
Stormwater Utility Rate Update

Prepared for the
City of Fitchburg

by Trilogy Consulting, LLC

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EXECUTIVE SUMMARY

INTRODUCTION AND STUDY PURPOSE

In 2001 the City of Fitchburg completed a Stormwater Financing Report and adopted an ordinance establishing a City-wide Stormwater Utility and a system of stormwater utility user fees. The City was divided into two service areas, an urban service area and a rural service area, for the purpose of calculating user rates. The user rates for all property owners are based on an Equivalent Runoff Unit (ERU), which is currently defined as 3,700 square feet of impervious surface area. All single-family properties in the City are defined as one ERU, and multi-family and non-residential properties may be assigned multiple ERU's depending on the amount of actual impervious surface area relative to the definition of one ERU. Properties in the rural service area pay only the City-wide rate based upon the number of ERUs. Stormwater user rates for properties in the urban service area consist of three components, the City-wide rate per ERU, the urban base rate per ERU and the urban intensity rate. The City-wide rate per ERU and the urban base rate per ERU are paid based on the number of ERUs per parcel. The urban intensity rate is charged per billing unit, which is an ERU multiplied by an intensity of development factor based upon the percentage of total impervious surface area of the property.

Since the adoption of the Stormwater Utility, the City has implemented a series of small, inflationary rate increases to meet the cash flow needs of the utility on an annual basis. The user rates have not been formally examined and updated since the feasibility study was completed in 2001.

In 2012, the City retained Trilogy Consulting to analyze and update the stormwater utility rates. This study update consisted of several components:

1. Review and update of all user rates for a 2013 test year to ensure the Stormwater Utility is collecting adequate revenues to fund all utility operations, and that rates are fair and equitable for all customer classes.
2. Preparation of a 5-year analysis of user rates to estimate potential changes in user rates in future years due to planned capital improvement projects.
3. An analysis of the original definition of an ERU to see if it accurately reflects the amount of impervious surface area of the typical single-family home in the City of Fitchburg.
4. A review of the existing stormwater utility credit policy and methodology to recommend any changes to the policy.

USER RATE STUDY RESULTS

Table 1 shows the current and proposed Stormwater Utility rates for both the urban and rural service areas. The table shows that for properties in the urban and rural service area the City-wide rate is increasing approximately 53 percent. For properties in the urban service area the urban base rate is proposed to decrease approximately 38 percent and the urban intensity rate is proposed to increase approximately 32 percent. The proposed changes to the rates are due to the allocation of utility costs between the urban and rural service areas, which are described in greater detail below.

Table 2 shows the quarterly or annual Stormwater Utility charges for sample properties in the City under the proposed rates. Within the urban service area a single family home or duplex would see a 5.67 percent increase to the quarterly bill for stormwater management. The non-residential parcels in the urban service area would have slightly larger percentage increases to the quarterly stormwater utility charges. This is due to the fact that the nonresidential properties have higher intensity factors in terms

of the ratio of impervious surface area to pervious surface area. Properties with higher intensity factors will see slightly higher rate increases than those with lower intensity factors due to proposed rate increase to the urban intensity rate.

Properties in the rural service area will see the largest rate increases as shown on Table 2. This is because these property owners only pay the City-wide rate which, as shown on Table 1, is proposed to increase the most of all the user rates. The allocation of costs between service areas is shown in Table 4 and is discussed in greater detail below.

Table 3 is a summary of the estimated number of ERU's and billing units by customer class for 2013. A detailed analysis of historical data was performed to estimate the number of ERU's and billing units for each customer class for the 2013 test year.

Table 4 is the allocation of all 2013 budgeted Stormwater Utility costs to the rural and urban service areas. In the urban service area, costs are further allocated to the urban base and intensity categories. All utility costs were allocated between the urban and rural service areas based upon the nature of the cost and a historical analysis of the amount of time and equipment costs spent in each service area as tracked by the Streets Division staff.

The administrative and general expenses were allocated between the urban and rural service areas primarily based upon the breakdown of the number of ERU's in each service area. Eighty-seven percent of the ERUs in the City are in the urban service area and thirteen percent of the ERUs are in the rural service area. All street sweeper-related costs were allocated to the urban service area because the sweeper only operates in the urban service area. Work performed by the Streets Division, transportation, and general equipment costs were allocated between the urban and rural service areas based upon an analysis of the amount of time in 2010 and 2011 recorded by personnel in the Streets Division. Maintenance of culverts and pipe was allocated more heavily towards the rural area as the majority of the cost is related to rural culverts. Maintenance of inlets and castings was allocated solely to the urban area. All capital costs were allocated to just the urban area as all assets with associated debt are located within the urban service area.

The allocation of costs to the urban intensity factor charge was based on the total number of urban base ERUs as a percentage of total billing units. This is consistent with the original methodology for the intensity charge in that it is intended to recover costs caused by development with a higher ratio of impervious to pervious surface areas. The urban intensity rate recognizes that development with a higher ratio of impervious surface area to pervious surface area generally has more stormwater runoff and discharges the runoff at faster rates than development with a higher ratio of pervious to impervious surface area.

As shown on the table, approximately 7 percent of the total Stormwater Utility costs are allocated to the rural service area, and 93 percent of the costs are allocated to the urban service area. The 93 percent of total costs allocated to the urban service area are further allocated 68 percent to the urban base charge and 26 percent to the intensity rates. Even though only 7 percent of costs were allocated to the rural service area, it is an increase over the current amount and is therefore causing the higher percentage rate increases to the rural service area as shown on Tables 1 and 2.

Tables 5a and 5b show the calculation of the proposed Stormwater Utility rates for the urban and rural service areas. Table 5a shows the calculation of user rates by service area. The cost from Table 4

allocated to the rural, urban base and urban intensity rates were divided by the appropriate billing units to arrive at annual rate per unit. Table 5b shows the breakout of user rates by the current rate classification and appropriate customer class.

Table 6 is a revenue check showing that the calculated user rates are sufficient to recover the total expenses shown on Table 4. There is a slight difference in the amount of revenue calculated compared to total expenses, due to the rounding off of the user rates to two decimal places.

Table 7 shows the total budgeted capital improvement projects for the Stormwater Utility for the next five years. The majority of these projects will be funded by the Stormwater Utility with the exception of estimated grant funding for a portion of the stormwater pond dredging and retrofits. The Nine Springs North Wet Pond project will initially be funded via the Stormwater Utility; however the costs for the project will ultimately be recovered through stormwater connection fees.

Table 8 shows the projected revenues, expenses and reserve balances for the Stormwater Utility for the next 5 years. As it is shown in the table, it is assumed that the Utility will be able to cash finance the capital improvement projects over the next five years. It is anticipated that, with the proposed rates, the City will not need to increase Stormwater Utility rates over the next five years and be able to meet all financial obligations of the utility while increasing the available reserves from an estimated year end 2013 balance of \$466,086 to an estimated year end 2017 balance of \$597,831.

Table 9 is a summary of the analysis of the existing definition of an ERU. The purpose of the analysis was to see if the current definition is still accurate given the amount of new home construction that has occurred since the creation of the Stormwater Utility. It was conjectured that new home construction may have greater amounts of impervious surface area than the current definition of one ERU, which is 3,700 square feet, and that a significant number of single family homes are greater than one ERU. In examining the measurements of all single family homes in the City, the average amount of impervious surface area for all single family homes is approximately 3,800 square feet. In addition, approximately 82 percent of all single-family properties would fall within the definition of one ERU or higher. When analyzing the properties greater than 1 ERU in size, the majority of these properties would fall between one and one and a half ERU. Based on the analysis, while the average is slightly higher than the current definition it may not be necessary to change the definition at this time given that the actual average is so close to the current definition.

Review of Stormwater Utility Credit Policy

A review of the City's existing stormwater utility credit policy and methodology was conducted as part of the study update. The review consisted of examining the current credit policy and methodology to confirm it is consistent with the current user rate structure. The review also consisted of comparing the current policy with stormwater utility credit policies for the Cities of Oshkosh, Monona, and Sun Prairie, the Village of McFarland and the Town of Grand Chute. Finally, discussions with City staff were conducted to determine if changes should be made to the existing policy with the goal of ensuring the policy is fair and reasonable to all rate payers.

The current policy allows for credits on a property owner's quarterly stormwater utility bill for both residential and non-residential properties. Multi-family properties are eligible for credits under the non-residential policy. Residential properties are eligible for a one-time reduction in the quarterly utility bill of \$5.00 for the purchase of a rain barrel in the urban service area and a \$3.00 rebate in the rural service

area. Residential properties are also eligible for a \$3.00 credit off the quarterly stormwater utility bill for the installation of a rain garden in the urban service area and a \$1.00 credit in the rural service area. Of the sampled municipalities only the City of Oshkosh had a credit for residential properties and it is very similar to what is currently offered by the City of Fitchburg. The dollar amounts associated with the credit and rebate for the rain barrel are an incentive to property owners to install these facilities rather than a reduction in the ERUs to account for these facilities, since all residential properties are assigned 1 ERU regardless of property characteristics. It is therefore reasonable to continue to offer these credits; however the City may want to consider increasing the dollar amounts associated with the credits to be consistent with the overall percentage user rate increases that have gone into effect since the credit was offered.

Non-residential properties, including multi-family development, are eligible for a maximum of a 50-percent reduction in their quarterly stormwater utility bill. The property owner is eligible for a maximum of a 25-percent credit for the installation of facilities that meet with the City's water quality portion of the stormwater management ordinance calling for an 80-percent removal efficiency in total suspended solids, and another 25-percent credit for meeting the City's water quantity portion of the stormwater management ordinance for facilities that control the post-development to pre-development rates for the 2-year, 10-year and 100-year design storm events. Credits are only extended for on-site facilities that are owned and maintained by the property owner. If the facilities are dedicated to the City, the property is not eligible for credits.

In reviewing the comparable municipalities' credit policies, all policies had a maximum credit available and all but Grand Chute had credits for water quality and water quantity. Some had additional factors for items unique to their municipality. All policies also required detailed plans and stormwater modeling to be submitted to the municipal engineer for review and final approval on the credit, as in the City of Fitchburg. Several discussions were had with the City's engineering staff on potential alterations to the credit policy, however in reviewing the policy with staff it was determined that the existing policy is satisfactory and that further alterations may require changes to the user rate structure in order to quantify the impact that private facilities have on the number of ERUS and billing units. It was however noted that the existing stormwater utility credit application and policy are inconsistent with the language on credits described in the stormwater utility ordinance and the ordinance should be updated.

CONCLUSION AND RECOMMENDATIONS

It is recommended that the City adopt the Stormwater Utility rates as proposed on Table 5b. In addition it appears that the City will not need to increase user rates for the next five years. However it is recommended that the City continue to monitor actual revenues and expenses in future years, as a number of assumptions were used to formulate projected revenues and expenses. It is also recommended that the City not adjust the current definition of an ERU. This should also be examined again in the next user rate update as continued development in future years may cause the definition to be increased.

With regards to the City's credit policy, it is recommended that the City consider updating the dollar amounts for residential credits to be consistent with the overall percentage user rate increases that have gone into effect since the credit was offered. It is also recommended that the language describing stormwater utility credits in the utility ordinance be updated to be consistent with the existing policy for non-residential development.

Table 1 - Summary of Existing & Proposed Stormwater Utility Rates

	Billing Frequency	Existing	Proposed	Percent Change	Existing	Proposed	Percent Change	Existing	Proposed	Percent Change
		City Wide Rate/ERU ⁽¹⁾	City Wide Rate/ERU		Urban Service Area Base Rate/ERU ⁽¹⁾	Urban Service Area Base Rate/ERU		Intensity Rate (ERU X Intensity Factor) ⁽¹⁾	Intensity Rate (ERU X Intensity Factor)	
Urban - Residential	Quarterly	\$6.35	\$9.71	53%	\$8.90	\$5.56	-38%	\$3.20	\$4.23	32%
Urban - Duplex (per unit)	Quarterly	\$6.35	\$9.71	53%	\$8.90	\$5.56	-38%	\$3.20	\$4.23	32%
Urban - Multi-Family	Quarterly	\$6.35	\$9.71	53%	\$8.90	\$5.56	-38%	\$3.20	\$4.23	32%
Urban - Non-Residential	Quarterly	\$6.35	\$9.71	53%	\$8.90	\$5.56	-38%	\$3.20	\$4.23	32%
Rural - Residential	Annually	\$25.40	\$38.83	53%	\$0.00	\$0.00	N/A	\$0.00	\$0.00	N/A
Rural - Duplex (per unit)	Annually	\$25.40	\$38.83	53%	\$0.00	\$0.00	N/A	\$0.00	\$0.00	N/A
Rural - Multi-Family	Quarterly	\$6.35	\$9.71	53%	\$0.00	\$0.00	N/A	\$0.00	\$0.00	N/A
Rural - Non-Residential	Quarterly	\$6.35	\$9.71	53%	\$0.00	\$0.00	N/A	\$0.00	\$0.00	N/A

Notes:

(1) Source: City of Fitchburg 2012 User Rate Schedule.

Table 2 - Current and Proposed Charges for Example Properties

Property	Billing Frequency	Base ERUs	Intensity Factors	Billing Units With Intensity Factors	Current Charge	Proposed Charge	Percent Change
Urban Service Area							
Single Family Home	Quarterly	1	1	1.00	\$18.45	\$19.50	5.67%
Duplex (Total Prop) ⁽¹⁾	Quarterly	1	1	1.00	\$18.45	\$19.50	5.67%
Non-Residential	Quarterly	5	2.9	14.50	\$122.65	\$137.68	12.26%
Non-Residential	Quarterly	10	1.7	17.00	\$206.90	\$224.58	8.55%
Rural Service Area							
Single Family Home	Annual	1	N/A	N/A	\$25.40	\$38.83	52.87%
Duplex (Total Prop)	Annual	2	N/A	N/A	\$50.80	\$77.66	52.87%
Non-Residential	Quarterly	5	N/A	N/A	\$31.75	\$48.54	52.87%
Non-Residential	Quarterly	10	N/A	N/A	\$63.50	\$97.07	52.87%

Notes:

(1) Duplexes are charged 0.5 ERU's per dwelling unit.

Table 3 - Summary of 2013 Proposed ERUs and Billing Units

Rate Number	Customer Class	Base ERU's ⁽¹⁾	Billing Units with Intensity Factors ^{(1) (2)}
7001	Residential Urban	3,642.60	3,642.60
7002	Duplex Urban	413.00	413.00
7003	Multi-Family Urban	2,247.72	2,744.44
7005	Non-Resident Urban	5,021.43	8,869.92
7011	Residential Rural	159.00	0.00
7013	Multi-Family Rural	79.70	0.00
7014	Residential Rural Annual	669.00	0.00
7015	Non-Residential Rural	810.49	0.00
7016	Duplex Rural Annual	2.00	0.00
Totals		13,044.94	15,669.96

Summary for Rate Calculations	Base ERU's	Billing Units with Intensity Factors
Rural Base	1,720.19	0.00
Urban Base	11,324.75	0.00
Urban Intensity	0.00	15,669.96

Notes:

(1) Source: 2011 Storm Water Utility Customer Database, City of Fitchburg.

(2) Billing units with intensity factors only applies to customers in the urban service area.

Table 4 - Allocation of Costs to Service Areas

	Total 2013 Budget ⁽¹⁾	Rural Allocation (%)	Rural Cost	Total Urban Allocation (%)	Urban Base Allocation (%)	Urban Base Cost	Urban Intensity Allocation (%)	Urban Intensity Cost
<u>Administrative & General Expenses</u>								
601-5408-300	\$9,500.00	13%	\$1,252.73	87%	63%	\$5,960.34	24%	\$2,286.93
601-5902-300	\$24,000.00	13%	\$3,164.80	87%	63%	\$15,057.70	24%	\$5,777.51
601-5903-300	\$4,000.00	13%	\$527.47	87%	63%	\$2,509.62	24%	\$962.92
601-5920-300	\$115,000.00	13%	\$15,164.64	87%	63%	\$72,151.46	24%	\$27,683.89
601-5921-300	\$3,000.00	13%	\$395.60	87%	63%	\$1,882.21	24%	\$722.19
601-5923-300	\$12,000.00	13%	\$1,582.40	87%	63%	\$7,528.85	24%	\$2,888.75
601-5924-300	\$13,000.00	13%	\$1,714.26	87%	63%	\$8,156.25	24%	\$3,129.48
601-5926-300	\$39,000.00	13%	\$5,142.79	87%	63%	\$24,468.76	24%	\$9,388.45
601-5930-300	\$8,000.00	13%	\$1,054.93	87%	63%	\$5,019.23	24%	\$1,925.84
601-5930-301	\$3,000.00	13%	\$395.60	87%	63%	\$1,882.21	24%	\$722.19
601-5930-302	\$17,000.00	13%	\$2,241.73	87%	63%	\$10,665.87	24%	\$4,092.40
601-5931-300	\$2,514.00	13%	\$331.51	87%	63%	\$1,577.29	24%	\$605.19
601-5932-300	\$5,000.00	30%	\$1,500.00	70%	51%	\$2,529.47	19%	\$970.53
601-5932-301	\$13,000.00	0%	\$0.00	100%	72%	\$9,395.16	28%	\$3,604.84
601-5933-300	\$0.00	13%	\$0.00	87%	63%	\$0.00	24%	\$0.00
Total Administrative & General Expenses	\$268,014.00	13%	\$34,468.46	87%	63%	\$168,784.41	24%	\$64,761.13
<u>Operating Expenses</u>								
601-5601-301	\$105,000.00	22%	\$23,415.00	78%	56%	\$58,961.85	22%	\$22,623.15
601-5601-302	\$1,200.00	30%	\$360.00	70%	51%	\$607.07	19%	\$232.93
601-5601-303	\$500.00	30%	\$150.00	70%	51%	\$252.95	19%	\$97.05
601-5601-304	\$12,000.00	70%	\$8,400.00	30%	22%	\$2,601.74	8%	\$998.26
601-5601-305	\$7,500.00	0%	\$0.00	100%	72%	\$5,420.28	28%	\$2,079.72
601-5601-306	\$30,000.00	0%	\$0.00	100%	72%	\$21,681.14	28%	\$8,318.86
Nine Springs Creek Stormwater Master Plan ⁽²⁾	\$80,000.00	0%	\$0.00	100%	72%	\$57,816.36	28%	\$22,183.64
Total Operating Expenses	\$236,200.00	14%	\$32,325.00	86%	62%	\$147,341.38	24%	\$56,533.62
Total Operating and Maintenance Expenses	\$504,214.00	13%	\$66,793.46	87%	63%	316,126	24%	121,295
<u>Capital Related Expenses</u>								
601-22236	\$50,000.00	0%	\$0.00	100%	72%	\$36,135.23	28%	\$13,864.77
601-22230	\$59,262.12	0%	\$0.00	100%	72%	\$42,829.00	28%	\$16,433.12
601-5403-300	\$420,000.00	0%	\$0.00	100%	72%	\$303,535.89	28%	\$116,464.11
601-5430-300	\$30,000.00	0%	\$0.00	100%	72%	\$21,681.14	28%	\$8,318.86
Total Capital Related Expenses	\$559,262.12	0%	\$0.00	100%	72%	\$404,181.25	28%	\$155,080.87
Subtotal Revenue Requirements	\$1,063,476.12	6%	\$66,793.46	94%	68%	\$720,307.04	26%	\$276,375.61
<u>Other Income</u>								
Grant Received for Nine Springs Master Plan	(\$40,000.00)	0%	\$0.00	100%	72%	(\$28,908.18)	28%	(\$11,091.82)
Total Revenue Requirements	\$1,023,476.12	7%	\$66,793.46	93%	68%	\$691,398.86	26%	\$265,283.79

Note:

(1) Source: 2013 adopted City of Fitchburg Stormwater Utility Budget.

(2) Source: City staff, 5/17/2013.

(3) Source: City of Fitchburg 2007 General Obligation Note Issue Planning, Ehlers and Associates. 8/28/2007.

Table 5a - Calculation of User Rates by Service Area

Service Area	Costs	Units (ERU's or Billing	
		Units	Annual Rate per Unit
Rural Base	\$66,793	1,720.19	\$38.83
Urban Base	\$691,399	11,324.75	\$61.05
Urban Intensity	\$265,284	15,669.96	\$16.93

Table 5b - Summary of Proposed Stormwater User Rates

	Billing	City Wide	Urban Service Area	Urban Service Area
	Frequency	Rate/ERU	Base Rate/ERU	Intensity Rate (ERU X Intensity Factor)
Urban - Residential	Quarterly	\$9.71	\$5.56	\$4.23
Urban - Duplex (per unit)	Quarterly	\$9.71	\$5.56	\$4.23
Urban - Multi-Family	Quarterly	\$9.71	\$5.56	\$4.23
Urban - Non-Residential	Quarterly	\$9.71	\$5.56	\$4.23
Rural - Residential	Annually	\$38.83	\$0.00	\$0.00
Rural - Duplex (per unit)	Annually	\$38.83	\$0.00	\$0.00
Rural - Multi-Family	Quarterly	\$9.71	\$0.00	\$0.00
Rural - Non-Residential	Quarterly	\$9.71	\$0.00	\$0.00

Table 6 - Revenue Check

	City Wide Annual Rate/ERU	Urban Service Area Annual Rate/ERU	Urban Service Area Annual Intensity Rate	Base ERU's	Billing Units with Intensity Factors	Total Calculated Annual Revenues
Urban - Residential	\$38.83	\$22.22	\$16.93	3,642.60	3,642.60	\$284,049.95
Urban - Duplex (per unit)	\$38.83	\$22.22	\$16.93	413.00	413.00	\$32,205.74
Urban - Multi-Family	\$38.83	\$22.22	\$16.93	2,247.72	2,744.44	\$183,686.68
Urban - Non-Residential	\$38.83	\$22.22	\$16.93	5,021.43	8,869.92	\$456,725.94
Rural - Residential	\$38.83	\$0.00	\$0.00	828.00	0	\$32,151.24
Rural - Duplex (per unit)	\$38.83	\$0.00	\$0.00	2.00	0	\$77.66
Rural - Multi-Family	\$38.83	\$0.00	\$0.00	79.70	0	\$3,094.75
Rural - Non-Residential	\$38.83	\$0.00	\$0.00	810.49	0	\$31,471.33
Total Calculated Revenue						\$1,023,463.28
Total Utility Expenses (from Table 4)						\$1,023,476.12
Difference						-\$12.84

Table 7 - City of Fitchburg - 2013-2017 Stormwater Utility Capital Improvement Budget

Project ⁽¹⁾	2013 ⁽⁴⁾	2014	2015	2016	2017	Total
Tower Hill Greenway	\$70,000					\$70,000
McKee Road Sidewalk	\$40,000					\$40,000
Nine Springs North Wet Pond ⁽²⁾			\$35,000	\$350,000		\$385,000
Schumann Drive Storm Sewer					\$60,000	\$60,000
Schumann Greenway		\$125,000				\$125,000
Stormwater Pond Dredging and Retrofits		\$40,000	\$75,000	\$75,000	\$100,000	\$290,000
Replacement of Street Sweeper ⁽³⁾			\$180,000			\$180,000
Red Arrow Pond (Total Cost)	\$60,000	\$10,000	\$10,000			\$80,000
Stormwater portion of street reconstruction work	\$250,000	\$82,580	\$10,000	\$39,500	\$58,750	\$440,830
Total	\$420,000	\$257,580	\$310,000	\$464,500	\$218,750	\$1,670,830

Notes:

(1) Source: 2013 projects provided by City staff on 3/24/2013. 2014-2017 projects are from the 2014-2018 City of Fitchburg Capital Improvement Program, Monday, April 15, 2013.

(2) Per the CIP and City staff this project will be initially borne by the Stormwater Utility but recovered through connection charges.

(3) The street sweeper replacement cost and year replaced was provided by the Director of Department of Public Works/City Engineer on 3/24/2013, and is net of the expected value received for trading in the existing sweeper.

(4) Source: 2013 Approved Capital Improvement Budget and City staff.

Table 8 - 5-Year Cash Flow Analysis

	2013	2014	2015	2016	2017
Revenues					
User Rates ⁽⁴⁾	\$935,078	\$1,026,582	\$1,029,702	\$1,032,609	\$1,180,544
Interest Income	\$250	\$250	\$250	\$250	\$250
Stormwater Grants ⁽³⁾	\$70,000	\$10,000	\$25,000	\$25,000	\$50,000
Forfeited Discounts	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Misc. Revenues ⁽⁶⁾	\$0	\$2,200	\$2,200	\$2,200	\$2,200
Permit Revenues	\$18,000	\$18,000	\$18,000	\$18,000	\$18,000
Total Revenues	\$1,025,328	\$1,059,032	\$1,077,152	\$1,080,059	\$1,252,994
Expenses					
Operating and Maintenance	\$504,214	\$519,340	\$534,921	\$550,968	\$567,497
Net Before Debt Service	\$521,114	\$539,692	\$542,231	\$529,091	\$685,496
Debt Service					
Repayment of Sodfather Advance	\$0	\$90,477	\$91,476	\$90,494	\$89,048
2007 Borrowing ⁽¹⁾	\$71,613	\$119,688	\$140,813	\$135,938	\$156,000
Subtotal Debt Service	\$71,613	\$210,165	\$232,289	\$226,432	\$245,048
Capital Improvement Projects ⁽³⁾	\$420,000	\$257,580	\$310,000	\$464,500	\$218,750
Payoff of Advances ⁽⁵⁾	\$314,873	\$0	\$0	\$0	\$0
Total Cash Expenditures	\$1,310,700	\$987,085	\$1,077,210	\$1,241,901	\$1,031,296
Net Cash Flow	(\$285,372)	\$71,947	(\$58)	(\$161,841)	\$221,698
Un-Restricted Reserve Balances					
Beginning of Year Balance ⁽²⁾	\$751,458	\$466,086	\$538,033	\$537,974	\$376,133
Cash Flow	(\$285,372)	\$71,947	(\$58)	(\$161,841)	\$221,698
End of Year Balance	\$466,086	\$538,033	\$537,974	\$376,133	\$597,831

Notes:

(1) Source: City of Fitchburg 2007 General Obligation Note Issue Final Results, Ehlers and Associates.

(2) Source: City of Fitchburg Preliminary 2012 Audit Figures for the Stormwater Utility.

(3) Source: Table 7 for Capital Improvement Projects. 2013 grant estimates are from City staff and include \$30,000 for Red Arrow Pond and \$40,000 for stormwater master planning for Nine Springs Creek. Grant projections for 2014-2017 are from the 2014-2018 City of Fitchburg Capital Improvement Program, April 15, 2013.

(4) It is assumed that the proposed user rates shown on Table 5b will not take effect until January 1, 2014. It is also assumed that the City will add 40 ERUs per year through 2017.

(5) The City intends to pay off the advance owed to the Water Utility of \$206,250 and an advance owed to the General Fund of \$108,623.44.

(6) Includes revenues received from the lease of the Sodfather property.

Table 9 - Summary of Existing Single Family Parcel Data

	Total Parcels	Percent of Total	
Total Single-Family Parcels	4,686.00		
Average Sq Feet Impervious of Building Footprint	2,518.65		
Average Sq Feet Impervious of all Impervious Area	3,803.17		
Parcels 0-925 sq feet (0.25 ERU)	0.00	0%	
Parcels 926-1850 sq feet (0.50 ERU)	88.00	2%	
Parcels 1851-2775 sq feet (0.75 ERU)	735.00	16%	
Parcels 2775-3700 sq feet (1.00 ERU)	1,645.00	35%	
Parcels Greater than 3700 sq feet (> 1 ERU)	2,218.00	47%	
Analysis of Parcels Greater than 1.00 ERU's			
Parcels Greater than 3700 sq feet (> 1 ERU)	2,218.00		
		Percent of Parcels >1 ERU	Percent of Total SF Parcels
Parcels 3701-4625 (1.25 ERU)	1,287.00	58%	27%
Parcels 4625-5500 (1.5 ERU)	598.00	27%	13%
Parcels 5500-6475 (1.75 ERU)	203.00	9%	4%
Parcels 6475-7400 (2.00 ERU)	76.00	3%	2%
Parcels Greater than 7400 sq feet (> 2 ERU)	54.00	2%	1%

Notes:

(1) All data was provided by the City of Fitchburg, October, 2012.