

# Charter Township of Madison, MI

## Water and Sewer Rate Study

### Township Board Presentation

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# Agenda

- Cost of Water in Madison Township
- *Bolt* Opinion Compliance
- Proportionality Test
- Current Rates
  - Water
  - Sewer
- Proposed Rates
  - Water
  - Sewer
  - Total Water and Sewer Rates

# Agenda (Continued)

- Total Monthly Water and Sewer Bills, Metered Customers:
  - 0 usage
  - 5,000 gallons
  - 20,000 gallons
- Community Comparison:
  - Current Rates
  - Proposed Rates
- Four Year Rates:
  - Water
  - Sewer
- Rate Increase Drivers
- Annual Rate Updates

## Cost of a Gallon of...

Red Bull Energy Drink	\$27.290
Orange Juice	\$9.856
Bottled Spring Water	\$1.370
Milk	\$3.610
Coca Cola	\$6.993
Kool-Aid	\$1.920
Home-brewed Coffee	\$4.160
<b>Madison Township Drinking Water and Disposal (Current/Proposed)</b>	<b>\$0.012</b> <b>\$0.015</b>

# Current Cost of a Shower in Madison Township

10-minute shower (25 Gallons)	\$0.30
Bath (45 Gallons)	\$0.54
Toilet (1.6 Gallons)	\$0.02
Dishwasher (10 Gallons)	\$0.12

# ***Bolt Opinion Compliance***

Michigan Supreme Court:

## ***Bolt v. City of Lansing***

Three-part test for valid user fee:

1. Serve a *regulatory purpose* rather than a revenue raising one
2. Be *proportional* to the necessary *cost of service*
3. Be *voluntary* – users must be able to refuse or limit use of the service

Township's rates already comply with tests 1 and 3

Rate study documents compliance with test 2

# Proportionality Test

Determine revenue to be generated by user fees

Allocate expenses to user fees:

- Billing Fee
- Usage Fee

Divide through by billing units for each user fee:

- Bills per year
- Billable flow

# Current Rates



# Water Rate Structure: Metered Customers

## Madison Township Charges:

- \$2.94/month/bill Billing Fee
- \$3.87 per 1,000 gallons Usage Fee

No changes to rate structure are proposed

Increase rates to recover expenses

# Water Rate Structure: Flat Rates for Unmetered Users

## Madison Township Charges:

- \$61.70/month flat rate for unmetered residential users
- \$61.70/month/REU for unmetered commercial users

No changes to rate structure are proposed

Increase rate to recover expenses

# Water Rate Structure: Fairfield Township

## Madison Township Charges Fairfield Township:

- \$2.94/month/bill Billing Fee
- \$3.87 per 1,000 gallons Usage Fee
- \$2.60/month/user “Operations Fee”  
by contract

No changes to rate structure are proposed

Increase rates to recover expenses (except \$2.60 “Operations Fee which is per contract)

# Sewer Rate Structure: Metered Customers

## Madison Township Charges:

- \$2.51/month Billing Fee
- \$7.38 per 1,000 gallons Usage Fee

No changes to rate structure are proposed

Increase rates to recover expenses

# Sewer Rate Structure: Flat Rates for Unmetered Users

## Madison Township Charges:

- \$56.72/month flat rate for unmetered residential users
- \$56.72/month/REU for unmetered commercial users

Increase rate to recover expenses

# Proposed Rates

# Water Rate Structure: Metered Customers

Rate	Current	Proposed
Billing Fee/month	\$2.94	\$3.87
Usage Fee per 1,000 gallons	\$3.87	\$5.17

# Example Monthly Water Bills: Metered Customers

Usage (Gallons)	Current	Proposed
0	\$2.94	\$3.87
5,000	\$22.29	\$29.72
20,000	\$80.34	\$107.27



# Water Rate Structure: Flat Rates for Unmetered Users

Rate	Current	Proposed
Residential/ month	\$31.35	\$41.83
Commercial per REU/month	\$31.35	\$41.83

# Water Rate Structure: Fairfield Township

Rate	Current	Proposed
Billing Fee/month	\$2.94	\$3.87
Usage Fee per 1,000 gallons	\$3.87	\$5.17
“Operations Fee” (by contract, per month per user)	\$2.60	\$2.60

# Sewer Rate Structure: Metered Customers

Rate	Current	Proposed
Billing Fee/month	\$2.51	\$4.03
Usage Fee per 1,000 gallons	\$7.38	\$8.29

# Example Monthly Sewer Bills: Metered Customers

Usage (Gallons)	Current	Proposed
0	\$2.51	\$4.03
5,000	\$39.41	\$45.48
20,000	\$150.11	\$169.83

# Sewer Rate Structure: Flat Rates for Unmetered Users

Rate	Current	Proposed
Residential/month	\$56.72	\$64.90
Commercial per REU/month	\$56.72	\$64.90

# Sewer Rate Structure: Prison Agreement

- *“...the State shall be charged at a rate equal to, or less than, that charged to commercial users of the System, and that any rate increases to the State for user charges shall be commensurate with rate increases to such commercial users.”*

# Sewer Rate Structure: Prison

Rate	Current	Proposed
Billing Fee/month	\$2.51	\$4.03
Usage Fee per 1,000 gallons	\$7.38	\$8.29

# Total Water and Sewer Fixed and Usage Rates: Metered Customers

Rate	Current	Proposed
Fixed/month	\$5.45	\$7.90
Usage Fee per 1,000 gallons	\$11.25	\$13.46



# Example Total Monthly Water & Sewer Bills: Metered Customers

Usage (Gallons)	Current	Proposed
0	\$5.45	\$7.90
5,000	\$61.70	\$75.20
20,000	\$230.45	\$277.10

# Community Comparison

# Current Monthly Total Water and Sewer Bill Comparison (5,000 Gal)

Lansing	Current	\$124.18
Dexter	Current	\$122.81
Saline	Current	\$120.19
Ann Arbor	Current	\$97.08
Brooklyn	Current	\$96.39
Chelsea	Current	\$91.26
Jackson	Current	\$79.39
Adrian	Current	\$77.21
Battle Creek	Current	\$69.36
<b><i>Madison Township</i></b>	<b><i>Current, Effective Jan 1, 2022</i></b>	<b><i>\$61.70</i></b>

# Proposed Monthly Total Water and Sewer Bill Comparison (5,000 Gal)

Lansing	Current	\$124.18
Dexter	Current	\$122.81
Saline	Current	\$120.19
Ann Arbor	Current	\$97.08
Brooklyn	Current	\$96.39
Chelsea	Current	\$91.26
Jackson	Current	\$79.39
Adrian	Current	\$77.21
<b><i>Madison Township</i></b>	<b><i>Proposed, Effective Jan 1, 2025</i></b>	<b><i>\$75.20</i></b>
Battle Creek	Current	\$69.36

# Projected Four Year Rates

# Four Year Water Rates

Year	Monthly Fixed Billing Fee	Usage Fee, per 1,000 Gallons
2025	\$3.87	\$5.17
2026	\$3.94	\$6.83
2027	\$4.02	\$7.17
2028	\$4.10	\$7.25

# Four Year Sewer Rates

Year	Monthly Fixed Billing Fee	Usage Fee, per 1,000 Gallons
2025	\$4.03	\$8.29
2026	\$4.09	\$8.45
2027	\$4.16	\$8.62
2028	\$4.22	\$8.78

# Rate Increase Drivers

- Water Rate: \$4.5 Million Water Bond
- Sewer Rate: Reduced Prison Billable Flow



# Annual Rate Updates

- Per American Water Works Associations Manual M1 *Principles of Water Rates, Fees, and Charges*:

*“...the utility should review its projections at least annually to incorporate changed conditions.”*

- Tetra Tech’s Excel spreadsheets allow Township staff to review water and sewer rate adequacy annually. By entering updated data Township staff can prepare annual rate adjustments.