

City of Flushing

Water and Sewer Rates
Budget Workshop
April 18, 2016

(amended April 22, 2016)

Current Water Rates

\$26.85 per month readiness to serve fee
(billed on a quarterly basis at \$80.56)

4.41 per 1,000 gallons used

The City of Flushing increased rates in 2015.

Expense of Water

The City of Flushing receives treated water from the City of Detroit (Great Lakes Water Authority) through an agreed contract with Genesee County

October 2, 2014	(51 cent increase)	\$4.45 per 100 cubic feet
March 2, 2015	(30 cent increase)	\$4.75 per 100 cubic feet
November 2, 2015	(38 cent increase)	\$5.13 per 100 cubic feet
Anticipated	(51.3 cent increase)	\$5.643 per 100 cubic feet
(actual anticipated is \$5.57 per 100 cubic feet...44 cent increase)		

An estimated increase of 10-11% for the cost of water from the Great Lakes Water Authority is anticipated.

Expense of Water

The City of Flushing's water bill from Genesee County includes the following:

- Cost of water used billed at Detroit's price
- Readiness to serve fee from Genesee County*
- Usage and county's resident readiness to serve fee for 35 homes along Elms Road**

* The City of Flushing is charged a meter equivalent of 50

** These homes are tapped directly into Genesee County's water main

Water Usage

2012: 599,041 gallons per day

2013: 508,451 gallons per day

2014: 587,612 gallons per day

2015: **554,850 gallons per day**

Average: 562,489 gallons per day

Average: 205,308,302 gallons per year

Due to the 5.575% decrease in gallons per day from 2014 to 2015 the actual gallons per day read from 2015 will be used to calculate rates for 2016-2017 Fiscal Year.

Water Cost at Anticipated Price

202,520,250 gallons / 748 gallons =
270,749 at 100 cubic feet

270,749 cubic feet X 5.643 per 100 cubic feet =

\$1,527,837

Anticipated cost of Water from Great Lakes Water
Authority

Note: 100 cubic feet = 748 gallons

Water Cost at Anticipated Price

Cost of Water:	\$1,527,837
Readiness to Serve:	\$55,416*
Readiness to Serve (Elms):	\$6,300**
Total:	\$1,589,553

*50 meter equivalent = \$4,618 per month (actual cost)

** 35 homes at \$15 per month = \$1,575 (actual cost)

Other Water Fund Expenses

Based on Fiscal Year 2017 projection:

Water Division

Cost of Water	\$1,589,553
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Remaining Expenses	\$666,510*
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Billing Dept.	\$42,408
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Total	\$2,298,471
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* Includes debt payment associated with two DWRLs

Determining City of Flushing Water Rate

Chapter 53 does not give direction on what percentage of Water Fund Revenue should come from a fixed fee (readiness to serve) and water usage (per 1,000 gallons)

In a 2015 Detroit Free Press article, the City of Detroit indicated it was going to a ratio of 60/40 for its revenue. 60% of revenue would be collected through a flat readiness to serve fee and 40% of revenue would be collected through water usage. City of Detroit's previous ratio was 40% from readiness to serve and 60% from water usage.

The 60/40 ratio was approved by City Council last year in determining the rates for 2015-2016 Fiscal Year.

Number of Water Accounts

In 2015-2016 Fiscal Year, the City of Flushing began separating the readiness to serve rate (fixed) and the consumption rate (usage) on its utility bill.

This change within the utility billing program, has given the city an accurate number of utility accounts. **There are 3,921 water accounts.**

Determining City of Flushing Water Rate

Readiness to Serve at \$80.00 per quarter
(reduction of \$0.56 per quarter)

3,921 water accounts x \$80.00 x 4 billing
quarters = \$1,254,720 in revenue

Determining City of Flushing Water Rate

Water Usage per 1,000 gallons

$$\text{\$2,296,379} - \text{\$1,254,720} = \text{\$1,041,659}$$

(amount needed in revenue associated with consumption)

$$\text{\$1,041,659} / 202,520,250^* = .00514$$

$$.00514 \times 1000 \text{ gallons} = \text{\$5.14 per 1,000 gallons}$$

* Actual total from master meter reads in 2015

Determining Water Rate

Current ratio is:

60% of revenue comes from readiness to serve

40% of revenue comes from consumption

Ratio with proposed rates:

54.6% of revenue comes from readiness to serve

45.4% of revenue comes from consumption

Change in Quarterly Residential Bill (Water)

Using the assumption of 6,645 gallons per month usage / 19,935 gallons per quarter usage:

Current Rate:

$$\$80.56 + 81.93 = \$162.49$$

Under Proposed Rate:

$$\$80.00 + 102.47 = \$182.47 \text{ (11\% increase)}$$

Current Sewer Rates

Rates adopted last year...

Without water in City \$114.62 per quarter

Twp. with sewer \$114.62 per quarter

Sewer Rate \$2.88 per 1,000 gallons

Flat Fee (per quarter)

Residential \$41.04

1.25 inch meter \$51.30

1.50 inch meter \$61.56

2 inch meter \$82.08

3 inch meter \$123.12

4 inch meter \$164.16

Expense of Sewage

The Fiscal Year 2016/2017 Budget has the following expense projections:

Sewer Lines:	\$347,389*
Waste Water Treatment:	\$812,470
Billing Department:	\$42,408*

*These expenses would be the responsibility of the city even if treatment was provided by Genesee County.

Billable Sewage Flow

Billable flow as measured by the customer's water meters and other pertinent records

2011-2012	170,811,166 gallons
2012-2013	173,664,333 gallons
2013-2014	165,367,000 gallons
2014-2015	160,559,000 gallons
Average	167,6000,374 gallons*

* Water billed for separate irrigation meters are removed from flow calculations. In addition, records were reviewed after last year's rate increase and more accurate information is being used in calculating these rates.

Number of Sewer Accounts

In 2015-2016 Fiscal Year, the City of Flushing began separating the readiness to serve rate (fixed) and the consumption rate (usage) on its utility bill.

This change within the utility billing program, has given the city an accurate number of utility (sewer) accounts. **There are 3,468 sewer accounts.**

A 1:1 ratio is used in calculating the readiness to serve charge for larger meters

Sewer Rate Calculations

Readiness to Serve at \$40.00 per quarter
(reduction of \$1.04 per quarter)

3,468 sewer accounts x \$40.00 x 4 billing
quarters = \$554,880 in revenue

Sewer Rate Calculations

Billable Flow per 1,000 gallons

$$\$1,200,000 - \$554,880 = \mathbf{\$645,120}$$

(amount needed in revenue associated with consumption)

$$\$645,120 / 160,559,000^* = .00402$$

$$.00402 \times 1000 \text{ gallons} = \$4.02 \text{ per 1,000 gallons}$$

* Actual total from utility accounts in 2014-2015

Determining Sewer Rate

Current ratio is:

60% of revenue comes from readiness to serve

40% of revenue comes from consumption

Ratio with proposed rates:

46% of revenue comes from readiness to serve

54% of revenue comes from consumption

Change in Quarterly Residential Bill (Sewer)

Using the assumption of 6,645 gallons per month usage / 19,935 gallons per quarter usage:

Current Rates:

$$\$41.04 + \$57.41 = \$98.45$$

Proposed Rates:

$$\$40.00 + \$80.14 = 120.14 \text{ (22\% increase)}$$

Another option for City Council to consider....

- Single meter for multiple users are being billed one readiness to serve for sewer services
- If an ordinance amendment is approved by City Council it is anticipated that an additional 217 sewer accounts can be added

The sewer rates would be...

$\$40 \times 4 \text{ billings} \times 3754 \text{ accounts} = \$600,640$

$\$1.2 \text{ mill} - \$600,640 = \$599,360$

$\$599,360 / 160,559,000 = .00373$ or $\$3.73$ per 1000 gallons

50/50 ratio between readiness to serve and consumption

Is Genesee County Cheaper...

Genesee County waste water treatment costs are:

\$4.67 per unit per month for readiness to serve

\$1.82 per 748 gallons usage

\$1,000 per user capital improvement fee / tap in

The City of Flushing's tap in fee is estimated at
\$3,468,000*

*\$1,000 x the number of sewer accounts

Calculations

Scenario of switching over to Genesee County and laying off WWTP employees

Sewer Lines:	\$346,239
Billing Dept.:	\$42,408
MERS payment	\$106,283 (former WWTP employees)
Treatment:	
(160,559,000/748) X 1.82 =	\$390,665
3468 x 4.67 x 12 months =	\$194,347
Yearly Debt (Tap In Fee over 30 yrs at 4.5%) =	\$210,844
Total Annual Cost:	\$1,290,826*

***Amount does not include any surcharges for I&I or continual increase in pension obligation for former WWTP employees**

Overall Change on Residential Bill

Using the assumption of 6,645 gallons per month usage / 19,935 gallons per quarter usage:

Current Rate

$$162.49 + 94.31 = \$256.80 \text{ (\$85.60 per month)}$$

Proposed Rate

$$182.47 + 120.14 = 302.61 \text{ (\$100.87 per month)}$$

Long Term Capital Improvements Water Fund

The City of Flushing makes two debt payments each year to the Drinking Water Revolving Loan Fund (Debt issued in 1998 and 2008)

The 1998 debt will be paid off April 1, 2018 and has an average annual payment of \$126,083.

This equates to \$2.68 per month per account or \$8.04 of the quarterly readiness to serve fee.

An engineer's estimate to replace all remaining 4 inch water mains with PVC is \$4,025,000.

At a 2.75% interest rate over 20 years this project would equate to an estimated yearly payment of \$261,864 or \$5.57 a month per water account. (DWRLF)

At a 2.875% interest rate over 40 years this project would equate to an estimated yearly payment of \$170,687 or \$3.63 a month per water account. (USDA Rural Dev.)