Here are some commonly asked questions during and after a main break has been repaired.

During a Repair

• When will service be restored?

BWS crews work to restore water service as quickly and as safely as possible. It is difficult to estimate when service can be restored, however, because we may need to address unforeseen issues and need to make water system adjustments before restoring service.

 The road is clear. Why isn't my water back on? For some repaired mains, especially along coastal areas or near streams, additional water quality testing may be necessary. This process can take up to 24 hours to complete. During that time, customers affected by the break will typically have access to water wagons until testing is finished.

After a Repair

• How do I know my water is safe to drink?

When a water main break occurs, BWS crews do several things to ensure that the water from a repaired main is safe to drink when the work is done. They will:

- 1. **FLOW** water through the main, at a low rate, while excavating to repair the broken main. This prevents debris from entering the water line. The water flow is only shut off when water cannot flow back into the water system.
- 2. **DISINFECT** the new section of pipe before installation.
- 3. FLUSH water through the repaired line to ensure the water is fit for consumption, to protect public health and ensure water quality.

• What if my water is discolored?

In most cases, customers will not notice any difference in their water after a main break occurs. However, there are some occasions where area customers may notice temporary discoloration of their water.

For example, water that appears milky is typically caused by tiny air bubbles in the line. This results from construction that vibrates the pipe. Air bubbles in pipes do not affect the quality or safety of the water. Generally, if you let the water sit, the bubbles will dissipate.

If a customer notices any discoloration in their water, flushing out property lines usually addresses this concern. Simply run a large faucet (like a bathtub) or hose bib for a few minutes to get rid of the air and color. If the issue persists, customers may call the BWS 24-hour water trouble line at (808) 748-5000, ext. 1 for further instruction or assistance.

• How do I get rid of air in my water line?

If you suspect air in your lines, the easiest way to address this is to open a large tap, such as a bathtub faucet, while all other taps remain closed. Run the tape for five minutes, while monitoring for hissing or spitting sounds that may indicate air is still in the lines. Continue to run the water until no hissing or spitting sounds or additional

air bubbles are released.

• How do I flush my property's water lines?

To flush your property's water lines, you will need to run all your taps for approximately five minutes. Before vou begin, be sure to remove the aerator or screen from any fixture. This will help to prevent any build-up from accumulating on them.

- 1. Check the main water supply valve to ensure the water in the house is turned on.
- 2. Starting with the faucet closest to the main water supply valve, turn on every outside faucet and then go inside the home. In a single-story home, begin with the tap closest to and end at the tap farthest from the main water supply valve. If you live in a multi-level residence, start with the highest tap on the top floor, and then move down to the bottom of the house.
- 3. Let the water run about five minutes. While the water is running, flush each toilet a couple of times.

After the five minutes have passed, turn off the taps in the reverse order. Clean the aerators or screens and reattach them to the faucets.

• What if I need to file a claim?

A customer who experiences damage as a result of a main break may file a claim with the BWS for reimbursement consideration. For more information, call (808) 748-5041 or email contactus@hbws.org.

What we're doing to prevent main breaks in the future

- Replacing portions of the system that are most vulnerable to breaks and most critical to service dependability.
- Extending the life of water mains in areas of highest corrosion potential.
- Conducting forensic analysis to determine the primary causes of main breaks and identify changes to design, construction, and operation.
- Pinpointing small cracks or holes for repair.
- Encouraging customers to reduce water use and adjusting operations to increase efficiency, which reduces water being pumped through the system and means less stress on pipelines.
- Developed a 30-year Water Master Plan to identify and prioritize long-term improvements.



WATER MAIN REPAIR

Repairing Water Main **Breaks**





Board of Water Supply Water Main Break Repair

When a main breaks, the Board of Water Supply's top priority is to protect public health and safety, while minimizing water loss and the impact on the public. Repairs are complex and require considerable care and time. Our crews work to restore service as quickly as possible. Here is a quick overview of what they do:



1. Stop Water Loss

Upon learning of a main break, we go to the site to close the necessary valves to stop water loss and isolate the broken section from the rest of the main. We close valves gradually to protect the rest of the system from abrupt changes in pressure and flow. Initially, the water outage may be more widespread until the break is isolated. Then once we start repairs, we try to keep water flowing to the rest of the system to minimize impact to our customers.



2. Notify Other Utilities Prior to repair, utilities with buried conduits near the main are notified to mark their lines so we can avoid damaging them.



3. Minimize Impact

We set up a water wagon or install a spigot on a nearby hydrant for customers who lose water service during repair. If a break affects many people or a vital traffic route, we alert media and the public via HNL.info*, social media, or our website (www. boardofwatersupply.com). If the break has a significant impact on traffic, we work with other City and State agencies on mitigation plans. When appropriate, we arrange with the police for traffic control.



4. Repair The Water Main

We clear debris, set up safety equipment, excavate the main (most pipes are 3 to 10 feet underground), and pump out excess water around it. Excavating can be prolonged if there are other buried utilities close by. Once the main is unearthed, we can determine the extent of damage and make repair. Often, we need to replace the damaged section.

To report a water main break, 24/7, please call the BWS Trouble Line at **748-5000, Ext. 1**





5. Restore Water Service

Once repair is done, we test the new pipe to ensure it is fit for service and disinfect it to protect public health and water quality. Next, we open a nearby hydrant to flush air and debris out of the pipe. Then, we reconnect customer lines to the main and carefully re-open the valves so that water will again flow through the main and build up pressure to normal levels.



6. Restore The Roadway

Last, we refill the repair trench and prepare the road for patching. We install a temporary patch to cover the excavated area until a pavement contractor can put in a permanent one.

