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Alternative Procurement Options for Lead Service Line Replacement

Basic Premise

State legislation enacted in July 2021 requires water utilities in New Jersey to replace lead service lines (LSLs) within 10 years (i.e., by 2031). Under the best of circumstances, state and federal aid will likely fall far short of the estimated statewide cost of $2.3 billion and, as water utilities seek to perform the work within the deadline, supply and demand for contractor services could increase prices.

This paper addresses the question: What alternative contracting techniques could help ensure the best price and accelerate project schedules to protect public health and comply with regulations?

Background

- Based on analysis performed by the American Water Works Association (AWWA), New Jersey has approximately 350,000 LSLs which, at an estimated average cost of $6,700, would cost $2.3 billion to replace. In some areas, each pipe could cost upwards of $10,000.
- While the recently enacted federal infrastructure bill provides $15 billion in funds for LSL replacement, it will provide only $241 million to New Jersey. Federal funding increases to New Jersey's Drinking Water State Revolving Fund will provide additional aid, but the total will fall far short of what is needed.
- LSL replacement will involve a large number of tasks including service line inventory, construction contracts, sampling monitoring, public outreach and education, technical implementation/support, and community-based outcomes.
- New Jersey has 574 public water systems, 241 of which (42%) supply water for 96% of the population. The remaining 333 public water systems are small operations (i.e., supplying less than 3,300 people). While larger utilities typically have the means to overcome the logistical and administrative barriers to LSL replacement, smaller utilities are likely to struggle. They may wish to consider partnerships with one another or contracts with consultants to maximize efficiency and realize economies of scale.

Typically, water utilities contract out LSL replacement, awarding the work to the lowest bidder. The two procurement options outlined below represent alternative approaches; however, in each case the construction work would be awarded to the lowest responsive responsible bidder in accordance with the State's procurement regulations.

I. Public Private Partnership

In a public private partnership (P3), a public sector entity procures a long-term contract with a private company for multiple elements of a project, typically including project management, development (design/construction), and operation/maintenance. P3 contracts shift project risk to the private partner and often provide cost certainty, community-centered economic development, and operational efficiencies (e.g., economies of scale, administrative savings.)

Example - Prince George's County, Maryland
In 2014, Prince George's County in Maryland formed a 30-year $200 million P3 with Corvias to install green stormwater retrofitting projects across 4,000 acres. Corvias administered work on behalf of 24 separate municipalities, each of which participated on a permissive basis. Based on the success of the original agreement, which included a $100 million, three-year contract to retrofit 2,000 acres, the partnership was extended for another three years.

To assess the fiscal and time savings, the partnership was benchmarked against the county's traditional procurement process. For example, the P3 contract reduced administrative and procurement costs by 60 to 80 percent through efficiencies that are only available through private business and market forces. The partnership also required the use of local and county-based small and minority-owned businesses for 30 to 40 percent of the total project scope. (Corvias trained 39 firms and contracted with 160 mostly minority-owned small businesses.) The county expects to create an estimated 5,000 jobs over the course of this project.

Envisioning P3s in NJ for LSL Replacement
Following the regulations established per P.L. 2018, c. 90 (S-865; see https://nj.gov/treasury/public_finance/p3.shtml), water utilities of a particular size may enter into performance-based P3 contracts with a private partner to replace LSLs on a permissive basis. The private partner would manage the work, either for individual utilities or on a regional scale. The contract would likely include a set price per LSL replaced, providing cost certainty. The water utility can compare that cost proposal with its own estimate of what a similar effort would cost through the traditional procurement approach. Payment would be based on performance metrics (e.g., successful LSL replacement, as verified by a lab test of a water sample). Successful implementation of these measures, which are negotiated as part of the contract, would be certified by a separately-procured, third party evaluator. The water utility could make these payments on a pay-as-you-go basis, or the private vendor could provide upfront capital and be paid over the life of a long-term contract. (If the water utility sells debt to pay the contract, it would need to secure local approval, per its usual procedures.)

Concerns
Generically, there is some skepticism of P3 contracts, as there are several previous efforts that were poorly implemented. Successful projects clearly articulate the terms of the partnership to the public, emphasizing that it is not a private takeover of a public utility. Public agencies should ensure that the partnership will be beneficial in saving time

and money, and “pay for success” (PfS) measures that link payments to negotiated performance metrics is one way to do that.

The chart below outlines the typical provisions and structure for a P3 contract and is intended to illustrate how such a contract might be used for LSL replacement.

Contract Structure	Pay Upon Completion - The P3 vendor, who will be paid a fixed price for each LSL replaced, in turn pays contractors monthly based on actual costs. The fixed price is determined at the conclusion of phase 1 (see below).
Project Phases	A P3 contract could be broken into two phases: 1. *Program Definition* – If the City accepts the P3 vendor’s proposal, the Program Definition phase begins. It may include data gathering, inventory development, predictive modeling, field investigations, customer notification and education, and workforce and contractor capacity building. A deliverable of this phase is to agree on a more defined program scope, including an accelerated schedule and fixed price per LSL replacement, among other performance-based metrics. The City is under no obligation, but if it decides to move into phase 2 (Program Implementation) there will be no cost for the Program Definition phase. If the City terminates the agreement prior to the Program Definition phase, the City typically pays the initial project cost for the Program Definition phase, as determined below. 2. *Program Implementation* – The performance-based Program Implementation phase will begin solely upon the direction of the City, without an additional solicitation. During this phase, construction will commence on LSL replacements and outreach, as well as workforce and contractor development (i.e., capacity building), will continue. The P3 vendor will be paid a fixed price per LSL, as set in the Program Definition phase.
Procurement	The P3 vendor would submit a noncompetitive proposal, which may be invoked when a public exigency or emergency requires prompt action, in this case to avoid the inherent delays associated with a traditional competitive procurement, under which lead pipes would remain in the City’s water system for a longer period. The contract must be approved by the NJ Office

	of Public Finance and related entities, such as the State Comptroller, I-Bank, and others.
Project Size	The P3 vendor will provide working capital at no additional cost to the City in advance of each year's annual appropriation (including the Federal Infrastructure Bill). The City can also contribute additional funding from SRF, general obligation bonds, and other sources to accelerate the program.
Performance Metrics	To be developed in collaboration with the City (can include cost, schedule, local business utilization, contractor metrics).
Community Outreach	The P3 vendor will work in collaboration with the City and build community outreach and stakeholder engagement plans (e.g., presentations, marketing materials, public events).
Termination	The City may terminate the agreement at any time during the Project Definition phase, including if the P3 vendor fails to achieve predetermined performance based metrics. After Program Implementation begins, the City may terminate the agreement for convenience but must reimburse the P3 vendor for all incurred costs plus reasonable fees as determined by the contract.

II. Joint Purchasing Agreement

Faced with a 10-year goal to replace all LSLs, many water utilities are likely to arrange their own contracts. While this maximizes control, it may not be the most efficient, as the bid price typically reflects the amount of work offered. Contract bundling, implemented on a permissive basis across a region, could lower prices as contractors sharpen their bids to gain access to a larger pool of work.

New Jersey state law does not authorize traditional cooperative purchasing agreements for "public works" (i.e., construction) projects, but rather limits them to the purchase of goods and services. However, several joint purchasing agreements do exist in which localities aggregate their requests for similar work. This approach could be particularly attractive to small- and medium-sized water systems that have a small number of LSLs to replace. In such cases, construction work would be awarded to the lowest responsible bidder, in accordance with state procurement regulations.

Example: Morris County Cooperative Pricing Council

Since its founding in 1974, the Morris County Cooperative Pricing Council (MCCPC) has grown from four municipalities to over 200 government entities across eight counties,[1] including municipalities, counties, police departments, school districts, housing authorities, and utilities. By combining their purchasing power, agencies receive discounts on goods and services and have been able to save an estimated $18 million to date. The agreement currently consists of 58 contracts, and while most of them involve "goods and services," the list does include some public works tasks, such as road resurfacing, that seem analogous to LSL replacement. (Technically, the MCCPC is a cooperative pricing system and not a joint purchasing cooperative, meaning that the lead agency establishes the pricing on behalf of member agencies. Nonetheless, it is an example of how local units can work together to obtain more advantageous pricing.)

Envisioning Joint Purchasing Agreements for LSL Replacement in NJ

While these agreements may be written in multiple ways, the scope of a "master joint purchasing agreement" for public works contracts cannot be indeterminate. The projected amount of work (e.g., number of LSLs) must be quantified. For LSL replacement, the bids under a master construction contract would focus only on the replacement of the service lines and site restoration. Ancillary services, such as road permits, police oversight, or traffic flagging, would typically vary by town and should be defined as pass-through items.

In many joint purchasing systems, one locality or water system (i.e., often the largest in a region) agrees to lead the effort, providing the administrative support to prequalify contractors and to organize and evaluate the bids. This type of leadership is key to building momentum for such an effort. Historically, Randolph Township has served as the lead agency for the MCCPC, supported by a fee of $1,250 paid by each participating town (approximately $280,000 annually).

Importantly, for a jointly-issued LSL replacement contract, the construction work would be awarded to the lowest responsible bidder, but the solicitation would accumulate demand from multiple water utilities and produce a fixed price for each unit of work (i.e., cost per LSL replaced). As service line inventories are developed in response to the statutory deadlines, that data will enable water utilities to provide more specific quantity/delivery terms.

Participating contractors would abide by the usual construction-related provisions, such as
payment of prevailing wages for covered trade crafts (New Jersey State Prevailing Wage Act (N.J.S.A. 34:11-56.25 et seq.), Affirmative Action Equal Employment Opportunity (AAEEO) goals and monitoring (NJSA 10:5-31), and business registration (P.L. 2004, c.57).

Concerns

[1] Morris, Essex, Hunterdon, Passaic, Union, Sussex, Somerset, and Warren counties

Some municipalities may require the use of a local municipal engineer. This could present difficulties with other municipalities in the agreement who do not share the same engineer. Also, some contractors may also not offer their best prices since, in some cases, their administrative costs could be higher under a cooperative contract. The Department of Community Affairs' Division of Local Government Services plans to release guidance (i.e., local finance notice) on this subject. That may clarify whether additional legislative authority is required for this initiative beyond what currently supports the MCCPC.

Key References

https://www.epa.gov/G3/prince-georges-county-maryland-clean-water-partnership
https://www.ectinc.com/wp-content/uploads/2021/10/Replacing-Toxic-Lead-Water-Pipes-Faster_2021_FINAL.pdf
https://www.naspo.org/wp-content/uploads/2019/12/Cooperative_Purchasing0410update.pdf
http://www.mccpc.org/about/

About the Report

Jersey Water Works - Lead in Drinking Water Task Force

This publication was developed by Jersey Water Works' Lead in Drinking Water Task Force, and specifically its Lead Service Line Implementation Workgroup, whose mission is to identify best practices. The Workgroup, which is composed of water utility officials, consultants, and public policy advocates, is chaired by Rich Calbi, Executive Director of Ridgewood Water, and Mike Furrey, owner of Agra Environmental and Lab Services. This report, authored by Suyog Padgaonkar, Ph.D., a research intern at New Jersey Future, was reviewed by the workgroup. For more information, contact Gary Brune, Senior Policy Advisor, gbrune@njfuture.org.

About Jersey Water Works

Jersey Water Works is working to transform New Jersey's inadequate water infrastructure through sustainable, cost-effective solutions that provide communities with clean water and waterways; healthier, safer neighborhoods; local jobs; flood and climate resilience; and economic growth.

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