

# Madison Water Utility - Update on Water Rate Case

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# Revenue Requirements

- Based on a 2015 test year
- Operation & Maintenance Expenses
- Taxes and Tax Equivalent Payment
- Depreciation Expense
- Return on Net Investment Rate Base
  - $\text{NIRB} = \text{Utility-financed asset book value, less accumulated depreciation}$
  - The current benchmark rate of return is 5.75%; we can request a higher or lower ROR based on the capital needs of MWU

# Cash Flow Analysis

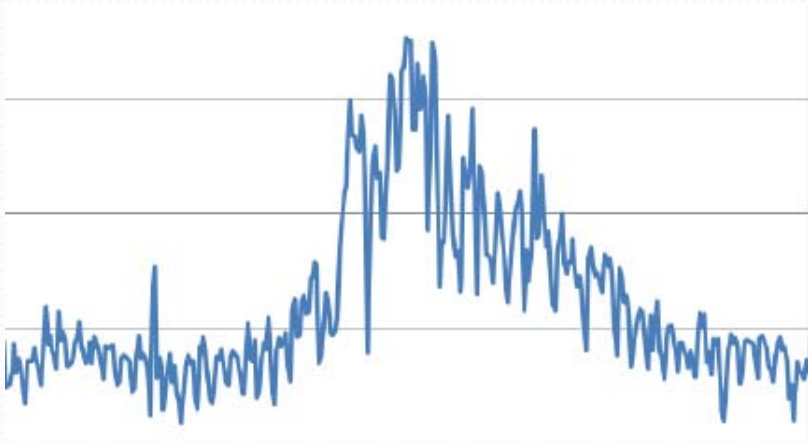
- Long-term look at cash flow
  - Debt Service and Debt Coverage
  - Capital Improvement Plan
    - Financing Options – debt and cash
  - Future rate increases
    - Short-term vs. long-term
- All of these things go into our requested rate of return
- Should expect an overall increase similar to what is included in the budget - ~30%

# Cost-of-Service Study

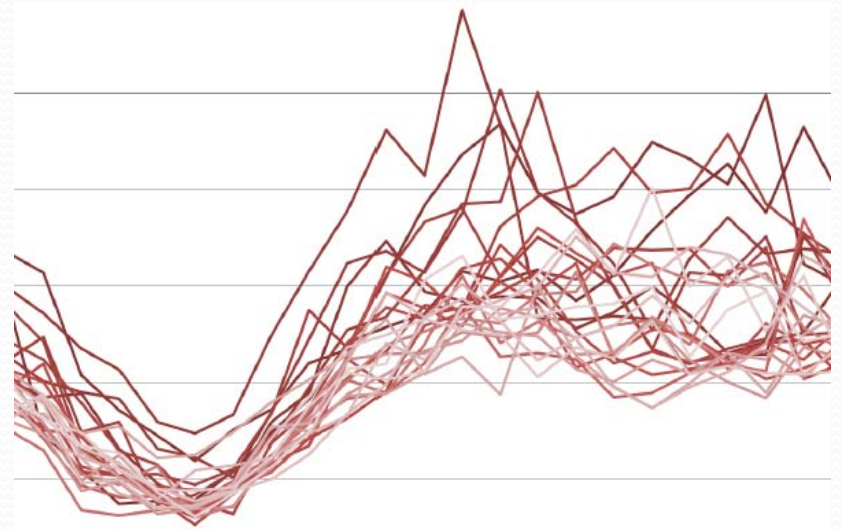
- Allocate cost categories to system functions
  - Base volume, max day capacity, max hour capacity, customer and fire protection
- Determine customer class share of system demand by function
- Allocate revenue requirements to customer classes
- Customer Demand Analysis – AMI data
  - This will determine how much of each system function will be allocated to each customer class
  - Ultimately, this will determine the impact on the rates for each customer class

# Peak Demand Examples

Daily fluctuation



Hourly fluctuation



# Rate Design

- Design rates that are fair and adequate to generate enough revenue to operate and reinvest in the system
- Examining the demand of each customer class independently to determine appropriate rates for them
- Residential class – seasonal conservation-based rates
- New Multi-family class rates
- Likely separate rate structures for each non-residential class
- Charge public fire protection to properties that are served but not connected to the water system

# Rate Design

## Current Rates

- Narrow range in assumed differences in peak demand across customer classes
- Fixed meter charges set significantly lower than cost-of-service has indicated

## Potential Changes

- Varied impacts to different customers if these change significantly
- If set closer to cost basis, small water users would likely see a larger increase

# Next Steps

- September meeting
  - Have the application complete and ready to submit with supporting information
  - Will not be planning to submit cost-of-service study and proposed rates until after revenue requirements are approved
- Following meeting
  - Prepare cost-of-service study for submittal
  - Present rate structures for consideration and show bill impacts for typical customers
  - Based on findings of customer demand analysis