Rate Case Frequency

Water

- Infrastructure replacement / modernization
- $335 billion to $1 trillion capital program/25 yrs. (American Society of Civil Engineers)
- Declining Use per customer
- Rate cases - often 2 yr. cycle
- Riders
  - Decoupling Surcharge
  - Infrastructure Surcharge
  - Advanced Metering Surcharge
Rate Case Frequency

Wastewater

- EPA consent decree
  - Huge capital program
  - Separate wastewater / storm water
- Infrastructure replacement / modernization
- Wastewater – declining customer use
- Storm water
  - Impervious Charge
  - Property Tax
- Riders
  - Decoupling
  - Infrastructure Surcharge
  - Advanced Metering
Wastewater

• Surcharges
  – Biological Oxygen Deficiency (BOD)
  – Total Suspended Solids (TSS)
  – BOD and TSS surcharges are charged for readings that measure how contaminated wastewater is with compounds that are not normally processed in domestic strength wastewater.
  – If readings indicate that wastewater has an unacceptable level of contamination, BOD and/or TSS surcharges will apply to a customer’s bill.
Water / Wastewater

Rate Case Structure / Process

- Revenue Requirement
- Class Cost of Service
- Rate Design
Revenue Requirement

Water / Wastewater

Investor Owned

- Operating Expenses
- Employee costs/benefits
- Other taxes
- Income taxes
- Depreciation expense
- Operating Income
  - Rate Base * ROR

Municipal

- Operating Expenses
- Employee costs/benefits
- Other taxes
- Debt service
- Capital: Rate Revenue Funding
- Issues:
  - DSC coverage
  - % Rate revenue funding
Class Cost of Service

Three Steps

1. Functionalization
2. Classification
3. Allocation
Cost of Service

Cost Functionalization

- Supply – water / wastewater treatment
- Transmission
- Distribution & storage
- Services & meters
- Fire protection
- General
Water Transmission & Distribution Mains

- Treatment Plant
- Surface Water
- Ground Water
- Industry
- Commercial
- Residential
- Storage

Legend:
- Blue: Transmission ≥ 8"
- Red: Distribution < 8"
Wastewater Transmission and Distribution Collection

- **Transmission ≥ 8”**
- **Distribution < 8”**

- Surface
- Commercial
- Residential
- Industry
Wastewater Infiltration / Inflow

- INFILTRATION: Misaligned joint
- INFILTRATION: Broken or cracked pipe
- INFILTRATION: Deteriorated manhole
- INFILTRATION: Leaky service lateral
- INFLOW: Manhole cover leakage
- INFLOW: Root penetration
- INFLOW: Yard drain connected to sanitary sewer system
- INFLOW: Direct connection between storm drainage system and sanitary sewer system
- INFLOW: Roof leader connected to sanitary sewer system
- INFLOW: Yard drain connected to sanitary sewer system
Cost of Service

Cost Classification

1. Load Shape
   – Average Day
   – Maximum Peak Day
   – Maximum Hourly Peak

2. Customer
   – Large Mains
   – Small Mains
   – Miscellaneous

3. Fire / Infiltration & Inflow
## Functionalization / Classification

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<th>Base</th>
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</tbody>
</table>
Fire Protection

• Public
  – Hydrants along right-of-way

• Private
  – Standpipes
  – Sprinklers
  – Hydrants
Water / Wastewater Rates

- **Customer**
- **Volume charge**
  - Declining Block
  - Increasing Block
  - Flat Rate
- **Fire Service**
  - Flat Rate
  - In Volume Charge
QUESTIONS?