

Understanding Public-Private Partnerships in Infrastructure



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What are “public-private partnerships” (PPPs)?



- An arrangement between governments and private sector to deliver public assets.
- Involves some combination of operations, maintenance, design, construction and/or financing in delivery of infrastructure assets.
- Government has come to rely far more on networks of public, private, non-profit organizations to deliver public services and assets in recent decades.
- Now a proven policy management tool to deliver better services at a lower cost—BUT, process is complex, requires care & best practices.
- PPPs introduce competition: innovation, cost savings, efficiency.

Why PPPs?



- **Regulations**
 - Standards governing the quality of drinking water and cleanliness of effluent discharged into waterways have become ever more stringent and expensive.
- **Fiscal pressures**
 - Governments innovating to stretch taxpayer dollars further.
- **Modernization/Growth**
 - Upgrading & extending systems cover more area or to handle increased demand is costly and complicated.
- **Decaying infrastructures**
 - Many water/wastewater systems are dated and need new capacity. Replacement and rehabilitation can be difficult to fund from cash flows. Deferred maintenance a chronic problem.
- **Structure of Local Financing**
 - Water pipes and sewer mains are not visible and usually not in crisis. It is easy to defer maintenance and upgrades, and unpopular to raise rates even when needed. Water and sewer rates often do not adequately cover the actual cost operations and needed new capital.

Common goals of PPPs



- **Cost Savings**
 - Capital costs, life-cycle operations and maintenance costs
- **Service/Quality Improvements**
 - Competitive bidding; performance guarantees
- **Innovation**
 - Static processes, red tape obstacles to public sector innovation
- **Enhanced Risk Management**
 - Key risks (cost, delivery, liabilities) can be transferred from public to private sector
- **Accelerated Delivery**
 - Competitive contracting, performance incentives
- **Deploying private capital to finance assets/services**
 - Highways/bridges, water/wastewater, university facilities, parking assets, etc.
 - Social impact bonds (aka social innovation funding) in recidivism, workforce

Common goals of PPPs

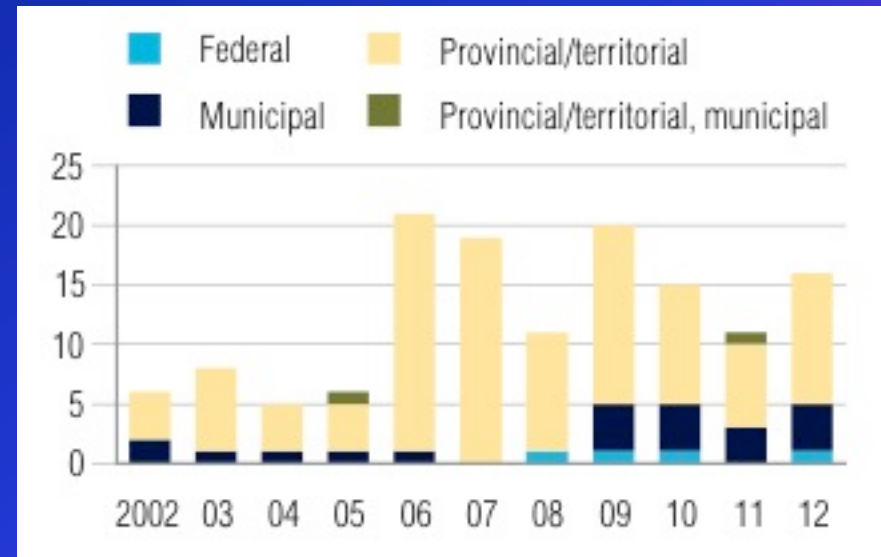


- Guaranteed annual operating budgets and costs
- Guaranteed system operations, regulatory compliance, service quality
- Guaranteed construction costs and facility start-up schedules
- Guaranteed customer service and response
- Guaranteed revenues and revenue collection

PPPs a global infrastructure tool



- PPPs used for decades around the world to develop surface transportation, airports water/wastewater, social infrastructure (hospitals, schools, university facilities, etc.) projects.
 - Pioneered in post-WWII Europe (e.g., UK, France, Spain, Portugal, Italy)
 - Since 1990s, increasingly used by provincial governments in Australia & Canada and various states & municipalities in the U.S.
- Canada seen as a global leader:
 - 200+ PPP projects in recent decades.
 - Over 50 PPP projects have reached financial close since 2010.



Source: Conference Board of Canada, *Delivering Value through Public-Private Partnerships at Home and Abroad*, August 2013.

Some examples of Canadian water/wastewater PPPs



Project	Province	Gov't Level	PPP Model
Cochrane Water Treatment Plant	Alberta	Municipal	Design-Build-Finance
McLoughlin Point Wastewater Treatment Plant	British Columbia	Municipal	Design-Build-Finance
New Dartmouth Water Treatment Plant	Nova Scotia	Provincial	Design-Build-Finance
Evan-Thomas Water and Wastewater Treatment Facility	Alberta	Provincial	Design-Build-Finance-Operate-Maintain
Taber Wastewater Treatment Plant Upgrade	Alberta	Municipal	Design-Build-Finance-Operate-Maintain
Kananaskis Wastewater Treatment Plant	Alberta	Municipal	Design-Build-Finance-Operate-Maintain
New Wastewater Treatment Plant	British Columbia	Provincial	Design-Build-Finance-Operate-Maintain
Victoria Wastewater Treatment Plant	British Columbia	Municipal	Design-Build-Finance-Operate-Maintain
Cartier (New) Wastewater Treatment System	Manitoba	Provincial	Design-Build-Finance-Operate-Maintain
Moncton Water Treatment Facility	New Brunswick	Municipal	Design-Build-Finance-Operate-Maintain
Dysart Wastewater Treatment Plant	Ontario	Municipal	Design-Build-Finance-Operate-Maintain
Cavan-Millbrook Wastewater Treatment Plant	Ontario	Municipal	Design-Build-Finance-Operate-Maintain
Okotoks Water & Wastewater System	Alberta	Municipal	Design-Build-Operate-Maintain
Lac La Biche Wastewater Treatment Facility	Alberta	Municipal	Design-Build-Operate-Maintain
Jasper Wastewater Treatment Plant	Alberta	Municipal	Design-Build-Operate-Maintain
Sooke Wastewater System	British Columbia	Municipal	Design-Build-Operate-Maintain
Port Hardy Water & Wastewater Treatment System	British Columbia	Municipal	Design-Build-Operate-Maintain
Canmore Water & Wastewater System	Alberta	Municipal	Operate-Maintain
Goderich Water & Wastewater System	Ontario	Municipal	Operate-Maintain
Brockton Water & Wastewater System	Ontario	Municipal	Operate-Maintain
Winnipeg Wastewater System	Manitoba	Municipal	Service Contract

Sources: Canadian Council on Public-Private Partnerships; PPP Canada

Water/wastewater investment needs



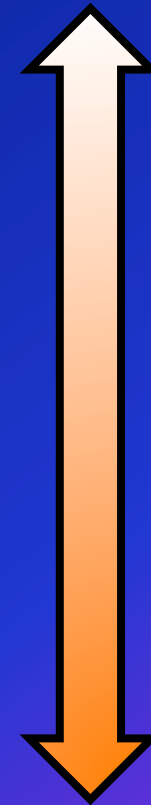
- Water & wastewater are large local budget items.
 - Disconnect: capital costs, operating costs & maintenance costs treated separately—and on different time scales—by government, but political cycles are short-term.
- Significant investment needs throughout Canada:
 - 2007 Federation of Canadian Municipalities survey: \$88 billion in needs (\$31 billion for upgrades; \$57 billion for new systems).
 - Conference Board of Canada reports actual capital investment averaged \$1.0 billion annually from 1970-1997, and \$1.5 billion annually from 1998–2006.
 - Aboriginal Affairs and Northern Development Canada identified \$1.2 billion in immediate investment needs in First Nations communities; additional \$3.5 billion over next ten years to handle growth.

Types of water/wastewater PPPs



- Historically, dominant mode has been short-term (5-10 year) contract operations & maintenance (outsourcing O&M)
- PPPs and long-term concessions (20+ years) have been more prevalent in recent years, expanding beyond O&M into design, construction, financing
 - Design-build (DB)
 - Design-build-finance (DBF)
 - Design-build-operate (DBO)
 - Design-build-finance-operate-maintain (DBFOM)
- Usually the WHY determines the HOW

Outsourcing



PPPs

Client satisfaction?



Outcomes of U.S. Water/Wastewater PPP Contracts

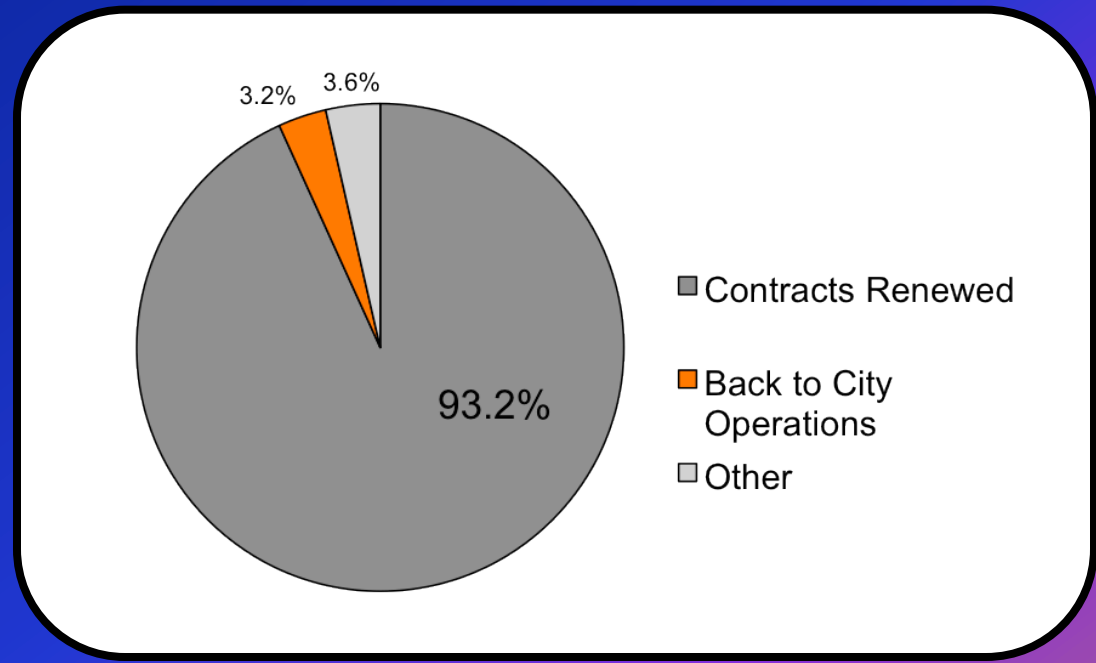
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
# PPPs	166	123	529	776	510	758	833	788	117	127	151	147	103
Contracts Renewed	95%	87%	97%	96%	97%	93%	92%	98%	95%	85%	77%	65%	89%
Back to City Operations	5%	13%	2%	3%	2%	2%	2%	2%	5%	8%	8%	18%	6%
Other	-	-	1%	1%	1%	5%	6%	-	-	7%	15%	17%	5%

Source: *Public Works Financing*

Outcomes of 4,772 contracts up for renewal between 2000-2012:

>93% renewal rate

Government clients overwhelmingly satisfied with their private sector contracts



Common concerns with PPPs



- “Privatization” = Loss of control
- Risk transfer? Aren’t governments always better at managing risk than private sector?
- Public employee resistance
- Rising costs
- Profits and water don’t mix

Common concerns:

“Privatization” = loss of control



- In well-structured PPP contracts the government and taxpayers *gain* control and accountability, rather than lose it.
 - Public sector retains ownership, rate control, regulatory control
 - Failure to meet the contractual performance standards could expose the contractor to financial penalties, termination of the contract
- Canadian Finance Minister Jim Flaherty:
 - *“Under the [proposed Regina] public-private partnership, the city will continue to own the infrastructure assets, as always. What’s more, the city will still continue to control sewer rates and have full power to ensure quality and safety standards are met.*

The private-sector involvement will be limited to the design, construction, operation and maintenance, along with paying for part of the plant.”

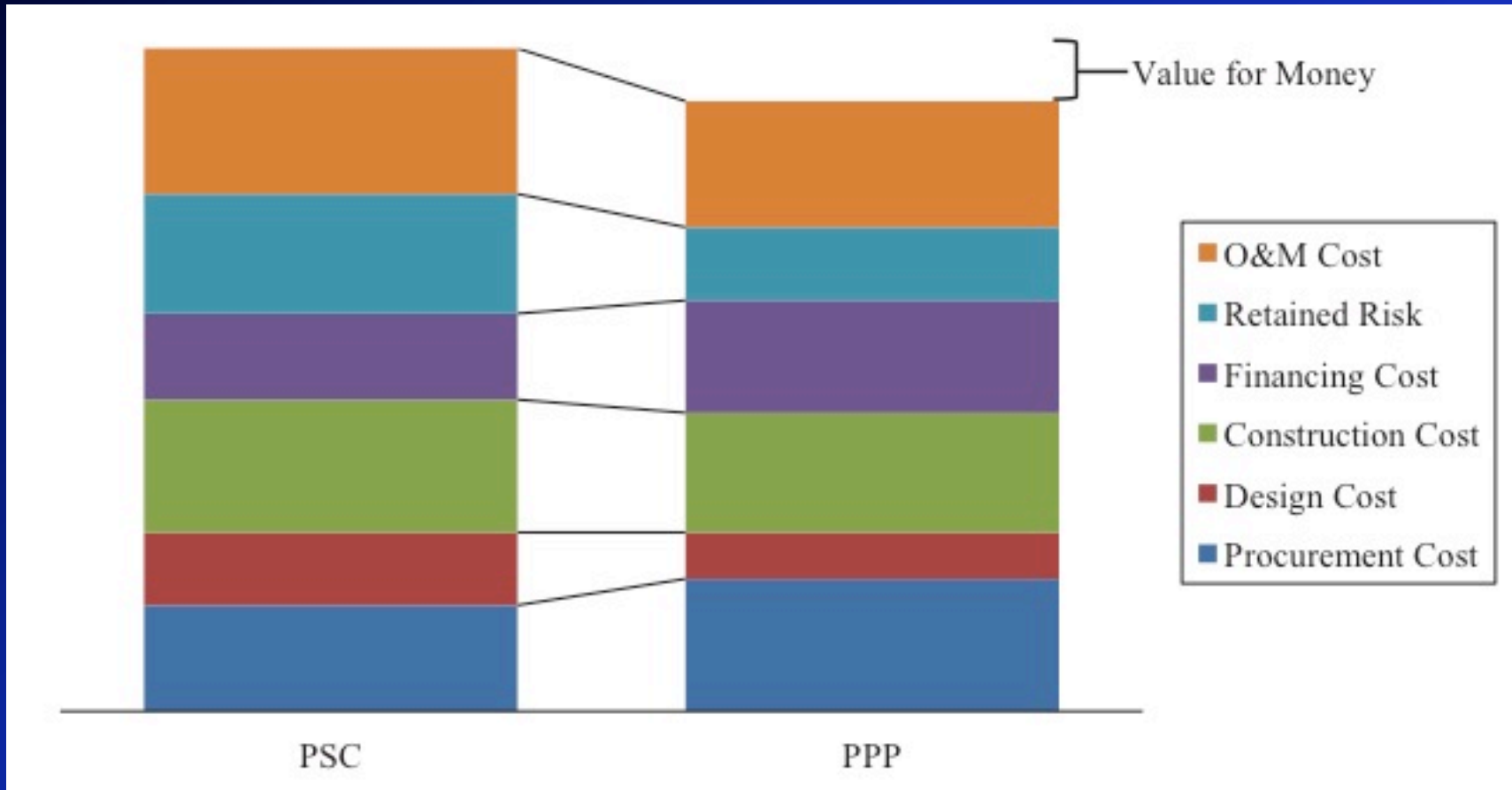
Common concerns: Risk transfer in PPPs



- Government entities often fail to acknowledge or value real risks that come with a price, especially with infrastructure projects.
 - Examples: cost overruns, schedule slips, deferred maintenance of assets
- U.S Government Accountability Office (2008):
 - *“The public sector may also potentially benefit from transferring or sharing risks with the private sector. These risks include project construction and schedule risks. Various government officials told us that because the private sector analyzes its costs, revenues, and risks throughout the life cycle of a project [...] it is able to accept large amounts of risk at the outset of a project, although the private sector prices all project risks and bases its final bid proposal, in part, on the level of risk involved.*”

The transfer of construction cost and schedule risk to the private sector is especially important and valuable, given the incidence of cost and schedule overruns on public projects.”

Risk transfer: Public sector costs vs. PPP



Source: National Council on Public-Private Partnerships, *Testing Tradition: Assessing the Added Value of Public-Private Partnerships*, 2012.

Common concerns: Risk transfer in PPPs



PPP Canada has cited a range of typical risks in water/wastewater projects:

Risk	Typical allocation
Construction cost risk	Transferred to private
Construction schedule risk	Transferred to private
Life-cycle cost risk	Transferred to private
Operations/maintenance risk	Transferred to private
Rehabilitation risk	Transferred to private
Facility sizing	Retained by public
Influent quality	Shared
Influent quantity	Retained by public
Effluent quality	Transferred to private
Regulatory compliance	Transferred to private
Defects in existing infrastructure	Some shared, some retained by public

Common concerns: Public employee resistance



PPPs typically result in few, if any, layoffs.

- Many employees will shift from gov't to contractor; PPP agreements often include a requirement to hire some/all existing employees who meet minimal criteria.
- Typically wages and benefits go up for some employees and go down for others, and natural attrition accounts for most of the reduction in workforce.
- New opportunities for upward professional mobility when employees move to a firm managing a larger network of facilities.
- Techniques have emerged for involving employees in the planning process and investing in transition programs for employees that do not go to work for the contractor.

Common concerns: Rising costs



- Because governments retain control over rates in PPP contracts, rates to customers are ultimately a *policy decision*.
- PPPs often bring small, steady rate increases over time in proportion to system needs and inflation; by contrast, governments often see large, step increases due to political pressures over rates.
- One 1999 study examined PPPs for water/wastewater systems in 29 U.S. cities serving over three million customers. It found that all resulted in lower initial & total rate increases than were planned prior to the PPP, and at 17 percent of the facilities, PPPs brought cost savings of between 10 percent and 40 percent, allowing local governments to avoid large increases in water rates.

Common concerns: Profit and water



- Profit is not incompatible with provision of public services, nor the provision of human needs like food, medicine, water, sanitation, etc.
- Profits are not guaranteed—private sector must deliver on its contractual promises and navigate long-term risks.
- As a practical matter, many citizens are agnostic on who is delivering a service, so long as the service is provided.
- Do PPPs conflict with human rights?
 - Catarina de Albuquerque, U.N. independent expert on human rights/ access to safe drinking water and sanitation:
“Human rights [to water and sanitation] do not require a particular model of service provision. They do not exclude private provision (including privatization).”

PPP Pitfalls



#1: A winning bidder could turn out to be incapable or go out of business.

- To avoid this, governments must ask for qualifications and references from potential contractors and then spend time performing due diligence.
 - Customer references are most important (for similar type work), but ask for credit, financial and supplier references also.
- A reasonable performance bond can help assure that the contractor will perform the contract and cover transition costs in case it does not.
 - But don't drive off smaller, but good and qualified, companies or drive up the cost of services unnecessarily through onerous performance bond requirements.
 - References and qualifications are typically a better indicator of contract performance than performance bonds.

PPP Pitfalls



#2: Sometimes a lack of understanding or agreement about performance expectations can lead to disputes and even termination.

- Establishing a trusting relationship requires structuring the right risks, rewards, benefits and opportunities early in the contract negotiation stage. Governments should consider hiring financial, legal, and technical advisors with experience in PPP transactions.
- The more that the expectations of the contract are based on measurable outcomes and outputs (like costs, quality, reliability, etc.), rather than inputs (like work levels, hours, personnel, etc.) the less subjective everyone's assessment will be and the less likely it is that conflicts will arise.

PPP Pitfalls



#3: Due diligence is critical to protect the public interest.

- Use contracts that fix costs and risks up front. Fixed-price performance contracts shift the financial risk from the public agency to the contractor, who, in order to keep costs down and increase profits, has incentives to improve performance and increase productivity.
- Remember that companies are interested in profits, and it is up to government to harness that drive and the competitive forces of the market to get citizens the best deal possible.
- Companies care about their reputation.

PPP Pitfalls



#4: Sometimes local governments don't do their homework, don't learn from best practices, or fail to conduct a proper analysis.

- Such oversights can lead to inappropriate PPPs or cripple a partnership's success.
- Local governments need to invest some staff time in understanding PPPs and be willing to bring in specialized help when appropriate.
- The private sector brings its "A-Game" to the table, having done these sorts of transactions many times. If governments do not have comparable skills on staff, then they should look to outside consultants to help them assess deals and undertake negotiations.

Key steps for success: Other best practices in PPPs



- Conduct business case/value-for-money analysis for projects to frame the option set; evaluate tradeoffs.
- Harness the strength of performance-based contracting.
 - Develop performance metrics and goals, and build these goals and benchmarks into the contract.
 - Tie vendor payment to performance; incentives and penalties.
- Develop strong oversight and monitoring and protocols before entering into a contract to ensure compliance.
 - Government's role does not end with contract signing; rather, role shifts to rigorous monitoring and contract management.
- Communicate early and often with stakeholders, public, media.

Questions?



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