

**Subject:** Water Main Replacement

**Related Department(s):** DES

***FY 2027 Proposed Capital Budget***

***CIP Work Session***

The following information is provided in response to a request made by Ms. Cunningham at the work session on *June 2, 2026*, regarding the following question:

*The Proposed CIP includes funding to replace less than 1% of water mains per year but approximately 46% of the water mains are over 75 years old. Does our current schedule of replacement need to accelerate to keep up? If so, what is the cost? What is the risk if replacements are not accelerated?*

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Renewal of our system is a top priority. Recent bid results have indicated a sudden and unexplained jump in unit prices for water main construction, which has introduced uncertainty in the appropriate planning number for this program. Despite that uncertainty, this proposed CIP increases funding for water main replacement by \$30M (nearly 40%). If additional funding or staffing for execution of the program is warranted, staff will be able to address those as part of the FY 2028 operating budget cycle and the next CIP.

Depending on the funding source, increasing base funding to this level annually would result in an additional 1-5% impact on the rate each year (\$5-\$40) for the average 48TG household, which would be in addition to the already anticipated annual increases of 4-5% annually in the water-sewer rate.

Approximately 46% of the County's water mains are more than 75 years old. While pipe age is an important consideration, it is only one of several factors used to prioritize replacement. Staff also consider break history, pipe material, age, criticality, coordination with other capital projects, and operational impacts when selecting replacement projects.

The primary risk of not accelerating water main replacement is an increased frequency of water main breaks. However, despite the age of portions of the system and a water main break rate that slightly exceeds industry benchmarks, Arlington maintains a relatively low non-revenue water rate of approximately 8.6%, indicating that the system remains in good overall operating condition. The American Water Works Association reports the benchmark goal for utilities is 15 breaks per 100 miles of pipe and the national average is 20 breaks per 100 miles of pipe. The County's average over the last ten years is 21 breaks per 100 miles of pipe; our break rate is comparable to the Washington Suburban Sanitary Commission (which serves Montgomery and Prince George's County) and far less than DC Water which is at 47 breaks per 100 miles of pipe.

In recent years, DES has also prioritized water valve inspection and replacement as a particularly cost-effective strategy to reduce the consequences of water main failures. Reliable isolation valves allow staff to quickly isolate damaged pipe segments, minimizing the number of customers affected, reducing water loss, and shortening repair durations when breaks occur.

If additional funding were made available for the Utility program in the CIP, acceleration of the water main replacement rate would be among the highest priorities for allocation of such funds; we will report back on options as part of the next CIP process. We are working regionally on redundant water supply issues and advanced treatment options for drinking water at the Washington Aqueduct, and will begin construction of the ReGen project in the near future. These projects are also very important, and will have significant impacts on the water-sewer rate.