stage tools, designed to help users understand potential water depths in various areas. Although no official launch date has been announced, the goal is to publish the site as soon as possible. He also noted that the existing Suicide Basin webpage on the National Weather Service (NWS) site, including the basin camera, will remain active.

2. Consideration of HESCO Phase 1A & 1B

Mr. Smith sought confirmation that these proposed barriers, at the 17-foot stage, would protect and prevent inundation in the area that was flooded last year.

Manager Koester confirmed that it's correct that, at the 16-foot elevation, HESCO barriers would have no upstream or downstream impacts. She referred to the map of Phase 1A inundation protection at 18 feet. and noted that flooding still occurs near the end of the current barriers. She stated that given the presence of commercial and public infrastructure in the area, staff believed it was necessary to extend the barriers to Brotherhood Bridge. She explained that the city has the budget to complete the project and would not require additional appropriations or orders for more barriers. She noted that the project has two phases, and her goal was to receive direction from the Assembly on Phase 1A at today meeting, with direction on Phase 1B expected in two weeks. She added that immediate direction was needed today because the contractors are done with Phase 1 of installation and if the city doesn't keep moving then it would lose the ability to do this project to extend the barriers.

Mr. Bryson asked whether any upcoming phases include enhancement or alteration of the original HESCO barrier line, beyond simply connecting to it.

Manager Koester responded no, the barriers are effective up to 18 feet and that Phases 1A and 1B do not include additional reinforcement. She said the reason there is no Modeling for maps at 19-20 feet is because the water would overtop the barriers. She explained that there was a 12-foot flood in October, a 14-foot flood in 2023, and a 16-foot flood in 2024, so there is reason to believe a future flood would be of equal or greater magnitude. She said that the science partners involved in the project believe that there is more volume in the basin because there is more ice available to melt, which means the total volume could grow to an unknown extent. She said that if the city extended the barrier line on all CBJ property, it could protect a significant amount public infrastructure and homes. She pointed to Phase 1B and said there is good reason for extending the barriers to the bridge, as this would help protect critical infrastructure, such as housing and grocery stores. However, she noted that this extension would require installing barriers on private property, raising fairness concerns, specifically, that some homes protected did not participate in the LID (Local Improvement District) She highlighted that there's a bigger fairness concern in Phase 1B, due to the large number of parcels that would be protected. She said she wants to bring back an areawide solution that is fair to all the residents being protected, but there are big policy questions to wrestle with. She reported that Phase 1 is currently under budget by \$2 million and the city can only charge project costs to the LID for the barriers in Phase 1. She advised that they are not asking the 466 homeowners and property owners to pay for anything outside the boundaries, and that there's enough in the budget for Phase 1A at \$500,000 and Phase 1B at \$1.3 million. Manager. Koester explained that a budget transfer would be forthcoming to keep the projects accounted for separately under the CIP (Capital Improvement Plan).

Manager Koester acknowledged that the subject includes many nuanced elements and that map experts were available for questions.

Mr. Kelly asked about potential litigation costs being passed onto homeowners within the LID. Manager Koester clarified that LID homeowners would not be responsible for CBJ's attorney fees. However, if litigation results in financial compensation that could become part of the overall project cost for the LID.

Ms. Adkison asked whether modeling will be done for Phase 1B. Manager Koester confirmed the modeling would be done.

Mr. Smith asked whether the modeling has been done for Phase 1A. Manager Koester responded that quick modeling for Phase 1A has been completed. Phase 1A at an 18-foot event shows increased water in areas already prone to flooding. Phase 1B modeling was still pending.

Ms. Hughes-Skandijis inquired about when modeling for Phase 1B would be available. Manager Koester did not have a specific timeline, but confirmed the work was underway.

Mr. Bryson asked about the potential liability to the City if neither Phase 1A nor 1B proceeded and an 18-foot flood occurred. Mr. Barr responded that damage could be in the hundreds of millions of dollars if major facilities (e.g., Field House, Thunder Mountain school, Valley Library and Pool) required renovations.

Mr. Smith asked whether any quick modeling had been done to assess the impacts of Phase 1A on the west side of the river or other developed areas downstream. Ms. Koester responded that the modeling indicated some additional water would accumulate in the Safeway parking lot, and a small number of homes on Meadow Lane would experience increased inundation.

Mr. Smith then asked for confirmation that the belief was Phase 1A would provide significantly greater protection and benefit compared to its negative impacts. He noted that the extension of Phase 1A was expected to protect considerably more property and property value than it would negatively affect. Ms. Koester confirmed this understanding, adding that a far smaller number and value of homes would be impacted. However, she cautioned that the exact magnitude of impact was difficult to predict given the limited detail of the modeling. Mr. Steininger asked whether there had been any outreach to Phase 1B property owners regarding voluntary contributions or

the use of their right-of-way. Manager Koester responded that no outreach had occurred yet, as staff was awaiting direction from the Assembly. She noted that the city code does provide for a Capital Improvement by Consent process, which allows for voluntary participation by property owners. However, she acknowledged that it would be difficult to implement such a process within the current time constraints. She also suggested that a Special Tax District might be a fairer, longer-term solution given the ongoing nature of the flooding issues.

Mr. Steininger followed up by asking whether property owners already included in the existing LID (Local Improvement District) would receive a discount if a Special Tax District were established, to avoid being double charged. Ms. Koester confirmed that it would be her intention to ensure fairness in that regard.

Mayor Weldon asked when a public meeting would be held to address broader emergency preparedness measures beyond the HESCO barriers. Ms. Koester replied that no public meeting had yet been scheduled but emphasized that emergency planning, including sandbagging events and communication strategies, was actively underway in coordination with Tlingit & Haida and the city's emergency management team.

MOTION: by Mr. Bryson to give the City Manager direction to move forward with Phase 1A. ***Hearing no objections, the motion was approved by unanimous consent.***

Ms. Koester, provided an update on Phase 1B including plans for outreach efforts beginning with riverfront property owners. She noted that modeling with Michael Baker International is underway to assess the downstream impacts of Phase 1B. Additionally, she plans to bring back information to the Assembly on Special Tax District options, revenue models, and long-term funding strategies.

F. STAFF REPORTS - None

G. NEXT MEETING DATE

H. SUPPLEMENTAL MATERIALS

I. ADJOURNMENT

There being no further business to come before the Assembly, the meeting adjourned at 1:00PM.