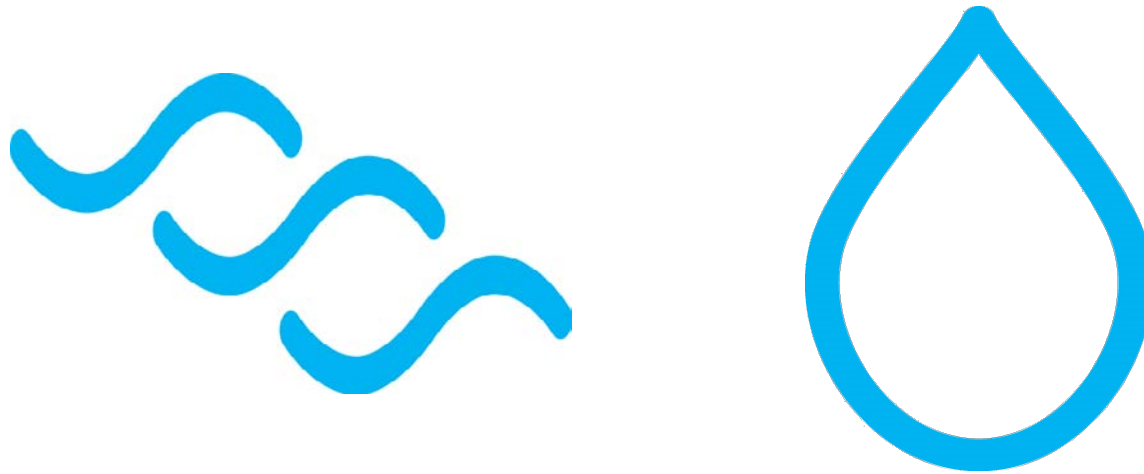


City of Ann Arbor - Sewer Rate Study

Draft Results Workbook



PRELIMINARY FINANCIAL MANAGEMENT PLAN

Assumptions

Schedule 1

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
<u>Annual Sewer System Growth:</u>											
Total Equivalent Residential Units	43,625	44,139	44,654	44,654	44,654	44,654	44,654	44,654	44,654	44,654	44,654
Growth in Accounts ¹		514	514	0	0	0	0	0	0	0	0
% Increase in Accounts		1.18%	1.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume (CCF)	4,909,992	4,894,679	4,879,052	4,837,924	4,797,260	4,757,053	4,717,299	4,677,992	4,639,126	4,600,696	4,562,697
Growth in Volume		(15,313)	(15,626)	(41,128)	(40,664)	(40,206)	(39,754)	(39,307)	(38,866)	(38,430)	(38,000)
% Increase in Volume		-0.31%	-0.32%	-0.84%	-0.84%	-0.84%	-0.84%	-0.83%	-0.83%	-0.83%	-0.83%
Capital Recovery Charge	\$ 6,707	6,707	6,707	6,707	6,707	6,707	6,707	6,707	6,707	6,707	6,707
<u>Capital Spending:</u>											
Annual Capital Spending Execution %	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Annual CIP Escalation %	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%
<u>Interest Earning Rate on Fund Balances</u>	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

(1) Growth in FY 2018 & FY 2019 is representative of staff's expectations for new developments connections

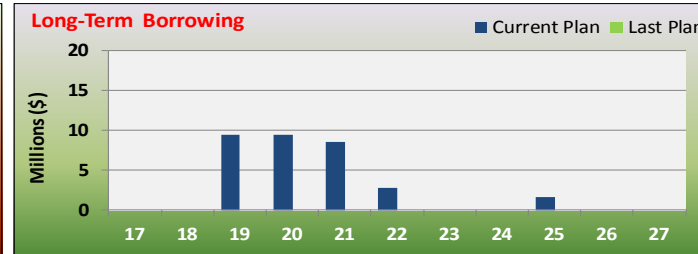
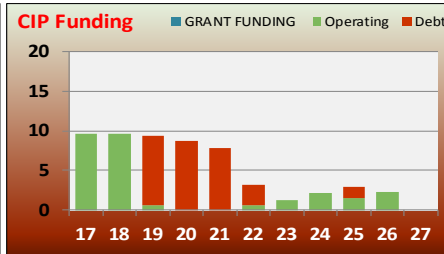
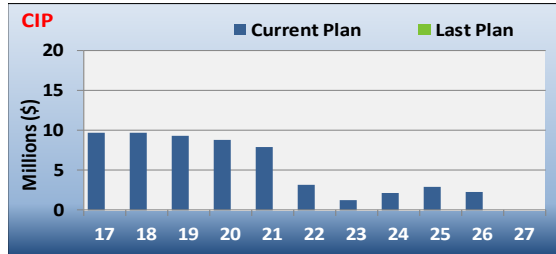
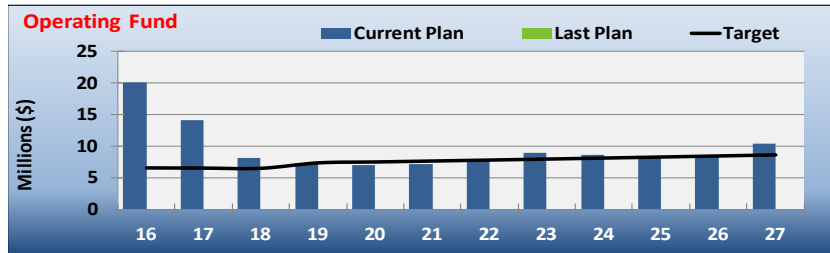
Beginning Balances as of June 30, 2016

Schedule 2

	Revenue Fund	Restricted Reserves	Equipment Reserve
CURRENT UNRESTRICTED ASSETS			
Cash and Cash Equivalents	\$ 10,394,335	-	-
Equity in pooled cash and investments	29,983,284	-	-
Accounts Receivable	6,738,925	-	-
Special assessments	25,148	-	-
Improvement charges	25,217	-	-
Due from other governments	3,369,950	-	-
Less: Accounts Payable	50,536,859	-	-
Less: Accounts Payable	(9,411,614)	-	-
Less: Accrued liabilities	(229,847)	-	-
Less: Accrued interest payable	(1,161,966)	-	-
Less: Bonds payable, current	-	-	-
Less: Compensated absences, current	(326,406)	-	-
CALCULATED FUND BALANCE (ASSETS - LIABILITIES)	39,407,026	-	-
Plus/(Less): Equipment Replacment Fund Blance	(8,701,764)	-	10,912,529
Plus/(Less): Debt Service Reserve	(10,394,335)	10,394,335	-
Plus/(Less): Defered Resources	(269,520)	-	-
NET UNRESTRICTED FUND BALANCE	20,041,407	10,394,335	10,912,529
Funds Encumbered or Reserved for Projects not in the CIP	-	-	-
AVAILABLE FUND BALANCE	20,041,407	10,394,335	10,912,529
Total Available Funds	\$ 41,348,271		

Source: FY 2017 Balance Sheet Listings

FINANCIAL ANALYSIS AND MANAGEMENT SYSTEM (FAMS) SUMMARY													
The City of Ann Arbor (Sewer)													
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cumulative Change	
Override ▶		0.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	FY 2022	
Fixed Charges	0.00%	0.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%	FY 2027	
Last Plan													
Override ▶		6.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%	Key Toggles/Scenarios	
Volume Charges	0.00%	6.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%		
Last Plan													
Rate Covenant	4.54	3.69	3.22	2.60	2.57	2.68	2.89	2.79	2.65	3.87	3.72		
Last Plan													
CIP \$ Redistribution ▶	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3.00		
CIP Execution % ▶	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Operating Reserve Mo ▶	6	6	6	6	6	6	6	6	6	6	6		
Quarterly Bill	\$76.05	\$79.95	\$85.54	\$91.48	\$97.93	\$104.74	\$112.07	\$112.07	\$112.07	\$112.07	\$112.07		
Change \$		\$3.90	\$5.59	\$5.94	\$6.45	\$6.81	\$7.33	\$0.00	\$0.00	\$0.00	\$0.00		
Change %		5.13%	6.99%	6.94%	7.05%	6.95%	7.00%	0.00%	0.00%	0.00%	0.00%		
Last Plan												Check	(0)



PRELIMINARY FINANCIAL MANAGEMENT PLAN

Forecast of Net Revenues and Debt Service Coverage

Schedule 4

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
1 Rate Revenue Subject to Growth & Rate Adjustments											
2 Volume Rate Revenue	\$ 21,211,164	21,211,164	21,145,012	22,395,061	23,594,395	24,858,564	26,191,108	27,595,757	27,365,814	27,138,453	26,913,641
3 Additional Rate Revenue From Growth	-	(66,152)	(67,506)	(188,781)	(198,319)	(208,342)	(218,875)	(229,943)	(227,361)	(224,812)	(222,294)
4 Proposed Sewer Rate Adjustments	0.00%	0.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%
5 Additional Rate Revenue From Rate Adjustment	-	-	1,475,425	1,554,440	1,637,725	1,725,516	1,818,056	0	0	0	0
6 Price Elasticity Adjustment	-	-	(157,871)	(166,325)	(175,237)	(184,630)	(194,532)	(0)	(0)	(0)	(0)
7 Base Rate Revenue	\$ 2,080,285	2,080,285	2,231,106	2,415,108	2,584,165	2,765,057	2,958,611	3,165,714	3,165,714	3,165,714	3,165,714
8 Additional Rate Revenue From Growth	-	24,532	26,004	-	-	-	-	-	-	-	-
9 Proposed Sewer Rate Adjustments	0.00%	6.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%
10 Additional Rate Revenue From Rate Adjustment	-	126,289	157,998	169,058	180,892	193,554	207,103	0	0	0	0
11 Total Rate Revenue	\$ 23,291,450	23,376,119	24,810,169	26,178,560	27,623,622	29,149,719	30,761,471	30,531,528	30,304,167	30,079,355	29,857,061
12 Plus: Other Operating Revenues											
13 Other Operating Revenues	\$ 325,701	265,765	265,765	265,765	265,765	265,765	265,765	265,765	265,765	265,765	265,765
14 Equals: Total Operating Revenue	\$ 23,617,151	23,641,884	25,075,934	26,444,325	27,889,387	29,415,484	31,027,236	30,797,293	30,569,932	30,345,120	30,122,826
15 Less: Operating Expenses											
16 Personal Services	\$ (3,772,860)	(3,754,991)	(3,771,353)	(3,862,973)	(3,956,820)	(4,052,948)	(4,151,412)	(4,252,269)	(4,355,577)	(4,461,395)	(4,569,786)
17 Variable O&M	(2,362,744)	(1,881,625)	(1,955,551)	(2,002,516)	(2,050,609)	(2,099,858)	(2,150,288)	(2,201,931)	(2,254,813)	(2,308,966)	(2,364,419)
18 Fixed O&M	(6,776,520)	(7,209,928)	(8,897,756)	(9,060,000)	(9,226,174)	(9,396,372)	(9,570,693)	(9,749,235)	(9,932,101)	(10,119,397)	(10,311,228)
18 Equals: Net Operating Income	\$ 10,705,027	10,795,340	10,451,274	11,518,835	12,655,783	13,866,306	15,154,843	14,593,859	14,027,440	13,455,362	12,877,393
19 Plus: Non-Operating Income/(Expense)											
20 Non-Operating Revenue	\$ -	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050
21 Interest Income	384,138	324,344	292,606	292,157	296,617	303,997	313,762	318,009	314,935	314,622	325,145
22 Equals: Net Income	\$ 11,089,165	11,120,734	10,744,930	11,812,043	12,953,450	14,171,352	15,469,655	14,912,917	14,343,425	13,771,033	13,203,588
23 Cash Flow Test											
24 Net Income Available For Debt Service	\$ 11,089,165	11,120,734	10,744,930	11,812,043	12,953,450	14,171,352	15,469,655	14,912,917	14,343,425	13,771,033	13,203,588
25 Transfers In	-	-	-	-	-	-	-	-	-	-	-
26 Transfers Out	(1,042,363)	(1,108,409)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)
27 Senior Debt Service	(2,444,218)	(3,013,619)	(3,338,072)	(4,541,027)	(5,040,787)	(5,295,336)	(5,344,298)	(5,341,048)	(5,410,381)	(3,556,702)	(3,549,952)
28 State Revolving Loans	(3,413,883)	(3,440,419)	(6,449,564)	(6,482,883)	(6,529,745)	(6,564,820)	(6,598,395)	(6,630,217)	(6,625,527)	(6,615,563)	(6,599,367)
29 Capital Outlay	(396,781)	(31,250)	(6,500)	(6,656)	(6,816)	(6,979)	(7,147)	(7,318)	(7,494)	(7,674)	(7,858)
30 Net Cash Flow	\$ 3,791,921	\$ 3,527,036	\$ (191,338)	\$ (360,655)	\$ 233,970	\$ 1,162,085	\$ 2,377,684	\$ 1,792,202	\$ 1,157,891	\$ 2,448,963	\$ 1,904,279
31 Unrestricted Working Capital Reserve Fund Test											
32 Balance At Beginning Of Fiscal Year	\$ 20,041,407	14,172,544	8,082,580	7,312,330	6,951,675	7,185,645	7,774,589	8,975,610	8,623,891	8,271,246	8,471,691
33 Cash Flow Surplus/(Deficit)	3,791,921	3,527,036	-	(360,655)	233,970	1,162,085	2,377,684	1,792,202	1,157,891	2,448,963	1,904,279
34 Reserve Fund Balance Used for Cash Flow Deficit	-	-	(191,338)	-	-	-	-	-	-	-	-
34 Projects Paid with Cash	-	-	-	-	-	-	-	-	-	-	-
35 Projects Paid with Reserve Fund Balance	(9,660,784)	(9,617,000)	(578,912)	-	-	(573,141)	(1,176,663)	(2,143,921)	(1,510,536)	(2,248,517)	-
36 Balance At End Of Fiscal Year	\$ 14,172,544	8,082,580	7,312,330	6,951,675	7,185,645	7,774,589	8,975,610	8,623,891	8,271,246	8,471,691	10,375,970
37 Minimum Working Capital Reserve Target	6,456,062	6,423,272	7,312,330	7,462,745	7,616,802	7,774,589	7,936,197	8,101,717	8,271,246	8,444,879	8,622,716
38 Excess Working Capital Above Target	\$ 7,716,482	1,659,308	-	(511,070)	(431,157)	-	1,039,413	522,174	-	26,813	1,753,254

PRELIMINARY FINANCIAL MANAGEMENT PLAN

Capital Project Funding Summary

Schedule 5

<u>Capital Project Funding Sources:</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
Cash Funded	\$ -	-	-	-	-	-	-	-	-	-	-
Reserve Balance Funded	9,660,784	9,617,000	578,912	-	-	573,141	1,176,663	2,143,921	1,510,536	2,248,517	-
Debt Proceeds	-	-	8,726,108	8,707,867	7,812,998	2,600,794	-	-	1,428,248	-	-
Total Projects Paid	\$ 9,660,784	\$ 9,617,000	\$ 9,305,020	\$ 8,707,867	\$ 7,812,998	\$ 3,173,935	\$ 1,176,663	\$ 2,143,921	\$ 2,938,784	\$ 2,248,517	\$ -
Total CIP Input	9,660,784	9,617,000	9,305,020	8,707,867	7,812,998	3,173,935	1,176,663	2,143,921	2,938,784	2,248,517	-
Variance	\$ -	-	-	-	-	-	-	-	-	-	-

PRELIMINARY FINANCIAL MANAGEMENT PLAN

Long-Term Borrowing Projections

Schedule 6

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
Term (Years)	30	30	30	30	30	30	30	30	30	30	30
Interest Rate	3.00%	3.25%	3.50%	3.75%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Sources of Funds											
Par Amount	\$0	-	9,427,223	9,424,992	8,472,406	2,820,298	-	-	1,548,790	-	-
Uses of Funds											
Proceeds	\$0	-	8,726,108	8,707,867	7,812,998	2,600,794	-	-	1,428,248	-	-
Cost of Issuance	1.50% of Par	-	188,544	188,500	169,448	56,406	-	-	30,976	-	-
Underwriter's Discount	\$0.00 per \$1,000	-	-	-	-	-	-	-	-	-	-
Bond Insurance	- times total Debt Service	-	-	-	-	-	-	-	-	-	-
Capitalized Interest	- Years Interest	-	-	-	-	-	-	-	-	-	-
Debt Service Surety	0.00% of Debt Service	-	-	-	-	-	-	-	-	-	-
Debt Service Reserve	1 Years of Debt Service	-	512,571	528,625	489,960	163,098	-	-	89,567	-	-
Other Costs											
Total Uses	\$0	-	9,427,223	9,424,992	8,472,406	2,820,298	-	-	1,548,790	-	-
1 Year Interest	\$0	-	329,953	353,437	338,896	112,812	-	-	61,952	-	-
Annual Debt Service	-	-	512,571	528,625	489,960	163,098	-	-	89,567	-	-
Total Debt Service	\$0	-	15,377,120	15,858,762	14,698,802	4,892,943	-	-	2,687,000	-	-
Cumulative Annual New Debt Service ⁽¹⁾	\$ -	-	329,953	866,008	1,380,092	1,643,968	1,694,254	1,694,254	1,756,206	1,783,821	1,783,821

(1) Interest-only payment required in first year of issuance.

PRELIMINARY FINANCIAL MANAGEMENT PLAN

Funding Summary by Fund

Schedule 7

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
<u>EQUIPMENT RESERVE</u>											
Balance at the Beginning of the Fiscal Year	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Additional Annual Revenues	-	-	-	-	-	-	-	-	-	-	-
Less: Payment of Debt Service	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Less: Minimum Fund Balance	-	-	-	-	-	-	-	-	-	-	-
Total Amount Available for Projects	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Amount Paid for Projects	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Minimum Fund Balance	-	-	-	-	-	-	-	-	-	-	-
Plus: Interest Earnings	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000
Less: Interest Allocated to Cash Flow	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)
Balance at End of Fiscal Year	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
<u>REVENUE FUND</u>											
Balance at the Beginning of the Fiscal Year	\$ 20,041,407	14,172,544	8,082,580	7,312,330	6,951,675	7,185,645	7,774,589	8,975,610	8,623,891	8,271,246	8,471,691
Additional Annual Revenues	3,791,921	3,527,036	(191,338)	(360,655)	233,970	1,162,085	2,377,684	1,792,202	1,157,891	2,448,963	1,904,279
Less: Cash-Funded Capital Projects	-	-	-	-	-	-	-	-	-	-	-
Less: Payment of Debt Service	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 23,833,328	17,699,580	7,891,242	6,951,675	7,185,645	8,347,730	10,152,273	10,767,812	9,781,782	10,720,208	10,375,970
Less: Minimum Fund Balance	(6,456,062)	(6,423,272)	(7,312,330)	(6,951,675)	(7,185,645)	(8,347,730)	(9,783,910)	(9,994,171)	(9,781,782)	(10,430,092)	(10,375,970)
Total Amount Available for Projects	\$ 17,377,266	11,276,308	578,912	-	-	-	368,363	773,640	-	290,117	-
Amount Paid for Projects	(9,660,784)	(9,617,000)	(578,912)	-	-	(573,141)	(1,176,663)	(2,143,921)	(1,510,536)	(2,248,517)	-
Subtotal	\$ 7,716,482	1,659,308	-	-	-	(573,141)	(808,300)	(1,370,280)	(1,510,536)	(1,958,400)	-
Minimum Fund Balance	6,456,062	6,423,272	7,312,330	6,951,675	7,185,645	8,347,730	9,783,910	9,994,171	9,781,782	10,430,092	10,375,970
Plus: Interest Earnings	171,070	111,276	76,975	71,320	70,687	74,801	83,751	87,998	84,476	83,715	94,238
Less: Interest Allocated to Cash Flow	(171,070)	(111,276)	(76,975)	(71,320)	(70,687)	(74,801)	(83,751)	(87,998)	(84,476)	(83,715)	(94,238)
Balance at End of Fiscal Year	\$ 14,172,544	8,082,580	7,312,330	6,951,675	7,185,645	7,774,589	8,975,610	8,623,891	8,271,246	8,471,691	10,375,970