PWSA’s Restructuring:
THE SEARCH FOR NEW VALUE

PRESENTED BY: The Infrastructure Management Group (IMG) Team
March 31, 2017
The IMG Team

- Infrastructure Management Group, Inc.
- Grant Thornton (accounting, audit and IT)
- Tetra Tech (water & sewer technical)
- West Group (legal)
- Actual Size (community and media relations)
What Type of Restructuring?

Initial Education

Assessment

A P3, a blend, or internal improvement?

- Lease/Concession (Bayonne)
- O&M Contracting (Milwaukee)
- Transfer to Agency or Private Non-Profit (Indianapolis)
- Shared Benefit Improvement + Outsourcing (Pittsburgh)
- Aggressive Internal Improvement (Tulsa)

Consensus Strategic and Tactical Plan

Implementation
The Assessment Phase
Our Value for the Assessment Phase

• We will provide a thorough and quantified comparison of the restructuring options.

• This will begin with a detailed assessment of PWSA, yielding robust estimates of the value that can be created by each option.
Bringing Business to Government

**IMG Team Work Flow Management**

1. **Kick-Off Meetings With City, PWSA Board & Utility Management**
   - Restructuring Guidebook
   - S.W.O T. With Cross-Functional Groups

2. **High Level Service and Operations Assessment**
   - Performance Data Review
     - Service Levels (Taste & Odor, Line Breaks, Etc.)
     - Growth & Operating Environment
     - Compliance History and Process Review
   - Supply & Capacity Assessment
   - Condition Assessment
   - Operations Assessment
   - Alternatives Analysis
   - Findings and Recommendations (CIP, Efficiencies)

3. **Tactical Financial Assessment**
   (Financial Condition, Rates Modeling, Planning & Reporting)

4. **Strategic Impact Analysis**
   (Long-term Financial Assessment of Options, Including Customer Service and Rate Impact Analysis)

5. **Options Selection**
   - Do Nothing Baseline
   - Transfer
   - Market Expansion
   - Aggressive Improvement
   - Contract Operations
   - Concession(s)
   - Go-Forward
     (Findings, Recommendations, & implementation Assistance)

**S.W.O T.** With Cross-Functional Groups

**Support Services**
- Engineering - Planning - CIP - IT – Legal - Customer Svc. - HR – Finance - Budgeting - Procurement - Communications

= Opportunities for Stakeholder Input

**Education Sessions**

**High Level Service and Operations Assessment**

**Performance Data Review**

**Water**
- Service Levels (Response, Flow, Odor, Cleaning, etc.)
- Growth and Service Projections
- Service History and Process Review
- Capacity to Meet Reg. Requirements (Current and Future)

**Sewer - Storm**
- Supply & Capacity Assessment
- Condition & Capacity Assessment
- Maintenance Practices Assessment
- Alternatives Analysis
- Findings and Recommendations (CIP, Efficiencies)

**Community Engagement**
Phase 1
Our Approach: Initial Assessment

- Kick-Off Meetings With City, PWSA Board & Utility Management
- Restructuring Guidebook
- S.W.O.T. With Cross-Functional Groups
- Governance and Organizational Assessment
- Management, Staff and Business Process Assessment
- EDUCATION SESSIONS II
- Tactical Financial Assessment (Financial Condition, Rates Modeling, Planning & Reporting)
- Community Engagement
Phase 2
Operations and Assets Management Assessment

Performance Data Review

**WATER**
- Service Levels (Taste & Odor, Line Breaks, Etc.)
- Growth & Operating Environment
- Compliance History and Process Review

**SEWER/STORM**
- Service Levels (Response, Flow, Odor, Cleaning, etc.)
- Growth and Service Projections
- Service History and Process Review
- Capacity to Meet Reg. Requirements (Current and Future)

High Level Service and Operations Assessment

- Supply & Capacity Assessment
- Condition Assessment
- Operations Assessment
- Alternatives Analysis

Findings and Recommendations (CIP, Efficiencies)

Support Services
Engineering - Planning - CIP - IT - Legal - Customer Svc. - HR - Finance - Budgeting - Procurement - Communications

Findings and Recommendations (CIP, Efficiencies)
Operations and Asset Management Restructuring Team

- **Engagement Manager Restructuring**
  - Steve Steckler, IMG

- **Assistant Engagement Manager for Technical Services**
  - Jeff George, IMG

- **Water & Sewer Asset Management**
  - Tacoma Zach

- **Sewer Operations & Maintenance**
  - Wiff Peterson

- **Water Operations & Maintenance**
  - Paul Roux

- **Capital Programs**
  - Jonathan Shimko
  - Tetra Tech
Phase 3, 4 & 5
Options Analysis and Selection

Strategic Impact Analysis
(Financial Assessment of Options, Including Customer Service and Household Rate Impact Analysis)

3
Do Nothing Baseline
Transfer
Market Expansion
Aggressive Improvement
Contract Operations
Concession(s)
Options Selection

4
Spectrum of Options

5
Go-Forward
(Findings, Recommendations, and implementation Assistance)

Engagement Manager
Restructuring
Steve Steckler, IMG

Assistant Engagement Manager for Finance & Valuation
Sasha Page, IMG

Assistant Engagement Manager
Legal, Regulatory Labor & Contract
Teno West, West Group

Accounting, Audit, IT
Tony Hernandez
Grant Thornton

Agency Restructuring Analysis
Jennifer Hara, IP3
The Legal Landscape:  
*How far can you go?*

- **Legal authority**
  - Pertinent statutory provisions, enabling legislation, charters, and by-laws
  - City’s and PWSA’s powers and responsibilities

- **Controlling agreements**
  - Capital Lease Agreement and Cooperation Agreement
  - Shared-cost agreements with outside municipalities

- **Employee-related obligations**
  - Pension costs and how they are covered by the City
  - Other employee services provided by the City

- **Transaction Costs**
  - Debt defeasement
  - Swaps
Comparing Options:
*Where can the New Value come from?*

- Operations and maintenance savings
- Advanced asset management
- Optimal capital programming
- Efficient and effective support services
- New customers and services

**The Two Key Questions:**
1. *Who keeps the value?*
2. *How to improve services and invest in assets -- without raising rates?*
# New Value from O&M Performance Improvement

By implementing some of these operational optimization alternatives, whether by itself or through a private operator, PWSA may achieve significant cost savings, reduce projected rate increases.

## Enterprise-wide Improvements
- Employ enterprise approach to performance management
- Plan enterprise-wide operations improvement transition period
- Develop internal optimization specialists team
- Implement enterprise-wide asset management system & CMMS
- Upgrade SCADA system
- Conduct new energy audit and implement controls
- Develop succession plan strategy
- Consolidate customer service departments

## Water Optimization
- Make treatment plant a training facility
- Optimize chemical costs
- Optimize hauling costs
- Implement aggressive pipeline monitoring program
- Expand use of AMR meters
- Replace some staff with seasonal hires
- Reduce Flow Lines staff
- Reduce Transmission & Distribution staff
- Revisit economics of alternative contaminant removal approaches

## Wastewater Optimization*
- Pursue aggressive optimization
- Install operator process labs
- Reduce recycle loads
- Pursue BNR capability
- Use effluent dilution water to improve thickening
- Optimize blower control, clarifiers
- Implement MLSS analyzers, etc.
- Pursue aggressive SSO performance improvement
- Implement risk-based cleaning
- Develop sulfide reduction plan
- Reduce potable water use

* NOTE: the improvements above apply to treatment plants, not collection systems
New Value from Asset Management
Value Added Comparison

The chart below is an example of how the value added (value is a function of benefits to consumers, the condition of the assets, and long-term liabilities) compares for each option.

**Strategic Options Value Comparison**

- Concession
- O&M Contract
- Partial Outsourcing
- Market Expansion
- AI - Upside
- AI - Management
- AI - Base
- Baseline

![Value Added Comparison Graph](chart.png)
Some Variables That Drive the Value Comparison

- core water and sewer labor hours required to provide the services,
- the direct and allocated cost of support services (including engineering services),
- taxes and fees, net, as well as materials, energy and supplies costs,
- the use of technology and automation,
- the number of customers served,
- timing and cost of capital investments, and the cost of financing capital improvements,
- the “discount rate” used to calculate the present value of cost savings in the future,
- the use of design-build for new construction projects,
- transaction costs for the restructuring.

Market Expansion Summary

<table>
<thead>
<tr>
<th>Market Expansion Highlights</th>
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</thead>
<tbody>
<tr>
<td>TMUA can profitably expand wholesale offering to surrounding markets</td>
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<tr>
<td>Calculated rates include 10% margin, but could be adjusted to as appropriate</td>
</tr>
<tr>
<td>Water: Collinsville</td>
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<tr>
<td>Wastewater: Bixby, Glenpool</td>
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</tbody>
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O&M Contract Analysis Summary

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<td>Contract operator specializes in running utilities efficiently</td>
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<tr>
<td>Contract operator will charge TMUA estimated direct costs plus 15%</td>
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<tr>
<td>TMUA would lose control of utility operations, maintain control over capital and retail</td>
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% Reduction

- 0.7% for Valuation
- 17.2% for Combined Rate Impact

2013-40 Estimated Average Residential Bill
The Importance of the Baseline Forecast: What will happen to rates if we do nothing?

- Sets expectations for future rate increases (typically due to asset replacement needs)
- Establishes projected benefits of alternatives and how they compare
- Establishes new value that can be created, and then asks who will retain that value: PWSA ratepayers? The City? A concessionaire?

Baseline Performance Option - Summary

TMUA’s current outlook shows that it will have to make regular rate increases and issue significant amounts of debt to meet its long-term capital needs.

Baseline Overview
- Significant capital outlays over next 50 years
- Estimated annual rate growth to cover costs:
  - Water: 4.26%
  - Wastewater: 5.77%
- Cost of capital
  - Municipal debt outlook
  - Premium for constraints
- Minimum debt service coverage ratio: 1.5

Baseline - Average Monthly Bill
<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
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<tbody>
<tr>
<td>2012</td>
<td>$ 65.16</td>
</tr>
<tr>
<td>2020</td>
<td>$ 116.90</td>
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<tr>
<td>2040</td>
<td>$ 261.60</td>
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Is a long-term concession or sale the answer to PWSA’s performance problems?
How much more value can be created by a concessionaire?

The IMG Team will calculate the savings that could be achieved via O&M contracting first, then consider what additional value could be added by assuming full asset management and capital program responsibility, including synergies between operations, maintenance, system finances, retail and leading-edge asset management systems.

Concession Highlights

- Concessionaire would implement all of the aggressive improvement scenario elements
  - achieve additional capital savings of 10-15% due to higher risk tolerance, scaled systems and experience
  - implement market expansion and partial outsourcing recommendations
- Some savings would be offset by the concessionaire’s higher cost of capital and risk associated with future performance gains
- Concessionaire could pay entire value gain up-front in a lump sum to City or reserve a percentage of that value for rate stabilization

Valuation Comparison

Estimated Lump Sum Payment: $1,100 M
The City’s Privatization Challenge:

In the 27 years since the first US infrastructure concessions, no large municipal utility has been successfully privatized – even partially -- via a sale or long-term lease to a private for-profit entity, despite several high-profile attempts.

Here’s why:

1. Claims of “backdoor borrowing at loan-shark interest rates”
2. Persistent questioning of how the private concessionaire will save money, add value
3. Threat of adverse legal action, delays: ratepayer and bondholder lawsuits
4. Hidden system liabilities and faulty valuations frighten prospective bidders
5. Consistent labor, environmentalist, community group and local political opposition
6. Water/ sewer rate and quality-of-service regulatory complexity
Improvement via City-PWSA Contract

Significant improvement may be able to be achieved making organizational and operational improvements that move the utilities to a more performance-based approach.

**Aggressive Improvement Highlights**

- Moves PWSA to more of a performance-based utility
- Empowers board to more effectively drive performance improvements
- PWSA maintains control of the utilities and can significantly reduce rate uncertainty

**Combined Rate Impact**

**Combined Valuation**

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**2018-40 Estimated Average Residential Bill**

- **Average Bill** $142.4
- **% Reduction** 14.6%
Other than a concession or sale, what other opportunities are there to add value?
Stakeholders

- Household Customers
- The City Council
- Corporate & Institutional Customers
- Community Groups
- The Media
- PWSA Employees
- Bargaining Units
- PWSA Management
- Environmental Groups
- The City Council
- Community Groups
- The Media
Stakeholder engagement

• **Community communication tools:**
  – Website, social media and e-mail
  – Community forums through grassroots issue advocacy

• **The message:**
  – State clear goals for the engagement, including time frame
  – Microsite, launched at the beginning of the project, updated throughout

• **Customers, ratepayers:**
  – Include two primary goals, in writing: improve service, mitigate future rate increases
  – Hold at least one, if not more, public listening sessions with consultant team

• **Labor, bargaining units:**
  – Keep them informed, and seek an open mind
  – Make them part of the solution, if possible

• **The press:**
  – Provide frequent access, especially to Blue Ribbon Panel meetings; press regular releases
  – Provide occasional unfiltered access to consultant team
Stakeholder messaging

• **Grassroots:**
  - We will work with you to build strategic alliances with those who are engaged in the public process
  - We work at both the *grassroots* and *grasstops* level to ensure that your messaging reaches its identified targets
  - We will help you build and implement a plan to reach key audiences, develop an earned media plan and leverage the constituencies

• **Outcomes:**
  - Measured results, visually presented on the microsite.
  - We suggest infographics of results to breakdown often complex issues
  - Infographics can be supplied to media outlets, social media channels and community groups and stakeholders to keep the transparency theme a reality
Our value
If you choose a private partnership...

We will help you ensure that it is the best possible agreement for Pittsburgh’s citizens.

- We will ensure that there are no involuntary layoffs, and no diminution of pay and benefits for current workers.

- We will ensure that all of the collective bargaining units are recognized.

- We will ensure that the value produced by the sale or concession is NEW value, and that most of it is returned to customers via lower rates.

- We will ensure that customer service, billing, reliability and all other aspects of the customer experience are modernized, responsive and user-friendly.

- And we will ensure that the concessionaire manages the assets well, invests for the future, and does so with a 100-year perspective, and not a short-term focus on earnings.
However, if you choose improvement via City-PWSA contract...

- **City-PWSA Lease:** We will work with the City to create a new performance culture at PWSA, utilizing the City-PWSA lease as a long-term value-adding, value-enforcing tool.

- **Performance Management:** We will work with the City and PWSA to create a detailed, quantified Business Plan with precise performance measures and milestones, including a detailed system for routinely reporting results, and progress.

- **Operations:** We will introduce best-in-class operations and maintenance practices to managers to produce “quick wins” in both customer service and operating savings.

- **Asset Management:** We will create an advanced maintenance and asset management system to reduce long-term capital costs.

- **Management Information Tools:** We will work with staff to install advanced operating and water information management technology.

- **Annual Performance Agreement:** And finally, we will craft a City-PWSA Annual Performance Agreement to enforce the immediate and long-term goals agreed to between the City and PWSA.
The Critical Role of Performance Information Systems

**CITY**
- City IT Systems
- Financial Management System
- Customer Service & Billing System
- HR and Time Systems
- Purchasing Systems

**UTILITY**
- Performance Management
  - Board Level
  - Utility Level
  - Department Level
  - Shop Level

**PWSA BOARD**
- Strategic Management
  - Strategic Business Plan
  - Annual PWSA-City Agreement

**SYNERGIES**
- Operations
- Maintenance

**Asset Registry**

**Data Warehouse**
- Hach WIMS

**Performance Dashboards**
- ESRI-GIS
- SAMS
- CMMS

**Support Service Agreements**
- Engineering Services
- HR
- Legal
- Procurement
- IT
- O&M + CIP OPTIMIZATION TASKS
- Annual Utility Budget
Conclusions

• Privatization is a robust way to create -- and share -- the value of performance improvement, but there are other ways.

• The unique City-PWSA lease structure allows for a contractually-binding commitment to performance improvement (Performance-Based Lease), with or without a private partner.

• Technology both enables and enforces cultural changes, and also allows close monitoring of compliance with the performance commitment.

• Value created through PWSA’s performance improvement can be shared between the City and ratepayers.
Our advantage, and our commitment to you

• We will guide you through a process that is insightful, balanced, fair and transparent.

• We have the experience to identify – with relative precision – the value that can be added to PWSA by each restructuring option.

• We will help create genuinely new value, not just extract it.

• We will strive – through whichever option is selected -- to reduce household rates increases by 15-20% or more compared to what they would be otherwise, all while significantly improving service.
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