# CITY OF ROHNERT PARK

## Water Rate Study

*Final Report*

March 12, 2015

THE REED GROUP, INC.

# Table of Contents

## SECTION I. EXECUTIVE SUMMARY

### INTRODUCTION AND BACKGROUND

The City of Rohnert Park retained The Reed Group, Inc. to develop a ten-year water system financial plan and to update water rates for the City's water utility. The purpose of the study was to ensure that water rates are sufficient to meet the utility's financial and service obligations for ongoing operation and maintenance, debt service, and capital improvements while maintaining prudent reserves. The last adjustment to the water rates occurred in October 2008. As used in this study, the term "water rates" refers to the monthly service charges and water usage rates applicable to active connections to the City's water system for the provision of water service, including fire protection services.

The scope of services for the water rate study included the following:

- Review financial goals and policy objectives
- Review current budget, existing debt obligations, and capital improvement plans
- Prepare a ten-year financial plan and determine annual water rate revenue requirements for the water utility
- Review the current water rate structure and recommend changes consistent with rate setting objectives
- Develop water rate recommendations that meet the legal requirements for cost of service
- Present preliminary recommendations to the City's Water/Wastewater Issues Committee to review the assumptions and conclusions from the financial plan and rate analyses
- Prepare a water rate study report (this report) to document the analyses performed during the study
- Present study recommendations to the City Council during a regular meeting, and assist the City in preparing a notice of public hearing regarding the proposed water rates
- Present final water rate recommendations during a public hearing to adopt new rates.

The purpose of this report is to describe the analyses performed, present the financial plan for the water utility, and summarize findings and recommendations regarding the water rates.

### FINANCIAL PLAN AND REVENUE NEEDS

The City's water rates were last increased in October 2008, and the City, region, and state are in the midst of a multi-year drought, which has reduced water sales and related revenue. While the financial condition of the water utility is not critical, capital

improvement needs are not being fully or adequately funded. In addition, due to lower than normal water revenues, the water utility may not meet debt service coverage obligations in the current fiscal year. If the City violates covenants on water system debt, it could jeopardize the City's credit rating and present other financial problems.

Since the City's water rates were last increased the cost of purchased water from the Sonoma County Water Agency (SCWA) has increased by about 42 percent. In addition, general inflation has risen about 12.5 percent. While the City's water utility has continued to provide water service to its customers, the current financial situation limits its ability to implement needed capital replacement, rehabilitation, and upgrade projects. The capital improvement plan for the water utility averages about $1.4 million (in future dollars) per year in new projects over the planning period (through FY 23-24). Current revenues do not adequately support this program.

It is recommended that the City adopt an overall water rate increase of 9.0 percent effective in July 2015 to meet the financial and service obligations of the utility with respect to ongoing operations, debt service, and capital program needs. In addition, the City should annually adjust water rates to keep pace with changes in operational costs, including the cost of purchases water from the SCWA.

The financial plan model reflects assumptions and estimates that are believed reasonable at the present time. However, conditions change. It is recommended that the City review the financial condition of the water utility annually as part of the budget process, and perform a more comprehensive financial plan and rate update study every 3 to 5 years, unless otherwise needed sooner. The financial analysis presented in this report indicates that the revenues generated by the water rates would not exceed the cost of providing service, including maintaining prudent reserves for specified purposes.

Details of financial plan analyses and the recommendation to increase the overall level of water rates by 9.0 percent, as well as to annually adjust the water rates to keep pace with change in costs, are presented in Section II of this report.

**PROPOSED WATER RATE SCHEDULE**

**Exhibit I-1** presents the proposed water rate schedule for July 2015. The water rates presented in this report include rate structure changes. The water rate structure has been modified to include:

- Development of a two-tier water usage rate structure for single family residential customers
- Maintaining a uniform water usage rate structure for multi-family and non-residential accounts, including irrigation accounts
- Adjustments to the monthly service charges to better align them with the capacity available through the range of meter sizes.

The two-tier water usage rate structure has been designed, in part, to help protect the affordability of basic water usage. The higher rate for the second tier reflects the cost of purchased water supplies from the City's wholesale water supplier, the SCWA.

**Exhibit I-1**
**City of Rohnert Park -- Water Utility**
**Schedule of Current and Proposed Water Rates (1)**

| | Current (2) | July 2015 |
|---|---|---|
| ***Water Usage Rate ($/gallon)*** | | |
| Single Family Residential | | |
| Tier 1 (0 to 4,000 gal/mo) | $ 0.00300 | $ 0.00270 |
| Tier 2 (above 4,000 gal/mo) | $ 0.00300 | $ 0.00367 |
| Multi-Family and Non-Residential | | |
| All Water Usage | $ 0.00300 | $ 0.00315 |
| ***Monthly Service Charge*** | | |
| 1" meter or less | $ 18.32 | $ 18.99 |
| 1 1/2" meter | $ 30.10 | $ 34.78 |
| 2" meter | $ 44.27 | $ 53.73 |
| 3" meter | $ 79.65 | $ 97.93 |
| 4" meter | $ 124.49 | $ 161.08 |
| 6" meter | $ 242.45 | $ 318.96 |
| 8" meter | $ 384.00 | $ 508.41 |
| ***Monthly Fire Protection Service Charge*** | | |
| 2" riser | $ 20.79 | $ 22.66 |
| 3" riser | $ 26.46 | $ 28.84 |
| 4" riser | $ 33.08 | $ 36.06 |
| 5" riser | $ 40.64 | $ 44.30 |
| 6" riser | $ 44.42 | $ 48.42 |
| 8" riser | $ 60.48 | $ 65.92 |
| 10" riser | $ 72.77 | $ 79.32 |
| 12" riser | $ 85.05 | $ 92.70 |

**Notes:**
(1) Current water rates became effective October 1, 2008.
(2) Under the current rates, a discounted rate of $0.00270 per gallon applies to single family residents and qualified multi-family units that use less than 10,000 gallons per month.

**ANNUAL AUTOMATIC ADJUSTMENT TO WATER RATES**

Government Code Section 53756 authorizes the City to adopt mechanisms for automatically adjusting the level of water rates based on (1) changes to the cost of wholesale water supplies, and (2) changes in general inflation, for up to five years. It is recommended that the City adopt mechanisms for these purposes, to be applied in January of each year. These automatic adjustments are separate from, and in addition to, the 9.0 percent increase to meet the immediate ongoing operation, debt service and capital project needs and would only be made to reflect actual changes in wholesale water costs and actual changes in the Consumer Price Index. The adjustment in water rates for changes in SCWA's wholesale costs would include an adjustment to the water usage rates (but not monthly service charges) to reflect the relative effect of any changes to SCWA's rates and

charges[1]. The adjustment for general inflation would include a change in the entire water rate schedule to reflect the annual change in the Consumer Price Index, as calculated by the US Bureau of Labor Statistics for the San Francisco-Oakland-San Jose area (Series CUURA422SA0). Both of these automatic adjustments would help the City's water utility to meet service and financial obligations for the next five years. If approved both of these adjustments could be made effective in January 2016, reflecting changes in wholesale water rates and general inflation that occur after July 2015, when the 9.0 percent increase to meet immediate, ongoing operation, debt service and capital program needs is made.

Details of the water rate recommendations are presented in Section III of this report.

**COMPARISON OF PROPOSED WATER RATES WITH NEIGHBORING COMMUNITIES**

A typical monthly water bill for residential customers in Rohnert Park is currently lower than water bills for comparable water usage in most neighboring communities. Even with the proposed increase in water rates, the monthly water bills for a typical single family residential customer will be ***lower*** than all but two neighboring community. The typical water bill for a single family customer in Rohnert Park is compared with water bills based on current water rates of neighboring communities in **Exhibit I-2**.

Most of the neighboring communities also have tiered water rates for their single family customers. All neighboring communities in Exhibit I-2 have either adopted procedures for automatically adjusting water rates on an annual basis, or have adopted multi-year rate schedules with specific annual rate adjustments.

**Exhibit I-2**
**City of Rohnert Park -- Water Utility**
**Comparison of Water Bills with Neighboring Communities (1)**

| | | |
|---|---|---|
| Town of Windsor | $ | 31.76 |
| City of Cotati | $ | 35.66 |
| City of Rohnert Park -- CURRENT | $ | 37.22 |
| City of Rohnert Park -- PROPOSED | $ | 40.80 |
| City of Petaluma | $ | 40.85 |
| City of Santa Rosa | $ | 48.13 |
| City of Cloverdale | $ | 52.33 |
| City of Healdsburg | $ | 59.24 |
| City of Novato (North Marin WD) | $ | 60.03 |
| City of Sebastopol | $ | 64.79 |

**Notes:**
(1) Reflects single family residential water bills based on 7,000 gallons and the standard meter size for each community.

[1] The Sonoma County Water Agency generally adjusts its water rates and charges in July of each year, consistent with the fiscal year. The City would make its adjustment effective in January, ensuring that the City's adjustment accurately reflects the impacts of SCWA's adopted rates and charges.

## SECTION II. WATER FINANCIAL PLAN

This section of the report describes the financial plan and related recommendations for the City's water utility. The ten-year financial plan is used to determine annual water rate revenue requirements. The annual rate revenue requirement is the amount of revenue needed from water rates to cover planned operating, maintenance, debt service, and capital program costs with consideration of other revenues and financial reserves.

### FUND STRUCTURE AND CASH FLOWS

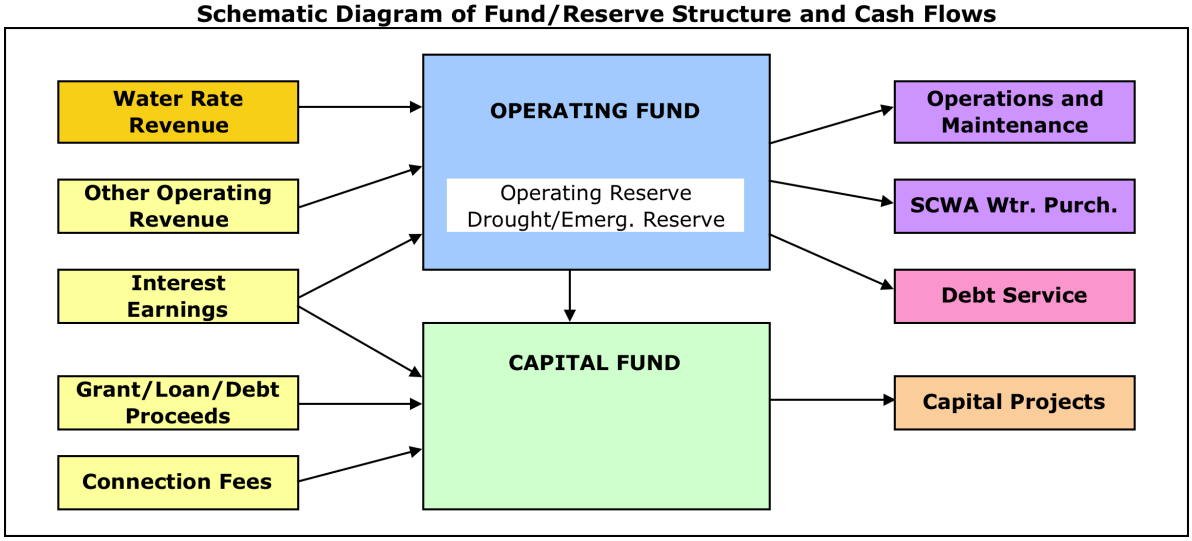
The financial plan is an annual cash flow model. As a cash flow model, it differs from standard accounting income statements, and balance sheets. The financial plan models sources and uses of funds into, out of, and between the various funds and reserves of the water utility.

The financial plan model is based on a fund and reserve structure not currently used by the City, but incorporates new reserves to the existing structure for specified purposes. This structure was discussed with staff and the City Council's Water/Wastewater Issues Subcommittee, with concurrence that it would provide a helpful framework for evaluating the financial needs of the utility and for clearly demonstrating how operating and maintenance costs, debt service obligations, and capital program needs are being addressed. The proposed reserve structure includes an Operating Reserve and a Drought/Emergency Reserve within the Operating Fund, as well as a Capital Fund separate from the Operating Fund for the purpose of meeting capital program needs. **Exhibit II-1** is a schematic diagram of the funds/reserves and major cash flows associated with the financial plan model.

An understanding of the fund/reserve structure is helpful in understanding the financial plan worksheets that model estimated annual cash flows through the water utility from one year to the next. The fund/reserve structure is comprised of:

- ***Operating Fund*** – The Operating Fund is the primary fund within the water utility. Most of the water system's revenues, including water rate revenues, flow into the Operating Fund and all operating and maintenance costs, including debt service payments, are paid out of this fund. Funds are also transferred from the Operating Fund to the Capital Fund to help pay for capital projects intended to rehabilitate and upgrade facilities.
    - *Operating Reserve* – It is recommended that the City maintain an Operating Reserve equal to 25 percent of annual operating and maintenance costs, including debt service, for the water system. The purpose of the Operating Reserve is to provide working capital and funds for unplanned operating and maintenance expenditures. The balance in the Water Operating Fund at the beginning of FY 14-15 was above the target Operating Reserve, thereby providing funds for utility purposes.

**Exhibit II-1**
**City of Rohnert Park -- Water Utility**
**Schematic Diagram of Fund/Reserve Structure and Cash Flows**




- *Drought/Emergency Reserve* – It is recommended that the City maintain a Drought/Emergency Reserve within the Operating Fund for drought or other emergency purposes. Based on an analysis of the financial impact of the current drought (as described later in this section), it is recommended that the Drought/Emergency Reserve be funded initially at $250,000. The current balance in the Operating Fund is sufficient to fund this reserve, and this recommended reserve balance is included for the duration of the planning period.
- *Available Balance* – The balance in the Operating Fund in excess of the target amounts for the Operating Reserve and the Drought/Emergency Reserve is shown in the financial plan as Available Balance. After all other obligations are met the Available Balance is used to offset rate increases. The financial plan model generally seeks to reduce any Available Balance over time. A negative value for the Available Fund Balance would indicate shortfalls in maintaining the minimum Operating Reserve and/or Drought/Emergency.

- ***Capital Fund*** – The Capital Fund is used to account for revenues and funds available for capital project expenditures. Capital projects funded from this fund are intended to rehabilitate, upgrade, and expand the water system to meet current and future needs of the water utility. The financial plan model generally seeks to maintain a positive balance in the Capital Fund while also covering the costs of planned capital improvement projects. The Capital Projects Fund is used to account for connection fee or capacity charge revenue, and also reflects a transfer of funds from the Operating Fund to the Capital Fund in support of the capital improvement program.

**FINANCIAL PLAN ASSUMPTIONS**

The financial plan was created to reflect the FY 14-15 budget and financial conditions as of the beginning of the fiscal year. The financial plan also reflects the City's debt service

obligations and capital improvement program, as identified by City staff, during the ten-year planning period.

The process used to develop the financial plan involved estimating future revenues and expenditures based on estimates of future conditions using the current budget, existing debt service schedules and a capital improvement plan provided by City staff. The financial plan is based on the best available information and its assumptions are believed to be reasonable; however, no assurance can be provided as to the accuracy and completeness of future estimates. The proposed automatic annual adjustments help protect the City and ratepayers from some of the uncertainty associated with financial plan assumptions, because rate adjustments will be based on the actual cost of the wholesale water supply and the actual inflation experienced, rather than on the inflation assumptions made in the model. Primary assumptions reflected in financial plan analyses are described below, with additional information presented in **Exhibit II-2**:

- *Interest Rates* – Interest earned on fund/reserve balances is estimated to be 0.5 percent per year in FY 15-16 and FY 16-17, 0.75 percent in FY 17-18 and FY 18-19, 1.0 percent in FY 19-20 and FY 20-21, and then 1.25 percent per year for the remainder of the planning period. Interest calculations are based on beginning-of-year balances. These interest rates reflect the current return from the Local Agency Investment Fund (LAIF), which is currently 0.26 percent, as well as a gradual return towards historical averages. Interest accrues to each of the funds. The City also pays interest on outstanding long-term debt obligations. The interest payments on outstanding debt are those contained in existing contracts and repayment schedules.
- *Inflation Rates* – The financial plan analyses include general inflation at 3.0 percent per year, SCWA water rate inflation at 5.0 percent per year, and construction inflation at 3.0 percent per year. As stated above, the proposed automatic annual adjustments will be used to ensure that water rates are adjusted for the actual inflation rates experienced, rather than the assumptions included in the financial plan. General inflation is currently about 3.0 percent per year, as reported by the Bureau of Labor Statistics for the San Francisco-Oakland-San Jose area. The SCWA has developed its own long-term financial plan, which illustrates that their water rates will increase by 4 to 6 percent annually to meet their operation, debt service and capital program requirements. Based on this, a 5 percent per year average is used to model changes to the SCWA's rates. Construction inflation, as indicated by the *Engineering News Record's* 20-Cities Construction Cost Index has increased about 3.0 percent per year for the past five years. Each of these inflation assumptions has been reviewed with City staff and is reasonable for financial planning purposes.

**Exhibit II-2**
**City of Rohnert Park**
**Water Utility Financial Plan Assumptions**

| | FY 12-13A | FY 13-14A | FY 14-15B | FY 15-16 | FY 16-17 | FY 17-18 | FY 18-19 | FY 19-20 | FY 20-21 | FY 21-22 | FY 22-23 | FY 23-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Financial Assumptions*** | | | | | | | | | | | | |
| General Inflation | | | | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% |
| SCWA Water Rate Incr. | | | | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% |
| Construction Inflation | | | | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% |
| Interest Earnings | | | | 0.50% | 0.50% | 0.75% | 0.75% | 1.00% | 1.00% | 1.25% | 1.25% | 1.25% |
| Water Connection Fee | | | $ 1,715 | $ 1,715 | $ 1,715 | $ 1,715 | $ 1,715 | $ 1,715 | $ 1,715 | $ 1,715 | $ 1,715 | $ 1,715 |
| Operating Reserve | | | 25% of operating and maintenance expense, including debt service | | | | | | | | | |
| Rate Stabilization Reserve | | | $ 250,000 | | | | | | | | | |
| ***Customer and Water Use Assumptions*** | | | | | | | | | | | | |
| No. of Customer Accounts | | 8,636 | 8,679 | 8,722 | 8,766 | 8,810 | 8,854 | 8,898 | 8,942 | 8,987 | 9,032 | 9,077 |
| No. of 1" Equivalent Meters | | 10,536 | 10,579 | 10,622 | 10,666 | 10,710 | 10,754 | 10,798 | 10,842 | 10,887 | 10,932 | 10,977 |
| Customer Growth Rate | | | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% |
| Annual Water Use (tg) | 1,352,232 | 1,369,825 | 1,308,000 | 1,354,000 | 1,402,000 | 1,409,000 | 1,416,000 | 1,423,000 | 1,430,000 | 1,437,000 | 1,444,000 | 1,451,000 |
| Annual Water Use (AF) | 4,150 | 4,204 | 4,014 | 4,155 | 4,303 | 4,324 | 4,346 | 4,367 | 4,389 | 4,410 | 4,431 | 4,453 |
| Water Demand Factor | | 1.1% | -5% | 3% | 3% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| ***Water Production and Water Supply Costs*** | | | | | | | | | | | | |
| Water Supplies (AF) | | | | | | | | | | | | |
| SCWA Water Purchases | 3,839 | 3,452 | 3,068 | 3,222 | 3,281 | 3,300 | 3,323 | 3,347 | 3,370 | 3,393 | 3,417 | 3,440 |
| Groundwater Production | 1,083 | 1,522 | 1,600 | 1,500 | 1,500 | 1,400 | 1,400 | 1,400 | 1,400 | 1,400 | 1,400 | 1,400 |
| Total Water Supplies | 4,922 | 4,975 | 4,668 | 4,722 | 4,781 | 4,700 | 4,723 | 4,747 | 4,770 | 4,793 | 4,817 | 4,840 |
| Unacct. for Losses | -15.7% | -15.5% | -14.0% | -12.0% | -10.0% | -8.0% | -8.0% | -8.0% | -8.0% | -8.0% | -8.0% | -8.0% |
| Water Supply Costs ($/AF) | | | | | | | | | | | | |
| SCWA Petaluma Aqueduct | $ 672.03 | $ 706.30 | $ 730.68 | $ 767.21 | $ 805.57 | $ 845.85 | $ 888.14 | $ 932.55 | $ 979.18 | $ 1,028.14 | $ 1,079.55 | $ 1,133.53 |
| Groundwater Pumping | $ 183.28 | $ 174.52 | $ 175.00 | $ 180.00 | $ 185.00 | $ 191.00 | $ 197.00 | $ 203.00 | $ 209.00 | $ 215.00 | $ 221.00 | $ 228.00 |
| Water Supply Costs | | | | | | | | | | | | |
| SCWA Water Purchases | $2,580,043 | $2,438,499 | $2,241,407 | $2,471,900 | $2,642,800 | $2,791,400 | $2,951,700 | $3,121,000 | $3,300,000 | $3,489,000 | $3,688,600 | $3,899,500 |
| Groundwater Pumping | $ 198,547 | $ 265,651 | $ 280,000 | $ 270,000 | $ 277,500 | $ 267,400 | $ 275,800 | $ 284,200 | $ 292,600 | $ 301,000 | $ 309,400 | $ 319,200 |
| Total Water Supply Costs | $2,778,590 | $2,704,150 | $2,521,407 | $2,741,900 | $2,920,300 | $3,058,800 | $3,227,500 | $3,405,200 | $3,592,600 | $3,790,000 | $3,998,000 | $4,218,700 |

- *Growth Projections* – The financial plans assume that the customer base (number of active service connections) will grow by 0.5 percent per year throughout the planning period. This estimate is between the estimates incorporated into the City's *2010 Urban Water Management Plan* and the actual growth rate over the past decade, as indicated in the City's annual *Public Water System Statistics* reports submitted to the California Department of Water Resources. The estimate is believed to be reasonable for financial planning purposes because it correlates well with both the development proposals currently moving through the City's approval process and limits established by the City's growth management ordinance, and has been reviewed with City staff.
- *Customer Demand* – Average customer water demands are assumed to rebound from the current drought levels over a two-year period based on the removal of restrictions on water use imposed because of the drought and the water use targets adopted by the City in accordance with the Water Conservation Act of 2009. While a return to normal water supplies is reflected in the financial plan analysis, continuation of the drought could result in sustained reduced customer water demands. The assumption used is believe reasonable for financial planning purposes because it is consistent with the water use targets adopted by the City in accordance with the Water Conservation Act of 2009, and has been reviewed with City staff.
- *Operation and Maintenance Costs* – The financial plan model is based on current operating and maintenance costs as reflected in the FY 14-15 operating budget, with future estimates based on the inflation and growth assumptions described above. Assumptions were reviewed with City staff. The financial plan also reflects City staff's estimate that, with the exception of drought conditions, it will use about 1,400 AF per year of groundwater based on its long-term goal of managing groundwater use sustainably, consistent with the adopted Groundwater Management Plan for the Santa Rosa Plain Groundwater Basin. The balance of the City's potable water supplies provided by the SCWA[2].
- *Capital Improvement Program* – The water utility's capital improvement plan, as developed by staff, includes multiple projects totaling nearly $14.2 million (in inflated future dollars) over a ten-year period to be funded by the water utility. The financial plan assumes that capital projects will be funded from user rates, connection fees, and available reserves. No new long-term debt is included in the financial plan analysis. The capital improvement plan reflected in the financial plan is presented in **Exhibit II-3**.
- *Debt Obligations* – Existing water system long-term debt obligations are summarized in **Exhibit II-4**. The water utility currently pays about $470,000 annually on debt service related to debt issues in 2002 and 2005. One of the requirements associated with bond financing is to maintain rates and other water system revenues at levels sufficient to meet debt service coverage requirements. At present, the City is required to maintain water system

[2] The City also plans to continue to offset approximately 1,000 acre-feet per year of irrigation use with recycled water.

revenues at a level that covers all ongoing operating and maintenance costs, as well as 1.20 times annual debt service. Due to the current drought conditions (with reduced water sales) current water system revenues appear insufficient to meet this requirement. To meet its bond covenants, the City needs to increase water rates such that this requirement is met.

**Exhibit II-5** provides the details of the financial plan model of the City's water utility. It illustrates how a 9.0 percent overall increase in water rates in FY 15-16 will provide the financial capacity for the water utility to continue to meet financial and service obligations, including meeting debt service obligations and adequately supporting the planned capital improvement program. **Exhibit II-6** graphically summarizes the annual revenues, expenses, and year-end Operating Fund balance through the planning period.

**FINANCIAL PLAN FINDINGS AND CONCLUSIONS**

The preceding portion of this section described the basic framework and assumptions underlying the financial analyses. Specific findings and conclusions pertaining to the water utility are presented below, beginning with a description of the current situation. At present, the City's water utility has:

- Sufficient cash in the Operating Fund to maintain the Operation Reserve and Drought/Emergency Reserve, as recommended,
- Current annual water utility revenues of about $6.3 million, and
- Current annual operating and maintenance costs, including debt service obligations totaling about $6.45 million,
- Planned water system capital improvements in FY 14-15 totaling about $1.5 million,
- Estimated debt service coverage in FY 14-15 of 0.98 (the minimum required is 1.20).[3]

An increase in water rates is needed in order to: (1) offset the effects of inflation over the past 6.5 years since the last rate increase, (2) maintain financial stability of the City's water utility, (3) cover ongoing operating and maintenance costs, (4) meet debt service obligations, (5) provide adequate funding for planned water system improvements, and (6) maintain prudent financial reserves. Since the City's water rates were last increased the cost of purchased water from the SCWA has increased by about 42 percent. In addition, general inflation has risen about 12.5 percent. The City has absorbed these cost increases without increasing rates, but this practice is now jeopardizing the City's ability to maintain the appropriate level of investment in its utility.

[3] Debt service coverage is calculated as net revenues (defined as gross revenues minus annual operating and maintenance expenses) divided by annual debt service. Existing debt covenants require that debt service coverage exceed 1.20.

**Exhibit II-3**
**City of Rohnert Park -- Water Utility**
**Summary of Capital Improvement Program**

| | FY 14-15 | FY 15-16 | FY 16-17 | FY 17-18 | FY 18-19 | FY 19-20 | FY 20-21 | FY 21-22 | FY 22-23 | FY 23-24 | Funding |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Main Improv. Project | 2,336,700 | | | | | | | | | | PFF |
| Recycled Water System Expansion | | 50,000 | 600,000 | | | | | | | | PFF |
| Water Storage Tank #8 | | | 4,561,100 | | | | | | | | Developer |
| Commerce Wtr. Line Replacement | | | | | 340,000 | | | | | | Water |
| 2011 Water Meter Install. Project | 260,000 | | | | | | | | | | Water |
| Well Rehabilitation Program | | | | 100,000 | 100,000 | 100,000 | | | | | Water |
| Fire Hydrant and Hydr. Valve Repl. | | | | 180,000 | 180,000 | | | | | | Water |
| Well and Tank Site Upgrades | 100,000 | | | 100,000 | 100,000 | | | | | | Water |
| Wtr. Serv. Laterals-Eastside Trunk Rt. | 100,000 | | | | | | | | | | Water |
| Adrian Dr. Wtr. Sys. Replac.-Phase 2 | 951,187 | | | | | | | | | | Water |
| Water Services Leak Project | | 150,000 | 800,000 | | | | | | | | Water |
| S. Barbara/Bobbie/Boris Wtr. Sys. Repl. | | | 289,000 | 1,989,000 | | | | | | | Water |
| Tank #5 Painting | 70,600 | 485,600 | | | | | | | | | Water |
| Future Project Placeholder | | | | | | 1,000,000 | 1,250,000 | 1,250,000 | 1,250,000 | 1,250,000 | Water |
| **Annual Totals** | **3,818,487** | **685,600** | **6,250,100** | **2,369,000** | **720,000** | **1,100,000** | **1,250,000** | **1,250,000** | **1,250,000** | **1,250,000** | |
| Total with Inflation | 3,818,000 | 706,000 | 6,631,000 | 2,589,000 | 810,000 | 1,275,000 | 1,493,000 | 1,537,000 | 1,583,000 | 1,631,000 | |
| Total from Water Fund | 1,482,000 | 655,000 | 1,155,000 | 2,589,000 | 810,000 | 1,275,000 | 1,493,000 | 1,537,000 | 1,583,000 | 1,631,000 | |

**Exhibit II-4**
**City of Rohnert Park -- Water Utility**
**Summary of Debt Service Obligations**

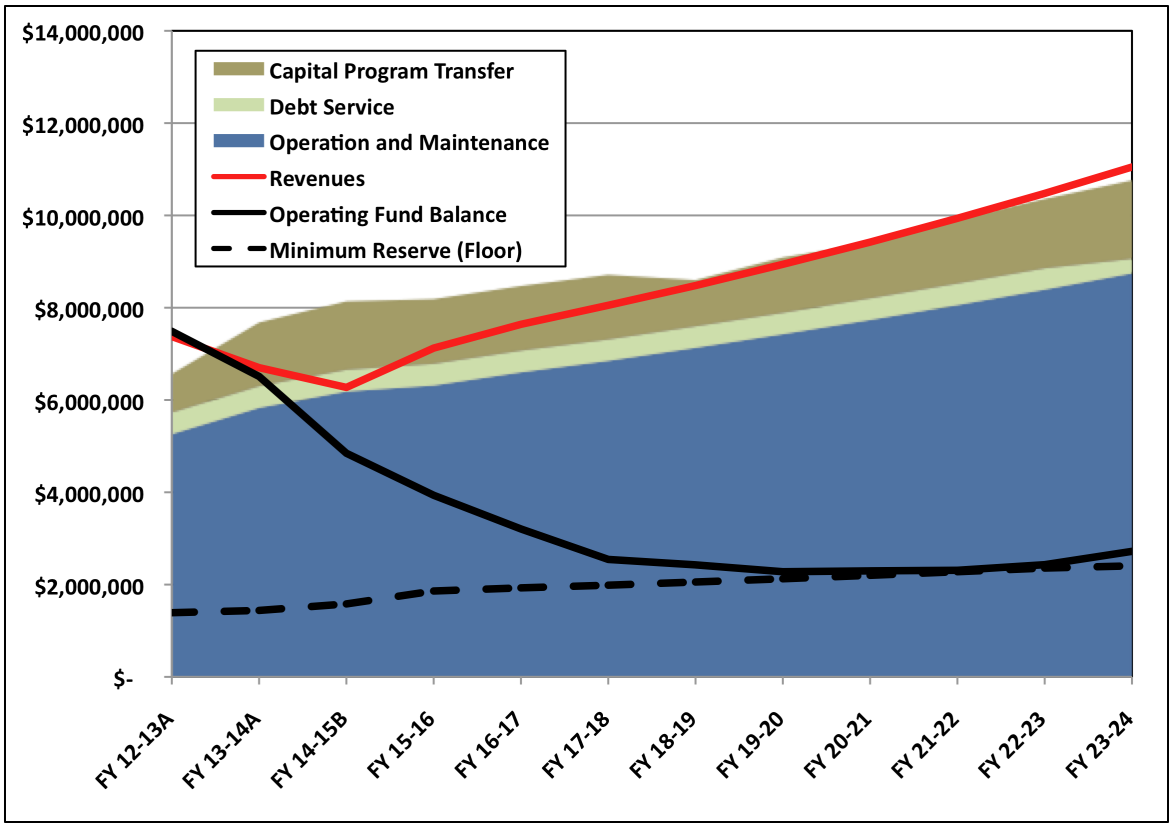
| | FY 13-14 | FY 14-15 | FY 15-16 | FY 16-17 | FY 17-18 | FY 18-19 | FY 19-20 | FY 20-21 | FY 21-22 | FY 22-23 | FY 23-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Series 2002C - Water and Wastewater Revenue Bond*** | | | | | | | | | | | |
| Principal Payment | 100,000 | 105,000 | 110,000 | 115,000 | 115,000 | 120,000 | 125,000 | 135,000 | 140,000 | 145,000 | |
| Interest Payment | 49,005 | 45,415 | 41,325 | 36,825 | 32,225 | 27,225 | 21,713 | 15,863 | 9,675 | 3,263 | |
| Total Payment | 149,005 | 150,415 | 151,325 | 151,825 | 147,225 | 147,225 | 146,713 | 150,863 | 149,675 | 148,263 | |
| Outstanding Balance | 1,110,000 | 1,005,000 | 895,000 | 780,000 | 665,000 | 545,000 | 420,000 | 285,000 | 145,000 | - | |
| ***Series 2005 - Water Revenue Bond*** | | | | | | | | | | | |
| Principal Payment | 155,000 | 160,000 | 165,000 | 170,000 | 175,000 | 185,000 | 190,000 | 200,000 | 210,000 | 215,000 | 225,000 |
| Interest Payment | 165,396 | 159,764 | 153,709 | 147,174 | 140,274 | 132,958 | 125,153 | 116,913 | 108,069 | 98,772 | 89,147 |
| Total Payment | 320,396 | 319,764 | 318,709 | 317,174 | 315,274 | 317,958 | 315,153 | 316,913 | 318,069 | 313,772 | 314,147 |
| Outstanding Balance | 3,780,000 | 3,620,000 | 3,455,000 | 3,285,000 | 3,110,000 | 2,925,000 | 2,735,000 | 2,535,000 | 2,325,000 | 2,110,000 | 1,885,000 |

**Exhibit II-5**
**City of Rohnert Park**
**Water Utility Financial Plan**

| | FY 12-13A | FY 13-14A | FY 14-15B | FY 15-16 | FY 16-17 | FY 17-18 | FY 18-19 | FY 19-20 | FY 20-21 | FY 21-22 | FY 22-23 | FY 23-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | July 2015 Rate Adjustment (1) --> | | | 9.0% | | | | | | | | |
| **WATER OPERATING FUND (511)** | | | | | | | | | | | | |
| ***Beginning Balance*** | 6,675,484 | 7,488,331 | 6,510,590 | 4,846,200 | 3,935,500 | 3,205,500 | 2,545,500 | 2,427,700 | 2,278,900 | 2,297,300 | 2,309,800 | 2,431,400 |
| ***Revenues*** | | | | | | | | | | | | |
| Water Rate Revenue | 6,699,626 | 6,162,388 | 6,008,000 | 6,843,000 | 7,355,000 | 7,755,000 | 8,179,000 | 8,626,000 | 9,100,000 | 9,601,000 | 10,131,000 | 10,692,000 |
| Fire Service Charges | - | 222,210 | 222,210 | 242,200 | 249,500 | 257,000 | 264,700 | 272,600 | 280,800 | 289,200 | 297,900 | 306,800 |
| Miscellaneous Revenue | 649,629 | 297,753 | 15,000 | 15,500 | 16,000 | 16,500 | 17,000 | 17,500 | 18,000 | 18,500 | 19,100 | 19,700 |
| Interest Earnings | 25,676 | 18,577 | 27,500 | 24,200 | 19,700 | 24,000 | 19,100 | 24,300 | 22,800 | 28,700 | 28,900 | 30,400 |
| **Total Revenues** | 7,374,931 | 6,700,928 | 6,272,710 | 7,124,900 | 7,640,200 | 8,052,500 | 8,479,800 | 8,940,400 | 9,421,600 | 9,937,400 | 10,476,900 | 11,048,900 |
| ***Expenses*** | | | | | | | | | | | | |
| Administration | 120,390 | 67,985 | 111,973 | 115,300 | 118,800 | 122,400 | 126,100 | 129,900 | 133,800 | 137,800 | 141,900 | 146,200 |
| Human Resources | - | 12,429 | 45,116 | 46,500 | 47,900 | 49,300 | 50,800 | 52,300 | 53,900 | 55,500 | 57,200 | 58,900 |
| Finance | 296,863 | 292,418 | 336,784 | 346,900 | 357,300 | 368,000 | 379,000 | 390,400 | 402,100 | 414,200 | 426,600 | 439,400 |
| Development Services | 80,312 | 28,157 | 44,675 | 46,000 | 47,400 | 48,800 | 50,300 | 51,800 | 53,400 | 55,000 | 56,700 | 58,400 |
| Public Works | 1,116,948 | 1,265,963 | 1,394,757 | 1,436,600 | 1,479,700 | 1,524,100 | 1,569,800 | 1,616,900 | 1,665,400 | 1,715,400 | 1,766,900 | 1,819,900 |
| Other Services & Supplies | 465,672 | 546,711 | 610,441 | 628,800 | 647,700 | 667,100 | 687,100 | 707,700 | 728,900 | 750,800 | 773,300 | 796,500 |
| Utilities (GW Pumping) | 198,547 | 265,651 | 280,000 | 270,000 | 277,500 | 267,400 | 275,800 | 284,200 | 292,600 | 301,000 | 309,400 | 319,200 |
| Sonoma County Wtr. Agency | 2,580,043 | 2,438,499 | 2,241,407 | 2,471,900 | 2,642,800 | 2,791,400 | 2,951,700 | 3,121,000 | 3,300,000 | 3,489,000 | 3,688,600 | 3,899,500 |
| Contract./Prof. Services | 206,980 | 206,690 | 422,252 | 434,900 | 447,900 | 461,300 | 475,100 | 489,400 | 504,100 | 519,200 | 534,800 | 550,800 |
| Bad Debt Expense | 31,562 | 22,292 | 25,000 | 25,800 | 26,600 | 27,400 | 28,200 | 29,000 | 29,900 | 30,800 | 31,700 | 32,700 |
| Capital Outlay | - | 143,230 | 340,000 | 150,000 | 154,500 | 159,100 | 163,900 | 168,800 | 173,900 | 179,100 | 184,500 | 190,000 |
| Debt Service | 467,951 | 469,401 | 470,180 | 470,100 | 469,000 | 462,500 | 465,200 | 461,900 | 467,800 | 467,800 | 462,100 | 314,200 |
| Trans. to Ret. Med. Trust Fund | 112,000 | 145,000 | 73,000 | 75,200 | 77,500 | 79,800 | 82,200 | 84,700 | 87,200 | 89,800 | 92,500 | 95,300 |
| Reimb. of Retiree Medical | - | 396,000 | 159,000 | 163,800 | 168,700 | 173,800 | 179,000 | 184,400 | 189,900 | 195,600 | 201,500 | 207,500 |
| Trans. to Veh./Eq. Repl. Fund | 52,000 | - | 100,742 | 103,800 | 106,900 | 110,100 | 113,400 | 116,800 | 120,300 | 123,900 | 127,600 | 131,400 |
| Trans. to Capital Proj. Fund | 832,816 | 1,378,243 | 1,481,737 | 1,400,000 | 1,400,000 | 1,400,000 | 1,000,000 | 1,200,000 | 1,200,000 | 1,400,000 | 1,500,000 | 1,700,000 |
| Turnback | | | (200,000) | (150,000) | (100,000) | | | | | | | |
| **Total Expenses** | 6,562,084 | 7,678,669 | 7,937,064 | 8,035,600 | 8,370,200 | 8,712,500 | 8,597,600 | 9,089,200 | 9,403,200 | 9,924,900 | 10,355,300 | 10,759,900 |
| ***Ending Balance*** | **7,488,331** | **6,510,590** | **4,846,236** | **3,935,500** | **3,205,500** | **2,545,500** | **2,427,700** | **2,278,900** | **2,297,300** | **2,309,800** | **2,431,400** | **2,720,400** |
| Operating Reserve (25%) | 1,391,000 | 1,440,000 | 1,581,000 | 1,611,000 | 1,679,000 | 1,737,000 | 1,806,000 | 1,876,000 | 1,951,000 | 2,029,000 | 2,108,000 | 2,156,000 |
| Drought/Emerg. Reserve ($250k) | - | - | - | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 |
| Available Balance | 6,097,331 | 5,070,590 | 3,265,236 | 2,074,500 | 1,276,500 | 558,500 | 371,700 | 152,900 | 96,300 | 30,800 | 73,400 | 314,400 |
| DS Coverage (1.20 min.) | 4.63 | 1.85 | 0.98 | 2.42 | 2.83 | 3.02 | 3.30 | 3.70 | 4.03 | 4.45 | 4.96 | 8.00 |
| **WATER CAPITAL FUND** | | | | | | | | | | | | |
| ***Beginning Balance*** | - | - | - | 73,400 | 892,500 | 1,217,500 | 113,100 | 379,400 | 383,700 | 170,000 | 112,300 | 107,900 |
| ***Revenues*** | | | | | | | | | | | | |
| Transfer from Operations | 832,816 | 1,378,243 | 1,481,737 | 1,400,000 | 1,400,000 | 1,400,000 | 1,000,000 | 1,200,000 | 1,200,000 | 1,400,000 | 1,500,000 | 1,700,000 |
| Connection Fees | | | 73,700 | 73,700 | 75,500 | 75,500 | 75,500 | 75,500 | 75,500 | 77,200 | 77,200 | 77,200 |
| Interest Earnings | | | | 400 | 4,500 | 9,100 | 800 | 3,800 | 3,800 | 2,100 | 1,400 | 1,300 |
| **Total Revenues** | 832,816 | 1,378,243 | 1,555,437 | 1,474,100 | 1,480,000 | 1,484,600 | 1,076,300 | 1,279,300 | 1,279,300 | 1,479,300 | 1,578,600 | 1,778,500 |
| ***Expenses*** | | | | | | | | | | | | |
| Water System Projects (see CIP Table) | 832,816 | 1,378,243 | 1,482,000 | 655,000 | 1,155,000 | 2,589,000 | 810,000 | 1,275,000 | 1,493,000 | 1,537,000 | 1,583,000 | 1,631,000 |
| **Total Expenses** | 832,816 | 1,378,243 | 1,482,000 | 655,000 | 1,155,000 | 2,589,000 | 810,000 | 1,275,000 | 1,493,000 | 1,537,000 | 1,583,000 | 1,631,000 |
| ***Ending Balance*** | **-** | **-** | **73,437** | **892,500** | **1,217,500** | **113,100** | **379,400** | **383,700** | **170,000** | **112,300** | **107,900** | **255,400** |

**Notes:**
(1) The financial plan reflects the proposed automatic rate adjustments in January of each year for (1) changes in SCWA water purchase costs, and (2) general inflation, as described in Section III.

**Exhibit II-6**
**City of Rohnert Park -- Water Utility**
**Financial Plan Summary**




It is recommended that the City increase water rates by an overall 9.0 percent effective in July 2015 to address the aforementioned needs. This increase will allow the City to sustainably absorb the previous impacts of SCWA increases and inflation. Any lower rate increase would result in the water utility not meeting one or more of these objectives. In addition, the City should adopt an automatic adjustment program so that it can adjust water rates to reflect the actual changes in cost associated with SCWA water purchases and to counter the effects of general inflation moving forward. The proposed annual adjustment program to offset the effects of SCWA cost changes and of general inflation is described in the next section. The water rate revenue estimates reflected in the financial plan shown in Exhibit II-5 incorporate estimates for these adjustments, but the proposed program will be based on the actual rate increases made by the SCWA and the actual inflation rate experienced by the City, ensuring that the annual adjustments will reflect the actual cost of service.

The financial plan model reflects assumptions and estimates that are believed reasonable at the present time. However, conditions change. It is recommended that the City review the financial condition of the water utility annually as part of the budget

process, and perform a more comprehensive financial plan and water rate update study every 3 to 5 years, unless otherwise needed sooner.

**WATER SHORTAGE FINANCIAL ANALYSIS**

This water rate study also included an analysis of the financial impacts associated with drought and reduced water sales. Coming on the heel of a very dry year in 2013, the continuation of dry conditions in 2014 resulted in the Governor requesting a 20 percent reduction in water use throughout California and the State Water Resources Control Board adopting an emergency regulation requiring all urban water suppliers to enforce programs that reduce outdoor water usage. The City of Rohnert Park, like other communities in the state and region, reacted by asking customers to reduce water usage and implementing restrictions on outdoor water use.

The City's water utility can be affected in several ways by drought conditions. Changes in operating and maintenance costs and revenues can include:

- Reduced water sales and water sales revenue
- Reduced water purchases and water purchase costs
- Increased groundwater production and production costs
- Increased water conservation program costs.

While the reduction in water sales revenue will be partially offset by the reduction in water purchase and production costs, revenue may decline more than costs creating a financial deficit. Increased water conservation program costs, including education and assistance programs, add to the financial deficit created by water shortage.

In response to water shortage, and the financial deficit created, the City has the ability to take several actions. The analysis presented herein focuses on two potential courses of action, including:

- Using available financial reserves, including designating a portion of reserves for drought/emergency purposes
- Supplementing water rate revenues through imposition of water shortage surcharges.

The City could also reduce operating and maintenance costs, where possible, defer capital projects, or seek outside funding sources to help bridge a financial deficit.

Using the financial plan model, an analysis of the potential financial impacts of water shortages has been modeled. The analysis includes estimating the magnitude of reduced revenue, reduced costs, and increased costs that may be associated with each stage of water shortage. **Exhibit II-7** summarizes estimated FY 14-15 operating revenues and expenses under normalized water supply conditions and under various stages of water shortage, as defined in the City's Water Shortage Emergency Plan.

The shortage analysis starts with normal conditions whereby revenues and expenses are effectively in balance. Under water shortage conditions, a financial deficit is likely to emerge and increase with increasing severity of drought conditions. Analyses indicate that

the City of Rohnert Park has an advantage that other communities do not have. During drought conditions, the City has the ability to shift its water supply mix to place increased emphasis on groundwater production. Because groundwater is less expensive to produce (in the short-term) than purchasing water from the SCWA, the City has the ability to largely reduce expenses almost to the extent of reduces water sales revenue. While other communities are faced with implementing some form of water shortage rates, because of its cost structure and water supply flexibility, the City of Rohnert Park can largely mitigate the financial impact of water shortage through use of available reserves.

**Exhibit II-8** presents the analysis of estimated FY 14-15 annual revenue and expenses at each stage of water shortage, based on the use of a designated Drought/Emergency Reserve. Analyses presented in Exhibit II-8 suggest that a Drought/Emergency Reserve of $250,000 should be sufficient to bridge the financial deficit created by one or multiple years of moderate drought, and even a year of the most severe drought conditions, based on the analyses and assumptions incorporated therein. This analysis assumes that the City chooses to shift its water supply mix during periods of shortage to help limit the increased costs that might otherwise be associated with drought conditions.

As a result of this analysis, it is recommended that the City establish and maintain a Drought/Emergency Reserve with a balance of at least $250,000. At present, the City has sufficient funds in the Water Operating Fund to fund this reserve. The proposed water rates do not provide funding for this recommended reserve. At this time, it appears there is no need to implement water shortage surcharges for drought purposes.

**Exhibit II-7**
**City of Rohnert Park -- Water Utility**
**Estimated Financial Impact Created by Water Shortages (FY 14-15)**

| | Normal Supply (1) | Stage 1 Voluntary | Stage 2 Mandatory | Stage 3 Mandatory | Stage 4 Mandatory |
|---|---|---|---|---|---|
| Use Reduction Goals --> | None | 10% | 20% | 30% | 50% |
| ***Est. Financial Impact from Water Shortage*** | | | | | |
| Reduced Water Rate Revenue | | $ (397,000) | $ (794,000) | $ (1,190,000) | $ (1,986,000) |
| Reduced Surface Water Purchase Costs | | $ 414,100 | $ 828,200 | $ 1,242,300 | $ 1,997,500 |
| Reduced Groundwater Production Costs | | $ (17,500) | $ (35,000) | $ (52,500) | $ (70,000) |
| Increased Water Conservation Costs | | $ (13,600) | $ (38,600) | $ (63,600) | $ (88,600) |
| **Est. Total Financial Deficit** | $ - | $ (14,000) | $ (39,400) | $ (63,800) | $ (147,100) |
| ***Multi-Pronged Corrective Strategy*** | | | | | |
| Use of Drought/Emergency Reserves (2) | | $ 14,000 | $ 39,400 | $ 63,800 | $ 147,100 |
| Impose Water Shortage Charge (3) | | $ - | $ - | $ - | $ - |
| **Total Corrective Actions** | **$ -** | **$ 14,000** | **$ 39,400** | **$ 63,800** | **$ 147,100** |
| Water Shortage Charge --> | | | 0% | 0% | 0% |

**Notes:**
(1) The FY 14-15 budget and related revenue and expense estimates were adjusted to reflect a normal water supply year.
(2) Amounts shown are the estimated reduction in Drought/Emergency reserves due to water shortage.
(3) Because of limited financial risk, water shortage charges appear not needed and not recommended at this time.

**Exhibit II-8**
**City of Rohnert Park -- Water Utility**
**Estimated Financial Impact of Water Shortage with Mitigation Responses (FY 14-15)**

| | Normal Supply (1) | Stage 1 Voluntary | Stage 2 Mandatory | Stage 3 Mandatory | Stage 4 Mandatory |
|---|---|---|---|---|---|
| Use Reduction Goals --> | None | 10% | 20% | 30% | 50% |
| ***Revenues*** | | | | | |
| Water Service Charge Revenue | $ 2,179,000 | $ 2,179,000 | $ 2,179,000 | $ 2,179,000 | $ 2,179,000 |
| Water Usage Charge Revenue (2) | $ 3,972,000 | $ 3,575,000 | $ 3,178,000 | $ 2,782,000 | $ 1,986,000 |
| Water Shortage Charge Rev. (3) | | | $ - | $ - | $ - |
| Other Operating Revenue | $ 237,200 | $ 237,200 | $ 237,200 | $ 237,200 | $ 237,200 |
| Interest Earnings | $ 27,500 | $ 27,500 | $ 27,500 | $ 27,500 | $ 27,500 |
| **Total Revenues** | $ 6,415,700 | $ 6,018,700 | $ 5,621,700 | $ 5,225,700 | $ 4,429,700 |
| (% of normal) | | 94% | 88% | 81% | 69% |
| ***Expenditures and Transfers*** | | | | | |
| Administration (4) | $ 563,500 | $ 563,500 | $ 563,500 | $ 563,500 | $ 563,500 |
| Public Works | $ 1,394,800 | $ 1,394,800 | $ 1,394,800 | $ 1,394,800 | $ 1,394,800 |
| Other Services & Supplies | $ 599,000 | $ 599,000 | $ 599,000 | $ 599,000 | $ 599,000 |
| Groundwater Production (5) | $ 245,000 | $ 262,500 | $ 280,000 | $ 297,500 | $ 315,000 |
| SCWA Water Purchases (6) | $ 2,387,500 | $ 1,973,400 | $ 1,559,300 | $ 1,145,200 | $ 390,000 |
| Contract./Prof. Services | $ 422,300 | $ 422,300 | $ 422,300 | $ 422,300 | $ 422,300 |
| Water Conservation (7) | $ 11,400 | $ 25,000 | $ 50,000 | $ 75,000 | $ 100,000 |
| Capital Outlay | $ 340,000 | $ 340,000 | $ 340,000 | $ 340,000 | $ 340,000 |
| Debt Service | $ 470,200 | $ 470,200 | $ 470,200 | $ 470,200 | $ 470,200 |
| Trans. to Ret. Med. Trust Fund | $ 73,000 | $ 73,000 | $ 73,000 | $ 73,000 | $ 73,000 |
| Reimb. of Retiree Medical | $ 159,000 | $ 159,000 | $ 159,000 | $ 159,000 | $ 159,000 |
| Trans. to Veh./Eq. Repl. Fund | $ 100,700 | $ 100,700 | $ 100,700 | $ 100,700 | $ 100,700 |
| Trans. to Capital Proj. Fund | $ 1,481,700 | $ 1,481,700 | $ 1,481,700 | $ 1,481,700 | $ 1,481,700 |
| Planned Use of Reserves (8) | $ (1,832,400) | $ (1,832,400) | $ (1,832,400) | $ (1,832,400) | $ (1,832,400) |
| **Total Uses of Funds** | $ 6,415,700 | $ 6,032,700 | $ 5,661,100 | $ 5,289,500 | $ 4,576,800 |
| (% of normal) | | 94% | 88% | 82% | 71% |
| **Surplus/(Deficit) Due to Shortage** | **$ -** | **$ (14,000)** | **$ (39,400)** | **$ (63,800)** | **$ (147,100)** |

**Notes:**
(1) The FY 14-15 budget and related revenue and expense estimates were adjusted to reflect a normal water supply year.
(2) Water usage charge revenue will decline in proportion to water sales volume.
(3) Because of limited financial risk, water shortage charges appear not needed and not recommended at this time.
(4) Includes administration, human resources, finance, development services, and bad debt expenses.
(5) Increases in proportion with the increased reliance on groundwater production.
(6) Decreases in proportion with the reduction in SCWA water purchases.
(7) Increases with increasing severity of water shortage conditions.
(8) Plug figure to balance revenue and expenses under normal supply condition.

## SECTION III. WATER RATES

This section of the report presents information and analyses leading to the development of water rate recommendations for FY 15-16 and beyond.

### CURRENT WATER RATES

The City of Rohnert Park provides water service through about 8,700 water service connections[4], including about 7,700 single family residences, and about 1,000 multi-family, commercial, and irrigation services.

The City's current water rates were last adjusted in October 2008 and are summarized in **Exhibit III-1**[5]. Current water rates include a monthly service charge for all service connections and uniform water rate for all customers. Additionally, monthly fire protection charges apply to dedicated private fire service connections (related to fire suppression requirements). At present, about 65 percent of water rate revenue is generated from water usage charges and about 35 percent from fixed service charges.

The current uniform water usage rate is intended to discourage excessive water use and encourage customers to conserve water. The water conservation best management practice (BMP 1.4) promulgated by the California Urban Water Conservation Council (CUWCC) suggests that at least 70 percent of water rate revenue should come from water usage charges. However, that standard often places water utilities at undue financial risk, as most water system costs are fixed.

### CUSTOMER ACCOUNT DATA AND WATER USE ESTIMATES

Water rate calculations are based on a number of factors related to the City's customer base. Factors include the number of customers, customer classes, meter size, and actual water usage. The City provides water service through about 8,700 water service connections (accounts). Single family customers comprise about 88 percent of the customer accounts and about 50 percent of annual water usage. Multi-family and non-residential customer accounts make up about 12 percent of the customers and 50 percent of annual water usage.

4 The term "customer" is generally used in this report to refer to a water service connection that provides water service to an individual parcels. In some cases, a parcel may be served by more than one service connection.

5 The water rates that are the subject of this report are the property related fees associated with water service to a parcel. They are not capacity charges as defined by Government Code Section 66013, which are charges for facilities and paid by new development; nor are they standby charges or assessments, as defined by the California Constitution Article XIIID.

**Exhibit III-1**
**City of Rohnert Park -- Water Utility**
**Schedule of Current Water Rates (1)**

| | Current |
|---|---|
| ***Water Usage Rate ($/gallon)*** | |
| All Water Usage (2) | $ 0.00300 |
| ***Monthly Service Charge*** | |
| 1" meter or less | $ 18.32 |
| 1 1/2" meter | $ 30.10 |
| 2" meter | $ 44.27 |
| 3" meter | $ 79.65 |
| 4" meter | $ 124.49 |
| 6" meter | $ 242.45 |
| 8" meter | $ 384.00 |
| ***Monthly Fire Protection Service Charge*** | |
| 2" riser | $ 20.79 |
| 3" riser | $ 26.46 |
| 4" riser | $ 33.08 |
| 5" riser | $ 40.64 |
| 6" riser | $ 44.42 |
| 8" riser | $ 60.48 |
| 10" riser | $ 72.77 |
| 12" riser | $ 85.05 |

**Notes:**
(1) Effective October 1, 2008.
(2) A discounted rate of $0.00270 per gallon applies to single family residents and qualified multi-family units that use less than 10,000 gallons per month.

While there are extremes on both the low and high ends, average single family water usage is about 6,800 gallons per month (about 227 gallons per day). Single family customers also exhibit a wide variation in water usage throughout the year. Winter water usage for single family homes averages about 4,200 per month (about 140 gpd), while summer usage varies dramatically depending on landscape irrigation and other factors. Water usage for multi-family dwellings is lower than for single family residences for a variety of reasons including fewer people per household and limited landscape irrigation (or irrigation that is separately metered). Non-residential water usage can vary dramatically, and non-residential customers are served by meters of varying sizes to accommodate the differences in water demands.

Service connections with different meter sizes can place different demands on the water system. Much more water can be delivered through a 4" water meter than through a 1" meter. To relate the potential demands on the water system from customers with different sized water meters, it is recommended that hydraulic capacity factors be used to determine the number of equivalent meters represented by the total customer base with variable meter sizes. For purposes of rate analysis, meters up to 1" are assigned a meter equivalency factor of 1.0. The ratios of instantaneous flow capacities of the various meter sizes to the capacity of a 1" meter are used to determine the meter equivalencies for larger

meter sizes. This capacity relationship across meter sizes is generally used to allocate capacity-related costs to various customers.

The foregoing customer account and water use data have been used in water rate analysis that is presented in the remainder of this section.

**WATER RATE CALCULATIONS**

There are three steps to determining water rates. These are:

- Determine annual water rate revenue requirements
- Analyze the cost of providing service to each customer class
- Design water rates to recover costs from each customer class.

*Water Rate Revenue Requirements*

The ten-year financial plan was used to identify the water rate revenue required to meet financial obligations for each fiscal year of the planning period. The water rate calculation presented herein is based on the revenue to be generated beginning in July 2015, and reflects the proposed 9.0 percent overall rate increase that is needed to meet immediate ongoing operations, debt service and capital program needs. The revenue requirement for this period is $6,708,000, which is less than the water service charges shown in Exhibit II-5 of this report, as the amount shown in that exhibit also reflects the estimated recommended annual adjustments to be made in January 2016 for inflation and changes in SCWA water costs. The revenue requirement in the cost of service analysis does not include the estimated adjustments in order to avoid "double counting" those adjustments.

*Cost of Service Analysis*

Once the annual water rate revenue requirement was determined using the financial plan model, the next step in the rate setting process was to evaluate the cost of providing service. Water rate calculations contained herein are intended to generate the level of revenue commensurate with the revenue requirement from the City's water service customers. The manner in which each customer is responsible for the water utility's costs is the determining factor in the cost of service analysis.

The water utility incurs certain types of costs associated with making water service available to customers. Other costs are incurred as a direct result of customer water usage. A cost of service analysis is intended to allocate the costs of providing water service to customers in proportion to the extent to which each customer causes the costs to be incurred. There are many approaches to cost of service analysis; some are more complex than others. The approach used herein is commensurate with the available data, the distinctions currently made between various types of customers, and the requirement to fairly and reasonably reflect differences in service provisions to differently situated customers.

The cost allocation methodology used herein begins by assigning all costs to one of three categories. The cost allocation process is performed with data available in the City's budget and accounting documents. The three categories include:

- Customer costs, such as meter reading and billing, are fixed costs that tend to vary as a function of the number of customers being served. Customer costs are allocated to customers based on the number of accounts. That is, every customer will pay an equal share of customer-related costs.
- Capacity costs are also fixed costs; however, these tend to vary in relation to the capacity of the water system and the ability to serve the demands of active customers. Customers that place greater or lesser burdens on the capacity of the water system should bear greater or lesser shares of these costs. The sizing of the water system is based on the potential demand that each customer could place on the water system. Capacity costs are allocated to customers based on the hydraulic capacity of the water meter. The hydraulic capacity factors are shown in Exhibit III-2 (below), and reflect the ratio of the rated flow capacity of each meter size to the rated flow capacity of a 1" meter. The hydraulic capacity reflects the potential demand that a customer could place on the water system at any given time. A customer with a large meter size will be assigned a large share of fixed capacity-related costs than one with a smaller meter. Capacity costs include costs associated with the water system's capacity including contributions to the capital program, debt service, maintenance costs, and certain fixed operating costs.
- Commodity costs are variable costs that vary with the amount of actual water use. Water treatment costs and energy costs are two typical examples. However, in an effort to encourage water conservation, fixed costs are frequently included in commodity components such that a majority of costs are recovered on the basis of usage. Even though some commodity costs are fixed, rather than variable, it is reasonable to allocate these costs to customers on the basis of usage, rather than the capacity relationship expressed by meter size. This helps to achieve the City's water conservation objectives. A significant portion of the water utility's fixed costs is recovered through water usage charges.

The water conservation best management practice for retail water rates (BMP 1.4), as promulgated by the CUWCC, specifies that at least 70 percent of water rate revenue be generated through usage charges. The City's current water rates generate about 65 percent of revenue from usage (commodity) charges. However, this is due in large part to reduced water usage during the current drought. Proposed water rates maintain this revenue mix, and continue to provide an important water conservation incentive. As water usage rebounds a greater share of rate revenue will be derived from water usage charges.

Based on a review of estimated costs for FY 15-16 for the water utility, customer service costs are estimated to be about 5 percent of the annual water rate revenue requirement. This leaves 30 percent of the revenue requirement allocated to capacity costs. In summary, the cost allocation resulted in a distribution of costs to customer, capacity, and commodity categories at about 5 percent, 30 percent, and 65 percent, respectively.

*Water Rate Design*

The third step in the rate setting process is the design of water rates to recover costs from each customer class and generate the revenue needed for the utility. The City's current water rates include both fixed monthly service charges and a uniform water usage rate. **Exhibit III-2** presents the calculation of monthly service charges and water usage rates for the water rates proposed for FY 15-16. The calculation of each of these is described below.

*Service Charges*

Service charges are intended to recover the customer and capacity costs identified through the cost of service analysis. Service charges apply to all customer water bills, regardless of the amount of water actually used. Customers that use no water during a month should still be required to pay the monthly service charge, as service is immediately available to them. In calculating service charges customer costs are allocated equally to all customers and capacity costs are allocated based on meter size in relation to the hydraulic capacity associated with the various meter sizes.

The proposed monthly service charge for a 1" meter (typical for a single family home) is $18.99. Service charges for larger meter sizes vary from $34.78 to $508.41, depending on meter sizes ranging from 1 ½" to 8". All of these charges are higher than current service charges, but properly reflect the capacity relationship across meter sizes, as well as the revenue needs of the utility. The variation of service charges through meter sizes reflects the fact that a small portion of water system costs are directly related to the number of customers served. A majority of fixed costs are allocated on a capacity basis as reflected by the meter size. The changes to the service charges across the range of meter sizes better reflects the cost of providing service to customers of varying meter sizes. At present, this capacity relationship is not fully expressed in the rates.

*Water Usage Rates*

The current water rates include a uniform usage rate for all customer classes. Tiered water rates are effective when water usage profiles are uniform, as is the case with single family residential customers. However, a tiered structure is less effective, and may be viewed as punitive, when applied across broad-spectrum water usage profiles. For this reason, tiered rates are not recommended for the City's multi-family and non-residential customers. A two-tier structure is proposed for single family customers, while a uniform water usage rate is proposed to be maintained for multi-family and non-residential customers.

The uniform rate for multi-family and non-residential customers is determined simply by dividing the costs allocated to the commodity cost category by the estimated total annual water sales, or $0.00315 per gallon. This rate would apply to all water usage by multi-family and non-residential customers, including dedicated irrigation accounts.

## Exhibit III-2
## City of Rohnert Park
## Water Rate Calculation for July 2015

| | No. of Accounts by Meter Size | | | | | | | | Ann. Wtr. |
|---|---|---|---|---|---|---|---|---|---|
| | **Up to 1"** | **1 1/2"** | **2"** | **3"** | **4"** | **6"** | **8"** | **Total** | **Use (tg)** |
| ***No. of Accounts*** | | | | | | | | | |
| SF Residential | 7,689 | | | | | | | 7,689 | 685,000 |
| MF & Non-Resid. | 524 | 201 | 206 | 29 | 31 | 40 | 2 | 1,033 | 698,000 |
| Total Accounts | 8,213 | 201 | 206 | 29 | 31 | 40 | 2 | 8,722 | 1,383,000 |
| No. of 1" Eq. Mtrs. | 8,213 | 402 | 659 | 174 | 310 | 800 | 64 | 10,622 | |
| Hydr. Capac. Factor | 1.0 | 2.0 | 3.2 | 6.0 | 10.0 | 20.0 | 32.0 | | |
| ***Monthly Service Charge*** | | | | | | | | | |
| Customer Costs | $ 3.20 | $ 3.20 | $ 3.20 | $ 3.20 | $ 3.20 | $ 3.20 | $ 3.20 | | |
| Capacity Costs | $ 15.79 | $ 31.58 | $ 50.52 | $ 94.73 | $ 157.88 | $ 315.75 | $ 505.21 | | |
| Total Serv. Charge | **$ 18.99** | **$ 34.78** | **$ 53.73** | **$ 97.93** | **$ 161.08** | **$ 318.96** | **$ 508.41** | | |
| Annual Revenue | $ 1,871,798 | $ 83,889 | $ 132,809 | $ 34,080 | $ 59,922 | $ 153,100 | $ 12,202 | | **$2,347,800** |

| ***CY 2016 Water Rate Revenue Requirement*** | | |
|---|---|---|
| Customer Costs | $ 335,400 | 5% |
| Capacity Costs | $ 2,012,400 | 30% |
| Commodity Costs | $ 4,360,200 | 65% |
| **Total Rev. Rqmt.** | **$6,708,000** | |

| ***Water Usage Rates*** | | Wtr. Use (tg) | Rate ($/tg) | Ann. Rev. |
|---|---|---|---|---|
| Single Family Residential | | | | |
| Tier 1 (0 to 4,000 gal/mo) | 53.1% | 364,000 | **$ 2.70** | $ 981,708 |
| Tier 2 (over 4,000 gal/mo) | 46.9% | 321,000 | **$ 3.67** | $ 1,177,428 |
| Multi-Family & Non-Residential | | 698,000 | **$ 3.15** | $ 2,200,794 |
| | | 1,383,000 | | **$4,359,930** |

The proposed two-tier water usage rates for single family customers includes an initial tier that represents basic indoor water needs for single family households of 4,000 gallons per month. It reflects typical water usage for indoor uses such as cooking, cleaning, bathing, and sanitation. These generally non-discretionary uses of water are offered at a lower initial tier rate. The second tier would encompass all water use in excess of 4,000 gallons per month. The second tier incorporates water usage for landscape irrigation and other discretionary purposes. The tier rates have been calculated such that:

- The rate for the first tier is equal to the current discounted rate of $0.00270 per gallon
- The rate for the second tier reflects the cost of SCWA water purchases, as the marginal cost of supply
- The weighted average cost across the two tiers is equivalent to the uniform rate for other customer classes, thereby maintaining equity across the customer classes.

*Fire Protection Service Charges*

The City has established distinct fire protection service charges for separate private service connections that provide fire suppression capabilities to structures and property (e.g., serving automatic internal sprinkler systems)[6]. In effect, these connections extend the public fire suppression capabilities of the water distribution systems (i.e., provided through public fire hydrants) to private property. Costs to be recovered through the fire protection charges are limited to the costs associated with maintaining the connection, monitoring usage, and servicing the account (fire flow capacity is built into the water distribution system as an essential public health and safety benefit to the entire community). When these fire protection services are used, they are billed at the same water usage rate as any other type of water service. As with the general water rates, a 9.0 percent increase in the fire protection service charges is necessary to meet the financial and service obligations of the utility for the delivery of this service.

*Summary*

The proposed water rates reflect the cost of providing water service to customers. In particular, the proposed water rates reflect a proportionate distribution of costs to all customers and customer classes. The two-tier water rates for residential customers should also provide increased incentives for water conservation. In all cases, the proposed water rates better reflect the cost of providing service and will provide additional revenue essential to continuing to provide water service.

**PROPOSED WATER RATE SCHEDULE**

**Exhibit III-3** summarizes proposed water rate schedules for rates to be effective in July 2015. The proposed water rates reflect an overall 9.0 percent increase in revenue relative to the current water rates, as well as the rate structure changes described above. No rate structure changes are proposed beyond those reflected in the rates for July 2015.

[6] Customers who have private fire service connections also have general water service connections for ongoing water use.

**Exhibit III-3**
**City of Rohnert Park -- Water Utility**
**Schedule of Current and Proposed Water Rates (1)**

| | Current (2) | July 2015 |
|---|---|---|
| ***Water Usage Rate ($/gallon)*** | | |
| Single Family Residential | | |
| Tier 1 (0 to 4,000 gal/mo) | $ 0.00300 | $ 0.00270 |
| Tier 2 (above 4,000 gal/mo) | $ 0.00300 | $ 0.00367 |
| Multi-Family and Non-Residential | | |
| All Water Usage | $ 0.00300 | $ 0.00315 |
| ***Monthly Service Charge*** | | |
| 1" meter or less | $ 18.32 | $ 18.99 |
| 1 1/2" meter | $ 30.10 | $ 34.78 |
| 2" meter | $ 44.27 | $ 53.73 |
| 3" meter | $ 79.65 | $ 97.93 |
| 4" meter | $ 124.49 | $ 161.08 |
| 6" meter | $ 242.45 | $ 318.96 |
| 8" meter | $ 384.00 | $ 508.41 |
| ***Monthly Fire Protection Service Charge*** | | |
| 2" riser | $ 20.79 | $ 22.66 |
| 3" riser | $ 26.46 | $ 28.84 |
| 4" riser | $ 33.08 | $ 36.06 |
| 5" riser | $ 40.64 | $ 44.30 |
| 6" riser | $ 44.42 | $ 48.42 |
| 8" riser | $ 60.48 | $ 65.92 |
| 10" riser | $ 72.77 | $ 79.32 |
| 12" riser | $ 85.05 | $ 92.70 |

**Notes:**
(1) Current water rates became effective October 1, 2008.
(2) Under the current rates, a discounted rate of $0.00270 per gallon applies to single family residents and qualified multi-family units that use less than 10,000 gallons per month.

**ANNUAL AUTOMATIC ADJUSTMENTS TO WATER RATES**

In the fall of 2008, the Governor signed Assembly Bill (AB) 3030 adding Section 53756 to the Government Code. Section 53756 authorizes water utilities to adopt procedures for automatically adjusting water rates to pass through increases in wholesale charges for water or to counter the effects of inflation. Automatic adjustment procedures may be adopted for up to five years. In addition, customers must be notified of the rate adjustments at least 30 days before they go into effect. The notification can be made with a bill insert or other means.

As indicated previously, in the past 6 years SCWA water rates have increased by about 42 percent. The City's water utility has absorbed these cost increases by making reductions

elsewhere. This is not sustainable and will ultimately result in reduced service reliability. Like many other water utilities in Sonoma County, the City of Rohnert Park should adopt procedures to adjust water usage rates to offset the effects of increased SCWA water costs. **Exhibit III-4** presents the procedure for adjusting water usage rates at the beginning of each calendar year to reflect changes in SCWA water purchase costs. This illustration is based on an assumed 5.0 percent increase in SCWA rates effective in July 2015. The actual rate adjustment will depend on SCWA actual rate decision, which typically occurs in the spring of each year.

A second automatic rate adjustment is also recommended. Because of the water utility's current financial condition and the inevitability of inflationary pressure on costs, it is recommended that the City annually adjust its water rates to offset the effects of general inflation in January of each year. The adjustments should be applied to water usage rates, monthly service charges, and monthly fire protection service charges based on changes in the Consumer Price Index, as calculated by the US Bureau of Labor Statistics for the San Francisco-Oakland-San Jose area (Series CUURA422SAO) between August of the then-current year and August of the then-previous year.

**Exhibit III-5** illustrates how the two automatic rate adjustments would affect the water rate schedule. The exhibit illustrates the effect of a 5.0 percent increase in SCWA water rates and a 3.0 percent annual change in the SF-CPI. As required by the California Constitution, in no event shall rate adjustments result in rates that exceed the cost of providing water service. The recommended procedures for automatic rate adjustments should be adopted for the period from January 2016 through January 2020, after which the procedures will need to be re-adopted.

## Exhibit III-4
## City of Rohnert Park -- Water Utility
### Worksheet for Automatic Rate Adjustment Related to SCWA's FY 15-16 Water Rates (1)

| | Current | Change | | Adjusted |
|---|---|---|---|---|
| Fiscal Year --> | FY 14-15 | | | FY 15-16 |
| ***SCWA Water Rates*** | | | | |
| Petaluma Aq. Water Rate ($/AF) | $ 730.68 | $ 36.53 | 5.0% | $ 767.21 |
| Annual Fixed Charge | $ - | $ - | 0.0% | $ - |
| ***Water Supplies (AF) (2)*** | | | | |
| Petaluma Aqueduct | | | | 3,222 |
| Local Groundwater | | | | 1,500 |
| Total Water Supplies | | | | 4,722 |
| Unaccounted For Losses (3) | | | | -12.0% |
| ***Increased Cost Due to SCWA Rate Change (4)*** | | | | |
| Increased Annual Cost | | | | $ 117,696 |
| ***Estimated Water Sales*** | | | | |
| Annual Water Sales (AF) | | | | 4,155 |
| Annual Water Sales (tg) | | | | 1,354,000 |

| | Current Water Usage Rates | Automatic Rate Adjustment Due to SCWA Rate Changes (5) | | Adjusted Water Usage Rates |
|---|---|---|---|---|
| ***Water Usage Rate ($/gallon)*** | | | | |
| Single Family Residential | | | | |
| Tier 1 (0 to 4,000 gal/mo) | $ 0.00270 | **$ 0.00007** | 2.8% | **$ 0.00277** |
| Tier 2 (above 4,000 gal/mo) | $ 0.00367 | **$ 0.00010** | 2.8% | **$ 0.00377** |
| Multi-Family and Non-Residential | | | | |
| All Water Usage | $ 0.00315 | **$ 0.00009** | 2.8% | **$ 0.00324** |

**Notes:**

(1) This illustrative example assumes a 5.0 percent increase in SCWA's water rates. Input fields are shaded. Other values are automatically calculated.

(2) Water supply mix may change from year to year. However, the automatic rate adjustment reflects cost changes in the City's water purchases costs from SCWA.

(3) Recent meter replacements have reduced unaccounted for loss rate.

(4) Equals change in the SCWA water rate times the water purchase volume, plus any change in the fixed charge.

(5) The rate adjustment for the uniform rate equals the increased SCWA water purchase costs divided by the total annual water sales volume. The percentage increase in the uniform water usage rate is then applied to the residential tier rates.

**THIS SAMPLE ANALYSIS ASSUMES A 5.0% INCREASE IN SCWA WATER RATES. ACTUAL ADJUSTMENTS WILL DEPEND ON SCWA'S FORMAL RATE ACTION.**

**Exhibit III-5**
**City of Rohnert Park -- Water Utility**
**Automatic Pass-Through Rate Adjustments (1)**

| | Current Water Rate Schedule | SCWA Rate Adjustment (2) | SF-CPI Rate Adjustment (3) | Adjusted Water Rate Schedule (4) |
|---|---|---|---|---|
| ***Water Usage Rate ($/gallon)*** | | | | |
| Single Family Residential | | | | |
| Tier 1 (0 to 4,000 gal/mo) | $ 0.00270 | $ 0.00007 | $ 0.00008 | $ 0.00285 |
| Tier 2 (above 4,000 gal/mo) | $ 0.00367 | $ 0.00010 | $ 0.00011 | $ 0.00388 |
| Multi-Family and Non-Residential | | | | |
| All Water Usage | $ 0.00315 | $ 0.00009 | $ 0.00009 | $ 0.00333 |
| ***Monthly Service Charge*** | | | | |
| 1" meter or less | $ 18.99 | No change | $ 0.57 | $ 19.56 |
| 1 1/2" meter | $ 34.78 | No change | $ 1.04 | $ 35.82 |
| 2" meter | $ 53.73 | No change | $ 1.61 | $ 55.34 |
| 3" meter | $ 97.93 | No change | $ 2.94 | $ 100.87 |
| 4" meter | $ 161.08 | No change | $ 4.83 | $ 165.91 |
| 6" meter | $ 318.96 | No change | $ 9.57 | $ 328.53 |
| 8" meter | $ 508.41 | No change | $ 15.25 | $ 523.66 |
| ***Monthly Fire Protection Service Charge*** | | | | |
| 2" meter | $ 22.66 | No change | $ 0.68 | $ 23.34 |
| 3" meter | $ 28.84 | No change | $ 0.87 | $ 29.71 |
| 4" meter | $ 36.06 | No change | $ 1.08 | $ 37.14 |
| 5" meter | $ 44.30 | No change | $ 1.33 | $ 45.63 |
| 6" meter | $ 48.42 | No change | $ 1.45 | $ 49.87 |
| 8" meter | $ 65.92 | No change | $ 1.98 | $ 67.90 |
| 10" meter | $ 79.32 | No change | $ 2.38 | $ 81.70 |
| 12" meter | $ 92.70 | No change | $ 2.78 | $ 95.48 |

**Notes:**

(1) Adjustments incorporate changes related to increased SCWA water purchase costs and annual changes in the San Francisco-Oakland-San Jose Consumer Price Index (SF-CPI), Series CUURA422SAO from August of the then current year and August of the then-previous year. Input fields are shaded. Other values are automatically calculated.

(2) As determined from the "Worksheet for Automatic Rate Adjustment Related to SCWA's FY 15-16 Water Rates".

(3) This illustrative example assumes a 3.0% change in the SF-CPI.

(4) Adjusted rates to be effective in January of each year from 2016 through 2020.

***Impact of automatic rate adjustments for typical single family water bill***

| | Current | SCWA Adj. | CPI Adj. | Adjusted |
|---|---|---|---|---|
| Water Usage Charge for 7,000 gallons | $ 21.79 | $ 0.58 | $ 0.65 | $ 23.02 |
| Monthly Service Charge - 1" meter | $ 18.99 | $ - | $ 0.57 | $ 19.56 |
| **Total Monthly Water Bill** | **$ 40.78** | **$ 0.58** | **$ 1.22** | **$ 42.58** |
| | | | | **4.4%** |

**THIS SAMPLE ANALYSIS ASSUMES A 5.0% INCREASE IN SCWA WATER RATES AND A 3.0% ANNUAL INCREASE IN THE SF-CPI.**