

STAFF REPORT FOR

The

REVENUE REQUIREMENTS TO
CAPITALIZE the IMPROVEMENT and OPERATION and
MAINTENANCE PROGRAM

For



METROPOLITAN SEWER SUB-DISTRICT
120 AUGUSTA ARBOR WAY
GREENVILLE, SC 29605

**CAPITAL IMPROVEMENT and OPERATION and MAINTENANCE
PROGRAM REVENUE REQUIREMENTS**

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SUMMARY AND RECOMMENDATION

EXECUTIVE SUMMARY

Purpose

The purpose of this report is to compile and document information regarding the need of the Metropolitan Sewer Sub-District (MSSD) to impose “Sewer Service Fees” in order to provide revenue for MSSD to continue to maintain and rehabilitate their existing assets as they are identified in the MSSD Capital Improvements Program. The goal is for MSSD to continue to be a viable entity with the financial ability to provide a good level of service to protect the assets of the customers.

Recommendation

Through the analysis of MSSD’s normal operations and maintenance cost and the cost associated with the sewer rehabilitation projects as determine by the Capital Improvement Program, it has been determined that maintaining the sewer system in good operating condition has been depleting MSSD’s reserve funds and will lead to shortfalls in funding future programs.

The analysis of recently completed capital improvements show that tax paid (historically) by the users is not enough to fund O&M and rehabilitation cost. As example for current year 2010-2011 budget:

TAX REVENUE = \$4,410,870 O&M and REHABILITATION = \$5,472,514

The reports recommendation to generate revenue to fund the programs needed to maintain the sewer system will come from an annual sewer service fee in addition to the annual operating millage imposed on real estate tax.

The Sewer Service Fee schedule is attached in Exhibit A, Metropolitan Sewer Sub-District Sewer Service Fees. The fee structure recommended to be adopted is based on the Greenville County Land Use Definitions. An example taken from the fee structure shows residential customers start at \$38.00 per parcel for a category SF-10, Residential Mobile Home with land to a fee of \$64.60 for a category SF-14, Residential Single Family (Mkt. Value > \$500,000). Codes run from SF-10 to SF-30.

INTRODUCTION

History

The Metropolitan Sewer Sub-District (MSSD) is a special purpose district created by the State Legislature in 1969 to operate and maintain sanitary sewer facilities within a growing Greenville County. MSSD serves approximately 58,950 customers with more than 602 miles of sanitary sewer collector lines with service laterals, 9 pump stations and 10 miles of force main, see Exhibit B. This collection system transports wastewater from area homes and businesses to Renewable Water Resources (ReWa), formerly known as Western Carolina Regional Sewer Authority, trunk lines and wastewater treatment plants. MSSD's 161 square mile service area extends from northern Greenville County in the Travelers Rest area to the southern portions of the county, and east and west to the Greenville County line. MSSD cooperates with the Environmental Protection Agency (EPA), South Carolina Department of Environmental Control (SCDHEC), Renewable Water Resources (ReWa) and all municipalities and other special purpose districts in the provision of sewer facilities throughout Greenville County. MSSD is governed by a five person Commission appointed by the Governor of South Carolina. We currently have 29 employees.

Office

Metropolitan Sewer Sub-District maintains an office and maintenance shop within Donaldson Industrial Center in southern Greenville County. The physical address and contact phone numbers are:

Metropolitan Sewer Sub-District
120 Augusta Arbor Way
Greenville, SC 29605

Phone: (864) 277-4442
Fax (864) 277-4272

An after hours emergency response protocol has phone messages received at the office number, recorded and transmitted to the on call employee who returns calls and responds to emergencies immediately.

PROCEDURE

Management of Sanitary Sewer Collection System

Beginning in 1995, MSSD initiated a proactive approach towards operation and maintenance of its existing infrastructure. MSSD developed inspection and assessment programs, and began to rehabilitate under the Capital Improvement Program (CIP) the critical areas of the system to eliminate reoccurring problems and improve service for its customers.

MSSD performs proactive operations and maintenance activities system wide to maximize the useful life and capacity of the sanitary sewer collection system and has maintained a performance of proactive man hours at 98 percent since the early 2000's, see Exhibit C. All aspects of MSSD's management of capacity, operations and maintenance are evaluated yearly utilizing performance based standards. MSSD staff provides all routine pipeline operations, maintenance, and system evaluation.

MSSD's inspection and assessment programs identify necessary rehabilitation of the sewer system, including the 6-inch service lateral located within the public right-of way or within MSSD's pipeline right-of-way connecting the property served to the main sewer pipeline. The CIP rehabilitation repairs address problems such as:

- roots growing within the pipe system which create blockage of sewer flow possibly resulting in sewer back-ups and sanitary sewer overflows,(SSO's)
- repair of damaged pipes from other utility construction such as directional drilling
- failing materials and sagging pipes grades
- removal of inflow and infiltration (extraneous groundwater entering the systems impacting available pipe capacity and treatment costs).

Problems in need of immediate repair are completed with MSSD's Find and Fix Program utilizing the Yearly Maintenance Contract. This contract also responds to MSSD's emergency construction needs.

The yearly cost of the CIP has averaged near \$2,000,000 over the last 5 years:

<u>2006-2007</u>	<u>2007-2008</u>	<u>2008-2009</u>	<u>2009-2010</u>	<u>2010-2011</u>
\$1,726,762	\$1,824,544	\$1,813,571	\$1,904,000	\$1,968,086

Capital Improvement Program

MSSD's Capital Improvement Program (CIP) is a targeted approach to complete rehabilitation identified by the inspection and assessment program, see Exhibit D. MSSD is currently working through the sewer system performing inspection, assessment and rehabilitation on the oldest portions of the systems. Once system deficiencies are identified in the area being reviewed they are prioritized and the higher priority deficiencies are targeted for repair.

The CIP rehabilitation projects completed to date are improvements on portions of the sewer system ranging in age from 60 to 30 years old originally constructed with clay pipe. MSSD current sewer system inventory has approximately 220 miles of clay pipe or approximately one third of the system is clay pipe.

We estimate, based on past performance, current staff size and MSSD's ability to complete approximately \$2,000,000 per year in construction for Capital Improvements, it will take a minimum of nineteen (19) years to complete targeted rehabilitation of high priority deficiencies within the clay pipe portion of the system (178 miles of remaining clay pipe x 5280 ft/mile X \$40/ft average cost to repair/replacement ÷ \$2,000,000/yr budgeted for CIP = 18.8 years). Targeting higher priority deficiencies allows MSSD to inspect and repair more miles of sanitary sewer pipeline per year as opposed to doing comprehensive repairs of all deficiencies on the system. Only the deficiencies that impact performance of the sewer system are repaired. As we proceed through the next ten years, lower priority deficiencies of the past will become high priority deficiencies of the future and will require additional rehabilitation projects to maintain the service level.

Planning

MSSD's current revenue is received from ad valorem property tax millage collected by Greenville County for properties within the district, connection permit fees and new development fees. MSSD millage rate is currently 5.7 and the millage rate can only be increased by written approval of Greenville County Council passed by resolution and is capped by Consumer Price Index (CPI) and growth. MSSD has completed a long-range plan that identifies the necessity for additional revenue to enable us to continue to maintain our assets at the current operating level for our customers. Through this long range planning MSSD has operated to date without incurring debt and proposes to continue operating as a "pay as you go" entity. The information gained over the past 15 years of operation of the system support an increase in revenue to maintain the current level of service.

REVENUE ANALYSIS

Current Financial Status

Reviewing the operating budget projections with revenue generated by the real estate tax millage rate shows the CIP program begins depleting MSSD's reserve fund by budget year 2010-2011 see Exhibit E. MSSD has established a target reserve fund of 115% of operating and capital expenditures for catastrophic situations. By 2010-2011 the reserve fund will dip below the target 115% and will deplete all reserve funds by 2016-2017.

Without additional income, MSSD will have to significantly reduce its funding of the CIP and therefore jeopardize its ability to continue to maintain the system in good operating condition.

Sewer Fee Analysis

MSSD performed an analysis on operation, maintenance and rehabilitation costs incurred since the initial construction of six subdivisions representing a cross section of home values within the district where targeted rehabilitation construction has been completed, see Exhibit F. The total revenue received from the subdivisions was compiled from the tax revenue collected from the parcels for each subdivision. This information was compared to the cost of the operation, maintenance and rehabilitation of those sewer systems. The total cost incurred by MSSD for the operation, maintenance and rehabilitation of the six subdivisions was estimated to be approximately \$4.3 million and the revenue received was estimated to be \$2.1 million resulting in a net loss of approximately \$2.2 million. This net loss concurs with the long range plan and confirms that MSSD will require an increase in revenue to continue providing service to our customers and maintain our current assets.

Selected Option

MSSD reviewed options for the collection of additional revenue and has determined that imposing a "Sewer Service Fee" to be billed and collected annually through the Greenville County Tax Office would be the most practical way to receive the additional revenue. The sewer service fee is not a tax and will only be charged to customers who are connected to the MSSD sanitary sewer system and will be charged on the annual real estate tax bill distributed at the end of the calendar year.

Sewer Service Fee Schedule

MSSD's customer base is primarily single family residential homes. A sample of water use records for residential users within the district was analyzed and the results showed that, on average, water use increases with home size. The graph (Exhibit G) indicates that larger homes, on average, use more water and therefore produce more sewage flow.

The Greenville County Land Use Classification Definitions and Code Information was used to establish a Sewer Service Fee schedule. The single family residential land use code was expanded to 5 fee levels where the fee was prorated based on the water use analysis. The base single family residential fee is \$38. Other residential land use codes were set up as follows:

- For duplexes, multiplexes, apartments, and mobile home parks, the fee is based on the number of units times the base residential fee.
- For nursing homes, and assisted living facilities, the fee is based on half of the base residential fee times the number of rooms.
- Commercial land use codes consisting of hotels, motels, high rise office buildings, restaurants, schools, and hospitals were grouped together. All of these types of buildings typically produce the high sewer flows.
- Three groups of commercial codes and one industrial group was created in the fee schedule.

The sewer fee schedule is attached as Exhibit A.

SUMMARY & RECOMMENDATION

Summary:

- MSSD has determined that maintaining the sewer system in good operating condition; which minimizes the number of SSO's and sanitary sewer backups, and prevents reoccurring problems; requires a proactive capital improvement program.
- The annual cost of MSSD's capital improvement program has been depleting MSSD's reserve funds (Exhibit E) and will lead to shortfalls in funding in the future unless additional revenues are received.
- An analysis of recently completed capital improvement projects (Exhibit F) shows that the total (historical) taxes paid by the users of those systems is not enough to fund operation and maintenance costs, and the rehabilitation cost necessary to maintain and extend the life of the system in good operating condition.

Conclusion 1 – Additional funding is necessary in order to continue to provide good service to the users of the system. Exhibit H shows the Budget Projections with the additional Sewer Service Fee applied and the recommended expenditures of \$2,000,000 per year for Capital Improvement Projects.

- The MSSD Commission has added appropriate fees for development and new connections to increase revenue and has gone to County Council and received small tax increase, but the maximum allowed.
- The additional fees and tax increase do not provide the needed additional revenue to continue the capital improvement program.

Conclusion 2 – The additional revenue will need to come from a source other than taxes.


- The MSSD Commission determined that adding a fee to either a tax notice or water bill was a method to collect the Sewer Service Fee. Due to the high cost of utilizing GWS billing to obtain the fee, the Commission elected to utilize real estate tax notices as the method to obtain the Sewer Service Fee.
- The MSSD Commission considered who to charge. Options were all customers, customers with access to sewer and customers connected to the sewer system (users). The Commission elected to charge just the users.
- Since water use information was not available, options discussed for the type of fee included a single fee, fees based on a percentage of the property values, and fees based on the land use codes utilized by Greenville County. The Commission elected to utilize land use codes.

- Due to the large amount of land use codes, staff created groups of land use codes. The groups were based on the anticipated sewer flow that would come from a type of development that would occur under that land use. For example hotels, schools, laundries, restaurants, and gyms are facilities that typically produce significantly higher sewage flows than banks, warehouses, offices, and retail stores.
- Within the single family residential land use code, which represents the largest percentage of MSSD customers, an additional categorization was created based on property value. A sample of water use records for residential users within the district was analyzed and the results showed that, on average, water use increases with property value. The single family residential land use code was expanded to 5 fee levels where the fee was prorated based on the water use analysis.

Recommendation

It is the recommendation of the Staff's Report based on available information and the facts drawn from MSSD's project records and projected budgets that the Metropolitan Sewer Commission adopts the Proposed Sewer Service Fee Schedule as outlined in Exhibit A of this report.

EXHIBIT A

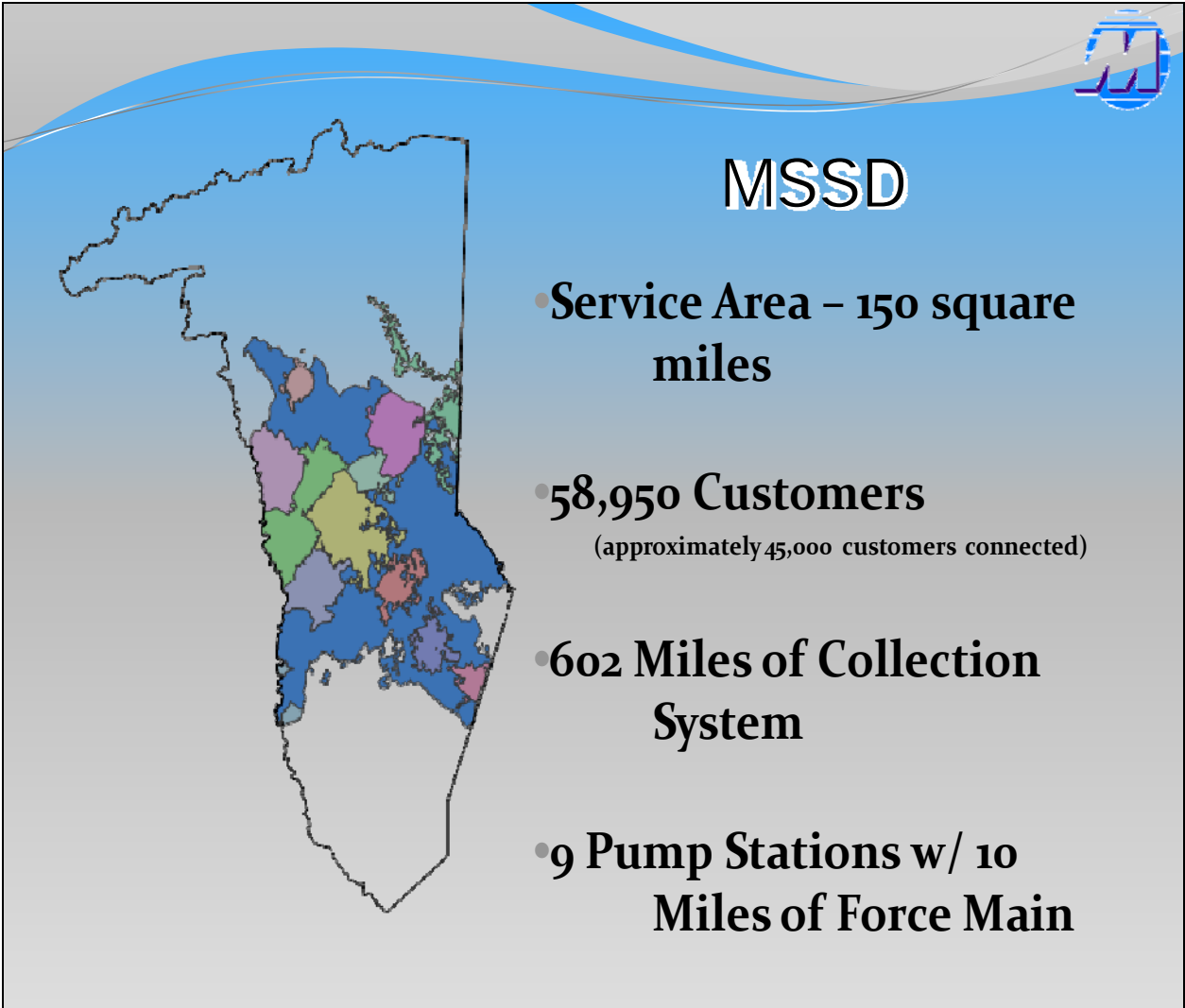


PROPOSED SEWER FEE

Exhibit A

Fee Code	Connected Customers No.	Unit	Fee	Sub Total
SF-10	5,078	parcel	\$38.00	\$192,964
SF-11	17,531	parcel	\$45.60	\$799,414
SF-12	7,918	parcel	\$53.20	\$421,238
SF-13	3,622	parcel	\$60.80	\$220,218
SF-14	871	parcel	\$64.60	\$56,267
SF-15	7,420	units	\$38.00	\$281,960
SF-16	850	rooms	\$19.00	\$16,150
SF-20	171	parcel	\$750.00	\$128,250
SF-21	132	parcel	\$625.00	\$82,500
SF-22	1,149	parcel	\$500.00	\$574,500
SF-30	92	parcel	\$1,000.00	\$92,000
Subtotal - Sewer Fees				\$2,900,000
Add-on for Taxes within Cities				\$100,000
Total - Sewer Fees				\$3,000,000

EXHIBIT B



MSSD Service Area is in dark blue

EXHIBIT C

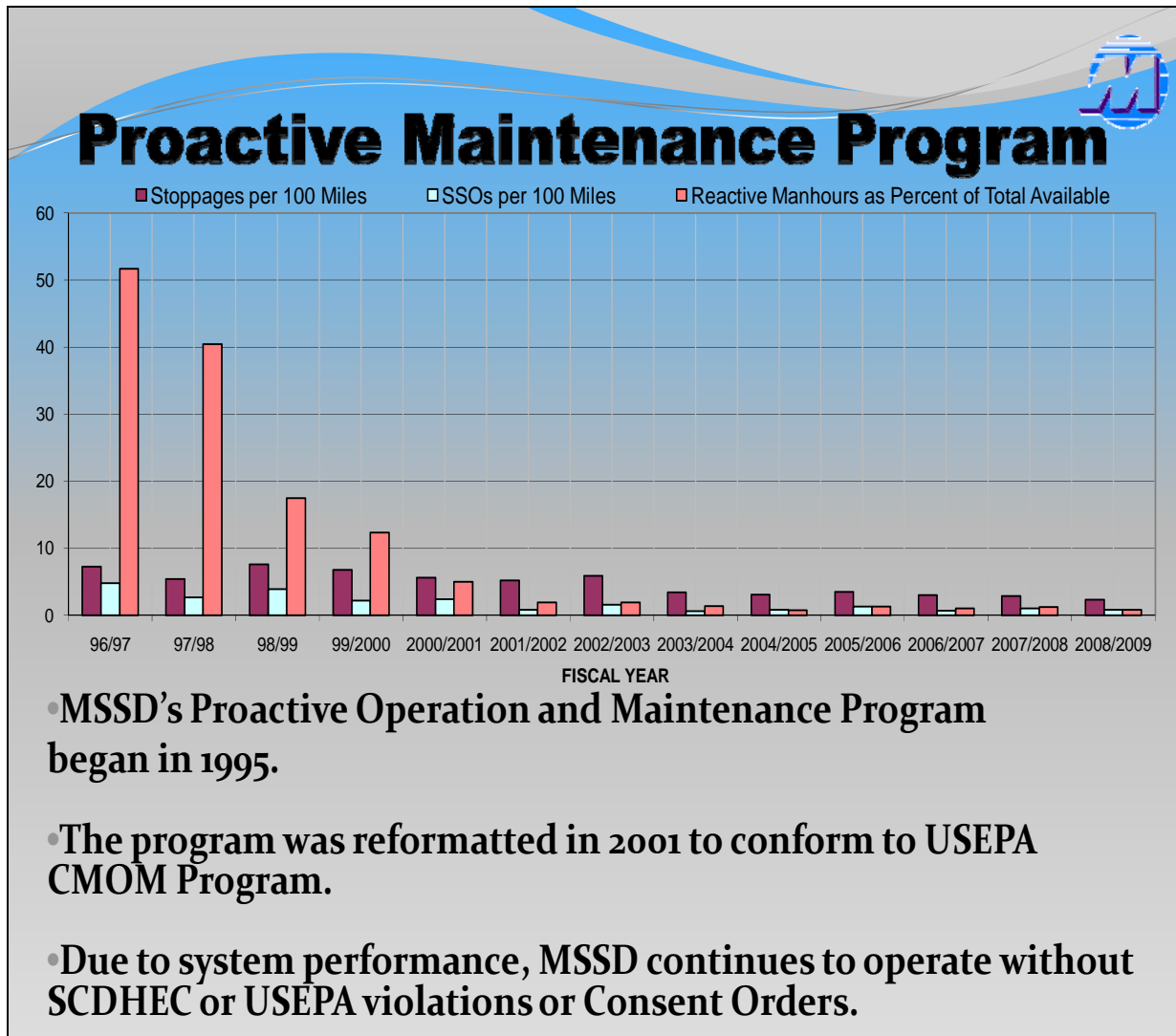
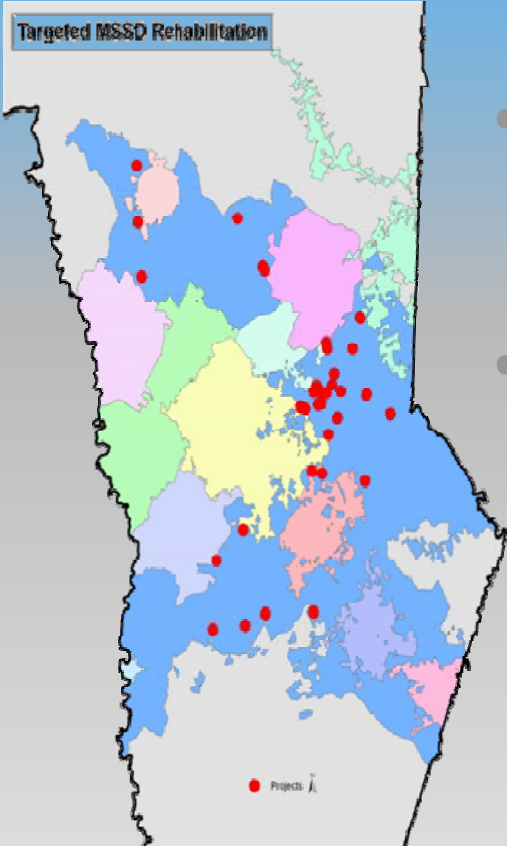


EXHIBIT D



The map, titled "Targeted MSSD Rehabilitation", shows the geographical outline of Mississippi. The state is divided into numerous colored regions, including shades of blue, pink, green, yellow, and purple. Numerous red dots are scattered across the map, representing individual rehabilitation projects. A legend at the bottom of the map shows a red dot next to the text "Project J".


Rehabilitation Program

- MSSD has completed over \$12.5 million in rehabilitation in the last 10 years.
- Our program has identified the need to continue our Rehabilitation at a rate of \$2 million per year.

EXHIBIT E

	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
10 YEAR BUDGET PROJECTION											
(PRESENT BUDGET)											
Total Projected Revenue	4,329,000	4,410,870	4,494,346	4,579,459	4,666,242	4,754,728	4,844,951	4,936,946	5,030,747	5,126,390	5,223,913
Prior Year Reserve Fund	8,589,293	7,271,236	6,209,591	5,175,839	3,966,499	2,817,865	1,635,982	501,643	(809,637)	(2,207,630)	(3,457,418)
Total Available Funds	12,918,293	11,682,106	10,703,937	9,755,298	8,632,741	7,572,592	6,480,933	5,438,588	4,221,110	2,918,760	1,766,495
Total Operating Expense	3,070,607	3,172,514	3,278,098	3,388,798	3,504,877	3,626,610	3,754,290	3,888,225	4,028,740	4,176,178	4,330,901
Capital Improvement Proj	1,904,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Capital Expenditures	672,450	300,000	250,000	400,000	310,000	310,000	225,000	360,000	400,000	200,000	300,000
	2,576,450	2,300,000	2,250,000	2,400,000	2,310,000	2,310,000	2,225,000	2,360,000	2,400,000	2,200,000	2,300,000
Total Operating & Capital Expenses	5,647,057	5,472,514	5,528,098	5,788,798	5,814,877	5,936,610	5,979,290	6,248,225	6,428,740	6,376,178	6,630,901
Reserve Fund	7,271,236	6,209,591	5,175,839	3,966,499	2,817,865	1,635,982	501,643	(809,637)	(2,207,630)	(3,457,418)	(4,864,405)
Target Reserve Fund (115%)	6,494,116	6,293,391	6,357,313	6,657,118	6,687,108	6,827,102	6,876,184	7,185,459	7,393,051	7,332,604	7,625,536
Reserve v/s Target Fund Variance	777,120	(83,800)	(1,181,474)	(2,690,618)	(3,869,244)	(5,191,119)	(6,374,541)	(7,995,096)	(9,600,682)	(10,790,022)	(12,489,941)

EXHIBIT F



COST OF SERVICE

Subdivision Name	System Age	No. of Parcels	Mean Value	Tax Collected	O&M Costs*	Rehab Costs	Total	Net	Avg. Tax Paid/Parcel/Yr	Fee Req'd /Parcel/Yr.	Avg. Contribution Req'd./Parcel/ Yr.	
					Total	Total	Cost	Loss				
River Downs	35	135	\$201,000	\$205,141	\$65,000	\$290,496	\$355,496	\$150,355	\$43	\$32	\$75	
Sunny Slopes	39	214	\$67,100	\$120,964	\$186,989	\$569,754	\$756,743	\$635,779	\$14	\$77	\$91	
Idlewild	27	178	\$61,200	\$63,531	\$99,329	\$533,302	\$632,631	\$569,100	\$13	\$119	\$132	
Westminster	32	91	\$107,000	\$67,302	\$41,350	\$276,105	\$317,455	\$250,153	\$23	\$86	\$109	
Coachman Estates	38	74	\$74,600	\$45,311	\$57,252	\$171,930	\$229,182	\$183,871	\$16	\$66	\$82	
Sugar Creek	36	817	\$251,000	\$1,594,601	\$376,431	\$1,598,684	\$1,975,115	\$380,514	\$54	\$13	\$67	
					\$2,096,850	\$826,351	\$3,440,271	\$4,266,622	\$2,169,772	\$27	\$65	\$93

Average cost to maintain and rehab 30+ year system

EXHIBIT G

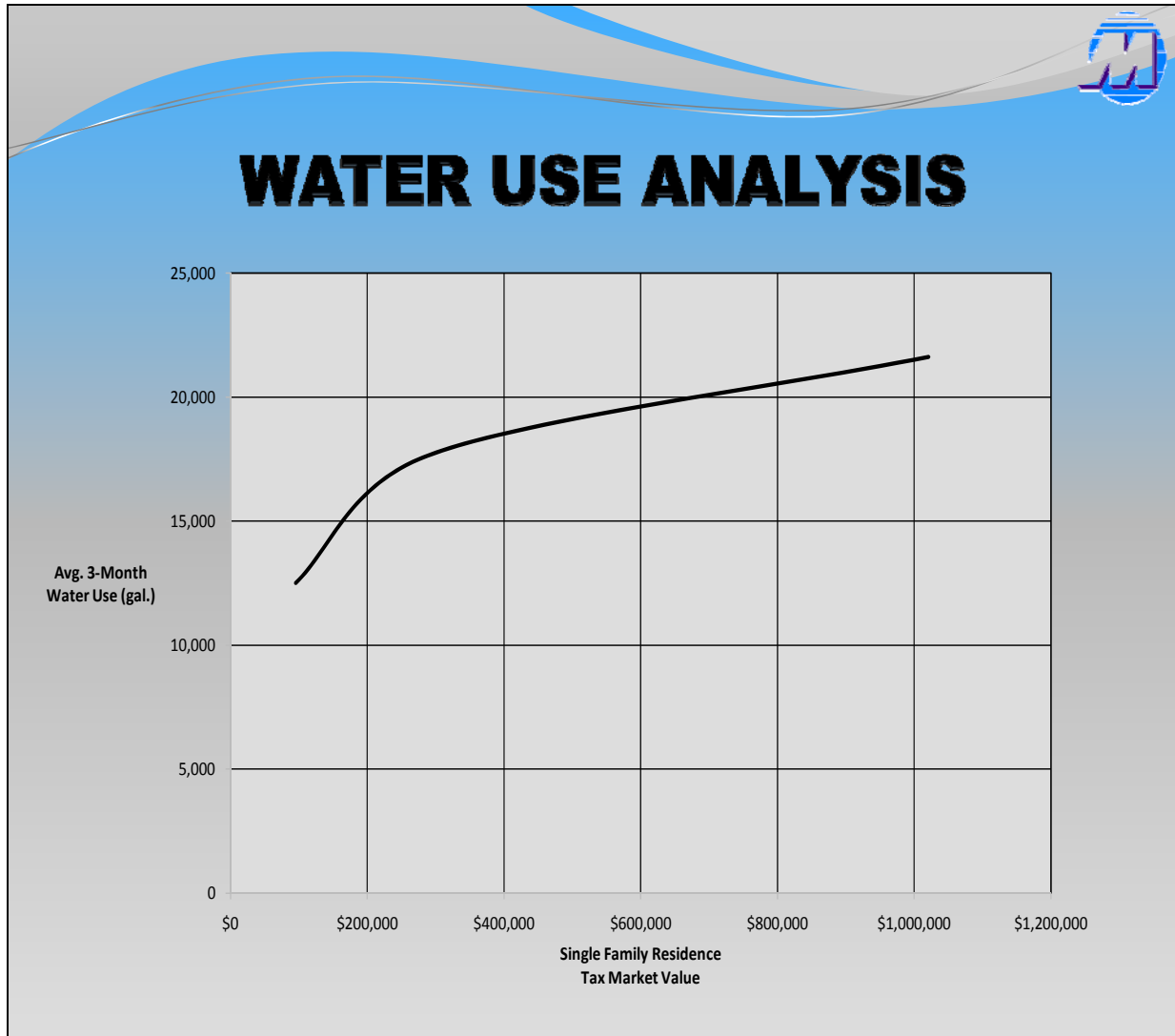



EXHIBIT H



10 YEAR BUDGET PROJECTION

(WITH SEWER FEE)

	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Total Projected Revenue	4,329,000	4,410,870	4,494,346	4,579,459	4,666,242	4,754,728	4,844,951	4,936,946	5,030,747	5,126,390	5,223,913
Sewer Fee Revenue		3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Prior Year Reserve Fund	8,589,293	7,271,236	7,709,591	8,175,839	7,966,499	7,817,865	7,635,982	7,501,643	7,190,363	6,792,370	6,542,582
Total Available Funds	12,918,293	14,682,106	15,203,937	15,755,298	15,632,741	15,572,592	15,480,933	15,438,588	15,221,110	14,918,760	14,766,495
Total Operating Expense	3,070,607	3,172,514	3,278,098	3,388,798	3,504,877	3,626,610	3,754,290	3,888,225	4,028,740	4,176,178	4,330,901
Capital Improvement Proj	1,904,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Capital Expenditures	672,450	300,000	250,000	400,000	310,000	310,000	225,000	360,000	400,000	200,000	300,000
Capital Expansion & Upgrade Project		1,500,000	1,500,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
	2,576,450	3,800,000	3,750,000	4,400,000	4,310,000	4,310,000	4,225,000	4,360,000	4,400,000	4,200,000	4,300,000
Total Operating & Capital Expenses	5,647,057	6,972,514	7,028,098	7,788,798	7,814,877	7,936,610	7,979,290	8,248,225	8,428,740	8,376,178	8,630,901
Reserve Fund	7,271,236	7,709,591	8,175,839	7,966,499	7,817,865	7,635,982	7,501,643	7,190,363	6,792,370	6,542,582	6,135,595
Target Reserve Fund (115%)	6,494,116	6,293,391	6,357,313	6,657,118	6,687,108	6,827,102	6,876,184	7,185,459	7,393,051	7,332,604	7,625,536