



AMERICAN WATER

Public Private Partnerships: An American Priority

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Our Company



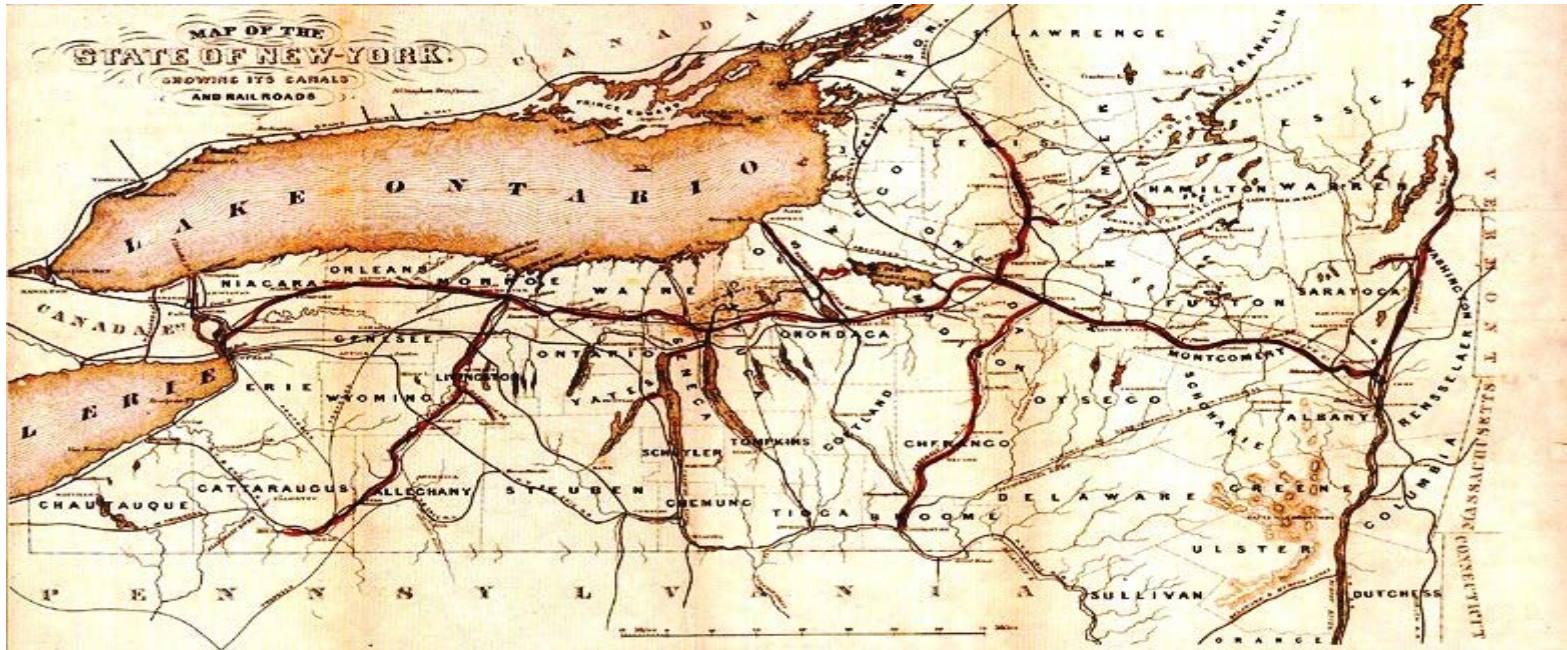
AMERICAN WATER



American Water has been partnering with communities for decades to deliver solutions to infrastructure needs. We bring both expertise and experience to the table.

- Heritage dates back to 1886
- Largest U.S. water & wastewater services provider
- 1,600 communities in 40 states & parts of Canada
- 15 million people served
- 3.2 million regulated customers
- 6,400 employees
- 48,000 miles of pipeline

American Infrastructure Innovation—19th Century Style



ERIE CANAL

- Built 1817-1825, dug by hand and animal power
- Credited with creating American civil engineering profession and heavy construction
- Cost \$7,143,789, financed by NY state issued bonds
- Dramatically improved west to east transport, established NYC as major port and financial center

Why are Public Private Partnerships Gaining Attention?

American Society of
Civil Engineers

U.S. Infrastructure:
D+, \$3.6 trillion
needed by 2020

U.S. Water
Infrastructure: D

The State of
American
Infrastructure¹

Availability of
Private vs.
Public Funds

PRIVATE:

“Institutional investors, both domestic and international, recognize the strength of our economy and want to invest in America.²”
(U.S. White House)

PUBLIC:

“Public infrastructure expenditures as a share of the economy have declined in recent decades, both for capital investment and for operations and maintenance.³”
(US Department of the Treasury & US Department of Transportation)

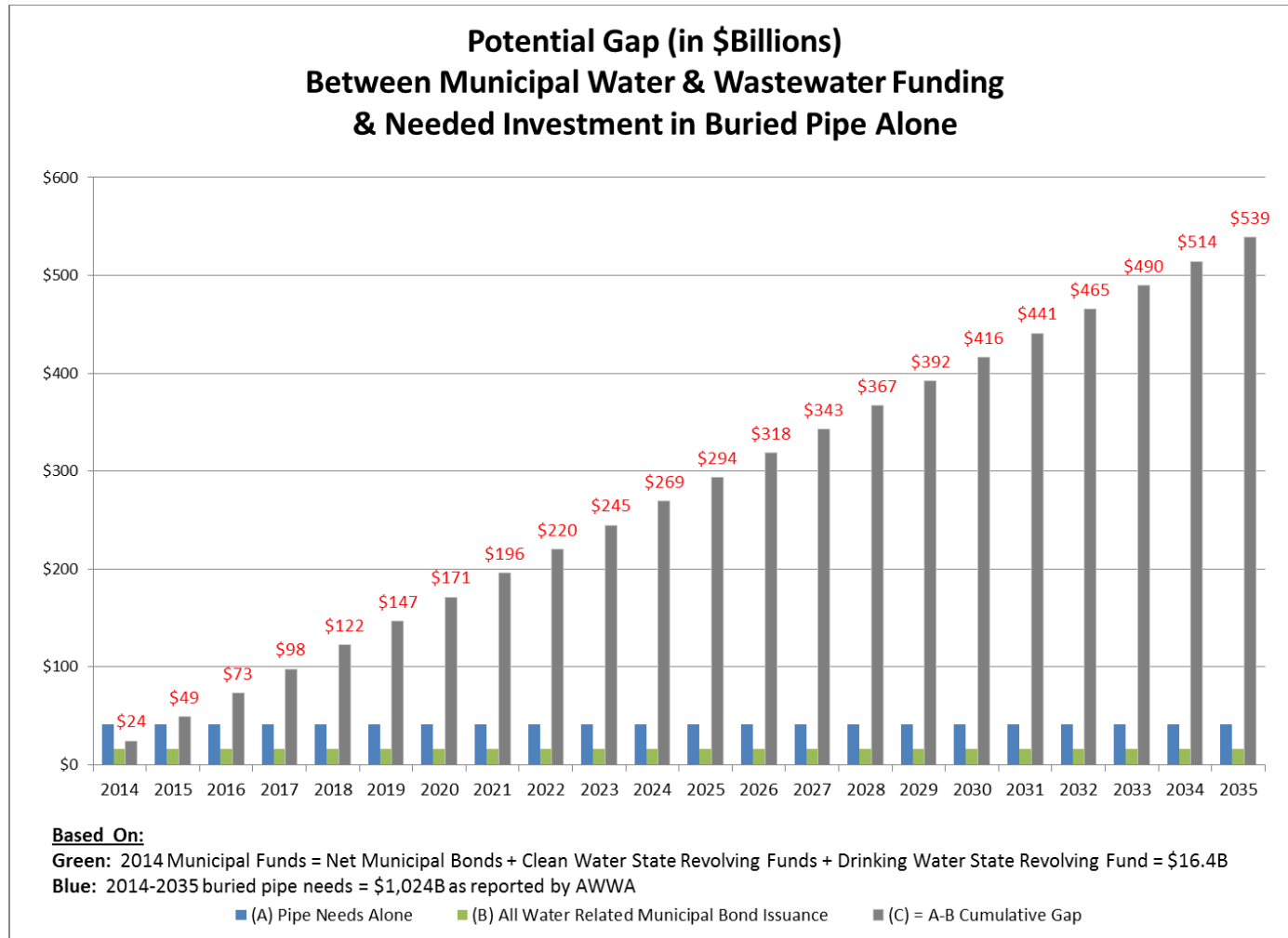
250,000
Main Breaks/Year =
1 every 2 minutes



U.S. Debt as of 4/27/15:
\$18,151,908,849,687

So many needs, old ways stressed

Governmental funding is not getting the job done. How far into the red do we want to push future generations?



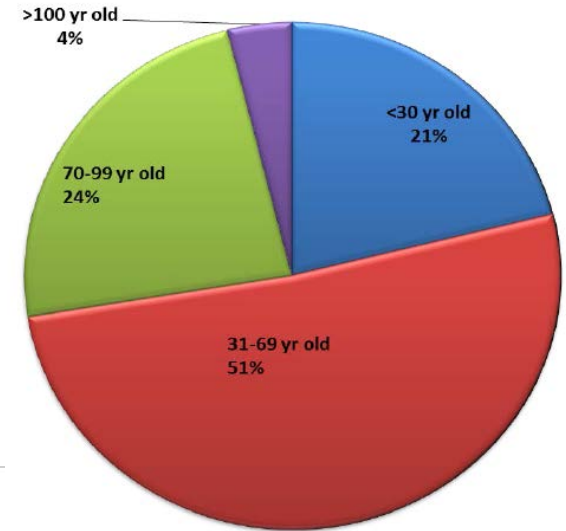
So many needs, old ways stressed

Aging Infrastructure needs:

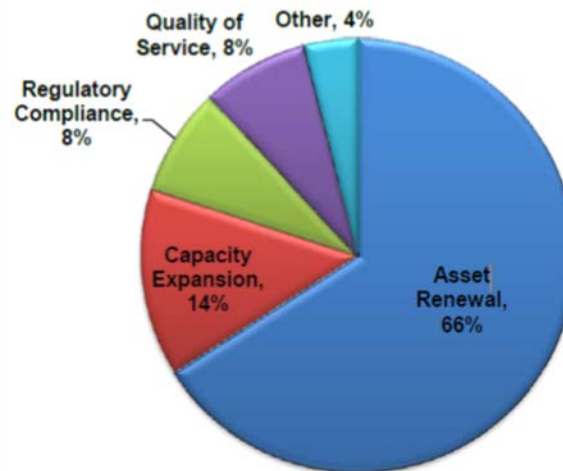
- **Pipe Replacement:**

- Average national pipe replacement rate has not been fast enough: 225 years
- American Water has reduced its overall pipe replacement rate to around 150 years.

Pipe Age Distribution – AW System



2015 – 2019 Average Capital Expenditures by Purpose



- 2/3 of American Water’s investment resources go to asset renewal currently



Statements of the U.S. Department of Treasury



U.S. DEPARTMENT OF THE TREASURY
Office of Economic Policy
April 2015

“The need to reverse years of underinvestment in infrastructure, despite tighter budgets at every level of government, calls for us to rethink how we pay for and manage infrastructure investment.⁴”

“PPPs bring private sector capital and management expertise to the challenges of modernizing and more efficiently managing such infrastructure assets.⁴”

April 2015

Statements of the U.S. White House



“Building a 21st-century infrastructure is a critical component of the Administration’s efforts to **accelerate economic growth, expand opportunity, create jobs and improve the competitiveness of the American economy.**²”

“President Obama launched the Build America Investment Initiative in July 2014, calling on federal agencies to **find new ways to increase investment** in ports, roads, bridges, broadband networks, drinking water and sewer systems and other projects **by facilitating partnerships between federal, state and local governments and private sector investors.**²”

July 2014

Public Private Partnership (PPP) Basics

Common P3's Within the Water Utility Industry

- **Operation & Maintenance Contracts (O&M)**
 - **Most common PPP structure**
 - Partial to full risk transfer to private firm for typically a 3 – 10 year term
- **Design-Build-Operate (DBO)**
 - Public agency finances; Private firm designs, builds, operates and maintains infrastructure assets in exchange for a contractually set payment by the government entity
 - Risk transfer to the private entity throughout the operations contract (typically 15 to 20 years)
 - Water industry has been challenged by speed / cost of procurement process and appropriate risk sharing

Design-Build-Finance-Operate-Maintain (DBFOM)

- Private firm designs, builds, finances, operates and maintains infrastructure assets in exchange for contractually set payment by the government entity
- Risk transfer to the private entity throughout design/build/operate cycles
- Emerging procurement model in US, widely used in other countries (e.g. Canada)

Common P3's Within the Water Utility Industry

- **Design-Build-Own-Operate-Transfer (DBOOT)**
 - Private firm assumes risk for project development
 - Partial or full ownership by private firm; further incentive for project success
 - Approach has been used very infrequently for water industry in United States

- **Concession / Lease**
 - Driver may be a large capital improvement program requiring project financing
 - Some jurisdictions allow concession payments to be co-mingled with general funds
 - Renewed interest in this model within U.S. water industry

Emerging Models

- Fiscal stress and infrastructure challenges unlikely to resolve themselves soon
- Public agencies exploring new business models to address their needs
- Likely to evolve as acceptance of “other than traditional” models increases

Ways to Achieve Success with P3's



- **Appropriate risk allocation is critical to sustained success in an ongoing P3**

- **Two-way communication and active engagement by both parties will keep goals aligned and avoid surprises**
- **Recognize that conditions and goals will change over time and make sure the P3 can adapt**
- **Avoid having the P3 lose value through the use of appropriate incentives, penalties, and system investment**

Innovative PPP's: A Couple of AW Examples

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Unique PPP's to Accomplish Policy Objectives

San Clemente Dam Removal Project Monterey, CA

Funding:

- California American Water
- California State Coastal Conservancy
- National Fisheries Service



Benefit:

Resolves safety concerns, provides jobs, and has a wide variety of environmental benefits, including the restoration of endangered species habitat for steelhead trout.

How the San Clemente Dam Project is Working

Problem:

- San Clemente dam was no longer a key source of water due to sediment.
- Seismic & safety concerns mandated improvements.
- Dam was an impediment to river & endangered species habitat.

Two possible solutions:

- 1) Buttress dam & build fish ladder (@ \$50m)
 - Improves situation but not ideal
- 2) Remove dam & reroute river (@ \$85m)
 - Better for policy objectives of safety, habitat, river restoration, & jobs.

Creative solution:

Dam removal had a great deal of public support. The solution was for California American customers to fund a portion of the costs and public agencies (Coastal Conservancy & National Fisheries) to fund a portion also (@ \$34m).



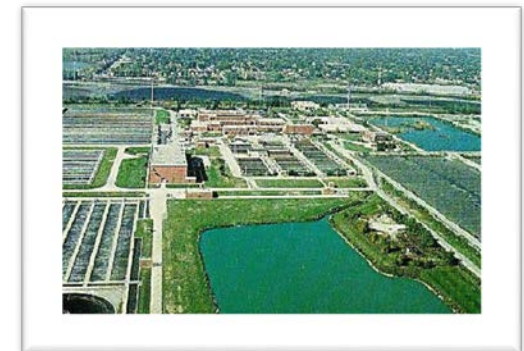
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Unique PPP's to Accomplish Policy Objectives

Metropolitan Water Reclamation District (MWRD) Beneficial Water Reuse Project Chicago, IL

Potential Benefits of this Emerging Project:

- Reduce restricted Great Lake withdrawals without reducing consumption
- New source of revenue for MWRD
- Economical delivery of non-potable water to large industrial users in the area
- Opportunity for new business for American Water



How the MWRD Beneficial Reuse Project is Planned to Work



Calumet Water Reclamation Plant

237 mgd plant to sell up to 10 mgd wholesale effluent
to Illinois American Water



Illinois American

Build distribution infrastructure
Develop customer base
Provide system operation and customer service



Customers

Purchase non-potable effluent for use in processes
that do not require potable water.

Ways Public Policy Can Drive PPP's

Water Infrastructure Finance and Innovation Act (WIFIA)

- Enacted in 2014 as 5 year pilot, not yet funded
- Would encourage public private partnership:
 - ◆ By capping federal loans at 49%, the bill encourages the use of private sector capital in meeting water infrastructure needs.



Treasury Reform

- A narrow reinterpretation of existing IRS rules could provide our municipal partners with up to 15% additional cash from the sale of water systems
- Can promote more beneficial asset sales and long term PPP's

References

- **Securities Industry and Financial Markets Association 1st, 2nd, and 4th Research Quarterly's**

** US Municipal Bond Issuance statistics, Securities Industry and Financial Markets Association (updated to April 1, 2015)

¹ “2013 Report Card for America’s Infrastructure”, American Society of Civil Engineers, March 2013

² “FACT SHEET: Building a 21st Century Infrastructure: Increasing Public and Private Collaboration with the Build America Investment Initiative”, U.S. White House, July 17, 2014.

³ “Recommendation of the Build America Investment Initiative Interagency Working Group”, U.S. Department of Energy and U.S. Department of Transportation, post July 2014.

⁴ “Expanding the Market for Infrastructure Public-Private Partnerships: Alternative Risk and Profit Sharing Approaches to Align Sponsor and Investor Interests,” U.S. Department of the Treasury Office of Economic Policy, April 2015.