

SAN JUAN WATER DISTRICT

Retail Financial Plan and
Water Rate Study

FINAL REPORT

September 5, 2006



THE REED GROUP, INC.

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I. EXECUTIVE SUMMARY

INTRODUCTION

In 2005, the San Juan Water District (District) contracted with The Reed Group, Inc. to update the District's retail financial plan and water rates. The overall purpose of the study was to (1) prepare a ten-year financial plan incorporating the *Retail Water Master Plan Update*¹, (2) perform analyses necessary to determine annual water rate revenue needs and to analyze the cost of providing water service within the District's retail service area, (3) prepare water rate schedules that reflect the revenue needs of the retail water system, and (4) develop recommendations for the District's capital facilities fees.

A retail financial plan and water rates were last formally prepared in 2000. At that time, the District was in the final phases of an effort to install water meters on all residential service connections. That study focused on developing a metered water rate structure for residential customers that would meet a variety of rate setting objectives. A Customer Rate Resource Committee (CRRC) was established to assist in developing the rate structure. Beginning in April 2005, all customers were paying metered water rates. This made the San Juan Water District one of the first water districts to complete a transition from predominately flat rates to fully metered rates.

The focus of this retail financial plan and water rate study is primarily on the District's retail water system capital improvement needs. The *Retail Water Master Plan Update* and the District's capital improvement plan include about \$45 million in capital improvements planned for the next ten years. In addition, the current metered rate structure was reviewed using recent water use data to verify that the rate structures are performing as intended when they were developed in 2000. Finally, the District's capital facilities fees are updated to be consistent with the improvement and capacity expansion needs identified in the *Retail Water Master Plan Update*.

This report summarizes the analyses, deliberations, decisions, and recommendations of the retail financial plan and water rate study. It includes a financial strategy for financing the capital improvement program and identifies how water rates will need to be adjusted to cover ongoing operations and accomplish capital program objectives. The recommendations contained herein reflect changes to the timing of *Retail Water Master Plan Update* projects that resulted from deliberations on the financial plan, financial requirements, and impacts on water rates.

¹ 2005 *Retail Water Master Plan Update*, prepared for San Juan Water District, West Yost Associates, March 2006.

FINANCIAL PLAN RECOMMENDATIONS

The retail financial plan covers a planning period consistent with the *Retail Water Master Plan Update*, which extends through 2015. The plan reflects the estimated operation and maintenance costs, debt service obligations, and capital improvement program needs of the retail water system.

In order to implement the projects identified in the *Retail Water Master Plan Update*, as well as other capital improvements, the District will like need to issue additional Certificates of Participation (COPs) in upcoming years. Three separate issues are contemplated, as shown below, with the balance of the program to be funded from available capital reserves, property taxes, capital facilities fees, and a portion of water rate revenues. The estimated size and timing of future debt issues include:

- FY 07-08 \$5,830,000
- FY 09-10 \$7,250,000
- FY 13-14 \$24,820,000

The first two issues are necessary to finance replacement and upgrade projects that are the responsibility of existing rate payers. The third issue is intended to finance expansion projects that would provide additional capacity to meet the needs of new development. This last issue would be supported with the District's capital facilities fees.

It may be possible to combine the first and second issues listed above into a single issuance. As the time approaches to issue new COPs the District should consider whether it would be advantageous to combine these issues together. It may also be advantageous to include wholesale water system capital projects into the issue as well. Larger debt issues are more economical than smaller issues due to the costs of issuance. Proceeds from the issuance of COPs normally need to be expended within 2 or 3 years, therefore if the timing of projects are too far apart separate issues may be necessary.

Annual water rate increases will be required to support the retail water system's ongoing operations, debt service obligations, and capital improvement program. During the 10-year planning period, it is recommended that the District establish and gradually increase an annual transfer from the retail operating fund to the retail capital fund in order to support an expanded pay-as-you-go capital improvement program. Historically, the District has relied upon property tax revenues, capital facilities fees, and COPs to finance projects. With significant ongoing capital replacement and upgrades needs, it is much more cost effective to have a pay-as-you-go capital improvement program.

In recent years, due to the State's financial condition, property tax revenues have become less dependable. As a result, it is prudent to build a capital replacement component into the rate base. The financial plan includes an annual transfer from the retail operating fund to the retail capital fund of \$100,000 in FY 06-07 with increases occurring over the planning period such that the transfer grows to \$1 million per year by FY 14-15.

Historically, the District has implemented new retail water rates following the adoption of the budget, at the beginning of each fiscal year. Due to the time required to implement rates, they

typically have gone into effect in September or October of each year. With the more significant rate increases proposed herein, the District has decided that it would be an easier transition for customers if new rates became effective in January of each year, when consumption and water bills are typically lower. The financial plan incorporates this change in the timing of rate increases.

In order to support the retail water systems financial needs and obligations the following annual water rate increases are estimated to be necessary:

- January 2007 13%
- January 2008 13%
- January 2009 11%
- January 2010 8%
- January 2011 3%
- January 2012 3%
- January 2013 3%
- January 2014 5%
- January 2015 5%

Specific rate schedules for the next five years are presented below. The District should update the financial plan within the next five years. Details of the financial plan are included in Section II of this report.

RETAIL WATER RATE RECOMMENDATIONS

Exhibit I-1 presents the recommended retail water rate schedules for the District's residential and commercial customers. The rates have been calculated based on retail water rate revenue needs for FY 06-07 through FY 11-12, as presented in the financial plan.

The District successfully completed the installation of water meters on all service connections and converted flat rate customers to metered rates by April 2005. This made the District one of the first water districts to complete the full transition from predominately flat rate, unmetered water service to fully metered water service.

The last retail water rate study was performed in 2000. With the assistance of the CRRC the District developed a three-tier water rate structure for residential customers. That rate structure was designed to achieve conservation objectives, meet revenue needs, and reflect land use patterns and community values of the District's retail service area. During this rate study the tiered rate structure was reviewed to determine whether it is performing as originally intended. With all customers metered, we were able to examine the water use characteristics of all customers relative to the current rate structures.

Exhibit I-1
San Juan Water District
Schedule of Current and Proposed Retail Water Rates

	Current	Jan. 2007	Jan. 2008	Jan. 2009	Jan. 2010	Jan. 2011
Commodity Rates (\$/CCF)						
<i>Residential (Bi-Monthly Allocations)</i>						
Baseline Rate (0 to 20 CCF)	\$ 0.28	\$ 0.34	\$ 0.39	\$ 0.43	\$ 0.46	\$ 0.48
Standardized Rate (21-200 CCF)	\$ 0.47	\$ 0.57	\$ 0.65	\$ 0.72	\$ 0.78	\$ 0.80
Irrigation Efficiency Rate (201+ CCF)	\$ 0.33	\$ 0.40	\$ 0.45	\$ 0.50	\$ 0.54	\$ 0.56
<i>Commercial</i>						
Uniform Rate (All Usage)	\$ 0.40	\$ 0.49	\$ 0.55	\$ 0.61	\$ 0.66	\$ 0.68
Daily Base Charge						
<i>Residential and Commercial</i>						
Up to 1" meter	\$ 0.82	\$ 0.68	\$ 0.61	\$ 0.72	\$ 0.57	\$ 0.61
1 1/2" meter	\$ 2.26	\$ 1.79	\$ 1.61	\$ 1.90	\$ 1.49	\$ 1.58
2" meter	\$ 3.53	\$ 2.85	\$ 2.55	\$ 3.02	\$ 2.35	\$ 2.51
3" meter	\$ 6.94	\$ 5.66	\$ 5.06	\$ 5.99	\$ 4.66	\$ 4.96
4" meter	\$ 10.77	\$ 8.82	\$ 7.88	\$ 9.34	\$ 7.25	\$ 7.72
Daily Capital Improvement Charge						
<i>Residential and Commercial</i>						
Up to 1" meter		\$ 0.21	\$ 0.39	\$ 0.39	\$ 0.63	\$ 0.63
1 1/2" meter		\$ 0.58	\$ 1.07	\$ 1.07	\$ 1.73	\$ 1.73
2" meter		\$ 0.93	\$ 1.71	\$ 1.71	\$ 2.76	\$ 2.76
3" meter		\$ 1.85	\$ 3.43	\$ 3.43	\$ 5.52	\$ 5.52
4" meter		\$ 2.90	\$ 5.36	\$ 5.36	\$ 8.63	\$ 8.63

Based on this review, we determined that the current rates are generally performing as originally intended and that water use patterns are very close to what had been previously estimated (with more limited data) in 2000. Based on this review, as well as input from the Board of Directors and staff, two minor rate structure changes are proposed.

- Under the current rates the daily base charges generate about 60 percent of the water rate revenue and the commodity rates generate 40 percent of the rate revenue. The 2000 rate study has recommended that 57 percent of the revenue be generated from base charges and 43 percent from commodity rates. Based on a review of current costs, it is recommended that the rates be adjusted back to the 57%/43% split developed previously. To accomplish this, the increase in the commodity rates for 2007 shown in Exhibit I-1 are larger (on a percentage basis) than the increase to the base charges. In subsequent years, the rate increases are the same for both commodity rates and base charges.
- Rate increases are largely being driven by capital improvement needs (and associated debt service) of the retail water system. As a means of helping customers to understand the significant investment in the water system, the daily base charge has been split into two charges. The first charge (still called daily base charge) reflects the fixed component of operating and maintenance costs. The second (new) component is a daily capital

improvement charge and reflects the pay-as-you-go contribution to the capital program as well as the debt service portion of the water rates.

Details of the review of the current rate structure as well as water rate recommendations are included in Section III of this report.

CAPITAL FACILITIES FEE RECOMMENDATIONS

With the *Retail Water Master Plan Update* complete the District's capital facilities fees have been updated to reflect the projections and projects identified in the master plan. The proposed capital facilities fees reflect both the existing investment in the retail water distribution system, as well as planned projects that are necessary to meet the capacity needs of new development. Wholesale water system costs are not reflected in the capital facilities fees.

Current capital facilities fees as imposed based on estimated water use by each new service connection. The water use estimate is based on a usage factor of 3 acre-feet (AF) per acre. Data presented in the *Retail Water Master Plan Update* indicates that water usage varies by land use, and suggests that the 3 AF per acre assumption used with the current capital facilities fees is inaccurate. The water use analysis performed in reviewing the tiered water rate structure confirmed that water use varies by land use type (within the residential categories reviewed) and further documents wide variation in usage even within land use categories.

As a result of these finding, and in an effort to help simplify the administration of the capital facilities fee program, it is recommended that the District switch to a meter size approach for imposing capital facilities fees. This approach should also have an added benefit of encouraging more efficient water usage since new customers will have a financial incentive to reduce the size of the meter needed for their particular use.

Exhibit I-2 summarizes the proposed capital facilities fees. It is recommended that the District adjust the capital facilities fees annually for inflation and perform a more comprehensive review and update at least every three to five years. Details of the capital facilities fee calculations are included in Section IV of this report.

Exhibit I-2
San Juan Water District
Proposed (FY 06-07) Retail Capital Facilities Fees

Capital Facilities Fees	
Up to 1" meter	\$ 11,352
1 1/2" meter	\$ 22,705
2" meter	\$ 36,327
3" meter	\$ 72,654
4" meter	\$ 113,523
6" meter	\$ 227,045
8" meter	\$ 408,681
10" meter	\$ 658,431
12" meter	\$ 976,294

II. MULTI-YEAR FINANCIAL PLAN

This section of the report describes the multi-year financial plan developed for the District's retail water system. It is divided into the following sub-sections:

- Fund and reserves structures and cash flows
- Financial plan assumptions
- Capital improvement program
- Debt obligations and assumptions
- Financial plan conclusions and recommendations.

Appendix A, at the end of this report, contains exhibits that comprise the retail financial plan. The financial plan originally reflected the FY 05-06 budget but was updated to reflect the FY 06-07 budget with this final report. In addition, the financial plan reflects estimates for constructing and financing the projects identified in the *Retail Water Master Plan Update*, and debt service obligations.

FUND AND RESERVE STRUCTURES AND CASH FLOWS

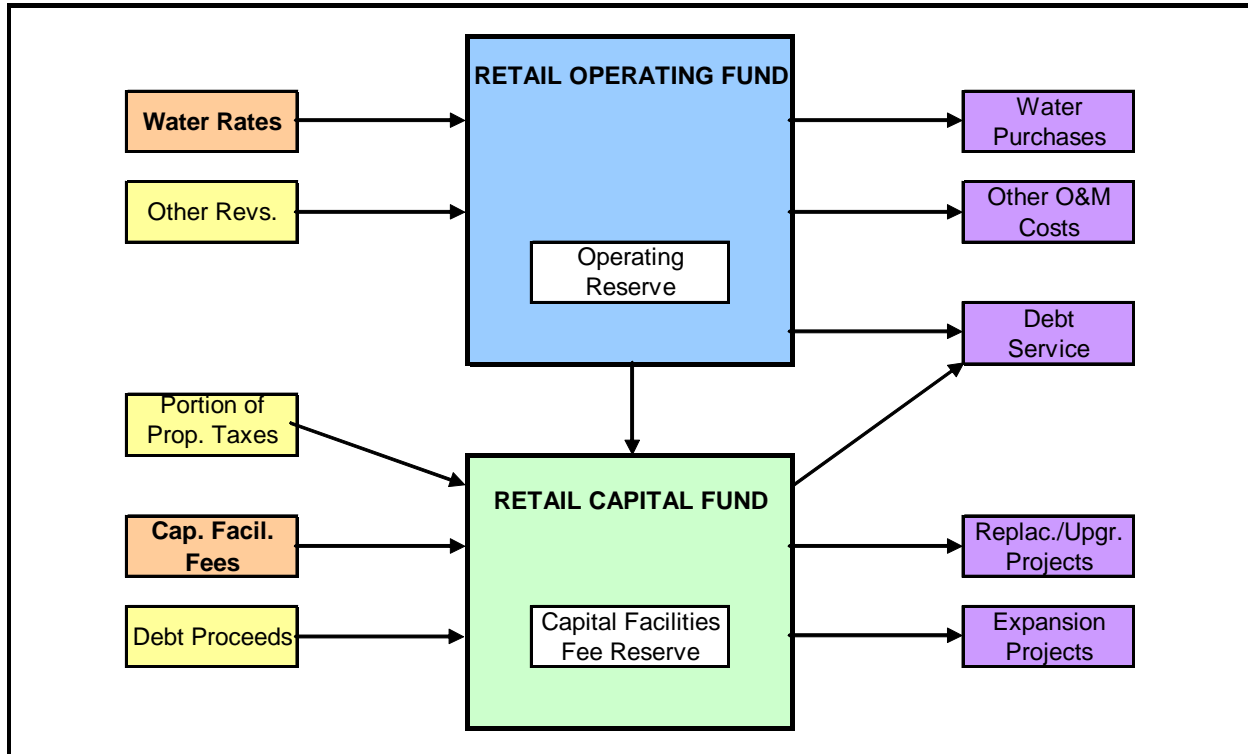
The retail financial plan is a multi-year cash flow model. As a cash flow model, the financial plan differs from financial accounting income statements and balance sheets. The financial plan models sources and uses of money into and out of the various funds and reserves of the water utility, including operating and maintenance, capital program, debt repayment, and reserve obligations.

The financial plan was developed based on the fund, reserves, and account structures used by the District for the retail water system. **Exhibit II-1** schematically illustrates the fund and reserve structure, as well as the major inflows, outflows, and transfers between funds. An understanding of this fund/reserve structure is important in understanding the financial plan worksheets that model the flow of money through the retail water system from one year to the next. The retail financial plan model is comprised of two funds, as described below:

- ❖ **Retail Operating Fund** – The retail operating fund is the primary fund of the retail water system. It is separate from the wholesale operating fund. Most retail water system revenues, including retail water rate revenues, flow into the operating fund and all retail operating and maintenance expenditures, including the retail portion of debt service payments, are paid out of this fund. At the beginning of FY 06-07, the retail operating fund had an effective cash balance of about \$1,700,000 with estimated operating expenditures of about \$6,800,000. The retail operating fund is used to account for operating and maintenance expenditures, including water purchases from the wholesale

water system, for retail debt service payments, and to support the District's pay-as-you-go capital improvement program.

Exhibit II-1
San Juan Water District
Retail Financial Plan -- Cash Flow Schematic



- *Retail Operating Reserve* – The District seeks to maintain an operating reserve within the retail operating fund. This minimum balance within the fund is intended to provide working capital for retail operations, as well as provide readily available funds for unexpected needs and to accommodate modest variability between expected and actual water demands. The target retail operating reserve is 20 percent of the retail operating budget, excluding debt service obligations.
- ❖ *Retail Capital Fund* – The retail capital fund is used to control and track the use of money for replacement, upgrade, and expansion of the retail water system. The retail capital fund currently receives funds from capital facilities fees paid by new development, a portion of property taxes received by the District, and interest earned on money in the fund. In addition, for financial planning purposes, debt proceeds available for retail water system capital projects are also reflected within the retail capital fund. In order to effectuate a shift to a greater pay-as-you-go capital program, it is recommended that the District annually transfers a portion of water rate revenues from the retail operating fund to the retail capital fund. This transfer would supplement property tax and other revenues and lessen the need for additional long-term debt in the future.

- *Capital Facilities Fee Reserve* – The District charges new development a capital facilities fee to provide capacity in the retail water system. Section IV of this report presents recommendations for updating the capital facilities fees. California statutes require that capital facilities fee revenue be separately accounted for and expended on improvements for which the fees are collected. As a result, a separate capital facilities fee reserve is shown within the retail capital fund. Monies in the reserve are used exclusively for the expansion portion of capital projects or the debt service attributable to the expansion portion of capital projects. Interest also accrues to this reserve based on the funds in the reserve.

The financial plan reflects estimated annual cash flows in to, out of, and between the various funds and reserves. Each fund has a beginning-of-year balance. Revenues flow in, expenditures flow out, and transfers occur between the funds. The end-of-year fund balances become the beginning-of-year balances in the following year. The entire financial plan model is subject to certain rules; revenues must cover expenditures with consideration for minimum reserves. The financial plan provides the District with a planning and management tool for anticipating future financial needs, constraints, and opportunities.

FINANCIAL PLAN ASSUMPTIONS

The financial plan model was developed based on the FY 05-06 operating budget, and incorporated the June 30, 2005 fund balances. In preparation of this final report, the financial plan model was updated to reflect the FY 06-07 operating budget, as well as fund balances as of June 30, 2006. Historical expenditure and revenue information for FY 04-05 is provided for perspective. Projections for future years are based on the FY 06-07 budget, as described below, and other information provided by the District.

A number of assumptions are included in the financial plan. The process used to develop the estimates contained in the financial plan involved estimating future revenues and expenditures based on growth projections, inflation and interest rates, current and future debt repayment obligations, wholesale water costs, and other information. The data and assumptions used in developing the financial plan were either obtained from, or reviewed by, District staff. It is important to recognize that the District does not have formal estimates of future operating and maintenance costs. The financial plan is based on the best available information; estimates of future operating costs are based on inflation and growth estimates, as well as estimates of future water purchases costs (from the wholesale water system).

Because the financial plan is highly dependent on the underlying assumptions, it is worth describing these in some detail. **Exhibit A-1**, in Appendix A, includes many of the assumptions incorporated into the financial plan model.

- Inflation and Interest Rates – Operating costs are generally inflated each year based on a factor for general inflation. An annual inflation rate of 3.0 percent is used for operating and maintenance costs. Construction inflation factors starting at 5.0 percent and declining to 3.0 percent over four years are applied to estimated

construction costs. The variable rates reflect the current economic climate that is affecting construction costs. The 3.0 percent value is closer to the long-term average. Interest rates are assumed to increase from a current 2.5 percent to 3.5 percent, also reflecting current rates and long-term averages. Interest earnings are estimated for each fund based on beginning of year fund balances.

- Customer Base and Growth Projections - The District currently provides retail water service to about 10,400 customers. Current water sales total an estimated 6,012,000 CCF (about 13,800 AF). It is assumed that the District's customer base will grow consistent with the growth projections contained in the *Retail Water Master Plan Update*. That report suggests an annual growth rate of about 1.6 percent per year until 2010, and then growth of about 0.5 percent per year thereafter.
- Water Demand and Water Purchases - As mentioned above, current water sales total about 6,012,000 CCF or 13,800 AF annually. The retail water system effectively purchases treated water from the District's wholesale water system. Current water purchases are about 16,000 AF annually. The difference between water purchases and water sales is referred to as unaccounted for water losses. Water losses may include hydrant usage, main flushing, leaks in the distribution system, under-registration of meters, the District's use of water, losses due to main breaks or construction activities, and losses due to unauthorized connections (theft). Unaccounted for system losses are typically between 5 and 10 percent for well maintained water systems. The District's water loss rate is about 14 percent, and may be evidence of the need to replace old and leaking water distribution mains. For financial planning purposes, it is assumed that the water loss rate will not change, and that both water purchases and water sales will grow with the growth in the customer base. No reduction in average water use due to water conservation has been factored into the analyses.
- Water Purchase Costs - The water purchase costs included in the financial plan are based on the estimated water purchase volume and current and estimated future wholesale water rates. The last wholesale water rate calculations were prepared in 2003 and included future estimates through 2011. The wholesale water rates developed at that time are incorporated in the retail financial plan. Wholesale rates are also extrapolated to 2015.
- Post-Retirement Health Costs - In compliance with GASB 45, the District plans to begin funding its projected post-retirement health costs beginning in FY 07-08. While still an estimate, the retail financial plan includes these costs (both the retail portion and the wholesale portion that is expected to be incorporated into wholesale water rates).
- Property Tax Revenues - Consistent with prior financial plan analyses, 50 percent of property tax revenues received by the District is allocated to the retail water system. These revenues are included in the retail financial plan as revenue to the capital

fund. The tax revenue is used to help fund the pay-as-you-go portion of the capital program.

Exhibit A-2, in Appendix A, provides details of the revenues, expenditures, and transfers of the retail operating and capital funds. Details related to the capital improvement program and debt obligations are described below.

CAPITAL IMPROVEMENT PROGRAM

The capital improvement program included in the retail financial plan includes (1) budgeted capital projects, (2) projects identified in the recently completed *Retail Water Master Plan Update*, and (3) planned steel water main replacement projects identified by staff. **Exhibit A-3**, in Appendix A, summarizes the projects, estimated costs, and anticipated construction timing for each project.

The capital improvement program will be financed with a combination of capital facilities fees, property taxes, water rate revenues, existing capital reserves, and long-term debt. As described in greater detail in the next sub-section, the District issued Certificates of Participation (COPs) in 2003 to finance a combination of wholesale and retail capital improvement projects. At the beginning of FY 05-06 about \$6 million in debt proceeds remained available for retail capital projects. Additional debt issues in FY 07-08, FY 09-10, and FY 13-14 are anticipated to help finance planned capital improvements.

The two columns at the right end of Exhibit A-3 (second page of the exhibit) indicates the portion of each capital project which benefits existing customers (replacement and upgrade projects) and future customers (expansion projects). These allocations are used to determine what costs are incorporated into capital facilities fee calculations, as explained in greater detail in Section IV or this report.

Property tax revenues available to the retail water system are used to help financing replacement and upgrade projects. In addition, it is recommended that the District begin making annual transfers of a portion of water rate revenues from the retail operating fund to the retail capital fund to further support a pay-as-you-go capital program. Ongoing capital replacement and upgrade projects are more efficiently financed on a pay-as-you-go basis, which avoids financing costs. Debt financing should be limited to large, concentrated capital expenditures that are not easily absorbed with capital reserves and available revenues. At this time, however, rates do not significantly contribute to capital replacement needs, due to the fact that the District has primarily relied upon property taxes, capital facilities fees, and debt financing. Part of the financial strategy contained herein is to establish and gradually increase financial support of the capital program from water rate revenues. Over the next ten years, transfers from the retail operating fund to the retail capital fund are proposed to increase gradually from \$100,000 in FY 06-07 to \$1.0 million in FY 14-15.

DEBT OBLIGATIONS AND ASSUMPTIONS

The District recently made final payments on its General Obligation bond debt. However COPs issued in 1993 and 2003 remain outstanding.

- 1993 COPs - The District issued COPs to finance the Cooperative Transmission Pipeline in 1993. The San Juan retail service area, Fair Oaks Water District (FOWD), and Orangevale Water Company (OVWC) are each responsible for a share of debt service. FOWD and OCWC make direct payments to the District for debt service, and the retail water system makes a transfer of funds from the retail operating fund for this purpose. The retail water system's debt service obligation related to the 1993 COPs is slightly more than \$290,000 per year. The last payment on the 1993 COPs is due in FY 12-13.
- 2003 COPs - The 2003 COPs provided funds for both wholesale and retail capital improvements. As a result, debt service payments are split between the retail water system and San Juan family members based on how projects funded with the COPs benefited each entity. The COPs provided funds for the retail water system's Bacon/Sierra pump station improvements, as well as for the Ashland/Crown Point pump station improvements. The retail water system is bearing the debt obligations associated with the Bacon/Sierra pump station improvements and 50 percent of the Ashland/Crown Point pump station improvements (the other 50 percent is paid by the City of Folsom). A significant portion of the COP proceeds were used for improvements to the Peterson water treatment plant. The debt service associated with this debt is included as a component of wholesale water rates, and the retail service area pays a portion of that debt service through the debt service wholesale rate component. The retail water system's direct portion of 2003 COP debt service totals about \$295,000 per year. The portion included in the wholesale rate paid by the retail water system is about \$215,000 per year.

Additional long-term debt will be required to effectuate the projects identified in the capital improvement program during the ten-year planning period. **Exhibit II-2** summarizes the assumptions used for each of three future COP issues. **Exhibit II-3** summarizes how net proceeds are expected to be used to financing capital improvement projects. The timing, size, use of each COP issue was derived as a result of this financial planning process. Working with staff, debt assumptions and the timing of projects were adjusted in an effort to efficiently implement of overall capital program while attempting to reduce the total amount of debt necessary and reducing the magnitude of water rate increases.

Included in Exhibit II-3 is a summary of how remaining 2003 COP proceeds are expected to be used on various capital projects. Most of the current proceeds, as well as those from the first two future issues are expected to be used for replacement and upgrade projects for the benefit of existing customers. It should be noted, that the 24" water line from the Joint Water Storage Facility to Sierra College is assumed to be financed both with remaining proceeds from the 2003 COPs and a portion of proceeds to be obtained from the FY 07-08 issue. The FY 13-14 issue will primarily be needed to finance expansion projects associated

with providing additional capacity to meet the needs of future development. The capital facilities fee calculations presented in Section IV include financing costs associated with the FY 13-14 COP issue as part of the fee calculation.

Exhibit II-2
San Juan Water District
Assumptions for New Retail Certificates of Participation

FY 07-08 Revenue Bonds or Certificates of Participation

Par Amount	\$ 5,830,000	\$ 5,030,500	Net Proceeds
Year Obtained	FY 07-08	\$ 508,000	Annual DS Payment
Interest Rate	6.0%	5.0%	Issuance Costs
Term (yrs)	20	Funded	DS Reserve

FY 09-10 Revenue Bonds or Certificates of Participation

Par Amount	\$ 7,250,000	\$ 6,255,500	Net Proceeds
Year Obtained	FY 09-10	\$ 632,000	Annual DS Payment
Interest Rate	6.0%	5.0%	Issuance Costs
Term (yrs)	20	Funded	DS Reserve

FY 13-14 Revenue Bonds or Certificates of Participation

Par Amount	\$ 24,820,000	\$ 21,911,400	Net Proceeds
Year Obtained	FY 09-10	\$ 2,164,000	Annual DS Payment
Interest Rate	6.0%	3.0%	Issuance Costs
Term (yrs)	20	Funded	DS Reserve

Both existing and future debt service payments of the retail water system are shown as expenditures from the retail operating fund. The portion of future debt service associated with expanding capacity for new development is covered through a transfer from the capital facilities reserve (in the retail capital fund) to the retail operating fund.

Conceivably, the FY 07-08 and FY 08-09 debt issues could be combined into a single issue or the District might combine one or both of these issues with the financing of wholesale water system projects. It is recommended that the District revisit the retail financial plan and rate situation at the time it is preparing to issue additional long-term debt.

Exhibit II-3
San Juan Water District
Planned Uses of for New Certificates of Participation Proceeds

Remaining 2003 COP Proceeds (\$6.0 million)		
Hinkle Pump Station Replacement	\$ 3,700,000	100% Existing
24" Water Line - Aub-Fol Rd. - North	\$ 420,000	80% Existing
24" Water Line - Aub-Fol Rd. - North	\$ 105,000	20% New
24" Water Line - JSWF to Sierra Col.	\$ 829,500	79% Existing
24" Water Line - JSWF to Sierra Col.	\$ 630,000	21% New
Bacon PS Improvements	\$ 160,000	100% Existing
Golden Gate Avenue Water Line Replac.	\$ 240,000	100% Existing
	<u>\$ 6,084,500</u>	
FY 07-08 Bonds or COP Proceeds (\$5.0 million)		
24" Water Line - JWSF to Sierra Col.	\$ 1,540,500	79% Existing
Sierra PS Improvements	\$ 463,000	100% Existing
2.6 MG Jt. Water Storage Facility	\$ 3,189,000	79% Existing
	<u>\$ 5,192,500</u>	
FY 09-10 Bonds or COP Proceeds (\$6.3 million)		
24" Water Line - Aub-Fol Rd. - South	\$ 2,063,000	80% Existing
18" Water Line - Eureka Road	\$ 2,743,000	100% Existing
4.96 mgd Upper Granite Bay PS	\$ 1,456,000	55% Existing
	<u>\$ 6,262,000</u>	
FY 13-14 Bonds or COP Proceeds (\$21.9 million)		
16" Water Line - Twin Rocks Road	\$ 3,459,000	100% New
24" Water Line - Aub-Fol Rd. - Middle	\$ 2,122,000	80% Existing
24" Water Line - Aub-Fol Rd. - Middle	\$ 530,000	20% New
New 10.1 mgd Lower GB PS at Hinkle R.	\$ 6,443,000	100% New
3.0 MG Kokila Reservoir	\$ 9,360,000	100% New
	<u>\$ 21,914,000</u>	

FINANCIAL PLAN RESULTS

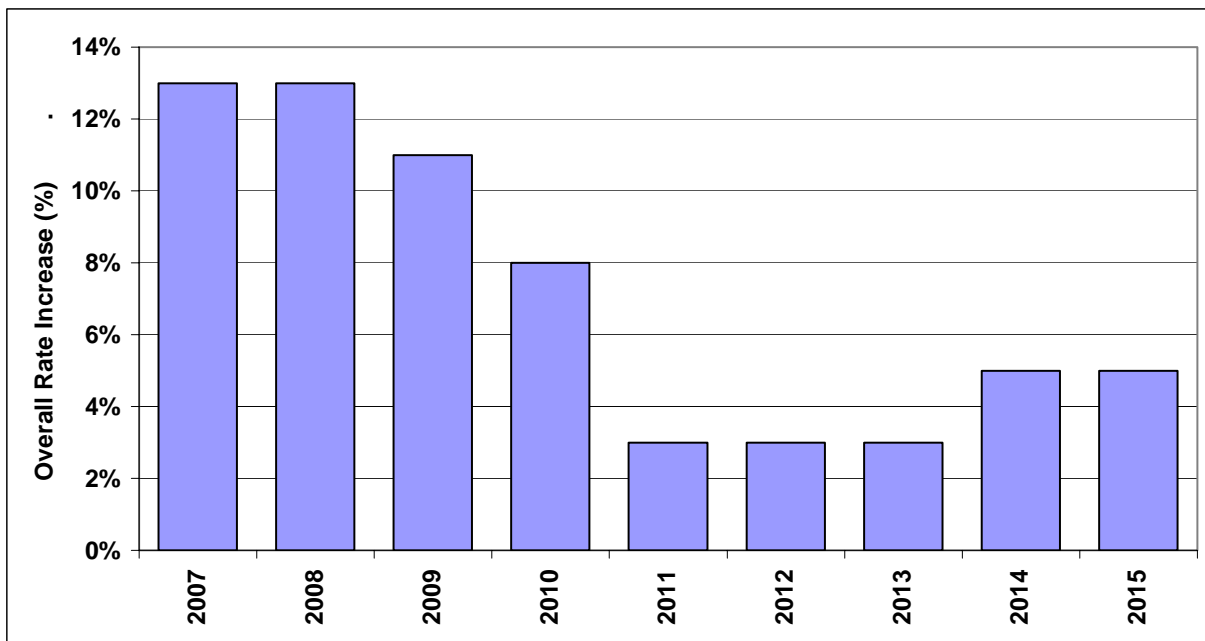
The District's retail financial plan presented herein is intended to provide a financial strategy to meet operation and maintenance, capital improvement, and debt service needs and obligations with consideration for financial reserve policies and other revenue sources. In order to implement the capital improvement program while seeking to minimize required rate increases the District should plan to issue additional COPs as described in the previous pages. In doing so, the District can finance the largest (most costly) projects while at the same time shifting to a strategy of increasingly funding projects on a pay-as-you-go basis.

Annual water rate increases will be required to meet financial obligations. Historically, the District has increased retail water rates in the fall of each year. The increases often occur,

however, when water consumption is still high. Staff and the Board of Directors have decided that rate increases effective in January of each year would be less disruptive to customers, in that increases would occur during a period of relatively low water usage.

Exhibit II-4 presents the projected overall increases in water rates estimated to be required during the ten-year financial planning period. Section III of this report presents rate calculations and a five-year rate plan. The District should consider adopting multi-year rates, but financial and rate needs should be revisited at least every five years. We do not recommend adopting rates for more than five years.

Exhibit II-4
San Juan Water District
Estimated Overall Water Rate Increases



The proposed financial plan and strategy accomplish the following for the District's retail water system:

- Meets current and projected operating, maintenance and debt service obligations
- Maintain all funds and reserves at or above target minimum levels
- Provides for the implementation of the District's retail capital program as scheduled
- Shifts to an increasing pay-as-you-go capital improvement program
- Supports anticipated new debt issues to finance the largest capital improvement projects
- Smooths required rate increases over time (as much as possible).

III. RETAIL WATER RATES

This section of the report describes water rate analysis and presents a five-year rate plan for the retail water system. The recommended rates were developed based on (1) specific rate setting objectives developed during the 2000 rate study, (2) consideration of requirements for conservation-oriented water rates, as required by the USBR, and (3) cost of service principles.

RATE SETTING OBJECTIVES

During the 2000 water rate study, rate setting objectives were defined in consultation with the CRRC. By defining and prioritizing rate setting objectives the District developed a tool for assessing the relative merits of alternative rate structures. The CRRC concluded that the District's retail water rate structure should:

- 1) Be fair and equitable
- 2) Generate sufficient revenues to meet financial obligations
- 3) Reflect the cost of providing water service
- 4) Reflect and preserve our community values (i.e., rural life, large parcels, etc.)
- 5) Encourage water conservation in relation to annual water supply availability
- 6) Be easily explained and understandable to customers
- 7) Satisfy the requirements of the District's contracts with the USBR
- 8) Be supported by customers
- 9) Not be punitive
- 10) Include a pricing incentive to encourage efficient water use
- 11) Be administratively feasible and not unnecessarily complex.

Since the water rates were developed the District completed efforts to meter all residential customers and fully implement metered water rates. During this rate study water use characteristics were examined to determine whether the existing metered rates are performing as planned. This study did not include a detailed restructuring analysis.

CURRENT WATER RATES

Exhibit III-1 summarizes the current water rates for the District's retail water system. Water rates include both variable commodity rates and fixed base charges. Commodity rates for residential customers include a three-tier structure. Commercial customers are subject to a single uniform rate for all water usage. In addition, all customers are subject to a daily base charge based on the size of the water meter.

Exhibit III-1
San Juan Water District
Schedule of Current Water Rates

Commodity Rates (\$/CCF)	
<i>Residential (Bi-Monthly Allocations)</i>	
Baseline Rate (0 to 20 CCF)	\$ 0.28
Standardized Rate (21-200 CCF)	\$ 0.47
Irrigation Efficiency Rate (201+ CCF)	\$ 0.33
<i>Commercial</i>	
Uniform Rate (All Usage)	\$ 0.40
Daily Base Charge	
<i>Residential and Commercial</i>	
Up to 1" meter	\$ 0.82
1 1/2" meter	\$ 2.26
2" meter	\$ 3.53
3" meter	\$ 6.94
4" meter	\$ 10.77

Base charge revenue accounts for about 60 percent of water rate revenues. Base charges are generally intended to recover the fixed costs of operations, including debt service and capital program transfers. However, placing greater emphasis on the commodity rate provides customers with a greater economic incentive to use water efficiently. It also gives customers a greater control over the amount of their water bill. For this reason the decision on the balance between reliance on fixed versus variable revenues must incorporate a decision regarding differing objectives.

The current water rate structure has a number of benefits for both the District and customers. These include:

- ❖ Water rates reflect the cost of providing service to customers and provide an appropriate balance between fixed and variable costs and rate components
- ❖ Water rates reflect community values by:
 - Protecting the affordability of basic water needs
 - Being consistent with land use decisions, community values, and quality of life issues
 - Not placing value judgments on different types of water use
- ❖ Water rates encourage water use efficiency by:
 - Requiring all customers to pay for water service based on actual water use
 - Shifting cost recovery to commodity charges and away from fixed charges
 - Providing a conservation-oriented tier structure for residential customers
 - Providing a structure adaptable for water shortage conditions

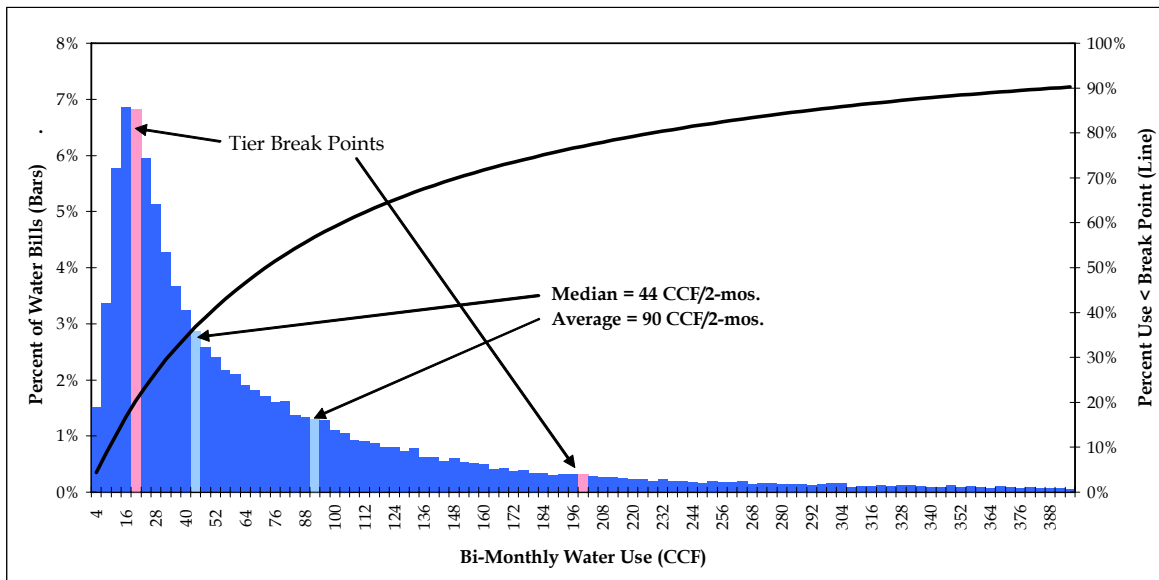
- ❖ Simplifies the rate structure and administrative requirements by:
 - Employing a uniform service charge for smaller meter sizes (up to 1")
 - Using a postage stamp approach with respect to pressure zones
 - Maintaining a uniform commodity rate for non-residential customers
 - Creating a residential tier structure that is not dependent on lot size, water budgets, or detailed water use data.

CUSTOMER BASE AND WATER USE DATA

The District’s retail water system is expected to have about 10,600 customers in FY 06-07. About 96 percent of the District’s customers are residential customers, with commercial customers accounting for about 4 percent of the total. Annual water sales in FY 06-07 are estimated to be about 6,110,000 CCF or about 14,027 AF. About 89 percent of annual water sales is from residential customers, with about 11 percent from commercial customers.

Exhibit III-2 summarizes residential water use characteristics. This exhibit shows that most residential water usage occurs within a fairly well defined range (say, up to about 100 CCF bi-monthly). However, there is also a significant “tail” to the usage pattern. As indicated by the line on the graph about 10 percent of residential water usage occurs in excess of 400 CCF bi-monthly. Average bi-monthly water use is 90 CCF.

**Exhibit III-2
San Juan Water District
Water Use Characteristics for Residential Customers**



The *Retail Water Master Plan Update* included the following water use factors for estimating future water demands:

- Rural estate (>1 acre) 2.1 AF per acre per year
- Low density residential (10,000 sq. ft. to 1 acre) 3.4 AF per acre per year
- Medium density residential (3,500 sq. ft. to 10,000 sq. ft.) 3.8 AF per acre per year

While the District’s residential water use is unusually high for residential areas, the reason is largely due to the large parcel sizes typical of the area. **Exhibit III-3** summarizes residential parcel size and water use data. The data in Exhibit III-3 supports the water use factors above, and shows that the intensity of water use declines with increased parcel size. While most urbanized areas have typical lot sizes below 10,000 sq. ft. (medium density) the District’s retail service area has a significant number of low density and rural estate development. In addition, **Exhibit III-4** suggests that most new development within the retail service area will be rural residential.

Exhibit III-3
San Juan Water District
Residential Water Use by Parcel Size

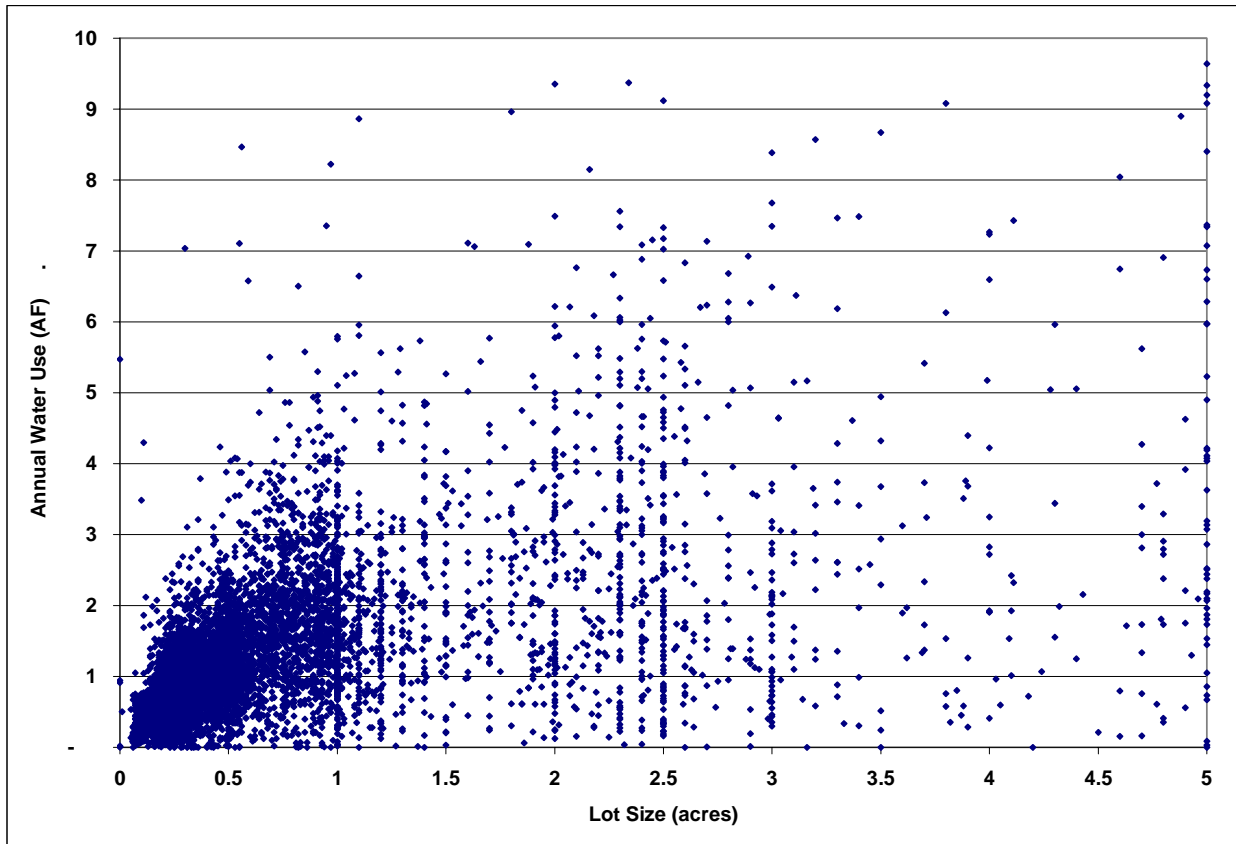


Exhibit III-4
San Juan Water District
Projected New Development and Related Water Demands

Land Use Development	Water Duty (AF/Ac/Yr)	Current Developed Area (2003)	Future Developed Area (2025)	Future Development (Acres)	Projected Increase in Demand (AF)
Rural Estate	2.1	3,806	5,068	1,262	2,650
Low Density Residential	3.4	1,996	2,188	192	653
Medium Density Residential	3.8	380	384	4	15
High Density Residential	5.0	53	57	4	20
Business Park	1.8	8	10	2	4
Commercial	3.0	257	345	88	264
Institutional	1.7	214	221	7	12
Park & Recreation	2.4	106	216	110	264
Golf Course	0.9	157	157	-	-
Agricultural	2.0	9	19	10	20
Median	0.5	21	21	-	-
Wetlands	0.0	167	167	-	-
Open Space/Streets	0.0	1,432	1,432	-	-
Total		8,606	10,285	1,679	3,902

Notes:

(1) Source: Chapter 5 of the Retail Water Master Plan Update.

Because of land use decisions, the District should expect that average residential water use will continue to be much higher than is typical for other urbanized areas. In addition, the diverse water use characteristics help to justify the District's current three-tier water rate structure. The three-tier structure provides a water conservation incentive, but it also reflects the water needs of a residential customer base characterized by large parcels.

WATER RATE CALCULATIONS

Water rates are determined in a three-step process. The first step is to determine the annual water rate revenue requirement. The second step is cost of service analysis and the allocation of costs to various cost categories. The third step is rate design.

Water Rate Revenue Requirements

The annual water rate revenue requirements were determined using the multi-year financial planning model, as described in Section II. Based on the financial plan, the following amounts need to be generated from water rates in each of the next six fiscal years:

- FY 06-07 \$6,581,000
- FY 07-08 \$7,516,000
- FY 08-09 \$8,537,000
- FY 09-10 \$9,407,000
- FY 10-11 \$9,925,000
- FY 11-12 \$10,275,000

Recently, the District decided to change the implementation date of annual rate increases from October of each year to January of each year. Customer water usage is near its low point in January, and therefore rate increases made at that time will have a smaller impact on customer bills at that time. With a mid-year implementation date the fiscal year revenues are collected over parts of two calendar-year rate schedules. The calendar year revenue requirements have been calculated to be:

- CY 2007 \$6,915,000
- CY 2008 \$7,941,000
- CY 2009 \$8,958,000
- CY 2010 \$9,724,000
- CY 2011 \$10,067,000

Even without a rate increase the annual water rate revenues will increase as the number of customers connected to the water system increases. For this reason, the percentage increase in water rate revenues is a function of both the rate increase and the growth rate for the customer base.

Cost of Service Analysis

Once the annual water rate revenue requirement has been determined, the next step in the rate setting process is to allocate costs (at the line-item level of detail) to the following components.

Water rate calculations contained herein are intended to generate the revenue requirement from rate revenues paid by the District's retail customers. The manner in which each retail customer is responsible for the District's operating costs and revenue requirement is the subject of the cost of service analysis and cost allocations to each customer.

The District incurs certain types of costs associated with making water service available to customers. Other costs are incurred as a direct result of customer water usage. A cost of service analysis is intended to allocate the costs of providing water service to customers in proportion to the extent to which each customer causes the costs to be incurred. There are many approaches to cost of service analysis; some are more complex than others are. The approach used herein is the same as that developed during the 2000 retail water rate study.

The cost allocation methodology assigns all costs to one of three different categories. The cost allocation process is performed at the highest level of detail available in the District's budget and accounting documents. The three cost categories include:

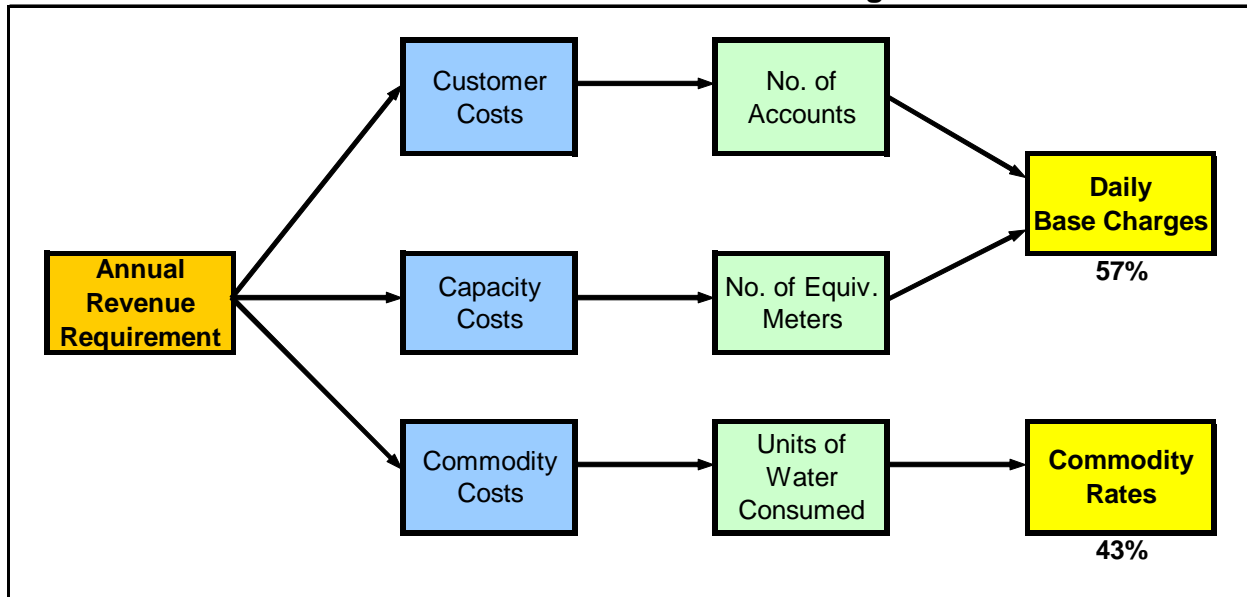
- *Customer costs*, such as meter reading and billing costs, are fixed costs that tend to vary as a function of the number of customers being served. Customer costs are allocated to customers based on the number of accounts. That is, every customer will pay an equal share of customer-related costs.
- *Capacity costs* are also fixed costs; however, these tend to vary in relation to the capacity of the water system. Customers that place greater or lesser burdens on the capacity of the water system should bear greater or lesser shares of these costs. The

sizing of the water system is based on the potential demand that each customer could place on the water system. Capacity costs are allocated to customers based on the size (hydraulic capacity) of the water meter (or service connection). The hydraulic capacity reflects the potential demand that a customer could place on the water system at any given time. A customer with a larger water meter will be assigned a larger share of fixed capacity-related costs than one with a smaller water meter. Capacity costs include costs associated with the water system's capacity including debt service, maintenance costs, capital outlay items, meters, public fire hydrants, etc.

- *Commodity costs* are variable costs that vary with the amount of actual use. Water purchase costs (which include water treatment costs) and pumping costs are the two largest examples. Commodity costs are recovered from customers based on actual water usage.

The determination of the amount of customer, capacity, and commodity costs was made based on a line-item by line-item review of the District’s retail water system budget. Each line item was allocated to one category or another. Not all costs fall clearly into one category or another. Here judgment is used to assign costs to a particular category. The cost allocation resulted in the distribution of costs shown schematically in **Exhibit III-5**.

**Exhibit III-5
San Juan Water District
Water Rate Cost Allocation Flow Diagram**



Once costs are allocated as described above, they are included in various rate components based on appropriate cost drivers. Customer costs are allocated to all customers equally. Capacity costs are allocated to customers based on the hydraulic capacity of the water meter. Meter hydraulic capacity factors are used to determine the total number of 1" equivalent meters served by the District. Commodity costs are recovered based on water use.

The allocation of costs to various categories requires judgment and experience. Allocation of more costs to the commodity category results in higher commodity rates, and relatively lower service charges. This is often consistent with water conservation objectives since higher commodity rates provide customers with greater incentive to conserve. The results of the cost allocation analysis places about 43 percent of the annual revenue requirement in the commodity rate, with the remaining 57 percent in monthly service charges.

Water Rate Design

During the retail water rate study conducted in 2000, District staff and the CRRC discussed a broad variety of rate setting issues. These issues are listed below and guided decisions on how to design the water rates.

- Elimination of pressure zone rate distinctions
- Establishment of uniform charges for base meter sizes (up to 1")
- Reflection of community values, quality of life issues, and land use decisions in rate structure decisions
- Affordability of basis water service
- Rate setting and other water conservation programs

Daily Base Charge Calculations

Base charges are intended to recover the customer and capacity costs identified through the cost of service analyses. Base charges apply to all customer water bills, regardless of the amount of water actually used. The daily base charge is intended to reflect the cost of making water service immediately available to customers, and also includes the costs of maintaining an active account. In calculating base charges customer costs are allocated equally to each customer, and capacity costs are allocated based on the hydraulic capacity of each meter.

Exhibit III-6 illustrates the calculation of daily base charges for 2007, and indicates that a customer with meter sizes up to 1" would have a daily base charge of \$0.89. Base charges for meters larger than 1" increase in relation to the hydraulic capacity associated with each meter size².

² The base charge for meters up to 1" is based on a weighted average of charges, which would apply if each meter size were calculated individually.

Exhibit III-6
San Juan Water District
CY 2007 Daily Base Charge Calculation for the Retail Service Area

	Meter Size						Total
	Up to 1"	1 1/2"	2"	3"	4"	6"	
No. of Accounts							
Residential	9,746	382	5	-	1	-	10,134
Non-Residential	192	102	149	24	4	-	471
Total Accounts	9,938	484	154	24	5	-	10,605
No. of 1" Equiv. Meters							
Residential	7,115	764	16	-	10	-	7,905
Non-Residential	140	204	477	154	40	-	1,015
Total 1" Equiv. Meters	7,255	968	493	154	50	-	8,919
Hydraulic Capacity Factor (1)	0.73	2.00	3.20	6.40	10.00	20.00	
Daily Base Charges							
Customer Cost	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	
Capacity Cost	\$ 0.85	\$ 2.34	\$ 3.74	\$ 7.48	\$ 11.68	\$ 23.36	
Total Charge	\$ 0.89	\$ 2.37	\$ 3.77	\$ 7.51	\$ 11.72	\$ 23.40	
Annual Service Charge Revenue							
Residential	\$ 3,160,382	\$ 330,730	\$ 6,887	\$ -	\$ 4,277	\$ -	\$ 3,502,276
Non-Residential	\$ 62,261	\$ 88,310	\$ 205,240	\$ 65,805	\$ 17,108	\$ -	\$ 438,724
Total Service Charge Rev.	\$ 3,222,643	\$ 419,040	\$ 212,127	\$ 65,805	\$ 21,384	\$ -	\$ 3,941,000
Summary of Fixed Costs							
Customer Costs	\$ 138,000						
Capacity Costs	\$ 3,803,000						
Total Fixed Costs	\$ 3,941,000						

Notes:

(1) Hydraulic capacity factors for 5/8", 3/4", and 1" meters are 0.4, 0.6, and 1.0, respectively. The 0.73 value is a weighted average value for these meter sizes.

Daily base charges would generate about \$3.94 million annually. The cost allocation process described previously indicates that customer costs represent about \$138,000 of the annual revenue requirement. Dividing this amount by the number of customers (and by 365 days per year) results in a daily customer cost of \$0.04. Using hydraulic capacity factors of various meter sizes we determined that the District's 10,605 accounts are equivalent to 8,919 one-inch equivalent meters. The cost allocation process identified about \$3.80 million of capacity-related costs in the annual revenue requirement that should be generated through the service charges. Dividing this amount by the number of 1" equivalent meters (and by 365 days) results in a daily capacity component of the service charge of \$0.85 for a 1" meter (and smaller). Multiplying this amount by the hydraulic capacity factor for each meter size leads to the capacity component of the base charge for each meter size. Adding the customer component and the capacity component of the service charge for each meter size results in the total daily charge for each meter size (rounded). Exhibit III-6 also includes a revenue calculation to verify that the revenues generated by these service charges will match the allocated costs.

A growing part of the District's retail water system revenue needs will be the reinvestment in the water system to replace and upgrade aging components. In order to help customers understand the costs involved in making capital improvements, the Board of Directors and staff

decided to divide the daily base charge into two components. The first component (still called daily base charge) represents the fixed portion of ongoing operation and maintenance costs. The second (new) component is called the daily capital improvement charge and reflects the amount of each water bill needed for capital improvement projects, including debt service. With this change, the 1" daily base charge of \$0.89 in Exhibit III-6 becomes a \$0.68 daily base charge and a \$0.21 daily capital improvement charge. Other base charges are split into two charges on a proportionate basis.

Commodity Rate Calculations

Upon review of water use characteristics, previous rate setting issues and objectives, and the performance of the current rate structure, no changes to the commodity rate structure are proposed at this time. The current rate structure is generally performing as intended and as desired by the District.

Commodity rate structures for residential and commercial customers vary. The residential structure is a baseline/conservation tier structure, and the commercial structure is a uniform commodity rate structure.

Commodity rate calculations begin with a determination of a uniform water rate. The simple uniform rate structure is the most common rate structure in California. The uniform rate is calculated simply by dividing the commodity costs by the estimated total volume of water to be sold to customers. Based on the cost allocations described previously the commodity cost is about \$2.97 million. Total annual water sales are estimated at 6,110,000 CCF resulting in an average water rate of \$0.49 per CCF. This is the rate applicable to commercial customers.

The three-tier baseline/conservation tier structure for residential customers starts with a rate that is lower than the uniform rate, includes a second tier that is higher than the uniform rate, and concludes with a tier that is slightly lower than the uniform rate. The weighted average rate within the residential class is \$0.49 per CCF, and this balance maintains equity between the customer classes.

Exhibit III-7 summarizes the commodity rate calculations for 2007. The first tier of the residential rate is intended to help maintain the affordability of basic water service. This low rate applies to water usage that generally corresponds to the amount of water used by a single family household for basic domestic purposes, such as cooking, bathing, and sanitation. The second tier, which captures the majority of water use is the highest tier and reflects more discretionary uses of water, primarily irrigation, and is intended to provide a water conservation incentive for all customers. The third tier captures the water used by larger parcels that are common in the District's service area. As described previously, large parcels while using more water exhibit a lower intensity of water use. As a result, the District believes that the rate structure should be one that customers would not view as punitive, thus the rate for the third tier is lower than the second tier.

Exhibit III-7
San Juan Water District
Commodity Rates for Retail Service Area

	Allocated Commodity Costs	Annual Water Use (CCF)	Water Rate (\$/CCF)	
Residential Tiered Water Rates				
	Bi-Monthly Range of Use	% of Use		
Baseline Rate	0-20 CCF	21.0%	\$	0.34
Standard Residential Rate	21-200 CCF	57.0%	\$	0.57
Landscape Efficiency Rate	>200 CCF	22.0%	\$	0.40
Non-Residential Uniform Commodity Rate				
Uniform Commodity Rate	\$ 330,400	679,000	\$	0.49
Summary of Commodity Costs		Ann. Commodity Rate Revenues		
Commodity Costs	\$ 2,973,000		<u>Revenues</u>	<u>Water Use</u>
		Residential Customers	\$ 2,642,700	5,431,000
		Non-Residential Customers	\$ 330,400	679,000
		Totals	\$ 2,973,100	6,110,000

Complete Rate Schedules

Exhibits III-6 and III-7 provide the basic rate calculations for calendar year 2007. **Exhibit III-8** provides complete rate schedules for the next five years. It also includes both the daily base charge and new capital improvement charge, as previously described.

It is recommended that the District consider adopting proposed water rates for up to five years. Adopting a multi-year rate plan with annual rate increases will help the district generate the revenues necessary to support the proposed financial strategy. In addition, at the time the District issues additional COPs having an adopted rate plan will be viewed positively by rating agencies and investors, and help the District to secure favorable financing terms.

Exhibit III-8
San Juan Water District
Schedule of Current and Proposed Retail Water Rates

	Current	Jan. 2007	Jan. 2008	Jan. 2009	Jan. 2010	Jan. 2011
Commodity Rates (\$/CCF)						
<i>Residential (Bi-Monthly Allocations)</i>						
Baseline Rate (0 to 20 CCF)	\$ 0.28	\$ 0.34	\$ 0.39	\$ 0.43	\$ 0.46	\$ 0.48
Standardized Rate (21-200 CCF)	\$ 0.47	\$ 0.57	\$ 0.65	\$ 0.72	\$ 0.78	\$ 0.80
Irrigation Efficiency Rate (201+ CCF)	\$ 0.33	\$ 0.40	\$ 0.45	\$ 0.50	\$ 0.54	\$ 0.56
<i>Commercial</i>						
Uniform Rate (All Usage)	\$ 0.40	\$ 0.49	\$ 0.55	\$ 0.61	\$ 0.66	\$ 0.68
Daily Base Charge						
<i>Residential and Commercial</i>						
Up to 1" meter	\$ 0.82	\$ 0.68	\$ 0.61	\$ 0.72	\$ 0.57	\$ 0.61
1 1/2" meter	\$ 2.26	\$ 1.79	\$ 1.61	\$ 1.90	\$ 1.49	\$ 1.58
2" meter	\$ 3.53	\$ 2.85	\$ 2.55	\$ 3.02	\$ 2.35	\$ 2.51
3" meter	\$ 6.94	\$ 5.66	\$ 5.06	\$ 5.99	\$ 4.66	\$ 4.96
4" meter	\$ 10.77	\$ 8.82	\$ 7.88	\$ 9.34	\$ 7.25	\$ 7.72
Daily Capital Improvement Charge						
<i>Residential and Commercial</i>						
Up to 1" meter		\$ 0.21	\$ 0.39	\$ 0.39	\$ 0.63	\$ 0.63
1 1/2" meter		\$ 0.58	\$ 1.07	\$ 1.07	\$ 1.73	\$ 1.73
2" meter		\$ 0.93	\$ 1.71	\$ 1.71	\$ 2.76	\$ 2.76
3" meter		\$ 1.85	\$ 3.43	\$ 3.43	\$ 5.52	\$ 5.52
4" meter		\$ 2.90	\$ 5.36	\$ 5.36	\$ 8.63	\$ 8.63

IV. CAPITAL FACILITIES FEES

This section of the report described the current capital facilities fees, legal requirements and methodologies for calculating capital facilities fees, and the calculation of new capital facilities fees for the retail water system.

CURRENT CAPITAL FACILITIES FEES

The District's current capital facilities fees apply to new connections within the retail service area. **Exhibit IV-1** summarizes the District's current capital facilities fees.

**Exhibit IV-1
San Juan Water District
Current (FY 05-06) Retail Capital Facilities Fees (1)**

Base Fees		
Water Treatment	\$	1,857 \$/AF
Water Distribution	\$	2,216 \$/AF
Cooperative Pipeline	\$	646 \$/AF
General Benefit	\$	247 \$/AF
Total Base Benefit - All Zones	\$	4,966 \$/AF
Additional Zone Fees (2)		
ARC - North	\$	192 \$/AF
Gravity	\$	14 \$/AF
Lower Granite Bay	\$	246 \$/AF
Bacon	\$	655 \$/AF
Sierra	\$	732 \$/AF

Notes:

- (1) Capital facilities fees are determined based on estimated usage of 3 acre-feet per acre.
- (2) Total fees range from \$4,966 to \$5,698 per AF depending on Zone.

Capital facilities fees have been periodically updated to account for inflation and were last formally calculated during the 1990s. The current capital facilities fees include both retail (distribution) and wholesale (treatment and transmission) components.

With the preparation of the *Retail Water Master Plan Update* the District determined that it was time for a comprehensive review and update of the capital facilities fees. In addition, this study includes only the costs associated with existing and proposed retail water system facilities that provide capacity for new development. Wholesale water system facilities are excluded from the analysis herein.

In addition, an alternative mechanism for imposing capital facilities fees was considered and has been recommended. The current fees are based on acreage with an assumed water use of 3 AF per acre. The *Retail Water Master Plan Update* includes information that water usage varies with land use, and a uniform usage factor would be inequitable. In addition, we have proposed that a meter size approach provides greater equity, is easier to administer and determine, and provides additional incentives for efficiently managing water use.

LEGAL REQUIREMENTS AND CAPITAL FACILITIES FEE METHODOLOGIES

There are numerous methods to calculate capacity charges³. Each method has varying advantages and disadvantages and no method is universally recognized as the best. The methodology appropriate for any particular service or utility is dependent on a number of issues including the availability of a defined capital improvement program and the extent to which the utility's infrastructure is built out. Any methodology used for calculating capacity charges should be:

- *Financially Stable* – Capacity charges should reflect the estimated reasonable cost of providing capacity to new development and should be effective in covering the costs of providing such additional capacity.
- *Equitable* – Capital facilities costs should be allocated on a proportional basis that is reasonably related to the needs that are created and the benefits that are received by new development.
- *Administratively Feasible* – Capacity charges should be administratively simple and easily explained and accepted by developers.
- *Legally Justifiable* – Capacity charges must be developed in accordance with California statutes and court decisions.

Legal Requirements

The District 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 development impact 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.

³ “Capital facilities fee” is the District’s term for fees paid by new development to provide capacity in water system facilities necessary to accommodate the needs of new development. The term “connection fee” or “capacity charge” is often used in place of capital facilities fee for water and sewer services. This report uses the “capacity charge” when referring generally to this type of fee and “capital facilities fees” when referring specifically to the District’s fees.

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 make 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 impact fees and the general fund.
- 3) If a local agency has unspent or uncommitted development impact 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 and sewer capacity charges. **Appendix B**, at the end of this report, includes Section 66013 of the Government Code, as well as related code sections.

The key to the statutory requirements is that water and sewer capacity charges shall not exceed the *estimated reasonable cost* of providing service. Capacity charges 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 the fees:

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

Applying these criteria to the District'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 impact fee revenues are accounted for and spent. The

District's capital facilities fees should be based the District's planning documents, including the *Retail Water Master Plan Update*.

Methodologies for Calculating Capacity Charges

There are numerous methodologies for calculating capacity charges. The number has proliferated with the growing popularity of this type of fee. Various methodologies have evolved to meet changing public policy, legal requirements, and the unique or special circumstances of each local agency.

Several major publications regarding capacity charges for various infrastructure needs, including water and sewer system improvements, are generally recognized in the industry. These publications include:

- Development Impact Fees, Arthur C. Nelson, 1998.
- Principles of Water Rates, Fees, and Charges, Manual M1, American Water Works Association, 5th Edition, 2000.
- Comprehensive Guide to Water and Wastewater Finance and Pricing, Second Edition, George A. Raftelis, 1993.
- System Development Charges for Water, Wastewater, and Stormwater Facilities, Arthur C. Nelson, 1995.

These publications describe a number of methodologies including their applicability to various situations and the relative advantages and disadvantages of each. Within all of the available methodologies there are two primary approaches. Other methodologies are usually some variation or combination of these two methods. The two primary methods are described below to illustrate the different perspectives that can be used to determine appropriate fees.

System Buy-In Method

The system buy-in method is based on the average investment in the capital facilities by current customers. Raftelis describes the system buy-in methodology as follows: "Under this approach, capital recovery charges are based upon the 'buy-in' concept that existing users, through service charges, tax contributions, and other up-front charges, have developed a valuable public capital facility. The charge to users is designed to recognize the current value of providing the capacity necessary to serve additional users. The charge is computed by establishing fixed asset value under a historical or reproduction cost basis and deducting relevant liabilities (long-term debt, loans, etc.) from this amount. The number of units of service is then divided into this difference (considered to be the utility's equity) to establish the capital recovery charge."

More simply, the buy-in fee is determined by taking the current value of assets (historical cost escalated to current dollars and adjusted for depreciation) divided by the current number of customers (expressed in equivalent residential units). By paying impact fees calculated on this basis new development buys into the existing capital facilities on par with existing

development. Responsibility for new capital improvements are then shared equally by all customers. The system buy-in methodology has four distinct advantages:

- The buy-in methodology is a common and generally well accepted methodology for calculating capacity charges. The method is popular with developers in part because it can result in lower fees than other methods (depending on the valuation methods used).
- The buy-in methodology includes only the cost of existing facilities and excludes the costs of future or planned facilities; therefore, it does not require a formal capital improvement program.
- The buy-in methodology does not necessarily depend on an assessment of existing capacity availability; it therefore does not require the more detailed capacity analyses required to justify fees based on other methodologies.
- Capacity charges based on the buy-in method are a reimbursement for past capital costs. Therefore, the *use* of the fees is to reimburse the utility (or existing development). Once reimbursed, the utility is able to spend fee revenue as it desires. As a result, detailed accounting of impact fee expenditures is greatly simplified⁴.

The system buy-in method is best applied in areas that are largely buildout and with infrastructure already in place.

Incremental Cost Method

The incremental cost methodology is a fairly common approach for capacity charges, particularly for communities experiencing considerable new growth. The approach is based on the cost of new or planned capital facilities. The cost of growth-related facilities is allocated to the new development to be served by the facilities. Allowances are generally not made for existing capacity that may also serve new connections. Under this approach, new customers pay for the incremental investment necessary for system expansion. The incremental approach is most commonly applied when new facilities are required to provide capacity for new development.

For example, when new customers connect to a utility system they use either reserve capacity available to existing customers (which then needs to be replaced), or they require new capacity which must be added to the system. The goal of this method is to minimize or eliminate the need to raise rates in order to provide for system expansion. Consequently, new customers pay fully for additional capacity in new facilities to avoid imposing a burden on existing customers.

The incremental cost methodology often requires more detailed analyses in order to satisfy nexus requirements. First, the capacity requirements of new development must be defined.

⁴ By accepting fee payments from new development the utility is indicating a willingness and ability to provide service. Therefore, it is recommended that capacity charge revenues be utilized for capital improvements that enhance service delivery capabilities.

Second, the amount of capacity provided by new facilities must be determined, and capacity enhancements required to address existing deficiencies should be considered. To the extent that existing capacity does not provide the specified level of service to existing development, new facilities must be identified to correct these deficiencies, and fees paid by new development can not be used to correct existing deficiencies. As a result, it is fairly common for only a portion of new capital facility costs to be included in fee calculations.

The incremental cost methodology is simplified when all-new infrastructure is required to serve new development areas. In this situation, service level standards are defined, new facilities identified, and costs are determined. The cost of facilities is then allocated (or spread) across all new development to be served by the facilities. Units of development must be defined as well as demand factors for different types of development. Capacity charges based on the incremental cost methodology are subject to statutory accounting requirements because fee revenue must be accounted for until specific capital improvements are constructed.

Combined Method

Many capacity charge approaches combine both existing and planned facilities into fee calculations. This is because new development frequently benefits from both surplus capacity in existing facilities, but also requires new facilities to provide required capacity. Many facilities are oversized when initially constructed for economies of scale and in anticipation of future development. Examples are water supply facilities, water treatment facilities, transmission pipelines, etc. These major facilities are difficult and more costly to add incrementally. Other facilities, such as distribution pipelines, water storage tanks, and others can be added incrementally as development proceeds.

One of the challenges in using a combined approach for capacity charges is to make certain that new development is not paying for needed capacity in through both existing and new facilities. For example, it would be inappropriate to charge new development for capacity in both an existing and a new water treatment plant. It may be appropriate, however, to charge new development for new and existing facilities that are part of a broad system. For example, in may be reasonable to charge new development for proportionate share of costs associated with an existing water distribution system, as well as new distribution facilities that extend into newly developing areas. In this case, new development needs the new facilities but also benefits from the existing distribution system network which serves to convey water to customers.

Recommended Approach for San Juan Water District

The District is largely built out with anticipated new development representing an increase of about 24 percent over current development. Much of the infrastructure needed to serve new development already exists. This is evidenced by the District's *Retail Water Master Plan Update* which predominately includes replacement/upgrade projects. Less than one-half of project costs are driven primarily by the needs of new development. While the capital facilities fees were based only on planned improvements (incremental cost method), it is recommended that

new fee calculations begin to reflect the significant investment already made in infrastructure and facilities that will benefit new development and be used to accommodate demands created by new development.

Because new development will benefit from both existing as well as new facilities it is recommended that the District begin to include both new and existing facilities in capital facilities fee calculations (combined method).

IMPORTANT FACTORS IN THE DETERMINATION OF CAPACITY CHARGES

There are a number of important concepts and factors that need to be understood, considered, and addressed in the development of any capacity charge program. These issues were central to many decisions related to individual fee components.

Project vs. System Improvements

In order to properly consider capacity charge methodologies for a utility's infrastructure and facilities needs it is important to understand and distinguish between different types of facilities.

- *Project Improvements* – Project improvements may also be referred to as site-specific or local improvements. Project improvements are generally within or immediately adjacent to a development project. These facilities are required to serve the property(ies) within a development, and generally only provide benefits to that specific development project. The cost of project improvements is normally the direct responsibility of the developer/property owner within the area to receive service. Possible examples of project improvements include small diameter water distribution pipelines, and meters and service laterals.
- *System Improvements* – System improvements include facilities that provide broad benefit to an entire service area. Multiple developments or the utility as a whole rely upon and/or benefit from system-wide improvements. It is common to require all beneficiaries of system improvements to bear a proportionate responsibility for these improvements. Examples of system improvements include water treatment plants, transmission and large distribution pipelines, water storage facilities, etc.

Because project improvements normally benefit only a specific development project the cost of such improvements may be the direct responsibility of a developer, and not included in capacity charge calculations. System improvements, however, provide widespread general benefits and costs are appropriately shared by all new development (and possible existing development as well). Capacity charge calculations tend to focus on the cost of system improvements, and generally exclude the cost of project improvements.

With respect to the capacity facilities fee analyses for the District, projects and facilities identified in the *Retail Water Master Plan Update* are generally required to improve the water

system for both existing and well as new development. Project specific improvements (those related to a single development) are not included in the master plan.

Replacement/Rehabilitation, Upgrade, and Expansion

Capital facilities can serve several different purposes. For purposes of capacity charge calculations it is important to recognize the difference between replacement/rehabilitation, upgrade, and expansion projects.

- *Replacement/Rehabilitation Projects* – These are capital projects intended to replace existing facilities at the ends of their useful lives or rehabilitate them to extend their useful lives. Replacement/rehabilitation projects do not provide additional capacity or a higher level of service, but instead allow the utility to continue to provide the same service to existing development into the future.
- *Upgrade Projects* – Upgrade projects are those that provide a higher level of service for existing development. Sometimes the higher level of service standard is a mandated requirement (e.g., changes in water quality standards as mandated by the Federal government). Sometimes it is something decided upon by the utility (e.g., improving minimum fire flow capacity) to enhance service. Upgrade projects provide benefits to existing development by improving the service being provided to them, but do not provide additional capacity for new development.
- *Expansion Projects* – These projects are intended to add capacity to infrastructure and/or utility systems in order to accommodate new development. Adding new storage reservoir capacity in proportion to the number of customers served is an example of capital expansion.

The distinction between replacement/rehabilitation, upgrade, and expansion projects is particularly important with new facilities included in an incremental cost capacity charge calculation. Only the cost associated with expansion projects should be included in capacity charges; new development normally should not be responsible for rehabilitating the existing systems, or improving the level of service to existing development.

Many capital improvement projects serve multiple purposes. For example, an old 6" water main might be replaced with a 12" line. The sizing up to 6" would be considered replacement, upsizing to 8" might be desired to upgrade flow capacity for periods of peak use, and sizing to 12" may accommodate additional flows generated by new development.

These distinctions can become moot when entirely new infrastructure systems are being added to accommodate new development areas.

Service Level Standards and Demand Factors

Another important consideration with respect to capacity charge calculations is the requirement to define service level standards. Continuing along the discussion in the previous paragraphs, it would be inappropriate to require new development to pay for a certain level of service if

existing development is not provided the same level of service. To the extent that deficiencies exist in the level of service being provided to existing development, capital improvement plans need to demonstrate how these are being addressed (and paid for by existing development). This requirement necessitates (1) a clear definition of the level of service to be provided, (2) an assessment as to the capacity of existing facilities and/or systems relative to current development needs, and (3) if deficiencies exist, determination of what is required (upgrade projects) to correct those deficiencies.

This issue is relevant with respect to the incremental cost methodology where the focus is on the cost of new facilities. Under the system buy-in methodology new development is required to make a contribution toward the investment in existing facilities and/or systems equal to the average investment of existing development. The level of service being provided is immaterial. After paying a system buy-in charge both new and existing development would be on an equal footing, and any upgrades to provide a higher level of service would be paid for jointly (for example, through utility rates paid by all customers).

Valuation of Existing Facilities

The items discussed above relate primarily to impact fees that involve new facilities using the incremental cost methodology. Estimated costs of new facilities included in capital improvement plans or master plans suffice for capacity charge purposes. However, determining the estimated reasonable cost of existing facilities entails other important considerations. The buy-in methodology previously described requires that the valuation of the existing facilities and/or system be determined. This can be done in several different ways.

- *Historical Cost* - This is simply the amount actually paid to construct an existing capital facility. Frequently this can be obtained in summary form from accounting records of the utility. It would be permissible to include the cost of financing (interest costs, etc.) in the cost of the facility. Any outstanding principal, related to the financing of an existing facility, should be deducted from the historical cost.
- *Historical Cost Less Depreciation* - Once facilities are placed in service they normally have a finite life. Depreciating the value of a facility reflects that a portion of its usefulness is being used up over time. Depreciation is an accounting procedure for gradually expensing the cost of a long-lived asset; frequently it has limited bearing on the true usefulness or value of the asset. Occasionally, agencies will use other means for adjusting the value of assets to reflect reduced usefulness. These methods are more complex and time consuming to perform, and simple straight-line depreciation is a common, and accepted, practice. Some agencies choose not to reflect depreciation in the valuation of existing facilities. Their argument is that the utility incurs ongoing costs to maintain and otherwise extend the useful lives of assets, and these costs are not necessarily added into the cost of the facility. Reflecting depreciation is certainly a more conservative approach to asset valuation for capacity charge calculations.

- *Replacement Cost* – Many agencies recognize that the cost to construct facilities today would not be the same as when originally constructed. In addition, due to the time value of money, historical costs are not reflective of today’s value of those costs. To reflect assets at current values it is common to escalate historical costs using an ENR Construction Cost Index⁵. In instances where historical costs are not available (e.g., records do not exist or are incomplete) many agencies develop replacement cost estimates using current standard cost curves or unit costs for various types of facilities.
- *Replacement Cost Less Depreciation* – This is probably the most common approach to valuing existing facilities for purposes of capital facilities fee calculations. This approach starts with historical cost information, escalates it to current dollars using an appropriate construction cost index, and then reduces the value through a depreciation calculation. Both utility managers and development interests often view it as a reasonable approach.

Beyond the basic valuation decision, the valuation of existing facilities needs to reflect potential offsets or adjustments to costs. If an existing facility has not yet been fully paid for, then the outstanding principal balance of debt should be deducted from the cost (this assumes that debt service is primarily an obligation of ratepayers). For example, once a new customer connects to the utility system they will be contributing towards debt service payments through their rates. Other potential offsets or credits also need to be considered. For example, if existing facilities were financed through property taxes assessed to all property then the owners of newly developing property have likely already contributed to the cost of existing facilities. Double charging must be avoided. In addition, facilities that were financed with grant funds (and therefore not paid for by existing customers) are also usually deducted from the estimated cost of the existing system. Finally, if the utility has significant reserves intended or available for capital improvements the funds could be included in the valuation of the utility system.

CAPITAL FACILITIES FEE CALCULATIONS

Exhibit IV-2 summarizes the calculation of capital facilities fees for the District’s retail water system. The capital facilities fees include both a system buy-in component related to the existing distribution system, as well as a future facilities incremental cost component related to new facilities planned as part of the *Retail Water Master Plan Update*. The calculation of each component is described in greater detail in the following paragraphs.

⁵ *Engineering News Record (ENR)* is a national publication of the construction industry that has tracked and published construction cost indexes for most of this century. ENR cost indices are commonly used to adjust historical construction costs to current dollars. The 20-cities construction cost index is recommended for the District.

Exhibit IV-2
San Juan Water District
Retail Capital Facilities Fee Calculations

<i>Distribution System Buy-In Component</i>		
<i>Water System Assets (1) (2)</i>		
Land and Other Land Rights	\$	316,319
Master Meters	\$	57,150
Trans. and Distrib. Mains (2)	\$	18,555,214
Sub-Total	\$	18,928,683
Less Outstanding Principal on 2003 COPs (3)	\$	(7,931,900)
Plus Issuance and Past Interest on 2003 COPs (3)	\$	1,125,273
Plus Remaining 2003 COP Proceeds (3)	\$	6,000,000
Other Capital Fund Reserves (4)	\$	1,589,137
Total Water System Buy-In Assets	\$	19,711,193
Existing 1" Equivalent Meters (5)		8,919
Water System Buy-In Component	\$	2,210
<i>Future Facilities Incremental Cost Component</i>		
Total Present Value Estimate of RWMP Projects (6)	\$	42,895,600
Less Rehab./Upgrade Portion of RWMP Projects (6)	\$	(23,251,920)
Expansion Portion of RWMP Projects	\$	19,643,680
Financing Factor for Debt Financed Projects (7)		64%
Financing Cost for Debt Financed Expan. Projects (8)	\$	9,117,906
Total Water System Expansion Costs	\$	28,761,586
Expected Increase in Demand Due to Growth (6)		3,900 AF
Unit Demand for Standard 1" Water Meter (9)		1.24 AF/yr
Potential New 1" Equivalent Meters		3,146
Water System Future Facilities Component	\$	9,142
TOTAL RETAIL CAPITAL FACILITIES FEE (1" meter)	\$	11,352

Notes:

- (1) Based on the District's fixed asset records. Valuation reflects replacement cost less depreciation. See Exhibit C-1 in Appendix C.
- (2) Excludes pump stations, pumps, reservoirs, distribution mains less than 8" in diameter, and service connections.
- (3) For portion of 2003 COPs used for RSA facilities.
- (4) Includes capital facilities fee reserves available for expansion projects.
- (5) Based on current number of accounts and meter sizes.
- (6) From Retail Water Master Plan Update and Exhibit A-3 of this report.
- (7) Present value factor for future issuance and interest costs assuming 20-year debt at 6.0% and issuance costs of 5% of par value.
- (8) Includes expansion portion of capital cost plus financing cost on debt-financed projects.
- (9) Average residential water usage based on billing records.

Distribution System Buy-In Component

The distribution system buy-in component is based on the District's current investment in retail water system distribution facilities. To calculate this buy-in component the District's fixed asset records were obtained and reviewed. **Exhibit C-1**, in Appendix C, contains the portions of these records used in the analysis. Excluded from the analysis were pump stations, pumps, reservoirs, distribution mains smaller than 8" in diameter, and service connections. These were excluded because capacity in these facilities is to be provided by new facilities included in the *Retail Water Master Plan Update*. Essentially, the buy-in component includes only the larger pipelines of the distribution system which provide general benefit to both existing and new customers. Completely excluding other facilities makes the calculations somewhat conservative.

Historical costs were adjusted to a replacement cost less depreciation valuation using the date acquired, the service life, and 20-cities CCI. The valuation of existing facilities was determined to be about \$18.9 million.

Several adjustments were then made to this valuation to reflect financing of certain retail water system facilities. First outstanding principal on the District's 2003 COPs related to retail facilities was deducted. Second, past debt issuance and interest costs were added to the cost. Finally, remaining debt proceeds that will be used to help finance additional facilities was added to the valuation of the existing system, along with other capital funds intended specifically for capital improvements. The adjusted existing retail water system valuation used for the capital facilities fee calculation is about \$19.7 million.

The water system valuation was then divided by the current customer based, expressed in 1" equivalent meters, to arrive at a water system buy-in component amount of \$2,210 for a 1" water meter.

Future Facilities Incremental Cost Component

The future facilities component is based on the expansion portion of facilities identified in the District's *Retail Water Master Plan Update*. Master plan facilities have a current estimated cost of about \$42.9 million. The District's engineering consultant identified what portion of each project is intended to serve the needs of existing customers (replacement and upgrade) and of new development (expansion). These percentages are included in the columns on the right side of Exhibit A-3. Multiplying the replacement/upgrade percentages by the estimated cost of each project results in a replacement/upgrade cost of about \$23.3 million, which leaves about \$19.6 million in expansion costs.

A portion of the expansion projects are expected to be financed through the issuance of additional long-term debt. Issuance and interest costs are expected to add an additional 62 percent to the cost of these projects. Future projects that are expected to include the debt financing of the expansion portion of the projects include:

- 16" water line – Twin Rocks Road
- 24" water line – Auburn-Folsom Road – Middle

- New 10.1 mgd Lower Granite Bay pump station at Hinkle reservoir
- 3.0 MG Kokila reservoir

Financing costs are estimated to add about \$9.1 million to the expansion portion of the costs of these facilities. Total future facility costs include both the current construction cost and the financing costs. The expansion portion of these costs is estimated to total about \$29.3 million.

Future facilities have been planned to meet the capacity needs of planned new development. Based on information contained in the Retail Water Master Plan Update, an additional 3,146 new connections (in 1" equivalent meters) can be supported with these facility additions. Therefore the future facility component of the capital facilities fee was determined to be \$9,142 for a 1" meter.

PROPOSED CAPITAL FACILITIES FEE SCHEDULE

The proposed capital facilities fee is comprised of both the buy-in and future facilities components. **Exhibit IV-3** includes the proposed fee schedule, which is based on the size of the meter for each new connection to the retail water system.

Exhibit IV-3
San Juan Water District
Proposed (FY 06-07) Retail Capital Facilities Fees

Capital Facilities Fees	
Up to 1" meter	\$ 11,352
1 1/2" meter	\$ 22,705
2" meter	\$ 36,327
3" meter	\$ 72,654
4" meter	\$ 113,523
6" meter	\$ 227,045
8" meter	\$ 408,681
10" meter	\$ 658,431
12" meter	\$ 976,294

The meter size approach results in each new water service connection paying for capacity in the retail water system in proportion to the potential demand that each customer can place on the water system. The District is obligated to serve whatever demands are placed on the water system. Under the current acreage approach, developers have little disincentive for installing large meters that could accommodate any potential future demands. The meter size approach will provide a financial incentive to size connections based on reasonable expectations of usage, and will also encourage more efficient use. If a customer wants a large meter, and pays for that capacity, the District will be fairly compensated for meeting potential demands that could result from that connection.

If the District wants to maintain the current approach for imposing capital facilities fees, the amount of the fee would be \$9,157 per AF. However, we would recommend not simply assuming a 3 AF per acre usage factor for each new connection. At a minimum, the usage factor should be based on land use (see Exhibit III-4); however it may also be prudent to impose the capital facility fee on an estimate of usage for each new connection, as water use varies dramatically even within a single land use classification.

Basing the capital facility fee on estimated water use is problematic because (1) estimates are difficult to make, (2) subjectivity can lead to manipulation and abuse, (3) follow-up monitoring of actual usage may be warranted to ensure customers actual usage does not exceed the estimate in which the fee was based, and (4) when actual usage exceed to estimate a mechanism need to be in place to collect an additional fee.

The meter size approach that we propose is much easier to administer and explain to new customers. Most people understand the relationship between meter size and capacity requirements of the water system. It also avoids the subjectivity associated with the water use approach, as well as the need for subsequent fee collections.

Capital Facilities Fee Administration and Updates

While not reviewed in detail, we believe that the District already follows required steps for separately accounting for capital facilities fee revenues and expenditures. For reference, **Appendix B**, at the end of this report, includes statutory requirements for accounting for capital facilities fees.

It is recommended that the District annually adjust the capital facilities fees for the affects of inflation using the *Engineering News Record's* 20-Cities Construction Cost Index. The capital facilities fees presented in Exhibit IV-3 have been indexed to a 20-cities CCI value of 7,700 (June 2006).

It is further recommended that the District formally update the capital facilities fee calculation at least once every three to five years. Capital improvement plans, cost estimates, and financing terms all evolve over time, and periodically updating the calculation will help ensure that new development is paying fair and proportionate share of water system costs.

APPENDIX A - RETAIL FINANCIAL PLAN EXHIBITS

**Exhibit A-1
San Juan Water District
Retail Financial Plan Assumptions**

	FY 04-05	FY 05-06	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
Financial Assumptions											
Interest Rate		2.5%	3.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Inflation Rate - Operations		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Inflation Rate - Construction		5.0%	4.5%	4.0%	3.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Operating Reserve		20% of Operating and Maintenance costs, including debt service									
Customer and Water Use Data											
No. of Accounts	10,270	10,436	10,605	10,777	10,952	11,008	11,064	11,121	11,178	11,235	11,293
No. of Equiv. Meters	8,644	8,781	8,919	9,064	9,211	9,258	9,305	9,353	9,401	9,449	9,497
Customer Growth Rate		1.63%	1.63%	1.63%	1.63%	0.51%	0.51%	0.51%	0.51%	0.51%	0.51%
Ann. Water Use (CCF)	5,916,000	6,012,000	6,110,000	6,209,000	6,310,000	6,342,000	6,374,000	6,407,000	6,440,000	6,473,000	6,506,000
Ann. Water Use (AF)	13,580	13,800	14,030	14,250	14,490	14,560	14,630	14,710	14,780	14,860	14,940
Water Demand Growth Rate		1.63%	1.63%	1.63%	1.63%	0.51%	0.51%	0.51%	0.51%	0.51%	0.51%
Ann. Water Production (AF)	15,764	16,020	16,280	16,540	16,810	16,900	16,990	17,080	17,170	17,260	17,350
Unaccounted for Water	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%
Retail Capital Facil. Fee (1" mtr.)			\$ 11,352	\$ 11,806	\$ 12,220	\$ 12,586	\$ 12,964	\$ 13,353	\$ 13,753	\$ 14,166	\$ 14,591

**Exhibit A-2
San Juan Water District
Retail Financial Plan**

	FY 04-05	FY 05-06	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
	Proposed CY Rate Increases -->		13%	13%	11%	8%	3%	3%	3%	5%	5%
RETAIL OPERATING FUND											
<i>Beginning-of-Year Balance</i>	\$ 1,169,910	\$ 1,671,480	\$ 1,700,346	\$ 1,784,898	\$ 1,523,898	\$ 1,578,898	\$ 1,611,898	\$ 1,794,898	\$ 2,046,898	\$ 2,088,898	\$ 2,399,898
<i>Operating Revenues</i>											
Water Rate Revenue	\$ 5,419,802	\$ 5,735,000	\$ 6,581,000	\$ 7,516,000	\$ 8,537,000	\$ 9,407,000	\$ 9,925,000	\$ 10,275,000	\$ 10,638,000	\$ 11,140,000	\$ 11,758,000
Other Operating Revenues	\$ 44,661	\$ 58,000	\$ 46,100	\$ 47,000	\$ 48,000	\$ 49,000	\$ 50,000	\$ 52,000	\$ 54,000	\$ 56,000	\$ 58,000
Grants	\$ -	\$ 90,000	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Earnings	\$ 42,000	\$ 51,000	\$ 62,000	\$ 62,000	\$ 53,000	\$ 55,000	\$ 56,000	\$ 63,000	\$ 72,000	\$ 73,000	\$ 84,000
Transfer from PERS Rate Stab.	\$ 344,886	\$ 168,283	\$ 182,000	\$ 182,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Operating Revenues	\$ 5,809,348	\$ 6,093,283	\$ 6,885,100	\$ 7,807,000	\$ 8,638,000	\$ 9,511,000	\$ 10,031,000	\$ 10,390,000	\$ 10,764,000	\$ 11,269,000	\$ 11,900,000
<i>Operating Expenses and Transfers</i>											
Source of Supply	\$ 1,761,910	\$ 1,918,773	\$ 2,330,000	\$ 2,611,000	\$ 2,802,000	\$ 2,934,000	\$ 3,073,000	\$ 3,226,000	\$ 3,382,000	\$ 3,542,000	\$ 3,706,000
Pumping & Telemetry	\$ 210,827	\$ 149,101	\$ 144,459	\$ 149,000	\$ 153,000	\$ 158,000	\$ 163,000	\$ 168,000	\$ 173,000	\$ 178,000	\$ 183,000
Transmission & Distribution	\$ 826,261	\$ 1,133,059	\$ 1,358,343	\$ 1,399,000	\$ 1,441,000	\$ 1,484,000	\$ 1,529,000	\$ 1,575,000	\$ 1,622,000	\$ 1,671,000	\$ 1,721,000
Cooperative Trans. Pipeline	\$ 19,601	\$ 17,052	\$ 400	\$ 18,000	\$ 19,000	\$ 20,000	\$ 21,000	\$ 22,000	\$ 23,000	\$ 24,000	\$ 25,000
Customer Service	\$ 652,194	\$ 653,833	\$ 590,647	\$ 608,000	\$ 626,000	\$ 645,000	\$ 664,000	\$ 684,000	\$ 705,000	\$ 726,000	\$ 748,000
Conservation	\$ 277,454	\$ 501,389	\$ 493,545	\$ 508,000	\$ 523,000	\$ 539,000	\$ 555,000	\$ 572,000	\$ 589,000	\$ 607,000	\$ 625,000
Engineering	\$ 393,977	\$ 425,541	\$ 454,719	\$ 468,000	\$ 482,000	\$ 496,000	\$ 511,000	\$ 526,000	\$ 542,000	\$ 558,000	\$ 575,000
Administrative & General	\$ 582,609	\$ 645,218	\$ 740,435	\$ 1,013,000	\$ 1,043,000	\$ 1,074,000	\$ 1,106,000	\$ 1,139,000	\$ 1,173,000	\$ 1,208,000	\$ 1,244,000
Transfer for Whls. Dir. Debt Serv.	\$ 582,945	\$ 583,910	\$ 588,000	\$ 586,000	\$ 586,000	\$ 588,000	\$ 586,000	\$ 586,000	\$ 773,000	\$ 294,000	\$ 294,000
Transfer for Retail Debt Service	\$ -	\$ -	\$ -	\$ 508,000	\$ 508,000	\$ 1,140,000	\$ 1,140,000	\$ 1,140,000	\$ 1,140,000	\$ 1,350,000	\$ 1,350,000
Transfer for Capital Program	\$ -	\$ -	\$ 100,000	\$ 200,000	\$ 400,000	\$ 400,000	\$ 500,000	\$ 500,000	\$ 600,000	\$ 800,000	\$ 1,000,000
Total Oper. Exp. & Trans.	\$ 5,307,778	\$ 6,027,875	\$ 6,800,548	\$ 8,068,000	\$ 8,583,000	\$ 9,478,000	\$ 9,848,000	\$ 10,138,000	\$ 10,722,000	\$ 10,958,000	\$ 11,471,000
<i>End-of-Year Balance</i>	\$ 1,671,480	\$ 1,736,888	\$ 1,784,898	\$ 1,523,898	\$ 1,578,898	\$ 1,611,898	\$ 1,794,898	\$ 2,046,898	\$ 2,088,898	\$ 2,399,898	\$ 2,828,898
Operating Reserve (20%)	\$ 1,062,000	\$ 1,206,000	\$ 1,340,000	\$ 1,472,000	\$ 1,535,000	\$ 1,588,000	\$ 1,642,000	\$ 1,700,000	\$ 1,796,000	\$ 1,762,000	\$ 1,824,000
Uncommitted Fund Balance	\$ 609,480	\$ 530,888	\$ 444,898	\$ 51,898	\$ 43,898	\$ 23,898	\$ 152,898	\$ 346,898	\$ 292,898	\$ 637,898	\$ 1,004,898
DS Coverage (RSA only)		1.59	5.17	3.08	3.90	2.15	2.41	2.39	2.25	1.27	1.49

**Exhibit A-2 -- Continued
San Juan Water District
Retail Financial Plan**

	FY 04-05	FY 05-06	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
RETAIL CAPITAL FUND											
<i>Beginning-of-Year Balance</i>		\$ 9,046,075	\$ 7,565,757	\$ 3,889,757	\$ 6,712,257	\$ 7,048,257	\$11,481,757	\$ 7,412,757	\$ 9,110,757	\$ 9,694,757	\$22,256,157
<i>Sources of Funds</i>											
Retail Connection Fees	\$ 74,000	\$ 1,572,000	\$ 1,710,000	\$ 1,796,000	\$ 592,000	\$ 609,000	\$ 641,000	\$ 660,000	\$ 680,000	\$ 700,000	
Property Taxes (50% of 1% Incr.)	\$ 150,000	\$ 650,000	\$ 670,000	\$ 690,000	\$ 711,000	\$ 732,000	\$ 754,000	\$ 777,000	\$ 800,000	\$ 824,000	
Transfer from Operating Fund	\$ -	\$ 100,000	\$ 200,000	\$ 400,000	\$ 400,000	\$ 500,000	\$ 500,000	\$ 600,000	\$ 800,000	\$ 1,000,000	
Interest Earnings	\$ 226,000	\$ 227,000	\$ 136,000	\$ 235,000	\$ 247,000	\$ 402,000	\$ 259,000	\$ 319,000	\$ 339,000	\$ 779,000	
Debt Proceeds			\$ 5,030,500		\$ 6,255,500				\$21,911,400		
Total Sources of Funds	\$ 450,000	\$ 2,549,000	\$ 7,746,500	\$ 3,121,000	\$ 8,205,500	\$ 2,243,000	\$ 2,154,000	\$ 2,356,000	\$24,530,400	\$ 3,303,000	
<i>Uses of Funds</i>											
Replacement/Upgrade Projects	\$ 3,642,000	\$ 5,490,000	\$ 4,076,000	\$ 1,912,000	\$ 2,581,000	\$ 5,749,000	\$ 456,000	\$ 1,519,000	\$ 2,797,000	\$ 814,000	
Expansion Projects	\$ 132,000	\$ 735,000	\$ 848,000	\$ 873,000	\$ 1,191,000	\$ 563,000	\$ -	\$ 253,000	\$ 7,218,000	\$13,894,000	
Transfer for Expan. Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,954,000	\$ 1,954,000	
Total Uses of Funds	\$ 3,774,000	\$ 6,225,000	\$ 4,924,000	\$ 2,785,000	\$ 3,772,000	\$ 6,312,000	\$ 456,000	\$ 1,772,000	\$11,969,000	\$16,662,000	
<i>End-of-Year Balance</i>	\$ 5,722,075	\$ 3,889,757	\$ 6,712,257	\$ 7,048,257	\$11,481,757	\$ 7,412,757	\$ 9,110,757	\$ 9,694,757	\$22,256,157	\$ 8,897,157	
Debt Proceeds Remaining	\$ 6,000,000	\$ 3,530,000	\$ -	\$ -	\$ -	\$ 4,800,000	\$ -	\$ -	\$ -	\$ 12,816,000	\$ -
Capital Facilities Fee Reserves	\$ 1,456,938	\$ 1,435,000	\$ 3,050,000	\$ 4,019,000	\$ 5,083,000	\$ 4,662,000	\$ 4,871,000	\$ 5,682,000	\$ 6,288,000	\$ 4,989,000	\$ 2,835,000
Other Capital Reserves	\$ 1,589,137	\$ 757,075	\$ 839,757	\$ 2,693,257	\$ 1,965,257	\$ 2,019,757	\$ 2,541,757	\$ 3,428,757	\$ 3,406,757	\$ 4,451,157	\$ 6,062,157

**Exhibit A-3
San Juan Water District
Retail Capital Improvement Program**

Project	CIP ID	Total Cost	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10
Capital Improvement Program							
Vulnerability Assessment Improvements		\$ 50,000	\$ 50,000				
Joint Tank w/ Roseville - Engr./Plng.		\$ 450,000	\$ 450,000				
Touch Read Meter Conversion Project		\$ 250,000	\$ 150,000	\$ 100,000			
Mainline Replacement Projects		\$ 360,000	\$ 360,000				
New Construction Materials/Taps/Etc.		\$ 85,000	\$ 85,000				
Furniture/Equipment/Vehicles		\$ 133,600	\$ 134,000				
Retail Water Master Plan Update		\$ 75,000	\$ 75,000				
Hinkle Pump Station Replacement		\$ 3,700,000	\$ 2,470,000	\$ 1,230,000			
Security Improvements		\$ 350,000		\$ 158,000	\$ 110,000	\$ 114,000	
Unspecified Replac./Upgrade Projects		\$ 2,700,000		\$ 300,000	\$ 314,000	\$ 326,000	\$ 338,000
Retail Water Master Plan Update							
<i>Emergency Intertie Facilities</i>							
Pressure Reducing Station at Kokila Res.	EI01	\$ 184,000					
<i>Pipelines</i>							
8" Water Line - Skyway Ln to Mooney Ridge	FF01	\$ 135,000					
8" Water Line - Lou Place	FF02	\$ 98,000					
8" Water Line - Edward Court	FF03	\$ 71,000					
8" Water Line - Auburn Folsom Road	BFF01	\$ 196,000					
12" Water Line - Sierra Colleg Blvd.	EI02	\$ 461,000					\$ 544,000
12" Water Line - Cavitt Stallman	PH07	\$ 785,000					
16" Water Line - Twin Rocks Road	PH08	\$ 2,526,000					
24" Water Line - Auburn Folsom Road - North	PH03-1	\$ 500,000		\$ 525,000			
24" Water Line - Auburn Folsom Road - South	PH03-2	\$ 2,120,000					
24" Water Line - Auburn Folsom Road - Middle	PH03-3	\$ 1,995,000					
24" Water Line - JWSF to Sierra College Bl.	PH05	\$ 3,000,000		\$ 3,000,000			
18" Water Line - Eureka Road	PH06	\$ 2,255,000					
<i>Pressure Reducing Stations</i>							
Pressure Reducing Station - ARC South	PH04	\$ 184,000				\$ 210,000	
PRV from new Lower Granite Bay PS	BPH01	\$ 184,000					
<i>Meter Station</i>							
Meter Station on Gravity Line Leaving Hinkle	BPH02	\$ 184,000				\$ 210,000	
<i>Pump Station Improvements/Upgrades</i>							
800 kW Standby Generator	PS01	\$ 641,000				\$ 731,000	
Pump Station Improvements - Sierra PS	PS02	\$ 422,000			\$ 463,000		
Pump Station Improvements - Bacon PS	PS04	\$ 152,000		\$ 160,000			
1,000 kW Standby Generator	PS05	\$ 759,000				\$ 866,000	
200 kW Standby Generator	BPS01	\$ 287,000				\$ 328,000	
<i>Pump Stations</i>							
4.96 mgd Upper Granite Bay Pump Station	PS03	\$ 2,241,000					\$ 2,647,000
New 10.1 mgd Lower GB PS at Hinkle Reservoir	BPS02	\$ 4,847,000					
<i>Storage Tanks</i>							
2.6 MG Joint Water Storage Facility	PH05	\$ 3,679,000			\$ 4,037,000		
3.0 MG Kokila Reservoir	BPH03	\$ 6,836,000					
Steel Water Line Replacements							
Auburn Folsom Rd - Bentley to Folsom Oaks		\$ 209,000		\$ 219,000			
Miner's Ravine		\$ 143,000		\$ 150,000			
Sierra College at Douglas		\$ 61,000		\$ 64,000			
Golden Gate Ave. (9001 to 9076)		\$ 240,000		\$ 240,000			
Park Vista Dr. (8650 to Sierra Ct.)		\$ 75,700		\$ 79,000			
Stevens Ave. (All)		\$ 205,900					\$ 243,000
Central Ave. (9500 to 9518)		\$ 40,600					
Douglas Blvd. (Joe Rodgers to Luth. Church)		\$ 78,000					
Douglas Blvd. (6990 to 7767) and small mains		\$ 891,200					
Erwin Avenue (All)		\$ 120,100					
Eureka Rd. (3,925' E of Barton to Aub-Fols)		\$ 308,200					
Telegraph Ave. (7406 to 7453)		\$ 101,400					
		\$ 45,370,000	\$ 3,774,000	\$ 6,225,000	\$ 4,924,000	\$ 2,785,000	\$ 3,772,000
Existing -->		\$ 25,726,000	\$ 3,642,000	\$ 5,490,000	\$ 4,076,000	\$ 1,912,000	\$ 2,581,000
Future -->		\$ 19,644,000	\$ 132,000	\$ 735,000	\$ 848,000	\$ 873,000	\$ 1,191,000
Debt Financed -->			\$ 2,470,000	\$ 5,155,000	\$ 3,652,230	\$ -	\$ 1,455,850
Inflation -->			1.00	1.05	1.10	1.14	1.18

**Exhibit A-3 -- Continued
San Juan Water District
Retail Capital Improvement Program**

Project	CIP ID	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Existing	Future
Capital Improvement Program								
Vulnerability Assessment Improvements							100%	0%
Joint Tank w/ Roseville - Engr./Plng.							79%	21%
Touch Read Meter Conversion Project							100%	0%
Mainline Replacement Projects							100%	0%
New Construction Materials/Taps/Etc.							100%	0%
Furniture/Equipment/Vehicles							100%	0%
Retail Water Master Plan Update							50%	50%
Hinkle Pump Station Replacement							100%	0%
Security Improvements							100%	0%
Unspecified Replac./Upgrade Projects		\$ 348,000	\$ 358,000	\$ 369,000	\$ 380,000	\$ 392,000	100%	0%
Retail Water Master Plan Update								
Emergency Intertie Facilities								
Pressure Reducing Station at Kokila Res.	EI01	\$ 224,000					79%	21%
Pipelines								
8" Water Line - Skyway Ln to Mooney Ridge	FF01	\$ 164,000					100%	0%
8" Water Line - Lou Place	FF02	\$ 119,000					100%	0%
8" Water Line - Edward Court	FF03	\$ 86,000					100%	0%
8" Water Line - Auburn Folsom Road	BFF01			\$ 253,000			0%	100%
12" Water Line - Sierra Colleg Blvd.	EI02						100%	0%
12" Water Line - Cavitt Stallman	PH07					\$ 1,075,000	0%	100%
16" Water Line - Twin Rocks Road	PH08					\$ 3,459,000	0%	100%
24" Water Line - Auburn Folsom Road - North	PH03-1						80%	20%
24" Water Line - Auburn Folsom Road - South	PH03-2	\$ 2,579,000					80%	20%
24" Water Line - Auburn Folsom Road - Middle	PH03-3				\$ 2,652,000		80%	20%
24" Water Line - JWSF to Sierra College Bl.	PH05						79%	21%
18" Water Line - Eureka Road	PH06	\$ 2,743,000					100%	0%
Pressure Reducing Stations								
Pressure Reducing Station - ARC South	PH04						100%	0%
PRV from new Lower Granite Bay PS	BPH01				\$ 245,000		0%	100%
Meter Station								
Meter Station on Gravity Line Leaving Hinkle	BPH02						0%	100%
Pump Station Improvements/Upgrades								
800 kW Standby Generator	PS01						79%	21%
Pump Station Improvements - Sierra PS	PS02						100%	0%
Pump Station Improvements - Bacon PS	PS04						100%	0%
1,000 kW Standby Generator	PS05						79%	21%
200 kW Standby Generator	BPS01						0%	100%
Pump Stations								
4.96 mgd Upper Granite Bay Pump Station	PS03						55%	45%
New 10.1 mgd Lower GB PS at Hinkle Reservoir	BPS02				\$ 6,443,000		0%	100%
Storage Tanks								
2.6 MG Joint Water Storage Facility	PH05						79%	21%
3.0 MG Kokila Reservoir	BPH03					\$ 9,360,000	0%	100%
Steel Water Line Replacements								
Auburn Folsom Rd - Bentley to Folsom Oaks							100%	0%
Miner's Ravine							100%	0%
Sierra College at Douglas							100%	0%
Golden Gate Ave. (9001 to 9076)							100%	0%
Park Vista Dr. (8650 to Sierra Ct.)							100%	0%
Stevens Ave. (All)							100%	0%
Central Ave. (9500 to 9518)		\$ 49,000					100%	0%
Douglas Blvd. (Joe Rodgers to Luth. Church)			\$ 98,000				100%	0%
Douglas Blvd. (6990 to 7767) and small mains				\$ 1,150,000			100%	0%
Erwin Avenue (All)					\$ 160,000		100%	0%
Eureka Rd. (3,925' E of Barton to Aub-Fols)						\$ 422,000	100%	0%
Telegraph Ave. (7406 to 7453)					\$ 135,000		100%	0%
		\$ 6,312,000	\$ 456,000	\$ 1,772,000	\$ 10,015,000	\$ 14,708,000		
Existing -->		\$ 5,749,000	\$ 456,000	\$ 1,519,000	\$ 2,797,000	\$ 814,000		
Future -->		\$ 563,000	\$ -	\$ 253,000	\$ 7,218,000	\$ 13,894,000		
Debt Financed -->		\$ 4,806,200	\$ -	\$ -	\$ 9,095,000	\$ 12,819,000		
Inflation -->		1.22	1.25	1.29	1.33	1.37		

APPENDIX B - GOVERNMENT CODE SECTIONS 66013, 66016, 66022, AND 66023

66013. (a) Notwithstanding any other provision of law, 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, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue.

(b) As used in this section:

(1) "Sewer connection" means the connection of a structure or project to a public sewer system.

(2) "Water connection" means the connection of a structure or project to a public water system, as defined in subdivision (f) of Section 116275 of the Health and Safety Code.

(3) "Capacity charge" means a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged.

(4) "Local agency" means a local agency as defined in Section 66000.

(5) "Fee" means a fee for the physical facilities necessary to make a water connection or sewer connection, including, but not limited to, meters, meter boxes, and pipelines from the structure or project to a water distribution line or sewer main, and that does not exceed the estimated reasonable cost of labor and materials for installation of those facilities.

(c) A local agency receiving payment of a charge as specified in paragraph (3) of subdivision (b) shall deposit it in a separate capital facilities fund with other charges received, and account for the charges in a manner to avoid any commingling with other moneys of the local agency, except for investments, and shall expend those charges solely for the purposes for which the charges were collected.

Any interest income earned from the investment of moneys in the capital facilities fund shall be deposited in that fund.

(d) For a fund established pursuant to subdivision (c), a local agency shall make available to the public, within 180 days after the last day of each fiscal year, the following information for that fiscal year:

(1) A description of the charges deposited in the fund.

(2) The beginning and ending balance of the fund and the interest earned from investment of moneys in the fund.

(3) The amount of charges collected in that fiscal year.

(4) An identification of all of the following:

(A) Each public improvement on which charges were expended and the amount of the expenditure for each improvement, including the percentage of the total cost of the public improvement that was funded with those charges if more than one source of funding was used.

(B) Each public improvement on which charges were expended that was completed during that fiscal year.

(C) Each public improvement that is anticipated to be undertaken in the following fiscal year.

(5) A description of each interfund transfer or loan made from the capital facilities fund. The information provided, in the case of an interfund transfer, shall identify the public improvements on which the transferred moneys are, or will be, expended. The information, in the case of an interfund loan, shall include the date on which the loan will be repaid, and the rate of interest that the fund will receive on the loan.

(e) The information required pursuant to subdivision (d) may be included in the local agency's annual financial report.

(f) The provisions of subdivisions (c) and (d) shall not apply to any of the following:

(1) Moneys received to construct public facilities pursuant to a contract between a local agency and a person or entity, including, but not limited to, a reimbursement agreement pursuant to Section 66003.

(2) Charges that are used to pay existing debt service or which are subject to a contract with a trustee for bondholders that requires a different accounting of the charges, or charges that are used to reimburse the local agency or to reimburse a person or entity who advanced funds under a reimbursement agreement or contract for facilities in existence at the time the charges are collected.

(3) Charges collected on or before December 31, 1998.

(g) Any judicial action or proceeding to attack, review, set aside, void, or annul the ordinance, resolution, or motion imposing a fee or capacity charge subject to this section shall be brought pursuant to Section 66022.

(h) Fees and charges subject to this section are not subject to the provisions of Chapter 5 (commencing with Section 66000), but are subject to the provisions of Sections 66016, 66022, and 66023.

(i) The provisions of subdivisions(c) and (d) shall only apply to capacity charges levied pursuant to this section.

66016. (a) Prior to levying a new fee or service charge, or prior to approving an increase in an existing fee or service charge, a local agency shall hold at least one open and public meeting, at which oral or written presentations can be made, as part of a regularly scheduled meeting. Notice of the time and place of the meeting, including a general explanation of the matter to be considered, and a statement that the data required by this section is available, shall be mailed at least 14 days prior to the meeting to any interested party who files a written request with the local agency for mailed notice of the meeting on new or increased fees or service charges. Any written request for mailed notices shall be valid for one year from the date on which it is filed unless a renewal request is filed. Renewal requests for mailed notices shall be filed on or before April 1 of each year. The legislative body may establish a reasonable annual charge for sending notices based on the estimated cost of providing the service. At least 10 days prior to the meeting, the local agency shall make available to the public data indicating the amount of cost, or estimated cost, required to provide the service for which the fee or service charge is levied and the revenue sources anticipated to provide the service, including General Fund revenues. Unless there has been voter approval, as prescribed by Section 66013 or 66014, no local agency shall levy a new fee or service charge or increase an existing fee or service charge to an amount which exceeds the estimated amount required to provide the service for which the fee or service charge is levied. If, however, the fees or service charges create revenues in excess of actual cost, those revenues shall be used to reduce the fee or service charge creating the excess.

(b) Any action by a local agency to levy a new fee or service charge or to approve an increase in an existing fee or service charge shall be taken only by ordinance or resolution. The legislative body of a local agency shall not delegate the authority to adopt a new fee or service charge, or to increase a fee or service charge.

(c) Any costs incurred by a local agency in conducting the meeting or meetings required pursuant to subdivision (a) may be recovered from fees charged for the services which were the subject of the meeting.

(d) This section shall apply only to fees and charges as described in Sections 51287, 56383, 57004, 65104, 65456, 65863.7, 65909.5, 66013, 66014, and 66451.2 of this code, Sections 17951, 19132.3, and 19852 of the Health and Safety Code, Section 41901 of the Public Resources Code, and Section 21671.5 of the Public Utilities Code.

(e) Any judicial action or proceeding to attack, review, set aside, void, or annul the ordinance, resolution, or motion levying a fee or service charge subject to this section shall be brought pursuant to Section 66022.

66022. (a) Any judicial action or proceeding to attack, review, set aside, void, or annul an ordinance, resolution, or motion adopting a new fee or service charge, or modifying or amending an existing fee or service charge, adopted by

a local agency, as defined in Section 66000, shall be commenced within 120 days of the effective date of the ordinance, resolution, or motion.

If an ordinance, resolution, or motion provides for an automatic adjustment in a fee or service charge, and the automatic adjustment results in an increase in the amount of a fee or service charge, any action or proceeding to attack, review, set aside, void, or annul the increase shall be commenced within 120 days of the effective date of the increase.

(b) Any action by a local agency or interested person under this section shall be brought pursuant to Chapter 9 (commencing with Section 860) of Title 10 of Part 2 of the Code of Civil Procedure.

(c) This section shall apply only to fees, capacity charges, and service charges described in and subject to Sections 66013 and 66014.

66023. (a) Any person may request an audit in order to determine whether any fee or charge levied by a local agency exceeds the amount reasonably necessary to cover the cost of any product or service provided by the local agency. If a person makes that request, the legislative body of the local agency may retain an independent auditor to conduct an audit to determine whether the fee or charge is reasonable.

(b) Any costs incurred by a local agency in having an audit conducted by an independent auditor pursuant to subdivision (a) may be recovered from the person who requests the audit.

(c) Any audit conducted by an independent auditor to determine whether a fee or charge levied by a local agency exceeds the amount reasonably necessary to cover the cost of providing the product or service shall conform to generally accepted auditing standards.

(d) The procedures specified in this section shall be alternative and in addition to those specified in Section 54985.

(e) The Legislature finds and declares that oversight of local agency fees is a matter of statewide interest and concern. It is, therefore, the intent of the Legislature that this chapter shall supersede all conflicting local laws and shall apply in charter cities.

(f) This section shall not be construed as granting any additional authority to any local agency to levy any fee or charge which is not otherwise authorized by another provision of law, nor shall its provisions be construed as granting authority to any local agency to levy a new fee or charge when other provisions of law specifically prohibit the levy of a fee or charge.

APPENDIX C - FIXED ASSET RECORDS

**Exhibit C-1
San Juan Water District
Retail Water System Fixed Asset Records**

Location	LF	Description	Year Acquired	Life	Retail Service Area Valuations				
					Original Cost	Original Cost Less Deprec.	Replacement Cost	Replac. Cost Less Deprec.	
Land and Other Land Rights									
District		Pump Station Sites	1968		\$ 300	\$ 300	\$ 2,000	\$ 2,000	
Kokila Property			1984		\$ 107,939	\$ 107,939	\$ 200,466	\$ 200,466	
District		Pipeline Easements (Moss &	1974		\$ 1,500	\$ 1,500	\$ 5,718	\$ 5,718	
District		Pipeline Easements	1977		\$ 10,865	\$ 10,865	\$ 32,477	\$ 32,477	
Kokila Property		Pipeline Easements for Kokila	1984		\$ 4,500	\$ 4,500	\$ 8,357	\$ 8,357	
District		Pipeline Easements	1988		\$ 1,623	\$ 1,623	\$ 2,765	\$ 2,765	
District		Pipeline Easements - J. Sepe	1989		\$ 4,545	\$ 4,545	\$ 7,583	\$ 7,583	
Barton Rd		Pipeline Easements - Mark L U	1990		\$ 35,000	\$ 35,000	\$ 56,953	\$ 56,953	
					\$ 166,272	\$ 166,272	\$ 316,319	\$ 316,319	
Master Meters									
District Wide		Master Meters	1967	33	\$ 2,867	\$ -	\$ 20,555	\$ -	
District Wide		Master Meters	1969	33	\$ 93	\$ -	\$ 564	\$ -	
Retail Meters Do		Master Meters	1982	33	\$ 3,171	\$ 865	\$ 6,383	\$ 1,741	
Retail Meters Do		Master Meters	1986	33	\$ 3,961	\$ 1,560	\$ 7,101	\$ 2,797	
Retail Meters Do		Master Meters	1987	33	\$ 43,025	\$ 18,253	\$ 75,191	\$ 31,899	
Retail Meters Do		Master Meters	1987	33	\$ 7,821	\$ 3,318	\$ 13,668	\$ 5,799	
Rose Springs		Master Meters	1988	33	\$ 78	\$ 35	\$ 133	\$ 60	
Rose Springs		Master Meters	1989	33	\$ 1,717	\$ 832	\$ 2,865	\$ 1,389	
Retail Meters Do		Master Meters	1989	33	\$ 828	\$ 401	\$ 1,381	\$ 670	
Retail Meters Do		Master Meters	1992	33	\$ 212	\$ 122	\$ 327	\$ 189	
T&D Others		Master Meters	1992	33	\$ 7,624	\$ 5,487	\$ 11,776	\$ 8,475	
Retail Meters Do		Master Meters	2002	33	\$ 3,991	\$ 3,507	\$ 4,700	\$ 4,131	
					\$ 75,388	\$ 34,382	\$ 144,646	\$ 57,150	
RSA Mains									
District Wide		CY1966	1966	33	\$ 1,378,718	\$ -	\$ 10,418,183	\$ -	
District Wide		CY1975	1976	33	\$ 299,425	\$ 27,220	\$ 960,255	\$ 87,296	
District Wide		CY1976	1977	33	\$ 99,796	\$ 12,096	\$ 298,303	\$ 36,158	
District Wide		- FY77-78 (\$1,063,675)	1978	33	\$ 1,072,566	\$ 162,510	\$ 2,975,057	\$ 450,766	
Folsom Lake Est	1,440	8" ACP	1978	33	\$ 122,720	\$ 18,594	\$ 340,398	\$ 51,575	
Strap Ravine Est	-	Pipeline System W/All Appurt	1978	33	\$ 28,650	\$ 4,341	\$ 79,469	\$ 12,041	
Teresita Estates	950	8" ACP W/All Appurtenances	1979	33	\$ 20,240	\$ 3,680	\$ 51,897	\$ 9,436	
Hidden Lakes #3	2,668	8" ACP	1979	33	\$ 56,178	\$ 10,214	\$ 144,046	\$ 26,190	
ARC #1	200	12" CL150 ACP	1979	33	\$ 112,500	\$ 20,455	\$ 288,462	\$ 52,448	
Guardia Pipeline	800	8" ACP W/All Appurtenances	1979	33	\$ 10,000	\$ 1,818	\$ 25,641	\$ 4,662	
Olarrea Pipeline	184	8" ACP W/All Appurtenances	1979	33	\$ 2,500	\$ 455	\$ 6,410	\$ 1,166	
District Wide	-	FY78-79	1979	33	\$ 1,077,336	\$ 195,879	\$ 2,762,400	\$ 502,255	
ARC #2A	9,310	8" CL150 ACP W/All Appurte	1979	33	\$ 158,800	\$ 28,873	\$ 407,179	\$ 74,033	
Woodbridge Ran	2,840	8",10" & 12" Pipeline Syste	1979	33	\$ 58,549	\$ 10,645	\$ 150,126	\$ 27,296	
River Rock Subdi	2,075	8" CL150 ACP W/All Appurte	1979	33	\$ 36,158	\$ 6,574	\$ 92,713	\$ 16,857	
Twin Lake Oaks	200	8" CL150 ACP W/All Appurte	1980	33	\$ 3,000	\$ 636	\$ 7,136	\$ 1,514	
Granite Bay Shop	-	Pipeline System W/All Appurt	1980	33	\$ 30,000	\$ 6,364	\$ 71,362	\$ 15,137	
Stanton Estates	1,620	8" CL150 ACP	1980	33	\$ 61,146	\$ 12,970	\$ 145,451	\$ 30,853	
District Wide	-	FY79-80	1980	33	\$ 297,950	\$ 63,202	\$ 708,747	\$ 150,340	
ARC #2B	302	12" CL150 ACP	1980	33	\$ 206,000	\$ 43,697	\$ 490,022	\$ 103,944	
Strap Ravine Est	1,600	10" CL150 ACP	1980	33	\$ 45,300	\$ 9,609	\$ 107,757	\$ 22,858	
Rollingwood Bluff	-	Pipeline System W/All Appurt	1980	33	\$ 55,415	\$ 11,755	\$ 131,818	\$ 27,961	
Woodbridge Ran	490	10" CL150 ACP	1981	33	\$ 54,000	\$ 13,091	\$ 117,624	\$ 28,515	
TunerVogel Pipe	6,000	8" & 12" CL150 ACP W/All Va	1981	33	\$ 604,412	\$ 146,524	\$ 1,316,541	\$ 319,161	
Troy Lane Exten	487	8" CL150 ACP W/All Appurte	1981	33	\$ 7,623	\$ 1,848	\$ 16,605	\$ 4,025	
Folsom Lake Est	6,750	8" CL150 ACP W/All Appurte	1981	33	\$ 126,487	\$ 30,664	\$ 275,516	\$ 66,792	
American River S	-	Pipeline System W/All Appurt	1981	33	\$ 28,000	\$ 6,788	\$ 60,990	\$ 14,785	
District Wide	-	FY-81-82	1982	33	\$ 143,801	\$ 39,218	\$ 289,482	\$ 78,950	
Country Oaks	4,483	8" CL150 ACP	1982	33	\$ 97,643	\$ 26,630	\$ 196,562	\$ 53,608	
Millie Street	410	8" CL150 ACP W/All Appurte	1983	33	\$ 9,000	\$ 2,727	\$ 17,044	\$ 5,165	
District Wide	-	FY82-83	1983	33	\$ 110,506	\$ 33,487	\$ 209,271	\$ 63,415	
Hidden Lakes #5	1,400	12" CL150 ACP	1983	33	\$ 56,477	\$ 17,114	\$ 106,953	\$ 32,410	
Parade Market	120	10" CL150 ACP W/All Appurt	1983	33	\$ 4,350	\$ 1,318	\$ 8,238	\$ 2,496	
Lutheran Church	345	10" CL150 ACP W/All Appurt	1983	33	\$ 7,500	\$ 2,273	\$ 14,203	\$ 4,304	
Stonebridge	72	8" DIP CL56	1984	33	\$ 27,984	\$ 9,328	\$ 51,972	\$ 17,324	

Exhibit C-1 -- Continued
San Juan Water District
Retail Water System Fixed Asset Records

Location	LF	Description	Year Acquired	Life	Retail Service Area Valuations			
					Original Cost	Original Cost Less Deprec.	Replacement Cost	Replac. Cost Less Deprec.
District Wide	-	FY83-84	1984	33	\$ 232,316	\$ 77,439	\$ 431,460	\$ 143,820
CofJCLDS Church	655	12" CL150 ACP W/ALL Appurt	1984	33	\$ 24,971	\$ 8,324	\$ 46,376	\$ 15,459
Lake Oak Estate	1,609	8" CL150 ACP	1984	33	\$ 44,056	\$ 14,685	\$ 81,821	\$ 27,274
District Wide	-	FY84-85	1985	33	\$ 242,140	\$ 88,051	\$ 444,452	\$ 161,619
Bella Vista Estate	1,791	8" CL150 ACP W/All Appurte	1985	33	\$ 33,720	\$ 12,262	\$ 61,894	\$ 22,507
Creekside Mead	320	8" CL150 ACP (Creekside C	1985	33	\$ 10,191	\$ 3,706	\$ 18,706	\$ 6,802
Rosedale Ranch	3,960	8" CL150 ACP W/All Appurte	1985	33	\$ 40,800	\$ 14,836	\$ 74,889	\$ 27,232
Reza Shera Apts	70	12" ACP W/All Appurtenance	1985	33	\$ 12,440	\$ 4,524	\$ 22,834	\$ 8,303
Cedar Oaks	1,321	10" DIP W/All Appurtenance	1985	33	\$ 41,152	\$ 14,964	\$ 75,535	\$ 27,467
Barton RD to Ara	3,000	14" CL150 ACP (Sacto Utilities)	1985	33	\$ 31,896	\$ 11,599	\$ 58,546	\$ 21,289
Hidden Creek Es	310	14" CL150 ACP (Fire Rd Bet	1986	33	\$ 110,658	\$ 43,593	\$ 198,386	\$ 78,152
District Wide	-	FY85-86	1986	33	\$ 301,892	\$ 118,927	\$ 541,227	\$ 213,210
Barton RD to Ara	540	20" DIP CL50	1986	33	\$ 13,188	\$ 5,195	\$ 23,643	\$ 9,314
MadisonGreenSh	447	12" CL150 ACP & DIP (Ave	1987	33	\$ 26,042	\$ 11,048	\$ 45,511	\$ 19,308
Woodchase	1,070	8" CL150 ACP (Woodchase	1987	33	\$ 56,536	\$ 23,985	\$ 98,803	\$ 41,917
District Wide	-	FY86-87	1987	33	\$ 303,147	\$ 128,608	\$ 529,785	\$ 224,757
Bacon PS to AR	570	12" CL150 ACP (Jaeger Cons	1987	33	\$ 124,305	\$ 52,735	\$ 217,238	\$ 92,161
Quail Oaks #1	3,815	8" CL150 ACP	1987	33	\$ 59,321	\$ 25,166	\$ 103,670	\$ 43,981
Cascade Falls Dr	830	16" CL150 ACP W/All Appurt	1987	33	\$ 35,450	\$ 15,039	\$ 61,953	\$ 26,283
Sierra Oaks Sho	30	10" CL150 ACP	1988	33	\$ 122,700	\$ 55,773	\$ 209,071	\$ 95,032
96" Pipeline in A	-	42"	1988	33	\$ 44,150	\$ 20,068	\$ 75,228	\$ 34,195
96" Pipeline in A	-	24"	1988	33	\$ 742,051	\$ 337,296	\$ 1,264,393	\$ 574,724
District Wide	-	FY87-88	1988	33	\$ 358,936	\$ 163,153	\$ 611,597	\$ 277,999
9322 Madison Ave	1,231	8" CL200 ACP W/All Appurte	1988	33	\$ 45,525	\$ 20,693	\$ 77,571	\$ 35,259
Cantershire	2,560	8" CL150 ACP W/All Appurte	1988	33	\$ 61,396	\$ 27,907	\$ 104,614	\$ 47,552
Grosvenor Down	170	8" CL50 DIP	1988	33	\$ 306,009	\$ 139,095	\$ 521,414	\$ 237,006
Pheasant Grove	150	8" CL150 ACP (Cambridge	1988	33	\$ 51,825	\$ 23,557	\$ 88,305	\$ 40,139
9312-9382 Madis	70	8" DIP	1988	33	\$ 30,000	\$ 13,636	\$ 51,118	\$ 23,235
Grosvenor Down	275	8" CL200 C900 CVP	1989	33	\$ 113,785	\$ 55,168	\$ 189,847	\$ 92,047
Wedgewood	535	8" CL50 DIP	1989	33	\$ 280,827	\$ 136,159	\$ 468,552	\$ 227,177
District Wide	-	FY88-89	1989	33	\$ 313,830	\$ 152,160	\$ 523,617	\$ 253,875
ARC #5B	3,455	8" CL150 ACP	1989	33	\$ 161,216	\$ 78,165	\$ 268,984	\$ 130,417
Douglas PumpSt	-	Building (Hidden Lake Plaza	1989	33	\$ 32,625	\$ 15,818	\$ 54,434	\$ 26,392
Oliver Ranch Tra	285	8" C900 PVC	1989	33	\$ 54,735	\$ 26,538	\$ 91,324	\$ 44,278
Hidden Lakes Pl	445	8" CL50 DIP	1990	33	\$ 52,189	\$ 26,885	\$ 84,923	\$ 43,748
Roseville Pkwy T	155	8" CL150 ACP	1990	33	\$ 275,341	\$ 141,842	\$ 448,040	\$ 230,809
Roseville Pkwy D	407	8" CL150 ACP	1990	33	\$ 140,450	\$ 72,353	\$ 228,543	\$ 117,734
Roseville Pkwy D	3,009	12" CL150 ACP W/ALL Appurt	1990	33	\$ 85,367	\$ 43,977	\$ 138,911	\$ 71,560
Westlakes Estate	90	10 CL150 C900 PVC	1990	33	\$ 86,410	\$ 44,514	\$ 140,608	\$ 72,434
Elmhurst Dr Exte	75	8" CL150 ACP	1990	33	\$ 46,105	\$ 23,751	\$ 75,023	\$ 38,648
Silver Oaks Tract	905	8" CL150 C900 PVC W/All A	1990	33	\$ 37,863	\$ 19,505	\$ 61,611	\$ 31,739
District Wide	-	FY89-90	1990	33	\$ 351,386	\$ 181,017	\$ 571,782	\$ 294,554
Treelake #8	862	8" CL150 C900 PVC W/All A	1990	33	\$ 43,551	\$ 22,435	\$ 70,867	\$ 36,507
Bacon/Treelake	8,356	30" P/L Bacon to Treelake V	1990	33	\$ 1,097,601	\$ 565,431	\$ 1,786,037	\$ 920,080
Sierra College C	30	10" CL50 DIP	1990	33	\$ 8,700	\$ 4,482	\$ 14,157	\$ 7,293
The Village	1,345	10" PVC C900, CL150, W/All	1990	33	\$ 86,251	\$ 44,432	\$ 140,349	\$ 72,301
Rosedale Ranch	1,320	8" CL150 Asbestos Cement	1990	33	\$ 13,600	\$ 7,006	\$ 22,130	\$ 11,400
Oakleaf Glen	4,830	8" PVC C900	1991	33	\$ 204,440	\$ 111,513	\$ 325,582	\$ 177,590
Treelake 2C,3,4	2,714	24" CL50, C104 DIP (Poly-e	1991	33	\$ 806,500	\$ 439,909	\$ 1,284,395	\$ 700,579
TreelakePershin	223	8" PVC C900	1991	33	\$ 22,000	\$ 12,000	\$ 35,036	\$ 19,111
Wexford #1-B	96	8" CL50 DIP	1991	33	\$ 211,710	\$ 115,478	\$ 337,160	\$ 183,905
Oak Ave (9219 to	-	8" Pipeline	1991	33	\$ 47,928	\$ 26,143	\$ 76,328	\$ 41,633
District Wide	-	FY90-91	1991	33	\$ 242,474	\$ 132,259	\$ 386,153	\$ 210,629
Joe Rogers Rd	370	8" PVC C900 (Dolores Sava	1991	33	\$ 14,771	\$ 8,057	\$ 23,524	\$ 12,831
Snipes Lane	452	8" Pipeline System	1991	33	\$ 21,083	\$ 11,500	\$ 33,576	\$ 18,314
Granite Oaks	1,010	10" PVC CL150	1991	33	\$ 40,225	\$ 21,941	\$ 64,060	\$ 34,942
Sierra C&Eureka	275	10" PVC C900 Blue Brute	1991	33	\$ 1,235	\$ 674	\$ 1,967	\$ 1,073
Eugene Ave	754	8" P/L Upgrade	1991	33	\$ 40,453	\$ 22,065	\$ 64,424	\$ 35,140
Miners Ravine	710	8" P/L Installed	1992	33	\$ 29,809	\$ 17,163	\$ 46,044	\$ 26,510
Ebony Place	-	8" P/L Installed	1992	33	\$ 842	\$ 485	\$ 1,301	\$ 749
Sierra College	50	12" DIP CL50 Intertie W/PC	1992	33	\$ 17,333	\$ 9,980	\$ 26,773	\$ 15,415
District Wide	-	FY91-92	1992	33	\$ 36,177	\$ 20,829	\$ 55,880	\$ 32,173
Oliver Ranch Rd	2,000	12" P/L Upgrade	1992	33	\$ 126,960	\$ 73,098	\$ 196,107	\$ 112,910
Almond Knoll	1,130	10" PVC C900, CL150 W/All A	1992	33	\$ 50,384	\$ 29,009	\$ 77,825	\$ 44,808

Exhibit C-1 -- Continued
San Juan Water District
Retail Water System Fixed Asset Records

Location	LF	Description	Year Acquired	Life	Retail Service Area Valuations			
					Original Cost	Original Cost Less Deprec.	Replacement Cost	Replac. Cost Less Deprec.
Colony Estates	100	8" CL50 DIP	1992	33	\$ 35,610	\$ 20,503	\$ 55,004	\$ 31,669
Oak Pine	861	8" P/L Installed	1992	33	\$ 39,423	\$ 22,698	\$ 60,894	\$ 35,060
Hill Rd	1,600	8" P/L Upgrade	1992	33	\$ 99,747	\$ 57,430	\$ 154,073	\$ 88,708
Berg St	80	10" P/L Installed	1992	33	\$ 5,909	\$ 3,402	\$ 9,127	\$ 5,255
Wexford Unit No.	18	8" DIP CL50 W/All Appurtena	1993	33	\$ 107,831	\$ 65,352	\$ 159,366	\$ 96,586
Mountain Ave	700	8" P/L Installed	1993	33	\$ 57,415	\$ 34,797	\$ 84,855	\$ 51,427
Rock Dr	250	8" P/L Installed	1993	33	\$ 19,269	\$ 11,678	\$ 28,478	\$ 17,260
Wilcox Place	450	8" P/L Upgrade	1993	33	\$ 31,240	\$ 18,933	\$ 46,170	\$ 27,982
Grantie Oak Circle	1,700	8" P/L Upgrade	1993	33	\$ 99,809	\$ 60,490	\$ 147,510	\$ 89,400
Barton RD	30	10" DIP CL50	1993	33	\$ 15,725	\$ 9,530	\$ 23,240	\$ 14,085
Annabelle Ave	732	8" P/L Upgrade	1994	33	\$ 43,075	\$ 27,411	\$ 61,331	\$ 39,029
Chelshsire Downs	335	8" PVC C900, CL150	1994	33	\$ 50,135	\$ 31,904	\$ 71,383	\$ 45,426
Primrose	550	8" P/L Upgrade	1994	33	\$ 23,063	\$ 14,676	\$ 32,837	\$ 20,897
Annabelle Ave	250	8" P/L Upgrade	1994	33	\$ 20,954	\$ 13,334	\$ 29,835	\$ 18,986
Joe Rogers Rd/Do	-	Pipeline System in Douglas	1994	33	\$ 273,692	\$ 174,168	\$ 389,687	\$ 247,983
Treelake 9	820	12" PVC C900, CL150	1994	33	\$ 72,727	\$ 46,281	\$ 103,550	\$ 65,895
Winterhawk Phas	195	8" PVC C900	1994	33	\$ 118,802	\$ 75,601	\$ 169,152	\$ 107,642
Granite Bay Libra	54	10" DIP CL350	1994	33	\$ 25,000	\$ 15,909	\$ 35,595	\$ 22,652
Treelake 7B Pha	2,070	18" DIP CL250	1994	33	\$ 227,759	\$ 144,938	\$ 324,287	\$ 206,364
Eucalyptus Grov	523	8" PVC C900 W/All Appurten	1994	33	\$ 17,859	\$ 11,365	\$ 25,428	\$ 16,181
Chelshsire Downs	500	16" PVC C900, CL150	1994	33	\$ 78,165	\$ 49,741	\$ 111,293	\$ 70,823
Old Auburn Rd P	36	9" DIP CL305	1995	33	\$ 87,998	\$ 58,665	\$ 123,850	\$ 82,567
Eastridge Unit 2	345	8" PVC C900	1995	33	\$ 23,680	\$ 15,787	\$ 33,328	\$ 22,218
Old Auburn Rd P	70	10" PVC C900	1995	33	\$ 54,120	\$ 36,080	\$ 76,170	\$ 50,780
Old Auburn Rd P	82	10" PVC C900	1995	33	\$ 37,513	\$ 25,009	\$ 52,797	\$ 35,198
Chelshsire Downs	200	16" DIP CL150, C104	1995	33	\$ 31,108	\$ 20,739	\$ 43,782	\$ 29,188
Barton Rd	3,125	18" P/L Installed Phase 2 (Y	1995	33	\$ 277,131	\$ 184,754	\$ 390,040	\$ 260,027
Barton Rd	395	18" P/L Installed Phase 2 (S	1995	33	\$ 84,674	\$ 56,449	\$ 119,172	\$ 79,448
Douglas Blvd	2,040	16" P/L Installed & Phase 2	1995	33	\$ 140,984	\$ 93,989	\$ 198,424	\$ 132,283
Barton Rd Reedy	1,100	8" PVC C900, CL150, W/All	1995	33	\$ 37,308	\$ 24,872	\$ 52,508	\$ 35,005
Granitie Bay Libra	54	10" DIP	1995	33	\$ 18,500	\$ 12,333	\$ 26,037	\$ 17,358
Barton Rd	480	10" P/L Installed East of Oliv	1995	33	\$ 22,151	\$ 14,767	\$ 31,176	\$ 20,784
Eastridge 3	520	12" PVC C900	1995	33	\$ 124,115	\$ 82,743	\$ 174,682	\$ 116,455
Eureka Connecto	1,635	14" PVC W/All Appurtenance	1995	33	\$ 91,850	\$ 61,233	\$ 129,272	\$ 86,181
Mountain Ave	1,942	8" P/L Upgrade	1995	33	\$ 145,762	\$ 97,175	\$ 205,148	\$ 136,766
Cobblestone	854	8" PVC C900 W/All Appurten	1995	33	\$ 53,760	\$ 35,840	\$ 75,663	\$ 50,442
Rock Drive	-	12" P/L Installed	1995	33	\$ 26,965	\$ 17,977	\$ 37,951	\$ 25,301
Treelake 6A&6C	303	30" DIP CL350, C104	1995	33	\$ 201,882	\$ 134,588	\$ 284,133	\$ 189,422
Lincoln Palisades	-	Pipeline W/All Appurtenances	1996	33	\$ 1,236,177	\$ 861,578	\$ 1,693,694	\$ 1,180,454
Granite Bay Hills	358	12" CL350 DIP	1996	33	\$ 116,195	\$ 80,984	\$ 159,200	\$ 110,957
Golden Gate Ave	200	12" P/L Upgrade	1996	33	\$ 22,735	\$ 15,846	\$ 31,149	\$ 21,710
Excelsior Ave	1,660	8" P/L Upgrade	1996	33	\$ 73,185	\$ 51,008	\$ 100,271	\$ 69,886
Walnut Ave	900	8" P/L Replaced	1996	33	\$ 75,048	\$ 52,306	\$ 102,824	\$ 71,665
Barton Road	-	Barton Road 18" Pipeline Ph	1996	33	\$ 250,097	\$ 174,310	\$ 342,660	\$ 238,823
Granite Bay Golf	260	8" DIP CL350 (Roseville Par	1996	33	\$ 239,083	\$ 166,634	\$ 327,569	\$ 228,306
Eastridge 4	3,430	8" PVC C900 W/All Appurten	1996	33	\$ 119,500	\$ 83,288	\$ 163,728	\$ 114,113
Treelake 7A(P1&	440	18" DIP CL250, C104	1996	33	\$ 40,336	\$ 28,113	\$ 55,265	\$ 38,518
Hillsborough 2A	40	8" DIP CL350	1996	33	\$ 137,944	\$ 96,143	\$ 188,998	\$ 131,726
Winterhawk(P1 &	2,205	8" PVC W/All Appurtenances	1997	33	\$ 71,852	\$ 52,256	\$ 94,964	\$ 69,065
SwanLakeComm	1,275	8" PVC CL150,C900	1997	33	\$ 61,105	\$ 44,440	\$ 80,760	\$ 58,735
Granite Bay PRV	-	10" Pressure Reducing Stati	1997	33	\$ 83,800	\$ 60,945	\$ 110,755	\$ 80,549
Kaim & Kaim	450	8" C900 PVC W/All Appurten	1997	33	\$ 15,815	\$ 11,502	\$ 20,902	\$ 15,202
Hillsborough 2B	245	10" DIP CL350	1997	33	\$ 106,936	\$ 77,772	\$ 141,333	\$ 102,788
Waterford 2	1,080	8" PVC C900, CL150 W/All A	1997	33	\$ 46,200	\$ 33,600	\$ 61,061	\$ 44,408
Granite Bay Hills	1,046	12" CL150, C900	1998	33	\$ 169,146	\$ 128,141	\$ 220,004	\$ 166,670
Treelake 12	888	10" PVC CL150, C900	1998	33	\$ 74,476	\$ 56,421	\$ 96,869	\$ 73,386
LiveOakBusCom	12	8" PVC CL150, C900	1998	33	\$ 8,200	\$ 6,212	\$ 10,666	\$ 8,080
Granite Creek	310	8" DIP C350	1998	33	\$ 58,490	\$ 44,311	\$ 76,077	\$ 57,634
Castle Creek	230	10" PVC CL150, C900	1999	33	\$ 178,501	\$ 140,637	\$ 226,846	\$ 178,727
Community Chur	50	10" P/L W/Gate Valve	1999	33	\$ 4,700	\$ 3,703	\$ 5,973	\$ 4,706
Grantie Oaks Est	155	8" DIP	1999	33	\$ 66,340	\$ 52,268	\$ 84,307	\$ 66,424
Sierra Collge Wi	1,745	12" PVC CL150, C900 W/All	1999	33	\$ 119,215	\$ 93,927	\$ 151,503	\$ 119,366
District Wide	-	Various Pipeline Systems	1999	33	\$ 202,729	\$ 159,726	\$ 257,635	\$ 202,986
Cherry Ave to Ex	-	Pipeline Replacement	1999	33	\$ 88,050	\$ 69,373	\$ 111,897	\$ 88,161

**Exhibit C-1 -- Continued
San Juan Water District
Retail Water System Fixed Asset Records**

Location	LF	Description	Year Acquired	Life	Retail Service Area Valuations			
					Original Cost	Original Cost Less Deprec.	Replacement Cost	Replac. Cost Less Deprec.
Edward & Elorda	380	10" PVC C900, W/All Appurte	1999	33	\$ 39,400	\$ 31,042	\$ 50,071	\$ 39,450
Treelake Terrace	154	8" DIP PC350	1999	33	\$ 104,694	\$ 82,486	\$ 133,049	\$ 104,826
Chelshire Downs	513	12" DIP CL250, C104	2000	33	\$ 91,704	\$ 75,031	\$ 113,506	\$ 92,869
Mooney Dr Upgr	2,165	Pipeline Upgrade Douglas to	2000	33	\$ 190,631	\$ 155,971	\$ 235,952	\$ 193,052
Annabelle Ave U	-	Pipeline Upgrade	2000	33	\$ 31,705	\$ 25,940	\$ 39,243	\$ 32,108
Twin Lakes Ave	1,100	Pipeline Installation	2000	33	\$ 75,066	\$ 61,418	\$ 92,912	\$ 76,019
Granite Bay Bus	60	8" DIP C350	2000	33	\$ 356,302	\$ 291,520	\$ 441,010	\$ 360,827
Sunrise Jewish C	160	8" PVC C150	2000	33	\$ 24,610	\$ 20,135	\$ 30,461	\$ 24,923
ARC North #6B	90	10" DIP Concrete Encased	2001	33	\$ 619,253	\$ 525,427	\$ 752,802	\$ 638,741
Canyon Falls Villa	98	10" CL150 C900 PVC	2001	33	\$ 386,784	\$ 328,180	\$ 470,198	\$ 398,956
Old Auburn Upgr	-	Upgrade Pipeline and Appurt	2001	33	\$ 93,494	\$ 79,328	\$ 113,657	\$ 96,436
Hidden Lakes Do	-	Installed 8" PRV on Pipeline	2001	33	\$ 14,612	\$ 12,398	\$ 17,763	\$ 15,072
WP AuburnFolso	110		2001	33	\$ 40,275	\$ 34,173	\$ 48,961	\$ 41,542
Lincoln Palisades	-	Transportation & Distribution	2001	33	\$ 24,722	\$ 20,976	\$ 30,054	\$ 25,500
Wylatt Lane	855	8" CL150 C900 PCPV W/All A	2001	33	\$ 53,322	\$ 45,243	\$ 64,822	\$ 55,000
Beacon Avenue	166	8" CL150 C900 CPV	2001	33	\$ 23,495	\$ 19,935	\$ 28,562	\$ 24,234
Cherry Avenue	850	12" CL150 C900 CPV W/All	2001	33	\$ 174,006	\$ 147,641	\$ 211,532	\$ 179,482
Cavitt Stallman R	455	10" CL150 C900 CPV W/All	2001	33	\$ 53,723	\$ 45,583	\$ 65,309	\$ 55,414
	-	Hazel Ave Widening	2004	33	\$ 497,670	\$ 467,508	\$ 538,589	\$ 505,947
					\$ 24,697,732	\$ 12,170,726	\$ 50,472,340	\$ 18,555,214
					\$ 24,939,392	\$ 12,371,380	\$ 50,933,305	\$ 18,928,683