



# **The Role of Public-Private Partnerships in Meeting a Community's Water and Wastewater Needs – A Primer for Public Officials**

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***For:*** National Association of Water Companies

January 2015

# Introduction

This primer is designed to help public officials better understand their unique water and wastewater system needs and objectives.

After defining a public-private partnership (P3) and assessing unique needs and objectives, we consider various types of P3s and how they can meet a municipality's water and wastewater infrastructure requirements.

This presentation provides a summary of the more comprehensive white paper, which can be found at:

[www.thehorinkogroup.org/reports/](http://www.thehorinkogroup.org/reports/)

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# Public-Private Partnerships (P3): Background

**A P3 is** a contractual arrangement between the public and private sector, sharing skills, assets, risks, and rewards, to jointly deliver a service or a project.

- Public sector can hire one or more private firms to provide various functions, including operations and maintenance for an existing facility/system or expanding its footprint through new infrastructure construction.

**Infrastructure remains under public ownership and control;** assets are not sold.

**P3s offer local governments** a mechanism to:

- Access industry-wide best practices for utility operations and construction
- Employ private sector resources (e.g. technical, operational, managerial expertise)
- Access private financial capital for infrastructure requirements (e.g. repairs, maintenance, upgrades, expansions)
- Transfer various risks (e.g. financial, technological, regulatory)

# Public-Private Partnerships (P3): Background

Today, by contract **private firms operate more than 2,000** publicly owned water and wastewater facilities or systems in the United States.

**Many local governments express satisfaction** with their water and wastewater P3s.

- Private sector firms gained contractual renewals in nearly 92 percent of the contracts out for bid and reported during the past decade (2004-2013). Only about 3 percent reverted to municipal operation.<sup>1</sup>

**A wide variety of P3 models exist**, aligning municipal needs to private sector capabilities.

<sup>1</sup>Leonard Gilroy, *Annual Privatization Report 2014: Local Government Privatization*, June 2014, 20-21 (Table 2: Contract Renewals and Lost Government Contracts, 2004-2013). During the period 2004-2013, 4.7 percent of contracts fell into an "Other" category

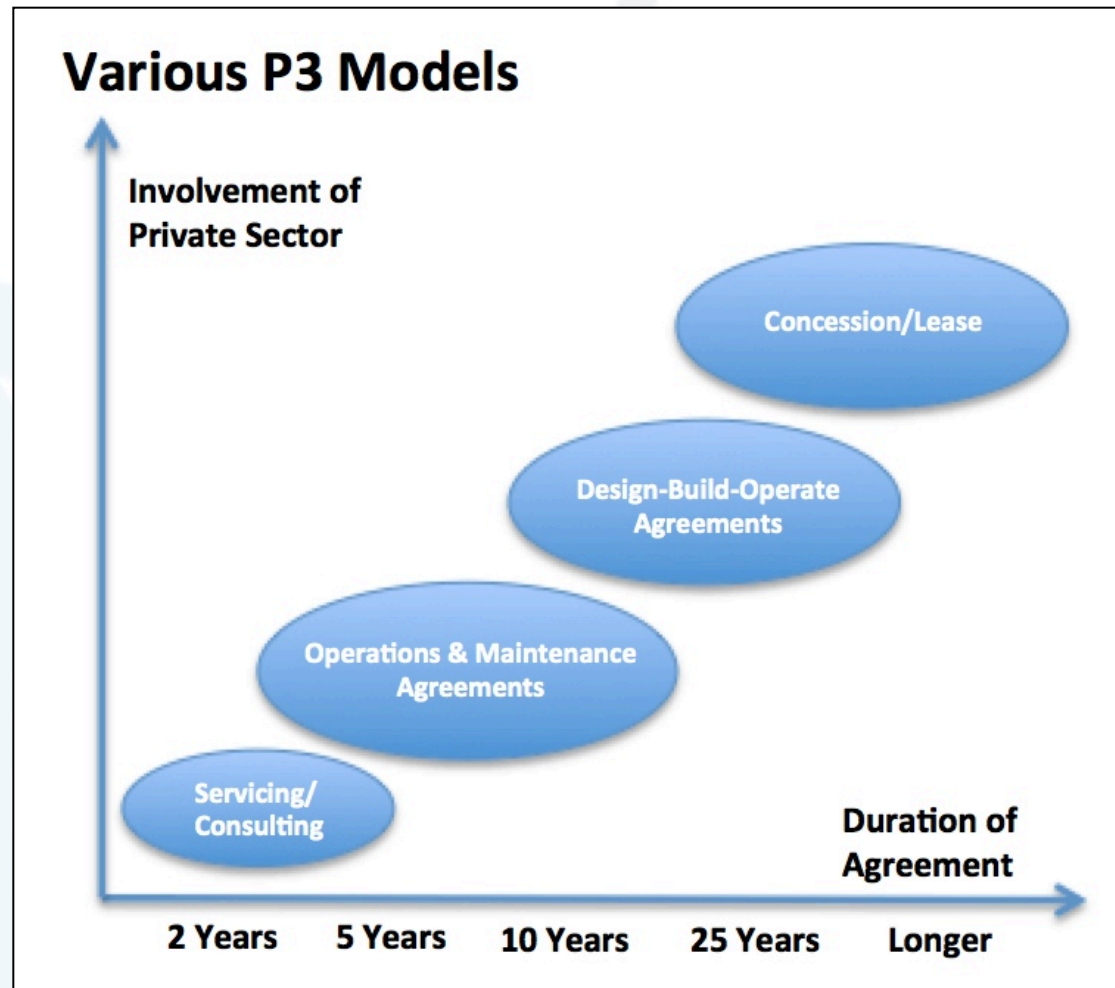
# Public-Private Partnerships (P3): Background

For **existing** water infrastructure:

- Servicing/Consulting Arrangements
- Operations & Maintenance Agreements
- Concession/Lease Agreements

For **new** infrastructure construction:

- Design-Build-Operate Agreements



# Assessing a Community's Unique Water & Wastewater Needs and Objectives

**In contemplating a P3**, public officials must first understand the problem they are trying to solve. For example:

- Is it maintaining, upgrading, or expanding a community's water infrastructure?
- Is a community's water system underfunded and/or facing operational difficulties?
- Do the public officials want to transfer various risks to the private sector?

In considering the **best type of P3 for a community**, it is useful to differentiate between:

- Maintaining or upgrading **existing infrastructure**; or,
- Expanding infrastructure through **new construction**.

# Maintaining or Upgrading Existing Infrastructure

**An existing facility or system** may face three needs:

- **Operational** questions involve the need for managerial and professional expertise, as well as personnel issues.
- **Financial** questions center on the need for additional capital, now and over the long-term for infrastructure improvements.
- **Risk-Related** questions encompass the need to address future risks including:
  - Financial Liabilities
  - Operations & Maintenance
  - Asset Condition & Upgrading
  - Technology Implementation
  - Environmental Regulations
  - Staff Retention & Recruitment



## Types of P3s: Maintaining or Upgrading Existing Infrastructure

If a community's requirements focus on **maintaining or upgrading its existing infrastructure**, three types of P3s merit consideration:

- ↳ ***Servicing/Consulting Arrangements***
- ↳ ***Operations & Maintenance Agreements***
- ↳ ***Concession/Lease Agreements***

# Types of P3s: Maintaining or Upgrading Existing Infrastructure

## 1. Servicing / Consulting Arrangements

Private entity provides ancillary, non-core functions including:

- *Billing, collections, vehicle maintenance, meter reading, leak detection, laboratory services, security, or public relations.*

Firms operating on a regional or national basis, take advantage of economies of scale and advanced technologies, while P3 contracts specify and regulate service performance.

# Types of P3s: Maintaining or Upgrading Existing Infrastructure

## 1. Servicing / Consulting Arrangements

Private entity provides consulting services including:

- *Independent review and advice on technical, operational, and financial matters, in addition to human resource capabilities.*

Firms operating multiple facilities of different sizes and in various geographical locations can impart industry-wide insights and expertise while working alongside local employees knowledgeable about the facility or system.

# Types of P3s: Maintaining or Upgrading Existing Infrastructure

## 2. Operations & Maintenance (O&M) Agreements

Two types of O&M agreements shift more responsibilities to the private entity for day-to-day operations of the facility or system:

- **Short-term:** *less than 10 years; focus on operational benefits:*
  - Wide-scale managerial & professional expertise
  - Enhanced asset management, preventative maintenance, and life cycle cost programs
  - Bears the risk for complying with increasingly stringent environmental regulations
  - Improved operations through advanced technologies (e.g. metering techniques, leak detection), streamlined procurement, customer service integration, and workforce development
  - Increased input efficiencies for energy and chemical costs by leveraging economies of scale
- **Long-term:** *up to 20 years; may include a financial element:*
  - IRS Procedure 97-13 facilitates longer-term P3s without resulting in disadvantageous income tax treatment for tax-exempt debt
  - Agreement sets or locality regulates rates charged
  - May contractually require minimum capital improvements
  - Longer agreement term attracts private capital investment and provides private entity time to recoup its capital investment in infrastructure repair and replacement

## Types of P3s: Maintaining or Upgrading Existing Infrastructure

### 3. Concession/Lease Agreement






Private entity enters into Concession with term in excess of 20 years (usually 30 years or longer):

- *Responsible for all water system operations and for providing specified amounts of financial capital for infrastructure operations, maintenance, and upgrades costs*
- *Provides an upfront payment to the public sector and during the term of the agreement*
- *Transfers specified risks from the public to the private sector, thus, meeting a community's operational, financial, and risk-related objectives*
- *Adheres to strict operating and technical standards, while agreements typically contain extensive default, remedial, and termination provisions*
- *Public authority continues to retain legal ownership of the assets and contractual oversight of the private partner*

Offers many benefits to debt constrained communities, accessing private sector capital, and thereby, preventing additional long-term indebtedness.

# Expanding Infrastructure through New Construction

**New infrastructure** needs and objectives include:

-  ***Funding Availability***
-  ***Design Innovations***
-  ***Enhanced Delivery and Construction Efficiencies***
-  ***Cost, Schedule, and Performance Guarantees***
-  ***Risk-Related***

## Types of P3s: Expanding Infrastructure through New Construction

If a community's needs and objectives focus on **major footprint expansion or new construction**, it may want to consider another type of P3 arrangement:

### ***Design-Build-Operate (DBO) Agreement***

- DBO agreements provide an alternative approach from the conventional, non-integrated Design-Bid-Build procurement with municipal operations and maintenance.

# Types of P3s: Expanding Infrastructure through New Construction

## **DBO Agreement**

Private entity, typically a consortium of firms, takes responsibility to:

- *Design a facility or system, followed by construction with completed infrastructure delivered to the public agency on a specified date and at a guaranteed cost;*
- *Operate and maintain the infrastructure, which the community owns, during the contract term and assume the full range of operational responsibilities and specified risks; and,*
- *Typically provide or secure working capital for infrastructure operation, maintenance, and even future upgrades; rates are set as part of the contract, and the asset is returned to the public sector-owner at the end of the contract term.*



## Types of P3s: Expanding Infrastructure through New Construction

**DBO model** has several advantages that merit consideration:

- *Public sector can take advantage of design innovations flowing from private sector expertise;*
- *Streamlines project schedule and reduces costs by eliminating non-integrated, separate selection processes for engineering, construction, procurement, and operating services;*
- *Private entity agrees to cost, schedule, and performance guarantees, and the infrastructure will be maintained, repaired, and replaced according to specified standards, providing long-term value to the public sector;*
- *Private sector assumes financial responsibility for project completion, including all design and construction risks, such as delays and cost overruns; and,*
- *During the operation and maintenance phase, the P3 transfers various risks (e.g. financial, technological, and regulatory) from the public to the private sector.*

# Selecting the Best Path Forward

Because a P3 is not ideal for all situations, public officials must analyze options and resulting trade-offs:

## **Increasing a system's cash flow**

- *Raise water rates, but politically challenging*
- *Defer maintenance, but exacerbates asset's deterioration*
- *Streamline procurement of goods and services, purchase in bulk, and access to enhanced information, but must overcome status quo decision-making and resistance to change*

## **Borrow funds to raise capital**

- *Borrow from State Revolving Funds, but only generate limited capital*
- *Float tax-free bonds to solve capital requirements, but continued public operation means all risks (e.g. operational, financial, regulatory) remain with public sector*

## **Conduct Value for Money Analysis**

- *Compares life cycle costs of traditional project delivery vs. P3 arrangement*
- *Side-by-side comparison to better comprehend costs and saving associated with each delivery method*

# Suggestions for Implementing a Successful P3

Three elements underpin **a successful P3**:

## **1. Criteria for selecting the winning bidder**

- Unless required by law, public sector ought to award a contract on overall best-value-basis, not on price alone (i.e. low-bid).
- Best-value approach includes a private partner's successful operating history of other systems, an analysis of the contractor's financial strength and technical expertise, as well as monetary considerations.

## **2. Careful contractual structuring and drafting**

- P3 agreement should control rate increases, protect existing employees, and safeguard against service declines and public health concerns.
- Contract should clearly state objective performance standards with respect to operations, maintenance, and safety, and clearly describe division of responsibilities and risks between public and private sectors.

# Suggestions for Implementing a Successful P3

Three elements underpin **a successful P3**:

## **3. Continual monitoring and oversight**

- *P3 agreement should contain periodic reporting and monitoring provisions; various monitoring techniques include inspections, reports, public complaints, and an assessment of meeting performance standards.*
- *Consumer involvement (specifically customer complaints) provides monitoring information and serves as an oversight mechanism.*

Engaging an experienced professional engineering, financial, and legal team can build a community's capacity for entering into a successful P3; experts advise on bidding process, perform due diligence investigating bidder's financial capacity, operational success, and environmental compliance history, and help with contract negotiations and drafting.

# Conclusion

**Although not suitable for all situations,** a P3 can reposition a community to better meet its needs and protect past investments in its water and wastewater system.

**P3s offer a viable way** for the public sector to take advantage of the private sector's expertise, financial capital, and appetite for risk.

**A successful P3 rests on** consistent, ongoing oversight and monitoring of the agreement by the public sector.

**Transparency and community involvement** is critical to building awareness and support for a project.

## More Information

**For more information on this topic**, a comprehensive white paper can be downloaded at:

[www.thehorinkogroup.org/reports/](http://www.thehorinkogroup.org/reports/)

# About

**The Horinko Group** (THG) is an environmental and business development consulting firm operating at the intersection of policy, science, and communications. Founded in 2008, THG has established itself as an innovator and a trusted, third party convener. The firm has a proven track record of addressing complex natural resource challenges, while meeting the needs of the broader community. More Information: [www.thehorinkogroup.org](http://www.thehorinkogroup.org)

**The National Association of Water Companies** (NACW) is the voice of the private water industry, including the regulated drinking and waste water utilities. NAWC proudly represent this group of quality water service providers, innovation drivers, creative financiers and responsible partners. NAWC serves as a credible resource for safe and high-quality drinking water services. The association actively engages with municipal leaders and their communities, including educators, elected officials, regulators and other water industry experts. More Information: [www.nawc.org](http://www.nawc.org)