

City of Flushing

Water and Sewer Rates

Budget Workshop

Monday, April 17, 2017

REVISED: June 28, 2017

Current Water Rates

\$26.66 per month readiness to serve fee
(billed on a quarterly basis at \$80.00)

5.14 per 1,000 gallons of water used

The City of Flushing increased rates in 2016.

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

2014: 553,000 gallons per day*
2015: 542,000 gallons per day*
2016 570,540 gallons per day**

Average: 555,180 per day

Average: 202,640,700 gallons per year

Gallons used for rate calculations: 190,482,258 gallons

Per the City of Flushing's Water Reliability Study (2016), the system has a loss rate range of 6%, as a result the gallons per year will be at 94% to reflect such loss.

***Gallons per day are from the 2016 water reliability study (2016)**

**** from 2016 water bills received from Genesee County Drain Commissioner**

Water Cost at Anticipated Price

190,482,258 gallons / 748 gallons =
254,655 at 100 cubic feet

254,655 cubic feet X **5.75** per 100 cubic feet =

\$1,464,267

Anticipated cost of Water from Great Lakes Water
Authority

Note: 100 cubic feet = 748 gallons

Water Cost at Anticipated Price

Cost of Water:	<i>\$1,464,267</i>
Readiness to Serve:	<i>\$258,000*</i>
Readiness to Serve (Elms):	<i>\$8,820**</i>
Total:	<i>\$1,731,087</i>

*50 meter equivalent = \$21,500 per month

Annual cost is an average of the imposed increase of \$20,000 per month and the maximum authorized monthly fee of \$23,000 determined by the Genesee County Drain Commissioner

** 35 homes at \$21 per month X 12 months = \$8,820

Annual cost is the maximum rate the Genesee County Drain Commissioner is authorized to collect

Other Water Fund Expenses

Based on Fiscal Year 2018 projection:

Water Division

Cost of Water **\$1,731,087**

Remaining Expenses \$578,180*

Billing Dept. \$44,658

Total **\$2,353,925**

* Includes debt payment associated with two DWRLs

Determining City of Flushing Water Rate

Readiness to Serve at \$75.00 per quarter
(reduction of \$5.00 per quarter)

3,992 water accounts x \$75.00 x 4 billing
quarters = \$1,197,600 in revenue

Determining City of Flushing Water Rate

Water Usage per 1,000 gallons

$$\mathbf{\$2,353,925 - \$1,197,600 = \$1,156,325}$$

(amount needed in revenue associated with consumption)

$$\mathbf{\$1,156,325 / 190,482,258^* = .00607}$$

$$\mathbf{.00607 \times 1000 \text{ gallons} = \$6.07 \text{ per } 1,000 \text{ gallons}}$$

* 94% of average water usage over 3 year period

Determining Water Rate

Current ratio is:

54.6% of revenue comes from readiness to serve

45.4% of revenue comes from consumption

Ratio with proposed rates:

51% of revenue comes from readiness to serve

49% of revenue comes from consumption

Current Sewer Rates

Rates adopted last year...

Without water in City	\$135.30 per quarter
Twp. with sewer	\$135.30 per quarter
Sewer Rate	\$3.73 per 1,000 gallons
Flat Fee (per quarter)	
Residential	\$40.00
1.25 inch meter	\$50.00
1.50 inch meter	\$60.00
2 inch meter	\$80.00
3 inch meter	\$120.00
4 inch meter	\$160.00

Expense of Sewage

The Fiscal Year 2017/2018 Budget has the following expense projections:

Sewer Lines:	\$344,484*
Waste Water Treatment:	\$960,858
Billing Department:	\$44,658*

*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

2013-2014 165,367,000 gallons

2014-2015 160,559,000 gallons

2015-2016 171,039,000 gallons

Average 165,655,000 gallons*

* Water billed for separate irrigation meters are removed from flow calculations.

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 in the utility billing program, continues to give the city an accurate number of utility (sewer) accounts. **There are 3,669 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 \$35.00 per quarter
(reduction of \$5.00 per quarter)

3,669 sewer accounts x \$35.00 x 4 billing
quarters = \$513,660 in revenue

Sewer Rate Calculations

Billable Flow per 1,000 gallons

$$\$1,350,000 - \$513,660 = \mathbf{\$836,340}$$

(amount needed in revenue associated with consumption)

$$\$836,340 / 165,655,000^* = .00505$$

$$.00505 \times 1000 \text{ gallons} = \$5.05 \text{ per 1,000 gallons}$$

* Average from previous three years

Determining Sewer Rate

Current ratio is:

46% of revenue comes from readiness to serve

54% of revenue comes from consumption

Ratio with proposed rates:

38% of revenue comes from readiness to serve

62% 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:

$$\$40.00 + \$74.36 = \$114.36$$

Proposed Rates:

$$\$35.00 + \$100.67 = \$135.67 \text{ (18.6\% increase)}$$

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
\$3,669,000*

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

Calculations

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

Sewer Lines:	\$344,484
Billing Dept.:	\$44,658
MERS payment	\$188,694 (former WWTP employees)
Treatment:	
(165,655,000/748) X 1.82 =	\$403,064
3669 x 4.67 x 12 months =	\$205,611
Yearly Debt (Tap In Fee over 30 yrs at 4%) =	\$212,179
Total Annual Cost:	\$1,398,690*

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

Overall Change on Residential Bill

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

Current Rate

$$182.47 + 114.36 = 296.83$$

Proposed Rate

$$195.61 + 135.67 = 331.28 \text{ (11.6\% increase)}$$