Testimony of

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On
A Review of Financing Options for
Community Water Infrastructure Projects

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Chairman Simpson, Ranking Member Moran and Members of the Subcommittee:

It is an honor to be here today to discuss financing options for community water infrastructure projects. My name is Thad Wilson and I am a Vice President with M3 Capital Partners LLC (M3), a management-owned investment and advisory firm based in Chicago, Illinois. M3 is registered with the SEC and a member of FINRA and SIPC in the United States.

M3, through an advisory affiliate, currently manages equity commitments of $3.4 billion on behalf of a U.S. public pension plan. The focus of these equity commitments is on long-term, entity-level investments in real estate operating companies.

M3's Water Infrastructure Initiative

M3 is currently forming a North American water infrastructure fund that we anticipate will be initially capitalized by U.S. public pension plan investors. It is expected that the fund will focus primarily on offering an innovative Design-Build-Operate-Finance (DBOF) approach to municipal water infrastructure project delivery. We believe this approach offers a robust form of public-private partnership (PPP) to municipalities to capitalize their water infrastructure improvements, which may include the repair, upgrade or replacement of drinking water and wastewater treatment facilities and, in some cases, their related distribution and collection systems (collectively referred to herein as "Water Facilities"). M3 plans to form strategic ventures with highly experienced water service providers who will undertake the Design-Build-Operate (DBO) components of project implementation.

We believe M3's fund will be an attractive partner for municipalities given a common interest in long-term investments in critical Water Facilities. Municipalities need a DBOF partner with a long-term vision to ensure their Water Facilities will perform for decades, providing local rate payers with high-quality water services at a reasonable cost. Public pension plans need long-term investments that can provide stable, long-term returns for their beneficiaries – teachers, firefighters, police, and other public employees. By helping to provide a DBOF package, M3 believes we can offer municipalities the certainty they need to repair, upgrade or replace their Water Facilities on schedule and on budget.

My testimony today explores some of the compelling reasons to bring municipalities and public pension plans together through PPPs in such a way as to creatively address the nation's water infrastructure investment needs. Although M3 is a private group, we seek to establish a fund that will facilitate investments by public pension plans, which in turn will ultimately support public pension plan beneficiaries.

Public Pension Plan Interest in Water Infrastructure

During the past several years, U.S. public pension plans (particularly state retirement plans for teachers, firefighters, police and other public employees) have been exploring new categories of stable investments to improve their ability to meet long-term payment obligations to their beneficiaries, while mitigating the potential erosion of investments from possible future inflation. The significance of these exploratory efforts has been magnified in light of the effects of the global financial crisis, which generated volatile performance even in investment categories that were previously considered "core" or "stable". Many investments that were reasonably expected to produce steady annual cash distributions have failed to do so. As a result, public pension

plans are increasingly looking to build or expand allocations focused on "tangible asset" investments. Such tangible asset investments include infrastructure investments that seek to generate stable cash flows over a long-term holding period, with limited economic correlation to other investment holdings (e.g., stocks, bonds and real estate). In addition, pension plans have feared their investments would not keep up with inflation, should inflation rear its ugly head. Ideally, pension plan investments would provide inflation-protected returns commensurate with the risk profile of the underlying assets.

Recent data clearly demonstrate the desire among institutional investors, including public pension plans, to invest in infrastructure:

- According to industry research by Preqin Ltd., from 2008 through 2012, 201 global unlisted infrastructure funds were formed with $128 billion in aggregate capital commitments and an average fund size of $637 million. In 2012 alone, 36 funds obtained $23.7 billion in aggregate capital commitments globally. A significant amount of this capital is targeting investments in North America, where 23% of the transactions involving Preqin-tracked infrastructure funds closed in 2012.[1]
- According to data collected by Institutional Real Estate, Inc., 52 U.S. public pension plans have made 91 distinct commitments to infrastructure funds since 2005, totaling in excess of $10.4 billion.[2]

M3's view is that a number of public pension plans will be interested in building a portfolio of investments in municipal Water Facilities. Municipal Water Facilities provide an essential service to residential and commercial end users, for which there is no viable alternative, and generate cash flows secured by an established and diversified customer base of homes and

businesses. As such, municipal Water Facilities are likely to generate stable, recession-resistant cash flows, with a limited correlation to other investment allocations of pension plans.

The long-term investment requirements of municipal Water Facilities are also well-aligned with the long-term investment "hold period" of public pension plans. Public pension plans will generally target long-term, stable yields on investments that reflect the strength and stability of the underlying assets, ideally with adjustments for inflation that allow for an acceptable real return over a long-term investment period. For municipalities, partnering with a public pension plan investor is an effective way to provide long-lasting, quality water infrastructure that will have efficient operating costs for the long-term, to the ultimate benefit of rate payers.

Potential PPP Structures

There are various PPP structures municipalities can consider to meet their Water Facility development and operating needs. Among these various structures, two structures in particular are well suited to matching public pension plan capital with municipal water infrastructure investment needs:

- **Existing Facility PPP** – for the repair, upgrade or expansion of existing Water Facilities.
- **New / Replacement Facility PPP (DBOF)** – for the development of new or replacement Water Facilities.

Both PPP structures require significant equity to capitalize Water Facility capital project needs, as part of a long-term "concession agreement" between a municipality and a private investor partner (referred to herein as the "Investor Partner"). The Investor Partner may be comprised of a) a public pension plan (or an infrastructure fund capitalized by public pension plans), which provides most of the needed capital costs up-front, and b) a service provider or

combination of service providers, with the experience and expertise needed to design, build and / or operate the Water Facility over the term of the PPP. The Investor Partner receives payments over the term of the PPP that are structured to provide a reasonable return on the Investor Partner's capital invested. At the end of the PPP term, the Water Facility typically will be owned by the municipality under pre-negotiated terms with no further payment due to the Investor Partner by the municipality.

Under an Existing Facility PPP structure, the Investor Partner assumes responsibility for operations and maintenance of the Water Facility during the PPP term. The Investor Partner may also fund and implement any immediate required facility upgrades, as well as future periodic capital expenditures. The up-front capital payments plus an appropriate return on capital is effectively returned to the Investor Partner over the PPP term through service fees paid by the municipality. Proceeds necessary for the payment of service fees to the Investor Partner come from rate payers served by the municipality. In order to establish future rates at an acceptable level for rate payers, the Investor Partner will seek to generate long-term cost savings, realized by the integrated delivery of design, construction, operations and maintenance services.

A New / Replacement Facility PPP structure can be utilized by an established municipality a) to build a new Water Facility (e.g., a biosolid facility) that upgrades or expands a municipality's existing infrastructure or b) to build a replacement Water Facility that replaces an existing older, obsolete Facility that no longer meets regulatory compliance standards (e.g., a new water recycling facility that replaces an old wastewater treatment plant). Under this structure, the Investor Partner will provide a) the resources and talent to implement design and construction services during project development, b) operating and maintenance services through the life of the PPP term, and c) financing for the initial project construction and for future capital

expenditures required. With the Investor Partner coordinating all design, build, operate and finance functions (under the standards and oversight of the municipality), the municipality can enter into a single agreement for the development and operation of new or replacement Water Facilities. Once the Water Facility is commissioned and operations commence, the up-front capital invested in the project is repaid to the Investor Partner over the life of the PPP term through service fee payments.

As an alternative to PPP structures, municipalities may consider an outright sale or "privatization" of their Water Facilities to a private investor. A privatization transaction typically requires a shift in control over rate setting and other matters from the municipality to a state Public Utility Commission or similar regulatory authority.

Recent Examples of Water Facility PPPs

The City of Santa Paula, California (the City) provides a recent example of a Replacement Facility PPP structure utilizing private capital. The City's wastewater treatment facility, built in 1939, was out of compliance and needed to be replaced. The City did not have sufficient funds to pay outright for a new facility and was facing a tight completion and compliance deadline to avoid more than $8 million in fines. Santa Paula's City Council moved the project forward under a DBOF procurement process, utilizing Section 5956 of the California Government Code. Section 5956 encourages PPPs to address public infrastructure needs through private investment.

The Santa Paula City Council awarded the project to an Investor Partner team comprised of an experienced DBO service provider (PERC Water) and an infrastructure fund (which counts a number of pension plans as its source of capital) as the primary equity capital provider. In July 2008, just two months after the contract was awarded, the Investor Partner broke ground on the

project. A new water recycling facility for Santa Paula was in full operation by May 2010, seven months before the compliance deadline. PERC Water is now operating the facility under a 30-year agreement between the Investor Partner and the City.[3]

Two examples of Existing Facility PPPs were completed in 2012 in New Jersey and California. An Investor Partner comprised of United Water and a private investor completed a 40-year concession in the city of Bayonne, New Jersey involving the city's water and wastewater systems. Similarly, another Investor Partner comprised of Veolia Water North America and private investors completed a 30-year concession in the city of Rialto, California involving the city's water and wastewater systems. In both cases, the Investor Partners made up-front payments to fund initial capital improvements and other community needs. The Investor Partners also assumed responsibility for operations and maintenance of the subject Water Facilities during the PPP terms.[4]

Why Municipalities Should Consider PPPs for Water Facility Investment

In the U.S. today, there is a significant and growing need for investment in our critical water infrastructure. Increasingly stringent regulations established and maintained by the Environmental Protection Agency (EPA) necessitate the ongoing upgrade or replacement of existing Water Facilities. According to a recent report from the American Society of Civil Engineers, the total U.S. water and wastewater infrastructure capital need in 2010 was an estimated $91.2 billion, while total capital spending was only an estimated $36.4 billion, resulting in a total estimated "capital gap" of $54.8 billion. According to this report, if current trends persist the anticipated capital gap between need and expenditure will grow to $84.4 billion by 2020.[5]

In the current environment, municipalities are taking on these required investments in their water infrastructure asset base, while federal, state and local governments are facing significant budget and debt-load constraints. To further complicate matters, some federal programs available for financing Water Facilities, such as the Drinking Water and Clean Water State Revolving Funds (SRF), have recently been curtailed. Going forward, accessing private capital through PPP structures may be even more compelling for municipalities.

The primary benefits of PPP structures for municipal Water Facilities are summarized in the following paragraphs.

Ownership and Control

With a PPP arrangement, municipalities can retain long-term ownership of their Water Facilities. During the PPP term, the Investor Partner typically obtains the benefits of ownership of the asset (potentially through a lease or other property interest in the asset). However, at the end of the PPP term, the benefits of ownership revert back to the municipality under pre-defined exit standards, with no further payment due to the Investor Partner. The length of allowable PPP terms varies by state, but terms typically range from 20 to 35 years.

Under a PPP, the municipality can also retain control over rate setting, rather than conceding such control to a state Public Utility Commission (as typically occurs under an outright sale / privatization of Water Facilities).

The PPP agreement may stipulate that failure to comply with established performance levels or regulatory standards results in termination of the PPP, with the benefits of ownership of the Water Facility reverting back to the municipality for a pre-established amount. With a properly

structured PPP, the Investor Partner is highly motivated to comply with – or even exceed – local, state and federal regulations.

Accelerated Project Launch

In order to accelerate the launch of Water Facility projects, municipalities can access private investment via PPP structures, potentially without the timing constraints associated with SRF applications or municipal bond financing arrangements. Because municipalities that access the bond market must carefully manage their bond maturities, credit ratings and financial ratios, they may only access the bond market at established intervals. PPP structures can be formed independent of the municipal bond cycle and provide an alternative financing source for near-term and long-term investment needs.

There are many reasons municipalities may want to accelerate the launch of Water Facility projects. For example, by accelerating the launch of major Water Facility repair, upgrade or replacement projects, municipalities facing EPA consent decrees are more likely to meet compliance-driven deadlines and avoid fines. In addition, by accelerating project launch municipalities can generate significant near-term employment opportunities for their local economy.

Risk Transfer

A key benefit of PPP transactions is the opportunity for municipalities to transfer financial and performance risks inherent in the design, construction, and operation of Water Facilities to the private entities with which they contract for these services. Under a PPP structure, the Investor Partner will take on operating and maintenance risks, while guaranteeing operational

compliance with local, state and federal regulations throughout the PPP term. Under a Replacement Facility PPP, the Investor Partner may also assume key risks associated with the design, construction, and financing of the project. To the extent the Investor Partner guarantees project costs, schedule of completion, water / effluent quality, capital replacements and energy consumption levels, the Investor Partner is well aligned with the interests of the municipality and is putting its capital "at risk", with a requirement to perform its obligations throughout the PPP term.

Life-Cycle Cost Savings

By utilizing a PPP approach for the development of replacement Water Facilities, municipalities potentially can realize savings in life-cycle costs (i.e., the risk-adjusted net present value of total project costs to the municipality over the life of the PPP term) as compared to the traditional Design-Bid-Build (DBB) approach to project delivery. Lower life-cycle costs may be achievable under the PPP despite the relatively higher cost of capital of the Investor Partner as compared to tax-exempt bonds and / or SRF loans that are typically utilized under the DBB approach.

Lower life-cycle costs under the PPP approach are driven by the life-cycle perspective of the Investor Partner. The Investor Partner's integrated team takes full responsibility for the design, construction, operation and maintenance of the project over the life of the PPP term, allowing for coordination and efficiencies across these activities. The Investor Partner is motivated to invest in equipment during construction that will result in the lowest operational costs through the PPP term, producing cost savings that can be shared with the municipality. In contrast, the DBB approach separates the design, build and operations phases of the project. Under the DBB

model, independent design and construction firms generally have no operating responsibilities beyond project start-up, and are therefore less aligned with the municipality regarding the long-term operating performance of the Water Facility. By combining the design, build, operate and finance functions under a single Investor Partner in a PPP structure, municipalities can potentially avoid change orders, cost overruns and / or litigation costs associated with separate, non-integrated service providers.

New Revenue-Generating Opportunities

Investments in new Water Facilities may present municipalities with new revenue-generating opportunities, which potentially can be monetized by partnering with an Investor Partner. Municipalities and Investor Partners can form PPPs in order to facilitate the development of new Water Facilities and the application of innovative technologies that allow for:

- desalination of seawater or brackish water;
- treatment and reuse of wastewater (i.e., "recycled water") and / or;
- waste-to-energy conversion of wastewater byproducts (i.e., "biosolids").

To the extent meaningful new revenues can be generated from such initiatives, they can help lower future rates for rate payers, or at least mitigate the need for rate increases. Alternatively, an Investor Partners may incorporate an appropriate, risk-adjusted valuation for such future new revenues into PPP structures. In such cases, the Investor Partner may reduce the up-front capital costs for the delivery of a new Water Facility by an amount equal to the present value of the future new revenues generated by the project.

Long-Term Partnership Approach

Through PPPs with public pension plans, municipalities can form long-term partnerships with established investors that have deep financial resources and proven track records. Public pension plans are ultimately responsible for preserving and growing the long-term retirement benefits of teachers, firefighters, police and other public employees. As such, public pension plans and municipalities share a common public mission, which creates a solid foundation for mutually beneficial long-term partnerships.

Facilitating Water Infrastructure PPPs

Although the U.S. faces a nationwide need for investment in community Water Facilities, the implementation of such projects is generally carried out at the local level. As a result, any efforts toward increasing the number of water infrastructure PPPs should primarily seek to enhance the ability of local officials and their staff to effectively solicit, review, deliberate and approve such projects.

The primary challenges to implementing water infrastructure PPPs, along with potential measures to address those challenges, are as follows:

- **Value of water and water infrastructure** – Water is generally viewed as a public good in the U.S., with very limited appreciation among many for the true cost to develop and maintain the critical infrastructure required to deliver safe drinking water, and to collect and treat wastewater. Capital intensive pipe systems and technologically advanced treatment facilities are typically "out of sight and out of mind", so long as water arrives at and departs from our homes and businesses as needed. With a focus on shorter-term priorities, a number

of municipalities have maintained user rates for water-related services at levels that do not reflect the true cost of such services. Rate increases that may be needed to support required water infrastructure investment, no matter the capital source, are often met with resistance. Potential measures to address these challenges include:

- Increase awareness of the significant and growing need for investment in U.S. water infrastructure required to maintain high standards of quality and reliability;
- Increase awareness of the myriad social benefits from optimal water infrastructure investment, such as: (i) the reliable delivery of safe drinking water; (ii) the protection of the environment through effective wastewater treatment; (iii) the conservation and reuse of water from water recycling initiatives; and (iv) the potential for job creation from near-term project launches;
- Encourage broader community appreciation for the value of water and water infrastructure, and support for efforts to implement true-cost pricing for water services where appropriate.

- **Understanding PPPs –** Given the limited number of water infrastructure PPPs utilizing private capital in the U.S., a) most interested citizens are unaware of the potential long-term benefits of PPPs, and b) few municipal officials have meaningful experience in soliciting, evaluating and structuring such transactions. In addition, regulations governing the implementation of PPPs vary widely from state to state. As a result, many municipal officials may be reluctant to deviate from the "traditional" DBB procurement approach, as compared to a potentially more effective PPP structure under an uncertain regulatory environment. Potential measures to address these challenges include:

- Increase awareness of the potential benefits of PPP structures for water infrastructure investments;
- Encourage more state governments to implement PPP regulations which facilitate the solicitation, evaluation and structuring of PPPs, along the lines of Section 5956 of the California Government Code, under which a Replacement Facility PPP was completed in Santa Paula, CA;
- Establish a nationwide office to promote and support PPPs at the municipal level, similar to the "PPP Canada" initiative launched in 2009 by the Canadian federal government. PPP Canada provides a national office for the promotion, coordination and financial support of private investment in public infrastructure as part of the country's long-term economic plan. PPP Canada also manages a C$1.2 billion fund, which is a merit-based program, designed to promote consideration of PPPs in public infrastructure procurements, in order to achieve value for taxpayers and other public benefits.[6]

- **Debt Financing Options** – Most municipalities, and particularly larger cities, can access low-cost, tax-exempt financing through the municipal bond market and / or the SRF program for their major water infrastructure investment needs. The limited amount of similarly low-cost debt financing for PPP projects involving Water Facilities increases the overall cost of capital for such projects. Although tax-exempt private activity bonds (PABs) may periodically be available to private investors in Water Facilities, uncertainty caused by the PAB "state volume cap" for Water Facilities may limit the competitiveness of PPP structures in certain cases. Potential measures to address this challenge include:
  - Help to lower the cost of debt financing for private Investor Partners in Water Facility PPPs by removing the private activity bond state volume cap for Water Facility projects;

- Facilitate additional policies and programs – potentially through the SRF program and / or the contemplated Water Infrastructure Finance and Innovation Act (WIFIA) – that provide competitive, low-cost debt financing for Water Facility PPPs. With access to low-cost debt financing for Water Facility PPPs, Investor Partners could offer such projects to municipalities based on a lower overall cost of capital, generating cost savings that ultimately could be passed on to community rate payers.

Summary

Municipal obligations to provide quality water and wastewater services to the public align well with the increasing desire of public pension plans to invest in stable, long-term cash-generating assets. PPPs utilizing public pension plan capital are an attractive option for municipalities to meet their Water Facility investment needs. PPP structures can accelerate project launch, generate near-term jobs, allow for long-term municipal ownership and control, and potentially generate meaningful cost savings and / or new revenues through the life of the project. Among the thousands of drinking water and wastewater systems across the U.S., more municipalities should find it advantageous to explore the solutions offered by PPPs involving public pension plan financing.

Endnotes:

[1] Preqin Ltd. Infrastructure Spotlight, January 2013.

[2] Institutional Real Estate Inc. 2013

[3] PERC Water website. 2013.

[4] United Water website; Veolia Water North America website. 2013

[5] American Society of Civil Engineers. 2011. Failure to Act – The Economic Impact of Current Investment Trends in Water and Wastewater Treatment Infrastructure.

[6] PPP Canada website. 2013.