

THE PIPELINE

IRONCLAD FACTS FROM DIPRA

Buried No Longer: Confronting America's Water Infrastructure Challenge

A report by the American Water Works Association

Ductile iron's superior strength resists damage during shipping, handling and installation. Ductile iron pipe has more than 10 times the impact strength, nine times the tensile strength and four times the burst strength of PVC pipe—and, unlike PVC pipe—it can handle stress. Under stress, PVC failure is a matter of time; and the more stress that is applied, the sooner it will fail. Ductile iron's strength is not compromised over time.

With critical water pipes and fittings aging past the century mark in some American cities, the nation has no choice but to face up to its massive infrastructure needs. Policy decisions worth tens of billions of dollars are being made at the local, state and federal levels as we tackle our water infrastructure challenge. Not only are millions of miles of pipe in need of replacement, we must invest in additional piping to meet the changing demands of a growing nation. According to a study by the American Water Works Association (AWWA), over the next 25 years the United States must invest more than \$1 trillion in underground water infrastructure. That amount grows to more than \$1.7 trillion over the next 40 years! Delaying this investment will only increase the cost, and increase the likelihood of disastrous and costly mishaps.

Which pipe is the best investment?

Most of our existing water infrastructure consists of ductile and cast iron pipe. In service to more than 600 utilities throughout the U.S. and Canada, cast iron pipe has proven its ability to last at least 100 years, often withstanding harsh operating conditions it was never designed to experience. Modern ductile iron pipe is even stronger than cast iron and, with modern advances and design, can be expected to continue that record of service. Key elements and findings of the AWWA report include:

- The data used to write this report came from the USEPA, the water industry, the US Census Bureau, the AWWA Water Stats database, and the 2002 Public Works Infrastructure Survey. Utilities of all sizes from areas throughout the United States participated in this study.

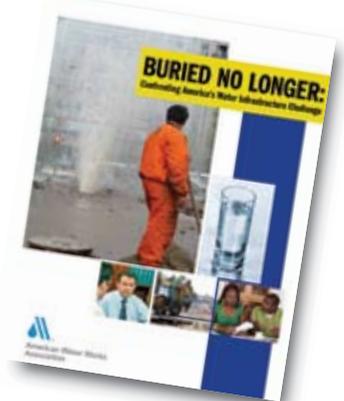
According to those utilities of all sizes and locations, the derived service life for ductile iron pipe installed using “evolved laying practices” (such as polyethylene encasement) is expected to be in excess of 105 years.

Based on the same study, PVC pipe's derived service life, depending on size and location of utility, is as low as 55 years.

It is clear that utilities that engage in proper installation techniques have benefited with impressive experiences from their ductile iron pipelines. While initial costs are sometimes higher than pipe made of other materials, the long-term savings are notable. Ductile Iron pipe requires little if any maintenance, resists corrosion, and has the smallest annual pumping costs of any of the available alternatives, saving American households thousands of dollars. It is also made from 100% recycled—and recyclable—material.

Investing in ductile iron pipe as the long-term solution to our water infrastructure needs makes sense. To read a copy of the AWWA study, go to www.awwa.org and click on the “Buried No Longer” link on their homepage.

For details about the benefits of ductile iron pipe or the Ductile Iron Pipe Research Association visit www.IronForAmerica.com



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<http://www.awwa.org/files/GovtPublicAffairs/GADocuments/BuriedNoLongerCompleteFinal.pdf>

