

# Part 1: Foundations of public utility accounting and ratemaking

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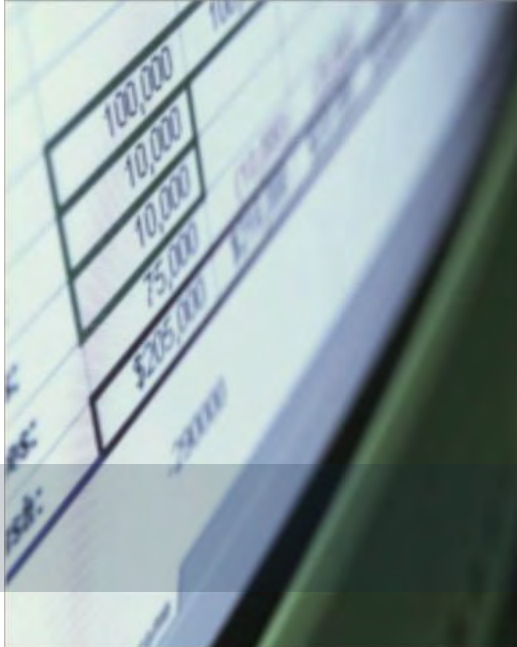
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MICHIGAN STATE UNIVERSITY

# 1.0 Introductory topics

1. Public utility governance and jurisdiction
2. System capacity and financial viability
3. Theoretical foundations of regulation
4. Regulatory standards of review
5. Accounting basics and concepts
6. Accounting governance (FASB, GASB)
7. Regulatory accounting and generally accepted principles (GAAP)
8. Uniform systems of accounts (USoA)
9. Financial statements and reports
10. Regulatory auditing and enforcement
11. Ratemaking process and key steps
12. Cost-of-service ratemaking
13. Test year in ratemaking
14. Revenue requirements and formulas
15. Case study overview

# 1.1 Public utility monopolies

- Public utilities, network industries, and infrastructure service providers
  - ▶ Providers of essential services and critical public infrastructure – sometimes considered priceable “toll” or “social” goods
  - ▶ Electricity, natural gas, water, broadband and sometimes postal, transportation services
  - ▶ Ownership is public, not-for-profit (cooperative), or private (investor-owned)
  - ▶ Monopolistic – absolute market power and exclusive territory dominance
- Some characteristics of traditional (“natural”) utility monopolies
  - ▶ Substantial barriers to entry and other limits to markets and competition
  - ▶ Highly capital intensive with asset specificity (nonfungible, “sunk costs”)
  - ▶ Integrated production, transmission, and distribution functions
  - ▶ Long-life “fixed” assets with “lumpy” additions to plant capacity
  - ▶ Low marginal costs of production (relative to average costs)
  - ▶ Benefit from economies of scale and scope (especially in production)
  - ▶ Usage (“load”) patterns shape system design and cost of service
  - ▶ Obligation to provide desired and reliable service “on demand”
  - ▶ Responsiveness to prices is limited (essential use is particularly “price-inelastic”)
  - ▶ Subject to regulatory, self-regulatory, and non-state performance standards

## 1.1 Public utility governance and regulatory jurisdiction

- Types of utilities and orientation – each has potential advantages
  - ▶ Publicly owned: constituents
  - ▶ Cooperatively owned and other NFP: members and charters
  - ▶ Privately owned: investors (shareholders)
- Many non-private utilities operate as "enterprises"
  - ▶ Maintain segregated funds for utility operations (limited transfers)
  - ▶ Municipalities may be structured as sole “shareholders”
- Different types of utilities have distinctions and commonalities
  - ▶ Operational management, financial accounting, ratemaking, and incentives
  - ▶ Some differences in terminology across types and jurisdictions
- Economic regulation also varies
  - ▶ All public utilities are "regulated" by some authority to some degree
  - ▶ State and federal regulation emerged as utility footprints grew
  - ▶ For more on utility governance and incentives, see Part 4

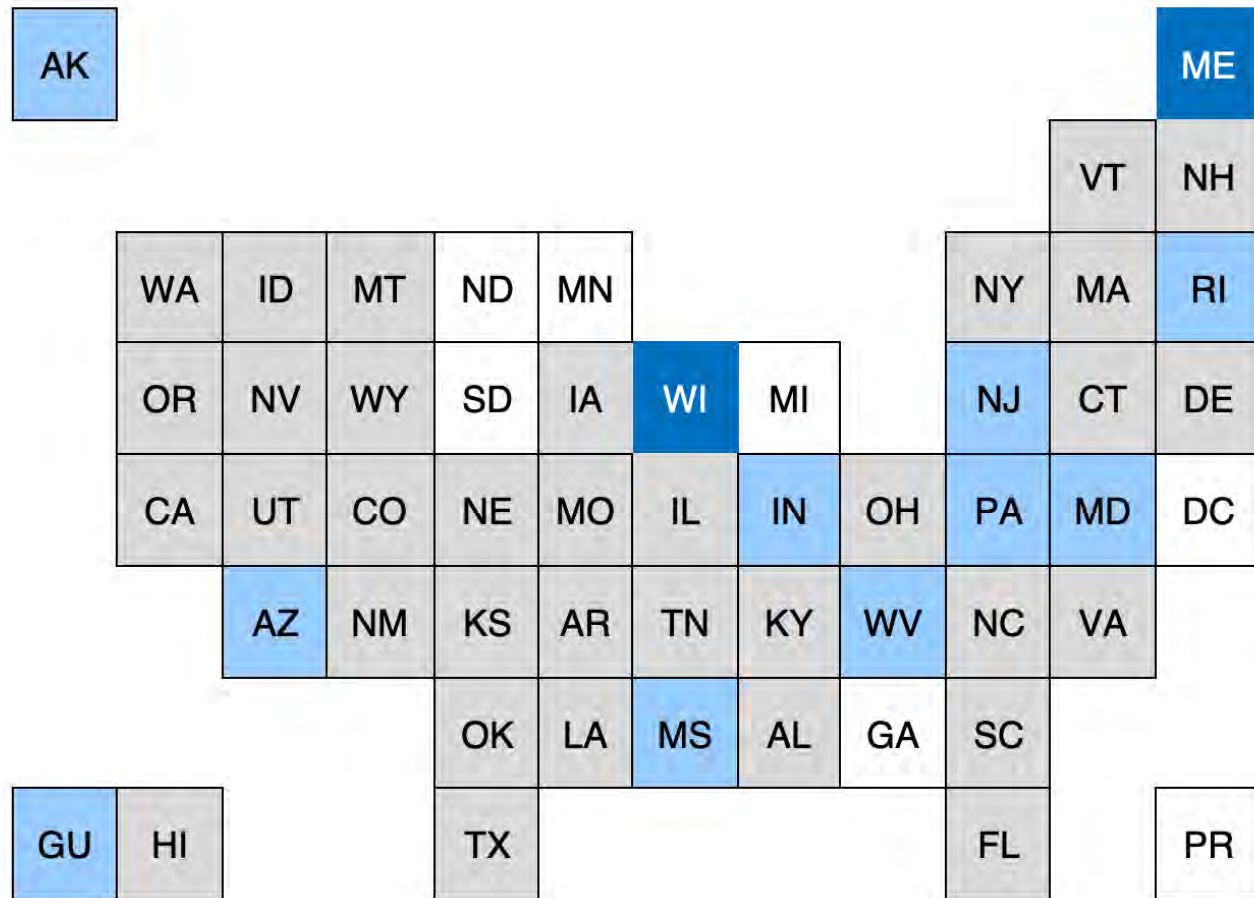
**Q. How does public utility ownership affect incentives and performance?**

# 1.1 Jurisdiction for utilities and rates

- Federal government regulates interstate utility operations
  - Federal Energy Regulatory Commission (FERC)
  - Federal Communications Commission (FCC)
- State governments regulate intrastate utility operations
  - Public utility (PUC) or public service (PSC) commissions
  - Other agencies for environmental and other areas
- Local governments govern and oversee ("regulate") their utilities
  - Public authorities and municipal departments
  - State regulation of the non-private sector is limited
- Commission regulation varies in terms of
  - Jurisdiction – who is regulated (types of providers)
  - Authority – what is regulated (structures and functions)
  - Methods – how they are regulated (tools and processes)
- Economic regulatory commissions are designed to be politically independent
  - Quasi-administrative, quasi-legislative, and quasi-judicial
  - Supported by an interdisciplinary technical staff
  - Perform a wide range of roles but centering on ratemaking



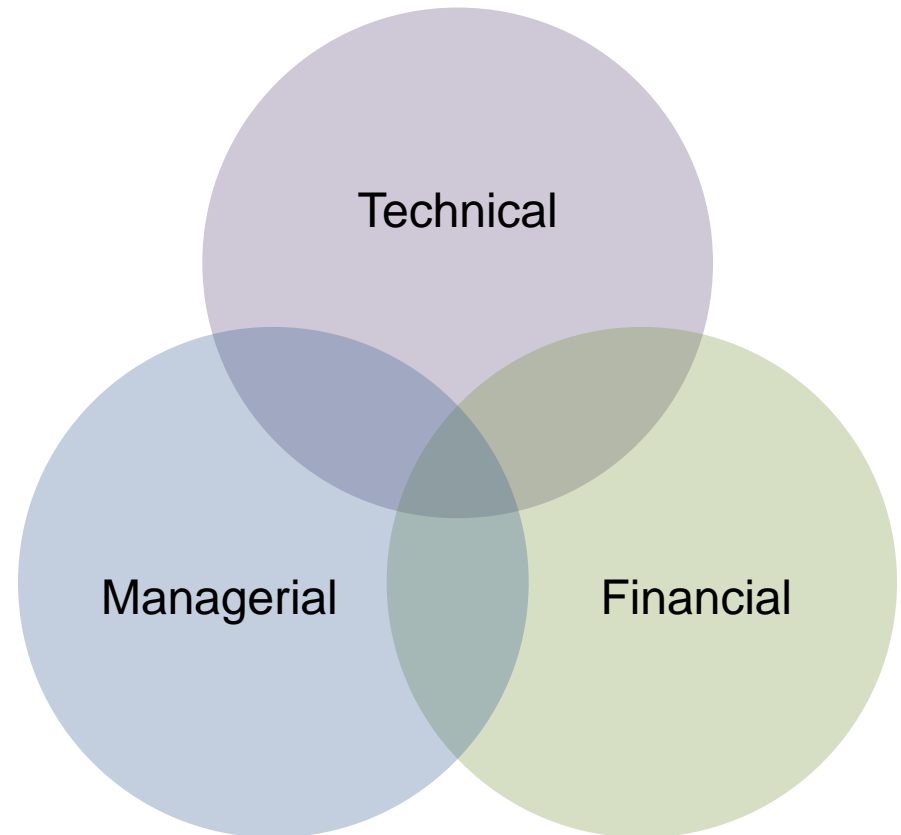
# 1.1 State jurisdiction for water utilities



Private only  
 Private and more  
 Comprehensive

## 1.2 Elements of utility system capacity (capability)\*

- **Technical capacity**
  - Source of supply sufficiency and reliability
  - Infrastructure adequacy and improvement
  - Technical knowledge and implementation
- **Managerial capacity**
  - Ownership accountability
  - Staffing and organization
  - Effective external linkages
- **Financial capacity**
  - Revenue sufficiency
  - Credit worthiness
  - Fiscal controls



\*Adapted from the EPA framework for the water sector

## 1.2 Financially sustainable utilities

| System revenues relative to expenditures*                  | System capital and operating expenditures relative to an optimized compliant service level |                               |  |
|--|--|-------------------------------|--|
|  | < 1: expenditures are below optimum ("cost avoidance")                                     | = 1: expenditures are optimal | > 1: expenditures are above optimum ("gold plating") |
| < 1: revenues are below expenditures ("revenue avoidance") | Deficient system   | Deficit system                | Wasteful system                                      |
| = 1: revenues are equal to expenditures                    | Underinvesting system  | <b>SUSTAINABLE SYSTEM</b>     | Overinvesting system                                 |
| > 1: revenues are above expenditures ("profit-seeking")    | Revenue-diverting system   | Surplus system                | Excessive system                                     |

\*Revenues may flow from taxpayer or ratepayer funding.  
Revenue requirements from rates are net of any tax-based funding.



## 1.2 Infrastructure funding vs. financing

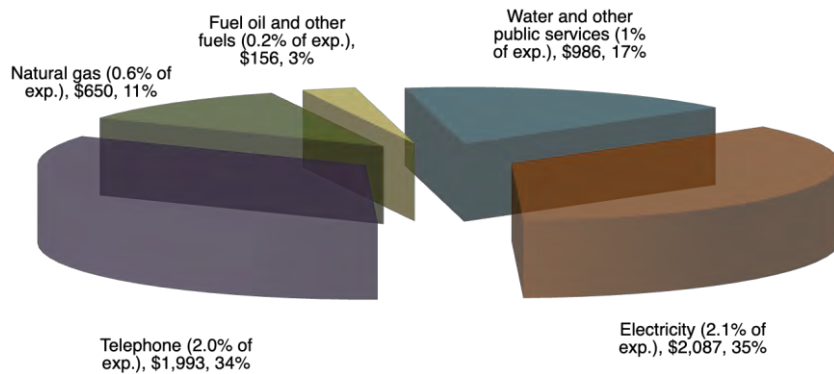
- Funding and financing options for public infrastructure have implications for both equity and efficiency
- Funding comes from one of two sources – taxpayers (federal, state, and local, including transfers) or ratepayers (tariff-based user fees and other charges)

|         |              |   | Financing   |  |
|---------|--------------|---|---|--|
|         |              |   | Public sector<br>(not-for-profit)                                   | Private sector<br>(for-profit)   |
|         |              |   | <i>Lower cost of capital<br/>and weaker provider<br/>incentives</i> | <i>Higher cost of capital<br/>and stronger provider<br/>incentives</i> |
| Funding | Taxes        | <i>Less regressive effects<br/>and weaker consumer<br/>incentives</i>   | Public provider<br>(e.g., municipal<br>department)                  | Private partner<br>(e.g., contract<br>operator)                        |
|         | User<br>fees | <i>More regressive<br/>effects and stronger<br/>consumer incentives</i> | Public enterprise<br>(e.g., publicly owned<br>utility)              | Private enterprise<br>(e.g., investor-owned<br>utility)                |

## 1.2 Pressure on utility costs and prices

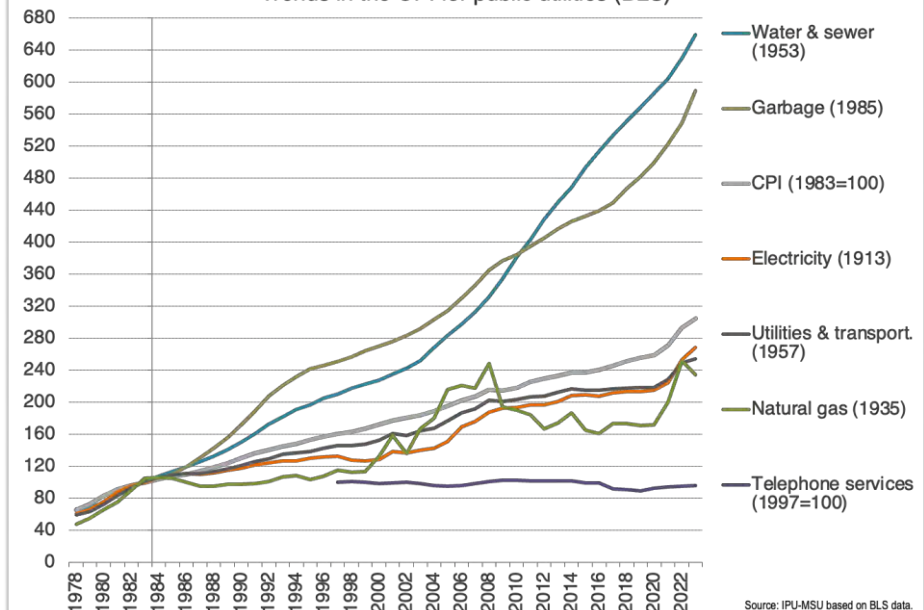
- Utility costs and prices are under significant pressure
  - ▶ Infrastructure capital and operating cost pressures, including renovation and modernization (especially for legacy systems) as well as climate action
  - ▶ Declining per capita or per household usage (pricing, programs, and population)
  - ▶ Move to enterprise funding and full-cost pricing as a fiscal necessity (public water)
- Other things equal, the cost of service is higher for privately owned utilities
  - ▶ Cost of capital (equity, debt), income taxes, overhead, and other factors

Consumer expenditures on utilities for a four-person household in 2022  
(\$5,503 and 5.9% of total household expenditures)



Source: IPU-MSU based on BLS data.

Trends in the CPI for public utilities (BLS)



Source: IPU-MSU based on BLS data.

## 1.2 Pressure on water utility costs and prices

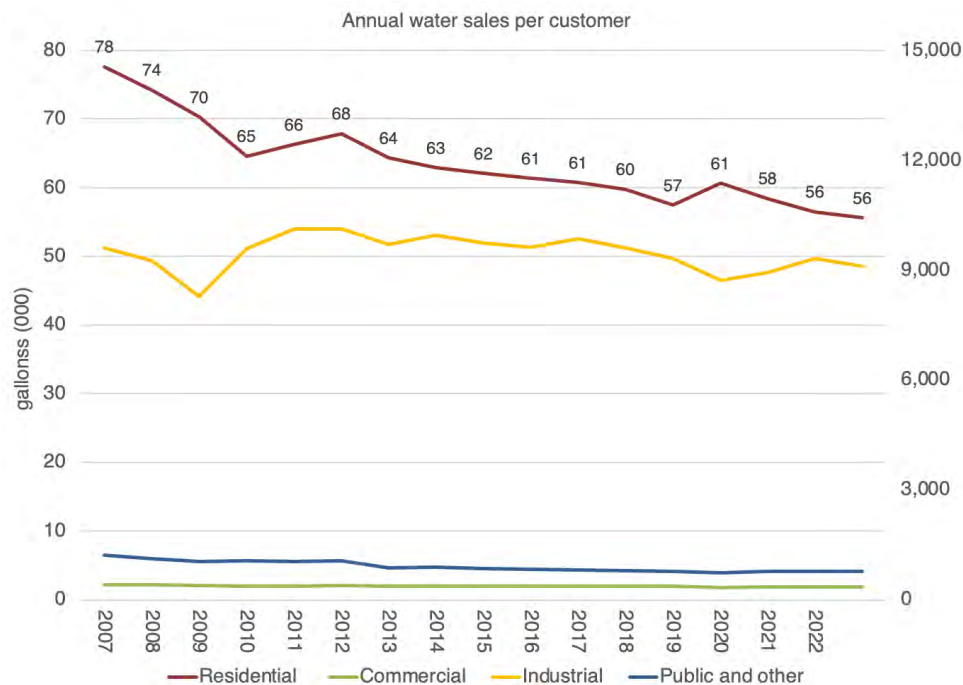
- Capital-cost pressures
  - Combined water, wastewater, stormwater infrastructure needs (rate base)
  - Asset valuation at fair value and private capital investment
- Operating-cost pressures
  - Labor, energy, chemicals, and purchased water
  - Quality standards and compliance costs
  - Legacy costs (including lead service lines)
  - New threats (PFAS, cyanotoxins, toxic algae, climate change)
- Resource pressures
  - Water supply constraints
  - Economic or population growth (locational)
- Demand pressures
  - Flat or declining usage due to efficiency
  - Economic or population loss (locational)
- Structural pressures
  - Enterprise models and full-cost pricing
  - Suboptimal sized and operations and overall inefficiencies
  - Spending propensities and ineffectual regulatory oversight

Exhibit: Household Water and Wastewater Utility Bills for 50 U.S. Cities, 2012-2021



Source: Utilities, Bluefield Research

## 1.2 Pressure (continued)



### Five-Year Capital Plan: Investments to Support System Needs, Including ~\$1 Billion for PFAS

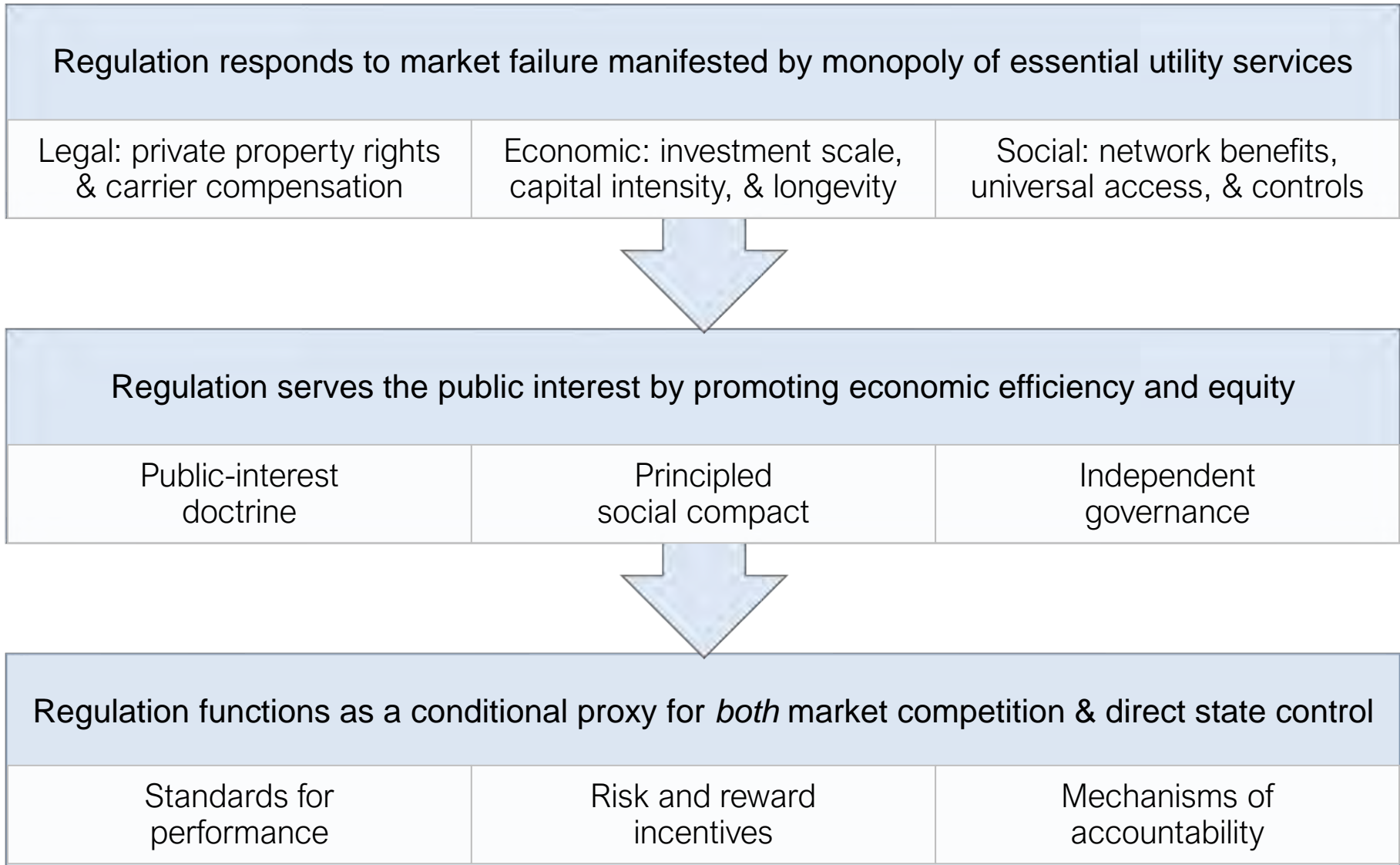


\*Includes ~\$1 billion of cap ex related to PFAS

## 1.3 Theoretical foundations of regulation

- Utilities services are considered highly essential (life necessities)
  - Intricately related to public health and welfare and economic development
  - Associated with both positive and negative externalities
- Economic regulation as a proxy
  - Substitutes for market competition *and* public ownership to prevent monopoly abuse
  - Regulatory institutions reflects delegated authority vs. direct democracy
  - The regulatory model can provide powerful incentives (vs. direct control or directives)
  - A “balancing act” among or alignment of interests – particularly investors and ratepayers
  - Places needed checks on utilities but not is a substitute for management
- Core objectives of economic regulation “in the public interest”
  - Useful and prudent investment that benefits the public
  - Fair and nondiscriminatory allocation of the cost of service
  - Just and reasonable rates to customers and returns to investors
- Regulatory principles and practices are established in U.S. constitutional law
  - Guided by the institutional construct of a “social compact” conferring rights & obligations
  - Validated by a series of Supreme Court decisions
  - Practiced to ensure openness, transparency, and due process
  - Disputes generally center on matters of facts or policy

## 1.3 Regulatory paradigm: requisite conditions and institutions



## 1.3 Utility rights and obligations under the regulatory compact

### Rights: The utility enjoys

- A conditional exclusive franchise for a certificated service territory, rights of eminent domain, protection from direct competition and antitrust, recovery of allowed costs through rates and charges, and *a reasonable opportunity to earn a fair return on prudent and useful investment.*

### Obligations: The utility accepts

- An obligation to provide all paying customers with access to safe, adequate, reliable, convenient, and nondiscriminatory service on just and reasonable terms, *while assuming certain business and market risks and consenting to comprehensive regulatory oversight.*

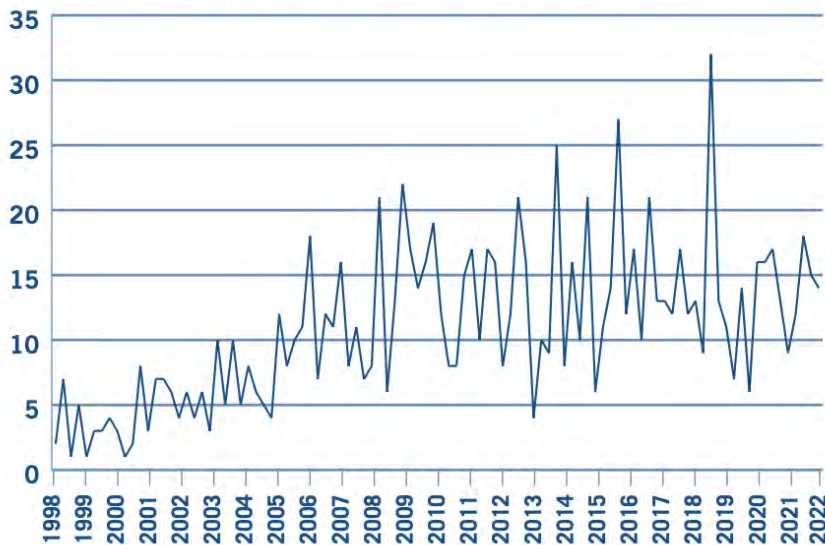


## 1.4 Regulatory standards of review and focus

- Rate regulation focuses on four areas – policy and discretion apply to each
  - Rate-case workload fluctuates but is on the rise
  - Cases are usually filed sequentially vs. “pancaking” (overlapping)
  - A comprehensive case is the default and preferred method for ratemaking
  - Performance-based regulation can clarify expectations and pathways

### Number of Rate Reviews Filed 1998–2022

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Prudence  
(investment)

Profits  
(returns)

Performance  
(efficiency)

Prices  
(rate design)

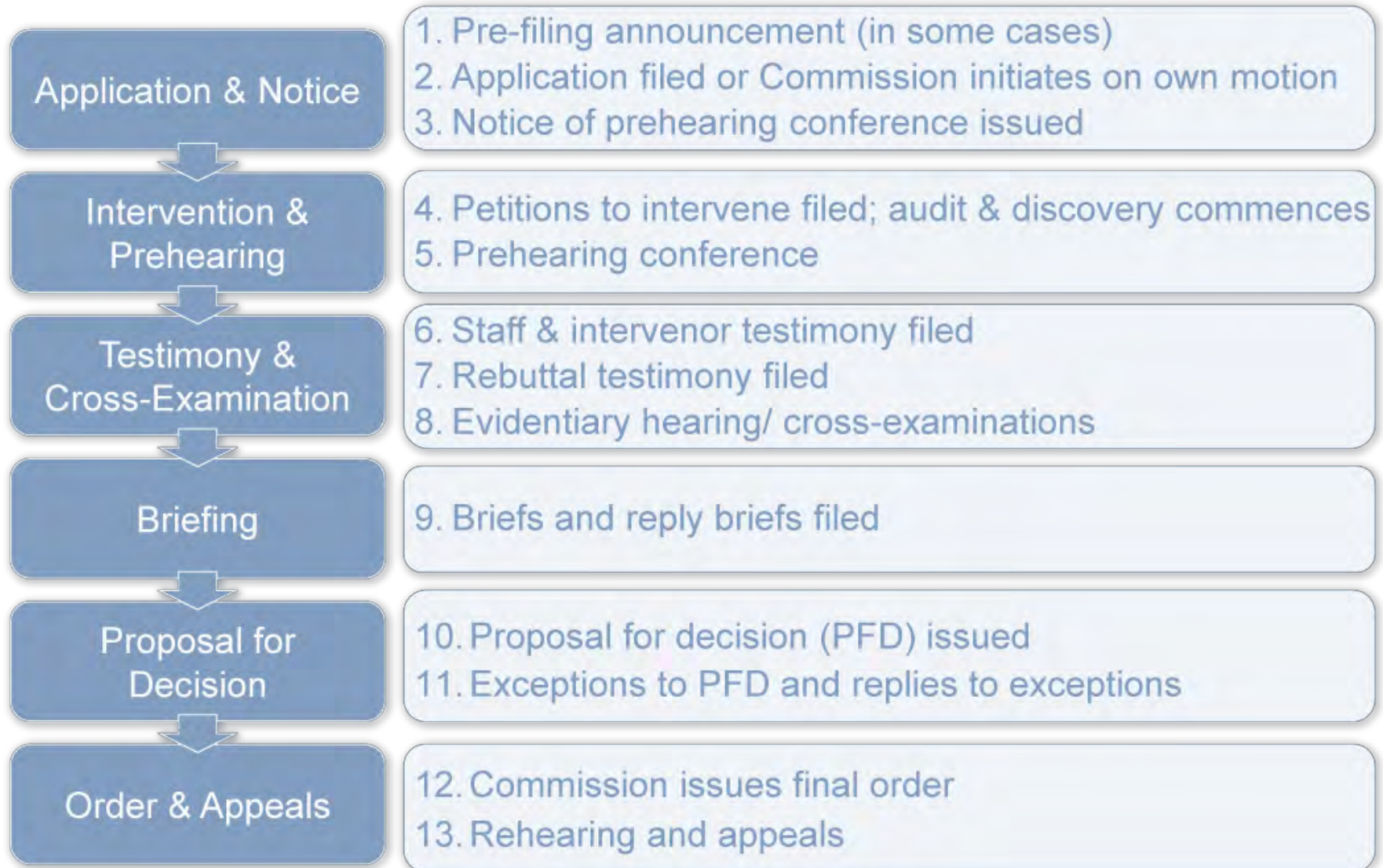


## 1.4 Regulatory and judicial operational standards of review\*

- Rates should not place unjust burdens on utility ratepayers
- Investments should be used and useful and prudently made (reasonable)
- Regulated utilities should operate with all reasonable economies (efficiency)
- Imprudent, wasteful, and dishonest expenditures should be disallowed
- Regulators should not usurp management or judge with 20-20 hindsight
- Companies are entitled to ask for fair returns on invested property
- Returns should be based on corresponding risk to raise capital
- Utilities are not immune from business risk associated with economic forces
- Regulators are not bound by formulas and can be pragmatic
- Courts allow regulators to make decisions within a "zone of reasonableness"

\*Supported by U.S. Supreme Court case law.

## 1.4 Procedural steps in regulation (MPSC)



## 1.5 Accounting and policy

- Accounting is the language of business and finance
  - Accounting should be transparent and undistorted, and not used to serve special interests
  - Accounting provides "vital signs" of an enterprise
- Accounting and accounting systems and rules serve various policy purposes
  - Accounting is “the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information” (American Accounting Association)
  - "Cost knowledge," based on clear tracking of financial activity and underlying factors, is essential for effective utility management and sound ratemaking
- Accounting for regulation and ratemaking is policy oriented
  - “Accounting may be said to be the backbone of utility regulation” (26 FPC Ann Rep, 39, 1946)
  - Regulatory accounting focuses on fairly allocating costs of providing utility service to ratepayers while allowing investors and regulators to calculate revenue requirements sufficient to recover all costs, including a return on investment
- Every regulatory decision implies an accounting treatment
  - Allocation of costs among groups of ratepayers – residential, commercial, industrial
  - Transfer risk & wealth between ratepayers ("above the line") & shareholders ("below the line")
- Dynamic and evolving accounting practice
  - XBRL: eXtensible Business Reporting Language – interactive platform for data reporting now required by the FERC and the SEC
  - International Financial Reporting Standards (IFRS) – International Accounting Standards Board (IASB) and International Sustainability Standards Board (ISSB)
  - Environmental, Social, and Governance (ESG) – reporting and disclosure policy and practice

## 1.5 Accounting concepts

- Business entities
  - ▶ Every business unit or enterprise is treated as a separate entity, separating the business from the owners
- Going concern
  - ▶ It is generally assumed that an entity will continue to operate into the future, for a period longer than the life expectancy of its assets
- Periodicity
  - ▶ Divide the life of the business into accounting periods of not more than one year and measure the business' status at the end of each period – monthly, quarterly, annual
- Conservatism
  - ▶ Do not intentionally overstate or understate estimates, assumptions, opinions, etc.
- Consistency
  - ▶ Consistent application of any given accounting method, period after period
- Materiality
  - ▶ When dealing with items of little significance, one should weigh the costs of complying with a particular accounting principle against the extra accuracy gained – although some nonmaterial issues may be raised as a matter of principle

## 1.5 Accounting concepts (continued)

- Objectivity
  - Changes in account balances should be supported to the fullest extent possible by objective evidence
- Full disclosure
  - Financial statements (including notes to financial statements) and other explanatory materials should disclose fully and completely all relevant data of a material nature relating to the financial position and operating results of the company
- Matching
  - Revenues and expenses shown on the income statement must be matched for the period
  - Balance sheet items must also be matched (e.g., utility plant, depreciation, taxes)
  - See recognition and realization
- Recognition and realization
  - Accrual accounting
    - Revenues are recognized when they are earned in the provision of service, and expenses are recognized in the income statement when they are incurred
    - Recording transactions does not depend on realized cash receipts or payments
  - Cash accounting
    - Revenues and expenses are recognized based on realized cash receipts or payments
    - Cash basis is not used by large, publicly traded firms but may be used by some very small (e.g., family-owned) water utilities

## 1.5 Poll: accounting concepts

- Which of the following are ***not*** accounting concepts?
  - A. Going concern, matching, and conservatism
  - B. Cost, materiality, and full disclosure
  - C. Value creation, moving average, and educated guess
  - D. Periodicity, recognition, and realization

## 1.6 Accounting governance: FASB

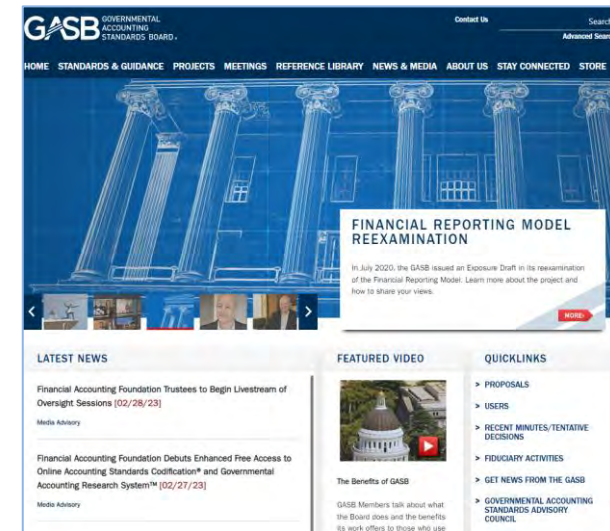
- Congress has ultimate authority for accounting governance
  - ▶ Securities and Exchange Commission (SEC) delegated standards-setting to the Accounting Standards Board (ASB) in 1938 but retains authority
  - ▶ Financial Accounting Foundation (FAF) was established in 1972 and oversees both FASB and GASB
- Financial Accounting Standards Board (FASB)
  - ▶ A private organization that promulgates Generally Accepted Accounting Principles (GAAP)
- About FASB (1973)
  - ▶ “Since 1973, [FASB] has been the designated organization in the private sector for establishing standards of financial accounting that govern the preparation of financial reports by nongovernmental entities...
  - ▶ Such standards are important to the efficient functioning of the economy because decisions about the allocation of resources rely heavily on credible, concise, and understandable financial information.
  - ▶ The SEC has statutory authority to establish financial accounting and reporting standards for publicly held companies under the Securities Exchange Act of 1934.
  - ▶ Throughout its history, however, the Commission’s policy has been to rely on the private sector for this function to the extent that the private sector demonstrates ability to fulfill the responsibility in the public interest.”





# 1.6 Accounting governance: GASB

- Government Accounting Standards Board (GASB)
  - ▶ A private organization that promulgates Generally Accepted Accounting Principles (GAAP)
  - ▶ Standards apply to financial reports of all state and local governmental entities, including utilities
  
- About GASB (1984)
  - ▶ “Established in 1984, [GASB] is the independent, private-sector organization based in Norwalk, Connecticut, that establishes accounting and financial reporting standards for U.S. state and local governments that follow Generally Accepted Accounting Principles (GAAP).
  - ▶ The GASB standards are recognized as authoritative by state and local governments, state Boards of Accountancy, and the American Institute of CPAs (AICPA).
  - ▶ The GASB develops and issues accounting standards through a transparent and inclusive process intended to promote financial reporting that provides useful information to taxpayers, public officials, investors, and others who use financial reports.”





## 1.6 GASB Statement No. 34 (1999)

- This Statement establishes financial reporting requirements for state and local governments throughout the United States...
- These government-wide financial statements help users:
  - ▶ Assess the finances of the government in its entirety, including the year's operating results
  - ▶ Determine whether the government's overall financial position improved or deteriorated
  - ▶ Evaluate whether the government's current-year revenues were sufficient to pay for current-year services
  - ▶ See the cost of providing services to its citizenry
  - ▶ See how the government finances its programs—through user fees and other program revenues versus general tax revenues
  - ▶ Understand the extent to which the government has invested in capital assets, including roads, bridges, and other infrastructure assets
  - ▶ Make better comparisons between governments.
  - ▶ Source: <https://www.gasb.org/st/summary/gstsm34.html>

## 1.6 GASB Statement No. 34 requirements

- GASB 34 specifies methods for accounting and accountability for “fixed assets” and requires:
- Accrual-based accounting of revenues and expenditures for matching and reflecting when transactions occur
  - ▶ For example, if the water system provides water in December 2003 and receives payment in February 2004, the water system would report that the money was earned in 2003. This change will allow the system and its investors to understand the direct financial results of its investments
- Reporting of the value of infrastructure assets and cost of deferred maintenance
  - ▶ These measures allow the public to evaluate how well the system is managing its assets. A current asset management plan is a valuable tool to help you meet this requirement if you are complying with Statement 34. In addition, reporting the true cost of deferred maintenance (i.e., unmade repairs that result in equipment or facility deterioration) may allow systems to more easily raise money for maintenance activities necessary to use facilities and equipment for their full expected lives
- Contributed capital (for example, federal grants) is considered a form of income
  - ▶ This [measure] will increase a system’s reported income. While reporting all forms of income is a necessary accounting principle, this method of reporting (which includes contributed capital) may make it more difficult to justify rate increases
- Source: Adapted from <https://simple.waterrf.org/Books/Contents/Asset-Management-for-Small-Utilities/Appendices/Introduction-to-GASB-34>

## 1.7 Poll: Accounting systems

- When accounting conflicts arise in the regulatory context, which accounting authority prevails?
  - A. Internal Revenue Service (IRS) rules
  - B. Generally Accepted Accounting Principles
  - C. International Financial Reporting Standards
  - D. Public Utility Commission rules, policies, or decisions

## 1.7 Regulatory accounting and GAAP

- Accounting standards are set by private (nongovernmental) organizations
  - Financial Accounting Standards Board (FASB) – privately owned
  - Government Accounting Standards Board (GASB) – publicly owned
- Generally Accepted Accounting Principles (U.S. GAAP)
  - Uniform set of principles, rules, procedures, standards and guidelines of financial accounting and reporting
  - Used by most large private companies for accounting records and financial statements
  - Compliance is required for publicly traded entities to obtain an unqualified (“clean”) opinion from an independent auditor
  - Must be complied with for securities to be listed on a stock exchange
- GAAP is dynamic and evolves
  - As needs of users of financial statements change
  - As new issues or problems arise
  - As methods converge with international standards (IFRS)
- Accounting Standards Codification (ASC)
  - Sole authoritative source of GAAP (since 2009)
  - ASC is revised as GAAP are modified by SEC and FASB

## 1.7 Regulatory accounting and GAAP

- Other Comprehensive Basis of Accounting (OCBOA)
  - ▶ Includes regulatory basis and tax basis
- Regulatory accounting is not simply modified GAAP accounting
  - ▶ Key distinctions are associated with regulatory policy issues (such as disallowances from rate recovery) and timing issues (such as asset depreciation and income taxes)
  - ▶ Regulatory decisions impact financial reporting in terms of how particular items (such as regulatory assets or liabilities) are booked
  - ▶ FAF video overview of GAAP: <https://www.youtube.com/watch?v=i1Xf-byGIVs>
- Regulatory policies prevail over GAAP
  - ▶ FASB and GASB (via GAAP) have no authority over federal or state regulators
  - ▶ “If GAAP conflicts with the accounting and financial reporting needed by the Commission to fulfill its statutory responsibilities, then *GAAP must yield...*” (*emphasis added*)
  - ▶ “GAAP cannot control when it would prevent the Commission from carrying out its duty to provide jurisdictional companies with the opportunity to earn fair return on their investment and to protect ratepayers from excessive charges and discriminatory treatment” (FERC Order No. 552, 62 FERC 61,299, March 31, 1993)

Q. What are some issues that are unique to regulatory accounting?

- 

**FASB**  
FINANCIAL ACCOUNTING  
STANDARDS BOARD

Accounting Standards Codification

# 980 Regulated Operations

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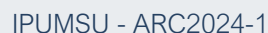
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## 1.7 FASB ASC 980: Regulated Operations

- Public utilities must meet certain criteria for special accounting allowances
  - ▶ Rates charged to customers for regulated services must be established by an independent third-party regulator
  - ▶ Regulated rates must be designed to recover specific costs of providing regulated services
  - ▶ Taking demand into account, rates sufficient to recover costs can be charged to and collected from customers
- Accounting policy
  - ▶ Regulators may determine that certain costs (e.g., depreciation) should be charged to periods other than those that applicable under GAAP by non-regulated firms
  - ▶ Provides for alternative methods of accounting to recognize the rate actions of regulators applicable to regulated firms (i.e., regulatory assets and liabilities)
- GASB Statement 62 (2010)
  - ▶ Incorporates into the GASB's authoritative literature (issued prior to 11/30/89)
    - Financial Accounting Standards Board (FASB) Statements and Interpretations
    - Accounting Principles Board Opinions
    - Accounting Research Bulletins of the American Institute of Certified Public Accountants' (AICPA) Committee on Accounting Procedure

## 1.7 FASB ASC 980 Regulated Operations ⓘ

- Specific standards derived from the general standards
  - ▶ In some cases, a regulator requires an enterprise subject to its authority to capitalize, as part of the cost of plant and equipment, the cost of financing construction as financed partially by borrowings and partially by equity. [15]
  - ▶ Profit on sales to regulated affiliates shall not be eliminated in general-purpose financial statements if both of the following criteria are met: a. The sales price is reasonable. b. It is probable that, through the rate-making process, future revenue approximately equal to the sales price will result from the regulated affiliate's use of the products. [16]
  - ▶ The sales price usually shall be considered reasonable if the price is accepted or not challenged by the regulator that governs the regulated affiliate. [17]
- Other specific standards
  - ▶ Items of revenue and expense are sometimes taxable or deductible in periods other than the periods in which those items are recognized for financial reporting purposes. [18]
  - ▶ For refunds that are recognized in a period other than the period in which the related revenue was recognized and that have a material effect on net income, the enterprise shall disclose the effect on net income and indicate the years in which the related revenue was recognized. [19]
  - ▶ In some cases, a regulator may permit an enterprise to include a cost that would be charged to expense by an unregulated enterprise as an allowable cost over a period of time by amortizing that cost for rate-making purposes, but the regulator [may or may not] include the unrecovered amount in the rate base. [20]



## 1.7 Special regulatory accounting provisions

- Allowance for Funds Used During Construction (AFUDC)
- Accounting for Asset Retirement Obligations (ARO)
- Accounting treatment for leases (e.g., normalized lease expense)
- Approved deferrals for certain items (e.g., income taxes)
- Cost recovery and revenue assurance mechanisms (clauses, trackers)
- Cost treatment imprudence, excess capacity, and plant abandonments
- Other regulatory assets and liabilities resulting from commission decisions
- Balancing accounts and memorandum accounts (California)
- Other provisions unique to prescribed systems of accounts

## 1.8 Uniform systems of accounts (USoA)

- Utilities must keep books in accordance with requirements of
  - Financial regulators (SEC), economic regulators (PUCs), and the Internal Revenue Service (IRS)
- Utility regulators could not rely on private entities (FASB, GASB) to develop accounting standards for policy purposes
  - They instead developed and implemented their own detailed Uniform Systems of Accounts (USoA) – borrowed from the U.K.
- Uniform accounting and reporting requirements were established federally for shippers
  - Pursuant to the Hepburn Act (1906)
  - Implemented by the Interstate Commerce Commission
- Regulatory systems
  - New York, Wisconsin, Maryland created uniform systems in the early 1900s
  - The first interstate system of accounts was published by the “National Association of Railway and Utilities Commissioners” (“NARUC”) in 1922
  - In the 1930’s, the Federal Communications Commission (FCC) and the Federal Power Commission (predecessor of FERC) issued their own systems



## 1.8 Uniform systems of accounts (USoA)

- USoA largely reflects U.S. GAAP
  - Essentially the same methods, techniques, approaches to record financial transactions
  - Prescribe accounting classifications and detailed descriptions and instructions to achieve uniform accounting records across companies and over time
  - Provide for more detail on operations than provided for under GAAP
  - Used to report financial and operating data to regulators and for ratemaking
  - Comparable across regulated industries with differences based on technologies
  - Reasonably consistent across regulatory jurisdictions
- Elements
  - Authority and application
  - Definitions of terms
  - General and accounting instructions
  - Chart (list) of accounts (COA)
    - Account number and title
    - Description of transactions to be recorded in the account
    - Examples of types of items to include
- Key schedules
  - Balance sheet: utility plant accounts at a point in time (end of year)
  - Income statement: operating revenue and O&M accounts for a period (span of a year)
  - Retained earnings and cash-flow statements reflect changes over a period

## 1.8 Prevailing USoA by sector ⓘ

- Telecommunications
  - Federal Communications Commission (FCC) – Title 47 CFR Part 32
  - <https://www.govinfo.gov/content/pkg/CFR-2017-title47-vol2/xml/CFR-2017-title47-vol2-part32.xml>
- Electricity and natural gas
  - Federal Energy Regulatory Commission (FERC) – Title 18 CFR Parts 101, 201
  - Form One is the comprehensive financial and operating report for electric utilities
  - <https://www.ferc.gov/enforcement/acct-matts/usofa.asp>
- Electric cooperatives (member-owned)
  - Rural Utility Service (US Dept. of Agriculture) – Title 7 CFR Ch. XVII Part 1767
  - [https://www.rd.usda.gov/files/UPA\\_Bulletin\\_1767B-1.pdf](https://www.rd.usda.gov/files/UPA_Bulletin_1767B-1.pdf)
- Water and wastewater utilities
  - National Association of Regulatory Utility Commissioners (© NARUC, 1996)
  - States have adopted their own variations of USoA for the sector (available online)
  - Currently under revision and review (2024)
- State systems and mechanisms
  - For example, California General Practices, memorandum accounts, balancing accounts

## 1.8 USoA for water utilities (NARUC, 1996)

- Accounting standards for the water sector
  - No federal regulation or USoA – NARUC USoA (1996) prevails
  - Separated into Class A, B, and C utilities by size according to revenues
    - Class A – Annual water operating revenues of \$1,000,000 or more.
    - Class B – Annual water operating revenues between \$200,000 and \$1,000,000
    - Class C – Annual water operating revenues of less than \$200,000
  - Often adapted by states with some changes
  - Reinforced by the NARUC Rate Case and Audit Manual (NRCAM, 2003)
- Records
  - “Each utility shall keep its books of account, and all other books, records, and memoranda which support the entries in such books of accounts so as to be able to furnish readily full information as to any item included in any account” (USoA, 1996)
- Accounts (also “charts of accounts”)
  - 100-199 Assets and Other Debits
  - 200-299 Equity, Liabilities and Other Credits
  - 300-349 Water Plant Accounts
  - 400-434 Income Accounts
  - 435-439 Retained Earnings Accounts
  - 460-489 Water Operating Revenue Accounts
  - 600-699 Water Operation and Maintenance Expenses

## 1.8 USoA for water utilities (State of Pennsylvania)

- §65.16. System of accounts.
- (a) A public utility having annual operating revenue of \$750,000 or more (average of the last 3 consecutive years) shall keep its accounts in conformity with the most recent Uniform System of Accounts for Class A Water Utilities prescribed by the National Association of Regulatory Utility Commissioners (N.A.R.U.C.).
- (b) A public utility having annual operating revenues of \$150,000 or more but less than \$750,000 (average of the last 3 consecutive years) shall keep its accounts in conformity with the Uniform System of Accounts for Class B Water Utilities prescribed by N.A.R.U.C.
- (c) A public utility having annual operating revenues of less than \$150,000 (average of the last 3 consecutive years) shall keep its accounts in conformity with the most recent Uniform System of Accounts for Class C Water Companies prescribed by N.A.R.U.C.
- (d) Public utilities subject to this section shall have until January 1, 2000, to convert to the most recent Uniform System of Accounts for Class A, Class B or Class C Water Utilities prescribed by N.A.R.U.C.

## 1.8 USoA example

### INDEX OF ACCOUNTS

#### BALANCE SHEET ACCOUNTS

##### Assets and Other Debits

##### Utility Plant

| Acct. No. | Title   | Page |
|-----------|---|------|
| 101       | Utility Plant in Service  |      |
| 102       | Utility Plant Leased to Others                                    |      |
| 103       | Property Held for Future Use                                      |      |
| 104       | Utility Plant Purchased or Sold                                   |      |
| 105       | Construction Work in Progress                                     |      |
| 106       | Completed Construction Not Classified                             |      |
| 108       | Accumulated Depreciation  |      |
|           | 108.1 Accumulated Depreciation of Utility Plant in Service        |      |
|           | 108.2 Accumulated Depreciation of Utility Plant Leased to Others  |      |
|           | 108.3 Accumulated Depreciation of Property Held for Future Use    |      |
| 110       | Accumulated Amortization  |      |
|           | 110.1 Accumulated Amortization of Utility Plant in Service        |      |
|           | 110.2 Accumulated Amortization of Utility Plant Leased to Others  |      |
| 114       | Utility Plant Acquisition Adjustments                             |      |
| 115       | Accumulated Amortization of Utility Plant Acquisition Adjustments |      |
| 116       | Other Utility Plant Adjustments                                   |      |

# 1.8 USoA by utility size class (New Hampshire, 2015)

## Section 2 INSTRUCTIONS FOR BALANCE SHEET ACCOUNTS

|  | Class A<br>Account | Class B<br>Account | Class C<br>Account |
|--|--------------------|--------------------|--------------------|
| <b>(a) Utility Plant</b>   |                    |                    |                    |
| Utility Plant in Service   | 101                | 101                |                    |
| Utility Plant Leased to Others                                       | 102                | 102                |                    |
| Property Held for Future Use   | 103                | 103                | 103                |
| Utility Plant Purchased or Sold                                      | 104                | 104                | 104                |
| Construction Work in Progress  | 105                | 105                | 105                |
| Completed Construction Not Classified                                | 106                |                    |                    |
| Accumulated Depreciation   | 108                | 108                | 108                |
| Accumulated Depreciation of Utility<br>Plant in Service              | 108.1              |                    |                    |
| Accumulated Depreciation of Utility<br>Plant Leased to Others        | 108.2              |                    |                    |
| Accumulated Depreciation of Property<br>Held for Future Use          | 108.3              |                    |                    |
| Accumulated Amortization   | 110                | 110                | 110                |
| Accumulated Amortization of Utility<br>Plant in Service              | 110.1              |                    |                    |
| Accumulated Amortization of Utility<br>Plant Leased to Others        | 110.2              |                    |                    |
| Utility Plant Acquisition Adjustments                                | 114                | 114                | 114                |
| Accumulated Amortization of Utility<br>Plant Acquisition Adjustments | 115                | 115                | 115                |
| <b>(b) Other Property and Investments</b>                            |                    |                    |                    |
| Non-utility Property   | 121                | 121                | 121                |
| Accumulated Depreciation and<br>Amortization of Non-utility Property | 122                | 122                | 122                |
| Investment in Associated Companies                                   | 123                | 123                |                    |
| Utility Investments  | 124                | 124                | 124                |



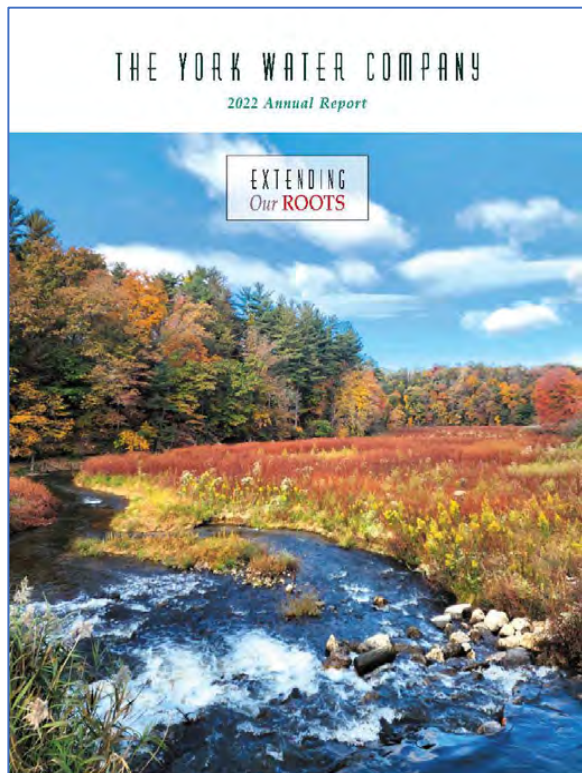
## 1.9 Financial statements and reports

- Financial accounting and reporting vary according to policy purposes
  - Regulatory auditors should compare reports and read narratives and footnotes
- Financial statements reflect a *point in time* or a *period of time*
  - Balance sheets – end-of-year balances
  - Income and cash-flow statements – a one-year period of financial activity
- Types of accounting records
  - General ledger
    - The primary accounting record consisting of the accounts and journal entries supporting the values reflected in the company's financial statements
  - Trial balance
    - A trial balance lists all the accounts contained in the general ledger. The trial balance listing contains a date, name, and value each account. It is called a trial balance because the sum of all the accounts must “balance” to zero

## 1.9 Financial statements and reports (continued)

- Types of reports required of publicly traded and regulated companies
  - ▶ “Glossy” summary reports to shareholders and the public (annual)
  - ▶ Financial reports (quarterly, annual) to the Securities and Exchange Commission (SEC)
  - ▶ Tax accounting and filings to the Internal Revenue Service (IRS)
  - ▶ Detailed financial and operating reports to the rate regulator (annual and rate case)
- Opinion issued by an independent auditor
  - ▶ Relevant to the credibility of utility financial statements filed with regulators
  - ▶ Unmodified (unqualified or “clean”) opinion (SAS 134)
  - ▶ Qualified opinion - exception to an aspect of accounting or concern about disclosure
  - ▶ Useful to regulatory auditors for some kinds of information
- Statements are signed by responsible senior executive officers (CEOs & CFOs)
  - ▶ Requirements clarified under Sarbanes-Oxley (2002)

# 1.9 Financial statements and reports



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

(Mark One)  
☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2022  
OR  
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission file number 001-14241

**THE YORK WATER COMPANY**  
(Exact name of registrant as specified in its charter)

"That good 'York' water!"  
services

Pennsylvania  
(State or other jurisdiction of incorporation or organization)  
130 East Market Street, York, Pennsylvania  
(Address of principal executive offices)  
23-1242100  
(U.S. Employer Identification No.)  
17401  
(Zip Code)  
Registrant's telephone number, including area code (717) 845-2601

Securities registered pursuant to Section 12(b) of the Act:  
Common Stock, No par value  
(Title of Class) YORKW (Trading Symbol) The NASDAQ Global Select Market  
(Name of Each Exchange on Which Registered)  
Securities registered pursuant to Section 12(g) of the Act:  
None  
(Title of Each Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☐ Yes ☒ No  
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐ Yes ☒ No  
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No  
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-K (17 CFR 229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☒ Yes ☐ No  
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.  
Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☐ Emerging growth company ☐  
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐  
Indicate by check mark if the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Exchange Act (17 U.S.C. 7202(b)) by the registered public accounting firm the prepared or issued its report. ☐  
If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐  
Indicate by check mark whether any of these error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to 1201-1(b). ☐  
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☒ No  
The aggregate market value of the Common Stock, no par value, held by nonaffiliates of the registrant on June 30, 2022 was \$378,724,332.  
As of March 7, 2023, there were 14,287,037 shares of Common Stock, no par value, outstanding.  
DOCUMENTS INCORPORATED BY REFERENCE  
Portions of the Proxy Statement for the Company's 2023 Annual Meeting of Shareholders are incorporated by reference into Part I and Part III.

**CLASS "A" AND "B" WATER COMPANY  
PUC ANNUAL REPORT  
OF**

Utility Code  
A-213550

Company: THE YORK WATER COMPANY

Address: 130 EAST MARKET ST., YORK, PA 17401  
Address City State Zip

**TO THE  
PENNSYLVANIA  
PUBLIC UTILITY COMMISSION**

For the Year Ended December 31, 2022

Telephone Number 717-845-3601

Fax Number 717-718-3090

E-Mail matthewp@yorkwater.com

Web Site Address www.yorkwater.com

Officer to whom correspondence  
concerning this report should be addressed:

Matthew Poff  
First Name Last Name  
**Chief Financial Officer**  
Title

130 East Market St., York, PA 17401  
Address City State Zip



# 1.9 Reports to the Securities and Exchange Commission (SEC)

- Prospectus
  - ▶ A detailed statement regarding the issuance of stock to the general public.
  - ▶ Contains information that would assist the potential investor to evaluate the stock and the prospects of the company for profit, loss, and growth
- Tender offer
  - ▶ Solicitation to purchase substantial portion of a company's stock for a limited time, often as part of a corporate takeover
- 10-K reports
  - ▶ Annual comprehensive overview of company's business – financial statements and more
- 10-Q reports
  - ▶ Quarterly unaudited financial reports
- 8-K reports
  - ▶ Report occurrence of any material events or corporate changes of interest to investors or security holders
- Proxy statements to shareholders
  - ▶ Security and Exchange Commission mandated disclosures used to solicit shareholders' votes in annual or special meetings
  - ▶ Must include data on "named executive officers'" compensation and incentives (salaries, bonuses, shares of stock)

| Document and Entity Information - USD (\$)  | 12 Months Ended            |               |                |
|---|----------------------------|---------------|----------------|
|   | Dec. 31, 2022              | Mar. 07, 2023 | Jun. 30, 2022  |
| <b>Cover [Abstract]</b>                     |                            |               |                |
| Document Type                               | 10-K                       |               |                |
| Amendment Flag                              | false                      |               |                |
| Document Annual Report                      | true                       |               |                |
| Document Period End Date                    | Dec. 31, 2022              |               |                |
| Current Fiscal Year End Date                | --12-31                    |               |                |
| Document Fiscal Year Focus                  | 2022                       |               |                |
| Document Fiscal Period Focus                | FY                         |               |                |
| Document Transition Report                  | false                      |               |                |
| Entity File Number                          | 001-34245                  |               |                |
| Entity Registrant Name                      | YORK WATER CO              |               |                |
| Entity Central Index Key                    | 0000108985                 |               |                |
| Entity Incorporation, State or Country Code | PA                         |               |                |
| Entity Tax Identification Number            | 23-1242500                 |               |                |
| Entity Address, Address Line One            | 130 East Market Street     |               |                |
| Entity Address, City or Town                | York                       |               |                |
| Entity Address, State or Province           | PA                         |               |                |
| Entity Address, Postal Zip Code             | 17401                      |               |                |
| City Area Code                              | 717                        |               |                |
| Local Phone Number                          | 845-3601                   |               |                |
| Title of 12(b) Security                     | Common Stock, No par value |               |                |
| Trading Symbol                              | YORW                       |               |                |
| Security Exchange Name                      | NASDAQ                     |               |                |
| Entity Well-known Seasoned Issuer           | No                         |               |                |
| Entity Voluntary Filers                     | No                         |               |                |
| Entity Current Reporting Status             | Yes                        |               |                |
| Entity Interactive Data Current             | Yes                        |               |                |
| Entity Filer Category                       | Non-accelerated Filer      |               |                |
| Entity Small Business                       | true                       |               |                |
| Entity Emerging Growth Company              | false                      |               |                |
| ICFR Auditor Attestation Flag               | false                      |               |                |
| Entity Shell Company                        | false                      |               |                |
| Entity Public Float                         |                            |               | \$ 576,724,352 |
| Entity Common Stock, Shares Outstanding     |                            | 14,287,037    |                |
| Auditor Firm ID                             | 23                         |               |                |
| Auditor Name                                | Baker Tilly US, LLP        |               |                |
| Auditor Location                            | York, Pennsylvania         |               |                |

## 1.9 ESG reporting and standards

- Purpose of reporting and standards

- ▶ Communicate the impacts of Environmental, Social, and Governance (ESG) factors on the reporting company
- ▶ Establish a framework and disclosure standards facilitating communication about material, decision-useful ESG information

- Standard-setting authority for reporting and standards

- ▶ More than a dozen organizations provide guidance, scoring, or standards for ESG reporting
- ▶ In June 2022, the SEC issued proposed rules to establish new disclosure and reporting requirements related to ESG
- ▶ In 2022, the Sustainability Accounting Standards Board (2011) transitioned into the International Sustainability Standards Board (ISSB), becoming part of the International Financial Reporting Standards (IFRS) Foundation
- ▶ In 2023, IFRS issued two statements (S1 and S2) requiring companies to disclose in financial statements all sustainability-related risks and opportunities

- Ongoing issues

- ▶ Competing incentives and possible conflict with fiduciary obligations
- ▶ Authority of and consideration by financial and economic regulators
- ▶ Consistency with risk management, transparency, and regulatory standards
- ▶ Separation of E, S, and G





# 1.9 ESG reporting and standards



## The York Water Company

### Environmental, Social, and Governance Responsibilities

"That good York water"  
SINCE 1816

*Sustainability keeps the community's water flowing at America's Oldest Public Company*

#### 200 Years Old! A Story of Sustainability, Stewardship, and Service to our Community

In 1816, a group of local business leaders pooled their resources to start The York Water Company. It was one of America's earliest successful public-private partnerships. A partnership between a community and a water supplier. Due to the trust that York Water has developed with the communities it serves, it is still an example of community-based capitalism over 200 years later.

The York Water Company is responsible for the water resources for almost 250,000 people. York Water has always understood and lived by the motto that we didn't inherit our most critical resource from our fathers; we are maintaining and protecting it for our children. In fact, York Water often looks 100-200 years into the future to ensure the communities that we serve will always have a high-quality, refreshing, and sustainable supply of water now and well into the future.

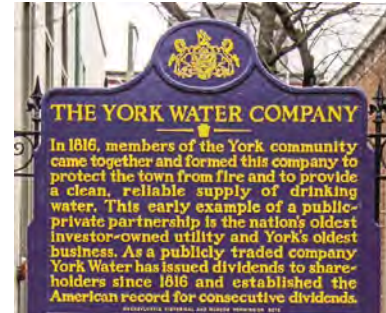
In addition, York Water's Board of Directors, management team, and employees all believe in our company's critical mission of providing service to our community in a way that protects the environment, is socially responsible to all of our stakeholders, and is governed locally and maintains the highest ethical standards.

The York Water Company has certain Environmental, Social, and Governance (ESG) Responsibilities to our customers, community, employees, regulators, vendors, and the environment. These attributes are contained in our Code of Ethics which is followed by all of our employees, managers, and directors:

Every employee is solely responsible for his or her actions, and the consequences thereof.

Every employee, when engaged in any activity concerning the Company and when dealing with customers, suppliers, other employees, shareholders, and the general public, must observe the highest standards of integrity, honesty and fairness.

It is expected that no employee, while on Company property or while engaged in Company business, will undertake any activity that is or gives the appearance of being improper, illegal, immoral, or will in any way embarrass or bring harm to the environment, the Company, or its customers, employees, or suppliers.



#### York Water Statistics

Birthday: February 23, 1816

Employees: 110

Water customers: 68,000

Wastewater customers: 2,000

Estimated population: 200,000+

Municipalities served: 48

Average Daily water use:  
19.5 million gallons per day

Usage/person/day: 92 gallons  
(from a peak of 170 gallons in 1970)

Market value: ~ \$400 million

Ownership: Over 8,000 people, companies, and funds own The York Water Company. Almost 70% of the owners are retail shareholders, many located in the area.

## 1.9 Detailed reports to economic regulators

- Economic regulators require annual financial & other reports (publicly available)
  - Regulated and non-regulated business segments are reported separately
  - Captioning in reports is similar to other forms of reporting
  - Most data are provided for the most recent as well as one or more prior periods
  - Regulatory agencies have moved to electronic filing systems and XBRL (FERC)
- Report the financial and operating status, policies, & practices of the company
  - As represented by management and reviewed by an independent auditor
  - Provide transparency and communicate essential financial information
  - For multi-state operations, information is not usually broken down by jurisdiction in detail
- Concerns about data access, security, and privacy may arise



## 1.10 Regulatory auditing and enforcement

- An audit is a formal examination of an entity's financial or other data
  - Certified financial audit, management or performance audits, service quality audits, project audits, operations audit, energy or water audits, forensic audits, regulatory audits
  - Regulators do not replicate independent certified audits – and rely on their veracity
- Regulatory audits are independent reviews by a regulatory authority
  - Focusing on a company's plant and equipment and related expenses
  - Purpose is not replication or fraud detection but to provide public confidence that the rates paid by customers are fair, just, reasonable, and sufficient
  - Regulatory audits focus on consistency with regulatory principles, such as prudence of investments (Part 2) and reasonableness of expenses (Part 3)
- Regulatory audits serve policy purposes – compliance with standards
  - "A regulatory review, a field investigation, or a means of determining the appropriateness of a financial presentation for regulatory purposes" (NRCAM, 2003)
- Regulatory purposes associated with audits
  - Oversight – annual reports and spot audits
  - Compliance – reports or filings ordered by the regulatory authority
  - Filing review – rate case (tariff), reconciliation cases, or financial filings

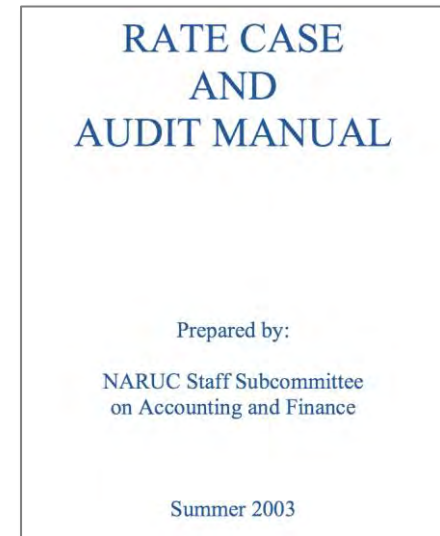


## 1.10 Rate case and other audits

- Rate case audits
  - ▶ Capital and operating expenditures
  - ▶ Adjustments, annualization, and normalization
  - ▶ Revenue and expenditure forecasts
  - ▶ Reconciliation issues
- Other accountability audits
  - ▶ GAAP financial audits
  - ▶ Audits for reconciliation of adjustment mechanisms
  - ▶ Going concern reviews
  - ▶ Fraud-related and forensic (lessons learned)
  - ▶ Assessment and compliance audits
  - ▶ Management and workforce audits
  - ▶ Audits of affiliate transactions
  - ▶ Holding company (parent and subsidiary) audits

## 1.10 NARUC Rate Case and Audit Manual (NRCAM, 2003)

- NARUC's Rate Case and Audit Manual (NRCAM, 2003) complements the guidance provided in the USoA
  - ▶ “This manual has been prepared by the [NARUC] Staff Subcommittee on Accounting and Finance as a guideline for state, territory, and federal regulatory utility commission personnel.
  - ▶ It is not our intent to provide a checklist for use by commission auditors, accountants or analysts
  - ▶ Rather, it is our intent to set forth the most common, basic regulatory principles, processes, and procedures used by many regulatory commissions to examine and investigate general rate applications.
  - ▶ We anticipate that each regulatory jurisdiction will have areas of uniqueness and specific areas of differences when it comes to examining a utility's revenue requirement and operating earnings.
  - ▶ Recognizing that these differences exist, we have tried to present the basic steps of the rate case investigation in such a way that revisions and changes can be made by the individual jurisdictions while maintaining the overall usefulness of the more general guidelines.”



## 1.10 Information used by rate-case auditors

- Utility's rate case filing and related testimony
- Rate case data requests and discovery responses
- Annual reports to federal and state economic and financial regulators
- Annual and other reports to financial regulators, including notes
- Annual reports to shareholders and earnings calls
- Detailed budgets and budget variance reports
- Capital planning reports and project audits
- General ledgers and trial balances
- Details of compensation for (SEC-named) executive officers
- Federal income and other tax filings (by request)
- Minutes of meetings of boards of directors (by request)
- Environmental, social, and governance (ESG) disclosures (risks)
- General search news, reports, and other publicly available information

## 1.10 Regulatory enforcement

- Pennsylvania Bureau of Investigation and Enforcement
  - "Prosecutory bureau for purposes of representing the public interest in ratemaking and service matters before the Office of Administrative Law Judge and enforcing compliance with the state and federal motor carrier safety and gas safety laws and regulations. The bureau handles rail safety enforcement proceedings that are referred by the Bureau of TUS. The Bureau also prepares reports for the Commission, provides technical support for other bureaus and participates in working groups on energy issues."
- Regulation must be a "tough substitute" for markets or direct control (H. Trebing)
  - Regulation relies on a culture of, commitment to, and capacity for compliance
  - Regulators must know and use their authority to inspect and enforce
  - Tools include fines, penalties, legal actions (findings of contempt, even arrest)
  - Communications, technical support, and ADR are tried before formal proceedings
  - Language in regulatory orders, including settlements, should be clear
  - Rules and regulations may vary by utility type or size and may be updated periodically
  - Conditional approvals should be explicit and measurable
  - Complete documentation of noncompliance is critical
  - Transparency and stakeholder engagement play a role

**Q. Are regulatory decisions adequately enforced?**

## 1.11 Ratemaking process and key steps

- Rate regulation is largely reactive in response to a filing for “rate relief”
- Comprehensive case is preferred to single-issue ratemaking (e.g., tax change)
- Utilities file rate cases with expert testimony on material issues
- Process is governed by the rules and procedures of administrative law
- Other parties (advocates) with standing may intervene and file testimony
- Parties may stipulate (agree) to some issues and/or settle the entire case
- Administrative law judges (ALJs) or hearing examiners draft orders
- Commissioners deliberate, rule, and issue orders supported by the record
- Commission orders may be appealed to commissions, state and federal courts

**Q. What factors trigger the ratemaking process and why do parties intervene?**

## 1.11 Stakeholder expectations about ratemaking

### Public utilities

- Revenue stability, reasonable certainty, and a fair return to ensure financial viability and attract investors

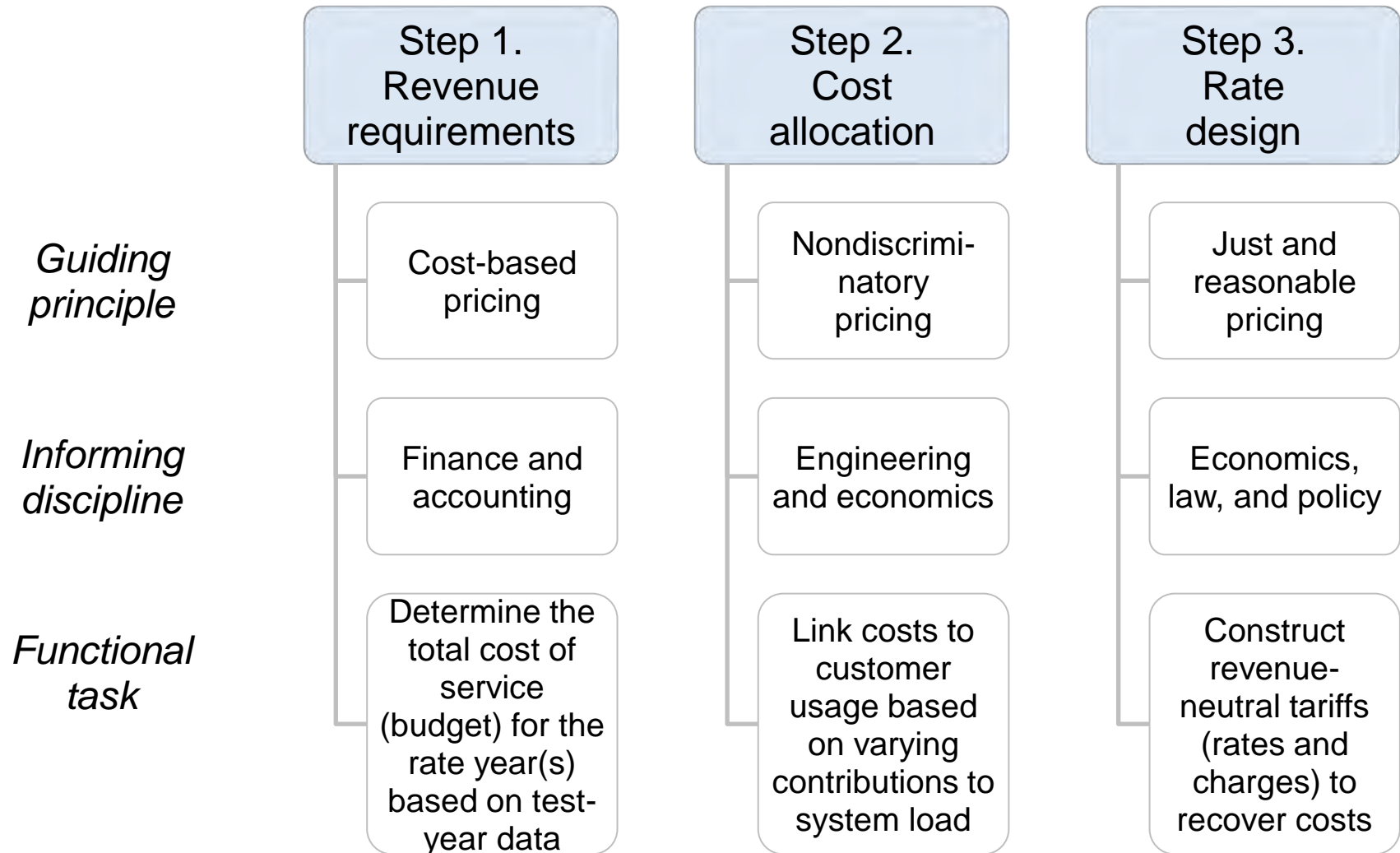
### Utility ratepayers

- Safe, adequate, reliable, and convenient service, fair, reasonable, and stable rates, and a controllable and affordable bill

### Utility regulators

- Utility services that serve society and promote the public interest in terms of infrastructure investment, operational efficiency, and other performance goals

## 1.11 Ratemaking steps & guiding principles: all three matter



# 1.11 Pennsylvania PUC ratemaking process



## The PUC Ratemaking Process and the Role of Consumers

### Regulation

In order to provide economical and efficient service to a community, the state grants electric distribution, natural gas distribution, steam heat, water and wastewater companies the right to provide their service within a specified geographic area. History shows and economics dictate that the construction of distribution facilities by multiple utilities in the same location would be extremely costly and disruptive to communities. The utility is regulated by state government to assure fair rates for safe and adequate service.

Competition is permitted in the supply of electricity and natural gas. Charges for the supply of electricity and natural gas by licensed competitors are not regulated and are based on market prices. Many electric utilities are operating under negotiated generation rate caps for supply services. The prices for the delivery through the distribution system of electric and natural gas continue to be regulated by the PUC.

Competition also is permitted for long-distance and local telephone service. Most local telephone companies operate under a price stability formula that limits their ability to seek rate increases based on the rate of inflation and other factors. The rates for competitive local exchange carriers that are competing against the incumbent local telephone companies also require PUC approval.

### Filing for a Rate Increase

When a regulated utility seeks a base rate increase, it must file a request with the PUC that shows the proposed new rates and effective date, and must prove that the increase is needed. The utility also must notify customers at least 60 days in advance. The notice must include the amount of the proposed rate increase, the proposed effective date, and how much more the consumer can expect to pay.

### How the PUC Sets Rates

The ratemaking process ensures the lowest reasonable rate for consumers while maintaining the financial stability of utilities. Under the law, the utility is entitled to recovery of its reasonably incurred expenses and a fair return on its investment. The PUC evaluates each utility's request for a rate increase based on those criteria.

### How Long It Takes

By operation of law, the rate request is suspended for up to seven months if the PUC does not act before the proposed effective date for the rate increase for electric, natural gas, steam heat, water and wastewater companies. The PUC uses that time to investigate and determine what if any of the requested increase is justified.

During the investigation, hearings are held before an Administrative Law Judge (ALJ) at which the evidence in support of the rate increase is examined and expert witnesses testify. In addition, consumers are offered an opportunity to voice their opinions and give testimony. Briefs may be submitted by the formal parties. A recommendation to the PUC is made by the ALJ. Finally, the matter is brought before the PUC Commissioners for a vote and final decision.

Together with the 60-day notice period, the rate increase process takes about nine months.

### Hearings and Recommendations

When the PUC investigates a rate increase, it is assigned to an ALJ, who is an attorney with experience in administrative law. The ALJ presides at formal hearings, which are open to the public and conducted like a formal court proceeding.

At the formal hearing, the company, the PUC's Bureau of Investigation and Enforcement (I&E) and other parties such as the state's Office of Consumer Advocate and Office of Small Business Advocate present their cases and are subject to cross-examination. I&E reviews the company's records and their request and presents its view on what is in the public interest.

Individual consumers may become formal parties by filling out a formal complaint form. Consumers may speak for themselves, or an attorney may represent individual consumers or groups of consumers. Consumers also can have their say informally by writing or calling the PUC or completing the objection/comment form. Consumers also may testify at public input hearings. By providing testimony, consumers place their views in the official record on the case. Public input hearings are conducted by the ALJ in the utility's service territory. Consumer testimony becomes part of the record on which the PUC will base its decision.

After weighing the evidence and hearing the arguments, the ALJ writes a recommended decision addressing each issue in the case within the limits set by law. The recommended decision may approve, disapprove or modify the original request. Parties may file exceptions to the judge's decision and reply exceptions. Sometimes, rate cases are resolved after all of the parties reach a settlement on the issues. The entire matter is then sent to the Commissioners for a vote at a public meeting.

### Final Order

The Commissioners make the final decision, authorizing rates that: (1) permit revenues that allow the company to meet its reasonable expenses, pay interest on its debt and provide a fair return to stockholders so it will continue to attract investment; and (2) assign the proper rate for residential, commercial and industrial customers that reflects the cost of service. The Order has the weight of law unless the PUC changes it in response to a petition for reconsideration, or it is successfully challenged in court.

### Consumer Role

Consumers must pay for the service they use, which includes a share of the reasonable cost of utility company expenses such as operating and maintenance expenses, administrative expenses, depreciation and taxes. While the ratemaking process is complex, consumers have the right to be informed about the process, receive an explanation of their utility bills, have their complaints addressed in a prompt and fair manner, and receive continuous utility service if payment responsibilities are met.

Consumers have a right to participate in the ratemaking process and can do so by filling out an informal complaint form or completing the Commission's objection/comment form. Both can be found in the online forms section at [www.puc.state.pa.us](http://www.puc.state.pa.us). They also can file a formal complaint.

### Public Input Hearings

By attending a public input hearing and providing comments, consumers place their views in the official record of the case. Consumer testimony becomes part of the record on which the PUC will base its decision.

### Consumer Action

Consumers can contact the PUC with their views on the rate increase by writing letters, completing an online complaint form or calling the consumer complaint hotline. Comments received are placed in the Commission's public file on the case. Consumers can contact the PUC by:

Letter: Pennsylvania Public Utility Commission  
Bureau of Consumer Services  
P.O. Box 3265  
Harrisburg, PA 17105

Phone: 1-800-692-7380

Also, by filing an "Objection or Comment to Proposed Rate Increase Form," consumers can officially register their objections and comments to a proposed rate increase, which will be placed in the document folder of the case for review by the presiding officer, the parties to the case and the Commission staff.

Request online form: [www.puc.pa.gov](http://www.puc.pa.gov)  
Click on "Filing & Resources" at the top of the page, then click on "File Complaints" to learn more.

### Formal Complaints

The formal complaint process involves a legal proceeding before a PUC administrative law judge, similar to a trial. This means that you and the utility must present facts on the issues raised in your complaint to an ALJ. Consumers also must be prepared to participate in pre-hearing conferences and hearings, respond to questions from the utility, file a written brief to summarize your position and comply with the Commission's procedural rules.

The Commission rules attempt to maximize the opportunity for the public to file formal complaints and allow consumers some form of limited participation in complex multi-party proceedings. The obligations related to fully participating in a complex case may be daunting for most consumers, but those consumers should still have every opportunity to participate at whatever level they feel comfortable.

The status of a consumer complaint in the case does not affect the consumer's ability to testify at the public input hearings scheduled in the case. The testimony presented at public input hearings may be used by the parties to support their positions.

### For further information, contact the Public Utility Commission:

#### Write

PA Public Utility Commission  
Bureau of Consumer Services  
P.O. Box 3265  
Harrisburg, PA 17105-3265

#### Call

1-800-692-7380  
For people with speech or hearing loss, dial 7-1-1  
(Telecommunications Relay Service)

#### Visit our website

[www.puc.pa.gov](http://www.puc.pa.gov)



December 2012



## 1.12 Cost-of-service ratemaking

- Prevailing practice emphasizes revenues and rates based on the cost of service
  - Revenue requirements are derived based on a study of embedded accounting costs for a rate period or “test year”
  - Cost analysis is segregated from cost-of-service analysis (allocation and rate design) and may be separately docketed
  - Ratemaking formulas are solved with simultaneous equations
- Cost-based rates are (mostly) considered efficient and equitable (see Part 5)
  - Help send efficient signals to producers and consumers
  - "Cost-plus" ratemaking (cost plus a return) is not an accurate description
  - Nonutility and non-jurisdictional revenues & expenses must be excluded and ring-fenced
- Key differences in revenue requirements between non-private and private utilities
  - Calculation of revenue requirements
  - Debt, equity, and cost of capital
  - Depreciation expense
  - Taxes and tax equivalents (e.g., PLoT or PILT)
  - Cash flow, working capital, and reserves

**Q. How do revenue requirements differ for utilities of different ownership types?**

## 1.12 Competitive firms vs. utilities

- Competitive firms
  - Revenues - Expenses = **Net income** (accounting “profit”)
  
- Regulated utilities
  - **Revenue requirements** = Net income + Expenses
  
- Non-private utilities (government and cooperatively owned)
  - **Revenue requirements (budget)** = Debt service + Expenses + Amount to maintain reserves

## 1.13 Test year in ratemaking

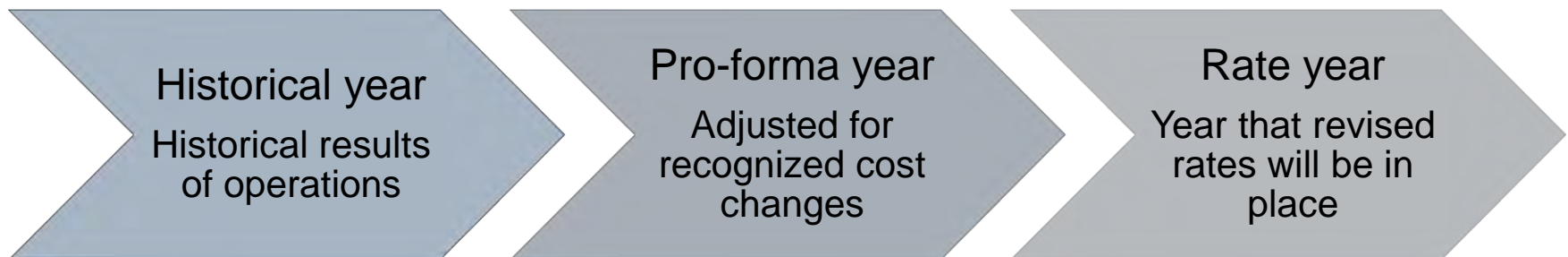
- Test year is a regulatory construct to inform tariff setting for the “rate year” when rates will be in effect
  - ▶ The test year is a period of measurement for a recent, consecutive twelve-month period consisting of a full year of operations where data are readily available (NRCAM, 2003)
  - ▶ The “test” is whether authorized returns are or can be earned under proposed rates
  - ▶ Some commissions use “test year” to refer to the period when rates will be in effect
- Test-year purpose
  - ▶ Used to examine earned returns compared to either previously authorized or requested earnings (NRCAM, 2003) and establish rates for a rate year
  - ▶ Data are adjusted to reflect conditions for the rate-year period
  - ▶ Retroactive ratemaking to adjust for variances is considered unconstitutional
- Test-year periods used in ratemaking
  - ▶ Thirteen-month average is prevalent and facilitates matching
  - ▶ Average of beginning and end of year account balances
  - ▶ End-of-year account balances (used for the York case study)
  - ▶ Projected or fully projected rate-year period – a year beyond when rates go into effect
  - ▶ Multi-year rate period – similar to price-cap model under incentive regulation (PBR)

## 1.13 Test year (continued)

- Determining the appropriateness of the test year (NRCAM, 2003)
  - ❑ While many jurisdictions have traditionally used, and continue to use, historical test year data, some commissions either allow or mandate the use of a projected or future test year.
  - ❑ In either case, the test year is used to examine earned returns compared to either previously authorized earnings levels (based on approved rates of return) or compared to requested earnings levels (based on requested or recommended rates of return).
  - ❑ Whether using a future or historic test year, the auditor should judge the appropriateness of the test year that has been proposed.
  - ❑ Is it representative, after appropriate adjustments, of the period in which rates will take effect?
- Test year and matching challenges
  - ▶ Revenues and expenses ("budget") must be matched, synchronized, and consistent
  - ▶ Accounting time periods based on the fiscal year (annual reports), tax year, and test year for ratemaking are asynchronous
  - ▶ Dynamic effects of one item on other items in the period must be considered (e.g., smart meter capital investment may displace meter reader expenditures)

## 1.13 Test year (continued)

- Historical test-year data are adjusted on a “pro-forma” (“as to form”) basis
  - Restated for data anomalies and adjusted for known and measurable factors affecting revenues and expenses in the rate year
  - Adjustments must be documented and supported by the record
  - Results of different methods should be similar (e.g., pro forma and prospective)
- Many regulatory jurisdictions allow or mandate a future test year (FTY)
  - Forward-looking, forecasted, projected, or fully projected future test year" (FPFTY in PA)
  - Accounts for “lag” between cost incurrent and recovery, and thus returns (see Part 4)
  - Mixed or hybrid approaches are also used (e.g., pro forma plus forecast)
  - Implications for cost and revenue-adjustment mechanisms – and thus risk



Q. What are the advantages and disadvantages of the different approaches?

## 1.13 Revenue and expense forecasting ⓘ

- Three types of financial statements (AICPA Attestation Standards Section 301.06)
  - ▶ Pro Forma. Historical statements adjusted for known and measurable changes; AICPA does not consider pro forma statements prospective
  - ▶ Forecast. Presents the financial position reflecting the conditions expected to exist in the rate year.
  - ▶ Projection. Presents the financial position expected to exist in the rate year given one or more hypothetical assumptions
- Methods used to forecast revenues and expenses
  - ▶ Growth rates
  - ▶ Regression analysis
  - ▶ Budgets (zero-based)
  - ▶ Price and volume analysis
  - ▶ Blending of methods

## 1.13 Test year (NRCAM, 2003)

- Whether using a future or historic test year
  - The auditor should judge the appropriateness of the test year that has been proposed.
  - Is it representative, after adjustments, of the period in which rates take effect?
- When looking at an historic test year
  - One of the first questions asked is whether the test year is too stale to make it a reasonable basis upon which to establish rates for a future period.
  - In looking at the appropriateness of the test year (and whether it might be too old), one should look at what has happened since the end of the test year and the current time.
  - Are the historic costs and revenues normal or recurring?
  - Has extraordinary growth occurred during the intervening time (e.g., has a new industrial customer come online)?
  - Has there been a negative impact on revenues through shift reductions at the local foundry?
  - In looking at the months beyond the end of the test year, have the growth rates for rate base, expenses, and revenues all remained fairly close and constant, maintaining the test year relationship among these three elements, or has one element changed dramatically, making the test year out of kilter with current operations?
  - If so, can this situation be resolved through adjustments to the test year?
- When looking at a future test year
  - One will want to examine the test year selected for reasonableness
  - Is this period mandated by rules, statute, or Commission directive?
  - Is the test year founded on a historical base or documented figures, such that its projections are readily understandable and traceable?

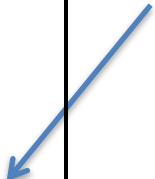
## 1.13 Poll: test year for ratemaking

- Which of the following is **true**?
  - A. A future test year grants preapproval for utility expenditures based on prudence
  - B. A forecasted test year multiplies total historical revenues by a growth factor
  - C. Regulators can always revisit past rates and make needed adjustments and refunds to ratepayers
  - D. Authorized returns should account for test-year effects



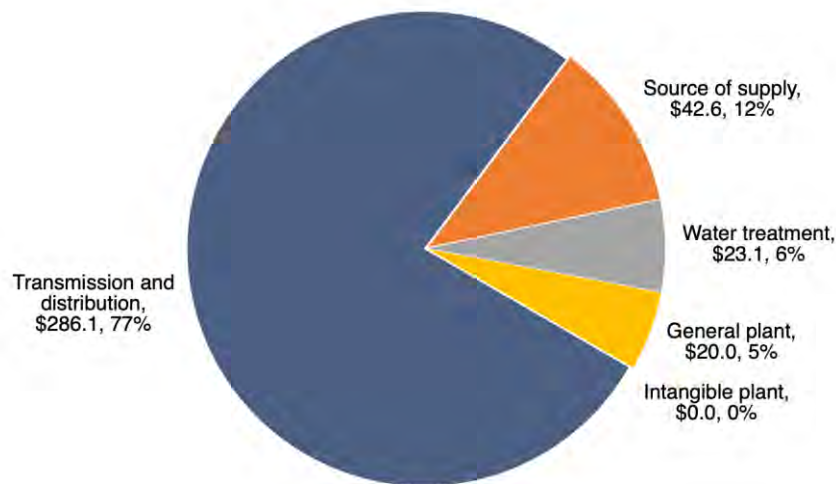
## 1.14 Components of revenue requirements

|                      |                             |                            |  |   |   |
|----------------------|-----------------------------|----------------------------|--|---|---|
| Revenue requirements | Variable costs of operation | Operations and maintenance |  | Labor   | <b>Above the line:</b><br>ratepayers cover the prudent cost of service  |
|                      |                             |                            |  | Resource inputs (energy, water)                                       |   |
|                      |                             |                            |  | Other inputs and variable operating costs                             |   |
|                      |                             |                            |  | Insurance, contracts and other costs (may be fixed in the short term) |   |
|                      |                             |                            |  | Depreciation  |   |
|                      | Fixed costs of operation    | Capital recovery           |  | Taxes   |   |
|                      |                             |                            |  | Interest on debt  | <b>Below the line:</b><br>ratepayers compensate debt holders and equity shareholders (net of disallowances that reduce returns) |
|                      |                             |                            |  | Return on equity  |   |
|                      |                             |                            |  |   | Disallowances   |
|                      |                             |                            |  |   | Nonregulated activities   |

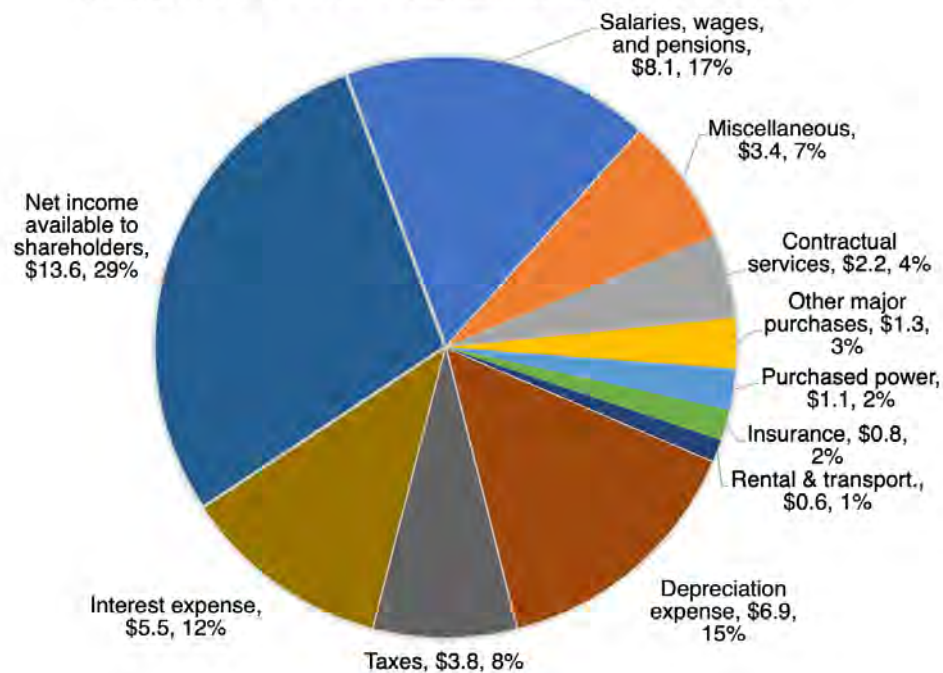


## 1.14 Distribution of plant investment and revenues

ALLOCATION OF UTILITY PLANT IN SERVICE  
(\$371.9 MIL. IN 2018)



ALLOCATION OF UTILITY REVENUES (\$47.3 MIL. IN 2018)



## 1.14 Cash-needs vs. utility basis for ratemaking

### Cash-needs basis

- Used by publicly owned utilities
- Accepted by government auditors
- Accepted by credit-rating agencies
- May not incorporate depreciation expense
- May not promote intergenerational equity in cost allocation
- Easier to understand and more adaptable

### Utility basis

- Used by privately owned and regulated utilities (some public)
- Accepted by state regulators
- Consistent with GAAP
- Incorporates depreciation expense
- May promote intergenerational equity in cost allocation
- Challenging to understand and less adaptable

## 1.14 Cash-needs, debt-service, or budget basis: non-private

$$\mathbf{RR = Capex + Opex + DS + Teq + Res}$$

where:

- RR = total test year (annualized) revenue requirements from rates (Totex)
- Capex = current capital expenditures not contributed or debt-financed (recorded as assets)
- Opex = operation & maintenance expenses, including administrative & general
- DS = debt service (loan and revenue bond payments) for utility plant
- Teq = tax equivalents (gross receipts or PILT) and other payments state or local governments based on obligations, costs, or risks
- Res = reserve payment based on debt service coverage or other criteria

Cost-based rates and revenue sufficiency are a function of both the numerator and denominator:

$$\frac{\text{Revenue requirements (RR)}}{\text{Estimated sales (billing determinants)}}$$

## 1.14 Utility, enterprise, or investment basis: private and some public

$$RR = r_a (RB) + O\&M + D + T$$

where:

RR = total test year (annualized) revenue requirements from rates

$r_a$  = authorized (not guaranteed) rate of return to compensate debt holders and equity shareholders

RB = rate base (original cost of invested utility plant in service net of accumulated depreciation and adjustments)

O&M = operation & maintenance expenses, including administrative & general

D = depreciation and amortization expense

T = taxes other than income and income tax expense

Cost-based rates and revenue sufficiency are a function of both the numerator and denominator:

$$\frac{\text{Revenue requirements (RR)}}{\text{Estimated sales (billing determinants)}}$$

## 1.14 Poll: Recoverable and unrecoverable costs

- All costs incurred by public utilities are recoverable from their ratepayers
  - A. True
  - B. False

## 1.14 Recoverable and unrecoverable costs

- Regulators and their auditors look for abuses of "monopoly money"
  - ▶ Examples: storm damage, service line replacement, charging stations, covid-19 impact
  - ▶ Prudence and usefulness standards help avoid stranded investment
  - ▶ For further discussion, see Parts 2 and 3
- Recoverable costs – potential allowances
  - ▶ Utility plant that is used and useful to ratepayers
  - ▶ Prudent capital and operating expenditures
  - ▶ Spending needed to meet standards and mandates
  - ▶ Spending to remain a going concern
  - ▶ Compensation of holders of debt and equity
- Unrecoverable costs – potential disallowances
  - ▶ Utility plant that is not used and useful to ratepayers
  - ▶ Imprudent capital and operating expenditures
  - ▶ Fines, penalties, and certain legal liabilities and defense
  - ▶ Spending and excesses disallowed by regulatory policy
  - ▶ Unacceptable compensation paid to company officers
- Allowances and disallowances are anticipated
  - ▶ Disallowances may result from utility's action or inaction (e.g., emergency planning)
  - ▶ Some disallowances may be symbolic – to show that regulators are watching
  - ▶ Allowances and disallowances may be negotiated in settlement processes



## 1.14 How does this work in practical terms?

- Utilities invest in and manage infrastructure assets for a public purpose
- Privately owned utilities are strongly motivated to invest in the rate base
- Investors are entitled to a return on (r) and of (depreciation) their investments
- Cost recovery is allowed for useful and prudent investments and expenditures
- Depreciation expense compensates for “using up” the assets over time
- Regulators adjust, restate, or impute costs (vs. compel action or micromanage)
- Resulting returns and rates must be deemed “just and reasonable”

Q. How does York Water compare to other water utilities?



# 1.15 Case-study overview: York Water Company



In 1927 we served 7 municipalities. Today we provide "That good York water" to 48 municipalities.

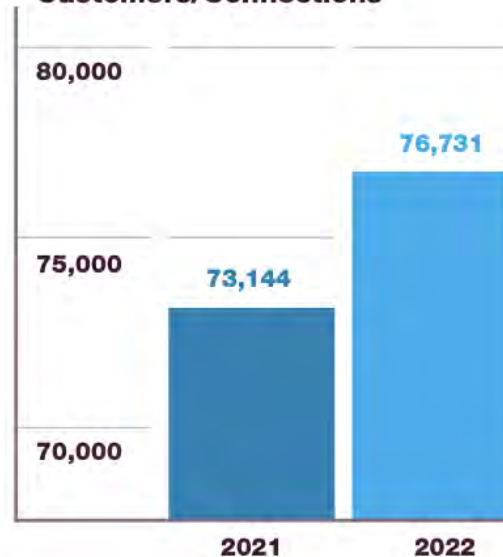
## SERVICE TERRITORY MAP

THE YORK WATER CO.

- WATER & WASTEWATER SERVICE TERRITORY
- WASTEWATER SERVICE TERRITORY
- WATER SERVICE TERRITORY



## Water & Wastewater Customers/Connections



## 1.15 York Water overview

- Founded in 1816 (when James Madison was U.S. President), York is the oldest continuing investor-owned water utility in the U.S.
- York was formed by a group of local citizens to provide fire protection
- York's 116 employees serve about 77,000 residential, commercial, and industrial water and wastewater customers on a regional basis to more than 50 cities
- York is an investor-owned company and not part of an interstate holding company
- York has paid 613 consecutive dividends
- York is regulated by the Pennsylvania Public Utility Commission (PA PUC)
- York is the smallest water utility listed on the stock exchange (NASDAQ)
- Comprehensive financial data are publicly available, including a recent rate case
- Water companies and cases are comparable but less complex than energy
- For information, visit [yorkwater.com](https://yorkwater.com)

Q. How does York Water compare to other water utilities?

## 1.15 York Water history and mission

### ■ Mission statement

- ▶ The York Water Company is committed to providing our customers with safe, dependable, high-quality water, wastewater, and related services that meet or exceed customer expectations at reasonable rates in an environment encouraging dedicated employees to achieve their highest standard of performance while earning a fair return for our shareholders.



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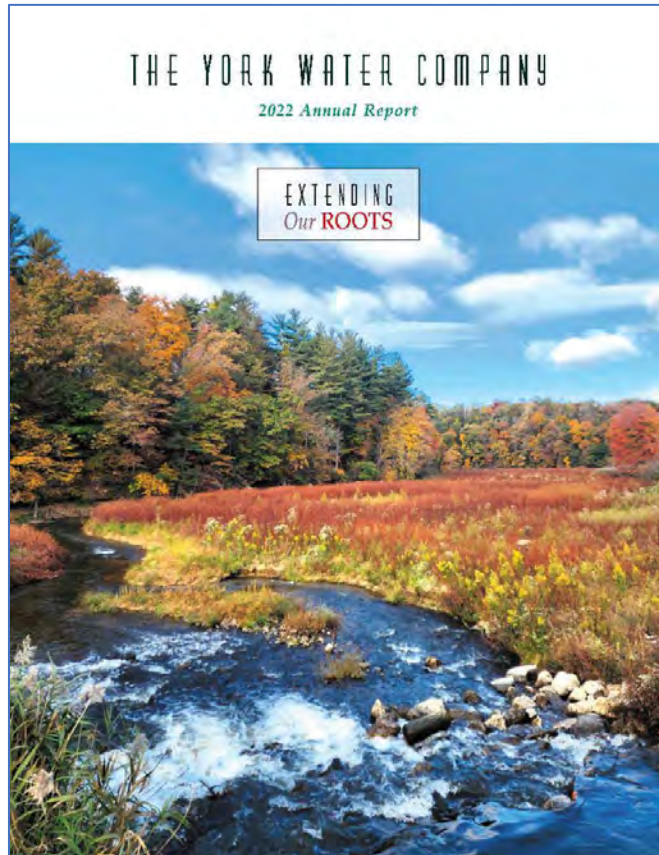


*February 18, 1816, The York Water Company was formed by a group of leading York Citizens to protect against the danger of fire. Today the company is the oldest investor owned utility in the United States.*

- 1840 Original wooden mains replaced with cast iron pipes.*
- 1848 First step into the modern era, extension of water mains, pumping station built, and reservoir expanded.*
- 1897 Brillhart raw water-pumping station built.*
- 1899 The York Water Company Filtration Plant, designed by George W. Fuller, is placed in service.*
- 1912 The Company's first impounding dam to create Lake Williams Reservoir completed.*
- 1967 Lake Redman Reservoir completed.*
- 1977 William H. Kain County Park open to the public for year-round recreational use.*
- 2005 Pumping station built on the Susquehanna River.*
- 2016 The York Water Company celebrates the 200th anniversary of uninterrupted service!*



# 1.15 Message from the CEO in the “glossy”



THE  
YORK  
WATER  
COMPANY



THE YORK WATER COMPANY 2022 Annual Report



Dear Shareholders,

We remember certain dates, whether ascribed by historians, or lived and experienced at a very personal level. December 7, 1941, Pearl Harbor, a Day of Infamy. September 11, 2001, an attack of unprecedented magnitude, shock, sadness, fear, anger. Closer to York, Pennsylvania, July 1-3, 1863, the Battle of Gettysburg, often considered the turning point of the Civil War. And, as described on the preceding page, June 22, 1972, the onslaught of a hurricane named Agnes. While this limited subset of dates is memorable as points in time, it's a Nation's, a Community's, or a Company's response to these events that form the foundation of ethos and culture.

JT Hand

As the COVID-19 pandemic of 2020 was unquestionably a strategic inflection point for innumerable businesses, fifty years earlier, Hurricane Agnes was formational to York Water's enduring capital investment strategy: a strategy focused on resilient, redundant, and reliable utility infrastructure. In 1972, the Company's sole raw water pumping station was submerged under 8'2" of flood water, an incredible 4'6" higher than the previous 1933 record flood level of 3'8". The same pumping station remains in operation today with the same floor elevation as originally constructed. What's changed at Brilhart Pumping Station since the Company's pumps and motors were flooded and taken out of service in June of 1972 is everything else. Capital investment to eliminate single points of failure resulted in the construction of redundant pumping stations on the Susquehanna River and more recently at the Lake Redman Reservoir. Backup power generation at all pump and booster stations ensures that when the power goes down and the lights go off, York Water still flows, and wastewater is collected and treated. In 2022, York Water invested over \$50M in capital improvements across an expanded network of water and wastewater systems to ensure an uninterrupted supply of water and wastewater service to our customers. In spite of the historic investment to rehabilitate the Lake Williams Dam, and the fact that the Lake Williams Reservoir has been empty, resulting in a 1 billion gallon deficit to normal raw water storage, not a single water customer has been inconvenienced. For fifty years, Hurricane Agnes's legacy for York Water's Board of Directors has been to plan for the next emergency, to secure sufficient capital, and to timely invest in its utility plant. And, most importantly, we recognize that for the 156 years of continuous service preceding Agnes, and the fifty years since, that the employees of our Company secure for all of our stakeholders the achievements in the pages that follow.

We are grateful to our shareholders for their trust and confidence in our Nation's Oldest Investor-Owned Utility.

*Joseph J. Johnson*

President and Chief Executive Officer

*"Were it not for the vigilance and unstinting efforts of our fine group of employees and the cooperation and understanding of our equally fine group of consumers, York might have experienced an even worse calamity than Agnes had in store for our federally designated Disaster Area."*

— William H. Kain, President  
The York Water Company  
Annual Report 1972



The 330-million-gallon Roxbury Reservoir in Franklin County.

PAGE 2

# 1.15 York summary of operations

| THE YORK WATER COMPANY 2022 Annual Report                      |            |            |            |            |            |
|--|------------|------------|------------|------------|------------|
| Highlights of Our 2022th Year                                  |            |            |            |            |            |
| (In thousands of dollars, except per share amounts)            |            |            |            |            |            |
| Summary of Operations  |            |            |            |            |            |
| FOR THE YEAR   | 2022       | 2021       | 2020       | 2019       | 2018       |
| Operating revenues .....                                       | \$ 60,061  | \$ 55,119  | \$ 53,852  | \$ 51,578  | \$ 48,437  |
| Operating expenses .....                                       | 35,578     | 31,723     | 29,421     | 27,792     | 25,920     |
| Operating income .....   | 24,483     | 23,396     | 24,431     | 23,786     | 22,517     |
| Interest expense .....   | 3,613      | 3,705      | 4,177      | 4,758      | 5,280      |
| Gain on life insurance .....                                   | -          | -          | 515        | -          | -          |
| Other income (expenses), net .....                             | (1,275)    | (1,587)    | (2,153)    | (2,386)    | (1,370)    |
| Income before income taxes .....                               | 19,595     | 18,104     | 18,616     | 16,642     | 15,867     |
| Income taxes .....   | 15         | 1,120      | 2,018      | 2,240      | 2,491      |
| Net income .....   | \$ 19,580  | \$ 516,984 | \$ 16,598  | \$ 14,402  | \$ 13,376  |
| Per Share of Common Stock                                      |            |            |            |            |            |
| Book value .....   | \$ 14.50   | \$ 11.64   | \$ 10.97   | \$ 10.31   | \$ 9.75    |
| Earnings per share:  |            |            |            |            |            |
| Basic .....  | 1.40       | 1.30       | 1.27       | 1.11       | 1.04       |
| Diluted .....  | 1.40       | 1.30       | 1.27       | 1.11       | 1.04       |
| Weighted average number of shares outstanding during the year: |            |            |            |            |            |
| Basic .....  | 13,957,788 | 13,076,263 | 13,033,681 | 12,964,080 | 12,903,568 |
| Diluted .....  | 13,958,915 | 13,077,290 | 13,034,520 | 12,966,292 | 12,903,836 |
| Cash dividends declared per share ...                          | 0.7874     | 0.7571     | 0.7280     | 0.7001     | 0.6731     |
| Utility Plant  |            |            |            |            |            |
| Original cost,   |            |            |            |            |            |
| net of acquisition adjustments ....                            | \$ 539,963 | \$ 482,113 | \$ 434,963 | \$ 398,065 | \$ 377,676 |
| Construction expenditures .....                                | 50,532     | 34,409     | 32,123     | 18,425     | 16,882     |
| Other  |            |            |            |            |            |
| Total assets .....   | \$ 510,595 | \$ 458,853 | \$ 406,957 | \$ 363,529 | \$ 345,140 |
| Long-term debt including current portion .....                 | 139,465    | 146,369    | 123,573    | 101,035    | 93,358     |

# 1.15 York summary of operations (supplemental)

| THE YORK WATER COMPANY 2022 Annual Report                       |            |            |            |
|---|------------|------------|------------|
| Supplemental Information (Unaudited)                            |            |            |            |
| (In thousands of dollars, except per share amounts)             |            |            |            |
| YEAR ENDED DECEMBER 31  | 2022       | 2021       | 2020       |
| <b>Selected Financial Data</b>                                  |            |            |            |
| <b>Income</b>   |            |            |            |
| Operating Revenues.....   | \$60,061   | \$55,119   | \$53,852   |
| Operating Expenses.....   | \$35,578   | \$31,723   | \$29,421   |
| Operating Income.....   | \$24,483   | \$23,396   | \$24,431   |
| Interest Expense.....   | \$3,613    | \$3,705    | \$4,177    |
| Net Income.....   | \$19,580   | \$16,984   | \$16,598   |
| Percent Change in Net Income Compared to Prior Year.....        | 15.3%      | 2.3%       | 15.2%      |
| Common Stock Dividends.....                                     | \$11,009   | \$9,909    | \$9,490    |
| Dividend Payout Ratio.....                                      | 56.2%      | 58.3%      | 57.2%      |
| Weighted Average Common Shares Outstanding, Basic.....          | 13,957,788 | 13,076,263 | 13,033,681 |
| Basic & Diluted Earnings Per Weighted Average Common Share..... | \$1.40     | \$1.30     | \$1.27     |
| Number of Common Shares Outstanding.....                        | 14,285,584 | 13,112,948 | 13,060,817 |
| ROE on Year End Common Equity.....                              | 9.5%       | 11.1%      | 11.6%      |
| Common Stock Dividends Per Share.....                           | \$0.7874   | \$0.7571   | \$0.7280   |
| Net Cash Flows From Operating Activities.....                   | \$22,018   | \$22,959   | \$20,235   |
| <b>Balance Sheet</b>  |            |            |            |
| Common Stockholders' Equity.....                                | \$207,183  | \$152,622  | \$143,252  |
| Long-Term Debt Including Current Maturities.....                | \$139,465  | \$146,369  | \$123,573  |
| Total Capitalization.....                                       | \$346,648  | \$298,991  | \$266,825  |
| Percent Common Stockholders' Equity.....                        | 60%        | 51%        | 54%        |
| Percent Long-Term Debt.....                                     | 40%        | 49%        | 46%        |
| Net Utility Plant.....  | \$431,205  | \$382,909  | \$343,623  |
| <b>Operating Data</b>   |            |            |            |
| <b>Revenue Class</b>  |            |            |            |
| Residential.....  | \$39,196   | \$35,885   | \$35,733   |
| Commercial and Industrial.....                                  | \$16,255   | \$14,892   | \$14,068   |
| Other.....  | \$4,610    | \$4,342    | \$4,051    |
| Total Operating Revenues.....                                   | \$60,061   | \$55,119   | \$53,852   |
| <b>Construction Expenditures</b>                                |            |            |            |
|   | \$50,532   | \$34,409   | \$32,123   |
| <b>Other Operating Data</b>                                     |            |            |            |
| Number of Customers.....  | 76,731     | 73,144     | 72,681     |
| Number of Employees.....  | 116        | 110        | 108        |
| Common Shareholders.....  | 1,890      | 1,933      | 1,982      |
| Book Value Per Common Share.....                                | \$14.50    | \$11.64    | \$10.97    |
| Market Value at Year End.....                                   | \$44.98    | \$49.78    | \$46.60    |
| Market Value to Book Value.....                                 | 310%       | 428%       | 425%       |
| P/E Ratio.....  | 32.1       | 38.3       | 36.7       |



## 1.15 York rate matters as reported to the SEC (2019)

- “From time to time, the Company files applications for rate increases with the PPUC and is granted rate relief as a result of such requests.
- The most recent rate request was filed by the Company on May 30, 2018, seeking an annual increase in water rates of \$6,399 and an annual increase in wastewater rates of \$289.
- Effective March 1, 2019, the PPUC authorized an increase in water rates designed to produce approximately \$3,361 in additional annual revenues and an increase in wastewater rates designed to produce approximately \$289 in additional annual revenues.”

| Rate Matters (Details) - PPUC [Member]<br>- USD (\$)<br>\$ in Thousands                    | 3 Months Ended |               | 6 Months Ended |               |
|--|----------------|---------------|----------------|---------------|
|  | Jun. 30, 2019  | Jun. 30, 2018 | Jun. 30, 2019  | Jun. 30, 2018 |
| <b>Rate Matters [Abstract]</b>   |                |               |                |               |
| Amount agreed to be returned to customers for effects of 2017 Tax Act                      | \$ 2,117       |               | \$ 2,117       |               |
| Revenue recorded as regulatory liability for effects of 2017 Tax Act                       | (21)           |               | (305)          |               |
| Reclassification from excess accumulated deferred income taxes on accelerated depreciation | 0              |               | 27             |               |
| Negative surcharges returned to customers for effects of 2017 Tax Act                      | 541            |               | 798            |               |
| <b>Rate Request Filed on May 30, 2018 [Member]   Water [Member]</b>                        |                |               |                |               |
| <b>Rate Matters [Abstract]</b>   |                |               |                |               |
| Requested increase in annual revenue   |                |               | 6,399          |               |
| Authorized dollar increase in annual revenues from the PPUC                                |                |               | 3,361          |               |
| <b>Rate Request Filed on May 30, 2018 [Member]   Wastewater [Member]</b>                   |                |               |                |               |
| <b>Rate Matters [Abstract]</b>   |                |               |                |               |
| Requested increase in annual revenue   |                |               | 289            |               |
| Authorized dollar increase in annual revenues from the PPUC                                |                |               | 289            |               |
| <b>DSIC [Member]</b>   |                |               |                |               |
| <b>Rate Matters [Abstract]</b>   |                |               |                |               |
| Distribution system improvement charge revenue   | \$ 0           | \$ 436        | \$ 249         | \$ 916        |
| <b>DSIC [Member]   Maximum [Member]</b>  |                |               |                |               |
| <b>Rate Matters [Abstract]</b>   |                |               |                |               |
| Distribution system improvement charge percentage over base rate                           |                |               | 5.00%          |               |
| <b>DSIC [Member]   Minimum [Member]</b>  |                |               |                |               |
| <b>Rate Matters [Abstract]</b>   |                |               |                |               |
| Distribution system improvement charge percentage over base rate                           |                |               | 0.00%          |               |

## 1.15 York Water rate case (2018)

- York Water Company filed its case on May 30, 2018
  - Rates had not been changed for five years (2013)
  - Parties agreed to settle the case on November 20, 2018
  - A final order on the case was issued on January 17, 2019
  - Revenues and rates are based on a fully projected future test year
  - New rates will be effective Mar. 1, 2019, through Feb. 29, 2020 (Leap Day!)
- Parties to the rate case – the "Joint Petitioners" in the settlement
  - Pennsylvania Office of the Consumer Advocate (OCA)
  - Pennsylvania Office of Small Business Advocate (OSBA)
  - Michael Eifert (individual intervenor)
  - Pennsylvania PUC Bureau of Investigation and Enforcement (I&E or Staff)
- Key issues in the York rate case
  - Recovery of \$77 million in capital expenditures
  - Recovery of operating costs, net of efficiency gains
  - Accounting for the 2017 reduction in the corporate tax rate
  - Low-income assistance and lead service line replacement
- Resulted in a "black-box settlement"
  - Joint petitioners filed their agreement, which was the basis for the ALJ recommendation
  - Details on rate base, adjustments, and returns are not disclosed



## 1.15 Issues in the York Water rate case (2018)

- ISSUE ¶28. Increase in operating revenues and customer rates
- ISSUE ¶29. Refund of Federal Tax Adjustment Credit (FTAC) pursuant to the 2018 TCJA
- ISSUE ¶30. Amortization of acquisition adjustments and costs related to lead service lines
- ISSUE ¶31. Negative acquisition adjustments
- ISSUE ¶32. Tax benefit from catch-up deduction on tangible property
- ISSUE ¶33. Recovery of pension contribution costs
- ISSUE ¶34. State Tax Adjustment Surcharge (STAS)
- ISSUE ¶35. Distribution System Improvement Charge (DSIC) set to 0%
- ISSUE ¶36. Distribution System Improvement Charge (DSIC) return on equity
- ISSUE ¶37. Distribution System Improvement Charge (DSIC) income tax effect
- ISSUE ¶38. Future test year reporting requirements (FTY and FPFTY)
- ISSUE ¶39. Funding for low-income customer assistance program
- ISSUE ¶40. Ratemaking treatment of income taxes on contributions in aid of construction (CIAC)
- ISSUE ¶41. Wastewater cost-of-service study
- ISSUE ¶42. Reporting of deferred income taxes
- ISSUE ¶43. Quarterly Earnings Report (QER) filed with the PUC
- ISSUE ¶44. Stay-out period for next base rate case
- ISSUE ¶45. Residential customer charge

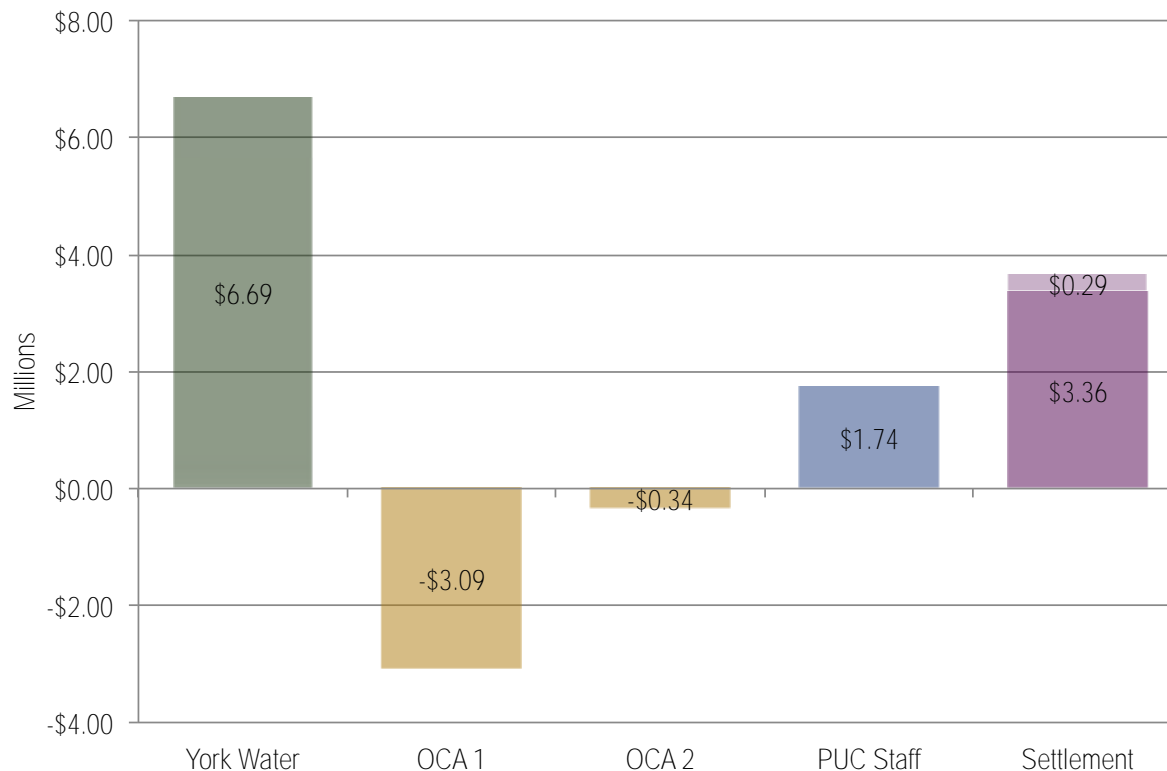
## 1.15 Test-year reporting requirements

- ISSUE ¶38. Future test year reporting requirements (FTY and FPFTY)
  - ▶ These settlement provisions adopt I&E's proposal, as slightly modified by the company's recommendations set forth in its rebuttal testimony.
  - ▶ On or before 6/1/19, York will provide the Commission's Bureau of Technical Utility Services ("TUS"), I&E, OCA, and OSBA an update to York's exhibits, which will include actual capital expenditures, plant additions and retirements for the twelve months ended 12/31/18.
  - ▶ On or before June 1, 2020, York Water will update Exhibit Nos. FV-12-4 and FV-12-4W, which will include actual capital expenditures, plant additions and retirements through 2/29/20.

## 1.15 Proposed increase and position of the parties

### ■ ISSUE ¶28. Proposed increase in operating revenues and customer rates

- ▶ The settlement rates will be designed to produce \$3.65 million in additional annual base rate operating revenue, which consists of \$3,361,375 in additional water revenue and \$288,625 in additional wastewater revenue, based upon the pro forma level of operations for the twelve (12) months ended February 29, 2020. York will be permitted to file tariff supplements to become effective 3/1/19.



# 1.15 York Water: rate case settlement (2019)



## News Release

The York Water Company  
130 East Market Street  
York, PA 17401



Contact: Jeffrey R. Hines, President and CEO  
or Matthew E. Poff, Chief Financial Officer

Phone: 717-845-3601

FOR IMMEDIATE RELEASE

### THE YORK WATER COMPANY ANNOUNCES SETTLEMENT OF RATE CASE. DUE TO TAX RELIEF ACT, INITIAL AVERAGE RESIDENTIAL WATER BILLS WILL DECREASE.

**York, Pennsylvania, January 18, 2019:** Jeffrey R. Hines, President and CEO of The York Water Company (Nasdaq: YORW) announced today that the Pennsylvania Public Utility Commission (PPUC) approved a settlement at its January 17, 2019 meeting, allowing an increase in base rates for water and wastewater customers of The York Water Company. The settled rates provide for cost recovery for York Water, while maintaining affordability to customers.

Hines stated, "We believe this is a fair and reasonable settlement that allows us to recover an approximately \$77 million investment in system improvements and infrastructure replacements, and allows us to continue to meet the current and future needs of our customers."

## 1.15 Settlement policy (Pennsylvania PUC) ⓘ

- 52 Pa. Code §5.231 Offers of settlement
  - ▶ (a) It is the policy of the Commission to encourage settlements.
  - ▶ (b) Nothing contained in this chapter or Chapter 1 or 3 (relating to rules of administrative practice and procedure; and special provisions) preclude a party in a proceeding from submitting, at any time, offers of settlement or proposals of adjustment, or from requesting conferences for that purpose.
  - ▶ (c) Parties may request that the presiding officer participate in the settlement conferences or that an additional presiding officer or mediator be designated to participate in the settlement conferences.
  - ▶ (d) Offers of settlement, of adjustment, or of procedure to be followed, and proposed stipulations not agreed to by every party, including proposals intended to resolve discovery disputes, will not be admissible in evidence against a counsel or party claiming the privilege.
- 52 Pa. Code §69.401
  - ▶ In the Commission's judgment, the results achieved from a negotiated settlement or stipulation, or both, in which the interested parties have had an opportunity to participate are often preferable to those achieved at the conclusion of a fully litigated proceeding. It is also the Commission's judgment that the public interest will benefit by the adoption of §§ 69.402—69.406 and this section which establish guidelines and procedures designed to encourage full and partial settlements as well as stipulations in major section 1308(d) general rate increase cases.

## 1.15 Notes about the case

- All data are publicly available from York Water or governmental sources
- Snapshot end-of-year data for 2018 are used to illustrate key calculations
- Financial data in the spreadsheets will not match to the 2018 rate case
- Due to the black-box settlement, hypotheticals are used for some issues
- Focus will be mainly on water operations (excluding wastewater)
- Rate case data and tariffs are used to illustrate key regulatory issues
- Issues may be simplified for the purposes of this introductory course
- Some interrelated topics are revisited in more than one part of the course
- One case is not generalizable – utilities, rate cases, and regulatory policies vary
- Information provided is for educational purposes and not advisory

**Q. What issues stand out in the York Water rate case and settlement?**



# 1.15 York Water: recent rate case filing (2022)

## YORKDISPATCH

### York Water Co. seeks 33% rate increase: What this means for you



**Tina Locurto**  
York Dispatch

Published 10:05 a.m. ET May 30, 2022 | Updated 12:03 p.m. ET May 31, 2022

The York Water Co. is looking to raise its base water rates and base wastewater rates — a 33.8% and 35% increase, respectively.

If the increase is approved by the Pennsylvania Public Utility Commission, residents would pay an additional \$13.12 per month while commercial customers would pay an additional \$79.71 per month. Industrial water customers would pay another \$437.53 per month.

The rate increase would be effective Aug. 1 if granted. The PUC, however, could delay the effective date to March 2023 and, after an investigation, grant all — or only part — of York Water's request, a news release from the water company states.

Although York Water Co. uses a single rate water structure across its entire service territory, wastewater rates will differ for each area served.

Here is an example of what residents could expect to pay additionally each month:

- Asbury Pointe Subdivision, East Prospect and Lower Windsor Area: \$19.05
- West York: \$22.90
- Jacobus: \$25.55
- Felton: \$1.05
- West Manheim Township: \$14.20

York Water Co. did not provide a breakdown of the rate increases for each municipality. For more information on rate increases, call 1-800-750-5561.

The rate increase is needed to pay for \$176 million in capital investments since 2018 made to improve resiliency and reliability of the utility systems, according to York Water President JT Hand.

## News Release

Contact: JT Hand, President and CEO  
or Matthew E. Poff, Chief Financial Officer  
Phone: 717-845-3601

The York Water Company  
130 East Market Street  
York, PA 17401



FOR IMMEDIATE RELEASE

### YORK WATER COMPANY FILES A RATE REQUEST

Proposes first general rate increase in 4 years.  
Includes \$176 million capital investment in York, Adams, and Franklin Counties.

**York, Pennsylvania, May 27, 2022:** The York Water Company (NASDAQ:YORW) on May 27, 2022 asked the Pennsylvania Public Utility Commission (PUC) for a general increase in base water rates of \$18.8 million per year, or an overall 33.8% increase, and a general increase in base wastewater rates of \$1.5 million per year, or a 35% increase. If granted immediately, the rate increase would be effective August 1, 2022. The PUC may delay the effective date until March 2023, and after an investigation, grant all, some, or none of the request. As a result, the final effect on water and wastewater bills may be different than the Company's request. The request may also be reviewed by the Office of Consumer Advocate and the Office of Small Business Advocate.

The Company's filing with the PUC also requests to combine, in part, the revenue requirement for the Company's wastewater operations with the Company's water operations as authorized by legislation enacted in 2012.

If the increase were granted in its entirety, the typical residential water customer would pay an additional \$13.12 per month (44 cents per day), the typical commercial water customer would pay an additional \$79.71 per month (\$2.66 per day), and the typical industrial water customer would pay an additional \$437.53 per month (\$14.58 per day).

At the increased rates, the average cost of 1,000 gallons of water would remain slightly more than a penny per gallon.

While the Company implements a single rate water structure across its entire water service territory, wastewater rates are particular to the area served. For our wastewater customers: a typical Asbury Pointe Subdivision residential, East Prospect and Lower Windsor Area residential, and Straban Township Area residential or commercial wastewater customer would pay an additional \$18.05 per month (60 cents per day), a typical East Prospect and Lower Windsor Area commercial wastewater customer would pay an additional \$24.78 per month (83 cents per day), a typical West York Borough residential wastewater customer would pay an additional \$22.90 per month per dwelling unit (76 cents per day), a typical West York Borough commercial and industrial wastewater customer would pay an additional \$28.29 per month per dwelling unit (94 cents per day), a typical Jacobus Borough residential wastewater customer would pay an additional \$25.55 per month (85 cents per day), a typical Jacobus Borough commercial wastewater customer would pay an additional \$28.64 per month (95 cents per day), a typical Felton Borough wastewater customer would pay an additional \$1.05 per month per dwelling unit (3 cents per day), a typical Letterkenny Township wastewater customer would pay an additional \$35.55 per month per dwelling unit (\$1.19 per day), a typical West Manheim Township residential wastewater customer would pay an additional \$14.20 per month (47 cents per day) and a typical West Manheim Township commercial wastewater customer would pay an additional \$15.04 per month (50 cents per day).

JT Hand, President and CEO of York Water, said the increase is necessary due to approximately \$176 million in capital investments that the Company has made since its 2018 rate filing and will make through February of 2024. The capital investments are necessary to improve resiliency and reliability of the Company's utility systems. Capital investment has or will be made to: rehabilitate the Lake Williams Dam to comply with current regulatory standards; reinforce, replace, and reline aging water mains; replace service lines, meters, and hydrants, including replacement of all company-owned lead service lines within a compressed two-year time frame; construct a wastewater treatment plant to serve the wastewater needs of a growing community; enhance security across certain assets, and provide enhanced redundancy in case of emergencies; increase water quality and operational efficiency through upgrades to facilities and equipment; and expansion and improvements of the water and

# 1.15 York Water: recent rate case filing (2022)

## PUC Approves Settlement for York Water Company Rates for Water and Wastewater Services

Published on 1/12/2023

Filed under: [Water and Wastewater](#)

HARRISBURG – The Pennsylvania Public Utility Commission (PUC) [today approved a joint settlement](#) that will result in a smaller overall increase in annual revenues for York Water Company (York Water) than was initially proposed by the utility.

York Water provides water service to more than 70,000 customers in parts of York and Adams counties, along with wastewater service to approximately 3,300 customers in parts of York, Adams and Franklin counties.

The Commission voted 5-0 to adopt the [recommended decision](#) of PUC Administrative Law Judge Katrina L. Dunderdale and adopt a joint settlement.

The settlement will result in a \$13.5 million increase in annual revenue for York Water, including an \$11.6 million increase in annual water revenues and a \$1.9 million increase in annual wastewater revenues. This is a substantially smaller overall increase than the original proposal by York Water, which called for a \$20.3 million increase in annual revenues, including a proposed \$18.85 million increase in annual water revenues and a proposed \$1.45 million increase in annual wastewater revenues.

### News Release

Contact: JT Hand, President & CEO

or Matthew E. Poff, Chief Financial Officer

Phone: 717-845-3601

The York Water Company  
130 East Market Street  
York, PA 17401



FOR IMMEDIATE RELEASE

#### THE YORK WATER COMPANY ANNOUNCES SETTLEMENT OF RATE CASE

**Rate request recognizes York Water's \$176 million investment to improve the communities' water and wastewater infrastructure**

**York, Pennsylvania, January 12, 2023:** JT Hand, President and CEO of The York Water Company (Nasdaq: YORW) announced today that the Pennsylvania Public Utility Commission (PPUC) approved a joint settlement agreement at its January 12, 2023, public meeting, allowing an increase in base rates for water and wastewater customers of The York Water Company. The approved rates provide for cost recovery for York Water and an expanded customer assistance program while maintaining affordability for customers.

The new rates approved by the PPUC affect approximately 75,000 water and wastewater customers throughout York, Adams, and Franklin Counties, Pennsylvania. Even with the approved increases, York Water remains one of the lowest cost providers and most efficient water and wastewater utilities in the nation.

Hand stated, "Although water and wastewater remain the most affordable utilities, York Water is sensitive to economy-wide inflationary pressures and increased costs for our residential and business customers. We believe this is a fair and reasonable result that allows the Company to recover approximately \$176 million in recent investments in system improvements and infrastructure replacements and allows us to continue to meet the current and future needs of our customers." It is estimated that the approved rates will increase the average residential water bill for customers using 4,027 gallons from \$46.49 per month to \$53.06 per month, or an increase of approximately 22 cents per day. Hand commented that "even with the increase, the cost of water service for our average customer is slightly more than one penny per gallon." The Company's last rate case increase occurred four years ago, with rates effective March 1, 2019.

Hand cited the following examples of necessary investments to improve resiliency, reliability, and redundancy:

- Relining, reinforcement, and replacement of 4.5% of the Company's water mains to reduce costs and service interruptions caused by water main breaks;
- Rehabilitation and improvements to the Lake Williams Dam to comply with modern design and regulatory standards and to secure this important reservoir for a second century of service;
- Replacement of service lines, water meters, fire hydrants, and all known Company-owned lead service lines;
- Replacement of customer-owned lead service lines when discovered at no direct cost to the customer;
- Construction of a wastewater treatment plant to serve the growing wastewater needs in the community;
- Enhanced physical and cyber security across certain physical and digital assets.