Mendenhall River Glacier Lake Outburst Flooding (GLOF) Local Improvement District Frequently Asked Questions 12.16.24

IMPORTANT NOTE: This is a draft FAQ reflective of the proposed Ordinance 2024-04. It will be updated to reflect amendments made by the Assembly on December 16th and be posted on the website and send with the certified mailing to the preliminary assessment roll.

Why are we focusing on a short-term solution?

Any long-term solution will require design and engineering to ensure we don't do more harm than good. CBJ is concerned that without temporary flood fighting, the devastation to valley homes would be overwhelming while we work together on a long-term solution. CBJ's highest federal priority has been to secure federal funding for the United States Army Core of Engineers (USACE) to being a General Investigation study to do that work. In the meantime, CBJ is working with United States Forest Service on an agreement to spend USFS federal dollars on data collection and studies in advance of the General Investigation to keep things moving.

What is the Total Project Cost for Phase 1 HESCO Barrier Installation: $7.83M

This includes removing obstructions on riverfront property, stabilizing soils, installing drainage pipe and check valves in barriers, removing organics, bank armoring, permitting, accessing and filling HESCO bags and restoring property after HESCO barriers are removed for 2-mile of riverfront.

Under the current proposal (12.16.24) as introduced by the manager, CBJ taxpayers at large would pay for half of the project ($3.9M) and properties included in the LID would be responsible for the other half.

How did CBJ decide what would be included in "Phase 1" of the HESCO barrier project and why is/isn't my property included?

Emergency mitigation and immediate flood resilience action is needed to protect the most vulnerable in our community before the 2025 GLOF season. With extensive consultation and involvement from United States Army Corps of Engineers (USACE) flood fighting experts, CBJ is planning to install USACE provided HESCO barriers as a near-term solution to mitigate potential widespread damage from future releases. Based upon several factors, including the locations of major inundation that occurred during the 2024 GLOF, a survey of high-water marks along the length of the river from the 2024 GLOF, the availability of time and materials to install barriers before a 2025 GLOF, and the number of properties that can be protected by such barriers, a 2-mile stretch of riverbank from north Marion Dr. to Rivercourt Way was identified as the most viable alternative to provide the most protection to the highest number of flood-vulnerable residents and homeowners."

Where can I find more information on the Phase 1 HESCO barrier installation project?

See the HESCO Barrier Installation Alignment and Installation Considerations at the end of this document.

What is a Local Improvement District?

A Local Improvement District, or LID, is a mechanism in CBJ code for a benefited property to pay for an infrastructure improvement (in this case, the installation of the infrastructure to protect homes from flooding). LIDs are governed under Title 15.10 Local Improvements and Special Assessments.

What is the process for this LID?

The Mendenhall GLOF LID has been proposed by the Assembly in Ordinance 2024-40. However, there is a lot of public process before any final decisions are made and project begins.

During the week of December 16, CBJ will send a certified mailing to all property owners with details relevant to their individual assessment and clear instructions on how to protest the LID. Property owners have 6 weeks to object. If the property owners who will bear 51% or more of the cost of the project object in writing, the LID fails. No action by a property owner is considered endorsement of the LID.

Mendenhall River Glacier Lake Outburst Flooding (GLOF) Local Improvement District
Frequently Asked Questions 12.16.24

Timeline for LID

November 18 – introduction of Ordinance 2024-40 creating a local improvement district
December 16 – public hearing #1 on Ordinance 2024-40
Week of December 16 – certified mailing goes out to everyone on the assessment roll with information specific their assessment and clear instructions on how to object in writing.
January – neighborhood meeting
February 3 – public hearing #2 on Ordinance 2024-40 (objections are heard here). Objection is due in writing by the close of the public hearing on February 3rd, 2024.
March 3 – Ordinance is effective.

I am NOT in favor of the LID – how do I object.

You must object in writing by the close of the public hearing which will be held at the regular Assembly meeting at 7PM on February 3, 2024.

Please include information with your objection that identifies your property (e.g. parcel number, physical address) If a property is owned by more than one individual, any owner can sign the objection. If a property is owned by a trust or business, the authorized signatory must sign the objection.

How do I learn more about the project and/or the LID?

CBJ will hold a neighborhood meeting in January. In addition, you can visit the CBJ Flood Response website: https://juneau.org/manager/flood-response or email floodresponse@juneau.gov

What if the LID fails?

The Assembly can authorize the LID by an affirmative vote of eight members. However, it is unlikely there would be the political will to override the neighborhood. The body has given every indication that if the property owners do not want the HESCO barriers installed, the project will cease.

If the LID fails, will CBJ complete another mitigation project by Spring/Summer 2025?

No. It will not be possible for CBJ to complete an alternative project in that time frame. At the direction of the Assembly, CBJ will shift to working on the multi-year long term solution.

What if the LID is approved?

If the project is approved, work will begin on site preparation soon after February 3rd. The bulk of the project will be after March 3 when the reminder of the funds become available. The goal is to complete the project by July 2025 based on historical GLOF releases.

After the project is complete, the Assembly approves a final assessment roll by resolution.

How much will my assessment cost?

Property owners will pay the actual cost of the project, not to exceed $7,972 per parcel. If federal funding is secured, the savings will be shared equally between the property owners and CBJ taxpayers at large after accounting for increases in total project cost to meet federal requirements.

The Assembly has set the terms of the LID at 10 years 4.78% interest. A property owner can pay the LID off at any time in full without penalty.

TValue Amortization Schedule - U.S. Rule, 365 Day Year

	Date	Payment	Interest	Principal	Balance
Loan	01/01/2026				7,972.00
1	09/30/2026	1,081.05	283.85	797.20	7,174.80
2	09/30/2027	1,140.01	342.81	797.20	6,377.60
3	09/30/2028	1,102.76	305.56	797.20	5,580.40
4	09/30/2029	1,063.83	266.63	797.20	4,783.20
5	09/30/2030	1,025.74	228.54	797.20	3,986.00
6	09/30/2031	987.65	190.45	797.20	3,188.80
7	09/30/2032	949.98	152.78	797.20	2,391.60
8	09/30/2033	911.47	114.27	797.20	1,594.40
9	09/30/2034	873.38	76.18	797.20	797.20
10	09/30/2035	835.29	38.09	797.20	0.00
Grand Totals		**9,971.16**	**1,999.16**	**7,972.00**	

Four homes, identified in Exhibit C, require additional armoring due to their location on the river and their failure to undertake armoring. These homes have been included in the LID with a $50,000 assessment, in addition to the assessment shared by all homeowners. This $50,000 represents a shared cost with the CBJ, as the amount is significantly below the anticipated cost for armoring. This $50,000 assessment will be included in the four homeowners' repayment plan.

How do I pay my assessment?

After the project is finalized and the assessment roll is finalized, the first and all subsequent payments will be included as part of the property tax bill set July 1 and due September 30.

What if I don't pay my assessment?

CBJ puts a lien on your property until the assessment is paid. The assessment travels with the property, so if the property transfers, the lien and required payments also transfer. The Assembly will set the delinquency schedule for non-payment in the same resolution establishing the first payment date.

Who is included in the LID?

The LID includes properties in the 16-foot inundation map excluding parcels that will not be protected from phase 1. (Exhibits A and B). Properties north of Marion Dr and south of Rivercourt Way are not included because that's the projected limitation on their flood containment effectiveness.

I live on the Mendenhall River and can't agree or disagree with this project until I know specific details about how it will affect my property/viewshed/bank.

It is unlikely that CBJ will have answers to all of homeowners' specific questions about the placement of HESCO barriers on their property before the February 3rd objection date. However, as we work on design and engineering for the project, staff will work with each property owner on a Memorandum of Understanding specific to their property.

What Will Happen Once a Long-term Flood Mitigation Solution is in Place?

CBJ is responsible for removing the HESCO barriers at the end of the project. The total project cost includes a $500,000 reserve fund that will be used to establish a grant program to help homeowners restore their property.

HESCO Barrier Installation

Phase 1

Alignment and Installation Considerations

Summary: The Mendenhall River Valley in Juneau, Alaska is under imminent threat of unusual flooding from what scientific experts expect will be recurring and likely record-breaking glacier lake outburst flood (GLOF) events. The impact and inundation area of these events have increased each of the last three years; a pattern that puts hundreds of homes and thousands of vulnerable residents, as well as critical infrastructure, public facilities, and community and medical services at risk.

CBJ is working tirelessly with Federal, State, Tribal and local partners to gather the additional information and resources needed to identify and implement a long-term solution. However, a long-term solution will take years before it can be implemented.

Therefore, emergency mitigation and immediate flood resilience action is needed to protect the most vulnerable in our community before the 2025 GLOF season.
With extensive consultation and involvement from United States Army Corps of Engineers (USACE) flood fighting experts, CBJ plans to install USACE provided HESCO barriers as a near-term solution to mitigate potential widespread damage from future releases. Based upon factors such as the high-water marks obtained after the 2024 GLOF and the resources available to implement a solution before July 2025, a 2 mile stretch of riverbank was identified which would provide the most protection to the highest number of flood-vulnerable residents and homeowners. This is considered "Phase One" of CBJ's formal flood mitigation efforts. This interim solution is intended to protect against GLOFs that are up to 4 feet higher than the 2024 GLOF. CBJ will integrate the work of the hydrological and hydraulic analysis to implement Phase One in a manner to avoid downstream impacts. Site investigation by CBJ and the USACE of the 79 predominantly private properties along this "Phase One" route have led to the identification of a preliminary installation path.
Several factors were considered when developing the preliminary installation path to ensure that the HESCO barrier will function as intended, including technical and practical factors associated with the barriers and site conditions, and considerations of the nature of flooding, inundation and bank erosion at different points along the river. Those factors are outlined below:

1. **Hydrologic and Hydraulic Analysis:** Hydrological and hydraulic (H&H) analysis and modeling is currently underway. This initiative will deliver additional insight into the probable effects of more severe GLOF events. It will also provide information regarding the impact the HESCO barrier will have on the river and proximate properties during a GLOF event, including upstream and downstream impacts. The results of the H&H analysis and modeling will guide the final placement of the barriers.

2. **Armoring**: During the last several GLOF events, the river has displaced portions of the riverbank that were unarmored or insufficiently armored. Significant armoring along the river occurred after the 2023 GLOF. Armoring the banks of a few additional properties will prevent the continued loss of riverbank, provide the first line of defense against flooding, and protect the needed base/foundation for the HESCO barrier.

3. **Overtopping and Inundation Characteristics**: Properties along the riverfront were impacted in different ways during recent GLOF events. Some properties are located on segments of the river that saw direct and forceful overtopping. Other properties were natural drainage areas for floodwater to return to the river. And still other properties saw a

slow but steady rise and fall of floodwater or were not flooded. These localized characteristics require different armoring, configuration and alignment, and drainage considerations.

4. **Configuration (Height/Depth)**: The HESCO barrier project is intended to provide approximately four feet of added protection above the inundation levels seen during the 2024 flood event. Because certain areas along the riverfront experienced forceful overtopping of the riverbank or were more likely to be impacted by debris, different configurations will be needed to provide adequate load resistance and accommodate the varying topography along the riverfront, to protect from future overtopping. This may include stacking barriers to achieve the height needed, and buttressing barrier segments for additional strength.

5. **Base/Foundation (Scour, Erosion, and Settlement)**: Where possible, HESCO barriers will be placed on suitable soil that has adequate bearing capacity and can resist scouring and erosion. In areas with soil that is not suitable for barrier placement, soil improvement techniques, including compaction with shot rock, will be used to prevent scour, erosion, and settlement. Lastly, some areas will need to be "built up" to ensure adequate barrier height or to properly incorporate drainage features of the existing site conditions.

6. **Continuity of Barrier**: Although site/property specific considerations will influence the placement and configuration of individual HESCO cells, the cells must form a continuous barrier along the full, 2-mile length. Accommodation must be made to ensure that the barrier will perform as intended along its entire length. In some cases, the prevailing conditions on adjacent properties will constrain placement of individual cells.

7. **Drainage**: Manufactured drainage components will be incorporated at regular intervals along the barrier in accordance with manufacturers' recommendations to prevent water from accumulating on the dry side. Additionally, the barrier will be located and installed to take advantage of existing natural or constructed drainage elements.

8. **Slope and Cross Slope**: To the extent possible, HESCO barriers will be placed on a flat, level surface. Therefore, variations of the slope (ground surface along the length of the barrier) or cross-slope (ground surface from front to back of the barrier) will be avoided. These factors will influence placement and alignment.

9. **Constructability and Access (Installation, Maintenance, and Removal)**: The HESCO barrier project will involve the placement and assembly of HESCO cells along a 2-mile stretch of riverfront crossing 79 individual properties. To the maximum extent possible, construction equipment will be used to assist in the placement and fill of cells to facilitate the timely completion of the barrier before the next GLOF event. Constructing the barrier in a manner that will facilitate access for construction, maintenance, and eventual removal will influence the barrier's placement and alignment.

10. **Setbacks:** To avoid narrowing the river channel and the potential unintended consequences of elevating flood levels along the river, the HESCO barrier will be placed outside the riverbank and on the upland side of armored banks. To the extent possible, the barrier will be placed as far from constructed facilities (homes, attached structures, outbuildings, etc.) while still providing a suitable, continuous base along the barrier's length.

11. **Utilities**: The HESCO barrier will be placed on the river-side of existing utilities to protect public infrastructure and provide access for maintenance (e.g. installed electrical distribution equipment and transmission structures).

12. **Obstructions**: The HESCO barrier will be located to avoid obstructions on individual properties where possible. These obstructions include natural features (large trees/stumps, brush, etc.) and constructed features (fences, decks, outbuildings, etc.). In some cases, obstructions will be incorporated into the barrier or will relocated or removed to facilitate the construction of the barrier.

13. **Maintenance Access Points**: Three locations have been identified as barrier access points to facilitate road maintenance and snow removal activities. These segments of the barrier can be quickly removed to create openings as needed and immediately replaced to maintain the barrier's integrity.

14. **Manufacturer's Recommendations and USACE Technical Guidance**: Manufacturers' recommendations, technical advice and installation oversight provided by USACE will be relied upon to ensure that the placement and construction best serves the intended function of the barrier.