Lehigh County Authority
Cost of Service Study

Lehigh County Authority

Purpose of Cost of Service Study

- Meet requirements of the service agreements
- Insure sufficient annual revenues
- Adhere to "Pay for what you use"
- Provide financial plan for 5 year period

Cost of Service Philosophy

- Costs incurred for specific customers of the system should be allocated to those specific customers.
- Costs incurred for the benefit of the whole system should be shared by all customers.

Customer Categories

Residential

Commercial

Industrial

Public

Rate Design Values

- Be based on the costs to provide service to customer classes.
- Provide stable revenue to the LCA.
- Be understandable to customers and allow them to influence their bills by adjusting their use patterns.
- Be affordable.

Lehigh County Authority

Rate Design Requirements

- Revenue Sufficiency:

  Rates must be sufficient to fund all service costs.

- Regulatory and Contractual Compliance:
  Rates must comply with Rate Covenants and Pennsylvania Municipal Authorities Act and other state requirements.

Lehigh County Authority

Components of Rate Study

- Revenue: How much must be collected via rates to cover costs?
- Costs: What does it cost to provide high quality and reliable service?
- Rate Design: How shall we recover costs? From whom?

Lehigh County Authority

Key Questions for LCA Rate Study

- How should capital expenses be incorporated to annual revenue requirement?

Current Debt Payment or Pay as you Go?

- Rate Increase threshold?

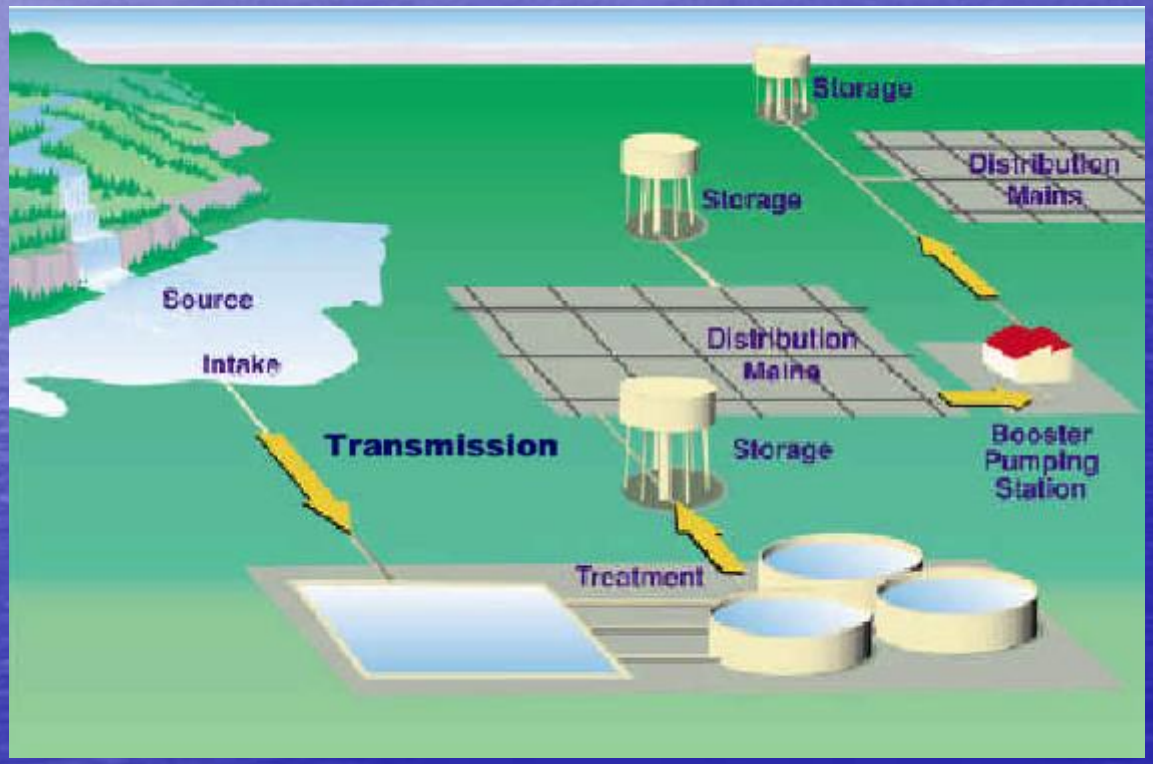
Inflation Rate over Time?

Lehigh County Authority

Cost of Service Study Procedure

- Determine annual revenue requirements
- Update Cost of Service Rate Model
- Evaluate and recommend water rates for 2018 – 2023
- Calculate impact of proposed rates

Allocation to Functional Categories



Allocation to Functional Categories

Allocation to Functional Categories

Cost Components

- Base Costs
- Extra Capacity – Max Day Demand
- Extra Capacity – Max Hour Demand
- Customer Costs – Billings
- Customer Costs – Meters
- Customer Costs – Services
- Fire Hydrants

Lehigh County Authority

Calculation of Unit Cost of Service

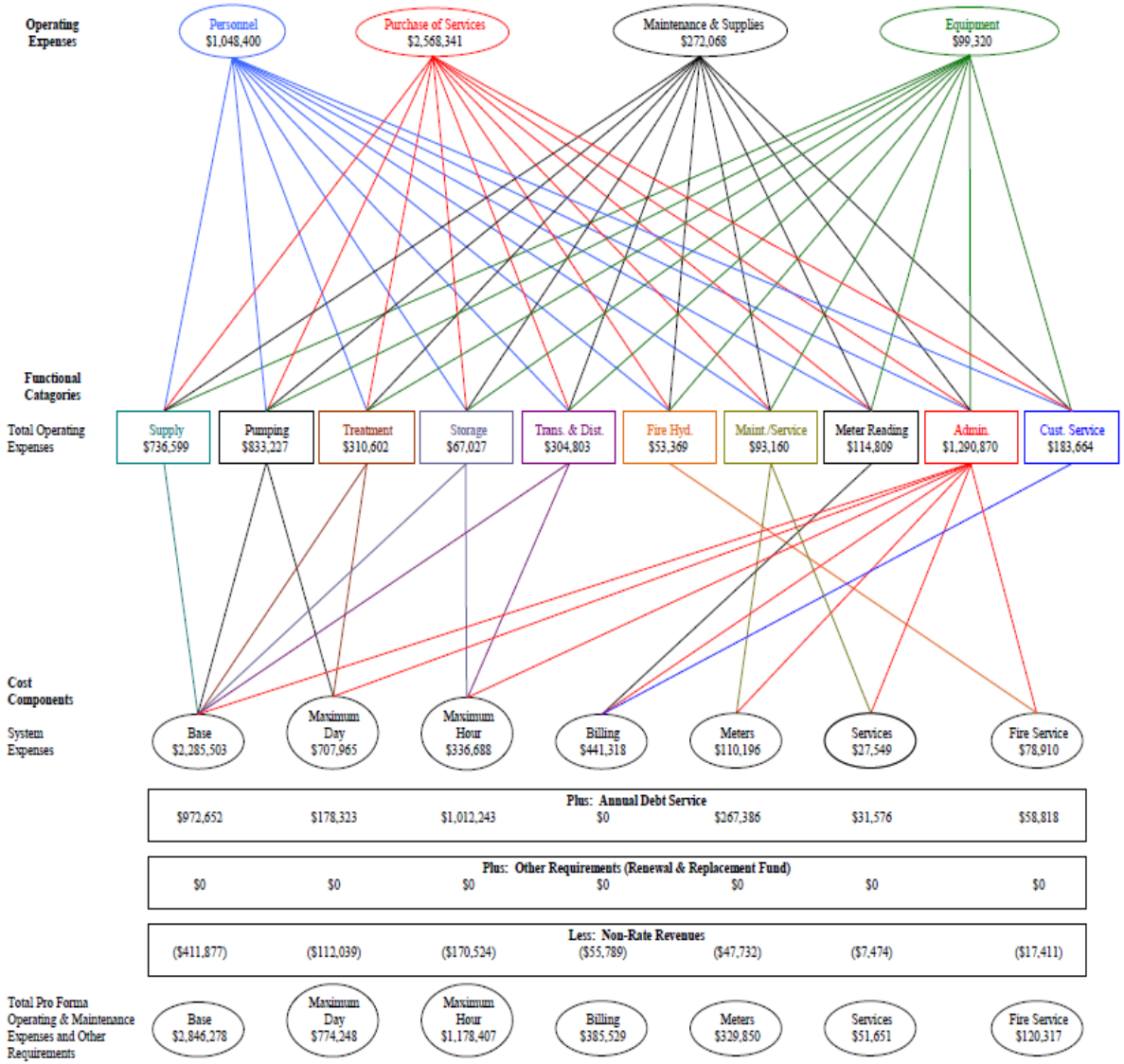
Cost Components		Base	Maximum Day	Maximum Hour
Customer	Residential	# Gallons	# Gallons	# Gallons
Class	Commercial	# Gallons	# Gallons	# Gallons
Usage	Industrial	# Gallons	# Gallons	# Gallons
	Institutional	# Gallons	# Gallons	# Gallons
	Fire		# Gallons	# Gallons
	Total Usage	**X**	**Y**	**Z**

Unit Cost of Service $/1,000 gallons	Base / X	Max Day / Y	Max Hour / Z

		Base	Maximum Day	Maximum Hour	Total Cost Per Class
Customer	Residential	Unit $ x # Gals.	Unit $ x # Gals.	Unit $ x # Gals.	$$$
Class	Commercial	Unit $ x # Gals.	Unit $ x # Gals.	Unit $ x # Gals.	$$$
Usage	Industrial	Unit $ x # Gals.	Unit $ x # Gals.	Unit $ x # Gals.	$$$
	Institutional	Unit $ x # Gals.	Unit $ x # Gals.	Unit $ x # Gals.	$$$
	Fire		Unit $ x # Gals.	Unit $ x # Gals.	$$$

FIGURE 1
LEHIGH COUNTY AUTHORITY

ALLOCATION TO FUNCTIONAL CATAGORIES
AND COST FUNCTIONS
FOR FISCAL YEAR 2018



11.00 x 8.50 in