

A black and white photograph of water splashing, with many droplets in motion, creating a dynamic and textured background. A bright yellow trapezoidal shape is overlaid on the right side of the image, containing the text.

The potential role for P3s in water infrastructure investment

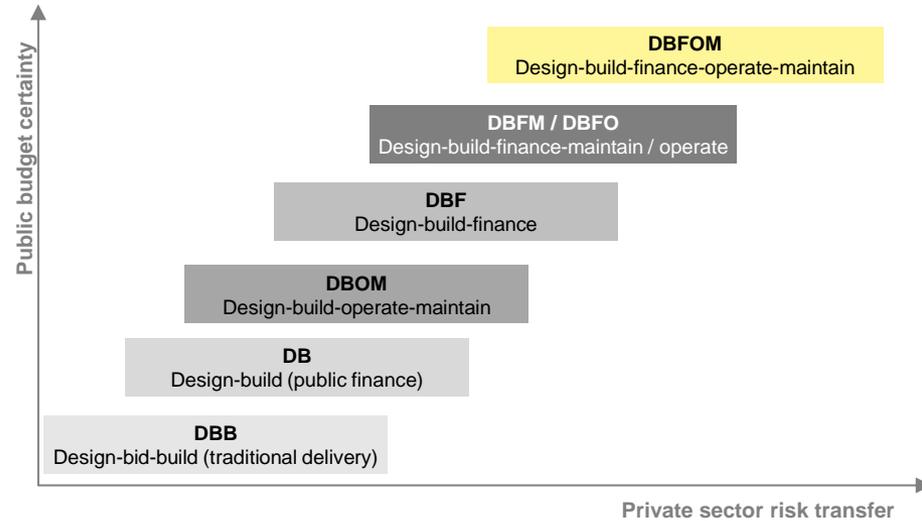
**WWEMA – 45th Washington Forum
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1 What are P3s?

Water infrastructure delivery model definitions

<p>Traditional delivery</p>	<p>Often referred to as “design-bid-build”, it typically involves the sequential and discrete procurement of services to develop and construct an asset, with the majority of risks associated with the delivery and operation of the asset retained by the public sector.</p>
<p>Public-private partnership (P3)</p>	<p>As a form of alternative delivery, P3s are “performance-based” contracts that allocate risks to the party best suited to manage them, and link the financial outcomes of a single counterparty to contractual performance specifications.</p>

P3s can encompass a range of contracting models that represent different degrees of risk transfer and public budget certainty



- P3s are **not a form of privatization** —the public sector maintains ownership of the land and retains the residual interest in the asset
- P3s are **not appropriate for every project** – suitability will depend on factors such as project scale, capital intensity, technological complexity and revenue risk
- P3s do **not represent new sources revenue** — any element of private financing must be repaid via a credible revenue source(s)
- P3s can involve **hybrid structures** comprising both public and private sources of financing
- Credit considerations** for traditional public financing remain relevant for P3 financing
- P3s typically **transfer a substantial degree of risk** associated with the design, construction, operation and performance of the asset to the private sector, reinforced by an element of private capital

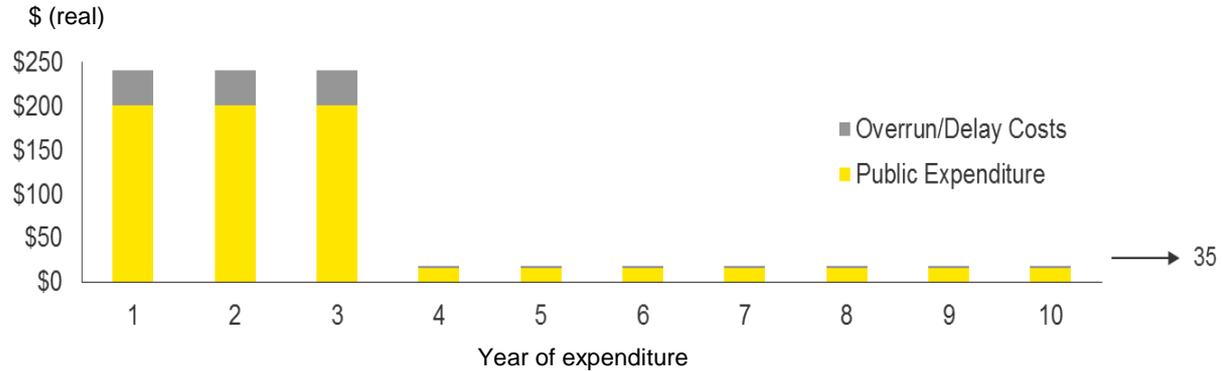
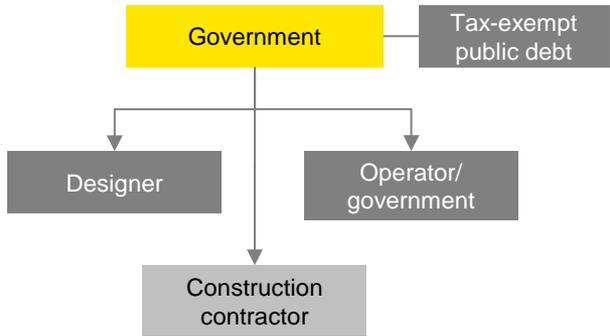
P3s rely on some form of ongoing payment to the private partner, which can be structured in various ways (including hybrid models):

- ▶ **Standard user fee** — service provider sets and collects fees from consumers and bears all demand and revenue risk
- ▶ **Availability payment** — public sponsor makes fixed recurring payments to the private partner provided the asset(s) meet contracted quality and performance standards
- ▶ **Revenue sharing** — revenues are shared between the public and private entity based on contractually predetermined formulae
- ▶ **Fixed rate of return** — places a limit directly on private partner investment return with potential price adjustments to reflect changes in cost and demand
- ▶ **Profit sharing** — private service provider required to share profits with public sponsor in exchange for downside protection

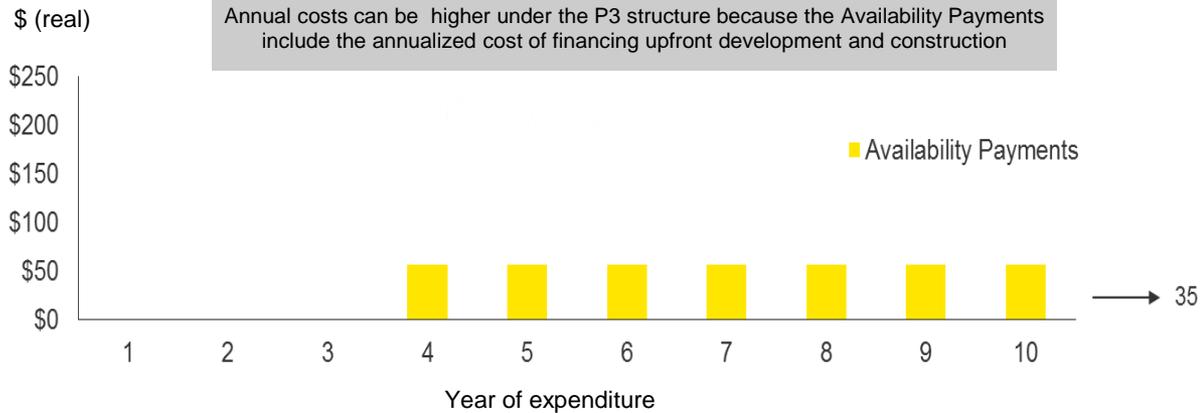
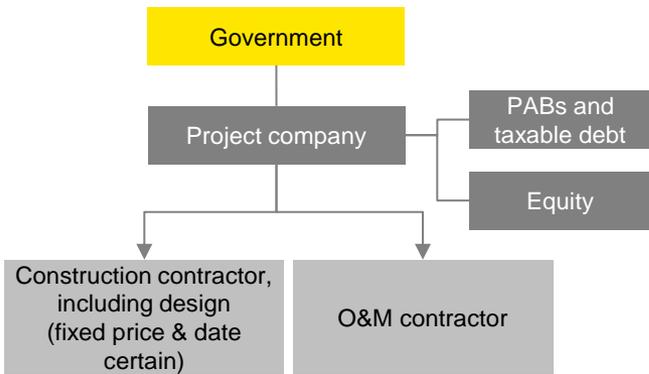


1 What are P3s? (cont'd)

Traditional delivery



P3 (DBFOM)



2 Where are water P3s most likely to be used?

P3 structures can provide numerous benefits to public sponsors, including:

- 1) Outsourcing delivery of capital intensive or technically complex project(s) to resourced and experienced counterparties
- 2) Ability to shift long-term design, build, systems, integration, maintenance and operations risk to a private party by contractually connecting payment and performance
- 3) Ability to capture the benefits of technological innovation and/or operational efficiencies
- 4) New sources of capital that enable projects to be delivered earlier than they might otherwise be
- 5) Potential for reduced capital costs due to project acceleration facilitated by more efficient design-build contracting
- 6) Improved cost, schedule and outcome certainty
- 7) Whole-life asset management
- 8) Private sector motivation/incentives to minimize cost across each phase of the project
- 9) Ability to secure capital receipts through existing asset monetization/concession arrangements
- 10) Reduction in risks associated with deferred maintenance and the siphoning of resources for other municipal needs

These benefits are particularly relevant in the context of the US water infrastructure market:

Increasing technological sophistication in water reuse and recycling, wastewater treatment, bio-solids management and desalination is yielding a greater need for capital and the transfer of design and construction risk

Water projects are often more **operationally dynamic** than many other types of infrastructure, introducing a higher degree of operating and performance risk

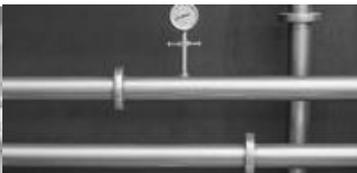
Potentially high **cost of underperformance** or failed operations given the criticality of reliable water supply

Potential socioeconomic cost of **changing weather** patterns puts greater focus on the accelerated delivery of **resilience-based** water projects

Utility rate sensitivity across a broad spectrum of users heightens the needs for incentives to drive cost and operational efficiencies

As typically **very long-life assets**, water infrastructure could benefit significantly from a more effective whole-life asset management approach

Aging assets, deferred maintenance and essential capital expenditure in the context of **limited capital and human resource availability**



2 Where are water P3s most likely to be (used)?

1) **Bioenergy projects:** AD / hydrolysis / gasification projects where public sector does not have the skillset to capture energy opportunities and value from comingling food waste and bio solids and marketing RINs [or where seeking to transfer risk for disposal of Class A bio solids].

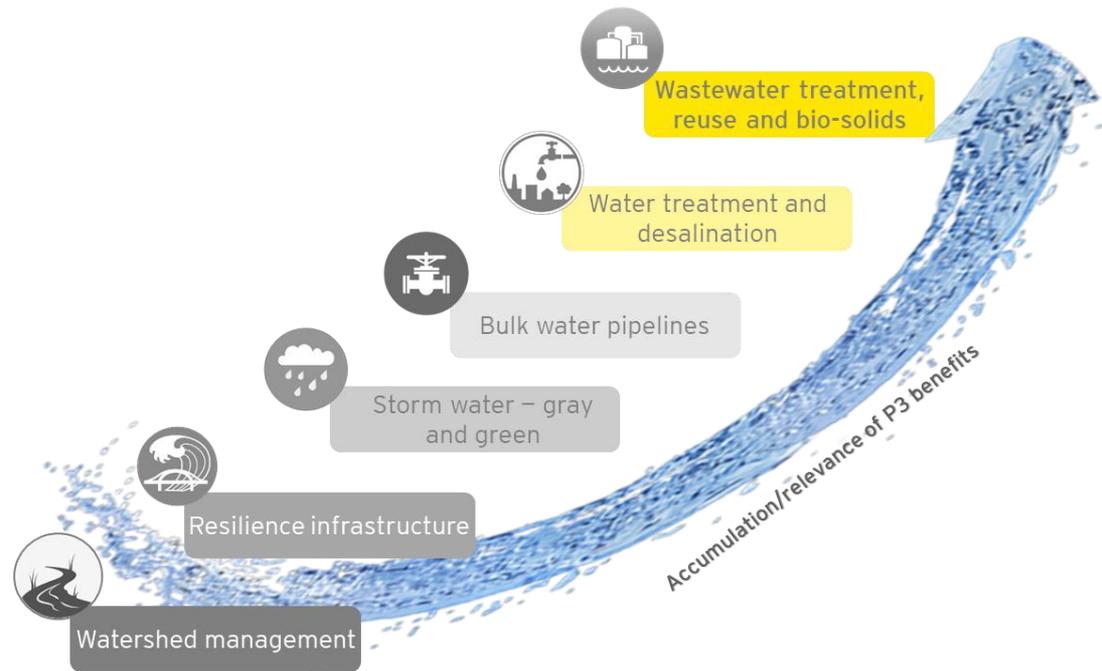
Mooted examples: City of San Diego / Central Contra Costa / Miami Dade County, Camden County

2) **Advanced wastewater treatment:** IDPR / water recycling projects for public sector water wholesalers and city utilities where construction and technology risks are greater than those the public sector is comfortable with using traditional models.

Examples: Santa Clara Valley Water District, Santa Paula Water Recycling Facility

3) **Desalination / RO projects:** Use of Independent water producer model to develop and supply potable water to districts and water authorities, while keeping technology and development risks with the private sector.

Examples: Carlsbad, Huntington Beach, Doheny Ocean Desal, Deepwater



4) **System concessions:** Transfer of responsibility for a system to the private sector to improve performance and manage a long term capital works program.

Examples: Rialto, Bayonne, Middletown, Allentown



3 How can P3s be implemented successfully?



What can **Governor's offices** do to help bring forward more water infrastructure P3s?

1 Establish whether there is a role for the Governor's office in helping to establish a State-specific water infrastructure strategy

- ▶ Where absent, lead or support other agencies in developing a State-wide water plan that considers both current and potential projects based on identified needs

2 Identify priority projects of scale that may be "P3-able"

- ▶ Assess potential for P3 delivery (not all projects will be suitable)

3 Enhance the environment in which P3 projects can be successfully delivered

- ▶ Identify the barriers or gaps to achieving the P3 success factors
- ▶ Provide direct or indirect support to address these

Ensuring the State has been able to identify and articulate its strategic priorities will be key to bringing forward relevant and robust water infrastructure projects, regardless of whether these are ultimately delivered under a P3 structure



What can **Governor's offices** do to help bring forward more water infrastructure P3s? *(cont'd)*

Success factor	Potential barriers to success in some States	Potential actions
Project is a priority and of sufficient scale	<ul style="list-style-type: none"> • Lack of strategic plan identifying priority water infrastructure projects • Legacy of viewing capital projects on an incremental basis • Lack of institutional, operational or financial capacity to develop and deliver large-scale water projects 	<ul style="list-style-type: none"> • To the extent not already done, help to identify strategically important projects underpinned by a specific water imperative • Challenge whether current State utilities are of sufficient scale and capacity to bring forward these projects • Proactively work with locality stakeholders to create a governance environment and delivery agency(ies) that are better equipped to bring forward large projects
Clear legislative and regulatory authority	<ul style="list-style-type: none"> • Lack of P3-enabling legislation • Absence of legislation governing the ability to enter into long-term concessions • Lack of authority to create dedicated revenue source for stormwater 	<ul style="list-style-type: none"> • Identify legal barriers to the pursuit of P3s (including concession projects) • Help to facilitate the introduction of P3-enabling legislation • Help to facilitate state law allowing for the transfer of water assets to public or private-owned utilities at a fair market value • Consider state law enabling local jurisdictions to charge stormwater fee
Strong executive champion and political support	<ul style="list-style-type: none"> • Lack of internal project executive champion for change • Stakeholder skepticism over P3 costs and benefits • Resistance to ceding technical control over an asset to a third party 	<ul style="list-style-type: none"> • Consider establishing a P3 office to promote and support water P3s across the State • Establish a vocally supportive environment for the pursuit of P3s by pioneering local authorities • Appoint a Governor's office champion to publicly reinforce the policy context for potential P3 water projects and provide political coverage for project executives • Assist in developing and distributing educational material on alternative delivery models

What can **Governor's offices** do to help bring forward more water infrastructure P3s? *(cont'd)*

Success factor	Potential barriers to success in some States	Potential actions
Empowered and knowledgeable project team	<ul style="list-style-type: none"> Limited financial and/or legal understanding of P3 structures Limited managerial and operational resource or experience to evaluate, structure, procure and negotiate P3s Reduced willingness or ability to pay for advisors 	<ul style="list-style-type: none"> Utilize in-house and external resources to develop and disseminate educational materials and guidance on leading practice in developing and delivering water P3 projects Enhance project sponsor access to relevant financial, legal and/or technical advisors; e.g., by establishing a state-funded advisory bench or by providing funding to engage external advisors directly
Clear project scope, definition and meaningful risk transfer	<ul style="list-style-type: none"> Insufficient upfront investment to evaluate the appropriateness and value of P3 delivery Vague or ill-defined project needs underpinning performance specifications or risk transfer 	<ul style="list-style-type: none"> Establish educational guidance on the types of projects that could benefit from P3 delivery models in the context of State-specific needs Provide relevant resource to aid project sponsors in undertaking upfront feasibility studies to assess P3 suitability, project scope and potential risk transfer
Identification and understanding of revenue streams	<ul style="list-style-type: none"> Credit quality and affordability challenges (mainly for larger-scale rural water projects that lack meaningful sources of revenue) 	<ul style="list-style-type: none"> State-level guarantees to enhance creditworthiness of projects or sponsoring entity(ies) State-level capital contributions to improve project affordability Commit enduring revenue stream to cover availability payments or hybrid structures with limited user fees
Clear and transparent delivery process and project goals	<ul style="list-style-type: none"> Risk of rushed, ill-designed or insufficiently transparent competitive procurement processes Failure to sufficiently articulate clear project goals and timeline 	<ul style="list-style-type: none"> As per facilitating empowered and knowledgeable project teams (above)

Contacts



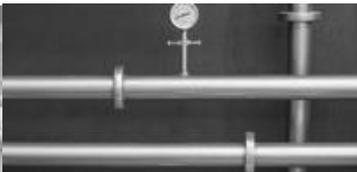
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