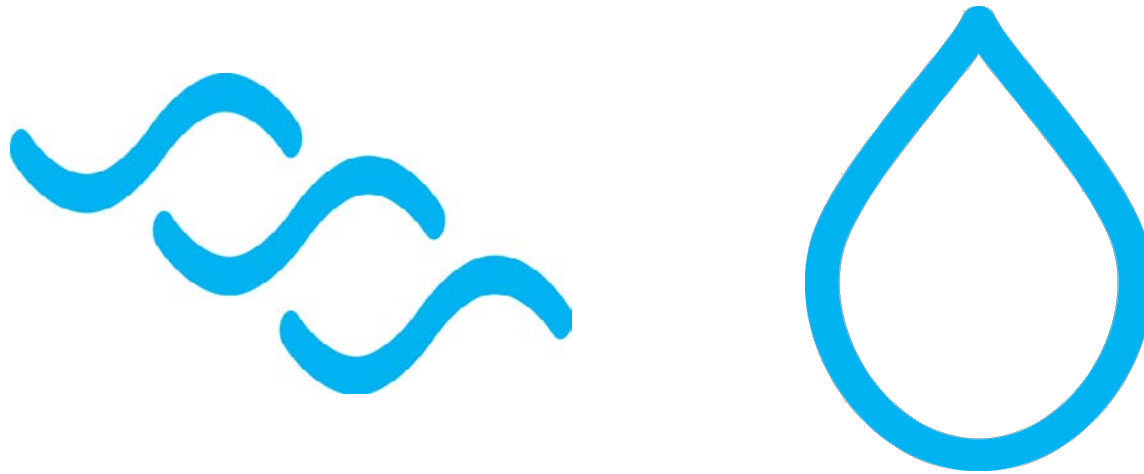


City of Ann Arbor - Water Rate Study

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 Water System Growth:</u>											
Total Equivalent Residential Units	51,394	51,394	51,894	52,394	52,394	52,394	52,394	52,394	52,394	52,394	52,394
Growth in Accounts ¹	0	0	500	500	0	0	0	0	0	0	0
% Increase in Accounts	0.00%	0.00%	0.97%	0.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume (CCF)	5,808,023	5,741,559	5,704,356	5,667,557	5,603,698	5,540,891	5,479,108	5,418,326	5,358,521	5,299,668	5,241,745
Growth in Volume		(66,465)	(58,891)	(56,937)	(55,050)	(53,228)	(51,468)	(49,769)	(48,129)	(46,544)	(45,014)
% Increase in Volume		-1.14%	-0.65%	-0.65%	-1.13%	-1.12%	-1.12%	-1.11%	-1.10%	-1.10%	-1.09%
Capital Recovery Charge	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274
<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%	1.25%	1.50%	1.75%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

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

Beginning Balances as of June 30, 2016

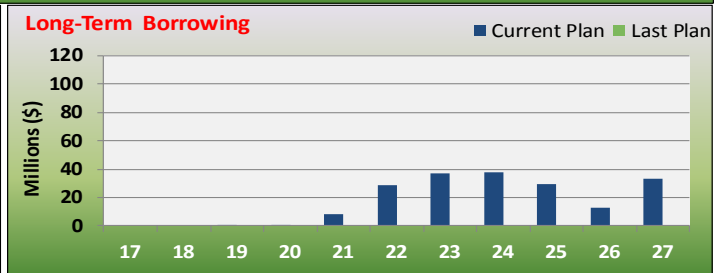
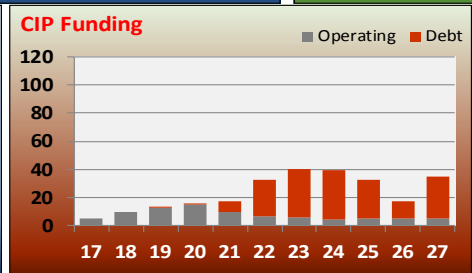
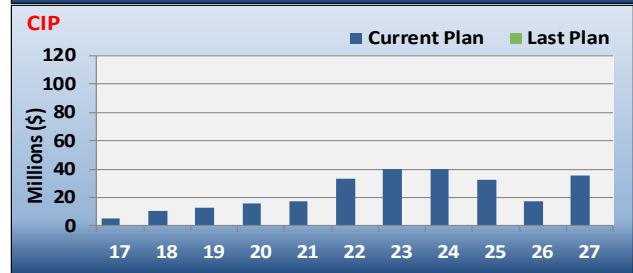
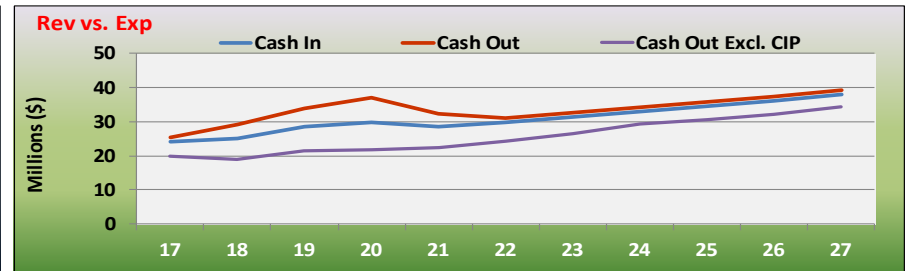
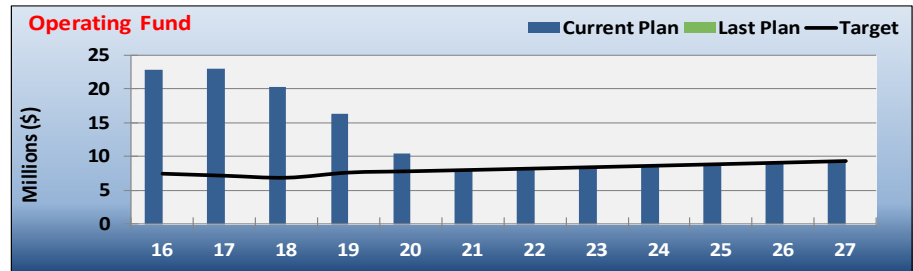
Schedule 2

	Revenue Fund	Restricted Reserves	Equipment Replacement Fund
CURRENT UNRESTRICTED ASSETS			
Cash and Cash Equivalents	\$ 3,526,111	-	-
Equity in pooled cash and investments	28,123,400	-	-
Accounts Receivable	4,870,181	-	-
Special assessments	13,540	-	-
Improvement charges	16,626	-	-
Taxes receivable	26,829	-	-
Due from other governments	4,381,416	-	-
TOTAL ASSETS	40,958,103	-	-
Less: Accounts Payable	(2,331,069)	-	-
Less: Accrued liabilities	(296,503)	-	-
Less: Accrued interest payable	(207,372)	-	-
Less: Deposits	(157,069)	-	-
Less: Bonds payable, current	-	-	-
Less: Compensated absences, current	(367,284)	-	-
Less: Accrued Compensation Time	-	-	-
CALCULATED FUND BALANCE (ASSETS - LIABILITIES)	37,598,806	-	-
Plus/(Less): Equipment Replacement Fund Balance	(10,912,529)	-	10,912,529
Plus/(Less): Debt Service Reserve	(3,525,661)	3,525,661	-
Plus/(Less): Deferred Resources	(280,400)	-	-
NET UNRESTRICTED FUND BALANCE	22,880,216	3,525,661	10,912,529
Funds Encumbered or Reserved for Projects not in the CIP	-	-	-
AVAILABLE FUND BALANCE	22,880,216	3,525,661	10,912,529
Total Available Funds	\$ 37,318,406		

Source: FY 2017 Balance Sheet Listings

FINANCIAL ANALYSIS AND MANAGEMENT SYSTEM (FAMS) SUMMARY
The City of Ann Arbor (Water)

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cumulative Change	
Volume Charges	0.00%	2.60%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	FY 2022	FY 2027
Last Plan												27.35%	70.13%
Fixed Charges	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	Key Toggles/Scenarios	
Last Plan													
Rate Covenant	4.58	8.04	4.97	5.25	4.06	3.08	2.29	1.84	1.77	1.68	1.59		
Last Plan													
CIP \$ Redistribution	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
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		



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	\$ 20,786,605	20,786,605	21,177,479	22,217,557	23,311,635	24,462,570	25,673,374	26,947,219	28,287,445	29,697,572	31,181,306
3 Additional Rate Revenue From Growth	-	(91,981)	(91,000)	(92,700)	(94,435)	(96,207)	(98,017)	(99,866)	(101,754)	(103,682)	(105,653)
4 Proposed Water Rate Adjustments	0.00%	2.60%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
5 Additional Rate Revenue From Rate Adjustment	-	538,060	1,265,189	1,327,491	1,393,032	1,461,982	1,534,521	1,610,841	1,691,141	1,775,633	1,864,539
6 Price Elasticity Adjustment	-	(55,205)	(134,110)	(140,714)	(147,661)	(154,970)	(162,659)	(170,749)	(179,261)	(188,217)	(197,641)
7 Base Rate Revenue	\$ 2,081,166	2,081,166	2,081,166	2,227,498	2,383,898	2,526,932	2,678,548	2,839,261	3,009,616	3,190,193	3,381,605
8 Additional Rate Revenue From Growth	-	-	20,247	21,462	-	-	-	-	-	-	-
9 Proposed Water Rate Adjustments	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
10 Additional Rate Revenue From Rate Adjustment	-	-	126,085	134,938	143,034	151,616	160,713	170,356	180,577	191,412	202,896
11 Total Rate Revenue	\$ 22,867,771	23,258,645	24,445,055	25,695,533	26,989,502	28,351,922	29,786,480	31,297,062	32,887,765	34,562,911	36,327,052
12 Plus: Other Operating Revenues											
13 Other Operating Revenues	\$ 645,611	665,500	674,500	674,500	674,500	674,500	674,500	674,500	674,500	674,500	674,500
14 Equals: Total Operating Revenue	\$ 23,513,382	23,924,145	25,119,555	26,370,033	27,664,002	29,026,422	30,460,980	31,971,562	33,562,265	35,237,411	37,001,552
15 Less: Operating Expenses											
16 Personal Services	\$ (4,652,376)	(4,757,232)	(6,552,163)	(6,711,785)	(6,879,580)	(7,051,569)	(7,227,858)	(7,408,555)	(7,593,769)	(7,783,613)	(7,978,203)
17 Variable O&M	(2,544,404)	(2,124,190)	(2,233,632)	(2,294,101)	(2,351,453)	(2,410,240)	(2,470,496)	(2,532,258)	(2,595,565)	(2,660,454)	(2,726,965)
18 Fixed O&M	(7,145,576)	(6,898,025)	(6,471,277)	(6,628,191)	(6,793,895)	(6,963,743)	(7,137,836)	(7,316,282)	(7,499,189)	(7,686,669)	(7,878,836)
18 Equals: Net Operating Income	\$ 9,171,026	10,144,698	9,862,483	10,735,956	11,639,073	12,600,870	13,624,789	14,714,466	15,873,742	17,106,675	18,417,548
19 Plus: Non-Operating Income/(Expense)											
20 Non-Operating Revenue	\$ 112,288	558,200	2,902,200	2,902,200	265,200	265,200	265,200	265,200	265,200	265,200	265,200
21 Interest Income	374,628	453,291	493,822	489,891	482,580	482,277	524,167	571,639	614,896	643,940	675,032
22 Equals: Net Income	\$ 9,657,941	11,156,189	13,258,505	14,128,047	12,386,853	13,348,347	14,414,156	15,551,305	16,753,838	18,015,815	19,357,780
23 Cash Flow Test											
24 Net Income Available For Debt Service	\$ 9,657,941	11,156,189	13,258,505	14,128,047	12,386,853	13,348,347	14,414,156	15,551,305	16,753,838	18,015,815	19,357,780
25 Transfers In	1,402,891	1,440,905	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640
26 Transfers Out	(1,579,796)	(1,550,919)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)
27 Senior Debt Service	(2,110,262)	(1,387,228)	(2,665,716)	(2,690,764)	(3,051,812)	(4,335,623)	(6,304,130)	(8,466,421)	(9,487,411)	(10,694,086)	(12,187,811)
28 State Revolving Loans	(1,309,096)	(1,362,553)	(1,446,647)	(1,475,009)	(1,442,872)	(1,440,234)	(1,437,097)	(1,446,409)	(1,409,009)	(1,294,123)	(1,409,885)
29 CAPITAL OUTLAY	(689,462)	(811,875)	(529,160)	(541,860)	(555,406)	(569,291)	(583,524)	(598,112)	(613,065)	(628,391)	(644,101)
29 Net Cash Flow	\$ 5,372,216	\$ 7,484,519	\$ 8,630,059	\$ 9,433,491	\$ 7,349,841	\$ 7,016,277	\$ 6,102,483	\$ 5,053,441	\$ 5,257,431	\$ 5,412,292	\$ 5,129,062
30 Unrestricted Working Capital Reserve Fund Test											
31 Balance At Beginning Of Fiscal Year	\$ 22,880,216	22,973,938	20,286,207	16,278,167	10,380,061	8,012,464	8,212,776	8,418,095	8,628,548	8,844,261	9,065,368
32 Cash Flow Surplus/(Deficit)	5,372,216	7,484,519	8,630,059	9,433,491	7,349,841	7,016,277	6,102,483	5,053,441	5,257,431	5,412,292	5,129,062
33 Reserve Fund Balance Used for Cash Flow Deficit	-	-	-	-	-	-	-	-	-	-	-
33 Projects Paid with Cash	-	-	-	-	-	(579,637)	(1,319,254)	(734,342)	-	-	-
34 Projects Paid with Reserve Fund Balance	(5,278,494)	(10,172,250)	(12,638,100)	(15,331,596)	(9,717,438)	(6,236,328)	(4,577,909)	(4,108,646)	(5,041,717)	(5,191,186)	(4,902,428)
35 Balance At End Of Fiscal Year	\$ 22,973,938	20,286,207	16,278,167	10,380,061	8,012,464	8,212,776	8,418,095	8,628,548	8,844,261	9,065,368	9,292,002
36 Minimum Working Capital Reserve Target	7,171,178	6,889,723	7,628,536	7,817,038	8,012,464	8,212,776	8,418,095	8,628,548	8,844,261	9,065,368	9,292,002
37 Excess Working Capital Above Target	\$ 15,802,760	13,396,484	8,649,630	2,563,023	-	-	-	-	-	-	-

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	\$ -	-	-	-	-	579,637	1,319,254	734,342	-	-	-
Reserve Balance Funded	5,278,494	10,172,250	12,638,100	15,331,596	9,717,438	6,236,328	4,577,909	4,108,646	5,041,717	5,191,186	4,902,428
Bond Funded	-	-	206,000	636,540	7,933,928	26,143,435	34,186,361	34,883,370	27,299,046	12,050,822	30,389,077
Total Projects Paid	\$ 5,278,494	10,172,250	12,844,100	15,968,136	17,651,366	32,959,400	40,083,524	39,726,359	32,340,763	17,242,008	35,291,505
Total CIP Input	5,278,494	10,172,250	12,844,100	15,968,136	17,651,366	32,959,400	40,083,524	39,726,359	32,340,763	17,242,008	35,291,505
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	-	-	222,551	688,961	8,603,542	28,349,911	37,071,651	37,827,487	29,603,054	13,067,897	32,953,881
Uses of Funds											
Proceeds	-	-	206,000	636,540	7,933,928	26,143,435	34,186,361	34,883,370	27,299,046	12,050,822	30,389,077
Cost of Issuance	1.50% of Par	-	4,451	13,779	172,071	566,998	741,433	756,550	592,061	261,358	659,078
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	-	12,100	38,642	497,544	1,639,478	2,143,857	2,187,567	1,711,948	755,718	1,905,726
Other Costs											
Total Uses	\$0	-	222,551	688,961	8,603,542	28,349,911	37,071,651	37,827,487	29,603,054	13,067,897	32,953,881
1 Year Interest	\$0	-	7,789	25,836	344,142	1,133,996	1,482,866	1,513,099	1,184,122	522,716	1,318,155
Annual Debt Service	-	-	12,100	38,642	497,544	1,639,478	2,143,857	2,187,567	1,711,948	755,718	1,905,726
Total Debt Service	\$0	-	363,012	1,159,266	14,926,311	49,184,345	64,315,718	65,627,020	51,358,426	22,671,533	57,171,786
Cumulative Annual New Debt Service ⁽¹⁾	\$ -	-	7,789	37,936	394,884	1,682,283	3,670,630	5,844,721	7,703,311	8,753,852	10,305,010

(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>EQUIPEMENT REPLACEMENT FUND</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	136,000	164,000	191,000	218,000	218,000	218,000	218,000	218,000	218,000	218,000
Less: Interest Allocated to Cash Flow	(109,000)	(136,000)	(164,000)	(191,000)	(218,000)	(218,000)	(218,000)	(218,000)	(218,000)	(218,000)	(218,000)
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	\$ 22,880,216	22,973,938	20,286,207	16,278,167	10,380,061	8,012,464	8,212,776	8,418,095	8,628,548	8,844,261	9,065,368
Additional Annual Revenues	5,372,216	7,484,519	8,630,059	9,433,491	7,349,841	7,016,277	6,102,483	5,053,441	5,257,431	5,412,292	5,129,062
Less: Cash-Funded Capital Projects	-	-	-	-	-	(579,637)	(1,319,254)	(734,342)	-	-	-
Less: Payment of Debt Service	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 28,252,432	30,458,457	28,916,267	25,711,658	17,729,902	14,449,104	12,996,005	12,737,194	13,885,979	14,256,554	14,194,430
Less: Minimum Fund Balance	(7,171,178)	(6,889,723)	(7,628,536)	(7,817,038)	(8,012,464)	(10,513,048)	(10,775,874)	(11,045,271)	(11,321,402)	(11,604,437)	(11,894,548)
Total Amount Available for Projects	\$ 21,081,254	23,568,734	21,287,730	17,894,619	9,717,438	3,936,057	2,220,131	1,691,923	2,564,577	2,652,116	2,299,882
Amount Paid for Projects	(5,278,494)	(10,172,250)	(12,638,100)	(15,331,596)	(9,717,438)	(6,236,328)	(4,577,909)	(4,108,646)	(5,041,717)	(5,191,186)	(4,902,428)
Subtotal	\$ 15,802,760	13,396,484	8,649,630	2,563,023	-	(2,300,272)	(2,357,778)	(2,416,723)	(2,477,141)	(2,539,069)	(2,602,546)
Minimum Fund Balance	7,171,178	6,889,723	7,628,536	7,817,038	8,012,464	10,513,048	10,775,874	11,045,271	11,321,402	11,604,437	11,894,548
Plus: Interest Earnings	229,271	270,376	274,233	233,259	183,925	162,252	166,309	170,466	174,728	179,096	183,574
Less: Interest Allocated to Cash Flow	(229,271)	(270,376)	(274,233)	(233,259)	(183,925)	(162,252)	(166,309)	(170,466)	(174,728)	(179,096)	(183,574)
Balance at End of Fiscal Year	\$ 22,973,938	20,286,207	16,278,167	10,380,061	8,012,464	8,212,776	8,418,095	8,628,548	8,844,261	9,065,368	9,292,002