

A GUIDE TO UNDERSTANDING AND EVALUATING

Infrastructure Public-Private Partnerships in the Water Sector

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In 2017, the American Society of Civil Engineers (ASCE) gave the country's drinking water systems a grade of "D." Many of the millions of pipes that deliver water to households, factories, and commercial buildings were laid in the early 20th century with a lifespan of 75 to 100 years, meaning that many are at the end of their useful life. There are an estimated 240,000 water main breaks in the United States each year, wasting more than two trillion gallons of treated drinking water annually. Moreover, some pipes in older cities and homes contain lead, which can leach into water, causing serious health problems. The American Water Works Association estimates that \$1 trillion over the next 25 years is needed to maintain and expand service to meet the country's water needs.¹

To help fill the funding gap, some local governments and public water authorities are looking at public-private partnerships (also known as "P3s") that use private capital to finance public projects. But inserting private interests into the development and maintenance of public infrastructure has proven to be difficult and even counterproductive when equity considerations and standards aren't included and adequate care isn't taken to protect the public interest.

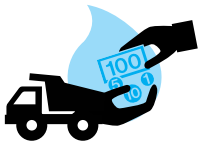
This guide aims to help advocates, policymakers, and other stakeholders better understand and analyze water infrastructure project proposals, contracts, and related legislation. We describe critical issues and include a list of key questions stakeholders can raise to ensure that a given project advances the public good. While this is not an exhaustive list of questions, it provides a useful framework to examine P3s in the water sector.

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WHAT ARE PUBLIC-PRIVATE PARTNERSHIPS?

"Public-private partnership" or "P3" is an imprecise term used to refer to different types of contractual arrangements between a governmental entity and a private entity. In the water sector, P3 typically refers to one of the following deal structures listed below. Note that both types of contracts can last decades, typically anywhere from 30 to 50 years.



Greenfield P3: This is an agreement where the private entity agrees to design, build, finance, operate, and/or maintain a new water system in exchange for the right to collect revenues. A governmental entity can also pay the private entity regular payments called "availability payments" instead of or in combination with the water system revenues.




Long-term concession lease agreement: This is an agreement in which a private entity takes over the operations and maintenance of an existing water system and receives the right to collect revenues associated with the water system in exchange for an upfront fee to the governmental entity.

¹ American Society of Civil Engineers, "Drinking Water: 6 billion gallons of treated water lost every day," <https://www.infrastructurereportcard.org/wp-content/uploads/2017/01/Drinking-Water-Final.pdf>


RISKS OF P3S IN THE WATER SECTOR

While P3s have received much attention as a way to combat our country's infrastructure woes, they are no panacea. A closer examination raises issues that warrant careful consideration for decision makers looking to undertake a P3.


Loss of public control over policy planning decisions

 Many P3 contracts include "non-compete" and "compensation" clauses that limit or eliminate the public's ability to make critical decisions necessary to improve communities, address inequalities, and tackle climate change. These perverse contract clauses limiting the government's ability to make policy and planning decisions often last for decades due to the long length of P3 contracts, while guaranteeing corporate profits by insulating the company from many revenue risks. For example, water P3 contracts may specify a minimum number of gallons that the company will charge for, regardless of how much water the community actually uses, disincentivizing the enactment of important potential water conservation policies.


Profitable projects drive decisions about what gets built

 Private investors naturally demand rates of return that need a profitable revenue stream. In the water sector, these are projects that generate a profitable level of revenues through ratepayers. Simply put, the private sector cannot be relied upon to provide investment for the many critical infrastructure needs that are not profitable, such as smaller projects, repair projects, or projects in rural areas. For example, aging lead pipes in need of replacement are much more common in the lowest-income cities.² Replacement and repair projects, which comprise the vast majority of the country's critical infrastructure projects,³ don't attract private investors. But neglecting these projects can have profound negative consequences, as evidenced in the recent water crisis in Flint, Michigan. Moreover, P3s can lock public funds into profitable projects, rather than needed projects, meaning that a shift towards P3s in Michigan could reduce the availability of public funds to repair water pipes in Flint.

Limited access and affordability

 P3 contracts often raise a water system's user fee rates and make progressive affordability schemes more difficult to create. In practice, privatized projects have resulted in much higher costs for residents, becoming increasingly unaffordable for low-income people and thus reducing equitable access to this critical public asset. In 2015, Food and Water Watch surveyed the 500 largest water systems in the U.S. and found that, on average, private, for-profit utilities charged typical households 59 percent more than local governments charged for drinking water service.⁴

Cutting corners

 In an effort to contain costs and maximize profits, private entities may skimp on quality, number or workers, workers' wages, and other important inputs. For example, Atlanta, Georgia, signed an agreement with United Water in 1999 to operate and maintain the city's water system. Upon taking over the system, the company cut the number of employees almost by 50 percent, while also decreasing the amount of training provided to remaining employees.⁵ Service quality declined as the system became inundated with frequent breakdowns, including an epidemic of water main breaks and occasional "boil only" alerts.⁶ The number of work orders and maintenance requests significantly increased in most parts of the system, and United Water

² Elizabeth McNichol, "It's Time for States to Invest in Infrastructure," Center for Budget and Policy Priorities, February 23, 2016. <http://www.cbpp.org/research/state-budget-and-tax/its-time-for-states-to-invest-in-infrastructure>

³ Kevin DeGood, "How Donald Trump's Infrastructure Plan Fails America," Center for American Progress, December 1, 2016. <https://www.americanprogress.org/issues/economy/reports/2016/12/01/293948/how-donald-trumps-infrastructure-plan-fails-america/>

⁴ Food and Water Watch, "The State of Public Water in the United States," February 2016. http://www.foodandwaterwatch.org/sites/default/files/report_state_of_public_water.pdf

⁵ Public Citizen, "The water privatization 'model,'" 2003, <https://www.citizen.org/sites/default/files/atlantafiasco.pdf>

⁶ Douglas Jehl, "As Cities Move to Privatize Water, Atlanta Steps Back," The New York Times, February 10, 2013. <https://www.nytimes.com/2003/02/10/us/as-cities-move-to-privatizewater-atlanta-steps-back.html>

failed to respond to these problems in a timely manner.⁷ In turn, the company complained that the system was in further disrepair than they originally understood and that it lost at least \$10 million annually. In 2003, both parties walked away from the contract.⁸

Reduced labor standards



Reduced cost savings often derive, at least in part, from reduced wages and benefits for workers who build infrastructure and workers who operate and maintain public assets. In a full privatization P3, permanent operations and maintenance workers are private sector workers with lower wages and reduced health and pension benefits.

Loss of transparency and public input



Many P3 projects are marked by scant transparency and proceed with little or no opportunities for public input, including from the communities most impacted by the new infrastructure.

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WHAT ISSUES DO P3S RAISE?

Below is a list of questions that identify key issues in proposed water system privatization deals. This is not a complete and exhaustive list but a framework for evaluating privatization proposals.



CURRENT STATE OF THE WATER SYSTEM, CURRENT AND FUTURE NEEDS AND ISSUES

- ▶ How does the water system currently meet community needs?
- ▶ Are there problems with the water system? Has there been a thorough analysis of these issues, including causes and possible solutions? Potential issues include:
 - Are there maintenance needs and/or needed additions to the system?
 - Is the system affordable to residents and other users?
 - Does the system provide healthy water without the presence of dangerous toxins that can endanger human health, such as lead or copper?
 - Is the system resilient to changing climate and other changing environmental conditions?
 - Does the system promote water conservation and sustainability?
 - What is the demographic make-up of the workforce that staffs the water system? For example, is the workforce aging? Does the workforce represent the diversity of the community?
- ▶ What problem(s) does the proposed privatization seek to solve? Has there been an analysis of how the existing public water system can address these problems without privatization?

⁷ Public Citizen, "The water privatization 'model' 2003, <https://www.citizen.org/sites/default/files/atlantafiasco.pdf>

⁸ Douglas Jehl, "As Cities Move to Privatize Water, Atlanta Steps Back," The New York Times, February 10, 2013. <https://www.nytimes.com/2003/02/10/us/as-cities-move-to-privatizewater-atlanta-steps-back.html>



CURRENT AND POTENTIAL FUNDING AND FINANCING

- ▶ Are water rates adequate to pay for system maintenance? How have water rates changed over time? If not, is it feasible (in terms of affordability to residents, politically, regulatorily, etc.) to increase water rates?
- ▶ Is there an analysis to understand what level water rates would need to be to meet capital needs?
- ▶ Is there a thorough understanding of the governmental entity's financial position and ability to take on new debt via municipal bonding, given the entity's current bond rating and current debt load? Are there problems with the governmental entity accessing tax-free municipal bonds as a source of financing for the proposed project? Tax-free municipal bonds are a much cheaper source of financing than private equity financing, which can have an interest rate three to five times higher.
- ▶ What other governmental funding and financing streams can be used to meet capital needs?
- ▶ Does the private entity have the financial capability to adequately maintain the system and/or finance necessary improvements?



TO P3 OR NOT TO P3: COMPARING OPTIONS AND CONTRACTUAL CONSIDERATIONS

- ▶ Has there been an analysis of the costs of public operation? In other words, has the governmental entity prepared an economic analysis describing potential revenues and expenses if the asset remained in public hands? This analysis should account for any anticipated improvements to the public system that would increase efficiencies, etc.
- ▶ If the proposal includes the privatization of the existing water system, has the governmental entity performed or contracted for a valuation of the asset? If so, how was the valuation determined and what methodology was used? The methodology can dramatically increase or decrease the valuation range. It may be necessary to get outside expertise to review the valuation and methodology, including the assumptions used and details of the calculations.
- ▶ If the governmental entity is considering a P3 for new construction related to the water system (such as a new water treatment center), has the governmental entity performed or contracted for an analysis of various procurement options? In Design-Build-Finance-Operate-Maintain (DBFOM) projects, governmental entities rely on a Value for Money (VfM) analysis to compare lifecycle costs of designing, building, financing, operating, and maintaining an asset when using various procurement methods. A VfM analysis typically compares traditional procurement such as Design-Bid-Build (DBB) or Design-Build (DB) to a procurement approach with greater private sector involvement, such as a DBFOM.
- ▶ What are the specific assumptions in the VfM regarding cost savings and could they impact quality of service, workforce compensation, or inhibit public policy options? Methodology can dramatically alter the results of the VfM analysis. It may be necessary to get outside expertise to review the VfM analysis, including the assumptions used, identified risk factors, and calculation details.
- ▶ If the governmental entity must use private equity financing, has it considered the option of using direct public employees for some or all of the maintenance and operation of the asset instead of outsourcing these functions as part of the contract?
- ▶ Does any cost analysis/comparison consider non-financial public interest criteria including social and economic impacts; affordability and accessibility of the infrastructure to low-income communities; job quality; environmental impacts; and accountability and transparency measures?



IMPACTS ON THE GOVERNMENT'S BUDGET

- ▶ How will the governmental entity compensate the private entity in the proposed P3? Will the private entity have rights to the payments from utility rate payers? Will the governmental entity provide regular payments to the private entity? Will there be other payment mechanisms and/or a hybrid approach of more than one compensation scheme?
- ▶ What are the implications of the compensation schemes to the governmental entity's budget?
- ▶ What are the transaction costs that the governmental entity will incur with a P3 approach, such as costs associated with the procurement process and oversight of the contractor for the life of the contract? Are these costs accounted for in the cost comparison/analysis?
- ▶ Will the governmental entity incur hidden costs with a P3 approach? For example, private sector jobs associated with the privatized system that pay low wages or fail to provide health insurance benefits may result in an increase to another part of a governmental entity's budget, as the need for social safety net services will increase.
- ▶ Does the existing water asset currently provide revenue to the governmental entity? If the asset currently provides net revenue to the budget, how will that revenue be replaced?
- ▶ If a lease/sale of an existing water system requires investors to make a large upfront payment to the governmental entity, are there budget restrictions that prevent the funds from being used too quickly?
- ▶ How will the proposed privatization deal impact the governmental entity's bond rating? Are there risk factors associated with the deal that could impact the future cost of borrowing?



LEGAL, REGULATORY, AND EXISTING CONTRACTUAL CONSIDERATIONS

- ▶ Are there existing state laws that apply to privatization or P3s and must be taken into account?
- ▶ How will the Public Utility Commission (PUC) regulate a proposed privatized water system? What are the potential operational and financial impacts of this regulation?
- ▶ Are there local, state, or federal regulations or programs related to the water system that could apply to or impact a potential privatized system?
- ▶ How does the proposed privatization potentially impact the governmental entity's agreements or cooperative efforts between itself and other nearby governmental entities? Are there cooperative agreements or joint environmental efforts that could be disrupted if a private entity takes over the water system?



AFFORDABILITY

- ▶ What are the potential short-term and long-term impacts on rates and other charges on rate payers with the proposed privatization scheme? Corporate profits, dividends, and income taxes can add 20 to 30 percent to operation and maintenance costs.⁹
- ▶ What are the short-term and long-term impacts on rates and other charges on rate payers if the system stays public?
- ▶ How will utility rates be determined for the life of the contract under the privatized system?

⁹ Association of Metropolitan Sewerage Agencies and Association of Metropolitan Water Agencies. "Evaluating Privatization II: An AMSA/AMWA Checklist," 2002.

- ▶ What will be the impact on the public of significant or rapid rate increases? Will rate increases affect equity of access to the asset?
- ▶ Are there water affordability schemes and/or payment forgiveness programs designed to help vulnerable or struggling rate payers who are unable to make payments? Are these programs sufficient to meet the needs of the community? Will these programs exist under a privatized system? How will they be made known to the community?



DEMOCRATIC CONTROL AND INCENTIVES

- ▶ Does the contract contain clauses that could run counter to future public planning and policy decisions? For example, does the contract require the governmental entity to pay for a minimum number of gallons of water, regardless of actual usage?
- ▶ How long is the contract? Many of these contracts can last for decades.
- ▶ Does the contract include termination and “buy-back” clauses, which lay out how the governmental entity can take back the water system? If the contract is for the sale/lease of an existing water system, does the contract specify how the amount the municipality would pay to buy back the water system will be calculated?



CONTRACTING STANDARDS, OVERSIGHT, AND MONITORING, AND AGENCY CAPACITY

Agency Capacity

- ▶ Does the governmental entity have the necessary experienced staff to negotiate a good deal for the public?
- ▶ Does the governmental entity have the necessary and experienced staff to ensure that outside analyses performed by consultants are fair and sound?

Consultants

- ▶ Will the governmental entity hire consultants to assist with parts of the deal?
- ▶ How are contracts with consultants, lawyers, and other third parties structured? Do they collect fees for services rendered or for successful completion of deals, regardless of the outcome for the governmental entity?
- ▶ Do the consultants, lawyers, or other third parties have any conflicts of interest? What is their track record and background with these types of contracts?
- ▶ Have the private contractors, investors, or consultants made campaign contributions to relevant decision makers?

Contract Standards

- ▶ Does the contract contain specific operations and maintenance standards, including a hand-back provision that specifies the minimum condition for the water system when it is returned to the public at the end of the contract term?
- ▶ Does the contract include performance standards that ensure a high-quality water system meeting the needs of the community?
- ▶ Does the contract include provisions related to default and bankruptcy of a private contractor to protect the public if the project or a private entity financially fails?

Oversight and Accountability

- ▶ Does the contract contain robust oversight provisions, including establishing regular reporting requirements and rights of the governmental entity to inspect and audit the water system?
- ▶ Does the governmental entity have a sufficient number of well-trained staff to oversee and monitor the contract for the life of the contract?
- ▶ What rights does the governmental entity have to review and restrict refinancing, or sale of interest, by the private entity?



PUBLIC PARTICIPATION

- ▶ Does the contract contain appropriate and accessible mechanisms for the public and utility rate payers to provide feedback and comments on operation of the water system for the life of the contract?
- ▶ Are there adequate and meaningful forums for public input during the initial proposal stage and any subsequent procurement, such as public hearings or public comment periods?
- ▶ Do the public and legislative or other decision-making bodies have access to the information they need to evaluate the privatization proposal?



ENVIRONMENTAL HEALTH AND SUSTAINABILITY

- ▶ Does the contract include environmental performance standards that specify outcomes that the project must achieve?
- ▶ Does the contract contain provisions that encourage or discourage conservation and environmental resilience measures?



WORKFORCE BENEFITS AND STANDARDS

- ▶ What will be the potential impacts on the existing and/or future workforce, including both the construction workforce and the long-term water system operations and maintenance workforce?
- ▶ Are the workers currently unionized and does the Collective Bargaining Agreement or government policy contain clauses that require workforce retention, retraining, or labor peace?
- ▶ If there is new construction, how many jobs will be created and what will be the wages and benefits for these jobs? For the existing water system, how will the number of jobs and compensation change once control is shifted to the private sector?
- ▶ Who will receive any new jobs? Are there opportunities for a proposed project to include policies, programs, or agreements that ensure that residents in surrounding areas, especially those in nearby low-income urban or other disadvantaged communities, are offered employment and career training opportunities?

