

Can We Depend on Our Water Infrastructure?

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Nearly all New Jersey municipalities have public water, sewerage or stormwater systems, and many have all three. Whether owned by a municipality, a municipal utility authority or a private company, these water infrastructure systems are critical to our economy, environment and quality of life. Water emergencies—the loss of water services, or raw sewage flooding into basements—provide a painful reminder. But even when things are working well, every municipality should be concerned about the proper functioning of these systems, regardless of their ownership.

Because much of New Jersey's population growth occurred from 1890 to 1930 and again during the post-war suburban expansion from 1950 to 1970, much of our water infrastructure is reaching or has already passed its useful lifespan. We have not kept up with water system decay for a variety of reasons, including the “out of sight, out of mind” nature of pipelines, insufficient knowledge, and opposition to increased water and sewer rates. Even the most stringently regulated components—the water supply and wastewater treatment plants—are, in many cases, over 30 years old and will require reconstruction. As a result, we are facing several decades during which our water pipes and treatment facilities will require extensive and expensive work, at roughly the same time.

Evaluating Our Needs New Jersey is not alone. National studies indicate that most if not all states are facing the same problems. However, much of our infrastructure is older, so our issues are more acute. For the last two years, New Jersey Future has been working with a team

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from Rutgers University to assess the nature of our water infrastructure problems and what needs to be done. A 2013 report¹ prepared for Together North Jersey focused on water infrastructure needed to serve expected population and

employment growth in northern New Jersey. A 2014 report funded by The Geraldine R. Dodge Foundation described the enormous water infrastructure needs in the 21 cities with combined sewers,² while a second report supported by The William Penn Foundation focused on Pinelands water resources issues.³ The 2010 New Jersey Clean Water Council recommendations on water infrastructure financing⁴ and a 2013 Facing Our Future report on all of the state’s infrastructure needs⁵ are additional resources. These reports share a common thread: New Jersey has not been and is not investing enough to maintain the long-term capacity of its water infrastructure systems. System failures are a routine feature of the news in New Jersey.

The Costs Reconstructing or replacing our water infrastructure will be very expensive. The additional costs over the next several decades will very likely be in the tens of billions of dollars. For example, the American Water Works Associa-

tion in 2012 estimated a need for \$1 trillion in capital expenditures nationally in the following 25 years, just for drinking water systems.⁶ New Jersey has 2.8 percent of the nation’s population, so our share would be \$28 billion if our systems matched the national average age and quality. However, as our average infrastructure age is higher than many states, our costs may be higher. Then add costs for sewer and stormwater systems! Some funding is available through existing water and sewer rates, but more will need to be raised in the future.

New Jerseyans overwhelmingly believe that protecting the state’s water supply is an important priority.⁷ And if asked, few would argue that water infrastructure should deliberately be allowed to fall apart. No one favors wasted drinking water, flooded streets, massive sinkholes, or polluted water. But there is a gap between this understanding and a willingness to support rate increases and taxes to upgrade water infrastructure. This will



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Water Infrastructure

need to change. The longer we delay, the faster our infrastructure will decay.

Can society afford to pay the costs? Frankly, we don't have a choice. New Jersey must act to avoid water system failures, and therefore it will. The issue is when and how and who. Better system management can reduce some costs, such as for emergency repairs, energy and lost water revenue. Still, we can expect that water and sewer rates will increase for many, and perhaps greatly for some. This issue is a major concern for our poorest households. Unlike energy costs, it is



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unusual for water utilities to have household assistance programs. New Jersey will need to address this issue soon.

The Agenda for Change Based on the Rutgers reports and its own case studies, New Jersey Future has embarked on a major new initiative, with support from The Geraldine R. Dodge Foundation. In May 2014, New Jersey Future, The Dodge Foundation and The Johnson Foundation at Wingspread convened a meeting of 21 leaders, representing diverse perspectives from local governments, community organizations, water utilities, the business community, environmental organizations and others.⁸ This group built consensus on an *Agenda for Change* to catalyze the transformation of New Jersey's urban water infrastructure (water supply, wastewater and stormwater). The group established Guiding Principles for improving urban water infrastructure, and recommended a set of Action Steps to stimulate progress. The *Agenda for Change* was released in June 2014 with support from former Governors Christie Whitman and James Florio, who served as honorary co-chairs at the May meeting. New Jersey Future is now working with this partnership to build a strong coalition for implementation of the agenda.

In too many areas, we have put off investments in our water infrastructure until "later."

Unfortunately, "later" is "now."

Municipalities need to ensure that sufficient investments are made to water

infrastructure, whether the systems are operated by the municipality or another entity. Our quality of life and the viability of our local economies depend on taking action before the systems fail and costs explode. These costs are coming due, whether we are ready or not, and so we need to be ready. Municipal and utility leaders and staff are encouraged to sign up at www.njfuture.org/water for the Urban Water Solutions Network and become partners with New Jersey Future and its leadership team in the *Agenda for Change*. 

The views expressed in this article have not been reviewed or endorsed by Rutgers University or the New Jersey Clean Water Council.

End Notes

1. See <http://togethernorthjersey.com/wp-content/uploads/2013/11/Water-Resources-Baseline-Report-Final-Clean-11Sept2013-small.pdf>
2. See www.njfuture.org/issues/environment-and-agriculture/water-sewer/urban-water-infrastructure/
3. See www.njfuture.org/research-publications/research-reports/growing-smart-water-wise/
4. See www.state.nj.us/dep/cleanwatercouncil/pdf/NJCWC_recommendations_water_infrastructure_financing_final.pdf
5. See www.cnjg.org/sites/default/files/resources/2013%20Facing%20Our%20Future%20Report%20-%20Infrastructure%20Investments%20Necessary%20for%20Economic%20Success.pdf
6. AWWA. 2012. Buried No Longer: Confronting America's Water Infrastructure Challenge. www.awwa.org/Portals/0/files/legreg/documents/BuriedNoLonger.pdf
7. See www.njfuture.org/wp-content/uploads/2011/10/SmartGrowth_NJPollAug2011_REPORT.pdf
8. The Johnson Foundation's report on this meeting can be accessed from: www.johnsonfdn.org/