

# Conservation Water Rates for Manchester

**WRPTF Recommendations  
For Approval by Select Board  
July 17, 2023**

(Delivered to Select Board, May 3)

# RECAP: WRPTF Recommendations (from April 18 Select Board Meeting)

1. **Water meter replacement/upgrade**
2. **Change water rates for conservation**
3. **Increase conservation awareness & education**
4. **Flesh out three options for remediating LSW**
5. **Monitoring wells for Gravelly Pond**
6. **Update source water protections**
7. **Dialogue on watershed protection with Hamilton, Essex, Wenham and Gordon College**
8. **Expedite repairs to WWTP recycled water system**
9. **Accelerate replacement of ancient water mains**

# Recommended Rate Changes:

- Reduce to 4 tiers from current 6 tiers
- Significantly increase the rate differentials between lower and higher tiers
- Implement rate changes gradually, beginning July 1, 2023 with steeper increments and roughly doubled rates for top 2 tiers.
- Inform households ahead of time if they are likely to be in top 2 tiers
- Track any changes in usage and monitor reactions carefully, using new digital smart meters (as available)

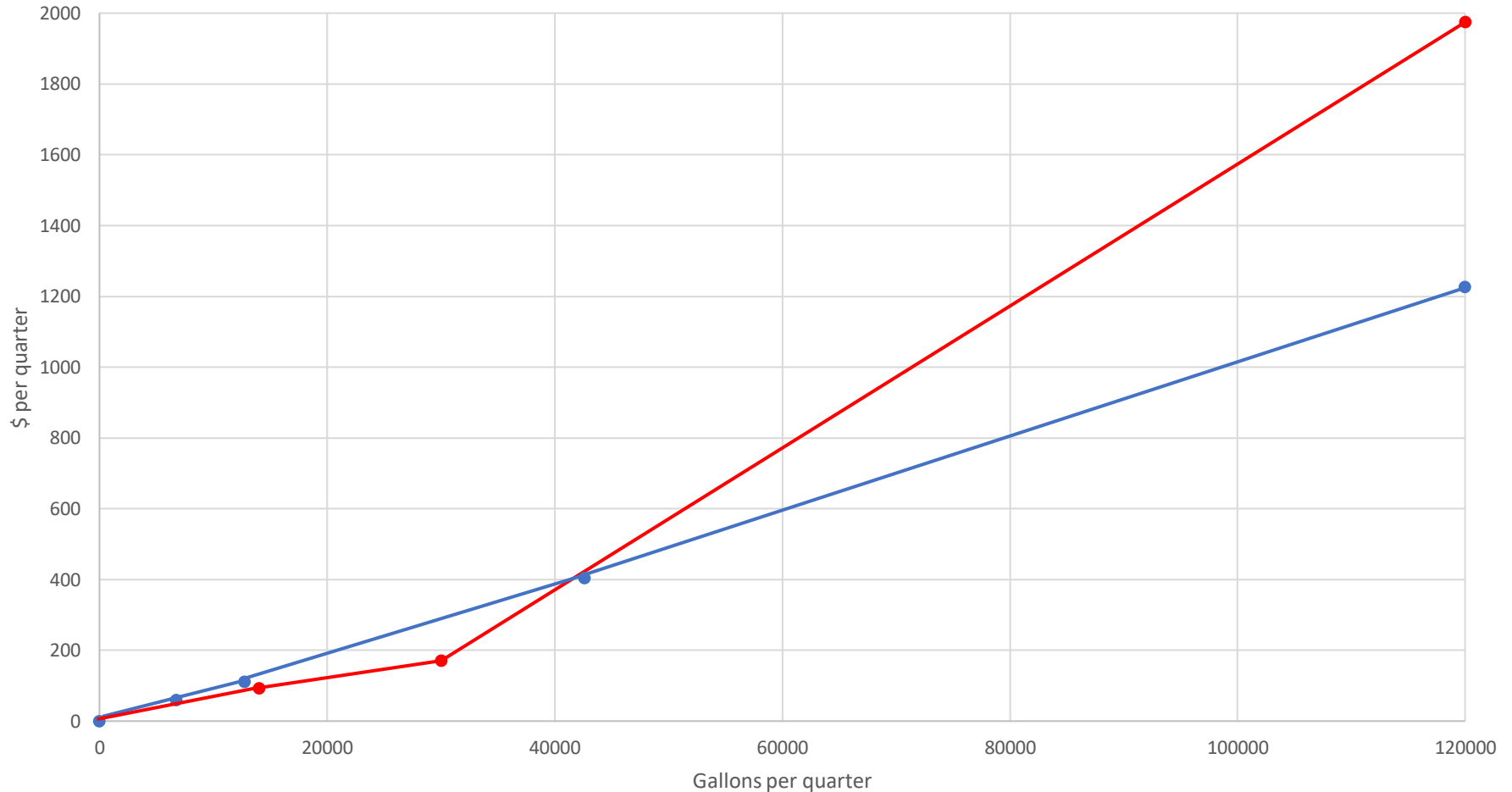
<b>PROPOSED MBTS WATER RATES</b>							
<b>Approved by WRPTF, May 3 2023</b>							
<b>Presented to Select Bd, June 5 2023</b>		<b>Rates by Tier (based on quarterly usage)</b>					
		Tier 1 (2023)	Tier 2 (2023)	Tier 3 (2023)	Tier 4 (2023)	Tier 5 (2023)	Tier 6 (2023)
<b>CURRENT RATE</b>	<b>in \$/HCF</b>	<b>\$6.55</b>	<b>\$6.66</b>	<b>\$7.32</b>	<b>\$7.95</b>	<b>\$8.59</b>	<b>\$9.23</b>
<b>CURRENT TIERS</b>	<b>for CF/Q</b>	<b>&lt;900 cf</b>	<b>&lt;1700 cf</b>	<b>&lt;5700 cf</b>	<b>&lt;16,000 cf</b>	<b>&lt;39,000 cf</b>	<b>&gt;39,000 cf</b>
<b>PROPOSED FOR FY 2024</b>		<b>New TIER 1</b>		<b>New TIER 2</b>	<b>New TIER 3</b>	<b>New TIER 4</b>	
<b>FY '24 RATES</b>	<b>in \$/HCF</b>	<b>\$5.00</b>		<b>\$8.00</b>	<b>\$15.00</b>	<b>\$20.00</b>	
<b>FY '24 TIERS</b>	<b>for CF/Q</b>	<b>&lt;1900 cf</b>		<b>&lt;4000 cf</b>	<b>&lt;16,000 cf</b>	<b>&gt;16,000 cf</b>	

## Reactions & Questions from Heaviest Users (by frequency)

1. Yes! I want to participate in pilot testing the smart water meters.
2. What exactly are the proposed new water rates?
3. How did I end up in the Top 20% of drinking water users?  
(What's my 10-year history of water usage?)
4. What's the effect on my bill of these new rates? Will everyone in the Top 20% see higher water bills?
5. We've been trying to conserve drinking water and following the voluntary drought restrictions. What else can we do to conserve?
6. Is everyone eventually going to get a smart water meter?
7. Will the proposed rates also affect my outside (irrigation) meter?
8. Are the sewer rates also going up?
9. I have a tenant who's also on my water meter – what will that do?
10. Have you really done your homework? Where can I read the Task Force findings?
11. Isn't this just a tax increase aimed at larger properties?
12. What if these new rates don't encourage much water conservation?

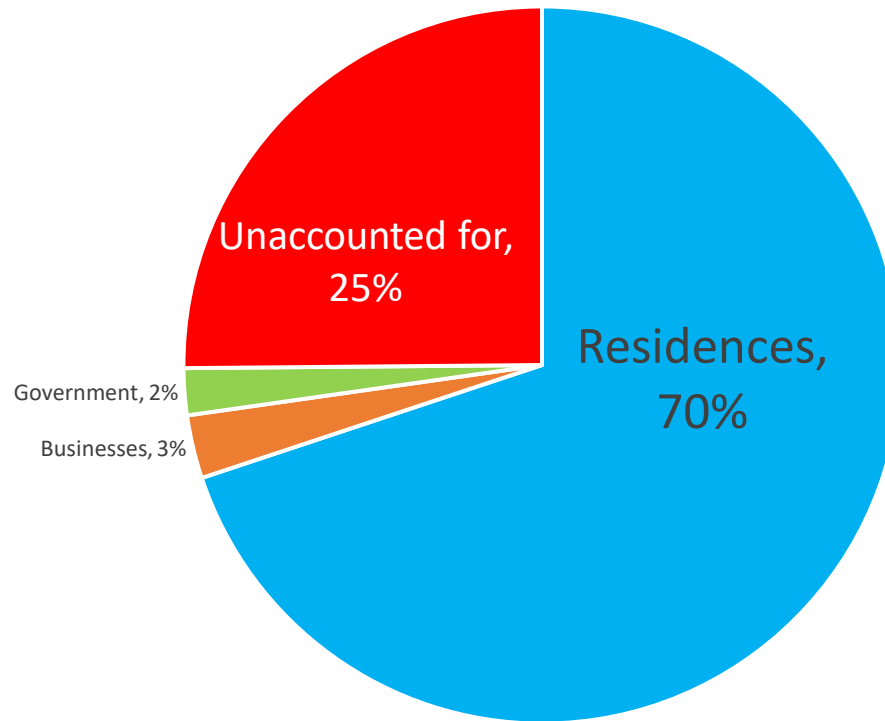
# Comparing Existing & Proposed Rates

Water Bills Under Existing vs. Proposed Rates

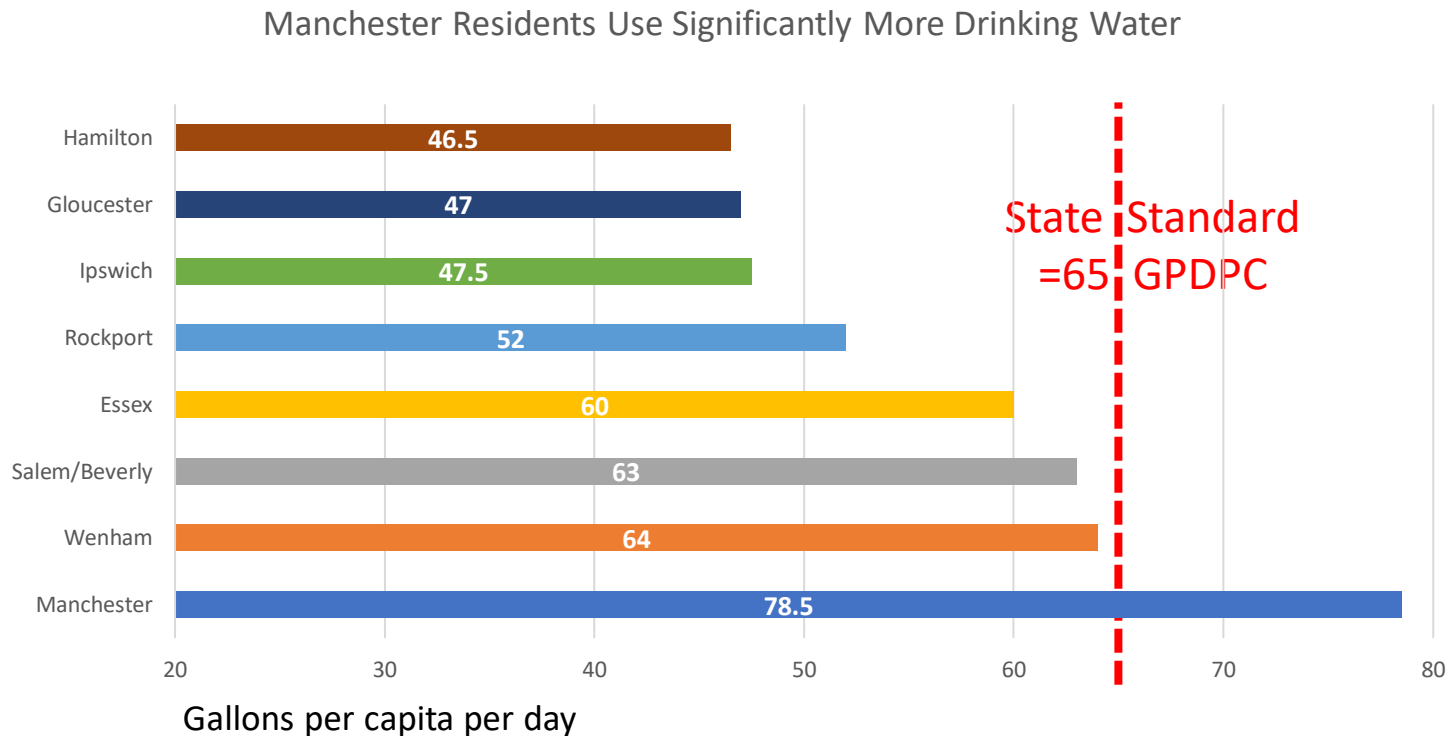


# Background - Our Drinking Water

Where Manchester's Drinking Water Goes - 2020



# ✓ 1. “Manchester residents on average tend to use more water per capita than most other communities, and by a large margin.”

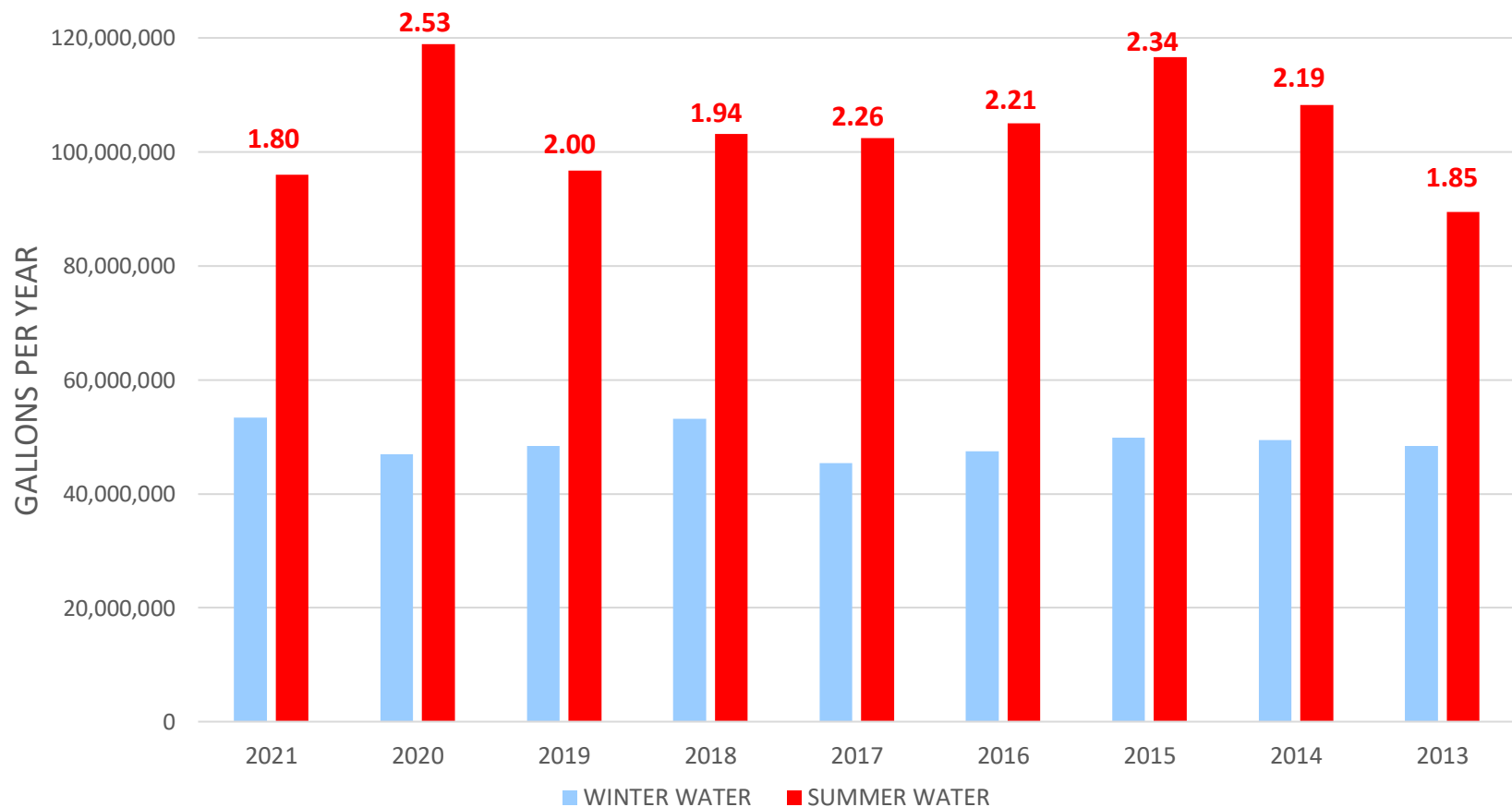


Note: Manchester's per capita usage puts us in the Top 10 out of 287 communities

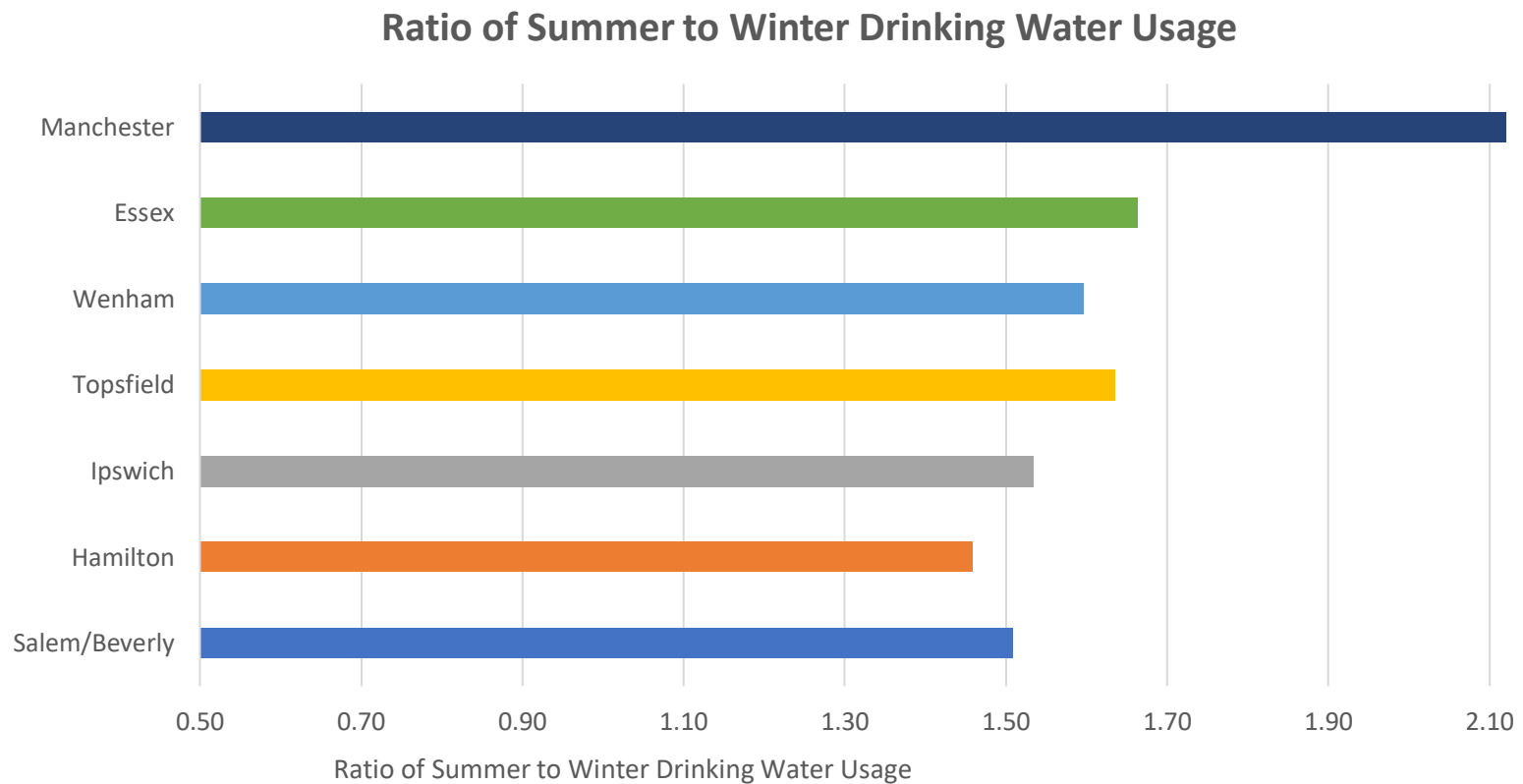
Source: DPW Water Department database, US Census, State drinking water statistics

✓ 2. “Manchester’s water usage differs greatly from season to season, due to extensive use of finished water [in summer months] for irrigation.”

Summer Usage Far Greater Than Winter Usage

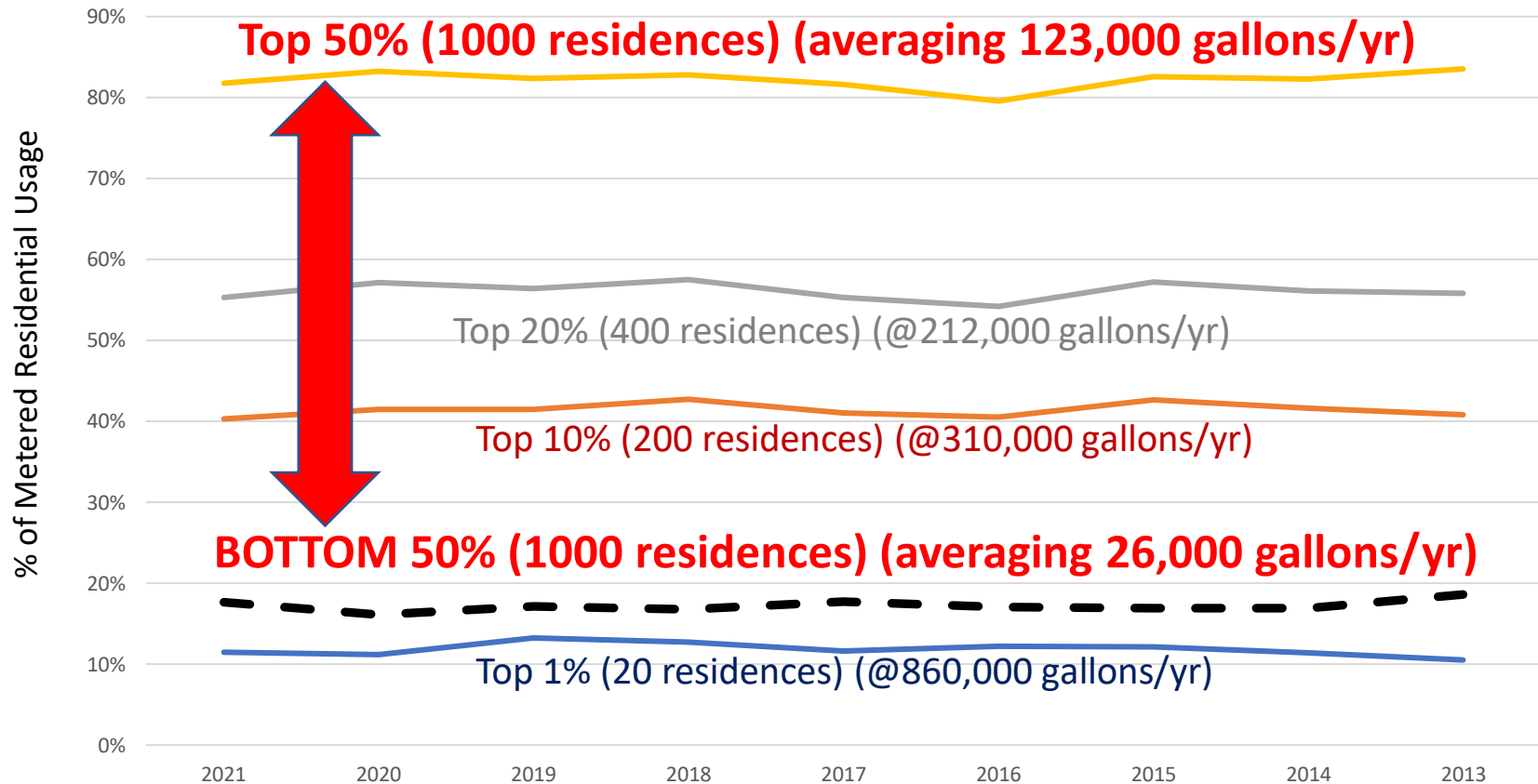


# Manchester's “summer bump” in water usage far greater than neighboring towns



# ✓ 3. “Manchester’s water usage profile shows a sharp variance among customers.”

Skewed Distribution of Usage by Residence –  
With Enormous Differences in Annual Usage



# CURRENT WATER RATES, FY 2023



## MANCHESTER-BY-THE-SEA

BOARD OF SELECTMEN • TOWN HALL  
Manchester-by-the-Sea, Massachusetts 01944-1399  
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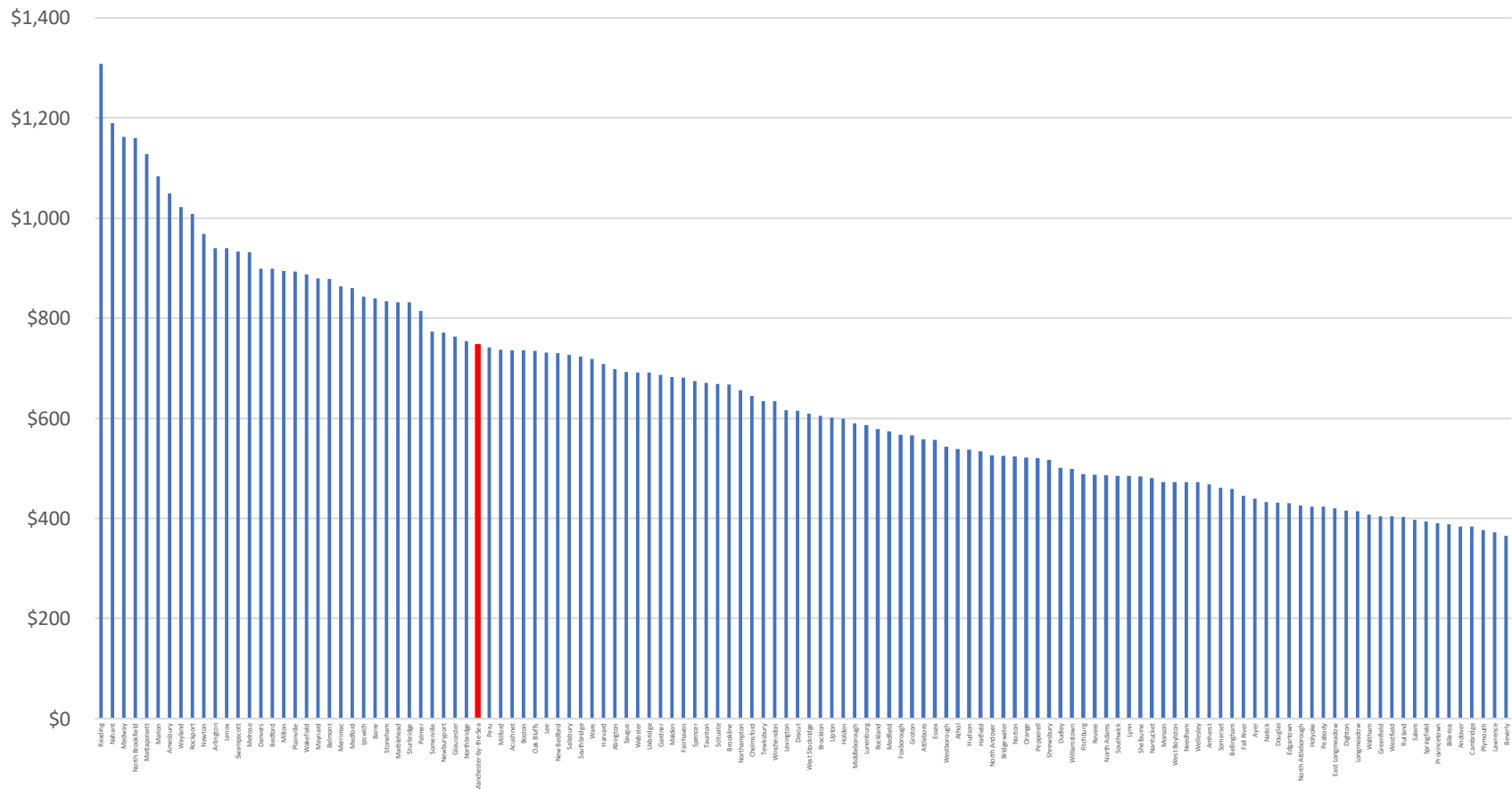
To: Board of Selectmen  
From: Debbie Powers, Executive Assistant  
Date: June 30, 2022  
Subject: Policy and Rates for Sewer and Water

### Water (3.0% increase across all tiers)

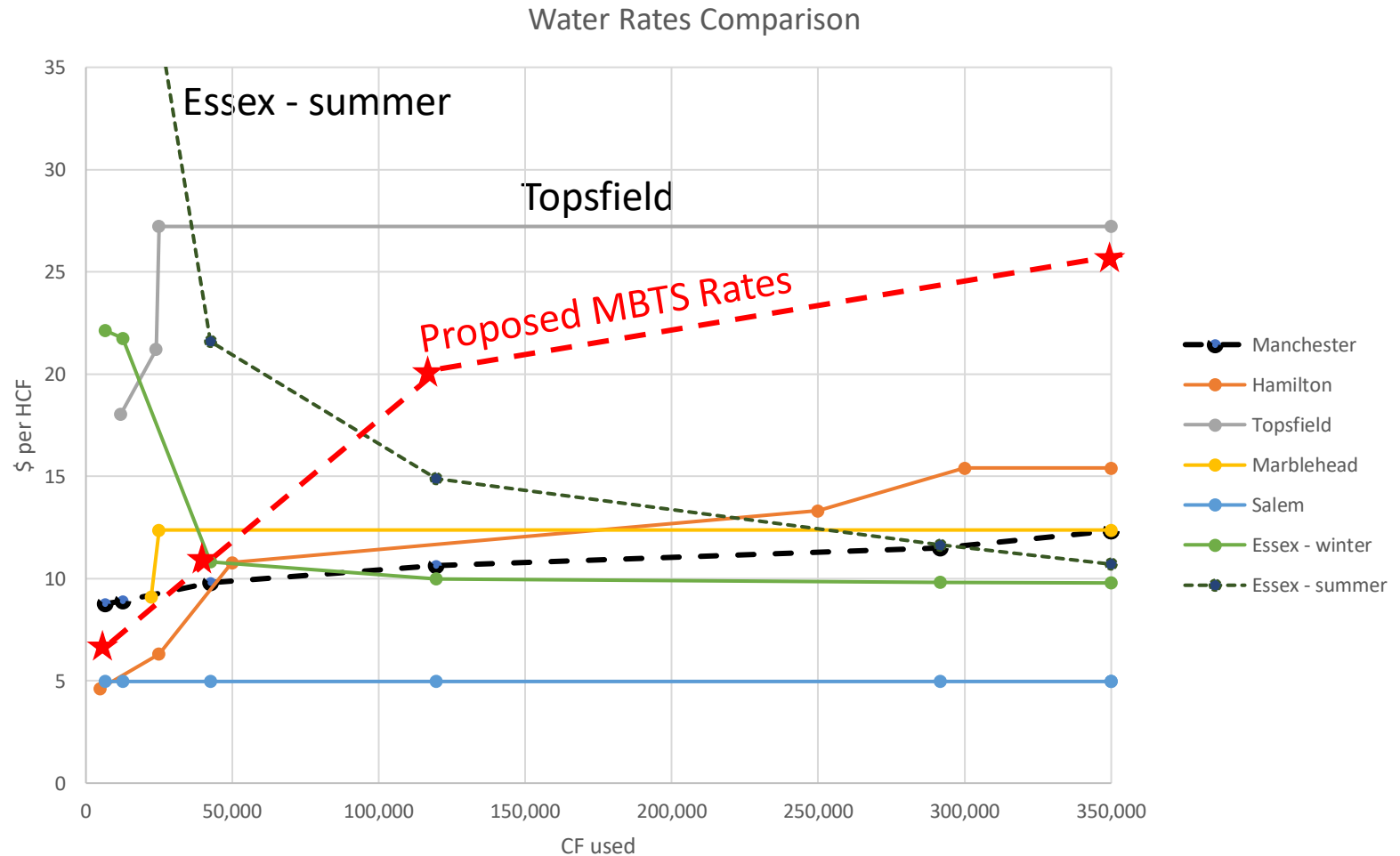
- \$6.55 per 100 cf., for first 900 cubic feet used (prior year \$6.36)
- \$6.66 per 100 cf., for 900-1,700 cubic feet used (prior year \$6.47)
- \$7.32 per 100 cf. for 1,700-5,700 cubic feet (prior year \$7.11)
- \$7.95 per 100 cf., for 5,700-16,000 cubic feet used (prior year \$7.72)
- \$8.59 per 100 cf., for 16,000-39,000 cubic feet used (prior year \$8.34)
- \$9.23 per cf., for 39,000+ cubic feet used (prior year was \$8.96)

# Manchester's current water price is slightly above average of 140 communities

Comparative Water Rates for Selected Massachusetts Communities,  
for same annual usage (120 HCF/year) (2021 MWRA Annual Survey)



# Manchester's current water rates are in “the middle of the pack” locally



## Objectives for Recommended New Water Rates

1. **Encourage conservation by residences** – focus on those using the most drinking water in summer (a small fraction).
2. **Recover the full costs of supplying plentiful clean drinking water to our Town** – for protecting our water sources and remediating dangerous contaminants, plus regular operating costs of Water Division.
3. **Allow time for adjustment, ramping up conservation initiatives and installing new water meters** – by phasing in rate changes.
4. **Avoid any reduction in total annual Water Division revenues** – model potential reductions from conservation by largest current users and get expert advice and counsel.

### CURRENT FY2023 WATER RATES

		Rates by Tier (based on quarterly usage)					
		Tier 1 (2023)	Tier 2 (2023)	Tier 3 (2023)	Tier 4 (2023)	Tier 5 (2023)	Tier 6 (2023)
<b>in \$/HCF</b>	<b>Current Rate</b>	<b>\$6.55</b>	<b>\$6.66</b>	<b>\$7.32</b>	<b>\$7.95</b>	<b>\$8.59</b>	<b>\$9.23</b>
<b>for CF/Q</b>	<b>Current Tier</b>	<b>&lt;900 cf</b>	<b>&lt;1700 cf</b>	<b>&lt;5700 cf</b>	<b>&lt;16,000 cf</b>	<b>&lt;39,000 cf</b>	<b>&gt;39,000 cf</b>
<i>Approx. #HH:</i>		<i>460</i>	<i>600</i>	<i>670</i>	<i>140</i>	<i>35</i>	<i>10</i>

## Recommended Rate Changes:

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# PROJECTED IMPACT ON HOUSEHOLDS – from WRPTF Model of Demand & Usage

Effect of New Rates on		# of households + average \$/yearl (per model based on 2013-2022 data)					
Average Annual Water Bills		Tier 1 (2023)	Tier 2 (2023)	Tier 3 (2023)	Tier 4 (2023)	Tier 5 (2023)	Tier 6 (2023)
<b>CURRENT</b>	<b>Households</b>	<b>460</b>	<b>600</b>	<b>670</b>	<b>140</b>	<b>35</b>	<b>10</b>
<b>CURRENT</b>	<b>Ave. \$/year</b>	<b>\$148</b>	<b>\$354</b>	<b>\$819</b>	<b>\$4,453</b>	<b>\$7,943</b>	<b>\$19,425</b>
		<b>\$264</b>				<b>\$10,115</b>	
		<b>New TIER 1</b>		<b>New TIER 2</b>	<b>New TIER 3</b>	<b>New TIER 4</b>	
<b>New Rates, 7-1-23</b>	<b>Households</b>	<b>1,100</b>		<b>500</b>	<b>255</b>	<b>60</b>	
	<b>Ave. \$/year</b>	<b>\$140</b>		<b>\$920</b>	<b>\$4,800</b>	<b>\$14,600</b>	

## NOTES:

- In July 2023, new rates will reduce annual water bills for 58% of households (“conservators”).
- July 2023 rates will increase annual bills by an average of **10%** for another 39% of households.
- Only 3% of households will see their annual water bills rise significantly July 2023 rec’d rates.

## Impact on Water Division Revenues – from WRPTF Model of Demand & Usage

ANNUAL REVENUES - MBTS WATER DIVISON		No Conservation	Significant Conservation	Dramatic Conservation
	<b>CURRENT</b>	<b>\$1.49M</b>	<b>\$1.31M</b>	<b>\$1.07M</b>
		<b>Projected Water Division Revenues</b>		
<b>For FY 2024</b>	<b>New Rates</b>	<b>\$2.3M</b>	<b>\$1.55M</b>	<b>\$1.12M</b>

### NOTES:

- “Significant Conservation:” 50% reduction by all users in Tiers 3+4 (Top 2 Tiers)
- “Dramatic Conservation:” 67% reduction in Tiers 3+4 plus 20% in Tier 2
- Recommended Rate Changes:
  - Reduce to 4 tiers from current 6 tiers
  - Significantly increase the rate differentials between lower and higher tiers
  - Implement gradually, in 3 phases over next 12 months

A clear glass filled with water, with a stream of water being poured into it from above, creating a dynamic splash and numerous bubbles. The background is a soft, out-of-focus light blue.

Thanks for your attention  
(and your hard work!)