



# **Water Research Foundation Workshop: Benchmarking**

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April 23, 2015

# DEP Mission & Vision



**Vision.** To be the safest, most efficient, cost-effective, resilient, and transparent water utility in the nation

**Mission.** To protect public health and the environment by supplying clean drinking water, collecting and treating wastewater, and reducing air, noise, and hazardous materials pollution

# Water Supply System

- **Supply one billion gallons of water per day to 8.4 million City residents and one million upstate residents**
  - Protect 2,000 square mile watershed, including three upstate reservoir systems with 19 reservoirs and three controlled lakes
  - Eight upstate wastewater treatment plants
  - 550,000 water quality tests per year
  - 295 miles of aqueduct and tunnels
  - 6,800 miles of water mains
  - 56 shaft sites; 500 pressure regulators; three pump stations
  - 110,000 fire hydrants



# Wastewater Management

- **Treat 1.3 billion gallons of wastewater per day**
  - 14 in-city treatment plants;
  - 7,506 miles of sewer: 3,326 miles of combined, 2,218 of sanitary, 1,824 of storm, & 138 of interceptor
  - 490 regulators (104 telemetered), 96 pump stations
  - 148,000 catch basins
  - 11 marine vessels: three sludge boats, four skimmer boats, two harbor survey vessels and two shoreline survey boats
  - Four combined sewer overflow (“CSO”) facilities
- **Manage stormwater with Green Infrastructure**



# Capital Projects



Croton Filtration Plant (\$3.2 B)



City Tunnel No. 3 (\$4.5 B)



Newtown Creek Upgrade (\$5 B)

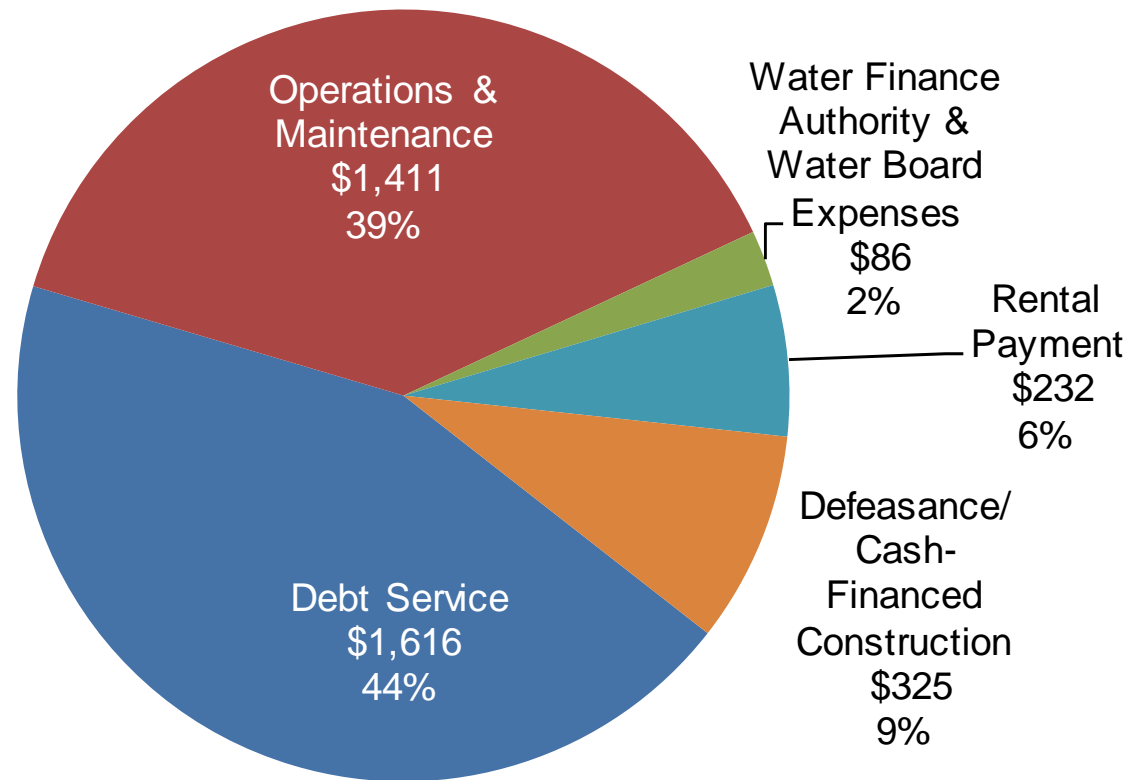


Cat-Del UV Disinfection Facility (\$1.6 B)

# Projected FY 2015 System Expenses

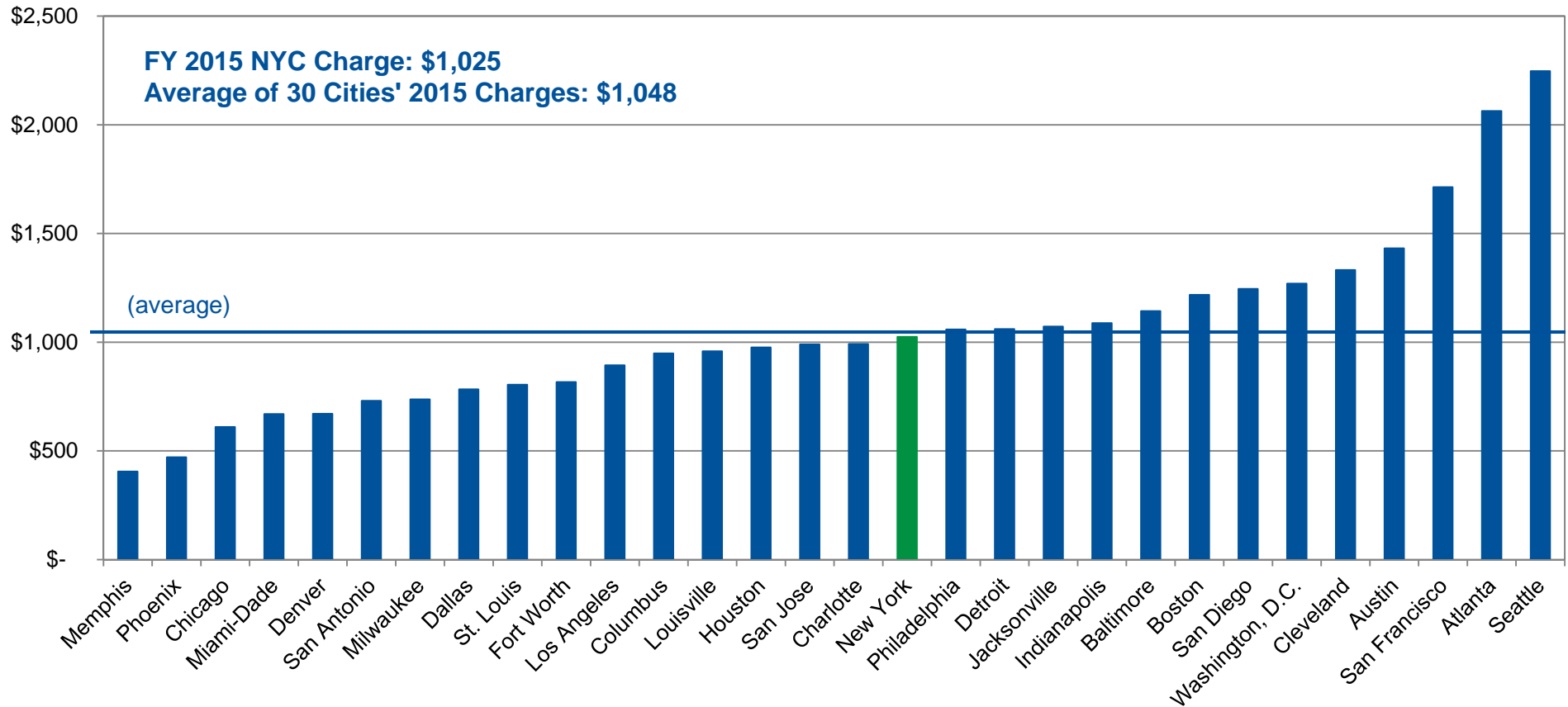


**Total: \$3,670 million**



Projections as of September 10, 2014. Dollars in millions  
Does not include year-end cash balance

# Average Annual Residential Charges



Based on consumption of 80,000 gallons per year and rates in effect as of February 2015

# Operational Excellence (OpX)

- DEP is in the middle of an agency-wide program to achieve operational efficiencies
- To date, initiatives implemented as part of the *OpX* program have an annual financial impact of \$98 million
  - \$45 million in cost savings
  - \$53 million in additional revenue
- Initiatives include:
  - Creating strategic sourcing group to improve procurement of chemical and service contracts
  - Aggressively replacing large meters; 21,200 large meters replaced to date
  - Optimizing dewatering and sludge thickening at wastewater treatment plants
  - Improving aeration while reducing energy usage in wastewater treatment



**The Best Always Do Better**

**STRATEGY 2011-2014** challenges DEP to be the safest, most effective, cost-efficient, and transparent water utility in the nation over the next four years and beyond. OpX is part of this effort to be even smarter about how we manage our operations by streamlining work flows, boosting productivity and finding efficiencies. Maintaining and improving operations while reducing costs is a tough challenge, but as all of us know, DEP's nearly 6,000 employees are always up to the task.

**It's your agency, your program and your ideas.**  
Share them @ <http://pipeline>.





# Benchmarking Process

- Three Performance Areas – focused on expected strengths and weaknesses:
  - Product Quality
  - Employee and Leadership Development
  - Financial Viability
- Benchmarking pilot team
  - Kathryn Garcia, Chief Operating Officer
  - Gregory Anderson, Policy Analyst
  - Senior management from various bureaus
  - 20 total people involved, about 80 – 100 hours of staff time

## Product Quality

**Target:** High or Very High



**Performance:** High or Very High



## Financial Viability

**Target:** Utility targets not as broad as benchmark targets



**Performance:** High



## Employee Development

**Target:** High



**Performance:** Currently lacking, but in development



## Pros:

- Benchmarking process was very useful, especially in Employee Development
- Identified potential new performance metrics, especially in Financial Viability attribute
- Engaged senior level management to evaluate top-level performance
- Took a step back from day-to-day management to evaluate long-term priorities

## Cons:

- Large customer pool made some targets difficult to judge
- Lack of emphasis on CSOs, over-emphasis on SSO
- Difficult to quantify qualitative metrics
- Weighting regulatory vs. non-regulatory factors

# Importance of Employee Development



Employee of the Month Event

# Employee Development Initiatives

- Created and shared agency mission, vision, and values
- Held over 50 engagement sessions to solicit feedback from 3,000 employees
- Launched the Organizational Health Index Survey
- Established new HR units dedicated to workforce development and succession planning
- Initiated a Brown Bag series to encourage cross-agency knowledge sharing



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