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## TOWN OF ESTES PARK

September 25, 2025

Many of our Carriage Hills area customers experienced a water outage on the afternoon of Sept. 22. This incident caused great inconvenience to our customers, and we appreciate their patience as we refocused all our resources to fix the problem. This unfortunate incident demonstrates the importance of the Town's current construction of the new water system to serve the neighborhood. We want to address the questions and concerns we have heard and provide additional information that we gathered to answer our own questions during and after the water outage.

**Why did a portion of the Carriage Hills neighborhood experience this outage?** The outage was caused by a significant rupture of a water pipeline and the resulting crack in the main distribution line. The leak occurred because a previously unidentified stub – or dead-end line – separated from the water main. A significant crack formed in the water main, resulting in a rapid decrease in water pressure.

Water pipeline failures like this can occur for many reasons. In this case, an old, weak line failed at its connection point with the water main. Because this pipe was previously unidentified, the connection point could not be stabilized/restrained as a precaution before the pipe replacement work that is occurring down the line. The vibration and movement of the main line during the excavation nearby likely caused the leak. The leak was not caused by construction equipment striking the line.

### **Why is the old system susceptible to leaks?**

Much of the original pipeline is made of cast iron, which is not as strong as ductile iron and more likely to fail. These pipes were originally installed too close to the ground surface and laid directly against rock. In addition, these lines are unrestrained – meaning the pipes can pull apart under high pressure. These factors contribute to failures in the lines.

**How was the leak repaired?** Within minutes of the failure, the construction contractor, TWX, notified the Water Division staff. Staff determined the significant repair would require closing valves to stop the high-pressure flow ahead of the leak, so they could safely repair old pipe and fitting. Once repaired, Town staff flushed the line and tested the water quality. Valves were reopened slowly, in stages, and all customers were restored by approximately 9 p.m. TWX was instrumental in assisting Town staff throughout the emergency repairs.

**Who was affected?** Water customers along the north end of Carriage Drive and Spruce Avenue experienced either low water pressure or water service interruption due to failures of the old pipes that will soon be replaced.

**Why was the Town unaware of the line that separated from the main?** The Carriage Hills water system was originally constructed by the privately owned Crystal Water Company. The Town was asked to take over the ownership and management of the system, which it did by 1990. Crystal Water Company did not have a complete map of its water system, so the Town began developing a detailed GIS map, adding new information as pipes are located. The stub where the leak occurred was not identified in the mapping.

**Can we prevent this from happening again?** As construction progresses, there is a chance a similar incident can occur due to the physical movement of the old pipes caused by construction along the pipeline. The contractor is taking additional precautions by installing temporary water service connections in the area they are working, and Town staff are confirming valves are operational and can be closed quickly. The valves will allow us to isolate sections of the existing pipe in the event of a waterline break and reduce the impact to customers. We always maintain a stock of spare parts so that we can make rapid repairs. We will continue to carefully monitor construction and system operations. We greatly appreciate our customers' patience while we construct a high-quality, resilient water system to serve them in the future.

**How will customers benefit from the water system upgrades?** The new Carriage Hills water system is designed to high standards, a stark contrast to the current system. Service interruptions and outages will be significantly decreased, and the system will be more reliable and safer overall. The new system is built with ductile iron pipes, which will be restrained and stabilized at all connection points. Each new pipe is buried at least 5 feet below the ground surface and always bedded on suitable material. If bedrock is in the way, it is moved to ensure the stability of the new line. The new system is designed with more valves to allow for isolation in the event of pipe issues.