City of Manteca

Water Rate Study

FINAL REPORT

September 30, 2008

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I. EXECUTIVE SUMMARY

INTRODUCTION

The City of Manteca (City) provides potable water service to the residents, businesses and industries within the City. The cost of the water service is recovered primarily through the water rates. It has been the City's practice to review the factors contributing to the cost of water and evaluate the rates and charges every five years. The last five-year rate plan projected water rates through the year 2007. Water rates were adjusted for inflation (based on the CPI) in January 2008. This water rate study presents estimates of the cost of water service for the period FY 08-09 through FY 15-16, and includes water rate recommendations through FY 12-13.

The purpose of this water rate study is to develop a financial plan consistent with the utility's capital improvement plan and to present five-year water rate recommendations. The water rate study has been prepared by The Reed Group, Inc. working as a subcontractor to Kennedy/Jenks Consultants, the City's engineering consultant.

The primary objective of the water rate study is to develop a financial plan and rate strategy that (1) generates sufficient revenue to meet current and future operating costs, debt obligations, and capital program needs, (2) meets cost of service standards for fair, equitable, and reasonable rates and fees, and (3) attempts to minimize required rate increases during the planning period.

The City is participating in the South San Joaquin Irrigation District's (SSJID) South County Water Supply Program (SCWSP) to deliver treated surface water to the City in order to supplement the existing groundwater supply. The SCWSP project provides additional water supply reliability and helps reduce over-pumping of the groundwater basin.

The existing groundwater supply is provided through a network of wells belonging to the City. Arsenic, a naturally occurring mineral contaminant in the groundwater, exceeds relatively new US Environmental Protection Agency (USEPA) Drinking Water Standards and the City is incurring significant costs to meet current standards. This water rate study includes the estimated cost of compliance for arsenic treatment as identified in the City's *2005 Water Master Plan*[1].

The *2005 Water Master Plan* evaluated the City's existing water system and considered infrastructure conditions, water supply availability, water quality requirements, and planned growth. The *2005 Water Master Plan* presents alternative approaches to meeting the ongoing demand for a safe and reliable water system based on the findings of the evaluation and provides recommendations as to how to proceed with capital improvement planning.

[1] *2005 Water Master Plan*, City of Manteca, prepared by Kennedy/Jenks Consultants, May 2005.

The findings of this water rate study are that water rate increases are required to adequately fund the City's water utility. Three factors are driving the need to increase water rates and over the next several years. These are:

- Significant capital improvement costs to rehabilitate and upgrade the water system including groundwater treatment, pipeline replacement, surface and groundwater blending facilities, and other water system improvements.
- Costs associated with debt service obligations primarily associated with South San Joaquin Irrigation District's (SSJID) South County Water Supply Project (SCWSP), and
- Increased operating costs related to surface water purchases, increased groundwater production/treatment costs, staff costs, and other operating and maintenance costs.

This water rate study includes the following major elements:

- *A Multi-Year Financial Plan* – Section II of this report presents a multi-year financial plan for the water utility. The plan reflects current and estimated future operating and maintenance costs, debt service obligations, and capital improvement needs through FY 15-16 (consistent with the capital improvement program). The plan also reflects estimates of revenues, including water rates and water system development fees that support the water utility. The plan provides the City a multi-year look at the financial requirements of meeting customers' water service needs.
- *Water Rates* – Section III of this report presents cost of service analysis and water rate recommendations for FY 08-09 through FY 12-13, with rate adjustments each January. Rates have been calculated consistent with the revenue requirements determined by the financial plan analyses presented in Section II.
- *Water System Development Fees* – Section IV of this report presents a new surface water capital fee and proposes updates to the existing surface water fee (now called the surface water debt fee) and meter installation fee. The City is eliminating the water capacity charge for Zone 11; the water PFIP for Zone 12 is not addressed in this study. The surface water debt fee includes a proportionate share of past costs associated with financing the portions of the SCWSP attributable to meeting the demands created by new development. The proposed meter installation fee reflects the cost of installing a water meter on each new connection. The proposed surface water capital fee reflects the estimated cost of future capital improvements to be made to the SCWSP facilities.

FIVE-YEAR FINANCIAL PLAN FINDINGS

In June 2003 the City of Manteca issued $43.325 million in water revenue bonds to finance the City's portion of Phase I of SSJID's SCWSP. Prior to the issuance of bonds the City adopted a five-year rate plan and water system development fees to ensure the utility could meet financial obligations associated with ongoing operation and maintenance costs, debt obligations, and capital improvement needs. Those actions have proved beneficial for the City and water service

customers alike. At this time, the City is considering adopting another five-year rate plan to address future needs.

As of the beginning of FY 07-08 the water system had nearly $32.5 million available for capital improvements. These funds include remaining debt proceeds, water system development fee revenues, and other funds (exclusive of operating and rate stabilization reserves). The capital improvement program, however, totals about $49.1 million through FY 15-16. Therefore, while a significant portion of planned capital improvement projects can be financed with existing reserves, additional funds will be needed to complete all the projects in the capital improvement program.

Financial plan analyses indicate that the City should be able to fund the capital improvement program through FY 15-16 without the issuance of new debt. Revenues from water rates and water system development fees, as well as available reserves, should be sufficient to complete the planned capital program with modest annual water rate and fee increases.

Because of the recent slow down in the overall economy and in particular the housing industry, the financial plan uses fairly conservative assumptions for new growth and development for the next five years. Ongoing revenues from water rates and water system development fees should be sufficient to meet operating and maintenance, debt service, and capital program needs. The City has applied water system development fees (surface water fees) towards the repayment of a portion of annual debt service payments related to the 2003 Water Revenue Bonds.

Section IV of this report includes recommendations for increasing the surface water fees (as well as meter installation fees). Nevertheless, with the slowdown in the economy surface water fee revenues may be insufficient to cover the annual debt service payments that are historically covered with fee revenue. Because the City has pledged all water utility revenue to the repayment of debt, other revenues (or reserves in Fund 68) may need to be called upon to meet the City's debt obligations. The City should closely monitor surface water fee revenue relative to debt obligations.

To support the water rate study, the financial planning model was updated and extended to estimate annual water rate revenue requirements. The financial plan reflects the operating and maintenance, capital improvement program, and debt service obligations of the water utility for through FY 15-16. It also reflects financial reserve policies and related financial issues. Highlights of the financial plan include:

- Operating and rate stabilization reserves will generally be maintained by the water utility throughout the planning period. Reserves protect the utility's financial stability, reduce the risk of unplanned future rate increases, and should eliminate the need for additional long-term debt during the planning period.
- The combination of proposed water rates and water system development fees should ensure that existing and new customers are each responsible for the estimated costs of providing service.
- Operating costs of providing water service are expected to increase as the City utilizes new groundwater treatment facilities and increased amounts of surface water. Other

operating costs for distribution system maintenance, customer service, and other functions are expected to remain relatively stable, although several new staff positions have been proposed by City staff.

- To meet financial obligations anticipated over the planning period, the City will need to annually increase water rates.
- Annual water utility revenues will vary depending on the pace and level of new development. The financial plan assumes a 1.0 percent annual growth rate for the next five years, followed by a more historical pattern of about 2.93 percent annually.
- In order to meet estimated financial obligations for ongoing operations, debt service, and the capital improvement program the overall level of water rates should be increased as shown below:
  - January 2009 5%
  - January 2010 5%
  - January 2011 5%
  - January 2012 5%
  - January 2013 5%

WATER RATE RECOMMENDATIONS

In order to meet its financial obligations for the next five years, the City will need to increase water rates. Proposed water rate schedules for the next five years are presented in **Exhibit I-1** and begin in January 2009. In order to meet requirements for water conservation[2], it is proposed that the City gradually decrease the fixed monthly service charges while increasing water use rates for the next three years. In addition to providing a stronger incentive for water conservation, the proposed changes should also help minimize water bills for basic water service.

The proposed gradual changes to the water rate structure (occurring from January 2009 through January 2011) is intended to increase the portion of water rate revenues generated from water use charges from about 58 percent of water rate revenues to 70 percent of water rate revenue. Many, if not most, of the City's water service customers will benefit from this change in the water rate structure, in that their annual cost for water service may be less than without the proposed changes to the rate structure.

[2] Section III of this report discusses the requirements of the California Urban Water Conservation Council's new requirements for Best Management Practice #11 regarding water conservation water rates.

Exhibit I-1
City of Manteca -- Water Utility
Current and Proposed Schedule of Water Rates

	Effective 1/1/2008	Proposed 1/1/2009	Proposed 1/1/2010	Proposed 1/1/2011	Proposed 1/1/2012	Proposed 1/1/2013
Fixed Monthly Service Charges						
5/8' x 3/4" meter	$ 20.25	$ 19.95	$ 18.50	$ 17.15	$ 18.00	$ 18.90
1" meter	$ 31.40	$ 30.80	$ 28.60	$ 26.50	$ 27.85	$ 29.25
1 1/2" meter	$ 58.73	$ 57.65	$ 53.55	$ 49.65	$ 52.15	$ 54.75
2" meter	$ 91.83	$ 90.00	$ 83.60	$ 77.55	$ 81.45	$ 85.50
3" meter	$ 169.05	$ 165.60	$ 153.85	$ 142.70	$ 149.85	$ 157.35
4" meter	$ 279.32	$ 273.50	$ 254.10	$ 235.80	$ 247.60	$ 260.00
6" meter	$ 554.67	$ 543.05	$ 504.60	$ 468.20	$ 491.60	$ 516.20
8" meter	$ 885.18	$ 866.70	$ 805.30	$ 747.25	$ 784.60	$ 823.85
Water Use Charge ($/HCF) (1)						
Block 1	$ 0.96	$ 1.03	$ 1.16	$ 1.29	$ 1.36	$ 1.43
Block 2	$ 1.26	$ 1.35	$ 1.53	$ 1.70	$ 1.78	$ 1.87
Block 3 (3)	$ 2.53	$ 2.72	$ 3.06	$ 3.41	$ 3.58	$ 3.76

Block 1 and Block 2 Limits (in HCF)

	Block 1 Limit	Block 2 Limit
5/8' x 3/4" meter	20	300
1" meter	30	300
1 1/2" meter	60	300
2" meter	90	300
3" meter	180	300
4" meter	280	300
6" meter	340	(2)
8" meter	520	(2)

Notes:

(1) HCF = 100 cubic feet = 748 gallons
(2) Usage above the Block 1 Limit will trigger the Block 3 water usage charge.
(3) Water used for construction purposes shall be charged at the Block 3 water use charge.

Average monthly water bills for typical single family residential customers (based on 24 HCF of water use[3]) will be:

Current	$44.49
January 2009	$46.00
January 2010	$47.85
January 2011	$49.84
January 2012	$52.32
January 2013	$54.98

[3] One HCF = 100 cubic feet = 748 gallons. Twenty-four HCF per month is equivalent to about 590 gallons per day (gpd).

WATER SYSTEM DEVELOPMENT FEE RECOMMENDATIONS

Water system development fees are one-time fees paid by new development at the time connection is made to the water system. The City's water system is comprised of two zones. Zone 11 is generally characterized as the older portion of the City where the water distribution system is in place and new development (in fill) will utilize existing capacity. Zone 12 is the newly developing area of the City where extensive new facilities are required to provide service.

Existing water system development fees applicable in Zone 11 include a surface water fee, a meter installation fee, and a water capacity charge. The surface water fee is intended to reflect the proportionate costs of surface water supply capacity associated with the SCSWP. The meter installation fee is intended to reflect the cost of installing meters and related appurtenances on new services. The water capacity charge is intended to reflect the cost of capacity in the existing water system that will serve the new customer. Within Zone 12 the City has a water PFIP fee, which is intended to reflect the cost of new distribution system capacity. The PFIP is assessed in place of the water capacity charge. However, the surface water fee and meter installation fee both also apply within Zone 12.

The City has determined that all available capacity within Zone 11 has been allocated; thus the water capacity charge for Zone 11 is no longer applicable and will be discontinued. While the water capacity charge is to be eliminated, the City has found that a new fee, called the surface water capital fee, is necessary to recover the costs of capital improvements made to the SCSWP facilities. Also, to prevent confusion between this new surface water capital fee and the existing surface water fee, the City has decided to rename the surface water fee as the surface water debt fee.

Exhibit I-2 summarizes proposed fee schedules for the surface water debt fee, the new surface water capital fee, and the meter installation fee. All fees should apply within both Zone 11 and Zone 12. Details of how each fee is calculated are presented in Section IV of this report.

Exhibit I-2
City of Manteca -- Water Utility
Proposed Surface Water Debt, Surface Water Capital, and Meter Installation Fees for 2008

Meter Size	Surface Water Debt Fee	Surface Water Capital Fee	Meter Installation Fee
5/8" x 3/4" meter	$ 3,219	$ 98	$ 246
1" meter	$ 5,376	$ 163	$ 346
1 1/2" meter	$ 10,720	$ 326	$ 601
2" meter	$ 17,158	$ 522	$ 701
3" meter	$ 32,192	$ 978	$ 3,312
4" meter	$ 53,664	$ 1,631	$ 4,017
6" meter	$ 107,296	$ 3,261	$ 11,362
8" meter	$ 171,680	$ 5,218	$ 14,652

II. FIVE-YEAR FINANCIAL PLAN

This section of the report describes the multi-year financial plan developed for the City's water utility. The financial plan reflects the utility's operations, capital improvement program, and debt service obligations, as well as the various sources of revenues and the reserves maintained by the water utility for various purposes.

The financial plan is intended to serve as a planning and management tool. The plan enables the City to take a multi-year look at the water utility's financial needs. In particular, the water utility's capital improvement program expenditures can vary significantly from one year to the next.

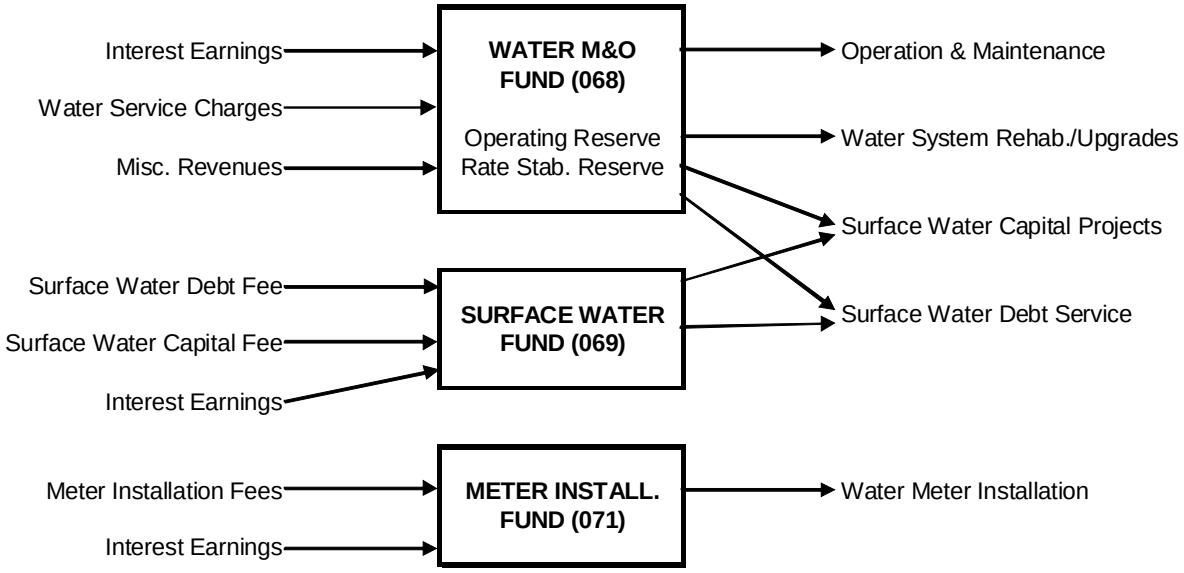
FUND STRUCTURE AND CASH FLOWS

The financial plan is a cash flow model. As a cash flow model, it differs from the financial accounting income statements and balance sheets. The financial plan models the sources and uses of money into and out of the various funds of the water utility.

The financial plan was originally developed based on the fund and account structures currently used by the City's water utility. Staff proposed changes, including the creation of Fund 071 – Meter Installation Fund. Fund 070 – Water PFIP Fund, was excluded from the analysis due to the limited scope of the project. Recommendations regarding the use of these funds, including the use of financial reserves, are described herein. **Exhibit II-1** schematically illustrates the fund structure, as well as the major cash inflows and outflows. An understanding of the fund structure and cash flows is important in understanding the financial plan worksheets that model the flow of funds through the utility from one year to the next. The three water utility funds reflected in the financial plan are described below.

- *Water System M&O Fund (Fund 068)* – The M&O fund is the primary fund of the water utility. Most water system revenues, including water rates and miscellaneous operating revenues, flow into the M&O fund. All water operating and maintenance expenditure are paid out of this fund. Interest accrues in the fund based on cash balances within the fund. A portion of existing debt service is paid from the M&O fund, although a large portion of 2003 water revenue bond debt service is partially paid with surface water debt service fee revenues (reflected in Fund 069, as described below). In addition, rehabilitation and upgrade projects identified in the *2005 Water Master Plan* and the City's capital improvement program are also paid for from the M&O fund. Two reserves within the M&O fund are also modeled. These include:

Exhibit II-1
City of Manteca -- Water Utility
Fund Structure and Cash Flow Diagram for Water Financial Plan



- Operating Reserve – The City has maintained an operating reserve within the water M&O fund. The purpose of an operating reserve is to provide sufficient funds for continued operation in the event of unplanned operating and maintenance expenditures or irregular working capital needs. The operating reserve can also provide a buffer against variable revenues that may result from abnormal (e.g., drought) fluctuations in water demand. Water utility operating reserves typically range from 10 to 50 percent of annual operating costs, including debt service. The City maintains a minimum operating reserve equal to 25 percent of the annual operating budget, excluding debt service and capital projects.
- Rate Stabilization Reserve – Rate stabilization reserves are often established to provide a source of funds to offset the financial impacts of lower than expected water sales (for example due to drought or water shortage). As described in Section III of this report, it is recommended that the City increase the portion of water rate revenues to be derived from water usage charges. This may result in some increases revenue volatility associated with fluctuations in water demands. As a result, maintaining a rate stabilization reserve is a prudent step to manage potential financial risk. The analyses herein assume that a rate stabilization reserve is established at a level of $2,000,000 beginning in FY 08-09. The rate stabilization reserve should be used when water rate revenues are lower than expected due to reduced water sales. With reduced water sales (for example during water shortage conditions) the reduction in revenue may exceed the

reduction in expenses. The rate stabilization reserve is then available to help bridge the gap[4].

Any fund balance in excess of the two reserves described above is shown in the model as uncommitted fund balance. The uncommitted fund balance is available for general water utility purposes, including unforeseen capital project expenditures. Reducing the uncommitted fund balance is a way to reduce water rate increases.

- *Surface Water Fund (Fund 069)* – The surface water fund[5] will be used to account for surface water fees paid by new development at time of connection to the water system. Water PFIP fees are paid into Fund 070, and excluded from the analysis herein, due to the limited scope of this study. Interest also accrues to this fund based on cash balances within the fund. Expenditures from the fund include surface water debt service and capital improvement projects that benefit new development.
- *Meter Installation Fund (Fund 071)* – Staff has proposed the creation of the meter installation fund. It will be used to account for meter installation fees paid by new development at time of connection to the water system. Interest also accrues to this fund based on cash balances within the fund. Expenditures from the fund include the costs associated with the installation of new water meters.

FINANCIAL PLAN ASSUMPTIONS

The financial plan reflects a number of assumptions and financial objectives. The plan was developed based on the City's FY 07-08 water utility budget, the *2005 Water Master Plan*, information provided by SSJID regarding the South County Surface Water Program, and other information provided by City staff. While the financial plan reflects a number of assumptions, the model starts with the line-item level of detail contained in the City's budget documents and accounting system. Beyond FY 07-08, estimates of future operating costs are based on the current operating budget, as well as some specific adjustments that are described below.

Exhibit II-2 summarizes some of the underlying assumptions reflected in the financial plan. These and other assumptions described below have been reviewed by staff, and are believed to be reasonable. It is important to note, however, that financial plan estimates are sensitive to some of the underlying assumptions. The multi-year view of the water utility's financial situation is valuable for planning and decision making purposes, however, the plan should be viewed as an indicator of future conditions, not as a precise forecast. Primary assumptions reflected in the financial planning model include:

[4] Some water utilities develop water shortage rate policies which combine changes in the rate structure as well as use of rate stabilization reserves during each defined stage of water shortage. The City may wish to consider developing such a policy/strategy.

[5] This fund was previously called the Water Capital Fund.

Exhibit II-2
City of Manteca -- Water Utility
Summary of Financial Plan Assumptions

	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
Financial Assumptions									
General Inflation Rate		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Personnel Cost Inflation Rate		10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Construction Inflation Rate		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Interest Earnings Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Customer Account Data									
No. of Customers	17,544	17,720	17,897	18,076	18,257	18,792	19,342	19,909	20,492
No. of 3/4" Equiv. Meters	20,137	20,338	20,541	20,747	20,954	21,568	22,200	22,851	23,520
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	2.93%	2.93%	2.93%	2.93%
Water Sales and Production									
Annual Metered Use (AF)	13,812	13,950	14,089	14,230	14,372	14,794	15,227	15,673	16,132
Annual Metered Use (HCF)	6,016,000	6,076,000	6,137,000	6,199,000	6,261,000	6,444,000	6,633,000	6,827,000	7,027,000
Annual Water Production (AF)	15,778	16,418	16,583	16,748	16,916	17,412	17,922	18,447	18,987
Annual Water Production (MG)	5,141	5,350	5,403	5,457	5,512	5,674	5,840	6,011	6,187
Average Daily Production (MGD)	14.09	14.66	14.80	14.95	15.10	15.54	16.00	16.47	16.95
Portion from Surface Water	40%	47%	53%	53%	53%	53%	53%	53%	53%
Unaccounted for Water		15%	15%	15%	15%	15%	15%	15%	15%
SCWSP Water Delivery Costs									
Fixed Surface Water O&M Cost	$ 1,711,884	$ 1,848,517	$ 1,942,843	$ 2,043,496	$ 2,150,982	$ 2,265,850	$ 2,334,000	$ 2,404,000	$ 2,476,000
Surface Water Capital Cost	$ 350,000	$ 360,024	$ 370,824	$ 381,949	$ 393,408	$ 405,210	$ 417,000	$ 430,000	$ 443,000
Variable Surface Water O&M Costs	$ 503,068	$ 565,577	$ 682,573	$ 724,477	$ 769,182	$ 832,681	$ 883,000	$ 936,000	$ 992,000
Variable Surf. Wtr. O&M Cost ($/AF)	$ 79.71	$ 73.93	$ 77.66	$ 81.62	$ 85.79	$ 90.23	$ 92.94	$ 95.73	$ 98.60
Surface Water Deliveries (AF)	6,311	7,650	8,789	8,877	8,965	9,228	9,499	9,777	10,063
Surface Water Deliveries (MG)	2,056	2,493	2,864	2,892	2,921	3,007	3,095	3,186	3,279
Surface Water Deliveries (MGD)	5.63	6.83	7.85	7.92	8.00	8.24	8.48	8.73	8.98
SCWSP Water Delivery Costs	**$ 2,565,000**	**$ 2,774,000**	**$ 2,996,000**	**$ 3,150,000**	**$ 3,314,000**	**$ 3,504,000**	**$ 3,634,000**	**$ 3,770,000**	**$ 3,911,000**
Groundwater Pumped (MG)	3,085	2,857	2,540	2,565	2,591	2,667	2,745	2,825	2,908
Groundwater Pump/Trtmt. Cost ($/MG)	$ 195	$ 293	$ 302	$ 311	$ 320	$ 330	$ 339	$ 350	$ 360
Groundwater Pump/Trtmt. Cost	$ 600,170	$ 836,570	$ 766,000	$ 797,000	$ 829,000	$ 879,000	$ 932,000	$ 988,000	$ 1,047,000
Annual Arsenic Media Replacement	$ 324,000	$ 358,000	$ 445,000	$ 532,000	$ 619,000	$ 705,000	$ 726,000	$ 748,000	$ 770,000
GW Pumping/Trtmt. Costs	**$ 924,000**	**$ 1,195,000**	**$ 1,211,000**	**$ 1,329,000**	**$ 1,448,000**	**$ 1,584,000**	**$ 1,658,000**	**$ 1,736,000**	**$ 1,817,000**

- *Inflation and Interest Rates* – General inflation, personnel cost inflation, and construction inflation rates are assumed to be 3.0 percent, 10.0 percent, and 5.0 percent per year, respectively, although the model can accept different assumptions for each factor (as well as for each year). Interest calculations are based on beginning-of-year balances with an assumed interest rate of 3.5 percent per year. Interest rates can also be adjusted each year of the planning period.
- *Current Customer Base* – The current customer base is expressed both in terms of number of accounts and number of 3/4" equivalent meters. These are both based on utility billing system data obtained from FY 06-07 and adjusted annually based on growth assumptions. Based on information from the utility billing system, it is estimated that there were about 17,544 water service customer accounts in FY 07-08.
- *Growth Projections* – The *2005 Water Master Plan* assumed an average annual growth rate equal to 2.93 percent. The maximum allowable City-mandated growth rate is 3.9 percent per year. However, actual growth in recent years has been less than this. For financial planning purposes, a lower growth rate is conservative. Following discussions with staff, and in light of the recent slowdown in the general economy and housing industry, the analyses presented herein are based on a 1.0 percent annual growth rate through FY 11-12 and then returning to 2.93 percent.
- *Water Sales and Production* – Water sales and production are both estimated based on recent actual data and estimates of growth in the customer base. For FY 06-07 metered (billed) water sales is estimated to be 13,029 acre-feet (AF) and total water production is estimated to be 15,778 AF[6]. The difference between billed water sales and total water production is called unaccounted for water. Unaccounted for water includes unmetered uses for main flushing, fire hydrant usage, system leaks, and other losses or uses, including municipal uses for parks and City buildings. Unaccounted for water totals about 15 percent of water production. Water production is estimated to increase annually in proportion to customer growth to nearly 19,000 AF by FY 15-16.
- *Water Supplies* – The City is making a gradual transition to use a higher proportion of water supplies from surface water. Beginning in FY 09-10 it is assumed that water supplies will be 53 percent surface water and 47 percent groundwater, based on plans for the long-term use of surface water supplies. The current supply mix is about 40 percent surface water and 60 percent groundwater.
- *Operating and Maintenance Costs* – Operating and maintenance costs, excluding groundwater pumping and treatment costs (see below), have been annually inflated from the proposed FY 08-09 budget for each year of the planning period. Current groundwater pumping and treatment costs are estimated to be about $293/million gallons (MG) in FY 08-09. The unit cost of groundwater production is inflated at 3.0 percent per year. Total annual production costs are based on the unit cost multiplied by estimated groundwater production.

[6] One acre-foot equals 325,851 gallons.

- Arsenic Treatment Costs – The City plans to install additional treatment facilities at wells for the treatment of arsenic to comply with current USEPA Drinking Water Standards. Annual media replacement costs for arsenic removal are currently about $324,000. This treatment cost is inflated each year of the planning period, and applies to water produced from wells equipped with the new treatment facilities. It is assumed that media replacement costs will rise to $705,000 by FY 12-13 as additional treatment facilities are added. Then arsenic treatment costs are expected to increase at the pace of general inflation, although costs may also be influenced by the change in the value of the dollar (filter media comes from Germany).
- SCWSP O&M Costs – SSJID has provided estimated operating and maintenance costs for water deliveries in FY 08-09. The estimated FY 08-09 costs to Manteca include $2,209,000 in fixed annual O&M costs, plus $73.93/AF for raw water, treatment, and delivery. City staff used this information to estimated future costs through FY 12-13. Beyond FY 12-13 surface water costs are assumed to increase at the rate of inflation each year of the planning period. Surface water deliveries are assumed to increase to 53 percent of total annual water production in FY 09-10.
- Staff Additions – City staff have identified a number of new staff positions to be added to the water utility over the next several years. New positions are shown below. Salary, benefit, and related costs for each new position are included in the financial plan (see Appendix A).
    - 33% of an Account Assistant II in FY 08-09
    - 50% of one Assoc./Senior Engineer in FY 08-09 and another in FY 11-12
    - A Regulatory Compliance Technician in FY 08-09
    - An Operator II in FY 09-10
    - A Meter Reader in FY 08-09
    - An Ordinance Enforcement Officer in FY 08-09
    - 33% of a Utilities Supervisor in FY 08-09
    - A Water Distribution Operator in each FY 08-09, FY 09-10, and FY 10-11

❖ *Capital Improvement Program* – Capital costs reflected in the financial plan are related to the (1) *2005 Water Master Plan*, and (2) capital improvement projects identified by City staff. Capital improvement program projects are summarized in **Exhibit II-3**. Capital improvement program costs total about $53.6 million through FY 15-16. Most capital project costs are related to rehabilitation and upgrade of the water system, to be funded from the M&O Fund (Fund 068), with about 10 percent of the capital program to be funded from the Surface Water Fund (069) or the Water PFIP Fund (070).

❖ *Existing Debt Obligations* – Existing debt includes the LaSalle Lease, a California Energy Commission (CEC) loan, and the 2003 Water Revenue Bonds. Both the LaSalle Lease and the CEC loan are scheduled to be fully repaid within the planning period. Debt service on the 2003 Water Revenue Bonds is scheduled to increase to nearly $3.0 million by FY 15-16. **Exhibit II-4** summarizes debt service obligations during the planning period. A portion of debt service payments on the 2003 Water Revenue Bonds are intended to be repaid by surface water fee revenues (see Section IV for details).

Exhibit II-3
City of Manteca -- Water Utility
Capital Improvement Program

Project	Estimated Master Plan Project Cost (1)	Capital Improvement Project Costs Escalated to Year of Construction (2)								Funding Source		
		FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	M&O Fund (068)	Surface Water Fund (069)	Water PFIP Fund (070)
Planned System Maintenance - Distribution System Projects												
2008 Water Line Replac. Project (3)	$ 358,000	$ 358,000								100%		
Project Area #2	$ 1,580,000	$ 515,000	$ 540,000	$ 568,000	$ 597,000					100%		
Project Area #3	$ 477,000	$ 556,000								100%		
Project Area #4	$ 210,000		$ 257,000							100%		
Project Area #5	$ 444,000			$ 570,000						100%		
Project Area #6	$ 178,000				$ 240,000					100%		
Project Area #7	$ 1,285,000					$ 910,000	$ 956,000			100%		
Project Area #8	$ 400,000							$ 625,000		100%		
Project Area #9	$ 294,000							$ 459,000		100%		
Project Area #10	$ 401,000								$ 658,000	100%		
Sub-Total Distrib. Sys. Projects		$ 1,429,000	$ 797,000	$ 1,138,000	$ 837,000	$ 910,000	$ 956,000	$ 1,084,000	$ 658,000			
Planned System Maintenance - Hydraulic Improvement Projects												
12" Ext. on N. Lincoln, W. Alameda, & Dawn Dr.	$ 879,000	$ 879,000								100%		
12" Ext. on Manteca Ave. & Center St.	$ 512,000	$ 597,000								100%		
16" Ext. on Moffat to RR Xing & 12" Ext. on S. Grant & S. Lincoln	$ 2,094,000		$ 2,562,000							100%		
16" Yosemite Ave. RR Xing	$ 1,407,000			$ 1,808,000						100%		
12" Ext. on Park Ave. & Oregon St.	$ 607,000				$ 819,000					100%		
Sub-Total Hydr. Improv. Projects		$ 1,476,000	$ 2,562,000	$ 1,808,000	$ 819,000	$ -	$ -	$ -	$ -			
Well Water Treatment - Existing System, Maximize Wellhead Treatment for Arsenic Reduction (3)												
Well #23 Surface Water Blending	$ 264,000	$ 264,000								100%		
Well #19 Central Arsenic Treatment (w/ #13, #21)	$ 958,000		$ 1,006,000							100%		
Well #21 Central Arsenic Treatment (w/ #13, #19)	$ 958,000		$ 1,006,000							100%		
Well #20 Wellhead Arsenic Treatment	$ 932,000	$ 932,000								100%		
Well #5 and Well #9 Replac. w/ Wellhead Arsenic Treatment	$ 2,000,000			$ 2,205,000						100%		
Well #13 Central Arsenic Treatment (w/ #19, #21)	$ 958,000		$ 1,006,000							100%		
Well #21 Nitrate Treatment	$ 565,000	$ 565,000								100%		
Sub-Total Well Water Treatment		$ 1,761,000	$ 3,018,000	$ 2,205,000	$ -	$ -	$ -	$ -	$ -			
Blending Pipelines (3)												
Blending Pipe for Wells 12, 15, & 22	$ 2,769,000	$ 2,769,000								100%		
24" Pipe in Austin from Lathrop to Yosemite	$ 2,895,000	$ 2,895,000								25%		75%
10" Pipe in Louise from Austin to Well 14	$ 991,760		$ 1,041,000							100%		
16" Pipe in Yosemite from Austin to Powers	$ 950,000			$ 1,047,000						100%		
10" Pipe in Powers from Yosemite to Well 19	$ 206,770			$ 228,000						100%		
8" Pipe from Well 19 to Well 13	$ 786,600			$ 867,000						100%		
8" Pipe in Yosemite from Powers to Well 21	$ 409,400			$ 451,000						100%		
18" Pipe in Austin from Yosemite to Hwy 99	$ 621,000				$ 719,000					25%		75%
18" Pipe in Woodward from Hwy 99 to Tesoro	$ 1,660,000				$ 1,922,000					25%		75%
16" Pipe in Woodward from Tesoro to Spreckels	$ 552,000				$ 639,000					100%		
10" Pipe in Spreckels from Woodward to Well 24	$ 383,180	$ 383,000								100%		

Exhibit II-3 -- Continued
City of Manteca -- Water Utility
Capital Improvement Program

Project	Estimated Master Plan Project Cost (1)	Capital Improvement Project Costs Escalated to Year of Construction (2)								Funding Source		
		FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	M&O Fund (068)	Surface Water Fund (069)	Water PFIP Fund (070)
10" Pipe in Woodward from Speckels to Well 20	$ 487,600		$ 512,000							100%		
8" Pipe in Tesoro from Woodward to Well 26	$ 172,500				$ 200,000					100%		
18" Pipe in Airport from Wawona to Well 25	$ 1,480,000		$ 1,554,000							100%		
Sub-Total Blending Pipelines (068)		$ 3,875,750	$ 3,107,000	$ 2,593,000	$ 1,499,250	$ -	$ -	$ -	$ -			
Sub-Total Blending Pipelines (070)		$ 2,171,250	$ -	$ -	$ 1,980,750	$ -	$ -	$ -	$ -			
Machinery & Equipment (3)												
VFD Replacement @ 1 every 3 yrs	$ 105,000	$ 35,000			$ 45,000			$ 47,000		100%		
Generator/ATS Major Maint @ 1 every 6 years	$ 30,000		$ 32,000						$ 42,000	100%		
1/2 Ton Truck	$ 26,000	$ 26,000								100%		
Misc. Vehicles & Equipment	$ 175,000	$ 69,000		$ 46,000		$ 43,000		$ 47,000		100%		
Computer Hardware & Software	$ 373,000	$ 175,300	$ 51,700	$ 29,000	$ 31,000	$ 32,000	$ 34,000	$ 35,000	$ 37,000	100%		
Sub-Total Mach. & Equip.		$ 305,300	$ 83,700	$ 75,000	$ 76,000	$ 75,000	$ 34,000	$ 129,000	$ 79,000			
Other Capital Projects (3)												
Well Building Replacement	$ 12,000	$ 12,000								100%		
Ground Level Tank - 2 MG	$ 2,500,000						$ 3,191,000			100%		
Demo Elevated Tank	$ 101,250		$ 106,000							100%		
Annual Park Irrigation Wells	$ 240,000	$ 565,000	$ 252,000	$ 265,000	$ 278,000	$ 292,000	$ 306,000	$ 322,000	$ 338,000	100%		
Water Corporation Yard	$ 888,000	$ 888,000								100%		
Well Replacement	$ 2,000,000								$ 2,814,000	100%		
Street Valve Replacement	$ 130,000	$ 25,000	$ 16,000	$ 17,000	$ 17,000	$ 18,000	$ 19,000	$ 20,000	$ 21,000	100%		
Well Security Upgrades	$ 185,000	$ 105,000	$ 53,000		$ 35,000					100%		
Generator Sound Attenutation - Wells 24, 25	$ 85,000	$ 85,000								100%		
Generator Sound Attenutation - Wells 12,19, 22, 23	$ 120,000		$ 126,000							100%		
Generator Sound Attenutation - Wells 15, 17, 18, 21	$ 120,000			$ 132,000						100%		
Generator Sound Attenutation - Well 14	$ 30,000				$ 35,000					100%		
Reclaimed Water Projects	$ 125,000	$ 125,000	$ 131,000	$ 138,000	$ 145,000	$ 152,000	$ 160,000	$ 168,000	$ 176,000	100%		
Utility Lobby Expansion	$ 25,000	$ 25,000								100%		
Well Rehabilitation	$ 1,200,000	$ 150,000	$ 158,000	$ 165,000	$ 174,000	$ 182,000	$ 191,000	$ 201,000	$ 211,000	100%		
Sub-Total Other Capital Projects		$ 1,980,000	$ 842,000	$ 717,000	$ 684,000	$ 644,000	$ 3,867,000	$ 711,000	$ 3,560,000			
SSJID Surface Water Projects (3)												
Engine Generator for Turnout M2	$ 190,000	$ 190,000								73%	27%	
Engine Generator for Turnout M3	$ 190,000	$ 190,000								73%	27%	
Surface WTP CIP Projects	$ 1,000,000			$ 1,103,000						73%	27%	
Corrosion Control System	$ 30,000	$ 30,000								73%	27%	
Membrane Replac. Project	$ 1,326,000	$ 166,000	$ 174,000	$ 183,000	$ 192,000	$ 201,000	$ 212,000	$ 222,000	$ 233,000	73%	27%	
Sub-Total Surface Water (068)		$ 420,480	$ 127,020	$ 938,780	$ 140,160	$ 146,730	$ 154,760	$ 162,060	$ 170,090			
Sub-Total Surface Water (069)		$ 155,520	$ 46,980	$ 347,220	$ 51,840	$ 54,270	$ 57,240	$ 59,940	$ 62,910			
Totals		**$ 13,574,300**	**$ 10,583,700**	**$ 9,822,000**	**$ 6,088,000**	**$ 1,830,000**	**$ 5,069,000**	**$ 2,146,000**	**$ 4,530,000**			
Total - Water M&O Fund (Fund 068)		$ 11,247,530	$ 10,536,720	$ 9,474,780	$ 4,055,410	$ 1,775,730	$ 5,011,760	$ 2,086,060	$ 4,467,090			
Total - Surf. Wtr. Fee Fund (Fund 069)		$ 155,520	$ 46,980	$ 347,220	$ 51,840	$ 54,270	$ 57,240	$ 59,940	$ 62,910			
Total - Water PFIP Fund (Fund 070)		$ 2,171,250	$ -	$ -	$ 1,980,750	$ -	$ -	$ -	$ -			

Notes:
(1) From the 2005 Water Master Plan. September 2004 baseline dollars using the ENR 20-Cities CCI of 7,298.
(2) Master Plan cost estimates escalated to FY 07-08 using a 20-Cities CCI value of 8,100 for December 2007. Future year escalations assume 5 percent annual inflation.
(3) Revised project costs based on actual bids for Well #24 and #25, and updated information from City staff. Costs provided in FY 07-08 dollars and escalated to future years assuming 5 percent annual inflation.

Exhibit II-4
City of Manteca -- Water Utility
Debt Service Schedules

	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
LaSalle Lease - Viron Project										
Principal	$ 20,131	$ 21,559	$ 22,987	$ 24,415	$ 25,842	$ 27,270	$ 13,992			
Interest	$ 9,281	$ 7,853	$ 6,425	$ 4,997	$ 3,570	$ 2,142	$ 714			
Total	$ 29,412	$ 29,412	$ 29,412	$ 29,412	$ 29,412	$ 29,412	$ 14,706			
Balance	$ 136,065	$ 114,506	$ 91,519	$ 67,105	$ 41,262	$ 13,992	$ -			
CEC - Energy Conserv. Asst. Loan										
Principal	$ 84,265	$ 86,754	$ 89,242	$ 91,731						
Interest	$ 9,954	$ 7,466	$ 4,977	$ 2,489						
Total	$ 94,219	$ 94,219	$ 94,219	$ 94,219						
Balance	$ 267,726	$ 180,973	$ 91,731	$ -						
2003A Water Revenue Bonds										
Principal	$ -	$ 250,000	$ 360,000	$ 480,000	$ 610,000	$ 750,000	$ 905,000	$ 965,000	$ 1,115,000	$ 1,200,000
Interest	$ 1,954,124	$ 1,954,124	$ 1,949,124	$ 1,941,204	$ 1,928,724	$ 1,911,949	$ 1,885,699	$ 1,857,644	$ 1,819,043	$ 1,763,294
Total	$ 1,954,124	$ 2,204,124	$ 2,309,124	$ 2,421,204	$ 2,538,724	$ 2,661,949	$ 2,790,699	$ 2,822,644	$ 2,934,043	$ 2,963,294
Balance	$ 43,325,000	$ 43,075,000	$ 42,715,000	$ 42,235,000	$ 41,625,000	$ 40,875,000	$ 39,970,000	$ 39,005,000	$ 37,890,000	$ 36,690,000

- *Debt Service Coverage* – The City is required to maintain water rates and other revenues such that gross revenues less operating and maintenance costs will exceed 1.25 times annual debt service. This debt service coverage requirement is reflected in the financial plan model, and the coverage requirement is exceeded in each year of the planning period.

All assumptions contained in the financial plan were reviewed with staff and determined to be reasonable. As described previously, analyses performed during the study included examining the sensitivity of results to changes in the assumed annual rate of new growth, as well as a requirement to set water rates such that debt service coverage obligations could be met without including developer fee revenues in the calculation.

FINANCIAL PLAN RESULTS AND CONCLUSIONS

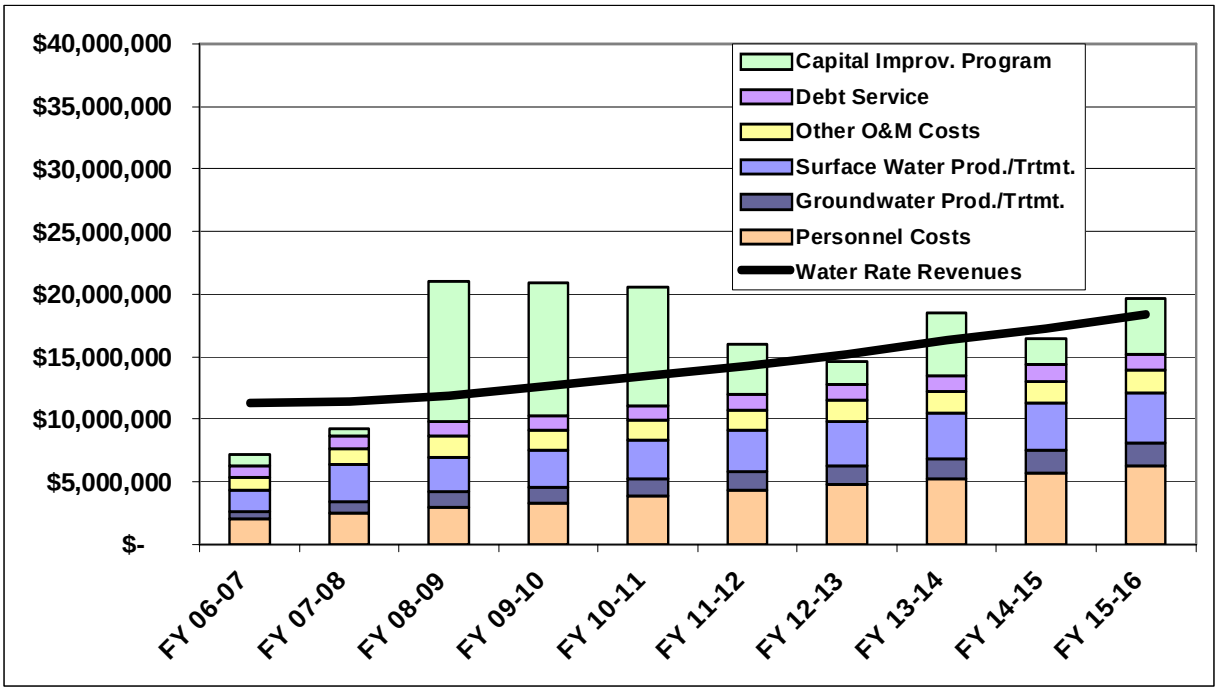
The City of Manteca has benefited from the annual water rate adjustments made during the last five years. The City's water system will continue to experience cost increases during the next five years. In the near-term rates will need to be increased to help pay for required arsenic water treatment facilities for groundwater wells as presented in the *2005 Water Master Plan*, as well as a variety of pipelines and other improvements intended to rehabilitate the distribution system and improve the distribution of surface water within the water system. During this time, new debt service costs associated with the financing of the SCWSP will continue to gradually increase. Finally, as the City uses more surface water, its water supply and production costs will also increase.

Exhibit II-5 graphically summarizes the components of water utility costs in the M&O Fund estimated for the planning period, and compares annual costs with water rate revenues. Other revenues are also reflected in the financial plan, and the difference between annual revenues and annual costs result in either an increase or a decrease in the fund balance and reserves.

The most variable element of water utility costs is the capital program. Large planned capital expenditures in the next several years will be funded largely with existing financial reserves, with annual water rate revenues also providing an ongoing source of funding for the capital program.

Details of the financial plan are presented in **Exhibit II-6**. Line item details of the operating budget are included in **Appendix A** of this report. The financial planning model is used to estimate future costs and revenues. In addition, minimum operating and rate stabilization reserves are maintained throughout the planning period. The last few lines in the first page of Exhibit II-6 show estimated year-end balances in the M&O Fund and incorporated reserves. The second page of Exhibit II-6 presents revenues and expenses for the Surface Water Fund and Meter Installation Fund. Water system development fees accrue to the Surface Water Fund and Meter Installation Fund and are used for the portion of debt service and capital projects assigned to these funds.

Exhibit II-5
City of Manteca -- Water Utility
Summary of M&O Fund (Fund 068) Expenses



While a number of criteria contribute to determining the required level of water rates, four factors are particularly relevant.

- Proposed rate increases are needed now to support the City's capital improvement program on a pay-as-you-go basis including additional arsenic treatment facilities at groundwater wells.
- Annual debt service associated with the 2003 Water Revenue Bonds will increase from about $2.2 million in FY 07-08 to nearly $3.0 million by FY 15-16.
- The cost associated with the treatment and delivery of surface water is a growing component of the cost of the water system. Other costs, such as media replacement for arsenic treatment facilities and new staff additions also contribute to increases costs and the need for increased water rates.
- With the addition of new staff positions over the next few years, labor costs are a growing portion of the operating budget.

Exhibit II-6
City of Manteca -- Water Utility
Multi-Year Financial Plan

	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
Overall Calendar Year Rate Increase -->			**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**3.0%**	**3.0%**	**3.0%**
WATER M&O - FUND 068										
Beginning Balance	$ 21,034,227	$ 26,351,754	$ 29,243,000	$ 21,373,044	$ 14,138,961	$ 7,695,861	$ 6,383,608	$ 7,489,715	$ 5,765,036	$ 7,052,846
Sources of Funds										
Water Service Charges	$ 11,265,963	$ 11,450,000	$ 11,941,000	$ 12,663,000	$ 13,430,000	$ 14,242,000	$ 15,232,000	$ 16,322,000	$ 17,303,000	$ 18,345,000
Interest Earnings	$ 1,160,782	$ 561,000	$ 1,121,000	$ 845,000	$ 592,000	$ 366,000	$ 320,000	$ 359,000	$ 299,000	$ 344,000
Other Revenues	$ 97,690	$ 110,000	$ 113,000	$ 116,000	$ 119,000	$ 123,000	$ 127,000	$ 131,000	$ 135,000	$ 139,000
Total Sources of Funds	$ 12,524,435	$ 12,121,000	$ 13,175,000	$ 13,624,000	$ 14,141,000	$ 14,731,000	$ 15,679,000	$ 16,812,000	$ 17,737,000	$ 18,828,000
Uses of Funds										
Personnel Services	$ 2,059,944	$ 2,545,838	$ 2,592,000	$ 2,851,000	$ 3,136,000	$ 3,449,000	$ 3,794,000	$ 4,173,000	$ 4,590,000	$ 5,048,000
Staff Additions			$ 439,000	$ 505,000	$ 730,000	$ 910,000	$ 955,000	$ 1,050,000	$ 1,155,000	$ 1,271,000
Mat'ls, Supplies & Services	$ 1,030,248	$ 1,255,577	$ 1,634,000	$ 1,544,000	$ 1,591,000	$ 1,638,000	$ 1,688,000	$ 1,738,000	$ 1,790,000	$ 1,844,000
Groundwater Pump/Trtmt. Costs	$ 558,823	$ 600,170	$ 836,570	$ 766,000	$ 797,000	$ 829,000	$ 879,000	$ 932,000	$ 988,000	$ 1,047,000
Arsenic Media Replacement	$ 441	$ 324,000	$ 358,000	$ 445,000	$ 532,000	$ 619,000	$ 705,000	$ 726,000	$ 748,000	$ 770,000
SSJID Water Costs	$ 1,672,532	$ 2,943,335	$ 2,774,000	$ 2,996,000	$ 3,150,000	$ 3,314,000	$ 3,504,000	$ 3,634,000	$ 3,770,000	$ 3,911,000
Capital Improvement Program										
Distribution System Projects			$ 1,429,000	$ 797,000	$ 1,138,000	$ 837,000	$ 910,000	$ 956,000	$ 1,084,000	$ 658,000
Hydraulic Improvements			$ 1,476,000	$ 2,562,000	$ 1,808,000	$ 819,000	$ -	$ -	$ -	$ -
Well Water Treatment			$ 1,761,000	$ 3,018,000	$ 2,205,000	$ -	$ -	$ -	$ -	$ -
Blending Pipelines			$ 3,875,750	$ 3,107,000	$ 2,593,000	$ 1,499,250	$ -	$ -	$ -	$ -
Machinery & Equipment	$ 52,342	$ 41,850	$ 305,300	$ 83,700	$ 75,000	$ 76,000	$ 75,000	$ 34,000	$ 129,000	$ 79,000
Other Capital Projects	$ 749,854	$ 246,000	$ 1,980,000	$ 842,000	$ 717,000	$ 684,000	$ 644,000	$ 3,867,000	$ 711,000	$ 3,560,000
SSJID Surface Water Projects	$ 152,882	$ 240,000	$ 420,480	$ 127,020	$ 938,780	$ 140,160	$ 146,730	$ 154,760	$ 162,060	$ 170,090
Debt Service										
LaSalle Lease - P&I	$ 29,412	$ 29,412	$ 29,400	$ 29,400	$ 29,400	$ 29,400	$ 14,700	$ -	$ -	$ -
CEC Loan - P&I	$ 94,219	$ 94,219	$ 94,000	$ 94,000	$ -	$ -	$ -	$ -	$ -	$ -
2003 Water Rev. Bond - P&I	$ 805,099	$ 908,099	$ 1,039,146	$ 1,089,584	$ 1,142,470	$ 1,197,923	$ 1,255,863	$ 1,270,239	$ 1,320,370	$ 1,333,534
Admin/Audit Fee	$ 1,112	$ 1,250	$ 1,310	$ 1,380	$ 1,450	$ 1,520	$ 1,600	$ 1,680	$ 1,760	$ 1,760
Total Uses of Funds	$ 7,206,908	$ 9,229,750	$ 21,044,956	$ 20,858,084	$ 20,584,100	$ 16,043,253	$ 14,572,893	$ 18,536,679	$ 16,449,190	$ 19,693,384
Ending Balance	**$ 26,351,754**	**$ 29,243,004**	**$ 21,373,044**	**$ 14,138,961**	**$ 7,695,861**	**$ 6,383,608**	**$ 7,489,715**	**$ 5,765,036**	**$ 7,052,846**	**$ 6,187,462**
Operating Reserve (25%)	$ 1,330,000	$ 1,917,000	$ 2,158,000	$ 2,277,000	$ 2,484,000	$ 2,690,000	$ 2,881,000	$ 3,063,000	$ 3,260,000	$ 3,473,000
Rate Stabilization Reserve	$ -	$ -	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000
Available for Capital Projects	$ 25,021,754	$ 27,326,004	$ 17,215,044	$ 9,861,961	$ 3,211,861	$ 1,693,608	$ 2,608,715	$ 702,036	$ 1,792,846	$ 714,462
Debt Service Coverage (1.25 min.)	5.05	2.02	2.18	2.08	1.94	1.77	2.40	2.61	2.65	2.80

Exhibit II-6 -- Continued
City of Manteca -- Water Utility
Multi-Year Financial Plan

	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
SURFACE WATER FEE FUND - FUND 069										
Beginning Balance	$ 7,311,672	$ 8,839,863	$ 7,674,000	$ 6,963,602	$ 6,306,001	$ 5,295,427	$ 4,512,361	$ 5,323,955	$ 6,334,910	$ 7,526,797
Sources of Funds										
Meter Installation Fees	$ 719,160	$ 173,000								
Capital Improvement Fees	$ 204,430	$ 31,350								
Surface Water Debt Fees	$ 2,292,785	$ 392,500	$ 655,000	$ 694,000	$ 736,000	$ 781,000	$ 2,472,000	$ 2,672,000	$ 2,888,000	$ 3,121,000
Surface Water Capital Fees			$ 5,000	$ 5,000	$ 6,000	$ 6,000	$ 19,000	$ 20,000	$ 22,000	$ 24,000
Interest Earnings	$ 496,761	$ 215,000	$ 325,000	$ 300,000	$ 277,000	$ 241,000	$ 214,000	$ 242,000	$ 278,000	$ 319,000
Total Sources of Funds	$ 3,713,136	$ 811,850	$ 985,000	$ 999,000	$ 1,019,000	$ 1,028,000	$ 2,705,000	$ 2,934,000	$ 3,188,000	$ 3,464,000
Uses of Funds										
Mat'ls, Supplies, & Services	$ 401,196	$ 560,355	$ 268,000	$ 276,000	$ 284,000	$ 293,000	$ 302,000	$ 311,000	$ 320,000	$ 330,000
Capital Outlay										
Surface Water Capital Projects	$ 633,136	$ 120,000	$ 155,520	$ 46,980	$ 347,220	$ 51,840	$ 54,270	$ 57,240	$ 59,940	$ 62,910
Debt Service										
2003 Water Rev. Bond	$ 1,149,025	$ 1,296,025	$ 1,269,978	$ 1,331,620	$ 1,396,254	$ 1,464,026	$ 1,534,836	$ 1,552,405	$ 1,613,673	$ 1,629,760
Admin/Audit Fee	$ 1,588	$ 1,800	$ 1,900	$ 2,000	$ 2,100	$ 2,200	$ 2,300	$ 2,400	$ 2,500	$ 2,600
Total Uses of Funds	$ 2,184,945	$ 1,978,180	$ 1,695,398	$ 1,656,600	$ 2,029,574	$ 1,811,066	$ 1,893,406	$ 1,923,045	$ 1,996,113	$ 2,025,270
Ending Balance	**$ 8,839,863**	**$ 7,673,533**	**$ 6,963,602**	**$ 6,306,001**	**$ 5,295,427**	**$ 4,512,361**	**$ 5,323,955**	**$ 6,334,910**	**$ 7,526,797**	**$ 8,965,527**
WATER METER INSTALLATION FUND - FUND 071										
Beginning Balance			$ -	$ (250,000)	$ (514,800)	$ (795,100)	$ (1,090,700)	$ (1,277,500)	$ (1,465,900)	$ (1,654,300)
Sources of Funds										
Meter Installation Fees			$ 50,000	$ 53,000	$ 56,000	$ 60,000	$ 189,000	$ 204,000	$ 221,000	$ 239,000
Interest Earnings			$ -	$ (8,800)	$ (18,000)	$ (27,800)	$ (38,200)	$ (44,700)	$ (51,300)	$ (57,900)
Total Sources of Funds			$ 50,000	$ 44,200	$ 38,000	$ 32,200	$ 150,800	$ 159,300	$ 169,700	$ 181,100
Uses of Funds										
Mat'ls, Supplies, & Services										
Water Meters, Boxes, Etc.			$ 300,000	$ 309,000	$ 318,300	$ 327,800	$ 337,600	$ 347,700	$ 358,100	$ 368,800
Total Uses of Funds			$ 300,000	$ 309,000	$ 318,300	$ 327,800	$ 337,600	$ 347,700	$ 358,100	$ 368,800
Ending Balance			**$ (250,000)**	**$ (514,800)**	**$ (795,100)**	**$ (1,090,700)**	**$ (1,277,500)**	**$ (1,465,900)**	**$ (1,654,300)**	**$ (1,842,000)**
DEBT SERVICE RESERVES										
2003A Wtr. Rev. Bonds - Fund 068	$ 2,777,331	$ 2,777,000	$ 2,777,000	$ 2,777,000	$ 2,777,000	$ 2,777,000	$ 2,777,000	$ 2,777,000	$ 2,777,000	$ 2,777,000
2003A Wtr. Rev. Bonds - Fund 069	$ 1,589,848	$ 1,590,000	$ 1,590,000	$ 1,590,000	$ 1,590,000	$ 1,590,000	$ 1,590,000	$ 1,590,000	$ 1,590,000	$ 1,590,000
Total	$ 4,367,179	$ 4,367,000	$ 4,367,000	$ 4,367,000	$ 4,367,000	$ 4,367,000	$ 4,367,000	$ 4,367,000	$ 4,367,000	$ 4,367,000

With the current customer base and current water rates, FY 07-08 water rate revenues are estimated to be about $11,450,000. The City increased water rates in January 2008 to offset the affects of general inflation. However, to meet the financial obligations of the water utility in the future, the City should increase water rates each year, beginning in January 2009. Annual water rate revenue requirements for each of the next five fiscal years, as well as the associated calendar year rate increase, were determined to be:

FY 08-09	$11,941,000	5%
FY 09-10	$12,663,000	5%
FY 10-11	$13,430,000	5%
FY 11-12	$14,242,000	5%
FY 12-13	$15,232,000	5%

Water rate revenues will grow each year as a result of both the rate increase and customer growth.

In determining the annual water rate revenue requirement the financial plan was manipulated such that:

- All operating and maintenance, capital program, and debt service costs would be met with available revenues and/or reserves.
- The minimum operating reserve (25 percent of operating costs excluding debt service and capital project costs) and a $2.0 million rate stabilization reserve are maintained throughout the planning period.
- Debt service coverage of 1.25 is exceeded each year during the planning period.
- To the extent practical, annual water rate increases are spread evenly over the planning period (rate spikes avoided).

The above criteria were all met with the assumption that the customer base will grow at a rate of 1.0 percent per year through FY 11-12, and then increase to 2.93 percent thereafter. The 2.93 percent growth rate had been used for engineering planning purposes, and reflects a historical average.

The slow growth rate may pose one potential issue that the City should monitor carefully. A sustained slow rate of growth may result in insufficient annual surface water debt fee revenues to cover the growth portion of annual debt service associated with the 2003 Water Revenue Bonds. This is evidenced by the declining balance that appears in the Surface Water Fund (second page of Exhibit II-6). The situation should be corrected when normal growth patterns reemerge.

In conclusion, the proposed rate increases appear to be sufficient to meet the water utility's financial obligations throughout the planning period. As a result, it is recommended that the City increase water rates annually as presented herein. The City should monitor actual growth patterns and financial results each year to determine whether financial objectives are being attained. The next section of this report describes water rate calculations and recommendations in greater detail.

III. WATER RATES

This section of the report describes the development of water rate recommendations for the City of Manteca. The section includes description of the water utility's current water rates, new requirements associated with CUWCC Best Management Practice #11, and the calculation of water rate schedules for the next five years.

CURRENT WATER RATES

The City's current water rate structure includes a three-tier commodity rate and fixed service charges based on the size of the water meter. **Exhibit III-1** summarizes the current water rate schedule, which was last adjusted in January 2008 with a 3.3 percent increase intended to offset the affects of inflation.

Exhibit III-1
City of Manteca -- Water Utility
Current Schedule of Water Rates

	Effective 1/1/2008	
Fixed Monthly Service Charges		
5/8' x 3/4" meter	$	20.25
1" meter	$	31.40
1 1/2" meter	$	58.73
2" meter	$	91.83
3" meter	$	169.05
4" meter	$	279.32
6" meter	$	554.67
8" meter	$	885.18
Water Use Charge ($/HCF) (1)		
Block 1	$	0.96
Block 2	$	1.26
Block 3	$	2.53
Block 1 and Block 2 Limits (in HCF)		
	Block 1 Limit	**Block 2 Limit**
5/8' x 3/4" meter	20	300
1" meter	30	300
1 1/2" meter	60	300
2" meter	90	300
3" meter	180	300
4" meter	280	300
6" meter	340	(2)
8" meter	520	(2)

Notes:
(1) HCF = 100 cubic feet = 748 gallons
(2) Usage above the Block 1 Limit will trigger the Block 3 rate.

Based on the current number of active water service customers, the current water rates (calendar year 2008) are estimated to generate about $11,640,000 per year in revenue for the water utility. Service charges provide about 42 percent of the water rate revenue, while water usage charges provide about 58 percent of the revenue.

Based on discussions with staff, the current water rate structure is generally performing as intended from the perspective of providing stable and predictable revenues, encouraging water conservation, and being understood by customers. As a result, this study did not include the evaluation of alternative water rate structures. However, as discussed later in this section, the requirements of the newly revised CUWCC Best Management Practice #11 necessitates a gradual change in the water rates to place greater emphasis on water usage charges, and less emphasis on fixed service charges.

CUSTOMER ACCOUNT DATA AND WATER USE CHARACTERISTICS

As of November 2007 the City's water utility had 18,063 active water service accounts. More than 90 percent of customers (predominately single family residential) have 5/8" x 3/4" water meters. Larger meter sizes are primarily used by non-residential and multi-family customers that place larger demands on the water system.

Metered water use data was obtained from the City's utility billing system for the FY 06-07 fiscal year. The water utility had water sales of about 13,029 AF (5,675,000 HCF) in FY 06-07. Under the existing three-tier water rate structure about 59 percent of total annual water use occurs in the first tier. Second and third tier water use are about 35 percent and 6 percent, respectively.

BEST MANAGEMENT PRACTICE #11

The City of Manteca is a signatory agency of the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding regarding water conservation. As a result, the City is required to implement water conservation best management practices promulgated by the CUWCC. In June 2007, the CUWCC adopted changes to BMP #11 regarding water conservation oriented water rates. As revised, BMP #11 requires urban water agencies to adopt water rates that generate at least 70 percent of rate revenue from water usage charges, with no more than 30 percent of revenue from fixed service charges.

BMP #11 contains a phase in period that provides the City with four years to fully meet this requirement. Therefore, the requirement that water rate revenues be comprised at least 70 percent from water usage charges will not be fully applicable until 2011[7].

At present, about 58 percent of the City's water rate revenue is obtained from water usage charges, with about 42 percent of revenue obtained from fixed monthly service charges. It is estimated that with each proposed annual water rate increase, the City should reduce the fixed

[7] BMP #11 also includes provisions for determining an alternative water usage revenue target. However, it is recommended that the City not pursue that alternative.

monthly service charges, and increases water usage charges to meet revenue needs in order to meet the BMP #11 requirements in 2011. It is recommended that the City follow this course of action in the near-term and periodically review progress towards meeting this requirement.

By placing greater emphasis on water usage charges, relative to fixed service charges, the water rate structure will not only provide customers with increased financial incentives for conserving water, but this change in the water rate structure will also help maintain the affordability of basic water usage. Customers using less water will have smaller monthly bill increases relative to customers that use large amounts of water.

WATER RATE REVENUE REQUIREMENTS

The calculation of water rates involves a three-step process. First, the annual water rate revenue requirement must be determined. The water rate revenue requirements is that amount of revenues to be generated annually to meet operating, capital program, and debt service needs and obligations with consideration of other water system revenues and reserves. Annual water rate revenue requirements were determined using the financial planning model described in the previous section. The second step in the rate setting process is a cost of service analysis accomplished by the allocation of water system costs to rate components. Finally, the third step in the process is rate design and the development of water rate schedules.

To meet the water utility's revenue needs, an increase in water rates is proposed each year in January. Beginning in January 2009 and continuing each January through 2013, the financial plan indicates that 5.0 percent annual rate increases will be needed to meet the water utility's financial obligations. Calendar year annual revenue requirements are as follows:

CY 2009	$12,342,000	5%
CY 2010	$13,089,000	5%
CY 2011	$13,881,000	5%
CY 2012	$14,721,000	5%
CY 2013	$15,910,000	5%

The water rate schedules developed for each fiscal year are intended to generate the amount of revenues listed above based on the estimated number of customers and total annual water use for each year of the planning period.

COST OF SERVICE ANALYSIS

Cost allocation is the method by which the annual water rate revenue requirement is recovered from each customer class based on the cost of providing water service. There are a number of ways to allocate costs for rate setting purposes. Some are rather complex and require detailed knowledge of water system costs, cost drivers, and customer water use characteristics (including peaking characteristics). Others are somewhat simpler to understand and administer. We used an approach commensurate with available data that categorizes water system costs into three specific categories. These include:

- *Customer Costs* – Customer costs such as meter reading, billing, and customer service are fixed costs that tend to vary as a function of the number of customers served. Customer costs are allocated to customers based on the number of accounts.
- *Capacity Costs* – Capacity costs are also fixed costs however they tend to vary in relation to the capacity of the water system. Customers that place greater or lesser demands on the water system should bear greater or lesser shares of these costs. The water distribution system is sized to meet peak demands. The demand that each customer could potentially place on the water system is reflected by the size and hydraulic capacity of the water meter. Capacity costs include costs associated with the water system's capacity including fixed operating costs, water system maintenance, and capital rehabilitation programs.
- *Commodity Costs* – Commodity costs are costs that vary with the amount of actual water consumption. Water treatment and pumping costs are the most significant examples. In addition, distribution maintenance, administrative costs, and other costs that may not be truly variable are frequently allocated based on water usage. These so-called semi-variable costs are typically included in the commodity portion of rates to improve the water conservation incentive embodied in the rates, and to avoid unreasonably high service charges. Commodity costs are recovered from customers based on actual water usage.
- *Shared (Indirect) Costs* – Some cost items are not directly allocated to any of the three components identified above. Instead these costs are first allocated as a shared cost, and subsequently reallocated to each of the three components based on the percentage of costs that were directly allocated to these components.

The allocation of costs to each cost component normally occurs at the individual line-item level of detail in the City's water utility budget and account structure. Most costs are allocated directly to the customer, capacity, or commodity component, although some items are categorized as shared costs then reallocated indirectly. In conjunction with the above cost allocation framework, the requirements of BMP #11 necessitate that water rates generate 70 percent of revenue from water usage charges by 2011. As a result, a growing portion of costs will be assigned to the commodity cost category described above. The effect of this change is that customers will increasingly be paying for water service based on water usage, rather than other factors.

WATER RATE DESIGN

Water rate design and the development of water rate schedules takes place after the annual revenue requirement has been determined, and after the cost of service analysis has been performed. The water rates considered during this study include the monthly service charge and a three-tier commodity rate.

The monthly service charge is intended to recover the fixed customer and capacity costs from customers. Service charges vary based on meter size, reflecting the capacity associated with

each meter size. Commodity rates are intended to recover the costs allocated to the commodity category, including variable and semi-variable costs, as described previously.

Exhibits III-2 through III-4 present details of water rate calculations for January 2009, January 2010, and January 2011, respectively. This is the period in which a growing portion of revenues will be recovered through water usage charges. For January 2012 and January 2013, the proposed rates simply reflect the overall rate increases of 5.0 percent, which is applied to both fixed service charges and the tiered water usage rates. Water rate calculations follow the same approach as used in the *2002 Water Rate Study*.

Using the proposed water rates for January 2009 as an example, as shown in Exhibit III-2, customer costs represents $3.77 of the service charge for all meter sizes. Capacity costs vary from $16.18 for a 5/8" x 3/4" water meter to $862.90 for an 8" water meter. The total monthly service charge for customers with a 5/8" x 3/4" meter (this includes most single family residential customers) is proposed to decrease from $20.25 to $19.95, for a total of decrease of $0.30.

The three-tier commodity rate is determined by dividing commodity costs by the total volume of estimated water sales to determine an average commodity rate. Then tier rates are calculated based on the relative differences between current tier rates (in percentage terms), as well as the percentage of total annual water sales expected within each tier. As shown in Exhibit III-2 for July 2009, this results in commodity rates of $1.03, $1.35, and $2.72 per HCF, respectively. This is an increase of $0.07, $0.11, and $0.19 per HCF for each of the three tiers, respectively. The commodity rates apply to all water used by all water service customers.

In addition, it is recommended that the City use the Tier 3 water usage rate for potable water sold for construction purposes. This will encourage water conservation, and may encourage use of the City's recycled water. The nature of construction water usage makes it impractical to apply the tier rate structure.

Exhibit III-5 summarizes annual water rate schedules for the next five years. Current water rates should continue through December 2008, with new rates beginning in January 2009. Two additional special issues should be considered by the City.

The City does not currently charge itself for water used for municipal purposes, including park irrigation and use within municipal buildings. The City plans to address this issue by taking 10 parks off of the potable water system over the next 5 years by constructing irrigation wells at these 10 parks. Irrigation wells would be operated and maintained by the parks department. Those parks remaining on potable water after 5 years will either be charged for water usage and/or additional wells will be constructed. Municipal buildings using potable water should be billed for water service like any other customer of the City's water system.

Exhibit III-2
City of Manteca -- Water Utility
Water Rate Calculations for January 2009

	Meter Size							
	5/8"x3/4"	**1"**	**1 1/2"**	**2"**	**3"**	**4"**	**6"**	**8"**	**Totals**
Summary of Accounts									
No. of Accounts	16,715	599	149	177	43	30	6	1	17,720
No. of Equiv. Mtrs.	16,715	1,000	496	943	430	500	200	53	20,338
Hydr. Cap. Factor	1.00	1.67	3.33	5.33	10.00	16.67	33.33	53.33	
Service Charge Calculation ($/month)									
Customer Costs	$ 3.77	$ 3.77	$ 3.77	$ 3.77	$ 3.77	$ 3.77	$ 3.77	$ 3.77	
Capacity Costs	$ 16.18	$ 27.02	$ 53.88	$ 86.24	$ 161.80	$ 269.73	$ 539.29	$ 862.90	
Serv. Chrg. (rounded)	**$ 19.95**	**$ 30.80**	**$ 57.65**	**$ 90.00**	**$ 165.60**	**$ 273.50**	**$ 543.05**	**$ 866.70**	
Ann. Serv. Chrg. Revs.	$ 4,001,571	$ 221,390	$ 103,078	$ 191,160	$ 85,450	$ 98,460	$ 39,100	$ 10,400	$ 4,751,000

Summary of Water Rate Revenue Requirement			***Commodity Rate Calculations ($/HCF)***	**Ann. Use**	**Rate**	**Ann. Rev.**
Customer Costs	$ 802,000	6.5%	Block 1	3,630,000	$ 1.03	$ 3,745,000
Capacity Costs	$ 3,949,000	32.0%	Block 2	2,105,000	$ 1.35	$ 2,851,000
Commodity Costs	$ 7,590,000	61.5%	Block 3	366,000	$ 2.72	$ 995,000
Total Revenue Rqmt.	**$ 12,342,000**		Totals	6,100,000		$ 7,591,000

Exhibit III-3
City of Manteca -- Water Utility
Water Rate Calculations for January 2010

	Meter Size								
	5/8"x3/4"	**1"**	**1 1/2"**	**2"**	**3"**	**4"**	**6"**	**8"**	**Totals**
Summary of Accounts									
No. of Accounts	16,882	605	150	179	43	30	6	1	17,896
No. of Equiv. Mtrs.	16,882	1,010	500	954	430	500	200	53	20,529
Hydr. Cap. Factor	1.00	1.67	3.33	5.33	10.00	16.67	33.33	53.33	
Service Charge Calculation ($/month)									
Customer Costs	$ 3.47	$ 3.47	$ 3.47	$ 3.47	$ 3.47	$ 3.47	$ 3.47	$ 3.47	
Capacity Costs	$ 15.04	$ 25.11	$ 50.07	$ 80.14	$ 150.35	$ 250.64	$ 501.13	$ 801.84	
Serv. Chrg. (rounded)	**$ 18.50**	**$ 28.60**	**$ 53.55**	**$ 83.60**	**$ 153.85**	**$ 254.10**	**$ 504.60**	**$ 805.30**	
Ann. Serv. Chrg. Revs.	$ 3,747,804	$ 207,636	$ 96,390	$ 179,573	$ 79,387	$ 91,476	$ 36,331	$ 9,664	$ 4,448,000

Summary of Water Rate Revenue Requirement

Customer Costs	$ 746,000	5.7%
Capacity Costs	$ 3,704,000	28.3%
Commodity Costs	$ 8,639,000	66.0%
Total Revenue Rqmt.	**$ 13,089,000**	

Commodity Rate Calculations ($/HCF)

	Ann. Use	**Rate**	**Ann. Rev.**
Block 1	3,666,000	$ 1.16	$ 4,262,000
Block 2	2,126,000	$ 1.53	$ 3,244,000
Block 3	370,000	$ 3.06	$ 1,134,000
Totals	6,162,000		$ 8,640,000

Exhibit III-4
City of Manteca -- Water Utility
Water Rate Calculations for January 2011

	Meter Size								
	5/8"x3/4"	**1"**	**1 1/2"**	**2"**	**3"**	**4"**	**6"**	**8"**	**Totals**
Summary of Accounts									
No. of Accounts	17,051	611	152	181	43	30	6	1	18,075
No. of Equiv. Mtrs.	17,051	1,020	506	965	430	500	200	53	20,726
Hydr. Cap. Factor	1.00	1.67	3.33	5.33	10.00	16.67	33.33	53.33	
Service Charge Calculation ($/month)									
Customer Costs	$ 3.20	$ 3.20	$ 3.20	$ 3.20	$ 3.20	$ 3.20	$ 3.20	$ 3.20	
Capacity Costs	$ 13.95	$ 23.30	$ 46.46	$ 74.36	$ 139.52	$ 232.58	$ 465.02	$ 744.07	
Serv. Chrg. (rounded)	**$ 17.15**	**$ 26.50**	**$ 49.65**	**$ 77.55**	**$ 142.70**	**$ 235.80**	**$ 468.20**	**$ 747.25**	
Ann. Serv. Chrg. Revs.	$ 3,509,096	$ 194,298	$ 90,562	$ 168,439	$ 73,633	$ 84,888	$ 33,710	$ 8,967	$ 4,164,000

Summary of Water Rate Revenue Requirement

Customer Costs	$ 694,000	5.0%
Capacity Costs	$ 3,470,000	25.0%
Commodity Costs	$ 9,717,000	70.0%
Total Revenue Rqmt.	**$ 13,881,000**	

Commodity Rate Calculations ($/HCF)

	Ann. Use	Rate	Ann. Rev.
Block 1	3,703,000	$ 1.29	$ 4,794,000
Block 2	2,147,000	$ 1.70	$ 3,648,000
Block 3	373,000	$ 3.41	$ 1,273,000
Totals	6,224,000		$ 9,715,000

Exhibit III-5
City of Manteca -- Water Utility
Current and Proposed Schedule of Water Rates

	Effective 1/1/2008	Proposed 1/1/2009	Proposed 1/1/2010	Proposed 1/1/2011	Proposed 1/1/2012	Proposed 1/1/2013
Fixed Monthly Service Charges						
5/8' x 3/4" meter	$ 20.25	$ 19.95	$ 18.50	$ 17.15	$ 18.00	$ 18.90
1" meter	$ 31.40	$ 30.80	$ 28.60	$ 26.50	$ 27.85	$ 29.25
1 1/2" meter	$ 58.73	$ 57.65	$ 53.55	$ 49.65	$ 52.15	$ 54.75
2" meter	$ 91.83	$ 90.00	$ 83.60	$ 77.55	$ 81.45	$ 85.50
3" meter	$ 169.05	$ 165.60	$ 153.85	$ 142.70	$ 149.85	$ 157.35
4" meter	$ 279.32	$ 273.50	$ 254.10	$ 235.80	$ 247.60	$ 260.00
6" meter	$ 554.67	$ 543.05	$ 504.60	$ 468.20	$ 491.60	$ 516.20
8" meter	$ 885.18	$ 866.70	$ 805.30	$ 747.25	$ 784.60	$ 823.85
Water Use Charge ($/HCF) (1)						
Block 1	$ 0.96	$ 1.03	$ 1.16	$ 1.29	$ 1.36	$ 1.43
Block 2	$ 1.26	$ 1.35	$ 1.53	$ 1.70	$ 1.78	$ 1.87
Block 3 (3)	$ 2.53	$ 2.72	$ 3.06	$ 3.41	$ 3.58	$ 3.76

Block 1 and Block 2 Limits (in HCF)

	Block 1 Limit	Block 2 Limit
5/8' x 3/4" meter	20	300
1" meter	30	300
1 1/2" meter	60	300
2" meter	90	300
3" meter	180	300
4" meter	280	300
6" meter	340	(2)
8" meter	520	(2)

Notes:

(1) HCF = 100 cubic feet = 748 gallons
(2) Usage above the Block 1 Limit will trigger the Block 3 water usage charge.
(3) Water used for construction purposes shall be charged at the Block 3 water use charge.

IV. WATER SYSTEM DEVELOPMENT FEES

This section of the report describes the calculation of three water system development fees to be paid by new development at the time of connection to the water system. These proposed fees include the existing surface water fee[8] and the meter installation fee, and a new surface water capital fee. The City also has a water capacity charge and a water PFIP fee. The water PFIP fee for Zone 12 reflects the cost of new distribution facilities. It is similar to the water capacity charge for Zone 11, although the water capacity charge reflects the cost of existing distribution capacity. City staff has determined that no surplus capacity exists in Zone 11, and therefore plans to eliminate this fee. The water PFIP fee has been developed and calculated in other studies, and is not addressed in this report.

CURRENT SURFACE WATER AND METER INSTALLATION FEES

The City's current surface water and meter installation fees for new development are shown in **Exhibit IV-1**. The fees were last adjusted in January 2007. Both fees are applicable to new water system connections citywide. The surface water fee is intended to reflect the cost of capacity in the SCWSP. The meter installation fee represents the material and labor cost associated with installing water meters on new service lines. Both fees are assessed to new water service connections based on the size of the water meter.

Exhibit IV-1
City of Manteca -- Water Utility
Current Surface Water and Meter Installation Fees

Meter Size	Surface Water Fee	Meter Installation Fee
5/8" x 3/4" meter	$ 2,460	$ 900
1" meter	$ 4,110	$ 990
1 1/2" meter	$ 8,190	$ 1,700
2" meter	$ 13,105	$ 1,880
3" meter	$ 24,590	$ 12,120
4" meter	$ 40,995	$ 14,070
6" meter	$ 81,965	$ 25,965
8" meter	$ 131,140	$ 32,110

Notes:
(1) Effective January 2007.

[8] Now to be called the surface water debt fee.

A subtle distinction exists between connection fees and capacity charges, although the term connection fee is frequently used synonymously with capacity charges, and both can be considered water system development fees. The meter installation fee described herein is a connection fee in that it represents the cost materials and labor associated with the installing a water meter as part of the physical connection to the water system. The surface water fee is a capacity charge intended to represent a proportionate share of the cost of capacity in surface water treatment and transmission facilities. Capacity charges represent a small share of large system-wide improvement costs. As discussed below, there are several ways to determine capacity charges. Furthermore, the calculation of both connection fees and capacity charges are governed by statutory requirements.

LEGAL REQUIREMENTS FOR WATER SYSTEM DEVELOPMENT FEES

The City has broad authority to charge users for capital facilities. The limitations of that authority are encompassed by the requirement that charges on new development bear a *reasonable relationship* to the needs created by, and the benefits accruing to that development. California courts have long used that *reasonableness* standard or *nexus* test to evaluate the constitutionality of exactions, including water system capital facility fees.

During the 1988 session of the California Legislature sections of the Government Code were added to codify constitutional and decisional law related to fees imposed on new development. Assembly Bill 1600 (AB 1600) enacted Government Code Sections 66000-66003 related to development fees. These code sections generally contain three requirements:

1. Local agencies must follow a process set forth in the statutes and made certain determinations regarding the purpose and use of the fee and to establish a nexus or connection between a development project and the public improvement being financed with the fee.
2. The fee revenue must be segregated from the general fund in order to avoid commingling of capital facility fees and the general fund.
3. If a local agency has unspent or uncommitted development fees for five years or more, then it must make annual findings describing the continuing need for that money, or it must refund the fees.

Since the passage of AB 1600 various code sections have been added and modified to further clarify and expand the requirements related to developer fees. In particular, Government Code Section 66013 contains requirements specific to water connection fees and capacity charges. The most pertinent part of Section 66013 states:

> …when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed…

The key to the statutory requirements for water connection fees and capacity charges is that they shall not exceed the *estimated reasonable cost* of providing service. The City's water system

development fees should also meet the reasonable relationship standard or nexus test mentioned earlier and should reflect consideration of the following criteria, which would likely be considered by a court in evaluating the validity of these fees:

- *Need* – Water system development fees should only be imposed on development that will need capacity in facilities provided by the City (i.e., development with a water connection).
- *Benefit* – Improvements to be funded (or reimbursed) by fees should satisfy the service needs related to the development on which the fees are imposed (i.e., new development is served by the facilities paid for by the fees).
- *Amount* – The amount of the fees should reflect the reasonable cost of providing service capacity, and the share of the costs attributable to the service needs of new development (i.e., the fees should reflect a proportionate share of costs).
- *Earmarking* – Revenue from water system development fees should be segregated from other funds and used solely to pay for the facilities for which the charge was imposed.
- *Timely Expenditure* – Revenue from water system development fees should be expended within a reasonable time after it is collected.

Applying these criteria to the City's situation requires an understanding of how improvement needs are established, how capacity is provided to new development, how costs are estimated and allocated, and how fee revenues are accounted for and spent.

CALCULATION OF WATER SYSTEM DEVELOPMENT FEES

The calculation of surface water fees and meter installation fee are described below. The current surface water fee will now be called the surface water debt fee, as it represents a proportionate share of debt service costs associated with capacity in SSJID's SCWSP. A new surface water capital fee reflects the proportionate share of costs associated with additional capital improvements planned by SSJID to improve the SCWSP. Calculation of the surface water debt fee and the meter installation fee both follow the same methodologies as previously used by the City for these fees.

Surface Water Debt Fee

The surface water debt fee represents a proportionate share of capital costs associated with initial treatment and transmission capacity provided by the SCWSP. In summary, the fee was determined by identifying the total cost of constructing facilities and dividing this amount by the number of customers (expressed on an equivalent meter basis) that can be served from the facility, based on the City's conjunctive use water supply operations.

The City of Manteca began to incur costs for the SCWSP in 1995 when SSJID's various planning activities were being paid for by participating agencies, including the City. Past costs have been inflated to current dollar values to reflect the time value of money. The bulk of SCWSP capital costs were incurred in 2003 with the construction of the water treatment plant and related

transmission facilities. The surface water debt fee was last formally calculated in the *2002 Water Rate Study*. That calculation was based on assumptions related to the financing of the SCSWP.

A majority of the City's share of construction costs were financed by the City by issuing proceeds from the 2003 Water Revenue Bonds. The debt issue and associated debt service obligations were described previously in Section II of this report.

The updated surface water fee calculation presented herein reflects actual details of the 2003 Water Revenue Bonds. With the financing of the majority of the City's share of the SCSWP, the City is incurring interest costs associated with the financing.

From a customer perspective the cost of financing is reflected in the net present value of debt service payments. This net present value cost was determined by discounting future annual debt service payments by a 3.0 percent discount rate. Historical debt service costs are brought to present value terms using the CPI index.

The updated calculation of the surface water debt fee is presented in **Exhibit IV-2**. The fee calculation begins with the analysis of water production capacity. Under its agreement with SSJID, the City has the ability to obtain 11,500 AF of surface water from Phase 1 of the SCSWP. The City plans to use a combination of surface water and groundwater to meet customer demands, with surface water comprising 53 percent of the water supply and groundwater 47 percent. Based on this supply mix, and the capacity available with Phase 1 of the SCSWP, the City has water supply capacity equivalent to 21,700 AF.

Single family average water demand is equal to 24 HCF per month. This amount is defined as the average demand to be met with a ¾" water meter, and is equivalent to 590 gallons per day (gpd). Unaccounted for water is estimated at 15 percent within the City. Therefore, to meet a customer demand of a ¾" meter (590 gpd) water production needs to average 695 gpd. Based on this production requirement, the 21,700 AF water supply is capable of serving 27,888 ¾" equivalent meters. At the time the SCSWP was constructed the City's water system served about 17,479 equivalent meters (62.7 percent). Therefore, the water supply was capable of serving an additional 10,409 equivalent meters (37.3 percent). At this time, the City's water system serves about 20,338 ¾" equivalent meters. Therefore, an additional 7,550 equivalent meters can be connected to the water system with the current water supplies and supply strategy.

The City's share of Phase 1 of the SCSWP has been estimated at about $48.0 million based on information contained in the *2002 Water Rate Study* and the 2003 Water Revenue Bond *Official Statement*. Using the number of existing and new development at the time the project was initiated as the basis for cost allocation, about $30.1 million of the total project cost was attributable to existing customers and about $17.9 million attributable to development occurring after construction of the project. Preliminary costs for planning and design, and well as a portion of construction costs, were paid prior to debt issuance and with available reserves obtained from surface water fees paid by development prior to 2003. As a result, about 53.1 percent of the project's costs that were financed were attributable to existing development and about 46.9 percent to new development.

Exhibit IV-2
City of Manteca -- Water Utility
Calculation of Surface Water Debt Fee

Analysis of Water Production Capacity			
Manteca's SCWSP Phase 1 Capacity	11,500	AF	
Total Annual Water Demand Supported by Phase 1 Capacity (1)	21,700	AF	
Average Demand for 3/4" equivalent meter (2)	590	gpd	
Average Production Required for 3/4" equivalent meter (3)	695	gpd	
Total No. of 3/4" Equiv. Mtrs. Served with Phase 1 Capacity (4)	27,888		
No. of Existing 3/4" Equiv. Mtrs. at Time of SCWSP Construction (5)	17,479	62.7%	
No. of New 3/4" Equiv. Mtrs to be Service by Phase 1 Capacity (6)	10,409	37.3%	

Analysis of Manteca's Share of SCWSP Phase 1 Costs	**City of Manteca**	**Existing Development**	**New Development**
Estimated Total Project Cost (7)	$ 48,043,000	$ 30,111,000	$ 17,932,000
Less Contributions by Existing Customers			
Preliminary SCSWP Phase 1 Costs (8)		$ (5,026,000)	
Funds Available in Fund 68 (8)		$ (4,436,000)	
Funds Available in Fund 69 (8)		$ (315,000)	
Project Cost Financed from Bond Proceeds	$ 38,266,000	$ 20,334,000	$ 17,932,000
		53.1%	46.9%
Allocation of 2003A Water Revenue Bond Costs			
Project Cost Financed from Bond Proceeds	$ 38,266,000	$ 20,334,000	$ 17,932,000
Capitalized Interest Fund (9)	$ 1,500,000	$ -	$ 1,500,000
Rate Stabilization Reserve (10)	$ -	$ (1,500,000)	$ 1,500,000
Costs of Issuance (11)	$ 1,254,000	$ 594,000	$ 660,000
Debt Service Reserve Fund (12)	$ 3,473,000	$ 1,237,000	$ 2,236,000
Reoffering Premium (13)	$ (1,168,000)	$ (1,168,000)	$ -
Allocation of 2003A Revenue Bond Issue	$ 43,325,000	$ 19,497,000	$ 23,828,000
Percentage Allocation for Debt Service Payments		**45.0%**	**55.0%**

Surface Water Fee Calculation		
2008 New Present Value of 2003A Water Revenue Bond Debt Service Payments (14)	$	60,927,000
Allocation to New Development		55.0%
No. of 3/4" Equiv. Mtrs. from New Development		10,409
Surface Water Debt Fee (for 3/4" meter)	**$**	**3,219**

Notes:

(1) Based on 53 percent of water supply provided by SCWSP Phase 1 capacity (balance from groundwater).
(2) Based on average single family water demand of 24 HCF per month.
(3) Based on 15 percent unaccounted for water.
(4) Based on 21,700 AF of capacity divided by 695 gpd, with unit conversions.
(5) From 2002 Water Rate Study.
(6) Includes new development since construction of SCSWP Phase 1.
(7) Includes includes planning/design costs and reserves available prior to construction from 2002 Water Rate Study, plus net proceeds from 2003A Water Revenue Bonds. Allocations based on percentages above.
(8) From 2002 Water Rate Study.
(9) From 2003A Water Revenue Bond Official Statement. Incorporated due to uncertainty associated with new development.
(10) From 2002 Water Rate Study. Reserve funded from existing reserves, but allocated as a cost to new development.
(11) From 2003A Water Revenue Bond Official Statement. Allocation based on distribution of preceeding 3 lines.
(12) From 2003A Water Revenue Bond Official Statement. Allocation skewed due to new development uncertainty.
(13) From 2003A Water Revenue Bond Official Statement. Premium allocated to existing development.
(14) Based on debt service repayment schedule with historical payments adjusted based on CPI and future payments discounted at 3 percent per year.

The structure of the 2003 water revenue bonds included some elements to help manage and reduce financial risk associated with the expectation that a portion of the debt service would be paid with fee revenue from new development. Capitalized interest and the establishment of a $1.5 million rate stabilization reserve both helped offset potential financial risk. The cost of these items is attributable to new development. In addition, issuance costs and funds for the debt service reserve were allocated between existing and new development. As a result of these adjustments, it is estimated that 55 percent of the debt service associated with the 2003 water revenue bonds should be paid by new development and included in the basis for surface water fee. About 45 percent of the debt service is attributable to existing customers and should be recovered with a portion of water rate revenues.

The final calculation of the surface water debt fee is based on the net present value of all debt service payments associated with the 2003 water revenue bonds. As shown near the bottom of Exhibit IV-2, the net present value of debt service payments is estimated at about $60.9 million. Fifty-five percent of this amount is attributable to new development. Dividing the new development share of debt service costs by the 10,409 equivalent meters that are expected to ultimately be served by the available capacity results in a surface water fee of $3,219 for a ¾" meter.

The surface water debt fee calculation presented in Exhibit IV-2 includes costs attributable to all new development that could be served by the SCWSP Phase 1 capacity at the time the facilities were constructed (i.e., costs attributable to 10,409 equivalent meters). However, capacity for only 7,550 equivalent meters remains at this time (and additional fee revenue will only be collected from this remaining connection capacity). This additional fee revenue (when it is collected), combined with existing reserves in Fund 069 (collected from surface water fees paid by new development in recent years) along with related debt service reserves and future interest earnings are expected to be sufficient to cover the costs associated with the new development share of debt service. Uncertainty does exist, however, if new development activity slows to such at level and for such a period of time that surface water debt fee revenues and Fund 069 reserves are insufficient to pay the new development share of debt service costs. While this is not expected to occur, if it does occur the debt service payment obligation will fall to the water utility's operating fund and would be paid with revenues received from existing ratepayers.

The basic surface water debt fee is scaled for larger meter sizes based on the hydraulic capacity provided by each meter size. A complete surface water debt fee schedule proposed for 2008 is provided in Exhibit IV-5, at the end of this section.

Surface Water Capital Fee

Following the initial construction of Phase 1 of the SCWSP, SSJID identified additional capital improvements to upgrade, improve, and rehabilitate various aspects of the water treatment and transmission system. These improvements provide additional benefits to both existing and new customers of the water system. These improvements will be constructed without incurring

additional debt. The City of Manteca determined that an additional water system development fee would be appropriate for covering the proportionate share of these costs from new development. The proposed surface water capital fee is intended to serve this purpose.

The calculation of the surface water capital fee is presented in **Exhibit IV-3**. Five separate capital improvement projects have been proposed by SSJID. The estimated cost of these improvements (in current dollars) is shown in Exhibit IV-3. Costs are allocated between existing and new customers based on the current customer base and the total customer base that can be supported by Manteca's water system, with its conjunctive use capabilities. Costs allocated to new development are then divided by the remaining capacity (7,550 equivalent meters) that will be used as new development occurs to arrive at the proposed fee of $98 for a ¾" meter.

Exhibit IV-5 summarizes the complete fee schedule across the various meter sizes.

Exhibit IV-3
City of Manteca -- Water Utility
Calculation of Surface Water Capital Fee

	Estimated Total Cost (1)	Existing Development	New Development	
Engine Generator for Turnout M2	$ 190,000	$ 138,700	$ 51,300	
Engine Generator for Turnout M2	$ 190,000	$ 138,700	$ 51,300	
SSJID WTP CIP Projects	$ 1,000,000	$ 730,000	$ 270,000	
Corrosion Control System	$ 30,000	$ 21,900	$ 8,100	
Membrane Replacement Project	$ 1,326,000	$ 967,980	$ 358,020	
	$ 2,736,000	$ 1,997,280	$ 738,720	
		73%	27%	
Total No. of 3/4" Equiv. Mtrs. Served with Phase 1 Capacity (2)			27,888	
Total No. of Existing 3/4" Equiv. Meters (3)			20,338	
Total No. of Remaining 3/4" Equiv. Mtrs. of Phase 1 Capacity			7,550	27%
Proposed Surface Water Capital Fee (3/4" meter)			**$ 98**	

Notes:
(1) From Exhibit II-3.
(2) From Exhibit IV-2.
(3) From Exhibit III-2.

Meter Installation Fee

The City of Manteca adopted a meter installation fee in 1993 based on the cost of materials and labor for installing, maintaining, and replacing water meters over a 40 year service life of each service connection. The meter installation fees were updated with the *2002 Water Rate Study*, and have been adjusted annually since that time.

The proposed meter installation fee is based on updated cost information provided by City staff on the labor, materials, and equipment utilization associated with installing water meters on new service connections. The cost of meter installation varies by meter size. In particular, meters 3" and large are considerably more expensive to install than smaller meters due to the additional fittings and valves required.

The proposed meter installation fees exclude the estimated cost of maintenance and replacement. These costs should not be included in connection fees, which are intended to reflect the cost of initial installation, but should be recovered over the life of the meters through water rates. Because it is recommended that future maintenance and replacement costs be excluded from meter installation fees, the proposed fees are lower than current meter installation fees.

The City is establishing a new fund – the Water Meter Installation Fund (071) – for the purpose of accounting for meter installation fee revenues and expenses. With this new fund, the City will be able to more accurately track the actual costs of meter installations, and this may result in improved fee calculations in the future.

Exhibit IV-4 summarizes an updated calculation of meter installation fees. Each new service connection to the City's water system should pay the meter installation fee based on the size of water meter installed.

Exhibit IV-4
City of Manteca -- Water Utility
Calculation of Meter Installation Fees (1)

Meter Size	Meter	Meter Box & Cover	Fittings	Labor	Truck Utilization	Total Meter Installation Cost
5/8" x 3/4" meter	$ 150	$ 25	$ 10	$ 50	$ 11	$ 246
1" meter	$ 250	$ 25	$ 10	$ 50	$ 11	$ 346
1 1/2" meter	$ 400	$ 120	$ 20	$ 50	$ 11	$ 601
2" meter	$ 500	$ 120	$ 20	$ 50	$ 11	$ 701
3" meter	$ 975	$ -	$ 1,115	$ 1,200	$ 22	$ 3,312
4" meter	$ 1,500	$ -	$ 1,295	$ 1,200	$ 22	$ 4,017
6" meter	$ 7,650	$ -	$ 2,490	$ 1,200	$ 22	$ 11,362
8" meter	$ 10,100	$ -	$ 3,330	$ 1,200	$ 22	$ 14,652

Notes:
(1) Cost data provided by City staff.

RECOMMENDED SCHEDULE OF WATER SYSTEM DEVELOPMENT FEES

Exhibit IV-5 summarizes the complete schedule of the proposed surface water debt fee, surface water capital fee, and meter installation fee. The surface water fees are scaled across meter sizes based on the hydraulic capacity of each meter size relative to the capacity of the standard 5/8" x

3/4″ meter. The meter installation fee increases across meter size based on estimated material and labor costs associated with installing meters of various sizes. The fees proposed herein should be adjusted annually based on the change in the 20-cities CCI, and comprehensively reviewed and updated if underlying information or assumptions change materially.

Exhibit IV-5
City of Manteca -- Water Utility
Proposed Surface Water Debt, Surface Water Capital, and Meter Installation Fees for 2008

Meter Size	Surface Water Debt Fee	Surface Water Capital Fee	Meter Installation Fee
5/8" x 3/4" meter	$ 3,219	$ 98	$ 246
1" meter	$ 5,376	$ 163	$ 346
1 1/2" meter	$ 10,720	$ 326	$ 601
2" meter	$ 17,158	$ 522	$ 701
3" meter	$ 32,192	$ 978	$ 3,312
4" meter	$ 53,664	$ 1,631	$ 4,017
6" meter	$ 107,296	$ 3,261	$ 11,362
8" meter	$ 171,680	$ 5,218	$ 14,652

APPENDIX A – FINANCIAL PLAN BUDGET DETAIL

Exhibit A-1
City of Manteca -- Water Utility
Water Utility Budget Detail (1)

		Budget Detail			Future Estimates						
		FY 06-07 Actual	FY 07-08 Budget	FY 08-09 Est./Prop.	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
REVENUES											
Water M&O Fund - 68											
Use of Money & Property											
341 30 00	Interest on Investments	$ 1,038,589	$ 500,000	$ 1,024,000	$ 748,000	$ 495,000	$ 269,000	$ 223,000	$ 262,000	$ 202,000	$ 247,000
341 30 03	SSJID Trust Account	$ 5,037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
341 30 05	LaSalle Trust Account	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
341 30 23	2003 Bond Issue	$ 68,545	$ 75,000	$ 97,000	$ 97,000	$ 97,000	$ 97,000	$ 97,000	$ 97,000	$ 97,000	$ 97,000
341 30 98	Market Value Change	$ 66,426	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
341 30 99	Unallocated Invest Expense	$ (17,815)	$ (14,000)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Revenue											
361 10 00	Misc. Reimbursement	$ 3,947	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
361 15 00	Misc. Receipts	$ 117,910	$ 110,000	$ 113,000	$ 116,000	$ 119,000	$ 123,000	$ 127,000	$ 131,000	$ 135,000	$ 139,000
361 15 05	Rebates	$ 32,959	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
887 04 00	Bad Debt Expense	$ (59,623)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
888 03 01	Sale of Assets	$ 1,015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Service Fee											
378 01 00	Water Service Charges	$ 11,265,963	$ 11,450,000	$ 11,941,000	$ 12,663,000	$ 13,430,000	$ 14,242,000	$ 15,232,000	$ 16,322,000	$ 17,303,000	$ 18,345,000
378 01 01	Billed Deposits	$ 1,482	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Revenues - Water M&O Fund		**$ 12,524,435**	**$ 12,121,000**	**$ 13,175,000**	**$ 13,624,000**	**$ 14,141,000**	**$ 14,731,000**	**$ 15,679,000**	**$ 16,812,000**	**$ 17,737,000**	**$ 18,828,000**
Surface Water Fee Fund - 69											
Use of Money & Property											
341 30 00	Interest on Investments	$ 345,712	$ 200,000	$ 269,000	$ 245,000	$ 224,000	$ 191,000	$ 165,000	$ 200,000	$ 242,000	$ 291,000
341 30 03	SSJID Trust Account	$ 5,772	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
341 30 23	2003 Bond Issue	$ 97,827	$ 10,000	$ 56,000	$ 56,000	$ 56,000	$ 56,000	$ 56,000	$ 56,000	$ 56,000	$ 56,000
341 30 98	Market Value Change	$ 20,051	$ 5,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
341 30 99	Unallocated Invest Expense	$ (5,883)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Revenue											
361 10 00	Misc. Reimbursement	$ 480	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
361 15 00	Misc. Receipts	$ 32,802	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Development Impact Fees											
389 01 01	Meter Installation Fee	$ 719,160	$ 173,000								
389 01 02	Water Connection CI Fee	$ 204,430	$ 31,350								
389 07 00	Surface Water Debt Fee	$ 2,292,785	$ 392,500	$ 699,000	$ 742,000	$ 787,000	$ 834,000	$ 2,641,000	$ 2,854,000	$ 3,085,000	$ 3,334,000
	Surface Water Capital Fee			$ 5,000	$ 6,000	$ 6,000	$ 6,000	$ 20,000	$ 22,000	$ 23,000	$ 25,000
Total Revenues - Water Impact Fee Fund		**$ 3,713,136**	**$ 811,850**	**$ 1,029,000**	**$ 1,049,000**	**$ 1,073,000**	**$ 1,087,000**	**$ 2,882,000**	**$ 3,132,000**	**$ 3,406,000**	**$ 3,706,000**

Exhibit A-1 -- Continued
City of Manteca -- Water Utility
Water Utility Budget Detail

		Budget Detail			Future Estimates						
		FY 06-07 Actual	FY 07-08 Budget	FY 08-09 Budget	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
EXPENDITURES											
Water M&O Fund - 68											
Personnel Services											
491 10 01	Regular	$ 1,330,682	$ 1,503,000	$ 1,608,000	$ 1,768,800	$ 1,945,680	$ 2,140,248	$ 2,354,273	$ 2,589,700	$ 2,848,670	$ 3,133,537
491 10 02	Part Time	$ 35,287	$ 48,900	$ 25,000	$ 27,500	$ 30,250	$ 33,275	$ 36,603	$ 40,263	$ 44,289	$ 48,718
491 10 03	Overtime	$ 41,463	$ 45,000	$ 45,000	$ 49,500	$ 54,450	$ 59,895	$ 65,885	$ 72,473	$ 79,720	$ 87,692
491 10 04	Holiday Pay	$ 1,949	$ 2,300	$ 4,000	$ 4,400	$ 4,840	$ 5,324	$ 5,856	$ 6,442	$ 7,086	$ 7,795
491 10 07	Out of Class	$ 102	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
491 10 10	Admin Leave Pay	$ 6,384	$ 13,600	$ 14,350	$ 15,785	$ 17,364	$ 19,100	$ 21,010	$ 23,111	$ 25,422	$ 27,964
491 10 11	Longevity Pay	$ 10,234	$ 11,100	$ 10,700	$ 11,770	$ 12,947	$ 14,242	$ 15,666	$ 17,232	$ 18,956	$ 20,851
491 10 55	Workers Comp	$ 1,614	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
491 10 99	Compensated Absences	$ 19,758	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
491 11 00	New Requests-Sal/Benefits	$ -	$ 156,388								
491 12 01	Retirement	$ 287,993	$ 344,700	$ 364,150	$ 400,565	$ 440,622	$ 484,684	$ 533,152	$ 586,467	$ 645,114	$ 709,625
491 12 02	Health Insurance	$ 182,078	$ 249,100	$ 333,385	$ 366,724	$ 403,396	$ 443,735	$ 488,109	$ 536,920	$ 590,612	$ 649,673
491 12 03	Dental Insurance	$ 20,980	$ 27,900	$ 36,195	$ 39,815	$ 43,796	$ 48,176	$ 52,993	$ 58,292	$ 64,122	$ 70,534
491 12 04	Vision Insurance	$ 4,804	$ 5,400	$ 6,500	$ 7,150	$ 7,865	$ 8,652	$ 9,517	$ 10,468	$ 11,515	$ 12,667
491 12 05	Life Insurance	$ 4,436	$ 4,450	$ 2,905	$ 3,196	$ 3,515	$ 3,867	$ 4,253	$ 4,679	$ 5,146	$ 5,661
491 12 06	Workers Comp	$ 48,989	$ 49,250	$ 48,100	$ 52,910	$ 58,201	$ 64,021	$ 70,423	$ 77,466	$ 85,212	$ 93,733
491 12 07	Long Term Disability Ins	$ 5,924	$ 6,550	$ 7,330	$ 8,063	$ 8,869	$ 9,756	$ 10,732	$ 11,805	$ 12,986	$ 14,284
491 12 08	Deferred Compensation	$ 36,739	$ 55,550	$ 56,400	$ 62,040	$ 68,244	$ 75,068	$ 82,575	$ 90,833	$ 99,916	$ 109,908
491 12 10	Uniform Allowance	$ 1,107	$ 2,250	$ 2,925	$ 3,218	$ 3,539	$ 3,893	$ 4,282	$ 4,711	$ 5,182	$ 5,700
491 12 11	Medicare	$ 18,225	$ 20,400	$ 22,500	$ 24,750	$ 27,225	$ 29,948	$ 32,942	$ 36,236	$ 39,860	$ 43,846
491 12 12	Annual Physical Exam	$ 1,196	$ -	$ 1,200	$ 1,320	$ 1,452	$ 1,597	$ 1,757	$ 1,933	$ 2,126	$ 2,338
491 12 16	Cell Phone			$ 3,100	$ 3,193	$ 3,289	$ 3,387	$ 3,489	$ 3,594	$ 3,702	$ 3,813
	NEW STAFF ADDITIONS										
	33% of Account Asst. II			$ 24,107	$ 26,518	$ 29,169	$ 32,086	$ 35,295	$ 38,825	$ 42,707	$ 46,978
	50% of 2 Assoc. Engineer/Senior			$ 61,038	$ 67,142	$ 140,468	$ 158,138	$ 173,952	$ 191,347	$ 210,481	$ 231,530
	Reg. Compliance Technician			$ 76,210	$ 83,831	$ 92,214	$ 101,436	$ 111,579	$ 122,737	$ 135,011	$ 148,512
	Meter Reader II			$ 70,651	$ 77,716	$ 85,488	$ 94,036	$ 103,440	$ 113,784	$ 125,163	$ 137,679
	Ordinance Enforcement			$ 67,804	$ 74,584	$ 82,043	$ 90,247	$ 99,272	$ 109,199	$ 120,119	$ 132,131
	33% of Utilities Supervisor			$ 36,762	$ 40,438	$ 44,482	$ 48,930	$ 53,823	$ 59,206	$ 65,126	$ 71,639
	3 Water Distrib. Operator II			$ -	$ 95,047	$ 208,527	$ 343,122	$ 377,434	$ 415,178	$ 456,695	$ 502,365
	Related Equipment/Supplies			$ 102,175	$ 39,347	$ 47,237	$ 42,016				
Materials, Supplies & Services											
492 14 00	Utilities	$ 497,241	$ 510,170	$ 746,570	Assumed to be primarily well pumping. See Exhibit II-2 for future estimates related to groundwater production a						
492 15 00	Telephone	$ 11,089	$ 12,100	$ 9,800	$ 10,094	$ 10,397	$ 10,709	$ 11,030	$ 11,361	$ 11,702	$ 12,053
492 17 00	Office Supplies	$ 1,103	$ 1,000	$ 1,040	$ 1,071	$ 1,103	$ 1,136	$ 1,171	$ 1,206	$ 1,242	$ 1,279
492 17 01	Postage	$ 6,483	$ 11,400	$ 7,200	$ 7,416	$ 7,638	$ 7,868	$ 8,104	$ 8,347	$ 8,597	$ 8,855
492 17 02	Copier Maint & Supplies	$ 390	$ 450	$ 875	$ 901	$ 928	$ 956	$ 985	$ 1,014	$ 1,045	$ 1,076
492 18 00	Meetings	$ 374	$ 750	$ 500	$ 515	$ 530	$ 546	$ 563	$ 580	$ 597	$ 615
492 19 00	Vehicle Eqpt Maint & Oper	$ 14,351	$ 17,500	$ 17,500	$ 18,025	$ 18,566	$ 19,123	$ 19,696	$ 20,287	$ 20,896	$ 21,523
492 19 02	Gasoline/Petroleum Prod	$ 24,373	$ 33,700	$ 50,000	$ 51,500	$ 53,045	$ 54,636	$ 56,275	$ 57,964	$ 59,703	$ 61,494
492 19 15	Mileage Reimbursement	$ 5	$ 100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
492 20 00	Support Services	$ 533,700	$ 576,800	$ 602,100	$ 620,163	$ 638,768	$ 657,931	$ 677,669	$ 697,999	$ 718,939	$ 740,507
492 21 00	Employee Recruitment	$ 1,214	$ -	$ 3,000	$ 3,090	$ 3,183	$ 3,278	$ 3,377	$ 3,478	$ 3,582	$ 3,690
492 23 00	Special Dept Supplies	$ 14,373	$ 13,000	$ 15,000	$ 15,450	$ 15,914	$ 16,391	$ 16,883	$ 17,389	$ 17,911	$ 18,448
492 23 01	SSJID Surface Water	$ 1,672,532	$ 2,943,335	$ 2,774,118	See Exhibit II-2 for future estimates related to surface water purchases from SSJID						
492 23 04	Protective Clothing	$ 2,314	$ 1,000	$ 1,000	$ 1,030	$ 1,061	$ 1,093	$ 1,126	$ 1,159	$ 1,194	$ 1,230
492 23 07	Water Trtmt Chem & Supply	$ 16,209	$ 20,000	$ 20,000	See Exhibit II-2 for future estimates related to groundwater production and treatment						
492 23 08	Arsenic Treatment	$ 441	$ 324,000	$ 358,000	See Exhibit II-2 for future estimates related to groundwater production and treatment						
492 23 09	Lab Supplies	$ -	$ 5,500	$ 7,800	$ 8,034	$ 8,275	$ 8,523	$ 8,779	$ 9,042	$ 9,314	$ 9,593
492 23 10	Automated & Hand Tools	$ 3,607	$ 5,500	$ 5,665	$ 5,835	$ 6,010	$ 6,190	$ 6,376	$ 6,567	$ 6,764	$ 6,967
492 23 15	Water Conservation	$ 7,011	$ 15,027	$ 15,478	$ 15,942	$ 16,420	$ 16,913	$ 17,420	$ 17,943	$ 18,481	$ 19,036
492 23 17	Water Distribution System	$ 20,084	$ 20,000	$ 20,600	$ 21,218	$ 21,855	$ 22,510	$ 23,185	$ 23,881	$ 24,597	$ 25,335
492 23 18	Fire Hydrants, Etc. Parts	$ 2,854	$ 5,000	$ 5,150	$ 5,305	$ 5,464	$ 5,628	$ 5,796	$ 5,970	$ 6,149	$ 6,334
492 23 19	Wells and Pumps	$ 45,373	$ 70,000	$ 70,000	See Exhibit II-2 for future estimates related to groundwater production and treatment						
492 23 25	Support Dept Supplies	$ 3,527	$ 8,450	$ 8,704	$ 8,965	$ 9,234	$ 9,511	$ 9,796	$ 10,090	$ 10,392	$ 10,704
492 24 00	Maint Repairs-Land & Bldg	$ 9,545	$ 5,000	$ 47,000	$ 50,000	$ 51,500	$ 53,045	$ 54,636	$ 56,275	$ 57,964	$ 59,703
492 24 15	Building Maintenance	$ 609	$ 950	$ 979	$ 1,008	$ 1,038	$ 1,069	$ 1,101	$ 1,134	$ 1,168	$ 1,203
492 25 00	Rent of Property & Equip	$ 5,547	$ -	$ 2,500	$ 2,575	$ 2,652	$ 2,732	$ 2,814	$ 2,898	$ 2,985	$ 3,075
492 26 00	Radio Comm & Maintenance	$ 660	$ 1,220	$ 1,257	$ 1,294	$ 1,333	$ 1,373	$ 1,414	$ 1,457	$ 1,500	$ 1,545

Exhibit A-1 -- Continued
City of Manteca -- Water Utility
Water Utility Budget Detail

		Budget Detail			Future Estimates						
		FY 06-07 Actual	FY 07-08 Budget	FY 08-09 Est./Prop.	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
492 27 00	Other Services-Professional	$ 150,873	$ 155,510	$ 388,400	$ 260,000	$ 267,800	$ 275,834	$ 284,109	$ 292,632	$ 301,411	$ 310,454
492 27 01	Contract Services	$ 2,238	$ 75,000	$ 77,250	$ 79,568	$ 81,955	$ 84,413	$ 86,946	$ 89,554	$ 92,241	$ 95,008
492 27 25	Utility Stmt Processing	$ 47,007	$ 51,900	$ 56,100	$ 57,783	$ 59,516	$ 61,302	$ 63,141	$ 65,035	$ 66,986	$ 68,996
492 27 29	Uniforms	$ 2,029	$ 3,000	$ 3,090	$ 3,183	$ 3,278	$ 3,377	$ 3,478	$ 3,582	$ 3,690	$ 3,800
492 28 00	Dues & Subscription	$ 9,104	$ 10,220	$ 55,000	$ 56,650	$ 58,350	$ 60,100	$ 61,903	$ 63,760	$ 65,673	$ 67,643
492 28 01	Operating Permits Reg Fee	$ 26,948	$ 29,350	$ 32,000	$ 32,960	$ 33,949	$ 34,967	$ 36,016	$ 37,097	$ 38,210	$ 39,356
492 29 00	Maint Repairs - Equipment	$ 21,967	$ 29,150	$ 32,050	$ 33,012	$ 34,002	$ 35,022	$ 36,073	$ 37,155	$ 38,269	$ 39,417
492 30 00	Special Dept Training	$ 2,889	$ 7,500	$ 9,500	$ 9,785	$ 10,079	$ 10,381	$ 10,692	$ 11,013	$ 11,343	$ 11,684
492 30 25	Support Departments	$ 395	$ 2,400	$ 3,500	$ 3,605	$ 3,713	$ 3,825	$ 3,939	$ 4,057	$ 4,179	$ 4,305
492 31 32	Property Tax Assessment	$ -	$ 3,000	$ 3,090	$ 3,183	$ 3,278	$ 3,377	$ 3,478	$ 3,582	$ 3,690	$ 3,800
492 34 00	Insurance Premiums	$ 24,785	$ 25,850	$ 21,626	$ 22,275	$ 22,943	$ 23,631	$ 24,340	$ 25,070	$ 25,823	$ 26,597
492 35 00	Insurance Sir	$ 75,000	$ 125,000	$ 125,000	$ 128,750	$ 132,613	$ 136,591	$ 140,689	$ 144,909	$ 149,257	$ 153,734
492 38 00	Data Processing	$ 3,800	$ 3,250	$ 4,100	$ 4,223	$ 4,350	$ 4,480	$ 4,615	$ 4,753	$ 4,896	$ 5,042
	Capital Outlay & Capital Improvements										
494 40 00	Capital Outlay	$ -	$ 18,000	See Exhibit II-2 for future capital projects							
494 48 10	Computer	$ 28,780	$ 23,850	See Exhibit II-2 for future capital projects							
494 48 54	Propeller Meters	$ 22,568	$ -	See Exhibit II-2 for future capital projects							
494 48 56	3/4 Ton w/ Utility Bed	$ 994	$ -	See Exhibit II-2 for future capital projects							
	Capital Outlay-Building Improvements										
495 50 00	Capital Improvements	$ -	$ 15,000	See Exhibit II-2 for future capital projects							
495 58 07	Generator at Well #12	$ 90,000	$ -	See Exhibit II-2 for future capital projects							
495 58 17	Water Main Replacements	$ 80,676	$ 231,000	See Exhibit II-2 for future capital projects							
495 58 20	Submersible Pump Well 17	$ 17,600	$ -	See Exhibit II-2 for future capital projects							
495 58 21	Rewire Well 14	$ 16,830	$ -	See Exhibit II-2 for future capital projects							
495 58 40	So County Surface Wtr Proj	$ 152,882	$ 240,000	See Exhibit II-2 for future capital projects							
495 58 43	Imprvmnts-Existing Wells	$ 535,462	$ -	See Exhibit II-2 for future capital projects							
495 58 48	Well Security Upgrades	$ 7,430	$ -	See Exhibit II-2 for future capital projects							
495 58 49	Arsenic Treatment	$ 1,856	$ -	See Exhibit II-2 for future capital projects							
	Debt Service										
496 61 06	Lasalle/Viron Project	$ -	$ 21,215	See Exhibit II-4 for future debt service obligations							
496 61 08	St Energy Commission #2	$ -	$ 82,190	See Exhibit II-4 for future debt service obligations							
496 62 03	Amortized Interest	$ 2,575	$ -	See Exhibit II-4 for future debt service obligations							
496 62 06	Lasalle/Viron Project	$ 8,987	$ 8,200	See Exhibit II-4 for future debt service obligations							
496 62 08	St Energy Commission #2	$ 5,952	$ 4,465	See Exhibit II-4 for future debt service obligations							
496 62 09	2003A Issue	$ 805,099	$ 805,100	See Exhibit II-4 for future debt service obligations							
496 63 00	DS - Admin/Audit Fee	$ 1,112	$ 1,250	$ 1,310	$ 1,380	$ 1,450	$ 1,520	$ 1,600	$ 1,680	$ 1,760	$ 1,760
TOTAL FOR FUND 68		**$ 7,100,791**	**$ 9,119,190**								
Surface Water Fee Fund - Fund 69											
	Matrls, Supplies & Services										
492 20 00	Support Services	$ 241,600	$ 244,355	$ 251,686	$ 259,236	$ 267,013	$ 275,024	$ 283,274	$ 291,773	$ 300,526	$ 309,542
492 23 20	Water Meters, Boxes, etc.	$ 148,372	$ 300,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
492 27 00	Other Services-Professional	$ 6,925	$ 16,000	$ 16,480	$ 16,974	$ 17,484	$ 18,008	$ 18,548	$ 19,105	$ 19,678	$ 20,268
492 27 01	Contract Services	$ 4,299	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Capital Outlay & Capital Improvements										
495 54 05	Improve Existing Wells	$ 516,867	$ -	See Exhibit II-2 for future capital projects							
495 54 38	Construct Prk Irrig Wells	$ 116,269	$ 120,000	See Exhibit II-2 for future capital projects							
495 54 40	S Cty Surface Water Project	$ 175,191	$ -	See Exhibit II-2 for future capital projects							
	Debt Service										
496 62 09	2003A Issue	$ 1,149,025	$ 1,149,025	See Exhibit II-4 for future debt service obligations							
496 63 00	DS - Admin/Audit Fee	$ 1,588	$ 1,800	$ 1,900	$ 2,000	$ 2,100	$ 2,210	$ 2,320	$ 2,440	$ 2,560	$ 2,560
TOTAL FOR FUND 69		**$ 2,360,136**	**$ 1,831,180**								

Notes:
(1) See Exhibit II-6 for estimates of future revenues and expenses for the new Water Meter Installation Fund (071).