OFFICE OF THE

CITY AUDITOR

AN EVALUATION OF THE FEASIBILITY OF THE CITY OF SAN JOSE SELLING THE SAN JOSE MUNICIPAL WATER SYSTEM

- ALTERNATIVE MECHANISMS TO DETERMINE THE VALUE OF THE SYSTEM AND THE NET PROCEEDS WHICH THE CITY MIGHT RECEIVE FROM A SALE

- THE FINANCIAL BENEFITS IF THE CITY RETAINS OWNERSHIP OF THE SYSTEM

- THE POTENTIAL OF RESOLVING OTHER MAJOR ISSUES ASSOCIATED WITH THE SALE, SUCH AS MAINTAINING ACCESS TO HETCH HETCHY WATER AND PROVIDING A MARKET FOR THE WATER POLLUTION CONTROL PLANT'S RECLAMATION PROJECT

A REPORT TO THE

SAN JOSE

CITY COUNCIL

SEPTEMBER 1996 96-05

CITY OF SAN JOSÉ, CALIFORNIA

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GERALD A. SILVA
City Auditor

September 13, 1996

Honorable Mayor and Members
of the City Council
801 North First Street, Room 600
San Jose, CA 95110

Transmitted herewith is a report on *An Evaluation Of The Feasibility Of The City Of San Jose Selling The San Jose Municipal Water System*. This report is in accordance with City Charter Section 805.

An Executive Summary is presented on the blue pages in the front of this report. In lieu of a written response to this report, the Administration has prepared a separate report which it will submit under separate cover.

I will present this report to the Finance Committee at its September 25, 1996, meeting. If you need additional information in the interim, please let me know. The City Auditor's staff members who participated in the preparation of this report are Mike Edmonds, Wendy Walker, Gregory Elliott, and Eduardo Luna.

Respectfully submitted,

Gerald A. Silva
City Auditor

finaltr

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EXECUTIVE SUMMARY

In response to a Mayor's budget office request and Finance Committee direction, we have evaluated the feasibility of the City of San Jose selling the San Jose Municipal Water System (SJMWS). We conducted our review in accordance with generally accepted government auditing standards and limited our work to those areas specified in the scope and methodology section of this report.

ALTERNATIVE MECHANISMS TO DETERMINE THE VALUE OF THE SYSTEM AND THE NET PROCEEDS WHICH THE CITY MIGHT RECEIVE FROM A SALE

A major part of our assignment was to estimate a potential sale price of the SJMWS. Accordingly, we reviewed four methods available to value the SJMWS from a sale perspective. These four methods are: (1) reproduction cost new less depreciation, (2) comparable sales, (3) capitalized earnings, and (4) rate base. Based upon our review, we concluded that rate base was the most appropriate methodology to use to value the SJMWS. After selecting the rate base methodology, we next reviewed a recently completed consultant study the SJMWS had done to calculate the cost to reproduce its assets and the value of those assets less depreciation. We used the information in that consultant study to perform an analysis, using construction indices for water utilities, to recalculate the value of the SJMWS' fixed assets. Based upon our review, we estimated the SJMWS' net fixed assets at $56.9 million. In addition, we estimated the potential proceeds from the sale of the SJMWS to be $40 million. This is $9.8 million more than what the SJMWS' staff estimated in February 1995. It should be noted that our estimated $40 million in potential SJMWS sale proceeds could be reduced by as much as $10 million in bond refundings. In

addition, the City may have to pay none, some, or all of $3 million in sales and transaction costs.

THE FINANCIAL BENEFITS IF THE CITY RETAINS OWNERSHIP OF THE SYSTEM

The SJMWS staff has noted various benefits of owning the SJMWS. Some of these benefits include: (1) providing lower water rates for customers, (2) promoting desired economic and community development, (3) enhancing the City's ability to operate the South Bay Water Recycling Project (SBWRP), and (4) allowing the City to maintain a direct role in the water supply field to obtain additional or strengthened opportunities to ensure an adequate water supply for the City's future. In addition, our review revealed the following alternative financial benefit options if the City retains ownership of the system:

- Annual revenues over the next 13 years from $1.7 million to $2.8 million through the adoption of a water rate policy that establishes a reasonable rate of return on SJMWS assets;
- A potential one-time transfer to the General Fund of about $7 million in SJMWS cash reserves derived from water service charges;
- Potential bond proceeds to the General Fund for capital projects in 1996-97 of about $22 million; and
- Over a 15 year period, the cost of water service would be less under the City's current pricing policy than it would be under private ownership.

**THE POTENTIAL OF RESOLVING
OTHER MAJOR ISSUES ASSOCIATED WITH THE SALE,
SUCH AS MAINTAINING ACCESS
TO HETCH HETCHY WATER AND PROVIDING A MARKET
FOR THE WATER POLLUTION CONTROL
PLANT'S RECLAMATION PROJECT**

In order for the City to sell the SJMWS to a private entity, the sale must overcome a veritable fish ladder of potential obstacles. Failure to overcome any of these obstacles would prevent or potentially prevent the City from selling the SJMWS. These obstacles include:

- City Council required actions and voter approval at a special election;
- Resolving tax-exempt bond status issues for the City assessment district and limited refunding obligation bonds related to the SJMWS;
- Resolving Santa Clara Valley Water District and Hetch Hetchy water supply issues;
- Resolving South Bay Water Recycling Project issues; and
- Obtaining California Public Utility Commission approval.

Should the sale survive the above obstacles, we estimate that the sale would take two to three years.

INTRODUCTION

In response to a Mayor's budget office request and Finance Committee direction, we have evaluated the feasibility of the City of San Jose selling the San Jose Municipal Water System (SJMWS). We conducted our review in accordance with generally accepted government auditing standards and limited our work to those areas specified in the scope and methodology section of this report.

The City Auditor's Office thanks the individuals in the SJMWS, the City Attorney's Office, the Finance Department, the Department of Public Works, the San Jose Water Company, the Great Oaks Water Company, the Santa Clara Valley Water District, Hetch Hetchy Water and Power, the Bay Area Water Users Association, and the California Public Utilities Commission who gave their time, information, insight, and cooperation during our review.

SCOPE AND METHODOLOGY

The Mayor's budget office requested that the City Auditor evaluate the feasibility of the City of San Jose (City) selling the San Jose Municipal Water System (SJMWS). Specifically, the request stated that the evaluation should include an analysis of:

a) *alternative mechanisms to determine the value of the system and the net proceeds which the city might receive from a sale;*
b) *the financial benefits if the city retains ownership of the system;*
c) *the potential of resolving other major issues associated with the sale, such as maintaining access to Hetch-Hetchy water and providing a market for the Water Pollution Control Plant's reclamation project.*

During our evaluation, we reviewed numerous reports, studies, and memorandums that the SJMWS staff, consultants, and other various City departments prepared regarding the sale of the SJMWS. When appropriate, we incorporated past work products into our evaluation. We also reviewed official statements and related bond documents for all the current and refunded assessment district bonds within the SJMWS service area. In addition, we reviewed the water supply contracts with the Santa Clara Valley Water District (SCVWD), and the Hetch Hetchy Water and Power Division of the City and County of San Francisco (Hetch Hetchy). Further, we interviewed various staff members of the SJMWS, the Environmental Services Department, Department of Public Works, Finance Department, the Water Pollution Control Plant, and the City Attorney's Office. We also interviewed staff at San Jose Water Company, Great Oaks Water Company, SCVWD, Hetch Hetchy, the Bay Area Water Users Association, and the California Public Utilities Commission.

Furthermore, we also performed an analysis of the potential value and sale price of the SJMWS and simulated the cost of service to customers for a

municipally-owned and privately-owned water system, using various spreadsheet capabilities.

Finally, we engaged the services of O'Rourke & Company to assist us with some of the technical issues of this assignment. O'Rourke & Company has extensive utilities experience from work in both public accounting and with the California Public Utilities Commission.

BACKGROUND

The San Jose Municipal Water System (SJMWS) was founded in 1961 with the purchase of the Evergreen Water Company and serves about 10 percent of the City of San Jose's (City) population. There are two private water companies--the San Jose Water Company and the Great Oaks Water Company--that provide water service to the rest of the City's population. As of February 1996, the SJMWS provided potable water to 19,100 metered customers. The SJMWS is made up of:

- approximately 230 miles of pipelines;
- 14 storage reservoirs with a capacity of 23 million gallons;
- three connections to the Santa Clara Valley Water District;
- one connection to the Hetch Hetchy Water and Power Division of the City and County of San Francisco;
- 10 pumping stations;
- 12 water production wells; and
- various other equipment and buildings.

Within the SJMWS' boundaries, four service areas exist that are hydraulically independent and not physically interconnected:

– **Alviso and North San Jose** - Alviso was acquired in 1968 when the City of Alviso was annexed. These two service areas encompass approximately 3,650 acres. Land use is predominantly industrial with some residential and commercial development. Water supplied to this area is purchased from the San Francisco Water Department (SFWD) and supplemented with groundwater supplies. The contract with the SFWD is temporary and interruptible with a requirement that the City of San Francisco provide at least two years notice prior to termination.

The City has contacted the City of San Francisco on the subject of permanent customer status and needs to pursue the issue further.

- **Coyote** - This service area was established in 1988. Coyote covers 1,444 acres and is undeveloped. It is zoned as campus industrial in the City's General Plan. With the exception of some groundwater used for irrigation of traffic medians and other landscaped areas, no water service is provided. Developer contributions and assessment district bond proceeds fund basic water facilities for this area.

- **Edenvale** - This service area was established in 1983. Edenvale covers approximately 600 acres and is zoned for an industrial park and also falls within the Edenvale Redevelopment Project Area. Water is supplied solely through groundwater.

- **Evergreen** - This service area was acquired in 1961, covers 9,629 acres, and land use is primarily residential and commercial. This area contains approximately 90 percent of the SJMWS customers and accounts for approximately 72 percent of total water usage. Water is supplied to this area from the Santa Clara Valley Water District and groundwater sources.

The SJMWS is charged with the responsibility of administering the activities and facilities of the City's water system to ensure the adequate delivery of potable water available for domestic, commercial, industrial, and fire protection requirements. More specifically, the SJMWS is responsible for the following:

- Planning, designing, and constructing Municipal Water System facilities;

- Operating and maintaining Municipal Water System facilities;

- Providing and billing for water service to customers; and

- Administering and operating the customer service and account activities.

The Environmental Services Department (ESD) administers SJMWS' activities. See Chart I for the organizational chart.

ENVIRONMENTAL SERVICES DEPARTMENT

MUNICIPAL WATER SYSTEM

33 FTE

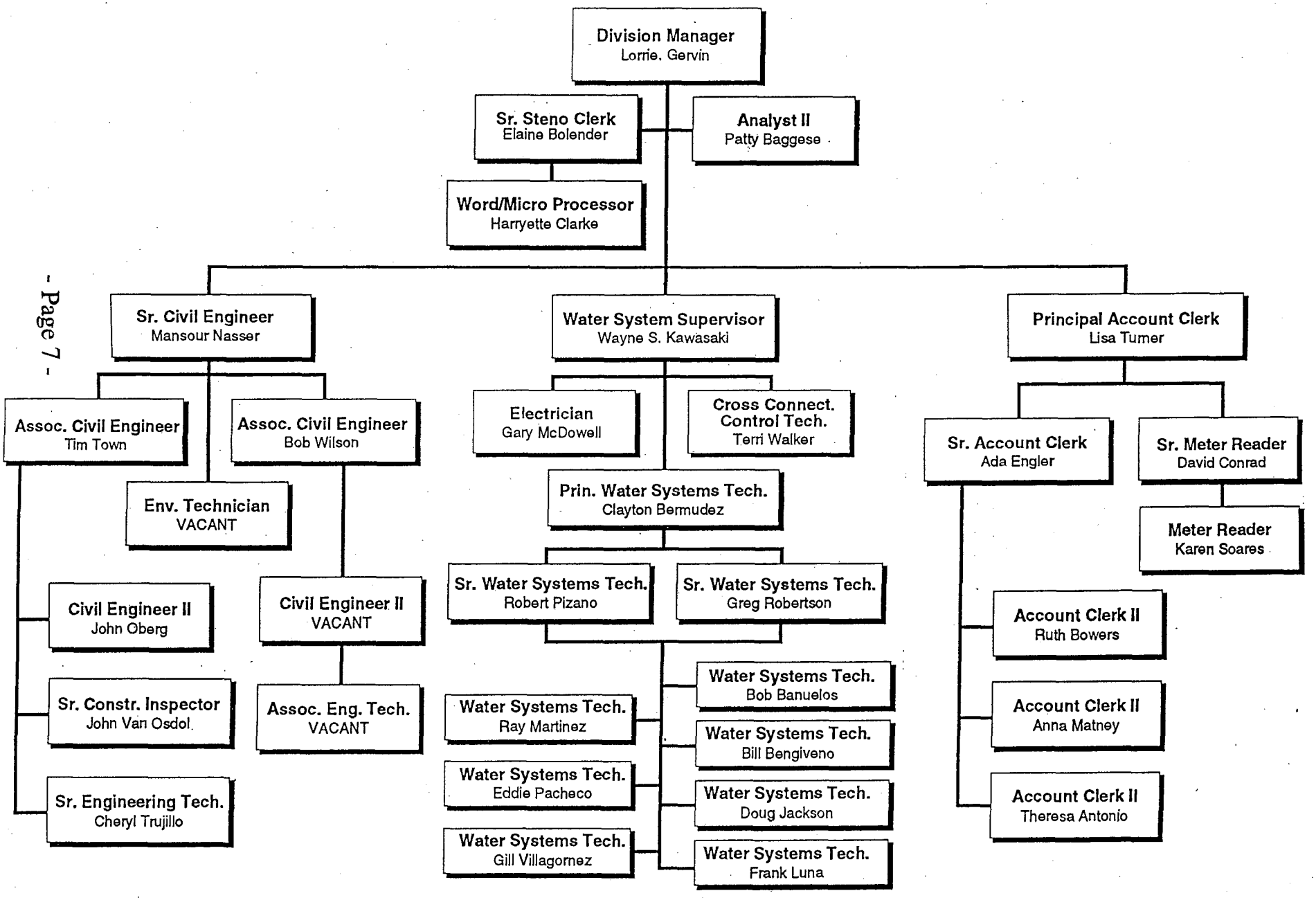


CHART I

ORGANIZATION CHART FOR THE SJMWS

Summary Of Operations

According to the Environmental Services Department, the SJMWS is managed with the objective of producing *" . . . a variety of benefits other than cash return."* Table I shows net operating income and non-operating income for the SJMWS from 1980-81 to 1995-96:

TABLE I

SUMMARY OF OPERATING AND NON-OPERATING INCOME FOR THE SJMWS FROM 1980-81 TO 1995-96

Fiscal Year	Operating Revenues	Net Operating Income <Loss>	Non-Operating Income <Loss>	Net Income Before Transfers
1980-81	$ 2,166,319	$ 256,144	$ 407,603	$663,747
1981-82	$ 2,576,714	269,053	442,598	711,651
1982-83	2,738,710	169,487	553,471	722,958
1983-84	3,715,354	465,296	(400,933)	64,363
1984-85	4,610,039	646,343	667,475	1,313,818
1985-86	5,293,462	916,976	673,250	1,590,226
1986-87	6,287,516	1,336,340	426,974	1,763,314
1987-88	6,380,081	1,032,952	411,270	1,444,222
1988-89	6,726,884	1,556,273	488,058	2,044,331
1989-90	6,312,688	190,108	610,372	800,480
1990-91	6,507,708	(433,932)[1]	552,781	118,849
1991-92	8,249,479	66,722	404,822	471,544
1992-93	10,138,299	389,872	236,882	626,754
1993-94	10,360,312	392,885	225,227	618,112
1994-95	10,579,305	159,020	363,086	522,106
1995-96	12,136,125	1,362,044	303,357	1,665,401
Total	**$104,778,995**	$8,775,583	$6,366,293	$15,141,876

[1] During 1990-91, the City Council adopted resolutions that established mandatory water usage reductions of 20 to 25 percent.

Payments Made To The General Fund

The SJMWS transfers to the General Fund overhead reimbursements and beginning in 1993-94, in-lieu fees equal to 2 percent of gross revenues. For the first time in 1995-96 the SJMWS transferred an additional $1 million to the General Fund. Table II shows the amount of each type of transfer for 1993-94 through 1996-97.

TABLE II

SUMMARY OF SJMWS FUNDS TRANSFERRED TO THE GENERAL FUND FROM 1993-94 THROUGH 1996-97

Fiscal Year	Overhead Reimbursement	In-Lieu Fees	Transfer To The General Fund	Total
1993-94	$ 631,000	$180,000	$ 0	$ 811,000
1994-95	412,000	188,000	0	600,000
1995-96	370,000	199,000	1,000,000	1,569,000
1996-97	375,000	206,000	1,750,000	2,331,000
Total	$1,788,000	$773,000	$2,750,000	$5,311,000

ALTERNATIVE MECHANISMS TO DETERMINE THE VALUE OF THE SYSTEM AND THE NET PROCEEDS WHICH THE CITY MIGHT RECEIVE FROM A SALE

A major part of our assignment was to estimate a potential sale price of the San Jose Municipal Water System (SJMWS). Accordingly, we reviewed four methods available to value the SJMWS from a sale perspective. These four methods are: (1) reproduction cost new less depreciation, (2) comparable sales, (3) capitalized earnings, and (4) rate base. Based upon our review, we concluded that rate base was the most appropriate methodology to use to value the SJMWS. After selecting the rate base methodology, we next reviewed a recently completed consultant study the SJMWS had done to calculate the cost to reproduce its assets and the value of those assets less depreciation. We used the information in that consultant study to perform an analysis, using construc -tion indices for water utilities, to recalculate the value of the SJMWS' fixed assets. Based upon our review, we estimated the SJMWS' net fixed assets at $56.9 million. In addition, we estimated the potential proceeds from the sale of the SJMWS to be $40 million. This is $9.8 million more than what the SJMWS' staff estimated in February 1995. It should be noted that our estimated $40 million in potential SJMWS sale proceeds could be reduced by as much as $10 million in bond refundings. In addition, the City may have to pay none, some, or all of $3 million in sales and transaction costs.

Alternative Value Mechanisms

SJMWS staff identified four methods of assigning value to the SJMWS. The first method is reproduction cost new less depreciation (RCNLD). RCNLD is the cost of duplicating or replacing the existing assets at current prices. The second

method is comparable sales. This method looks at the sale of other reasonably similar utilities in order to calculate the value of the utility. The third method is capitalized earnings. This method calculates the net present value of the cash flow stream that may be produced over the economic life of the utility. The fourth method is the rate base calculation method that the California Public Utilities Commission (CPUC) uses. Rate base is defined as the original cost of fixed assets less depreciation calculated on a straight-line remaining life method, to arrive at the net asset value. Net asset value is decreased by developer contributions and advances for construction. Once the rate base has been established, the CPUC sets a rate of return that a utility is allowed to earn on the net value of its assets in service. That rate is based on the minimum acceptable rate of return to attract capital from equity or bond investors, otherwise known as the cost of capital.

The appropriate methodology to use to value the SJMWS is ultimately dependent upon the buyer's intended use of the SJMWS. As such, it appears that the rate base calculation provides the most realistic picture of what would be the value of the SJMWS to a potential buyer for two reasons. First, the rate base is a method that the utilities industry uses to establish a market value for utilities that are not traded on a national or regional stock exchange. Secondly, it is most likely that an investor-owned utility would purchase the SJMWS. The CPUC regulates investor-owned utilities. As such, the CPUC frequently uses the rate base method to establish the market value for those utilities that regulated utilities purchase and to calculate the water rates regulated utilities can charge their customers.

Estimated Net SJMWS Fixed Assets Of $56.9 Million

In February 1995, the SJMWS staff estimated a potential sales price using a rate base methodology. When the SJMWS staff performed their rate base calculation,

they used the fixed asset information from the City's financial statements. For purposes of our review we did not rely on the City's financial statements because government entities do not record the cost of fixed assets as rigorously as privately-owned companies. This is due to the fact that government entities do not receive any tax benefit from depreciation. As a result, we were concerned that the SJMWS' fixed assets were undervalued in the City's financial statements.

As an alternative to relying on the City's financial statements to value the SJMWS' assets, we opted to use a consultant study the SJMWS commissioned in 1994. This study contained a comprehensive inventory of the SJMWS' assets priced at the estimated cost of reproducing the assets, the associated depreciation, and the resultant reproduction cost less depreciation. We felt that the comprehensive inventory of SJMWS assets in the study as of September 1994 was the best and most reliable starting point for our determination of the SJMWS' net fixed assets for the rate base calculation.

In October 1994, Bookman-Edmonston Engineering, Inc. (Consultant) submitted to the SJMWS a report titled, *"Reproduction Cost New Less Depreciation Study Of The San Jose Municipal Water Systems"* (RCNLD study). The RCNLD study included the estimated costs of reproducing the SJMWS' facilities, the associated depreciation, and the resultant reproduction cost new less depreciation. In conducting their RCNLD study, the Consultant prepared a comprehensive listing of the SJMWS' facilities as of September 30, 1994. The RCNLD inventory was based on information regarding distribution facilities (pipelines) the Environmental Services Department (ESD) provided to the Consultant. In addition, the Consultant conducted a field survey and a review of record drawings of wells, pumps, above-ground plant and general plant facilities, in order to develop the remaining data base of the SJMWS' facilities. The

Consultant next calculated the direct and indirect costs of the inventoried facilities. See Appendix A for a description of the methodology we used to recalculate the value of the SJMWS' fixed assets. Also, see Appendix B for a description of direct and indirect costs and how the consultant calculated those costs.

Based upon the procedures described in Appendix A, our recalculated gross value of the SJMWS' fixed assets was $73,382,029 as of September 30, 1994. From this amount, we deducted accumulated depreciation for each of the items in our spreadsheet. In calculating accumulated depreciation, we relied upon the Consultant's estimate of net asset value to gross asset value. Applying each relative value to the over 1,000 items in our spreadsheet, we calculated accumulated depreciation to be $16,511,411 as of September 30, 1994. Therefore, we estimate the net value of the SJMWS' assets to be $56,870,618 as of September 30, 1994.

Finally, in order to use a rate base methodology to estimate sales proceeds, we had to categorized our recalculated value of the SJMWS' fixed assets by asset source. There are four asset sources for the SJMWS. These sources are the SJMWS, the City of San Jose Redevelopment Agency (Agency), assessment districts, and developers. We requested SJMWS staff to review the inventory listing of SJMWS assets and for each item, designate whether the asset source was the SJMWS, the Agency, an assessment district, or a developer.

Table III summarizes our revised valuation of the SJMWS' fixed assets as of September 30, 1994, by asset source.

TABLE III

SUMMARY OF THE CITY AUDITOR OFFICE'S REVISED VALUATION OF THE SJMWS' FIXED ASSETS AS OF SEPTEMBER 30, 1994, BY ASSET SOURCE

Asset Source	Gross SJMWS Assets	Accumulated Depreciation	Net SJMWS Fixed Assets
SJMWS	$16,057,963	$ 3,882,906	$12,175,057
Redevelopment Agency	7,905,267	1,791,655	6,113,612
Assessment District	11,625,687	1,699,247	9,926,440
Developer Contributions	37,793,112	9,137,603	28,655,509
Total	$73,382,029	$16,511,411	$56,870,618

Comparison Of Recalculated Value Of The SJMWS' Fixed Assets To The City's Financial Statements

Table IV shows our recalculation of the value of the SJMWS' fixed asset inventory as of September 30, 1994, compared to the City's financial statement balance of the SJMWS' fixed assets as of June 30, 1995.

TABLE IV

COMPARISON OF THE CITY AUDITOR OFFICE'S ESTIMATION OF SJMWS FIXED ASSETS AS OF SEPTEMBER 30, 1994, TO THE CITY'S JUNE 30, 1995, FINANCIAL STATEMENTS

Accounts	Financial Statement Balance As Of June 30, 1995	City Auditor Office's Estimated Net Fixed SJMWS Assets As Of September 30, 1994	Difference
Gross Fixed Assets	$50,794,289	$73,382,029	$22,587,740
Accumulated Depreciation	13,337,272	16,511,411	3,174,139
Net Fixed Assets	$37,457,017	$56,870,618	$19,413,601

The reason we compared our September 30, 1994, estimated value of the SJMWS' assets to the City's financial statements as of June 30, 1995, instead of June 30, 1994, is the timing of when the SJMWS acquired some significant assets and when the City recognized those assets in its financial records. Specifically, in August 1994, the City adjusted its financial records to recognize about $8.9 million of various net assets, including the costs associated with the Silver Creek Valley Country Club. The SJMWS acquired some of these assets as far back as 1987. Our September 30, 1994 estimate and the City's financial statements as of June 30, 1995, included these assets, however, the City's financial statements as of June 30, 1994, did not. Given the magnitude of these fixed assets, the fixed asset balance in the City's annual financial statements as of June 30, 1995, is therefore more comparable to our September 30, 1994, estimate.

As shown in Table IV, our analysis shows that the SJMWS' fixed assets in the City's June 30, 1995, financial statements were undervalued by about $19.4 million. We know of two factors that contributed to the difference noted in Table IV. First, the City does not record those assets that developers contribute to the SJMWS based upon their actual cost. That information is not available to the City since the developer is responsible for paying for the construction of those assets. Instead the City estimates the value of developer contributed assets by using cost data included in Section 15.08 of the San Jose Municipal Code. The problem with this approach is that the cost data in section 15.08 has not changed since 1982, 14 years ago.[2] As a result, the City has undervalued all of

[2] It should be noted that the City's outside financial auditors discussed this issue in its management letter dated October 31, 1995. SJMWS staff responded to the comment that they concurred with the issue raised and would be *" . . . including this item in its work plan for 1996 and will plan to schedule City Council approval of revisions to the ordinance in the first quarter of fiscal 1997."*

the assets developers have contributed since 1982. Based on our analysis, over 40 percent of total developer contributed assets in the SJMWS have been recorded as fixed assets over the last 12 years and therefore are undervalued.

The second factor that causes the City's financial statement balance of SJMWS assets to be undervalued is the City's capitalization policy. Specifically, the City does not record items under $5,000 into fixed assets. Prior to June 30, 1993, the capitalization limit was $1,000. This policy is applied to each individual item. For example, if the City acquired five items that were $2,000 each for a total of $10,000, the City would not record any of this $10,000 into its fixed assets account because each individual item was less than $5,000.

Calculation Of Potential Proceeds From The Sale Of The SJMWS

Based upon the $56.9 million in revised SJMWS net fixed assets shown in Table IV, we calculated the potential proceeds from the sale of the SJMWS. We used the same rate base calculation methodology that the SJMWS staff used in February 1995 when they calculated a potential sale price of $24.6 million. Our calculated potential sale price is $33.1 million and our calculated potential proceeds from the sale of the SJMWS are $40 million as shown in Table V.

TABLE V

SUMMARY OF CALCULATED POTENTIAL PROCEEDS
FROM THE SALE OF THE SJMWS

Description	City Auditor Estimated SJMWS Sale Price	SJMWS Staff Estimated SJMWS Sale price In February 1995	Difference
Net Fixed Assets	$56,900,000*	$ 35,900,000	$21,000,000
Less:			
Advances For Construction	(600,000)	0	(600,000)
Developer Contributions	(28,700,000)	(15,400,000)	(13,300,000)
Net Investment	27,600,000	20,500,000	7,100,000
20 Percent Purchase Premium	5,520,000	4,100,000	1,420,000
CALCULATED POTENTIAL SALE PRICE	33,120,000	24,600,000	8,520,000
Cash Reserves	6,900,000	5,600,000	1,300,000
Calculated Potential Proceeds From The Sale Of The SJMWS	$40,020,000	$30,200,000	$9,820,000

***** From Table IV.

It should be noted that in Table V we deducted advances for construction and developer contributions to arrive at a potential sale price. We deducted these amounts because the California Public Utilities Commission (CPUC) decides what can be included in a private investor utility company's rate base. The CPUC excludes developer contributions and advances for construction from the rate base.

It should also be noted that the City's June 30, 1995, annual financial statements show developer contributions of $16.2 million, which is $12.5 million less than the $28.7 million our analysis indicated. As noted earlier, our $28.7 million estimate of developer contributions was based upon SJMWS staff designations. We tested approximately $15.8 million, or 55 percent of the items that the SJMWS staff designated as developer contributions. Based upon our test work, it appears that the

SJMWS' staff has accurately designated the items that we tested as developer contributions.

Further analysis to establish the exact amount of developer contributions could result in a decrease in developer contributions, which would increase the potential sale price of the SJMWS on a dollar for dollar basis. In other words, every dollar reduction in developer contributions that can be attributed to the other asset sources shown in Table III, increases the potential sale price of the SJMWS, and resultant sales proceeds, by a like amount.

We also added to the calculated potential sale price of the SJMWS a 20 percent premium of $5.5 million and the $6.9 million in SJMWS Cash Reserves that was on hand as of June 30, 1996. We added the 20 percent premium in order to be consistent with what the SJMWS' staff did when it calculated a SJMWS sales price in February 1995. In its February 1995 study the SJMWS' staff stated that *"Our consultants . . . believe a premium of as much as 20 percent could be expected."*

The $6.9 million in SJMWS' cash reserves that we added is the result of positive operating cash flows that have accrued to the SJMWS over several years. We added the $6.9 million to the potential sale price because a successful buyer would either pay for the SJMWS' cash just like any other SJMWS asset or the SJMWS would transfer the $6.9 million to the General Fund in the event of a sale. Either way, the General Fund would realize the $6.9 million in SJMWS cash reserves should the SJMWS be sold.

On a cautionary note, the actual sale proceeds the City would realize if it sold the SJMWS is ultimately the amount a willing buyer and the City agree upon in an arms-length, equitable transaction. As is noted throughout this report, there

are many unknown factors that could affect the ultimate SJMWS sales price. For example, on page 67 we noted that a purchaser of the SJMWS would not have the right to sell recycled water from the South Bay Water Recycling Project. That fact may ultimately reduce the amount any purchaser of the SJMWS would be willing to pay. Accordingly, our estimated sales proceeds only gives some frame of reference as to what the City might expect to realize from a sale of the SJMWS. In truth, the only way the City will know for sure what it could realize from selling the SJMWS would be to issue a Request For Proposals for response from prospective purchasers.

$10 Million In Bond Refundings And
$3 Million In Sales And Transaction Costs

We estimated on page 52 of this report, the costs to refund existing bonds[3] used to finance the SJMWS' capital assets to be $10 million. For purposes of estimating the sales proceeds the City would realize if it sold the SJMWS we assumed that the City, not a successful bidder, would pay for all of these bond refundings.

In addition, there will be costs associated with any sale of the SJMWS. Principal among these costs are transaction costs associated with the sale of the SJMWS and the cost to refund existing bonds used to finance the SJMWS' capital assets. According to the consultant that assisted us during our evaluation, the transaction costs associated with the sale of the SJMWS should be about $3 million as shown on page 20.

[3] As is discussed beginning on page 44, these bonds must be refunded in order to protect the tax-exempt status of the remaining $67.3 million in Assessment District and Limited Obligation Refunding bonds.

Financial Advisor	$ 100,000
Legal Costs	200,000
Bond Counsel	200,000[4]
Staff Costs	600,000
Call Premium	400,000
Miscellaneous Costs	500,000
Election	1,000,000
Total	**$3,000,000**

Therefore, the potential proceeds from the sale of the SJMWS could be reduced by about $13 million ($10 million plus $3 million). An option available to the City would be to include in the bid package a requirement that any potential purchaser pay for some or all of these costs.

[4] On page 53, we show these costs ranging from $150,000 to $180,000. We rounded this to $200,000 as shown above.

THE FINANCIAL BENEFITS IF THE CITY RETAINS OWNERSHIP OF THE SYSTEM

The San Jose Municipal Water System (SJMWS) staff has noted various benefits of owning the SJMWS. Some of these benefits include: (1) providing lower water rates for customers, (2) promoting desired economic and community development, (3) enhancing the City's ability to operate the South Bay Water Recycling Project (SBWRP), and (4) allowing the City to maintain a direct role in the water supply field to obtain additional or strengthened opportunities to ensure an adequate water supply for the City's future. In addition, our review revealed the following alternative financial benefit options if the City retains ownership of the system:

- Annual revenues over the next 13 years from $1.7 million to $2.8 million through the adoption of a water rate policy that establishes a reasonable rate of return on SJMWS assets;
- A potential one-time transfer to the General Fund of about $7 million in SJMWS cash reserves derived from water service charges;
- Potential bond proceeds to the General Fund for capital projects in 1996-97 of about $22 million; and
- Over a 15 year period, the cost of water service would be less under the City's current pricing policy than it would be under private ownership.

Benefits Cited By SJMWS Staff On Retaining Ownership Of The SJMWS

Currently, the SJMWS operating policy is to provide benefits other than a return on investment. The result of this operating policy is that the customers within the SJMWS service area typically have a lower water bill than customers located in San Jose Water Company's service area. However, these lower water

bills have in effect resulted in the General Fund subsidizing the SJMWS' customers in that the other 90 percent of San Jose water users are serviced by private companies that do earn a rate of return on their investments.

According to Environmental Services Department (ESD) staff, the SJMWS is also used as a tool to promote desired economic and community development. In fact, ESD staff represents that historically, this is the real reason the City entered into the water business in the first place. ESD staff believe they have accomplished this goal by being able to install capital facilities in developing areas by using tax-exempt bond financing, such as assessment districts, which allow the new growth to pay for itself versus all SJMWS customers paying for it.

In addition, ESD strongly believes that the SJMWS is key to the success of the SBWRP. The San Jose/Santa Clara Clean Water Financing Authority has committed to a $130 million investment in the design and construction of Phase I of SBWRP, which will distribute nonpotable reclaimed water. ESD staff feel that *"Control of the supply, distribution and price in both the retail potable and nonpotable water systems, as well as direct access to customer records and communications channels, will greatly facilitate the successful marketing of reclaimed water."*

Finally, ESD staff strongly believes retaining ownership of the SJMWS allows them to maintain a direct role in the water supply field. According to ESD staff, in order to achieve the City's economic and community development goals described in the General Plan 2020, the City needs to ensure that adequate, reliable, and affordable supplies of water are available to meet the needs of the City's citizens and businesses. As a direct water retailer, the City is involved in many organizations and is included in communications and political processes to

which it would not have access if the City were not a water retailer. ESD staff stated that the availability of these venues will strengthen the City's ability to advocate for the City's interest in assuring an adequate water supply for the City's future.

The Financial Benefits If The City Retains Ownership Of The System

Annual Revenues Over The Next 13 Years From $1.7 Million To $2.8 Million Through The Adoption Of A Water Rate Policy That Establishes A Reasonable Rate Of Return On SJMWS Assets

Currently, the SJMWS is managed with the objective of producing *"... a variety of benefits other than cash return."* However, in 1995-96 and 1996-97 the SJMWS transferred an additional $1 million and $1.75 million, respectively, to the General Fund. As such, under current policy, the SJMWS will provide $1.75 million per year to the General Fund.

The City Council could adopt a water rate policy that would stipulate a reasonable rate of return on SJMWS assets to the General Fund. As noted above, for the first time in 1995-96, the SJMWS transferred $1 million to the General Fund. This transfer idea came about in a report David M. Griffith and Associates issued in 1993, titled, "Revenue Alternatives."

In 1989, the City Attorney's Office issued a memorandum which supported a rate of return concept for the SJMWS. The City Attorney's memorandum stated in part:

> *State law requires municipal companies to provide service 'at the lowest possible cost.' Nevertheless, cities have considerable discretion in setting rates. A city is entitled to a reasonable profit, which it may use for other valid municipal purposes. A municipality is also entitled to a reasonable return on its investment . . . "* (Emphasis added)

In June 1994, Ernst & Young (E&Y) issued a water rate report for the SJMWS. The purpose of the report was to develop water rates and charges for 1994-95 consistent with meeting relevant City goals for the SJMWS. Of the two City goals for the SJMWS, one was to produce sufficient revenues through water rates to pay for operating, maintenance, and non-development related capital expenses but not a rate of return provision. As such, contrary to the City Attorney's 1989 memorandum shown above, the SJMWS' water rates do not include a provision for producing a rate of return to the City's General Fund.

In our opinion, a reasonable rate of return on investment for the SJMWS is 9 percent. Our conclusion is based upon two factors. The first factor is that utilities, both public and private, include a rate of return factor of at least 9 percent in the water rates they charge their customers. This includes the two private companies that serve 90 percent of the City of San Jose's water users. Further, during our review, we contacted the City of Palo Alto, California which also owns a water utility. According to Palo Alto officials, they set their utility rates to generate a rate of return on investment to their General Fund of 9.8 percent. The second factor is that the $1.75 million the SJMWS transferred to the General Fund in 1996-97 equates to a 9.55 percent rate of return on investment.[5]

Accordingly, we calculated what a 9 percent rate of return on the value of the SJMWS' current and projected assets would be. In making our calculations, we started with our revised valuation of the SJMWS' fixed assets as of September 30, 1994 (Table III). To that amount we added, on a year by year

[5] Our estimated 1996-97 rate base number is $18,322,750.
$1,750,000 ÷ $18,322,750 = 9.55 percent

basis, planned SJMWS additions, as shown in the SJMWS' Master Plan through 2009-10. We also deducted on a year by year basis, accumulated depreciation and developer-contributed assets to arrive at our estimate of the City's current and future investment in the SJMWS. We then applied a 9 percent rate of return against our estimate of the City's investment in SJMWS' assets to arrive at our estimated return on investment. Should the City Council change its water rate policy to include a 9 percent rate of return to the General Fund, we estimate that over the next 13 years the General Fund would receive annual revenues from $1.7 million to $2.8 million as shown in Table VI.

TABLE VI

ESTIMATED ANNUAL GENERAL FUND REVENUES THROUGH A POLICY CHANGE TO EARN A 9 PERCENT RETURN ON SJMWS ASSETS FOR 1997-98 TO 2009-10

Fiscal Year	Estimated Return On Investment Per City Auditor's Office	Current Transfer	Difference
1997-98	$ 1,743,000	$ 1,750,000	$<7,000>
1998-99	1,840,000	1,750,000	90,000
1999-00	1,839,000	1,750,000	89,000
2000-01	1,824,000	1,750,000	74,000
2001-02	1,845,000	1,750,000	95,000
2002-03	1,838,000	1,750,000	88,000
2003-04	1,993,000	1,750,000	243,000
2004-05	2,314,000	1,750,000	564,000
2005-06	2,299,000	1,750,000	549,000
2006-07	2,895,000	1,750,000	1,145,000
2007-08	2,870,000	1,750,000	1,120,000
2008-09	2,848,000	1,750,000	1,098,000
2009-10	2,830,000	1,750,000	1,080,000
Total	$28,978,000	$22,750,000	$6,228,000

A Potential One-Time Transfer To The General Fund
Of About $7 Million In SJMWS Cash Reserves
Derived From Water Service Charges

As of June 30, 1996, the SJMWS had approximately $6.9 million in cash reserves derived from water service charges that could be made available to the General Fund. This amount is the SJMWS' pooled cash and investments of its consolidated water utility fund. This $6.9 million does not include any pooled cash and investments from the Alviso funds.

It should be noted that on July 1, 1996, the City defeased about $85,000 of outstanding Alviso bonds. As a result, an additional $600,000 in Alviso pooled cash and investments may also become available for transfer to the General Fund.

Potential Bond Proceeds To The General Fund
For Capital Projects In 1996-97 Of About $22 Million

With a reliable and significant new source of SJMWS revenue identified, the City could also look at using the assets in the SJMWS as the basis for issuing lease revenue bonds to provide a substantial infusion of cash for General Fund capital projects.

- Description Of Lease Revenue Bonds

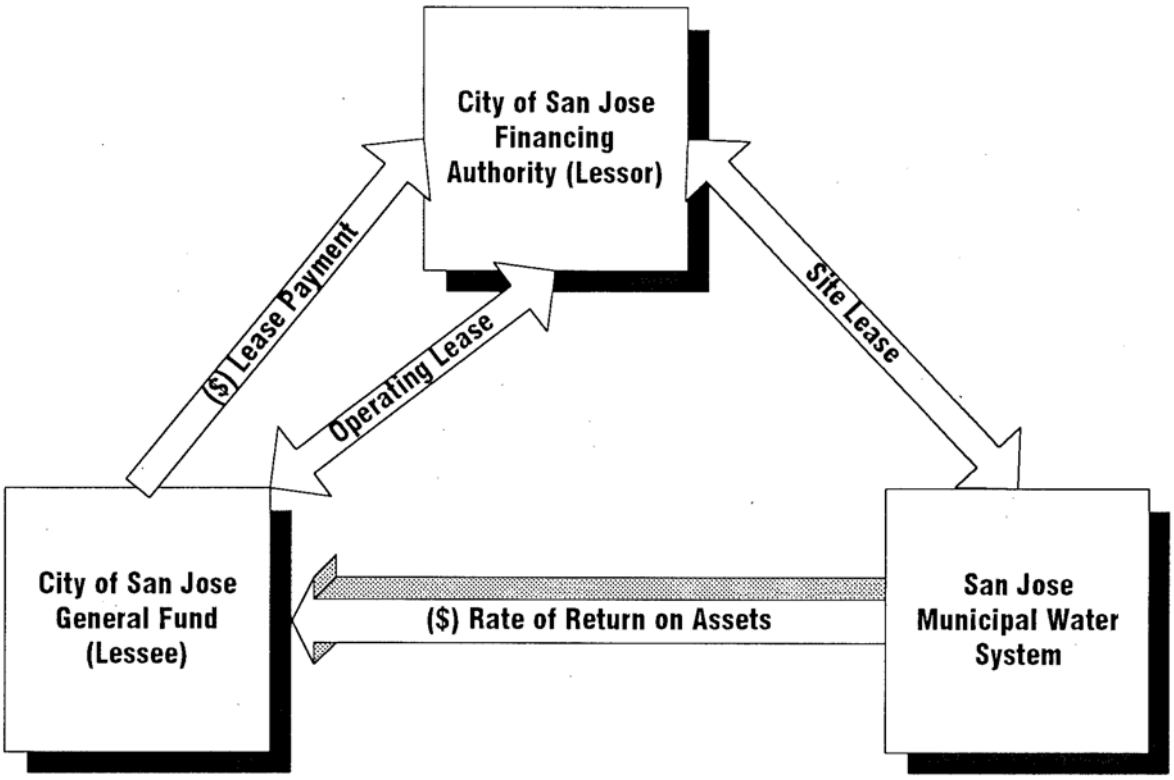
Lease revenue bonds are limited obligations of the lessor that are payable from and solely secured by the lessor's right to receive lease revenues from the rental payments of the public lessee. Typically, a lease revenue bond financing arrangement involves three parties. The first party owns the leasable assets. In this case, the SJMWS would be the first party. The second party is the lessor

that acquires title to the leasable assets through a site lease with the first party. In this case, the City of San Jose Finance Authority would be the second party or lessor. The third party or lessee would be the City of San Jose's General Fund.

Diagram I shows the structure of a SJMWS lease revenue bond.

DIAGRAM I

STRUCTURE OF A SJMWS LEASE REVENUE BOND



Under the arrangement shown in Diagram I, the Authority (lessor) would issue bonds which would be secured by the Authority's right to receive a lease payment from the General Fund (lessee). In addition, Diagram I also shows a site lease between the Authority and the SJMWS. The site lease is for the

SJMWS' assets which are used to secure the City's annual lease payment on the operating lease. Another term that could be used for this is an Asset Transfer, which involves using assets, other than those of the project being built with the bond proceeds, to secure the bond sale. Bondholders look at the necessity of these facilities to the City's operations as security that the City will make the annual lease payment on the operating lease. The return on investment being transferred from the SJMWS to the General Fund annually would enable the General Fund to make the annual lease payment. Another advantage of this arrangement is that the lease revenue bonds are secured by the City's pledge to annually appropriate lease payments from the General Fund. This provides additional protection to bond holders and generates two distinct advantages to the City. First, the interest rate on the bonds will be lower. Secondly, the internal coverage ratio for the bonds need be only 1.00 which produces larger bond proceeds for the City.

- Potential Amount Of Lease Revenue Bonds That Could Be Issued

In order to estimate the potential amount of lease revenue bonds that the City could issue, we assumed (1) a $2 million annual payment from the SJMWS to the General Fund, (2) a 7 percent interest rate, (3) a 30-year amortization period, (4) annual debt service payments of $1,999,000, (5) 3.5 percent for transaction costs, (6) a bond proceeds retention of one-year's debt service payments, and (7) a coverage ratio of 1.00.

Table VII summarizes our estimated SJMWS lease/revenue bond proceeds based upon the above assumptions.

TABLE VII

SUMMARY OF ESTIMATED SJMWS
LEASE/REVENUE BOND PROCEEDS

Assumptions	Amounts
Assumed Annual SJMWS Payment To The General Fund	$ 2,000,000
Annual Debt Service Payment	$ 1,999,000
Bond Sale Capacity	$24,800,000
Transaction Costs	$ 868,000
Debt Service Reserve Fund	$ 1,999,000
Estimated Lease Revenue Bond Proceeds	$21,933,000

We estimate that an annual $2 million SJMWS payment to the General Fund equates to an 8.4 percent rate of return on net SJMWS assets over the 30 years of the bond life. We based our estimate on the SJMWS' 15 year master plan and assumed no SJMWS growth after the year 2009-10. Thus, our estimated 8.4 percent rate of return on net SJMWS assets is conservative and closely approximates the 9 percent rate of return noted above.

Another aspect of the lease/revenue bond approach is that the $2 million annual SJMWS payment to the General Fund would not necessarily cause SJMWS' water rates to increase significantly. Specifically, the SJMWS could use some of its nearly $7 million in cash reserves to help make the $2 million payment to the General Fund. By so doing, the SJMWS could ameliorate the impact the $2 million annual payment to the General Fund could have on water rates during the initial years of the bond payments. This assumes of course that

the City does not transfer the $7 million in SJMWS cash reserves to the General Fund as discussed above.

Finally, it should be noted that the $2 million annual SJMWS payment to the General Fund for the bond payment noted above would be in lieu of the $1.75 million the SJMWS transferred to the General Fund in 1996-97. As such, the lease revenue bond option would reduce the amount available to the General Fund for general operating costs.

Proposed Legislation That Could Impact The City's Ability To Issue Bonds

Currently, there is a proposed measure that could have an impact on the City's ability to issue bonds. The Right To Vote On Taxes Act has qualified to be placed on the November 5, 1996, election ballot (Proposition 218). Proposition 218 has various restrictions and could impact taxes, assessments, and fees and charges. On May 20, 1996, the City Attorney's Office issued a memorandum that explained the potential impacts Proposition 218 could have on the City. Proposition 218 states that amounts charged for sewer, water, and refuse collection services fall within the definition of fees and charges. The City Attorney's Office summarized the requirements that would be imposed on fees and charges, as shown:

> *Beginning July 1, 1997, except for fees or charges for sewer, water, and refuse collection services, no property related fee or charge could be imposed or increased, even if it were cost recovery, without approval by a majority vote of the property owners of the property subject to the fee or charge or, at the option of the agency, by a two-thirds vote of the electorate residing in the affected area. . . . Revenues derived from the fee or charge would be limited to the funds required to provide the property related service and could not be used for any purpose other than that for which the fee or charge was imposed. No fee or charge could be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are*

not permitted. Standby charges, whether characterized as charges or assessments, are classified as assessments. No fee or charge could be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services where the service is available to the public at large in substantially the same manner as it is to property owners.

The effective date of Proposition 218, if approved by the voters, is the day after the election which is November 6, 1996.

Over A 15 Year Period, The Cost Of Water Service
Would Be Less Under The City's Current Pricing Policy
Than It Would Be Under Private Ownership

A related issue to the financial benefits of the City retaining ownership of the SJMWS is the cost of service to its customers. For purposes of our review, we defined cost of service as the total cost of providing water services to the SJMWS' customers. (See Appendix C for an itemization of cost of service). It should be noted that we did not attempt to convert "cost of service" to water rates because of the multitude of variables and complexities that go into calculating water rates. Specifically, the SJMWS uses one rate structure for commercial water users and another rate structure for residential water users. Further, the rate structure for residential water users is multi-tiered according to water usage. Thus, while cost of service must ultimately be reflected in water rates it would be highly speculative to predict how water rates would be impacted given the complexities of the current water rates structure and the expanding number of commercial and residential SJMWS customers anticipated over the next 15 years.

In order to address the cost of service issue, we simulated the cost of service to customers over a 15 year period for a municipally-owned water system versus a privately-owned water system. For the municipally-owned system, we used the SJMWS' current pricing policy. For the privately-owned system, we

constructed a computer model that simulated the general operating style of an investor-owned water system and estimated the amount of return on investment and income taxes that would occur.

Based on our analysis, we concluded that over a 15 year period the cost of water service would be less than it would be under private ownership if the City retained the SJMWS and did not change its current pricing policy.

- Cost Of Service Analysis

When we estimated the total cost of service for the City-owned and private investor-owned scenarios, we made the following general assumptions:

- Our starting point for the analysis was July 1, 1995;
- We utilized the revised fixed asset values and contribution amounts shown on page 14 of this report;
- Our analysis covered a 15 year period from July 1, 1995, through June 30, 2010;
- We used an inflation rate of 3 percent; and
- Private developers would contribute 54 percent of planned SJMWS capital additions from July 1, 1995, through June 30, 2010.

We also made assumptions that were specific to either the City-owned or private investor-owned scenarios. Appendix C summarizes our assumptions for both scenarios. Appendix D summarizes our 15 year cost of service calculations.

Table VIII is a summary of our estimated total cost of service under City and private investor ownership using the assumptions summarized in Appendix C and the calculations summarized in Appendix D.

TABLE VIII

SUMMARY OF ESTIMATED TOTAL COST OF SERVICE FOR 15 YEARS UNDER CITY AND PRIVATE INVESTOR OWNERSHIP ASSUMING DEVELOPER CONTRIBUTED CAPITAL IMPROVEMENTS AT 54 PERCENT OF PLANNED SJMWS ADDITIONS AND THE CITY'S CURRENT PRICING POLICY

	15 Year Cost Of Service
Private Investor-Owned	$243,600,000
Less: Estimated Efficiencies Experienced Under Private Investor Ownership	<15,400,000>
Total	$228,200,000
Current City Pricing Policy Including A $1.75 Million Transfer To The General Fund	$205,500,000
Estimated Cost Of Water Service Savings Under City Ownership And Current Pricing Policy	$ 22,700,000

- Efficiency Factor Under Private Investor Ownership

We estimated efficiencies experienced under private investor ownership by comparing the total salaries and customers per employee for the SJMWS, the San Jose Water Company (SJWC), and Great Oaks Water Company (GOWC). Table IX is a summary of our comparison for salaries and customers per employee for the SJMWS, SJWC, and GOWC.[6]

[6] The information shown in Table IX for the SJMWS is as of June 30, 1995. The information shown for SJWC and GOWC is as of December 31, 1994.

TABLE IX

SUMMARY OF TOTAL SALARIES AND CUSTOMERS PER EMPLOYEE FOR THE SJMWS, SJWC, AND GOWC

Description	San Jose Municipal Water System	San Jose Water Company	Great Oaks Water Company
Total Salaries And Benefits	$1,968,000	$15,455,000	$813,500
Total Number Of Employees	30	281	15
Total Number Of Customers	18,705	206,318	18,685
Salary Per Employee	$65,600	$55,000	$54,200
Number Of Customers Per Employee	624	734	1,246

As shown in Table IX, the SJMWS' salary per employee is over $10,000 per employee higher than SJWC's and GOWC's. Further, when you compare the number of customers per employee for each entity, the difference is significant. Specifically, SJWC handles 18 percent more customers per employee and GOWC handles 100 percent more customers per employee than does the SJMWS. Accordingly, we averaged SJWC's and GOWC's customers per employees and calculated an efficiency factor in our private investor-owned scenario. We then applied that average efficiency factor to the personnel expenses in the City-owned operating and maintenance expenses. We did not reduce non-personal expenses under a private investor-owned scenario even though any purchaser of the SJMWS would probably have these types of services already embedded in its cost structure. While a purchaser of the SJMWS would probably enjoy an economy of scale that would not require it to pay these costs at the same level as the SJMWS, we could not quantify what those efficiencies would generate in cost savings.

It should be noted that the issue as to whether the cost of service to the customers is less under a municipally-owned water system or a privately-owned

water system is currently being heavily debated. According to an article entitled, "*Privatization of Water: Split Opinions,*" in the July/August 1996 issue of Western Water, a bi-monthly publication issued by the Water Education Foundation, each side in the public or private water utility debate argues that (1) it can ensure the best quality and most efficient water service, (2) its method of financing capital improvements is best, and (3) their system provides the most consumer protection. However, according to the article, in the end, the customers water bill will probably not change much whether their tap is connected to an investor-owned utility or a publicly-owned utility. The article states that water rates in California are influenced more by the source of water, drinking water treatment requirements and the cost to operate the system than by public/private ownership of a water system.

Much of the private or public debate centers on government efficiency. By letting private enterprise assume control of government functions, the theory is that the introduction of market forces through privatization ultimately would benefit consumers through greater efficiency with lower rates. Critics of that theory say that because water is a natural monopoly, only one private or public water system serves a specific community or region. As a result, competition has little practical effect on water delivery because customers, on an individual basis, cannot choose which water company to use.

Where free enterprise plays a role, is within the organization. An investor-owned utility's rates are set to allow the company to cover the cost of operating the system and its debt service, and receive a fair return on its equity. Thus, the argument is if a private utility is striving for a 10 percent return on its equity, efficiency will become its mantra for doing business. Private sector efficiency is gained through smaller staffs, better control over inventory, use of

contract employees, and perhaps a smaller benefit/pay package than usually sought by unionized public employees.

Representatives of public water agencies say there is no empirical evidence that private companies are more efficient, and contend that water service, as a natural monopoly, does not benefit from private enterprise competition. |According to the President of the board of directors of East Bay Municipal Utility District:

> *Government needs to look at how to run more efficiently, . . . that's the only way it's going to be able to stay responsive. But, the bottom line is more than costs. It's also community values, water quality and the willingness to negotiate on regional and statewide water issues.*

A study released this year titled, Financing Options for Water-Related Infrastructure in California, views privatization of water utilities as one option available to help finance additional water system infrastructure. The authors of this study stated that privatization is a way to focus private sector capital and expertise on public needs. According to the study:

> *A growing body of evidence suggests that under certain circumstances, local agencies may be able to more cost effectively finance and operate new infrastructure by harnessing private sector initiative.*

The same study also described the potential disadvantages of privatization, including the possibility that privatization may result in the loss of services that customers value. The study stated:

> *In general, to the extent that publicly owned water suppliers are more inclined or more able than investor-owned water suppliers to invest in projects and programs with widespread public benefits, . . . privatization will decrease these investments.*

A report prepared in 1995 compiled seven studies which compared public and private water companies. The results were that one found the private company more efficient, two favored the public sector, and four found no significant difference.

An example in the area of efficiency is the Los Angeles Department of Water and Power (LADWP). In 1991, LADWP's revenues dropped 25 percent because of the drought. Officials went to the Los Angeles City Council for an 11 percent rate increase. They received a 3.6 percent increase and were given clear instructions to cut costs and act more like a private business. In response, LADWP developed short- and long-range plans to meet the challenge. A work management program, established to promote employee productivity and accountability, resulted in productivity increases as high as 30 percent in some areas. A 10-year capital improvement program was also prepared. LADWP also created a customer-focused quality program to encourage and recognize employee cost-cutting ideas. As a result of the changes discussed above, operation and maintenance costs have been held below 1991 levels.

An interesting example of privatization is the City of Hawthorne, California. Hawthorne's water system serves approximately half of the 74,000 residents in the City with about 6,000 connections. When the City of Hawthorne needed money to fund its police and fire services, their first thought was to sell their water system. When it discovered that state law requires that two-thirds of the electorate approve a sale, Hawthorne opted to lease its system to the California Water Service Company. This is the first public-private lease of an entire water system awarded in California. Under the terms of the lease, Hawthorne received a one-time payment of $6.5 million and will also receive annual payments of $100,000 and does not have to pay for capital improvements

to the system. The lease also included the transfer of Hawthorne's six water department employees to California Water Service Company's payroll at the same pay and benefit rate. California Water Service Company feels it is an advantageous situation for them because they have a contract that will generate additional revenues and their current customers win through a larger customer base over which to spread fixed costs of operation. According to California Water Service Company, their return on investment will be determined by how efficiently they operate the system.

Finally, an example of the influence competition can have is shown with the Charlotte Mecklenburg Utility Department (CMUD) in Charlotte, North Carolina. After the City of Charlotte received 10 bids to operate and maintain Charlotte's drinking water and wastewater treatment plants for five years, CMUD's staff came back ten months later and underbid the lowest private company by $369,000 or 18 percent. In this instance, competition provided incentive for CMUD to be responsive to the market conditions.

THE POTENTIAL OF RESOLVING OTHER MAJOR ISSUES ASSOCIATED WITH THE SALE, SUCH AS MAINTAINING ACCESS TO HETCH HETCHY WATER AND PROVIDING A MARKET FOR THE WATER POLLUTION CONTROL PLANT'S RECLAMATION PROJECT

In order for the City to sell the SJMWS to a private entity, the sale must overcome a veritable fish ladder of potential obstacles. Failure to overcome any of these obstacles would prevent or potentially prevent the City from selling the SJMWS. These obstacles include:

- City Council required actions and voter approval at a special election;
- Resolving tax-exempt bond status issues for the City assessment district and limited refunding obligation bonds related to the SJMWS;
- Resolving Santa Clara Valley Water District and Hetch Hetchy water supply issues;
- Resolving South Bay Water Recycling Project issues; and
- Obtaining California Public Utility Commission approval.

Should the sale survive the above obstacles, we estimate that the sale would take two to three years.

City Council Required Actions And Voter Approval At A Special Election

In an August 15, 1995, memorandum, the City Attorney's Office stated that the Public Utilities Code requires that the sale of a municipal public utility occur in accordance with the following procedures:

A resolution making the determination that the utility should be sold must be adopted by a two-thirds vote of the City Council;

At a subsequent meeting, the City Council must order, by a separate two-thirds vote, that the proposal for selling the utility be submitted to the voters, City-wide, at a special election;

The ordinance calling the special election for the sale of a municipal utility must specify the purpose for which the proceeds of the proposed sale will be expended; and

Two-thirds of all voters voting at the election must approve the sale.

If the sale is approved by the City Council and the voters, a public bidding process is required. The SJMWS must be sold to the highest and best bidder.

On July 15, 1996, the Governor signed Senate Bill (SB) 2111, which amended some of the requirements in the Public Utilities Code. Specifically, SB 2111 changed the code to require that the resolution to sell the utility only be approved by a majority vote of the City Council and a majority of all voters voting at a special or general election held to approve the sale.

Government Code Requirements

The Government Code imposes additional requirements on the City Council that apply to assessment districts. In a memorandum to the City Council, the City Attorney set forth the following procedures that must be addressed prior to a sale:

The Council must hold a noticed hearing, giving persons in the assessment district who object to the sale an opportunity to protest the sale. If ten (10%) percent of the property owners within any assessment district file written objections to the sale, the proceedings to sell must be terminated and cannot be reinstituted for at least six (6) months;

At the close of the hearing, the Council must adopt a resolution making a finding that the improvements to be sold are no longer useful for the purpose for which they were constructed or that such improvements cannot be efficiently operated and maintained by the City; and

If the sale is based solely on a finding that the City cannot efficiently continue to operate and maintain the improvement, and the improvements are still necessary and useful for the rendition of service to the City, the contract for sale of the improvements must be conditional on the operator continuing to operate and maintain the improvements. (Emphasis added)

In order to determine how many property owners are located in each assessment district, we reviewed the 1996-97 tax roll report, sorted by bond series. From this information, we calculated the 10 percent criteria for each bond issue. Table X is a summary of the total property owners in each SJMWS assessment district area and the number of owners needed to satisfy the 10 percent of property owners objection criteria in the Government Code.

TABLE X

SUMMARY OF PROPERTY OWNERS IN EACH SJMWS ASSESSMENT DISTRICT BOND ISSUE

Bond Issue	Total Property Owners Located In Assessment District	10 Percent Of Total Property Owners Located In Assessment District
Silver Creek Refunding	302	30
1994 Consolidated Refunding	117	12
1993 Consolidated Refunding	26	3
Hellyer - Fontanoso Refunding	15	2
Bailey - Santa Teresa Phase I	1	1
Orchard Parkway - Plumeria Dr.	4	1

As shown in Table X, it could take as few as one property owner to file a written objection to the sale of the SJMWS. Should such an objection be filed the sale proceedings would stop and could not be reinstituted for at least six months.

Resolving Tax-Exempt Status Issues For The City Assessment District And Limited Refunding Obligation Bonds Related To The SJMWS

A mosaic of assessment district bonds, Redevelopment Agency funds, and developer contributions have been used to develop and finance the SJMWS. Proceeds from most of the assessment district bond issues have financed street, sewer, and utility improvements together with water-related improvements. Most of the original assessment district bond issues that financed municipal water improvements have been refunded multiple times and their remaining debt consolidated into limited obligation refunding bonds. The refunding process has created a multiple layer of bond issues, where only a portion of each bond issue has financed improvements to the SJMWS.

The City Attorney's Office identified several issues related to assessment district bonds that must be addressed prior to any sale of the SJMWS. These issues include potential limitations on distribution of sale proceeds, the tax-exempt status of the outstanding assessment district bonds, and procedures set forth in the Government Code that apply to the sale of assessment district bond financed improvements.

Background On Assessment District Bonds

The City has utilized proceeds from assessment district bonds to finance and construct street, sewer, and utility improvements together with municipal water-related improvements. Assessments are charges imposed upon land that

receives a special benefit from a public improvement. The municipality designates the area of land that will receive the special benefit and establishes an assessment district. If assessments are used to secure bonds, they have a principal amount and, if not paid in full when levied, they have a principal and interest payment schedule. Assessment district bonds are issued and the bond proceeds are combined with any assessments that were paid in cash to finance the public improvements. The assessment district bonds are then paid from the periodic payments on the remaining assessments that were not paid in cash.

There are three state statutes that govern assessment districts and establish guidelines for appropriate uses. These statutes are the Improvement Act of 1911, the Municipal Improvement Act of 1913, and the Improvement Bond Act of 1915. Wells, pumps, dams, reservoirs, pipes, and other domestic water supply facilities are examples of improvements that assessment districts may be used to finance.

Distribution Of Sale Proceeds

In an August 15, 1995, memorandum to the City Council, the City Attorney's Office identified an issue with assessment district bonds that relates to the distribution of sale proceeds. The City Attorney stated that, *"Each property owner is entitled to receive 'an amount which bears the same ratio to the total proceeds as the current assessment against his property bears to the total current assessment for the improvement.'"* In other words, if the SJMWS were sold, the proceeds from the sale may need to be distributed to the current property owners in the assessment district. However, the City Attorney also stated that a distribution of sale proceeds may not be required if the City first retired the debt associated

with the SJMWS improvements. Specifically, in a January 22, 1996, memorandum to the City Auditor, the City Attorney's Office stated that,

> *. . . the requirement for disposition of sale proceeds to the property owners in the affected assessment districts could be avoided if early redemption of bonds by the City resulted in no current assessment for Municipal Water System improvements. In our opinion, this could be accomplished if the City redeemed a percentage of the outstanding bonds equal to the percentage of the original issue that was used to finance Municipal Water System improvements, plus an amount sufficient to repay a pro rata percentage of the costs of issuance.*

Based on this information, if the City decides to pursue a sale of the SJMWS, the balance remaining on any assessment bonds used to acquire or construct the SJMWS should be retired at the appropriate time during the sale process.

Tax-Exempt Status

In the August 15, 1995, memorandum to the City Council, the City Attorney stated that the sale of the SJMWS to a privately-owned utility would be considered a private purpose under IRS rules for tax-exempt bonds. Under IRS rules for tax-exempt bonds, such an action would result in a change from a qualified use to a non-qualified use and cause the interest on the outstanding bonds to become taxable, unless certain requirements were satisfied. The requirements that the City Attorney viewed as problematic are:

- *The proceeds of the tax-exempt issue must have been used for a municipal water system for at least five (5) years after the date of the issuance of the bonds, or the date on which the facilities paid for were placed in service, which ever is later; and*

- *The bonds are redeemed at the earliest call date after the change of use. If the bonds are not redeemable within ninety (90) days of the change of use, funds sufficient to pay off all bonds must be deposited in escrow*

within ninety (90) days and used to redeem the bonds at the earliest call date.

These requirements appear to be a problem because of assessment districts that have either issued bonds in the last five years or refunded previous bond issues in the last two years. In addition, the City Attorney stated that Internal Revenue Service (IRS) rules were unclear if the five year limit started from the original date of bond issuance or the date of refunding. In order to preserve the tax-exempt status of the bonds, the City Attorney had previously recommended that the City ask the IRS for a private letter ruling on whether the sale of the SJMWS would affect the tax-exempt status of any outstanding bonds.

At the time of our review, it was not known how much of the current outstanding bonds were related to the SJMWS. Accordingly, the City Auditor's Office performed a comprehensive analysis to understand the magnitude of this issue. Specifically, the City Auditor's Office started with the current outstanding bonds, worked back to the original bonds issued, and identified the amount of SJMWS improvements that were financed through each bond issue.

- History Of Bonds Issued That Contained SJMWS Improvements

Based on information the SJMWS, Department of Public Works, and Department of Finance provided, the City Auditor's Office determined that as of September 2, 1996, the City had issued bonds in the amount of $98,840,500 that were in part related to the SJMWS. We also determined that most of the original bond issues had been refunded and consolidated into limited obligation refunding bonds. We also found that some bond issues have been refunded multiple times. Consequently, the refunding process has created multiple layers of bond issues.

Complicating matters more is the fact that only a portion of each bond issue was used to finance SJMWS improvements.

Of the six outstanding bond issues that have financed SJMWS improvements, two are assessment district bonds and four are limited obligation refunding bonds. The limited obligation refunding bonds consolidated a total of 13 previous bond issues. Of those 13 consolidated bond issues, three issues consolidated nine previous bond issues. Therefore, the current four outstanding limited obligation refunding bonds have consolidated a total of 22 bond issues. Table XI is a summary of the currently outstanding assessment district or limited obligation refunding bonds and the previously issued bonds that the current bonds either consolidated or refunded.

TABLE XI

SUMMARY OF CURRENTLY OUTSTANDING ASSESSMENT DISTRICT OR LIMITED OBLIGATION REFUNDING BONDS AND THE PREVIOUSLY ISSUED BONDS THAT THE CURRENT BONDS EITHER CONSOLIDATED OR REFUNDED

Current Bond Issues			Previously Issued Bonds Consolidated Or Refunded			
Description	**Amount**	**Issue Date**	**Description**	**Issue Date**	**Description**	**Issue Date**
(1)Silver Creek (Refunding)	39,455,000	August 1994	(1) Silver Creek Development	July 1990		
(2) 1994 Consolidated (Refunding)	24,805,000	June 1994	(2) - (Santa Teresa-Great Oaks (3) - Zanker-Montague (4) - 237 N. Taylor (5) - Tenth-Senter (6) - N. First St. - E. Tasman Refunding (7) - Consolidated Refunding	May 1980 June 1980 June 1983 July 1987 October 1987 May 1990	(14) N. First St. - E. Tasman (15) - O'Toole-Montague (16) - Leo Avenue (17) - Swenson Business Park (18) - Mabury-Berryessa (19) - Parkmoor-Lincoln (20) - Tennant-Rue-Ferrai (21) - Hostetter-UPRR Tracks	May 1984 December 1980 August 1982 January 1984 September 1984 April 1984 December 1984 July 1985
(3) 1993 Consolidated (Refunding)	11,435,500	February 1993	(8) - N. First St. - Viebrock (9) - Ringwood Court (10) - Commercial-Berryessa (11) - Oakmead Refunding (12) - N. First St. - Holger	June 1983 January 1984 June 1985 July 1986 June 1987	(22) Oakmead	September 1982
(4) Hellyer-Fontanoso (Refunding)	8,560,000	May 1992	(13) Hellyer-Fontanoso	September 1984		
(5) Bailey-Santa Teresa (Phase I) (Assessment District)	13,800,000	December 1989				
(6) Orchard Parkway - Plumeria Drive (Assessment District)	785,000	August 1979				
Total	$98,840,500					

We reviewed official statements for all of the 28 bond issues in Table XI, (six Current Bond Issues and 22 Previously Issued Bonds) in order to determine which of the bond issues were used to finance SJMWS improvements. Based on our review, we determined that only ten of the 22 original bond issues were used to finance SJMWS improvements. The remaining bond issues either had not financed

any water-related improvements or had financed improvements outside SJMWS' service area. According to the Department of Public Works construction cost information, these ten bonds financed approximately $9,783,000 in SJMWS improvements. Further, for one of these ten assessment districts bonds, the City of San Jose Redevelopment Agency paid for the SJMWS improvements. Table XII lists the currently outstanding assessment district or limited obligation refunding bonds, the amount of bond proceeds spent on SJMWS improvements, and the percentage of bond proceeds spent on SJMWS improvements.

TABLE XII

CURRENTLY OUTSTANDING ASSESSMENT DISTRICT OR LIMITED OBLIGATION REFUNDING BONDS, THE AMOUNT OF BOND PROCEEDS SPENT ON SJMWS IMPROVEMENTS AND THE PERCENTAGE OF BOND PROCEEDS SPENT ON SJMWS IMPROVEMENTS

Bond	Issue Date	Initial Bond Amount	Bond Amount Spent On SJMWS Improvements	Percentage Of SJMWS Improvements To Bond Amount
Silver Creek Refunding	August 1994	$39,455,000	$6,633,000	16.81%
1994 Consolidated Refunding	June 1994	$24,805,000	$1,060,900	4.28%
1993 Consolidated Refunding	February 1993	$11,435,500	$294,500	2.58%
Hellyer-Fontanoso Refunding	May 1992	$8,560,000	$388,279	4.54%
Bailey-Santa Teresa Phase I	December 1989	$13,800,000	$1,365,901	9.90%
Orchard Parkway - Plumeria Drive	August 1979	$785,000	$40,000	5.10%
Total		$98,840,500	$9,782,580	

- Second Review By The City Attorney's Office

Once we compiled the information in Table XII , we asked the City Attorney's Office to revisit the tax-exempt status issues related to these bonds. In a December 4, 1995, memorandum, we asked the City Attorney to provide a legal opinion on the following issues:

> *In the event of a sale of the SJMWS to a private company, would the City have to retire the entire tax-exempt bond of which only a portion was used to fund water-related improvements. Alternatively, could the City retire only enough of the bonds to meet the 10 percent private use limit?*
>
> *Would the sale of the SJMWS to a private company constitute an acceptable use of tax exempt bonds if less than 10 percent of the bonds were used to fund water-related improvements?*

The City Attorney's Office responded to our request on January 22, 1996. The City Attorney, under the advice of bond counsel, stated that in the event of a sale of the SJMWS to a private water company, the City could maintain the tax-exempt status of the outstanding bonds, if the private use component of the bond proceeds did not exceed 5 percent. All private uses of an outstanding bond issue must be accumulated in determining the 5 percent.

However, the City Attorney's Office also stated that there is an exception to the private use restriction. The exception applies if an unanticipated change in the use of the financed facility occurs. In order to qualify as "unanticipated", the change in use cannot have been intended at the time of the bond issuance and cannot occur within five years after the date of issuance/refunding or the date in which the facility is placed in service, whichever is the latter. Furthermore, the transfer of use must be accomplished through a bona fide, arm's-length transaction and no circumstances indicating intent to circumvent the law may be present. Finally, the issuer must redeem the bonds that become unqualified due to the change in use. All

of the above listed requirements constitute what is called the "safe harbor test". In other words, if all of the criteria listed above are met, the City can be assured that the remaining outstanding bonds will not lose their tax-exempt status.

In their previous memorandum to City Council, dated August 15, 1995, the City Attorney's Office advised that the City would need to seek a private letter ruling from the IRS on bonds that did not meet the safe harbor test. However, based on recent private letter rulings in other cases, bond counsel has become comfortable with their ability to give an opinion on the tax-exempt issue without going to the IRS.

It should be noted that under the "safe harbor test" the City would be required to redeem bonds equivalent to any amount in excess of the 5 percent threshold. The City Attorney's Office provided an example of how such a bond redemption would work. If the City had issued a $1 million bond issue and spent 12.5 percent or $25,000 on Pacific Bell, Pacific Gas and Electric, and $100,000 on SJMWS improvements, the City would be required to redeem enough bonds to achieve a private use limit of 5 percent. In this example, the City would have to redeem $75,000 or 7.5 percent of the outstanding bonds, assuming that no bonds had previously been called, as shown below.

	Amount	**Percentage**
Bond Amount	$1,000,000	100.0
Private Use	125,000	12.5
Five Percent Private Use Threshold	50,000	5.0
Amount To Be Redeemed	$ 75,000	7.5

In addition to the $75,000 shown above, the City would be required to pay all costs associated with the early redemption including any call premium that may apply.

We met with City Attorney's Office staff to discuss their legal opinion regarding the tax-exempt issues. They clarified to us that with regards to special assessment districts, the City must pay off any portion of bonds that apply to water improvements before it sells the SJMWS. This is necessary in order to avoid having to pay the property owners in the special assessment district the proceeds from the sale. This is also necessary regardless of whether or not the 5 percent private use test is met. Accordingly, we estimate that the City would need to refund $7,934,000 in SJMWS-related bonds in the event of a sale of the SJMWS.

In addition, we also estimate that the City would need to refund about $2 million in bonds that were used to pay for engineering and issuance costs, net of applicable reserve funds. Table XIII summarizes the amount of SJMWS related and engineering and issuance cost bonds that the City would need to refund in the event of a sale of the SJMWS.

TABLE XIII

AMOUNT OF SJMWS RELATED AND ENGINEERING AND ISSUANCE COST BONDS THAT THE CITY WOULD NEED TO REFUND IN THE EVENT OF A SALE OF THE SJMWS

Bond issue	Principal As Of 9/2/96*	Percentage Of SJMWS Improvements To Bond Amount**	Amount Of Bonds That Are Attributable To SJMWS Improvements	Amount Of Engineering And Issuance Costs Net Of Applicable Reserve Funds That Are Attributable To The SJMWS Improvements	Amount Of SJMWS Related And Engineering And Issuance Costs Bonds That The City Would Need To Refund In The Event Of A Sale Of The SJMWS
Silver Creek Refunding	$31,415,000	16.81	$5,280,862	$1,337,978	$6,618,840
1994 Consolidated Refunding	18,655,000	4.28	798,434	275,606	1,074,040
1993 Consolidated Refunding	7,960,000	2.58	205,368	186,147	391,515
Hellyer-Fontanoso Refunding	6,710,000	4.54	304,634	147,695	452,329
Bailey-Santa Teresa Phase I	13,455,000	9.90	1,332,045	75,776	1,407,821
Orchard-Parkway Plumeria Dr.	240,000	5.10	12,240	8,817	21,057
Total	$78,435,000		$7,933,583	$2,032,019	$9,965,602

***** These amounts are less than those shown in Table XI because of cumulative principal payments made since the bonds were issued.

****** See Table XII.

Finally, we also estimate that the City would need to refund an additional $70,481 in bonds to meet the 5 percent private use test in the event of a sale of the SJMWS.

In summary, we estimate that the City would have to refund approximately $10 million in bonds ($9,965,602 + $70,481) if a sale of the SJMWS occurred.

According to the City Attorney's Office, any further review of tax-exempt status and assessment bond redemption issues, would require retaining both a

financial adviser and bond counsel to review each bond issue. The financial adviser would need to do a complete analysis on how much the City would need to refund in special assessment districts and other bond issues, in order to bring the City below the 5 percent private use limit. Such an analysis may produce a different amount than the $10 million shown on page 52. The cost of retaining a financial adviser would be approximately $100,000. The bond counsel would need to review each bond issue to determine if its tax-exempt status could be preserved. The City Attorney's Office estimates that a review of each bond issue would cost $25,000 to $30,000. For the six outstanding bond issues, bond counsel cost would range from $150,000 to $180,000. Therefore, the total cost for a complete review of the tax-exempt and redemption bond issues would range from $250,000 to $280,000. The City Attorney's Office also told us that depending on the opinion bond counsel gives for each bond issue, the City still might need to ask the IRS for a private letter ruling.

Resolving Santa Clara Valley Water District
And Hetch Hetchy Water Supply Issues

The SJMWS currently participates in two contracts to assure a consistent supply of water to its customers. The contracts are with the Santa Clara Valley Water District (SCVWD) and the Hetch Hetchy Water and Power Division (Hetch Hetchy) of the City and County of San Francisco. The SJMWS uses SCVWD water for the Evergreen, Edenvale, and Coyote service areas; and Hetch Hetchy water for the North San Jose and Alviso service areas.

The transferability of the above contracts to a private utility is a vital element of any potential sale of the SJMWS. We reviewed the contracts with the

SCVWD and Hetch Hetchy to ascertain any possible constraints that may result from a sale of the SJMWS to a private utility.

SCVWD

The SCVWD is the primary water supplier to SJMWS and other retail water distributors in the Santa Clara valley area. The SCVWD has the legislative responsibility to plan for and acquire water in sufficient quantity and quality to satisfy the distribution needs of the water district area. There are three areas of concern that could affect a sale of the SJMWS. These three areas are the (1) assignability of the current water supply contract, (2) ability of the SCVWD to meet increasing water demand, and (3) impact of converting the SJMWS' current tax-exempt user status to a non tax-exempt user status if the SJMWS was sold to a private water utility.

- Assignability Of SCVWD Water Supply Contract

On January 27, 1981, the City entered into a 70 year contract with the SCVWD for a supply of treated water. The contract, aside from general provisions, generally deals with water service provisions such as water delivery schedules, rates of water flow, delivery structures, measurement of water delivered, curtailment of delivery during maintenance periods, suspension of service, water quality, payments, availability of water, and groundwater charges. Another contract provision that is pertinent to the sale of the SJMWS states:

> *. . . in the event Contractor (City) shall sell, transfer, or convey any part or parts of its water system to any entity, public or private, Contractor may assign to the purchaser thereof a portion of Contractor's rights, privileges and obligations hereunder . . .*

However, Article A. of the contract (Introductory Provisions, Section 4. Assignment) states that:

> *No assignment or transfer by Contractor of this contract or any part hereof, . . . shall be valid unless approved by District, which approval District agrees shall not be unreasonably withheld.* (Emphasis added)

Accordingly, the SCVWD must approve the SJMWS assigning or transferring its contract with the SCVWD to a third party. In addition, the SCVWD must not unreasonably withhold its approval of the transfer. Furthermore, the contract states that in the event of a sale or a transfer of the SJMWS to a private entity, the contract requires that all terms, covenants, agreements, and conditions must be binding on the successor or assignee of the City. Finally, it should be noted that absent specific direction from the SCVWD Board to review a sale proposal, SCVWD staff were unwilling to state to the City Auditor's Office whether the SCVWD would approve the SJMWS assigning or transferring its contract rights to another party.

- Ability To Meet Water Demand

The SJMWS staff raised an issue regarding the SCVWD's ability to provide enough water to meet the SJMWS' projected needs. Based upon our review of the contract, the SCVWD is contractually committed to provide enough water to meet the SJMWS' growing needs. In addition, the SCVWD reviews their capital facility needs, and plans to add facilities in order to meet the needs of their customers, including the SJMWS. Thus, it appears that the SCVWD adequately plans to meet the future water needs of the SJMWS and its other customers. However, the SCVWD's actual ability to meet future SJMWS water needs is a potential issue whether the City sells the SJMWS or not.

- Tax Issues The SCVWD May Encounter With A Sale Of The SJMWS

The SCVWD presently has outstanding tax-exempt bonds issued in different series to finance or refinance various capital improvements. These improvements are used to provide treated water to the SJMWS as well as other retail water suppliers under the current water supply contract. The SCVWD has issued bonds that have Internal Revenue Code (IRC) restrictions regarding the private use percentage of the water that the bond-financed property produces.
We asked SCVWD officials if the privatization of the SJMWS would adversely affect the tax-exempt status of outstanding bonds, as well as future bond issues. In response to our inquiry, SCVWD officials referred the matter to their bond counsel.

On December 20, 1995, the SCVWD's bond counsel reported that private use restrictions for different series of bonds may vary depending upon the type of facilities financed, the date of issue, and the nature of the issue. In general, private use restrictions provide that revenue bonds that are secured by bond-financed facilities will not be tax-exempt if more than 10 percent (under the 1986 IRC) or 25 percent (under the 1954 IRC), of the bond proceeds " . . . '*are to be used' by nongovernmental persons or entities engaged in a trade or business."* Further, generally, for "output type facilities" financed by governmental bonds, a special "output facility test" must be applied to determine whether the 10 percent or 25 percent threshold is met. This test involves analyzing the amount of output taken or to be taken by private entities under "take or pay contracts."[7]

SCVWD bond counsel stated that *"Generally, 'take or pay' contracts . . . with private entities result in private 'use' under the Private Use Restrictions."*

[7] In a "*take or pay*" contract, a water purchaser agrees to purchase a specified quantity of water and if they do not take the specified amount, they still pay for it.

SCVWD has stated that their bond counsel gave them a letter for their 1994 refunding bond issue that stated the SCVWD was in compliance with the 25 percent private use limit. However, they also stated that the SCVWD was very close to the 25 percent private use limit at that time. As such, the 25 percent private use limit may ultimately be an issue for the SCVWD whether the City sells the SJMWS or not.

The significance of the preceding statements lies in the fact that should the SJMWS be sold to a private entity, the SCVWD will very likely exceed the 25 percent private use threshold noted above. Consequently, the sale of the SJMWS to a private entity could jeopardize the tax-exempt status of current and future SCVWD bonds.

SCVWD's bond counsel also stated that the current view of the IRS is that the private use restrictions can be violated without adversely affecting that tax-exempt status of the bonds as a result of an involuntary action. Involuntary actions are those that are not within the control of the SCVWD.

Because the sale of the SJMWS might impact the SCVWD's current tax-exempt bonds or its ability to issue additional tax-exempt bonds in the future, the SCVWD may have reasonable cause to withhold its approval of the SJMWS transferring its contract rights to a private party. Consequently, it is possible that the IRS may view SCVWD's approval of the SJMWS transferring its contractual rights as voluntary. Further, the SCVWD's bond counsel confirmed with an IRS official that regardless of whether SCVWD's consent is considered voluntary or involuntary, a sale of the SJMWS to a private party will impact the IRS 25 percent private use restriction. Should the SCVWD lose its tax-exempt bond

status, the cost of service for all of the SCVWD's customers could increase, albeit by an indeterminate amount at this time.

To fully understand the SCVWD's remaining tax-exempt bonding capacity, SCVWD legal counsel would need to examine all of the SCVWD's outstanding bonds and review which portions of the bond-financed facilities a sale of the SJMWS would affect. At that time, the SCVWD would have to determine what actions it needed to take, if any, to address this issue.

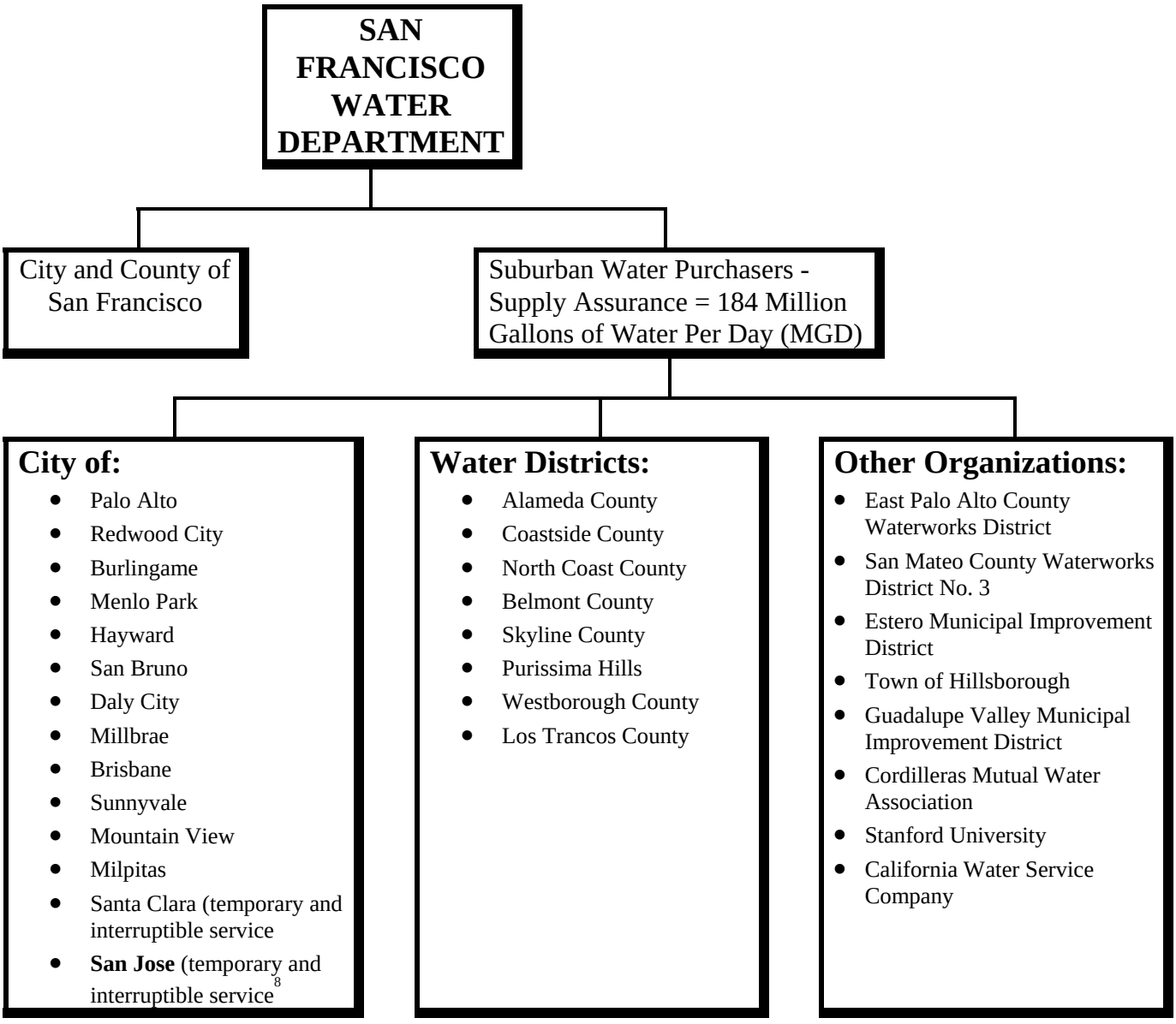
Hetch Hetchy Water Supply

Hetch Hetchy is the source of water for SJMWS customers in the Alviso and North San Jose service areas. A Settlement Agreement and Master Water Sales Contract (Agreement) govern the supply of Hetch Hetchy water between the City and County of San Francisco (San Francisco) and certain suburban purchasers in San Mateo, Alameda, and Santa Clara counties. The Agreement resolved a dispute between San Francisco and certain suburban water purchasers concerning water rates. The Agreement governs the rights and obligations of San Francisco and the suburban water purchasers. The specifics of the agreement are incorporated into individual water supply contracts between San Francisco and each water purchaser. The term of the Agreement is for 25 years, from July 1, 1984, to June 30, 2009.

Diagram II shows the distribution of Hetch Hetchy water to San Francisco and the suburban water purchasers.

DIAGRAM II

DISTRIBUTION OF HETCH HETCHY WATER TO SAN FRANCISCO AND THE SUBURBAN WATER PURCHASERS



[8] Section 1.01. of the master water sales contract lists the City of San Jose as a suburban water purchaser. However, Section 9.03 states that "*If the City (City and County of San Francisco) continues to provide water to San Jose on a temporary and, after June 30, 1987, interruptible basis, the amount of water furnished to San Jose shall not be included within the Supply Assurance.*"

If the SJMWS were sold to a private utility, the following issues regarding the supply of Hetch Hetchy water would need to be addressed: (1) the City's temporary and interruptible status in the settlement agreement; (2) obstacles to obtaining guaranteed access to Hetch Hetchy water; (3) sale approval; and (4) water quality concerns of industrial users.

- The City's Current Temporary And Interruptible Status With Hetch Hetchy

Section 9.03 of the Agreement establishes that the City does not have guaranteed rights or access to Hetch Hetchy water. Thus, because of the City's "temporary and interruptible services" status, it is not considered a permanent suburban purchaser. Even though Hetch Hetchy sells water to the City on a temporary and interruptible basis, it does so at rates identical to those it charges to the other suburban purchasers.

San Francisco may terminate the delivery of Hetch Hetchy water to San Jose after giving the City two years notice. While there is no set criteria for service termination, the San Francisco Public Utility Commission must first approve any such action. Hetch Hetchy can also limit the amount of water delivered to the City in order to meet the full needs of its other permanent water customers. The amount of water delivered to all suburban purchasers, including the City, may be interrupted or reduced due to water shortage, drought, earthquakes, other acts of God, or rehabilitation or malfunctioning of Hetch Hetchy's water delivery system. During the drought of 1986 to 1992, Hetch Hetchy reduced the amount of water it supplied to all of its suburban purchasers. Since the Agreement has been in effect, the delivery of water to the City has been interrupted only during routine maintenance outages.

- Obstacles To Obtaining Permanent Status

  - *Supply Assurance*

Annually, there is a limited supply of Hetch Hetchy water available to suburban purchasers. Hetch Hetchy has agreed to supply up to a maximum of 184 million gallons of water per day (mgd) to suburban purchasers. This is known as supply assurance. The water Hetch Hetchy delivers to the City is not included in the supply assurance to suburban purchasers because it is provided from San Francisco's own supply of Hetch Hetchy water which is 101 mgd. Thus, the combined capacity of the Hetch Hetchy system for the suburban purchasers (184 mgd) and San Francisco (101 mgd) is 285 mgd. Under the terms of its agreement with San Francisco, San Jose receives 2.68 mgd. San Francisco could give the City 2.68 mgd of guaranteed access to Hetch Hetchy water from the 184 mgd that Hetch Hetchy has agreed to supply to the other suburban purchasers in Diagram II. Alternately, San Francisco could agree to guarantee the City its 2.68 mgd of Hetch Hetchy water from San Francisco's own 101 mgd supply of Hetch Hetchy water.

  - *The Raker Act*

SJMWS staff raised a concern regarding Raker Act (Act) limitations on private water companies' use of Hetch Hetchy water. The Act is a federal act that grants rights-of-way and water rights to San Francisco for the Hetch Hetchy water supply system. The Act prohibits San Francisco from selling Hetch Hetchy water for resale to private water companies, but permits sales to a municipality. San Francisco has other water sales to private water companies and justifies those sales as being limited to the yield of local non-Hetch Hetchy San Francisco Water Department water supplies. For example, of the suburban purchasers in the Agreement, one is California Water Service Company, a

private, for-profit corporation. This arrangement does not violate the Raker Act because under its agreement with San Francisco the California Water Service Company does not have the same status as other Hetch Hetchy water purchasers. Further, San Francisco cannot sell the California Water Service Company more than its current allotment of water unless San Francisco improves its local production facilities. According to a San Francisco Public Utilities Commission official, the sale of the SJMWS to a private entity would necessitate an analysis of San Francisco's non-Hetch Hetchy water supplies to see if those supplies would accommodate the additional demand of 2.68 mgd such a sale would create. Raker Act limitations would not be a problem only if non-Hetch Hetchy water supplies are sufficient to accommodate this additional demand of 2.68 mgd.

- *Sale Approval*

If the City sells the SJMWS, it will need to obtain approval for the transaction. Section 3.03. of the Agreement states that there are two ways in which the City can obtain approval. The first method is to conduct negotiations to modify the Agreement and obtain the mutual consent of all parties. This would include San Francisco and the 30 suburban purchasers in San Mateo, Santa Clara, and Alameda counties. The second method available to amend the Agreement is to obtain *" . . . the consent of the City and of suburban purchasers representing at least 95 percent of the quantity of water delivered by the City to all suburban purchasers during the preceding fiscal year, provided that no amendment substantially and adversely affecting a fundamental right of a suburban purchaser under this Agreement may be made without the consent of that purchaser."* This method is the likely approach to obtain approval.

The suburban purchasers make up the Bay Area Water Users Association (BAWUA), which would likely act as an intermediary for obtaining sale approval. The City is also required to make the Agreement binding on any entity assuming control of the SJMWS. In other words, any purchaser would have to abide by the Agreement if it desires to continue receiving Hetch Hetchy water. Based on discussions with Hetch Hetchy and BAWUA, neither entity would say whether it would approve a sale of the SJMWS.

BAWUA stated that they would have to assess the impact, if any, the sale of the SJMWS would have on the members of BAWUA. However, BAWUA did state that they would be supportive of an alternative that benefits the customers the SJMWS' services.

In our opinion, the issues of supply assurance, the Raker Act and sale approval do not preclude the City selling the SJMWS per se. However, the City would need to initiate negotiations with San Francisco and BAWUA to obtain a more definitive answer on these three issues in order to guarantee a continued supply of Hetch Hetchy water in the event the City sells the SJMWS.

- Water Quality Concerns

As reported earlier, industrial water users are the majority of connections in the Alviso and North San Jose service area. These industries are mostly high technology companies that use a significant amount of water in their manufacturing processes. The Hetch Hetchy water supply is important to these companies because of the high quality of the water, which is crucial in their manufacturing processes.

Despite the high quality of Hetch Hetchy water, most of these companies have some type of pre-manufacturing water purification process. Most of the companies use a process called reverse osmosis (RO), which involves the use of plastic filters to take impurities out of the water. If the quality of the water used in manufacturing degrades, these companies will suffer production cost increases because they will have to run the water through the purification process multiple times.

The City Auditor's Office met with two companies located in the North San Jose service area to hear their concerns about water quality. According to these companies, they like the quality of the Hetch Hetchy water they currently receive and they do notice a difference when the water supply changes from Hetch Hetchy water to reservoir or well water. Specifically, reservoir or well water has a higher level of total dissolved solids (TDS) or total organic salts (TOS). When this occurs, these companies have to run the reservoir or well water through the RO process more than once. According to one company, when the water quality goes down, they cannot purify the water sufficiently and must truck in water for their manufacturing process.

Based on this information, it appears that a continuous supply of Hetch Hetchy water is very important to the manufacturing companies in the North San Jose service area.

Resolving South Bay Water Recycling Project Issues

The South Bay Water Recycling Project (SBWRP) is a distribution program that will provide fully treated effluent (recycled water) to various agencies and customers in the Santa Clara valley area. The SBWRP will be co-owned by the cities of San Jose and Santa Clara. The San Jose-Santa Clara

Water Pollution Control Plant (WPCP) will manage the SBWRP. The SBWRP was developed to address regulatory agency concerns that WPCP discharge had degraded the habitat for two endangered species. Under the threat of a sewage flow cap, the City developed the San Jose Action Plan (Plan) in 1991. The Plan proposed diverting up to 70 mgd of effluent through the development of various water recycling, marsh mitigation, and water conservation projects. Recycled water will be used for landscape irrigation, agriculture use, and industrial processes.

The SBWRP consists of two phases. Phase I, estimated to be operational by November 1997, will provide for about 9,000 acre feet per year of recycled water. Phase II was estimated to be operational in the year 2000 and would have provided up to 27,000 acre feet of water per year. However, it appears that the City may not proceed with Phase II. In the 1997-2001 Proposed Capital Budget, the bonds related to Phase II, scheduled for sale in 1997-98, *"... have been deleted as a revenue source pending further study of less expensive alternatives to construction of a $349.5 million water recycling facility."* The SBWRP anticipates that the SJMWS will have a significant role in making this project successful. If the SJMWS is sold to a private utility, the SJMWS' role in the SBWRP needs to be addressed.

Role Of The SJMWS In The SBWRP

The three cities, San Jose, Santa Clara, and Milpitas, that are participating in the SBWRP, own water systems. San Jose Water Company (SJWC), a privately-owned utility, will also be participating in the SBWRP. The SBWRP will sell discounted water to retailers, who in turn will determine the actual rate for the recycled water. The retailers will be responsible for promoting and

developing markets for recycled water. It is currently anticipated that each of the three cities will maintain pipelines and monitor customer use and the SBWRP will reimburse each of the three cities for costs incurred. An agreement with SJWC to distribute recycled water is under negotiation. The SJMWS is expected to serve approximately 38 percent of the customers targeted for recycled water usage in Phase I. Table XIV shows the projected reclaimed water use, by retailer.

TABLE XIV

AMOUNT OF RECYCLED WATER USE BY RETAILER

Water Retailer	Acre Feet Per Year	Percentage
City Of Milpitas	870	11.7
City Of Santa Clara	1,890	25.6
City Of San Jose	2,800	37.8
San Jose Water Company	1,840	24.9
Total	7,400	100.0

The SJMWS currently provides its customers with approximately 13,800 acre feet of water per year. The SBWRP is envisioned to substitute recycled water for about 20 percent of this 13,800 acre feet of water. Currently, the City of Santa Clara has several recycled water customers including the Santa Clara Golf and Tennis Club, the San Francisco 49ers' training camp, and Rolm Corporation. Table XV shows the projected recycled water use by the types of usage.

TABLE XV

AMOUNT OF RECYCLED WATER USE BY TYPE OF USAGE

Type Of Usage	Amount
Landscaping	71%
Industrial Processes	14%
Business Parks	10%
Agriculture	5%
Total	100%

In our opinion, the City's water recycling obligations do not preclude the sale of the SJMWS. However, to ensure the success of the SBWRP, any proposed sale transaction should be carefully structured to minimize any risks. For example, based on a discussion with the City Attorney's Office, the same tax-exempt issues that apply to assessment district bonds, as discussed on page 44 of this report, also apply to the bonds issued for the SBWRP. At this time, the bond issue would not qualify under the safe harbor test. Accordingly, the City will need to exclude the right to sell recycled water from any proposed sale transaction to maintain the tax-exempt status of the bonds issued for the SBWRP. This situation may have some effect on what a potential buyer may be willing to pay for the SJMWS.

Obtaining California Public Utility Commission Approval

As stated on page 11 of this report, it is most likely that an investor-owned utility would purchase the SJMWS and the California Public Utilities Commission (CPUC) regulates investor-owned utilities. Therefore, the CPUC must approve the sale of the SJMWS to an investor-owned utility. The investor-owned utility that purchases the SJMWS would need to file four applications with the

CPUC. The first application would be for the acquisition of the SJMWS. The second application would be for the debt and/or equity the investor-owned utility plans on using to finance the purchase of the SJMWS. The third application would be asking for a certificate of public conveyance and necessity to operate the water system being sold. The fourth application would establish preliminary rates, rules and service conditions for the customers the system being acquired services.

When all the applications are filed, a pre-hearing conference is held with the CPUC, the applicant, and usually a consumer group. In the pre-hearing conference, an administrative law judge (ALJ) is appointed as the hearing officer for the transaction. The ALJ sets the calendar for all the hearings, and when the public and expert testimony will be heard. Once all the hearings have been held, the ALJ will issue a draft decision on the proposed transaction. The ALJ's draft decision is then presented to the CPUC Commissioners who then issue their decision. After the Commissioners issue their decision, there is a 30-days appeal process for anyone who is a party to the transaction. If no appeal is filed, the decision is final at the end of the 30 days. Based on discussions with CPUC staff, the minimum amount of time it would take to obtain the CPUC's approval is six months. The CPUC staff stated that in reality, the approval process would most likely take one year.

Sale Could Take Two To Three Years

As we have stated previously, issues related to outstanding bonds, transferability of water supply contracts, the anticipated participation of the SJMWS in the South Bay Water Recycling Project, and election requirements will need to be addressed. Based on discussions with our consultant, we estimate it

will take from two to three years to complete a sales transaction as shown in our Gantt Chart for the estimated time to complete a simulated sale of the SJMWS.

CHART II

GANTT CHART FOR THE ESTIMATED TIME
TO COMPLETE A SIMULATED SALE OF THE SJMWS

It should be noted that the above Gantt Chart is only an estimation of the time required to sell the SJMWS assuming certain events happen in the order shown. For example, an election could occur immediately after the City Council adopted a resolution of intent to sell the SJMWS. This would defer Events 2 through 4 and about $2 million in sales and transaction costs until after the election.

OTHER PERTINENT INFORMATION

According To The City Attorney's Office,
Selling The SJMWS To A Private Entity
Would Not Violate City Council Policy 0-24

On March 19, 1991, the San Jose City Council adopted Council Policy 0-24, "*CONTRACTED SERVICES."* The purpose of this policy is to provide guidelines governing a decision to use non-City employees to deliver City service functions.

A City service function is an organized group of individuals, supplies, equipment, and facilities which the City establishes to deliver a service or services into the foreseeable future. Such a group may deliver a service to residents, to others within the same department, to other City departments, or to other public agencies.

The City's policy states that City staff will deliver the desired day-to-day level of all City services. The policy lists 11 specific exceptions, eight specific conditions, and four specific decision criteria for using contract services. The current policy does not allow contracting out purely for economic reasons as an exception to its City staff requirement. In other words, the City must use City staff to provide City services even if a private entity can provide the same service for less cost.

According to the City Attorney's Office, selling the SJMWS to a private entity does not violate Council Policy 0-24 because such a sale is a disposal of assets not a contracting out of service.

APPENDIX A

METHODOLOGY USED TO RECALCULATE
THE VALUE OF THE SJMWS' FIXED ASSETS

We took the detailed fixed asset listings in the appendices of the October 1994, Bookman-Edmonston Engineering, Inc. (Consultant) study and scanned them into a spreadsheet. There were over 1,000 individual line items in the spreadsheet. Then, utilizing the Uniform System of Accounts for Class A and B Water Utilities that the National Association Of Regulatory Utility Commissioners publishes, we grouped the assets and sorted our spreadsheet by asset account. We then obtained a copy of the Handy-Whitman Index of Public Utility Construction Costs (Index), that Whitman, Requardt, and Associates compiles and publishes. This Index has been in publication since 1924 for electric and gas utilities and since 1957 for water utilities. It is the only known publication of its kind available to the public and it facilitates analyzing the value of a utility from an historical cost or reproduction cost perspective. The index numbers listed are a percentage ratio between the cost of an item at any stated time and its cost at a base period. The following is the formula used:

$$\textbf{Index Number} = \frac{\text{cost at stated time}}{\text{cost at base period}} \times 100$$

The index numbers are generally based on 1973 being equal to 100 as calculated in the above equation and are developed from wage rates and prices prevailing on January 1 and July 1 of each year. To reflect the differing cost trends throughout the 48 contiguous states, the Index has been divided into six geographical regions of generally similar characteristics. We utilized the indices for the Pacific Coast Region. The indices for water utilities are arranged to follow the classifications of the National Association of Regulatory

Commissioners. The Index indicates that a present day reproduction cost study can be *" . . . calculated more accurately using index numbers than by repricing a complete inventory."* Therefore, the Index allowed us to take the RCNLD study asset information and convert it to an estimate of historical cost, as discussed below.

We then took the Index and input all of the indices that applied to our situation into another spreadsheet. This spreadsheet contained over 3,000 entries. We then ran a program which multiplied each line of fixed assets by the appropriate index number, divided by the index number for 1994, to arrive at our estimate of the SJMWS' fixed assets as of September 30, 1994.

The Consultant's study did not include land that has SJMWS facilities on or in it, such as a pump station or reservoir. However, the SJMWS staff provided us with an inventory list of land. We contacted the County of Santa Clara Assessor's Office (Assessor) to determine whether any of the parcels in the inventory list had an assessed value on their records. At least one parcel in each service area had an assessed value assigned. Based on the information we received from the Assessor, we calculated an average amount per acre, by each service area. We then took the average amount per acre and applied that to all the acreage the SJMWS staff noted in their listing. We calculated $777,746 for land and included that amount in our estimate of SJMWS fixed assets as of September 30, 1994.

In addition to our calculation for land, we made some adjustments to the work the Consultant performed. Specifically, we discovered one error in the Consultant's calculations. The Consultant used a unit price for a pipeline distribution system of $474 per linear foot, whereas the price should have been $47 per linear foot. The other adjustment we made was to the price for a meter

and service connection. The Consultant used a per unit price of $900 each. According to the SJMWS staff, the amount currently being charged is only about $300. Based on this information, we decided a per unit price of $350 was appropriate.[1] These two items resulted in our adjusting our estimate of the SJMWS' fixed assets downward by about $14.1 million.

[1] The Consultant had a footnote that stated the following with regards to service connections and meters that we adjusted:

> *A complete breakdown of the service connections by system, size and year installed was not available. The assumption was made that the majority of the service connections and meters are 3/4" and have a present REPRODUCTION cost of $900 each. For the installation year, the assumption is made that these items have been installed uniformly from 1960 to present. Under this assumption, the average age of these items is 17 years and thereby is equivalent to an average installation year of 1977.*

The SJMWS staff indicated to us that the service connection and meter charge for 3/4" meters is currently $300. Given the fact that there could be other sizes of meters in this number, $350 per service connection is higher than what is currently charged for the 3/4" meter, yet is conservative if other meter sizes are included.

APPENDIX B

DESCRIPTION OF CONSULTANT CALCULATIONS TO DETERMINE DIRECT AND INDIRECT COSTS

Direct Costs

Direct costs are the costs for materials and labor that are directly traceable to a particular asset. In order to estimate the direct cost of the facilities inventoried, the October 1994, Bookman-Edmonston Engineering, Inc. (Consultant) study generally took estimated construction contractor bid prices, in an open competitive bidding procedure, based upon labor and material costs prevailing in the City of San Jose area on September 30, 1994. The costs the Consultant used were based on: (1) jobs the Consultant designed, (2) jobs upon which other members of the Consultant's firm had worked, (3) bid prices on similar types of work that other water agencies received, (4) estimates of the quantities of labor, material, equipment, overhead and other items of costs that a contractor would incur, (5) actual costs the City experienced in constructing the facilities which presently exist in the SJMWS, and (6) construction trends over time. It should be noted that sometimes the Consultant had to substitute a replacement facility because of technological changes in water system construction. These replacement facilities were those which would render equivalent service at the most economical cost.

Indirect Costs

Indirect costs are costs other than direct material and labor costs that were incurred to place various assets into service. When calculating indirect costs the Consultant included: (1) engineering and construction supervision, (2) net

interest during construction, (3) other overhead costs, and (4) miscellaneous costs.

For engineering and construction supervision, the Consultant utilized a rate of nine percent. This is made up of five percent for design costs and four percent for other direct construction costs which included items like survey work and construction inspection.

Interest during construction is the cumulative effect of the interest being paid on the funds borrowed to construct the replacement facilities and the investment income earned on the funds that would be available during the construction period. The Consultant utilized a rate of six percent.

Other overhead costs are the administrative costs that would be incurred during the construction period and miscellaneous permit applications and fees. The rate utilized for these costs was 2.5 percent.

Finally, miscellaneous costs included an allowance for a contingency and any other small items that may not have been included in the direct costs. The Consultant assigned one percent to this cost category.

The total of all the indirect cost categories described above is 18.5 percent, which the Consultant rounded to 20 percent. To arrive at a dollar value for indirect costs, the 20 percent is multiplied against the direct costs attributed to each asset.

APPENDIX C

SUMMARY OF ASSUMPTIONS FOR CITY-OWNED AND PRIVATE INVESTOR-OWNED COST OF SERVICE SCENARIOS

Assumptions For The City-Owned Scenario

Under the City-owned scenario, we used the SJMWS' current pricing policy. The costs that comprised the cost of service to the customer were capital facility costs, operation and maintenance expenses, debt service payments, payment in-lieu of taxes, interest on special assessment bonds, and a transfer of $1.75 million per year. From these costs, we deducted interest income and zone charges. Each of these cost of service categories is discussed below.

Capital Facility Costs

Currently, the SJMWS is experiencing quite a bit of growth, particularly in the North San Jose and Evergreen service areas. The SJMWS has prepared a comprehensive master plan which quantifies, in 1996 dollars, the amount of capital facilities that the SJMWS will add to accommodate anticipated growth during the fifteen year period from 1995-96 through 2009-10. The master plan shows that the SJMWS will add about $45.2 million in capital facilities, stated in 1996 dollars, during those fifteen years. Of this amount, $29.3 million is for new facilities or facility improvements in the four service areas. The remaining $15.9 million is for non-capital facility expenditures, and costs for budget office capital program staff and major water facility fee administration. Currently, under City-ownership, capital facilities are financed through benefit assessment districts, major water facilities fee (fee assessed to developers in an area where new capital facilities are needed to serve new customers), developer

contributions, and water rates. Table C-1 is a summary, by funding source, of the SJMWS' master plan from 1995-96 through 2009-10.

TABLE C-1

SUMMARY OF THE SJMWS' MASTER PLAN FOR 1995-96 THROUGH 2009-10[1]

Funding Source	Dollar Amount	Percentage Of Total
Water Rates	$20,680,901	45.71
Major Water Facilities Fees	11,020,715	24.36
Developer Contributions	7,139,384	15.78
Benefit Assessment Districts[2]	6,400,000	14.15
Total	$45,241,000	100.00

Since the SJMWS' master plan is stated in 1996 dollars, we inflated the amount in each fiscal year by 3 percent to project what the future costs will be in the year they are incurred. This gave us a dollar amount for capital facilities to be installed over the next fifteen years of approximately $58 million. Under the City-ownership scenario, the capital facilities outlined in the master plan and funded by water rates for each fiscal year, inflated by 3 percent, is a cost of service.

[1] It should be noted that Table C-1 does not include approximately $5 million that is attributable to new facilities in the Evergreen service area for the Cerro Plata project. We excluded these capital facilities because the SJMWS anticipates that these facilities would be installed after 2009-10.

[2] For benefit assessment districts, the developer issues the debt to finance all the improvements in the benefit assessment district area.

Operation And Maintenance Expenses

On March 5, 1996, the Director of the Environmental Services Department provided the City Auditor's Office with a projection of operation and maintenance costs for 1995-96 through 2009-10. Operations and maintenance expenses consist of personnel and non-personal expenses. Personnel expenses include salaries and benefits for the staff of the SJMWS. Non-personal expenses include items such as: (1) telephone, natural gas and electric utilities, (2) water purchases, (3) maintenance and repair contracts, (4) consultants, (5) computer services, (6) vehicle repairs and replacements, (7) office supplies and equipment, (8) printing, (9) dues and memberships, and (10) travel and training.

We reviewed the information the Director provided and made some adjustments. We adjusted all categories for a 3 percent inflation rate. We also adjusted certain categories, such as water purchases, for the growth factor that the SJMWS staff uses in projecting the amount of capital facilities needed to service anticipated customer growth.

Debt Service Payments

This section contains the annual debt service payments for water revenue bonds issued in 1964 for the Alviso service area. The outstanding principal balance as of January 1, 1996, is $85,000. The final payment is due on January 1, 2004.

Payment In-Lieu Of Taxes

The SJMWS provides an in-lieu fee of two percent of gross revenues to the General Fund. This fee has been paid since 1993-94. The SJMWS staff included

an estimate of this fee in their projection of non-personal expenses, and we utilized that estimate in our cost of service analysis.

Existing And Future Interest On Special Assessment Bonds

As explained at page 42 of this report, assessment district bonds have financed a portion of the SJMWS. For existing assessment district bonds, a cost of service to the customer is the interest portion of the payment each year. The principal portion is not a cost of service each year since the principal amount was recorded into fixed assets the year the facilities were placed in service. To estimate the amount of interest, we determined how much of each total bond issuance was related to SJMWS improvements and calculated a percentage ratio. We then applied the percentage ratio to the interest for each fiscal year for each of the outstanding assessment district debt issues.

Return

As shown at page 9 of this report, for the first time in 1995-96, the SJMWS made an additional transfer of $1 million to the General Fund. The transfer for 1996-97 is $1.75 million.

Based upon this information, we calculated a cost of service under the City scenario assuming a transfer of $1.75 million each year for fifteen years.

Interest Income

Currently, SJMWS invests its cash in the City's pooled cash and investment funds. These funds have earned interest that has averaged 4.81 percent from July 1992 to June 1995. For the fiscal year ending June 30, 1995, the SJMWS recognized $357,000 in interest income. We used $357,000 annually

for interest income in our analysis, which decreases the cost of service to the customer.

Zone Charges

In the Evergreen service area, there are five zones where the customers are in elevated areas and the SJMWS has to pump water up to these customers. For this additional pumping, the SJMWS includes a zone charge in its water rates. We estimated $252,000 annually for these zone charges which, for comparison purposes, we deducted from the cost of service to the customers for both ownership scenarios.

Assumptions For The Private Investor-Owned Scenario

Under the private investor-owned scenario, the cost of service to the customer is operation and maintenance expenses, payment in-lieu of taxes, California Public Utilities Commission (CPUC) tax, property taxes, depreciation expense, and return on investments. From these costs, we deducted zone charges as discussed above. In addition, we calculated an efficiency factor for the operation and maintenance expenses under the private investor-ownership scenario. Each of these cost of service categories is discussed below.

Operation And Maintenance Expenses

We used the same information for operation and maintenance expenses as we calculated under the City ownership analysis. As discussed later, we allowed for a level of efficiency that would occur under the private investor ownership scenario.

Potable Water Franchise Fee

On June 20, 1995, the City Council passed an ordinance on potable water franchises for San Jose Water Company (SJWC) and Great Oaks Water Company (GOWC). The ordinance states that the holders of potable water franchises will pay a franchise fee, which is the greater of the following amounts:

1. *Two percent (2%) of the gross annual receipts arising from the use, operation, or possession of the Potable Water Franchise; or*

2. *One percent (1%) of the gross annual receipts of the Grantee derived from the sale of potable water within the City limits.*

The two percent calculation is based upon receipts generated from possessing a potable water franchise from the City. The one percent calculation is based upon all gross receipts the company, which has a potable water franchise, earns. Based on a discussion with the City Attorney's Office, GOWC provides water service solely within the City limits and their gross receipts for both calculations are the same, therefore, they have based their payments on the two percent calculation. Given the fact that the SJMWS provides water solely within the City's limits, we calculated the potable water franchise fee at two percent. Since the City has projected, and will continue to project, a two percent fee based on gross revenues, we used the same payment as calculated under in-lieu fees in the City ownership analysis at page C-3 of this report.

CPUC Tax

Under the authority of the California State Constitution, the CPUC charges an administrative charge. This administrative charge is 1.5 percent of revenues and helps fund the CPUC's administrative expenses. This charge is a cost of service to the customer.

Property Taxes

If a private investor purchased the SJMWS, all of the property transferred in the sale would be subject to property taxes. The County of Santa Clara (County) performs two calculations to determine the property tax base-- historical cost less depreciation and capitalized earnings potential. The County then mixes these two calculations to arrive at a base which is multiplied by the property tax rate. Given the complexity of the calculation, we decided to take a simplified approach. Based on gross fixed assets and property taxes paid for both SJWC and GOWC, we calculated a percentage of property taxes as it relates to gross assets for each company. We then took an average of SJWC's and GOWC's number to arrive at the average percentage to use in our analysis.

Depreciation Expense

Both City-owned and investor-owned utilities depreciate assets, however, private investor-owned utilities have the benefit of using depreciation expense to reduce their tax liability. See page C-9 of this report for a detailed discussion on how we calculated depreciation expense.

Zone Charges

We used the same zone charge as we calculated under the City ownership analysis and for both ownership scenarios deducted this amount from our cost of service calculation.

Return

Return is defined as the amount of money you earn on an investment. Private investor-owned utilities earn a rate of return on their capital investment in the water system. This rate of return is an element of the cost of service to

customers. We developed a model that calculates a total rate of return with taxes for a private investor-owned utility.

Model To Calculate Total Return With Taxes For Investor Ownership

In order to estimate the amount of return on investment under a private investor-owned scenario, we made the following general assumptions:

- A private investor purchased the SJMWS on July 1, 1995;
- The sale price was $33.1 million;[3]
- The private investor financed the purchase 50 percent with equity and 50 percent with debt;
- For debt financing, the private investor would pay 7.75 percent interest; and
- For equity financing, the private investor would earn a rate of return of 18.66 percent. This percentage includes the CPUC allowed return rate and an estimate for state and federal income taxes.

It should be noted that investor-owned utilities also have developer contributions. Based on a review of SJWC's and GOWC's annual CPUC filings from December 31, 1990, to December 31, 1994, developer contributions as a percentage of gross plant assets have ranged from 9.27 to 12.20 percent. The SJMWS' master plan for the next 15 years assumes developer contributions at 54 percent. Therefore, we also ran our model assuming 54 percent developer contributions.

[3] See page 17 for an explanation of how we estimated this amount.

Our private investor-owned model contains three sections: (1) the accumulation of year-end information on assets and contributions, (2) the computations made to arrive at the total return with taxes, and (3) a cash flow statement which estimates net cash generated from operations.

Year-End Information On Assets And Contributions

As stated earlier, we assumed that a private investor purchased the SJMWS on July 1, 1995. We used the revised gross assets, accumulated depreciation, and net asset information calculated on page 14 of this report as the beginning balances on that date. For each fiscal year in our model, we added the SJMWS' master plan amount for capital facility additions, adjusted for inflation, to arrive at gross plant in service. We also estimated depreciation in our model starting with our beginning balance of plant assets, less developer contributions, and adding plant additions assuming a forty year straight-line method of depreciation. It should be noted that we assumed that plant assets come into the system ratably over the year, therefore, we calculated one half of a year's worth of depreciation in the first year, when the asset was placed into service.

Advances for construction is money developers have deposited with the City for construction of capital facilities. As of June 30, 1995, advances for construction were $572,516. We used this amount as the level of advances throughout our model.

As stated earlier, we used a 54 percent developer contribution rate for the model. To accomplish this, we took the SJMWS' master plan for capital facilities each year, adjusted for inflation, and multiplied that amount by 54 percent to arrive at additions to developer contributions each year. We then depreciated developer contributions as shown above for all plant assets.

In our model, net plant investment each year equaled gross assets, less accumulated depreciation, less advances for construction, less net developer contributions.

Total Return With Taxes

We broke this section of our model into two areas: interest expense from debt financing and return on investment from equity financing.

- Interest Expense On Debt

As stated earlier, we assumed that a private investor would finance 50 percent of the purchase price of the SJMWS with equity and 50 percent of future adjusted capital facility growth through the issuance of debt. We prepared amortization schedules for all debt issues using a 7.75 percent interest rate and a thirty year amortization period. As noted above, we assumed that plant assets would come into the system ratably each year, so in the first year of a debt issue we calculated only one half of a year's worth of interest expense.

- Equity Return

Our equity return calculation in our model is more complex. We calculated a separate equity return for: (1) the equity balance at the beginning of each year and (2) the amount of equity financed plant additions each year in our model.

In our model, we arrived at an adjusted amount of plant additions to be equity financed each year. We multiplied the amount of equity financed plant additions by 18.66 percent. This 18.66 percent includes the CPUC rate of return of 11 percent plus an allowance for income taxes. Our calculated total equity return each year equals the sum of the calculated equity return on the beginning balance

of equity plus the amount of calculated equity return calculated from plant additions.

Cash Flow Statement

In our model, the cash flow statement is divided into two sections: (1) cash generated and (2) application of cash. The cash generated section contains total return with taxes, depreciation expense and equity capital and debt borrowings to finance plant additions. The application of cash includes interest expense, principal repayment, investment in plant, and income tax expense. All of these categories, except for income tax expense, are specific lines located in the return computation section of our model.

APPENDIX D
COST OF SERVICE CALCULATIONS

Summary Of City Owned Versus Private Owned Cost Of Service
hndut101.xls

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Total
City Owned Total Cost Of Service:																
Operations And Maintenance	$8,065,870	$8,479,253	$8,623,422	$8,830,161	$9,115,694	$9,404,227	$9,794,992	$9,985,556	$10,320,077	$10,579,537	$10,905,309	$11,514,851	$11,629,016	$11,965,262	$12,360,984	$151,574,212
Debt Service	$11,450	$12,120	$12,750	$12,360	$11,980	$12,570	$12,140	$12,700	$12,230	$0	$0	$0	$0	$0	$0	$110,300
Payment In Lieu Of Taxes	$223,320	$232,253	$241,543	$251,205	$259,997	$270,917	$278,515	$288,263	$298,352	$308,795	$319,602	$330,789	$342,366	$354,349	$366,751	$4,367,017
Existing Special Assess. Int.	$678,177	$656,416	$629,716	$601,009	$568,065	$531,242	$495,990	$462,147	$429,804	$400,482	$370,817	$344,828	$319,497	$288,180	$256,190	$7,032,562
Master Plan Projects	$2,181,540	$3,904,112	$5,141,281	$4,551,558	$1,274,042	$1,619,135	$1,575,468	$1,312,374	$4,845,928	$10,325,310	$1,496,357	$12,084,749	$1,660,912	$1,748,554	$4,176,911	$57,898,229
Less: Developer Contributions	$1,216,208	$3,026,408	$3,434,939	$2,769,265	$545,387	$1,029,818	$574,912	$598,493	$2,277,662	$5,843,424	$674,753	$4,364,797	$730,531	$760,010	$3,127,551	$30,974,157
Return	$1,000,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$25,500,000
Total Costs	$10,944,150	$12,007,746	$12,963,773	$13,227,028	$12,434,391	$12,558,273	$13,332,193	$13,212,547	$15,378,730	$17,520,699	$14,167,332	$21,660,421	$14,971,260	$15,346,335	$15,783,284	$215,508,162
Less Other Revenues:																
Interest Income	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$357,000	$5,355,000
Zone Charges	$252,000	$259,560	$267,347	$275,367	$283,628	$292,137	$300,901	$309,928	$319,226	$328,803	$338,667	$348,827	$359,292	$370,070	$381,173	$4,686,926
Total Other Revenues	$609,000	$616,560	$624,347	$632,367	$640,628	$649,137	$657,901	$666,928	$676,226	$685,803	$695,667	$705,827	$716,292	$727,070	$738,173	$10,041,926
Total Cost Of Service	$10,335,150	$11,391,186	$12,339,426	$12,594,660	$11,793,763	$11,909,136	$12,674,292	$12,545,619	$14,702,504	$16,834,897	$13,471,665	$20,954,594	$14,254,968	$14,619,264	$15,045,112	$205,466,236
Private Owned Total Cost Of Service:																
Operations & Maintenance	$8,065,870	$8,479,253	$8,623,422	$8,830,161	$9,115,694	$9,404,227	$9,794,992	$9,985,556	$10,320,077	$10,579,537	$10,905,309	$11,514,851	$11,629,016	$11,965,262	$12,360,984	$151,574,212
Payment In Lieu Of Taxes	$223,320	$232,253	$241,543	$251,205	$259,997	$270,917	$278,515	$288,263	$298,352	$308,795	$319,602	$330,789	$342,366	$354,349	$366,751	$4,367,017
CPUC Tax	$167,490	$174,190	$181,157	$188,404	$194,998	$203,188	$208,886	$216,197	$223,764	$231,596	$239,702	$248,092	$256,775	$265,762	$275,063	$3,275,263
Property Taxes	$427,765	$449,867	$478,971	$504,738	$511,950	$521,116	$530,035	$537,464	$564,897	$623,348	$631,819	$700,231	$709,633	$719,532	$743,178	$8,654,544
Depreciation Expense	$897,343	$920,380	$952,681	$996,290	$1,027,676	$1,044,150	$1,064,024	$1,085,455	$1,126,481	$1,214,609	$1,280,902	$1,387,671	$1,495,801	$1,519,788	$1,545,262	$17,558,513
Return	$3,649,069	$3,649,263	$3,703,038	$3,811,910	$3,860,661	$3,846,536	$3,831,317	$3,814,918	$3,878,993	$4,173,387	$4,383,266	$4,785,900	$5,184,363	$5,154,034	$5,121,355	$62,848,010
Total Costs	$13,430,857	$13,905,205	$14,180,813	$14,582,707	$14,970,976	$15,290,135	$15,707,768	$15,927,853	$16,412,565	$17,131,272	$17,760,600	$18,967,535	$19,617,953	$19,978,727	$20,412,592	$248,277,559
Less Zone Charges	$252,000	$259,560	$267,347	$275,367	$283,628	$292,137	$300,901	$309,928	$319,226	$328,803	$338,667	$348,827	$359,292	$370,070	$381,173	$4,686,926
Total Cost Of Service	$13,178,857	$13,645,645	$13,913,466	$14,307,340	$14,687,348	$14,997,997	$15,406,867	$15,617,925	$16,093,339	$16,802,469	$17,421,933	$18,618,708	$19,258,661	$19,608,656	$20,031,420	$243,590,632
Difference	($2,843,708)	($2,254,459)	($1,574,040)	($1,712,680)	($2,893,584)	($3,088,861)	($2,732,575)	($3,072,306)	($1,390,835)	$32,428	($3,950,269)	$2,335,886	($5,003,693)	($4,989,392)	($4,986,308)	($38,124,397)
Less:																
Efficiences Of Investor Owned Application In O & M Expenses	$992,330	$1,000,874	$984,287	$965,153	$1,005,110	$998,637	$1,011,537	$1,049,607	$1,055,012	$1,022,456	$1,032,404	$1,077,784	$1,054,371	$1,063,642	$1,073,550	$15,386,754
Revised Cost Of Service For Private Owned	$12,186,527	$12,644,771	$12,929,179	$13,342,187	$13,682,238	$13,999,360	$14,395,330	$14,568,318	$15,038,327	$15,780,013	$16,389,529	$17,540,924	$18,204,290	$18,545,014	$18,957,870	$228,203,878
Revised Difference	($1,851,378)	($1,253,585)	($589,753)	($747,527)	($1,888,474)	($2,090,224)	($1,721,038)	($2,022,699)	($335,823)	$1,054,884	($2,917,865)	$3,413,670	($3,949,322)	($3,925,750)	($3,912,758)	($22,737,643)

Investor Owned Application

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Land	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746	$777,746
Plant Assets	$72,604,283	$74,785,823	$78,689,935	$83,831,216	$88,382,774	$89,656,816	$91,275,951	$92,851,419	$94,163,793	$99,009,721	$109,335,031	$110,831,388	$122,916,137	$124,577,049	$126,325,603
Plant Additions	$2,181,540	$3,904,112	$5,141,281	$4,551,558	$1,274,042	$1,619,135	$1,575,468	$1,312,374	$4,845,928	$10,325,310	$1,496,357	$12,084,749	$1,660,912	$1,748,554	$4,176,911
Gross Plant In Service	$75,563,569	$79,467,681	$84,608,962	$89,160,520	$90,434,562	$92,053,697	$93,629,165	$94,941,539	$99,787,467	$110,112,777	$111,609,134	$123,693,883	$125,354,795	$127,103,349	$131,280,260
Less:															
Accumulated Depreciation	$16,511,411	$18,353,787	$20,272,234	$22,303,748	$24,456,422	$26,681,917	$28,943,576	$31,245,167	$33,582,857	$35,997,525	$38,601,834	$41,353,915	$44,275,759	$47,369,425	$50,505,709
Additions To Accumulated Deprec.	$1,842,376	$1,918,446	$2,031,514	$2,152,674	$2,225,495	$2,261,659	$2,301,591	$2,337,690	$2,414,668	$2,604,309	$2,752,080	$2,921,844	$3,093,665	$3,136,284	$3,210,352
Total Accumulated Depreciation	$18,353,787	$20,272,234	$22,303,748	$24,456,422	$26,681,917	$28,943,576	$31,245,167	$33,582,857	$35,997,525	$38,601,834	$41,353,915	$44,275,759	$47,369,425	$50,505,709	$53,716,061
Net Plant In Service	$57,209,782	$59,195,447	$62,305,214	$64,704,098	$63,752,645	$63,110,121	$62,383,998	$61,358,682	$63,789,942	$71,510,943	$70,255,219	$79,418,124	$77,985,370	$76,597,640	$77,564,199
Less:															
Advances For Construction	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516	$572,516
Contributions In Aid Of Construction	$37,193,236	$38,409,444	$41,435,852	$44,870,791	$47,640,056	$48,185,443	$49,215,261	$49,790,173	$50,388,666	$52,666,328	$58,509,751	$59,184,504	$63,549,302	$64,279,833	$65,039,842
Add: Plant Additions From Contrib.	$1,216,208	$3,026,408	$3,434,939	$2,769,265	$545,387	$1,029,818	$574,912	$598,493	$2,277,662	$5,843,424	$674,753	$4,364,797	$730,531	$760,010	$3,127,551
Gross Contributions	$38,409,444	$41,435,852	$44,870,791	$47,640,056	$48,185,443	$49,215,261	$49,790,173	$50,388,666	$52,666,328	$58,509,751	$59,184,504	$63,549,302	$64,279,833	$65,039,842	$68,167,393
Less:															
Accumulated Depreciation	$9,137,603	$10,082,636	$11,080,703	$12,159,535	$13,315,920	$14,513,738	$15,731,247	$16,968,815	$18,221,050	$19,509,237	$20,898,937	$22,370,116	$23,904,289	$25,502,153	$27,118,649
Additions To Accumulated Deprec.	$945,033	$998,066	$1,078,833	$1,156,385	$1,197,818	$1,217,509	$1,237,567	$1,252,235	$1,288,187	$1,389,701	$1,471,178	$1,534,173	$1,597,865	$1,616,496	$1,665,090
Total Accumulated Depreciation	$10,082,636	$11,080,703	$12,159,535	$13,315,920	$14,513,738	$15,731,247	$16,968,815	$18,221,050	$19,509,237	$20,898,937	$22,370,116	$23,904,289	$25,502,153	$27,118,649	$28,783,740
Net Contributions	$28,326,807	$30,355,149	$32,711,256	$34,324,136	$33,671,705	$33,484,014	$32,821,358	$32,167,616	$33,157,091	$37,610,814	$36,814,389	$39,645,013	$38,777,679	$37,921,193	$39,383,654
Net Plant Investment	$28,310,459	$28,267,782	$29,021,443	$29,807,446	$29,508,424	$29,053,591	$28,990,124	$28,618,550	$30,060,335	$33,327,613	$32,868,315	$39,200,595	$38,635,175	$38,103,932	$37,608,030
Debt Return	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%
Equity Return	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%	18.66%
Composite Cost Of Capital	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%	26.41%
Return Computation															
Debt Component:															
Interest Expense	$1,070,817	$1,063,874	$1,072,090	$1,095,663	$1,100,707	$1,086,582	$1,071,363	$1,054,965	$1,061,283	$1,133,907	$1,179,775	$1,280,987	$1,378,028	$1,347,700	$1,315,020
Equity Component:															
Beginning Balance Of Assets															
Financed Through Equity	$13,800,000	$13,833,995	$13,876,496	$14,322,296	$14,790,748	$14,790,748	$14,790,748	$14,790,748	$14,790,748	$15,409,793	$17,167,694	$17,167,694	$20,398,362	$20,398,362	$20,398,362
Times Equity Rate	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%
Equity Return	$2,575,080	$2,581,423	$2,589,354	$2,672,540	$2,759,954	$2,759,954	$2,759,954	$2,759,954	$2,759,954	$2,875,467	$3,203,492	$3,203,492	$3,806,334	$3,806,334	$3,806,334
Additions To Plant Assets	$965,332	$877,704	$1,706,341	$1,782,293	$728,655	$589,317	$1,000,557	$713,881	$2,568,266	$4,481,886	$821,604	$7,719,952	$930,381	$988,544	$1,049,360
Depreciation Expense	$897,343	$920,380	$952,681	$996,290	$1,027,676	$1,044,150	$1,064,024	$1,085,455	$1,126,481	$1,214,609	$1,280,902	$1,387,671	$1,495,801	$1,519,788	$1,545,262
Less Principal Payment	$0	$127,679	$137,939	$150,901	$166,980	$182,253	$196,377	$211,596	$227,995	$248,525	$278,990	$309,363	$348,265	$391,340	$421,668
Sub-Total	$897,343	$792,701	$814,742	$845,389	$860,696	$861,897	$867,647	$873,859	$898,486	$966,084	$1,001,912	$1,078,308	$1,147,536	$1,128,448	$1,123,594
Additions To Plant Assets	$965,332	$877,704	$1,706,341	$1,782,293	$728,655	$589,317	$1,000,557	$713,881	$2,568,266	$4,481,886	$821,604	$7,719,952	$930,381	$988,544	$1,049,360
Less Carryover Balance Of Dep. Exp.	$0	$0	$0	$0	$0	$132,041	$404,621	$271,711	$431,689	$0	$0	$180,308	$0	$217,155	$357,059
Less Balance Of Depreciation Exp.	$897,343	$792,701	$814,742	$845,389	$860,696	$861,897	$867,647	$873,859	$898,486	$966,084	$1,001,912	$1,078,308	$1,147,536	$1,128,448	$1,123,594
Balance Of Growth To Be Financed	$67,990	$85,002	$891,599	$936,904	($132,041)	($404,621)	($271,711)	($431,689)	$1,238,091	$3,515,802	($180,308)	$6,461,336	($217,155)	($357,059)	($431,293)
Times 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%
Sub-Total	$33,995	$42,501	$445,800	$468,452	($66,021)	($202,311)	($135,856)	($215,844)	$619,045	$1,757,901	($90,154)	$3,230,668	($108,578)	($178,529)	($215,647)
Amount Financed Through Debt	$33,995	$42,501	$445,800	$468,452	$0	$0	$0	$0	$619,045	$1,757,901	$0	$3,230,668	$0	$0	$0
Amount Financed Through Equity	$33,995	$42,501	$445,800	$468,452	$0	$0	$0	$0	$619,045	$1,757,901	$0	$3,230,668	$0	$0	$0
Times 50% For Average Of Year	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%	x 50%
Sub-Total	$16,997	$21,251	$222,900	$234,226	$0	$0	$0	$0	$309,523	$878,951	$0	$1,615,334	$0	$0	$0
Times Equity Rate	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%	x 18.66%
Equity Return	$3,172	$3,965	$41,593	$43,707	$0	$0	$0	$0	$57,757	$164,012	$0	$301,421	$0	$0	$0
Total Equity Return	$2,578,252	$2,585,389	$2,630,947	$2,716,247	$2,759,954	$2,759,954	$2,759,954	$2,759,954	$2,817,710	$3,039,480	$3,203,492	$3,504,913	$3,806,334	$3,806,334	$3,806,334
Total Return With Taxes	$3,649,069	$3,649,263	$3,703,038	$3,811,910	$3,860,661	$3,846,536	$3,831,317	$3,814,918	$3,878,993	$4,173,387	$4,383,266	$4,785,900	$5,184,363	$5,154,034	$5,121,355
Cash Flow Statement															
Cash Generated:															
Total Return With Taxes	$3,649,069	$3,649,263	$3,703,038	$3,811,910	$3,860,661	$3,846,536	$3,831,317	$3,814,918	$3,878,993	$4,173,387	$4,383,266	$4,785,900	$5,184,363	$5,154,034	$5,121,355
Depreciation Expense	$897,343	$920,380	$952,681	$996,290	$1,027,676	$1,044,150	$1,064,024	$1,085,455	$1,126,481	$1,214,609	$1,280,902	$1,387,671	$1,495,801	$1,519,788	$1,545,262
Equity Capital To Finance Plant	$33,995	$42,501	$445,800	$468,452	$0	$0	$0	$0	$619,045	$1,757,901	$0	$3,230,668	$0	$0	$0
Borrowing To Finance Plant	$33,995	$42,501	$445,800	$468,452	$0	$0	$0	$0	$619,045	$1,757,901	$0	$3,230,668	$0	$0	$0
Total Cash Flow Generated	$4,614,402	$4,654,646	$5,547,318	$5,745,104	$4,888,337	$4,890,686	$4,895,341	$4,900,373	$6,243,565	$8,903,798	$5,664,168	$12,634,907	$6,680,164	$6,673,822	$6,666,617
Application Of Cash:															
Interest Expense	$1,070,817	$1,063,874	$1,072,090	$1,095,663	$1,100,707	$1,086,582	$1,071,363	$1,054,965	$1,061,283	$1,133,907	$1,179,775	$1,280,987	$1,378,028	$1,347,700	$1,315,020
Income Tax Expenses	$1,058,382	$1,061,312	$1,080,014	$1,115,030	$1,132,971	$1,132,971	$1,132,971	$1,132,971	$1,156,681	$1,247,718	$1,315,045	$1,438,780	$1,562,515	$1,562,515	$1,562,515
Principal Repayment	$0	$127,679	$137,939	$150,901	$166,980	$182,253	$196,377	$211,596	$227,995	$248,525	$278,990	$309,363	$348,265	$391,340	$421,668
Investment In Plant	$67,990	$85,002	$891,599	$936,904	$0	$0	$0	$0	$1,238,091	$3,515,802	$0	$6,461,336	$0	$0	$0
Total Cash Applied	$2,197,189	$2,337,868	$3,181,642	$3,298,498	$2,400,658	$2,401,807	$2,400,712	$2,399,532	$3,684,049	$6,145,952	$2,773,810	$9,490,466	$3,288,808	$3,301,554	$3,299,203
Net Cash Generated From Operations	$2,417,213	$2,316,778	$2,365,676	$2,446,606	$2,487,678	$2,488,880	$2,494,629	$2,500,841	$2,559,516	$2,757,845	$2,890,358	$3,144,441	$3,391,356	$3,372,268	$3,367,414