

Water and Wastewater Infrastructure Investment is a Trillion-Dollar Market Opportunity



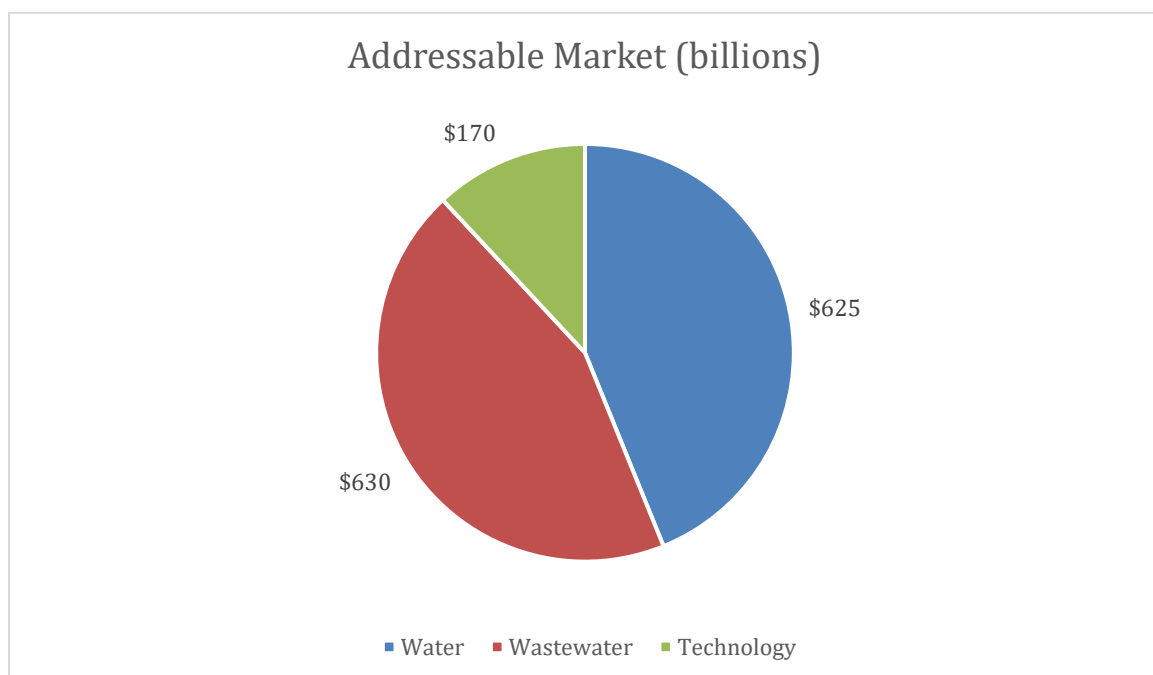
The U.S. Environmental Protection Agency (EPA) projects that more than \$1.4 trillion in capital investment will be required over the next 20 years to replace, rehabilitate, and modernize the nation's aging water and wastewater systems. This scale of need represents both a pressing public challenge and one of the largest infrastructure investment opportunities of the next generation. The total addressable market is comprised of \$625 billion in drinking water infrastructure needs, \$630 billion in wastewater and stormwater infrastructure, and an additional \$170 billion in technology enhancements. Together, these needs define a vast landscape for investment, innovation, and long-term growth.

The Total Addressable Market for Water Infrastructure

The scale of U.S. water infrastructure demand is extraordinary. Water utilities across the country operate pipes, treatment plants, and pumping systems that in many cases are more than half a century old. In fact, the average water main in the U.S. exceeds 50 years of service, nearing or surpassing its intended design life. With

over 70,000 miles of lead service lines still in operation, posing well-documented risks to public health. The urgency for reinvestment cannot be overstated.

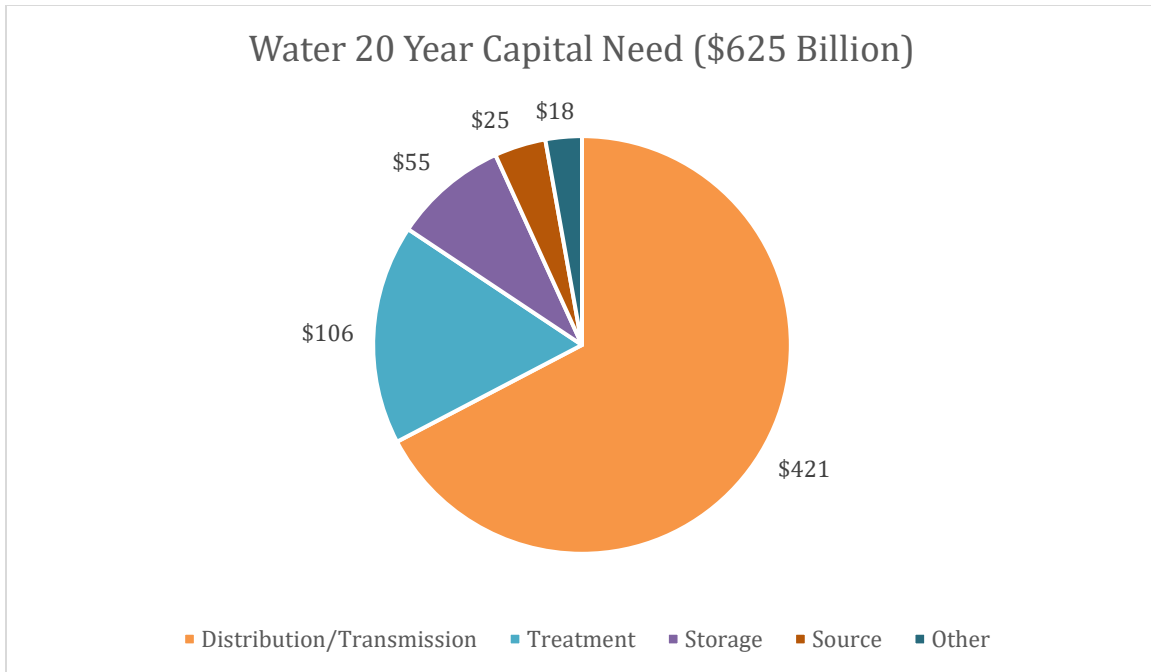
- The total addressable market (TAM) of \$1.4 trillion reflects this urgency:
 - \$625 billion for drinking water infrastructure, including replacement of mains, treatment facilities, and storage.
 - \$630 billion for wastewater and stormwater projects, including treatment plant upgrades, sewer separation, and climate-resilient solutions.
 - \$170 billion for technology solutions that modernize operations, optimize maintenance, and improve compliance.



This TAM is not only a measure of need but also of opportunity, offering a roadmap for public and private stakeholders to partner in financing and executing projects that sustain water reliability and public health.

Drinking Water Infrastructure Needs

According to the EPA's Drinking Water Infrastructure Needs Survey and Assessment (DWINSA), the estimated need for drinking water projects is \$625 billion over 20 years. Investment priorities include replacing water mains and service lines, rehabilitating and modernizing treatment facilities, expanding storage infrastructure, and ensuring compliance with the Safe Drinking Water Act (SDWA).

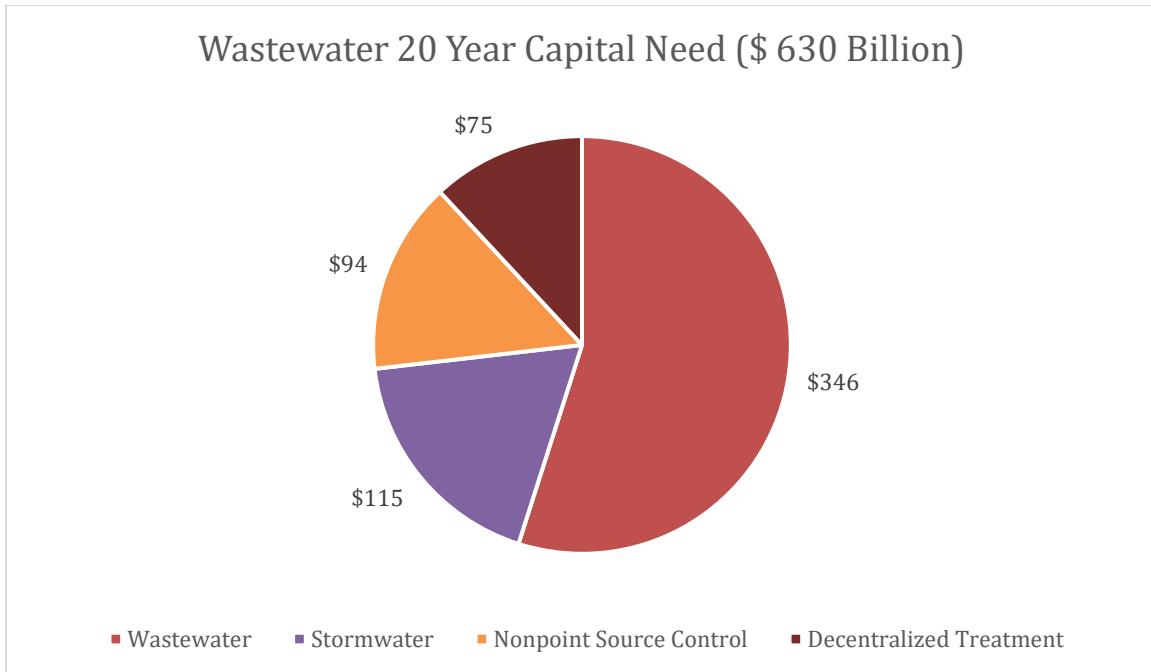


Key investment drivers are threefold. First, aging infrastructure is the single largest factor, with systems installed in the early-to-mid 20th century reaching or exceeding their useful life. Second, population growth, particularly in suburban and exurban regions, creates new demand for water delivery and treatment. Third, public health and compliance requirements necessitate accelerated replacement of lead service lines, with an estimated \$46 billion required to eliminate the risk of lead contamination nationwide.

Wastewater and Stormwater Infrastructure Needs

Parallel to drinking water, the nation's wastewater and stormwater systems require an estimated \$630 billion in investment over the next two decades, according to the EPA's Clean Watersheds Needs Survey (CWNS) 2022. The scope of these needs spans upgrades to treatment plants, rehabilitation of sewer systems, separation of combined sewers, control of combined sewer overflows (CSOs), and stormwater infrastructure designed to mitigate flood risks.

These investments are driven by compliance with the Clean Water Act (CWA), stricter discharge regulations, and mounting demand for climate resilience in both urban and coastal settings. In many areas, nature-based solutions such as wetlands restoration and green stormwater infrastructure are being deployed alongside traditional engineering approaches. The combined effect is to modernize capacity, safeguard water quality, and mitigate damage from extreme weather events.



A related challenge is nonpoint source pollution, which occurs when rainfall, snowmelt, or irrigation runoff carries contaminants from land into rivers, lakes, and coastal waters. Sources range from urban stormwater runoff, laden with oil, heavy metals, and trash, to agricultural runoff containing fertilizers, pesticides, and animal waste. Forestry operations, septic system failures, and construction sites further contribute to diffuse pollution. Addressing these issues will require coordinated investment in both gray and green infrastructure, as well as expanded monitoring and enforcement.

Conclusion

Water is the foundation of public health, economic growth, and environmental resilience. The United States now faces a generational opportunity to address its \$1.4 trillion water infrastructure challenge. With aging systems, growing populations, and evolving regulatory and climate pressures, reinvestment is not optional, it is urgent. The market potential spans drinking water, wastewater, stormwater, and enabling technologies, each contributing to a holistic vision of reliable, sustainable water systems. Companies and investors who align with this vision will not only capture financial value but also help secure the nation's most vital resource for decades to come.

This is the ninth in a series of posts on Green Tech Infrastructure.

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