

Watertown - Water and Sewer Authority  
Debt Allocation Scenarios  
Briefing to Town Council

26 AUG 2025

# Assumptions Overview

This analysis relies solely on the assumptions outlined in the worksheet supplied by the Town of Watertown. The assumptions have not been independently validated. Key assumptions include:

- ★ Debt principal of \$30 million, reduced by a one-time \$6 million contribution from the Watertown Fire District (WFD), resulting in a net debt amount of \$24 million to be amortized over 20 years.
- ★ Interest rates modeled at 3%, 4%, and 5%.
- ★ A customer base of 4,300 accounts and annual water usage of 300 million gallons.

# Summary of Scenarios (1 of 2)

Three cost allocation methods

## **1. Equal-Share Approach**

Each account pays an equal share of annual debt service

## **2. Usage-Based Approach**

Costs are recovered based on individual water use

## **3. Hybrid Approach**

Each account pays a fixed \$150 annual charge, plus costs recovered based on usage

# Summary of Scenarios (2 of 2)

Three cost allocation methods:

## 1. Equal-Share Approach

Each account pays an equal share of annual debt service

**Interest Rate Annual Cost**

3% \$375	4% \$411	5% \$448
----------	----------	----------

## 2. Usage-Based Approach

Costs are recovered based on individual water use

**Interest Rate Cost per 1k Gal**

3% \$5.38

4% \$5.89

5% \$6.42

## 3. Hybrid Approach

Each account pays a fixed \$150 annual charge, plus costs recovered based on usage

**Interest Rate Fixed Charge Cost per 1k Gal**

3%	\$150	\$3.23
----	-------	--------

4%	\$150	\$3.74
----	-------	--------

5%	\$150	\$4.27
----	-------	--------

# Annual Sample Water Bills

## Three Allocation Methods

The following table illustrates annual sample bills for four representative user profiles under each approach, based on a **4% interest rate** scenario:

		<b>All three Scenarios Yearly Cost</b>		
<b>User Type</b>	<b>Usage (gallons)</b>	<b>Equal-Share</b>	<b>Usage-Based</b>	<b>Hybrid</b>
Low Residential	25,000	\$411	\$147	\$244
Avg Residential	50,000	\$411	\$295	\$337
High Residential	100,000	\$411	\$589	\$524
Small Business	500,000	\$411	\$2,945	\$2,020

The table illustrates how alternative cost allocation methods impact different customer types based on water usage and rate design.

# Water Usage by Type

<u>Type</u>	<u>Customers</u>	<u>Average</u>	<u>Total Gallons/Year</u>
Residential	3,184	49,864	158,766,976
Commercial	1,091	131,186	143,123,926
Industrial			301,890,902
			827,098/Day

## Top Ten Users

Utilize 49 MG / Year = 982 Customers = 16.2% of Usage

Top User 23 MG / Year = 461 Customers = 7.6% of Usage

Watertown - Water and Sewer Authority  
Debt Allocation Scenarios  
Briefing to Town Council

THANK YOU

26 AUG 2025