



The Horinko Group's Water Salon Series, Part V
Financing Water Infrastructure through Public Private Partnerships –
Finding the Right Model
April 30, 2012
2300 N ST NW, First Floor
Washington, DC
Final Agenda

Networking Lunch **12:00 – 12:45pm**

Welcome and Introductions **12:45 – 12:55pm**

Brendan McGinnis, Director, Water Division, The Horinko Group

Overview of Agenda, Discussion Topics and Parameters **12:55 – 1:30pm**

Moderator

G. Tracy Mehan, Principal, The Cadmus Group (20 minutes)

- Financing Water Infrastructure: Current Landscape and Challenges
- Traditional Financing Models and Limitations
- Overview of Facilitated Discussion Questions and Salon Process

Featured Presentation

Brent Fewell, Vice President of Environmental Compliance, United Water (15 minutes)

- Overview of Public-Private Partnership Models

Facilitated Discussion: Old-Fashioned PPPs Just Won't Do

1:30 – 2:40pm

Question #1

Are there effective PPP financing models, or replicable components, that exist within other sectors (e.g. transportation) that could be applied to the water sector? What are critical inputs and outputs? (35 minutes)

Question #2

What public-private entities must be at the table to ensure a workable, sustainable financing model? What role/function would each serve? (35 minutes)

Break

2:40 – 2:55pm

Facilitated Discussion: A New Age of PPPs

2:55 – 4:05pm

Question #3

Specifically, what would an all-encompassing PPP water financing model look like in an ideal world? How would it be structured? (35 minutes)

Question #4

Building on the previous question, what benefits would such a model provide to the financier, service provider, ratepayer, and taxpayer? What challenges/barriers exist to realizing such a model? What near-term opportunities exist for advancing such a model? (35 minutes)

Take-Aways and Next Steps: So, Where Does This Leave Us?

4:05 – 4:25pm

G. Tracy Mehan, Principal, The Cadmus Group

Wrap Up

4:25 – 4:30pm

Participant List

Mark Alpert

Senior Vice President, Design-Build
CH2M Hill

George Ames

Chief, State Revolving Fund Branch
U.S. Environmental Protection Agency

Fay Augustyn

Conservation Associate
American Rivers

Ada Benavides

Deputy Chief, SPD-RIT
U.S. Army Corps of Engineers

Wally Bishop

CEO, Walter Bishop Consulting
Former CEO, Contra Costa Water District

Lynn Broaddus

Director, Environmental Programs
The Johnson Foundation

Steve Brown

Executive Director
The Environmental Council of the States

Matt Chase

Executive Director
National Association of Development Organizations

Patrick Coady

Senior Advisor
Coady Diemar Partners

Kelly Colyar

Chief, Water and Power Branch
White House Office of Management and Budget

Debra Coy

Principal
Svanda and Coy Consulting

Tom Curtis

Deputy Exec Director, Government Affairs
American Water Works Association

Tim Davies

Director of Strategic Development
American Water

Greg DiLoreto

President-Elect
American Society of Civil Engineers

Dave Dornbirer

Division Manager, Water & Environmental
Services, CoBank

Brent Fewell

Vice President of Environmental Compliance
United Water

Jon Freedman

Global Leader of Government Relations
General Electric Power & Water

Ben Grumbles

President
Clean Water America Alliance

Ken Kirk

Executive Director
National Association of Clean Water Agencies

Sharlene Leurig

Senior Manager, Insurance Program
Ceres

Brendan McGinnis

Director, Water Division
The Horinko Group

G. Tracy Mehan

Principal
The Cadmus Group

Darrell Osterhoudt

Regulatory Affairs Manager
Assoc of State Drinking Water Administrators

Robert Prieto
Senior Vice President
Fluor Enterprises, Inc.

Don Riley, MG, USA (Ret)
Senior Vice President
Dawson & Associates

Kathy Robb
Partner
Hunton & Williams

Robert Stewart
Executive Director
Rural Community Assistance Partnership

Tim Williams
Managing Director of Leadership and Public
Policy, Water Environment Federation

Thad Wilson
Vice President
M3 Capital Partners

James Wrathall
Attorney at Law
Sullivan & Worcester

Background

In the U.S. today, public works are facing a growing crisis of aging infrastructure in urban and rural communities alike. Roads, bridges, schools, dams, levees, and drinking water systems all face a growing backlog of much-needed repair and replacement. Considering the average drinking water system degrades at a rate of 15-95 years, it is no surprise that the water sector will soon be forced to embrace an “era of replacement.” Infrastructure improvements facing municipalities include replacing sorely outdated pipes and water mains, some of which are still constructed from wood.

In the wake of such significant infrastructure backlogs, the cost of continued maintenance and recapitalization greatly outweigh the ever-shrinking funds provided through traditional state and federal government support programs such as the Clean Water Act and State Revolving Fund (SRF). According to an American Society of Civil Engineers’ recent report, “By 2020, the predicted deficit for sustaining water delivery and wastewater treatment infrastructure will be \$84 billion.”¹

As challenges facing the water sector continue to grow, the need for new and innovative models for funding water infrastructure, maintenance, and operational readiness are becoming even more critical. While pressures are mounting, a feasible starting point could be to identify new financing models, and successful case studies that can help shape and orient the sector’s response while realizing greater efficiencies and steering a cultural shift towards greater stewardship and conservation. Potential solutions do exist, including models that establish new authorities or dedicated sources of revenue to address our country’s infrastructure needs. Other solutions call for the infusion of private capital investments into water infrastructure projects, specifically through new models of PPPs.

According to the National Council for Public-Private Partnerships, “A Public-Private Partnership is a contractual agreement between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition, to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility. The public’s interests are fully assured through provisions in the contracts that provide for on-going monitoring and oversight of the operation of a service or development of a facility.”

Currently, PPPs in the field of water resources management consist mostly of managed agreements where large private entities operate public utilities or treatment facilities. The utilities and facilities remain publicly held, but the private companies provide operations and management. This form of partnership is viewed as mutually beneficial as private companies can provide immediate savings by addressing inefficiencies and identifying best management practices. While this model is functional, it does not result in the large amount of private capital infusion that is being sought across the water sector.

Instructive examples of relevant PPP models are often found in the surface transportation sector and may provide the path forward for widespread change within the water sector.

¹ American Society of Civil Engineers. *Failure To Act: The Economic Impact of Current Investment Trends in Water and Wastewater Treatment Infrastructure*. Reston, VA: ASCE, PDF

The transportation field continues to have success employing PPP models to finance road infrastructure projects throughout the United States. Unlike the PPP model commonly used in the water sector, the transportation industry favors a series of models where “there exists an ability to limit participation to paying customers, such as road or bridge tolls, that then ensures a revenue stream to offset all or some of the cost of provision.” Historically, both domestic and international investors, as well as equity investment funds, have provided private capital for PPP transportation projects. While obstacles exist, the flexibility that private investment provides to bridge large-scale funding gaps is too attractive to dismiss.

In the transportation sector, PPPs employ three types of models: 1) Design-Build; 2) Design-Build-Operate-Maintain; and, 3) Design-Build-Finance-Operate-Maintain.²

- *Design-Build* – Under this model, the government contracts with a private partner to design and build a facility in accordance with the requirements set by the government. After completing the facility, the government assumes responsibility for operating and maintaining the facility. This method of procurement is also referred to as Build-Transfer.
- *Design-Build-Operate-Maintain* – This model combines the responsibilities of design-build procurements with the operations and maintenance of a facility for a specified period by a private sector partner. At the end of that period, the operation of the facility is transferred back to the public sector. This method of procurement is also referred to as Build-Operate-Transfer.
- *Design-Build-Finance-Operate-Maintain* – Under this model, the private sector designs, builds, finances, operates and/or maintains a new facility under a long-term lease. At the end of the lease term, the facility is transferred to the public sector.³

Internationally, with the establishment of the Private Finance Initiative (PFI), the United Kingdom has emerged as a leader in utilizing PPP models. In the United States, a similar legislative framework exists to support PPP models in transportation, however in the water sector, the framework is generally limited to the existing model of private operation and maintenance. With its large-scale challenges, the water sector is a prime area for introducing hybrid PPP models that include allowancing, bundling, joint venture, and competitive and incremental partnerships.

In order to develop a successful set of PPP models for the water sector, we must first look at the current make up of ownership. As Tracy Mehan notes in his October 2011 Bureau of National Affairs article entitled, *Business of Water: It Is Time to Embrace a New Model for Water Services*, in the United States, roughly 12% of the U.S. population is provided water by private or investor-owned water utilities while private wastewater companies serve just 2% of the

² Smith, Scott, Linda Bohlinger and Tim Heilmeier. "Developing P3s in the United States, part 1." September 2011. The HTNB Companies. December 8, 2011 <<http://www.hntb.com/news-room/white-paper/developing-p3s-in-the-united-states-part-i>>.

³ Eggers, William D. and Tiffany Dovey. "Closing the Infrastructure Gap: The Role of Public-Private Partnerships." 2007. Deloitte. December 15, 2011 <[http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/us_ps_PPPUS_final\(1\).pdf](http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/us_ps_PPPUS_final(1).pdf)>

population.⁴ This means that most Americans are provided water services by their local government's municipal services. According to the American Society of Civil Engineers report entitled, *Failure to Act: The Economic Impact of Current Investment Trends in Water and Wastewater Treatment Infrastructure*, "EPA estimated the cost of the capital investment that is required to maintain and upgrade drinking-water and wastewater treatment systems across the U.S. in 2010 as \$91 billion. However, only \$36 billion of this \$91 billion needed was funded, leaving a capital funding gap of nearly \$55 billion."⁵

While the current methods available to municipalities for funding large-scale infrastructure projects are limited, potential solutions have been put forth to provide communities with other forms of assistance. For example, EPA has established the Aging Water Infrastructure Research Program, as well as identified and promoted priority areas including green infrastructure, water efficiency, watershed approaches to management, and implementing full-cost pricing in their strategy for sustaining water infrastructure. However, municipalities typically rely on traditional funding sources such as bond issues or the State Revolving Fund to address their infrastructure needs. And, as these traditional funding sources become increasingly limited, the need for additional methods to address infrastructure will continue to intensify.

If the water sector is to move toward a sustainable model of financing the recapitalization of aging infrastructure, a new form of PPP will have to be embraced that utilizes the principles of privatization and full-cost pricing. Initially, a candid discussion identifying barriers to pursuing such models and examining root causes must take place.

⁴ Mehan, G. Tracy III. *Business of Water: It Is Time to Embrace a New Model for Water Services*. Daily Environment Report, BNA. 19 Oct 2011. PDF

⁵ American Society of Civil Engineers. *Failure To Act: The Economic Impact of Current Investment Trends in Water and Wastewater Treatment Infrastructure*. Reston, VA: ASCE, PDF

Moderator

G. Tracy Mehan, Principal, The Cadmus Group

Tracy Mehan is a Principal with The Cadmus Group, an environmental consulting firm, since 2004. Mr. Mehan served as Assistant Administrator for Water at the U.S. Environmental Protection Agency (2001-2003); Environmental Stewardship Counselor to the 2004 G-8 Summit Planning Organization (2004); Director of the Michigan Office of the Great Lakes (1993-2001); Associate EPA Deputy Administrator of EPA (1992); and Director of the Missouri Department of Natural Resources (1989-1992).

Presently, Mr. Mehan serves on the Water Science and Technology Board and the Committee on the Mississippi River and the Clean Water Act for the National Research Council of the National Academies. He has also served as an independent expert judge for the Municipal Water Conservation Achievement Award Program (2006) sponsored by The U.S. Conference of Mayors and its Urban Water Council. Mr. Mehan is a graduate of Saint Louis University and its School of Law.

Featured Presentation

Brent Fewell, Vice President of Environmental Compliance, United Water

Brent Fewell is Vice President of Environmental Compliance and Chief Environmental Compliance Officer for United Water, responsible for overseeing the development and implementation of United Water's nationwide environmental compliance program. Prior to joining United Water in 2009, Mr. Fewell was an environmental attorney with the law firm of Hunton & Williams in Washington, D.C., where he provided strategic counseling to companies, trade associations, and state and local governments on policy and legal matters related to water quality management.

Earlier in his career, Mr. Fewell served as the Principal Deputy Assistant Administrator for the Environmental Protection Agency's Office of Water. In that capacity, he helped to oversee all aspects of the Safe Drinking Water Act and Clean Water Act programs. He was also responsible for overseeing programs impacting wetlands, effluent limitation guidelines, wastewater and storm water permitting, water quality trading, sustainable infrastructure, TMDL and impaired waters. In addition, as Associate Administrator for EPA's Office of Congressional and Intergovernmental Affairs, he was responsible for managing EPA's relations between Congress and the States. Mr. Fewell graduated magna cum laude with a B.S. in wildlife management from the University of Maine, earned a Master's in environmental management from Duke University, and completed his J.D. at Duquesne University where he served on Law Review.

Welcome & Introductions

Brendan McGinnis, Director, Water Division, The Horinko Group

Brendan McGinnis launched The Horinko Group's Water Division in late 2009, assembling a team of thought leaders to develop and advance actionable strategies for addressing global water quality-quantity issues. As Founding Partner of the firm, he has worked closely with our nation's leading water resources practitioners to provide management, performance measurement, and technical implementation for a number of collaborative water cleanup efforts, including the Lower Passaic River Restoration Project, the Lower Fox River, Kalamazoo River, and Delaware Estuary.