MARKET INSIGHT

U.S. Private Water Market:
Opportunities & Strategies, 2014

July 2014

About This Market Insight

Market Insight Details

This Market Insight highlights the following:

- Federal- and state-level policy affecting infrastructure grants, public-private partnerships, and rate cases
- Private water ownership across key state markets
- Opportunities in public-private partnership models in US
- Private water company strategies and M&A, project development initiatives
- Investor-owned utility (IOU) asset portfolios and growth strategies

This report is part of Bluefield Research's Private Water Insight Service and its ongoing stream of deliverables.

Geographical Coverage	Key Analysis Components	Companies
• Arizona • California • Connecticut • Delaware • Idaho • Illinois • Indiana • Michigan • Missouri • North Carolina • New Jersey • New Mexico • New York • Ohio • Pennsylvania • Texas • Virginia • Wisconsin	• Policy Trends • Player strategies • Ownership market share and geographic footprints • Asset portfolios and growth strategies	• American Water • American States Water • Aqua America • Aquarion Group • Artesian Resources • California Water Services • Connecticut Water • Corix Utilities • Epcor • Great Oaks Water Co. • Johnson Utilities • KKR • Liberty Utilities • Macquarie Capital • Middlesex Water • Park Water Company • San Gabriel Valley Water Co. • San Jose Water • Southwest Water • Table Rock Capital • United Water • Utilities, Inc. • York Water

Table of Contents

Slide #

Section 1 – Private Water Market & Policy Overview

5 Summary (1 of 2)
6 Summary (2 of 2)
7 US Water Infrastructure Investment Challenges
8 Local Government Water and Wastewater Investment Levels Stalled
9 Key Legislation Evolving to Create Larger-Scale Opportunities
10 WIFIA Signals Greater Focus on Water Infrastructure
11 State Attractiveness Comparison
12 Private Ownership of Water Systems by State
13 Wastewater Treatment Ownership Overview
14 Municipality Perspective: Drivers for Private Participation in Water
15 Addressing Blocks to Covering the Investment Gap with Private Players

Section 2 – Player Strategies Overview

17 Summary
18 Private Water Market Opportunity Definition
19 Private Players in the Water Value Chain
20 Investor-Owned Utility Entry Strategies
21 Market Entry through M&A – Key Deals
22 Greenfield Market Entry Strategies Overview
23 Independent Water Producer Activity Overview

Section 3 – Investor-Owned Utilities

25 Summary (1 of 2)
26 Summary (2 of 2)
27 Private Water Company Segmentation Definition
28 Privately Owned Water Supply Systems – Market Overview
29 Relative Positioning of Large-Scale IOUs (>20,000 customers)
30 Key Player Strategies Overview
31 Large-Scale Water IOUs Geographic Footprint
32 Large-Scale IOUs Comparison

Slide #

Section 3 – Investor-Owned Utilities (continued)

33 Large-Scale IOUs Revenue Evolution
34 Key State Market Share Overview, Large Scale IOUs
35 Rate Consolidation by State
36 Small Scale, Portfolio-building M&A Activity Overview
37 Recent Tuck-in Deals Expand Presence in Large IOU Focus States

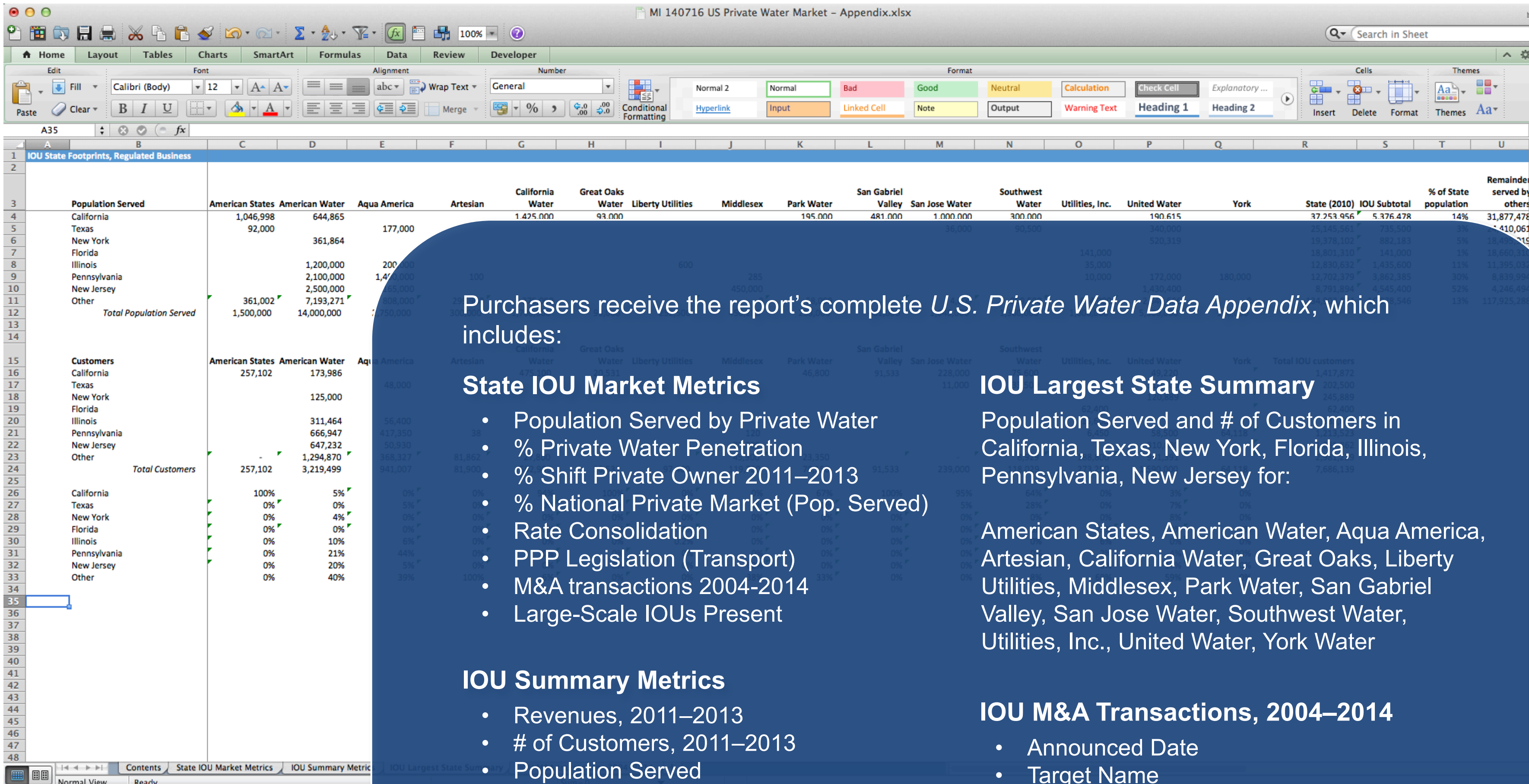
Section 4 – Public-Private Partnerships

39 Summary
40 Public-Private Partnerships Legislation Evolving
41 Public-Private Partnerships, Case Studies
42 Upcoming Public-Private Partnerships Opportunities
43 Detroit Stands Out as Largest PPP Opportunity

Section 5 – Company Profiles

45 American States Water Company
46 American Water Works Inc.
47 Aqua America Inc.
48 Aquarion Water Company
49 Artesian Resources
50 California Water Service Group
51 Connecticut Water Company
52 EPCORUtilities Inc.
53 Johnson Utilities
54 Liberty Utilities
55 Middlesex Water
56 Park Water
57 San Jose Water Company
58 Southwest Water Company
59 United Water
60 Utilities, Inc.
61 York Water Company
62 San Gabriel Valley Water Company / Great Oaks Water Company
63 Institutional Investors – Overview

Table of Contents: U.S. Private Water Data Appendix



Purchasers receive the report's complete *U.S. Private Water Data Appendix*, which includes:

State IOU Market Metrics

- Population Served by Private Water
- % Private Water Penetration
- % Shift Private Owner 2011–2013
- % National Private Market (Pop. Served)
- Rate Consolidation
- PPP Legislation (Transport)
- M&A transactions 2004-2014
- Large-Scale IOUs Present

IOU Summary Metrics

- Revenues, 2011–2013
- # of Customers, 2011–2013
- Population Served
- # of Employees
- Capital Improvements, 2013

IOU Largest State Summary

Population Served and # of Customers in California, Texas, New York, Florida, Illinois, Pennsylvania, New Jersey for:

American States, American Water, Aqua America, Artesian, California Water, Great Oaks, Liberty Utilities, Middlesex, Park Water, San Gabriel Valley, San Jose Water, Southwest Water, Utilities, Inc., United Water, York Water

IOU M&A Transactions, 2004–2014

- Announced Date
- Target Name
- Target State
- Type of Transaction
- Acquirer Name
- Announced Total Value (US$)

bluefield RESEARCH

Sample Analysis: State Attractiveness Comparison (Section 1, Slide 11)

Investment attractiveness is municipality-specific, but a select set of larger state markets foster greater private water participation, led by Pennsylvania, California, Texas and New Jersey.

State	Market Size *(total pop. Served by private system)*	Policy *(rate consolidation, PPP legislation, PUC rulings)*	Project Pipeline *(planned/completed P3, greenfield projects, tenders)*	Competitiveness *(Presence of expanding private water players)*	M&A Activity *(number/size of deals 2004-2014)*	Overall *(weighted by market size)*
California	7,520,972	◕	●	◕	◑	●
Pennsylvania	4,047,450	●	◕	●	●	●
New Jersey	3,837,512	◕	◕	◕	◕	●
Texas	1,399,600	●	●	◕	●	●
Ohio	4,572,003	◕	◔	◑	◑	◕
Florida	1,666,907	◑	◕	◑	◑	◕
Illinois	1,543,793	◑	◑	◑	◕	◕
North Carolina	1,178,087	◕	◑	◕	●	◕
Connecticut	1,056,957	◑	◑	◕	●	◕
Virginia	674,008	◕	◑	◕	◕	◕
New York	1,834,904	◑	◑	◑	◕	◑
Missouri	1,581,545	◑	◑	◑	◑	◑
Kentucky	1,454,260	◔	◑	◑	◕	◑
Indiana	1,429,678	◑	◑	◕	◑	◑
Michigan	1,365,679	◔	◕	◑	◑	◑
Arizona	1,250,421	◑	◕	◑	◑	◑
Louisiana	1,166,473	◑	◑	◑	◑	◑
Washington	813,738	◑	◔	◔	◔	◔
Wisconsin	798,381	◑	◔	◑	◔	◔
Delaware	620,113	◕	◔	◑	◑	◔

● Most Attractive ◕ Highly Attractive ◑ Attractive ◔ Somewhat Attractive

Tier 1 Market Tier 2 Market Tier 3 Market

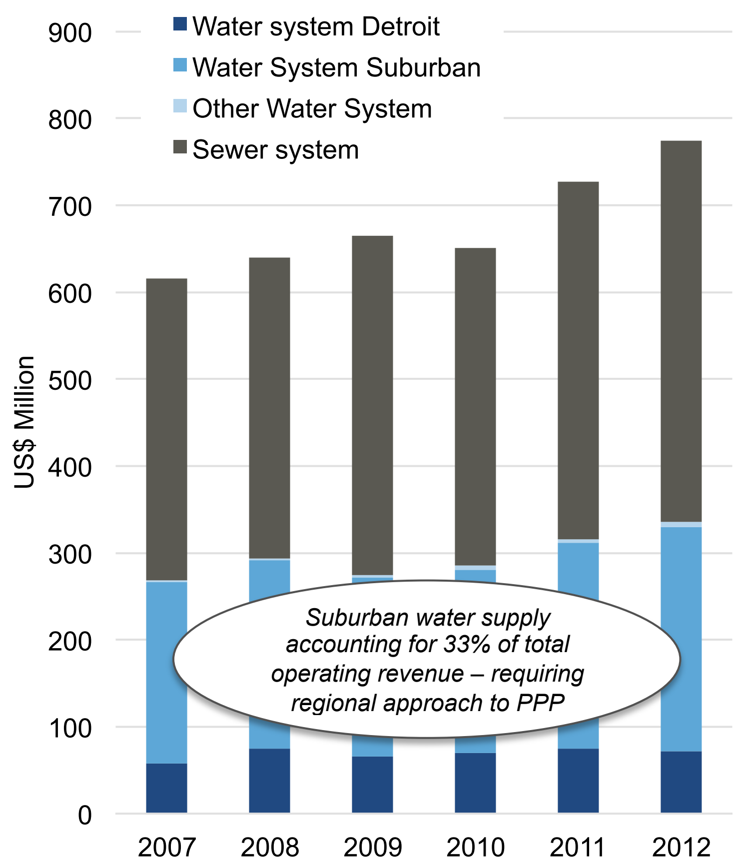
Sample Analysis: Detroit Stands Out as Largest PPP Opportunity (Section 4, Slide 43)

Detroit Water and Sewage Department (DWSD)'s plans for a PPP would be the largest in the history of the industry – but is contingent on improved collections and regional planning to sustain DWSD's rate base.

DWSD PPP Key Points Summary

Key Issue	Description
Financials Overview (Water and Sewer System)	• Revenue:$774 million (2012) • Debt: $5.74 billion • Operating margin: 22% • Annual capital improvements $297.7 million (2014)
Collections	• Roughly half of all Detroit city water supply customers do not pay their bills • Currently shutting off 120,000 non-paying customers at a rate of 3,000/week attributed to $118 million uncollected revenue
Rates	• 8.7% Rate increase already implemented 1 July 2014 • Rate increases capped at 4% annually over 10 years for bidders
System assets	• Metered connections: 272,000 residences, 3,000 businesses • 3,838 miles of transmission, distribution lines • 4 water treatment plants; 1,720 MGD • 710 MGD wastewater treatment plant
Regional water authority	• Ongoing discussions between DWSD and suburban municipalities to create a regional authority collapsed in April 2014, but remains a key objective • Genesee county will source water directly from Lake Huron as of 2014, bypassing DWSD – other counties including Oakland, Macomb studying alternatives as well.
Transaction structuree	• No set structure, considering various alternatives. • Operating and management agreement, long term lease and concession, or sale under consideration
Bid timeline	• Final binding proposals: 1 June 2014 • Closing: August 2014

DWSD Operating Revenue 2007–2012



bluefield RESEARCH

Order Form

U.S. Private Water Market: Opportunities & Strategies, 2014

Publication Date: July 2014

This Market Insight highlights the following:

- Federal- and state-level policy affecting infrastructure grants, public-private partnerships, and rate cases
- Private water ownership across key state markets
- Opportunities in public-private partnership models in US
- Private water company strategies and M&A, project development initiatives
- Investor-owned utility (IOU) asset portfolios and growth strategies

Complete the order form to the right and fax or email a scanned copy to Bluefield Research at **+1 617 249 2082**, or **sales@bluefieldresearch.com**.

SELECT LICENSE

☐ SINGLE SITE LICENSE **US$2200**

☐ ENTERPRISE LICENSE **US$3100**

PAYMENT METHOD ☐ CREDIT CARD ☐ INVOICE / PURCHASE ORDER

NAME AS APPEARS ON CREDIT CARD ____________________

CREDIT CARD NUMBER ____________________

EXPIRATION DATE ____________________ CVV CODE ____________________

TOTAL CHARGE (US$) ____________________ SIGNATURE ____________________

BILLING ADDRESS

FIRST NAME ____________________ LAST NAME ____________________

COMPANY ____________________ COUNTRY ____________________

STREET ADDRESS ____________________

CITY ____________________ POSTAL CODE ____________________

EMAIL ____________________ PHONE ____________________

SIGNATURE ____________________ DATE ____________________

For more information on the terms and conditions governing both the Single Site and Enterprise Licenses of this Market Insight, visit http://bluefieldresearch.com/report-license-options.

bluefield RESEARCH

About Bluefield Research

Global companies across the value chain are developing strategies to capitalize on greenfield opportunities in water– new build, new business models, and private investment. Bluefield Research supports a growing roster of companies across key technology segments and industry verticals addressing risks and opportunities in the new water landscape.

Companies are turning to Bluefield for in-depth, actionable intelligence into the water sector and the sector's impacts on key industries. The insights draw on primary research from the water, energy, power, mining, agriculture, financial sectors, and their respective supply chains.

Bluefield works with key decision-makers at utilities, project development companies, independent water and power providers, EPC companies, technology suppliers, manufacturers, and investment firms. Bluefield's services gives these companies tools to define and execute strategies.

Contact Bluefield Research

NORTH AMERICA
34 Farnsworth St // Floor 3
Boston, MA 02210
T +1 617 963 5114

EUROPE
C/ Santa Eulàlia 5-9 // 3ª
08012 Barcelona Spain
T +34 617 464 999

sales@bluefieldresearch.com
www.bluefieldresearch.com