# Fiscal Year 2018
# Semi – Annual
# Budget Performance

Finance/Administration Committee

February 27, 2018

# Water and Wastewater Systems Overview

## Six-Months

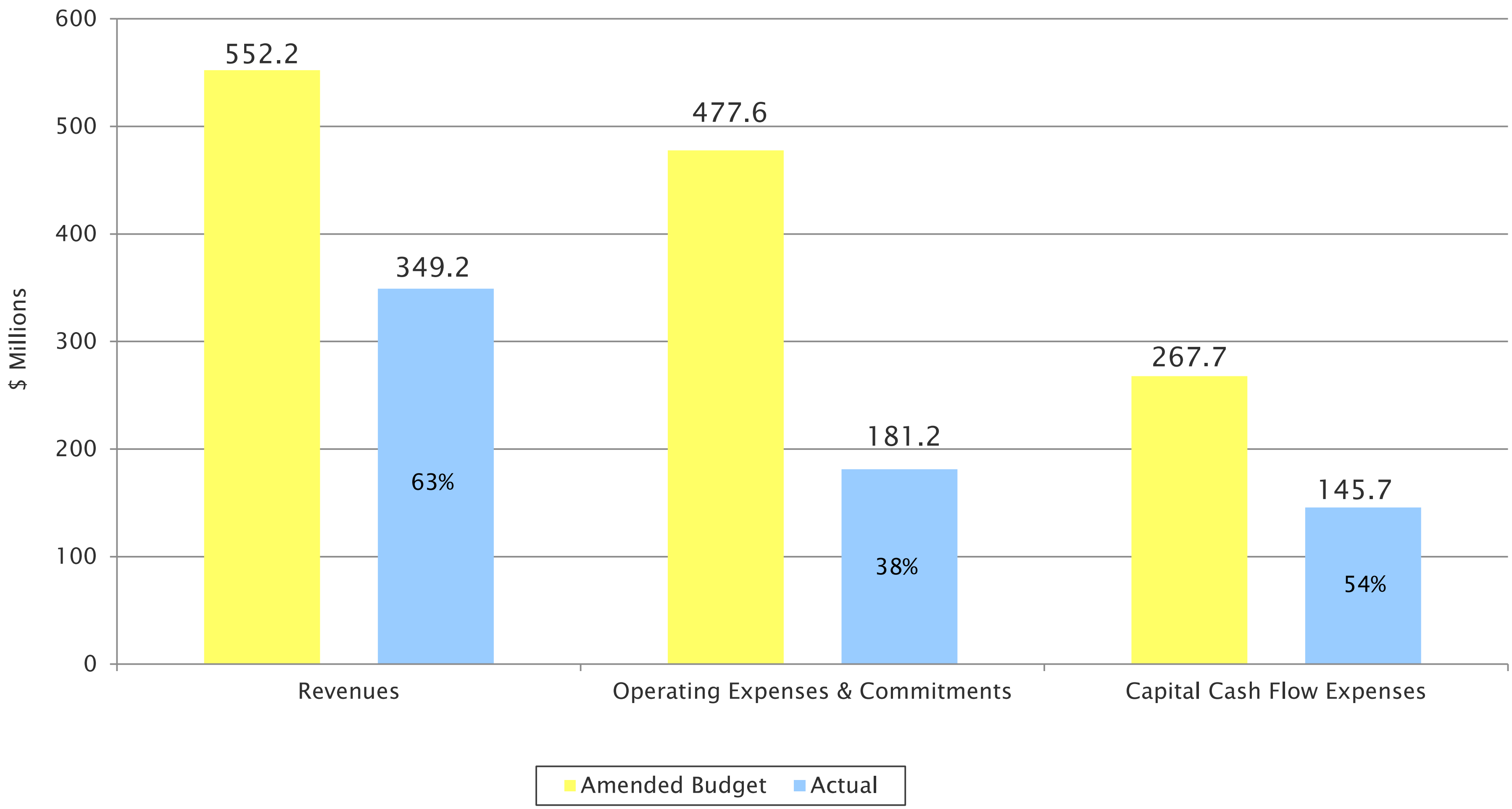
Revenues are higher than budget and expenditures are lower than anticipated for both enterprises

## Year-end Projection

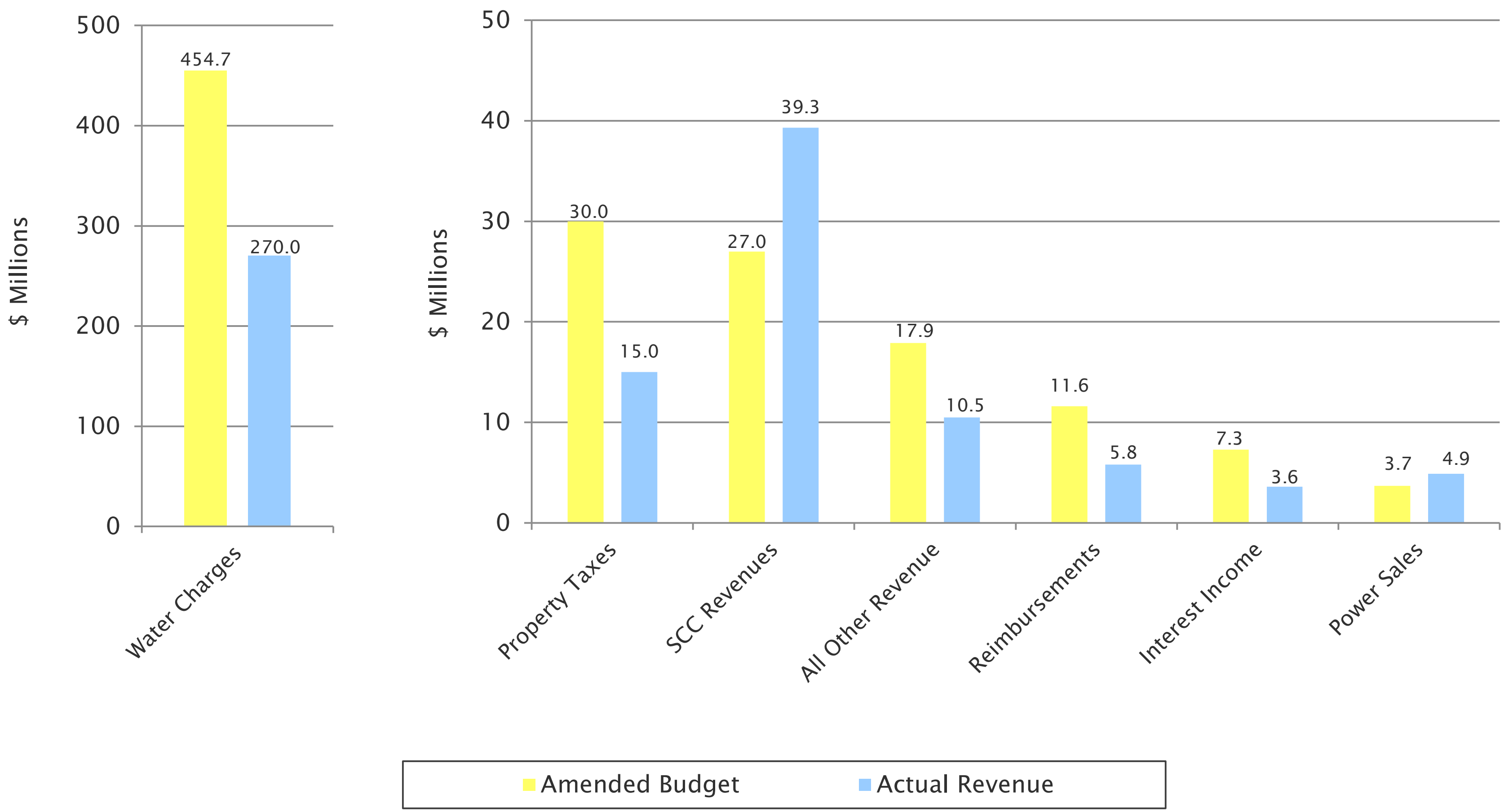
Anticipated strong year-end net revenues and expenses savings anticipated for both enterprises

- Eliminates need for Water System planned draw of $26 million from RSF

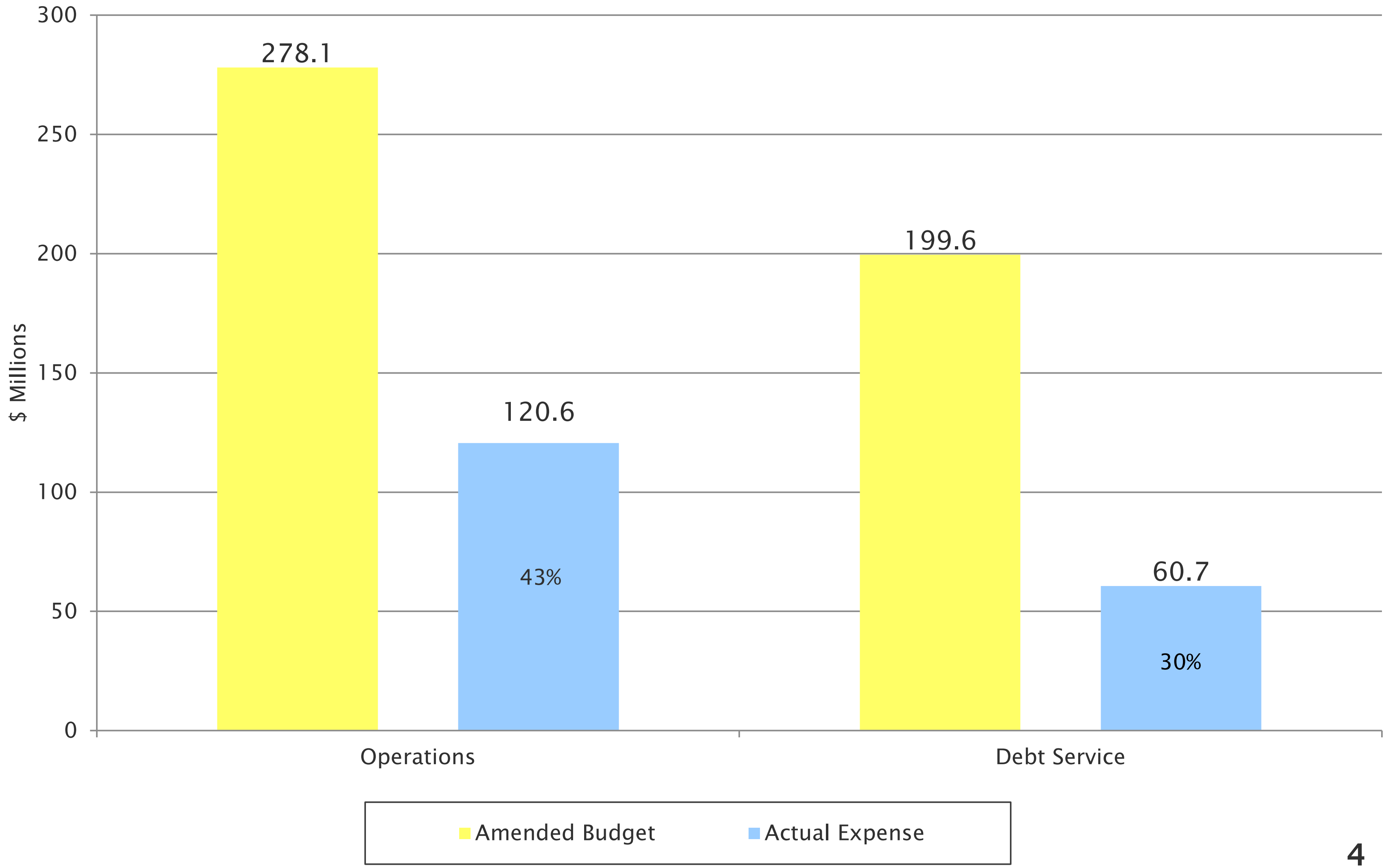
# Water System Revenue & Expenses FY18 Through 12/31/2017



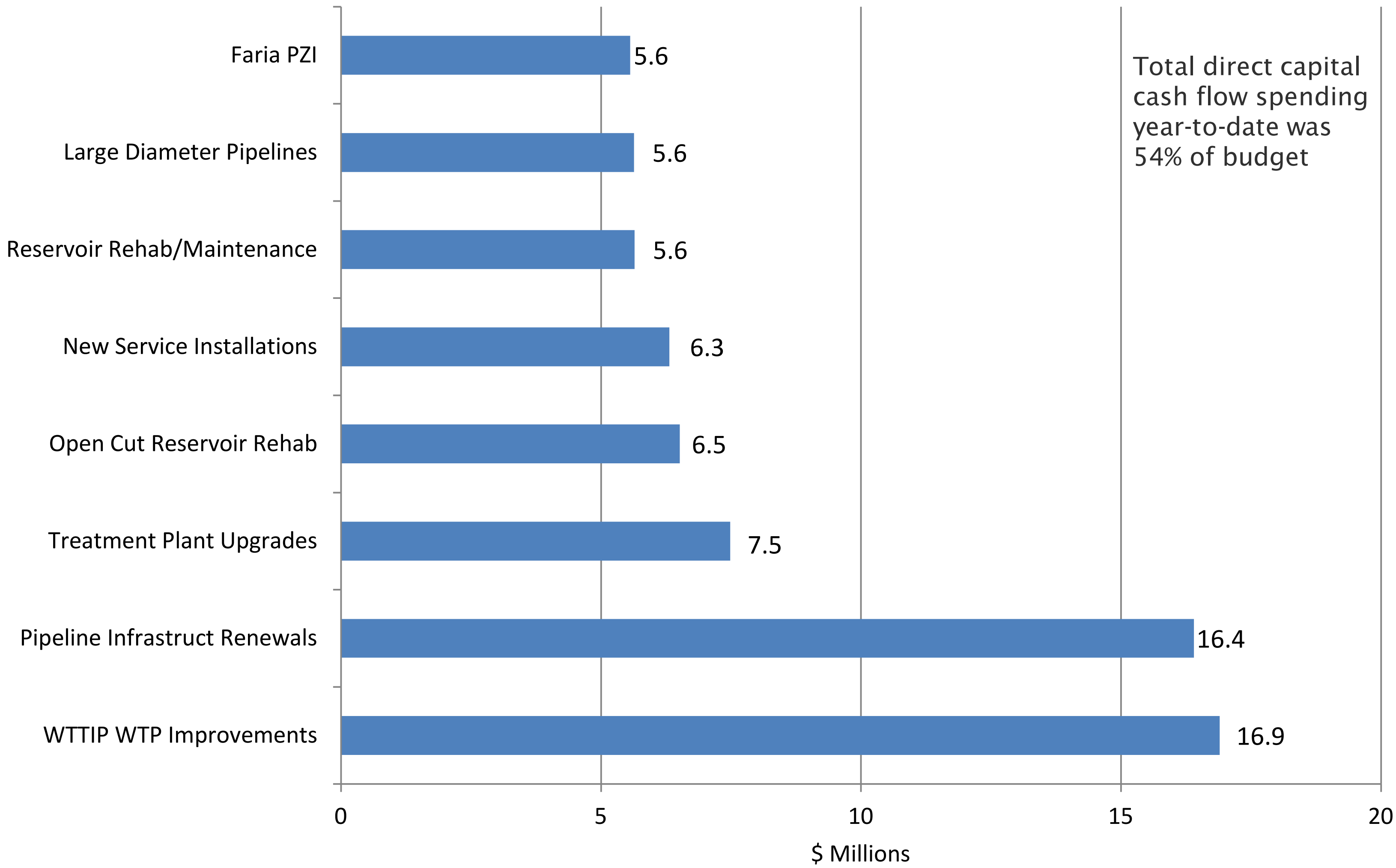
# Water System Revenues
# FY18 Through 12/31/2017



# Water Operating Expenses & Commitments FY18 Through 12/31/2017

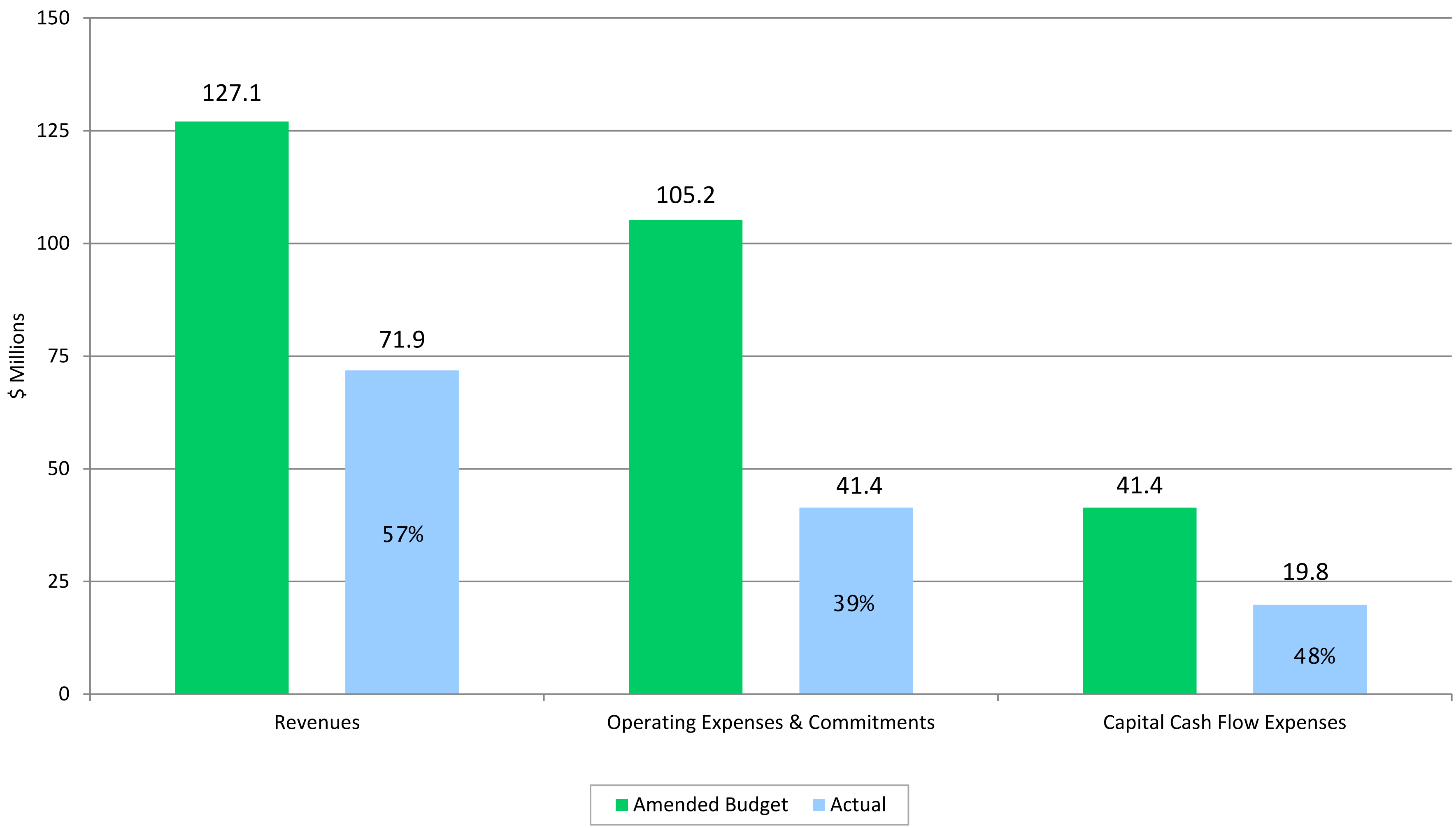


# Water Major Capital Cash Flow Expenses FY18 Through 12/31/2017

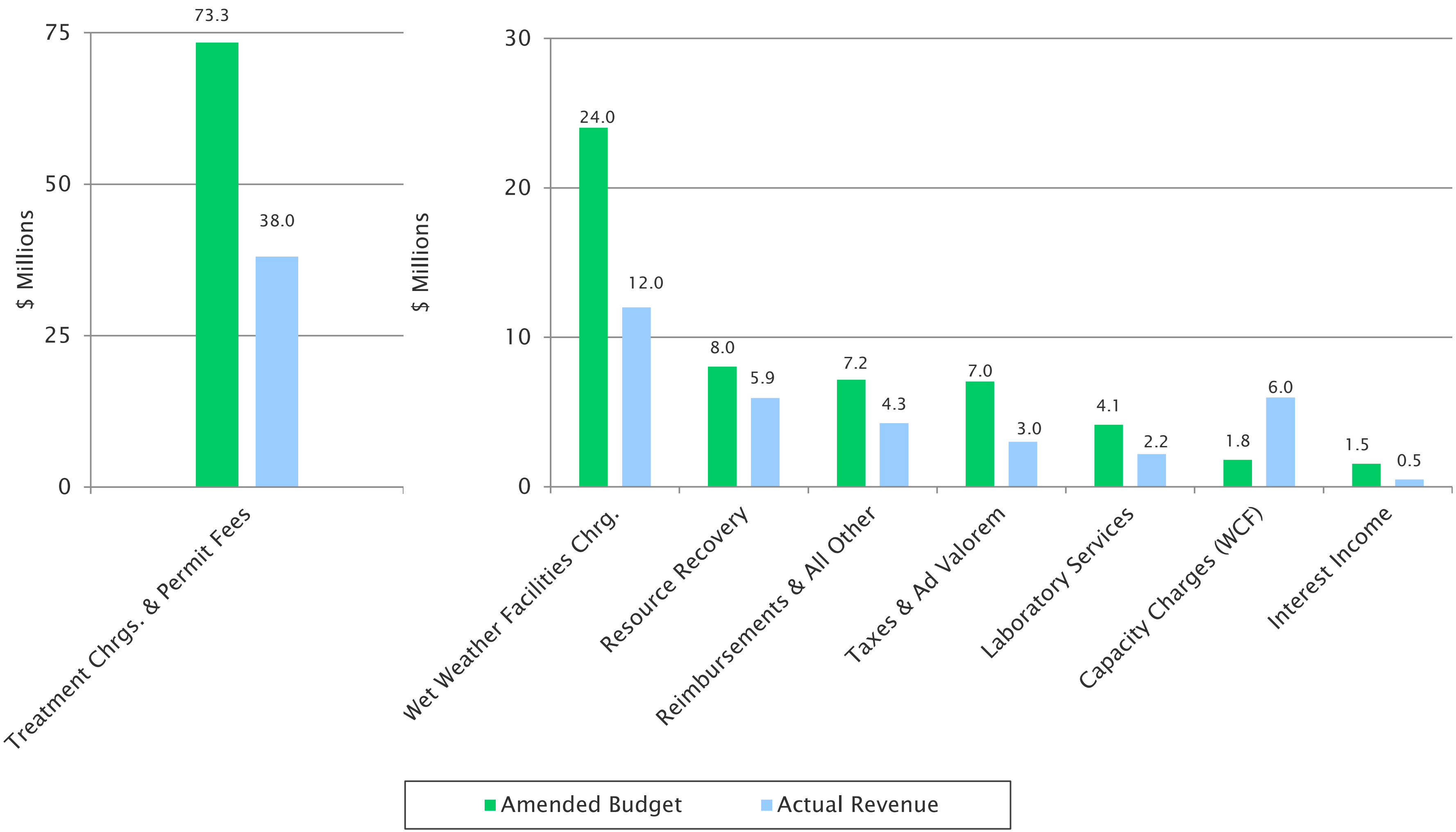


# Wastewater System Revenue & Expenses FY18 Through 12/31/2017

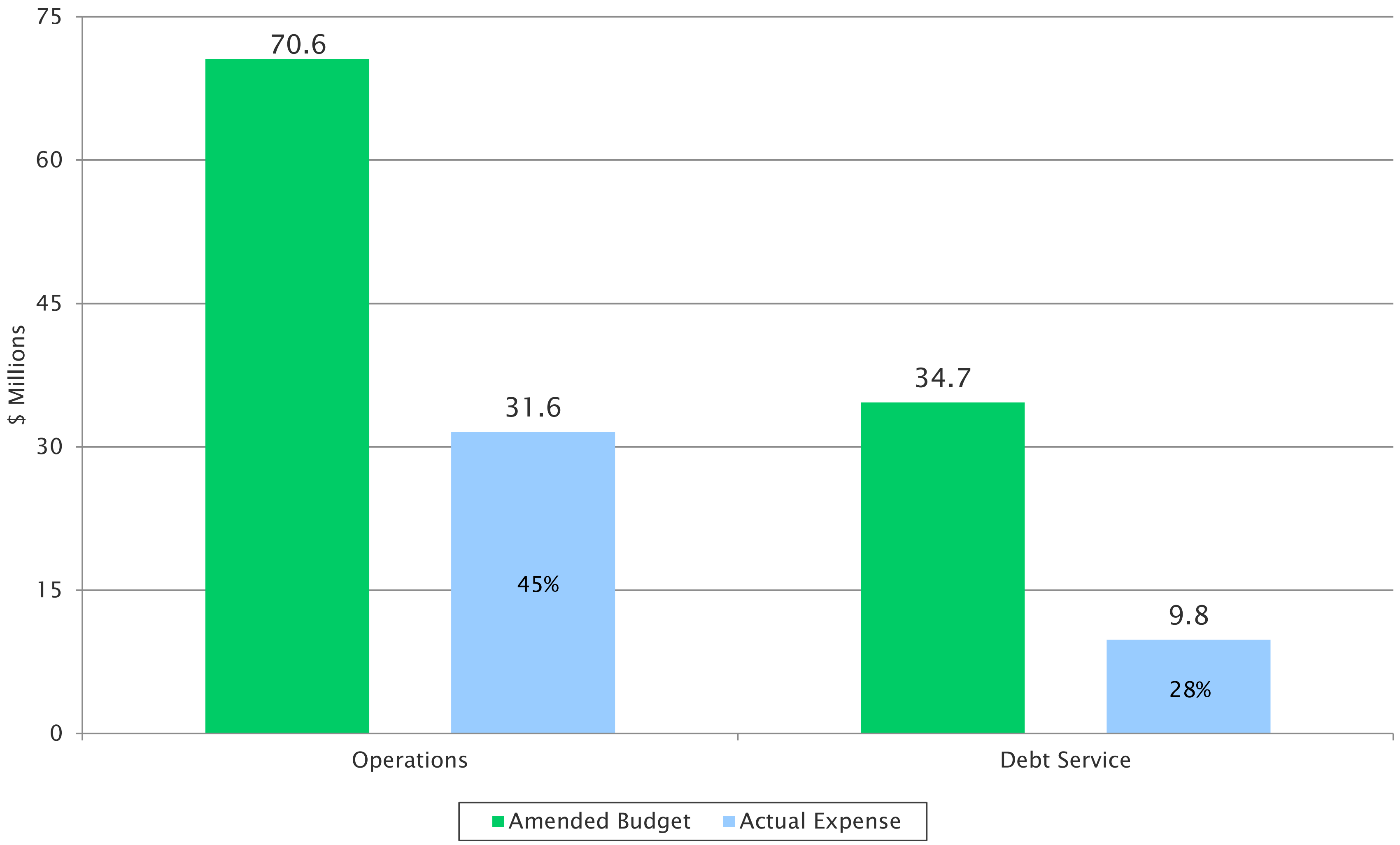
EBMUD



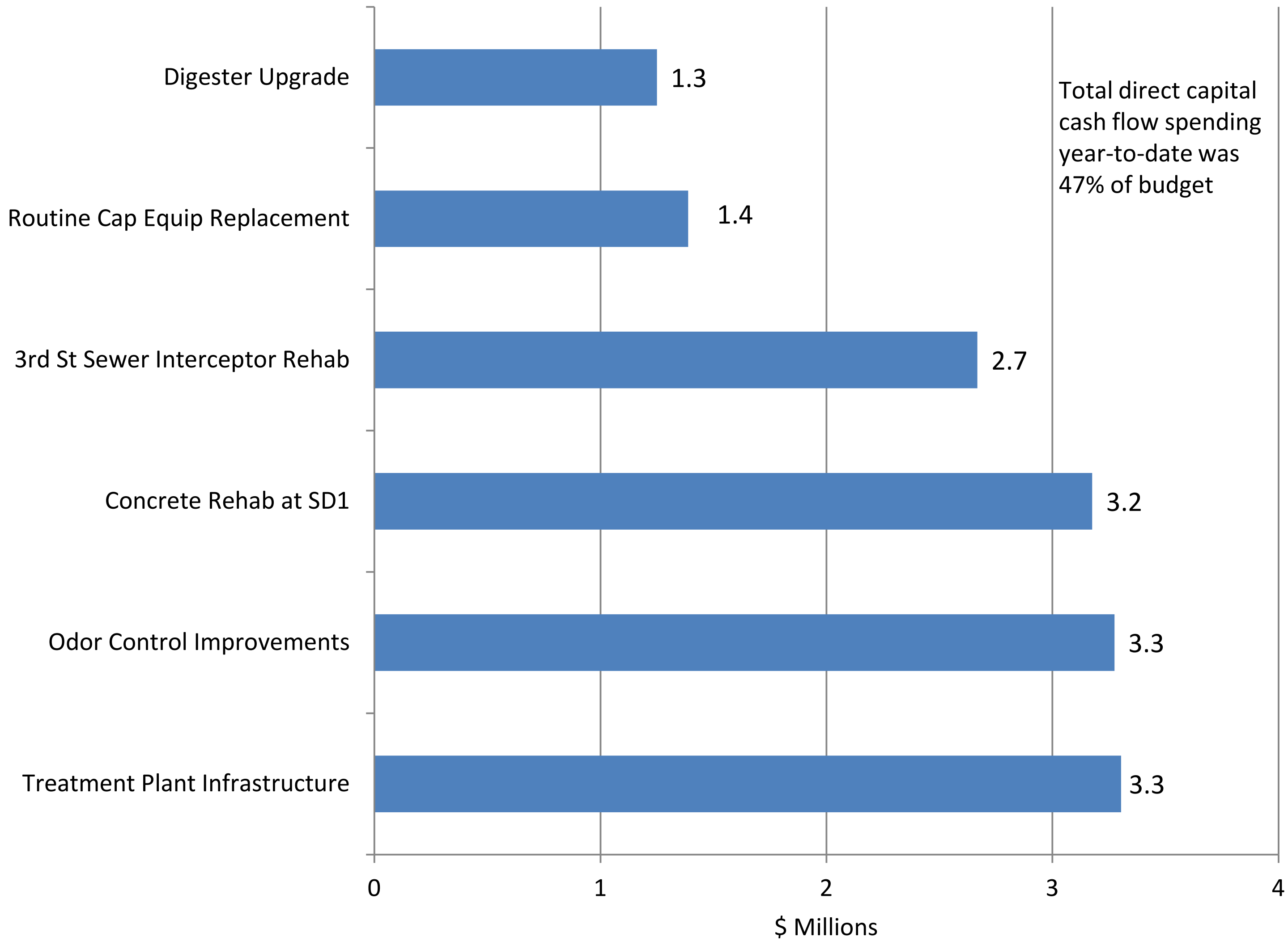
# Wastewater System Revenues
# FY18 Through 12/31/2017



# Wastewater Operating Exp. & Commitments FY18 Through 12/31/2017



# Wastewater Major Capital Cash Flow Expenses FY18 Through 12/31/2017



# Water System
# FY18 Year-End Projection ($ Millions)

| | Budget | Year-End Projection | Over/(Under) Budget |
|---|---|---|---|
| Revenues: | | | |
| Water Charges | $454.7 | $484.0 | $29.3 |
| Property Taxes | 30.0 | 32.0 | 2.0 |
| SCC Revenues | 27.0 | 58.0 | 31.0 |
| Power Sales | 3.7 | 7.4 | 3.7 |
| Other | 36.8 | 37.7 | 0.9 |
| **Total Revenues** | **$552.2** | **$619.1** | **$66.9** |
| Operating Expenses: | | | |
| Operations | 278.1 | 258.8 | (19.3) |
| Debt Service | 199.6 | 187.2 | (12.4) |
| **Total Operating Expenses** | **$477.6** | **$446.0** | **$(31.6)** |

Numbers in the table reflect rounding

# Wastewater System
# FY18 Year-End Projection ($ Millions)

| | Budget | Year-End Projection | Over/(Under) Budget |
|---|---|---|---|
| Revenues: | | | |
| Treatment Chgs. & Permits | $73.3 | $74.3 | $1.0 |
| Resource Recovery | 8.0 | 11.5 | 3.5 |
| Capacity Charges (WCF) | 1.8 | 9.0 | 7.2 |
| Other | 43.9 | 42.3 | (1.6) |
| **Total Revenues** | **$127.0** | **$137.1** | **$10.1** |
| Operating Expenses: | | | |
| Operations | 70.6 | 67.8 | (2.8) |
| Debt Service | 34.7 | 31.0 | (3.7) |
| **Total Operating Expenses** | **$105.2** | **$98.8** | **$(6.4)** |

Numbers in the table reflect rounding

# Questions

EAST BAY MUNICIPAL UTILITY DISTRICT

# Update on Employee Retirement System

Finance/Administration Committee
February 27, 2018

# Agenda

- Fiscal Year 2018 update
  - Actuarial Valuation
  - Actuarial Audit
  - Asset/Liability Study
  - CEM Benchmarking Results
  - Tipping Point
  - Environmental, Social, Governance Update

# Actuarial Valuation (as of June 30, 2017)

- System Assets (including HIB)
  - Total Market Value (MVA) $1.61 billion
    - » Investment Returns 14.5%
  - Total Valuation Value (VVA) $1.58 billion
    - » Year-over-year change +$128 million
  - Funding Ratio 72.3%
    - » Previous year 68.8%
  - Unfunded Liability $605 million
    - » Year-over-year change -$54 million

# Contribution Rates

- Adopted for FY2019

| Employer Rate | 1955/1980 Plan | 2013 Plan |
|---|---|---|
| *Pension* | *37.86%* | *31.24%* |
| *HIB* | *5.32%* | *4.92%* |
| **Total** | **43.18%** | **36.16%** |

- Total Rates Unchanged from FY2018
  - Actuarial recommendation allowed for a slightly lower total contribution rate
  - Conservative recommendation was adopted

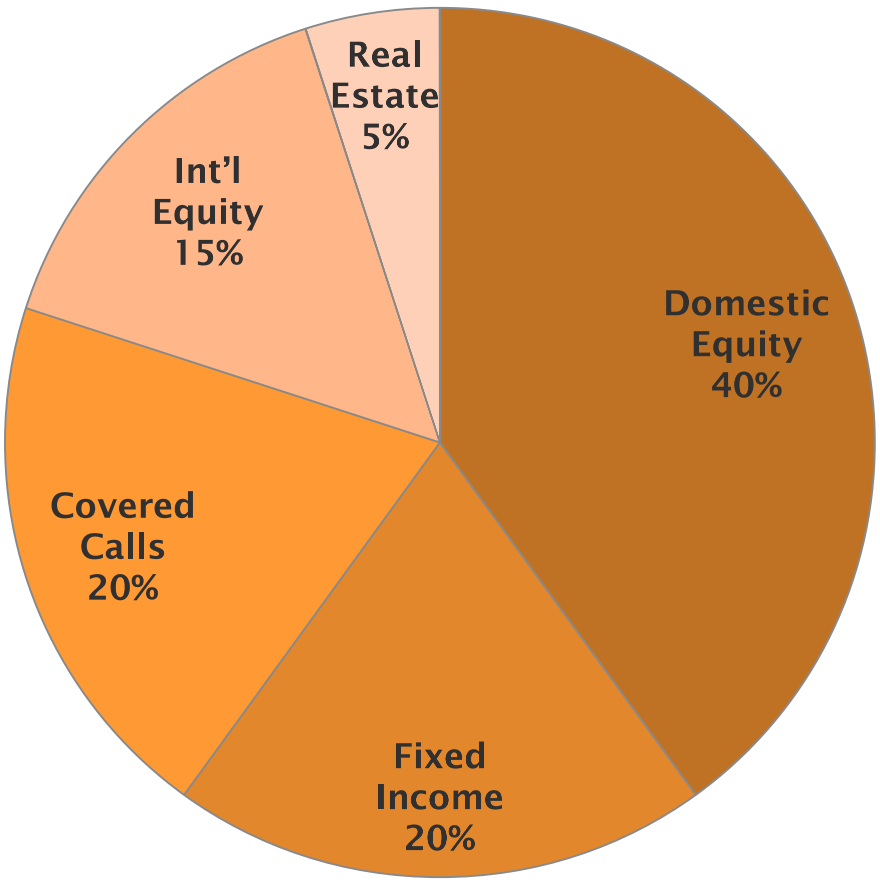
# Actuarial Audit

- An actuarial audit is a Best Practice
  - They are recommended every 10 years
  - Segal started as ERS actuary in 2008
  - Bartel and Associates selected by RFP process
- An actuarial audit is a third-part verification of actuary's:
  - Assumptions (mortality tables, payroll changes, economic environment, medical care costs, other factors), and
  - Calculations (valuation, contribution rates)

# Asset/Liability (A/L) Study

- A periodic A/L study is a best practice
  - They are recommended every 4-6 years
  - Last ERS A/L conducted in 2013
  - Changes in plan composition since (PEPRA) also indicate need for a new study
- An A/L study reviews risks and optimal portfolio allocation:
  - Retirement Board received training and reviewed factors in FY 2018
  - Modeling scheduled for March 2018
  - Investment manager RFPs and reallocations (if any) would begin in September 2018

# Current Allocation




| Asset Class | Investment Managers |
|---|---|
| **Domestic Equity** | Barrow Hanley |
| | INTECH |
| | Northern Trust |
| | T. Rowe Price |
| **Fixed Income** | CSMcKee |
| | WAMCO |
| **Covered Calls** | Parametric |
| | Van Hulzen |
| **International Equity** | Fisher |
| | Franklin |
| **Real Estate** | CenterSquare |
| | Deutsche RREEF II |

# Historical Performance

- As of September 30, 2017

| Asset Class | 1-year | 3-year | 5-year | 10-year | 20-year |
|---|---|---|---|---|---|
| Domestic Equity | 19.8% | 11.1% | 14.3% | 7.5% | 7.3% |
| Fixed Income | 2.0% | 2.3% | 2.1% | 4.4% | 5.4% |
| Covered Calls | 13.6% | 8.7% | -- | -- | -- |
| International Equity | 23.3% | 6.2% | 8.7% | 2.7% | 6.8% |
| Real Estate | 3.2% | 11.3% | 11.4% | 5.1% | -- |
| **Total EBMUDERS Plan** | **14.6%** | **8.3%** | **10.6%** | **6.2%** | **7.3%** |
| *Peer Group Percentile Ranking* | *8* | *5* | *1* | *12* | -- |

*Beginning in 2012, the expected rate of return has been lowered periodically as shown below:*

| | 1985-2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|
| **Expected Rate of Return** | 8.25% | 8.00% | 7.75% | 7.75% | 7.50% | 7.50% | 7.25% |

# 2016 CEM Benchmarking Results

- Allows for benchmarking against 166 other U.S. pension funds (including 58 public funds)
- Net returns above median (8.2% vs. 7.9%)
- Investment costs below median (35 bps vs. 57 bps)
- Net value added from active management slightly below median (-0.6% vs. 0.0%)
- Model assumptions show asset risk and asset-liability risks above the median

# Tipping Point

- Beneficiaries now outnumber active members:
  - Most beneficiaries are eligible for higher pre-PEPRA benefits
  - Most new employees are eligible for lower PEPRA benefits and accordingly make smaller contributions
  - This results in a short-term cash flow imbalance
  - The size of the shortfall excepted to be small (<1% of assets; $14 million; in FY2018)
  - Drawdowns will come from earnings, not principal, for the foreseeable future

# Environmental, Social, and Governance (ESG) Update

- Proxy Voting
  - Decision to end "vote management" practice
    - Switch to investment managers voting their policy guidelines in January 2017
    - Conducted RFP and selected Glass Lewis in July 2017 to vote proxy under standard public fund template
  - Retirement Board will receive a report on proxy voting template in early FY 2019
- ESG Engagement
  - Joined Climate Action 100+ Initiative at Supporter level in January 2018

# Summary

- Strong Performance in FY17
  - Increased funding ratio
  - Reduced unfunded liability
- Conservative management
  - CEM benchmark results
  - Held contribution rate steady
  - Actuarial audit
- A/L under review in 2018
- Continue review of appropriate ESG involvement