

Water System Challenges

There are many kinds of problems that water suppliers in the U.S. face- what are some of the lesser known ones?

Declining Populations

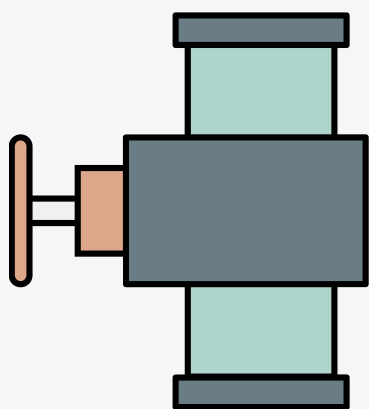
Utilities design water systems with the expectation that population and demands for water will grow rather than decrease. However, shrinking cities are becoming increasingly prevalent in former industrial cities and in the rust belt.

Effects of Population Decline:

- Decline in water quality due to high water age (when water stays in pipes for longer than anticipated)
- The cost to maintain the existing infrastructure stays constant or increases while the customer base shrinks



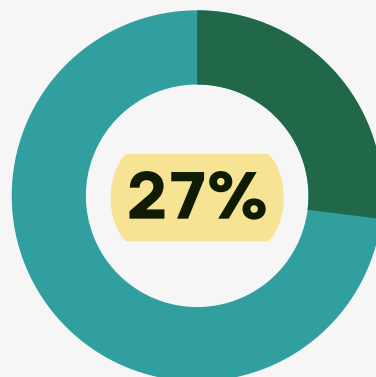
Infrastructure Failures



Maintaining infrastructure and natural disasters lead to large amounts of pressure on water suppliers from customers, local government, and regulators. These issues include pipe breaks, power outages, filtration issues, blockages at the water intake, and more.

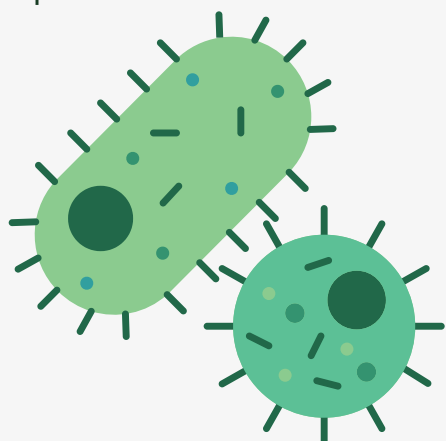
Did you know?

In the past 6 years, pipe breaks have increased by 27%*



Water Contamination

The Environmental Protection Agency (EPA) and state agencies set important standards to ensure our water stays clean and safe for consumption, but what kinds of contamination make these regulations important?



Contamination Issues

- Bacterial Contamination
- Upstream Spills
- Toxic Algal Growth
- Suspended and Dissolved Solids

References

* In the United States and Canada (Folkman, S. (2018, March). Water main break rates in the USA and Canada: A ... Digital Commons at USU.)