

DATE: April 15, 2024  
TO: Wade Bryson, Chair, Public Works and Facilities Committee  
THROUGH: Denise Koch, Director, Engineering & Public Works Dept.  
FROM: John Bohan, Chief Engineer  
SUBJECT: Mendenhall River Outfall Culverts Check Valves

Engineering has identified eight storm drain outfalls along the Mendenhall River without check valves that have contributed to backing up water into the neighborhoods on Marion Drive and Meadow Lane. (Five storm drain outfalls along the river already have one-way valves.) With the disappearance of the snow, staff are currently contacting the adjacent property owners to identify access to each of the outfalls. The outfall pipes are located in drainage easements between adjacent homes. The challenge is these areas are landscaped, developed, many of them fenced, and kept in nice condition by the proud homeowners. The CBJ can use the easements across the private properties for access and for the pipe, however, will need to restore any damage caused by equipment accessing the outfall for installation. The check valves weigh between 150 pounds (18") and 350 pounds (24"), so they will require equipment to move and install them at the end of each outfall pipe on the riverbank. Installing these check valves will eliminate the potential for water to backflow through the culverts.

August 2023 Meander Way Roadway Flooding



Flooding will likely continue for the next several hours on Sunday morning.

Twitter: @AELPJUNEAU

NY Post Photo: <https://nypost.com/2023/08/06/historic-flooding-along-alaska-river-forces-evacuations/>

Typical Easement on Meander



### **Cost**

The cost of the project is estimated at \$400,000 or about \$50,000 per check valve installed and completed. We are hoping this will be less, however, the challenges and costs associated with equipment access and restoration of the easements on private property are the main factors in the high estimate.

**Time**

The lead time to manufacture each check valve and get them shipped to Juneau is 6-9 weeks. The check valves are manufactured to the specific pipe dimensions of the inside of each pipe and take 4-5 weeks to be manufactured once the dimensions are received and approved by the manufacturer. Freight will take between 2 to 4 weeks to get from the manufacturer's plant to the barge and delivered to Juneau. To expedite the process, Engineering proposes to measure and order the check valves as soon as possible, while completing details and negotiations with the impacted residents and preparing a bid package for the installation. Optimistically, if the order is placed by the middle of May, the check valves could be in Juneau by early July. A more reasonable expectation would be the end of July. Once in town, they can be installed by a low-bid contractor who will already be selected by the time the valves arrive in Juneau.

**Funds Transfer**

To assist in funding the check valve project, staff has identified a related CIP, R72-146, Flood Plain Mapping Technical Assistance that has been completed and can be closed with \$92,653 of funds available. These funds could be transferred to R72-136, Areawide Drainage Improvements, to assist in funding this work.

**Recommendation:**

Use money from R72-136 Areawide Drainage Improvement CIP to pay for the one-way valves. Forward a funds transfer request of \$92,653 from R72-146, Flood Plain Mapping Technical Assistance to R72-136, Areawide Drainage Improvements to the full Assembly for approval.