

DATE ISSUED: April 15, 2002

REPORT NO. 02-081

ATTENTION: Honorable Mayor and City Council
Docket of April 22, 2002

SUBJECT: Water Rate Increases

SUMMARY

Issue

1. Should the City of San Diego increase water service charges for Fiscal Years 2003, 2004, 2005, 2006 and 2007 by 6% each year with the rate increases applied equally to the customer charge per meter (base fee) and to the commodity charge for all meter sizes and customer classes and with the increased rates becoming effective on July 1st of each year in order to continue funding the upgrade and expansion of the water system to ensure a reliable water supply and to adhere to the Compliance Order from the California Department of Health Services (DHS), the requirements of the federal Safe Drinking Water Act, and the needed rehabilitation of aging infrastructure?
2. Should the City Manager proceed with the preparation of documents necessary to issue water revenue bonds?

Manager's Recommendation - Direct the City Manager to increase water service charges in accordance with the recommended schedule and to prepare documents necessary to issue water revenue bonds.

Other Recommendations - None.

Fiscal Impact - The cost of the Water Capital Improvements Program from FY 2003 through FY 2007 is estimated at \$508 million. Funding this effort will require issuing water revenue bonds as well as increasing water service charge revenues. Each 6% increase represents increased revenues of approximately \$12 million annually to the Water Fund. These revenues will be used to pay debt service on future financings to support the capital improvements program, to fund the required cash portion of capital projects, and to fund inflation in operating costs such as salaries, energy and chemical costs. Additional service charge increases will be necessary to fund needed capital improvements in subsequent years. The estimated cost of capital improvements for FY 2008 through FY 2012 is \$584 million.

BACKGROUND

Water Capital Program and 1997 Rate Increase

In 1997 the City Council approved the *Water Strategic Plan*, an associated eight-year capital improvements plan, the issuance of debt for the capital program, and a series of three six-percent increases to water service charge revenues to support the first \$385 million of that debt. These actions came after a year-long planning effort by a citizen advisory group that recognized and documented the need for an intensive effort to upgrade the City's water infrastructure in response to a Compliance Order issued earlier that year by the California Department of Health Services, new federal drinking water requirements, the need to expand facilities to meet the needs of a growing community, and the need to replace or rehabilitate aging and deteriorated facilities throughout the system. The first rate increase went into effect in August 1997. The second increase occurred in July 1998 and the third occurred in July 1999. There was no increase in July 2000 or July 2001 as had been assumed in the original financing plan.

The Water Department issued its first bonds in August, 1998 for \$385 million. These bond proceeds will be completely exhausted by early FY 2003. If the previously approved capital program is to continue, additional bonds will have to be issued. Such bonds cannot be issued without the recommended rate increases.

Water Department Management Review

During budget deliberations in May 2001, the City Manager presented the Water Department's proposed FY02 budget and recommended that four annual 6% water rate increases be approved effective September 2001. During this hearing City Council members raised several questions about the overall management and efficiency of the Water Department, and adopted a motion to defer consideration of a rate increase until a management review of the Department had been completed. The following paragraphs provide details on the management review. Tiered rates, monthly billing and discounts for low-income customers were other issues raised during the May 2001 hearing. Responses to these issues are addressed in this report.

Black & Veatch (B&V) was selected to perform a management review study (study) of the Water Department which was undertaken in the summer of 2001. The study was completed and submitted to the City Manager in October 2001, and presented to the City Council's Natural Resources and Culture Committee (NR&C) in January 2002. The B&V team leader made a presentation at this committee meeting. The B&V team's overall assessment of the Water Department rated it "average among water utilities of its size." Regarding the Capital Improvements Program (CIP), the study characterized it as "working well.....well organized and well run..."

The City Manager's Report on the study outlined a number of actions and recommendations for the City Council to consider which built upon the study's recommendations and findings. Involving the newly formed Public Utilities Advisory Commission to oversee and advise the Water Department on the specific recommendations outlined in the study was a recommendation endorsed by NR&C committee members. Additional recommendations included in the City Manager's Report were: initiating a Strategic Business Planning Process for the Water Department; continuing with the Bid-to-Goal process; continuing the Water Supply Capital Improvement Program adopted by the City Council; conducting a focused effort to review

Customer Service functions, including the information systems necessary to support high-quality customer service; and, streamlining the classification series of Water Systems Technician. The NR&C Committee gave unanimous approval to the City Manager's recommendations and requested that the Manager return to the Committee with a status report on the proposed recommendations.

Monthly Billing

The City Council requested that the Water Department undertake a cost benefit study to analyze customer billing alternatives of monthly versus bimonthly billing. The Manager's office engaged Black & Veatch to conduct the cost benefit study. A City Manager's Report outlining recommendations and options for the City Council has been prepared and includes a copy of the consultant's study. The report on monthly meter reading and billing was presented at the April 3, 2002 meeting of the NR&C committee. Salient issues to consider include start-up costs ranging from approximately \$877,000 to \$1 million plus \$2 million in annual operating costs. The previously stated amounts are not included in the rate increase proposal outlined in this report.

Low-Income Discounts and Financial Assistance Programs

Pursuant to past City Council discussions regarding budget levels and associated rate increases, concern has been expressed as to the resulting impacts on low or fixed income customers from higher rates. In this regard a number of options are being developed that could be implemented in the near future. Notably, federal legislation pertaining to amendments to the Federal Water Pollution Control Act has been recently introduced that would provide grant funding to water and wastewater agencies to subsidize individual low-income ratepayers in the residential user class. Individual states would be expected to develop procedures under guidance to be defined in the proposed legislation. If such funding becomes available, it would be beneficial for the City to develop a program that would maximize assistance from this source. The Water Department is closely following development of this legislation and will bring forward to City Council any opportunities it creates for low income assistance programs.

Staff conducted surveys of agencies across the country to identify other assistance programs that might be adopted here. In considering the available options, it was deemed desirable that any subsidy program that might be implemented would supplement rather than supplant any existing benefits received by low income customers from other sources. Thus, to be compatible with other assistance programs, the options considered would subsidize only a portion of the bill and such payments would be made directly to the Water Department.

One option identified for further consideration is a donation program for qualifying low income customers, that relies on corporate and personal donations to help offset the cost of past-due water and sewer bills. Although no City funding would be required for the subsidy, sufficient donations would be necessary to cover administration costs of either City staff or a third party administrator such as United Way, Catholic Charities, or a similar agency. To ensure compliance with bond covenants, the funding for the donation program including all administrative costs, would have to be guaranteed by a corporate sponsorship, donation and/or grant.

Also under evaluation is a program for only the water portion of the monthly bill, that would offer a 20% discount to all low income residential customers. This program would be similar to San Diego Gas & Electric's (SDG&E) California Alternate Rates for Energy Program (CARE). Adapting this program to the water bill would require charging other water customers higher rates to fund this subsidy. The cost of this program would be in excess of \$1.5 million annually and would result in an average additional charge to residential customers of about \$8.00 per year.

It should be noted that sewer fund participation in this type of program may be restricted by the requirements of both Proposition 218 (Right to Vote on Taxes Act) and the Clean Water Act. Proposition 218 precludes the adoption of a rate structure in which sewer rates are not based on the actual cost of providing service. The Clean Water Act also has specific federal guidelines relating to low income customers. Implementing a rate structure that contains alternate rates for low income customers would potentially be in violation of these legal requirements.

Pending the result of the federal legislative action discussed above, the City Manager will be reporting on his recommendations regarding low income assistance programs at a separate time.

DISCUSSION

The City is mid-way through a multi-year capital improvements program to upgrade its water infrastructure. From July 1999 through February 2002 the Water Fund expended \$327 million on water system improvements. These improvements included from upgrading and expanding the Alvarado Water Treatment Plant, rehabilitating drinking water reservoirs throughout the City, constructing major transmission mains such as the Mid-City Pipeline and the South San Diego Pipeline #2, and replacing water mains in communities throughout the City. In fiscal years 2003 through 2007, the Water Department plans to expend an additional \$508 million. These funds will continue many projects currently under construction, such as upgrading and expanding the Alvarado and Miramar Water Treatment Plants, the Torrey Pines Road/La Jolla Boulevard Water Main Replacement, the Black Mountain Road Pipelines, and the on-going replacement of approximately 10 miles of cast iron water mains a year. Funding is also slated to complete the design and begin construction on a number of important projects such as the Otay Water Treatment Plant and the Otay Second Pipeline, and to undertake needed rehabilitation of a number of pump stations and reservoirs.

CIP projects to be funded from the proposed rate increases are listed in Attachment 1. There are a number of assumptions associated with capital project costs, including inflation and construction bid estimates which may change over time. For example, a lower inflation rate and a competitive bidding environment would lower total project costs. Water Department staff are also pursuing State and Federal grants as well as low-interest State Revolving Loan Funds for projects. Given these factors, over time it may be possible to accelerate some projects that have been deferred until FY08 or later. Changes to the CIP will be brought before the City Council for their review and approval. Additional rate increases will probably be necessary to fund needed capital improvements in Fiscal Years 2008 through 2012. However, it is not possible to project specific increases at this time.

The following table presents the Water Department's estimated expenditures for operations and maintenance (O&M), water purchases (WP), capital improvements (CIP) and Debt Service from

FY 2003 through FY 2007.

Projected Water Fund Expenditures

(Inflated Dollars in Millions)

	FY03	FY04	FY05	FY06	FY07	Total
O&M	\$120.40	\$122.84	\$128.20	\$133.80	\$139.38	\$644.62
WP	\$103.72	\$106.32	\$112.12	\$116.90	\$120.54	\$559.60
CIP	\$110.48	\$90.40	\$103.57	\$104.42	\$98.86	\$507.73
Debt Service	\$29.40	\$30.30	\$40.35	\$40.36	\$51.06	\$191.50
Total	\$364.00	\$349.86	\$384.24	\$395.48	\$409.84	\$1,903.42

Increases in O&M expenditures reflect required new programs such as Storm Water Pollution Prevention, unavoidable cost increases such as salaries and energy, and estimates for growth in the system. The O&M figures are based on the assumption that the department's staffing levels will remain at FY2003 levels through FY2007.

The following table represents the proposed rate increases and the effect of those increases on the average residential customer’s monthly cost.

Annual Water Rate Increases and Average Single-Family Residential Cost

		PROPOS ED				
	Current	FY03	FY04	FY05	FY06	FY07
% Increase		6.0 %	6.0 %	6.0 %	6.0 %	6.0 %
Monthly Cost	\$30.07	\$31.87	\$33.78	\$35.81	\$37.96	\$40.24
Bi-monthly Cost	\$60.14	\$63.74	\$67.56	\$71.62	\$75.92	\$80.48

(Note: This table reflects the effect of the City rate increases only. The San Diego County Water Authority and the Metropolitan Water District of Southern California are considering revising their current rate structures. Analysis on the impact of changes to the existing rate structure is underway and could increase these monthly costs.)

Residents of the City of San Diego currently enjoy the fourth lowest monthly cost of water service in the region, just as they did in 1998, prior to the previously approved series of three 6% rate increases. (Attachment 2 displays a chart showing average monthly residential water costs by local water agencies.) While it is not possible to project the relative standing of City water rates compared to those of other agencies following implementation of the proposed increases, other agencies are facing the same needs and increased costs as the City, thus it is reasonable to assume that our relative position will remain about the same.

Recommended Rate Structure

The City Manager recommends that the 6% increases be applied equally to both the base fee and to the commodity charge components of the water service charges in order to equitably apply the increase to all customer classifications and to make it easier for customers to understand the impact on their bills. The general public perceives “across the board” increases in base fees and commodity charges to be fair because the impact is uniform across all customer classes and at all levels of consumption. A disproportionate allocation of new revenue requirements between either base fees or commodity charges benefits some customers at the expense of others. When the City Council adopted the water rate increase in 1997, they approved a rate structure that applied the 6% rate on the base fee as a way to recover a greater portion of water system fixed costs. Low volume residential and commercial customers experienced higher percentage increases in their bills than the approved 6%, with higher volume users paying less.

The setting of utility rates is a two-part process. First, the total amount of money required for the system is determined via budgetary analysis; second, a system of rates and charges (the *rate structure*) is designed which will generate the necessary funds on a basis consistent with the utility’s rate setting objectives. Any number of alternative rate structuring approaches can be utilized, and each is the same in terms of its ability to generate the funds required; each differs, however, in terms of how those funds are generated – how many of the required dollars are generated by each customer class, and which customers within each class contribute more or less to the total.

The fundamental rate structuring objectives are these:

Providing for *Revenue Sufficiency and Stability* to meet the operation and maintenance (O&M) and capital costs of the utility;

Maintaining *Good Financial Ratings* by providing for a stable, reliable financial position so that debt issuance can be achieved at the lowest possible cost; and

Ensuring *Fairness and Equity* in the allocation of costs among ratepayers.

Additional (but competing) objectives commonly associated with structuring water rates include:

Assisting Targeted Customer Classes or Customers Within Classes by making their water available at a lower cost by shifting costs to other customer classes or other customers within the same class; and

Providing *Conservation Incentives* that reduce the demand for water.

In the course of the May 2001 budget discussions, the Council expressed an interest in investigating usage-based water rate structuring alternatives, such as tiered rates, which would reduce the impact of required rate increases on low-volume residential customers. The City's current rate structure consists of two components – a fixed monthly *base fee* which is dependent on a customer's meter size, and a *commodity charge* based on metered usage. The commodity charge which is applied to all customer classes, except the Single Family Residential (SFR) class, consists of a single-block rate of \$1.505 per hundred cubic feet (1 HCF = 748 gallons) of water used. No changes to the rate structures applicable to the non-SFR customer classes are recommended at this time, for the reasons discussed in connection with “across-the-board” increases below.

Pursuant to Council direction on August 12, 1997, the SFR commodity charge structure was changed from the two-tier “lifeline” structure adopted by the Council in 1983, to a three-tier increasing block rate structure. By creating a first tier covering the first 7 HCF of monthly consumption, a second tier covering the 8th through 14th HCF, and a third tier covering all additional usage, the Council was able to successfully mitigate the impact of required rate increases on low-volume users while providing an additional conservation incentive for those rate payers using larger amounts of water.

We believe that the Council-adopted SFR base fee + 3-tier commodity rate structure has proven to be well suited to its intended purpose and that it should remain the foundation for SFR rate changes going forward. Given that construct, decisions can be made which affect how required increases in revenue are generated within the SFR class. If, for example, a 6% increase in SFR revenue is necessary to meet budgetary requirements, it could be generated simply by raising the existing base fee and 3-tier rates by 6%. This “6% across the board” approach has the greatest likelihood of being accepted as fair because each customer, regardless of the amount of water used and given no change in their consumption, will receive a bill which is 6% higher than before. Because of the strong perception of equity engendered by this approach, we recommend that it be adopted by the Council in connection with the implementation of rate increases

discussed in this report.

The base fee for single-family detached residential customers is currently \$9.63 per month. Commodity charges depend upon usage: the first 7 HCF of usage per month is billed at \$1.285 per HCF, the second 7 HCF is billed at \$1.635 per HCF, and usage in excess of 14 HCF is billed at \$1.805 per HCF. If the 6% increases are applied equally to all existing rates, the charges for residential customers would be as follows:

Water Service Charges for Single-Family Residential Customers with 6% Added

	Current	FY03	FY04	FY05	FY06	FY07
Base Fee/mo.	\$9.63	\$10.21	\$10.82	\$11.47	\$12.16	\$12.89
1 st 7 hcf/mo.	\$1.285	\$1.362	\$1.444	\$1.531	\$1.623	\$1.720
2 nd 7 hcf/mo.	\$1.635	\$1.733	\$1.837	\$1.947	\$2.064	\$2.188
> 14 hcf/mo.	\$1.805	\$1.913	\$2.028	\$2.150	\$2.279	\$2.416

For multi-family, commercial and industrial customers, the base fee depends on the size of their meter. Usage is currently billed at a rate of \$1.505 per HCF per month. If the proposed rate increases are adopted, the base fees for these customer classes would increase as follows:

Base Fee Charges for Multi-family, Commercial and Industrial Customers with 6% Added

Meter Size	Current	FY03	FY04	FY05	FY06	FY07
5/8" & 3/4"	\$9.63	\$10.21	\$10.82	\$11.47	\$12.16	\$12.89
1"	\$10.23	\$10.84	\$11.49	\$12.18	\$12.92	\$13.70
1 1/2"	\$46.27	\$49.05	\$51.99	\$55.11	\$58.41	\$61.91
2"	\$71.16	\$75.43	\$79.96	\$84.75	\$89.84	\$95.23
3"	\$256.53	\$271.92	\$288.24	\$305.53	\$323.86	\$343.29
4"	\$427.93	\$453.61	\$480.82	\$509.67	\$540.25	\$572.67
6"	\$955.93	\$1,013.29	\$1,074.08	\$1,138.53	\$1,206.84	\$1,279.25
8"	\$1,286.59	\$1,363.79	\$1,445.61	\$1,532.35	\$1,624.29	\$1,721.75
10"	\$1,724.12	\$1,827.57	\$1,937.22	\$2,053.45	\$2,176.66	\$2,307.26
11"	\$2,395.42	\$2,539.15	\$2,691.49	\$2,852.98	\$3,024.16	\$3,205.61
12"	\$3,989.75	\$4,229.14	\$4,482.88	\$4,751.86	\$5,036.97	\$5,339.19

The usage charges for these customer classes would increase as follows:

Usage Charges for Multi-family, Commercial and Industrial Customers with 6% Increases

	Current	FY03	FY04	FY05	FY06	FY07
Per HCF	\$1.505	\$1.595	\$1.691	\$1.792	\$1.900	\$2.014

Financing Capital Projects

The large cash requirements of the capital improvements program will require the issuance of long term debt. Upon adoption of the recommended water rate increases, both the proposed capital improvement program and the supporting rate case must undergo a detailed feasibility review by an independent consultant as a condition precedent to the issuance of the debt required to fund the program. Given satisfactory completion of the feasibility review process, we will

return to the City Council with the documentation necessary to accomplish the sale of bonds by the fall of this year.

CONCLUSION

The City Council approved a multi-year water capital improvements program in 1997 and authorized the beginning of a financing plan to support that program. That financing plan included approval for an initial issuance of debt and for three annual 6 percent rate increases with the first taking effect in FY 1998. The financing plan assumed that additional debt issuances and additional rate increases would be required in future years. Continuation of the capital improvements program now requires the issuance of additional debt. In order to pay for this debt, as well as to pay for necessary increases to operating costs, additional revenues are required for the Water Fund. The revenue requirements are equivalent to five consecutive annual 6-percent rate increases applied equally to base fees and commodity charges for all customer classes. The equal application of these rate increases means that all customers will have the same proportion of increase in their bills, making it easy for all customers to understand and to view the impact of the rate increases as fair. Following adoption of the rate increases, the City Manager will develop the necessary documents for issuing debt to support this program. Those documents will be returned to the City Council for final approval by the fall of this year.

ALTERNATIVE

Do not raise rates. This is not recommended due to the need to upgrade and expand water system infrastructure necessary for a safe and reliable water supply, the existing Compliance Order from DHS, federal Safe Drinking Water Act requirements impacting the City's three water treatment plants, and the need to rehabilitate aging water facilities.

Respectfully submitted,

Larry Gardner
Water Department Director

Approved: Richard Mendes
Utilities General Manager

Gardner/MAS

Attachments: [1. Proposed Capital Improvements Program FY 03-07](#)
[2. Monthly Residential Rates of San Diego County Water Agencies](#)