

**Why the Bayonne Water/Wastewater
Public- Private Partnership Succeeded**

April 1, 2013



NW FINANCIAL GROUP, LLC

Exceeding Expectations

On December 21, 2012, The Bayonne Municipal Utilities Authority (“Bayonne”) successfully arranged a unique Public Private Partnership with United Water and KKR (“Concessionaire”) for a 40 year concession of its water and waste water systems. This partnership was the result of over one year of procurement and negotiations between the parties in order to obtain the best value for rate payers and allow a fair return to investors. This transaction is the first major water/sewer concession in the Northeast in over a decade and reflects many important lessons and innovations that have developed over that time in the world of Public Private Partnerships. The components of the transaction that contributed the most to its success are listed here:

Key Elements of the Bayonne P3 Deal

Public Need

- Recent declines water usage
- Loss of large industrial customer
- Public debt burden and credit risk to City
- Concerns with operating efficiencies & staffing needs

Public Private Partnership Equities

- Fair rate design over life of Concession
- Fair Concession price to Public entity
- Fair Risk Sharing between the parties
- Fair rate of return to Investors

Sophisticated Private Team

- Use of Revenue Path Model as deal structure
- Moderate Leverage by Concessionaire
- Experienced operator with local presence

Background

The City of Bayonne is located along the Hudson River and New York Bay in Northern New Jersey with a population of 63,000. Bayonne is a community of primarily two family homes occupied by middle income families and is within 10 miles of New York City. Historically Bayonne has also had a large industrial land use along its waterfront including: a federal military base, fuel depots and shipping facilities. As a result of the closing of the federal military base the City was in a position to pursue redevelopment opportunities and add to its tax base. As is always the case in large scale redevelopment the expected timing is much different than the reality of the development process, as a result after 10 years of effort much of the redevelopment was still on the drawing boards.

The City had established a Municipal Utility Authority under state law to run its water and sewer systems. Bayonne for many years ran an efficient operation, however seldom increased rates. Bayonne had looked at the possibility of a Public Private Partnership over a decade earlier but after extensive procurement and negotiations determined that self-management was the better alternative at the time.

Since its prior flirtation with P3, Bayonne began to experience operational and financial stress due to the following factors:

- The installation of water saving devices as customers changed fixtures had a significant impact on water usage which reduced both water and sewer billings
- Loss of a major industrial water customer in recent years had

created a large revenue loss which could not be absorbed over time unless significant increases in user fees were imposed in the short term

- The age of the system was creating increasing capital and maintenance needs which were both a financial and operational problem
- Loss of key licensed engineering staff due to retirement led to replacement problems due to both availability and compensation competitiveness
- Deferred debt obligations were beginning to mature just as the system was experiencing revenue problems, potentially causing a call upon the City's guarantee which backed the utility authority bonds

Looking forward Bayonne decided to once again see if a P3 solution was optimal. Bayonne commenced a proscribed procurement process under New Jersey law for a water or waste water public private partnership. The procurement sought bids for both a full concession deal and alternatively a long term contract operations agreement for either 10 or 20 years.

The Bayonne system consisted of a distribution only asset base for both water and wastewater distribution to over 22,000 metered accounts. Customers were billed on a usage only basis for both services based upon meter readings. Bayonne purchases its water from a regional water authority and pipes its wastewater to a

regional sewer treatment plant. Both regional authorities bill Bayonne based on master meter readings at the connection between the systems. Bayonne also had installed a 1.5 mw windmill which is expected to reduce the systems power costs substantially.

Although 8 different bidders expressed interest in the procurement only one group submitted a formal response, United Water in a joint venture with Kohlberg Kravitz & Roberts ("KKR"). United Water had been the successful bidder in the prior P3 effort of Bayonne but did not have a separate financial partner at the time. KKR, with its depth of experience in complex financial transactions brought a new level of investment sophistication to the proposal.

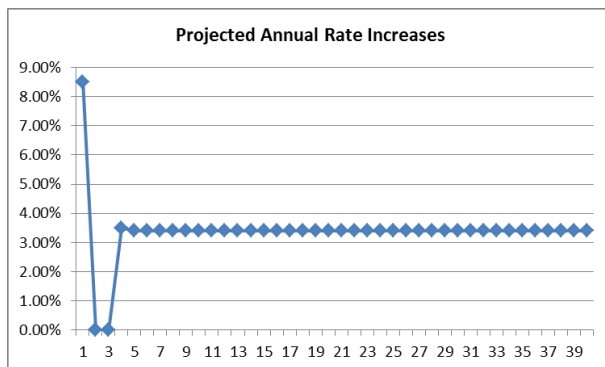
The proposals were reviewed in depth and modeled against the self-management option. The key metric for Bayonne was the required early year rate increases over time needed to execute the transition to self-sufficiency and also fund the outstanding city guaranteed debt of the Bayonne system, which totaled over \$125 million. Although it was clear there was a need for an immediate large rate increase, the Bayonne was committed to keep rates flat for at least two years after the large increase and then have a modest formulaic rate model that would be fair to its customers over time.

Initially, self-management combined with debt restructuring appeared to be the best option and the United Water/KKR team was advised of this view. The desire of the private side to pursue the deal led to a series of meetings and, importantly, a very transparent exchange of information that led to the development of a Revenue Path Model as an optimal deal structure.

The Revenue Path Model

In order to address the Bayonne’s concerns about future rates for its customers the driving decision point was to lock the private concessionaire into a fixed rate increase schedule that would assure modest future rate increases over the 40 year concession period.

Since customers were being asked to absorb a large (8.50%) rate increase in the first year it was important to Bayonne to also have a two year rate freeze period and a fourth year 3.50% fixed rate. After this initial period rates would rise in accordance with a formula tied in part to inflation.



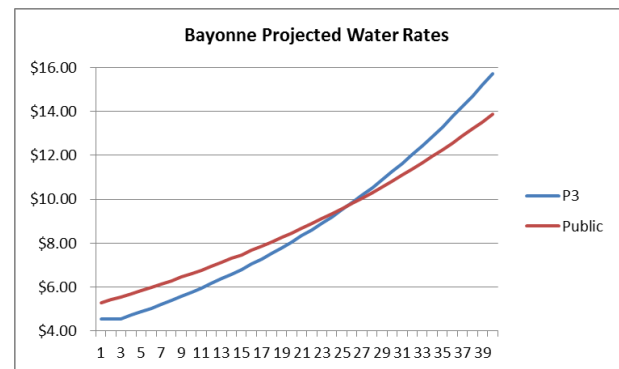
This projected rate model would likely average about 3.4% per annum assuming a 2% rate of inflation. It is important to note that regulated water utility rate increases in New Jersey have grown at over 5% per annum since the 1970’s. If self-managed Bayonne would have needed a 26% rate increase to balance its finances and projected at least a 2.5% average annual increase thereafter with no maximum imposed.

The actual Revenue Path grows on three tiers:

Tier 1 -70% of the increase is made at a flat rate of 3.50% until 2021 and then 3.75% thereafter

Tier 2- 20% of the increase is made at CPI plus 100 basis points until 2021 and then CPI plus 125 basis points thereafter

Tier 3- 10% of the increase is made at the labor component of CPI plus 100 basis points until 2021 and then labor CPI plus 125 basis points thereafter



The Concession also has a periodic “true-up” mechanism to assure the Revenue Path is attained, as likely performance will either be under or over the target. When formulaic rate increases produce revenues in excess of the target, due to growth or new revenues, Bayonne and rate payers are the beneficiary.

Additionally, as a part of the Concession fee a rate stabilization fund of \$6.5 million was funded to help transition rates.

The rate design meant that although the internal rate of return met the investor’s targets, the Concessionaire would need to

wait for its full “cash on cash” return on equity until the later years of the Concession term.

The assurance of a Revenue Path, rather than a projected usage flow, allowed the Concessionaire to evaluate both risk transfers and return on its investment in the context of operations undertaken by United Water.

The Revenue Path included certain assumptions about increased revenues from sources other than rate increases which included:

- Increased revenues from meter replacement with more accurate meters
- Population growth as the result of scheduled new development projects over time
- Increased revenues from right to sell excess water to United Water
- Actual revenues that exceeded the Revenue Path would be passed back to Bayonne and rate payers

With the formulaic Revenue Path the Concessionaire would be fully responsible for operations (in accordance with written operating standards), maintenance (up to \$500,000 per year) and capital improvements over the life of the concession (\$2.5 million per year adjusted by inflation). In addition to the Concession fee of \$150 million, included in the agreement are certain required initial capital improvements, including the installation of the new meters that total \$7.5 million. The Concessionaire was also responsible for initially hiring all 30 Bayonne

employees for one year before it reduces the workforce to 19 people.

This risk transfer, while substantial, was not unlimited. Certain costs would be eligible for pass through to rate payers, including:

- Capital expenditures in excess of \$2.5 million in a single year
- Treatment cost increases for both water and sewer (which are outsourced to public regional bodies) in excess of 2% per annum
- Uncontrollable events, such as new laws or regulations that increase costs above \$3 million in a single year

The combination of the Revenue Path with the Risk Sharing elements effectively modeled the system as a customer based utility much like a regulated water utility that can pass through certain costs to its rate payers. The risks to rate payers parallel the ratepayer risks in regulated utilities.

However in the case of the Bayonne model the private Concessionaire would not have future opportunity to increase its profit margin by increases to rate payers, rather increased returns could only be achieved by reduced costs for operations or debt service. Any residual net revenues will be paid over to a Bayonne beneficiary account.

Bayonne retained oversight and monitoring responsibilities as the systems would return to their operations at the end of the concession and passed through a fee for this work in the rate model.

Concession Funding

Given the Revenue Path model the Concessionaire was able to undertake an economic analysis to determine what price it could pay to acquire the Concession. This analysis required an assessment of the risks being undertaken and the appropriate return on capital, as well as, the potential to finance a portion of the deal with lower cost debt financing.

Negotiations as to acceptable returns were undertaken between the parties and led to an acceptable equity return in the low double digits assuming a 65% debt/35% equity model. At the time of the agreement loan rates were projected in the mid 6% range and the cost of debt was a risk to the Concessionaire pending final close on the deal.

The Concessionaire was able to obtain an investment grade “BBB” rating from Fitch on the 25 year loan which allowed them to secure a private placement commitment from three insurance companies for 25 year fixed rate debt at an interest rate less than 6%.

Key Public Benefit Summary

Primary benefits to the public sector were as follows

- 1- Rate stabilization over a long period
- 2- Pay off of over \$125 million of public debt
- 3- No rate shock to customers
- 4- Positive event for City’s credit rating
- 5- Better service levels for customers
- 6- Offloading of operational burden to private sector

Transaction Participants

Public Sector

Bayonne Municipal Utilities Authority

McManimon, Scotland & Baumann,
Authority Counsel

NW Financial Group, LLC, Financial
Advisor to Authority

Arcadis-US, Authority Consulting Engineer

Donohue Gironde & Doria, Authority
Accountants

Private Sector

United Water, Operator & Concession
Partner

KKR, Equity Investor & Concession Partner

Allen & Overy, Concessionaire Counsel

The Author of this Research Report is Dennis J. Enright, Principal, NW Financial Group, LLC. He may be contacted at NW Financial Group, LLC, 2 Hudson Place, Jersey Hoboken, New Jersey 07030. Phone: 201.656.0115. Email: dje@nwfinancial.com.

All of the information contained herein has been obtained from sources deemed to be reliable, however, NW Financial Group, LLC has not verified or audited such data. This report is for informational purposes only and is provided without any warranties of any kind.