

Marina Coast Water District
 FY 2014/2015 Budget Calendar
 (includes Marina & Ord Community)

| <u>DATE</u> | RP | MCWD | WWOC | FORA | DESCRIPTION |
|-------------|---------------|------|------|------|--|
| 01/14/2014 | DAS/DH/ GM | | | | DAS provides the draft 2014-2015 Budget Schedule to GM and Dept Heads. Dept Heads turn in draft staffing needs to GM and DAS for discussion. |
| 01/21/2014 | DAS/DH | | | | DAS to issue 2013-2014 YTD Qtr 2 expenditure report to Dept Heads. This provides guidance for new year expenses. DAS provides format for the budget. |
| 01/28/2014 | DH | | | | Department Budgets due to DAS/GM for discussion |
| 02/07/2014 | DAS/DH/ GM | | | | Dept Heads to meet with DGM and DAS to review their section of the budgets. (as necessary) |
| 02/11/2014 | DH | | | | Dept Heads turn in budgets to DAS with recommended changes from previous individual meetings. |
| 02/18/2014 | DAS/ GM | X | | | DAS to present 2013-2014 Mid-Year Report to the Board. Budget Schedule presented to MCWD Board. PUBLIC MEETING |
| 02/19/2014 | DAS/ GM | | X | | Draft Budget Schedule presented to WWOC. PUBLIC MEETING |
| 03/03/2014 | DAS/GM | X | | | Distribute Draft Budget to Board in preparation for Budget Workshop. |
| 03/05/2014 | DAS/ GM | | X | | Distribute Draft Ord Community Budget to WWOC. PUBLIC MEETING |
| 03/17/2014 | DAS/ GM | X | | | Budget Workshop Meeting (Dept Heads/Board). Board approves revised Prop 218 Notice (if necessary). PUBLIC MEETING |
| 03/18/2014 | DAS/ DGM | | X | | Report to WWOC any changes to the Revised Draft Budget from the Budget Workshop meeting. PUBLIC MEETING |
| 03/21/2014 | DAS/ DGM | | | | Revised Prop 218 Notice mailed to parcel owners (if necessary). |
| 04/07/2014 | DAS/GM | X | | | 1st Reading of Rate Ordinance by Board. PUBLIC MEETING |

| | | | | | |
|------------|-------------|---|---|---|---|
| 04/16/2014 | DAS/ DGM | | X | | Ord Community Revised Draft Budget presented to WWOC for recommendation to FORA Board. PUBLIC MEETING |
| 04/21/2014 | DAS/GM | X | | | 2 nd Reading of Rate Ordinance by Board. PUBLIC MEETING |
| 05/05/2014 | DGS/GM | X | | | Conduct Prop. 218 Public Hearing. PUBLIC MEETING |
| 05/09/2014 | DAS/GM | X | | X | MCWD & FORA Boards adopt Ord Community Budgets. JOINT PUBLIC MEETING |
| 06/13/2014 | DAS//GM | X | | X | MCWD & FORA Boards adopt Ord Community Budgets (if needed). JOINT PUBLIC MEETING |
| 06/16/2014 | DAS//GM | X | | | MCWD Board adopts Central Marina Budget. PUBLIC MEETING |

GM= General Manager; DAS= Director of Administrative Services; DH=Department Head



MARINA COAST WATER DISTRICT

FINANCIAL PLAN AND RATE AND FEE STUDY

FINAL REPORT

September 2013

MARINA COAST WATER DISTRICT
FINANCIAL PLAN AND RATE AND FEE STUDY

TABLE OF CONTENTS

| | <u>Page</u> |
|--|--------------------|
| 1.0 INTRODUCTION | 2 |
| 1.1 Marina Coast Water District Background | 2 |
| 1.2 Current Rates and Fees | 3 |
| 1.3 Forward-Looking Statement | 5 |
| 2.0 OVERVIEW OF RATE SETTING PROCESS | 6 |
| 2.1 Assumptions & Data | 7 |
| 2.1.1 Project Objectives | 7 |
| 2.1.2 Growth and Water Demand | 7 |
| 3.0 REVENUE REQUIREMENTS ANALYSIS | 9 |
| 3.1 Introduction | 9 |
| 3.1.1 Existing Financial Position | 10 |
| 3.2 Existing Operating Expenditures | 11 |
| 3.2.1 Operating Needs | 11 |
| 3.2.2 Debt Service | 12 |
| 3.2.3 Debt Service Coverage | 13 |
| 3.2.4 Capital Projects | 14 |
| 3.2.5 Policy Driven Needs | 17 |
| 3.3 Existing Revenues | 17 |
| 3.3.1 User Rates | 18 |
| 3.3.2 Other Revenues | 18 |
| 3.4 Recommended Revenue Requirements | 19 |
| 4.0 COST OF SERVICE ANALYSIS | 21 |
| 4.1 Water Cost of Service | 21 |
| 4.1.1 Water Functional Cost Components | 21 |
| 4.1.2 Allocation to Functional Components | 22 |
| 4.1.3 Unit Cost Calculations | 23 |
| 4.1.4 Functional Allocation Impact | 24 |
| 4.1.5 Customer Class Allocation | 24 |
| 4.2 Sewer Cost of Service | 26 |
| 4.2.1 Sewer Functional Cost Components | 26 |
| 4.2.2 Unit Cost Calculations | 27 |
| 5.0 RATE DESIGN ANALYSIS | 29 |
| 5.1 Selecting Rate Structures | 29 |
| 5.2 Recommended Water Rates | 29 |
| 5.2.1 Fixed Charge | 30 |
| 5.2.2 Commodity Rates | 32 |
| 5.3 Sewer Rate Recommendations | 34 |
| 5.3.1 Sewer Rates per EDU | 34 |
| 5.4 Fire Meter Service Charges | 35 |
| 5.5 Customer Impacts | 35 |
| 5.5.1 Water Rate Comparison | 37 |
| 6.0 CAPACITY FEE UPDATE | 38 |

FINANCIAL PLAN AND RATE AND FEE STUDY

1.0 INTRODUCTION

The Marina Coast Water District (MCWD) engaged Carollo Engineers to develop an agency wide financial plan and conduct a water and sewer rate and fee study (study). This study includes the development of a five-year financial plan, cost-based water and wastewater user charges through a comprehensive cost of service and rate design analysis, as well as an update of the District's water and sewer capacity fees.

MCWD operates public water and sewer utilities that are responsible for providing service to the approximately 38,000 residents, as well as many public and commercial institutions. Customers of the water and sewer utilities are located in two service areas, Central Marina (Marina) and the Ord Community (Ord). The operations of the District are further split between water and sewer, resulting in four cost centers, Marina Water, Marina Sewer, Ord Water, and Ord Sewer. The cost centers are maintained as separate enterprises; having distinct budgets, user rates and fees, capacity fees, capital improvement plans, and operating, capital, and bond reserves.

In order to develop updated user rates, an in-depth study of each cost center's revenue needs, customer usage characteristics, capital improvement program (CIP), and additional future drivers of service costs and revenue was conducted. This report documents the methodology and assumptions used to develop the financial plan, the policy decisions reached, the proposed water and wastewater rates, and the customer bill impacts.

1.1 Marina Coast Water District Background

The Central Marina service area has a forecasted population of approximately 18,000 residents. In FY2013, Marina Water's current deliveries total approximately 765,000 hundred cubic feet (hcf) per year to its 3,800 customer accounts. Marina Sewer currently serves approximately 3,700 accounts totaling 7,200 equivalent dwelling units (EDUs).

In August 2005, the Central Marina and Ord Community water systems were connected; integrated operations allow water to flow between the two systems to meet peak demands and improve overall services. The amount of water exchanged between the systems is automatically monitored and recorded. In July 2007, the California Department of Public Health approved the consolidation of the water systems as Marina Coast Water District Water System.

Supply wells in Central Marina consist of three deep groundwater wells located in the 900-foot aquifer of the Salinas Valley Groundwater Basin. Water is treated at each well site for disinfection and to remove the naturally occurring hydrogen sulfide that can sometimes cause odor problems.

The Ord Community service area has a current population of approximately 20,500 residents. In FY2013, Ord Water's current deliveries total approximately 1,000,000 hundred cubic feet (hcf) per year to its 3,900 customer accounts. Ord Sewer currently serves approximately 3,100 accounts totaling 5,500 equivalent dwelling units (EDUs).

Supply wells in the Ord Community are from three groundwater wells located in the lower 180-foot and 400-foot aquifers of the Salinas Valley Groundwater Basin. Groundwater from these wells is also disinfected to provide the community with healthy and safe drinking water

1.2 Current Rates and Fees

The District last performed a cost of service water and sewer rate analysis in 2008. The 2008 report proposed five years of sizeable increases to fund capital improvements for all cost centers. Since that time, the District has not implemented the full-recommended rates. Lesser annual rate increases have been implemented as across the board increases, applying each cost center's revenue needs increase to the user rates.

Capacity fees for both water and sewer were also last updated in 2008 and since that time have been adjusted only slightly to their current levels. Table 1-1 and 1-2 summarize the existing Marina and Ord Community water and wastewater rate and fee structure, respectively. The rates consist of two parts: a monthly service charge assessed on the size of the meter, and a tiered water commodity charges for all water delivered. In addition, newer residents in the Ord Community also pay a \$20.00 monthly water capital surcharge and a \$5.00 monthly sewer capital surcharge to help fund capital expansion.

Table 1-1 below presents the existing rate schedule for Marina Water.

Table 1-1: Marina – Existing Rate Schedule

| Marina Water Consumption Rates (per hcf) | | |
|---|-------------|----------|
| Tier 1 | 0 to 8 hcf | \$2.29 |
| Tier 2 | 9 to 16 hcf | 2.79 |
| Tier 3 | 17+ hcf | 5.09 |
| Marina Water Service Charges, by Meter Size | | |
| 5/8" - 3/4" | | \$18.85 |
| 1" | | 47.09 |
| 1 1/2" | | 94.19 |
| 2" | | 150.68 |
| 3" | | 282.52 |
| 4" | | 470.87 |
| 6" | | 941.75 |
| 8" | | 1,883.49 |
| Marina Sewer Service Charges | | |
| Sewer Charge (per EDU) | | \$9.15 |
| Marina Capacity Fees | | |
| Water Capacity Fee (Per EDU) | | \$5,450 |
| Sewer Capacity Fee (Per EDU) | | \$3,950 |

Table 1-2: Ord – Existing Rate Schedule

| Ord Water Consumption Rates (per hcf) | | |
|--|-------------|----------|
| Tier 1 | 0 to 8 hcf | \$2.33 |
| Tier 2 | 9 to 16 hcf | 3.27 |
| Tier 3 | 17+ hcf | 4.22 |
| Ord Water Service Charges, by Meter Size | | |
| 5/8" - 3/4" | | \$17.11 |
| 1" | | 42.76 |
| 1 1/2" | | 85.49 |
| 2" | | 136.78 |
| 3" | | 256.47 |
| 4" | | 427.45 |
| 6" | | 854.89 |
| 8" | | 1,709.79 |
| Flat Rate | | \$84.34 |
| Ord Sewer Service Charges | | |
| Sewer Charge (per EDU) | | \$25.26 |
| Ord Capacity Fees | | |
| Water Capacity Fee (Per EDU) | | \$5,750 |
| Sewer Capacity Fee (Per EDU) | | \$2,150 |

In addition to general water rates, both water cost centers maintain current fire service rates. The fire rate is a flat fee of \$20.00 per month for each service. Residential users with upsized meters currently pay the monthly meter charge associated with the larger meter. Based on available records, Carollo's detailed review of billing records found that of the 289 fire service accounts, only 29 are currently being billed. Based on discussions with District staff, the additional unbilled accounts will have to be researched to determine the appropriate charge.

The current water rate structure applies equal monthly service fees and usage charges per unit of water (748 gallons or one hcf) to all customer classes (excluding temporary accounts). Monthly charges for sewer service are calculated based on the number of equivalent dwelling units (EDUs) serviced by each account. EDUs are calculated based on each account's wastewater demand factor; a table of these factors is shown in Appendix A for reference.

1.3 Forward-Looking Statement

The projections and forecasts of this analysis are based on reasonable expectation of future events. Additionally, Carollo did not audit nor verify the accuracy of the District's customer billing or financial records used as the foundation of this analysis. Should cost escalation, operating expenditures, or capital needs vary from projected levels prior to Fiscal Year Ending (FY) 2018, the District may require an additional Proposition 218 process to increase rates above currently projected levels. The District may similarly be required to begin a new Proposition 218 process should revenues not materialize as projected.

2.0 OVERVIEW OF RATE SETTING PROCESS

Rate analyses are typically performed every few years so that revenues from rates are adequately funding utility operations, maintenance, and ongoing capital needs. Additionally, in California, water rates must adhere to the cost of service requirements imposed by Proposition 218 and the State Constitution. Proposition 218 requires that property related fees and charges, including water rates, do not exceed the reasonable and proportional cost of providing the service. Article X (2) of the State Constitution establishes the need to preserve the State's water supplies and discourage the wasteful or unreasonable use of water by encouraging conservation.

To achieve these requirements, a comprehensive rate study typically consists of following progression of three interconnected processes.

Revenue Requirement Analysis:

- Compares the existing revenues of the utility to its operating, capital, and policy driven costs in order to determine the adequacy of the existing rates to fully recover the utility's costs.

Cost of Service Analysis:

- Identifies and apportions annual revenue requirements to functional rate components based on its application of the utility system.

Rate Design:

- Considers both the level and structure of the rate design to collect the distributed revenue requirements from each class of service

Within the standard approach and legal requirements, there is significant flexibility in a cost-of-service application to develop rates that appropriately and adequately reflect the distinct and unique characteristics of a utility and the values of the community.

2.1 Assumptions & Data

2.1.1 Project Objectives

Marina Coast Water District retained Carollo to perform a water rate and revenue study to achieve a variety of primary objectives:

- Conduct a cost of service study to determine the appropriate rate and charge levels that are consistent with legal requirements
- Create water and sewer rates that provide sufficient and predictable revenues to adequately fund expenditures and funding of reserves;
- Within the principles of Proposition 218, design rates that promote efficient use of water to meet the State's 20x2020 (SB 7x-7) mandate
- Develop a capital financing plan to fund the District's five year Capital Improvement Plan (CIP) and provide a financial foundation for capital projects in future years

2.1.2 Growth and Water Demand

Water sales are the primary source of revenues; thus, it is critical to examine and validate potential shifts in short and long-term water demands. For the purposes of understanding potential usage reductions, Carollo prepared a water demand analysis consisting of the previous thirty-three months of billing data and over ten years of water production records. This data along with the growth projections of the 2010 Marina Coast Water District Urban Water Management Plan (UWMP) was reviewed to examine historical patterns and potential developing trends.

As described later within this report, the proposed reserve targets and rates are designed to mitigate some financial instability associated with the usage and revenue volatility.

Upon analysis of historical consumption and billing data, it was found that the growth predictions of the District's 2010 Urban Water Management Plan (UWMP) might have been overly aggressive given the continued consequence of the economic downturn. In the practice of financial planning and rate setting for water and wastewater utilities, aggressive growth assumptions are often cause for concern. Rates and fees are developed based on the predicted number of accounts and on predicted levels of consumption, therefore, growth not materializing as expected leads to insufficient collection of revenues. These concerns were discussed with district staff, and it was agreed upon that the growth figures of the UWMP would be adjusted downward for the rate study in order to minimize financial risk.

According to the UWMP, the population of the Central Marina service area will increase from approximately 16,800 in 2010 to approximately 24,000 in 2020, an annualized growth rate on 3.6 percent. However, this analysis assumes a more conservative annual customer account growth of just over 1.0 percent over that same time period. Based on discussion

with staff, Carollo reduced the growth rate in the UWMP by one-third. Equal annual account growth escalators were applied to both Marina Water and Marina Sewer.

The population of the Ord Community service area is expected to increase from approximately 15,300 in 2010 to approximately 34,000 in 2020, an annualized growth rate of 7.6 percent. Given the realized growth rate since 2010 is considerably lower, Carollo has adjusted the analysis with a forecasted annual customer account growth of 4.3 percent. Based on discussion with staff, Carollo discounted the UWMP's forecasted rate by 75 percent. Again, equal annual account growth escalators were applied to both Ord Water and Ord Sewer.

In FY2012, Marina Water sold approximately 743,000 units of water. Over the course of the study, through FY2018, demand is forecasted to rise to 815,000 hcf. This increase constitutes nearly a 10% increase in overall consumption as compared to FY2012. This forecast is based on historical trends and reflects the reductions to the UWMP predictions.

In FY2012, Ord Water sold approximately 940,000 units of water. Demand is forecasted to rise to 1.3 million hcf by FY2018. This increase constitutes nearly a 38% increase in overall consumption as compared to FY2012. This forecast is based on historical trends and reflects the reductions from the UWMP. Should demands or other major assumptions, significantly vary from forecasted levels, the District may need to update its financial plan and rates to adequately fund operations.

3.0 REVENUE REQUIREMENTS ANALYSIS

3.1 Introduction

The adequacy of the existing rate structure can be measured by comparing revenue requirement projections against revenue projections under existing rates. If revenue projections under existing rates do not meet forecasted requirements, rates need to be adjusted.

The FY2013 budget for each cost center was used as the base year for O&M costs. The foundation of the analysis is based on relevant financial information provided by the District including: existing debt service and future payments, current reserve ending fund balances, other future expenses, other future revenues, and other miscellaneous financial information.

The first step in a rate analysis is to prepare the revenue requirements for both water and sewer cost centers. This analysis has two main purposes – it serves as a means of evaluating each cost center’s fiscal health and adequacy of current rate levels, and it sets the basis for near- and long-term rate planning.

The revenue requirement is derived of five components: Operations and Maintenance (O&M), Annual Debt Service; Policy Requirements & Coverage; Capital Expenditures; and, Offsetting Revenues.

There are two tests utilized to define the annual revenues necessary to provide both sufficient (1) cash flow and (2) debt coverage. These sufficiency tests are commonly used to determine the amount of annual revenue that must be generated from an agency’s rates.

- Cash Flow Sufficiency Test – The cash flow test defines the amount of annual revenues that must be generated in order to meet annual expenditure obligations of the utility.
- Bond Coverage Sufficiency Test – Bond coverage refers to the collection in revenues to meet all operating expenses and debt service obligations plus an additional multiple of that debt service. MCWD has a legally required minimum bond coverage ratio of 1.25x on senior debt (2006 series bonds) and 1.10x on junior debt (2010 series bonds); however, for the purpose of prudent financial planning the bond coverage test was set to meet a 1.35x coverage ratio senior debt service and a 1.20x coverage ratio for junior debt service.

Revenues must be sufficient to satisfy both tests. If revenues are found to be deficient through one or both of the tests, then the greater deficiency (shortfall) drives the rate increase.

The cash flow test identifies projected cash requirements in each given year. Cash requirements include O&M expenses, debt service payments, policy-driven additions to working capital, miscellaneous capital outlays, replacement funding, and rate-funded capital

expenditures. These expenses are compared to the total annual projected revenues. Shortfalls are then used to estimate needed rate increases.

The bond-coverage test measures the ability of a utility to meet legal and policy-driven revenue obligations. Given the District's existing debt obligations, it is required to collect sufficient funds through rates to meet all ongoing O&M expenses, as well as 1.25 times (1.35x as tested) the total senior debt-service requirements, and additionally 1.10 times (1.20x as tested) the total junior debt-service requirements due in a year.

Currently, the District meets its debt service coverage requirements through a combined coverage test in which total debt service (allocated amongst all four cost centers) is tested against the total revenues generated by all cost centers. It is the recommendation of this study that for increased equity between cost centers that each cost center be responsible for generating its own proportionate share of the coverage-required revenues. While the District would continue to utilize a combined coverage test for its legal obligations, each cost center's revenue requirements will be set to individually recover its apportioned debt service and coverage obligations. Simply, if debt is incurred by a cost center, the same cost center is burdened with the repayment of the debt and debt coverage obligations.

3.1.1 Existing Financial Position

Marina Water is currently financially stable. Proposed revenue adjustments for Marina Water are driven by the desire to continue that state of well being, as well as to smooth rate increases ahead of increased capital expenditures in future years. Marina Water maintains sufficient operating reserves in excess of the six-month (180 day) minimum operating target. It has capital reserves in excess of the minimum \$1.0 million target for each cost center.

The Marina Sewer cost center requires revenues increases to meet its financial obligations; both coverage and cash flow needs drive proposed revenue increases in the near term. Currently, Marina Sewer is not meeting its desired minimum operating reserve levels as recent expenditure levels have exceeded available revenues. Immediate increases are required to fund the existing 25 percent reserve deficiency. In subsequent years, debt coverage will become the main driver of Marina Sewer rate increases as the issuance of future debt is assumed to fund much of the proposed Marina Sewer CIP.

Ord Water is projected to end the current fiscal year with 17 percent of its desired minimum operating fund balance. In addition, Ord Water has a significant capital program to repair or replace existing infrastructure. As such, necessary increases are required to generate a positive cash flow and return the Ord Water cost center to a self-sustaining enterprise. Following a return to positive cash flow, debt coverage will become the main driver of future rate increases as the issuance of future debt is assumed to fund much of the proposed CIP.

Ord Sewer is projected to end the current fiscal year with fully funded operating and capital reserves. Although sizeable increases are not recommended at this time, the District has

identified significant capital needs in the near term (next five years). To minimize the overall ratepayer impact, based on discussions with District staff, these capital projects will be undertaken over a longer ten-year time horizon. Similar to the other cost centers, the use of debt is assumed to mitigate the upfront cash outlay of projects and to align payments of the asset with its useful life.

3.2 Existing Operating Expenditures

For sound financial operations of the District’s water and sewer systems, the revenues generated by each cost center must be sufficient to meet the expenditures or cash obligations of each cost center. The revenue needs are defined as the amount of revenues that must be recovered through water or sewer rates in order to cover annual expenditures, less any offsetting revenues. Offsetting revenues can include interest earnings and other non-operating revenues.

3.2.1 Operating Needs

Operating needs are expenditures that each cost center incurs in the day-to-day operations of its systems – e.g., employee salaries and benefits, system maintenance, fuel, and chemicals

The District’s FY2013 operating budget served as the basis for forecasting future operating expenses for each of the utilities. The budget was compared to prior year actual financial information to identify any anomalies or one-time expenditures not appropriate for forecasting in future years. District staff also reviewed the budget to identify costs that may need to be adjusted due to future operational changes. Unless manually calculated, future years were forecasted using escalation factors provided by District staff. These factors were assigned on a line-item basis using one of the following factors:

Table 3-1: Cost Escalation Factors

| Cost Escalator | Description |
|-----------------------------|--|
| Labor Cost Inflation | Labor rates are assumed to increase at 3%. |
| Construction Cost Inflation | Although capital cost inflation is commonly linked to the Engineering News Record (ENR) Construction Cost Index (CCI), the inflation rate assumes a long-term average of 3.5%. |
| General Cost Inflation | This rate applies to most expenses in the operating expense forecast, and the District’s expected long-term inflation rate (3%). |

3.2.2 Debt Service

The District's existing debt service payments are established in the debt repayment schedules. As part of the development of the budget, each debt obligation is allocated to each cost center, based on use of funds within each series, to reflect the benefit received. Marina Water's FY2013 annual payment for existing debt service is nearly \$890,000 and roughly \$260,000 for Marina Sewer. Ord Water and Sewer's existing annual debt service is \$1.7 million and \$250,000, respectively. For each cost center, existing debt service is comprised of three outstanding debt issues: the 2006 series bonds, the 2010 series bonds, and a small amount from a Fort Ord Reuse Authority (FORA) promissory note. Typically, debt is a preferred funding mechanism for large capital programs as the payments represent a capital investment to be paid over the life of the asset.

Tables 3-2 through 3-5 summarize the existing debt repayment schedule obligations for each of the four cost centers.

Table 3-2: Marina Water Debt Service Schedule

| Fiscal Year | 2006 Series Bond | 2010 Refunding | FORA Prom. Note | Total Debt |
|-------------|------------------|----------------|-----------------|------------|
| FY2013 | \$594,759 | \$283,757 | \$8,489 | \$887,005 |
| FY2014 | 601,607 | 282,657 | 6,367 | 890,631 |
| FY2015 | 614,835 | 281,257 | - | 896,092 |
| FY2016 | 584,648 | 280,956 | - | 865,604 |
| FY2017 | 597,961 | 280,296 | - | 878,258 |
| FY2018 | 611,103 | 280,676 | - | 891,779 |
| FY2019 | 624,074 | 276,776 | - | 900,850 |
| FY2020 | 831,327 | 511,826 | - | 1,343,153 |
| FY2021 | 650,933 | - | - | 650,933 |

Table 3-3: Marina Sewer Debt Service Schedule

| Fiscal Year | 2006 Series Bond | 2010 Refunding | FORA Prom. Note | Total Debt |
|-------------|------------------|----------------|-----------------|------------|
| FY2013 | \$174,502 | \$82,429 | \$1,981 | \$258,912 |
| FY2014 | 173,083 | 81,999 | 1,486 | 256,568 |
| FY2015 | 172,323 | 81,479 | - | 253,802 |
| FY2016 | 166,584 | 81,268 | - | 247,853 |
| FY2017 | 165,881 | 80,950 | - | 246,831 |
| FY2018 | 165,064 | 80,924 | - | 245,988 |
| FY2019 | 164,133 | 79,634 | - | 243,767 |
| FY2020 | 184,886 | 146,608 | - | 331,495 |
| FY2021 | 160,492 | - | - | 160,492 |

Table 3-2: Ord Water Debt Service Schedule

| Fiscal Year | 2006 Series Bond | 2010 Refunding | FORA Prom. Note | Total Debt |
|-------------|------------------|----------------|-----------------|-------------|
| FY2013 | \$1,197,606 | \$495,425 | \$14,431 | \$1,707,462 |
| FY2014 | 1,187,688 | 494,425 | 10,824 | 1,692,937 |
| FY2015 | 1,182,226 | 492,925 | - | 1,675,151 |
| FY2016 | 1,143,005 | 493,425 | - | 1,636,430 |
| FY2017 | 1,137,935 | 493,325 | - | 1,631,260 |
| FY2018 | 1,132,080 | 495,125 | - | 1,627,205 |
| FY2019 | 1,125,440 | 489,625 | - | 1,615,065 |
| FY2020 | 1,265,748 | 910,875 | - | 2,176,623 |
| FY2021 | 1,099,842 | - | - | 1,099,842 |

Table 3-3: Ord Sewer Debt Service Schedule

| Fiscal Year | 2006 Series Bond | 2010 Refunding | FORA Prom. Note | Total Debt |
|-------------|------------------|----------------|-----------------|------------|
| FY2013 | \$529,501 | \$129,239 | \$3,396 | \$662,136 |
| FY2014 | 527,018 | 129,769 | 2,547 | 659,334 |
| FY2015 | 527,178 | 130,190 | - | 657,368 |
| FY2016 | 508,107 | 131,200 | - | 639,308 |
| FY2017 | 508,423 | 132,079 | - | 640,502 |
| FY2018 | 508,428 | 133,525 | - | 641,953 |
| FY2019 | 508,120 | 133,216 | - | 641,335 |
| FY2020 | 592,379 | 252,441 | - | 844,821 |
| FY2021 | 503,195 | - | - | 503,195 |

Eight years of debt service is shown as the debt service associated with the 2010 Series Bonds expires in FY2021. As such, approximately \$290,000 in debt service cost is removed from Marina Water, and approximately \$80,000 in debt service cost removed from Marina Sewer. As the Ord cost centers have a greater amount of debt, they will realize expenditure savings of \$910,000 and 250,000, respectively between water and sewer. This helps mitigate the need for additional revenue adjustments and helps provide increased capital funding capacity in the form of both cash and the ability to issue new debt.

3.2.3 Debt Service Coverage

The District must meet debt service coverage requirement on its outstanding bond issues. As noted above, for the purposes of this rate analysis, the required debt coverage is 1.35x on the 2006 Series Bonds (Senior Debt) and 1.20x on the 2010 Series Bonds (Junior Debt), which means that the District's adjusted net revenues shall amount to at least 135 percent of the annual debt service. Once coverage of senior debt is established, the net revenues available for coverage of the junior debt must amount to at least 120 percent of the annual debt service. Annual debt service includes the annual principal and interest payments on outstanding debt. Under the proposed revenue adjustments, the District is forecasted to

meet and exceed the coverage requirements during each year of the study's planning period.

3.2.4 Capital Projects

The CIP includes a variety of capital projects that involve repairing (or replacing) existing assets and/or expanding system capacity to accommodate growth. Although all projects were identified, only projects related to the supporting the existing infrastructure are included in the rate analysis and proposed rates. Carollo worked with the District to identify and prioritize projects over the course of the study. Even so, the identified prioritized improvements would significantly increase rates. District staff assessed future capital needs and identified critical and non-critical capital projects over an extended time horizon. The identified CIP for each cost center is included for reference in Appendix B.

The prioritization of the capital program is based solely on staff direction and is not based upon an independent risk assessment. It is recommended the District update its Water and Sewer Master Plans, as well as, implement an asset management program to better identify and prioritize the needs of the each system.

Given the inability to increase rates to adequately fund the proposed CIP, revenue increases were capped based on direction from District staff. As such, rather than detail the specific projects to be funded, Carollo identified the forecasted funding potential of each cost center, available to pay for the proposed capital program. Without modifying the proposed revenue increases, Carollo evaluated various funding scenarios by modifying existing reserve levels and the utilization of debt. Although the District could potentially fund additional projects by utilizing reserves (lowering from existing levels), the Board believed it was best to maintain strong reserves in light of existing unknowns.

For illustrative purposes, Figure 3-1 identifies the capital funding potential for Marina Water given the proposed revenue adjustments. Under both scenarios, Marina Water is able to fund the proposed capital needs of the system over the next five years.

In addition, for reference, Carollo identified the cost center's estimated system depreciation over the same 5-year time horizon. This amount can be used as a benchmark for the reasonableness of the existing capital improvement program for an existing system. Furthermore, a funding level below the depreciation point would signify an under investment of capital and loss in system equity on paid off assets. Marina Water is the District's only cost center to generate sufficient cash flow to fully reinvest depreciation.

Figure 3-1 defines Marina Water’s capital funding potential, relative to planned capital improvements and system depreciation.

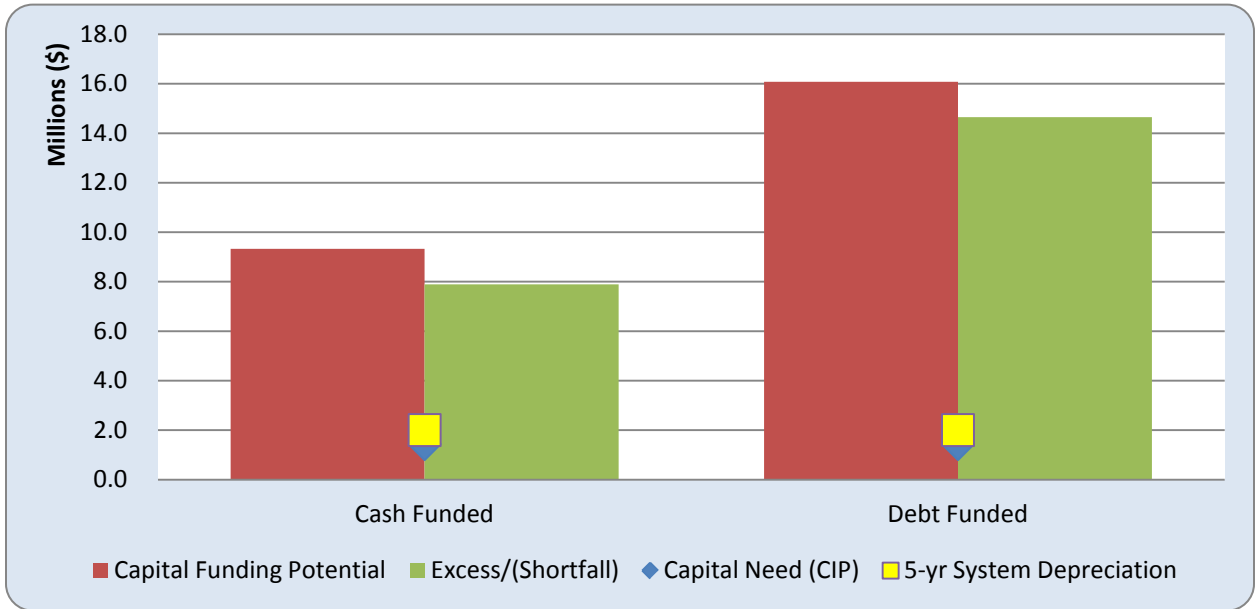


Figure 3-1: Marina Water – Five-Year Capital Funding Potential

Unlike Marina Water, even with the proposed revenue adjustments Marina Sewer is unable to fund the proposed capital improvement program. Under the cash option, the cost center also fails to fund the depreciation level. Although debt options were explored, Carollo explored this from a feasibility level. The District would have to seek funding to define the appropriate terms and conditions. General debt assumptions were applied as a tool for discussion purposes only.

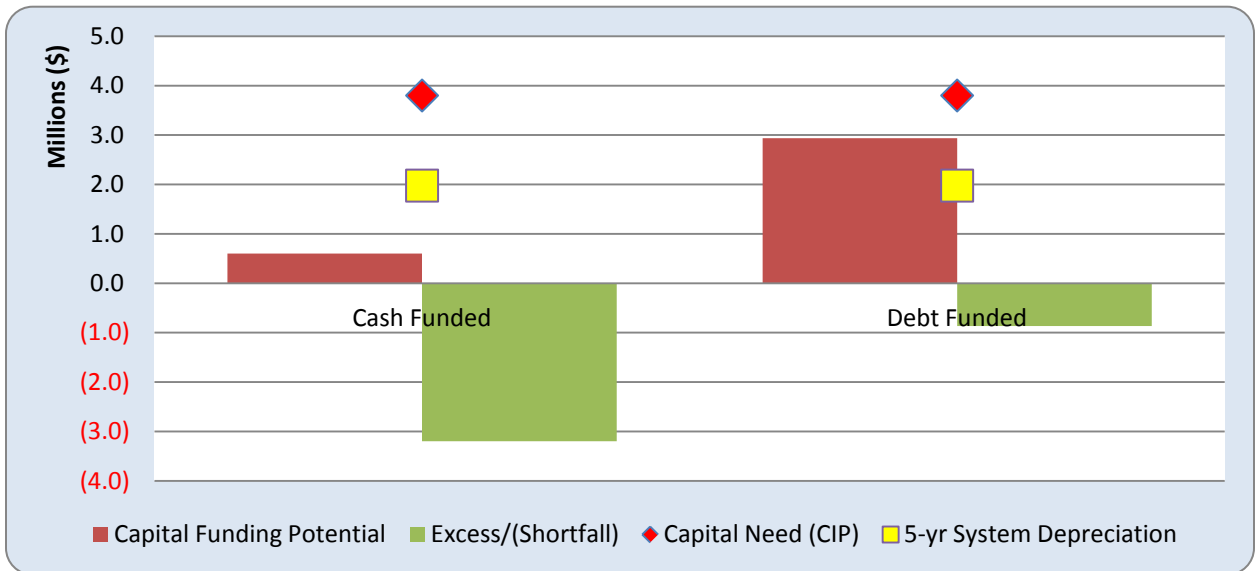


Figure 3-2: Marina Sewer - Five-Year Capital Funding Potential

Ord Water has the largest asset value of the four cost centers. As shown below, the proposed CIP is actually less than the calculated depreciation. Given the need to increase rates to generate sufficient cash flow and the significant improvement program, Ord Water is forecasted to be able to leverage proposed increases to fund capital projects with debt. The funding capacity assumptions for debt are highly sensitive to timing. Furthermore, the analysis did not analyze the District's ability to borrow, but simply included the costs and coverage requirements associated with a possible debt issuance.

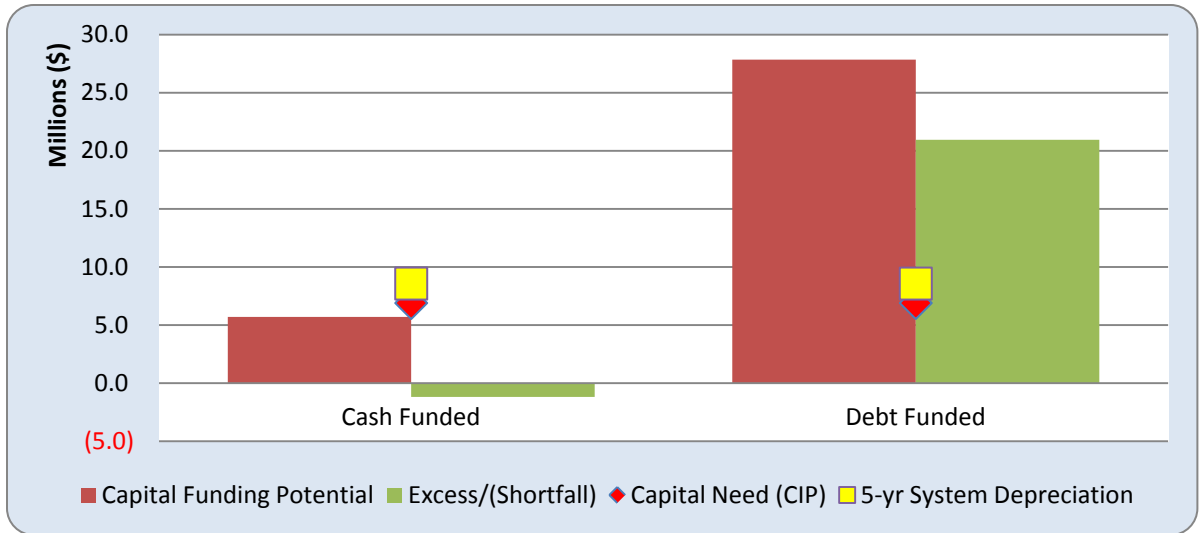


Figure 3-3: Ord Water - Five-Year Capital Funding Potential

Over the next five years, the District has identified a significant CIP program for Ord Sewer. However, looking to years 6-10, there are no proposed CIP expenditures. As such, the identified CIP is assumed to be spread over a 10-year horizon to smooth expenditures and minimize costs.

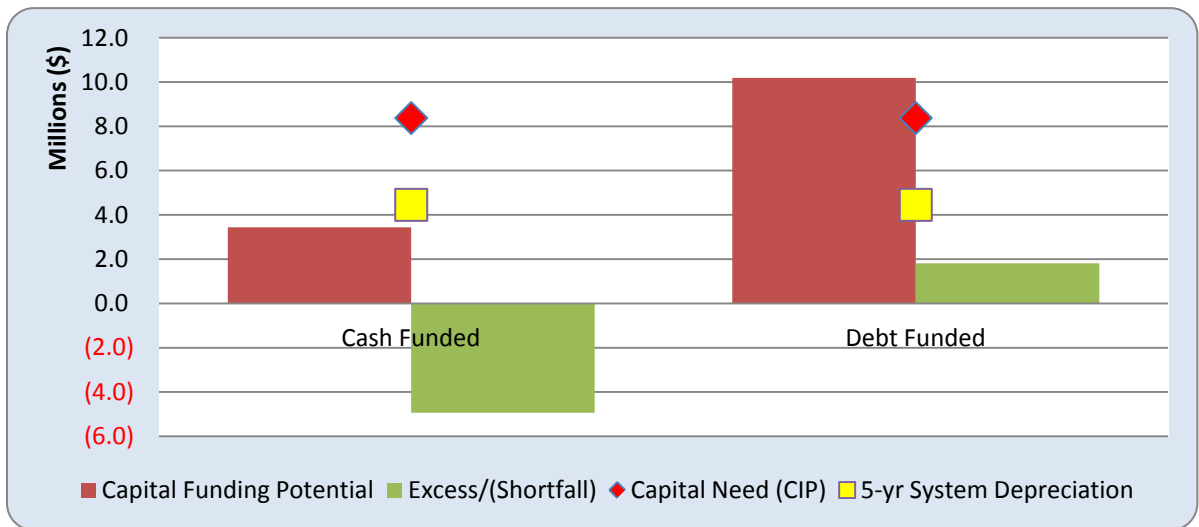


Figure 3-4: Ord Sewer - Five-Year Capital Funding Potential

As the District does not have an asset management program or a policy in place to define risk, this analysis assumes all projects can be deferred as presented within this report. Additionally, the analysis does not account for possible increases to operational expenditures associated with these future projects or possible increased capital costs due to emergency repairs. It is recommended the District establish a formal Repair and Replacement (R&R) program to help manage its assets from installation through disposal in a cost-effective manner. R&R programs provide the tools to better predict and maintain infrastructure to provide increased reliability, performance, and safety.

3.2.5 Policy Driven Needs

In addition to the operating and capital expenses, discussed above, there are also expenses resulting from policy decisions. Under current policy, the District has established both operating and capital reserves for each cost center. The revenue requirements analysis targets a total minimum operating fund balance equivalent to 180 days of operating expenses for each cost center as dictated by District policy. The minimum capital reserve target is \$1 million for each cost center, again as dictated by District policy. As existing Marina Sewer and Ord Water are currently under the minimum operating reserve target, it is recommended that the District continue to closely monitor revenues and reserve levels.

The analysis explored and presented to the board multiple financial scenarios exploring the effects of lowered reserve targets on revenue needs and capital funding potential. Upon review, the board indicated that although the lowered reserve targets offered the benefit of increased capital funding potential, those benefits were out weighed by the financial security provided by the current reserve targets. Nevertheless, the reserve targets could be adjusted in the future as policy dictates to minimize rates or to smooth future rate increases.

3.3 Existing Revenues

Marina Water and Sewer currently generate total revenues of approximately \$3.9 million and \$800,000 per year, respectively. Ord Sewer currently generates total revenues of approximately \$1.8 million per year. The vast majority (over 95 percent) of their revenue comes from user rates. The remaining revenue is generated from a variety of sources including administrative fees, capacity fees and surcharges, and interest income.

Ord Water currently generates total revenues of approximately \$5.4 million per year. Table 3-5 shows revenues, by source, for the Ord Cost Center (FY2013 budgeted amounts).

Table 3-5: Ord Water Revenue by Source

| Source | Revenue | Percent |
|--------------------|------------------|-------------|
| Metered User Rates | \$3,021,466 | 56% |
| Flat Rate Accounts | 1,177,545 | 22% |
| Other Water Sales | 915,000 | 17% |
| All Other Revenue | 302,620 | 6% |
| Total | 5,416,631 | 100% |

The percentage of revenues generated by each source is expected to shift in the near term. The District is in the process of switching flat rate accounts to metered, shifting revenue generation to the Metered User Charges Source. The analysis assumes that this change will be revenue neutral. Another change expected to take place relates to the Other Water Sales. Revenues from this source are currently shown as cash, however, in reality they are payment for water usage by the Bayonet & Black Horse Golf Club in the form of land assets. It is expected that after the next two fiscal years, this land for water deal will expire as the total contract amount of 5,000-acre feet of water will have been delivered. The analysis assumes that at this time, revenue from Other Water Sales will be collected as cash, and will be available to fund operating and CIP expenditures.

3.3.1 User Rates

User rate revenues are the primary revenue source of each utility. As detailed in Tables 1-1 and 1-2, user charges are comprised of a fixed and variable component. In FY2012, both water utilities generated over 30 percent of total rate revenue from fixed charges – with Marina Water at roughly 31 percent and Ord Water generating a slightly higher 34 percent. This fixed revenue versus variable revenue split is in line with the California Urban Water Conservation Council (CUWCC) BMP 1.4 advised target of collecting 30 percent of revenue from fixed charges.

All sewer service charges are fixed monthly charges based on the number of EDU's served by each account. Unlike Water, this rate structure provides a very predictable and steady source of funds for Marina and Ord Sewer.

In recent years, the Marina Sewer, Ord Water, and Ord Sewer cost centers have required inter-fund loans from other cost centers, primarily to assist in the funding of capital projects. The prepared revenue requirements analysis is designed to move away from this practice, and push these cost centers toward a state of self-sustainability.

3.3.2 Other Revenues

As mentioned earlier in this section, other revenues make up a very small portion of annual revenue for each cost center. Consequently, changes in other revenue have a minimal

impact on the revenue requirement analysis. In most cases, other revenues were escalated from the FY2013 budget based on general inflation and/or customer growth.

3.4 Recommended Revenue Requirements

Throughout the development of the proposed revenue requirements, multiple rate revenue forecasts were developed to explore the feasibility of funding future capital needs and options to mitigate ratepayer impacts. The extent of the proposed revenue adjustments is largely contingent on the funding and timing of capital projects. Two sets of financial scenarios were developed for each cost center. The first assumed that all capital projects would be cash funded; the second assumed that capital would be funded with a combination of cash and the issuance of additional debt.

Due to its strong financial health, revenue generation, existing reserves, and proposed CIP, Marina Water will be able to cash fund its CIP with minimal rate increases. Given the high amount of capital expenditures planned for Marina Sewer relative to its operating revenue, funding of Marina Sewer's CIP will require the issuance of new debt along with delaying some projects to later years until increased funding capacity is available.

Proposed rate revenue increases are shown for Marina Water and Marina Sewer in Tables 3-5 and 3-6, respectively. The results of the revenue requirement analysis for Marina Water and Marina Sewer are summarized in Appendix C, Tables C-1 and C-2 respectively.

Table 3-5: Marina Water Revenue Adjustments Schedule

| Fiscal Year | Revenue Adjustments | Revenues From Rate Increase |
|---------------|---------------------|-----------------------------|
| FY2014 | 3.00% | \$58,721 |
| FY2015 | 3.00% | \$60,859 |
| FY2016 | 3.00% | \$63,744 |
| FY2017 | 3.00% | \$66,765 |
| FY2018 | 3.00% | \$69,930 |

Table 3-6: Marina Sewer Revenue Adjustments Schedule

| Fiscal Year | Revenue Adjustments | Revenues From Rate Increase |
|---------------|---------------------|-----------------------------|
| FY2014 | 10.00% | \$40,099 |
| FY2015 | 10.00% | \$44,384 |
| FY2016 | 10.00% | \$49,647 |
| FY2017 | 10.00% | \$55,534 |
| FY2018 | 10.00% | \$62,119 |

Given the high amount of capital expenditures planned for both Ord Water and Ord Sewer relative to the operating revenue generated by each cost center CIP funding will require the

issuance of new debt along with delaying some projects until increased funding capacity is available.

Proposed rate revenue increases are shown for Ord Water and Ord Sewer in Tables 3-7 and 3-8 respectively. The results of the revenue requirement analysis for Marina Water and Marina Sewer are summarized in Appendix C, Tables C-3 and C-4 respectively.

As shown below, for both Ord Water and Ord Sewer have proposed revenue adjustments in the fifth year. Following previous increases, the revenue requirement in the fifth year is maintained by a 4.0 percent increase, rather than an additional 10 percent adjustment. On the other hand, Ord Sewer's revenue need increases in the fifth year (FY2018) in order to ramp up funding for forecasted needs beyond the 5-year rate outlook.

Table 3-7: Ord Water Revenue Adjustments Schedule

| Fiscal Year | Revenue Adjustments | Revenues From Rate Increase |
|-------------|---------------------|-----------------------------|
| FY2014 | 10.00% | \$272,078 |
| FY2015 | 10.00% | \$318,234 |
| FY2016 | 10.00% | \$364,281 |
| FY2017 | 10.00% | \$417,109 |
| FY2018 | 4.00% | \$191,093 |

Table 3-8: Ord Sewer Revenue Adjustments Schedule

| Fiscal Year | Revenue Adjustments | Revenues From Rate Increase |
|-------------|---------------------|-----------------------------|
| FY2014 | 4.00% | \$36,449 |
| FY2015 | 4.00% | \$40,792 |
| FY2016 | 4.00% | \$44,471 |
| FY2017 | 4.00% | \$48,482 |
| FY2018 | 8.00% | \$105,710 |

For each of the Cost Center's, the proposed revenue adjustments are defined to meet the District's outlined objectives. While rates were increased to meet the District operating and capital reserve requirements, the capital program was limited to mitigate additional increases.

4.0 COST OF SERVICE ANALYSIS

The purpose of a cost-of-service analysis is to provide a rational basis for distributing the full costs of Marina and Ord Water service to each customer in proportion to the demands they place on the system. Detailed cost allocations help determine the degree of equity that can be achieved in the design of the resulting unit rates. This analysis yields an appropriate method for allocating costs, which could be sustained unless substantial changes in cost drivers or customer consumption patterns occur.

4.1 Water Cost of Service

The cost of service allocation completed in this study is established on the base-extra capacity method as defined by the American Water Works Association (AWWA). Under the base-extra capacity method, revenue requirements are allocated based on the demand placed on the water system.

4.1.1 Water Functional Cost Components

The functional allocation assigns the annual revenue requirement for a select base year by major function. The water utility's primary functions are related to base flow, peak flow, customer costs (customer and services). These functional cost pools include the rate paid for water supplied by outside agencies, the system's existing operations and maintenance (O&M) expenditures, debt service, and rate-funded capital costs.

The District's budget was analyzed line-item by line-item and expenditures were distributed between the available functions:

Base: costs are those operating and capital costs incurred by the water system to provide a basic level of service to each customer.

Peak: costs represent those operating costs incurred to meet peak demands for water in excess of basic demand (base). This cost also includes capital costs related providing the required system over-sizing to meet excess demand. This allocation also includes basic water supply and distribution costs.

Customer: Fixed expenditures that relate to operational support activities including accounting, billing, customer service, and administrative and technical support. These expenditures are essentially common-to-all customers and are reasonable uniform across the different customer classes.

Service: Meter and capacity related costs, such as meter maintenance and peaking charges, that are included based on the meters hydraulic capacity (measured in gallons per minute). Additionally, as the system's facilities are designed to meeting peaking requirements, a portion of the capacity related costs, including debt service, are allocated to Service.

Fire Service: Capacity related costs that are incurred based on the excess capacity that must be designed into the system in order to provide fire service.

4.1.2 Allocation to Functional Components

The result of Marina Water's functional allocation is presented in Figure 4-1. The Service, Customer, and Fire Service components collectively represent 28 percent of Marina Water's costs and will generate the fixed charge. The remaining 72 percent of costs are allocated to the Base and Peak components, and are the basis for the variable rates.

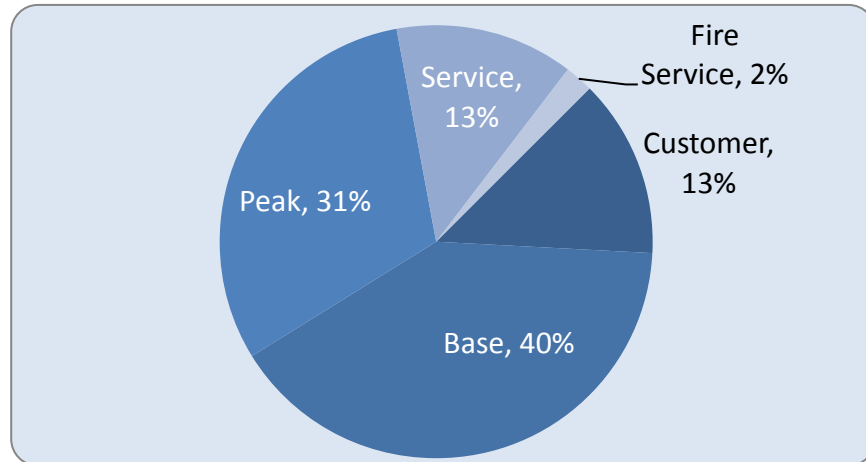


Figure 4-1: Marina Water - Functional Cost Allocation

As Ord Water is an entirely separate system, the resulting functional allocation results in a slightly different spread. Presented in Figure 4-2 are the results of the functional allocation. The fixed components comprised of the Service, Customer, and Fire Service components collectively represent 34 percent of Ord Water's costs. The remaining 66 percent of costs are allocated to the Base and Peak components, and are the basis for the variable rates.

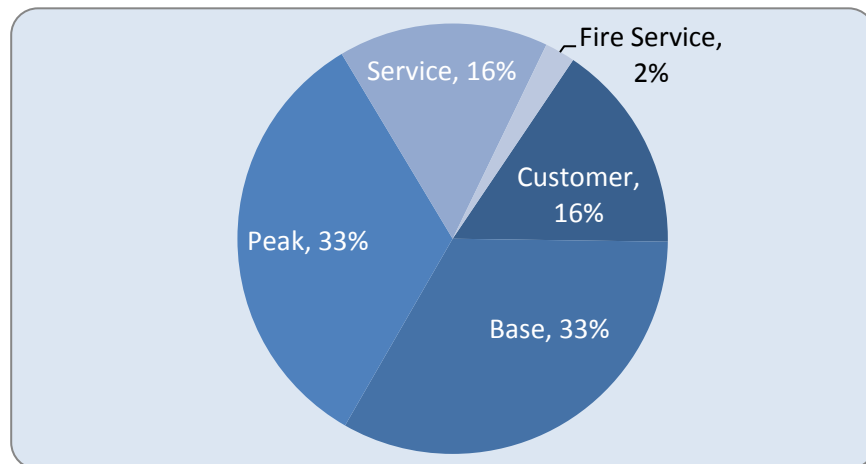


Figure 4-2: Ord Water - Functional Cost Allocation

The breakdown between functional categories is important and used to better understand how costs are incurred and whether they fluctuate with changes in water sales. For example, debt service or personnel costs are considered fixed costs and could be recovered through a fixed charge. Alternatively, purchased water is solely related to how much water is sold and therefore could be attributed and recovered via the variable rates.

There is significant debate over the proper allocation ratio. The general consensus falls to the California Urban Water Conservation Council (CUWCC) target of a 70%/30% split (variable/fixed) as defined in Best Management Practice 1.4. This split is thought to provide sufficient revenue stability (in the form of fixed charges) while still providing adequate conservation incentives. However, many retail agencies have moved to a higher fixed to variable ratio due to revenue fluctuations and need for greater fiscal sustainability.

Based on the results of the functional allocation, the proposed functional allocation is aligned with the CUWCC recommendation. As shown earlier, both Marina and Ord's existing water revenues were examined to derive a current fixed/variable ratio near the recommended levels.

4.1.3 Unit Cost Calculations

The unit costs of service are developed by dividing the total annual costs allocated to each parameter by the total annual service units of the respective component. The Base component is allocated based on the total sales volume. The Peaking component cost is based on the system's peak ratio developed from the ratio between annualized winter consumption and annual consumption. For the fixed components, the Customer component unit cost is based on the number of accounts and the Service component is based on equivalent meters.

Table 4-1 shows the units of service and the associated unit costs for each component derived for Marina Water.

Table 4-1: Development of Unit Costs – Marina Water

| | Customer | Base | Peak | Service | Fire Service |
|---------------------------------|--------------------------------------|--|--|----------------------------------|---|
| Amount Allocable to Constituent | \$537,246 | \$1,626,200 | \$1,246,196 | \$537,246 | \$85,286 |
| Total Units | 45,768 <i>Annual Accounts</i> | 770,313 <i>Annual Usage (hcf)</i> | 770,313 <i>Annual Usage (hcf)</i> | 66,108 <i>Annual EDUs</i> | 57,296 <i>Annual Equivalents</i> |
| Per Unit Costs | \$11.74 | \$2.11 | \$1.62 | \$8.13 | \$1.49 |

Table 4-2 provides Ord Water’s calculated units of service and the corresponding component unit costs.

Table 4-2: Development of Unit Costs – Ord Water

| | Customer | Base | Peak | Service | Fire Service |
|---------------------------------|--------------------------------------|--|--|----------------------------------|---|
| Amount Allocable to Constituent | \$944,683 | \$1,980,149 | \$1,980,149 | \$944,683 | \$136,051 |
| Total Units | 52,058 <i>Annual Accounts</i> | 1,085,466 <i>annual Usage (hcf)</i> | 1,085,466 <i>annual Usage (hcf)</i> | 87,348 <i>Annual EDUs</i> | 80,645 <i>Annual Equivalents</i> |
| Per Unit Costs | \$18.15 | \$1.82 | \$1.82 | \$10.82 | \$1.69 |

4.1.4 Functional Allocation Impact

Although fairly consistent in methodology with the previous rate study, there is one notable difference. Carollo recommends the consideration and inclusion of an account-based component (Customer component). The previous rate study and existing rate structure do not recognize costs that are associated with customer/account only. In effect, there is currently no required revenue allocated to the Customer component or developed unit cost.

As discussed in Section 4.1, costs such as customer billing and administration do not vary or incur a greater benefit (cost) based on meter size. Accordingly, costs that are allocated to the Customer component are spread equally to all accounts, rather than meter size or EDUs.

4.1.5 Customer Class Allocation

The unit costs of each component shown in Table 4-1 are then applied to each customer classes’ projected use, accounts, and meter equivalents to derive customer class allocations. Costs are allocated to each customer class based on their respective peaking factors to reflect its use of the overall system.

The District does not differentiate user rates based on customer class. Given the limitations of the consumption and billing data provided, and the reasonableness of the current rate structure, customer class specific rates were not developed.

As detailed in the following tables, both Water cost center’s have more accounts than its respective sewer cost center. This may be reflective of water customers on septic systems and irrigation only customers.

Table 4-3 shows Marina Water's customer class characteristics that were obtained through billing data analysis.

Table 4-3: Customer Class Characteristics – Marina Water

| Customer Statistics (FY 2012) | Single Family | Multi- Family | Commercial | Irrigation | Temp | Fire | Total |
|---|------------------|------------------|------------|------------|------|-------|---------|
| Number of Accounts | 3,370 | 173 | 241 | 29 | 1 | - | 3,814 |
| Number of EDUs (Meter Equivalents) | 3,709 | 857 | 877 | 62 | 2 | - | 5,509 |
| Water Usage (Annual hcf) | 374,760 | 238,176 | 124,696 | 5,130 | 189 | - | 742,951 |
| Winter Water Usage (Annualized hcf) | 334,615 | 233,275 | 108,919 | 3,941 | 324 | - | 681,074 |
| Summer Water Usage (Annualized hcf) | 430,963 | 245,038 | 146,784 | 6,794 | - | - | 829,579 |
| Summer Usage (Incremental hcf) | 40,145 | 4,901 | 15,777 | 1,189 | N/A | - | 61,877 |
| Fire Service (Equivalent Connections) | - | - | - | - | - | 4,775 | 4,775 |

Table 4-4 shows cost allocation for each customer based on the forecasted revenue requirement based on the data in Table 4-3.

Table 4-4: Customer Class Costs – Marina Water

| Functional Component | Single Family | Multi- Family | Commercial | Irrigation | Temp | Fire Service | Total |
|-------------------------|--------------------|------------------|------------------|-----------------|----------------|-----------------|--------------------|
| Customer | \$474,703 | \$24,369 | \$33,948 | \$4,085 | \$141 | - | \$537,246 |
| Base | 820,289 | 521,329 | 272,940 | 11,229 | 414 | - | 1,626,200 |
| Peak | 805,002 | 98,279 | 316,368 | 23,839 | 2,707 | - | 1,246,196 |
| Service | 361,744 | 83,605 | 85,559 | 6,094 | 244 | - | 537,246 |
| Fire Service | - | - | - | - | - | 85,286 | 85,286 |
| Total | \$2,461,739 | \$727,583 | \$708,814 | \$45,247 | \$3,505 | \$85,286 | \$4,032,174 |

Table 4-5 identifies Ord Water’s customer class characteristics that were obtained through billing data analysis.

Table 4-5: Customer Class Characteristics – Ord Water

| Customer Statistics (FY 2012) | Single Family | Multi-Family | Com. | Irrigation | Public Agency | Fire | Total |
|---|---------------|--------------|---------|------------|---------------|-------|-----------|
| Number of Accounts | 3,523 | 22 | 196 | 69 | 57 | - | 3,867 |
| Number of MEUs (Meter Equivalents) | 2,710 | 490 | 1,280 | 385 | 492 | - | 5,357 |
| Water Usage (Annual hcf) | 625,295 | 58,431 | 148,023 | 74,786 | 32,505 | - | 939,040 |
| Winter Water Usage (Annualized hcf) | 550,777 | 30,402 | 118,323 | 49,983 | 30,789 | - | 780,274 |
| Summer Water Usage (Annualized hcf) | 774,332 | 114,489 | 207,423 | 124,392 | 35,937 | - | 1,256,573 |
| Summer Usage (Incremental hcf) | 74,518 | 28,029 | 29,700 | 24,803 | 1,716 | - | 158,766 |
| Fire Service (Equivalent Connections) | - | - | - | - | - | 6,720 | 6,720 |

Table 4-6 shows cost allocation for each customer based on the forecasted revenue requirement based on the characteristics identified in Table 4-5.

Table 4-6: Customer Class Costs – Ord Water

| Functional Component | Single Family | Multi-Family | Com. | Irrigation | Public Agency | Fire Service | Total |
|----------------------|--------------------|------------------|------------------|------------------|------------------|------------------|--------------------|
| Customer | \$860,646 | \$5,374 | \$47,882 | \$16,856 | \$13,925 | - | \$944,683 |
| Base | 1,318,556 | 123,213 | 312,135 | 157,701 | 68,543 | - | 1,980,149 |
| Peak | 929,400 | 349,580 | 370,421 | 309,345 | 21,402 | - | 1,980,149 |
| Service | 477,838 | 86,399 | 225,658 | 67,961 | 86,825 | - | 944,683 |
| Fire Service | - | - | - | - | - | 136,051 | 136,051 |
| Total | \$3,586,440 | \$564,567 | \$956,096 | \$551,864 | \$190,695 | \$136,051 | \$5,985,714 |

4.2 Sewer Cost of Service

The cost of service process for development of sewer rates follows an approach similar to that used for water service. However, as the Marina and Ord Sewer operations are responsible solely for the collection and conveyance of wastewater and not treatment, a much simpler method of rate design can be used.

4.2.1 Sewer Functional Cost Components

The functional allocation assigns the annual revenue requirement for a select base year by major function. Sewer rates are developed based on the total system costs to be collected through user rates, and the total number of EDUs served. A unit cost per EDU is developed and customers are charged based on the associated number of EDUs.

Table 4-7 shows a summary of the Marina Sewer customer characteristics.

Table 4-7: Marina Sewer Customer Characteristics

| Customer Class | Accounts | Average EDUs per Account | Total EDUs |
|--------------------------|--------------|--------------------------|--------------|
| Residential | 3,371 | 1.2 | 4,064 |
| Multi Family Residential | 139 | 14.9 | 2,064 |
| Business | 165 | 5.5 | 911 |
| Restaurants | 8 | 5.0 | 40 |
| Schools | 6 | 23.1 | 139 |
| Church | 14 | 1.3 | 18 |
| Total | 3,703 | 2.0 | 7,235 |

Table 4-8 shows a summary of the Ord Cost Center's Sewer customer characteristics.

Table 4-8: Ord Sewer Customer Characteristics

| Customer Class | Accounts | Average EDUs per Account | Total EDUs |
|--------------------------|--------------|--------------------------|--------------|
| Residential | 2,918 | 1.6 | 4,560 |
| Multi Family Residential | 0 | 0.0 | 0 |
| Business | 137 | 4.1 | 565 |
| Public Agency | 2 | 1.7 | 3 |
| Schools | 9 | 28.4 | 256 |
| Church | 1 | 0.7 | 1 |
| CSUMB | 39 | 4.0 | 157 |
| Total | 3,067 | 1.8 | 5,384 |

4.2.2 Unit Cost Calculations

For Sewer the unit costs of service are developed by dividing the total annual costs by the total annual service units (EDUs). EDUs are defined based on assumed wastewater demand factors (detailed in Appendix A).

Table 4-9 provides Marina Water's calculated component unit costs.

Table 4-9: Development of Unit Costs - Marina Sewer

| Fiscal Year | Rate Revenue Required | Projected EDU's | Annual cost Per EDU | Monthly Rate per EDU |
|-------------|-----------------------|-----------------|---------------------|----------------------|
| Existing | \$794,437 | 7,235 | \$109.80 | \$9.15 |
| FY2014 | 882,187 | 7,280 | 121.17 | 10.10 |
| FY2015 | 976,447 | 7,326 | 133.29 | 11.11 |
| FY2016 | 1,092,235 | 7,449 | 146.62 | 12.22 |
| FY2017 | 1,221,752 | 7,575 | 161.28 | 13.44 |
| FY2018 | 1,366,628 | 7,703 | 177.41 | 14.78 |

Table 4-10 provides Marina Water's calculated component unit costs.

Table 4-10: Development of Unit Costs - Ord Sewer

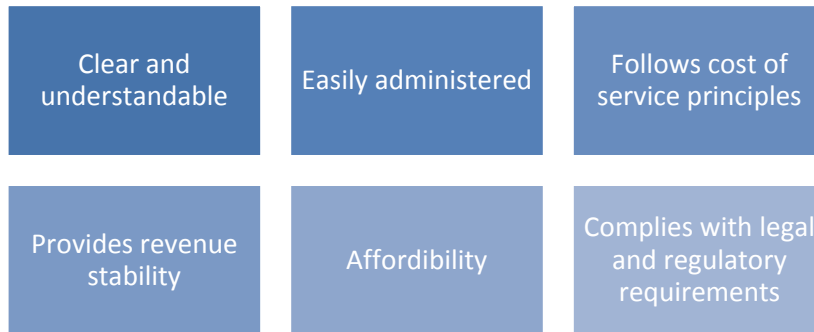
| Fiscal Year | Rate Revenue Required | Projected EDU's | Annual cost Per EDU | Monthly Rate per EDU |
|-----------------|-----------------------|-----------------|---------------------|----------------------|
| Existing | \$1,679,652 | 5,541 | \$303.12 | \$25.26 |
| FY2014 | 1,895,353 | 5,963 | 317.86 | 26.49 |
| FY2015 | 2,121,192 | 6,417 | 330.57 | 27.55 |
| FY2016 | 2,312,510 | 6,726 | 343.79 | 28.65 |
| FY2017 | 2,521,085 | 7,051 | 357.54 | 29.80 |
| FY2018 | 2,854,182 | 7,391 | 386.15 | 32.18 |

5.0 RATE DESIGN ANALYSIS

The water rate design analysis determines how the costs, identified in Tables 4-4 and 4-6, are recovered by each customer through specified water rates. The focus of this process is to achieve full cost recovery and substantiate that customers are paying their fair and proportionate share of system costs.

5.1 Selecting Rate Structures

Once costs have been equitably allocated to each functional component, the District has some flexibility in designing the rate structure in order to meet its policy objectives. In determining the appropriate rate level and structure, Carollo analyzed various rate design alternatives and the corresponding customer and utility implications. Beyond the identified study objectives, Carollo identified additional criteria for considerations and discussed them at length with District staff. Listed below is a partial list of the additional rate design elements:



Given the numerous and at times competing elements, selection of an appropriate rate structure is complex. There is no single structure that meets all objectives equally, nor are all objectives or elements valued the same by the utility or customers. Each criteria or element has merit and plays an important role in the rates implementation and overall effectiveness. These elements and competing objectives were discussed and evaluated at length throughout the financial and rate study process.

5.2 Recommended Water Rates

Based on discussion with District staff and careful review of the cost of service analysis, Carollo recommends that the District consider the following rate design recommendations

- *Implement the proposed Cost of Service allocations:* The cost-of-service analysis includes a Customer component. As such, costs are allocated distributed evenly to each account. This reflects the equal benefit each account receives from customer component related costs. As a result, fewer costs are now allocated to the Service component which increases based on the size of the meter.

- *Retain the current rate structure.* Through consumption and billing data analysis, the study found the current rate structure to be reasonable. Average winter month consumption per account falls well within the allotment of tiers one and two, providing that the tier three rate is continuing to drive conservation.
- *Implement Proposed Increase on January 1st of each year.* Rate increases during low consumption months better enables ratepayers to adapt to potential increases. While increases that coincide with the start of the fiscal year are ideal for budget purposes, it would also coincide with summer and the District's peak water demand.
- *Removal of Capital Surcharge for New Users.* As Carollo has developed an updated Ord Water Capacity Charge that fully recognizes the value of the existing system (buy-in component), it is no longer necessary or appropriate to capture a Capital Surcharge.

5.2.1 Fixed Charge

A monthly fixed charge is a cost recovery mechanism that is generally included in the rate structure to recover the utility's fixed expenditures, including meter and customer related costs. As discussed previously, this cost also includes a portion of the capacity related cost to provide a stable source of revenue independent of monthly water demand.

While an increased fixed charge provides a stable source of revenues for the utility, increasing the fixed charge reduces the commodity rates and incentive for conservation. The proposed revenue adjustments as a percentage do not equal or necessarily correlate to an equivalent percentage increase to rates or monthly bills. The results of the cost of service analysis and rate redesign will affect users differently based on their meter size and water consumed.

The proposed fixed charge is a combination of the Customer and Service functional components. To determine this charge, the meter unit cost is multiplied by the meter capacity ratios previously developed by the District to calculate the meter capacity cost. These ratios mirror the ratios identified in the AWWA M22 Manual Sizing Water Service Lines and Meters. The ratios reflect a reasonable cost and benefit factor associated with greater hydraulic flow capacity.

The meter capacity cost is then added to the Customer Service cost to calculate the cost based service charges shown in Table 5-1.

Table 5-1: Components to Proposed Fixed Charge – Marina Water

| Meter Size | Meter Capacity Ratio | Service Unit Cost | Customer Unit Cost* | Total |
|------------|----------------------|-------------------|---------------------|---------|
| 5/8" | 1.0 | \$8.13 | \$11.74 | \$19.87 |
| 3/4" | 1.0 | 8.13 | 11.74 | 19.87 |
| 1" | 2.5 | 20.31 | 11.74 | 32.05 |
| 1-1/2" | 5.0 | 40.63 | 11.74 | 52.36 |
| 2" | 8.0 | 65.00 | 11.74 | 76.73 |
| 3" | 15.0 | 121.90 | 11.74 | 133.64 |
| 4" | 25.0 | 203.11 | 11.74 | 214.85 |
| 6" | 50.0 | 406.22 | 11.74 | 417.96 |
| 8" | 100.0 | 812.67 | 11.74 | 824.41 |
| 10" | 115.0 | 934.30 | 11.74 | 946.04 |

* Based on the previous rate study, the existing rate was entirely allocated to the Service component. The Customer Unit Cost recognizes the equal benefit received to each account for expenditures, such as customer billing

Table 5.2 identifies the proposed monthly fixed charges for Marina Water analyzed for the 5-year rate period.

Table 5-2: Proposed Fixed Charges – Marina Water

| Meter Size | Existing | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 |
|------------|----------|------------|------------|------------|------------|------------|
| 5/8" | \$18.85 | \$19.87 | \$20.46 | \$21.07 | \$21.71 | \$22.36 |
| 3/4" | 18.85 | 19.87 | 20.46 | 21.07 | 21.71 | 22.36 |
| 1" | 47.09 | 32.05 | 33.01 | 34.00 | 35.02 | 36.07 |
| 1-1/2" | 94.19 | 52.36 | 53.94 | 55.55 | 57.22 | 58.94 |
| 2" | 150.68 | 76.73 | 79.04 | 81.41 | 83.85 | 86.36 |
| 3" | 282.52 | 133.64 | 137.65 | 141.78 | 146.03 | 150.41 |
| 4" | 470.87 | 214.85 | 221.30 | 227.93 | 234.77 | 241.82 |
| 6" | 941.75 | 417.96 | 430.50 | 443.41 | 456.71 | 470.42 |
| 8" | 1,883.49 | 824.41 | 849.14 | 874.62 | 900.86 | 927.88 |
| 10" | | 946.04 | 974.42 | 1003.66 | 1033.77 | 1064.78 |

Table 5.3 provides the components utilized to develop the proposed fixed charge for Ord Water.

Table 5-3: Components to Proposed Fixed Charge – Ord Water

| Meter Size | Meter Capacity Ratio | Service Unit Cost | Customer Unit Cost* | Total |
|------------|----------------------|-------------------|---------------------|---------|
| 5/8" | 1.0 | \$10.82 | \$18.15 | \$28.96 |
| 3/4" | 1.0 | 10.82 | 18.15 | 28.96 |
| 1" | 2.5 | 27.03 | 18.15 | 45.18 |
| 1-1/2" | 5.0 | 54.07 | 18.15 | 72.21 |
| 2" | 8.0 | 86.50 | 18.15 | 104.64 |
| 3" | 15.0 | 162.23 | 18.15 | 180.37 |
| 4" | 25.0 | 270.30 | 18.15 | 288.45 |
| 6" | 50.0 | 540.60 | 18.15 | 558.75 |
| 8" | 100.0 | 1081.51 | 18.15 | 1099.66 |

* Based on the previous rate study, the existing rate was entirely allocated to the Service component. The Customer Unit Cost recognizes the equal benefit received to each account for expenditures, such as customer billing

Table 5.4 identifies the proposed monthly fixed charges for Ord Water analyzed over the 5-year rate period.

Table 5-4: Proposed Fixed Charges – Ord Water

| Meter Size | Current | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 |
|------------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| 5/8" | \$17.11 | \$28.96 | \$31.48 | \$34.37 | \$37.55 | \$38.79 |
| 3/4" | 17.11 | 28.96 | 31.48 | 34.37 | 37.55 | 38.79 |
| 1" | 42.76 | 45.18 | 49.11 | 53.62 | 58.57 | 60.51 |
| 1-1/2" | 85.49 | 72.21 | 78.49 | 85.71 | 93.62 | 96.71 |
| 2" | 136.78 | 104.64 | 113.74 | 124.20 | 135.66 | 140.14 |
| 3" | 256.47 | 180.37 | 196.05 | 214.09 | 233.85 | 241.57 |
| 4" | 427.45 | 288.45 | 313.52 | 342.36 | 373.96 | 386.31 |
| 6" | 854.89 | 558.75 | 607.31 | 663.18 | 724.39 | 748.31 |
| 8" | 1,709.79 | 1099.66 | 1195.24 | 1305.19 | 1425.66 | 1472.72 |
| Flat Rate | \$84.34 | \$98.36 | \$112.65 | \$127.29 | \$143.94 | \$153.99 |

5.2.2 Commodity Rates

The District's existing rate structure is comprised of three inclining block tiers. Although Marina and Ord have different rates, they share the same tier structure. Through a comprehensive evaluation of consumption and billing data, the analysis confirmed the reasonableness of the current rate structure and individual tier allocations. For both Marina and Ord Water, average winter month consumption per account falls well within the allotment of tiers one and two, providing that the tier three rate is continuing to drive conservation due to price signaling. As such, Carollo recommends the District maintain its

existing commodity structure and update costs associated with the generated cost of service allocations.

Based on the District's peaking factors, Customer related commodity costs are calculated based on the District's average annually water usage and its incremental summer consumption. The water commodity rate for each customer class is calculated based on the allocated cost to each customer class (required revenues) and the forecasted annual water demands. In this case, all classes share equal commodity rates. Marina Water's proposed monthly tiers and corresponding commodity based rates are shown in Table 5-5.

Table 5-5: Proposed Commodity Rates – Marina Water

| | Current | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 |
|---|-----------------------|---------------|---------------|---------------|---------------|---------------|
| All Customer Classes | Rate (per hcf) | | | | | |
| 0 - 8 (hcf) | \$2.29 | \$2.47 | \$2.55 | \$2.62 | \$2.70 | \$2.78 |
| 9 - 16 | 2.79 | 2.83 | 2.92 | 3.01 | 3.10 | 3.19 |
| 17 - + | 5.09 | 5.00 | 5.15 | 5.31 | 5.47 | 5.63 |
| * Rate adjustments to be effective January 1 st of each year | | | | | | |

Ord Water's proposed monthly tiers and corresponding commodity based rates are shown in Table 5-6.

Table 5-6: Proposed Commodity Rates – Ord Water

| | Current | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 |
|--|-----------------------|---------------|---------------|---------------|---------------|---------------|
| All Customer Classes | Rate (per hcf) | | | | | |
| 0 - 8 (hcf) | \$2.33 | \$2.22 | \$2.60 | \$2.97 | \$3.40 | \$3.68 |
| 9 - 16 | 3.27 | 3.40 | 3.98 | 4.56 | 5.22 | 5.65 |
| 17 - + | 4.22 | 4.59 | 5.37 | 6.14 | 7.03 | 7.62 |
| * Rate increase to be effective January 1 st of each year | | | | | | |

5.3 Sewer Rate Recommendations

Based on discussion with District staff and careful review of the cost of service analysis, Carollo recommends that the District implement the following rate design recommendations

- *Retain the current rate structure.* Through customer and billing data analysis, the study has found that the current rate structure is reasonable and appropriate. It provides customer equity by assigning EDU's to each customer based on wastewater demand factors, and provides a consistent and predictable source of revenue.
- *Implement Rates on January 1st of each year.* Although water consumption does not affect the monthly sewer charge, implementing during the low water use months is advantageous as the customers overall cost for water and sewer is lower than in the peak months. Additionally, implementing water and sewer rate increases in the same month simplifies procedures required by Proposition 218.
- *Removal of Capital Surcharge for New Users.* As Carollo has developed an updated Ord Sewer Capacity Charge that fully recognizes the value of the existing system (buy-in component), it is no longer necessary or appropriate to capture a Capital Surcharge.

5.3.1 Sewer Rates per EDU

Table 5-7 shows the proposed Marina Sewer rates per EDU for the five-year rate study period through FY 2017/18.

Table 5-7: Marina Sewer - Proposed Sewer Rates

| | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 |
|---------------------|------------|------------|------------|------------|------------|
| Rate per EDU | \$10.10 | \$11.11 | \$12.22 | \$13.44 | \$14.78 |

Table 5-8 shows the proposed Ord Sewer rates per EDU for the five-year rate study period through FY 2017/18.

Table 5-8: Ord Sewer - Proposed Sewer Rates

| | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 |
|---------------------|------------|------------|------------|------------|------------|
| Rate per EDU | \$26.49 | \$27.55 | \$28.65 | \$29.80 | \$32.18 |

5.4 Fire Meter Service Charges

As part of the suite of services provided by the District, numerous accounts have a water line connection to the District's water system that is specifically for fire protection or has been upsized based on building codes. Fire Service Charges are assessed to private protection meters. Currently, the District charges a uniform rate of \$20 for commercial fire meters. Residential customers that have been upsized to a 1" meter (from a 5/8" or 3/4" meter) pay the existing 1" meter service charge.

The proposed methodology is designed to reflect the design and operation of the water system that is specifically available for fire protection. The recommended charge is based on the diameter of the line that connects their fire protection system to the District's water system. Based on the preliminary cost of service analysis and allocation assumptions, the table below provides the proposed monthly charges. Under this methodology, upsized residential meters would pay the proposed 1" fire meter charge and the proposed 3/4" meter service charge.

Table 5-9: Proposed Monthly Fire Meter Service Charges

| Meter Size | Existing | Proposed Marina Water | Proposed Ord Water |
|------------|----------|-----------------------|--------------------|
| 1" | \$20.00 | \$1.49 | \$1.69 |
| 1 1/2" | 20.00 | 4.32 | 4.90 |
| 2" | 20.00 | 9.21 | 10.44 |
| 2 1/2" | 20.00 | 16.57 | 18.78 |
| 3" | 20.00 | 26.77 | 30.34 |
| 4" | 20.00 | 57.04 | 64.65 |
| 6" | 20.00 | 165.69 | 187.79 |
| 8" | 20.00 | 353.09 | 400.18 |

5.5 Customer Impacts

Before implementing any rate structure recommendations, Carollo worked closely with District staff to evaluate the impact of the proposed rate structure's impact to water and wastewater customers. Proposed revenue increases and the capital funding levels were balanced to mitigate overall impacts to ratepayers.

The following figure (Figure 5-1) demonstrates the impact of the proposed Marina Water and Sewer rates for a single-family resident with a 5/8" or 3/4" meter across various usage levels. The blue portion of the bar represents the customers fixed water charge, while the red represents the commodity or variable portion of the overall water bill. The relative increase in the fixed charge is a direct result of recognizing utility's significant fixed costs and a desire to increase revenue predictability. In addition, as users typically view their utility bill as a single unit, the green bar represents the rate associated with sewer charges.

Figure 5-1 illustrates the relative impact of the proposed Marina Water and Sewer rates for various single-family customers.

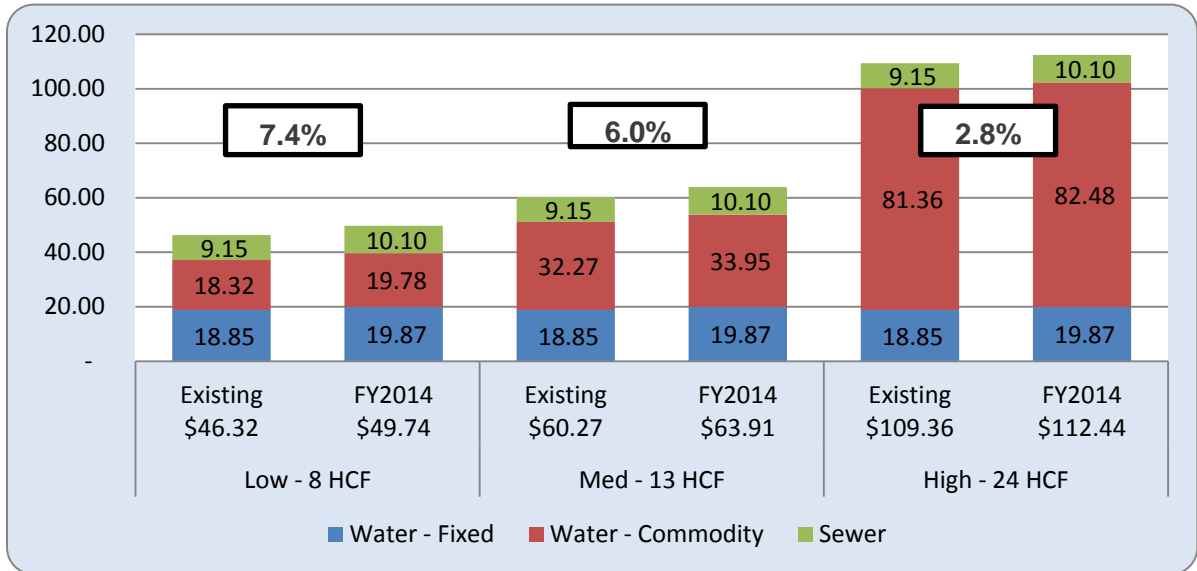


Figure 5-1: Single-Family Residential Customer Impacts – Marina Water & Sewer

Figure 5-2 illustrates the relative impact of the proposed Ord Water and Sewer rates for various single-family customers. The effect of allocating a portion of the revenue requirement to the Customer component is clearly seen in this comparison. Water's fixed charge, represented by the blue bars, makes up a significant portion of the proposed impact.

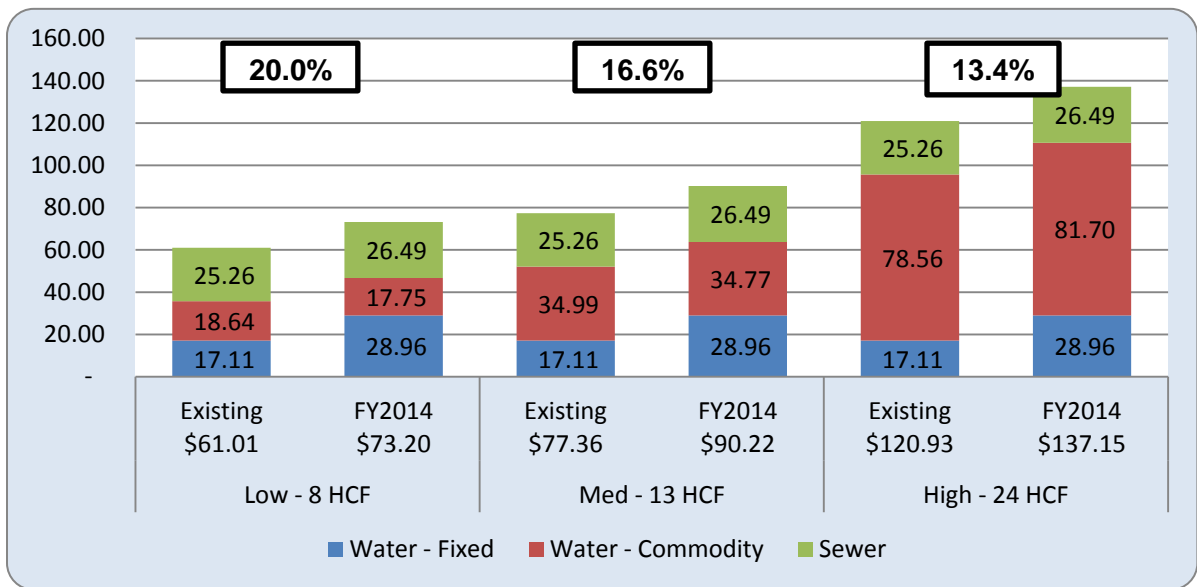


Figure 5-2: Single-Family Residential Customer Impacts – Ord Water & Sewer

5.5.1 Water Rate Comparison

Carollo conducted a water rate survey of nearby utilities. Although utilities are not equal, it is common to examine comparisons between similar or neighboring utilities. Figure 5-3 compares a typical single-family residential user with the current rate structure and the proposed rates against three nearby utilities. In addition to the local comparisons, Carollo details the District's existing rates.

Care should be taken in drawing conclusions from such comparisons as factors including locations, source of supply, customer profiles, age of the system, and various operational and capital related needs vary from agency to agency. A simple example of this is the difference between Marina and Ord rates.

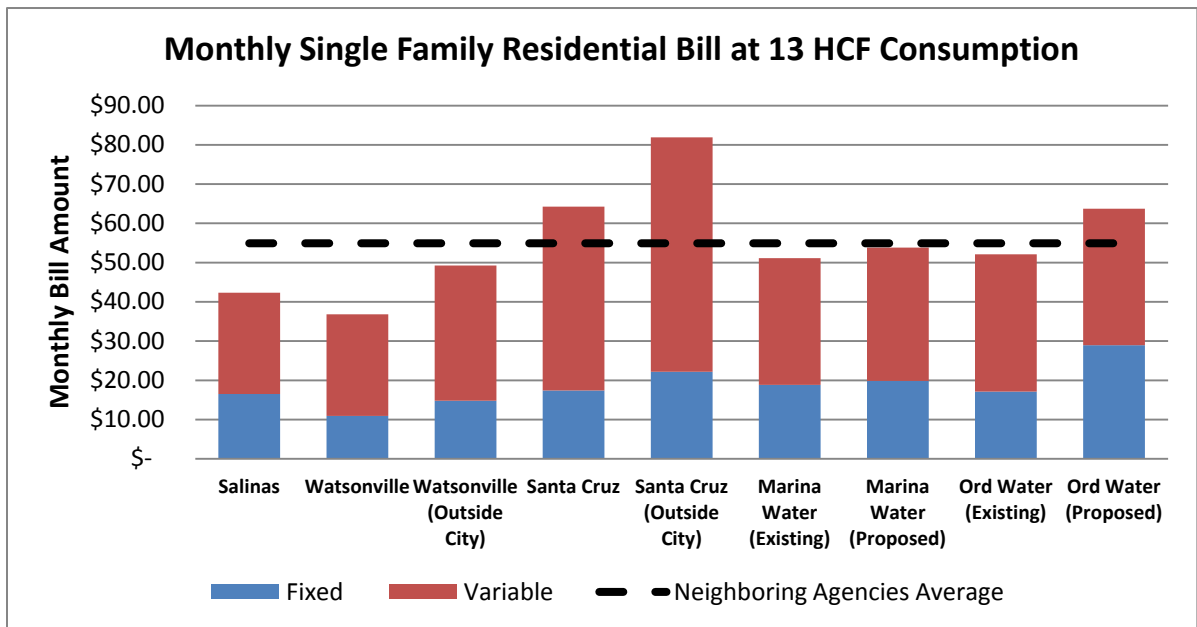


Figure 5-3: Local Rate Comparison Survey

As illustrated, despite the proposed increase to customers, water rates are in line with the average of nearby agencies.

6.0 CAPACITY FEE UPDATE

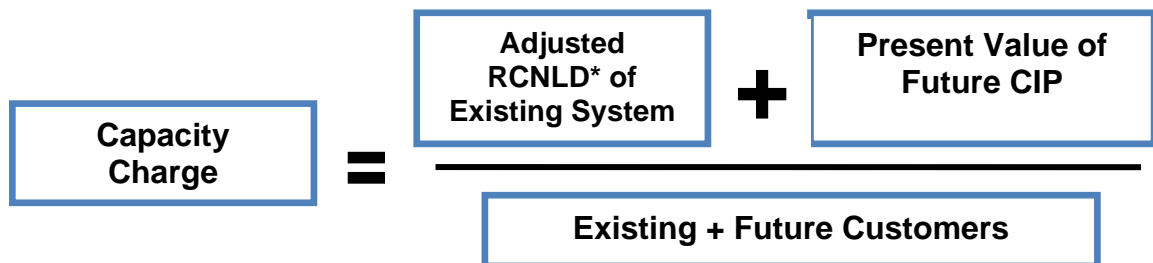
Capacity fees are one-time charges that are assessed when new connections are added to the water or wastewater system, or existing connections are increased in size. The purpose of capacity fees is to ensure that each customer is paying for the amount of system capacity required to service their connection.

Marina Coast Water District currently uses a combined buy-in and future cost approach to calculate capacity fees for each of the four cost centers. In this approach, asset values are calculated based on the current replacement value of the existing system plus the value of planned CIP projects and all other current assets held by each cost center. Net assets are calculated by subtracting all liabilities from the total asset value. The value of net assets is then divided by the total number of EDUs that the system is expected to be able to serve at the end of the CIP period, to determine the system equity per EDU, or capacity charge.

There are two basic components to the District's capacity charge – the "buy-in component" (or existing cost basis); and the "future component" (or future cost basis). For the purposes of this analysis, the term "buy-in component" shall refer to the value of existing system assets (i.e. facilities already in service) that may be recovered through the capacity charge. The term "future component" shall refer to future facilities (i.e., facilities in the CIP) that may be recovered through the capacity charge.

The buy-in component of the capacity charge is based on replacement cost new less depreciation (RCNLD). Outstanding debt principal and monetary reserves are also accounted for in this cost basis. The future component incorporates the present value of the District's CIP. Costs are fairly and reasonably spread over both existing and future users by dividing the total system value by the total number of equivalent meters that are projected to receive water service through 2030.

The methodology for calculating each cost centers capacity charges is illustrated below in Figure 6-1.



*Replacement Cost New Less Depreciation

Figure 6-1: Overview of Capacity Charge Calculation

Capacity charges were developed based on financial information and other data provided by the District. Staff also provided direct guidance on the allocation of assets among each of the four cost centers. Summaries of the capacity fee calculations and the resulting proposed capacity fees for each cost center are shown in tables 6-1 through 6-4. Detailed Capacity charge calculations can be found in Appendix D.

Table 6-1: Marina Water Capacity Fee Calculation

| Water System Capacity Charges | Marina Water |
|--|---------------------|
| RCNLD of Water Infrastructure in Service | \$13,374,123 |
| RCNLD of Other Depreciable Assets | 3,197,842 |
| Sub-Total of Adjustments | 3,382,972 |
| Total Value of Capital Assets | 19,954,937 |
| Total Liability and Asset-Related Adjustments | -10,038,849 |
| Total Value of Existing Assets Net of Liabilities | 9,916,088 |
| Infrastructure Related Future CIP Costs | 27,514,092 |
| Total Value of Existing and Future Assets | \$37,430,180 |
| Total Number of Meter Equivalents | 8,269 |
| Calculated System Capacity Charge | \$4,526 |

Table 6-2: Marina Water Capacity Fee Calculation

| Sewer System Capacity Charges | Marina Sewer |
|--|---------------------|
| RCNLD of Water Infrastructure in Service | \$13,124,445 |
| RCNLD of Other Depreciable Assets | 326,498 |
| Sub-Total of Adjustments | 1,004,812 |
| Total Value of Capital Assets | 14,455,755 |
| Total Liability and Asset-Related Adjustments | -805,081 |
| Total Value of Existing Assets Net of Liabilities | 13,650,674 |
| Infrastructure Related Future CIP Costs | 11,423,891 |
| Total Value of Existing and Future Assets | \$25,074,564 |
| Total Number of Meter Equivalents | 10,748 |
| Calculated System Capacity Charge | \$2,333 |

Table 6-3: Ord Water Capacity Fee Calculation

| Water System Capacity Charges | Ord Water |
|--|----------------------|
| RCNLD of Water Infrastructure in Service | \$57,099,474 |
| RCNLD of Other Depreciable Assets | 2,206,873 |
| Sub-Total of Adjustments | 83,375,806 |
| Total Value of Capital Assets | 142,682,153 |
| Total Liability and Asset-Related Adjustments | -7,952,134 |
| Total Value of Existing Assets Net of Liabilities | 134,730,020 |
| Infrastructure Related Future CIP Costs | 90,693,766 |
| Total Value of Existing and Future Assets | \$225,423,786 |
| Total Number of Meter Equivalents | 14,387 |
| Calculated System Capacity Charge | \$15,669 |

Table 6-4: Ord Sewer Capacity Fee Calculation

| Sewer System Capacity Charges | Ord Sewer |
|--|---------------------|
| RCNLD of Water Infrastructure in Service | \$29,691,490 |
| RCNLD of Other Depreciable Assets | 774,317 |
| Sub-Total of Adjustments | 28,159,438 |
| Total Value of Capital Assets | 58,625,245 |
| Total Liability and Asset-Related Adjustments | -4,161,888 |
| Total Value of Existing Assets Net of Liabilities | 54,463,357 |
| Infrastructure Related Future CIP Costs | 35,130,846 |
| Total Value of Existing and Future Assets | \$89,594,203 |
| Total Number of Meter Equivalents | 11,734 |
| Calculated System Capacity Charge | \$7,636 |

Table 6.5 presents the system capacity charges over the next five years. To maintain equity and to account for inflation in future years, the capacity charges are escalated in future years based on the long-term Engineering News Record Construction Cost Index of 3.5 percent.

Table 6-5: System Capacity Charge Summary

| Description | Existing | FY 2013/ 2014 | FY 2014/ 2015 | FY 2015/ 2016 | FY 2016/ 2017 | FY 2017/ 2018 |
|--------------|----------|------------------|------------------|------------------|------------------|------------------|
| Marina Water | \$5,450 | \$4,526 | \$4,686 | \$4,851 | \$5,022 | \$5,199 |
| Marina Sewer | 3,950 | 2,333 | 2,415 | 2,500 | 2,588 | 2,680 |
| Ord Water | 5,750 | 15,669 | 16,221 | 16,793 | 17,385 | 17,998 |
| Ord Sewer | 2,150 | 7,636 | 7,906 | 8,183 | 8,472 | 8,771 |

MARINA COAST WATER DISTRICT – Financial Plan and Rate and Fee Study
APPENDIX A – WASTEWATER DEMAND FACTORS

**Table A-1 Waste Water Demand Factors
Marina Coast Water District
Financial Plan and Rate and Fee Study**

| User Classification | Wastewater Demand Factor | Unit |
|---|---------------------------------|--------------|
| Single-family residence | 1.00 | |
| Apartment unit with washer | 1.00 | |
| Apartment unit without washer | 0.80 | |
| Apartment central laundry facility | 0.60 | Machine |
| Mobile home with washer | 1.00 | |
| Mobile home without washer | 0.80 | |
| Mobile home park central laundry | 0.60 | Machine |
| Hotels, motels and rooming houses | 0.25 | Room |
| Campground with central facilities | 0.20 | Space |
| RV park with individual hookups | 0.30 | Space |
| Barber and beauty shops | 0.30 | Station |
| Service station with restrooms | 2.00 | |
| Service station without restrooms | 0.80 | |
| Recreational vehicle dump station | 2.00 | Station |
| Auto or truck repair shop | 1.00 | |
| Mortuary | 0.40 | Employee |
| Bakeries, catering service | 0.30 | Employee |
| Restaurants | 0.07 | Seat |
| Restaurants, twenty-four-hour, fast food | 0.09 | Seat |
| Bars, cardrooms, casinos, taverns | 0.10 | Seat |
| Bowling alley | 0.10 | Alley |
| Theater (maximum capacity) | 0.02 | Seat |
| Laundry or laundromat | 0.60 | Machine |
| Dry cleaner employees PLUS | 0.10 | Employee |
| Dry cleaner machines | 1.00 | Machine |
| Fire station | 0.20 | Employee |
| Offices (attorney; accountant; realtor; etc.) | 0.10 | Employee |
| Dentist | 0.50 | Operatory |
| Doctor office or clinic | 1.00 | Office or MD |
| Dry goods retail store | 0.10 | Employee |
| Commercial swimming pool | 2.50 | Pool |
| Car wash | 3.00 | Stall |
| Food markets | 0.10 | Employee |
| Public buildings | 0.10 | Employee |
| School | 0.07 | Enrollment |
| Meeting hall; Church | 0.01 | Seat |
| Fairgrounds complex | 4.00 | |
| Restroom buildings | 1.00 | Toilet |
| Hospital | 0.80 | Bed |
| Convalescent or nursing home | 0.50 | Bed |
| Industrial waste | 45.00 | |
| Minimum demand for all classifications | 0.80 | Account |

MARINA COAST WATER DISTRICT – Financial Plan and Rate and Fee Study
APPENDIX B – PROPOSED CIP

**Table B-1 Marina Water Proposed CIP
Marina Coast Water District
Financial Plan and Rate and Fee Study**

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | | |
|---------|-----------------------------------|----------|--------------|----------|----------|----------|----------|---------|----------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | TOTAL | CATEGORY |
| MW-0204 | Edna Court Water Main Replacement | \$20,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$20,000 | ε |
| MW-0200 | Wharf Hydrant Replacement | 30,000 | 0 | 0 | 0 | 0 | 0 | 0 | 30,000 | ε |
| MW-0203 | Well 11 Pump Replacement | 155,000 | 0 | 0 | 0 | 0 | 0 | 0 | 155,000 | ε |
| MW-0111 | Beach Road Pipeline | 0 | 0 | 74,679 | 100,000 | 0 | 0 | 340,000 | 514,679 | ε |
| MW-0163 | Repair & Recoat Reservoir 2 | 0 | 0 | 0 | 0 | 450,000 | 0 | 0 | 450,000 | ε |
| MW-0109 | Lake Court Waterline Extension | 0 | 0 | 0 | 0 | 0 | 0 | 435,468 | 435,468 | δ δ |
| MW-0201 | Salinas Ave Pipeline Extension | 0 | 0 | 0 | 0 | 0 | 0 | 395,665 | 395,665 | ε |
| MW-0202 | Reservoir 2 Demolition | 0 | 0 | 0 | 0 | 0 | 0 | 703,644 | 703,644 | ε |

SPLIT OF GENERAL WATER (GW) COST CENTER PROJECTS - SHARE ASSIGNED TO MARINA WATER (MW) = 37%

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | | |
|---------|---|----------|--------------|-----------|-----------|----------|----------|-----------|-----------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | TOTAL | CATEGORY |
| GW-0212 | Potable Water Tank Compliance Project | \$0 | \$39,140 | \$0 | \$0 | \$0 | \$41,132 | \$0 | \$80,272 | ε |
| GW-0112 | A1 & A2 Zone Tanks & B/C Booster Station | 48,470 | 116,814 | 1,335,870 | 1,219,565 | 0 | 0 | 1,349,182 | 4,069,901 | δ δ , ε |
| GW-0300 | Marina & Ord Water Master Plan | 0 | 92,500 | 0 | 0 | 0 | 0 | 0 | 92,500 | ε |
| GW-0123 | "B2" Zone Tank @ CSUMB | 0 | 0 | 0 | 0 | 0 | 0 | 952,702 | 952,702 | δ δ |
| GW-0210 | Reservoir A3 (1.6 MG) | 0 | 0 | 0 | 0 | 0 | 0 | 1,283,619 | 1,283,619 | δ δ |
| GW-0231 | Install Well 37 - Retire well 12 | 0 | 0 | 0 | 0 | 0 | 0 | 2,313,061 | 2,313,061 | ε |
| GW-0232 | Install Well 38 - Retire well 10 | 0 | 0 | 0 | 0 | 0 | 0 | 2,313,061 | 2,313,061 | ε |
| GW-0233 | A-BPS at ASP Bldg + Forebay Tank | 0 | 0 | 0 | 0 | 0 | 0 | 616,248 | 616,248 | ε |
| GW-0234 | Install Well 39 - Retire Well 30 | 0 | 0 | 0 | 0 | 0 | 0 | 2,313,061 | 2,313,061 | ε |
| GW-0235 | B-BPS Expansion and Transmission to A1/A2 Tanks | 0 | 0 | 0 | 0 | 0 | 0 | 4,841,096 | 4,841,096 | ε |
| GW-0236 | Install Well 40 - Retire Well 11 | 0 | 0 | 0 | 0 | 0 | 0 | 2,313,061 | 2,313,061 | ε |
| GW-0237 | Install Well 41 - Retire Well 31 | 0 | 0 | 0 | 0 | 0 | 0 | 2,313,061 | 2,313,061 | ε |

SPLIT OF WATER DISTRICT (WD) COST CENTER PROJECTS - SHARE ASSIGNED TO MARINA WATER (MW) = 30%

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | | |
|---------|--|----------|--------------|----------|----------|----------|----------|-------|---------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | TOTAL | CATEGORY |
| WD-0203 | MCWD Fort Ord Office Landscape Project | \$0 | \$6,355 | \$0 | \$0 | \$0 | \$0 | \$0 | \$6,355 | ε |
| WD-0115 | SCADA System Improvements - Phase I | 296,016 | 41,850 | 42,687 | 43,541 | 44,412 | 0 | 0 | 468,505 | ε |

**Table B-1 Marina Water Proposed CIP
Marina Coast Water District
Financial Plan and Rate and Fee Study**

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | TOTAL | CATEGORY |
|----------|---|----------|--------------|----------|----------|----------|----------|-------|---------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | | |
| WD-0300 | Long-Term Facilities Planning | 0 | 45,000 | 0 | 0 | 0 | 0 | 0 | 45,000 | ε |
| WD-0202 | IOP Building E (BLM) | 23,800 | 242,200 | 630,000 | 0 | 0 | 0 | 0 | 896,000 | δ |
| WD-0106 | Corp Yard Demolition & Rehab | 0 | 0 | 0 | 36,000 | 135,000 | 0 | 0 | 171,000 | ε |
| WD-0110 | Asset Management Program - Phase II | 0 | 0 | 0 | 75,000 | 0 | 0 | 0 | 75,000 | ε |
| WD-0110A | Asset Management Program -- Phase III | 0 | 0 | 0 | 0 | 75,000 | 0 | 0 | 75,000 | ε |
| WD-0115A | SCADA System Improvements (Security + RD integration) | 0 | 0 | 0 | 0 | 90,000 | 0 | 0 | 90,000 | ε |

**Table B-2 Marina Sewer Proposed CIP
Marina Coast Water District
Financial Plan and Rate and Fee Study**

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | TOTAL | CATEGORY |
|---------|---|----------|--------------|----------|----------|----------|----------|-----------|-----------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | | |
| MS-0133 | Replace Lift Station No. 5 | \$17,150 | \$487,477 | \$0 | \$0 | \$0 | \$0 | \$0 | \$504,627 | ε |
| MS-0206 | Reservation Road Siphon | 177,510 | 602,000 | 0 | 0 | 0 | 0 | 0 | 779,510 | ε |
| MS-0143 | Lift Station No. 6 Replacement | 0 | 0 | 0 | 0 | 401,576 | 0 | 0 | 401,576 | ε |
| MS-0138 | Hillcrest Ave/Sunset Ave Sewer Main Imp. Project | 0 | 0 | 0 | 0 | 50,889 | 299,905 | 0 | 350,794 | ε |
| MS-0141 | Reservation Rd from Nicklas Lane to Crescent Ave. | 0 | 0 | 0 | 0 | 75,017 | 442,101 | 0 | 517,118 | ε |
| MS-0172 | Reservation Rd from Crescent to Seacrest | 0 | 0 | 0 | 0 | 82,121 | 483,965 | 0 | 566,086 | ε |
| MS-0202 | Carmel Ave Sewer Main Imp Project | 0 | 0 | 0 | 0 | 55,748 | 328,543 | 0 | 384,291 | ε |
| MS-0203 | Abdy Way & Paul Davis Dr Sewer Main Imps Project | 0 | 0 | 0 | 0 | 0 | 465,477 | 0 | 465,477 | δ |
| MS-0205 | Del Monte/Reservation Road Sewer Main Imp. Project I | 0 | 0 | 0 | 0 | 0 | 201,762 | 0 | 201,762 | δ δ |
| MS-0137 | Del Monte/Reservation Road Sewer Main Imp. Project II | 0 | 0 | 0 | 0 | 0 | 351,399 | 0 | 351,399 | δ δ |
| MS-0201 | Armstrong Ranch Sewer Improvements | 0 | 0 | 0 | 0 | 0 | 0 | 5,428,589 | 5,428,589 | δ δ , ε |
| MS-0207 | Marina WWTP Demolition | 0 | 0 | 0 | 0 | 0 | 0 | 883,265 | 883,265 | ε |

SPLIT OF GENERAL SEWER (GS) COST CENTER PROJECTS - SHARE ASSIGNED TO MARINA SEWER (MS) = 40%

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | TOTAL | CATEGORY |
|---------|--|----------|--------------|----------|----------|----------|----------|-------|-----------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | | |
| GS-0300 | Marina & Ord Wastewater Master Plan | \$0 | \$120,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$120,000 | ε |
| GS-0200 | Odor Control Project | 0 | 0 | 0 | 60,000 | 0 | 0 | 0 | 60,000 | ε |
| GS-0201 | Del Monte/Reservation Road Sewer Main Improvements | 0 | 0 | 0 | 0 | 134,984 | 0 | 0 | 134,984 | ε |

SPLIT OF WATER DISTRICT (WD) COST CENTER PROJECTS - SHARE ASSIGNED TO MARINA SEWER (MS) = 9%

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | TOTAL | CATEGORY |
|----------|---|----------|--------------|----------|----------|----------|----------|-------|---------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | | |
| WD-0203 | MCWD Fort Ord Office Landscape Project | \$0 | \$1,435 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,435 | ε |
| WD-0115 | SCADA System Improvements - Phase I | 66,842 | 9,450 | 9,639 | 9,832 | 10,028 | 0 | 0 | 105,791 | ε |
| WD-0300 | Long-Term Facilities Planning | 0 | 13,500 | 0 | 0 | 0 | 0 | 0 | 13,500 | ε |
| WD-0202 | IOP Building E (BLM) | 6,800 | 69,200 | 180,000 | 0 | 0 | 0 | 0 | 256,000 | δ |
| WD-0106 | Corp Yard Demolition & Rehab | 0 | 0 | 0 | 10,800 | 40,500 | 0 | 0 | 51,300 | ε |
| WD-0110 | Asset Management Program - Phase II | 0 | 0 | 0 | 22,500 | 0 | 0 | 0 | 22,500 | ε |
| WD-0110A | Asset Management Program -- Phase III | 0 | 0 | 0 | 0 | 22,500 | 0 | 0 | 22,500 | ε |
| WD-0115A | SCADA System Improvements (Security + RD integration) | 0 | 0 | 0 | 0 | 27,000 | 0 | 0 | 27,000 | ε |

**Table B-3 Ord Water Proposed CIP
Marina Coast Water District
Financial Plan and Rate and Fee Study**

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | | CATEGORY |
|---------|---|-----------|--------------|----------|-----------|----------|----------|-----------|-----------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | TOTAL | |
| OW-0169 | Intergarrison Road PRV | \$197,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$197,000 | |
| OW-0170 | Well 34 (deep aquifer at Well 32 site) | 1,772,320 | 0 | 0 | 0 | 0 | 0 | 0 | 1,772,320 | |
| OW-0116 | Eastern Distribution System - Watkins Gate Well/Distribution Pipe | 4,870,019 | 0 | 0 | 0 | 0 | 0 | 0 | 4,870,019 | |
| OW-0119 | Demolish D-zone Reservoir | 0 | 0 | 17,340 | 156,060 | 0 | 0 | 0 | 173,400 | € |
| OW-0223 | Well 30 Pump Replacement | 0 | 210,000 | 0 | 0 | 0 | 0 | 0 | 210,000 | € |
| OW-0201 | Gigling Transmission from D Booster to JM Blvd | 0 | 1,800 | 439,200 | 0 | 0 | 0 | 0 | 441,000 | € |
| OW-0206 | Inter-Garrison Road Pipeline Up-Sizing | 0 | 0 | 165,485 | 526,639 | 0 | 0 | 0 | 692,124 | € |
| OW-0128 | Lightfighter "B" Zone Pipeline Extension | 0 | 0 | 314,586 | 0 | 0 | 78,647 | 0 | 393,233 | δ δ |
| OW-0211 | Eastside Parkway (D-Zone pipeline) | 0 | 0 | 415,632 | 2,498,444 | 0 | 0 | 0 | 2,914,076 | δ δ |
| OW-0202 | South Boundary Road Pipeline | 0 | 0 | 412,218 | 1,261,387 | 0 | 0 | 0 | 1,673,605 | δ δ |
| OW-0230 | Wellfield Main 2B - Well 31 to Well 34 | 0 | 0 | 161,194 | 493,253 | 0 | 0 | 0 | 654,447 | € |
| OW-0129 | Rehabilitate Well 31 | 0 | 0 | 0 | 1,707,438 | 0 | 0 | 0 | 1,707,438 | € |
| OW-0127 | CSUMB Pipeline Up-Sizing - Commercial Fireflow | 0 | 0 | 0 | 38,311 | 117,231 | 0 | 0 | 155,542 | € |
| OW-0203 | 7th Avenue and Gigling Rd | 0 | 0 | 0 | 61,990 | 189,689 | 0 | 0 | 251,679 | € |
| OW-0122 | Replace D & E Reservoir Off-Site Piping | 0 | 0 | 0 | 0 | 0 | 996,467 | 0 | 996,467 | € |
| OW-0167 | 2nd Ave extension to Gigling Rd | 0 | 0 | 0 | 0 | 0 | 267,053 | 0 | 267,053 | € |
| OW-0118 | "B4" Zone Tank @ East Garrison | 0 | 0 | 0 | 0 | 0 | 0 | 3,116,949 | 3,116,949 | δ |
| OW-0212 | Reservoir "D2" + D-BPS Up-Size | 0 | 0 | 0 | 0 | 0 | 0 | 3,997,826 | 3,997,826 | δ δ , € |
| OW-0208 | Pipeline Up-Sizing - to Stockade | 0 | 0 | 0 | 0 | 0 | 0 | 709,391 | 709,391 | δ |
| OW-0209 | Pipeline Up-Sizing - between Dunes & MainGate | 0 | 0 | 0 | 0 | 0 | 0 | 220,050 | 220,050 | δ δ |
| OW-0210 | Sand Tank Demolition | 0 | 0 | 0 | 0 | 0 | 0 | 542,078 | 542,078 | € |
| OW-0204 | 2nd Ave Connection, Reindollar to Imjin Pkwy | 0 | 0 | 0 | 0 | 0 | 0 | 1,214,489 | 1,214,489 | € |
| OW-0164 | Imjin Parkway Pipeline, Reservation Rd to Abrams Drive | 0 | 0 | 0 | 0 | 0 | 0 | 513,619 | 513,619 | € |
| OW-0214 | Imjin Road, 8th St. to Imjin Pkwy | 0 | 0 | 0 | 0 | 0 | 0 | 1,104,081 | 1,104,081 | € |
| OW-0121 | "C2" to "B4" Pipeline and PRV Station | 0 | 0 | 0 | 0 | 0 | 0 | 1,409,403 | 1,409,403 | δ |
| OW-0171 | Eucalyptus Rd Pipeline | 0 | 0 | 0 | 0 | 0 | 0 | 2,351,264 | 2,351,264 | δ δ |
| OW-0213 | Reservoir B4/B5 to East Garrison Pipeline | 0 | 0 | 0 | 0 | 0 | 0 | 257,487 | 257,487 | δ |
| OW-0216 | UCMBEST Pipeline | 0 | 0 | 0 | 0 | 0 | 0 | 402,493 | 402,493 | δ |
| OW-0217 | Reservation Road, Imjin to MBEST Drive | 0 | 0 | 0 | 0 | 0 | 0 | 539,368 | 539,368 | δ δ |
| OW-0218 | Golf Boulevard Transmission Line | 0 | 0 | 0 | 0 | 0 | 0 | 1,104,081 | 1,104,081 | δ δ |
| OW-0219 | "B5" Zone Tank @ East Garrison | 0 | 0 | 0 | 0 | 0 | 0 | 3,116,949 | 3,116,949 | δ |
| OW-0231 | Wellfield Main 3A - Intergarrison to ASP Bldg | 0 | 0 | 0 | 0 | 0 | 0 | 3,541,126 | 3,541,126 | € |

**Table B-3 Ord Water Proposed CIP
Marina Coast Water District
Financial Plan and Rate and Fee Study**

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | | CATEGORY |
|---|--|----------|---------------|-----------|-----------|----------|----------|-----------|-----------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | TOTAL | |
| OW-0232A | Install Well 36 - Retire Well 29 | 0 | 0 | 0 | 0 | 0 | 0 | 2,515,243 | 2,515,243 | € |
| OW-0232B | Wellfield Main 1B - between Wells 36 and 35 | 0 | 0 | 0 | 0 | 0 | 0 | 3,169,802 | 3,169,802 | € |
| OW-0233 | Wellfield Main 1C (Parallel) - between Wells 36 and ASP Bldg | 0 | 0 | 0 | 0 | 0 | 0 | 3,736,274 | 3,736,274 | δ δ |
| OW-0234 | B-BPS at ASP Bldg | 0 | 0 | 0 | 0 | 0 | 0 | 1,355,195 | 1,355,195 | δ δ |
| OW-0235 | Ord Well-head Disinfection | 0 | 0 | 0 | 0 | 0 | 0 | 2,710,391 | 2,710,391 | δ δ |
| SPLIT OF GENERAL WATER (GW) COST CENTER PROJECTS - SHARE ASSIGNED TO ORD WATER (OW) = 63% | | | | | | | | | | |
| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | | CATEGORY |
| | | YEARS | Proposed Year | Planned | Planned | Planned | Planned | YEARS | TOTAL | |
| GW-0212 | Potable Water Tank Compliance Project | \$0 | \$63,860 | \$0 | \$0 | \$0 | \$67,111 | \$0 | \$130,971 | € |
| GW-0112 | A1 & A2 Zone Tanks & B/C Booster Station | 82,530 | 198,900 | 2,274,589 | 2,076,557 | 0 | 0 | 2,297,256 | 6,929,832 | δ δ, € |
| GW-0300 | Marina & Ord Water Master Plan | 0 | 157,500 | 0 | 0 | 0 | 0 | 0 | 157,500 | € |
| GW-0123 | "B2" Zone Tank @ CSUMB | 0 | 0 | 0 | 0 | 0 | 0 | 1,622,169 | 1,622,169 | δ δ |
| GW-0210 | Reservoir A3 (1.6 MG) | 0 | 0 | 0 | 0 | 0 | 0 | 2,185,621 | 2,185,621 | δ δ |
| GW-0231 | Install Well 37 - Retire well 12 | 0 | 0 | 0 | 0 | 0 | 0 | 3,938,455 | 3,938,455 | € |
| GW-0232 | Install Well 38 - Retire well 10 | 0 | 0 | 0 | 0 | 0 | 0 | 3,938,455 | 3,938,455 | € |
| GW-0233 | A-BPS at ASP Bldg + Forebay Tank | 0 | 0 | 0 | 0 | 0 | 0 | 1,049,287 | 1,049,287 | € |
| GW-0234 | Install Well 39 - Retire Well 30 | 0 | 0 | 0 | 0 | 0 | 0 | 3,938,455 | 3,938,455 | € |
| GW-0235 | B-BPS Expansion and Transmission to A1/A2 Tanks | 0 | 0 | 0 | 0 | 0 | 0 | 8,242,947 | 8,242,947 | € |
| GW-0236 | Install Well 40 - Retire Well 11 | 0 | 0 | 0 | 0 | 0 | 0 | 3,938,455 | 3,938,455 | € |
| GW-0237 | Install Well 41 - Retire Well 31 | 0 | 0 | 0 | 0 | 0 | 0 | 3,938,455 | 3,938,455 | € |
| SPLIT OF WATER DISTRICT (WD) COST CENTER PROJECTS - SHARE ASSIGNED TO ORD WATER (OW) = 50% | | | | | | | | | | |
| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | | CATEGORY |
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | TOTAL | |
| WD-0203 | MCWD Fort Ord Office Landscape Project | \$0 | \$10,455 | \$0 | \$0 | \$0 | \$0 | \$0 | \$10,455 | € |
| WD-0115 | SCADA System Improvements - Phase I | 486,994 | 68,850 | 70,227 | 71,632 | 73,064 | 0 | 0 | 770,767 | € |
| WD-0300 | Long-Term Facilities Planning | 0 | 75,000 | 0 | 0 | 0 | 0 | 0 | 75,000 | € |
| WD-0202 | IOP Building E (BLM) | 42,500 | 432,500 | 1,125,000 | 0 | 0 | 0 | 0 | 1,600,000 | δ |
| WD-0106 | Corp Yard Demolition & Rehab | 0 | 0 | 0 | 60,000 | 225,000 | 0 | 0 | 285,000 | € |
| WD-0110 | Asset Management Program - Phase II | 0 | 0 | 0 | 125,000 | 0 | 0 | 0 | 125,000 | € |
| WD-0110A | Asset Management Program -- Phase III | 0 | 0 | 0 | 0 | 125,000 | 0 | 0 | 125,000 | € |
| WD-0115A | SCADA System Improvements (Security + RD integration) | 0 | 0 | 0 | 0 | 150,000 | 0 | 0 | 150,000 | € |

**Table B-4 Ord Sewer Proposed CIP
Marina Coast Water District
Financial Plan and Rate and Fee Study**

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | TOTAL | CATEGORY |
|---------|---|----------|--------------|----------|----------|-----------|-----------|------------|------------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | | |
| OS-0200 | Clark Lift Station Improvement | \$14,610 | \$403,975 | \$0 | \$0 | \$0 | \$0 | \$0 | \$418,585 | € |
| OS-0150 | East Garrison Lift Station Improvements | 588,620 | 0 | 0 | 0 | 0 | 259,135 | 0 | 847,755 | € |
| OS-0205 | Imjin LS & Force Main Improvements - Phase I | 0 | 28,000 | 530,000 | 0 | 0 | 0 | 558,000 | δ δ | |
| OS-0154 | Del Rey Oaks - Collection System Planning | 0 | 0 | 61,200 | 0 | 0 | 0 | 0 | 61,200 | δ |
| OS-0208 | Parker Flats Collection System | 0 | 0 | 25,500 | 78,030 | 0 | 0 | 0 | 103,530 | δ δ |
| OS-0214 | Intergarrison/8th Ave SS (for Eastside Pkwy developments) | 0 | 0 | 255,000 | 780,300 | 0 | 0 | 0 | 1,035,300 | δ δ |
| OS-0153 | Misc. Lift Station Improvements | 0 | 0 | 561,000 | 936,360 | 0 | 0 | 0 | 1,497,360 | € |
| OS-0152 | Booker, Hatten, Neeson LS Improvements Project | 0 | 0 | 102,000 | 624,240 | 0 | 0 | 0 | 726,240 | € |
| OS-0202 | SCSD Sewer Improvements - DRO | 0 | 0 | 0 | 502,454 | 1,537,510 | 0 | 0 | 2,039,964 | δ |
| OS-0203 | Gigling LS and FM Improvements | 0 | 0 | 0 | 497,803 | 1,523,276 | 0 | 0 | 2,021,079 | € |
| OS-0147 | Ord Village Sewer Pipeline & Lift Station Impr Project | 0 | 0 | 0 | 0 | 562,651 | 0 | 0 | 562,651 | € |
| OS-0209 | Imjin LS & Force Main Improvements -- Phase II | 0 | 0 | 0 | 0 | 55,612 | 677,811 | 0 | 733,423 | € |
| OS-0204 | CSUMB Developments | 0 | 0 | 0 | 0 | 0 | 608,899 | 0 | 608,899 | δ |
| OS-0207 | Seaside Resort Sewer Imps. Project | 0 | 0 | 0 | 0 | 0 | 326,146 | 0 | 326,146 | δ |
| OS-0148 | Marina Heights Sewer Pipeline Improvements Project | 0 | 0 | 0 | 0 | 0 | 825,863 | 0 | 825,863 | δ δ |
| OS-0149 | Dunes Sewer Pipeline Replacement Projects | 0 | 0 | 0 | 0 | 0 | 461,923 | 0 | 461,923 | δ δ |
| OS-0151 | Cypress Knolls Sewer Pipeline Improvements Project | 0 | 0 | 0 | 0 | 0 | 97,424 | 0 | 97,424 | δ |
| OS-0215 | Demolish Ord Main Garrison WWTP | 0 | 0 | 0 | 0 | 0 | 1,623,648 | 0 | 1,623,648 | € |
| OS-0206 | Fitch Park Sewer Improvements | 0 | 0 | 0 | 0 | 0 | 0 | 127,071 | 127,071 | δ |
| OS-0210 | 1st Ave Sewer Pipeline Replacement Project | 0 | 0 | 0 | 0 | 0 | 0 | 408,340 | 408,340 | δ δ |
| OS-0211 | Gen'l Jim Moore Sewer Pipeline Replacement Project | 0 | 0 | 0 | 0 | 0 | 0 | 49,972 | 49,972 | δ δ |
| OS-0212 | Gen'l Jim Moore Sewer Pipeline Replacement Project III | 0 | 0 | 0 | 0 | 0 | 0 | 187,037 | 187,037 | δ δ |
| OS-0213 | MRWPCA Buy-In | 0 | 0 | 0 | 0 | 0 | 0 | 11,040,808 | 11,040,808 | δ δ |
| OS-0216 | SCSD Sewer Improvements - Seaside East | 0 | 0 | 0 | 0 | 0 | 0 | 6,480,709 | 6,480,709 | δ |
| OS-0217 | SCSD Sewer Improvements - City of Monterey | 0 | 0 | 0 | 0 | 0 | 0 | 1,444,854 | 1,444,854 | δ |

SPLIT OF GENERAL SEWER (GS) COST CENTER PROJECTS - SHARE ASSIGNED TO ORD SEWER (OS) = 60%

| CIP No. | PROJECT DESCRIPTION | Previous | FYE 2014 | FYE 2015 | FYE 2016 | FYE 2017 | FYE 2018 | OUT | TOTAL | CATEGORY |
|---------|--|----------|--------------|----------|----------|----------|----------|-------|-----------|----------|
| | | YEARS | Current Year | Proposed | Proposed | Proposed | Proposed | YEARS | | |
| GS-0300 | Marina & Ord Wastewater Master Plan | \$0 | \$120,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$120,000 | € |
| GS-0200 | Odor Control Project | 0 | 0 | 0 | 60,000 | 0 | 0 | 0 | 60,000 | € |
| GS-0201 | Del Monte/Reservation Road Sewer Main Improvements | 0 | 0 | 0 | 0 | 134,984 | 0 | 0 | 134,984 | € |

**Table B-4 Ord Sewer Proposed CIP
Marina Coast Water District
Financial Plan and Rate and Fee Study**

| CIP No. | PROJECT DESCRIPTION | Previous YEARS | FYE 2014 Current Year | FYE 2015 Proposed | FYE 2016 Proposed | FYE 2017 Proposed | FYE 2018 Proposed | OUT YEARS | TOTAL | CATEGORY |
|---|---|----------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-----------|---------|----------|
| SPLIT OF WATER DISTRICT (WD) COST CENTER PROJECTS - SHARE ASSIGNED TO ORD SEWER (OS) = 11% | | | | | | | | | | |
| CIP No. | PROJECT DESCRIPTION | Previous YEARS | FYE 2014 Current Year | FYE 2015 Proposed | FYE 2016 Proposed | FYE 2017 Proposed | FYE 2018 Proposed | OUT YEARS | TOTAL | CATEGORY |
| WD-0203 | MCWD Fort Ord Office Landscape Project | \$0 | \$2,255 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,255 | € |
| WD-0115 | SCADA System Improvements - Phase I | 105,038 | 14,850 | 15,147 | 15,450 | 15,759 | 0 | 0 | 166,244 | € |
| WD-0300 | Long-Term Facilities Planning | 0 | 16,500 | 0 | 0 | 0 | 0 | 0 | 16,500 | € |
| WD-0202 | IOP Building E (BLM) | 11,900 | 121,100 | 315,000 | 0 | 0 | 0 | 0 | 448,000 | δ |
| WD-0106 | Corp Yard Demolition & Rehab | 0 | 0 | 0 | 13,200 | 49,500 | 0 | 0 | 62,700 | € |
| WD-0110 | Asset Management Program - Phase II | 0 | 0 | 0 | 27,500 | 0 | 0 | 0 | 27,500 | € |
| WD-0110A | Asset Management Program -- Phase III | 0 | 0 | 0 | 0 | 27,500 | 0 | 0 | 27,500 | € |
| WD-0115A | SCADA System Improvements (Security + RD integration) | 0 | 0 | 0 | 0 | 33,000 | 0 | 0 | 33,000 | € |

MARINA COAST WATER DISTRICT – Financial Plan and Rate and Fee Study
APPENDIX C – RESULTS OF REVENUE REQUIREMENTS ANALYSIS

Table C-1

Marina Water: Revenue Requirements Summary
Marina Coast Water District
Financial Plan and Rate and Fee Study

| Ref | Description | FY 2013/ 2014 | FY 2014/ 2015 | FY 2015/ 2016 | FY 2016/ 2017 | FY 2017/ 2018 |
|--------------------------|----------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Revenues(1) | | | | | | |
| 1 | Proposed Revenue Increase | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% |
| 2 | User Charges | \$3,973,453 | \$4,118,137 | \$4,313,328 | \$4,517,771 | \$4,731,905 |
| 3 | Licenses and Permits | 3,090 | 3,183 | 3,278 | 3,377 | 3,478 |
| 4 | Other Revenues | 53,732 | 54,067 | 54,980 | 55,909 | 56,853 |
| 5 | Capacity Related | 20,125 | 20,250 | 20,592 | 20,940 | 21,293 |
| 6 | Income from Prop & Investments | 0 | 0 | 0 | 0 | 0 |
| 7 | Defd Revenue | 3,450 | 3,450 | 3,450 | 3,450 | 3,450 |
| 8 | Other Revenue Sources | 9,270 | 9,548 | 9,835 | 10,130 | 10,433 |
| 9 | Total Revenues | \$4,063,120 | \$4,208,634 | \$4,405,463 | \$4,611,576 | \$4,827,413 |
| Requirements | | | | | | |
| 10 | Admin | \$716,437 | \$737,930 | \$760,068 | \$782,870 | \$806,356 |
| 11 | Operating and Maintenance | 1,065,496 | 1,100,032 | 1,140,261 | 1,182,037 | 1,225,420 |
| 12 | Laboratory | 115,313 | 119,082 | 123,525 | 128,143 | 132,942 |
| 13 | Conservation | 132,083 | 136,046 | 140,127 | 144,331 | 148,661 |
| 14 | Engineering | 302,796 | 312,456 | 323,449 | 334,848 | 346,669 |
| 15 | Debt Service | 890,631 | 896,092 | 865,604 | 878,258 | 891,779 |
| 16 | Rate Funded Capital (PAYGO) | 0 | 0 | 0 | 0 | 0 |
| 17 | Senior Debt Coverage (2) | 210,563 | 215,192 | 204,627 | 209,286 | 213,886 |
| 18 | Junior Debt Coverage (2) | 56,531 | 56,251 | 56,191 | 56,059 | 56,135 |
| 19 | Total Requirements | \$3,489,850 | \$3,573,081 | \$3,613,854 | \$3,715,832 | \$3,821,849 |
| 20 | Revenues - Requirements | \$573,270 | \$635,554 | \$791,609 | \$895,744 | \$1,005,564 |
| 21 | Senior Debt Coverage Factor | 2.91 x | 2.97 x | 3.32 x | 3.45 x | 3.58 x |
| 22 | Junior Debt Coverage Factor | 3.32 x | 3.53 x | 4.09 x | 4.47 x | 4.86 x |
| Accumulated Funds | | | | | | |
| 23 | Operating Fund Ending Balance | \$1,589,304 | \$1,628,205 | \$1,653,552 | \$1,701,610 | \$1,751,586 |
| 24 | Days of Operating Expenditures | 180 Days | 180 Days | 180 Days | 180 Days | 180 Days |
| 25 | Capital Expenditures (3) | \$604,294 | \$2,231,614 | \$1,634,368 | \$911,606 | \$593,843 |
| 26 | Capital Fund Ending Balance (4) | 6,178,698 | 4,876,968 | 4,318,450 | 4,563,060 | 5,240,456 |
| 27 | Consolidated Funds | \$7,768,003 | \$6,505,172 | \$5,972,002 | \$6,264,669 | \$6,992,042 |

Notes:

(1) All user rate based revenues are post rate increase.

(2) Note that debt coverage is calculated assuming policy based coverage factor requirements on 1.35 x (senior debt) and 1.2 x (junior debt).

(3) Capital Expenditures Based on Proposed CIP

(4) Note that bonds which are each issued to cover CIP costs are shown as being deposited into the Capital Fund.

Table C-2

Marina Sewer: Revenue Requirements Summary
Marina Coast Water District
Financial Plan and Rate and Fee Study

| Ref | Description | FY 2013/ 2014 | FY 2014/ 2015 | FY 2015/ 2016 | FY 2016/ 2017 | FY 2017/ 2018 |
|-------------------------------|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| Revenues⁽¹⁾ | | | | | | |
| 1 | Proposed Revenue Increase | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% |
| 2 | User Charges | \$842,087 | \$932,063 | \$1,042,588 | \$1,166,218 | \$1,304,509 |
| 3 | Licenses and Permits | 2,591 | 2,684 | 2,810 | 2,942 | 3,080 |
| 4 | Other Revenues | 0 | 0 | 0 | 0 | 0 |
| 5 | Capacity Related | 10,062 | 10,125 | 10,296 | 10,470 | 10,647 |
| 6 | Income from Prop & Investments | 0 | 0 | 0 | 0 | 0 |
| 7 | Defd Revenue | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 |
| 8 | Other Revenue Sources | 515 | 530 | 546 | 563 | 580 |
| 9 | Total Revenues | \$857,155 | \$947,303 | \$1,058,140 | \$1,182,093 | \$1,320,715 |
| Requirements | | | | | | |
| 10 | Admin | \$227,187 | \$234,003 | \$241,023 | \$248,253 | \$255,701 |
| 11 | Operating and Maintenance | 325,882 | 336,088 | 347,379 | 359,066 | 371,163 |
| 12 | Laboratory | 0 | 0 | 0 | 0 | 0 |
| 13 | Conservation | 0 | 0 | 0 | 0 | 0 |
| 14 | Engineering | 67,919 | 69,963 | 72,082 | 74,264 | 76,514 |
| 15 | Debt Service | 256,568 | 253,802 | 247,853 | 340,046 | 426,415 |
| 16 | Rate Funded Capital (PAYGO) | 38,607 | 38,607 | 36,763 | 0 | 0 |
| 17 | Senior Debt Coverage ⁽²⁾ | 60,579 | 60,313 | 58,304 | 90,684 | 120,922 |
| 18 | Junior Debt Coverage ⁽²⁾ | 16,400 | 16,296 | 16,254 | 16,190 | 16,185 |
| 19 | Total Requirements | \$993,141 | \$1,009,072 | \$1,019,658 | \$1,128,504 | \$1,266,900 |
| 20 | Revenues - Requirements | -\$135,986 | -\$61,769 | \$38,483 | \$53,589 | \$53,815 |
| 21 | Senior Debt Coverage Factor | 1.42 x | 1.84 x | 2.45 x | 1.97 x | 1.82 x |
| 22 | Junior Debt Coverage Factor | 0.15 x | 1.04 x | 2.25 x | 1.99 x | 2.00 x |
| Accumulated Funds | | | | | | |
| 23 | Operating Fund Ending Balance | \$320,066 | \$334,906 | \$447,947 | \$503,818 | \$557,158 |
| 24 | Days of Operating Expenditures | 133 Days | 137 Days | 180 Days | 180 Days | 180 Days |
| 25 | Capital Expenditures ⁽³⁾ | \$0 | \$0 | \$1,844 | \$1,650,580 | \$1,650,580 |
| 26 | Capital Fund Ending Balance ⁽⁴⁾ | 982,104 | 991,925 | 1,000,000 | 1,104,591 | 1,137,581 |
| 27 | Consolidated Funds | \$1,302,170 | \$1,326,831 | \$1,447,947 | \$1,608,409 | \$1,694,739 |

Notes:

(1) All user rate based revenues are post rate increase.

(2) Note that debt coverage is calculated assuming policy based coverage factor requirements on 1.35 x (senior debt) and 1.2 x (junior debt).

(3) Conservative estimate of the maximum amount of capital funding available based on funding with both debt and available cash.

(4) Note that bonds which are each issued to cover CIP costs are shown as being deposited into the Capital Fund.

Table C-3

Ord Water: Revenue Requirements Summary
Marina Coast Water District
Financial Plan and Rate and Fee Study

| Ref | Description | FY 2013/ 2014 | FY 2014/ 2015 | FY 2015/ 2016 | FY 2016/ 2017 | FY 2017/ 2018 |
|--------------------------|--|--------------------|--------------------|--------------------|--------------------|---------------------|
| Revenues(1) | | | | | | |
| 1 | Proposed Revenue Increase | 10.0% | 10.0% | 10.0% | 10.0% | 4.0% |
| 2 | User Charges | \$5,713,636 | \$6,682,913 | \$7,649,893 | \$8,759,296 | \$9,745,728 |
| 3 | Licenses and Permits | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 |
| 4 | Other Revenues | 58,676 | 63,141 | 66,189 | 69,383 | 72,732 |
| 5 | Capacity Related | 139,894 | 150,541 | 157,807 | 165,423 | 173,407 |
| 6 | Income from Prop & Investments | 0 | 0 | 0 | 0 | 0 |
| 7 | Defd Revenue | 19,880 | 19,880 | 19,880 | 19,880 | 19,880 |
| 8 | Other Revenue Sources | 515 | 530 | 546 | 563 | 580 |
| 9 | Total Revenues | \$5,937,751 | \$6,922,311 | \$7,899,779 | \$9,020,174 | \$10,018,123 |
| Requirements | | | | | | |
| 10 | Admin | \$1,542,384 | \$1,624,611 | \$1,698,570 | \$1,776,721 | \$1,859,344 |
| 11 | Operating and Maintenance | 1,723,877 | 1,844,318 | 1,947,853 | 2,058,266 | 2,176,060 |
| 12 | Laboratory | 207,983 | 221,610 | 233,441 | 246,032 | 259,438 |
| 13 | Conservation | 143,973 | 148,293 | 152,741 | 157,324 | 162,043 |
| 14 | Engineering | 419,493 | 437,550 | 454,515 | 472,289 | 490,920 |
| 15 | Debt Service | 1,741,631 | 1,849,263 | 1,952,635 | 2,707,352 | 3,463,182 |
| 16 | Rate Funded Capital (PAYGO) | 915,000 | 1,006,500 | 0 | 0 | 0 |
| 17 | Senior Debt Coverage ⁽²⁾ | 48,694 | 174,112 | 316,205 | 1,076,091 | 1,835,977 |
| 18 | Junior Debt Coverage ⁽²⁾ | 144,425 | 130,425 | 115,925 | 100,825 | 85,125 |
| 19 | Total Requirements | \$6,887,461 | \$7,436,682 | \$6,871,885 | \$8,594,899 | \$10,332,090 |
| 20 | Revenues - Requirements | -\$949,710 | -\$514,371 | \$1,027,894 | \$425,275 | -\$313,967 |
| 21 | Senior Debt Coverage Factor | 1.65 x | 2.06 x | 2.45 x | 2.02 x | 1.77 x |
| 22 | Junior Debt Coverage Factor | 0.75 x | 1.96 x | 3.24 x | 3.01 x | 2.50 x |
| Accumulated Funds | | | | | | |
| 23 | Operating Fund Ending Balance | \$488,397 | \$278,563 | \$1,738,586 | \$3,340,777 | \$4,147,884 |
| 24 | Days of Operating Expenditures | 31 Days | 17 Days | 99 Days | 164 Days | 180 Days |
| 25 | Capital Expenditures ⁽³⁾ | \$2,217,359 | \$2,217,359 | \$2,217,359 | \$12,628,080 | \$12,628,080 |
| 26 | Capital Fund Ending Balance ⁽⁴⁾ | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,800,029 |
| 27 | Consolidated Funds | \$1,488,397 | \$1,278,563 | \$2,738,586 | \$4,340,777 | \$5,947,913 |

Notes:

(1) All user rate based revenues are post rate increase.

(2) Note that debt coverage is calculated assuming policy based coverage factor requirements on 1.35 x (senior debt) and 1.2 x (junior debt).

(3) Conservative estimate of the maximum amount of capital funding available based on funding with both debt and available cash.

(4) Note that bonds which are each issued to cover CIP costs are shown as being deposited into the Capital Fund.

Table C-4

Ord Sewer: Revenue Requirements Summary
Marina Coast Water District
Financial Plan and Rate and Fee Study

| Ref | Description | FY 2013/ 2014 | FY 2014/ 2015 | FY 2015/ 2016 | FY 2016/ 2017 | FY 2017/ 2018 |
|--------------------------|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| Revenues(1) | | | | | | |
| 1 | Proposed Revenue Increase | 4.0% | 4.0% | 4.0% | 4.0% | 8.0% |
| 2 | User Charges | \$1,858,904 | \$2,080,399 | \$2,268,039 | \$2,472,603 | \$2,748,472 |
| 3 | Licenses and Permits | 5,531 | 6,117 | 6,596 | 7,112 | 7,669 |
| 4 | Other Revenues | 0 | 0 | 0 | 0 | 0 |
| 5 | Capacity Related | 23,674 | 25,476 | 26,706 | 27,995 | 29,346 |
| 6 | Income from Prop & Investments | 0 | 0 | 0 | 0 | 0 |
| 7 | Defd Revenue | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 |
| 8 | Other Revenue Sources | 773 | 796 | 820 | 844 | 869 |
| 9 | Total Revenues | \$1,896,681 | \$2,120,589 | \$2,309,961 | \$2,516,354 | \$2,794,156 |
| Requirements | | | | | | |
| 10 | Admin | \$266,146 | \$274,130 | \$282,354 | \$290,825 | \$299,549 |
| 11 | Operating and Maintenance | 430,568 | 458,414 | 482,638 | 508,408 | 535,835 |
| 12 | Laboratory | 0 | 0 | 0 | 0 | 0 |
| 13 | Conservation | 0 | 0 | 0 | 0 | 0 |
| 14 | Engineering | 99,287 | 103,792 | 107,976 | 112,369 | 116,984 |
| 15 | Debt Service | 801,765 | 938,535 | 1,098,799 | 1,233,901 | 1,363,584 |
| 16 | Rate Funded Capital (PAYGO) | 0 | 0 | 0 | 0 | 0 |
| 17 | Senior Debt Coverage ⁽²⁾ | 234,307 | 282,921 | 338,660 | 385,638 | 430,521 |
| 18 | Junior Debt Coverage ⁽²⁾ | 25,954 | 26,038 | 26,240 | 26,416 | 26,705 |
| 19 | Total Requirements | \$1,858,026 | \$2,083,830 | \$2,336,666 | \$2,557,557 | \$2,773,178 |
| 20 | Revenues - Requirements | \$38,655 | \$36,759 | -\$26,706 | -\$41,203 | \$20,979 |
| 21 | Senior Debt Coverage Factor | 1.68 x | 1.62 x | 1.51 x | 1.48 x | 1.52 x |
| 22 | Junior Debt Coverage Factor | 1.70 x | 1.68 x | 1.20 x | 1.10 x | 1.58 x |
| Accumulated Funds | | | | | | |
| 23 | Operating Fund Ending Balance | \$787,939 | \$875,279 | \$972,378 | \$1,058,056 | \$1,142,113 |
| 24 | Days of Operating Expenditures | 180 Days | 180 Days | 180 Days | 180 Days | 180 Days |
| 25 | Capital Expenditures ⁽³⁾ | \$2,551,025 | \$2,551,025 | \$2,551,025 | \$1,774,095 | \$1,774,095 |
| 26 | Capital Fund Ending Balance ⁽⁴⁾ | 1,098,274 | 1,258,378 | 1,241,095 | 1,285,173 | 1,394,147 |
| 27 | Consolidated Funds | \$1,886,213 | \$2,133,657 | \$2,213,473 | \$2,343,229 | \$2,536,260 |

Notes:

(1) All user rate based revenues are post rate increase.

(2) Note that debt coverage is calculated assuming policy based coverage factor requirements on 1.35 x (senior debt) and 1.2 x (junior debt).

(3) Conservative estimate of the maximum amount of capital funding available based on funding with both debt and available cash.

(4) Note that bonds which are each issued to cover CIP costs are shown as being deposited into the Capital Fund.

MARINA COAST WATER DISTRICT – Financial Plan and Rate and Fee Study
APPENDIX D – DETAILED CAPACITY CHARGE CALCULATIONS

MCWD - Capacity Charge Calculations

2013

| | Marina Water | Ord Water |
|---|------------------------|-----------------------|
| System Capacity Charge | | |
| Existing Cost Basis | | |
| Value of Water Infrastructure in Service | | |
| 1 Total Replacement Cost of Existing System Infrastructure | \$ 28,018,200 | \$ 119,943,500 |
| 2 Less Accumulated Depreciation on Existing Infrastructure Assets | (14,644,077) | (62,844,026) |
| 3 RCNLD of Water Infrastructure in Service (sum of 1 to 2) | \$ 13,374,123 | \$ 57,099,474 |
| Value of Other Depreciable Assets | | |
| 4 Total Value of Water/Sewer Rights Assets | \$ 2,379,410 | \$ - |
| 5 Less Accumulated Depreciation on Water/Sewer Rights Assets | (308,062) | - |
| 6 Total Value of Building and Improvements Assets | 1,303,118 | 1,985,062 |
| 7 Less Accumulated Depreciation on Building and Improvements Assets | (369,265) | (184,589) |
| 8 Total Value of Equipment Assets | 1,271,176 | 945,542 |
| 9 Less Accumulated Depreciation on Equipment Assets | (1,078,535) | (539,142) |
| 10 RCNLD of Other Depreciable Assets (sum of 4 to 9) | \$ 3,197,842 | \$ 2,206,873 |
| Value of Non-depreciable Assets | | |
| 11 Land | \$ 3,163,765 | \$ 4,344,818 |
| 12 Property Easement | - | 14,100,000 |
| 13 Water/Sewer Rights | - | 57,450,000 |
| 14 Construction in Progress | 219,207 | 7,480,988 |
| 15 Sub-Total of Adjustments (sum of 11 to 14) | \$ 3,382,972 | \$ 83,375,806 |
| 16 Total Value of Capital Assets (3+10+15) | \$ 19,954,937 | \$ 142,682,153 |
| Liability and Asset Related Adjustments | | |
| 17 Outstanding Debt for Infrastructure (2006 and 2010 Bonds) | \$ (18,825,395) | \$ (16,398,665) |
| 18 Other Long-term Debt | (14,856) | (38,459) |
| 19 Capital Fund | 1,972,600 | 3,522,500 |
| 20 Operating Fund | 5,175,741 | 1,181,088 |
| 21 Debt Service Reserve Fund | 1,653,060 | 3,781,403 |
| 22 Total Liability and Asset-Related Adjustments (sum of 17 to 21) | \$ (10,038,849) | \$ (7,952,134) |
| 23 Total Value of Existing Assets Net of Liabilities (16+22) | \$ 9,916,088 | \$ 134,730,020 |
| Future Cost Basis | | |
| Future CIP | | |
| 24 Cost Center Specific Projects | \$ 2,499,456 | \$ 48,157,623 |
| 25 General Water Project Costs Assigned to Cost Center | 23,451,061 | 39,930,184 |
| 26 Water District Projects Assigned to Cost Center | 1,563,575 | 2,605,959 |
| 27 Infrastructure Related Future CIP Costs (24+26) | \$ 27,514,092 | \$ 90,693,766 |
| 28 Total Value of Existing and Future Assets (23+27) | \$ 37,430,180 | \$ 225,423,786 |
| Existing and Future Customer Base | | |
| Meters Equivalents | | |
| 29 Total Existing Meter Equivalents | 5,520 | 6,689 |
| 30 Number of Future Meter Equivalents | 2,750 | 7,697 |
| 31 Total Number of Meter Equivalents (29+30) | 8,269 | 14,387 |
| System Capacity Charge Results | | |
| 32 Estimated CY System Capacity Charge (28/31) | \$ 4,526 | \$ 15,669 |
| 33 Current CY 2012 Capacity Charge (System) | \$ 5,450 | \$ 5,750 |
| 34 Difference (32-33) | \$ (924) | \$ 9,919 |
| CCI Adjusted Charge (Based on 2003 Charge) | \$ 7,563 | \$ 7,980 |

MCWD - Capacity Charge Calculations

March 2013

| | Marina Sewer | Ord Sewer |
|---|----------------------|-----------------------|
| System Capacity Charge | | |
| Existing Cost Basis | | |
| Value of Water Infrastructure in Service | | |
| 1 Total Replacement Cost of Existing System Infrastructure | \$ 27,684,650 | \$ 62,336,100 |
| 2 Less Accumulated Depreciation on Existing Infrastructure Assets | (14,560,205) | (32,644,610) |
| 3 RCNLD of Water Infrastructure in Service (sum of 1 to 2) | \$ 13,124,445 | \$ 29,691,490 |
| Value of Other Depreciable Assets | | |
| 4 Total Value of Water/Sewer Rights Assets | \$ - | \$ - |
| 5 Less Accumulated Depreciation on Water/Sewer Rights Assets | - | - |
| 6 Total Value of Building and Improvements Assets | 319,215 | 501,880 |
| 7 Less Accumulated Depreciation on Building and Improvements Assets | (108,434) | (76,519) |
| 8 Total Value of Equipment Assets | 432,429 | 572,448 |
| 9 Less Accumulated Depreciation on Equipment Assets | (316,711) | (223,493) |
| 10 RCNLD of Other Depreciable Assets (sum of 4 to 9) | \$ 326,498 | \$ 774,317 |
| Value of Non-depreciable Assets | | |
| 11 Land | \$ 857,002 | \$ 1,216,549 |
| 12 Property Easement | - | 10,800,000 |
| 13 Water/Sewer Rights | - | 15,300,000 |
| 14 Construction in Progress | 147,810 | 842,889 |
| 15 Sub-Total of Adjustments (sum of 11 to 14) | \$ 1,004,812 | \$ 28,159,438 |
| 16 Total Value of Capital Assets (3+10+15) | \$ 14,455,755 | \$ 58,625,245 |
| Liability and Asset Related Adjustments | | |
| 17 Outstanding Debt for Infrastructure (2006 and 2010 Bonds) | \$ (2,463,925) | \$ (8,360,980) |
| 18 Other Long-term Debt | (16,670) | (5,942) |
| 19 Capital Fund | 563,600 | 986,300 |
| 20 Operating Fund | 663,971 | 2,071,647 |
| 21 Debt Service Reserve Fund | 447,943 | 1,147,087 |
| 22 Total Liability and Asset-Related Adjustments (sum of 17 to 21) | \$ (805,081) | \$ (4,161,888) |
| 23 Total Value of Existing Assets Net of Liabilities (16+22) | \$ 13,650,674 | \$ 54,463,357 |
| Future Cost Basis | | |
| Future CIP | | |
| 24 Cost Center Specific Projects | \$ 10,639,834 | \$ 34,242,551 |
| 25 General Sewer Project Costs Assigned to Cost Center | 314,984 | 314,984 |
| 26 Water District Projects Assigned to Cost Center | 469,073 | 573,311 |
| 27 Infrastructure Related Future CIP Costs (24+26) | \$ 11,423,891 | \$ 35,130,846 |
| 28 Total Value of Existing and Future Assets (23+27) | \$ 25,074,564 | \$ 89,594,203 |
| Existing and Future Customer Base | | |
| Equivalent Dwelling Units (EDUs) | | |
| 29 Total Existing (EDUs) | 7,235 | 5,541 |
| 30 Number of Future EDUs | 3,513 | 6,193 |
| 31 Total Number of Meter Equivalents (29+30) | 10,748 | 11,734 |
| System Capacity Charge Results | | |
| 32 Estimated CY System Capacity Charge (28/31) | \$ 2,333 | \$ 7,636 |
| 33 Current CY 2012 Capacity Charge (System) | \$ 3,950 | \$ 2,150 |
| 34 Difference (32-33) | \$ (1,617) | \$ 5,486 |
| CCI Adjusted Charge (Based on 2003 Charge) | \$ 5,482 | \$ 2,984 |

APPENDIX E – PROPOSED MONTHLY FIRE METER SERVICE CHARGES

| Table E-1 Marina Water Proposed Fire Service Rates Marina Coast Water District Comprehensive Rate Study and Financial Plan | | | | | |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| Fire Service Size | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 |
| 1.0" | \$1.49 | \$1.53 | \$1.58 | \$1.63 | \$1.68 |
| 1.5" | 4.32 | 4.45 | 4.59 | 4.72 | 4.87 |
| 2.0" | 9.21 | 9.49 | 9.78 | 10.07 | 10.37 |
| 2.5" | 16.57 | 17.07 | 17.58 | 18.11 | 18.65 |
| 3.0" | 26.77 | 27.57 | 28.40 | 29.25 | 30.13 |
| 4.0" | 57.04 | 58.75 | 60.51 | 62.33 | 64.20 |
| 6.0" | 165.69 | 170.66 | 175.78 | 181.05 | 186.49 |
| 8.0" | 353.09 | 363.68 | 374.59 | 385.83 | 397.40 |

| Table E-2 Ord Community Water Proposed Fire Service Rates Marina Coast Water District Comprehensive Rate Study and Financial Plan | | | | | |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|
| Fire Service Size | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 |
| 1.0" | \$1.69 | \$1.83 | \$2.00 | \$2.19 | \$2.26 |
| 1.5" | 4.90 | 5.33 | 5.82 | 6.35 | 6.56 |
| 2.0" | 10.44 | 11.35 | 12.40 | 13.54 | 13.99 |
| 2.5" | 18.78 | 20.41 | 22.29 | 24.35 | 25.15 |
| 3.0" | 30.34 | 32.97 | 36.01 | 39.33 | 40.63 |
| 4.0" | 64.65 | 70.26 | 76.73 | 83.81 | 86.58 |
| 6.0" | 187.79 | 204.11 | 222.88 | 243.46 | 251.49 |
| 8.0" | 400.18 | 434.96 | 474.97 | 518.81 | 535.94 |



**Marina Coast Water District
*Financial Plan and Rate Study***

Revisions to Capacity Fee Update

Capacity fees are one-time charges that are assessed when new connections are added to the water or wastewater system, or existing connections are increased in size. The purpose of capacity fees is to ensure that each customer is appropriately reimbursing the agency for the cost of system capacity required to service their connection.

Marina Coast Water District currently uses a combined buy-in and future cost approach to calculate capacity fees. In this approach, existing system assets that will benefit a new user plus an additional capital costs necessary to provide service are appropriate to be recovered by the service provider.

To calculate the current value of the existing assets, the replacement values of the existing system are calculated. And, as the system is not new, cumulative depreciation of the existing system is subtracted out.

During the public process, a number of questions were raised regarding the replacement value of existing assets. The questions largely stem from the District's Fiscal Year 2002 acquisition of the Ford Ord's water and sewer system. As these assets were conveyed to the District at zero cost, no reimbursement of these pre-2002 Ord assets should be included in the buy-in component. Carollo worked with District staff to research available records to more specifically address these questions. Based on this research and discussions with District staff, it is necessary to adjust the Value of Non-Depreciable Assets as well as the Replacement Cost New Less Depreciation.

Value of Non-Depreciable Assets

In FY 2002, the District recorded Journal Entries of roughly \$100M as "Donations from Other Agencies." This value recognized the value of the assets being conveyed to the District. Of these assets, the District's depreciable assets (General Plant) increased by \$1.60M on the water system and \$1.28M on the sewer system. The remaining values were recorded as non-depreciable assets comprised of water and sewer rights and property easements. Table 1 provides a record of these assets. As these entries pre-date existing staff, it is unknown how these values were determined.

Table 1: Conveyed Asset Journal Entry

| Journal Entry | 2002 Value | | Existing Value | |
|-------------------|---------------------|---------------------|---------------------|---------------------|
| | Water | Sewer | Water | Sewer |
| General Plant | \$1,600,000 | \$1,278,000 | <i>Depreciated</i> | <i>Depreciated</i> |
| Water Rights | \$57,200,000 | - | \$57,200,000 | - |
| Sewer Rights | - | \$15,300,000 | - | \$15,300,000 |
| Property Easement | \$14,100,000 | \$10,800,000 | \$14,100,000 | \$10,800,000 |
| Total | \$72,900,000 | \$27,378,000 | \$71,300,000 | \$26,100,000 |

Based on a review of available asset records, the value of the conveyed General Plant asset has since then fully depreciated. The Water and Sewer Rights and Property Easements assets are non-depreciable and therefore still have a value. The current value of the conveyed assets is shown in Table 1. This existing value should not be included for purposes of calculated the water or sewer buy-in component.

Replacement Cost New Less Depreciation

Given the nature of how the Ord's system was recorded, and although the General Plant cost is fully depreciated, the calculated Replacement Cost New Less Depreciation (RCNLD) needs to be adjusted to account for accumulated depreciation that occurred off the District's financials – prior to the system being conveyed.

Originally, the Replacement Cost New portion of the RCNLD was calculated in a separate Capital Replacement Funding Memo developed by Schaaf & Wheeler earlier in 2013. The memo outlined the replacement cost of each system's assets by function or service, including conveyed assets. The calculated replacement cost for Ord water was calculated at roughly \$120M and \$63M for the sewer system. However, as the District's CAFR does not account for depreciation of the Ord assets prior to conveyance, the RCNLD had to be recalculated separately to define the appropriate amount of depreciation.

As such, Carollo worked with the District to compile and analyze the District's Asset Records in order to define each asset's (or Journal entry's) original cost, depreciation, and existing book values. Adjusted values were also calculated to reflect the original cost, depreciation, and book values at today's costs. Although this follows the original methodology, the originally calculated Replacement Cost New defined the full replacement cost of the Ord Water and Sewer Systems and didn't recognize the full depreciation of the conveyed system.

Based on the generated Asset Records and removal of the Conveyed assets, Table 2 provides the revised capacity fee calculations and proposed capacity system charges.

Table 2: Calculation of Water System Capacity Charges

| | Water | Sewer |
|--|----------------------|---------------------|
| RCNLD of Infrastructure in Service | \$20,418,305 | \$5,951,445 |
| RCNLD of Other Depreciable Assets | - | - |
| Sub-Total of Adjustments | 12,075,482 | 2,059,347 |
| Total Value of Capital Assets | \$32,493,787 | \$8,010,792 |
| Liability and Asset-Related Adjustments | \$7,952,134 | \$4,161,888 |
| Total Value of Existing Assets Net of Liabilities | \$24,541,654 | \$3,848,904 |
| Infrastructure Related Future CIP Costs | \$90,693,766 | \$35,130,846 |
| Total Value of Existing and Future Assets | \$115,235,420 | \$38,979,750 |
| Total Number of Meter Equivalents | 14,387 | 11,734 |
| System Capacity Charge <i>(Per Meter Equivalent)</i> | \$8,010 | \$3,322 |

Capital Improvement Project Sheet

| | |
|--------------|--|
| Project: | MCWD Fort Ord Office Landscape Project |
| Project No: | WD-0203 |
| Cost Center: | Marina Water; Marina Sewer; Ft Ord Water; Ft Ord Sewer |

Project Description
 This project is for completing the installation of landscaping at MCWDs' Fort Ord Office located at 2840 4th Avenue in Marina, CA. The project scope includes installing a "water-wise" irrigation system and the planting of native plant species and other low water use plants.

Project Justification
 A landscape installed as a demonstration "garden," which will be open to the general public, will enhance the public's understanding of the District's landscape and conservation ordinances.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|----------|----------|----------|----------|----------|-----------|--------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Design | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Construction | | | | | | | | |
| External Services | | 11,500 | | | | | | 11,500 |
| Internal Services | | 9,000 | | | | | | 9,000 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 20,500 | 0 | 0 | 0 | 0 | 0 | 20,500 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|---------------|---------------|-------------|----------|----------|----------|----------|----------|-----------|--------|
| 01 - Marina Water | 01-00-160-402 | 29% | 0 | 5,945 | 0 | 0 | 0 | 0 | 0 | 5,945 |
| 02 - Marina Sewer | 02-00-160-402 | 8% | 0 | 1,640 | 0 | 0 | 0 | 0 | 0 | 1,640 |
| 03 - Ft Ord Water | 03-00-160-402 | 52% | 0 | 10,660 | 0 | 0 | 0 | 0 | 0 | 10,660 |
| 04 - Ft Ord Sewer | 04-00-160-402 | 11% | 0 | 2,255 | 0 | 0 | 0 | 0 | 0 | 2,255 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 20,500 | 0 | 0 | 0 | 0 | 0 | 20,500 |

| Estimated Project Expenditures for FY 14/15: | | | Budget | Special Notes |
|--|--|--|------------------|---|
| "Class "2" Cost Opinion: Estimated Range varies (-10%→+25%)" | | | | |
| Project: MCWD Fort Ord Office Landscape Project | | | | |
| 1- Design & Planning Costs: | | | | |
| Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | \$ - | Project design completed |
| External Services: (Attorneys, Consultants) | | | \$ - | |
| Total Design & Planning Cost: | | | \$ - | |
| 2- Construction & Installation Costs: | | | | |
| Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | \$ 9,000 | Including: Internal labor, Construction Management, |
| External Services: (Contractors) | | | \$ 11,500 | Including: Irrigation system, plants. |
| Total Construction & Installation Costs: | | | \$ 20,500 | |
| Property / Easement Acquisition | | | \$ - | Project @ MCWD PROPERTY |

Capital Improvement Project Sheet

| | |
|---------------------|--|
| Project: | SCADA System Improvements - Phase I |
| Project No: | WD-0115 |
| Cost Center: | Marina Water; Marina Sewer; Ft Ord Water; Ft Ord Sewer |

Project Description
 This project is for improving the Supervisory, Control, and Data Acquisition (SCADA) facilities. MCWD has more than 40 (current) remote water and sewer infrastructure sites that need SCADA improvement. The current phase of the project will result in functional and expandable SCADA "hubs" that will transmit signals to MCWDs' O&M control room while the future phases will up-grade the remote sites.

Project Justification
 This project is needed to increase the reliability of the SCADA facilities. A well-functioning SCADA system is fundamental to efficient operation of water and waste water systems and reliable SCADA facilities reduce risk because problems with remote infrastructure can be identified, communicated and/or prevented prior to failure.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|------------------|---------------|----------------|----------------|----------------|----------|-----------|------------------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Design | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Construction | | | | | | | | |
| External Services | 1,008,456 | 25,000 | 127,500 | 130,000 | 132,500 | | | 1,423,456 |
| Internal Services | | 10,000 | 10,200 | 10,500 | 10,500 | | | 41,200 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 1,008,456 | 35,000 | 137,700 | 140,500 | 143,000 | 0 | 0 | 1,464,656 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|---------------|---------------|------------------|---------------|----------------|----------------|----------------|----------|-----------|------------------|
| 01 - Marina Water | 01-00-160-402 | 25% | 252,114 | 8,750 | 34,425 | 35,125 | 35,750 | 0 | 0 | 366,164 |
| 02 - Marina Sewer | 02-00-160-402 | 16% | 161,353 | 5,600 | 22,032 | 22,480 | 22,880 | 0 | 0 | 234,345 |
| 03 - Ft Ord Water | 03-00-160-402 | 26% | 262,199 | 9,100 | 35,802 | 36,530 | 37,180 | 0 | 0 | 380,811 |
| 04 - Ft Ord Sewer | 04-00-160-402 | 33% | 332,790 | 11,550 | 45,441 | 46,365 | 47,190 | 0 | 0 | 483,336 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 1,008,456 | 35,000 | 137,700 | 140,500 | 143,000 | 0 | 0 | 1,464,656 |

| Estimated Project Expenditures for FY 14/15: | | | Budget | Special Notes |
|--|---|-----------|--|---|
| "Class "3" Cost Opinion: Estimated Range varies (-20%→+35%)" | | | | |
| Project: SCADA System Improvements - Phase I | | | | |
| 1- Design & Planning Costs. | | | | On going Design-Build Project |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | |
| | External Services: (Attorneys, Consultants) | | | |
| Total Design & Planning Cost: | | | \$ - | |
| 2- Construction & Installation Costs. | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | \$ 10,000 | | Include: Construction Management, |
| | External Services: (Consultant Contractor) | \$ 25,000 | | Include: Equipments, Installation & Integration |
| Total Construction & Installation Costs: | | | \$ 35,000 | |
| Property / Easement Acquisition | | | No Property Acquisition Necessary | |

| Estimated Project Expenditures for FY 14/15: | | | | | | Budget | Special Notes |
|---|---|--|--|--|--|--|--|
| Project: IOP Building E (BLM) | | | | | | | |
| 1- Design & Planning Costs: | | | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | | | Design review-permitting |
| | External Services: (Attorneys, Consultants) | | | | | | Building & site design |
| Total Design & Planning Cost: | | | | | | \$ - | |
| 2- Construction & Installation Costs: | | | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | | \$ 87,400 | Construction contract awarding, construction management, |
| | External Services: (Contractors) | | | | | \$ 2,175,000 | portions of construction costs |
| Total Construction & Installation Costs: | | | | | | \$ 2,262,400 | |
| Property / Easement Acquisition | | | | | | Property has been paid for in the prior years | |

Capital Improvement Project Sheet

| | |
|---------------------|---------------------------------------|
| Project: | Potable Water Tank Compliance Project |
| Project No: | GW-0212 |
| Cost Center: | Marina Water; Ord Community Water |

Project Description
 All of MCWD's potable water tanks/reservoirs will be inspected, cleaned, and maintained within FY 13/14. The inspection will be conducted by a diver and cleaned with a vacuum operation such that the tanks will not require draining.

Project Justification
 CA DPH requires this activity based on their December, 2012 report reviewing MCWD's permitted potable water system.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|----------|----------|----------|----------|----------|-----------|---------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | 0 |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | |
| Design | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | 8,000 | 2,000 | | | | | 10,000 |
| Construction | | | | | | | | |
| External Services | | 45,000 | 40,000 | | | 108,243 | | 193,243 |
| Internal Services | | 5,000 | 3,000 | | | | | 8,000 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 58,000 | 45,000 | 0 | 0 | 108,243 | 0 | 211,243 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------|---------------|-------------|----------|----------|----------|----------|----------|-----------|---------|
| 01 - Marina Water - | | 37% | | 21,460 | 16,650 | 0 | 0 | 40,050 | 0 | 78,160 |
| 03 - Ft Ord Water | | 63% | | 36,540 | 28,350 | 0 | 0 | 68,193 | 0 | 133,083 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 58,000 | 45,000 | 0 | 0 | 108,243 | 0 | 211,243 |

| Estimated Project Expenditures for FY 14/15: | | | Budget | Special Notes |
|--|--|--|------------------|----------------------------------|
| "Class "4" Cost Opinion: Estimated Range varies (-30%→+50%)" | | | | |
| Project: Potable Water Tank Compliance Project | | | | |
| 1- Design & Planning Costs. | | | | |
| Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | \$ 8,000 | Design, Bid documents prep. |
| External Services: (Attorneys, Consultants) | | | | |
| Total Design & Planning Cost: | | | \$ 8,000 | |
| 2- Construction & Installation Costs. | | | | |
| Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | \$ 5,000 | Implementation management |
| External Services: (Contractors) | | | \$ 45,000 | Materials & application |
| Total Construction & Installation Costs: | | | \$ 50,000 | |
| Property / Easement Acquisition. | | | \$ - | None- Existing Facilities |

Capital Improvement Project Sheet

| | | | |
|-----------------|--|-------------------|------------------|
| Project: | A1 & A2 Zone Tanks & B/C Booster Station | Source: | Water Systems MP |
| Project Number: | GW-0112 | Index/Multiplier: | San Francisco |
| Cost Center: | Ord Community Water; Marina Water | Inflation %: | 2.0 |

Project Description
 Two A-Zone storage tanks with a total usable storage capacity of 5.2 Million Gallons, B-Zone and C-Zone Booster Pump Station, and associated piping and facilities.
 The project location is currently being negotiated with CSUMB at the time of preparing this document. At least one Tank will be placed at or near CSUMB main campus.

Project Justification
 The District has minimal "A" Zone storage capacity. The A1/A2 Zone Tanks are to provide operational, fire, and emergency water storage for Zone A in the Ord Community and Central Marina. The B and C booster pumps will pump water from Zone A to Zones B and C. The facilities currently serving these functions are over sixty years old and are approaching the end of their useful life.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--|----------------|----------------|------------------|------------------|----------|------------------|-----------|-------------------|
| Cost Category / Phasing: | | | | | | | | |
| Planning | | | | | | | | |
| External Services | 120,017 | 93,924 | 82,616 | | | 77,050 | | 373,607 |
| Internal Services | 8,705 | 19,740 | 8,980 | | | 13,400 | | 50,825 |
| Design | | | | | | | | |
| External Services | | 75,250 | 107,500 | 32,250 | | 25,000 | | 240,000 |
| Internal Services | | 89,600 | 85,120 | 71,680 | | 91,000 | | 337,400 |
| Construction | | | | | | | | |
| External Services | | | 3,205,563 | 3,071,391 | | 3,072,699 | | 9,349,652 |
| Internal Services | | | 120,680 | 120,802 | | 114,000 | | 355,482 |
| Property Easement / Acquisitions | | | | | | | | 0 |
| Property rights have been paid for through a settlement agreement with CSUMB | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 128,722 | 278,514 | 3,610,459 | 3,296,123 | 0 | 3,393,149 | 0 | 10,706,966 |

| Project Funding / Cost Centers | G L CODE | % Cost | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|---------------|--------|----------------|----------------|------------------|------------------|----------|------------------|-----------|-------------------|
| 01 - Marina Water | 01-00-160-327 | 37% | 47,627 | 103,050 | 1,335,870 | 1,219,565 | 0 | 1,255,465 | 0 | 3,961,578 |
| 03 - Ft Ord Water | 03-00-160-327 | 63% | 81,095 | 175,464 | 2,274,589 | 2,076,557 | 0 | 2,137,684 | 0 | 6,745,389 |
| | | | | | | | | | | |
| Funding By Fiscal Year | | | 128,722 | 278,514 | 3,610,459 | 3,296,123 | 0 | 3,393,149 | 0 | 10,706,966 |

1 Budget Estimates are based on a specific project site location at the N/W corner of Intergarrison Rd & Sixth Avenue, additional Site Preparation, Environmental Studies & Piping costs maybe incurred if a different site is selected. In addition, it's assumed that the tank construction material will be Steel, a prestressed concrete tank will entail a 33% increase in the initial capital costs

| Estimated Project Expenditures for FY 14/15: | | Budget | Special Notes |
|--|---|-------------------|--|
| "Class 2" Cost Opinion: Estimated Range varies (-10%→+25%) | | | |
| Project: A1 & A2 Zone Tanks & B/C Booster Station | | | |
| 1- Design & Planning Costs | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | \$ 109,340 | Commencing civil design, permitting, |
| | External Services: (Attorneys, Consultants) | \$ 93,924 | Include: Survey & Mapping, CEQA, Legal fees & partial funding of Architectural, Mechanical |
| Total Design & Planning Cost: | | \$ 203,264 | |
| 2- Construction & Installation Costs | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | |
| | External Services: (Contractors) | \$ - | |
| Total Construction & Installation Costs: | | \$ - | No construction is anticipated this FY. |
| Property / Easement Acquisition | | | Property paid for through CSUMB prior uncollected capacity charges |

Capital Improvement Project Sheet

| | |
|-------------|--------------------------|
| Project: | Well 30 Pump Replacement |
| Project No: | OW-0223 |
| Cost Center | Ord Community Water |

Project Description
 Replacement of Well 30 pump, casing, and shaft assembly and the installation of a transducer to monitor water levels.

Project Justification
 The Well 30 Pump and casing have reached the end of their useful life and require replacement.
 O & M staff removed the pump and casing after abnormal vibrations were encountered.
 Once extracted it was determined the assembly was no longer operating properly and would require replacement. This work is required to get the well back online.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|----------|----------|----------|----------|----------|-----------|---------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Design | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Construction | | | | | | | | |
| External Services | | 200,000 | | | | | | 200,000 |
| Internal Services | | 10,000 | | | | | | 10,000 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 210,000 | 0 | 0 | 0 | 0 | 0 | 210,000 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------|---------------|-------------|----------|----------|----------|----------|----------|-----------|---------|
| 01 - Marina Water - | | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03 - Fort Ord Water - | | 100% | 0 | 210,000 | 0 | 0 | 0 | 0 | 0 | 210,000 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 210,000 | 0 | 0 | 0 | 0 | 0 | 210,000 |

| Estimated Project Expenditures for FY 14/15: | | | Budget | Special Notes |
|--|--|--|-------------------|---------------------------------------|
| "Class "2" Cost Opinion: Estimated Range varies (-10%→+25%)" | | | | |
| Project: Well 30 Pump Replacement | | | | |
| 1- Design & Planning Costs. | | | | |
| Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | No Design plans needed |
| External Services: (Attorneys, Consultants) | | | | |
| Total Design & Planning Cost: | | | \$ - | |
| 2- Construction & Installation Costs. | | | | |
| Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | \$ 10,000 | Project/Construction Management |
| External Services: (Contractors) | | | \$ 200,000 | Construction Contract(Labor/Material) |
| Total Construction & Installation Costs: | | | \$ 210,000 | |
| Property / Easement Acquisition: | | | N/A | |

Capital Improvement Project Sheet

| | | | |
|-------------|--|-------------------|----------|
| Project: | Gigling Transmission from D Booster to JM Blvd | Source: | Internal |
| Project No: | OW-0201 | Index/Multiplier: | 1.0 |
| Cost Center | Ord Community Water | Inflation %: | 2.0 |

Project Description
 This project entails the construction of approximately 1,800-LF of 12-inch PVC potable water pipeline to replace an existing 12-inch AC pipeline installed by the Army. The section of pipeline being installed will be within the Gigling Road alignment from the D-BPS and extending to the west of the General Jim Moore Boulevard intersection.

Project Justification
 This project was originally identified in the Ord Community Water Distribution Master Plan (2004, RBF). Staff identified the need to increase the scope of the project based on the existing condition and installation failings of the facility. The condition and installation failings were discovered in 2011 through a significant water outage event. Staff has re-estimated the cost of this CIP based on the new scope (thus the Source of the project is now Internal).

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|----------|----------|----------|----------|----------|-----------|---------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | 1,800 | | | | | | 1,800 |
| Design | | | | | | | | |
| External Services | | | 107,100 | | | | | 107,100 |
| Internal Services | | | | | | | | 0 |
| Construction | | | | | | | | |
| External Services | | | 321,300 | | | | | 321,300 |
| Internal Services | | | 10,800 | | | | | 10,800 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 1,800 | 439,200 | 0 | 0 | 0 | 0 | 441,000 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------|---------------|-------------|----------|----------|----------|----------|----------|-----------|---------|
| 01 - Marina Water - | | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03 - Fort Ord Water - | | 100% | 0 | 1,800 | 439,200 | 0 | 0 | 0 | 0 | 441,000 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 1,800 | 439,200 | 0 | 0 | 0 | 0 | 441,000 |

| Estimated Project Expenditures for FY 14/15: | | | Budget | Special Notes |
|--|--|-----------|--------------|---------------------------------------|
| "Class "4" Cost Opinion: Estimated Range varies (-30%→+50%)" | | | | |
| Project: Gigling Transmission from D Booster to JM Blvd | | | | |
| 1- Design & Planning Costs. | | | | |
| Internal Services : MCWD Staff time (Eng, O&M,Finances) | | \$ | 1,800 | Studying project scope & alternatives |
| External Services: (Attorneys, Consultants) | | \$ | - | |
| Total Design & Planning Cost: | | \$ | 1,800 | |
| 2- Construction & Installation Costs. | | | | |
| Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | |
| External Services: (Contractors) | | \$ | - | |
| Total Construction & Installation Costs: | | \$ | - | |
| Property / Easement Acquisition: | | | | within Public RW |

Capital Improvement Project Sheet

| | | | |
|------------------------|---|--------------------------|-----------|
| Project: | East Garrison Lift Station Improvements | Source: | Ord SS MP |
| Project Number: | OS-0150 | Index/Multiplier: | 1.0 |
| Cost Center: | Ord Community Sewer | Inflation %: | 2.0 |

Project Description
 This project is for the East Garrison sanitary sewer lift station. The second phase of the project will consist of performing certain upgrades when East Garrison Development reaches 950 units occupancy.

Project Justification
 This first phase of the project included underground work, SCADA system, new pumps and site preparation; the remaining work rolled over from FY12-13 budget includes installing a Generator Set and possibly an Odor Control System, the requested funds for FY 13-14 were authorized expenditures from the FY 12-13
 The following phase will include the installation of another wetwell, a new MCC and additional pumps, the need for these upgrades is based on the pace of the development in EG.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|----------------|----------|----------|----------|----------|----------------|-----------|----------------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | 11,224 | | | | | | | 11,224 |
| Internal Services | 1,600 | | | | | | | 1,600 |
| Design | | | | | | | | |
| External Services | 113,000 | | | | | 22,000 | | 135,000 |
| Internal Services | | | | | | 9,000 | | 9,000 |
| Construction | | | | | | | | |
| External Services | 155,284 | | | | | 217,000 | | 372,284 |
| Internal Services | 231 | | | | | 12,000 | | 12,231 |
| Property Easement / Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 281,339 | 0 | 0 | 0 | 0 | 260,000 | 0 | 541,339 |

| Project Funding / Cost Centers | G L CODE | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|---------------|---------------|----------------|----------|----------|----------|----------|----------------|-----------|----------------|
| 04 - Fort Ord Sewer | 04-00-160-025 | 100% | 281,339 | 0 | 0 | 0 | 0 | 260,000 | 0 | 541,339 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 281,339 | 0 | 0 | 0 | 0 | 260,000 | 0 | 541,339 |

| Estimated Project Expenditures for FY 14/15: | | | | Budget | | | | Special Notes |
|--|---|--|--|--------|---|--|--|---|
| "Class "2" Cost Opinion: Estimated Range varies (-30%→+50%)" | | | | | | | | |
| Project: East Garrison Lift Station Improvements | | | | | | | | |
| 1- Design & Planning Costs. | | | | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | | | | Generator Design/RFP |
| | External Services: (Attorneys, Consultants) | | | | | | | |
| Total Design & Planning Cost: | | | | \$ | - | | | |
| 2- Construction & Installation Costs. | | | | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | | | | Construction management/Inspection |
| | External Services: (Contractors) | | | | | | | Odor control/Gen-set, Equipments+installation |
| Total Construction & Installation Costs: | | | | \$ | - | | | |
| Property / Easement Acquisition | | | | | | | | MCWD obtained property deed on 10/2012 |

| Estimated Project Expenditures for FY 14/15: | | | | Budget | Special Notes |
|--|---|--|--|---|--|
| "Class "3" Cost Opinion: Estimated Range varies (-20%→+35%)" | | | | | |
| Project: Clark Lift Station Improvement | | | | | |
| 1- Design & Planning Costs. | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | Design review/permitting |
| | External Services: (Attorneys, Consultants) | | | | completion of station design |
| Total Design & Planning Cost: | | | | \$ - | |
| 2- Construction & Installation Costs. | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | Construction management/Inspection |
| | External Services: (Contractors) | | | | Construction contract (labor/material) |
| Total Construction & Installation Costs: | | | | \$ 287,902 | |
| Property / Easement Acquisition: | | | | Existing Site-additonal easements were obtained. | |

Capital Improvement Project Sheet

| | | | |
|------------------------|--|--------------------------|-------------|
| Project: | Imjin LS & Force Main Improvements - Phase I | Source: | OC Sewer TM |
| Project Number: | OS-0205 | Index/Multiplier: | 1.0 |
| Cost Center: | Ord Community Sewer | Inflation %: | 2.0 |

Project Description
 The first phase of this project includes constructing another wetwell, installing two pumps with all accessories and appurtenances.

Project Justification:
 The existing lift station and forcemain can't handle all the anticipated wastewater flows from East Garrison, UCMBEST, Marina Airport, Existing Marina lift Station as was stated in the Ord Community Wastewater Master Plan; the project will be split into two phases and is necessary to accommodate near to long term future development

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|----------|----------|----------|----------|----------|-----------|---------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Design | | | | | | | | |
| External Services | | 20,000 | | | | | | 20,000 |
| Internal Services | | 8,000 | | | | | | 8,000 |
| Construction | | | | | | | | |
| External Services | | | 490,000 | | | | | 490,000 |
| Internal Services | | | 40,000 | | | | | 40,000 |
| Property Easement / Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 28,000 | 530,000 | 0 | 0 | 0 | 0 | 558,000 |

| Project Funding / Cost Centers | G L CODE | % Cost | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------|--------|-------------|----------|----------|----------|----------|----------|-----------|---------|
| 02 - Marina Sewer | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04 - Fort Ord Sewer | | 100% | | 28,000 | 530,000 | 0 | 0 | 0 | 0 | 558,000 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 28,000 | 530,000 | 0 | 0 | 0 | 0 | 558,000 |

| Estimated Project Expenditures for FY 14/15: | | | | Budget | | | | Special Notes |
|--|---|--|--|------------------|--|--|--|---|
| "Class "4" Cost Opinion: Estimated Range varies (-30%→+50%)" | | | | | | | | |
| Project: Imjin LS & Force Main Improvements - Phase I | | | | | | | | |
| 1- Design & Planning Costs. | | | | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | \$ 8,000 | | | | Master plan integration, scope, conceptual design |
| | External Services: (Attorneys, Consultants) | | | \$ 20,000 | | | | commencing design/ plans preparation |
| Total Design & Planning Cost: | | | | \$ 28,000 | | | | |
| 2- Construction & Installation Costs. | | | | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | | | | No construction is anticipated this FY |
| | External Services: (Contractors) | | | | | | | |
| Total Construction & Installation Costs: | | | | \$ - | | | | |
| Property / Easement Acquisition. | | | | | | | | Project within Public RW |

| Estimated Project Expenditures for FY 14/15: | | | | Budget | | | | Special Notes |
|--|---|--|--|-------------------|------------|--|--|---|
| "Class "4" Cost Opinion: Estimated Range varies (-30%→+50%)" | | | | | | | | |
| Project: Recycled Trunk Main and Booster, MRWPCA to Normandy | | | | | | | | |
| 1- Design & Planning Costs. | | | | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | | | | Design Review/coordination with MRWPCA |
| | External Services: (Attorneys, Consultants) | | | | \$ 750,000 | | | Design updates-possible rerouting. |
| Total Design & Planning Cost: | | | | \$ 750,000 | | | | |
| 2- Construction & Installation Costs. | | | | | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | | | | | No construction is anticipated this FY |
| | External Services: (Contractors) | | | | | | | |
| Total Construction & Installation Costs: | | | | \$ - | | | | |
| Property / Easement Actaquisition | | | | | | | | Yet to be determined, pending negotiations. |

| Estimated Project Expenditures for FY 14/15: | | | Budget | Special Notes |
|--|---|--|--------------|---------------|
| "Class "4" Cost Opinion: Estimated Range varies (-30%→+50%)" | | | | |
| Project: Regional Desalination Project | | | | |
| 1- Planning Costs: | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | |
| | External Services: (Attorneys, Consultants) | | | |
| Total Planning Costs: | | | \$ - | |
| 2- Design Costs: | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | |
| | External Services: (Attorneys, Consultants) | | | |
| Total Design & Planning Cost: | | | \$ - | |
| 3- Construction & Installation Costs: | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | |
| | External Services: (Contractors) | | | |
| Total Construction & Installation Costs: | | | \$ - | |
| 4- Property/Easement Acquisitions: | | | | |
| | Internal Services : MCWD Staff time (Eng, O&M,Finances) | | | |
| | External Services: (Attorneys, Consultants) | | | \$ 1,000,000 |
| Total Property/Easement Acquisition Costs: | | | \$ 1,000,000 | |
| Other Project Costs - Legal Costs: | | | | |
| | | | | \$ 1,000,000 |
| Total Other Project Costs - Legal Costs: | | | \$ 1,000,000 | |

**MARINA COAST WATER DISTRICT
CAPITAL IMPROVEMENT PROJECT BUDGET FOR FY 2013-2014**

| Project No. | Project Name | Amount |
|--------------------------------------|--|---------------------------|
| WD-0203 | MCWD Fort Ord Office Landscape Project | \$20,500 |
| WD-0115 | SCADA System Improvements - Phase I | \$35,000 |
| WD-0202 | IOP Building E (BLM) | \$2,262,400 |
| GW-0212 | Potable Water Tank Compliance Project | \$58,000 |
| GW-0112 | A1 & A2 Zone Tanks & B/C Booster Station @ CSUMB | \$278,514 |
| MS-0133 | Replace Lift Station No. 5 (Cosky) | \$487,477 |
| MS-0206 | Reservation Road Siphon | \$381,217 |
| OW-0223 | Well 30 Pump Replacement | \$210,000 |
| OW-0201 | Gigling Transmission from D Booster to JM Blvd | \$1,800 |
| OS-0150 | East Garrison Lift Station Maintenance | \$0 |
| OS-0200 | Clark Lift Station Improvement | \$287,902 |
| OS-0205 | Imjin LS & Force Main Improvements - Phase I | \$28,000 |
| RW-0156 | Recycled Trunk Main and Booster, MRWPCA to Normandy (Design) | \$750,000 |
| RD-0101 | Regional Desalination Project | <u>\$1,000,000</u> |
| | TOTALS | <u>\$5,800,810</u> |
| <u>Summary By Cost Center</u> | | |
| | Marina Water | \$772,677 |
| | Marina Sewer | \$1,056,926 |
| | Ord Community Water | \$1,574,764 |
| | Ord Community Sewer | \$646,443 |
| | Recyled Water | \$750,000 |
| | Regional Desalination Project | <u>\$1,000,000</u> |
| | TOTALS | <u>\$5,800,810</u> |

MCWD Responses to WWOC Questions on 2013 Rate Study

| BIA Questions from the October 11 | District Responses |
|---|--|
| <p>1. Why did you exclude FORA funding contributions? When the FORA funding is collected, how will the over-payment of fees be reimbursed or credited?</p> | <p>The District excluded the FORA Water Voluntary Contribution (in the FORA CIP) as there is currently no mechanism for receipt of these funds. Upon completion of a formal means to collect the contributions from FORA, MCWD will apply the contribution as a credit to the calculated capacity charge to new customers who will then pay the net capacity charge.</p> |
| <p>2. Why are the Ord Community water and sewer capital surcharges being eliminated and being passed through to capacity charges? Why the significant change from the 2008 approach?</p> | <p>They are being eliminated for new users to reflect that a new user is fully bought into the system, rather than paying a surcharge (over time).</p> |
| <p>3. Since new development is a more water efficient than existing housing stock, how is this recognized in the proposed rate and capacity fee updates?</p> | <p>Consistent with industry standards, Meter equivalents were utilized as a basis. Although a usage assumptions could be developed, the fee reflect the possible demand of the meter, rather than actual usage.</p> |
| <p>4. What is the basis for the land assumptions in Appendix D?</p> | <p>No land assumptions were made. Rather CIP would provide sufficient capacity to the system to 2030 (based on UWMP growth assumptions).</p> |
| <p>5. What is the basis for allocating the outstanding bond debt? Why is the debt coverage paid by rate payers higher than required by debt covenants? What is the use of the excess revenue generated due to these higher debt coverage(s)?</p> | <p>Debt is allocated to each cost center, based on funding of capital (use of debt). The Debt Coverage is higher to provide/enable easier funding of future projects and to reduce the risk of falling below coverage requirements. Revenues are largely variable (consumption dependant) and need a buffer in case of wet/cool weather or increased conservation.</p> |
| <p>6. Can you provide an example differentiating between circumstances in which capital improvements are deemed operating costs vs. capital costs?</p> | <p>No.</p> |
| <p>7. Why did Ord water capacity fees increase by \$9,919 / meter equivalent while Marina water capacity fees decreased by \$924 / meter equivalent?</p> | <p>MCWD provided an updated asset valuation study which increased the value of the Ord systems. Marina decreased as the system depreciated faster than capital was reinvested and/or reduced capital funding needs.</p> |
| <p>8. Why did Ord sewer capacity fees increase by \$5,486 / EDU while Marina sewer capacity fees decreased by \$1,617 / EDU?</p> | <p>Same as above.</p> |
| <p>9. Under the "buy-in" methodology, how is "bought" capacity being quantified? Where is the engineering information that went into the "buy-in" calculations? In other words, have all of the improvements been assigned an existing share and a future share? Is that result the amounts identified in appendix D?</p> | <p>Units are quantified based on a Meter Equivalent. A connection is paying its share of existing and future capital costs.</p> |

MCWD Responses to WWOC Questions on 2013 Rate Study

| | |
|--|---|
| <p>10. How are the existing deficiencies (from prior year under collections) funded in Marina and Ord?</p> | <p>Existing deficiencies are funded with reserves / delay of capital. Proposed increases for Ord are greater than would otherwise be necessary if previously proposed increases were fully adopted.</p> |
|--|---|

| <p>CSUMB Questions from the October 16</p> | <p>District Responses</p> |
|--|---|
| <p>1. page 38 In setting of Capacity Charges Buy in Component: How were replacement cost values established for assets received through no cost conveyances?</p> <p>2. Have these assets been depreciated in the methodology?</p> <p>3. What is the \$ contribution to the buy in component of assets received through no cost conveyances (ie replacement cost - depreciation)?</p> | <p>1. This seems to be a repeated question. To confirm, the asset values provided to us (in the 2013 Replacement Analysis) DO NOT include conveyed assets.</p> <p>2. Yes, assets from the 2013 replacement cost analysis include depreciation. The value of the system is replacement cost new less depreciation.</p> <p>3. My understanding is this is the number shown. We do not include costs associated with Free assets. Replaced or repaired assets would/should show up. Assets conveyed and untouched, should not be included.</p> |
| <p>4. In future cost component (CIP): What amount of the CIP cost is related to replacing or extending the life of assets received through no cost conveyances?</p> | <p>During the 2013 budget process staff split CIP projects into three categories; supports existing infrastructure, supports a single development, and supports future infrastructure. This CIP list was provided to the WWOC late summer 2013. The projects supporting existing infrastructure totaled \$48M, about half the recognized CIP. Of that \$48M about \$35M is scheduled after the next 5 years.</p> |
| <p>5. For each asset received through no cost conveyance can you show a listing of: Replacement cost, accumulated depreciation, Associated CIP cost.</p> | <p>The District has developed a high-level cost analysis of facilities on Ord that values the entire water system at \$120M and the sewer system at \$62.3M. An individual breakdown of specific facilities for the entire system is not available.</p> |
| <p>6. What would the Capacity Charge be if assets that were received at no cost were excluded from buy in component?</p> | <p>Assuming the System had NO EXISTING VALUE (no Conveyed assets or recognition of improvements) the fee would be \$7415 for water and \$3425 for sewer.</p> |
| <p>7. Please explain the methods that the District uses to estimate the volume of water required by proposed development in calculating capacity charges and how the actual usage is ultimately reconciled.</p> | <p>For the Fee development a meter equivalent is determined based on a 3/4" meter capacity. The purchased capacity in the system and the actual usage isn't reconciled as a user may under utilize the full demand capacity of the meter.</p> |

MCWD Responses to WWOC Questions on 2013 Rate Study

| | |
|---|---|
| <p>8. Why do FORA and the District not reach agreement on offsetting Capacity Charges BEFORE the rates are enacted?</p> | <p>The District contracted Carollo to calculate the capacity fee to connect to the system(s) because the FORA contribution is a finite amount. Once the contribution is exhausted, the District needs to know what the true charge should be to connect.</p> |
| <p>9. Will the District lower Capacity Charges if an agreement is reached with FORA?</p> | <p>No. The Capacity Charge does not change. When an agreement is reached on how the District will receive the contribution from FORA, the contribution will be a credit to the capacity charge and the Developer will pay the net charge.</p> |
| <p>10. page 5 Fire Service Charges: if only 29 of 289 accounts have been billed it would seem that this charge is not in place and arbitrarily applied. Perhaps a refund to these 29 accounts is due?</p> | <p>No. there is a current existing fee in place.</p> |
| <p>11. page 18 Water for Land: It seems overly optimistic that this revenue stream will be converted to cash. Will the District ask for equivalent offsetting revenue from rate payers if this cash flow does not materialize?</p> | <p>No.</p> |
| <p>12. Page 30: Rate Structure: There is no analysis supporting the assertion that the current rate structure is appropriate. The rate structure appears to be solely geared for residential. Please provide some justification for retaining this structure and explain how it is equitable for institutional/multifamily housing.</p> | <p>Although the District maintains various account types, the existing and proposed rate structure does not differentiate between users or billing classes— other than metered and non-metered accounts. The tiered rate structure is designed to recover the agency’s variable costs. A larger user of water pays more as they take more – the district incurs greater costs to serve greater quantities of water. A smaller user will subsequently pay less, as they use a smaller amount of water. This rate structure encourages efficient use of water and should help the District achieve its conservation objectives.</p> |
| <p>City of Seaside Questions from the October 16</p> | <p>District Responses</p> |
| <p>1. City believes that it would be beneficial to complete the review of the CIP finalizing the Fee and budget discussions.</p> | <p>The existing CIP is District staff’s best estimate of necessary projects to serve new development as well as continued repair and replacement needs. While a “complete review” or update master plans may provide additional detail, it is reasonable and within industry norms to utilize staff’s professional judgment.</p> |
| <p>2.It is unclear how the expenses for the defunct regional water project being reimbursed. Please clarify.</p> | <p>The District is pursuing legal avenues for reimbursement of the regional project expenses.</p> |

MCWD Responses to WWOC Questions on 2013 Rate Study

| | |
|--|---|
| <p>3. Please clarify the following statement in Section 1.2, on Page 5, “Residential users with upsized meters currently pay the monthly meter charged associated with the larger meter.”</p> | <p>Upsized meters refer to meters that are only “upsized” to meet fire regulations and are not due to the daily demands of the meter. The updated methodology recommends upsized meters only pay for the “daily demand” portion of the meter and implement a separate charge (fire service charge) for the portion of the meter that is “upsized”.</p> |
| <p>4. In Section 2.1.1, the Study states that one of the objectives is to “Conduct a cost of service study...” However, in Section 1.3, the Fee Study states “Additionally, Carollo did not audit nor verify the accuracy of the District’s customer billing or financial records used as the foundation of this analysis.” In order to perform a valid cost of service study, Carollo should have either performed an audit or reviewed audited financial statements to verify accuracy of billing and financial records. Please verify that either of these activities were performed by Carollo.</p> | <p>The District’s audited financials were utilized as a basis of the study (CAFR, Budget, financial records). Carollo did not independently validate the figures; however, based on the consistency of revenues and customer records between the years reviewed, the figures appear reasonable.</p> |
| <p>5. In Section 2.1.2, the Fee Study states that “The population of the Ord Community service area is expected to increase from approximately 15,300 in 2010 to approximately 34,000 in 2020, an annualized growth rate of 7.6 percent. Given the realized growth rate since 2010 is considerably lower, Carollo has adjusted the analysis with a forecasted annual customer growth of 4.3 percent.” However, the Fee Study states in Section 1.1 that the “Ord Community service area has a current (2013) population of approximately 20,500 residents.” If these numbers in the Fee Study are correct, the annualized growth rate would be approximately 10 percent over the three years from 2010 to 2013. Since 10 percent is greater than 7.6 percent, the reduction to 4.3 percent in the Fee Study and corresponding analysis do not make sense. Please either provide further justification for reducing growth rate to 4.3 percent or use the FORA estimate of 7.6 percent.</p> | <p>Over the 30-year period, the annualized growth rate of 7.6% is correct. As the Ord experienced over 10% annualized growth from FY10-FY13, the remaining future growth rate must collectively fall below 7.6%. However, the population growth did not correlate with the realized customer account growth (which was almost flat over the same period). In order to minimize a potential under collection of rate revenue (due to optimistic growth forecasting), the Customer Account growth rate was reduced.</p> |
| <p>6. In Section 3.2.1, the Fee Study states “The budget was compared with prior year actual [emphasis added] financial information to identify any anomalies or one-time expenditures not appropriate for forecasting in future years.” Audited financial statements for at least the prior three years should be used to determine actual financial information and potential anomalies. Please confirm that at least three years of audited financial statements were evaluated.</p> | <p>Carollo reviewed multiple years of data and held numerous conversations with District staff to confirm existing and future budget adjustments.</p> |

MCWD Responses to WWOC Questions on 2013 Rate Study

| | |
|--|--|
| <p>7. In Table 3-1, the Construction Cost Inflation is 3.5 percent. The FORA CIP uses 2.8 percent based upon ENR data. Please submit compelling reason for using 3.5 percent or change to an acceptable industry standard, such as ENR, which is estimate to be 2.8 percent.</p> | <p>While the 2.8% CIP projection used by FORA is one reasonable figure, the use of a long-term ENR-CCI average of 3.5% is also reasonable. Both ENR amounts are based on a historical basis and not a predictor of future cost inflation. Also, typically lulls in the CPI (as we are in currently) are followed by greater than average inflation.</p> |
| <p>8. In Section 3.2.2, the Fee Study states “each debt obligation is allocated to each cost center, based on use of funds within each series, to reflect the benefit received.” Please clarify the nexus between use of funds and the benefits received.</p> <ol style="list-style-type: none"> a. What are the O&M costs for each cost center? Are there audited financial statements for each of these cost centers? b. What activities and projects are covered by the current debt service? c. What are the associated amounts for these activities and projects under the current debt service? | <ol style="list-style-type: none"> a. O&M Cost are identified in draft budget. The District has prepared yearly audited financial statements. b. District is preparing a spreadsheet to show activity related to current debt service c. District is preparing a spreadsheet to show activity related to current debt service |
| <p>9. In Section 3.2.3, the Fee Study states “District’s adjusted net revenues shall amount to at least 135 percent of the annual debt service.” Based upon other statements in the Fee Study, the net revenues should be adjusted to either 135 or 120 percent according to the debt obligation and District Policy of increasing the actual obligation by 10 percent. The adjustment should be calculated according to the requirements of the debt service and District policy and not to an arbitrary amount of 135 percent.</p> | <p>Carollo analyzed the rates to generate a 1.35x coverage ratio to provide additional financial flexibility. This is particularly important as the District is considering issuing new debt, a higher coverage ratio would allow for additional debt to be issued. Additionally, as much of the District’s revenues are variable (consumption based) a higher target will provide an allowance for meeting ratios during moderate drought conditions.</p> |

MCWD Responses to WWOC Questions on 2013 Rate Study

| | |
|---|---|
| <p>10. In Section 3.2.4, the Fee Study states "...only projects related to supporting the existing infrastructure are included in the rate analysis and proposed rates." Please submit additional information to support this statement since this is not clear from the information given to date. Also, recent California Superior Court decisions would indicate that costs associated with projects undertaken for the benefit of specific users need to be allocated to those users and not spread across the entire cost center. Please submit additional specific information to indicate who benefits from projects listed in Appendix B to the Fee Study. That is, the CIP should be vetted for development-specific versus existing infrastructure benefits. Please clarify the calculations which incorporate the CIP projects for each of the user rates and capacity fees.</p> | <p>Question is unclear</p> |
| <p>11. The third paragraph in Section 3.2.4 indicates that there are difficulties in developing a rate model to adequately support specific projects and that several alternatives were evaluated. Please clarify what these alternatives are. This paragraph may indicate that the Fee Study does not meet the Prop 218 requirements to determine "... the basis upon which the amount of the proposed fee or charge was calculated ...{California Constitution, Article XIII D, Section 6}." Please specify projects that would be supported by the proposed user rates and projects that would be supported by the proposed capacity fees.</p> | <p>Projects solely related to future expansion (need) are not funded through monthly rates and charges. The proposed CIP related to R&R far exceeds the revenues or funding capacity without significant rate increases (above and beyond those proposed). The timing and funding of these projects are within the District's discretion. The proposed rates will generate additional revenues to fund some, not all, of the outlined R&R needs. This is consistent with Proposition 218 as the basis of the analysis is the proposed R&R and does not exceed the reasonable cost of service.</p> |
| <p>12. In Section 3.2.4, the Fee Study states "Over the next five years, the District has identified a significant CIP program for Ord Sewer. However, looking to years 6-10, there are no proposed CIP expenditures. As such, the identified CIP is assumed to be spread over a 10-year horizon to smooth expenditures and minimize costs." Could this CIP be spread over more years to help keep the costs down? For example, why does \$1.5 million need to be spent in FY 2015 and 2016 on "Misc. Lift Station Improvements?" Please submit more information on how the CIP program was developed and who the beneficiaries are of each project.</p> | <p>The Proposed CIP has already been scaled down and prioritized by District staff. It is unlikely that the projects could be further delayed without possible degradation or risk in water deliveries. As recommended in the study and discussed by Staff at recent Board meetings, an asset management plan would better define the possible risk and criticality of system assets. The CIP was developed by District staff based on their expertise and understanding of the system.</p> |

MCWD Responses to WWOC Questions on 2013 Rate Study

| | |
|---|--|
| <p>13. In Section 3.2.5, the Fee Study states “The minimum capital reserve target is \$1 million for each cost center, again as dictated by District policy.” What are the amounts of capital reserves recommended by Carollo? Can these amount be revisited by the MCWD Board?</p> | <p>See #14</p> |
| <p>14. In Section 3.2.5, the Fee Study states “The analysis explored and presented to the board multiple financial scenarios exploring the effects of lowered reserve targets on revenue needs and capital funding potential.” Please provide these analyses.</p> | <p>As part of the financial review, Carollo analyzed the potential use/lowering of capital funding levels (minimums). These scenarios were presented to the District’s Board to enable greater funding of capital, through a reduction of reserve levels. These scenarios did not reduce the proposed revenues or rates; simply they enabled a greater and immediate funding of the underfunded capital program.</p> |

MCWD Responses to WWOC Questions on 2013 Rate Study

15. In Section 6.0, the Fee Study states that “there are two basic components to the District’s capacity charge – the “buy-in component” (or existing cost basis); and the “future component” (or future cost basis).” The Fee Study also states “The term “future component” shall refer to future facilities (i.e., facilities in the CIP) that may be recovered through the capacity charge.” and “The future component incorporates the present value of the District’s CIP.” This leads to questions about both of these components to the calculation.

- a. For the buy-in component, why do future users need to buy in to the existing infrastructure that was received at no cost to the District as a public benefit conveyance (PBC)? That is, Appendix D shows several assets that may have been received at no cost to the District. For example, how was the “Total Replacement Cost of Existing System Infrastructure” established? And is it appropriate that the District receive compensation for assets accrued through a PBC?
- b. In Appendix D, what is the “Total Value of Water/ Sewer Rights Assets” and how was it established? If these rights were accrued through a PBC, how is it that the District would seek compensation for these?
- c. In Appendix D, what are the components to “Land” assets and what are their values? If these assets were accrued through a PBC, how is it that the District would seek compensation for these?
- a. What does ‘Adjusted’ RCNLD mean? How was RCNLD adjusted?
- b. For the future component, what are the future facilities that may be recovered through the CIP? Are any of these facilities also accounted for in any other District fees? If so, please explain how this is not double counting. Also, if any of these facilities directly attributable to planned development, then the cost of these facilities should be removed from the calculation and charged directly to the users benefiting from these improvements.

15.

- a. Carollo utilized the District’s 2013 Capital Replacement Funding study to determine the replacement value of the system.
- b. Carollo utilized the District’s CAFR to determine the amounts.
- c. Carollo utilized the District’s CAFR to determine the amounts.
- d. RCNLD is replacement cost new less depreciation, the “adjustment” in Figure 6.1 refers updating the amounts to current (today’s) values.
- e. The Future component refers to the proposed CIP. This amount is divided by existing and future users. New users will fund their portion of the future system with a capacity charge and then subsequently pay for their portion of continued R&R through the monthly service charges.

MCWD Responses to WWOC Questions on 2013 Rate Study

16. In Section 6.0, the Fee Study states that “Staff also provided direct guidance on the allocation of assets among each of the four cost centers.” Please provide additional information regarding the guidance and identify possible independent studies or analyses that would support the allocations made.

16. The District provided debt allocations between the cost centers. Also, allocations utilized to distribute General Water or General Sewer projects were provided by the District.

MCWD Responses to WWOC Questions on 2013 Rate Study

MCWD Responses to WWOC Questions on 2013 Rate Study

MCWD Responses to WWOC Questions on 2013 Rate Study

MCWD Responses to WWOC Questions on 2013 Rate Study

MCWD Responses to WWOC Questions on 2013 Rate Study

MCWD Responses to WWOC Questions on 2013 Rate Study

MCWD Responses to WWOC Questions on 2013 Rate Study

MCWD Responses to WWOC Questions on 2013 Rate Study

MCWD Responses to WWOC Questions on 2013 Rate Study

Marina Coast Water District
Agenda Transmittal

Agenda Item: 3-A

Meeting Date: July 13, 2005

Submitted By: Suresh Prasad

Presented By: Suresh Prasad

Agenda Title: Consider Adoption of Resolution Nos. 2005-37 (Ord Community Compensation Plan), 2005-38 (Capital Elements of Ord Community Plan), and 2005-39 (District Budget) to Approve the District Budget and Ord Community Compensation Plan for FY 2005-2006

Detailed Description: Each year, the District follows a budget development process that results in Board approval of the District's annual budget by June 30. The District budget process is somewhat complex as a result of dealing with five separate cost centers in two distinct service areas (Marina and Ord Community). The Draft FY 2005-2006 Budget includes operating and capital budgets in support of the District's two service areas and five cost centers, and apportions District overhead according to a pre-determined formula (based on revenue generation percentages). This Draft Budget includes several key assumptions, which are contained in the Budget Summary Note.

This year, staff initiated the budget preparation process in January 2005 for the Marina cost centers, and for the Ord Community cost centers with the FORA Water/Wastewater Oversight Committee in a series of meetings that focused largely on the issue of financing for the District's capital program. In 2004, the District reached the conclusion that the large Ord Community CIP's could not be reasonably funded by a continuation of the rate-based capital component charge. The District engaged Bartle Wells Associates (BWA) to evaluate capacity charges for the Ord Community service area. BWA concluded that capacity charges were needed in FY 2005-2006 to fund the Ord Community CIP Program. The District informed FORA and the Land Use Jurisdictions (LUJ's) that capacity charges would need to be considered in FY 2005-2006.

The series of FORA meetings included the participation of numerous people. All the LUJ's and their major developers were represented. And, they in turn provided independent financial consultants. By March, it was apparent that the District would benefit from additional financial consulting expertise to augment the Bartle Wells Associates effort. On April 13, 2005, the Board authorized staff to engage the services of Citigroup Global Markets, Inc., to assist in developing and evaluating financing options for the Ord Community CIP's. Citigroup began immediately, attended several meetings, produced and evaluated financing options, and presented same to District and FORA staff, and eventually with the LUJ's and developers. The options included a complete capacity charge, the continuation of rate-based surcharges for water and wastewater collection, and combinations of capacity charges and surcharges on future Ord customers. On May 25, 2005, Citigroup presented the results of their work to the Board and LUJ representatives

and developers present voiced support for an option that would create a water capacity charge of \$2,800 per EDU, with a \$20 monthly surcharge; and, a wastewater collection capacity charge of \$1,000 per EDU, with a \$5 monthly surcharge.

At that meeting, the Board asked Citigroup to develop another option that would cap the combined (water and wastewater collection) surcharges at \$20. Citigroup did so with an option that included \$18 and \$2 monthly surcharges for water and wastewater collection, respectively. As a result of lowering the monthly surcharges over a projected 30-year period, the combined capacity charges were increased by \$1,350; going from \$3,800 to \$5,150. This information was shared with the Board, LUJ's and developers. On June 1, 2005, the FORA Administrative Committee recommended that the FORA Board support the combined \$3,800 capacity charges, with the accompanying \$20 and \$5 monthly surcharges, stating that the \$1,350 increase created too high a combined capacity charge, and that the monthly combined surcharge of \$25 for future customers was acceptable.

The MCWD and FORA Boards met in a joint session on June 10, 2005, to review the Draft FY 2005-2006 Ord Community Compensation Plan (Budget and the accompanying rates, fees and charges). At that meeting, the FORA Board took action, by resolution, to approve the Draft Budget, including the new capacity charges and capital surcharges. The MCWD Board participated in the discussion leading up to the FORA Board action, and will incorporate FORA's action in the District's consideration of the complete (Marina and Ord Community) FY 2005-2006 Budget on June 22, 2005.

Bartle Wells Associates representative, Tom Gaffney, and Citigroup Global Markets, Inc. representative, Dave Houston, will be present at the July 13, 2005 meeting to review the entire process that led to the recommendations and to answer any questions.

The MCWD Board held a Budget workshop on March 2, 2005 to review the complete Draft Budget. On May 25, 2005, the Board again reviewed the complete Draft Budget. And, on June 8, 2005 and June 22, 2005, the Board again reviewed the complete Draft Budget. At the July 13, 2005 meeting, the Board will consider taking final action on the complete District Budget.

Board Goals: *Financial Aspects Related to the District.*

Prior Committee or Board Action: The Board reviewed the Draft Budget on March 2, 2005 during a Budget workshop, on May 25, 2005, on June 8, 2005, on June 22, 2005, and on June 10, 2005 during a joint session between MCWD and FORA Board.

Financial Impact: ___X___ Yes _____ No

Funding Source/Recap: All Accounts

Material Included for Information/Consideration: Resolution Nos. 2005-37, 2005-38, 2005-39; FY 2005/2006 Budget Calendar; and, FY 2005-2006 Draft Budget Document with Budget Document Backup Information.

Recommendation: Consider adoption of Resolution Nos. 2005-37 (Ord Community Compensation Plan), 2005-38 (Capital Elements of Ord Community Plan), and 2005-39 (District Budget) to approve the District Budget and Ord Community Compensation Plan for FY 2005-2006.

Action Required: Resolution Motion Review
(Roll call vote is required.)

Board Action

_____ Resolution No _____ Motion By _____ Seconded By _____

Ayes _____ Abstained _____

Noes _____ Absent _____

Reagendized _____ Date _____ No Action Taken _____

Resolution No. 2005-37
Resolution of the Board of Directors
Marina Coast Water District
Adopting the Budget and the Ord Community Compensation Plan for FY 2005-2006
(Not including Capacity Charges and Capital Surcharges)

July 13, 2005

RESOLVED by the Board of Directors (“Directors”) of the Marina Coast Water District (“District”)], at a regular meeting duly called and held on July 13, 2005 at the business office of the District, 11 Reservation Road, Marina, California as follows:

WHEREAS, Staff prepared and presented the draft FY 2005-2006 Budget which includes projected revenues, expenditures and capital improvement projects for five cost centers for the Marina and Ord Community Water and Wastewater systems, including the area within the jurisdiction of the Fort Ord Reuse Authority (“FORA”) and the area remaining within the jurisdiction of the U.S. Army; and,

WHEREAS, FORA is authorized by the FORA Act, particularly Government Code 67679(a)(1), to arrange for the provision of water and wastewater services to the Ord Community; and,

WHEREAS, the District and FORA, entered into a “Water/Wastewater Facilities Agreement” (“the Agreement”) on March 13, 1998, and have subsequently duly amended the Agreement; and,

WHEREAS, the Agreement provides a procedure for establishing budgets and compensation plans to provide for sufficient revenues to pay the direct and indirect, short-term and long-term costs, including capital costs, to furnish the water and wastewater facilities; and,

WHEREAS, the Agreement, as amended, provides that FORA and the District will each adopt the annual Budget and Compensation Plan by resolution; and,

WHEREAS, the proposed Budget and Compensation Plan for FY 2005-2006 provides for funds necessary to meet operating expenses, including employee wages and fringe benefits, purchasing or leasing supplies, equipment and materials, meeting financial reserve needs and requirements and capital expenses for sound operation and provision of the water and wastewater facilities and to enable the District to provide continued water and sewer services within the existing service areas on the former Fort Ord. The rates, fees and charges adopted by FORA apply only to the area within FORA’s jurisdictional boundaries; and,

WHEREAS, the Water/Wastewater Oversight Committee of FORA and the District's full Board have reviewed the proposed Budget and Compensation Plan; and,

WHEREAS, pursuant to the Agreement, FORA and the District have adopted and implemented and acted in reliance on budgets and compensation plans for prior fiscal years; and,

WHEREAS, pursuant to the Agreement, FORA and the District have cooperated in the conveyance to the District of easements, facilities and ancillary rights for the water and wastewater systems on the area of the former Fort Ord within FORA's jurisdiction; and,

WHEREAS, the District has provided water and wastewater services on the former Fort Ord by contract since 1997, and currently provides water and wastewater services to the area of the former Fort Ord within FORA's jurisdiction under the authority of the Agreement, and provides such services to the portion of the former Fort Ord still under the Army's jurisdiction by contract with the Army; and,

WHEREAS, FORA and the District have agreed that water conservation is a high priority, and have implemented a water conservation program in the Ord Community service area that includes public education, various incentives to use low-flow fixtures, and water-conserving landscaping. The rates, fees and charges adopted by this Resolution 2005-37 are intended to support the water conservation program and encourage water conservation, pursuant to sections 375 and 375.5 of the California Water Code. This conservation program and these rates, fees and charges are in the public interest, serve a public purpose, and will promote the health, welfare, and safety of Ord Community, and will enhance the economy and quality of life of the Monterey Bay community; and,

WHEREAS, monthly service fees or charges are imposed as a condition of service to customers, and monthly water quantity and sewer rates are imposed on the basis of the amount of water used or consumed by the customer. The rates, fees and charges are not imposed upon real property or upon persons as an incident of real property ownership; and,

WHEREAS, estimated revenues from the rates, fees and charges will not exceed the estimated reasonable costs of providing the services for which the rates, fees or charges are imposed; and,

WHEREAS, the rates, fees and charges have not been calculated nor developed on the basis of any parcel map, including any assessor's parcel map; and,

WHEREAS, the rates, fees and charges are adopted under the authority of Government Code Section 67679(a)(1), Water Code Sections 30000 and following and Government Code Sections 54340 and following; and,

WHEREAS, after a public meeting and based upon staff's recommendations, the District Board has determined that the Budget and Compensation Plan, including the rates, fees and charges therein, should be adopted as set forth on Exhibit A to this Resolution; and,

WHEREAS, Government Code Section 54999.3 requires that before imposing certain capital facilities fees on certain educational and state entities, any public agency providing public utility service must negotiate with the entities receiving the service; and,

WHEREAS, capacity charges and capital surcharges for FY 2005-2006 are not included in this Resolution and will be adopted by separate Resolutions; and,

WHEREAS, Section 6.08.070 of the District Code provides that twenty-five percent of all monthly charges collected by the District shall be used for long-term water supply projects, but that this requirement may be waived by the Board on an annual basis; and,

WHEREAS, the District's Board finds that, based on projected funding mechanisms and requirements, it is in the district's interest to waive the requirements of Section 6.08.070 of the District Code for FY 2005-2006; and,

WHEREAS, the District is acting to provide continued water and sewer service within existing service areas on the Ord Community, and that such action is exempt from CEQA pursuant to Public Resources Code Section 21080(b)(8) and Section 15273 of the State CEQA Guidelines codified at 14 CCR §15273.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The Board of Directors of the Marina Coast Water District does hereby approve and adopt the FY 2005-2006 Budget and Compensation Plan for water and wastewater services to the Ord Community, not including capacity charges and capital surcharges.
2. The District is authorized to charge and collect rates for provision of water and wastewater services within the boundaries of the Fort Ord Reuse Authority in accordance with the rates, fees and charges set forth in Exhibit A, not including capacity charges and capital surcharges. The District is further authorized to use the same rates, fees and charges in providing services to the area of Ord Community within the jurisdiction of the U.S. Army.
3. The rates, fees and charges authorized by this Resolution shall not exceed the estimated reasonable costs of providing the services for which the rates, fees or charges are imposed.
4. The requirements of Section 6.08.070 of the District Code are waived for FY 2005-2006.

PASSED AND ADOPTED on July 13, 2005, by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes: Directors _____

Noes: Directors _____

Absent: Directors _____

Abstained: Directors_____

Thomas P. Moore, President

ATTEST:

Michael D. Armstrong, Secretary

CERTIFICATE OF SECRETARY

The undersigned Secretary of the Board of the Marina Coast Water District hereby certifies that the foregoing is a full, true and correct copy of Resolution No. 2005-37 adopted July 13, 2005.

Michael D. Armstrong, Secretary

Resolution No. 2005-38
Resolution of the Board of Directors
Marina Coast Water District
Adopting the Capacity Charge and Capital Surcharge elements of the Budget and the Ord
Community Compensation Plan for FY 2005-2006

July 13, 2005

RESOLVED by the Board of Directors (“Directors”) of the Marina Coast Water District (“District”), at a regular meeting duly called and held on July 13, 2005 at the business office of the District, 11 Reservation Road, Marina, California as follows:

WHEREAS, Staff prepared and presented the draft FY 2005-2006 Budget which includes projected revenues, expenditures and capital improvement projects for five cost centers for the Marina and Ord Community Water and Wastewater systems, including the area within the jurisdiction of the Fort Ord Reuse Authority (“FORA”) and the area remaining within the jurisdiction of the U.S. Army; and,

WHEREAS, FORA is authorized by the FORA Act, particularly Government Code 67679(a)(1), to arrange for the provision of water and wastewater services to the Ord Community; and,

WHEREAS, the District and FORA, entered into a “Water/Wastewater Facilities Agreement” (“the Agreement”) on March 13, 1998, and have subsequently duly amended the Agreement; and,

WHEREAS, the Agreement provides a procedure for establishing budgets and compensation plans to provide for sufficient revenues to pay the direct and indirect, short-term and long-term costs, including capital costs, to furnish the water and wastewater facilities; and,

WHEREAS, the Agreement, as amended, provides that FORA and the District will each adopt the annual Budget and Compensation Plan by resolution; and,

WHEREAS, the proposed Budget and Compensation Plan for 2005-2006 provides for funds necessary to meet operating expenses, including employee wages and fringe benefits, purchasing or leasing supplies, equipment and materials, meeting financial reserve needs and requirements and capital expenses for sound operation and provision of the water and wastewater facilities and to enable the District to provide continued water and sewer services within the existing service areas on the former Fort Ord. The rates, fees and charges adopted by FORA apply only to the area within FORA’s jurisdictional boundaries; and,

WHEREAS, a financing study prepared by Citigroup Global Markets Inc. for the District recommends the adoption of capacity charges and capital surcharges as an element of financing capital facilities for water and wastewater service to the Ord Community; and,

WHEREAS, the Water/Wastewater Oversight Committee of FORA and the District's full Board have reviewed the proposed Budget and Compensation Plan; and,

WHEREAS, pursuant to the Agreement, FORA and the District have adopted and implemented and acted in reliance on budgets and compensation plans for prior fiscal years; and,

WHEREAS, pursuant to the Agreement, have FORA and the District cooperated in the conveyance to MCWD of easements, facilities and ancillary rights for the water and wastewater systems on the area of the former Fort Ord within FORA's jurisdiction; and,

WHEREAS, the District has provided water and wastewater services on the former Fort Ord by contract since 1997, and currently provides water and wastewater services to the area of the former Fort Ord within FORA's jurisdiction under the authority of the Agreement, and provides such services to the portion of the former Fort Ord still under the Army's jurisdiction by contract with the Army; and,

WHEREAS, capacity charges and capital surcharges are imposed as a condition of service to customers. The charges are not imposed upon real property or upon persons as an incident of real property ownership; and,

WHEREAS, estimated revenues from the capacity charges and capital surcharges will not exceed the estimated reasonable costs of providing the facilities and services for which the charges are imposed; and,

WHEREAS, the capacity charges and capital surcharges have not been calculated nor developed on the basis of any parcel map, including any assessor's parcel map; and,

WHEREAS, the capacity charges and capital surcharges the rates, fees and charges are adopted under the authority of Government Code Section 67679(a)(1), Water Code Sections 30000 and following; Government Code Sections 54340 and following and Government Code Section 66013; and,

WHEREAS, after a public meeting and based upon staff's recommendations, the District Board has determined that the Budget and Compensation Plan, including the capacity charges and capital surcharges therein, should be adopted as set forth on Exhibit A to this Resolution; and,

WHEREAS, Government Code Section 54999.3 requires that before imposing certain capital facilities fees on certain educational and state entities, any public agency providing public utility service must negotiate with the entities receiving the service; and,

WHEREAS, the District is acting to provide continued water and sewer service within existing service areas on the Ord Community, and that such action is exempt from CEQA pursuant to Public Resources Code Section 21080(b)(8) and Section 15273 of the State CEQA Guidelines codified at 14 CCR §15273.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The Board of Directors of the Marina Coast Water District does hereby approve and adopt the capital elements of the FY 2005-2006 Budget for water and wastewater services to the Ord Community.
2. The capital elements of the compensation plan for the area of Ord Community within FORA's jurisdiction, including capacity charges and capital surcharges, set forth on Exhibit A attached to this Resolution are hereby approved and adopted. The District is authorized to charge and collect capacity charges and capital surcharges for provision of water and wastewater services within the boundaries of the Fort Ord Reuse Authority in accordance with the schedule set forth in Exhibit A. The District is further authorized to use the same charges in providing services to the area of Ord Community within the jurisdiction of the U.S. Army.
3. "Capacity Charge" as used in this Resolution shall have the same meaning as provided by Chapter 6.08 of the Marina Coast Water District Code, as amended from time to time, for capacity charges for new or modified accounts for potable and recycled water service, and by Chapter 6.12 of the Marina Coast Water District Code, as amended from time to time, for sewer capacity charges. Capacity charges shall be paid upon issuance of building permits.
4. "Capital Surcharge" as used in this Resolution shall mean a monthly charge for capital expenses and facilities. The capital surcharge shall be paid monthly by the customer receiving service, starting at the time a service meter is installed.
5. The charges authorized by this Resolution shall not exceed the estimated reasonable costs of providing the services for which the charges are imposed.
6. The District will comply with the requirements of Government Code section 54999.3 before imposing a capital facilities fee (as defined in Government Code section 54999.1) on any school district, county office of education, community college district, the California State University, the University of California or state agency.
7. The charges authorized by this Resolution shall become effective on the 61st day following adoption of this Resolution.

PASSED AND ADOPTED on July 13, 2005, by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes: Directors Scholl, Brown, Moore

Noes: Directors Gustafson, Nishi

Absent: Directors None

Abstained: Directors None

Thomas P. Moore, President

ATTEST:

Michael D. Armstrong, Secretary

CERTIFICATE OF SECRETARY

The undersigned Secretary of the Board of the Marina Coast Water District hereby certifies that the foregoing is a full, true and correct copy of Resolution No. 2005-38 adopted July 13, 2005.

Michael D. Armstrong, Secretary

Resolution No. 2005-39
Resolution of the Board of Directors
Marina Coast Water District
Adopting the District Budget for FY 2005-2006

July 13, 2005

RESOLVED by the Board of Directors (“Directors”) of the Marina Coast Water District (“District”), at a regular meeting duly called and held on July 13, 2005 at the business office of the District, 11 Reservation Road, Marina, California as follows:

WHEREAS, Staff prepared and presented the draft FY 2005-2006 Budget which includes projected revenues, expenditures and capital improvement projects for five cost centers for the Marina and Ord Community Water and Wastewater systems, including the area within the jurisdiction of the Fort Ord Reuse Authority (“FORA”) and the area remaining within the jurisdiction of the U.S. Army; and,

WHEREAS, the MCWD Board reviewed the proposed FY 2005-2006 Budget on March 2, 2005 and June 8, 2005; and,

WHEREAS, the District approved the Ord Community water and wastewater systems budget on July 13, 2005 by separate resolutions, Resolution No. 2005-37 and by Resolution No. 2005-38; and,

WHEREAS, monthly service fees or charges are imposed as a condition of service to customers, and monthly water quantity and sewer rates are imposed on the basis of the amount of water used or consumed by the customer. The rates, fees and charges are not imposed upon real property or upon persons as an incident of real property ownership; and,

WHEREAS, estimated revenues from the rates, fees and charges will not exceed the estimated reasonable costs of providing the services for which the rates, fees or charges are imposed; and,

WHEREAS, the rates, fees and charges have not been calculated nor developed on the basis of any parcel map, including any assessor’s parcel map; and,

WHEREAS, the District followed the procedure outlined in Article XIII D of the California Constitution in adopting the District’s current rates, fees and charges and the rates, fees and charges proposed for FY 2005-2006 are within the range adopted in that procedure; and

WHEREAS, Section 6.08.070 of the District Code provides that twenty-five percent of all monthly charges collected by the District shall be used for long-term water supply projects, but that this requirement may be waived by the Board on an annual basis; and,

WHEREAS, the Board finds, based on projected funding mechanisms and requirements, that it is in the District's interest to waive the requirements of Section 6.08.070 of the District's Code for FY 2005-2006.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The Board of Directors of the Marina Coast Water District does hereby approve and adopt the FY 2005-2006 Budget.
2. "Capacity Charge" as used in this Resolution shall have the same meaning as provided by Chapter 6.08 of the Marina Coast Water District Code, as amended from time to time, for capacity charges for new or modified accounts for potable and recycled water service, and by Chapter 6.12 of the Marina Coast Water District Code, as amended from time to time, for sewer capacity charges. Capacity charges shall be paid upon issuance of building permits.
3. The rates, fees and charges authorized by this Resolution shall not exceed the estimated reasonable costs of providing the services for which the rates, fees or charges are imposed.
4. The requirements of Section 6.08.070 of the MCWD Code are waived for FY 2005-2006.

PASSED AND ADOPTED on July 13, 2005, by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes: Directors _____

Noes: Directors _____

Absent: Directors _____

Abstained: Directors _____

Thomas P. Moore, President

ATTEST:

Michael D. Armstrong, Secretary

CERTIFICATE OF SECRETARY

The undersigned Secretary of the Board of the Marina Coast Water District hereby certifies that the foregoing is a full, true and correct copy of Resolution No. 2005-39 adopted July 13, 2005.

Michael D. Armstrong, Secretary

**MARINA COAST
WATER DISTRICT**

FIVE-YEAR WASTEWATER
FINANCIAL PLAN AND RATE
STUDY

SERVING THE CITY OF MARINA
AND THE ORD COMMUNITY

May 2008, *draft*

BARTLE WELLS ASSOCIATES
Independent Public Finance Advisors
1889 Alcatraz Avenue
Berkeley CA 94703

Tel. 510/653-3399

CONTENTS

| | |
|--|-----------|
| Summary of Findings and Recommendations | 1 |
| Introduction..... | 3 |
| District Finances | 4 |
| Sewer Rates | 4 |
| Wastewater Users | 4 |
| Reserve Funds..... | 4 |
| Outstanding Debt..... | 7 |
| Revenue and Expenses | 7 |
| Capital Improvement Program..... | 9 |
| Financing Capital Projects..... | 11 |
| Certificates of Participation | 11 |
| State Revolving Fund Loans..... | 12 |
| Summary of Financing Methods | 11 |
| Recommended Financing Methods | 13 |
| Capacity Charge..... | 13 |
| Bond Issues..... | 15 |
| Revenue and Expense (Cash Flow) Projection..... | 16 |
| Rate Impact..... | 21 |
| Debt Service Coverage | 23 |
| | |
| Appendix A – Replacement Costs | |
| Appendix B – Growth Projections | |
| Appendix C – Financing Method | |
| Appendix D – Alternative Rate Scenarios | |

LIST OF TABLES

- Table 1 - Current Marina and Ord Community Monthly Wastewater Rates
- Table 2 - Marina and Ord Community Wastewater EDUs for FY 2007/08
- Table 3 - Marina Wastewater Fund Balance
- Table 4 - Ord Community Wastewater Fund Balance
- Table 5 - MCWD Outstanding Debt
- Table 6 - Marina Wastewater Revenues and Expenses
- Table 7 - Ord Community Wastewater Revenues and Expenses
- Table 8 - Marina Wastewater Five-Year Capital Improvement Plan
- Table 9 - Ord Community Wastewater Five-Year Capital Improvement Plan
- Table 10 - Marina Wastewater Updated Capacity Charge
- Table 11 - Ord Community Wastewater Updated Capacity Charge
- Table 12 - Bond Issue for Capital Wastewater Projects
- Table 13 - Marina Wastewater Projected Capital Revenues and Expenses
- Table 14 - Marina Wastewater Projected Operating Revenues and Expenses
- Table 15 - Ord Community Wastewater Projected Capital Revenues and Expenses
- Table 16 - Ord Community Wastewater Projected Operating Revenues and Expenses
- Table 17 - Projected Marina Monthly Wastewater Rates
- Table 18 - Projected Ord Community Monthly Wastewater Rates
- Table 19 - Projected Wastewater Debt Service Coverage by Fund

APPENDIX A – Replacement Costs

- Table A1 - Marina Wastewater Fixed Assets Replacement Costs, *as of June 30, 2006*
- Table A2 - Ord Community Wastewater Fixed Assets Replacement Costs, *as of June 30, 2006*

APPENDIX B – Growth Projections

- Table B1 - Marina Wastewater – Armstrong Ranch Growth Projection
- Table B2 - Ord Community Wastewater – FORA Growth Projection

APPENDIX C – Financing Methods

APPENDIX D – Alternative Rate Scenarios (Tables 13, 14, 15, 16 & 19)

- Scenario 1 – Full CIP Funding
- Scenario 2 – Uniform Rate Increases (Zero CIP Funding)
- Scenario 3 – Uniform Rate Increases (Some CIP Funding)

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Marina Coast Water District (MCWD) is in good financial condition. The Wastewater Capital Improvement Program (CIP) for MCWD over the next five years is \$7.75 million for Marina and \$22.9 million for the Ord Community. However, because of the marked slowdown in new home sales and construction, the District needs to postpone some of its planned wastewater CIP projects in 2011/12 and 2012/13. The wastewater capital projects should be rescheduled to more closely correspond to the needs of actual development. This is especially the case in the Ord Community which has experienced very little development over the past five years. This financial plan forecasts funding 100 percent of the CIP projects for the next three years for both Marina and Ord and \$4.9 million of Marina's desired wastewater CIP (63 percent) and \$5.4 million of Ord's wastewater CIP (24 percent) over the next five years.

The Monterey Regional Water Pollution Control Agency (MRWPCA) provides wastewater treatment and disposal. Facilities for such services are capital intensive and are best provided on a regional rather than local basis. The agency separately finances its facilities and no major new financings are currently planned.

The District's ongoing CIP is funded from current customers and new connections. New connections pay their portion of the project costs through capacity charges and, in the case of the Ord Community, capital surcharges. This study updates these charges based on current costs and sets Marina's wastewater capacity charge at \$3,880/EDU and Ord's at \$3,920/EDU. These capacity charges should be escalated annually to ensure equity among new users and to keep the charges in line with increased capital costs. The recommended escalation rate is the annual increase in the 20-cities ENR Construction Cost Index.

The District has financed current users' share of project costs through existing rates. The District needs to update its existing rates to partially fund the CIP projects as well as cover operating expenses and debt payments. The District's outstanding wastewater debt is approximately \$3.0 million for Marina and \$9.0 million for the Ord Community (not including CALPERS debt). No additional borrowing is planned over the next five years.

The recommended rate increases for both Marina and Ord for the upcoming year correspond with the anticipated inflation rate of 3.8 percent. Beyond that, the proposed wastewater rate increases for both Marina and Ord are 7.8 percent annually.

The Table below shows recommended rates for Marina and the Ord Community

| FY | Marina Wastewater | | Fort Ord Wastewater | |
|---------|-------------------|------------|---------------------|------------|
| | Monthly Charge | % increase | Monthly Charge | % increase |
| 2007/08 | \$6.88 | | \$20.20 | |
| 2008/09 | \$7.14 | 3.8% | \$20.97 | 3.8% |
| 2009/10 | \$7.70 | 7.8% | \$22.60 | 7.8% |
| 2010/11 | \$8.30 | 7.8% | \$24.37 | 7.8% |
| 2011/12 | \$8.95 | 7.8% | \$26.27 | 7.8% |
| 2012/13 | \$9.64 | 7.8% | \$28.32 | 7.8% |

The Ord Community also has a capital surcharge rate of \$5.00 per month for new EDUs. No increase is proposed for the capital surcharge over the five-year period. The wastewater rate structure conforms to equity standards. The rate structure also mirrors MRWPCA rates. No adjustments to the structure are recommended.

According to Proposition 218, the Board is required to mail a notice to property owners of the proposed increases and hold a public hearing at which property owners may protest against the increase. If written protests are submitted by a majority of property owners, then the District may not increase the rate. In the absence of a majority protest, the Board may vote to pass the rate increases. Property ownership is defined to include tenancies of real property where the tenants are directly liable to pay the charge. Essentially the party responsible for paying the bill, whether property owner or tenant, should receive a notice and that individual has the right to file a written protest (one protest/one bill). We recommend one public hearing covering both Marina and the Ord Community for both water and wastewater.

The rate hearing should include notice regarding several years of proposed rate adjustments, including the recommended rate indexing in future years. Otherwise, the District will need to follow the mailed notice provision each time a rate adjustment is needed.

INTRODUCTION

Marina Coast Water District provides wastewater collection service to about 7,360 equivalent connections in and adjacent to the City of Marina and also to about 5,250 users in the Ord Community. The District assumed responsibility for operation of the water and wastewater utilities for the Ord Community pursuant to a water/wastewater facilities agreement dated March 13, 1998.

The Marina and Ord Community service areas are maintained as separate operations, with separate financial records and accounts. The District prepares capital improvement programs for both the Marina and Ord Community service areas.

The District is planning ongoing capital facilities within its Marina service area. In addition, by agreement with the Fort Ord Reuse Authority (FORA), the District agreed to prepare and implement a capital improvement program to repair, replace and expand the FORA wastewater system.

According to the facilities agreement with FORA, the District prepares operating and capital budgets and corresponding user charge structures. Capital improvements for the FORA systems are approved annually by the District and FORA boards. Much of the scheduled improvements for water and wastewater within the Ord Community are dictated by corresponding road improvements. The plan is to schedule these facilities prior to, or coincident with, any road overlay or improvement projects.

This report recommends a method of determining the amount of wastewater connection charges for single family dwellings or equivalents. The calculation is based on the respective capital improvement program and develops the maximum level of wastewater connection charge which the District could impose in Marina and the Ord Community. A companion report for water financing is being developed simultaneously.

DISTRICT FINANCES

Sewer Rates

Wastewater service charges - Table 1 summarizes Marina's and the Ord Community's current wastewater service charges for various user groups. Rates and fees for the District are set by ordinance. For a single-family residence, the District's current monthly wastewater service charge is \$6.88 in Marina, and \$20.20 in the Ord Community. Service charges for other classes of users are based on estimated wastewater flow and strength factors and are assigned a demand factor comparing their use to that of a single family residence. This is for collection services only. The MRWPCA levies an additional \$10.75/mo for treatment and disposal.

Capacity charges – Marina's current capacity charge is \$1,485 per new equivalent dwelling unit (EDU). The Ord Community's current capacity charge is \$1,000 per new EDU. An EDU is a user that discharges wastewater flow and strength equal to that from an average residential unit. One EDU is equal to 20 plumbing fixture units as defined by the Uniform Plumbing Code. Plumbing fixture units are assigned in the Uniform Plumbing Code to various plumbing appurtenances. The unit count of each fixture type is determined using the water demand of plumbing fixtures.

The District collects a capacity charge from all new connections to the wastewater system. Revenues from such charges are used to finance capital facilities that serve new growth. Such revenues may not be used to pay operating and maintenance expenses. The District charges an extra \$400 per EDU to new customers outside the District.

California Government Code §66000 establishes the ground rules for capacity charges. In order to impose a capacity charge the District must identify the purpose of the charge, identify the use of the revenue collected, and determine the reasonable relationship between the amount of the charge and the cost of the public facilities provided.

Wastewater Users

Table 2 shows the number of active wastewater EDUs in both Marina and the Ord Community and the estimated wastewater sales for 2007/08. The vast majority of users are residential. About 95 percent of the District's accounts and 86 percent of the District's EDUs are classified as residential.

Reserve Funds

Tables 3 and 4 show the audited fund balances available to both Marina and Ord Community wastewater as of June 30, 2007. The District maintains separate operating wastewater reserves for both Marina and the Ord Community. These reserves provide funds for ongoing operating expenses and allow the District to maintain operations in times of unanticipated revenue shortfalls. In addition to the operating reserve funds, the District keeps separate capital reserves for both Marina and Ord. The capital reserves provide funds for capital projects, future replacement of fixed assets, and emergency funding for major capital expenditures. These operating and capital fund balances are the starting points for developing cash flow projections.

**Table 1 ■ Marina Coast Water District
Current Marina and Ord Community Monthly Wastewater Rates**

| User Group | Demand Factor | Marina WW 2007/08 Rate | Fort Ord WW 2007/08 Rate |
|---|---------------|------------------------|--------------------------|
| Single family residence | 1.00 | \$6.88 | \$20.20 |
| Apartment unit w/ washer | 1.00 | \$6.88 | \$20.20 |
| Apartment unit w/o washer | 0.80 | \$5.50 | \$16.16 |
| Apartment unit w/ central laundry per machine | 0.60 | \$4.13 | \$12.12 |
| Mobile home w/ washer | 1.00 | \$6.88 | \$20.20 |
| Mobile home w/o washer | 0.80 | \$5.50 | \$16.16 |
| Mobile home park w/ central laundry per machine | 0.60 | \$4.13 | \$12.12 |
| Hotels, motels and rooming houses per room | 0.25 | \$1.72 | \$5.05 |
| Campgrounds with central facilities per space | 0.20 | \$1.38 | \$4.04 |
| RV park with individual hookups per space | 0.30 | \$2.06 | \$6.06 |
| Barber and beauty shops per station | 0.30 | \$2.06 | \$6.06 |
| Service stations w/ restroom | 2.00 | \$13.76 | \$40.40 |
| Service station w/o restroom | 0.80 | \$5.50 | \$16.16 |
| Recreational vehicle dump station per station | 2.00 | \$13.76 | \$40.40 |
| Auto or truck repair shop | 1.00 | \$6.88 | \$20.20 |
| Mortuary per employee | 0.40 | \$2.75 | \$8.08 |
| Bakeries, catering services per employee | 0.30 | \$2.06 | \$6.06 |
| Restaurants per seat | 0.07 | \$0.48 | \$1.41 |
| Restaurants, 24 hour, fast food per seat | 0.09 | \$0.62 | \$1.82 |
| Bars, card rooms, taverns, casinos per seat | 0.10 | \$0.69 | \$2.02 |
| Bowling alley per alley | 0.10 | \$0.69 | \$2.02 |
| Theater (maximum capacity) per seat | 0.02 | \$0.14 | \$0.40 |
| Laundry or Laundromat per machine | 0.60 | \$4.13 | \$12.12 |
| Dry cleaner | | | |
| per employee | 0.10 | \$0.69 | \$2.02 |
| per machine | 0.10 | \$0.69 | \$2.02 |
| Fire station per employee | 0.20 | \$1.38 | \$4.04 |
| Offices (attny; acct; realtor, etc.) per employee | 0.10 | \$0.69 | \$2.02 |
| Dentist per operator | 0.50 | \$3.44 | \$10.10 |
| Doctor office or clinic per office or MD | 1.00 | \$6.88 | \$20.20 |
| Dry goods retail store per employee | 0.10 | \$0.69 | \$2.02 |
| Commercial swimming pool per pool | 2.50 | \$17.20 | \$50.50 |
| Car wash per stall | 3.00 | \$20.64 | \$60.60 |
| Food markets per employee | 0.10 | \$0.69 | \$2.02 |
| Public building per employee | 0.10 | \$0.69 | \$2.02 |
| School per enrollment | 0.07 | \$0.48 | \$1.41 |
| Meeting hall; church per seat | 0.01 | \$0.07 | \$0.20 |
| Fairgrounds complex | 4.00 | \$27.52 | \$80.80 |
| Restroom buildings per toilet | 1.00 | \$6.88 | \$20.20 |
| Hospitals per bed | 0.80 | \$5.50 | \$16.16 |
| Convalescent or nursing home per bed | 0.50 | \$3.44 | \$10.10 |
| Industrial waste | | per agreement | |

* Rates do not include MRWPCA treatment costs. FY 07/08 treatment costs = \$10.75

Source: District rate ordinances

**Table 2 ■ Marina Coast Water District
Marina and Ord Community Wastewater EDUs for FY 2007/08**

| | Projected 2007/08 Wastewater Sales | | 2007/08 Base Rate | 2007/08 EDUs |
|---------------------|---------------------------------------|-----------|-------------------|--------------|
| Marina Wastewater | \$ | 608,000 | \$ 6.88 | 7,364 |
| Fort Ord Wastewater | \$ | 1,273,000 | \$ 20.20 | 5,252 |

Source: District rate ordinances and 2007/08 Budget

**Table 3 ■ Marina Coast Water District
Marina Wastewater Fund Balance**

| | | Marina Water June 30, 2007 |
|-----------------------------|-----------|-------------------------------|
| CAPITAL RESERVE | | |
| Restricted for Construction | \$ | 1,796,000 |
| Unrestricted | \$ | 1,578,000 |
| TOTAL | \$ | 3,374,000 |
| | | |
| GENERAL OPERATING RESERVE | | 200,000 |
| | | |
| TOTAL \$ | | 3,574,000 |

Source: MCWD Records

**Table 4 ■ Marina Coast Water District
Ord Community Wastewater Fund Balance**

| | | Fort Ord Water June 30, 2007 |
|-----------------------------|-----------|---------------------------------|
| CAPITAL RESERVE | | |
| Restricted for Construction | \$ | 5,279,000 |
| Unrestricted | \$ | 1,366,200 |
| TOTAL | \$ | 6,645,200 |
| | | |
| GENERAL OPERATING RESERVE | | 200,000 |
| | | |
| TOTAL \$ | | 6,845,200 |

Source: MCWD Records

We recommend a minimum operating reserve equal to either two months of operating expenses or \$200,000, whichever is greater. Capital fund balances will vary greatly depending on actual capital expenditures. Bartle Wells Associates recommends a minimum capital fund balance of \$1.0 million.

Outstanding Debt

MCWD recently consolidated outstanding long-term debt with a refunding and issued new bonds in 2006, totaling \$42,310,000. The District is additionally responsible for annual CALPERS pension payments. Table 5 is a summary of outstanding Debt service schedules and the financial allocations to each sector of the District. Marina wastewater debt is approximately \$3.0 million and Ord Community wastewater debt is approximately \$9.0 million (not including CALPERS debt).

**Table 5 ■ Marina Coast Water District
MCWD Outstanding Debt**

| MCWD ENTERPRISE REVENUE COP'S - SERIES 2006 - As of June 1, 2007 | | | | | | | | | | | | | Capitalized Interest | Total |
|--|--------------------------|--------------------------|--------------------|------------------------|--------------------|-------------------------------------|-----------------------|-----------------|---------------------|-----------------------|-----------------|-----------|----------------------|-------|
| Marina Water New Money | Marina Water 1996 Refund | Marina Water 1998 Refund | Marina Water Total | Marina Sewer New Money | Marina Sewer Total | Ord Water Regional Supply New Money | Ord Water 2003 Refund | Ord Water Total | Ord Sewer New Money | Ord Sewer 2003 Refund | Ord Sewer Total | | | |
| 6/1/2008 | 202,850 | 184,400 | 183,588 | 570,838 | 136,844 | 136,844 | | 432,831 | 432,831 | 146,150 | 146,150 | 1,389,675 | 1,286,663 | |
| 6/1/2009 | 200,650 | 184,000 | 182,988 | 567,638 | 140,444 | 140,444 | 1,032,069 | 432,831 | 1,464,900 | 357,606 | 142,750 | 500,356 | 2,673,338 | |
| 6/1/2010 | 203,450 | 183,400 | 182,188 | 569,038 | 138,844 | 138,844 | 1,032,069 | 432,431 | 1,464,500 | 427,606 | 144,350 | 571,956 | 2,744,338 | |
| 6/1/2011 | 201,050 | 187,600 | 186,188 | 574,838 | 137,244 | 137,244 | 1,032,069 | 431,631 | 1,463,700 | 424,806 | 145,750 | 570,556 | 2,746,338 | |
| 6/1/2012 | 198,650 | 186,400 | 184,788 | 569,838 | 135,844 | 135,844 | 1,032,069 | 430,431 | 1,462,500 | 432,006 | 141,950 | 573,956 | 2,741,938 | |
| 6/1/2013 | 201,400 | 185,400 | 183,600 | 570,400 | 139,144 | 139,144 | 1,032,069 | 434,556 | 1,466,625 | 424,006 | 143,388 | 567,394 | 2,743,563 | |
| 6/1/2014 | 198,800 | 183,800 | 176,800 | 559,400 | 137,344 | 137,344 | 1,032,069 | 432,356 | 1,464,425 | 426,006 | 144,388 | 570,744 | 2,731,563 | |
| 6/1/2015 | 201,200 | 182,000 | | 383,200 | 135,544 | 135,544 | 1,207,069 | 434,756 | 1,641,825 | 427,806 | 145,188 | 572,994 | 2,733,563 | |
| 6/1/2016 | 203,400 | | | 203,400 | 138,744 | 138,744 | 1,290,069 | 431,556 | 1,721,625 | 424,406 | 145,788 | 571,194 | 2,633,963 | |
| 6/1/2017 | 200,400 | | | 200,400 | 136,744 | 136,744 | 1,294,469 | 432,956 | 1,727,425 | 428,006 | 146,188 | 574,194 | 2,636,763 | |
| CALPERS | | | | 49,112.16 | | 11,050.24 | | | 45,428.75 | | | 17,189.26 | | |

Source: Cologroup Enterprise Revenue Certificates of Participation, series 2006 and Bond Final Pricing Numbers, Tab 6, p.31, and MCWD 05/06 audit.
* CALPERS debt is distributed 40% to Marina Water, 5% to Marina Wastewater, 37% to Ord Water and 14% to Ord Wastewater.

Revenue and Expenses

Tables 6 and 7 summarize Marina's and Ord Community's wastewater revenues and expenses for 2003/04 through 2007/08. The District has consistently budgeted for net revenues. Such revenues are available as reserves for emergency use and to fund capital projects and replacements.

Expenses for operation and maintenance include those for salaries, utilities, supplies, repairs, and minor capital outlay to purchase or replace small items. Service charges collected from residential and commercial users account for most of the revenue. Capacity charges are collected from new users as they connect to the system and are used to finance capital projects outlined in the next section. Other income is derived from services provided upon specific request from customers. Revenues from fees such as plan checking and inspections are collected to cover the cost of services provided. Interest earnings on the reserve fund balance are another source of income.

**Table 6 ■ Marina Coast Water District
Marina Wastewater Revenues and Expenses**

| | Actual 03/04 | Actual 04/05 | Actual 05/06 | Actual 06/07 | Budget 07/08 |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Revenues | | | | | |
| Wastewater sales | \$ 513,644 | \$ 552,980 | \$ 565,922 | \$ 606,468 | \$ 608,000 |
| Capacity charges | 13,065 | 87,593 | 55,145 | 76,204 | - |
| Permits & other | 5,780 | 13,380 | 17,738 | 11,185 | 7,000 |
| Interest income | <u>7,054</u> | <u>18,193</u> | <u>39,175</u> | <u>143,757</u> | <u>45,000</u> |
| Total | 539,543 | 672,146 | 677,980 | 837,614 | 660,000 |
| Expenses | | | | | |
| Administration | 87,138 | 134,186 | 99,974 | 108,544 | 124,810 |
| Operations and maintenance | 109,299 | 105,067 | 124,344 | 190,478 | 143,050 |
| Engineering | 90,905 | 96,953 | 111,663 | 140,938 | 71,940 |
| Interest expense | <u>-</u> | <u>-</u> | <u>-</u> | <u>2,278</u> | <u>56,300</u> |
| Total | 287,342 | 336,206 | 335,981 | 442,238 | 396,100 |
| Net revenue* | \$ 252,201 | \$ 335,940 | \$ 341,999 | \$ 395,376 | \$ 263,900 |

*Available for capital and replacements

Source: Marina Coast Water District Audits FY 03/04, 04/05, 06/07 and Budget FY 2007/08

**Table 7 ■ Marina Coast Water District
Ord Community Wastewater Revenues and Expenses**

| | Actual 03/04 | Actual 04/05 | Actual 05/06 | Actual 06/07 | Budget 07/08 |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Revenues | | | | | |
| Wastewater sales | \$ 866,691 | \$ 1,094,308 | \$ 1,245,994 | \$ 1,275,510 | \$ 1,273,000 |
| Capacity charges | - | - | 4,800 | 22,912 | - |
| Permits & other | 196,667 | 76,043 | 14,015 | 8,493 | 15,000 |
| Interest income | <u>8,310</u> | <u>19,247</u> | <u>44,042</u> | <u>355,351</u> | <u>50,000</u> |
| Total | 1,071,668 | 1,189,598 | 1,308,851 | 1,662,266 | 1,338,000 |
| Expenses | | | | | |
| Administration | 185,735 | 270,453 | 186,492 | 239,223 | 312,230 |
| Operations and maintenance | 371,401 | 245,388 | 231,860 | 268,253 | 327,670 |
| Engineering | 212,101 | 195,635 | 376,469 | 308,086 | 143,610 |
| Interest expense | <u>10,367</u> | <u>44,860</u> | <u>76,761</u> | <u>85,736</u> | <u>137,000</u> |
| Total | 779,604 | 756,336 | 871,582 | 901,298 | 920,510 |
| Net revenue* | \$ 292,064 | \$ 433,262 | \$ 437,269 | \$ 760,968 | \$ 417,490 |

*Available for capital and replacements

Source: Marina Coast Water District Audits FY 03/04, 04/05, 06/07 and Budget FY 2007/08

CAPITAL IMPROVEMENT PROGRAM

The District has developed separate CIPs for Marina and Ord that include projects for the next five years and beyond. Tables 8 and 9 show the capital projects for Marina and Ord Community wastewater scheduled through fiscal year 2012/13, as well as the projected capital needs, if any, in the years beyond 2012/13. Cost estimates are based on current dollars. A combined total of \$30.7 million is spread over the next five years with \$7.8 million for Marina and \$22.9 for Ord. However, even at the new recommended increased wastewater rates and capacity charges, this full schedule of CIP projects cannot be funded. Due to the recent slowdown in growth within the District, some of the CIP projects slated for years 2011/12 and 2012/13 should be postponed until warranted by future growth. This proposed financial plan fully funds the CIP projects listed here for both Marina and Ord for the next three fiscal years. In years four and five, Marina's CIP is budgeted \$2.375 million annually while Ord is budgeted \$2.15 million for each year. The net result is that 63 percent of Marina's five-year \$7.8 million CIP is funded, while 24 percent of Ord's five-year \$22.9 million CIP is funded.

**Table 8 ■ Marina Coast Water District
Marina Wastewater Five-Year Capital Improvement Plan**

| | FY 08/09 | FY 09/10 | Proposed | | FY 12/13 | Out Years |
|--|------------------|------------------|------------------|---------------------|---------------------|-------------|
| | | | FY 10/11 | FY 11/12 | | |
| SCADA System Improvements - Phase I | 18,200 | | | | | |
| SCADA System Improvements - Phase II | | 18,928 | | | | |
| Armstrong Ranch Wastewater Flow Imps Project (Design) | | | 546,009 | | | |
| Armstrong Ranch Wastewater Flow Imps Project (Developer Funded Portion) | | | (546,009) | | | |
| Adby Way & Paul Davis Dr Sewer Main Imps Project (Design) | | | 67,804 | | | |
| SCADA System Improvements - Phase III | | | 7,874 | | | |
| Odor Control Project (Design/Construct) | | | | 37,435 | | |
| Replace Lift Station No. 5 [Cosky] (Construct) | | | | 492,861 | | |
| Replace Lift Station no. 6 (Design/Construct) | | | | 417,640 | | |
| Armstrong Ranch Wastewater Flow Imps Project (Construct) | | | | 3,217,813 | | |
| Adby Way & Paul Davis Dr Sewer Main Imps Project (Construct) | | | | 397,986 | | |
| Del Monte/Reservation Road Sewer Main Imp. Project (Design) [ID 877, 871] | | | | 51,006 | | |
| Reservation Rd from Nicklas Lane to Crescent Ave. (Design) | | | | 78,030 | | |
| Reservation Rd from Crescent to Seacrest (Design) | | | | 85,517 | | |
| Carmel Ave Sewer Main Imp Project (Design) [ID 859, 917, 943] | | | | 58,025 | | |
| Hillcrest Ave/Sunset Ave Sewer Main Imp. Project (Design) | | | | 52,995 | | |
| 2011 Marina Wastewater Master Plan | | | | 116,986 | | |
| Carmel Ave Sewer Main Imp Project (Construct) [ID 859, 917, 943] | | | | | 341,758 | |
| Hillcrest Ave/Sunset Ave Sewer Main Imp. Project (Construct) | | | | | 311,950 | |
| Reservation Rd from Nicklas Lane to Crescent Ave. (Construct) | | | | | 459,773 | |
| Reservation Rd from Crescent to Seacrest (Construct) | | | | | 503,329 | |
| Del Monte/Reservation Road Sewer Main Imp. Project (Construct) [ID 877, 871] | | | | | 300,392 | |
| Del Monte/Reservation Road Sewer Main Imp. Project (Design/Construct) [ID 881] | | | | | 202,329 | |
| Asset Management Program - Phase II | | | | | 13,627 | |
| Asset Management Program -- Phase III | | | | | 21,291 | |
| Corp Yard (Design) | | | | | 51,099 | |
| Corp Yard (Demolition/Construct) | | | | | 425,829 | |
| TOTAL MARINA WASTEWATER CIP | \$ 18,000 | \$ 19,000 | \$ 75,000 | \$ 5,006,000 | \$ 2,631,000 | \$ - |

Note: CIP projects allocated to future users is 39%.

Source: Marina Coast Water District CIP Budget FY08-09 R7

**Table 9 ■ Marina Coast Water District
Ord Community Wastewater Five-Year Capital Improvement Plan**

| | Proposed | | | | | Out Years |
|--|---------------------|------------------|------------------|----------------------|---------------------|---------------------|
| | FY 08/09 | FY 09/10 | FY 10/11 | FY 11/12 | FY 12/13 | |
| East Garrison LS Imps [19, 24] | 898,456 | | | | | |
| Del Rey Oaks -- Collection System (planning) | 52,000 | | | | | |
| DRO LS, Force Main and GJMB Improvements (Design/Construct) | | | | 1,873,762 | | |
| SCADA System Improvements - Phase I | 39,000 | | | | | |
| Basewide Environmental Insurance [50% OW, 50% OS] | 10,764 | 11,195 | 11,642 | 12,108 | 12,592 | |
| SCADA System Improvements - Phase II | | 40,560 | | | | |
| Ord Village Sewer Pipeline & Lift Station Impr Project (Planning) | | | 54,668 | | | |
| SCADA System Improvements - Phase III | | | 16,873 | | | |
| Clark LS Improvement (Construct) | | | | 409,450 | | |
| Booker, Hatten, Neeson LS Improvements Project (Design/Construct) | | | | 505,379 | | |
| Misc. Lift Station Improvements (Construct) | | | | 889,794 | | |
| Odor Control Project (Design/Construct) | | | | 79,550 | | |
| DRO LS, Force Main and GJMB Improvements (Design/Construct) | | | | 10,617,870 | | |
| Ord Village Sewer Pipeline & Lift Station Impr Project (Design) | | | | 105,170 | | |
| Gigging LS and FM Improvements (Design) | | | | 278,660 | | |
| CSUMB Developments (Design) [9,14,18] | | | | 82,592 | | |
| Imin LS & Force Main Improvements -- Phase I (Design) | | | | 347,799 | | |
| 2011 Ord Wastewater Master Plan | | | | 263,218 | | |
| Ord Village Sewer Pipeline & Lift Station Impr Project (Construct) | | | | | 619,763 | |
| Gigging LS and FM Improvements (Construct) | | | | | 1,641,995 | |
| Fitch Park Sewer Improvements | | | | | 116,190 | |
| CSUMB Developments (design/construct) [9,14,18] | | | | | 486,174 | |
| Imin LS & Force Main Improvements -- Phase I (Construct) | | | | | 2,049,087 | |
| Seaside Resort, East & Affordable Housing Sewer Imps. Project (Design/Const) | | | | | 305,502 | |
| Cypress Knolls Sewer Pipeline Improvements Project (Design) | | | | | 13,748 | |
| Asset Management Program - Phase II | | | | | 29,200 | |
| Asset Management Program -- Phase III | | | | | 45,624 | |
| Corp Yard (Design) | | | | | 109,499 | |
| Corp Yard (Demolition/Construct) | | | | | 912,490 | |
| Parker Flats Collection System (Design/Construct) | | | | | | 126,532 |
| Imjin LS & Force Main Improvements -- Phase II (Design/Construct) | | | | | | 716,424 |
| Cypress Knolls Sewer Pipeline Improvements Project (Construct) | | | | | | 80,854 |
| 1st Ave Sewer Pipeline Replacement Project [2020] | | | | | | 389,718 |
| Gen'l Jim Moore Sewer Pipeline Replacement Project [2020] | | | | | | 47,576 |
| Gen'l Jim Moore Sewer Pipeline Replacement Project III [2020] | | | | | | 179,043 |
| MRWPCA Buy-In* | | | | | | 10,502,148 |
| TOTAL ORD COMMUNITY WASTEWATER CIP | \$ 1,000,000 | \$ 52,000 | \$ 83,000 | \$ 15,465,000 | \$ 6,342,000 | \$ 1,540,000 |

*Not included in capacity charge calculation

Note: CIP projects allocated to future users is 77%.

Source: Marina Coast Water District CIP Budget FY08-09 R7

FINANCING CAPITAL PROJECTS

CIP costs are attributable to several factors:

- Facilities replacements
- Required upgrades
- Capacity expansions

Facilities replacement projects are necessary to replace worn out or obsolete facilities. Upgrade projects are needed to provide better or more efficient service. Capacity expansion projects are those required to serve projected growth and increased wastewater flows from future wastewater system users. Generally, current users fund replacements, future users fund expansions, and a combination of current and future users fund upgrades.

The District can finance its capital projects from a combination of current and future revenues, available reserves, and borrowing. This financing plan recommends no new borrowing at present given the amount of debt service MCWD already is responsible for and the uncertainty regarding the timing of future development within the District. However, for future consideration, an overview of borrowing options is provided here. Appendix C discusses a variety of financing methods in greater detail and the table at the end of this section summarizes the key features of various financing methods.

The most appropriate future financing methods for the District's projects are certificates of participation (COPs) and state revolving fund loans, if available. The District may finance project studies from its reserves to develop the projects until they are ready for construction and use debt to finance them at that time. The District can recover project advances from the bond issue if it follows the requirements in federal tax law for reimbursement.

Certificates of Participation

COPs are a form of long-term lease financing, secured by the District's revenues. For practical purposes, a COP functions like a revenue bond. The District enters into an agreement with a trustee bank under which it purchases a project and agrees to make a stream of payments. The bank then sells shares, or participations, in the District's payments, in increments of \$5,000 each. The COPs are underwritten, traded, and sold like any municipal bond issue. The terms are established when the COPs are issued and remain in force while they are outstanding. The District can issue COPs very easily. The process takes three to six months.

State Revolving Fund Loans

State revolving fund (SRF) loans provide low-interest loans for wastewater projects. Annual federal and state appropriations and repayments from prior loans fund current loans. The sewer SRF loan program has been in effect for about 20 years and has helped to finance many projects throughout the state.

To be eligible for funding, projects must be on a priority list. Priorities are based on health and safety issues and the state assigns a priority to each project. A significant amount of documentation is required to apply for a loan. However, in recent years most projects that qualify for loans are able to obtain them.

Funds for expected growth are limited to 10 percent above the capacity needed to serve existing wastewater demand at peak daily flow. Federal law makes ineligible any project whose purpose is primarily to serve future growth. This is interpreted by the state to mean excess capacity that is more than double the capacity needed to serve existing wastewater demand. Excess capacity above the allowable 10 percent and up to double the required capacity can be included in a proposed project, but the loan applicant will need to pay for the ineligible capacity by some other means. Project loan eligibility will need to be analyzed on a case by case basis.

Summary of Financing Methods

| METHOD | AUTHORIZATION | RESERVE FUND | INTEREST RATE | TERM (YEARS) |
|-----------------|---------------|----------------|---------------|--------------|
| SRF Loan | Resolution | Annual payment | 2.70% | 20 |
| Bank loan | Resolution | No | 5.00% | 10 |
| Revenue COPs | Resolution | Yes | 4.75% | 25 |
| Promissory note | Resolution | No | 4.50% | 5 |

RECOMMENDED FINANCING METHODS

The most appropriate financing method depends in part on the timing of projects. The District currently budgets to produce net revenues. These funds are available for capital projects and replacements. However, the current capital programs in both Marina and the Ord Community have cash demands that exceed what these net revenues can sustain, even with the increased revenue projected from the new rates. It is therefore necessary to reevaluate and update the capacity charges for Marina and the Ord Community, as well as scale back the CIP program in 2011/12 and 2012/13.

Capacity Charge

Generally, the capital burden caused by expansion is collected from new users through a capacity charge. This charge should be based on the CIP and facilities replacement valuation.

Current users have funded the District's entire existing wastewater collection system. Many of the wastewater system's assets such as land, pipelines, and pump stations are available to benefit future users, so it is appropriate that the capacity charge incorporate a "buy-in" charge based on facilities replacement costs. In addition to this "buy-in" component, the capacity charge is also based on the future CIP costs that are attributable to growth.

Tables 10 and 11 update the wastewater capacity charge for Marina and Ord. The recommended capacity charges are \$3,880/EDU in Marina and \$3,920/EDU in the Ord Community. In Ord, the charge is based on full actualization of FORA growth projections and reflects a change to the policy of a reduced capacity charge coupled with a capital surcharge. Because development in the Ord Community has been virtually nil, the

**Table 10 ■ Marina Coast Water District
Marina Wastewater
Updated Capacity Charge**

| Current Capacity Charge \$ / EDU | \$ | 1,485 |
|---|-----------|------------------|
| SYSTEM-WIDE COSTS | | |
| Replacement cost - WW facilities | \$ | 17,040,798 |
| All users CIP [1] | | <u>4,726,890</u> |
| All users valuation | | 21,767,688 |
| <i>Current EDUs</i> | | 7,364 |
| <i>Future Marina WW EDUs [2]</i> | | 300 |
| <i>Future Armstrong Ranch WW EDUs</i> | | <u>1,659</u> |
| <i>Future Build-Out Marina WW EDUs</i> | | 9,323 |
| Capacity charge \$ / EDU | | 2,335 |
| FUTURE USERS COSTS | | |
| Future users CIP [3] | | <u>3,022,110</u> |
| Future users valuation | | 3,022,110 |
| <i>Future WW EDUs</i> | | 1,959 |
| Capacity charge \$ / EDU | | 1,543 |
| TOTAL | | |
| New users capacity charge \$ / EDU | \$ | 3,880 |
| Recommended capacity charge \$ / EDU | \$ | 3,880 |

1 - Existing users share of \$7.75 million is 61%.
 2 - Estimated growth over the next 20 years.
 3 - Future users share of \$7.75 million CIP is 39%.
 Source: Prepared by BWA from District records

**Table 11 ■ Marina Coast Water District
Ord Community Wastewater
Updated Capacity Charge**

| Current Capacity Charge \$ / EDU | \$ | 1,000 |
|---|-----------|-------------------|
| SYSTEM-WIDE COSTS | | |
| Replacement cost - WW facilities | \$ | 35,541,335 |
| All users CIP [1] | | <u>5,630,860</u> |
| All users valuation | | 41,172,195 |
| <i>Current EDUs</i> | | 5,252 |
| <i>Future Ord Community WW EDUs [2]</i> | | <u>12,124</u> |
| <i>Future Build-Out Ord Community WW EDUs</i> | | 17,376 |
| Capacity charge \$ / EDU | | 2,370 |
| FUTURE USERS COSTS | | |
| Future users CIP [3] | | <u>18,851,140</u> |
| Future users valuation | | 18,851,140 |
| <i>Future Ord Community WW EDUs</i> | | 12,124 |
| Capacity charge \$ / EDU | | 1,555 |
| TOTAL | | |
| New users capacity charge \$ / EDU | \$ | 3,920 |
| Recommended capacity charge \$ / EDU | \$ | 3,920 |

1 - Existing users share of \$24.5 million is 23%.
 2 - Full FORA Projection
 3 - Future users share of \$24.5 million CIP is 77%.
 Source: Prepared by BWA from District records

existing reduced capacity charge approach does not provide necessary bond coverage in future years. Even with increased future growth, the current approach does not provide sufficient capital revenues and the full calculated charge for Ord of \$3,920 is recommended. The District requested the formulation of a capacity charge approach that is more consistent with nominal public agency practice. Bartle Wells Associates (BWA) prepared capacity charge alternatives for the District and these were presented for review to the local planning jurisdictions.

Marina is projecting \$7.75 million in capital projects over the foreseeable future. Capacity charges are a vital revenue source for funding their capital program and therefore Bartle Wells recommends the full calculated charge of \$3,880/EDU.

In the Ord Community, a monthly capital surcharge is intended to help finance capital projects. The current monthly surcharge is \$5.00/EDU and no change in the surcharge is recommended given the new proposed Ord Community capacity charge of \$3,920. The capital surcharge allows a share of capital revenue to be based on real development and not tied to growth projections which may or may not materialize. The increased capacity charge will allow the District to eliminate the capital surcharge earlier than previously planned, but it is not recommended that the surcharge be eliminated at this time. To date the District has generated little or no income from the capital surcharge.

New connections are expected to pay their proportionate share of existing and future facilities. Appendix A develops a wastewater collection system replacement cost of \$17.0 million for Marina and \$35.5 million for the Ord Community. These costs are proportioned out among the total build-out EDU populations shown in Tables 10 and 11 – 9,323 EDUs in Marina and 17,376 EDUs in the Ord Community. The CIP tables include specific projects and/or portions of projects that are to serve new users. For Marina, new users' share of future CIP costs is 39 percent, or approximately \$3 million. For the Ord Community, new users' share of future CIP costs is 77 percent, or about \$18.9 million. These specific new user capital costs are distributed solely among future EDU growth, as projected in Appendix B.

The calculated capacity charges are based on current dollars. By indexing the fee to an appropriate cost factor, the District can maintain an equitable charge in the future. The *Engineering News Record* (ENR) construction cost index is most often used to adjust capital cost. Each year the District's capacity charges should be adjusted equally with the change in the ENR index. Note that in some years the index declines. In that case, the capacity charges should also decline. BWA recommends that the capacity charge escalation rate be set at the annual increase in the 20-cities ENR Construction Cost Index. For the purposes of this financial plan, the 20-cities ENR five-year average of 4.65 percent was used in making the capacity charge projections.

Bond Issues

No additional borrowing is currently planned for the next five years. The financing plan envisions that capital charges from new development will finance the District's capital facilities expansion program in the long term. This may involve some future borrowing. Table 12 develops the size of a hypothetical bond issue required to fund \$12 million of the wastewater capital program. This bond sizing could be used for future financial planning purposes. No new bonds are included in the projection of capital revenues and expenses.

**Table 12 ■ Marina Coast Water District
Bond Issue for Capital Wastewater Projects**

| | <i>rate</i> | Marina Wastewater | Fort Ord Wastewater | Total |
|--------------------------------|-------------|-------------------|---------------------|---------------|
| Project funding | | \$ 2,000,000 | \$ 10,000,000 | \$ 12,000,000 |
| Reserve fund | @ 7.5% | 153,000 | 765,000 | 918,000 |
| Issuance expenses | | 13,000 | 63,000 | 75,000 |
| Underwriter | @ 1.0% | 20,000 | 102,000 | 122,000 |
| Insurance | @ 0.4% | 8,000 | 41,000 | 49,000 |
| Amount of bonds | | 2,041,000 | 10,205,000 | 12,246,000 |
| Annual debt service - 25 years | @ 5.5% | 152,000 | 761,000 | 913,000 |
| Less: reserve fund earnings | @ 4.5% | 7,000 | 34,000 | 41,000 |
| Net bond service | | \$ 145,000 | \$ 727,000 | \$ 872,000 |

Source: Prepared by Bartle Wells Associates

The costs in Table 12 assume that the financing is a certificate of participation. Such an issue includes a reserve fund and costs of issuance. The reserve fund, approximately equal to annual debt service, is set aside and invested and is available to pay debt service in the event the District is unable to make debt service payments.

Issuance costs are those related to issuing the debt. The largest individual cost is the underwriter's discount. Issuance costs also include the necessary legal and professional fees, bond trustee, the costs of printing official statements and other documents necessary to issue the debt, secure credit ratings, and other associated costs.

Table 12 calculates the average annual debt service payment at 5.5 percent interest for 25 years. This is a conservative interest rate. After applying interest earned on the investment of the reserve fund, the annual debt service would be \$145,000 for Marina and \$727,000 for the Ord Community. Actual debt payments would depend on the interest rates at the time the bonds are sold as well as the actual size of the issue based on final construction costs. Payments will also vary slightly from year to year.

Revenue and Expense (Cash Flow) Projections

BWA developed multiple financial plans for the District based on four distinct scenarios. Proposed rates and cash flow projections for both Marina's and Ord's wastewater operating and capital funds were formulated for each alternative and the scenarios were reviewed by staff and the District Board at a rate study workshop. The recommended approach, Scenario 4, is presented in Tables 13, 14, 15 and 16. The other three scenarios considered are included in Appendix D. A brief summary of the four scenarios is listed below.

Scenario 1 – Full CIP Funding

Projects the necessary rates to fully fund the District's CIP over the next five years. The rate increases for Marina over five years are 25, 25, 25, 30 and 30 percent. For Ord, the increases are 55, 55, 54, 53 and 10 percent. Both Marina and Ord can make their own respective debt payments.

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

Projects revenues and expenses with no CIP spending at all over the next five years. The rate increases are uniform for both Marina and Ord at 3.8 percent annually for the next five years. Ord Water cannot make its debt payments and needs an \$850,000 loan from Marina over five years.

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

Projects revenues and expenses using the scaled back CIP funding schedule included in this report and proposes uniform rate increases for both Marina and Ord. The rate increases over five years are 3.8, 7.8, 7.8, 7.8 and 7.8 percent. In 2009/10, Ord Water is unable to make its debt payments and needs a \$3,000 loan from Marina. Additionally, Ord Water's projected capital fund balance in 2012/13 is negative \$977,000.

Scenario 4 – Ord Makes Own Debt Payments (Some CIP Funding) - Recommended Approach

Proposes higher Ord Water rates than Scenario 3 to enable Ord Water to make its own debt payments and fund the proposed scaled-back CIP schedule. Ord Water rates are 10, 10, 7.8, 7.8 and 7.8 percent and no loan is needed from Marina to Ord. Ord Water's capital fund balance remains over the recommended minimum \$1 million throughout the next five years. The rate increases for Marina Water and Marina and Ord Wastewater are uniform at 3.8, 7.8, 7.8, 7.8 and 7.8 percent over the next five years.

Table 13 shows a projection of capital revenues and expenses for Marina wastewater. No growth is forecasted for Marina until 2010/11. Table 14 shows a projection of operating revenues and expenses for Marina wastewater. Tables 15 and 16 show the same for the Ord Community. No growth at all is forecasted for the Ord Community over the next five years. For both Marina and Ord, all operating expenses are assumed to increase at a 3.8 percent annual inflation rate and the interest rate of return on the fund balances is assumed to be 4 percent. Tables 14 and 16 show transfers from each respective operating fund sufficient to fund a portion of capital expenses while still meeting the minimum operating reserve target of \$200,000. Increases to both rates and fees are noted each year and have been designed to optimize the cash flows keeping capital fund balances at a minimum of \$1 million.

**Table 13 ■ Marina Coast Water District
Marina Wastewater Projected Capital Revenues and Expenses**

| | 2007/08 | <i>Projection</i> 2008/09 | <i>Projection</i> 2009/10 | <i>Projection</i> 2010/11 | <i>Projection</i> 2011/12 | <i>Projection</i> 2012/13 |
|---------------------------------------|---------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| EDUs - meter equivalents | 7,364 | 7,364 | 7,364 | 7,454 | 7,594 | 7,759 |
| New Marina EDUs | - | - | - | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | - | - | - | 75 | 125 | 150 |
| Capacity charge/EDU | 1,485 | 3,880 | 4,060 | 4,250 | 4,450 | 4,660 |
| Capacity charge % increase [1] | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 1,578,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 1,796,000 | | | | | |
| Total Beginning Balance | \$ 3,374,000 | \$ 2,582,900 | \$ 2,797,300 | \$ 3,012,900 | \$ 3,612,800 | \$ 2,235,000 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 257,000 | \$ 255,000 | \$ 247,000 | \$ 293,000 | \$ 350,000 | \$ 416,000 |
| Capacity charges | 1,700 | - | - | 383,000 | 623,000 | 769,000 |
| Interest earnings | 91,000 | 103,000 | 112,000 | 121,000 | 145,000 | 89,000 |
| Employee CALPERS transfers | 6,200 | 6,400 | 6,600 | 6,900 | 7,200 | 7,500 |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest [2] | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 363,900 | 372,400 | 373,600 | 811,900 | 1,133,200 | 1,289,500 |
| Expenses | | | | | | |
| General CIP | 1,018,000 | 18,000 | 19,000 | 75,000 | 2,375,000 | 2,375,000 |
| Existing debt service [3] | 137,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Total | 1,155,000 | 158,000 | 158,000 | 212,000 | 2,511,000 | 2,514,000 |
| Net revenue | (791,100) | 214,400 | 215,600 | 599,900 | (1,377,800) | (1,224,500) |
| Ending balance | \$ 2,582,900 | \$ 2,797,300 | \$ 3,012,900 | \$ 3,612,800 | \$ 2,235,000 | \$ 1,010,500 |
| Minimum Reserve Balance [4] | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Marina Wastewater to receive interest (5%) on 5% of \$3.084 million reserve fund.

3 - Includes CALPERS debt service.

4 - Reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

**Table 14 ■ Marina Coast Water District
Marina Wastewater Projected Operating Revenues and Expenses**

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 7,364 | 7,364 | 7,364 | 7,454 | 7,594 | 7,759 |
| New Marina EDUs | - | - | - | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | - | - | - | 75 | 125 | 150 |
| Base rate per EDU - \$/mo | 6.88 | 7.14 | 7.70 | 8.30 | 8.95 | 9.64 |
| Rates - percentage increase | | 3.8% | 7.8% | 7.8% | 7.8% | 7.8% |
| Escalation factor | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Service charges | \$ 601,000 | \$ 631,000 | \$ 680,000 | \$ 742,000 | \$ 815,000 | \$ 898,000 |
| Permits and other income | 1,200 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Interest earnings | 9,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 611,200 | 640,000 | 689,000 | 751,000 | 824,000 | 907,000 |
| Expenses | | | | | | |
| Administration | 131,000 | 142,000 | 162,000 | 168,000 | 174,000 | 180,000 |
| Operation and maintenance | 153,000 | 166,000 | 190,000 | 197,000 | 204,000 | 211,000 |
| Engineering | 70,000 | 77,000 | 90,000 | 93,000 | 96,000 | 100,000 |
| Employee CALPERS transfers [1] | 6,200 | 6,400 | 6,600 | 6,900 | 7,200 | 7,500 |
| Total | 354,000 | 385,000 | 442,000 | 458,000 | 474,000 | 491,000 |
| Net revenue | 257,200 | 255,000 | 247,000 | 293,000 | 350,000 | 416,000 |
| Capital expenses - transfer | 257,200 | 255,000 | 247,000 | 293,000 | 350,000 | 416,000 |
| Ending balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Minimum Reserve Balance [2] | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |

1 - Included in expenses above.

2 - Minimum reserve balance is 60 days of operating expenses or \$200,000.

Source: Prepared by Bartle Wells Associates

**Table 15 ■ Marina Coast Water District
Ord Community Wastewater Projected Capital Revenues and Expenses**

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 |
| New Ord EDUs | - | - | - | - | - | - |
| Capacity charge/EDU | 1,000 | 3,920 | 4,100 | 4,290 | 4,490 | 4,700 |
| MRWPCA buy-in capacity chg. [1] | 820 | 820 | 820 | 820 | 820 | 820 |
| Monthly Capital Surcharge/EDU | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| # EDUs billed surcharge | 20 | 20 | 20 | 20 | 20 | 20 |
| Capacity charge % increase [2] | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Capital surcharge % increase | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 1,366,200 | | | | | |
| Bond proceeds (restricted for constr) | \$ 5,279,000 | | | | | |
| Total Beginning Balance | \$ 6,645,200 | \$ 5,619,900 | \$ 4,822,400 | \$ 4,848,300 | \$ 4,916,600 | \$ 2,996,300 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 476,000 | \$ 433,000 | \$ 412,000 | \$ 483,000 | \$ 561,000 | \$ 650,000 |
| Capacity charges | 18,000 | - | - | - | - | - |
| Capital charges | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Interest earnings | 279,000 | 225,000 | 193,000 | 194,000 | 197,000 | 120,000 |
| Employee CALPERS transfers | 9,000 | 9,300 | 9,700 | 10,100 | 10,500 | 10,900 |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest [3] | 34,000 | 34,000 | 34,000 | 34,000 | 34,000 | 34,000 |
| Total | 817,200 | 702,500 | 649,900 | 722,300 | 803,700 | 816,100 |
| Expenses | | | | | | |
| General CIP [4] | 1,696,500 | 1,000,000 | 52,000 | 83,000 | 2,150,000 | 2,150,000 |
| MRWPCA buy-in [1] | | | 9,296,000 | | | |
| Existing debt service [5] | 146,000 | 500,000 | 572,000 | 571,000 | 574,000 | 567,000 |
| Total | 1,842,500 | 1,500,000 | 624,000 | 654,000 | 2,724,000 | 2,717,000 |
| Net revenue | (1,025,300) | (797,500) | 25,900 | 68,300 | (1,920,300) | (1,900,900) |
| Ending balance | \$ 5,619,900 | \$ 4,822,400 | \$ 4,848,300 | \$ 4,916,600 | \$ 2,996,300 | \$ 1,095,400 |
| Minimum Reserve Balance [6] | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Pass-through to MRWPCA - not in totals.

2 - Proposed capacity charge in 2008/09 escalated in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

3 - Ord Community Wastewater to receive interest (5%) on 22% of \$3.084 million reserve fund.

4 - \$1.75 Million transferred from FY06/07 to FY 07/08 for scheduling purposes.

5 - Includes CALPERS debt service.

6 - Minimum reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

**Table 16 ■ Marina Coast Water District
Ord Community Wastewater Projected Operating Revenues and Expenses**

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 |
| New Ord EDUs | - | - | - | - | - | - |
| Base rate per EDU - \$/mo | 20.20 | 20.97 | 22.60 | 24.37 | 26.27 | 28.32 |
| Rates - percentage increase | | 3.8% | 7.8% | 7.8% | 7.8% | 7.8% |
| Escalation factor | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Usage rates | \$ 1,292,000 | \$ 1,321,000 | \$ 1,425,000 | \$ 1,536,000 | \$ 1,655,000 | \$ 1,785,000 |
| Permits and other income | 7,500 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Interest earnings | 9,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 1,308,500 | 1,337,000 | 1,441,000 | 1,552,000 | 1,671,000 | 1,801,000 |
| Expenses | | | | | | |
| Administration | 336,000 | 362,000 | 406,000 | 422,000 | 438,000 | 454,000 |
| Operation and maintenance | 348,000 | 377,000 | 428,000 | 445,000 | 462,000 | 479,000 |
| Engineering | 149,000 | 165,000 | 195,000 | 202,000 | 210,000 | 218,000 |
| Employee CALPERS transfers [1] | 9,000 | 9,300 | 9,700 | 10,100 | 10,500 | 10,900 |
| Total | 833,000 | 904,000 | 1,029,000 | 1,069,000 | 1,110,000 | 1,151,000 |
| Net revenue | 475,500 | 433,000 | 412,000 | 483,000 | 561,000 | 650,000 |
| Capital expenses - transfer | 475,500 | 433,000 | 412,000 | 483,000 | 561,000 | 650,000 |
| Ending balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Minimum Reserve Balance [2] | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |

1 - Included in expenses above

2 - Minimum reserve balance is 60 days of operating expenses or \$200,000

Source: Prepared by Bartle Wells Associates

Rate Impact

BWA recommends adjusting Marina's and Ord's wastewater rates by 3.8 percent, the assumed rate of inflation, for 2008/09 and by 7.8 percent in the following years. Tables 17 and 18 list the recommended rates for Marina and Ord for the next five years after the proposed increases.

**Table 17 ■ Marina Coast Water District
Projected Marina Monthly Wastewater Rates**

| User Group | Demand Factor | 2007/08 | 3.8% 2008/09 | 7.8% 2009/10 | 7.8% 2010/11 | 7.8% 2011/12 | 7.8% 2012/13 |
|---|---------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Single family residence | 1.00 | \$6.88 | \$7.14 | \$7.70 | \$8.30 | \$8.95 | \$9.64 |
| Apartment unit w/ washer | 1.00 | \$6.88 | \$7.14 | \$7.70 | \$8.30 | \$8.95 | \$9.64 |
| Apartment unit w/o washer | 0.80 | \$5.50 | \$5.71 | \$6.16 | \$6.64 | \$7.16 | \$7.72 |
| Apartment unit w/ central laundry per machine | 0.60 | \$4.13 | \$4.28 | \$4.62 | \$4.98 | \$5.37 | \$5.79 |
| Mobile home w/ washer | 1.00 | \$6.88 | \$7.14 | \$7.70 | \$8.30 | \$8.95 | \$9.64 |
| Mobile home w/o washer | 0.80 | \$5.50 | \$5.71 | \$6.16 | \$6.64 | \$7.16 | \$7.72 |
| Mobile home park w/ central laundry per machine | 0.60 | \$4.13 | \$4.28 | \$4.62 | \$4.98 | \$5.37 | \$5.79 |
| Hotels, motels and rooming houses per room | 0.25 | \$1.72 | \$1.79 | \$1.92 | \$2.07 | \$2.24 | \$2.41 |
| Campgrounds with central facilities per space | 0.20 | \$1.38 | \$1.43 | \$1.54 | \$1.66 | \$1.79 | \$1.93 |
| RV park with individual hookups per space | 0.30 | \$2.06 | \$2.14 | \$2.31 | \$2.49 | \$2.68 | \$2.89 |
| Barber and beauty shops per station | 0.30 | \$2.06 | \$2.14 | \$2.31 | \$2.49 | \$2.68 | \$2.89 |
| Service stations w/ restroom | 2.00 | \$13.76 | \$14.28 | \$15.40 | \$16.60 | \$17.89 | \$19.29 |
| Service station w/o restroom | 0.80 | \$5.50 | \$5.71 | \$6.16 | \$6.64 | \$7.16 | \$7.72 |
| Recreational vehicle dump station per station | 2.00 | \$13.76 | \$14.28 | \$15.40 | \$16.60 | \$17.89 | \$19.29 |
| Auto or truck repair shop | 1.00 | \$6.88 | \$7.14 | \$7.70 | \$8.30 | \$8.95 | \$9.64 |
| Mortuary per employee | 0.40 | \$2.75 | \$2.86 | \$3.08 | \$3.32 | \$3.58 | \$3.86 |
| Bakeries, catering services per employee | 0.30 | \$2.06 | \$2.14 | \$2.31 | \$2.49 | \$2.68 | \$2.89 |
| Restaurants per seat | 0.07 | \$0.48 | \$0.50 | \$0.54 | \$0.58 | \$0.63 | \$0.68 |
| Restaurants, 24 hour, fast food per seat | 0.09 | \$0.62 | \$0.64 | \$0.69 | \$0.75 | \$0.81 | \$0.87 |
| Bars, card rooms, taverns, casinos per seat | 0.10 | \$0.69 | \$0.71 | \$0.77 | \$0.83 | \$0.89 | \$0.96 |
| Bowling alley per alley | 0.10 | \$0.69 | \$0.71 | \$0.77 | \$0.83 | \$0.89 | \$0.96 |
| Theater (maximum capacity) per seat | 0.02 | \$0.14 | \$0.14 | \$0.15 | \$0.17 | \$0.18 | \$0.19 |
| Laundry or Laundromat per machine | 0.60 | \$4.13 | \$4.28 | \$4.62 | \$4.98 | \$5.37 | \$5.79 |
| Dry cleaner | | | | | | | |
| per employee | 0.10 | \$0.69 | \$0.71 | \$0.77 | \$0.83 | \$0.89 | \$0.96 |
| per machine | 0.10 | \$0.69 | \$0.71 | \$0.77 | \$0.83 | \$0.89 | \$0.96 |
| Fire station per employee | 0.20 | \$1.38 | \$1.43 | \$1.54 | \$1.66 | \$1.79 | \$1.93 |
| Offices (attny; acct; realtor, etc.) per employee | 0.10 | \$0.69 | \$0.71 | \$0.77 | \$0.83 | \$0.89 | \$0.96 |
| Dentist per operator | 0.50 | \$3.44 | \$3.57 | \$3.85 | \$4.15 | \$4.47 | \$4.82 |
| Doctor office or clinic per office or MD | 1.00 | \$6.88 | \$7.14 | \$7.70 | \$8.30 | \$8.95 | \$9.64 |
| Dry goods retail store per employee | 0.10 | \$0.69 | \$0.71 | \$0.77 | \$0.83 | \$0.89 | \$0.96 |
| Commercial swimming pool per pool | 2.50 | \$17.20 | \$17.85 | \$19.25 | \$20.75 | \$22.37 | \$24.11 |
| Car wash per stall | 3.00 | \$20.64 | \$21.42 | \$23.10 | \$24.90 | \$26.84 | \$28.93 |
| Food markets per employee | 0.10 | \$0.69 | \$0.71 | \$0.77 | \$0.83 | \$0.89 | \$0.96 |
| Public building per employee | 0.10 | \$0.69 | \$0.71 | \$0.77 | \$0.83 | \$0.89 | \$0.96 |
| School per enrollment | 0.07 | \$0.48 | \$0.50 | \$0.54 | \$0.58 | \$0.63 | \$0.68 |
| Meeting hall; church per seat | 0.01 | \$0.07 | \$0.07 | \$0.08 | \$0.08 | \$0.09 | \$0.10 |
| Fairgrounds complex | 4.00 | \$27.52 | \$28.57 | \$30.79 | \$33.20 | \$35.79 | \$38.58 |
| Restroom buildings per toilet | 1.00 | \$6.88 | \$7.14 | \$7.70 | \$8.30 | \$8.95 | \$9.64 |
| Hospitals per bed | 0.80 | \$5.50 | \$5.71 | \$6.16 | \$6.64 | \$7.16 | \$7.72 |
| Convalescent or nursing home per bed | 0.50 | \$3.44 | \$3.57 | \$3.85 | \$4.15 | \$4.47 | \$4.82 |
| Industrial waste | | | | | | | |
| | per agreement | | | | | | |

* Rates do not include MRWPCA treatment costs. FY 07/08 treatment costs = \$10.75

Source: District rate ordinances

**Table 18 ■ Marina Coast Water District
Projected Ord Community Monthly Wastewater Rates**

| User Group | Demand Factor | 2007/08 | 3.8% 2008/09 | 7.8% 2009/10 | 7.8% 2010/11 | 7.8% 2011/12 | 7.8% 2012/13 |
|---|---------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Single family residence | 1.00 | \$20.20 | \$20.97 | \$22.60 | \$24.37 | \$26.27 | \$28.32 |
| Apartment unit w/ washer | 1.00 | \$20.20 | \$20.97 | \$22.60 | \$24.37 | \$26.27 | \$28.32 |
| Apartment unit w/o washer | 0.80 | \$16.16 | \$16.77 | \$18.08 | \$19.49 | \$21.01 | \$22.65 |
| Apartment unit w/ central laundry per machine | 0.60 | \$12.12 | \$12.58 | \$13.56 | \$14.62 | \$15.76 | \$16.99 |
| Mobile home w/ washer | 1.00 | \$20.20 | \$20.97 | \$22.60 | \$24.37 | \$26.27 | \$28.32 |
| Mobile home w/o washer | 0.80 | \$16.16 | \$16.77 | \$18.08 | \$19.49 | \$21.01 | \$22.65 |
| Mobile home park w/ central laundry per machine | 0.60 | \$12.12 | \$12.58 | \$13.56 | \$14.62 | \$15.76 | \$16.99 |
| Hotels, motels and rooming houses per room | 0.25 | \$5.05 | \$5.24 | \$5.65 | \$6.09 | \$6.57 | \$7.08 |
| Campgrounds with central facilities per space | 0.20 | \$4.04 | \$4.19 | \$4.52 | \$4.87 | \$5.25 | \$5.66 |
| RV park with individual hookups per space | 0.30 | \$6.06 | \$6.29 | \$6.78 | \$7.31 | \$7.88 | \$8.49 |
| Barber and beauty shops per station | 0.30 | \$6.06 | \$6.29 | \$6.78 | \$7.31 | \$7.88 | \$8.49 |
| Service stations w/ restroom | 2.00 | \$40.40 | \$41.94 | \$45.21 | \$48.73 | \$52.53 | \$56.63 |
| Service station w/o restroom | 0.80 | \$16.16 | \$16.77 | \$18.08 | \$19.49 | \$21.01 | \$22.65 |
| Recreational vehicle dump station per station | 2.00 | \$40.40 | \$41.94 | \$45.21 | \$48.73 | \$52.53 | \$56.63 |
| Auto or truck repair shop | 1.00 | \$20.20 | \$20.97 | \$22.60 | \$24.37 | \$26.27 | \$28.32 |
| Mortuary per employee | 0.40 | \$8.08 | \$8.39 | \$9.04 | \$9.75 | \$10.51 | \$11.33 |
| Bakeries, catering services per employee | 0.30 | \$6.06 | \$6.29 | \$6.78 | \$7.31 | \$7.88 | \$8.49 |
| Restaurants per seat | 0.07 | \$1.41 | \$1.47 | \$1.58 | \$1.71 | \$1.84 | \$1.98 |
| Restaurants, 24 hour, fast food per seat | 0.09 | \$1.82 | \$1.89 | \$2.03 | \$2.19 | \$2.36 | \$2.55 |
| Bars, card rooms, taverns, casinos per seat | 0.10 | \$2.02 | \$2.10 | \$2.26 | \$2.44 | \$2.63 | \$2.83 |
| Bowling alley per alley | 0.10 | \$2.02 | \$2.10 | \$2.26 | \$2.44 | \$2.63 | \$2.83 |
| Theater (maximum capacity) per seat | 0.02 | \$0.40 | \$0.42 | \$0.45 | \$0.49 | \$0.53 | \$0.57 |
| Laundry or Laundromat per machine | 0.60 | \$12.12 | \$12.58 | \$13.56 | \$14.62 | \$15.76 | \$16.99 |
| Dry cleaner | | | | | | | |
| per employee | 0.10 | \$2.02 | \$2.10 | \$2.26 | \$2.44 | \$2.63 | \$2.83 |
| per machine | 0.10 | \$2.02 | \$2.10 | \$2.26 | \$2.44 | \$2.63 | \$2.83 |
| Fire station per employee | 0.20 | \$4.04 | \$4.19 | \$4.52 | \$4.87 | \$5.25 | \$5.66 |
| Offices (attny; acct; realtor, etc.) per employee | 0.10 | \$2.02 | \$2.10 | \$2.26 | \$2.44 | \$2.63 | \$2.83 |
| Dentist per operator | 0.50 | \$10.10 | \$10.48 | \$11.30 | \$12.18 | \$13.13 | \$14.16 |
| Doctor office or clinic per office or MD | 1.00 | \$20.20 | \$20.97 | \$22.60 | \$24.37 | \$26.27 | \$28.32 |
| Dry goods retail store per employee | 0.10 | \$2.02 | \$2.10 | \$2.26 | \$2.44 | \$2.63 | \$2.83 |
| Commercial swimming pool per pool | 2.50 | \$50.50 | \$52.42 | \$56.51 | \$60.92 | \$65.67 | \$70.79 |
| Car wash per stall | 3.00 | \$60.60 | \$62.90 | \$67.81 | \$73.10 | \$78.80 | \$84.95 |
| Food markets per employee | 0.10 | \$2.02 | \$2.10 | \$2.26 | \$2.44 | \$2.63 | \$2.83 |
| Public building per employee | 0.10 | \$2.02 | \$2.10 | \$2.26 | \$2.44 | \$2.63 | \$2.83 |
| School per enrollment | 0.07 | \$1.41 | \$1.47 | \$1.58 | \$1.71 | \$1.84 | \$1.98 |
| Meeting hall; church per seat | 0.01 | \$0.20 | \$0.21 | \$0.23 | \$0.24 | \$0.26 | \$0.28 |
| Fairgrounds complex | 4.00 | \$80.80 | \$83.87 | \$90.41 | \$97.46 | \$105.07 | \$113.26 |
| Restroom buildings per toilet | 1.00 | \$20.20 | \$20.97 | \$22.60 | \$24.37 | \$26.27 | \$28.32 |
| Hospitals per bed | 0.80 | \$16.16 | \$16.77 | \$18.08 | \$19.49 | \$21.01 | \$22.65 |
| Convalescent or nursing home per bed | 0.50 | \$10.10 | \$10.48 | \$11.30 | \$12.18 | \$13.13 | \$14.16 |
| Industrial waste | | | | | | | |
| | per agreement | | | | | | |

* Rates do not include MRWPCA treatment costs. FY 07/08 treatment costs = \$10.75

Source: District rate ordinances

Debt Service Coverage

Table 19 shows the projected debt service coverage utilizing the Scenario 4 rate increases shown in Tables 13 through 16. Both Marina and Ord generate sufficient revenues to make their respective debt payments in each of the next five years and the combined wastewater net revenues exceed the total wastewater debt service payments by the 125 percent required in the debt covenant.

**Table 19 ■ Marina Coast Water District
Projected Wastewater Debt Service Coverage by Fund**

| | <i>Budget 2007/08</i> | <i>Projection 2008/09</i> | <i>Projection 2009/10</i> | <i>Projection 2010/11</i> | <i>Projection 2011/12</i> | <i>Projection 2012/13</i> |
|---|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Marina Wastewater Operating Revenues | 611,200 | 640,000 | 689,000 | 751,000 | 824,000 | 907,000 |
| Marina Wastewater Capital Revenues | 100,700 | 111,000 | 120,000 | 512,000 | 776,000 | 866,000 |
| Marina Wastewater Operating Expenses | 354,000 | 385,000 | 442,000 | 458,000 | 474,000 | 491,000 |
| Marina Wastewater Net Revenues | 357,900 | 366,000 | 367,000 | 805,000 | 1,126,000 | 1,282,000 |
| Marina Wastewater Debt Service | 137,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Marina Wastewater Debt Service Coverage | 2.61 | 2.61 | 2.64 | 5.88 | 8.28 | 9.22 |
| Ord Wastewater Operating Revenues | 1,308,500 | 1,337,000 | 1,441,000 | 1,552,000 | 1,671,000 | 1,801,000 |
| Ord Wastewater Capital Revenues | 332,200 | 260,200 | 228,200 | 229,200 | 232,200 | 155,200 |
| Ord Wastewater Operating Expenses | 833,000 | 904,000 | 1,029,000 | 1,069,000 | 1,110,000 | 1,151,000 |
| Ord Wastewater Net Revenues | 807,700 | 693,200 | 640,200 | 712,200 | 793,200 | 805,200 |
| Ord Wastewater Debt Service | 146,000 | 500,000 | 572,000 | 571,000 | 574,000 | 567,000 |
| Ord Wastewater Debt Service Coverage | 5.53 | 1.39 | 1.12 | 1.25 | 1.38 | 1.42 |
| Total Wastewater Net Revenues | 1,165,600 | 1,059,200 | 1,007,200 | 1,517,200 | 1,919,200 | 2,087,200 |
| Total Wastewater Debt Service | 283,000 | 640,000 | 711,000 | 708,000 | 710,000 | 706,000 |
| Wastewater Debt Service Coverage | 4.12 | 1.66 | 1.42 | 2.14 | 2.70 | 2.96 |

APPENDIX A – REPLACEMENT COSTS

Table A-1 ■ Marina Coast Water District
Marina Wastewater Fixed Assets Replacement Costs, as of June 30, 2006

| Account Number | Original Cost | Accumulated Depreciation | Replacement Cost New | Replacement Cost New Minus Dep. |
|----------------|------------------------|--------------------------|-------------------------|---------------------------------|
| 02-00-140-000 | \$ 74,405.25 | \$ - | \$ 424,091.49 | \$ 424,091.49 |
| 02-00-141-000 | 87,425.62 | - | 498,304.37 | 498,304.37 |
| 02-00-150-001 | 17,463.23 | 8,514.98 | 21,782.70 | 13,267.72 |
| 02-00-155-000 | 95,370.78 | 94,876.95 | 132,180.43 | 37,303.48 |
| 02-00-155-001 | 20,869.57 | 5,554.56 | 24,521.58 | 18,967.02 |
| 02-00-157-000 | 60,933.60 | 22,864.02 | 72,607.17 | 49,743.15 |
| 02-00-160-401 | 203,341.21 | 41,886.42 | 233,753.10 | 191,866.68 |
| 02-00-160-402 | 105,752.74 | 63,156.72 | 125,969.12 | 62,812.40 |
| 02-00-160-403 | 262,941.51 | 2,436.67 | 284,833.91 | 282,397.24 |
| 02-00-163-000 | 58,536.09 | 11,354.34 | 71,265.29 | 59,910.95 |
| 02-00-170-000 | 335,625.47 | 248,906.39 | 758,870.74 | 509,964.35 |
| 02-00-186-000 | 864,404.98 | 274,207.27 | 1,309,458.10 | 1,035,250.83 |
| 02-00-189-000 | 374,555.55 | 293,069.14 | 1,111,385.61 | 818,316.47 |
| 02-00-191-000 | 3,594,657.92 | 2,178,426.51 | 15,109,775.39 | 12,931,348.88 |
| 02-00-195-000 | 907.76 | 381.95 | 1,229.96 | 848.01 |
| 02-00-196-000 | <u>133,478.66</u> | <u>86,738.79</u> | <u>193,144.18</u> | <u>106,405.39</u> |
| TOTAL | \$ 6,290,669.94 | \$ 3,332,374.71 | \$ 20,373,173.13 | \$ 17,040,798.42 |

Source: MCWD Records

Table A-2 ■ Marina Coast Water District
Ord Community Wastewater Fixed Assets Replacement Costs, as of June 30, 2006

| Account Number | Original Cost | Accumulated Depreciation | Replacement Cost New | Replacement Cost New Minus Dep. |
|----------------|-------------------------|--------------------------|-------------------------|---------------------------------|
| 04-00-142-000 | \$ 15,300,000.00 | \$ - | \$ 18,711,423.89 | \$ 18,711,423.89 |
| 04-00-143-000 | 10,800,000.00 | - | 13,208,063.92 | 13,208,063.92 |
| 04-00-150-001 | 22,392.52 | 10,464.45 | 27,749.92 | 17,285.46 |
| 04-00-155-000 | 1,279,011.84 | 596,798.40 | 1,564,323.49 | 967,525.09 |
| 04-00-155-001 | 30,621.44 | 8,047.53 | 35,803.18 | 27,755.65 |
| 04-00-157-000 | 111,740.94 | 41,869.48 | 133,179.55 | 91,310.07 |
| 04-00-160-001 | 10,329.00 | - | 11,117.74 | 11,117.74 |
| 04-00-160-307 | 207,615.50 | 15,884.66 | 254,467.86 | 238,583.20 |
| 04-00-160-401 | 306,347.69 | 63,507.36 | 359,604.82 | 296,097.46 |
| 04-00-160-402 | 220,995.36 | 143,435.46 | 264,547.87 | 121,112.41 |
| 04-00-160-403 | 1,333,639.29 | 64,333.68 | 1,480,068.33 | 1,415,734.65 |
| 04-00-163-000 | 55,833.53 | 11,429.63 | 67,875.79 | 56,446.16 |
| 04-00-191-000 | 330,122.75 | 59,686.17 | 425,603.82 | 365,917.65 |
| 04-00-196-000 | <u>12,592.00</u> | <u>3,863.76</u> | <u>16,825.77</u> | <u>12,962.01</u> |
| TOTAL | \$ 30,021,241.86 | \$ 1,019,320.58 | \$ 36,560,655.94 | \$ 35,541,335.36 |

Source: MCWD Records

APPENDIX B – GROWTH PROJECTIONS

Tables B-1 and B-2 are growth projections for Marina and the Ord Community. Marina expects no growth for the next two years and then minimal growth at 15 EDUs/year thereafter. Development at Armstrong Ranch, shown in table B-1, will add considerable new users to the system. BWA has reduced growth projections in both tables from their original values to maintain a conservative estimate of future revenues.

**Table B-1 ■ Marina Coast Water District
Marina Wastewater - Armstrong Ranch Growth Projection**

| Land Use Type | Ruggeri - Jensen - Azar Assoc. | | BWA | | BWA's 8 Year Distributed Growth | | | | | | | |
|--------------------------------------|--------------------------------|------------------|---------------------|-----------------------|---------------------------------|---------|---------|---------|---------|---------|---------|---------|
| | Build Out New | Demand Factor | Yearly Cons (AF) | EDU Equivalent [1] | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| | | | | | | | | | | | | |
| Residential (units) | | | | | | | | | | | | |
| Single Family Homes (15,000 sf lots) | 147 | 1.000000 | | 147 | | | | | | | | |
| Single Family Homes (6,000 sf lots) | 669 | 1.000000 | | 669 | | | | | | | | |
| Apartments | 648 | 0.700000 | | 454 | | | | | | | | |
| Non-Residential (sf) | | | | | | | | | | | | |
| Mixed Use Retail | 60,000 | 0.000210 | 12.6 | 38 | | | | | | | | |
| Office Uses | 143,808 | 0.000135 | 19.4 | 58 | | | | | | | | |
| Light Industrial | 651,624 | 0.000150 | 97.7 | 293 | | | | | | | | |
| New EDUs [2] | | | | 1,659 | - | - | 75 | 125 | 150 | 150 | 150 | 150 |

Source: Developed by Ruggeri - Jensen - Azar & Associates in February 2006 and modified by BWA

1 - Residential is based on Wastewater rate distribution. Non-residential EDU is based on 1 EDU = 1/3 Acre Foot of Water Consumed

2 - Assumes 709 EDUs beyond 2016

**Table B-2 ■ Marina Coast Water District
Ord Community Wastewater – FORA Growth Projection**

| Land Use Type | Build Out @ 2021/22 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016-22 |
|--|---------------------|-----------|------------|--------------|--------------|--------------|--------------|--------------|------------|------------|------------|------------|------------|
| New Residential | | | | | | | | | | | | | |
| Marina Heights | 1,050 | | 389 | 295 | 228 | 138 | | | | | | | |
| Cypress Knolls | 200 | | | 27 | 173 | | | | | | | | |
| University Villages | 1,237 | | 140 | 221 | 366 | 372 | 138 | | | | | | |
| TAMC TOD | 200 | | | 100 | 100 | | | | | | | | |
| CSUMB North Campus Housing | 492 | | | 150 | 150 | 150 | 42 | | | | | | |
| UC 8th Street | 330 | | | 110 | 110 | 110 | | | | | | | |
| East Garrison | 1,470 | | | 45 | 214 | 386 | 452 | 294 | 79 | | | | |
| UC East Campus - SF | 200 | | | | 200 | | | | | | | | |
| Seaside Brostrom | 100 | | 50 | 50 | | | | | | | | | |
| Seaside Highlands | 380 | | 30 | 30 | 30 | 35 | | | | | | | |
| Seaside Resort Housing | 125 | | 30 | 45 | 55 | | | | | | | | |
| Sunbay Affordable | 100 | | | 20 | 20 | | | | | | | | |
| State Park Housing | 20 | | | 57 | | | | | | | | | |
| SH Affordable | 57 | | | | | | | | | | | | |
| Del Ray Oaks | 691 | | | 216 | 163 | 2 | 32 | 96 | 32 | 100 | 100 | 50 | |
| Total | 6,652 | - | 609 | 1,239 | 1,643 | 1,466 | 664 | 390 | 111 | 100 | 100 | 50 | - |
| Non Residential - square feet | | | | | | | | | | | | | |
| Office - square feet | 3,969,510 | 12,200 | 47,000 | 39,168 | 410,342 | 553,900 | 682,820 | 585,012 | 423,328 | 507,220 | 379,020 | 229,500 | 100,000 |
| Industrial - square feet | 2,552,600 | 44,600 | - | 10,000 | - | 322,000 | 472,000 | 466,000 | 150,000 | 150,000 | 150,000 | 500,000 | |
| Retail - square feet | 1,832,500 | - | 334,000 | 615,250 | 328,250 | 310,000 | 92,000 | 55,000 | 20,000 | - | - | 26,000 | 52,000 |
| Hotel Rooms | 3,110 | - | - | 585 | 555 | 674 | 150 | 350 | - | 282 | 64 | 100 | 350 |
| Equivalent Residential Units [1] | 5,472 | 25 | 230 | 702 | 651 | 902 | 622 | 657 | 252 | 414 | 253 | 385 | 248 |
| Total Equivalent Units | 12,124 | 25 | 230 | 1,311 | 1,890 | 2,545 | 2,088 | 1,321 | 642 | 525 | 353 | 435 | 248 |
| BWA and MCWD Expected Growth EDUs [2] | | | 656 | 945 | 1,273 | 1,044 | 660 | 321 | 262 | 177 | 217 | 217 | 124 |

Source: Developed by FORA from various sources. Revised April 2006

1 - Based on one equivalent unit for each: 2,470 ft sq of office space, 2,220 sq. ft. of industrial, 1580 of retail and two hotel rooms.

Same ratios as Marina Armstrong Ranch Projections

2 - Assuming only 50% of development will materialize.

APPENDIX C – FINANCING METHODS

A variety of options are available for financing the District's projects, including the use of cash from reserves or revenues, state revolving fund (SRF) loans, and tax-exempt borrowing. This section briefly describes various financing approaches and lists their advantages and disadvantages.

The following financing alternatives are discussed:

- Pay-as-you-go financing
- State revolving fund loans
- Bank loans
- General obligation bonds
- Revenue bonds
- Certificates of participation/installment purchase certificates
- Bond pools
- Assessment bonds
- Mello-Roos community facilities district bonds

Pay-As-You-Go Financing

Pay-as-you-go financing is cash financing using current revenues and reserves to pay the costs of the capital projects. Connection fees and, if appropriate, service charges are reviewed and adjusted to generate the necessary revenue, which in combination with reserves already accumulated, will pay each year's capital costs. This method has the advantage of not incurring any costs for interest or issuance, which relate to borrowing.

The true cost of cash financing should also consider the relationship between the interest rate earned on reserve investments and the rate of inflation of project costs. In periods of high inflation, it is very difficult to accumulate cash for projects as fast as inflation increases the project costs. Today, both interest rates and inflation are relatively low, and earnings on reserves should equal or exceed cost increases for inflation.

Reserves, to the extent available, could be used to finance the capital improvements. Current reserves may not be sufficient to fund all capital projects required. Moreover, public agencies should not use all of their cash reserves, but should maintain a balance for any future contingencies or emergencies. There is also a policy issue to consider when deciding the appropriate mix of cash and debt financing for public works projects. Including some debt in the financing spreads some of the costs to new customers who use a project over its life, rather than having current customers pay all of the costs.

Advantages:

- No interest and issuance costs; method with lowest cost of financing.
- Simple and straightforward approach to project financing.

Disadvantages:

- May require increases in rates and fees to generate additional revenues.
- Agencies may have insufficient current reserves.
- Implementation schedule may not allow sufficient time to accumulate cash.

State Revolving Fund Loans

Wastewater. The State Water Resources Control Board (SWRCB) offers a state revolving fund (SRF) loan for eligible costs of wastewater projects. To be eligible for a wastewater SRF loan, a project must be on the state's priority list for project funding. Project categories range from "A" to "E" depending on the seriousness of the problem. Generally projects providing capacity for growth are given low priority. The amount available for loans to an individual project or agency varies from year to year, depending upon the availability of funds.

If a project is approved, an SRF loan generally has a term of 20 years at an interest rate equal to one-half of the interest rate paid by the state on its general obligation bonds, generally between 2.5 and 3 percent. As some elements of a project may be ineligible for a loan, an agency often must match the loan with some additional amount of local financing.

Interest begins to accrue upon completion of construction, with the first payment due one year after construction completion. The borrowing agency must complete and adopt a revenue program approved by the SWRCB. The agency must also create a capital reserve fund equal to 5 percent of the loan amount.

An agency must demonstrate to the SWRCB how the loan will be repaid. Any source of funds may be used to repay the loan including connection charges, reserve funds or other rates and charges. An agency may establish a plan for repayment that commits connection charges ahead of service charges, for example. However the SWRCB requires a firm commitment that an agency will use all available means to repay the loan.

Under certain conditions, SRF loans can be used to take out other financings. An agency could use another form of debt to finance a project and use proceeds of a future SRF loan to pay off the original debt, subject to certain conditions.

Water: The 1996 amendments to the federal Safe Drinking Water Act incorporated a drinking water state revolving fund (DWSRF) program. Each state is required to establish such a program. Funding comes from federal and state funds. The level of funding for California is about \$100 million per year.

The DWSRF program is similar to the wastewater SRF program, but differs in certain particulars. The loans are available to private water systems as well as public agencies. Some grant funds are available, particularly to smaller or disadvantaged systems. Loans are available for planning purposes only in amount up to \$100,000. The rules of the program are designed to benefit small water agencies. For example, 15 to 25 percent of the annual funds will be set aside for small water systems (fewer than 10,000 service

connections), so that small systems are not competing directly with large systems. Applicants are required by federal law to meet technical, managerial, and financial criteria to be eligible for loans.

Advantages:

- Low interest costs.
- May be used as a takeout loan for a previous financing.

Disadvantages:

- Requires extra engineering, EIR, and planning costs.
- Requires extra lead time.
- May finance only a portion of project costs; the local agency must provide for financing the remainder of project costs.
- Limits on the amount of capacity for growth which can be funded.
- SRF loan funds are limited and may not be available when needed.

Bank Loans

In some instances, borrowing funds from a commercial bank may be a low-cost method to obtain funds to finance projects. Interest on the loan is income tax-exempt for the bank, so the bank's normal loan rates do not necessarily apply. However, the rates on most bank loans are higher than comparable bond rates. Use of a bank loan requires negotiations with a knowledgeable and profitable bank (one that needs tax-exempt income). The maximum amount of a bank loan is \$10 million per issuer per year.

A bank loan can be negotiated with much lower issuance costs than a bond issue. Generally much less documentation is required. A more informal legal review is needed as the bank will perform its own review. A bank loan is most attractive for a short-term loan of around ten years or less; it can be difficult to get a loan of 20 years. Bank loans may be repaid from any source and a reserve fund is usually not required.

Advantages:

- Ability to negotiate, create flexibility in terms.
- Simple to implement.
- Low issuance costs.

Disadvantages:

- Higher interest rates, shorter term.
- Limited to \$10 million per year per issuer.

General Obligation Bonds

General obligation (GO) bonds have been the traditional source of capital funds for public agencies. GO bonds are secured by the issuer's power and obligation to levy property taxes, without limitation as to rate or amount, for the payment of debt service. GO bonds are secured by the full faith and credit and unlimited taxing power of the issuer. Because of this unlimited taxing power as security, GO bonds are the least costly

form of long-term public borrowing. Moreover, GO bonds do not require a reserve fund, thus reducing the size of the issue.

GO bonds can be used for acquisition, construction, or improvement of real property. In addition to property taxes, debt service on GO bonds can be paid from any legal source of revenue.

Implementation begins with the local agency passing a resolution to place a GO bond measure on the ballot. The election code sections governing such a measure require the preparation of a tax rate statement, ballot arguments in favor of and against the proposition, and an independent analysis. The tax rate statement advises the voters of the tax rates for the first year following the first and last bond sales, the maximum tax rate, and the first year in which the maximum tax rate is expected to occur. This statement would also advise of any intent to substitute revenues other than ad valorem taxes to pay bond service.

A two-thirds voter approval is required. In most cases, GO bonds must be sold by competitive sale.

Advantages:

- GO bonds carry the lowest interest rates of long-term borrowing methods because of their unlimited taxing power as security.
- GO bonds are easy to administer because they can be repaid solely from ad valorem taxes.
- GO bonds do not require a reserve fund or capitalized interest, thus requiring the smallest amount of bonds to finance a project.
- GO bonds create a new revenue source, the power to levy taxes for debt service separate from current revenues.

Disadvantages:

- The two-thirds voter approval requirement means that a project must be publicly popular and have strong community support.
- The agency would have to incur costs associated with the bond election.
- Under Proposition 13, property taxes may not be equitable, in that properties that have been recently purchased often pay substantially higher taxes than properties of equivalent worth that have not changed ownership recently and have therefore been limited to 2 percent annual increase in their assessed valuations.
- Assessed valuation has little or no relation to water use or benefit from the water treatment plant project.
- The agency may need to proceed with its project even if voters reject the bond issue.

Revenue Bonds or Certificates of Participation

Another traditional way for utilities to finance capital projects is revenue bonds. In California, revenue bonds have been replaced by certificates of participation (COPs), which have the same basic security, but a slightly different legal form. This section discusses

revenue-supported bonds for enterprise financing. The subsequent section discusses lease certificates, a related financing method.

COPs are secured by a public agency's power and ability to generate revenues from an enterprise. The fundamental revenue that secures the COPs is the service charge, such as user charges for water service. Additionally, revenues securing such a bond may include connection charges, interest earnings, and any miscellaneous fees or charges. The proceeds of taxes or assessments cannot be pledged for revenue bonds. The underlying security is the issuer's promise to operate its system in a way that will provide sufficient net revenue, after payment of operation and maintenance expenses, to pay annual debt service.

COPs, or revenue bonds, allocate the costs of a capital project to those who use it. Because the bonds are secured only by enterprise revenues, bondholders require assurances that: (1) revenues are sufficient to meet all expenses; (2) annual debt service has a lien on revenues; and (3) future revenue bond issues will not reduce the security of prior issues.

Revenue bonds generally require a minimum coverage pledge. Coverage is measured as the ratio of net revenue (i.e., gross revenues less operation and maintenance expenses) to annual bond service. To enhance marketability, revenue bond issuers typically pledge to maintain net revenues of 1.1 to 1.3 times annual bond service, depending on the types of charges which will pay debt service and how the charges are collected. Consequently, an issuer must set fees and charges at a level 10 to 30 percent above that required to meet debt payments.

The coverage ratio for a revenue bond is measured before the payment of any capital expenses or provision for depreciation and replacement. The revenue required beyond payment of O&M expenses and debt service provides a source of funds for capital repair and replacement, allowing the public agency to protect its investment in its plant and facilities and its ability to generate sufficient revenues to manage the system. However, the revenue must be predictable, reliable, enforceable, and adequate in order to market revenue bonds.

Revenue bonds often include a debt service reserve fund as additional security to the investors. By federal tax law, the reserve fund cannot exceed the lowest of: 10 percent of the issue, maximum annual debt service, or average annual debt service. In today's market, the reserve fund is generally equal to maximum annual debt service. The reserve fund provides a source of payment to bondholders in the event the agency is unable to pay its debt service when due. The reserve fund is usually held by a trustee bank and invested. Interest earnings can be applied toward each year's debt service and the balance in the fund is applied to the final payments.

Advantages:

- Revenue COPs can allocate the costs of capital projects to their users in accordance with water use and demand.
- Revenue bonds are secured by user charges (i.e., revenue) and not on property taxes.
- The security of the bonds is identified and can be reasonably predicted.

Disadvantages:

- The size of a revenue bond is greater than a GO bond, because of the reserve fund.
- Revenue bonds tend to incur higher issuance costs than GO bonds.
- Interest rates of revenue bonds are higher than GO bonds, because of the weaker security and greater credit risk associated with revenue bonds.
- User charges and connection charges (i.e., revenues) must be higher in order to satisfy a debt service coverage requirement.
- Connection charges cannot solely be used to provide revenue bond security because they don't provide a reliable source of revenues.

Lease Certificates of Participation

Another type of long-term borrowing widely used in California to finance capital projects is a variation of a lease, or installment purchase, financing through certificates of participation (COPs). They are called certificates of participation because an investor buys a certificate indicating an undivided, proportional share of lease, or installment purchase, payments by a local agency.

In a COP transaction, the local agency enters into a contract with a third-party seller, or lessor, to purchase specified facilities and to make a stream of payments which are sufficient to retire the debt. The seller is generally a nonprofit corporation or joint powers authority created by the agency or a leasing company employed for this role only. The seller assigns to the agency the obligation to construct the project and assigns to the trustee the right to receive payments. The agency, through a trustee bank, sells shares (i.e., participation certificates) in its obligation, and makes installment payments to the trustee, which in turn pays interest and principal to the owners of the COPs. The installment payments have a principal portion and an interest portion, which is tax-exempt. Once the transaction has been completed, it resembles a bond issue.

There is no specific California statute that authorizes COPs or other types of lease financing; instead, they are based on the ability of local governments to enter into leases and contracts. COPs are authorized by the agency's governing board, generally by resolution. Voter approval of the COP issue is not required, payments do not constitute indebtedness as defined by the California Constitution, and no interest rate limit or issuance discount limitations exist.

Lease COPs can be used for most capital projects, but are generally used for projects supported by an agency's general fund. They can be structured to preserve flexibility in the use and administration of revenues, and can be secured by all legally available funds, or by a designated special fund. There is, however, no ability to raise additional taxes to make COP payments.

The fundamental security of COPs is the contract made by the local government to make installment payments that retire the COPs principal and interest. In order to assure investors of COP payments, public agencies promise to annually appropriate sufficient moneys to pay annual debt service.

When COPs are issued under a lease, the agency must have use of the project in order to make payments. This can add costs and issuance requirements.

Advantages:

- Lease or installment-purchase financing is authorized by governing board resolution.
- COPs can be repaid from a variety of revenues and reserves of the agency.
- COPs are easy to issue and administer. They can be sold within two or three months by competitive or negotiated sale.
- COPs can be used for virtually any capital improvement or replacement.

Disadvantages:

- The agency cannot levy property taxes for COP payments; instead, COPs require a pledge of other types of revenues or available funds.
- Issue size is larger than for GO bonds due to the requirement of a reserve fund and issuance costs.
- A third party is required as seller or lessor; the agency must create or contract for this role.
- Rating agencies generally rate COPs lower than an issuer's general obligation rating because the securities are not backed by the full faith and credit of the public entity. Consequently, interest rates on COPs are usually higher than for GO bonds.

Bond Pools

Government Code §6584 authorizes a joint powers authority (JPA), composed of two or more public entities, to issue its own bonds, which can be used to acquire bonds and other debt issued by the public entities. The JPA can acquire any type of bond or debt instrument, as well as making loans from its bond proceeds and entering into financing leases. Pooled bonds are intended to aid local agencies in financing capital improvements (as defined in Government Code §6546), working capital, liability and other insurance, and projects which provide significant public benefits.

A pooled revenue bond program is offered by the California Statewide Communities Development Authority (CSCDA). This may offer the District a simple and low-cost method for small issues. Information about the CSCDA pool is available at <http://www.ebondpool.com>.

Advantages:

- Sharing issuance costs with other small issuer reduces costs to all parties.

Disadvantages:

- Each issuer must follow the same rules, with little flexibility in structuring the issue.

Assessment Bonds

Assessment districts are commonly used to finance projects of local benefit to specific properties. They have typically been used by wastewater agencies for collection and

transmission facilities. Water and wastewater treatment plant improvement projects are usually considered general benefit projects.

Each property in an assessment district is assessed in relation to the benefit it receives. Under California law, a special assessment is not a tax; it is a lien against a benefited property, which serves as security for bonds issued to finance the capital projects. These liens do not represent an encumbrance on the agency and do not affect the agency's debt capacity. The property securing the lien, however, must have a value sufficient to more than cover the assessment. For successful marketing of assessment bonds, the ratio of assessed or appraised value to the assessment lien should be in excess of 3 to 1.

Assessments must be spread to the benefited properties in proportion to benefit. They are confirmed and recorded against each parcel. A property owner can pay his assessment in cash. If the assessment is not paid within the prescribed time period, it is included in the bond issue. Assessment installments are collected on the property tax bill and used to pay principal and interest payments on the bonds. An assessment lien may be paid off at any time. The agency has the authority to foreclose through superior court proceedings if assessment installments become delinquent.

The amount of the assessment includes the incidental costs of creating the assessment district and spreading and confirming the assessments. Assessments which are bonded also include the costs of issuing the bonds and the bond reserve fund.

Assessment financing requires choosing the appropriate statutory assessment act and bond act. The assessment act specifies a procedure for forming an assessment district, ordering and making acquisitions or improvements, and levying and confirming the assessments. Bond acts are separate enabling statutes which provide different means of securing assessment district bonds.

Assessment Acts: The appropriate assessment acts are the Improvement Act of 1911 (Streets & Highways Code §5000) and the Municipal Improvement Act of 1913 (Streets & Highways Code §10000). Of these two acts, the 1913 Act has the major advantages of allowing the agency's formation and assessment hearings to be held concurrently and allowing payment of the contractor in cash as the projects progress.

Bond Acts: The available bonds acts are the Improvement Act of 1911 (Streets & Highways Code §6400) and the Improvement Bond Act of 1915 (Streets & Highways Code §8500). A 1911 Act bond is a specific lien bond representing an unpaid assessment on a specific parcel. The bonds are issued in the amount of each lien. Default on the bonds enables the bondholder to take possession of the property. A 1915 Act bond is a pooled lien issued in multiples of \$5,000, with the issuer holding specific liens to secure all of the bonds.

Advantages:

- Only the property owners in the assessment district pay the assessments, not the other owners throughout the public agency's service area.

- Assessment bonds are not general obligations of the agency.
- The annual assessments are established for the term of the bond issue.
- Assessment liens must be based on benefit.
- Property owners can pay off assessments at any time.

Disadvantages:

- Assessments are placed on property, whether it is developed or not, so vacant land may have low value to lien ratios.
- Once an assessment lien has been placed on a parcel, it cannot be changed, even if the land use is changed.
- Assessment bonds include a reserve fund, which increases the issue size and assessment installments.
- Assessment bonds are generally not rated, because of their limited security. Consequently, they usually bear higher interest rates than GO bonds and COPs and have higher issuance costs.
- Only property with an identifiable special benefit can be assessed and included in an assessment district.

Mello-Roos Community Facilities District Bonds

The Mello-Roos Community Facilities Act of 1982 (Government Code §§53311) provides for the financing of a broad range of public facilities and certain specific services. Like an assessment district, a community facilities district (CFD) is strictly a financing vehicle, not a separate political entity. Mello-Roos financing can be used to provide any kind of facility which has a useful life of five years or more which the issuer is authorized to construct, own, or operate. Two or more public agencies may enter into a joint financing arrangement to finance facilities for both agencies through one community facilities district. The CFD must be formed by the agency receiving the largest portion of the bond proceeds.

The Mello-Roos Act provides for voter approval of a special tax and issuance of bonds secured by that tax. The measure to authorize a special tax and bonds must be approved by a two-thirds vote of the qualified electors in the community facilities district. Qualified electors are registered voters or, if there are fewer than 12 registered voters in the CFD, landowners based on one vote per acre. Most Mello-Roos districts are created for developers to fund improvements to serve a specific development.

The measure approved by the voters must specify a maximum tax rate and the method in which the tax will be apportioned. Proposition 13 prohibits special taxes based on real property value and transaction and sales tax on the sale of real property. The intent of the Mello-Roos Act is to allow flexibility in the establishment of the special tax. Different classes of property may be taxed at different rates. For example, one rate for undeveloped land, another rate for residential, another rate for commercial, and so forth. Moreover, the special tax paid by a given parcel can vary as its land use is converted from underdeveloped to a more intensive development. The creation of the community facilities district and a notice of the special tax must be recorded so that future property owners are advised that their properties are subject to the special tax.

The agency can pay for the capital projects and services through a bond sale or by using the special tax revenues to pay directly engineering, design, construction, and acquisition costs.

The issuer has no contingent liability in Mello-Roos financing. The special tax can be set to recover principal and interest of the Mello-Roos bonds and administrative costs of the community facilities district. A reserve fund is included in the bond issue to provide security for the payment of debt service in the event of delinquencies. The special tax may be used to replenish any amounts withdrawn from the reserve fund, up to the maximum tax rate approved by the voters.

Advantages:

- Mello-Roos bonds can fund a variety of public facilities and certain services.
- Only the property owners in the community facilities district pay the assessments, not the other owners throughout the agency's service area.
- Mello-Roos bonds are not general obligations of the issuer and have no recourse to general agency revenues or assets.
- Allocation of the special tax to properties within the community facilities district must be based on reasonable criteria, but not specifically related to the benefit received by each property.
- The special tax may vary by type of property and level of development.

Disadvantages:

- Mello-Roos bonds are generally created on behalf of developers in connection with development of their property. The purchasers of the property may not be aware of the potential full impact of a Mello-Roos tax, and the districts can be quite unpopular with homeowners.
- To market Mello-Roos bonds a property value to lien ratio of not less than 3:1 must exist.
- Mello-Roos bonds require a debt service reserve fund as additional security, which increases the issue size and annual tax.
- Because Mello-Roos bonds are not obligations of the issuer, they are typically not rated and therefore have higher interest rates than GO bonds, COPs, and other types of tax-exempt debt.
- The special tax must be levied each year by the local agency. Some special tax formulas allow escalation.
- Various public agencies may create overlapping CFDs independent of each other, leading to high debt levels and taxes and reducing the security of outstanding bonds.
- Mello-Roos debt is land-supported and can be quite risky. There were significant problems with Mello-Roos issues in the recent recession.

Promissory Notes

Section 31304 of the county water district act authorizes the issuance of negotiable promissory notes, payable from any District funds. The District can use promissory notes to borrow up to 1 percent of its assessed valuation for a maximum term of 5 years.

APPENDIX D – ALTERNATE RATE SCENARIOS

Scenario 1 – Full CIP Funding

TABLE 13
MARINA COAST WATER DISTRICT
MARINA WASTEWATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 7,364 | 7,364 | 7,364 | 7,454 | 7,594 | 7,759 |
| New Marina EDUs | - | - | - | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | - | - | - | 75 | 125 | 150 |
| Capacity charge/EDU | 1,485 | 3,880 | 4,060 | 4,250 | 4,450 | 4,660 |
| Capacity charge % increase (1) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 1,578,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 1,796,000 | | | | | |
| Total Beginning Balance | \$ 3,374,000 | \$ 2,582,900 | \$ 2,926,300 | \$ 3,416,900 | \$ 4,492,800 | \$ 1,296,000 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 257,000 | \$ 384,000 | \$ 517,000 | \$ 753,000 | \$ 1,127,000 | \$ 1,632,000 |
| Capacity charges | 1,700 | - | - | 383,000 | 623,000 | 769,000 |
| Interest earnings | 91,000 | 103,000 | 117,000 | 137,000 | 180,000 | 52,000 |
| Employee CALPERS transfers | 6,200 | 6,400 | 6,600 | 6,900 | 7,200 | 7,500 |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest (2) | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 363,900 | 501,400 | 648,600 | 1,287,900 | 1,945,200 | 2,468,500 |
| Expenses | | | | | | |
| General CIP | 1,018,000 | 18,000 | 19,000 | 75,000 | 5,006,000 | 2,631,000 |
| Existing debt service (3) | 137,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Total | 1,155,000 | 158,000 | 158,000 | 212,000 | 5,142,000 | 2,770,000 |
| Net revenue | (791,100) | 343,400 | 490,600 | 1,075,900 | (3,196,800) | (301,500) |
| Ending balance | \$ 2,582,900 | \$ 2,926,300 | \$ 3,416,900 | \$ 4,492,800 | \$ 1,296,000 | \$ 994,500 |
| Minimum Reserve Balance (4) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Marina Wastewater to receive interest (5%) on 5% of \$3.084 million reserve fund.

3 - Includes CALPERS debt service.

4 - Reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

Scenario 1 – Full CIP Funding

TABLE 14
MARINA COAST WATER DISTRICT
MARINA WASTEWATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 7,364 | 7,364 | 7,364 | 7,454 | 7,594 | 7,759 |
| New Marina EDUs | - | - | - | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | - | - | - | 75 | 125 | 150 |
| Base rate per EDU - \$/mo | 6.88 | 8.60 | 10.75 | 13.44 | 17.47 | 22.71 |
| Rates - percentage increase | | 25.0% | 25.0% | 25.0% | 30.0% | 30.0% |
| Escalation factor | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Service charges | \$ 601,000 | \$ 760,000 | \$ 950,000 | \$ 1,202,000 | \$ 1,592,000 | \$ 2,114,000 |
| Permits and other income | 1,200 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Interest earnings | 9,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 611,200 | 769,000 | 959,000 | 1,211,000 | 1,601,000 | 2,123,000 |
| Expenses | | | | | | |
| Administration | 131,000 | 142,000 | 162,000 | 168,000 | 174,000 | 180,000 |
| Operation and maintenance | 153,000 | 166,000 | 190,000 | 197,000 | 204,000 | 211,000 |
| Engineering | 70,000 | 77,000 | 90,000 | 93,000 | 96,000 | 100,000 |
| Employee CALPERS transfers (1) | 6,200 | 6,400 | 6,600 | 6,900 | 7,200 | 7,500 |
| Total | 354,000 | 385,000 | 442,000 | 458,000 | 474,000 | 491,000 |
| Net revenue | 257,200 | 384,000 | 517,000 | 753,000 | 1,127,000 | 1,632,000 |
| Capital expenses - transfer | 257,200 | 384,000 | 517,000 | 753,000 | 1,127,000 | 1,632,000 |
| Ending balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Minimum Reserve Balance (2) | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |

1 - Included in expenses above.

2 - Minimum reserve balance is 60 days of operating expenses or \$200,000.

Source: Prepared by Bartle Wells Associates

Scenario 1 – Full CIP Funding

TABLE 15
MARINA COAST WATER DISTRICT
ORD COMMUNITY WASTEWATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 |
| New Ord EDUs | - | - | - | - | - | - |
| Capacity charge/EDU | 1,000 | 3,920 | 4,100 | 4,290 | 4,490 | 4,700 |
| MRWPCA buy-in capacity chg. (1) | 820 | 820 | 820 | 820 | 820 | 820 |
| Monthly Capital Surcharge/EDU | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| # EDUs billed surcharge | 20 | 20 | 20 | 20 | 20 | 20 |
| Capacity charge % increase (2) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Capital surcharge % increase | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 1,366,200 | | | | | |
| Bond proceeds (restricted for constr) | \$ 5,279,000 | | | | | |
| Total Beginning Balance | \$ 6,645,200 | \$ 5,619,700 | \$ 5,474,600 | \$ 7,160,900 | \$ 10,495,600 | \$ 1,035,700 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 476,000 | \$ 1,085,000 | \$ 2,046,000 | \$ 3,657,000 | \$ 6,113,000 | \$ 6,792,000 |
| Capacity charges | 18,000 | - | - | - | - | - |
| Capital charges | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Interest earnings | 279,000 | 225,000 | 219,000 | 286,000 | 420,000 | 41,000 |
| Employee CALPERS transfers | 9,300 | 9,700 | 10,100 | 10,500 | 10,900 | 11,300 |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest (3) | 34,000 | 34,000 | 34,000 | 34,000 | 34,000 | 34,000 |
| Total | 817,500 | 1,354,900 | 2,310,300 | 3,988,700 | 6,579,100 | 6,879,500 |
| Expenses | | | | | | |
| General CIP (4) | 1,697,000 | 1,000,000 | 52,000 | 83,000 | 15,465,000 | 6,342,000 |
| MRWPCA buy-in (1) | | | 9,296,000 | | | |
| Existing debt service (5) | 146,000 | 500,000 | 572,000 | 571,000 | 574,000 | 567,000 |
| Total | 1,843,000 | 1,500,000 | 624,000 | 654,000 | 16,039,000 | 6,909,000 |
| Net revenue | (1,025,500) | (145,100) | 1,686,300 | 3,334,700 | (9,459,900) | (29,500) |
| Ending balance | \$ 5,619,700 | \$ 5,474,600 | \$ 7,160,900 | \$ 10,495,600 | \$ 1,035,700 | \$ 1,006,200 |
| Minimum Reserve Balance (6) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Pass-through to MRWPCA - not in totals.

2 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

3 - Ord Community Wastewater to receive interest (5%) on 22% of \$3.084 million reserve fund.

4 - \$1.75 Million transferred from FY06/07 to FY 07/08 for scheduling purposes.

5 - Includes CALPERS debt service.

6 - Minimum reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

Scenario 1 – Full CIP Funding

TABLE 16
MARINA COAST WATER DISTRICT
ORD COMMUNITY WASTEWATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 |
| New Ord EDUs | - | - | - | - | - | - |
| Base rate per EDU - \$/mo | 20.20 | 31.31 | 48.53 | 74.74 | 114.35 | 125.78 |
| Rates - percentage increase | | 55.0% | 55.0% | 54.0% | 53.0% | 10.0% |
| Escalation factor | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Usage rates | \$ 1,292,000 | \$ 1,973,000 | \$ 3,059,000 | \$ 4,710,000 | \$ 7,207,000 | \$ 7,927,000 |
| Permits and other income | 7,500 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Interest earnings | 9,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 1,308,500 | 1,989,000 | 3,075,000 | 4,726,000 | 7,223,000 | 7,943,000 |
| Expenses | | | | | | |
| Administration | 336,000 | 362,000 | 406,000 | 422,000 | 438,000 | 454,000 |
| Operation and maintenance | 348,000 | 377,000 | 428,000 | 445,000 | 462,000 | 479,000 |
| Engineering | 149,000 | 165,000 | 195,000 | 202,000 | 210,000 | 218,000 |
| Employee CALPERS transfers (1) | 9,300 | 9,700 | 10,100 | 10,500 | 10,900 | 11,300 |
| Total | 833,000 | 904,000 | 1,029,000 | 1,069,000 | 1,110,000 | 1,151,000 |
| Net revenue | 475,500 | 1,085,000 | 2,046,000 | 3,657,000 | 6,113,000 | 6,792,000 |
| Capital expenses - transfer | 475,500 | 1,085,000 | 2,046,000 | 3,657,000 | 6,113,000 | 6,792,000 |
| Ending balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Minimum Reserve Balance (2) | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |

1 - Included in expenses above

2 - Minimum reserve balance is 60 days of operating expenses or \$200,000

Source: Prepared by Bartle Wells Associates

Scenario 1 – Full CIP Funding

TABLE 19
MARINA COAST WATER DISTRICT
WASTEWATER DEBT SERVICE COVERAGE BY FUND

| | <i>Budget</i> 2007/08 | <i>Projection</i> 2008/09 | <i>Projection</i> 2009/10 | <i>Projection</i> 2010/11 | <i>Projection</i> 2011/12 | <i>Projection</i> 2012/13 |
|---|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Marina Wastewater Operating Revenues | 611,200 | 769,000 | 959,000 | 1,211,000 | 1,601,000 | 2,123,000 |
| Marina Wastewater Capital Revenues | 100,700 | 111,000 | 125,000 | 528,000 | 811,000 | 829,000 |
| Marina Wastewater Operating Expenses | 354,000 | 385,000 | 442,000 | 458,000 | 474,000 | 491,000 |
| Marina Wastewater Net Revenues | 357,900 | 495,000 | 642,000 | 1,281,000 | 1,938,000 | 2,461,000 |
| Marina Wastewater Debt Service | 137,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Marina Wastewater Debt Service Coverage | 2.61 | 3.54 | 4.62 | 9.35 | 14.25 | 17.71 |
| Ord Wastewater Operating Revenues | 1,308,500 | 1,989,000 | 3,075,000 | 4,726,000 | 7,223,000 | 7,943,000 |
| Ord Wastewater Capital Revenues | 332,200 | 260,200 | 254,200 | 321,200 | 455,200 | 76,200 |
| Ord Wastewater Operating Expenses | 833,000 | 904,000 | 1,029,000 | 1,069,000 | 1,110,000 | 1,151,000 |
| Ord Wastewater Net Revenues | 807,700 | 1,345,200 | 2,300,200 | 3,978,200 | 6,568,200 | 6,868,200 |
| Ord Wastewater Debt Service | 146,000 | 500,000 | 572,000 | 571,000 | 574,000 | 567,000 |
| Ord Wastewater Debt Service Coverage | 5.53 | 2.69 | 4.02 | 6.97 | 11.44 | 12.11 |
| Total Wastewater Net Revenues | 1,165,600 | 1,840,200 | 2,942,200 | 5,259,200 | 8,506,200 | 9,329,200 |
| Total Wastewater Debt Service | 283,000 | 640,000 | 711,000 | 708,000 | 710,000 | 706,000 |
| Wastewater Debt Service Coverage | 4.12 | 2.88 | 4.14 | 7.43 | 11.98 | 13.21 |

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

TABLE 13
MARINA COAST WATER DISTRICT
MARINA WASTEWATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 7,364 | 7,364 | 7,364 | 7,454 | 7,594 | 7,759 |
| New Marina EDUs | - | - | - | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | - | - | - | 75 | 125 | 150 |
| Capacity charge/EDU | 1,485 | 3,880 | 4,060 | 4,250 | 4,450 | 4,660 |
| Capacity charge % increase (1) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 1,578,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 1,796,000 | | | | | |
| Total Beginning Balance | \$ 3,374,000 | \$ 2,582,900 | \$ 2,815,300 | \$ 3,025,900 | \$ 3,646,800 | \$ 4,558,000 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 257,000 | \$ 255,000 | \$ 222,000 | \$ 239,000 | \$ 263,000 | \$ 290,000 |
| Capacity charges | 1,700 | - | - | 383,000 | 623,000 | 769,000 |
| Interest earnings | 91,000 | 103,000 | 113,000 | 121,000 | 146,000 | 182,000 |
| Employee CALPERS transfers | 6,200 | 6,400 | 6,600 | 6,900 | 7,200 | 7,500 |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest (2) | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 363,900 | 372,400 | 349,600 | 757,900 | 1,047,200 | 1,256,500 |
| Expenses | | | | | | |
| General CIP | 1,018,000 | - | - | - | - | - |
| Existing debt service (3) | 137,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Total | 1,155,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Net revenue | (791,100) | 232,400 | 210,600 | 620,900 | 911,200 | 1,117,500 |
| Ending balance | \$ 2,582,900 | \$ 2,815,300 | \$ 3,025,900 | \$ 3,646,800 | \$ 4,558,000 | \$ 5,675,500 |
| Minimum Reserve Balance (4) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Marina Wastewater to receive interest (5%) on 5% of \$3.084 million reserve fund.

3 - Includes CALPERS debt service.

4 - Reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

TABLE 14
MARINA COAST WATER DISTRICT
MARINA WASTEWATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 7,364 | 7,364 | 7,364 | 7,454 | 7,594 | 7,759 |
| New Marina EDUs | - | - | - | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | - | - | - | 75 | 125 | 150 |
| Base rate per EDU - \$/mo | 6.88 | 7.14 | 7.41 | 7.69 | 7.99 | 8.29 |
| Rates - percentage increase | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Escalation factor | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Service charges | \$ 601,000 | \$ 631,000 | \$ 655,000 | \$ 688,000 | \$ 728,000 | \$ 772,000 |
| Permits and other income | 1,200 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Interest earnings | 9,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 611,200 | 640,000 | 664,000 | 697,000 | 737,000 | 781,000 |
| Expenses | | | | | | |
| Administration | 131,000 | 142,000 | 162,000 | 168,000 | 174,000 | 180,000 |
| Operation and maintenance | 153,000 | 166,000 | 190,000 | 197,000 | 204,000 | 211,000 |
| Engineering | 70,000 | 77,000 | 90,000 | 93,000 | 96,000 | 100,000 |
| Employee CALPERS transfers (1) | 6,200 | 6,400 | 6,600 | 6,900 | 7,200 | 7,500 |
| Total | 354,000 | 385,000 | 442,000 | 458,000 | 474,000 | 491,000 |
| Net revenue | 257,200 | 255,000 | 222,000 | 239,000 | 263,000 | 290,000 |
| Capital expenses - transfer | 257,200 | 255,000 | 222,000 | 239,000 | 263,000 | 290,000 |
| Ending balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Minimum Reserve Balance (2) | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |

1 - Included in expenses above.

2 - Minimum reserve balance is 60 days of operating expenses or \$200,000.

Source: Prepared by Bartle Wells Associates

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

TABLE 15
MARINA COAST WATER DISTRICT
ORD COMMUNITY WASTEWATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 |
| New Ord EDUs | - | - | - | - | - | - |
| Capacity charge/EDU | 1,000 | 3,920 | 4,100 | 4,290 | 4,490 | 4,700 |
| MRWPCA buy-in capacity chg. (1) | 820 | 820 | 820 | 820 | 820 | 820 |
| Monthly Capital Surcharge/EDU | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| # EDUs billed surcharge | 20 | 20 | 20 | 20 | 20 | 20 |
| Capacity charge % increase (2) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Capital surcharge % increase | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 1,366,200 | | | | | |
| Bond proceeds (restricted for constr) | \$ 5,279,000 | | | | | |
| Total Beginning Balance | \$ 6,645,200 | \$ 5,619,700 | \$ 5,822,600 | \$ 5,887,900 | \$ 5,969,600 | \$ 6,064,700 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 476,000 | \$ 433,000 | \$ 359,000 | \$ 371,000 | \$ 384,000 | \$ 399,000 |
| Capacity charges | 18,000 | - | - | - | - | - |
| Capital charges | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Interest earnings | 279,000 | 225,000 | 233,000 | 236,000 | 239,000 | 243,000 |
| Employee CALPERS transfers | 9,300 | 9,700 | 10,100 | 10,500 | 10,900 | 11,300 |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest (3) | 34,000 | 34,000 | 34,000 | 34,000 | 34,000 | 34,000 |
| Total | 817,500 | 702,900 | 637,300 | 652,700 | 669,100 | 688,500 |
| Expenses | | | | | | |
| General CIP (4) | 1,697,000 | - | - | - | - | - |
| MRWPCA buy-in (1) | | | 9,296,000 | | | |
| Existing debt service (5) | 146,000 | 500,000 | 572,000 | 571,000 | 574,000 | 567,000 |
| Total | 1,843,000 | 500,000 | 572,000 | 571,000 | 574,000 | 567,000 |
| Net revenue | (1,025,500) | 202,900 | 65,300 | 81,700 | 95,100 | 121,500 |
| Ending balance | \$ 5,619,700 | \$ 5,822,600 | \$ 5,887,900 | \$ 5,969,600 | \$ 6,064,700 | \$ 6,186,200 |
| Minimum Reserve Balance (6) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Pass-through to MRWPCA - not in totals.

2 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

3 - Ord Community Wastewater to receive interest (5%) on 22% of \$3.084 million reserve fund.

4 - \$1.75 Million transferred from FY06/07 to FY 07/08 for scheduling purposes.

5 - Includes CALPERS debt service.

6 - Minimum reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

TABLE 16
MARINA COAST WATER DISTRICT
ORD COMMUNITY WASTEWATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 |
| New Ord EDUs | - | - | - | - | - | - |
| Base rate per EDU - \$/mo | 20.20 | 20.97 | 21.76 | 22.59 | 23.45 | 24.34 |
| Rates - percentage increase | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Escalation factor | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Usage rates | \$ 1,292,000 | \$ 1,321,000 | \$ 1,372,000 | \$ 1,424,000 | \$ 1,478,000 | \$ 1,534,000 |
| Permits and other income | 7,500 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Interest earnings | 9,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 1,308,500 | 1,337,000 | 1,388,000 | 1,440,000 | 1,494,000 | 1,550,000 |
| Expenses | | | | | | |
| Administration | 336,000 | 362,000 | 406,000 | 422,000 | 438,000 | 454,000 |
| Operation and maintenance | 348,000 | 377,000 | 428,000 | 445,000 | 462,000 | 479,000 |
| Engineering | 149,000 | 165,000 | 195,000 | 202,000 | 210,000 | 218,000 |
| Employee CALPERS transfers (1) | 9,300 | 9,700 | 10,100 | 10,500 | 10,900 | 11,300 |
| Total | 833,000 | 904,000 | 1,029,000 | 1,069,000 | 1,110,000 | 1,151,000 |
| Net revenue | 475,500 | 433,000 | 359,000 | 371,000 | 384,000 | 399,000 |
| Capital expenses - transfer | 475,500 | 433,000 | 359,000 | 371,000 | 384,000 | 399,000 |
| Ending balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Minimum Reserve Balance (2) | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |

1 - Included in expenses above

2 - Minimum reserve balance is 60 days of operating expenses or \$200,000

Source: Prepared by Bartle Wells Associates

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

TABLE 19
MARINA COAST WATER DISTRICT
WASTEWATER DEBT SERVICE COVERAGE BY FUND

| | <i>Budget 2007/08</i> | <i>Projection 2008/09</i> | <i>Projection 2009/10</i> | <i>Projection 2010/11</i> | <i>Projection 2011/12</i> | <i>Projection 2012/13</i> |
|---|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Marina Wastewater Operating Revenues | 611,200 | 640,000 | 664,000 | 697,000 | 737,000 | 781,000 |
| Marina Wastewater Capital Revenues | 100,700 | 111,000 | 121,000 | 512,000 | 777,000 | 959,000 |
| Marina Wastewater Operating Expenses | 354,000 | 385,000 | 442,000 | 458,000 | 474,000 | 491,000 |
| Marina Wastewater Net Revenues | 357,900 | 366,000 | 343,000 | 751,000 | 1,040,000 | 1,249,000 |
| Marina Wastewater Debt Service | 137,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Marina Wastewater Debt Service Coverage | 2.61 | 2.61 | 2.47 | 5.48 | 7.65 | 8.99 |
| Ord Wastewater Operating Revenues | 1,308,500 | 1,337,000 | 1,388,000 | 1,440,000 | 1,494,000 | 1,550,000 |
| Ord Wastewater Capital Revenues | 332,200 | 260,200 | 268,200 | 271,200 | 274,200 | 278,200 |
| Ord Wastewater Operating Expenses | 833,000 | 904,000 | 1,029,000 | 1,069,000 | 1,110,000 | 1,151,000 |
| Ord Wastewater Net Revenues | 807,700 | 693,200 | 627,200 | 642,200 | 658,200 | 677,200 |
| Ord Wastewater Debt Service | 146,000 | 500,000 | 572,000 | 571,000 | 574,000 | 567,000 |
| Ord Wastewater Debt Service Coverage | 5.53 | 1.39 | 1.10 | 1.12 | 1.15 | 1.19 |
| Total Wastewater Net Revenues | 1,165,600 | 1,059,200 | 970,200 | 1,393,200 | 1,698,200 | 1,926,200 |
| Total Wastewater Debt Service | 283,000 | 640,000 | 711,000 | 708,000 | 710,000 | 706,000 |
| Wastewater Debt Service Coverage | 4.12 | 1.66 | 1.36 | 1.97 | 2.39 | 2.73 |

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 13
MARINA COAST WATER DISTRICT
MARINA WASTEWATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 7,364 | 7,364 | 7,364 | 7,454 | 7,594 | 7,759 |
| New Marina EDUs | - | - | - | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | - | - | - | 75 | 125 | 150 |
| Capacity charge/EDU | 1,485 | 3,880 | 4,060 | 4,250 | 4,450 | 4,660 |
| Capacity charge % increase (1) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 1,578,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 1,796,000 | | | | | |
| Total Beginning Balance | \$ 3,374,000 | \$ 2,582,900 | \$ 2,797,300 | \$ 3,012,900 | \$ 3,612,800 | \$ 2,235,000 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 257,000 | \$ 255,000 | \$ 247,000 | \$ 293,000 | \$ 350,000 | \$ 416,000 |
| Capacity charges | 1,700 | - | - | 383,000 | 623,000 | 769,000 |
| Interest earnings | 91,000 | 103,000 | 112,000 | 121,000 | 145,000 | 89,000 |
| Employee CALPERS transfers | 6,200 | 6,400 | 6,600 | 6,900 | 7,200 | 7,500 |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest (2) | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 363,900 | 372,400 | 373,600 | 811,900 | 1,133,200 | 1,289,500 |
| Expenses | | | | | | |
| General CIP | 1,018,000 | 18,000 | 19,000 | 75,000 | 2,375,000 | 2,375,000 |
| Existing debt service (3) | 137,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Total | 1,155,000 | 158,000 | 158,000 | 212,000 | 2,511,000 | 2,514,000 |
| Net revenue | (791,100) | 214,400 | 215,600 | 599,900 | (1,377,800) | (1,224,500) |
| Ending balance | \$ 2,582,900 | \$ 2,797,300 | \$ 3,012,900 | \$ 3,612,800 | \$ 2,235,000 | \$ 1,010,500 |
| Minimum Reserve Balance (3) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)
2 - Marina Wastewater to receive interest (5%) on 5% of \$3.084 million reserve fund.
3 - Includes CALPERS debt service.
4 - Reserve balance is \$1.0 million.
Prepared by Bartle Wells Associates

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 14
MARINA COAST WATER DISTRICT
MARINA WASTEWATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 7,364 | 7,364 | 7,364 | 7,454 | 7,594 | 7,759 |
| New Marina EDUs | - | - | - | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | - | - | - | 75 | 125 | 150 |
| Base rate per EDU - \$/mo | 6.88 | 7.14 | 7.70 | 8.30 | 8.95 | 9.64 |
| Rates - percentage increase | | 3.8% | 7.8% | 7.8% | 7.8% | 7.8% |
| Escalation factor | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Service charges | \$ 601,000 | \$ 631,000 | \$ 680,000 | \$ 742,000 | \$ 815,000 | \$ 898,000 |
| Permits and other income | 1,200 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Interest earnings | 9,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 611,200 | 640,000 | 689,000 | 751,000 | 824,000 | 907,000 |
| Expenses | | | | | | |
| Administration | 131,000 | 142,000 | 162,000 | 168,000 | 174,000 | 180,000 |
| Operation and maintenance | 153,000 | 166,000 | 190,000 | 197,000 | 204,000 | 211,000 |
| Engineering | 70,000 | 77,000 | 90,000 | 93,000 | 96,000 | 100,000 |
| Employee CALPERS transfers (1) | 6,200 | 6,400 | 6,600 | 6,900 | 7,200 | 7,500 |
| Total | 354,000 | 385,000 | 442,000 | 458,000 | 474,000 | 491,000 |
| Net revenue | 257,200 | 255,000 | 247,000 | 293,000 | 350,000 | 416,000 |
| Capital expenses - transfer | 257,200 | 255,000 | 247,000 | 293,000 | 350,000 | 416,000 |
| Ending balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Minimum Reserve Balance (2) | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |

1 - Included in expenses above.

2 - Minimum reserve balance is 60 days of operating expenses or \$200,000.

Source: Prepared by Bartle Wells Associates

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 15
MARINA COAST WATER DISTRICT
ORD COMMUNITY WASTEWATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 |
| New Ord EDUs | - | - | - | - | - | - |
| Capacity charge/EDU | 1,000 | 3,920 | 4,100 | 4,290 | 4,490 | 4,700 |
| MRWPCA buy-in capacity chg. (1) | 820 | 820 | 820 | 820 | 820 | 820 |
| Monthly Capital Surcharge/EDU | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| # EDUs billed surcharge | 20 | 20 | 20 | 20 | 20 | 20 |
| Capacity charge % increase (2) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Capital surcharge % increase | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 1,366,200 | | | | | |
| Bond proceeds (restricted for constr) | \$ 5,279,000 | | | | | |
| Total Beginning Balance | \$ 6,645,200 | \$ 5,619,700 | \$ 4,822,600 | \$ 4,848,900 | \$ 4,917,600 | \$ 2,997,700 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 476,000 | \$ 433,000 | \$ 412,000 | \$ 483,000 | \$ 561,000 | \$ 650,000 |
| Capacity charges | 18,000 | - | - | - | - | - |
| Capital charges | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Interest earnings | 279,000 | 225,000 | 193,000 | 194,000 | 197,000 | 120,000 |
| Employee CALPERS transfers | 9,300 | 9,700 | 10,100 | 10,500 | 10,900 | 11,300 |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest (3) | 34,000 | 34,000 | 34,000 | 34,000 | 34,000 | 34,000 |
| Total | 817,500 | 702,900 | 650,300 | 722,700 | 804,100 | 816,500 |
| Expenses | | | | | | |
| General CIP (4) | 1,697,000 | 1,000,000 | 52,000 | 83,000 | 2,150,000 | 2,150,000 |
| MRWPCA buy-in (1) | | | 9,296,000 | | | |
| Existing debt service (5) | 146,000 | 500,000 | 572,000 | 571,000 | 574,000 | 567,000 |
| Total | 1,843,000 | 1,500,000 | 624,000 | 654,000 | 2,724,000 | 2,717,000 |
| Net revenue | (1,025,500) | (797,100) | 26,300 | 68,700 | (1,919,900) | (1,900,500) |
| Ending balance | \$ 5,619,700 | \$ 4,822,600 | \$ 4,848,900 | \$ 4,917,600 | \$ 2,997,700 | \$ 1,097,200 |
| Minimum Reserve Balance (6) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Pass-through to MRWPCA - not in totals.

2 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

3 - Ord Community Wastewater to receive interest (5%) on 22% of \$3.084 million reserve fund.

4 - \$1.75 Million transferred from FY06/07 to FY 07/08 for scheduling purposes.

5 - Includes CALPERS debt service.

6 - Minimum reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 16
MARINA COAST WATER DISTRICT
ORD COMMUNITY WASTEWATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 | 5,252 |
| New Ord EDUs | - | - | - | - | - | - |
| Base rate per EDU - \$/mo | 20.20 | 20.97 | 22.60 | 24.37 | 26.27 | 28.32 |
| Rates - percentage increase | | 3.8% | 7.8% | 7.8% | 7.8% | 7.8% |
| Escalation factor | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Usage rates | \$ 1,292,000 | \$ 1,321,000 | \$ 1,425,000 | \$ 1,536,000 | \$ 1,655,000 | \$ 1,785,000 |
| Permits and other income | 7,500 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Interest earnings | 9,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| Total | 1,308,500 | 1,337,000 | 1,441,000 | 1,552,000 | 1,671,000 | 1,801,000 |
| Expenses | | | | | | |
| Administration | 336,000 | 362,000 | 406,000 | 422,000 | 438,000 | 454,000 |
| Operation and maintenance | 348,000 | 377,000 | 428,000 | 445,000 | 462,000 | 479,000 |
| Engineering | 149,000 | 165,000 | 195,000 | 202,000 | 210,000 | 218,000 |
| Employee CALPERS transfers (1) | 9,300 | 9,700 | 10,100 | 10,500 | 10,900 | 11,300 |
| Total | 833,000 | 904,000 | 1,029,000 | 1,069,000 | 1,110,000 | 1,151,000 |
| Net revenue | 475,500 | 433,000 | 412,000 | 483,000 | 561,000 | 650,000 |
| Capital expenses - transfer | 475,500 | 433,000 | 412,000 | 483,000 | 561,000 | 650,000 |
| Ending balance | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |
| Minimum Reserve Balance (2) | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 | \$ 200,000 |

1 - Included in expenses above

2 - Minimum reserve balance is 60 days of operating expenses or \$200,000

Source: Prepared by Bartle Wells Associates

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 19
MARINA COAST WATER DISTRICT
WASTEWATER DEBT SERVICE COVERAGE BY FUND

| | <i>Budget</i> 2007/08 | <i>Projection</i> 2008/09 | <i>Projection</i> 2009/10 | <i>Projection</i> 2010/11 | <i>Projection</i> 2011/12 | <i>Projection</i> 2012/13 |
|---|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Marina Wastewater Operating Revenues | 611,200 | 640,000 | 689,000 | 751,000 | 824,000 | 907,000 |
| Marina Wastewater Capital Revenues | 100,700 | 111,000 | 120,000 | 512,000 | 776,000 | 866,000 |
| Marina Wastewater Operating Expenses | 354,000 | 385,000 | 442,000 | 458,000 | 474,000 | 491,000 |
| Marina Wastewater Net Revenues | 357,900 | 366,000 | 367,000 | 805,000 | 1,126,000 | 1,282,000 |
| Marina Wastewater Debt Service | 137,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Marina Wastewater Debt Service Coverage | 2.61 | 2.61 | 2.64 | 5.88 | 8.28 | 9.22 |
| Ord Wastewater Operating Revenues | 1,308,500 | 1,337,000 | 1,441,000 | 1,552,000 | 1,671,000 | 1,801,000 |
| Ord Wastewater Capital Revenues | 332,200 | 260,200 | 228,200 | 229,200 | 232,200 | 155,200 |
| Ord Wastewater Operating Expenses | 833,000 | 904,000 | 1,029,000 | 1,069,000 | 1,110,000 | 1,151,000 |
| Ord Wastewater Net Revenues | 807,700 | 693,200 | 640,200 | 712,200 | 793,200 | 805,200 |
| Ord Wastewater Debt Service | 146,000 | 500,000 | 572,000 | 571,000 | 574,000 | 567,000 |
| Ord Wastewater Debt Service Coverage | 5.53 | 1.39 | 1.12 | 1.25 | 1.38 | 1.42 |
| Total Wastewater Net Revenues | 1,165,600 | 1,059,200 | 1,007,200 | 1,517,200 | 1,919,200 | 2,087,200 |
| Total Wastewater Debt Service | 283,000 | 640,000 | 711,000 | 708,000 | 710,000 | 706,000 |
| Wastewater Debt Service Coverage | 4.12 | 1.66 | 1.42 | 2.14 | 2.70 | 2.96 |

**MARINA COAST
WATER DISTRICT**

FIVE-YEAR WATER FINANCIAL
PLAN AND RATE STUDY

SERVING THE CITY OF MARINA
AND THE ORD COMMUNITY

May 2008, *draft*

BARTLE WELLS ASSOCIATES
Independent Public Finance Advisors
1889 Alcatraz Avenue
Berkeley CA 94703

Tel. 510/653-3399

CONTENTS

Summary of Findings and Recommendations Error! Bookmark not defined.

Introduction.....3

District Finances4

Water Rate Structure.....4

Customers and Water Use6

Fund Balance9

Outstanding Debt10

Revenues and Expenses11

Water Capital Improvements.....14

Financing Capital Projects.....18

Certificates of Participation18

State Revolving Fund Loans.....18

Summary of Financing Methods19

Recommended Financing Methods20

Capacity Charge.....20

Bond Issues.....21

Water Rates.....23

Revenue and Expense Projections24

Projected Water Consumption.....29

Rate Impact.....29

Debt Service Coverage31

Policy Issues.....33

Bond Security33

New Water Supply Projects.....33

Recycled Water Pricing Options33

Appendix A – Replacement Costs

Appendix B – Growth Projections

Appendix C – Financing Methods

Appendix D – Alternative Rate Scenarios

Appendix E – Water Consumption

LIST OF TABLES

- Table 1 - Marina Current Monthly Water Rates
- Table 2 - Ord Community Current Monthly Water Rates
- Table 3 - Marina Water Meters and EDUs
- Table 4 - Ord Community Water Meters and EDUs
- Table 5 - Marina Consumption Analysis
- Table 6 - Ord Community Consumption Analysis
- Table 7 - Marina Water Fund Balance
- Table 8 - Ord Community Water Fund Balance
- Table 9 - MCWD Outstanding Debt
- Table 10 - Marina Water Revenues and Expenses
- Table 11 - Ord Community Water Revenues and Expenses
- Table 12 - Marina Water Five -Year Capital Improvement Plan
- Table 13 - Ord Community Water Five -Year Capital Improvement Plan
- Table 14 - Water Augmentation Capital Improvement Plan
- Table 15 - Marina Water Updated Capacity Charge
- Table 16 - Ord Community Water Updated Capacity Charge
- Table 17 - Ord Community Recycled Water Leasing
- Table 18 - Bond Issue for Capital Water Projects
- Table 19 - Marina Water Tiered Rate Options
- Table 20 - Marina Water Projected Capital Revenues and Expenses
- Table 21 - Marina Water Projected Operating Revenues and Expenses
- Table 22 - Ord Community Water Projected Capital Revenues and Expenses
- Table 23 - Ord Community Water Projected Operating Revenues and Expenses
- Table 24 - Projected Water Consumption
- Table 25 - Marina Water Recommended Monthly Water Rates
- Table 26 - Ord Community Water Recommended Monthly Water Rates
- Table 27 - Projected Water Debt Service Coverage by Fund
- Table 28 - Projected Overall Debt Service Coverage

APPENDIX A – Replacement Costs

Table A1 - Marina Water Fixed Assets Replacement Costs, *as of June 30, 2006*

Table A2 - Ord Community Water Fixed Assets Replacement Costs, *as of June 30, 2006*

APPENDIX B – Growth Projections

Table B1 - Marina Water – Armstrong Ranch Growth Projection

Table B2 - Ord Community Water – FORA Growth Projection

APPENDIX C – Financing Methods

APPENDIX D – Alternative Rate Scenarios (Tables 20, 21, 22, 23 & 27)

Scenario 1 – Full CIP Funding

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

APPENDIX E – Water Consumption

Table E1 - Marina Water Consumption, *calendar year 2007, Base Case*

Table E2 - Marina Water Consumption, *calendar year 2007, Case A*

Table E3 - Marina Water Consumption, *calendar year 2007, Case B*

Table E4 - Marina Water Consumption, *calendar year 2007, Case C*

Table E5 - Ord Community Water Consumption, *calendar year 2007*

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Marina Coast Water District (MCWD) is in good financial condition. However, the District needs to curtail its planned capital improvement program (CIP) in the Ord Community until there is a reasonable level of growth to help fund the program. This financial plan recommends funding \$7.1 million of Ord's planned \$22.65 million CIP over the next five years (31 percent). Marina's \$13.6 million CIP is fully funded over the next five years. The District's outstanding water debt is approximately \$4.0 million for Marina and \$26.5 million for the Ord Community (not including CALPERS debt).

The District's ongoing CIP is primarily funded from three sources: current customers, new connections, and bond proceeds. In 2007, the District and its partners, Monterey County Water Resources Agency (MCWRA) and the City of Soledad, successfully competed and obtained a Proposition 50 grant. The District's portion of the funds will be about \$2.0 million and is dedicated to a new well project. Those funds are expected during 2009. Existing customers contribute to the capital program through rates, while new customers pay their portion of the projects through capacity charges and a monthly capital surcharge. This study updates both water rates and capacity charges based on planned expenditures. This financing plan is intended to address the District's long-term funding needs.

Near-term (five years) proposed water capital improvements for Marina total about \$13.6 million, while \$22.65 million is proposed in Ord. Additional CIP projects beyond 2012/13 are estimated at \$10.4 million for Marina and \$110.6 million for the Ord Community. The District is also looking at \$43.3 million over five years, and \$92.8 million total, in water augmentation projects that would eventually secure an additional annual supply of 3,000 acre feet. Given the current slowdown in new construction and home sales, Ord capital projects need to be rescheduled to coincide with projects actually needed for new growth. In any event, future pay-as-you-go financing and District reserves are not nearly enough to cover these anticipated capital costs. Updated fees and capacity charges and some level of future borrowing with possible additional grants must be considered. The new recommended capacity charge for Marina is \$5,360/EDU and for Ord it is \$13,740/EDU. These capacity charges should be escalated annually to ensure equity among new users and to keep the charges in line with increased capital costs. The recommended escalation rate is the annual increase in the 20-cities ENR Construction Cost Index.

Bartle Wells also recommends restructuring Marina's water rates from its current two-tier structure to a three-tier system. This will further encourage conservation while increasing water revenues to help fund portions of the capital program. The Ord Community water rate structure currently utilizes three tiers and it is recommended that Marina's rate structure be modified to mirror that of Ord's. Ord's three-tier rate structure does not need modification, but it is recommended that Ord's flat rate calculation be increased to generate additional revenue and encourage flat rate accounts to convert to metered accounts. Given Ord's higher level of debt payments and greater capital needs, Bartle Wells recommends 10 percent rate increases for the next two years for Ord followed by the same 7.8 percent

that is proposed for Marina. No increase is proposed to Ord's capital surcharge for new users of \$20/month. The recommended option and impact to rates are shown below.

| FY | Marina water base rate* | Tier I | Tier II | Tier III | Avg. customer bill (base rate + 13 hcf) | % increase |
|---------|-------------------------|------------|------------|-----------|---|------------|
| | | (0-12 hcf) | (12+ hcf) | | | |
| 2007/08 | \$14.18 | \$1.79 | \$2.80 | n/a | \$38.46 | |
| | | (0-8 hcf) | (9-16 hcf) | (17+ hcf) | | |
| 2008/09 | \$14.72 | \$1.79 | \$2.18 | \$3.98 | \$39.94 | 3.8% |
| 2009/10 | \$15.87 | \$1.93 | \$2.35 | \$4.29 | \$43.05 | 7.8% |
| 2010/11 | \$17.10 | \$2.08 | \$2.53 | \$4.63 | \$46.41 | 7.8% |
| 2011/12 | \$18.44 | \$2.24 | \$2.73 | \$4.99 | \$50.03 | 7.8% |
| 2012/13 | \$19.88 | \$2.42 | \$2.94 | \$5.37 | \$53.93 | 7.8% |

* Base rate is the typical residential minimum monthly service charge. Other customer classes have base rates scaled appropriately to their meter sizes.

| FY | Ord Community water base rate* | Tier I | Tier II | Tier III | Avg. customer bill (base rate + 13 hcf) | % increase | Flat rate |
|---------|--------------------------------|----------|------------|-----------|---|------------|-----------|
| | | (0-8hcf) | (9-16 hcf) | (17+ hcf) | | | |
| 2007/08 | \$12.50 | \$1.70 | \$2.39 | \$3.08 | \$38.05 | | \$52.10 |
| 2008/09 | \$13.75 | \$1.87 | \$2.63 | \$3.39 | \$41.86 | 10.0% | \$67.76 |
| 2009/10 | \$15.13 | \$2.06 | \$2.89 | \$3.73 | \$46.04 | 10.0% | \$74.54 |
| 2010/11 | \$16.30 | \$2.22 | \$3.12 | \$4.02 | \$49.63 | 7.8% | \$80.35 |
| 2011/12 | \$17.58 | \$2.39 | \$3.36 | \$4.33 | \$53.50 | 7.8% | \$86.62 |
| 2012/13 | \$18.95 | \$2.58 | \$3.62 | \$4.67 | \$57.68 | 7.8% | \$93.37 |

* Base rate is the typical residential minimum monthly service charge. Other customer classes have base rates scaled appropriately to their meter sizes.

No additional borrowing is envisioned for the next five years, unless actual development proceeds. For future capital financing purposes, the District can issue revenue-supported certificates of participation by Board resolution. This type of financing is widely used in California for financing infrastructure projects. A pledge of all District revenues is required and will greatly strengthen the credit of the certificate issues.

The water rate structures for both Marina and the Ord Community conform to equity standards. The same water rates should apply for residential, commercial, and construction water. The meter rates for larger size meters follow the American Water Works Association capacity ratios which are listed in Tables 1 and 2.

According to Proposition 218, the Board is required to mail a notice to property owners of the proposed increases and hold a public hearing at which property owners may protest against the increase. If written protests are submitted by a majority of property owners, then the District may not increase the rate. In the absence of a majority protest, the Board may vote to pass the rate increases. Property ownership is defined to include tenancies of real property where the tenants are directly liable to pay the charge. Essentially the party responsible for paying the bill, whether property owner or tenant, should receive a notice and that individual has the right to file a written protest (one protest/one bill). We recommend one public hearing covering both Marina and the Ord Community for both water and wastewater.

The rate hearing should include notice regarding several years of proposed rate adjustments, including the recommended rate indexing in future years. Otherwise, the District will need to follow the mailed notice provision each time a rate adjustment is needed.

INTRODUCTION

Marina Coast Water District provides water service to about 5,450 equivalent connections in and adjacent to the City of Marina and also to about 3,725 equivalent connections in the Ord Community community. The District assumed responsibility for operation of the water and wastewater utilities for the Ord Community pursuant to a water/wastewater facilities agreement dated March 13, 1998.

The Marina and Ord Community service areas are maintained as separate operations, with separate financial records and accounts. The District prepares capital improvement programs for both the Marina and the Ord Community service areas.

The District is planning ongoing capital facilities within its Marina service area. In addition, by agreement with the Fort Ord Reuse Authority (FORA), the District agreed to prepare and implement a capital improvement program to repair, replace and expand the FORA water system.

According to the facilities agreement with FORA, the District prepares operating and capital budgets and corresponding user charge structures. Capital improvements for the FORA systems are approved annually by the District and FORA boards. Wherever possible, the schedule for water improvements within the Ord Community is coordinated with road improvements. The plan is to schedule these facilities prior to, or coincident with, any road overlay or improvement projects. Otherwise, improvements are completed coincident with development needs or to meet needs of equipment that must be replaced.

This report recommends a method of calculating and determining the water rates and charges for water users. The report is based on District financial information, the capital improvement program, FORA growth projections and other information. The report recommends future water rates, develops updated capacity charges, and recommends financing alternatives. A companion report for wastewater financing is being developed simultaneously.

DISTRICT FINANCES

Water Rate Structure

Tables 1 and 2 show Marina's and Ord Community's current water rates. Marina's water rates consist of two parts: a monthly minimum charge based on meter size, and tiered water quantity charges for all water delivered. Ord Community's rates are similarly structured with a monthly meter charge and tiered water quantity charges. Currently, Marina uses a two-tiered rate structure while Ord Community uses three tiers. New residents in the Ord Community must also pay a \$20 monthly capital surcharge to help fund capital expansion. We recommend that Marina adjust its tier structure to three tiers, as Ord Community already has in place, to further encourage conservation.

In the Marina service area, a one-time capacity charge applies to new development to fund facilities expansion. This charge also includes appropriate buy-in costs for new users to benefit from existing facilities. The capacity charge in the Ord Community also covers new users' buy-in costs, but currently does not adequately cover future project costs. The Fort Ord Reuse Authority (FORA) will contribute \$38 million towards water supply augmentation with the remaining costs funded by customers through monthly capital surcharges and rates.

Minimum Monthly Charge: The minimum monthly charge can be thought of as a "readiness to serve" charge that provides a customer with access to water at all times, whether or not the water is actually used. It is a fair way of recovering costs related to the number of customers and size of meter installed, rather than to water use. This means, for example, that a customer who leaves his residence for an extended vacation will still pay some charge for water availability. A base rate established by meter size recognizes a water agency's obligation to serve a customer's potential water use. The District must be prepared to meet that demand.

Meter capacity ratios are based on American Water Works Association (AWWA) standards reflecting average safe operating capacity. Actual water consumption may vary greatly between individual meters of the same size depending upon the property use, number of occupants, types of appliances, outside irrigation, and other factors. In Marina, a monthly charge of \$14.18 applies for a 5/8" and a 3/4" meter. A \$12.50 monthly charge applies for the same meter sizes in the Ord Community. Proportionately higher monthly charges apply to larger meter sizes.

Table 1 ■ Marina Current Monthly Water Rates

| Meter Size | Capacity Ratio | 2007/08 Meter charge/mo |
|-------------------------------------|----------------|----------------------------|
| 5/8" | 1.0 | \$14.18 |
| 3/4" | 1.0 | 14.18 |
| 1" | 2.5 | 35.44 |
| 1 1/2" | 5.0 | 70.88 |
| 2" | 8.0 | 113.40 |
| 3" | 15.0 | 212.63 |
| 4" | 25.0 | 354.38 |
| 6" | 50.0 | 708.76 |
| 8" | 100.0 | 1,417.52 |
| Quantity Rate | | |
| 0 - 12 hcf (tier I) | | 1.79 |
| 13 + hcf (tier II) | | 2.80 |
| Capacity Charge | | |
| Residential and equivalents per EDU | | \$4,164 |

Source: MCWD 2007/08 Budget

The monthly charge provides a steady, predictable revenue stream to the District and recognizes the fixed nature of a portion of operation and maintenance costs. This charge funds the costs of providing water available upon demand. A large proportion of water costs are fixed and related to the need to have water service available at all times regardless of actual water use. These costs continue regardless of the amount of water sold.

Quantity Charge: The quantity charge for water typically constitutes the major share of a user's water charges. With a quantity charge, the customer's cost is directly proportional to water consumption. Quantity rates may be flat or stepped, and may include seasonal or demand variations to reflect the requirements of different water systems. An increasing block rate structure such as the District's current rate structure tends to encourage water conservation. In both Marina and the Ord Community, the quantity charges are the same for both residential and commercial classes. In Marina, a quantity rate of \$1.79 per hundred cubic feet (hcf) applies to the first 12 hcf of water consumption. Above 12 hcf, a quantity rate of \$2.80/hcf is charged. In the Ord Community, a three-tiered system is in place, whereby the first tier is charged \$1.70/hcf for up to 8 hcf. Above 8 hcf and up to 16 hcf is \$2.39/hcf, and anything above 16 hcf is charged at \$3.08/hcf.

**Table 2 ■ Marina Coast Water District
Ord Community Current Monthly
Water Rates**

| Meter Size | Capacity Ratio | 2007/08 Meter charge/mo |
|---------------------------------------|----------------|----------------------------|
| 3/4" | 1.0 | \$12.50 |
| 1" | 2.5 | 31.25 |
| 1 1/2" | 5.0 | 62.50 |
| 2" | 8.0 | 100.00 |
| 3" | 15.0 | 187.50 |
| 4" | 25.0 | 312.50 |
| 6" | 50.0 | 625.00 |
| 8" | 100.0 | 1,250.00 |
| Quantity Rate | | |
| 0 - 8 hcf (tier I) | | 1.70 |
| 9 - 16 hcf (tier II) | | 2.39 |
| 17 + hcf (tier III) | | 3.08 |
| Capacity Charge | | |
| Residential and equivalents (per EDU) | | \$2,800 |
| Additional Charges | | |
| Monthly capital surcharge (new EDU) | | \$20.00 |
| Flat rate per mo. without meter | | \$52.10 |

Source: MCWD 2007/08 Budget

Capacity Charge: In Marina, the capacity charge is paid by new customers connecting to the water system and is applied towards the capital costs of both existing and planned facilities. It is a one-time charge calculated on the basis of District assets and proposed capital spending. In the Ord Community, capacity charges are levied for the same purpose, but are partly subsidized by developer contributions. District wide, approximately \$79.6 million in water related capital projects are planned over the next five years, including over \$43 million for regional water augmentation projects. The current capacity charge in Marina is \$4,164 per equivalent dwelling unit (EDU). The current charge in the Ord Community is \$2,800/EDU.

The California Government Code establishes requirements for development and capacity fees. Section 66013 discusses water and sewer connection fees, and includes capacity charges. The section provides that when a local agency imposes fees for water or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee is imposed. "Capacity charges" are defined as "charges for facilities in existence at the time the charge

is imposed or charges for new facilities to be constructed in the future which are of benefit to the person or property being charged.”

Capital Surcharge: The Ord Community also requires new customers to pay a monthly capital surcharge to help fund capital expansion projects. This is due to insufficient revenue from capacity fees. The current capital surcharge is \$20/EDU per month and we recommend no change in the capital surcharge.

Flat Rate: The Ord Community also has a flat rate of \$52.10 for non-metered use, which is based on an assumed consumption of just over 18 hcf per month. The current flat rate includes the monthly base rate and quantity charges. Bartle Wells Associates (BWA) recommends this charge be modified and propose that it be based on consumption of 20 hcf per month charged at Ord Water’s third tier rate. The monthly base rate component of the flat rate calculation would be eliminated. The proposed flat rate for 2008/09 is \$67.76. The higher flat rate is recommended to encourage flat rate accounts to switch to metered accounts so as to promote conservation and also ensure rate equity among all Ord users since current flat rate accounts are able to use large amounts of water with no additional financial consequences.

Customers and Water Use

Marina CWD serves approximately 3,830 water meters in the city of Marina, as shown in Table 3. The table displays the number of water meters by meter size and user class. Nearly 3,445 of these meters (or 90 percent) are either 5/8 or 3/4 – inch residential meters. These meter sizes are the standard for a single-family dwelling, and thus have an equivalent EDU value of one. Larger meters are proportioned using the AWWA capacity ratios. The city of Marina serves approximately 5,558 EDUs, though for projection purposes, we have reduced this value by 2 percent to 5,450 EDUs to account for meters that may be inactive or not yet in service.

**Table 3 ■ Marina Coast Water District
Marina Water Meters and EDUs**

| Meter Size | Capacity Ratio | Single Family # of meters | Multi-Family # of meters | School # of meters | Government # of meters | Construction # of meters | Business # of meters | Total Meters | Equivalent EDU's |
|------------------------------|----------------|---------------------------|--------------------------|--------------------|------------------------|--------------------------|----------------------|--------------|------------------|
| 5/8" | 1.0 | 1,301 | 8 | 1 | 1 | 0 | 7 | 1,318 | 1,318 |
| 3/4" | 1.0 | 1,879 | 115 | 0 | 11 | 0 | 121 | 2,126 | 2,126 |
| 1" | 2.5 | 89 | 48 | 2 | 8 | 0 | 41 | 188 | 470 |
| 1 1/2" | 5.0 | 5 | 36 | 0 | 8 | 0 | 39 | 88 | 440 |
| 2" | 8.0 | 1 | 38 | 2 | 9 | 0 | 30 | 80 | 640 |
| 3" | 15.0 | 0 | 2 | 1 | 1 | 4 | 8 | 16 | 240 |
| 4" | 25.0 | 0 | 6 | 5 | 0 | 0 | 0 | 11 | 275 |
| 6" | 50.0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 50 |
| 8" | 100.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTALS | | | | | | | | 3,828 | 5,558 |
| 2% REDUCTION [1] | | | | | | | | | 108 |
| TOTAL EDU CALCULATION | | | | | | | | | 5,450 |

1 - Reduction of 2% because of delays between payment of capacity fees and start of service. Also accounts for inactive meters.
Source: From MCWD records, calculated from meter count March 2007

Table 4 shows the Ord Community’s current water meter distribution. Approximately 1,674 water meters are in use, 82 percent of which are residential baseline EDUs. A total

of 3,724 EDUs has been calculated for projection purposes. This includes a 2 percent reduction due to inactive meters. The Ord Community's service area also includes 2,355 flat rate customers.

**Table 4 ■ Marina Coast Water District
Ord Community Water Meters and EDUs**

| Meter Size | Capacity Ratio | Single Family # of meters | Multi-Family # of meters | School # of meters | Government # of meters | Construction # of meters | Business # of meters | Industrial # of meters | Institutional # of meters | State Parks # of meters | Army # of meters | Total Meters | Equivalent EDU's |
|------------------------------|----------------|---------------------------|--------------------------|--------------------|------------------------|--------------------------|----------------------|------------------------|---------------------------|-------------------------|------------------|--------------|------------------|
| 3/4" | 1.0 | 596 | 758 | 1 | 0 | 0 | 19 | 0 | 3 | 0 | 3 | 1,379 | 1,379 |
| 1" | 2.5 | 40 | 22 | 0 | 0 | 0 | 13 | 0 | 11 | 0 | 3 | 89 | 223 |
| 1 1/2" | 5.0 | 0 | 22 | 0 | 10 | 0 | 6 | 2 | 35 | 0 | 9 | 84 | 420 |
| 2" | 8.0 | 14 | 4 | 2 | 14 | 1 | 6 | 0 | 27 | 3 | 5 | 76 | 608 |
| 3" | 15.0 | 0 | 3 | 4 | 2 | 11 | 1 | 1 | 7 | 0 | 4 | 33 | 495 |
| 4" | 25.0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 7 | 175 |
| 6" | 50.0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 100 |
| 8" | 100.0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 400 |
| TOTAL EDU's | | | | | | | | | | | | 1,674 | 3,800 |
| 2% REDUCTION (1) | | | | | | | | | | | | | 76 |
| TOTAL EDU CALCULATION | | | | | | | | | | | | | 3,724 |

1 - Reduction due to (1) delays between payment of capacity fees and start of service and (2) dormant meters.
Source: From MCWD records, calculated from meter count March 2007

Appendix E shows 2007 water consumption for both Marina and the Ord Community. This data is used in Tables 5 and 6 to determine the volume of water billed within each rate tiers. To encourage conservation and increase revenues, it is recommended that Marina add a third tier to its rate structure as is already the case with the Ord Community rate structure. Table 5 shows four tier alternatives that Bartle Wells examined using the 2007 Marina water consumption data in Appendix E. The Base Case displayed in Table 5 represents Marina's current rate structure and about 43 percent of Marina's water is currently billed in the first rate tier (0-12 hcf) while 57 percent is billed in the second rate tier (13+ hcf). BWA developed three rate alternatives (cases A, B, and C), with two of the alternatives (cases B and C) including the addition of a third tier to encourage conservation. Based on the consumption data and revenue projections, case B is recommended. Case B generates the most revenues, discourages excessive water use with the creation of a third tier, and adopts the same tier ranges as currently exist in Ord. If the new rate structure and proposed fees were adopted, a Marina customer's average monthly bill would be similar to that of the typical Ord Community user. Under the proposed 2008/09 rates (assuming monthly use of 13 hcf), a Marina monthly bill would be \$39.94, while an Ord Community bill would be \$41.86.

**Table 5 ■ Marina Coast Water District
Marina Consumption Analysis**

| | BASE CASE | CASE A | CASE B | CASE C |
|--|----------------------|-------------|-------------|-------------|
| | tier I 0 - 12 hcf | 0 - 8 hcf | 0 - 8 hcf | 0 - 12 hcf |
| | tier II 13 + hcf | 9 + hcf | 9 - 16 hcf | 13 - 20 hcf |
| | tier III n/a | n/a | 17 + hcf | 21 + hcf |
| Tier I CY 2007 consumption (hcf) | 191,143 | 100,516 | 100,516 | 191,143 |
| Tier I CY 2007 quantity charge | \$1.79 | \$1.79 | \$1.79 | \$1.79 |
| Calendar Year 2007 Tier I Charges | \$342,146 | \$179,924 | \$179,924 | \$342,146 |
| Tier II CY 2007 # Bills | 15,787 | 24,535 | 14,192 | 8,656 |
| (Tier I consumption from Tier II bills) | 189,444 | 196,280 | 113,536 | 103,872 |
| (Tier II consumption from Tier II bills) | 494,974 | 578,765 | 55,213 | 33,036 |
| Tier II CY 2007 quantity charge | \$2.80 | \$2.80 | \$2.80 | \$2.80 |
| Calendar Year 2007 Tier I Charges | \$339,105 | \$351,341 | \$203,229 | \$185,931 |
| Calendar Year 2007 Tier II Charges | \$1,385,927 | \$1,620,542 | \$154,596 | \$92,501 |
| Tier III CY 2007 # Bills | n/a | n/a | 10,343 | 7,131 |
| (Tier I consumption from Tier III bills) | n/a | n/a | 82,744 | 85,572 |
| (Tier II consumption from Tier III bills) | n/a | n/a | 82,744 | 57,048 |
| (Tier III consumption from Tier III bills) | n/a | n/a | 440,808 | 404,890 |
| Tier III CY 2007 quantity charge | n/a | n/a | \$3.81 | \$3.81 |
| Calendar Year 2007 Tier I Charges | n/a | n/a | \$148,112 | \$153,174 |
| Calendar Year 2007 Tier II Charges | n/a | n/a | \$231,683 | \$159,734 |
| Calendar Year 2007 Tier III Charges | n/a | n/a | \$1,679,478 | \$1,542,631 |
| TOTAL Consumption | 875,561 | 875,561 | 875,561 | 875,561 |
| TOTAL Consumption Revenues | \$2,067,000 | \$2,152,000 | \$2,597,000 | \$2,476,000 |
| Tier I Consumption % | 43% | 34% | 34% | 43% |
| Tier II Consumption % | 57% | 66% | 16% | 10% |
| Tier III Consumption % | n/a | n/a | 50% | 46% |
| Tier I Revenue % | 33% | 25% | 20% | 28% |
| Tier II Revenue % | 67% | 75% | 15% | 10% |
| Tier III Revenue % | n/a | n/a | 65% | 62% |

Source: MCWD and prepared by Bartle Wells Associates

Table 6 is the consumption analysis for Ord. Current consumption is about 23 percent tier I (0-8 hcf), 10 percent tier II (9-16 hcf) and 67 percent tier III (17+ hcf). BWA proposes no change in the current tier structure, but does recommend rate increases detailed later in this report.

**Table 6 ■ Marina Coast Water District
Ord Community Consumption
Analysis**

| | |
|--|-------------|
| Tier I CY 2007 consumption | 49,414 |
| Tier I CY 2007 quantity charge | \$1.70 |
| Calendar Year 2007 Tier I Charges | \$84,004 |
| Tier II CY 2007 # Bills | 7,175 |
| (Tier I consumption from Tier II bills) | 57,400 |
| (Tier II consumption from Tier II bills) | 26,818 |
| Tier II CY 2007 quantity charge | \$2.39 |
| Calendar Year 2007 Tier I Charges | \$97,580 |
| Calendar Year 2007 Tier II Charges | \$64,095 |
| Tier III CY 2007 # Bills | 4,471 |
| (Tier I consumption from Tier III bills) | 35,768 |
| (Tier II consumption from Tier III bills) | 35,768 |
| (Tier III consumption from Tier III bills) | 408,052 |
| Tier III CY 2007 quantity charge | \$3.08 |
| Calendar Year 2007 Tier I Charges | \$60,806 |
| Calendar Year 2007 Tier II Charges | \$85,486 |
| Calendar Year 2007 Tier III Charges | \$1,256,800 |
| TOTAL Consumption | 613,220 |
| TOTAL Consumption Revenues | \$1,648,770 |
| Tier I Consumption % | 23.3% |
| Tier II Consumption % | 10.2% |
| Tier III Consumption % | 66.5% |
| Tier I Revenue % | 14.7% |
| Tier II Revenue % | 9.1% |
| Tier III Revenue % | 76.2% |

Source: MCWD and prepared by Bartle Wells Associates

Fund Balance

Tables 7 and 8 show the audited fund balances available to Marina and Ord as of June 30, 2007. The District maintains separate operating water reserves for both Marina and Ord. These reserves provide funds for ongoing operating expenses and allow districts to maintain operations in times of unanticipated revenue shortfalls. In addition to operating reserve funds, the District keeps separate capital reserves for Marina and Ord. These reserves provide funds for capital projects, future replacement of fixed assets, and emergency funding for major capital expenditures. For both Marina and the Ord Community, cash flow projections have been developed using these balances as their starting point.

We recommend a minimum operating reserve equal to two months of operating expenses. Capital fund balances will vary greatly depending on actual capital expenditures. BWA recommends a minimum capital fund balance of \$1.0 million.

**Table 7 ■ Marina Coast Water District
Marina Water Fund Balance**

| | | Marina Water June 30, 2007 |
|----------------------------------|-----------|---------------------------------------|
| CAPITAL RESERVE | | |
| Restricted for Construction | | 1,418,500 |
| Unrestricted | | <u>5,396,000</u> |
| TOTAL | \$ | 6,814,500 |
| GENERAL OPERATING RESERVE | \$ | 304,000 |
| TOTAL | \$ | 7,118,500 |

Source: MCWD Records

**Table 8 ■ Marina Coast Water District
Ord Community Water Fund Balance**

| | | Fort Ord Water June 30, 2007 |
|----------------------------------|-----------|---|
| CAPITAL RESERVE | | |
| Restricted for Construction | \$ | 13,626,100 |
| Unrestricted | \$ | <u>3,267,000</u> |
| TOTAL | \$ | 16,893,100 |
| GENERAL OPERATING RESERVE | \$ | 516,000 |
| TOTAL | \$ | 17,409,100 |

Source: MCWD Records

Outstanding Debt

MCWD recently consolidated their long term debt in a resale and issued new bonds in 2006, totaling \$42,310,000. The District is additionally responsible for annual CALPERS pension payments. Table 9 is a summary of outstanding Debt service and the financial allocations to each sector of the District. Marina water debt is approximately \$4.0 million and Ord Community water debt is approximately \$26.5 million (not including CALPERS debt).

**Table 9 ■ Marina Coast Water District
MCWD Outstanding Debt**

| MCWD ENTERPRISE REVENUE COP's - SERIES 2006 - As of June 1, 2007 | | | | | | | | | | | | | | |
|--|------------------------------|--------------------------------|--------------------------------|--------------------------|------------------------------|--------------------------|---|--------------------------|-----------------------|---------------------------|-----------------------------|-----------------------|-------------------------|-----------|
| | Marina Water New Money | Marina Water 1996 Refund | Marina Water 1998 Refund | Marina Water Total | Marina Sewer New Money | Marina Sewer Total | Ord Water Regional Supply New Money | Ord Water 2003 Refund | Ord Water Total | Ord Sewer New Money | Ord Sewer 2003 Refund | Ord Sewer Total | Capitalized Interest | Total |
| 6/1/2008 | 202,850 | 184,400 | 183,588 | 570,838 | 138,844 | 138,844 | | 432,831 | 432,831 | | 146,150 | 146,150 | 1,389,675 | 1,286,663 |
| 6/1/2009 | 200,650 | 184,000 | 182,988 | 567,638 | 140,444 | 140,444 | 1,032,069 | 432,831 | 1,464,900 | 357,606 | 142,750 | 600,356 | | 2,673,338 |
| 6/1/2010 | 203,450 | 183,400 | 182,188 | 569,038 | 138,844 | 138,844 | 1,032,069 | 432,431 | 1,464,500 | 427,606 | 144,350 | 611,956 | | 2,744,338 |
| 6/1/2011 | 201,050 | 187,600 | 186,188 | 574,838 | 137,244 | 137,244 | 1,032,069 | 431,831 | 1,463,900 | 424,806 | 145,750 | 610,556 | | 2,746,338 |
| 6/1/2012 | 198,650 | 186,400 | 184,788 | 569,838 | 135,644 | 135,644 | 1,032,069 | 430,431 | 1,462,500 | 432,006 | 141,950 | 615,956 | | 2,741,938 |
| 6/1/2013 | 201,400 | 185,400 | 183,600 | 570,400 | 139,144 | 139,144 | 1,032,069 | 434,556 | 1,466,625 | 424,006 | 143,388 | 611,394 | | 2,743,563 |
| 6/1/2014 | 198,800 | 183,800 | 176,800 | 559,400 | 137,344 | 137,344 | 1,032,069 | 432,356 | 1,464,425 | 426,006 | 144,388 | 610,814 | | 2,731,563 |
| 6/1/2015 | 201,200 | 182,000 | | 383,200 | 135,544 | 135,544 | 1,207,069 | 434,756 | 1,641,825 | 427,806 | 145,188 | 610,994 | | 2,733,563 |
| 6/1/2016 | 203,400 | | | 203,400 | 138,744 | 138,744 | 1,290,069 | 431,556 | 1,721,625 | 424,406 | 145,788 | 610,194 | | 2,633,963 |
| 6/1/2017 | 200,400 | | | 200,400 | 136,744 | 136,744 | 1,264,469 | 432,956 | 1,721,425 | 426,006 | 146,188 | 610,614 | | 2,636,763 |
| CALPERS | | | | 49,112.16 | | 11,050.24 | | | 45,428.75 | | | 17,189.26 | | |

Source: Cllgroup Enterprise Revenue Certificates of Participation, series 2006 and Bond Final Pricing Numbers, Tab 8, p.31, and MCWD 05/06 audit.
* CALPERS debt is distributed 40% to Marina Water, 9% to Marina Wastewater, 37% to Ord Water and 14% to Ord Wastewater.

Revenues and Expenses

Table 10 shows revenues and expenses for Marina water. Audited figures are available for 03/04, 04/05, 05/06, and 06/07. Despite yearly rate increases and minimal population growth, water sale revenue has remained relatively consistent at about \$2.7 million annually. This indicates a gradual reduction in Marina water consumption. In recent years, the District's budget provides annual net revenues over \$1 million. These funds are available for operation and maintenance of Marina water facilities, as well as to fund a portion of capital and replacement projects. Residential and business water sales account for over three-quarters of total revenues. Interest on reserves is another important source of revenue. Overall expenses have increased steadily since 2003/04.

**Table 10 ■ Marina Coast Water District
Marina Water Revenues and Expenses**

| | Actual 03/04 | Actual 04/05 | Actual 05/06 | Actual 06/07 | Budget 07/08 |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Revenues | | | | | |
| Water sales | \$ 2,685,869 | \$ 2,539,371 | \$ 2,688,254 | \$ 2,953,524 | \$ 2,770,000 |
| Capacity charges | 31,722 | 166,458 | 174,367 | 205,928 | - |
| Permits & other | 122,305 | 117,277 | 245,045 | 332,984 | 292,700 |
| Interest income | <u>51,277</u> | <u>129,089</u> | <u>260,502</u> | <u>415,055</u> | <u>225,000</u> |
| Total | 2,891,172 | 2,952,197 | 3,368,168 | 3,907,491 | 3,287,700 |
| Expenses | | | | | |
| Administration | 434,408 | 661,013 | 513,802 | 559,054 | 611,730 |
| Operations and maintenance | 623,257 | 663,371 | 738,116 | 765,627 | 955,000 |
| Laboratory | 148,776 | 162,931 | 154,132 | 148,465 | 151,690 |
| Conservation | 82,059 | 109,100 | 95,685 | 110,414 | 123,320 |
| Engineering | 119,242 | 195,947 | 352,860 | 264,285 | 253,860 |
| Interest expense | <u>176,662</u> | <u>155,044</u> | <u>149,727</u> | <u>173,207</u> | <u>171,000</u> |
| Total | 1,584,404 | 1,947,406 | 2,004,322 | 2,021,052 | 2,266,600 |
| Net revenue* | \$ 1,306,768 | \$ 1,004,791 | \$ 1,363,846 | \$ 1,886,439 | \$ 1,021,100 |

*Available for debt service, capital and replacements

Source: Marina Coast Water District Audits FY 03/04, 04/05, 06/07 and Budget FY 2007/08

Table 11 shows revenues and expenses for the Ord Community. Audited figures are available for 03/04, 04/05, 05/06, and 06/07. MCWD is the water purveyor for Ord Community's water services, as the District received conveyance from the US Army in 2001. The District operates under a facilities agreement with FORA. Long-term, the Ord Community's water revenues are expected to increase in line with growth projections developed by FORA, which are available in Appendix B, but in the near-term (five years) growth is conservatively projected to be zero.

**Table 11 ■ Marina Coast Water District
Ord Community Water Revenues and Expenses**

| | Actual 03/04 | Actual 04/05 | Actual 05/06 | Actual 06/07 | Budget 07/08 |
|---------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Revenues | | | | | |
| Water sales | \$ 2,682,056 | \$ 2,563,175 | \$ 3,334,072 | \$ 3,753,515 | \$ 3,374,000 |
| Capacity charges | - | 426,421 | 60,443 | 181,662 | - |
| Permits & other | 522,197 | 344,729 | 259,734 | 844,382 | 65,000 |
| Grants | - | 445,918 | 616,213 | 17,640 | - |
| Interest income | 12,891 | 35,377 | 89,427 | 893,471 | 100,000 |
| Total | 3,217,144 | 3,815,620 | 4,359,889 | 5,690,670 | 3,539,000 |
| Expenses | | | | | |
| Administration | 730,719 | 962,776 | 758,671 | 917,778 | 1,112,630 |
| Operation and maintenance | 1,046,709 | 985,235 | 994,608 | 1,048,035 | 1,136,960 |
| Laboratory | 125,941 | 142,415 | 142,394 | 130,176 | 188,070 |
| Conservation | 49,039 | 83,856 | 88,190 | 90,695 | 143,440 |
| Engineering | 326,224 | 270,944 | 494,112 | 827,235 | 413,540 |
| Interest expense | 34,439 | 107,697 | 184,825 | 235,054 | 289,000 |
| Total | 2,313,071 | 2,552,923 | 2,662,800 | 3,248,973 | 3,283,640 |
| Net revenue* | \$ 904,073 | \$ 1,262,697 | \$ 1,697,089 | \$ 2,441,697 | \$ 255,360 |

*Available for capital and replacements

Source: Marina Coast Water District Audits FY 03/04, 04/05, 06/07 and Budget FY 2007/08

The District's expenses and revenues can be divided into operating and capital categories, as discussed below.

Operating and Capital Costs: Operating costs refer to those required to pay for the operation and maintenance of the District's water system. Such costs include labor, power, chemicals, supplies, monitoring, planning, general administration, overhead, customer accounting, and repairs and replacements. As a part of operating costs, replacements include such things as pumps, motors, chlorination equipment, vehicles, reservoir appurtenances, electrical repairs, and office equipment. Annual replacement costs are frequently budgeted on the basis of a schedule of facilities' useful lives and average cost over the planning term. In general, operating costs are those annual expenses that maintain the system.

Capital costs include those for facility expansion to meet future needs, system upgrading to provide increased levels of service such as higher water pressure, greater fire flow, or additional water supply. Capital costs usually include rehabilitation of worn-out major

facilities or structures and annual debt service to finance major expansions, upgrading, and rehabilitation.

The gray area between operating costs and capital costs lies in the cost of financing system rehabilitation (or replacements). Rehabilitation costs assigned to capital are generally defined as major costs for equipment and construction which extend the service life or improve the capacity or operating efficiency of the water facilities. The key term here is “major costs,” as this definition allocates minor rehabilitation to operating costs.

Rehabilitation expenses may only maintain the system’s current capacity and operating efficiency. Such expenses are typically classified as operating. However, when costs are high or the need occurs without sufficient warning, the rehabilitation costs may be properly considered capital costs.

WATER CAPITAL IMPROVEMENTS

The District prepared a water capital improvement program (CIP) for the next five years for both Marina and Ord. Tables 12 and 13 outline Marina and Ord Community's current CIP. Through 2012/13, Marina has \$13.6M and the Ord Community has over \$22.6M of water related CIP projects. These capital expenditures do not include the more than \$43M that is projected over the next five years for the District's future water augmentation projects, as shown in table 14. Beyond 2012/13, the District's CIP projects an additional \$10.4M for Marina, \$110M for Ord, and \$49.5M for regional water augmentation projects. As discussed earlier, the Ord CIP projects in Table 13 should be scaled back until the appropriate growth takes place mandating the projects be completed. Current reserves and projected revenues are insufficient to fully fund Ord's \$22.6M CIP over the next five years. The District needs the revenue from growth (i.e. capacity charges) to fund these projects and until the requisite level of growth occurs, only \$7.1M (of Ord's \$22.6M) in CIP projects is able to be funded.

The District is working with RMC Engineers to increase water supply by 3,000 acre feet to enable the Ord Community to maintain its growth projections. Current projects include 1,727 acre feet of recycled water and 1,273 acre feet of desalinated water. FORA has pledged over \$38M in support of these projects, though anticipated growth must occur for these funds to materialize. Marina will receive 300 acre feet of new desalinated water and they will therefore be responsible for a percentage of the construction and operation costs. The Ord Community will have the option of leasing recycled water rights to Marina, or to other Districts, if supply is greater than the demand from growth.

**Table 12 ■ Marina Coast Water District
Marina Water Five -Year Capital Improvement Plan**

| | FY 08/09 | FY 09/10 | Proposed | | FY 12/13 | Out Years |
|---|-------------------|-------------------|---------------------|---------------------|---------------------|----------------------|
| | | | FY 10/11 | FY 11/12 | | |
| RUWAP Project Management [10% split] | 78,000 | | | | | |
| Regional Desalination - Detailed Design (Armstrong Ranch alt) [10% split] | 314,377 | 213,197 | 221,725 | | | |
| Armstrong Ranch Annexation (Program Mgmt; Prelim Des; Env. Doc) [10% split] | 9,568 | | | | | |
| Integrated Regional Water Management Plan - Update | 47,840 | | | | | |
| SCADA System Improvements - Phase I | 93,600 | | | | | |
| Armstrong Purchase Option (per 2/2A Agreement) | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | |
| SCADA System Improvements - Phase II | | 97,344 | | | | |
| 2010 Urban Water Mgmt. Update | | 149,261 | | | | |
| Regional Desalination - Construction (Armstrong Ranch alt) [10% split] | | | 3,863,199 | | | |
| Marina Water System Compliance (mains, blow-offs, hydrants) (Plan/Design) | | | 84,365 | | | |
| SCADA System Improvements - Phase III | | | 40,495 | | | |
| Beach Road Pipeline (design/construct) | | | | 486,193 | | |
| Marina Water System Compliance Phase A (blow-offs & mains) (Construct) | | | | 497,190 | | |
| Marina Water System Compliance Phase B (hydrants & mains) (Construct) | | | | 432,848 | | |
| Lake Court Waterline Extension (design/construct) | | | | 374,355 | | |
| Marina Station -- Well 12 Hydrogen Sulfide Treatment (Design) | | | | 93,589 | | |
| 2011 Marina Water Master Plan | | | | 292,465 | | |
| Marina Station -- Well 12 Hydrogen Sulfide Treatment (Construct) | | | | | 973,322 | |
| "A1/A2" Zone Tank & B/C Booster Sta @ CSUMB (Design) | | | | | 974,984 | |
| "B2" Zone Tanks @ CSUMB (Design) | | | | | 244,068 | |
| "A2" Zone Tank @ CSUMB (Design/Construct) | | | | | 974,984 | |
| Asset Management Program - Phase II | | | | | 70,079 | |
| Asset Management Program -- Phase III | | | | | 109,499 | |
| Corp Yard (Design) | | | | | 262,797 | |
| Corp Yard (Demolition/Construct) | | | | | 2,189,975 | |
| Repaint Reservoir 2 | | | | | | 316,330 |
| Salinas Ave Pipeline Extension | | | | | | 395,665 |
| "A1/A2" Zone Tank & B/C Booster Sta @ CSUMB (Construct) | | | | | | 3,195,669 |
| "B2" Zone Tank @ CSUMB (Construct) | | | | | | 1,013,984 |
| Reservoir A3 (1.6 MG) (Design/Construct) | | | | | | 1,449,180 |
| Recycled Laterals-Marina | | | | | | 3,368,406 |
| Reservoir 2 Demolition | | | | | | 635,317 |
| TOTAL MARINA WATER CIP | \$ 633,000 | \$ 550,000 | \$ 4,300,000 | \$ 2,267,000 | \$ 5,890,000 | \$ 10,375,000 |

Note: CIP projects allocated to future users is 23%.
Source: Marina Coast Water District CIP Budget FY08-09 R7

**Table 13 ■ Marina Coast Water District
Ord Community Water Five-Year Capital Improvement Plan**

| | FY 08/09 | FY 09/10 | Proposed | | | Out Years |
|---|---------------------|-------------------|-------------------|---------------------|----------------------|----------------------|
| | | | FY 10/11 | FY 11/12 | FY 12/13 | |
| ASP Booster Station / Well 33 (Construct) [CIP No. 4.01, 1.04] | 501,696 | | | | | |
| Well 34 (deep aquifer at Well 32 site) (Design/Construct) | 1,716,000 | | | | | |
| Lightfighter "B" Zone Pipeline Extension (Construct) | | 270,400 | | | | |
| Gen Jim Moore Blvd (Del Rey Oaks) (Construct) | 2,938,312 | | | | | |
| Integrated Regional Water Management Plan - Update | 56,160 | | | | | |
| SCADA System Improvements - Phase I | 109,200 | | | | | |
| 18" UCMBEST Mitigation Monitoring Program | 5,000 | 5,000 | 7,000 | | | |
| Basewide Environmental Insurance [50% OW, 50% OS] | 10,764 | 11,195 | 11,642 | 12,108 | 12,592 | |
| SCADA System Improvements - Phase II | | 113,568 | | | | |
| 2010 - Urban Water Mgmt. Update | | 175,219 | | | | |
| Watkins Gate Well (Design) | | | 185,603 | | | |
| SCADA System Improvements - Phase III | | | 47,244 | | | |
| Watkins Gate Well (Construction) | | | | 1,930,267 | | |
| 2nd Ave extension to Gigling Rd | | | | 216,307 | | |
| Gigling Transmission from D Booster to JM Blvd | | | | 131,375 | | |
| South Boundary Road Pipeline (DRO In-Tract) (20% allocation for up-sizing, if needed) | | | | 333,433 | | |
| Fire Flow Improvements - Commercial Flow (Design) on CSU | | | | 102,363 | | |
| 7th Avenue and Gigling Rd (Design) | | | | 35,915 | | |
| 2011 - Ord Water Master Plan | | | | 233,972 | | |
| "B4" Zone Tank @ East Garrison (and demo travel Camp Tank) (Construct) | | | | | 2,498,762 | |
| 2nd Ave connection, Reindollar to Imjin (2008) | | | | | 1,216,653 | |
| Watkins Gate Well Transmission Mains (Design/Construction)) | | | | | 1,581,649 | |
| Demolish Bayview Reservoir [2010] | | | | | 218,146 | |
| Intergarrison Road PRV | | | | | 160,720 | |
| 7th Avenue and Gigling Rd (Construct) | | | | | 211,333 | |
| CSU Fireflow Improvements | | | | | 126,410 | |
| Fire Flow Improvements - Commercial Flow (Construct) on CSU | | | | | 603,095 | |
| Fire Flow Improvements -- Residential Fire Flow @ 3RD Ave (Vets Housing) | | | | | 40,028 | |
| Fire Flow Improvements -- Commercial Fire Flow to Stockade | | | | | 670,254 | |
| Fire Flow Improvements -- Residential Fire Flow between UV and Seaside Gateway | | | | | 207,196 | |
| Reservation Rd to Imjin Main Improvements (Construct) (2,800 lf of 12") | | | | | 424,125 | |
| "A1/A2" Zone Tank & B/C Booster Sta @ CSUMB (Design) | | | | | 1,144,547 | |
| Phase 1B - Well 33, Well Field Res & Booster Station (Design) [CIP No. 4.01] | | | | | 852,022 | |
| "B2" Zone Tank @ CSUMB (Design) | | | | | 286,514 | |
| Abrams Road Pipeline (Design) in CSU East Housing Area | | | | | 166,560 | |
| Asset Management Program - Phase II | | | | | 81,759 | |
| Asset Management Program -- Phase III | | | | | 127,749 | |
| Corp Yard (Design) | | | | | 306,597 | |
| Corp Yard (Demolition/Construct) | | | | | 2,554,971 | |
| Rehabilitate/Replace Well 29 & TCE Treatment (Design/Construct) | | | | | | 1,750,695 |
| Construct "A2" Zone Tank @ CSUMB (Design/Construct) | | | | | | 2,204,312 |
| Construct "B2" Zone Tank @ CSUMB (Construct) | | | | | | 2,204,312 |
| "A1/A2" Zone Tank & B/C Booster Sta @ CSUMB (Construct) | | | | | | 3,751,438 |
| Reservation Rd to Imjin Main Improvements (Design) (2,800 lf of 12") | | | | | | 77,944 |
| Sand Tank Demolition (Design/Construct) | | | | | | 394,400 |
| Abrams Road Pipeline (Construct) in CSU East Housing Area | | | | | | 173,222 |
| Reservoir A3 (1.6 MG) (Design/Construct) | | | | | | 1,701,211 |
| Eastside Road (D-Zone pipeline) (design - cost carried from 5-5.04) | | | | | | 436,535 |
| Surplus Area 2 Pipelines | | | | | | 1,058,439 |
| Reservoir "D2" (Design/Construct) [2010] | | | | | | 3,251,743 |
| Rehabilitate Well 31 (Design/Construct) | | | | | | 1,780,177 |
| Eucalyptus Rd Pipeline | | | | | | 2,375,510 |
| Phase 1B - Well 33, Well Field Res & Booster Station (Construct) [CIP No. 4.01] | | | | | | 5,020,659 |
| "C2" to "B4" Pipeline and PRV Station | | | | | | 1,419,814 |
| Reservoir B4/B5 to East Garrison Pipeline | | | | | | 257,492 |
| Eastside Road (D-Zone pipeline) (construct-cost carried from 5-5.04) | | | | | | 2,910,234 |
| Imjin Road, Reservation to Imjin Pkwy, realignment in 2013 (Design Construct) | | | | | | - |
| Booster Station @ UCMBEST Add'l Pump Cap. (Design) | | | | | | 234,211 |
| UCMBEST Pipeline | | | | | | 406,041 |
| Booster Station @ UCMBEST Add'l Pump Cap. (Construct) [2015] | | | | | | 1,326,814 |
| Imjin Road @ Airport Area (Design/Construct) [2015] | | | | | | 137,034 |
| Golf Boulevard Transmission Line | | | | | | 1,089,946 |
| "B5" Zone Tank @ East Garrison [2011] | | | | | | 3,150,391 |
| Blanco/Imjin Connector - road project pending change | | | | | | 598,496 |
| Reservoir B Supply Line (Design/Construct) [2015] | | | | | | 294,060 |
| Eastern Well Field - ROLLUP thru well 39 (Includes Well 33 Phases 2 and 3)* | | | | | | 44,899,466 |
| Eastern Well Field - ROLLUP thru well 43* | | | | | | 27,708,589 |
| TOTAL ORD WATER CIP | \$ 5,337,000 | \$ 575,000 | \$ 251,000 | \$ 2,996,000 | \$ 13,492,000 | \$ 38,005,000 |

*Not included in capacity charge calculation

Note: CIP projects allocated to future users is 41%.

Source: Marina Coast Water District CIP Budget FY08-09 R7

**Table 14 ■ Marina Coast Water District
Water Augmentation Capital Improvement Plan**

| | Proposed | | | | | OUT YEARS |
|---|---------------------|---------------------|----------------------|---------------------|-------------|----------------------|
| | FY 08/09 | FY 09/10 | FY 10/11 | FY 11/12 | FY 12/13 | |
| RUWAP Project Management [90% split] | 702,000 | | | | | |
| Regional Desalination - Detailed Design (Armstrong Ranch alt) [90% split] | 1,768,043 | 1,918,770 | 1,995,521 | | | |
| Armstrong Ranch Annexation (Program Mgmt; Prelim Des; Env. Doc) [90% split] | 86,112 | | | | | |
| Regional Desalination - Construction (Armstrong Ranch alt) [90% split] | | | 34,768,793 | | | |
| Recycled Pipeline, GJMB, Coe to South Boundary (Construct) (in road shoulder) | | | | 2,033,270 | | |
| Recycled Trunk Main and Booster, MRWPCA to Normandy | | | | | | 27,085,419 |
| Recycled Laterals-Ord | | | | | | 7,864,717 |
| Recycled Main thru Marina Heights (upsized) | | | | | | 3,045,370 |
| Recycled Lateral thru University Villages (upsized) | | | | | | 1,829,019 |
| Blackhorse Reservoir | | | | | | 6,842,845 |
| Marina Airport / Imjin Road Recycled Water Pipeline | | | | | | 2,730,812 |
| Recycled Water - Phase 2 Preliminary Design | | | | | | 126,532 |
| TOTAL REGIONAL WATER AUGMENTATION CIP | \$ 2,556,000 | \$ 1,919,000 | \$ 36,764,000 | \$ 2,033,000 | \$ - | \$ 49,525,000 |

Source: Marina Coast Water District CIP Budget FY08-09 R7

FINANCING CAPITAL PROJECTS

CIP costs are attributable to several factors:

- Facilities replacements
- Required upgrades
- Capacity expansions

Facilities replacement projects are necessary to replace worn out or obsolete facilities. Upgrade projects are needed to provide better or more efficient service. Capacity expansion projects are those required to serve projected growth. Generally, current users fund replacements, future users fund expansions, and a combination of current and future users fund upgrades.

The District can finance its capital projects from a combination of current and future revenues, available reserves, and borrowing. This financing plan recommends no new borrowing at present given the amount of debt service MCWD already is responsible for and the uncertainty regarding the timing of future development within the District. However, for future consideration, an overview of borrowing options is provided here. Appendix C discusses a variety of financing methods in greater detail and the table at the end of this section summarizes the key features of various financing methods.

The most appropriate financing methods for the District's projects are certificates of participation (COPs) and drinking water state revolving fund (SRF) loans, if available. The District should use its reserves to develop the projects until they are ready for construction and finance them at that time. It can recover its reserves from the bond issue if it follows the requirements in federal tax law for reimbursement. The requirements are discussed later in this section.

Certificates of Participation

COPs are a form of long-term lease financing, secured by the District's revenues. For practical purposes, a COP functions like a revenue bond. The District enters into an agreement with a trustee bank under which it purchases a project and agrees to make a stream of payments. The bank then sells shares, or participations, in the District's payments, in increments of \$5,000 each. The COPs are underwritten, traded, and sold like any municipal bond issue. The terms are established when the COPs are issued and remain in force while they are outstanding. The District can issue COPs very easily. The process takes three to six months.

State Revolving Fund Loans

State revolving fund loans provide low interest loans for water and sewer projects. Current loans are funded by annual federal and state appropriations, and repayments from prior loans. To be eligible for funding, projects must be on the priority list. Priorities are based on health and safety issues, compliance with the Safe Drinking Water Act, and financial need. A significant amount of documentation is required to apply for a loan. Project priorities go from "A" to "O", with "A" being demonstrated illnesses attributable to the water system and "O" being a general category of other water system deficiencies.

The District's water projects will likely not receive a high priority, but the SRF program is expanding and the District's projects may become eligible in the future.

Funds for expected growth are limited to 10 percent above the capacity needed to serve existing water demand at peak daily flow. Federal law makes ineligible any project whose purpose is primarily to serve future growth. This is interpreted by the state to mean excess capacity that is more than double the capacity needed to serve existing water demand. Excess capacity above the allowable 10 percent and up to double the required capacity can be included in a proposed project but the loan applicant will need to pay for the ineligible capacity by some other means. If the proposed project capacity is more than double the capacity needed for existing water demand, the entire project is ineligible for funding.

Summary of Financing Methods

| METHOD | AUTHORIZATION | RESERVE FUND | INTEREST RATE | TERM (YEARS) |
|-----------------|---------------|----------------|---------------|--------------|
| SRF Loan | Resolution | Annual payment | 2.70% | 20 |
| Bank loan | Resolution | No | 5.00% | 10 |
| Revenue COPs | Resolution | Yes | 4.75% | 25 |
| Promissory note | Resolution | No | 4.50% | 5 |

RECOMMENDED FINANCING METHODS

The most appropriate financing method depends in part on the timing of projects. The District currently budgets for annual surpluses. These funds are available for capital projects and replacements. The District will need a combination of fund balances and revenues over the next five years to finance its capital projects with borrowing a likely option in the long-term to fund its entire CIP. However, the current capital programs have cash demands that exceed what the net revenues can sustain, even with the increased revenue projected from the new rates. It is therefore necessary to update the capacity charges for Marina and the Ord Community, as well as scale back Ord's CIP over the next five years.

Capacity Charge

Generally, the capital burden caused by expansion is collected from new users through a capacity charge. This charge is based upon CIP costs and facilities replacement valuation. Current users have funded the District's entire existing water system and this existing system is available to, and will benefit, future users so it is appropriate that there is a "buy-in" aspect to the capacity charge based on the facilities replacement costs in addition to future users' share of CIP costs attributable to growth.

New connections are expected to pay their proportionate share of existing and future facilities. The District designates whether a capital project will serve existing users, new users, or some fraction thereof. For Marina, new users' share of the \$24M water CIP is

**Table 15 ■ Marina Coast Water District
Marina Water Updated
Capacity Charge**

| | | |
|---|-----------|-------------------|
| Current Capacity Charge \$ / EDU | \$ | 4,164 |
| SYSTEM-WIDE COSTS | | |
| Replacement cost - water facilities | \$ | 30,437,134 |
| All users CIP [1] | | <u>18,491,550</u> |
| All users valuation | | 48,928,684 |
| <i>Current system capacity - AF</i> | | 3,020 |
| <i>Desalination capacity increase - AF</i> | | 300 |
| <i>Anderson Ranch - AF</i> | | <u>920</u> |
| <i>Future entire system capacity - AF</i> | | 4,240 |
| Capacity charge \$ / AF | | 11,540 |
| FUTURE USERS COSTS | | |
| Future users CIP [2] | | <u>5,523,450</u> |
| Future users valuation | | 5,523,450 |
| <i>Capacity increase - AF</i> | | 1,220 |
| Capacity charge \$ / AF | | 4,527 |
| TOTAL | | |
| New users capacity charge \$ / AF | | 16,067 |
| Capacity charge \$ / EDU (1/3rd AF) | \$ | 5,360 |
| Recommended capacity charge \$ / EDU | \$ | 5,360 |

1 - Existing users share of \$24 million is 77%.
2 - Future users share of \$24 million CIP is 23%.
Source: Prepared by BWA from District records

**Table 16 ■ Marina Coast Water District
Ord Community Water Updated
Capacity Charge**

| | | |
|--|-----------|---------------------|
| Current Capacity Charge \$ / EDU | \$ | 2,800 |
| SYSTEM-WIDE COSTS | | |
| Replacement cost - water facilities | \$ | 94,682,007 |
| All users CIP [1] | | <u>35,787,040</u> |
| All users valuation | | 130,469,047 |
| <i>Current system capacity - AF</i> | | 6,600 |
| <i>Desalination capacity increase - AF</i> | | 1,214 |
| <i>Recycled water capacity increase - AF</i> | | <u>1,727</u> |
| <i>Future entire system capacity - AF</i> | | 9,541 |
| Capacity charge \$ / AF | | 13,675 |
| FUTURE USERS COSTS | | |
| RW assets | | 1,317,000 |
| Future users CIP [2] | | 24,868,960 |
| Future users New Water CIP | | 92,797,000 |
| FOR A development contribution | | <u>(38,000,000)</u> |
| Future users valuation | | 80,982,960 |
| <i>Capacity increase - AF</i> | | 2,941 |
| Capacity charge \$ / AF | | 27,540 |
| TOTAL | | |
| New users capacity charge \$ / AF | | 41,215 |
| Capacity charge \$ / EDU (1/3rd AF) | \$ | 13,740 |
| Recommended capacity charge \$ / EDU | \$ | 13,740 |

1 - Existing users share of \$60.7 million is 59%.
2 - Future users share of \$60.7 million CIP is 41%.
Source: Prepared by BWA from District records

\$5.5M, or 23 percent. For Ord, new users' share of the \$60.7M future CIP costs is \$24.9M, or 41 percent. Appendix A develops a water system replacement cost of \$30.4 million for Marina and \$94.7 million for the Ord Community. Tables 15 and 16 show updated capacity charge calculations based on this information. The charge is calculated on an acre foot basis, with 1/3 acre foot being equal to 1 EDU. The proposed capacity charge for Marina is \$5,360/EDU and for the Ord Community it is \$13,740/EDU.

The calculated capacity charges are based on current dollars. By indexing the fee to an appropriate cost factor, the District can maintain an equitable charge in the future. The *Engineering News Record* (ENR) construction cost index is most often used to adjust capital cost. Each year the District's capacity charges should be adjusted equally with the change in the ENR index. Note that in some years the index declines. In that case, the capacity charges should also decline. BWA recommends that the capacity charge escalation rate be set at the annual increase in the 20-cities ENR Construction Cost Index. For the purposes of this financial plan, the 20-cities ENR five-year average of 4.65 percent was used in making the capacity charge projections.

If projected growth does not occur as planned in the Ord Community and the District has already embarked on capital intensive water augmentation programs, then the District may wish to lease a portion of its new supply either back to Marina water or to neighboring districts. Supply would be made available through payment of a lease fee that would be collected as capital revenue to help pay debt service. Table 17 shows how this would be done for recycled water. The fee is calculated by summing all capital costs invested in the supply and then leasing them at 8 percent annually. Consumption charges at standard District third tier rates will also apply and this will cover associated operation and maintenance costs.

**Table 17 ■ Marina Coast Water District
Ord Community Recycled Water Leasing**

| <u>Recycled Water Costs</u> | |
|---|------------------|
| Production - acre feet | 1,727 |
| Existing fixed assets | \$1,317,000 |
| Capital costs | \$44,133,200 |
| MCWD engineering | <u>\$339,000</u> |
| Subtotal capital worth | \$45,789,200 |
| Capital worth \$/af | \$26,514 |
| Capital lease rate \$/af @ 8% (annual) | \$2,121.10 |
| Consumption charge \$/af (07/08 rate) [1] | \$3.08 |

1 - Charge is 3rd tier rate and covers O&M costs.

Source: Prepared by Bartle Wells Associates

Bond Issues

No additional borrowing is currently recommended over the next five years. However, given the scale of the District's proposed long-term CIP, Table 18 outlines a hypothetical bond issue of \$57M that could be used for future financial planning purposes. The projection also allows for an early bond call, in which bonds may be sold back if the District has sufficient reserves on hand.

**Table 18 ■ Marina Coast Water District
Bond Issue for Capital Water Projects**

| | <i>rate</i> | Marina Wastewater | Fort Ord Wastewater | Total |
|--------------------------------|-------------|-------------------|---------------------|---------------|
| Project funding | | \$ 2,000,000 | \$ 55,000,000 | \$ 57,000,000 |
| Reserve fund | @ 7.5% | 152,000 | 4,189,000 | 4,341,000 |
| Issuance expenses | | 3,000 | 72,000 | 75,000 |
| Underwriter | @ 1.0% | 20,000 | 559,000 | 579,000 |
| Insurance | @ 0.4% | 8,000 | 224,000 | 232,000 |
| Amount of bonds | | 2,031,000 | 55,854,000 | 57,885,000 |
| Annual debt service - 25 years | @ 5.5% | 151,000 | 4,164,000 | 4,315,000 |
| Less: reserve fund earnings | @ 4.5% | 7,000 | 189,000 | 195,000 |
| Net bond service | | \$ 144,000 | \$ 3,975,000 | \$ 4,120,000 |

Source: Prepared by Bartle Wells Associates

The costs in Table 18 assume that the financing is a certificate of participation. Such an issue includes a reserve fund and costs of issuance. The reserve fund, approximately equal to annual debt service, is set aside and invested, and is available to pay debt service in the event the District is unable to make debt service payments.

Issuance costs are those related to issuing the debt. The largest individual cost is the underwriter's discount. Issuance costs also include the necessary legal and professional fees, bond trustee, the costs of printing official statements and other documents necessary to issue the debt, secure credit ratings, and other associated costs.

Table 18 calculates that the average annual debt service payment at 5.5 percent interest for 25 years. This is a conservative interest rate. After applying interest earned on the investment of the reserve fund, the annual debt service would be \$144,000 for Marina and \$3,975,000 for the Ord Community. Actual debt payments will depend on the interest rates at the time the bonds are sold as well as the actual size of the issue based on final construction costs. Payments will also vary slightly from year to year.

Water Rates

The Ord water rates are structured in a three-tiered system, with the bulk of consumption occurring in the most expensive third tier (see Table 6). This encourages conservation, but at the same time generates additional revenue for Ord Community Water. BWA analyzed Marina's water consumption to see what benefits might exist in adjusting their rate structure. Marina currently has a two-tier rate structure and it is recommended that they add a third tier to encourage additional conservation and increase revenues as Ord has previously done. Five options were examined and are detailed in Table 19. The Base Case option maintained Marina's existing tier breaks and added a third tier at 21 hcf and above. Cases A, B, C, and D used the same tier breaks as already exist in the Ord Community's water rate structure, but each alternative had a different combination of charges for each of the three tiers. BWA's recommended approach is Case D. At these rates, the average Marina customer's bill, assuming 13 hcf of water use, would increase in 2008/09 by only 3.8%, the projected rate of inflation. Even at 18 hcf of water use per month, the rate increase in 2008/09 would still only be 3.8%. Implementing a third tier will both encourage conservation, as users will likely seek to remain within the first two tiers and avoid the more expensive third tier, and also increase revenues.

**Table 19 ■ Marina Coast Water District
Marina Water Tiered Rate Options**

| | Base Case | Case A | Case B | Case C | Case D |
|--|-------------|-------------|-------------|-------------|-------------|
| <i>tier I</i> 0 - 12 hcf | \$1.86 | \$1.86 | \$1.86 | \$1.79 | \$1.79 |
| <i>tier II</i> 13 - 20 hcf | \$2.91 | \$2.07 | \$2.07 | \$2.18 | \$2.18 |
| <i>tier III</i> 21+ hcf | \$3.96 | \$2.28 | \$3.94 | \$3.40 | \$3.98 |
| Tier I CY 2007 consumption (hcf) | 191,143 | 100,516 | 100,516 | 100,516 | 100,516 |
| Tier I CY 2007 quantity charge | \$1.86 | \$1.86 | \$1.86 | \$1.79 | \$1.79 |
| Calendar Year 2007 Tier I Charges | \$355,148 | \$186,761 | \$186,960 | \$179,924 | \$179,924 |
| Tier II CY 2007 # Bills | 8,656 | 14,192 | 14,192 | 14,192 | 14,192 |
| (Tier I consumption from Tier II bills) | 103,872 | 113,536 | 113,536 | 113,536 | 113,536 |
| (Tier II consumption from Tier II bills) | 33,036 | 55,213 | 55,213 | 55,213 | 55,213 |
| Tier II CY 2007 quantity charge | \$2.91 | \$2.07 | \$2.07 | \$2.18 | \$2.18 |
| Calendar Year 2007 Tier I Charges | \$192,996 | \$210,952 | \$211,177 | \$203,229 | \$203,229 |
| Calendar Year 2007 Tier II Charges | \$96,016 | \$114,291 | \$114,291 | \$120,364 | \$120,364 |
| Tier III CY 2007 # Bills | 7,131 | 10,343 | 10,343 | 10,343 | 10,343 |
| (Tier I consumption from Tier III bills) | 85,572 | 82,744 | 82,744 | 82,744 | 82,744 |
| (Tier II consumption from Tier III bills) | 57,048 | 82,744 | 82,744 | 82,744 | 82,744 |
| (Tier III consumption from Tier III bills) | 404,890 | 440,808 | 440,808 | 440,808 | 440,808 |
| Tier III CY 2007 quantity charge | \$3.96 | \$2.28 | \$3.94 | \$3.40 | \$3.98 |
| Calendar Year 2007 Tier I Charges | \$158,994 | \$153,740 | \$153,904 | \$148,112 | \$148,112 |
| Calendar Year 2007 Tier II Charges | \$165,804 | \$171,280 | \$171,280 | \$180,382 | \$180,382 |
| Calendar Year 2007 Tier III Charges | \$1,603,364 | \$1,005,042 | \$1,736,784 | \$1,498,747 | \$1,754,416 |
| TOTAL Consumption | 875,561 | 875,561 | 875,561 | 875,561 | 875,561 |
| TOTAL Consumption Revenues | \$2,572,000 | \$1,842,000 | \$2,574,000 | \$2,331,000 | \$2,586,000 |
| Tier I Consumption % | 43% | 34% | 34% | 34% | 34% |
| Tier II Consumption % | 10% | 16% | 16% | 16% | 16% |
| Tier III Consumption % | 46% | 50% | 50% | 50% | 50% |
| Tier I Revenue % | 27% | 30% | 21% | 23% | 21% |
| Tier II Revenue % | 10% | 16% | 11% | 13% | 12% |
| Tier III Revenue % | 62% | 55% | 67% | 64% | 68% |
| Typical Residential Bill (usage @ 13 hcf/month) | | \$39.93 | \$39.95 | \$39.94 | \$39.94 |
| High Usage Residential Bill (usage @ 25 hcf/month) | | \$66.66 | \$81.62 | \$77.08 | \$82.30 |

Source: MCWD and prepared by Bartle Wells Associates

Revenue and Expense (Cash Flow) Projections

Bartle Wells Associates developed multiple financial plans for the District based on four distinct scenarios. Proposed rates and cash flow projections for both Marina and Ord water operating and capital funds were formulated for each alternative and the scenarios were reviewed by staff and the District Board at a rate study workshop. The recommended approach, Scenario 4, is presented in Tables 20, 21, 22 and 23. The other three scenarios considered are included in Appendix D. A brief summary of the four scenarios is listed below.

Scenario 1 – Full CIP Funding

Projects the necessary rates to fully fund the District's CIP over the next five years. The rate increases for Marina over five years are 3.8, 7.8, 7.8, 7.8 and 7.8 percent. For Ord, the increases are 27.5 percent annually for five years. Both Marina and Ord can make their own respective debt payments.

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

Projects revenues and expenses with no CIP spending at all over the next five years. The rate increases are uniform for both Marina and Ord at 3.8 percent annually for the next five years. Ord Water cannot make its debt payments and needs an \$850,000 loan from Marina over five years.

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

Projects revenues and expenses using the scaled back CIP funding schedule included in this report and proposes uniform rate increases for both Marina and Ord. The rate increases over five years are 3.8, 7.8, 7.8, 7.8 and 7.8 percent. In 2009/10, Ord Water is unable to make its debt payments and needs a \$3,000 loan from Marina. Additionally, Ord Water's projected capital fund balance in 2012/13 is negative \$977,000.

Scenario 4 – Ord Makes Own Debt Payments (Some CIP Funding) - Recommended Approach

Proposes higher Ord Water rates than Scenario 3 to enable Ord Water to make its own debt payments and fund the proposed scaled-back CIP schedule. Ord Water rates are 10, 10, 7.8, 7.8 and 7.8 percent and no loan is needed from Marina to Ord. Ord Water's capital fund balance remains over the recommended minimum \$1 million throughout the next five years. The rate increases for Marina Water and Marina and Ord Wastewater are uniform at 3.8, 7.8, 7.8, 7.8 and 7.8 percent over the next five years.

Table 20 shows a projection of capital revenues and expenses for Marina wastewater. No growth is forecasted for Marina until 2010/11. Table 21 shows a projection of operating revenues and expenses for Marina wastewater. Tables 22 and 23 show the same for the Ord Community. No growth at all is forecasted for the Ord Community over the next five years. For both Marina and Ord, all operating expenses are assumed to increase at a 3.8 percent annual inflation rate and the interest rate of return on the fund balances is assumed to be 4 percent. Tables 21 and 23 show transfers from each

respective operating fund sufficient to fund a portion of capital expenses while still meeting the minimum operating reserve target of sixty days of operating expenses. Increases to both rates and fees are noted each year and have been designed to optimize the cash flows keeping capital fund balances at a minimum of \$1 million.

**Table 20 ■ Marina Coast Water District
Marina Water Projected Capital Revenues and Expenses**

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 5,450 | 5,450 | 5,450 | 5,540 | 5,680 | 5,845 |
| New Marina EDUs | | 0 | 0 | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | | 0 | 0 | 75 | 125 | 150 |
| Capacity charge/EDU | 4,164 | 5,360 | 5,610 | 5,870 | 6,140 | 6,430 |
| Capacity charge % increase [1] | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 5,396,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 1,418,500 | | | | | |
| Total Beginning Balance | \$ 6,814,500 | \$ 7,304,500 | \$ 7,492,500 | \$ 7,638,500 | \$ 4,861,500 | \$ 4,655,500 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 837,000 | \$ 1,086,000 | \$ 954,000 | \$ 1,253,000 | \$ 1,566,000 | \$ 1,942,000 |
| Capacity charges | - | - | - | 528,000 | 860,000 | 1,061,000 |
| Interest earnings | 265,000 | 292,000 | 300,000 | 306,000 | 194,000 | 186,000 |
| Employee CALPERS transfers | 25,000 | | | | | |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest [2] | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 |
| Total | 1,138,000 | 1,389,000 | 1,265,000 | 2,098,000 | 2,631,000 | 3,200,000 |
| Expenses | | | | | | |
| General CIP | 77,000 | 633,000 | 550,000 | 4,300,000 | 2,267,000 | 5,890,000 |
| Existing debt service | 571,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Total | 648,000 | 1,201,000 | 1,119,000 | 4,875,000 | 2,837,000 | 6,460,000 |
| Net revenue | 490,000 | 188,000 | 146,000 | (2,777,000) | (206,000) | (3,260,000) |
| Ending balance | \$ 7,304,500 | \$ 7,492,500 | \$ 7,638,500 | \$ 4,861,500 | \$ 4,655,500 | \$ 1,395,500 |
| Minimum Reserve Balance [3] | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Marina Water to receive interest (5%) on 7% of \$3.084 million reserve fund.

3 - Minimum reserve balance is \$1.0 million.

Source: Prepared by Bartle Wells Associates

**Table 21 ■ Marina Coast Water District
Marina Water Projected Operating Revenues and Expenses**

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 5,450 | 5,450 | 5,450 | 5,540 | 5,680 | 5,845 |
| Base rate - \$/mo | 14.18 | 14.72 | 15.87 | 17.10 | 18.44 | 19.88 |
| Volume rate - tier I (\$/hcf) | 1.79 | 1.79 | 1.93 | 2.08 | 2.24 | 2.42 |
| Volume rate - tier II (\$/hcf) | 2.80 | 2.18 | 2.35 | 2.53 | 2.73 | 2.94 |
| Volume rate - tier III (\$/hcf) | n/a | 3.98 | 4.29 | 4.63 | 4.99 | 5.37 |
| Average Bill - 13 hcf/month | 38.46 | 39.94 | 43.05 | 46.41 | 50.03 | 53.93 |
| Rates - percentage increase | | 3.8% | 7.8% | 7.8% | 7.8% | 7.8% |
| Escalation factor | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 304,000 | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Base rate | \$ 927,000 | \$ 963,000 | \$ 1,038,000 | \$ 1,137,000 | \$ 1,257,000 | \$ 1,394,000 |
| Charges tier I (0-12 hcf) | 664,000 | | | | | |
| Charges tier II (13+ hcf) | 1,350,000 | | | | | |
| Charges tier I (0-8 hcf) | | 531,000 | 572,000 | 627,000 | 693,000 | 769,000 |
| Charges tier II (9-16 hcf) | | 301,000 | 324,000 | 355,000 | 392,000 | 435,000 |
| Charges tier III (17+ hcf) | - | 1,579,000 | 1,702,000 | 1,865,000 | 2,061,000 | 2,286,000 |
| Total Water Sales | 2,941,000 | 3,374,000 | 3,636,000 | 3,984,000 | 4,403,000 | 4,884,000 |
| Permits and other income | 244,000 | 253,000 | 263,000 | 273,000 | 283,000 | 294,000 |
| Interest earnings | 10,000 | 15,000 | 17,000 | 19,000 | 20,000 | 21,000 |
| Other Total | 254,000 | 268,000 | 280,000 | 292,000 | 303,000 | 315,000 |
| Total Revenues | 3,195,000 | 3,642,000 | 3,916,000 | 4,276,000 | 4,706,000 | 5,199,000 |
| Expenses | | | | | | |
| DESAL O&M | | | 83,000 | 86,000 | 89,000 | 92,000 |
| Administration | 661,000 | 714,000 | 814,000 | 844,000 | 876,000 | 910,000 |
| Operation and maintenance | 1,003,000 | 1,075,000 | 1,206,000 | 1,251,000 | 1,299,000 | 1,348,000 |
| Laboratory | 155,000 | 168,000 | 194,000 | 201,000 | 209,000 | 216,000 |
| Conservation | 123,000 | 133,000 | 154,000 | 160,000 | 166,000 | 172,000 |
| Engineering | 344,000 | 378,000 | 448,000 | 464,000 | 482,000 | 500,000 |
| New testing regulations | - | 50,000 | | | | |
| Employee CALPERS transfers | 25,000 | - | - | - | - | - |
| Total Expenses | 2,286,000 | 2,518,000 | 2,899,000 | 3,006,000 | 3,121,000 | 3,238,000 |
| Net revenue | 909,000 | 1,124,000 | 1,017,000 | 1,270,000 | 1,585,000 | 1,961,000 |
| Capital expenses - transfer | 837,000 | 1,086,000 | 954,000 | 1,253,000 | 1,566,000 | 1,942,000 |
| Ending balance | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 | \$ 532,000 |
| Minimum Reserve Balance [1] | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 | \$ 532,000 |

1 - Minimum reserve balance is 60 days of operating expenses or \$300,000.

Source: Prepared by Bartle Wells Associates

**Table 22 ■ Marina Coast Water District
Ord Community Water Projected Capital Revenues and Expenses**

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 |
| New Ord EDUs | - | - | - | - | - | - |
| Capacity charge/EDU | 2,800 | 13,740 | 14,380 | 15,050 | 15,750 | 16,480 |
| Monthly Capital Surcharge/EDU | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| # EDUs billed surcharge | 20 | 20 | 20 | 20 | 20 | 20 |
| Capacity charge % increase [1] | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Capital surcharge % increase | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 3,267,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 13,626,100 | | | | | |
| Total Beginning Balance | \$ 16,893,100 | \$ 12,117,500 | \$ 10,469,300 | \$ 7,443,100 | \$ 4,507,900 | \$ 1,691,700 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 751,000 | \$ 1,206,000 | \$ 1,257,000 | \$ 1,544,000 | \$ 1,818,000 | \$ 2,116,000 |
| Capacity charges | 323,000 | - | - | - | - | - |
| Capital charges | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 |
| FORA capital contribution [2] | - | - | - | - | - | - |
| Interest earnings | 725,000 | 485,000 | 419,000 | 298,000 | 180,000 | 68,000 |
| Employee CALPERS transfers | 23,000 | - | - | - | - | - |
| Grant revenues (Proposition 50) | - | 2,000,000 | - | - | - | - |
| Existing bond proceeds [3] | - | - | - | - | - | - |
| Existing bond rsrv fund interest [4] | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 |
| Total | 1,928,800 | 3,797,800 | 1,782,800 | 1,948,800 | 2,104,800 | 2,290,800 |
| Expenses | | | | | | |
| General CIP | 5,127,400 | 1,425,000 | 1,425,000 | 1,425,000 | 1,425,000 | 1,425,000 |
| New water CIP | 1,144,000 | 2,556,000 | 1,919,000 | 1,995,000 | 2,033,000 | - |
| Existing debt service [5] | 433,000 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Total | 6,704,400 | 5,446,000 | 4,809,000 | 4,884,000 | 4,921,000 | 2,892,000 |
| Net revenue | (4,775,600) | (1,648,200) | (3,026,200) | (2,935,200) | (2,816,200) | (601,200) |
| Ending balance | \$12,117,500 | \$10,469,300 | \$7,443,100 | \$4,507,900 | \$1,691,700 | \$1,090,500 |
| Minimum Reserve Balance [6] | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Assumes limited short-term growth in Ord Community.

3 - Includes Recycled Water Bond Proceeds.

4 - Ord Community Water to receive interest (5%) on 66% of \$3.084 million reserve fund.

5 - Includes CALPERS debt service.

6 - Minimum reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

**Table 23 ■ Marina Coast Water District
Ord Community Water Projected Operating Revenues and Expenses**

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 |
| New Ord EDUs | - | - | - | - | - | - |
| Flat Rate Accounts | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 |
| Flat rate - \$/mo [1] | 52.10 | 67.76 | 74.54 | 80.35 | 86.62 | 93.37 |
| Base rate - \$/mo | 12.50 | 13.75 | 15.13 | 16.30 | 17.58 | 18.95 |
| Volume rate - tier I (\$/hcf) | 1.70 | 1.87 | 2.06 | 2.22 | 2.39 | 2.58 |
| Volume rate - tier II (\$/hcf) | 2.39 | 2.63 | 2.89 | 3.12 | 3.36 | 3.62 |
| Volume rate - tier III (\$/hcf) | 3.08 | 3.39 | 3.73 | 4.02 | 4.33 | 4.67 |
| Average Bill - 13 hcf/month | 38.05 | 41.86 | 46.04 | 49.63 | 53.50 | 57.68 |
| Rates - percentage increase | | 10.0% | 10.0% | 7.8% | 7.8% | 7.8% |
| Escalation factor | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 516,000 | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Base rates | \$ 559,000 | \$ 614,000 | \$ 676,000 | \$ 729,000 | \$ 785,000 | \$ 847,000 |
| Charges tier I (0-8 hcf) | 264,000 | 290,000 | 319,000 | 344,000 | 371,000 | 400,000 |
| Charges tier II (9-16 hcf) | 163,000 | 179,000 | 197,000 | 212,000 | 229,000 | 247,000 |
| Charges tier III (17+ hcf) | 1,367,000 | 1,504,000 | 1,654,000 | 1,783,000 | 1,922,000 | 2,072,000 |
| Flat rate sales | 1,508,000 | 1,915,000 | 2,106,000 | 2,271,000 | 2,448,000 | 2,639,000 |
| Total Water Sales | 3,860,000 | 4,502,000 | 4,952,000 | 5,339,000 | 5,755,000 | 6,205,000 |
| Permits and other income | 98,000 | 102,000 | 106,000 | 110,000 | 114,000 | 118,000 |
| Interest earnings | 15,000 | 21,000 | 22,000 | 25,000 | 26,000 | 27,000 |
| Other Total | 113,000 | 123,000 | 128,000 | 135,000 | 140,000 | 145,000 |
| Total Revenues | 3,973,000 | 4,625,000 | 5,080,000 | 5,474,000 | 5,895,000 | 6,350,000 |
| Expenses | | | | | | |
| DESAL O&M | - | - | - | - | - | - |
| RW O&M | - | - | - | - | - | - |
| RW ENG | 98,000 | - | - | - | - | - |
| Administration | 1,168,000 | 1,244,000 | 1,375,000 | 1,427,000 | 1,481,000 | 1,538,000 |
| Operation and maintenance | 1,193,000 | 1,277,000 | 1,431,000 | 1,486,000 | 1,542,000 | 1,601,000 |
| Laboratory | 192,000 | 208,000 | 239,000 | 249,000 | 258,000 | 268,000 |
| Conservation | 143,000 | 155,000 | 178,000 | 185,000 | 192,000 | 199,000 |
| Engineering | 416,000 | 456,000 | 539,000 | 559,000 | 580,000 | 602,000 |
| New testing regulations | - | 50,000 | - | - | - | - |
| Employee CALPERS transfers | 23,000 | - | - | - | - | - |
| Total Expenses | 3,210,000 | 3,390,000 | 3,762,000 | 3,906,000 | 4,053,000 | 4,208,000 |
| Net revenue | 763,000 | 1,235,000 | 1,318,000 | 1,568,000 | 1,842,000 | 2,142,000 |
| Capital expenses - transfer | 751,000 | 1,206,000 | 1,257,000 | 1,544,000 | 1,818,000 | 2,116,000 |
| Ending balance | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 | \$ 692,000 |
| Minimum Reserve Balance [2] | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 | \$ 692,000 |

1 - Based on 20 hcf per month at 3rd tier rate with no monthly base charge starting in 2008/09.

2 - Minimum reserve balance is 60 days of operating expenses or \$300,000.

Prepared by Bartle Wells Associates

Projected Water Consumption

The revenue projections in Tables 21 and 23 are based on the District's 2007 water consumption data (see Appendix E). Table 24 shows the projected water consumption at each tier and also shows the estimated third tier water consumption for 2007/08 for Marina if the new proposed rate structure had been in place. For Ord, no growth is projected over five years and no change is proposed to the rate structure, so the consumption projections are unchanged. For Marina, the third tier consumption in 2008/09 is reduced by 10 percent compared to the 2007/08 usage due to the expected decline in consumption after the implementation of the new tier. The limited growth in Marina forecasted for 2010/11 and beyond is reflected in the slightly higher consumption levels for those years.

**Table 24 ■ Marina Coast Water District
Projected Water Consumption**

| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
|-------------------|---------|---------|---------|---------|---------|---------|
| Marina | | | | | | |
| Tier 1 (0-8 hcf) | 100,516 | 100,516 | 100,516 | 102,225 | 104,780 | 107,819 |
| Tier 2 (9-16 hcf) | 168,749 | 168,749 | 168,749 | 171,618 | 175,908 | 181,010 |
| Tier 3 (17+ hcf) | 606,296 | 545,666 | 545,666 | 554,943 | 568,816 | 585,312 |
| Ord | | | | | | |
| Tier 1 (0-8 hcf) | 49,414 | 49,414 | 49,414 | 49,414 | 49,414 | 49,414 |
| Tier 2 (9-16 hcf) | 84,218 | 84,218 | 84,218 | 84,218 | 84,218 | 84,218 |
| Tier 3 (17+ hcf) | 479,588 | 479,588 | 479,588 | 479,588 | 479,588 | 479,588 |

Rate Impact

Tables 25 and 26 show BWA's proposed rate schedule for both Marina and the Ord Community. A third tier has been added to Marina's rate structure beginning in 2008/09. In the Ord Community, the tier structure is unchanged and the Ord capital surcharge of \$20/month is also unchanged. The flat rate fee for the Ord Community's non-metered users is adjusted to equal 20 hcf of consumption at the third tier quantity rate. The monthly base charge is no longer included in the flat rate fee calculation. Updated capacity charges developed in this report are also presented below.

**Table 25 ■ Marina Coast Water District
Marina Recommended Monthly Water Rates**

| Meter Size | Capacity Ratio | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
|-------------------------------------|----------------|----------|----------|----------|----------|----------|
| 5/8" | 1.0 | \$14.72 | 15.87 | 17.10 | 18.44 | 19.88 |
| 3/4" | 1.0 | 14.72 | 15.87 | 17.10 | 18.44 | 19.88 |
| 1" | 2.5 | 36.79 | 39.66 | 42.75 | 46.08 | 49.68 |
| 1 1/2" | 5.0 | 73.57 | 79.31 | 85.50 | 92.17 | 99.36 |
| 2" | 8.0 | 117.71 | 126.89 | 136.79 | 147.46 | 158.96 |
| 3" | 15.0 | 220.71 | 237.93 | 256.48 | 276.49 | 298.06 |
| 4" | 25.0 | 367.85 | 396.54 | 427.47 | 460.81 | 496.75 |
| 6" | 50.0 | 735.69 | 793.08 | 854.94 | 921.62 | 993.51 |
| 8" | 100.0 | 1,471.39 | 1,586.15 | 1,709.87 | 1,843.24 | 1,987.02 |
| Quantity Rate | | | | | | |
| 0 - 12 hcf (tier I) | | 1.79 | 1.93 | 2.08 | 2.24 | 2.42 |
| 13 - 20 hcf (tier II) | | 2.18 | 2.35 | 2.53 | 2.73 | 2.94 |
| 21+ hcf (tier III) | | 3.98 | 4.29 | 4.63 | 4.99 | 5.37 |
| Capacity Charge | | | | | | |
| Residential and equivalents per EDU | | \$5,360 | 5,610 | 5,870 | 6,140 | 6,430 |

**Table 26 ■ Marina Coast Water District
Ord Community Recommended Monthly Water Rates**

| Meter Size | Capacity Ratio | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
|---------------------------------------|----------------|----------|----------|----------|----------|----------|
| 3/4" | 1.0 | \$13.75 | 15.13 | 16.30 | 17.58 | 18.95 |
| 1" | 2.5 | 34.38 | 37.81 | 40.76 | 43.94 | 47.37 |
| 1 1/2" | 5.0 | 68.73 | 75.60 | 81.50 | 87.86 | 94.71 |
| 2" | 8.0 | 109.96 | 120.96 | 130.39 | 140.56 | 151.53 |
| 3" | 15.0 | 206.18 | 226.80 | 244.49 | 263.56 | 284.12 |
| 4" | 25.0 | 343.63 | 378.00 | 407.48 | 439.26 | 473.53 |
| 6" | 50.0 | 687.27 | 755.99 | 814.96 | 878.53 | 947.05 |
| 8" | 100.0 | 1,374.53 | 1,511.99 | 1,629.92 | 1,757.06 | 1,894.11 |
| Quantity Rate | | | | | | |
| 0 - 8 hcf (tier I) | | 1.87 | 2.06 | 2.22 | 2.39 | 2.58 |
| 9 - 16 hcf (tier II) | | 2.63 | 2.89 | 3.12 | 3.36 | 3.62 |
| 17 + hcf (tier III) | | 3.39 | 3.73 | 4.02 | 4.33 | 4.67 |
| Capacity Charge | | | | | | |
| Residential and equivalents (per EDU) | | \$13,740 | 14,380 | 15,050 | 15,750 | 16,480 |
| Additional Charges | | | | | | |
| Monthly capital surcharge (new EDU) | | \$20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| Flat rate per unit without meter | | \$67.76 | 74.54 | 80.35 | 86.62 | 93.37 |

Debt Service Coverage

Tables 27 and 28 show the projected debt service coverage utilizing the Scenario 4 rate increases. Table 27 shows the water debt service coverage by fund and Table 28 shows the District's overall debt service coverage including the wastewater revenues, expenses and debt payment detailed in a companion report. Both Marina and Ord generate sufficient revenues to make their respective debt payments in each of the next five years and the combined water net revenues exceed the total water debt service payments by the 125 percent required in the debt covenant.

**Table 27 ■ Marina Coast Water District
Projected Debt Service Coverage by Fund**

| | <i>Budget 2007/08</i> | <i>Projection 2008/09</i> | <i>Projection 2009/10</i> | <i>Projection 2010/11</i> | <i>Projection 2011/12</i> | <i>Projection 2012/13</i> |
|------------------------------------|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Marina Water Operating Revenue | 3,195,000 | 3,642,000 | 3,916,000 | 4,276,000 | 4,706,000 | 5,199,000 |
| Marina Water Capital Revenue | 276,000 | 303,000 | 311,000 | 845,000 | 1,065,000 | 1,258,000 |
| Marina Water Operating Expense | <u>2,286,000</u> | <u>2,518,000</u> | <u>2,899,000</u> | <u>3,006,000</u> | <u>3,121,000</u> | <u>3,238,000</u> |
| Marina Water Net Revenue | 1,185,000 | 1,427,000 | 1,328,000 | 2,115,000 | 2,650,000 | 3,219,000 |
| Marina Water Debt Service | 571,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Marina Water Debt Service Coverage | 2.08 | 2.51 | 2.33 | 3.68 | 4.65 | 5.65 |
| Ord Water Operating Revenue | 3,973,000 | 4,625,000 | 5,080,000 | 5,474,000 | 5,895,000 | 6,350,000 |
| Ord Water Capital Revenue | 1,155,000 | 2,592,000 | 526,000 | 405,000 | 287,000 | 175,000 |
| Ord Water Operating Expense | <u>3,210,000</u> | <u>3,390,000</u> | <u>3,762,000</u> | <u>3,906,000</u> | <u>4,053,000</u> | <u>4,208,000</u> |
| Ord Water Net Revenue | 1,918,000 | 3,827,000 | 1,844,000 | 1,973,000 | 2,129,000 | 2,317,000 |
| Ord Water Debt Service | 433,000 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Ord Water Debt Service Coverage | 4.43 | 2.61 | 1.26 | 1.35 | 1.46 | 1.58 |
| Total Water Net Revenue | 3,103,000 | 5,254,000 | 3,172,000 | 4,088,000 | 4,779,000 | 5,536,000 |
| Total Water Debt Service | 1,004,000 | 2,033,000 | 2,034,000 | 2,039,000 | 2,033,000 | 2,037,000 |
| Water Debt Service Coverage | 3.09 | 2.58 | 1.56 | 2.00 | 2.35 | 2.72 |

**Table 28 ■ Marina Coast Water District
Projected Debt Service Coverage**

| | <i>Budget 2007/08</i> | <i>Projection 2008/09</i> | <i>Projection 2009/10</i> | <i>Projection 2010/11</i> | <i>Projection 2011/12</i> | <i>Projection 2012/13</i> |
|--------------------------------------|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Marina Water Operating Revenue | 3,195,000 | 3,642,000 | 3,916,000 | 4,276,000 | 4,706,000 | 5,199,000 |
| Marina Water Capital Revenue | 276,000 | 303,000 | 311,000 | 845,000 | 1,065,000 | 1,258,000 |
| Marina Water Operating Expense | <u>2,286,000</u> | <u>2,518,000</u> | <u>2,899,000</u> | <u>3,006,000</u> | <u>3,121,000</u> | <u>3,238,000</u> |
| Marina Water Net Revenue | 1,185,000 | 1,427,000 | 1,328,000 | 2,115,000 | 2,650,000 | 3,219,000 |
| Ord Water Operating Revenue | 3,973,000 | 4,625,000 | 5,080,000 | 5,474,000 | 5,895,000 | 6,350,000 |
| Ord Water Capital Revenue | 1,155,000 | 2,592,000 | 526,000 | 405,000 | 287,000 | 175,000 |
| Ord Water Operating Expense | <u>3,210,000</u> | <u>3,390,000</u> | <u>3,762,000</u> | <u>3,906,000</u> | <u>4,053,000</u> | <u>4,208,000</u> |
| Ord Water Net Revenue | 1,918,000 | 3,827,000 | 1,844,000 | 1,973,000 | 2,129,000 | 2,317,000 |
| Total Water Net Revenue | 3,103,000 | 5,254,000 | 3,172,000 | 4,088,000 | 4,779,000 | 5,536,000 |
| Marina Wastewater Operating Revenue | 611,200 | 640,000 | 689,000 | 751,000 | 824,000 | 907,000 |
| Marina Wastewater Capital Revenue | 100,700 | 111,000 | 120,000 | 512,000 | 776,000 | 866,000 |
| Marina Wastewater Operating Expense | <u>354,000</u> | <u>385,000</u> | <u>442,000</u> | <u>458,000</u> | <u>474,000</u> | <u>491,000</u> |
| Marina Wastewater Net Revenue | 357,900 | 366,000 | 367,000 | 805,000 | 1,126,000 | 1,282,000 |
| Ord Wastewater Operating Revenue | 1,308,500 | 1,337,000 | 1,441,000 | 1,552,000 | 1,671,000 | 1,801,000 |
| Ord Wastewater Capital Revenue | 332,200 | 260,200 | 228,200 | 229,200 | 232,200 | 155,200 |
| Ord Wastewater Operating Expense | <u>833,000</u> | <u>904,000</u> | <u>1,029,000</u> | <u>1,069,000</u> | <u>1,110,000</u> | <u>1,151,000</u> |
| Ord Wastewater Net Revenue | 807,700 | 693,200 | 640,200 | 712,200 | 793,200 | 805,200 |
| Total Wastewater Net Revenue | 1,165,600 | 1,059,200 | 1,007,200 | 1,517,200 | 1,919,200 | 2,087,200 |
| Total Net Revenues | 4,268,600 | 6,313,200 | 4,179,200 | 5,605,200 | 6,698,200 | 7,623,200 |
| Marina Water Debt Service | 571,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Ord Water Debt Service | 433,000 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Marina Wastewater Debt Service | 137,000 | 140,000 | 139,000 | 137,000 | 136,000 | 139,000 |
| Ord Wastewater Debt Service | <u>146,000</u> | <u>500,000</u> | <u>572,000</u> | <u>571,000</u> | <u>574,000</u> | <u>567,000</u> |
| Total Debt Service [1] | 1,287,000 | 2,673,000 | 2,745,000 | 2,747,000 | 2,743,000 | 2,743,000 |
| Debt Service Coverage | 3.32 | 2.36 | 1.52 | 2.04 | 2.44 | 2.78 |
| Annual Loan Marina to Ord | | - | - | - | - | - |

1 - Minimum coverage = 1.25.

POLICY ISSUES

The MCWD Board of Directors needs to consider several policy issues prior to the implementation of any financing plan.

Bond Security

Bonds issued for Ord Community projects will require greater security than the current Ord Community development provides. This financing plan shows Ord Community users and new development funding debt service for Ord Community projects. The Fort Ord Reuse Authority is funding \$38.0 million of water augmentation costs. Marina users provide bond security, but are not intended to fund Ord Community capital projects. There is substantial risk involved in financing the Ord Community's capital projects as development projections are not assured.

Issuing bonds secured by all District and Ord Community revenues will result in lower interest costs. This can be accomplished without any cost to Marina water users. All revenues secure the debt service payments, but costs for debt service are funded solely by Ord Community users.

New Water Supply Projects

Desalination Water Project – RMC water and environment is in the process of designing a 1,273 acre foot desalination project to serve future development in the Ord Community. Three hundred acre feet of capacity has been designated for Marina users to replace the outdated and dysfunctional desalination unit that Marina water already owns. That unit will be de-commissioned and Marina users will fund their share of this project's new capital and operation costs.

Recycled Water Project – RMC is also developing a recycled water project for the Ord Community. The current proposal will generate 1,727 acre feet. Securing this capacity is necessary for development in the Ord Community to proceed, though it is unlikely that all augmented capacity will be needed in the near future. The District has planned ahead for this eventuality and has begun installing recycled water mains in Marina during the course of its routine capital improvements. This will allow Marina to "lease" a portion of recycled water from the Ord Community, thus helping to pay its capital debt service.

Recycled Water Pricing Options

Since recycled water projects tend to be capital intensive, the District must consider and weigh various pricing options and factors, which will allow them to finance such a project. State law requires that recycled water rates not exceed potable water rates.

For an operating District, the marginal operating costs of recycled water are typically lower than the District's current potable water rates. This can provide a financial benefit to District users. The main problem with a recycled water plan is the massive capital costs associated in developing a new and separate water system. When recycled water operating costs are added to capital costs, such water is almost always more expensive than potable

water. Therefore the need is to find a way to finance the projects' capital cost without using District funds.

Several possible pricing and financing alternatives are listed below:

- Contract with a new user for water supply with costs to exceed potable water rates. Build-in a water rate that provides a financial benefit to the District. This would allow the District to finance the facilities secured by a contract. Such bonds may not be tax-exempt.

This plan is possible where a development cannot proceed without a guaranteed water supply. Depending on the financial feasibility of the development project, a developer may be willing to fund a water project. The plan could be a form of development mitigation. The developer would finance the project, and the District would sell the water. Such is the case in the Ord Community where the Fort Ord Reuse Authority has pledged \$38 million to water augmentation.

- Another possible plan would require a new user to finance a water supply project that either provides surplus capacity available for the District to sell or would allow the District to increase the project's capacity at the marginal construction cost. The District could finance its' share of project costs and would be able to fund a project at a reduced unit cost.
- Assuming a financially strong developer, the District could contract to sponsor a water supply project. The terms of the contract would require the developer's responsibility for capital costs and would allow the District to charge premium water rates. The problem with this alternative is that current users (not the developer) would have to pay the premium water rates.
- Most public agencies give a discount for recycled water to encourage its' use. The first step is to charge the full potable water rate for recycled water. Agencies that have a recycled water supply are now requiring its' use where appropriate and charging one hundred percent of the potable rate.

Most of the above alternatives rely on some developer requiring a water supply to proceed. There are many examples of public agencies requiring some mitigation measures before allowing a development to proceed. The District is not a planning agency, but water and wastewater are always of primary importance for any development to proceed.

APPENDIX A – REPLACEMENT COSTS

Table A-1 ■ Marina Coast Water District
Marina Water Fixed Assets Replacement Costs, as of June 30, 2006

| Account Number | Original Cost | Accumulated Depreciation | Replacement Cost New | Replacement Cost New Minus Dep. |
|-----------------------|-------------------------|---------------------------------|-----------------------------|--|
| 01-00-140-000 | \$ 145,666.84 | \$ - | \$ 830,264.89 | \$ 830,264.89 |
| 01-00-142-000 | 2,379,410.00 | 428,390.56 | 3,309,088.13 | 2,880,697.57 |
| 01-00-144-010 | 270,000.00 | - | 306,933.43 | 306,933.43 |
| 01-00-145-000 | 4,901,324.45 | 3,176,573.21 | 9,993,827.36 | 6,817,254.15 |
| 01-00-150-000 | 52,806.94 | 49,973.99 | 71,583.80 | 21,609.81 |
| 01-00-150-001 | 76,779.18 | 37,709.17 | 95,669.29 | 57,960.12 |
| 01-00-152-000 | 129,601.67 | 26,874.84 | 145,601.97 | 118,727.13 |
| 01-00-155-000 | 1,896,186.82 | 1,435,705.06 | 2,725,149.21 | 1,289,444.15 |
| 01-00-155-001 | 265,632.30 | 158,061.09 | 336,069.51 | 178,008.42 |
| 01-00-156-000 | 302,866.00 | 268,874.73 | 699,688.74 | 430,814.01 |
| 01-00-157-000 | 29,077.75 | 13,199.70 | 34,184.44 | 20,984.74 |
| 01-00-160-010 | 255,322.88 | 88,563.98 | 307,424.35 | 218,860.37 |
| 01-00-160-020 | 989,041.10 | 832.25 | 1,064,566.30 | 1,063,734.05 |
| 01-00-160-105 | 96,751.24 | 34,901.59 | 117,575.06 | 82,673.47 |
| 01-00-160-302 | 49,476.48 | 4,130.91 | 60,908.25 | 56,777.34 |
| 01-00-160-401 | 176,193.97 | 12,377.13 | 190,867.73 | 178,490.60 |
| 01-00-160-402 | 101,244.14 | 59,559.38 | 120,632.43 | 61,073.05 |
| 01-00-160-403 | 1,921,422.93 | 325,953.97 | 2,132,085.01 | 1,806,131.04 |
| 01-00-163-000 | 240,161.73 | 47,149.39 | 292,459.90 | 245,310.50 |
| 01-00-175-000 | 636,134.81 | 411,203.31 | 2,534,737.47 | 2,123,534.16 |
| 01-00-180-000 | 2,928,307.67 | 2,744,749.57 | 4,057,575.80 | 1,312,826.23 |
| 01-00-181-000 | 9,721.50 | 1,944.30 | 12,990.13 | 11,045.83 |
| 01-00-185-000 | 540,032.44 | 540,032.44 | 2,573,791.70 | 2,033,759.26 |
| 01-00-190-000 | 18,260.00 | 18,260.00 | 25,394.51 | 7,134.51 |
| 01-00-195-000 | 2,179,617.27 | 1,326,124.16 | 9,592,110.78 | 8,265,986.62 |
| 01-00-196-000 | 23,365.72 | 14,612.79 | 31,711.53 | 17,098.74 |
| TOTAL | \$ 20,614,405.83 | \$ 11,225,757.51 | \$ 41,662,891.73 | \$ 30,437,134.21 |

Source: MCWD Records

Table A-2 ■ Marina Coast Water District
Ord Community Water Fixed Assets Replacement Costs, as of June 30, 2006

| Account Number | Original Cost | Accumulated Depreciation | Replacement Cost New | Replacement Cost New Minus Dep. |
|-----------------------|-------------------------|---------------------------------|-----------------------------|--|
| 03-00-142-000 | \$ 57,200,000.00 | \$ - | \$ 69,953,820.02 | \$ 69,953,820.02 |
| 03-00-143-000 | 14,100,000.00 | - | 17,243,861.23 | 17,243,861.23 |
| 03-00-150-000 | 22,203.13 | 20,202.13 | 29,358.46 | 9,156.33 |
| 03-00-150-001 | 64,009.96 | 29,679.40 | 79,631.62 | 49,952.21 |
| 03-00-151-000 | 13,599.52 | 13,599.52 | 18,913.10 | 5,313.58 |
| 03-00-152-000 | 155,419.37 | 34,983.72 | 174,990.99 | 140,007.27 |
| 03-00-155-000 | 1,670,180.96 | 778,171.77 | 2,046,183.14 | 1,268,011.37 |
| 03-00-155-001 | 88,555.47 | 24,327.11 | 104,051.45 | 79,724.34 |
| 03-00-157-000 | 26,881.28 | 12,201.10 | 31,601.97 | 19,400.87 |
| 03-00-160-000 | 406,381.00 | 2,709.21 | 437,413.08 | 434,703.87 |
| 03-00-160-001 | 10,329.00 | - | 11,117.74 | 11,117.74 |
| 03-00-160-105 | 96,658.76 | 58,340.27 | 117,464.86 | 59,124.59 |
| 03-00-160-301 | 477,792.25 | 122,217.27 | 581,725.33 | 459,508.06 |
| 03-00-160-302 | 37,981.02 | 3,170.30 | 46,756.71 | 43,586.41 |
| 03-00-160-303 | 586.89 | 101.69 | 717.75 | 616.06 |
| 03-00-160-305 | 195,975.94 | 15,484.33 | 239,329.63 | 223,845.30 |
| 03-00-160-307 | 713,498.50 | 50,719.24 | 873,570.05 | 822,850.81 |
| 03-00-160-309 | 574,119.00 | 66,785.62 | 671,483.10 | 604,697.48 |
| 03-00-160-312 | 30,284.87 | 16,763.55 | 35,783.62 | 19,020.07 |
| 03-00-160-315 | 881,268.39 | 60,657.71 | 1,024,705.19 | 964,258.81 |
| 03-00-160-320 | 270,400.38 | 21,378.18 | 294,211.86 | 272,833.68 |
| 03-00-160-401 | 348,928.68 | 48,193.01 | 395,487.04 | 347,294.02 |
| 03-00-160-403 | 452,932.79 | 36,450.47 | 498,408.15 | 461,957.68 |
| 03-00-160-502 | 809,074.17 | 232,137.14 | 965,818.52 | 733,681.38 |
| 03-00-163-000 | 117,201.63 | 25,238.49 | 142,336.58 | 117,098.09 |
| 03-00-184-000 | 140,790.00 | 140,790.00 | 195,799.18 | 55,009.18 |
| 03-00-195-000 | 277,479.65 | 36,864.18 | 307,608.57 | 270,744.39 |
| 03-00-196-000 | <u>27,388.02</u> | <u>26,389.72</u> | <u>37,201.61</u> | <u>10,811.89</u> |
| TOTAL | \$ 79,209,920.64 | \$ 1,877,555.14 | \$ 96,559,350.56 | \$ 94,682,006.74 |

Source: MCWD Records

APPENDIX B – GROWTH PROJECTIONS

Tables B-1 and B-2 are growth projections for Marina and the Ord Community. Marina expects no growth for the next two years and then minimal growth at 15 EDUs/year thereafter. Development at Armstrong Ranch, shown in table B-1, will add considerable new users to the system. BWA has reduced growth projections in both tables from their original values to maintain a conservative estimate of future revenues.

**Table B-1 ■ Marina Coast Water District
Marina Water - Armstrong Ranch Growth Projection**

| Land Use Type | Ruggeri - Jensen - Azar Assoc. | | BWA | | BWA's 7 Year Distributed Growth | | | | | | | |
|--------------------------------------|--------------------------------|---------------|------------------|--------------------|---------------------------------|---------|---------|-----------|------------|------------|------------|------------|
| | Build Out New | Demand Factor | Yearly Cons (AF) | EDU Equivalent [1] | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Residential (units) | | | | | | | | | | | | |
| Single Family Homes (15,000 sf lots) | 147 | 0.500000 | 73.5 | 221 | | | | | | | | |
| Single Family Homes (6,000 sf lots) | 669 | 0.330000 | 220.8 | 662 | | | | | | | | |
| Apartments | 648 | 0.250000 | 162.0 | 486 | | | | | | | | |
| Non-Residential (sf) | | | | | | | | | | | | |
| Mixed Use Retail | 60,000 | 0.000210 | 12.6 | 38 | | | | | | | | |
| Office Uses | 143,808 | 0.000135 | 19.4 | 58 | | | | | | | | |
| Light Industrial | 651,624 | 0.000150 | 97.7 | 293 | | | | | | | | |
| Landscapes Uses - @ 15% indoor cons. | | | 19.5 | 59 | | | | | | | | |
| New EDUs [2] | | | | 1,817 | | | | 75 | 125 | 150 | 150 | 150 |

Source: Developed by Ruggeri - Jensen - Azar & Associates, February 2006 and modified by BWA

1 - Based on 1 EDU = 1/3 Acre Foot of Water Consumed

2 - Assumes 567 EDUs beyond 2014

**Table B-2 ■ Marina Coast Water District
Ord Community Water – FORA Growth Projection**

| Land Use Type | Build Out @ 2021/22 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016-22 |
|---|------------------------|-----------|------------|--------------|-------------------------------------|--------------|--------------|--------------|------------|------------|------------|------------|------------|
| New Residential | | | | | | | | | | | | | |
| Marina Heights | 1,050 | | | 389 | 295 | 228 | 138 | | | | | | |
| Cypress Knolls | 200 | | | | 27 | 173 | | | | | | | |
| University Villages | 1,237 | | | 140 | 221 | 366 | 372 | 138 | | | | | |
| TAMC TOD | 200 | | | | 100 | 100 | | | | | | | |
| CSUMB North Campus Housing | 492 | | | | 150 | 150 | 150 | 42 | | | | | |
| UC 8th Street | 330 | | | | 110 | 110 | 110 | | | | | | |
| East Garrison | 1,470 | | | | 45 | 214 | 386 | 452 | 294 | 79 | | | |
| UC East Campus - SF | 200 | | | | 200 | | | | | | | | |
| Seaside Brostrom | 100 | | | 50 | 50 | | | | | | | | |
| Seaside Highlands | 380 | | | | already constructed - not in totals | | | | | | | | |
| Seaside Resort Housing | 125 | | | 30 | 30 | 30 | 35 | | | | | | |
| Sunbay Affordable | 100 | | | | 45 | 55 | | | | | | | |
| State Park Housing | 20 | | | | 20 | | | | | | | | |
| SH Affordable | 57 | | | | 57 | | | | | | | | |
| Del Ray Oaks | 691 | | | | 216 | 163 | 2 | 32 | 96 | 32 | 100 | 50 | |
| Total | 6,652 | - | - | 609 | 1,239 | 1,643 | 1,466 | 664 | 390 | 111 | 100 | 50 | - |
| Non Residential - square feet | | | | | | | | | | | | | |
| Office - square feet | 3,969,510 | 12,200 | 47,000 | 39,168 | 410,342 | 553,900 | 682,820 | 585,012 | 423,328 | 507,220 | 379,020 | 229,500 | 100,000 |
| Industrial - square feet | 2,552,600 | 44,600 | - | 10,000 | - | 322,000 | 472,000 | 466,000 | 150,000 | 150,000 | 150,000 | 500,000 | 52,000 |
| Retail - square feet | 1,832,500 | - | 334,000 | 615,250 | 328,250 | 310,000 | 92,000 | 55,000 | 20,000 | - | - | 26,000 | 350 |
| Hotel Rooms | 3,110 | - | - | 585 | 555 | 674 | 150 | 350 | - | 282 | 64 | 100 | |
| Equivalent Residential Units [1] | 4,730 | 23 | 108 | 491 | 543 | 787 | 565 | 619 | 235 | 411 | 245 | 351 | 238 |
| Total Equivalent Units | 11,382 | 23 | 108 | 1,100 | 1,782 | 2,430 | 2,031 | 1,283 | 625 | 522 | 345 | 401 | 238 |
| Planning Growth (50%) - EDUs [2] | | | | 550 | 890 | 1,210 | 1,020 | 640 | 310 | 260 | 170 | 200 | 120 |

Source: Developed by FORA from various sources. Revised April 2006

1 - Based on one equivalent unit for each: 2,500 sq. ft. of office space, 2,500 sq. ft. of industrial, 3,750 of retail and two hotel rooms.

2 - Assuming only 50% of development will materialize.

APPENDIX C – FINANCING METHODS

A variety of options are available for financing the District's projects, including the use of cash from reserves or revenues, state revolving fund (SRF) loans, and tax-exempt borrowing. This section briefly describes various financing approaches and lists their advantages and disadvantages.

The following financing alternatives are discussed:

- Pay-as-you-go financing
- State revolving fund loans
- Bank loans
- General obligation bonds
- Revenue bonds
- Certificates of participation/installment purchase certificates
- Bond pools
- Assessment bonds
- Mello-Roos community facilities district bonds

Pay-As-You-Go Financing

Pay-as-you-go financing is cash financing using current revenues and reserves to pay the costs of the capital projects. Connection fees and, if appropriate, service charges are reviewed and adjusted to generate the necessary revenue, which in combination with reserves already accumulated, will pay each year's capital costs. This method has the advantage of not incurring any costs for interest or issuance, which relate to borrowing.

The true cost of cash financing should also consider the relationship between the interest rate earned on reserve investments and the rate of inflation of project costs. In periods of high inflation, it is very difficult to accumulate cash for projects as fast as inflation increases the project costs. Today, both interest rates and inflation are relatively low, and earnings on reserves should equal or exceed cost increases for inflation.

Reserves, to the extent available, could be used to finance the capital improvements. Current reserves may not be sufficient to fund all capital projects required. Moreover, public agencies should not use all of their cash reserves, but should maintain a balance for any future contingencies or emergencies. There is also a policy issue to consider when deciding the appropriate mix of cash and debt financing for public works projects. Including some debt in the financing spreads some of the costs to new customers who use a project over its life, rather than having current customers pay all of the costs.

Advantages:

- No interest and issuance costs; method with lowest cost of financing.
- Simple and straightforward approach to project financing.

Disadvantages:

- May require increases in rates and fees to generate additional revenues.
- Agencies may have insufficient current reserves.
- Implementation schedule may not allow sufficient time to accumulate cash.

State Revolving Fund Loans

Wastewater. The State Water Resources Control Board (SWRCB) offers a state revolving fund (SRF) loan for eligible costs of wastewater projects. To be eligible for a wastewater SRF loan, a project must be on the state's priority list for project funding. Project categories range from "A" to "E" depending on the seriousness of the problem. Generally projects providing capacity for growth are given low priority. The amount available for loans to an individual project or agency varies from year to year, depending upon the availability of funds.

If a project is approved, an SRF loan generally has a term of 20 years at an interest rate equal to one-half of the interest rate paid by the state on its general obligation bonds, generally between 2.5 and 3 percent. As some elements of a project may be ineligible for a loan, an agency often must match the loan with some additional amount of local financing.

Interest begins to accrue upon completion of construction, with the first payment due one year after construction completion. The borrowing agency must complete and adopt a revenue program approved by the SWRCB. The agency must also create a capital reserve fund equal to 5 percent of the loan amount.

An agency must demonstrate to the SWRCB how the loan will be repaid. Any source of funds may be used to repay the loan including connection charges, reserve funds or other rates and charges. An agency may establish a plan for repayment that commits connection charges ahead of service charges, for example. However the SWRCB requires a firm commitment that an agency will use all available means to repay the loan.

Under certain conditions, SRF loans can be used to take out other financings. An agency could use another form of debt to finance a project and use proceeds of a future SRF loan to pay off the original debt, subject to certain conditions.

Water: The 1996 amendments to the federal Safe Drinking Water Act incorporated a drinking water state revolving fund (DWSRF) program. Each state is required to establish such a program. Funding comes from federal and state funds. The level of funding for California is about \$100 million per year.

The DWSRF program is similar to the wastewater SRF program, but differs in certain particulars. The loans are available to private water systems as well as public agencies. Some grant funds are available, particularly to smaller or disadvantaged systems. Loans are available for planning purposes only in amount up to \$100,000. The rules of the program are designed to benefit small water agencies. For example, 15 to 25 percent of the annual funds will be set aside for small water systems (fewer than 10,000 service

connections), so that small systems are not competing directly with large systems. Applicants are required by federal law to meet technical, managerial, and financial criteria to be eligible for loans.

Advantages:

- Low interest costs.
- May be used as a takeout loan for a previous financing.

Disadvantages:

- Requires extra engineering, EIR, and planning costs.
- Requires extra lead time.
- May finance only a portion of project costs; the local agency must provide for financing the remainder of project costs.
- Limits on the amount of capacity for growth which can be funded.
- SRF loan funds are limited and may not be available when needed.

Bank Loans

In some instances, borrowing funds from a commercial bank may be a low-cost method to obtain funds to finance projects. Interest on the loan is income tax-exempt for the bank, so the bank's normal loan rates do not necessarily apply. However, the rates on most bank loans are higher than comparable bond rates. Use of a bank loan requires negotiations with a knowledgeable and profitable bank (one that needs tax-exempt income). The maximum amount of a bank loan is \$10 million per issuer per year.

A bank loan can be negotiated with much lower issuance costs than a bond issue. Generally much less documentation is required. A more informal legal review is needed as the bank will perform its own review. A bank loan is most attractive for a short-term loan of around ten years or less; it can be difficult to get a loan of 20 years. Bank loans may be repaid from any source and a reserve fund is usually not required.

Advantages:

- Ability to negotiate, create flexibility in terms.
- Simple to implement.
- Low issuance costs.

Disadvantages:

- Higher interest rates, shorter term.
- Limited to \$10 million per year per issuer.

General Obligation Bonds

General obligation (GO) bonds have been the traditional source of capital funds for public agencies. GO bonds are secured by the issuer's power and obligation to levy property taxes, without limitation as to rate or amount, for the payment of debt service. GO bonds are secured by the full faith and credit and unlimited taxing power of the issuer. Because of this unlimited taxing power as security, GO bonds are the least costly

form of long-term public borrowing. Moreover, GO bonds do not require a reserve fund, thus reducing the size of the issue.

GO bonds can be used for acquisition, construction, or improvement of real property. In addition to property taxes, debt service on GO bonds can be paid from any legal source of revenue.

Implementation begins with the local agency passing a resolution to place a GO bond measure on the ballot. The election code sections governing such a measure require the preparation of a tax rate statement, ballot arguments in favor of and against the proposition, and an independent analysis. The tax rate statement advises the voters of the tax rates for the first year following the first and last bond sales, the maximum tax rate, and the first year in which the maximum tax rate is expected to occur. This statement would also advise of any intent to substitute revenues other than ad valorem taxes to pay bond service.

A two-thirds voter approval is required. In most cases, GO bonds must be sold by competitive sale.

Advantages:

- GO bonds carry the lowest interest rates of long-term borrowing methods because of their unlimited taxing power as security.
- GO bonds are easy to administer because they can be repaid solely from ad valorem taxes.
- GO bonds do not require a reserve fund or capitalized interest, thus requiring the smallest amount of bonds to finance a project.
- GO bonds create a new revenue source, the power to levy taxes for debt service separate from current revenues.

Disadvantages:

- The two-thirds voter approval requirement means that a project must be publicly popular and have strong community support.
- The agency would have to incur costs associated with the bond election.
- Under Proposition 13, property taxes may not be equitable, in that properties that have been recently purchased often pay substantially higher taxes than properties of equivalent worth that have not changed ownership recently and have therefore been limited to 2 percent annual increase in their assessed valuations.
- Assessed valuation has little or no relation to water use or benefit from the water treatment plant project.
- The agency may need to proceed with its project even if voters reject the bond issue.

Revenue Bonds or Certificates of Participation

Another traditional way for utilities to finance capital projects is revenue bonds. In California, revenue bonds have been replaced by certificates of participation (COPs), which have the same basic security, but a slightly different legal form. This section discusses

revenue-supported bonds for enterprise financing. The subsequent section discusses lease certificates, a related financing method.

COPs are secured by a public agency's power and ability to generate revenues from an enterprise. The fundamental revenue that secures the COPs is the service charge, such as user charges for water service. Additionally, revenues securing such a bond may include connection charges, interest earnings, and any miscellaneous fees or charges. The proceeds of taxes or assessments cannot be pledged for revenue bonds. The underlying security is the issuer's promise to operate its system in a way that will provide sufficient net revenue, after payment of operation and maintenance expenses, to pay annual debt service.

COPs, or revenue bonds, allocate the costs of a capital project to those who use it. Because the bonds are secured only by enterprise revenues, bondholders require assurances that: (1) revenues are sufficient to meet all expenses; (2) annual debt service has a lien on revenues; and (3) future revenue bond issues will not reduce the security of prior issues.

Revenue bonds generally require a minimum coverage pledge. Coverage is measured as the ratio of net revenue (i.e., gross revenues less operation and maintenance expenses) to annual bond service. To enhance marketability, revenue bond issuers typically pledge to maintain net revenues of 1.1 to 1.3 times annual bond service, depending on the types of charges which will pay debt service and how the charges are collected. Consequently, an issuer must set fees and charges at a level 10 to 30 percent above that required to meet debt payments.

The coverage ratio for a revenue bond is measured before the payment of any capital expenses or provision for depreciation and replacement. The revenue required beyond payment of O&M expenses and debt service provides a source of funds for capital repair and replacement, allowing the public agency to protect its investment in its plant and facilities and its ability to generate sufficient revenues to manage the system. However, the revenue must be predictable, reliable, enforceable, and adequate in order to market revenue bonds.

Revenue bonds often include a debt service reserve fund as additional security to the investors. By federal tax law, the reserve fund cannot exceed the lowest of: 10 percent of the issue, maximum annual debt service, or average annual debt service. In today's market, the reserve fund is generally equal to maximum annual debt service. The reserve fund provides a source of payment to bondholders in the event the agency is unable to pay its debt service when due. The reserve fund is usually held by a trustee bank and invested. Interest earnings can be applied toward each year's debt service and the balance in the fund is applied to the final payments.

Advantages:

- Revenue COPs can allocate the costs of capital projects to their users in accordance with water use and demand.
- Revenue bonds are secured by user charges (i.e., revenue) and not on property taxes.
- The security of the bonds is identified and can be reasonably predicted.

Disadvantages:

- The size of a revenue bond is greater than a GO bond, because of the reserve fund.
- Revenue bonds tend to incur higher issuance costs than GO bonds.
- Interest rates of revenue bonds are higher than GO bonds, because of the weaker security and greater credit risk associated with revenue bonds.
- User charges and connection charges (i.e., revenues) must be higher in order to satisfy a debt service coverage requirement.
- Connection charges cannot solely be used to provide revenue bond security because they don't provide a reliable source of revenues.

Lease Certificates of Participation

Another type of long-term borrowing widely used in California to finance capital projects is a variation of a lease, or installment purchase, financing through certificates of participation (COPs). They are called certificates of participation because an investor buys a certificate indicating an undivided, proportional share of lease, or installment purchase, payments by a local agency.

In a COP transaction, the local agency enters into a contract with a third-party seller, or lessor, to purchase specified facilities and to make a stream of payments which are sufficient to retire the debt. The seller is generally a nonprofit corporation or joint powers authority created by the agency or a leasing company employed for this role only. The seller assigns to the agency the obligation to construct the project and assigns to the trustee the right to receive payments. The agency, through a trustee bank, sells shares (i.e., participation certificates) in its obligation, and makes installment payments to the trustee, which in turn pays interest and principal to the owners of the COPs. The installment payments have a principal portion and an interest portion, which is tax-exempt. Once the transaction has been completed, it resembles a bond issue.

There is no specific California statute that authorizes COPs or other types of lease financing; instead, they are based on the ability of local governments to enter into leases and contracts. COPs are authorized by the agency's governing board, generally by resolution. Voter approval of the COP issue is not required, payments do not constitute indebtedness as defined by the California Constitution, and no interest rate limit or issuance discount limitations exist.

Lease COPs can be used for most capital projects, but are generally used for projects supported by an agency's general fund. They can be structured to preserve flexibility in the use and administration of revenues, and can be secured by all legally available funds, or by a designated special fund. There is, however, no ability to raise additional taxes to make COP payments.

The fundamental security of COPs is the contract made by the local government to make installment payments that retire the COPs principal and interest. In order to assure investors of COP payments, public agencies promise to annually appropriate sufficient moneys to pay annual debt service.

When COPs are issued under a lease, the agency must have use of the project in order to make payments. This can add costs and issuance requirements.

Advantages:

- Lease or installment-purchase financing is authorized by governing board resolution.
- COPs can be repaid from a variety of revenues and reserves of the agency.
- COPs are easy to issue and administer. They can be sold within two or three months by competitive or negotiated sale.
- COPs can be used for virtually any capital improvement or replacement.

Disadvantages:

- The agency cannot levy property taxes for COP payments; instead, COPs require a pledge of other types of revenues or available funds.
- Issue size is larger than for GO bonds due to the requirement of a reserve fund and issuance costs.
- A third party is required as seller or lessor; the agency must create or contract for this role.
- Rating agencies generally rate COPs lower than an issuer's general obligation rating because the securities are not backed by the full faith and credit of the public entity. Consequently, interest rates on COPs are usually higher than for GO bonds.

Bond Pools

Government Code §6584 authorizes a joint powers authority (JPA), composed of two or more public entities, to issue its own bonds, which can be used to acquire bonds and other debt issued by the public entities. The JPA can acquire any type of bond or debt instrument, as well as making loans from its bond proceeds and entering into financing leases. Pooled bonds are intended to aid local agencies in financing capital improvements (as defined in Government Code §6546), working capital, liability and other insurance, and projects which provide significant public benefits.

A pooled revenue bond program is offered by the California Statewide Communities Development Authority (CSCDA). This may offer the District a simple and low-cost method for small issues. Information about the CSCDA pool is available at <http://www.ebondpool.com>.

Advantages:

- Sharing issuance costs with other small issuer reduces costs to all parties.

Disadvantages:

- Each issuer must follow the same rules, with little flexibility in structuring the issue.

Assessment Bonds

Assessment districts are commonly used to finance projects of local benefit to specific properties. They have typically been used by wastewater agencies for collection and

transmission facilities. Water and wastewater treatment plant improvement projects are usually considered general benefit projects.

Each property in an assessment district is assessed in relation to the benefit it receives. Under California law, a special assessment is not a tax; it is a lien against a benefited property, which serves as security for bonds issued to finance the capital projects. These liens do not represent an encumbrance on the agency and do not affect the agency's debt capacity. The property securing the lien, however, must have a value sufficient to more than cover the assessment. For successful marketing of assessment bonds, the ratio of assessed or appraised value to the assessment lien should be in excess of 3 to 1.

Assessments must be spread to the benefited properties in proportion to benefit. They are confirmed and recorded against each parcel. A property owner can pay his assessment in cash. If the assessment is not paid within the prescribed time period, it is included in the bond issue. Assessment installments are collected on the property tax bill and used to pay principal and interest payments on the bonds. An assessment lien may be paid off at any time. The agency has the authority to foreclose through superior court proceedings if assessment installments become delinquent.

The amount of the assessment includes the incidental costs of creating the assessment district and spreading and confirming the assessments. Assessments which are bonded also include the costs of issuing the bonds and the bond reserve fund.

Assessment financing requires choosing the appropriate statutory assessment act and bond act. The assessment act specifies a procedure for forming an assessment district, ordering and making acquisitions or improvements, and levying and confirming the assessments. Bond acts are separate enabling statutes which provide different means of securing assessment district bonds.

Assessment Acts: The appropriate assessment acts are the Improvement Act of 1911 (Streets & Highways Code §5000) and the Municipal Improvement Act of 1913 (Streets & Highways Code §10000). Of these two acts, the 1913 Act has the major advantages of allowing the agency's formation and assessment hearings to be held concurrently and allowing payment of the contractor in cash as the projects progress.

Bond Acts: The available bonds acts are the Improvement Act of 1911 (Streets & Highways Code §6400) and the Improvement Bond Act of 1915 (Streets & Highways Code §8500). A 1911 Act bond is a specific lien bond representing an unpaid assessment on a specific parcel. The bonds are issued in the amount of each lien. Default on the bonds enables the bondholder to take possession of the property. A 1915 Act bond is a pooled lien issued in multiples of \$5,000, with the issuer holding specific liens to secure all of the bonds.

Advantages:

- Only the property owners in the assessment district pay the assessments, not the other owners throughout the public agency's service area.

- Assessment bonds are not general obligations of the agency.
- The annual assessments are established for the term of the bond issue.
- Assessment liens must be based on benefit.
- Property owners can pay off assessments at any time.

Disadvantages:

- Assessments are placed on property, whether it is developed or not, so vacant land may have low value to lien ratios.
- Once an assessment lien has been placed on a parcel, it cannot be changed, even if the land use is changed.
- Assessment bonds include a reserve fund, which increases the issue size and assessment installments.
- Assessment bonds are generally not rated, because of their limited security. Consequently, they usually bear higher interest rates than GO bonds and COPs and have higher issuance costs.
- Only property with an identifiable special benefit can be assessed and included in an assessment district.

Mello-Roos Community Facilities District Bonds

The Mello-Roos Community Facilities Act of 1982 (Government Code §§53311) provides for the financing of a broad range of public facilities and certain specific services. Like an assessment district, a community facilities district (CFD) is strictly a financing vehicle, not a separate political entity. Mello-Roos financing can be used to provide any kind of facility which has a useful life of five years or more which the issuer is authorized to construct, own, or operate. Two or more public agencies may enter into a joint financing arrangement to finance facilities for both agencies through one community facilities district. The CFD must be formed by the agency receiving the largest portion of the bond proceeds.

The Mello-Roos Act provides for voter approval of a special tax and issuance of bonds secured by that tax. The measure to authorize a special tax and bonds must be approved by a two-thirds vote of the qualified electors in the community facilities district. Qualified electors are registered voters or, if there are fewer than 12 registered voters in the CFD, landowners based on one vote per acre. Most Mello-Roos districts are created for developers to fund improvements to serve a specific development.

The measure approved by the voters must specify a maximum tax rate and the method in which the tax will be apportioned. Proposition 13 prohibits special taxes based on real property value and transaction and sales tax on the sale of real property. The intent of the Mello-Roos Act is to allow flexibility in the establishment of the special tax. Different classes of property may be taxed at different rates. For example, one rate for undeveloped land, another rate for residential, another rate for commercial, and so forth. Moreover, the special tax paid by a given parcel can vary as its land use is converted from underdeveloped to a more intensive development. The creation of the community facilities district and a notice of the special tax must be recorded so that future property owners are advised that their properties are subject to the special tax.

The agency can pay for the capital projects and services through a bond sale or by using the special tax revenues to pay directly engineering, design, construction, and acquisition costs.

The issuer has no contingent liability in Mello-Roos financing. The special tax can be set to recover principal and interest of the Mello-Roos bonds and administrative costs of the community facilities district. A reserve fund is included in the bond issue to provide security for the payment of debt service in the event of delinquencies. The special tax may be used to replenish any amounts withdrawn from the reserve fund, up to the maximum tax rate approved by the voters.

Advantages:

- Mello-Roos bonds can fund a variety of public facilities and certain services.
- Only the property owners in the community facilities district pay the assessments, not the other owners throughout the agency's service area.
- Mello-Roos bonds are not general obligations of the issuer and have no recourse to general agency revenues or assets.
- Allocation of the special tax to properties within the community facilities district must be based on reasonable criteria, but not specifically related to the benefit received by each property.
- The special tax may vary by type of property and level of development.

Disadvantages:

- Mello-Roos bonds are generally created on behalf of developers in connection with development of their property. The purchasers of the property may not be aware of the potential full impact of a Mello-Roos tax, and the districts can be quite unpopular with homeowners.
- To market Mello-Roos bonds a property value to lien ratio of not less than 3:1 must exist.
- Mello-Roos bonds require a debt service reserve fund as additional security, which increases the issue size and annual tax.
- Because Mello-Roos bonds are not obligations of the issuer, they are typically not rated and therefore have higher interest rates than GO bonds, COPs, and other types of tax-exempt debt.
- The special tax must be levied each year by the local agency. Some special tax formulas allow escalation.
- Various public agencies may create overlapping CFDs independent of each other, leading to high debt levels and taxes and reducing the security of outstanding bonds.
- Mello-Roos debt is land-supported and can be quite risky. There were significant problems with Mello-Roos issues in the recent recession.

Promissory Notes

Section 31304 of the county water district act authorizes the issuance of negotiable promissory notes, payable from any District funds. The District can use promissory notes to borrow up to 1 percent of its assessed valuation for a maximum term of 5 years.

APPENDIX D – ALTERNATE RATE SCENARIOS

Scenario 1 – Full CIP Funding

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 5,450 | 5,450 | 5,450 | 5,540 | 5,680 | 5,845 |
| New Marina EDUs | | 0 | 0 | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | | 0 | 0 | 75 | 125 | 150 |
| Capacity charge/EDU | 4,164 | 5,360 | 5,610 | 5,870 | 6,140 | 6,430 |
| Capacity charge % increase (1) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 5,396,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 1,418,500 | | | | | |
| Total Beginning Balance | \$ 6,814,500 | \$ 7,305,500 | \$ 7,493,500 | \$ 7,639,500 | \$ 4,862,500 | \$ 4,657,500 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 837,000 | \$ 1,086,000 | \$ 954,000 | \$ 1,253,000 | \$ 1,566,000 | \$ 1,942,000 |
| Capacity charges | - | - | - | 528,000 | 860,000 | 1,061,000 |
| Interest earnings | 265,000 | 292,000 | 300,000 | 306,000 | 195,000 | 186,000 |
| Employee CALPERS transfers | 26,000 | | | | | |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest (2) | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 |
| Total | 1,139,000 | 1,389,000 | 1,265,000 | 2,098,000 | 2,632,000 | 3,200,000 |
| Expenses | | | | | | |
| General CIP | 77,000 | 633,000 | 550,000 | 4,300,000 | 2,267,000 | 5,890,000 |
| Existing debt service | 571,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Total | 648,000 | 1,201,000 | 1,119,000 | 4,875,000 | 2,837,000 | 6,460,000 |
| Net revenue | 491,000 | 188,000 | 146,000 | (2,777,000) | (205,000) | (3,260,000) |
| Ending balance | \$ 7,305,500 | \$ 7,493,500 | \$ 7,639,500 | \$ 4,862,500 | \$ 4,657,500 | \$ 1,397,500 |
| Minimum Reserve Balance (3) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)
2 - Marina Water to receive interest (5%) on 7% of \$3.084 million reserve fund.
3 - Minimum reserve balance is \$1.0 million.
Source: Prepared by Bartle Wells Associates

Scenario 1 – Full CIP Funding

TABLE 21
MARINA COAST WATER DISTRICT
MARINA WATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 5,450 | 5,450 | 5,450 | 5,540 | 5,680 | 5,845 |
| Base rate - \$/mo | 14.18 | 14.72 | 15.87 | 17.10 | 18.44 | 19.88 |
| Volume rate - tier I (\$/hcf) | 1.79 | 1.79 | 1.93 | 2.08 | 2.24 | 2.42 |
| Volume rate - tier II (\$/hcf) | 2.80 | 2.18 | 2.35 | 2.53 | 2.73 | 2.94 |
| Volume rate - tier III (\$/hcf) | n/a | 3.98 | 4.29 | 4.63 | 4.99 | 5.37 |
| Average Bill - 13 hcf/month | 38.46 | 39.94 | 43.05 | 46.41 | 50.03 | 53.93 |
| Rates - percentage increase | | 3.8% | 7.8% | 7.8% | 7.8% | 7.8% |
| Escalation factor | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 304,000 | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Base rate | \$ 927,000 | \$ 963,000 | \$ 1,038,000 | \$ 1,137,000 | \$ 1,257,000 | \$ 1,394,000 |
| Charges tier I (0-12 hcf) | 664,000 | | | | | |
| Charges tier II (13+ hcf) | 1,350,000 | | | | | |
| Charges tier I (0-8 hcf) | | 531,000 | 572,000 | 627,000 | 693,000 | 769,000 |
| Charges tier II (9-16 hcf) | | 301,000 | 324,000 | 355,000 | 392,000 | 435,000 |
| Charges tier III (17+ hcf) | - | 1,579,000 | 1,702,000 | 1,865,000 | 2,061,000 | 2,286,000 |
| Total Water Sales | 2,941,000 | 3,374,000 | 3,636,000 | 3,984,000 | 4,403,000 | 4,884,000 |
| Permits and other income | 244,000 | 253,000 | 263,000 | 273,000 | 283,000 | 294,000 |
| Interest earnings | 10,000 | 15,000 | 17,000 | 19,000 | 20,000 | 21,000 |
| Other Total | 254,000 | 268,000 | 280,000 | 292,000 | 303,000 | 315,000 |
| Total Revenues | 3,195,000 | 3,642,000 | 3,916,000 | 4,276,000 | 4,706,000 | 5,199,000 |
| Expenses | | | | | | |
| DESAL O&M | | | 83,000 | 86,000 | 89,000 | 92,000 |
| Administration | 661,000 | 714,000 | 814,000 | 844,000 | 876,000 | 910,000 |
| Operation and maintenance | 1,003,000 | 1,075,000 | 1,206,000 | 1,251,000 | 1,299,000 | 1,348,000 |
| Laboratory | 155,000 | 168,000 | 194,000 | 201,000 | 209,000 | 216,000 |
| Conservation | 123,000 | 133,000 | 154,000 | 160,000 | 166,000 | 172,000 |
| Engineering | 344,000 | 378,000 | 448,000 | 464,000 | 482,000 | 500,000 |
| New testing regulations | - | 50,000 | | | | |
| Employee CALPERS transfers | 26,000 | - | - | - | - | - |
| Total Expenses | 2,286,000 | 2,518,000 | 2,899,000 | 3,006,000 | 3,121,000 | 3,238,000 |
| Net revenue | 909,000 | 1,124,000 | 1,017,000 | 1,270,000 | 1,585,000 | 1,961,000 |
| Capital expenses - transfer | 837,000 | 1,086,000 | 954,000 | 1,253,000 | 1,566,000 | 1,942,000 |
| Ending balance | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 | \$ 532,000 |
| Minimum Reserve Balance (1) | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 | \$ 532,000 |

1 - Minimum reserve balance is 60 days of operating expenses or \$300,000.

Source: Prepared by Bartle Wells Associates

Scenario 1 – Full CIP Funding

TABLE 22
MARINA COAST WATER DISTRICT
ORD COMMUNITY WATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 |
| New Ord EDUs | - | - | - | - | - | - |
| Capacity charge/EDU | 2,800 | 13,740 | 14,380 | 15,050 | 15,750 | 16,480 |
| Monthly Capital Surcharge/EDU | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| # EDUs billed surcharge | 20 | 20 | 20 | 20 | 20 | 20 |
| Capacity charge % increase (1) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Capital surcharge % increase | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 3,267,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 13,626,100 | | | | | |
| Total Beginning Balance | \$ 16,893,100 | \$ 12,118,400 | \$ 7,276,200 | \$ 6,241,000 | \$ 7,024,800 | \$ 7,096,600 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 751,000 | \$ 1,924,000 | \$ 2,526,000 | \$ 4,137,000 | \$ 6,176,000 | \$ 8,805,000 |
| Capacity charges | 323,000 | - | - | - | - | - |
| Capital charges | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 |
| FORA capital contribution (2) | - | - | - | - | - | - |
| Interest earnings | 725,000 | 485,000 | 291,000 | 250,000 | 281,000 | 284,000 |
| Employee CALPERS transfers | 23,900 | - | - | - | - | - |
| Grant revenues (Proposition 50) | - | 2,000,000 | - | - | - | - |
| Existing bond proceeds (3) | - | - | - | - | - | - |
| Existing bond rsrv fund interest (4) | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 |
| Total | 1,929,700 | 4,515,800 | 2,923,800 | 4,493,800 | 6,563,800 | 9,195,800 |
| Expenses | | | | | | |
| General CIP | 5,127,400 | 5,337,000 | 575,000 | 251,000 | 2,996,000 | 13,492,000 |
| New water CIP | 1,144,000 | 2,556,000 | 1,919,000 | 1,995,000 | 2,033,000 | - |
| Existing debt service (5) | 433,000 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Total | 6,704,400 | 9,358,000 | 3,959,000 | 3,710,000 | 6,492,000 | 14,959,000 |
| Net revenue | (4,774,700) | (4,842,200) | (1,035,200) | 783,800 | 71,800 | (5,763,200) |
| Ending balance | \$12,118,400 | \$7,276,200 | \$6,241,000 | \$7,024,800 | \$7,096,600 | \$1,333,400 |
| Minimum Reserve Balance (6) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Assumes limited short-term growth in Ord Community.

3 - Includes Recycled Water Bond Proceeds.

4 - Ord Community Water to receive interest (5%) on 66% of \$3.084 million reserve fund.

5 - Includes CALPERS debt service.

6 - Minimum reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

Scenario 1 – Full CIP Funding

TABLE 23
MARINA COAST WATER DISTRICT
ORD COMMUNITY WATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 |
| New Ord EDUs | - | - | - | - | - | - |
| Flat Rate Accounts | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 |
| Flat rate - \$/mo (1) | 52.10 | 78.54 | 84.78 | 108.09 | 137.81 | 175.71 |
| Base rate - \$/mo | 12.50 | 15.94 | 20.32 | 25.91 | 33.03 | 42.12 |
| Volume rate - tier I (\$/hcf) | 1.70 | 2.17 | 2.76 | 3.52 | 4.49 | 5.73 |
| Volume rate - tier II (\$/hcf) | 2.39 | 3.05 | 3.89 | 4.95 | 6.32 | 8.05 |
| Volume rate - tier III (\$/hcf) | 3.08 | 3.93 | 5.01 | 6.38 | 8.14 | 10.38 |
| Average Bill - 13 hcf/month | 38.05 | 48.51 | 61.86 | 78.87 | 100.55 | 128.21 |
| Rates - percentage increase | | 27.5% | 27.5% | 27.5% | 27.5% | 27.5% |
| Escalation factor | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 516,000 | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Base rates | \$ 559,000 | \$ 712,000 | \$ 908,000 | \$ 1,158,000 | \$ 1,476,000 | \$ 1,882,000 |
| Charges tier I (0-8 hcf) | 264,000 | 337,000 | 430,000 | 548,000 | 699,000 | 891,000 |
| Charges tier II (9-16 hcf) | 163,000 | 208,000 | 265,000 | 338,000 | 431,000 | 550,000 |
| Charges tier III (17+ hcf) | 1,367,000 | 1,743,000 | 2,222,000 | 2,833,000 | 3,612,000 | 4,605,000 |
| Flat rate sales | 1,508,000 | 2,220,000 | 2,396,000 | 3,055,000 | 3,895,000 | 4,966,000 |
| Total Water Sales | 3,860,000 | 5,220,000 | 6,221,000 | 7,932,000 | 10,113,000 | 12,894,000 |
| Permits and other income | 98,000 | 102,000 | 106,000 | 110,000 | 114,000 | 118,000 |
| Interest earnings | 15,000 | 21,000 | 22,000 | 25,000 | 26,000 | 27,000 |
| Other Total | 113,000 | 123,000 | 128,000 | 135,000 | 140,000 | 145,000 |
| Total Revenues | 3,973,000 | 5,343,000 | 6,349,000 | 8,067,000 | 10,253,000 | 13,039,000 |
| Expenses | | | | | | |
| DESAL O&M | - | - | - | - | - | - |
| RW O&M | - | - | - | - | - | - |
| RW ENG | 98,000 | - | - | - | - | - |
| Administration | 1,168,000 | 1,244,000 | 1,375,000 | 1,427,000 | 1,481,000 | 1,538,000 |
| Operation and maintenance | 1,193,000 | 1,277,000 | 1,431,000 | 1,486,000 | 1,542,000 | 1,601,000 |
| Laboratory | 192,000 | 208,000 | 239,000 | 249,000 | 258,000 | 268,000 |
| Conservation | 143,000 | 155,000 | 178,000 | 185,000 | 192,000 | 199,000 |
| Engineering | 416,000 | 456,000 | 539,000 | 559,000 | 580,000 | 602,000 |
| New testing regulations | - | 50,000 | - | - | - | - |
| Employee CALPERS transfers | 23,900 | - | - | - | - | - |
| Total Expenses | 3,210,000 | 3,390,000 | 3,762,000 | 3,906,000 | 4,053,000 | 4,208,000 |
| Net revenue | 763,000 | 1,953,000 | 2,587,000 | 4,161,000 | 6,200,000 | 8,831,000 |
| Capital expenses - transfer | 751,000 | 1,924,000 | 2,526,000 | 4,137,000 | 6,176,000 | 8,805,000 |
| Ending balance | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 | \$ 692,000 |
| Minimum Reserve Balance (2) | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 | \$ 692,000 |

1 - Rate for non-metered accounts (based on 18 hcf/month).

2 - Minimum reserve balance is 60 days of operating expenses or \$300,000.

Prepared by Bartle Wells Associates

Scenario 1 – Full CIP Funding

TABLE 27
MARINA COAST WATER DISTRICT
DEBT SERVICE COVERAGE BY FUND

| | <i>Budget 2007/08</i> | <i>Projection 2008/09</i> | <i>Projection 2009/10</i> | <i>Projection 2010/11</i> | <i>Projection 2011/12</i> | <i>Projection 2012/13</i> |
|------------------------------------|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Marina Water Operating Revenue | \$3,195,000 | \$3,642,000 | \$3,916,000 | \$4,276,000 | \$4,706,000 | \$5,199,000 |
| Marina Water Capital Revenue | 276,000 | 303,000 | 311,000 | 845,000 | 1,066,000 | 1,258,000 |
| Marina Water Operating Expense | <u>2,286,000</u> | <u>2,518,000</u> | <u>2,899,000</u> | <u>3,006,000</u> | <u>3,121,000</u> | <u>3,238,000</u> |
| Marina Water Net Revenue | 1,185,000 | 1,427,000 | 1,328,000 | 2,115,000 | 2,651,000 | 3,219,000 |
| Marina Water Debt Service | 571,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Marina Water Debt Service Coverage | 2.08 | 2.51 | 2.33 | 3.68 | 4.65 | 5.65 |
| Ord Water Operating Revenue | 3,973,000 | 5,343,000 | 6,349,000 | 8,067,000 | 10,253,000 | 13,039,000 |
| Ord Water Capital Revenue | 1,154,800 | 2,591,800 | 397,800 | 356,800 | 387,800 | 390,800 |
| Ord Water Operating Expense | <u>3,210,000</u> | <u>3,390,000</u> | <u>3,762,000</u> | <u>3,906,000</u> | <u>4,053,000</u> | <u>4,208,000</u> |
| Ord Water Net Revenue | 1,917,800 | 4,544,800 | 2,984,800 | 4,517,800 | 6,587,800 | 9,221,800 |
| Ord Water Debt Service | 433,000 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Ord Water Debt Service Coverage | 4.43 | 3.10 | 2.04 | 3.09 | 4.50 | 6.29 |
| Total Water Net Revenue | 3,102,800 | 5,971,800 | 4,312,800 | 6,632,800 | 9,238,800 | 12,440,800 |
| Total Water Debt Service | 1,004,000 | 2,033,000 | 2,034,000 | 2,039,000 | 2,033,000 | 2,037,000 |
| Water Debt Service Coverage | 3.09 | 2.94 | 2.12 | 3.25 | 4.54 | 6.11 |

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

TABLE 20
MARINA COAST WATER DISTRICT
MARINA WATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 5,450 | 5,450 | 5,450 | 5,540 | 5,680 | 5,845 |
| New Marina EDUs | | 0 | 0 | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | | 0 | 0 | 75 | 125 | 150 |
| Capacity charge/EDU | 4,164 | 5,360 | 5,610 | 5,870 | 6,140 | 6,430 |
| Capacity charge % increase (1) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 5,396,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 1,418,500 | | | | | |
| Total Beginning Balance | \$ 6,814,500 | \$ 7,305,500 | \$ 8,126,500 | \$ 8,712,500 | \$ 9,987,500 | \$ 11,781,500 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 837,000 | \$ 1,086,000 | \$ 819,000 | \$ 962,000 | \$ 1,093,000 | \$ 1,256,000 |
| Capacity charges | - | - | - | 528,000 | 860,000 | 1,061,000 |
| Interest earnings | 265,000 | 292,000 | 325,000 | 349,000 | 400,000 | 471,000 |
| Employee CALPERS transfers | 26,000 | | | | | |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest (2) | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 |
| Total | 1,139,000 | 1,389,000 | 1,155,000 | 1,850,000 | 2,364,000 | 2,799,000 |
| Expenses | | | | | | |
| General CIP | 77,000 | - | - | - | - | - |
| Existing debt service | 571,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Total | 648,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Net revenue | 491,000 | 821,000 | 586,000 | 1,275,000 | 1,794,000 | 2,229,000 |
| Ending balance | \$ 7,305,500 | \$ 8,126,500 | \$ 8,712,500 | \$ 9,987,500 | \$ 11,781,500 | \$ 14,010,500 |
| Minimum Reserve Balance (3) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Marina Water to receive interest (5%) on 7% of \$3.084 million reserve fund.

3 - Minimum reserve balance is \$1.0 million.

Source: Prepared by Bartle Wells Associates

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

TABLE 21
MARINA COAST WATER DISTRICT
MARINA WATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 5,450 | 5,450 | 5,450 | 5,540 | 5,680 | 5,845 |
| Base rate - \$/mo | 14.18 | 14.72 | 15.28 | 15.86 | 16.46 | 17.09 |
| Volume rate - tier I (\$/hcf) | 1.79 | 1.79 | 1.86 | 1.93 | 2.00 | 2.08 |
| Volume rate - tier II (\$/hcf) | 2.80 | 2.18 | 2.26 | 2.35 | 2.44 | 2.53 |
| Volume rate - tier III (\$/hcf) | n/a | 3.98 | 4.13 | 4.29 | 4.45 | 4.62 |
| Average Bill - 13 hcf/month | 38.46 | 39.94 | 41.46 | 43.03 | 44.67 | 46.36 |
| Rates - percentage increase | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Escalation factor | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 304,000 | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Base rate | \$ 927,000 | \$ 963,000 | \$ 999,000 | \$ 1,054,000 | \$ 1,122,000 | \$ 1,199,000 |
| Charges tier I (0-12 hcf) | 664,000 | | | | | |
| Charges tier II (13+ hcf) | 1,350,000 | | | | | |
| Charges tier I (0-8 hcf) | | 531,000 | 551,000 | 581,000 | 618,000 | 660,000 |
| Charges tier II (9-16 hcf) | | 301,000 | 312,000 | 329,000 | 350,000 | 374,000 |
| Charges tier III (17+ hcf) | - | 1,579,000 | 1,639,000 | 1,729,000 | 1,840,000 | 1,965,000 |
| Total Water Sales | 2,941,000 | 3,374,000 | 3,501,000 | 3,693,000 | 3,930,000 | 4,198,000 |
| Permits and other income | 244,000 | 253,000 | 263,000 | 273,000 | 283,000 | 294,000 |
| Interest earnings | 10,000 | 15,000 | 17,000 | 19,000 | 20,000 | 21,000 |
| Other Total | 254,000 | 268,000 | 280,000 | 292,000 | 303,000 | 315,000 |
| Total Revenues | 3,195,000 | 3,642,000 | 3,781,000 | 3,985,000 | 4,233,000 | 4,513,000 |
| Expenses | | | | | | |
| DESAL O&M | | | 83,000 | 86,000 | 89,000 | 92,000 |
| Administration | 661,000 | 714,000 | 814,000 | 844,000 | 876,000 | 910,000 |
| Operation and maintenance | 1,003,000 | 1,075,000 | 1,206,000 | 1,251,000 | 1,299,000 | 1,348,000 |
| Laboratory | 155,000 | 168,000 | 194,000 | 201,000 | 209,000 | 216,000 |
| Conservation | 123,000 | 133,000 | 154,000 | 160,000 | 166,000 | 172,000 |
| Engineering | 344,000 | 378,000 | 448,000 | 464,000 | 482,000 | 500,000 |
| New testing regulations | - | 50,000 | | | | |
| Employee CALPERS transfers | 26,000 | - | - | - | - | - |
| Total Expenses | 2,286,000 | 2,518,000 | 2,899,000 | 3,006,000 | 3,121,000 | 3,238,000 |
| Net revenue | 909,000 | 1,124,000 | 882,000 | 979,000 | 1,112,000 | 1,275,000 |
| Capital expenses - transfer | 837,000 | 1,086,000 | 819,000 | 962,000 | 1,093,000 | 1,256,000 |
| Ending balance | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 | \$ 532,000 |
| Minimum Reserve Balance (1) | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 | \$ 532,000 |

1 - Minimum reserve balance is 60 days of operating expenses or \$300,000.

Source: Prepared by Bartle Wells Associates

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

TABLE 22
MARINA COAST WATER DISTRICT
ORD COMMUNITY WATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 |
| New Ord EDUs | - | - | - | - | - | - |
| Capacity charge/EDU | 2,800 | 13,740 | 14,380 | 15,050 | 15,750 | 16,480 |
| Monthly Capital Surcharge/EDU | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| # EDUs billed surcharge | 20 | 20 | 20 | 20 | 20 | 20 |
| Capacity charge % increase (1) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Capital surcharge % increase | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 3,267,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 13,626,100 | | | | | |
| Total Beginning Balance | \$ 16,893,100 | \$ 12,118,400 | \$ 14,198,200 | \$ 13,835,000 | \$ 13,514,800 | \$ 13,203,600 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 751,000 | \$ 953,000 | \$ 427,000 | \$ 484,000 | \$ 504,000 | \$ 521,000 |
| Capacity charges | 323,000 | - | - | - | - | - |
| Capital charges | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 |
| FORA capital contribution (2) | - | - | - | - | - | - |
| Interest earnings | 725,000 | 485,000 | 568,000 | 553,000 | 541,000 | 528,000 |
| Employee CALPERS transfers | 23,900 | - | - | - | - | - |
| Grant revenues (Proposition 50) | - | 2,000,000 | - | - | - | - |
| Existing bond proceeds (3) | - | - | - | - | - | - |
| Existing bond rsrv fund interest (4) | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 |
| Total | 1,929,700 | 3,544,800 | 1,101,800 | 1,143,800 | 1,151,800 | 1,155,800 |
| Expenses | | | | | | |
| General CIP | 5,127,400 | - | - | - | - | - |
| New water CIP | 1,144,000 | - | - | - | - | - |
| Existing debt service (5) | 433,000 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Total | 6,704,400 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Net revenue | (4,774,700) | 2,079,800 | (363,200) | (320,200) | (311,200) | (311,200) |
| Ending balance | \$12,118,400 | \$14,198,200 | \$13,835,000 | \$13,514,800 | \$13,203,600 | \$12,892,400 |
| Minimum Reserve Balance (6) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Assumes limited short-term growth in Ord Community.

3 - Includes Recycled Water Bond Proceeds.

4 - Ord Community Water to receive interest (5%) on 66% of \$3.084 million reserve fund.

5 - Includes CALPERS debt service.

6 - Minimum reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

TABLE 23
MARINA COAST WATER DISTRICT
ORD COMMUNITY WATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 |
| New Ord EDUs | - | - | - | - | - | - |
| Flat Rate Accounts | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 |
| Flat rate - \$/mo (1) | 52.10 | 63.94 | 56.19 | 58.32 | 60.54 | 62.84 |
| Base rate - \$/mo | 12.50 | 12.98 | 13.47 | 13.98 | 14.51 | 15.06 |
| Volume rate - tier I (\$/hcf) | 1.70 | 1.76 | 1.83 | 1.90 | 1.97 | 2.05 |
| Volume rate - tier II (\$/hcf) | 2.39 | 2.48 | 2.58 | 2.67 | 2.77 | 2.88 |
| Volume rate - tier III (\$/hcf) | 3.08 | 3.20 | 3.32 | 3.44 | 3.58 | 3.71 |
| Average Bill - 13 hcf/month | 38.05 | 39.50 | 41.00 | 42.55 | 44.17 | 45.85 |
| Rates - percentage increase | | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Escalation factor | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 516,000 | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Base rates | \$ 559,000 | \$ 580,000 | \$ 602,000 | \$ 625,000 | \$ 648,000 | \$ 673,000 |
| Charges tier I (0-8 hcf) | 264,000 | 274,000 | 284,000 | 295,000 | 306,000 | 318,000 |
| Charges tier II (9-16 hcf) | 163,000 | 169,000 | 175,000 | 182,000 | 189,000 | 196,000 |
| Charges tier III (17+ hcf) | 1,367,000 | 1,419,000 | 1,473,000 | 1,529,000 | 1,587,000 | 1,647,000 |
| Flat rate sales | 1,508,000 | 1,807,000 | 1,588,000 | 1,648,000 | 1,711,000 | 1,776,000 |
| Total Water Sales | 3,860,000 | 4,249,000 | 4,122,000 | 4,279,000 | 4,441,000 | 4,610,000 |
| Permits and other income | 98,000 | 102,000 | 106,000 | 110,000 | 114,000 | 118,000 |
| Interest earnings | 15,000 | 21,000 | 22,000 | 25,000 | 26,000 | 27,000 |
| Other Total | 113,000 | 123,000 | 128,000 | 135,000 | 140,000 | 145,000 |
| Total Revenues | 3,973,000 | 4,372,000 | 4,250,000 | 4,414,000 | 4,581,000 | 4,755,000 |
| Expenses | | | | | | |
| DESAL O&M | - | - | - | - | - | - |
| RW O&M | - | - | - | - | - | - |
| RW ENG | 98,000 | - | - | - | - | - |
| Administration | 1,168,000 | 1,244,000 | 1,375,000 | 1,427,000 | 1,481,000 | 1,538,000 |
| Operation and maintenance | 1,193,000 | 1,277,000 | 1,431,000 | 1,486,000 | 1,542,000 | 1,601,000 |
| Laboratory | 192,000 | 208,000 | 239,000 | 249,000 | 258,000 | 268,000 |
| Conservation | 143,000 | 155,000 | 178,000 | 185,000 | 192,000 | 199,000 |
| Engineering | 416,000 | 456,000 | 539,000 | 559,000 | 580,000 | 602,000 |
| New testing regulations | - | 50,000 | - | - | - | - |
| Employee CALPERS transfers | 23,900 | - | - | - | - | - |
| Total Expenses | 3,210,000 | 3,390,000 | 3,762,000 | 3,906,000 | 4,053,000 | 4,208,000 |
| Net revenue | 763,000 | 982,000 | 488,000 | 508,000 | 528,000 | 547,000 |
| Capital expenses - transfer | 751,000 | 953,000 | 427,000 | 484,000 | 504,000 | 521,000 |
| Ending balance | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 | \$ 692,000 |
| Minimum Reserve Balance (2) | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 | \$ 692,000 |

1 - Rate for non-metered accounts (based on 18 hcf/month).

2 - Minimum reserve balance is 60 days of operating expenses or \$300,000.

Prepared by Bartle Wells Associates

Scenario 2 – Uniform Rate Increases (Zero CIP Funding)

| | <i>Budget 2007/08</i> | <i>Projection 2008/09</i> | <i>Projection 2009/10</i> | <i>Projection 2010/11</i> | <i>Projection 2011/12</i> | <i>Projection 2012/13</i> |
|------------------------------------|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Marina Water Operating Revenue | 3,195,000 | 3,642,000 | 3,781,000 | 3,985,000 | 4,233,000 | 4,513,000 |
| Marina Water Capital Revenue | 276,000 | 303,000 | 336,000 | 888,000 | 1,271,000 | 1,543,000 |
| Marina Water Operating Expense | <u>2,286,000</u> | <u>2,518,000</u> | <u>2,899,000</u> | <u>3,006,000</u> | <u>3,121,000</u> | <u>3,238,000</u> |
| Marina Water Net Revenue | 1,185,000 | 1,427,000 | 1,218,000 | 1,867,000 | 2,383,000 | 2,818,000 |
| Marina Water Debt Service | 571,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Marina Water Debt Service Coverage | 2.08 | 2.51 | 2.14 | 3.25 | 4.18 | 4.94 |
| Ord Water Operating Revenue | 3,973,000 | 4,372,000 | 4,250,000 | 4,414,000 | 4,581,000 | 4,755,000 |
| Ord Water Capital Revenue | 1,155,000 | 2,592,000 | 675,000 | 660,000 | 648,000 | 635,000 |
| Ord Water Operating Expense | <u>3,210,000</u> | <u>3,390,000</u> | <u>3,762,000</u> | <u>3,906,000</u> | <u>4,053,000</u> | <u>4,208,000</u> |
| Ord Water Net Revenue | 1,918,000 | 3,574,000 | 1,163,000 | 1,168,000 | 1,176,000 | 1,182,000 |
| Ord Water Debt Service | 433,000 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Ord Water Debt Service Coverage | 4.43 | 2.44 | 0.79 | 0.80 | 0.80 | 0.81 |
| Total Water Net Revenue | 3,103,000 | 5,001,000 | 2,381,000 | 3,035,000 | 3,559,000 | 4,000,000 |
| Total Water Debt Service | 1,004,000 | 2,033,000 | 2,034,000 | 2,039,000 | 2,033,000 | 2,037,000 |
| Water Debt Service Coverage | 3.09 | 2.46 | 1.17 | 1.49 | 1.75 | 1.96 |

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 20
MARINA COAST WATER DISTRICT
MARINA WATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 5,450 | 5,450 | 5,450 | 5,540 | 5,680 | 5,845 |
| New Marina EDUs | | 0 | 0 | 15 | 15 | 15 |
| New Armstrong Ranch EDUs | | 0 | 0 | 75 | 125 | 150 |
| Capacity charge/EDU | 4,164 | 5,360 | 5,610 | 5,870 | 6,140 | 6,430 |
| Capacity charge % increase (1) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 5,396,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 1,418,500 | | | | | |
| Total Beginning Balance | \$ 6,814,500 | \$ 7,305,500 | \$ 7,493,500 | \$ 7,639,500 | \$ 4,862,500 | \$ 4,657,500 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 837,000 | \$ 1,086,000 | \$ 954,000 | \$ 1,253,000 | \$ 1,566,000 | \$ 1,942,000 |
| Capacity charges | - | - | - | 528,000 | 860,000 | 1,061,000 |
| Interest earnings | 265,000 | 292,000 | 300,000 | 306,000 | 195,000 | 186,000 |
| Employee CALPERS transfers | 26,000 | | | | | |
| Existing bond proceeds | - | - | - | - | - | - |
| Existing bond rsrv fund interest (2) | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 |
| Total | 1,139,000 | 1,389,000 | 1,265,000 | 2,098,000 | 2,632,000 | 3,200,000 |
| Expenses | | | | | | |
| General CIP | 77,000 | 633,000 | 550,000 | 4,300,000 | 2,267,000 | 5,890,000 |
| Existing debt service | 571,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Total | 648,000 | 1,201,000 | 1,119,000 | 4,875,000 | 2,837,000 | 6,460,000 |
| Net revenue | 491,000 | 188,000 | 146,000 | (2,777,000) | (205,000) | (3,260,000) |
| Ending balance | \$ 7,305,500 | \$ 7,493,500 | \$ 7,639,500 | \$ 4,862,500 | \$ 4,657,500 | \$ 1,397,500 |
| Minimum Reserve Balance (3) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Marina Water to receive interest (5%) on 7% of \$3.084 million reserve fund.

3 - Minimum reserve balance is \$1.0 million.

Source: Prepared by Bartle Wells Associates

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 21
MARINA COAST WATER DISTRICT
MARINA WATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EDUs - meter equivalents | 5,450 | 5,450 | 5,450 | 5,540 | 5,680 | 5,845 |
| Base rate - \$/mo | 14.18 | 14.72 | 15.87 | 17.10 | 18.44 | 19.88 |
| Volume rate - tier I (\$/hcf) | 1.79 | 1.79 | 1.93 | 2.08 | 2.24 | 2.42 |
| Volume rate - tier II (\$/hcf) | 2.80 | 2.18 | 2.35 | 2.53 | 2.73 | 2.94 |
| Volume rate - tier III (\$/hcf) | n/a | 3.98 | 4.29 | 4.63 | 4.99 | 5.37 |
| Average Bill - 13 hcf/month | 38.46 | 39.94 | 43.05 | 46.41 | 50.03 | 53.93 |
| Rates - percentage increase | 0% | 3.8% | 7.8% | 7.8% | 7.8% | 7.8% |
| Escalation factor | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 304,000 | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Base rate | \$ 927,000 | \$ 963,000 | \$ 1,038,000 | \$ 1,137,000 | \$ 1,257,000 | \$ 1,394,000 |
| Charges tier I (0-12 hcf) | 664,000 | | | | | |
| Charges tier II (13+ hcf) | 1,350,000 | | | | | |
| Charges tier I (0-8 hcf) | | 531,000 | 572,000 | 627,000 | 693,000 | 769,000 |
| Charges tier II (9-16 hcf) | | 301,000 | 324,000 | 355,000 | 392,000 | 435,000 |
| Charges tier III (17+ hcf) | - | 1,579,000 | 1,702,000 | 1,865,000 | 2,061,000 | 2,286,000 |
| Total Water Sales | 2,941,000 | 3,374,000 | 3,636,000 | 3,984,000 | 4,403,000 | 4,884,000 |
| Permits and other income | 244,000 | 253,000 | 263,000 | 273,000 | 283,000 | 294,000 |
| Interest earnings | 10,000 | 15,000 | 17,000 | 19,000 | 20,000 | 21,000 |
| Other Total | 254,000 | 268,000 | 280,000 | 292,000 | 303,000 | 315,000 |
| Total Revenues | 3,195,000 | 3,642,000 | 3,916,000 | 4,276,000 | 4,706,000 | 5,199,000 |
| Expenses | | | | | | |
| DESAL O&M | | | 83,000 | 86,000 | 89,000 | 92,000 |
| Administration | 661,000 | 714,000 | 814,000 | 844,000 | 876,000 | 910,000 |
| Operation and maintenance | 1,003,000 | 1,075,000 | 1,206,000 | 1,251,000 | 1,299,000 | 1,348,000 |
| Laboratory | 155,000 | 168,000 | 194,000 | 201,000 | 209,000 | 216,000 |
| Conservation | 123,000 | 133,000 | 154,000 | 160,000 | 166,000 | 172,000 |
| Engineering | 344,000 | 378,000 | 448,000 | 464,000 | 482,000 | 500,000 |
| New testing regulations | - | 50,000 | | | | |
| Employee CALPERS transfers | 26,000 | - | - | - | - | - |
| Total Expenses | 2,286,000 | 2,518,000 | 2,899,000 | 3,006,000 | 3,121,000 | 3,238,000 |
| Net revenue | 909,000 | 1,124,000 | 1,017,000 | 1,270,000 | 1,585,000 | 1,961,000 |
| Capital expenses - transfer | 837,000 | 1,086,000 | 954,000 | 1,253,000 | 1,566,000 | 1,942,000 |
| Ending balance | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 | \$ 532,000 |
| Minimum Reserve Balance (1) | \$ 376,000 | \$ 414,000 | \$ 477,000 | \$ 494,000 | \$ 513,000 | \$ 532,000 |

1 - Minimum reserve balance is 60 days of operating expenses or \$300,000.

Source: Prepared by Bartle Wells Associates

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 22
MARINA COAST WATER DISTRICT
ORD COMMUNITY WATER PROJECTED CAPITAL REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|---------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 |
| New Ord EDUs | - | - | - | - | - | - |
| Capacity charge/EDU | 2,800 | 13,740 | 14,380 | 15,050 | 15,750 | 16,480 |
| Monthly Capital Surcharge/EDU | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| # EDUs billed surcharge | 20 | 20 | 20 | 20 | 20 | 20 |
| Capacity charge % increase (1) | | | 4.65% | 4.65% | 4.65% | 4.65% |
| Capital surcharge % increase | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Unrestricted balance | \$ 3,267,000 | | | | | |
| Bond proceeds (restricted for constr) | \$ 13,626,100 | | | | | |
| Total Beginning Balance | \$ 16,893,100 | \$ 12,118,400 | \$ 10,217,200 | \$ 6,809,000 | \$ 3,445,800 | \$ 154,600 |
| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Revenues | | | | | | |
| Operating transfer to capital | \$ 751,000 | \$ 953,000 | \$ 885,000 | \$ 1,142,000 | \$ 1,385,000 | \$ 1,648,000 |
| Capacity charges | 323,000 | - | - | - | - | - |
| Capital charges | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 |
| FORA capital contribution (2) | - | - | - | - | - | - |
| Interest earnings | 725,000 | 485,000 | 409,000 | 272,000 | 138,000 | 6,000 |
| Employee CALPERS transfers | 23,900 | - | - | - | - | - |
| Grant revenues (Proposition 50) | - | 2,000,000 | - | - | - | - |
| Existing bond proceeds (3) | - | - | - | - | - | - |
| Existing bond rsv fund interest (4) | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 |
| Total | 1,929,700 | 3,544,800 | 1,400,800 | 1,520,800 | 1,629,800 | 1,760,800 |
| Expenses | | | | | | |
| General CIP | 5,127,400 | 1,425,000 | 1,425,000 | 1,425,000 | 1,425,000 | 1,425,000 |
| New water CIP | 1,144,000 | 2,556,000 | 1,919,000 | 1,995,000 | 2,033,000 | - |
| Existing debt service (5) | 433,000 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Total | 6,704,400 | 5,446,000 | 4,809,000 | 4,884,000 | 4,921,000 | 2,892,000 |
| Net revenue | (4,774,700) | (1,901,200) | (3,408,200) | (3,363,200) | (3,291,200) | (1,131,200) |
| Ending balance | \$12,118,400 | \$10,217,200 | \$6,809,000 | \$3,445,800 | \$154,600 | (\$976,600) |
| Minimum Reserve Balance (6) | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |

1 - Proposed capacity charge in 2008/09 escalated annually in subsequent years by 4.65% (the 20 City ENR Construction Cost Index average from 2002-2007.)

2 - Assumes limited short-term growth in Ord Community.

3 - Includes Recycled Water Bond Proceeds.

4 - Ord Community Water to receive interest (5%) on 66% of \$3.084 million reserve fund.

5 - Includes CALPERS debt service.

6 - Minimum reserve balance is \$1.0 million.

Prepared by Bartle Wells Associates

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 23
MARINA COAST WATER DISTRICT
ORD COMMUNITY WATER PROJECTED OPERATING REVENUES AND EXPENSES

| | 2007/08 | Projection 2008/09 | Projection 2009/10 | Projection 2010/11 | Projection 2011/12 | Projection 2012/13 |
|------------------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue EDUs | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 | 3,724 |
| New Ord EDUs | - | - | - | - | - | - |
| Flat Rate Accounts | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 |
| Flat rate - \$/mo (1) | 52.10 | 63.94 | 68.93 | 74.30 | 80.10 | 86.35 |
| Base rate - \$/mo | 12.50 | 12.98 | 13.99 | 15.08 | 16.25 | 17.52 |
| Volume rate - tier I (\$/hcf) | 1.70 | 1.76 | 1.90 | 2.05 | 2.21 | 2.38 |
| Volume rate - tier II (\$/hcf) | 2.39 | 2.48 | 2.67 | 2.88 | 3.11 | 3.35 |
| Volume rate - tier III (\$/hcf) | 3.08 | 3.20 | 3.45 | 3.72 | 4.01 | 4.32 |
| Average Bill - 13 hcf/month | 38.05 | 39.50 | 42.58 | 45.90 | 49.48 | 53.34 |
| Rates - percentage increase | | 3.8% | 7.8% | 7.8% | 7.8% | 7.8% |
| Escalation factor | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% | 3.8% |
| Interest factor | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Beginning balance | \$ 516,000 | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 |
| Revenues | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
| Base rates | \$ 559,000 | \$ 580,000 | \$ 625,000 | \$ 674,000 | \$ 726,000 | \$ 783,000 |
| Charges tier I (0-8 hcf) | 264,000 | 274,000 | 295,000 | 318,000 | 343,000 | 370,000 |
| Charges tier II (9-16 hcf) | 163,000 | 169,000 | 182,000 | 196,000 | 211,000 | 227,000 |
| Charges tier III (17+ hcf) | 1,367,000 | 1,419,000 | 1,530,000 | 1,649,000 | 1,778,000 | 1,917,000 |
| Flat rate sales | 1,508,000 | 1,807,000 | 1,948,000 | 2,100,000 | 2,264,000 | 2,440,000 |
| Total Water Sales | 3,860,000 | 4,249,000 | 4,580,000 | 4,937,000 | 5,322,000 | 5,737,000 |
| Permits and other income | 98,000 | 102,000 | 106,000 | 110,000 | 114,000 | 118,000 |
| Interest earnings | 15,000 | 21,000 | 22,000 | 25,000 | 26,000 | 27,000 |
| Other Total | 113,000 | 123,000 | 128,000 | 135,000 | 140,000 | 145,000 |
| Total Revenues | 3,973,000 | 4,372,000 | 4,708,000 | 5,072,000 | 5,462,000 | 5,882,000 |
| Expenses | | | | | | |
| DESAL O&M | - | - | - | - | - | - |
| RW O&M | - | - | - | - | - | - |
| RW ENG | 98,000 | - | - | - | - | - |
| Administration | 1,168,000 | 1,244,000 | 1,375,000 | 1,427,000 | 1,481,000 | 1,538,000 |
| Operation and maintenance | 1,193,000 | 1,277,000 | 1,431,000 | 1,486,000 | 1,542,000 | 1,601,000 |
| Laboratory | 192,000 | 208,000 | 239,000 | 249,000 | 258,000 | 268,000 |
| Conservation | 143,000 | 155,000 | 178,000 | 185,000 | 192,000 | 199,000 |
| Engineering | 416,000 | 456,000 | 539,000 | 559,000 | 580,000 | 602,000 |
| New testing regulations | - | 50,000 | - | - | - | - |
| Employee CALPERS transfers | 23,900 | - | - | - | - | - |
| Total Expenses | 3,210,000 | 3,390,000 | 3,762,000 | 3,906,000 | 4,053,000 | 4,208,000 |
| Net revenue | 763,000 | 982,000 | 946,000 | 1,166,000 | 1,409,000 | 1,674,000 |
| Capital expenses - transfer | 751,000 | 953,000 | 885,000 | 1,142,000 | 1,385,000 | 1,648,000 |
| Ending balance | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 | \$ 692,000 |
| Minimum Reserve Balance (2) | \$ 528,000 | \$ 557,000 | \$ 618,000 | \$ 642,000 | \$ 666,000 | \$ 692,000 |

1 - Rate for non-metered accounts (based on 18 hcf/month).

2 - Minimum reserve balance is 60 days of operating expenses or \$300,000.

Prepared by Bartle Wells Associates

Scenario 3 – Uniform Rate Increases (Some CIP Funding)

TABLE 27
MARINA COAST WATER DISTRICT
DEBT SERVICE COVERAGE BY FUND

| | <i>Budget</i> 2007/08 | <i>Projection</i> 2008/09 | <i>Projection</i> 2009/10 | <i>Projection</i> 2010/11 | <i>Projection</i> 2011/12 | <i>Projection</i> 2012/13 |
|------------------------------------|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Marina Water Operating Revenue | 3,195,000 | 3,642,000 | 3,916,000 | 4,276,000 | 4,706,000 | 5,199,000 |
| Marina Water Capital Revenue | 276,000 | 303,000 | 311,000 | 845,000 | 1,066,000 | 1,258,000 |
| Marina Water Operating Expense | <u>2,286,000</u> | <u>2,518,000</u> | <u>2,899,000</u> | <u>3,006,000</u> | <u>3,121,000</u> | <u>3,238,000</u> |
| Marina Water Net Revenue | 1,185,000 | 1,427,000 | 1,328,000 | 2,115,000 | 2,651,000 | 3,219,000 |
| Marina Water Debt Service | 571,000 | 568,000 | 569,000 | 575,000 | 570,000 | 570,000 |
| Marina Water Debt Service Coverage | 2.08 | 2.51 | 2.33 | 3.68 | 4.65 | 5.65 |
| Ord Water Operating Revenue | 3,973,000 | 4,372,000 | 4,708,000 | 5,072,000 | 5,462,000 | 5,882,000 |
| Ord Water Capital Revenue | 1,155,000 | 2,592,000 | 516,000 | 379,000 | 245,000 | 113,000 |
| Ord Water Operating Expense | <u>3,210,000</u> | <u>3,390,000</u> | <u>3,762,000</u> | <u>3,906,000</u> | <u>4,053,000</u> | <u>4,208,000</u> |
| Ord Water Net Revenue | 1,918,000 | 3,574,000 | 1,462,000 | 1,545,000 | 1,654,000 | 1,787,000 |
| Ord Water Debt Service | 433,000 | 1,465,000 | 1,465,000 | 1,464,000 | 1,463,000 | 1,467,000 |
| Ord Water Debt Service Coverage | 4.43 | 2.44 | 0.998 | 1.06 | 1.13 | 1.22 |
| Total Water Net Revenue | 3,103,000 | 5,001,000 | 2,790,000 | 3,660,000 | 4,305,000 | 5,006,000 |
| Total Water Debt Service | 1,004,000 | 2,033,000 | 2,034,000 | 2,039,000 | 2,033,000 | 2,037,000 |
| Water Debt Service Coverage | 3.09 | 2.46 | 1.37 | 1.79 | 2.12 | 2.46 |

APPENDIX E – WATER CONSUMPTION

TABLE E-1 Base Case
MARINA COAST WATER DISTRICT
MARINA WATER CONSUMPTION, calendar year 2007

| USAGE (hcf) | Single Family Quantity Bills Charge | Multi-Family Quantity Bills Charge | School Quantity Bills Charge | Government Quantity Bills Charge | Construction Quantity Bills Charge | Business Quantity Bills Charge | Consumption per tier (hcf) |
|------------------|-------------------------------------|------------------------------------|------------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------|
| Tier I | | | | | | | |
| 1 | 1,035 1,852.65 | 64 114.56 | 0 0.00 | 39 69.81 | 4 7.16 | 301 538.79 | 1,443 |
| 2 | 1,457 5,216.06 | 79 282.82 | 0 0.00 | 22 78.76 | 2 7.16 | 198 708.84 | 3,516 |
| 3 | 2,056 11,040.72 | 117 628.29 | 1 5.37 | 33 177.21 | 0 0.00 | 93 499.41 | 6,900 |
| 4 | 2,574 18,429.84 | 118 844.88 | 1 7.16 | 16 114.56 | 3 21.48 | 107 766.12 | 11,276 |
| 5 | 2,853 25,534.35 | 126 1,127.70 | 0 0.00 | 7 62.65 | 0 0.00 | 96 859.20 | 15,410 |
| 6 | 2,886 30,995.64 | 111 1,192.14 | 1 10.74 | 6 64.44 | 3 32.22 | 76 816.24 | 18,498 |
| 7 | 2,800 35,084.00 | 84 1,052.52 | 2 25.06 | 8 100.24 | 1 12.53 | 64 801.92 | 20,713 |
| 8 | 2,693 38,563.76 | 69 988.08 | 1 14.32 | 9 128.88 | 0 0.00 | 73 1,045.36 | 22,760 |
| 9 | 2,443 39,356.73 | 59 950.49 | 3 48.33 | 14 225.54 | 1 16.11 | 61 982.71 | 23,229 |
| 10 | 2,216 39,666.40 | 42 751.80 | 2 35.80 | 5 89.50 | 1 17.90 | 40 716.00 | 23,060 |
| 11 | 1,901 37,430.69 | 42 826.98 | 2 39.36 | 6 118.14 | 1 19.69 | 42 826.98 | 21,934 |
| 12 | 1,794 38,535.12 | 37 794.76 | 0 0.00 | 3 64.44 | 0 0.00 | 33 708.84 | 22,404 |
| SUB TOTAL | 26,708 321,706 | 948 9,555 | 13 186 | 168 1,294 | 16 134 | 1,184 9,270 | 191,143 |
| Tier II | | | | | | | |
| 13 | 1,518 36,857.04 | 36 874.08 | 2 48.66 | 3 72.84 | 1 24.28 | 34 825.52 | 20,722 |
| 14 | 1,366 36,991.28 | 33 893.64 | 2 54.16 | 11 297.88 | 1 27.08 | 44 1,191.52 | 20,398 |
| 15 | 1,213 36,244.44 | 30 896.40 | 3 89.64 | 3 89.64 | 0 0.00 | 37 1,105.56 | 19,290 |
| 16 | 1,026 33,529.68 | 26 849.68 | 1 32.68 | 8 261.44 | 1 32.68 | 45 1,470.80 | 17,712 |
| 17 | 925 32,819.00 | 37 1,312.76 | 1 35.48 | 9 319.32 | 1 35.48 | 38 1,348.24 | 17,187 |
| 18 | 774 29,628.72 | 22 842.16 | 0 0.00 | 4 153.12 | 1 38.28 | 34 1,301.52 | 15,030 |
| 19 | 670 27,523.60 | 33 1,355.64 | 1 41.08 | 4 164.32 | 2 82.16 | 41 1,684.28 | 14,269 |
| 20 | 539 23,651.32 | 25 1,097.00 | 1 43.88 | 8 351.04 | 0 0.00 | 42 1,842.96 | 12,300 |
| 21 | 534 24,927.12 | 28 1,307.04 | 0 0.00 | 7 326.76 | 0 0.00 | 27 1,260.96 | 12,516 |
| 22 | 463 22,909.24 | 21 1,039.08 | 0 0.00 | 4 197.92 | 2 98.96 | 21 1,039.08 | 11,242 |
| 23 | 368 19,239.04 | 29 1,516.12 | 1 52.28 | 5 281.40 | 0 0.00 | 29 1,516.12 | 9,936 |
| 24 | 349 19,222.92 | 24 1,321.92 | 0 0.00 | 3 165.24 | 0 0.00 | 25 1,377.00 | 9,624 |
| 25 | 277 16,032.76 | 25 1,447.00 | 1 57.88 | 5 289.40 | 0 0.00 | 17 983.96 | 8,125 |
| 26 | 246 14,927.28 | 19 1,152.92 | 0 0.00 | 4 242.72 | 1 60.68 | 25 1,517.00 | 7,670 |
| 27 | 235 14,917.80 | 25 1,587.00 | 0 0.00 | 2 126.96 | 1 63.48 | 27 1,713.96 | 7,830 |
| 28+ | 1,480 191,956 | 1,679 882,512 | 88 96,418 | 113 52,346 | 18 12,270 | 903 268,200 | 480,567 |
| SUB TOTAL | 11,983 581,377 | 2,092 700,005 | 101 96,874 | 193 55,666 | 29 12,733 | 1,389 278,378 | 684,418 |
| TOTALS | 38,691 \$903,083 | 3,040 \$709,560 | 114 \$97,060 | 361 \$56,960 | 45 \$12,867 | 2,573 \$287,648 | 875,561 |

Source: District Consumption Block Analysis for CY 2007

TABLE E-2 Case A
MARINA COAST WATER DISTRICT
MARINA WATER CONSUMPTION, calendar year 2007

| USAGE (hcf) | Single Family Quantity Bills Charge | Multi-Family Quantity Bills Charge | School Quantity Bills Charge | Government Quantity Bills Charge | Construction Quantity Bills Charge | Business Quantity Bills Charge | Consumption per tier (hcf) |
|------------------|-------------------------------------|------------------------------------|------------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------|
| Tier I | | | | | | | |
| 1 | 1,035 1,852.65 | 64 114.56 | 0 0.00 | 39 69.81 | 4 7.16 | 301 538.79 | 1,443 |
| 2 | 1,457 5,216.06 | 79 282.82 | 0 0.00 | 22 78.76 | 2 7.16 | 198 708.84 | 3,516 |
| 3 | 2,056 11,040.72 | 117 628.29 | 1 5.37 | 33 177.21 | 0 0.00 | 93 499.41 | 6,900 |
| 4 | 2,574 18,429.84 | 118 844.88 | 1 7.16 | 16 114.56 | 3 21.48 | 107 766.12 | 11,276 |
| 5 | 2,853 25,534.35 | 126 1,127.70 | 0 0.00 | 7 62.65 | 0 0.00 | 96 859.20 | 15,410 |
| 6 | 2,886 30,995.64 | 111 1,192.14 | 1 10.74 | 6 64.44 | 3 32.22 | 76 816.24 | 18,498 |
| 7 | 2,800 35,084.00 | 84 1,052.52 | 2 25.06 | 8 100.24 | 1 12.53 | 64 801.92 | 20,713 |
| 8 | 2,693 38,563.76 | 69 988.08 | 1 14.32 | 9 128.88 | 0 0.00 | 73 1,045.36 | 22,760 |
| SUB TOTAL | 18,354 166,717 | 768 6,231 | 6 63 | 140 797 | 13 81 | 1,008 6,036 | 100,816 |
| Tier II | | | | | | | |
| 9 | 2,443 41,824.16 | 59 1,010.08 | 3 51.36 | 14 239.68 | 1 17.12 | 61 1,044.32 | 23,229 |
| 10 | 2,216 44,142.72 | 42 836.64 | 2 39.84 | 5 99.60 | 1 19.92 | 40 796.80 | 23,060 |
| 11 | 1,901 43,190.72 | 42 954.24 | 2 45.44 | 6 136.32 | 1 22.72 | 42 854.24 | 21,934 |
| 12 | 1,794 45,782.88 | 37 944.24 | 0 0.00 | 3 76.56 | 0 0.00 | 33 842.16 | 22,404 |
| 13 | 1,518 42,989.76 | 36 1,019.52 | 2 56.64 | 3 84.96 | 1 28.32 | 34 862.88 | 20,722 |
| 14 | 1,366 42,509.92 | 33 1,026.96 | 2 62.24 | 11 342.32 | 1 31.12 | 44 1,369.28 | 20,398 |
| 15 | 1,213 41,144.96 | 30 1,017.60 | 3 101.76 | 3 101.76 | 0 0.00 | 37 1,255.04 | 19,290 |
| 16 | 1,026 37,674.72 | 26 954.72 | 1 36.72 | 8 293.76 | 1 36.72 | 45 1,652.40 | 17,712 |
| 17 | 925 36,556.00 | 37 1,462.24 | 1 39.52 | 9 355.68 | 1 39.52 | 38 1,501.76 | 17,187 |
| 18 | 774 32,755.68 | 22 931.04 | 0 0.00 | 4 169.28 | 1 42.32 | 34 1,438.88 | 15,030 |
| 19 | 670 30,230.40 | 33 1,488.96 | 1 45.12 | 4 180.48 | 2 90.24 | 41 1,849.92 | 14,269 |
| 20 | 539 25,828.88 | 25 1,198.00 | 1 47.92 | 8 383.36 | 0 0.00 | 42 2,012.84 | 12,300 |
| 21 | 534 27,084.48 | 28 1,420.16 | 0 0.00 | 7 355.04 | 0 0.00 | 27 1,369.44 | 12,516 |
| 22 | 463 24,779.76 | 21 1,123.92 | 0 0.00 | 4 214.08 | 2 107.04 | 21 1,123.92 | 11,242 |
| 23 | 368 20,725.76 | 29 1,633.28 | 1 58.32 | 5 281.60 | 0 0.00 | 29 1,633.28 | 9,936 |
| 24 | 349 20,632.88 | 24 1,418.88 | 0 0.00 | 3 177.36 | 0 0.00 | 25 1,478.00 | 9,624 |
| 25 | 277 17,151.84 | 25 1,548.00 | 1 61.92 | 5 309.60 | 0 0.00 | 17 1,052.64 | 8,125 |
| 26 | 246 15,921.12 | 19 1,229.68 | 0 0.00 | 4 258.88 | 1 64.72 | 25 1,618.00 | 7,670 |
| 27 | 235 15,867.20 | 25 1,688.00 | 0 0.00 | 2 135.04 | 1 67.52 | 27 1,823.04 | 7,830 |
| 28+ | 1,480 197,935 | 1,679 889,295 | 88 96,774 | 113 52,802 | 18 12,343 | 903 261,848 | 480,567 |
| SUB TOTAL | 20,337 804,729 | 2,272 712,201 | 108 97,419 | 221 56,998 | 32 12,910 | 1,565 287,627 | 775,045 |
| TOTALS | 38,691 \$971,446 | 3,040 \$718,432 | 114 \$97,481 | 361 \$57,794 | 45 \$12,990 | 2,573 \$293,663 | 875,561 |

Source: District Consumption Block Analysis for CY 2007

TABLE E-3 Case B
MARINA COAST WATER DISTRICT
MARINA WATER CONSUMPTION, calendar year 2007

| USAGE (hcf) | Single Family Quantity Bills Charge | Multi-Family Quantity Bills Charge | School Quantity Bills Charge | Government Quantity Bills Charge | Construction Quantity Bills Charge | Business Quantity Bills Charge | Consumption per tier (hcf) |
|------------------|--|---------------------------------------|---------------------------------|-------------------------------------|---------------------------------------|-----------------------------------|-------------------------------|
| Tier I | \$ | \$ | \$ | \$ | \$ | \$ | |
| 1 | 1,035 1,852.65 | 64 114.56 | 0 0.00 | 39 69.81 | 4 7.16 | 301 538.79 | 1,443 |
| 2 | 1,457 5,216.06 | 79 282.82 | 0 0.00 | 22 78.76 | 2 7.16 | 198 708.84 | 3,516 |
| 3 | 2,056 11,040.72 | 117 628.29 | 1 5.37 | 33 177.21 | 0 0.00 | 93 499.41 | 6,900 |
| 4 | 2,574 18,429.84 | 118 844.88 | 1 7.16 | 16 114.56 | 3 21.48 | 107 766.12 | 11,276 |
| 5 | 2,853 25,534.35 | 126 1,127.70 | 0 0.00 | 7 62.65 | 0 0.00 | 96 859.20 | 15,410 |
| 6 | 2,886 30,995.84 | 111 1,192.14 | 1 10.74 | 6 64.44 | 3 32.22 | 76 816.24 | 18,498 |
| 7 | 2,800 35,084.00 | 84 1,052.52 | 2 25.06 | 8 100.24 | 1 12.53 | 64 801.92 | 20,713 |
| 8 | 2,693 38,563.76 | 69 988.08 | 1 14.32 | 9 128.88 | 0 0.00 | 73 1,045.36 | 22,760 |
| SUB TOTAL | 18,354 166,717 | 768 6,231 | 6 63 | 140 797 | 13 81 | 1,008 6,036 | 100,516 |
| Tier II | | | | | | | |
| 9 | 2,443 41,824.18 | 59 1,010.08 | 3 51.36 | 14 239.68 | 1 17.12 | 61 1,044.32 | 23,229 |
| 10 | 2,216 44,142.72 | 42 836.64 | 2 39.84 | 5 99.60 | 1 19.92 | 40 796.80 | 23,060 |
| 11 | 1,901 43,190.72 | 42 954.24 | 2 45.44 | 6 136.32 | 1 22.72 | 42 954.24 | 21,934 |
| 12 | 1,794 45,782.88 | 37 944.24 | 0 0.00 | 3 76.56 | 0 0.00 | 33 842.16 | 22,404 |
| 13 | 1,518 42,989.76 | 36 1,019.52 | 2 56.64 | 3 84.96 | 1 28.32 | 34 962.88 | 20,722 |
| 14 | 1,366 42,509.92 | 33 1,026.96 | 2 62.24 | 11 342.32 | 1 31.12 | 44 1,369.28 | 20,398 |
| 15 | 1,213 41,144.96 | 30 1,017.60 | 3 101.76 | 3 101.76 | 0 0.00 | 37 1,255.04 | 19,290 |
| 16 | 1,026 37,674.72 | 26 954.72 | 1 36.72 | 8 293.76 | 1 36.72 | 45 1,652.40 | 17,712 |
| SUB TOTAL | 13,477 339,260 | 305 7,764 | 15 394 | 53 1,375 | 6 156 | 336 8,877 | 168,749 |
| Tier III | | | | | | | |
| 17 | 925 37,490.25 | 37 1,499.81 | 1 40.53 | 9 364.77 | 1 40.53 | 38 1,540.14 | 17,187 |
| 18 | 774 34,319.16 | 22 975.48 | 0 0.00 | 4 177.36 | 1 44.34 | 34 1,507.56 | 15,030 |
| 19 | 670 32,260.50 | 33 1,588.95 | 1 48.15 | 4 192.60 | 2 96.30 | 41 1,974.15 | 14,269 |
| 20 | 539 28,006.44 | 25 1,299.00 | 1 51.96 | 8 415.68 | 0 0.00 | 42 2,182.32 | 12,300 |
| 21 | 534 29,781.18 | 28 1,561.56 | 0 0.00 | 7 390.39 | 0 0.00 | 27 1,505.79 | 12,516 |
| 22 | 463 27,585.54 | 21 1,251.18 | 0 0.00 | 4 238.32 | 2 119.16 | 21 1,251.18 | 11,242 |
| 23 | 368 23,327.52 | 29 1,838.31 | 1 63.39 | 5 316.95 | 0 0.00 | 29 1,838.31 | 9,936 |
| 24 | 349 23,452.80 | 24 1,612.80 | 0 0.00 | 3 201.60 | 0 0.00 | 25 1,680.00 | 9,624 |
| 25 | 277 19,669.77 | 25 1,775.25 | 1 71.01 | 5 365.05 | 0 0.00 | 17 1,207.17 | 8,125 |
| 26 | 246 18,405.72 | 19 1,421.58 | 0 0.00 | 4 299.28 | 1 74.82 | 25 1,870.50 | 7,670 |
| 27 | 235 18,478.05 | 25 1,965.75 | 0 0.00 | 2 167.26 | 1 78.63 | 27 2,123.01 | 7,830 |
| 28+ | 1,480 249,730 | 1,679 915,695 | 88 130,516 | 113 70,352 | 18 16,558 | 903 344,340 | 480,567 |
| SUB TOTAL | 6,860 542,507 | 1,967 932,484 | 93 130,791 | 168 73,461 | 26 17,010 | 1,229 363,020 | 606,296 |
| TOTALS | 38,691 1,048,484 | 3,040 946,479 | 114 131,248 | 361 75,633 | 45 17,247 | 2,573 377,933 | 875,561 |

Source: District Consumption Block Analysis for CY 2007

TABLE E-4 Case C
MARINA COAST WATER DISTRICT
MARINA WATER CONSUMPTION, calendar year 2007

| USAGE (hcf) | Single Family Quantity Bills Charge | Multi-Family Quantity Bills Charge | School Quantity Bills Charge | Government Quantity Bills Charge | Construction Quantity Bills Charge | Business Quantity Bills Charge | Consumption per tier (hcf) |
|------------------|--|---------------------------------------|---------------------------------|-------------------------------------|---------------------------------------|-----------------------------------|-------------------------------|
| Tier I | \$ | \$ | \$ | \$ | \$ | \$ | |
| 1 | 1,035 1,852.65 | 64 114.56 | 0 0.00 | 39 69.81 | 4 7.16 | 301 538.79 | 1,443 |
| 2 | 1,457 5,216.06 | 79 282.82 | 0 0.00 | 22 78.76 | 2 7.16 | 198 708.84 | 3,516 |
| 3 | 2,056 11,040.72 | 117 628.29 | 1 5.37 | 33 177.21 | 0 0.00 | 93 499.41 | 6,900 |
| 4 | 2,574 18,429.84 | 118 844.88 | 1 7.16 | 16 114.56 | 3 21.48 | 107 766.12 | 11,276 |
| 5 | 2,853 25,534.35 | 126 1,127.70 | 0 0.00 | 7 62.65 | 0 0.00 | 96 859.20 | 15,410 |
| 6 | 2,886 30,995.84 | 111 1,192.14 | 1 10.74 | 6 64.44 | 3 32.22 | 76 816.24 | 18,498 |
| 7 | 2,800 35,084.00 | 84 1,052.52 | 2 25.06 | 8 100.24 | 1 12.53 | 64 801.92 | 20,713 |
| 8 | 2,693 38,563.76 | 69 988.08 | 1 14.32 | 9 128.88 | 0 0.00 | 73 1,045.36 | 22,760 |
| 9 | 2,443 39,356.73 | 59 950.49 | 3 48.33 | 14 225.54 | 1 16.11 | 61 982.71 | 23,229 |
| 10 | 2,216 39,666.40 | 42 751.80 | 2 35.80 | 5 89.50 | 1 17.90 | 40 716.00 | 23,060 |
| 11 | 1,901 37,430.69 | 42 826.98 | 2 39.38 | 6 118.14 | 1 19.69 | 42 826.98 | 21,934 |
| 12 | 1,794 38,535.12 | 37 794.76 | 0 0.00 | 3 64.44 | 0 0.00 | 33 708.84 | 22,404 |
| SUB TOTAL | 26,708 321,708 | 948 9,555 | 13 166 | 168 1,294 | 16 134 | 1,184 9,270 | 191,143 |
| Tier II | | | | | | | |
| 13 | 1,518 36,857.04 | 36 874.08 | 2 48.56 | 3 72.84 | 1 24.28 | 34 825.52 | 20,722 |
| 14 | 1,366 36,991.28 | 33 893.64 | 2 54.16 | 11 297.88 | 1 27.08 | 44 1,191.52 | 20,398 |
| 15 | 1,213 36,244.44 | 30 896.40 | 3 89.64 | 3 89.64 | 0 0.00 | 37 1,105.56 | 19,290 |
| 16 | 1,026 33,529.68 | 26 849.68 | 1 32.68 | 8 261.44 | 1 32.68 | 45 1,470.80 | 17,712 |
| 17 | 925 32,819.00 | 37 1,312.76 | 1 35.48 | 9 319.32 | 1 35.48 | 38 1,348.24 | 17,187 |
| 18 | 774 29,628.72 | 22 942.16 | 0 0.00 | 4 153.12 | 1 38.28 | 34 1,301.52 | 15,030 |
| 19 | 670 27,523.60 | 33 1,355.84 | 1 41.08 | 4 164.32 | 2 82.16 | 41 1,684.28 | 14,269 |
| 20 | 539 23,651.32 | 25 1,097.00 | 1 43.88 | 8 351.04 | 0 0.00 | 42 1,842.96 | 12,300 |
| SUB TOTAL | 8,031 267,245 | 242 8,121 | 11 345 | 50 1,710 | 7 240 | 315 10,770 | 136,908 |
| Tier III | | | | | | | |
| 21 | 534 25,466.46 | 28 1,335.32 | 0 0.00 | 7 333.83 | 0 0.00 | 27 1,287.83 | 12,516 |
| 22 | 463 23,944.50 | 21 1,081.50 | 0 0.00 | 4 206.00 | 2 103.00 | 21 1,081.50 | 11,242 |
| 23 | 368 20,354.08 | 29 1,603.99 | 1 55.31 | 5 276.55 | 0 0.00 | 29 1,603.99 | 9,936 |
| 24 | 349 20,632.88 | 24 1,418.88 | 0 0.00 | 3 177.36 | 0 0.00 | 25 1,478.00 | 9,624 |
| 25 | 277 17,431.61 | 25 1,673.25 | 1 62.93 | 5 314.65 | 0 0.00 | 17 1,069.81 | 8,125 |
| 26 | 246 16,418.04 | 19 1,268.06 | 0 0.00 | 4 266.96 | 1 66.74 | 25 1,668.50 | 7,670 |
| 27 | 235 16,579.25 | 25 1,763.75 | 0 0.00 | 2 141.10 | 1 70.55 | 27 1,904.85 | 7,830 |
| 28+ | 1,480 237,772 | 1,679 902,129 | 88 129,805 | 113 69,439 | 18 16,411 | 903 337,044 | 480,567 |
| SUB TOTAL | 3,952 378,498 | 1,850 912,173 | 90 129,923 | 143 71,155 | 22 16,651 | 1,074 347,138 | 547,510 |
| TOTALS | 38,691 957,449 | 3,040 928,650 | 114 130,455 | 361 74,159 | 45 17,025 | 2,573 367,179 | 875,561 |

Source: District Consumption Block Analysis for CY 2007

TABLE E-5
MARLBOROUGH WATER DISTRICT
ORD COMMUNITY WATER CONSUMPTION, calendar year 2007

| Usage (hcf) | Single Family Quantity | Multi-Family Quantity | School Quantity | Government Quantity | Construction Quantity | Business Quantity | Industrial Quantity | Institutional Quantity | State Parks Quantity | Army Quantity | UC/Mest Quantity | Consumption Per Acre (hcf) |
|-------------|------------------------|-----------------------|-----------------|---------------------|-----------------------|-------------------|---------------------|------------------------|----------------------|---------------|------------------|----------------------------|
| Tier # | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Per Acre (hcf) |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | |
| 0 | 0.00 | 32,000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| 1 | 190,333.00 | 476,1618.40 | 10,170.00 | 48,853.00 | 17,289.00 | 97,163.80 | 0.00 | 121,205.70 | 1,170 | 48,853.30 | 0.00 | 863 |
| 2 | 246,830.00 | 699,3548.80 | 2,680 | 22,748.00 | 8,272.00 | 57,163.80 | 0.00 | 89,302.60 | 0.00 | 51,105.40 | 0.00 | 1,340 |
| 3 | 325,1687.50 | 8,106,032.50 | 15,100 | 4,204.00 | 8,408.00 | 25,220.90 | 0.00 | 45,398.00 | 0.00 | 23,156.40 | 0.00 | 3,482 |
| 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | 563,5742.80 | 1,013,10,332.60 | 2,170.00 | 4,340.00 | 8,680.00 | 12,102.00 | 0.00 | 18,150 | 1,850 | 10,850.00 | 0.00 | 7,810 |
| 6 | 563,5742.80 | 1,013,10,332.60 | 2,204.00 | 0.00 | 7,714.00 | 11,112.00 | 0.00 | 44,448.80 | 1,102.00 | 9,918.00 | 0.00 | 6,510 |
| 7 | 470,6,514.40 | 869,11,818.40 | 4,476.00 | 0.00 | 7,833.00 | 10,119.00 | 0.00 | 29,345.10 | 0.00 | 3,357.00 | 0.00 | 10,745 |
| 8 | 2,924,26,501 | 6,024,51,816 | 25,148 | 90,315 | 69,499 | 14,139.40 | 0.00 | 24,326.40 | 2,272.00 | 156,724 | 0.00 | 11,240 |
| SUB TOTAL | | | | | | | | | | | | |
| | 2,924,26,501 | 6,024,51,816 | 25,148 | 90,315 | 69,499 | 271,1,282 | 1,10 | 433,2,412 | 5,48 | 156,724 | 20,179 | 49,414 |
| | 477,7,627.23 | 849,13,575.51 | 2,319.8 | 3,478.7 | 2,319.8 | 9,143.91 | 0.00 | 22,351.78 | 1,159.9 | 3,479.7 | 0.00 | 12,312 |
| 9 | 426,7,829.88 | 736,13,527.68 | 1,183.8 | 6,110.28 | 6,110.28 | 9,165.42 | 0.00 | 21,385.98 | 1,183.8 | 7,128.66 | 0.00 | 12,140 |
| 10 | 421,8,744.17 | 649,13,478.73 | 1,207.7 | 5,103.85 | 4,830.8 | 7,182.12 | 2,41.54 | 16,332.32 | 0.00 | 4,830.8 | 0.00 | 12,210 |
| 11 | 404,8,356.64 | 540,12,506.40 | 0.00 | 3,684.8 | 4,926.4 | 3,684.8 | 3,684.8 | 9,208.44 | 1,231.6 | 4,926.4 | 0.00 | 10,749 |
| 12 | 327,8,354.85 | 442,11,293.10 | 2,510 | 3,786.85 | 2,510 | 3,786.85 | 3,786.85 | 10,274.5 | 0.00 | 0.00 | 0.00 | 10,749 |
| 13 | 276,7,711.44 | 297,8,704.32 | 1,303.3 | 2,806.8 | 3,906.8 | 3,906.8 | 3,906.8 | 10,303.3 | 0.00 | 0.00 | 0.00 | 9,114 |
| 14 | 222,2,263.84 | 250,8,130.10 | 0.00 | 2,654.4 | 3,906.8 | 5,153.80 | 1,32.72 | 8,281.78 | 1,32.72 | 1,32.72 | 0.00 | 8,415 |
| 15 | 2,804,44,201 | 4,111,91,270 | 7,153 | 29,590 | 24,558 | 51,1,164 | 12,307 | 169,2,455 | 6,146 | 24,513 | 0.00 | 84,218 |
| SUB TOTAL | | | | | | | | | | | | |
| | 201,7,195.80 | 317,7,788.60 | 0.00 | 2,71.60 | 2,71.60 | 4,143.20 | 0.00 | 10,358.00 | 0.00 | 1,358.00 | 0.00 | 7,429 |
| 16 | 160,6,220.80 | 273,10,814.24 | 0.00 | 2,771.76 | 1,388.8 | 4,155.52 | 0.00 | 13,505.44 | 0.00 | 1,388.8 | 0.00 | 8,172 |
| 17 | 150,6,294.00 | 158,6,629.88 | 0.00 | 2,839.2 | 2,839.2 | 2,839.2 | 2,839.2 | 9,377.64 | 0.00 | 1,419.6 | 0.00 | 6,175 |
| 18 | 121,5,449.84 | 113,5,437.56 | 0.00 | 0.00 | 4,180.16 | 4,180.16 | 0.00 | 8,360.32 | 1,450.4 | 1,450.4 | 0.00 | 5,800 |
| 19 | 90,4,608.00 | 94,4,912.80 | 0.00 | 3,144.36 | 3,144.36 | 2,962.4 | 0.00 | 10,481.20 | 0.00 | 2,962.4 | 0.00 | 4,914 |
| 20 | 76,4,125.28 | 70,4,015.20 | 0.00 | 4,217.12 | 2,108.56 | 1,512.0 | 0.00 | 8,409.60 | 2,102.40 | 0.00 | 0.00 | 4,900 |
| 21 | 55,3,154.80 | 50,3,154.80 | 0.00 | 0.00 | 1,696.0 | 1,696.0 | 0.00 | 3,392.00 | 0.00 | 0.00 | 0.00 | 4,900 |
| 22 | 58,3,882.80 | 50,3,178.00 | 0.00 | 4,254.08 | 4,213.76 | 4,213.76 | 0.00 | 13,643.52 | 1,604.4 | 4,213.76 | 0.00 | 3,450 |
| 23 | 28,1,731.60 | 28,1,731.60 | 0.00 | 1,666.00 | 3,190.56 | 0.00 | 2,127.04 | 9,571.68 | 1,666.00 | 2,133.20 | 0.00 | 3,988 |
| 24 | 389,250,238 | 518,177,604 | 87,112,852 | 51,284,000 | 229,443,627 | 113,634,536 | 12,294,6 | 289,130,049 | 12,394,4 | 119,600,14 | 10,2838 | 479,588 |
| 25* | 1,471,300,204 | 1,856,239,602 | 87,112,852 | 113,29,528 | 252,444,627 | 138,69,608 | 18,3,285 | 371,135,151 | 18,3,285 | 138,69,631 | 11,3,099 | 479,588 |
| SUB TOTAL | | | | | | | | | | | | |
| | 7,199,391,207 | 11,981,382,788 | 119,113,152 | 229,30,431 | 346,445,947 | 469,72,064 | 31,3,582 | 913,140,019 | 29,4,516 | 316,62,168 | 32,3,206 | 613,220 |
| TOTALS | | | | | | | | | | | | |

Source: District Consumption Book Analysis for 2007

MEMORANDUM

TO: Brian Lee, PE, MCWD
Brian True, PE, & Patrick Breen

DATE: May 2, 2013

FROM: Andrew Sterbenz, PE

JOB #: MCWD.44.12

SUBJECT: Capital Replacement Funding

The purpose of this memorandum is to summarize the methodology and assumptions used to develop the Capital Replacement Funding component of the Annual CIP.

The Marina Coast Water District water and sewer systems are over 40 years old, with some pipeline components over 70 years old. This existing infrastructure will need to be replaced as the pipelines and related components reach the end of their useful life. The service life of underground pipelines varies depending upon the material and the soil conditions. Fifty years is used as a typical planning factor, but pipelines (particularly non-ferrous pipes) can last from 75 to 100 years. However, the lifespan of the cast iron valves and fittings for water mains, and gaskets for water and sewer mains, limit the useful life of non-ferrous pipes.

The District's water system includes water mains from 4-inch through 30-inch, and sewer mains from 4-inch through 72-inch. The system includes approximately 200 miles of water mains, 3,500 valves, 1,500 hydrants, 6,400 water meters, 140 miles of sewer mains and 2,400 manholes. The MCWD Design Guidelines require a minimum water main diameter of 8-inch, and a minimum sewer main diameter of 6-inch (for dead ends) and 8-inch (for manhole to manhole pipes). Therefore, in this cost model assumed that 4- and 6-inch water mains will be replaced with 8-inch mains, and that 4-inch sewers will be replaced with 6-inch sewers. Water valves occur (on average) once per every 300-LF of water main, and manholes occur (on average) once per every 300-LF of sewer main.

To estimate the cost of pipeline replacements, quantities of pipeline by size were required. The District's asset management system is not fully populated with existing pipeline diameters, so an automated report could not be produced. Water pipeline quantities by size were taken from the 2006-07 consolidated water system permit application, which included separate inventories for the Marina and Ord systems. To these quantities, we added the pipelines constructed during subsequent CIP projects. Sewer pipeline quantities for Fort Ord were taken from the 2005 Ord Wastewater Master Plan report, and similarly updated. The 2005 Marina Wastewater Collection System Master Plan did not include a full listing of pipelines by size, but it did include a listing of the pipelines modeled, and a statement that all pipelines 8-inch and above were included in the

model. The total length of those pipelines was calculated, and then the length of 6-inch sewer mains was increased to match the Marina sewer system total of 40-miles of pipe. Pipeline cost estimates are based on the R.S. Means 2013 Heavy Construction Cost Data Manual, with the costs adjusted to Santa Cruz, CA (the nearest listed city). The unit rates for water mains include the pipe, trench, bedding, backfill and paving, and assume one valve every 300 feet. Water meter costs were obtained from the District's supplier and assume that staff will install them. The unit rates for sewer mains include the pipe, trench, bedding, backfill and paving, and assume one manhole every 300 feet. The resulting pipeline values are in the attached Tables 1 to 4.

Capital costs for major items are listed in the attached Table 5. Information on the existing system facilities was obtained from system drawings, master plans, assessment reports and other documents, and summarized in the EOC Equipment Charts (provided separately). Costs for the existing major infrastructure items were estimated as follows:

- Water wells were valued at \$1,200,000, based on the recent cost to construct Well 34. The two smaller wells associated with the pilot desalination plant were scaled estimates.
- Water storage tank values were estimated at \$1.50 per gallon for steel tanks, and \$2.00 per gallon for concrete tanks.
- Booster pump station values were estimated based on the sum of the installed pump horsepower, estimated at \$6,000 per HP. This cost is sufficient to include the building, mechanical equipment, electrical equipment, controls and yard piping. The recently constructed E-Zone BPS was used to verify the cost factor.
- Pressure reducing valve values were estimated based on the size of the valve (tabulated below). The cost includes the concrete vault, traffic lid and isolation valves. For stations with a second, smaller PRV, a flat \$10,000 was added. The recently constructed East Garrison PRV was used to verify the cost factor.

| PRV Size | Cost |
|----------|-----------|
| 6" | \$35,000 |
| 8" | \$40,000 |
| 10" | \$60,000 |
| 12" | \$80,000 |
| 16" | \$100,000 |

- Emergency generator values are from the R.S. Means 2013 Heavy Construction Cost Data Manual, with the costs adjusted to Santa Cruz, CA. Sizing is based upon KW. Some existing units are diesel direct-drive engines for well or booster pumps. For these units, an equivalent generator KW capacity was calculated.
- Sewer lift stations were estimated using the formula $\$275,000 + \$7,500 \times \text{HP}$, which was derived from recent MCWD lift station projects (San Pablo, Landrum and Schoonover). The \$275,000 fixed cost covers the site work, wet well, emergency generator and SCADA panel. The per-horsepower cost covers the submersible pumps and the motor control center.
- Marina Pilot Desalination Plant: This project was constructed in 1996-97. The cost was approximately \$2,900,000 at the time. Scaling that cost using the ENR 20-city factors for 1996 (5622) and for 2013 (9437), the current replacement value is estimated at \$4,870,000.

For the capital replacement cost analysis, we assumed a 50-year service life for water mains, valves, fittings and hydrants, a 20-year service life for water meters, and a 50-year service life for gravity sewers, manholes and force mains. The costs for pipeline systems are tabulated below, and detailed in Tables 1 to 4, attached.

| Pipeline System | Replacement Cost | Replacement Cost/Year |
|------------------------|-------------------------|------------------------------|
| Marina Water | \$21,255,000 | \$497,000 |
| Ord Water | \$87,792,000 | \$1,920,000 |
| Marina Sewer | \$25,954,000 | \$519,000 |
| Ord Sewer | \$53,610,000 | \$1,072,000 |

The simplest cost model for life-cycle replacements (used in the table above) is to calculate the capital cost of the system components (\$X), and divide by the component service life (Y-years) to get the required annual sinking fund contribution ($=X/Y$ \$/yr). This provides a required annual income rate of 2% of the total cost for pipelines, valves, fittings, hydrants and manholes, and 5% per year for water meters. The current Capital Improvement Program addresses the majority of the existing major infrastructure items, so we did not create a similar formulaic table for those items. Table 5, attached, indicates which items will be replaced per the current Water and Sewer Master Plans. Those preparing the rate study may use this to evaluate which items from Table 5 are not included in the current CIP.

Finally, summary Tables 6 and 7 are included, providing the total infrastructure values for the Central Marina and the Ord Community Systems.

Attachments:

Table 1: Marina Water System (Pipelines)

Table 2: Ord Water System (Pipelines)

Table 3: Marina Sewer System (Pipelines)

Table 4: Ord Sewer System (Pipelines)

Table 5: MCWD Existing Infrastructure Cost Basis (Major Items)

Table 6: Central Marina Replacement Costs (Summary)

Table 7: Ord Community Replacement Costs (Summary)

**MCWD Capital Replacement Cost Estimate
Existing Pipelines**

Table 1: Marina Water System

| Description | Size (in) | Replacement Size (in) | Unit | Quantity | Replacement Cost (\$/Unit) | Replacement Cost (\$) | Replacement Frequency (Years) | Replacement Cost/Year (\$/Yr) |
|---|--------------|-----------------------------|------|----------|----------------------------------|-----------------------------|-------------------------------------|-------------------------------------|
| C900 PVC Water Main, Class 350, GV every 300 LF | 4 | 8 | LF | - | \$91.00 | \$0 | 50 | \$0 |
| C900 PVC Water Main, Class 350, GV every 300 LF | 6 | 8 | LF | 52,287 | \$91.00 | \$4,758,117 | 50 | \$95,162 |
| C900 PVC Water Main, Class 350, GV every 300 LF | 8 | 8 | LF | 79,193 | \$91.00 | \$7,206,563 | 50 | \$144,131 |
| C900 PVC Water Main, Class 350, GV every 300 LF | 10 | 10 | LF | 3,141 | \$113.00 | \$354,933 | 50 | \$7,099 |
| C900 PVC Water Main, Class 350, GV every 300 LF | 12 | 12 | LF | 18,313 | \$125.00 | \$2,289,125 | 50 | \$45,783 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 14 | 14 | LF | - | \$181.00 | \$0 | 50 | \$0 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 16 | 16 | LF | - | \$192.00 | \$0 | 50 | \$0 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 16.72 | 16 | LF | - | \$192.00 | \$0 | 50 | \$0 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 18 | 18 | LF | 1,750 | \$226.00 | \$395,500 | 50 | \$7,910 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 20 | 20 | LF | 4,790 | \$260.00 | \$1,245,400 | 50 | \$24,908 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 24 | 24 | LF | - | \$283.00 | \$0 | 50 | \$0 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 24.94 | 24 | LF | - | \$283.00 | \$0 | 50 | \$0 |
| Fire Hydrant w/Bury | | | EA | 465 | \$5,600.00 | \$2,604,000 | 50 | \$52,080 |
| Water Meter | 0.75 | 0.75 | EA | 3,305 | \$350.00 | \$1,156,750 | 20 | \$57,838 |
| Water Meter | 1 | 1 | EA | 189 | \$400.00 | \$75,600 | 20 | \$3,780 |
| Water Meter | 1.5 | 1.5 | EA | 73 | \$450.00 | \$32,850 | 20 | \$1,643 |
| Water Meter | 2 | 2 | EA | 80 | \$700.00 | \$56,000 | 20 | \$2,800 |
| Water Meter | 3 | 3 | EA | 80 | \$2,900.00 | \$232,000 | 20 | \$11,600 |
| Water Meter | 4 | 4 | EA | 80 | \$4,100.00 | \$328,000 | 20 | \$16,400 |
| Water Meter | 6 | 6 | EA | 80 | \$6,500.00 | \$520,000 | 20 | \$26,000 |
| Water Meter | 8 | 8 | EA | - | \$10,000.00 | \$0 | 20 | \$0 |
| Total Cost (rounded to thousands): | | | | | | \$21,255,000 | | \$497,000 |

Water Notes:

GV = Gate Valve, standard for 12" and smaller
 BV = Butterfly Valve, standard for 14" and larger
 Assume 3.5-ft of cover for 12-inch and smaller
 Assume 4.5-ft of cover for 14-inch and larger

**MCWD Capital Replacement Cost Estimate
Existing Pipelines**

Table 2: Ord Water System

| Description | Size (in) | Replacement Size (in) | Unit | Quantity | Replacement Cost (\$/Unit) | Replacement Cost (\$) | Replacement Frequency (Years) | Replacement Cost/Year (\$/Yr) |
|---|--------------|-----------------------------|------|----------|----------------------------------|-----------------------------|-------------------------------------|-------------------------------------|
| C900 PVC Water Main, Class 350, GV every 300 LF | 4 | 8 | LF | 1,643 | \$91.00 | \$149,513 | 50 | \$2,990 |
| C900 PVC Water Main, Class 350, GV every 300 LF | 6 | 8 | LF | 139,949 | \$91.00 | \$12,735,359 | 50 | \$254,707 |
| C900 PVC Water Main, Class 350, GV every 300 LF | 8 | 8 | LF | 209,305 | \$91.00 | \$19,046,755 | 50 | \$380,935 |
| C900 PVC Water Main, Class 350, GV every 300 LF | 10 | 10 | LF | 19,925 | \$113.00 | \$2,251,525 | 50 | \$45,031 |
| C900 PVC Water Main, Class 350, GV every 300 LF | 12 | 12 | LF | 100,011 | \$125.00 | \$12,501,375 | 50 | \$250,028 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 14 | 14 | LF | 4,431 | \$181.00 | \$802,011 | 50 | \$16,040 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 16 | 16 | LF | 30,527 | \$192.00 | \$5,861,184 | 50 | \$117,224 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 16.72 | 16 | LF | 6,665 | \$192.00 | \$1,279,680 | 50 | \$25,594 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 18 | 18 | LF | 18,574 | \$226.00 | \$4,197,724 | 50 | \$83,954 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 20 | 20 | LF | 15,750 | \$260.00 | \$4,095,000 | 50 | \$81,900 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 24 | 24 | LF | 28,307 | \$283.00 | \$8,010,881 | 50 | \$160,218 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 24.94 | 24 | LF | 10,593 | \$283.00 | \$2,997,819 | 50 | \$59,956 |
| C151 DIP Water Main, Class 350, BV every 300 LF | 30 | 30 | LF | 7,400 | \$362.00 | \$2,678,800 | 51 | \$52,525 |
| Fire Hydrant w/Bury | | | EA | 1,011 | \$5,600.00 | \$5,661,600 | 50 | \$113,232 |
| Water Meter | 0.75 | 0.75 | EA | 2,212 | \$350.00 | \$774,200 | 20 | \$38,710 |
| Water Meter | 1 | 1 | EA | 140 | \$400.00 | \$56,000 | 20 | \$2,800 |
| Water Meter | 1.5 | 1.5 | EA | 284 | \$450.00 | \$127,800 | 20 | \$6,390 |
| Water Meter | 2 | 2 | EA | 318 | \$700.00 | \$222,600 | 20 | \$11,130 |
| Water Meter | 3 | 3 | EA | 321 | \$2,900.00 | \$930,900 | 20 | \$46,545 |
| Water Meter | 4 | 4 | EA | 318 | \$4,100.00 | \$1,303,800 | 20 | \$65,190 |
| Water Meter | 6 | 6 | EA | 318 | \$6,500.00 | \$2,067,000 | 20 | \$103,350 |
| Water Meter | 8 | 8 | EA | 4 | \$10,000.00 | \$40,000 | 20 | \$2,000 |
| Total Cost (rounded to thousands): | | | | | | \$87,792,000 | | \$1,920,000 |

Water Notes:

GV = Gate Valve, standard for 12" and smaller
 BV = Butterfly Valve, standard for 14" and larger
 Assume 3.5-ft of cover for 12-inch and smaller
 Assume 4.5-ft of cover for 14-inch and larger

**MCWD Capital Replacement Cost Estimate
Existing Pipelines**

Table 3: Marina Sewer System

| Description | Size (in) | Replacement Size (in) | Unit | Quantity | Replacement Cost (\$/Unit) | Replacement Cost (\$) | Replacement Frequency (Years) | Replacement Cost/Year (\$/Yr) |
|---|--------------|-----------------------------|------|----------|----------------------------------|-----------------------------|-------------------------------------|-------------------------------------|
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 4 | 6 | LF | | \$105.00 | \$0 | 50 | \$0 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 6 | 6 | LF | 105,000 | \$105.00 | \$11,025,000 | 50 | \$220,500 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 8 | 8 | LF | 75,000 | \$115.00 | \$8,625,000 | 50 | \$172,500 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 10 | 10 | LF | 12,300 | \$134.00 | \$1,648,200 | 50 | \$32,964 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 12 | 12 | LF | 3,000 | \$159.00 | \$477,000 | 50 | \$9,540 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 15 | 15 | LF | 6,000 | \$195.00 | \$1,170,000 | 50 | \$23,400 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 18 | 18 | LF | 2,100 | \$266.00 | \$558,600 | 50 | \$11,172 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 24 | 24 | LF | 1,200 | \$503.00 | \$603,600 | 50 | \$12,072 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 27 | 27 | LF | 1,200 | \$531.00 | \$637,200 | 50 | \$12,744 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 30 | 30 | LF | - | \$656.00 | \$0 | 50 | \$0 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 36 | 36 | LF | - | \$951.00 | \$0 | 50 | \$0 |
| 72-in RCP Sewer Equalization Storage | 72 | 72 | LF | 440 | \$703.00 | \$309,320 | 50 | \$6,186 |
| C900 PVC Force Main, Class 350 | 4 | 4 | LF | 50 | \$93.00 | \$4,650 | 50 | \$93 |
| C900 PVC Force Main, Class 350 | 6 | 6 | LF | 1,200 | \$107.00 | \$128,400 | 50 | \$2,568 |
| C900 PVC Force Main, Class 350 | 8 | 8 | LF | 4,400 | \$124.00 | \$545,600 | 50 | \$10,912 |
| C900 PVC Force Main, Class 350 | 10 | 10 | LF | - | \$143.00 | \$0 | 50 | \$0 |
| C900 PVC Force Main, Class 350 | 12 | 12 | LF | - | \$156.00 | \$0 | 50 | \$0 |
| C900 PVC Force Main, Class 350 | 14 | 14 | LF | 0 | \$169.00 | \$0 | 50 | \$0 |
| PVC Clean-Out | 4 | 4 | EA | 3,210 | \$44.00 | \$141,240 | 50 | \$2,825 |
| PVC Clean-Out | 6 | 6 | EA | 144 | \$144.00 | \$20,736 | 50 | \$415 |
| PVC Clean-Out | 8 | 8 | EA | 72 | \$164.00 | \$11,808 | 50 | \$236 |
| PVC Clean-Out | 10 | 10 | EA | 72 | \$224.00 | \$16,128 | 50 | \$323 |
| Combination Clean-Out and Backwater Preventer | 4 | 4 | EA | 357 | \$66.00 | \$23,562 | 50 | \$471 |
| Combination Clean-Out and Backwater Preventer | 6 | 6 | EA | 16 | \$216.00 | \$3,456 | 50 | \$69 |
| Combination Clean-Out and Backwater Preventer | 8 | 8 | EA | 8 | \$246.00 | \$1,968 | 50 | \$39 |
| Combination Clean-Out and Backwater Preventer | 10 | 10 | EA | 8 | \$336.00 | \$2,688 | 50 | \$54 |
| Total Cost (rounded to thousands): | | | | | | \$25,954,000 | | \$519,000 |

Sewer Notes:

Assume # cleanouts = # water services
 Assume 10% of cleanouts are combo CO-BWP
 Assume 6-ft cover for all gravity mains
 Assume 5-ft of cover for all force mains

**MCWD Capital Replacement Cost Estimate
Existing Pipelines**

Table 4: Ord Sewer System

| Description | Size (in) | Replacement Size (in) | Unit | Quantity | Replacement Cost (\$/Unit) | Replacement Cost (\$) | Replacement Frequency (Years) | Replacement Cost/Year (\$/Yr) |
|---|--------------|-----------------------------|------|----------|----------------------------------|-----------------------------|-------------------------------------|-------------------------------------|
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 4 | 6 | LF | 1,328 | \$105.00 | \$139,440 | 50 | \$2,789 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 6 | 6 | LF | 137,134 | \$105.00 | \$14,399,070 | 50 | \$287,981 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 8 | 8 | LF | 156,601 | \$115.00 | \$18,009,115 | 50 | \$360,182 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 10 | 10 | LF | 16,122 | \$134.00 | \$2,160,348 | 50 | \$43,207 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 12 | 12 | LF | 28,625 | \$159.00 | \$4,551,375 | 50 | \$91,028 |
| SDR-35 PVC Sewer Main, SSMH every 300 LF | 15 | 15 | LF | 14,424 | \$195.00 | \$2,812,680 | 50 | \$56,254 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 18 | 18 | LF | 14,606 | \$266.00 | \$3,885,196 | 50 | \$77,704 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 24 | 24 | LF | 1,328 | \$503.00 | \$667,984 | 50 | \$13,360 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 27 | 27 | LF | 667 | \$531.00 | \$354,177 | 50 | \$7,084 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 30 | 30 | LF | 2,805 | \$656.00 | \$1,840,080 | 50 | \$36,802 |
| DR-26 PVC Sewer Main, SSMH every 300 LF | 36 | 36 | LF | 100 | \$951.00 | \$95,100 | 50 | \$1,902 |
| 72-in RCP Sewer Equalization Storage | 72 | 72 | LF | - | | \$0 | 50 | \$0 |
| C900 PVC Force Main, Class 350 | 4 | 4 | LF | 2,500 | \$93.00 | \$232,500 | 50 | \$4,650 |
| C900 PVC Force Main, Class 350 | 6 | 6 | LF | 3,300 | \$107.00 | \$353,100 | 50 | \$7,062 |
| C900 PVC Force Main, Class 350 | 8 | 8 | LF | 8,300 | \$124.00 | \$1,029,200 | 50 | \$20,584 |
| C900 PVC Force Main, Class 350 | 10 | 10 | LF | 19,100 | \$143.00 | \$2,731,300 | 50 | \$54,626 |
| C900 PVC Force Main, Class 350 | 12 | 12 | LF | - | \$156.00 | \$0 | 50 | \$0 |
| C900 PVC Force Main, Class 350 | 14 | 14 | LF | - | \$169.00 | \$0 | 50 | \$0 |
| PVC Clean-Out | 4 | 4 | EA | 2,372 | \$44.00 | \$104,368 | 50 | \$2,087 |
| PVC Clean-Out | 6 | 6 | EA | 575 | \$144.00 | \$82,800 | 50 | \$1,656 |
| PVC Clean-Out | 8 | 8 | EA | 286 | \$164.00 | \$46,904 | 50 | \$938 |
| PVC Clean-Out | 10 | 10 | EA | 286 | \$224.00 | \$64,064 | 50 | \$1,281 |
| Combination Clean-Out and Backwater Preventer | 4 | 4 | EA | 286 | \$66.00 | \$18,876 | 50 | \$378 |
| Combination Clean-Out and Backwater Preventer | 6 | 6 | EA | 64 | \$216.00 | \$13,824 | 50 | \$276 |
| Combination Clean-Out and Backwater Preventer | 8 | 8 | EA | 32 | \$246.00 | \$7,872 | 50 | \$157 |
| Combination Clean-Out and Backwater Preventer | 10 | 10 | EA | 32 | \$336.00 | \$10,752 | 50 | \$215 |
| Total Cost (rounded to thousands): | | | | | | \$53,610,000 | | \$1,072,000 |

Sewer Notes:

Assume # cleanouts = # water services
 Assume 10% of cleanouts are combo CO-BWP
 Assume 6-ft cover for all gravity mains
 Assume 5-ft of cover for all force mains

Table 5: MCWD Existing Infrastructure Cost Basis

| System | Category | Description | Size | Unit | Cost/Unit | Cost | Replace per M.P. | Cost to Replace |
|---------------|-----------------|----------------------|-------------|-------------|------------------|-------------|-------------------------|------------------------|
| Marina | Wells | Well 10 | | 1 EA | \$1,200,000 | \$1,200,000 | Yes | \$1,200,000 |
| Marina | Wells | Well 11 | | 1 EA | \$1,200,000 | \$1,200,000 | Yes | \$1,200,000 |
| Marina | Wells | Well 12 | | 1 EA | \$1,200,000 | \$1,200,000 | Yes | \$1,200,000 |
| Marina | Wells | Desal Intake | | 1 EA | \$100,000 | \$100,000 | No | |
| Marina | Wells | Brine Injection | | 1 EA | \$75,000 | \$75,000 | No | |
| Ord | Wells | Well 29 | | 1 EA | \$1,200,000 | \$1,200,000 | Yes | \$1,200,000 |
| Ord | Wells | Well 30 | | 1 EA | \$1,200,000 | \$1,200,000 | Yes | \$1,200,000 |
| Ord | Wells | Well 31 | | 1 EA | \$1,200,000 | \$1,200,000 | Yes | \$1,200,000 |
| Ord | Wells | Well 34 | | 1 EA | \$1,200,000 | \$1,200,000 | Yes | \$1,200,000 |
| Ord | Wells | Well 35 | | 1 EA | \$1,200,000 | \$1,200,000 | Yes | \$1,200,000 |
| Marina | Tanks | Reservoir 2 (steel) | 2,000,000 | gal | \$1.50 | \$3,000,000 | No | |
| Ord | Tanks | Intermediate (steel) | 169,000 | gal | \$1.50 | \$253,500 | No | |
| Ord | Tanks | Sand Tank (conc) | 1,000,000 | gal | \$2.00 | \$2,000,000 | No | |
| Ord | Tanks | B1 (conc) | 2,000,000 | gal | \$2.00 | \$4,000,000 | Yes | \$4,000,000 |
| Ord | Tanks | C1 (conc) | 2,000,000 | gal | \$2.00 | \$4,000,000 | Yes | \$4,000,000 |
| Ord | Tanks | C2 (conc) | 2,000,000 | gal | \$2.00 | \$4,000,000 | Yes | \$4,000,000 |
| Ord | Tanks | D1 (steel) | 2,000,000 | gal | \$1.50 | \$3,000,000 | Yes | \$3,000,000 |
| Ord | Tanks | Huffman (steel) | 60,000 | gal | \$1.50 | \$90,000 | Yes | \$90,000 |
| Ord | Tanks | Travel Camp (steel) | 60,000 | gal | \$1.50 | \$90,000 | No | |
| Ord | Tanks | D (old)(conc) | 2,000,000 | gal | \$2.00 | \$4,000,000 | No | |
| Marina | BPS | A-Booster | 300 | HP | \$6,000.00 | \$1,800,000 | No | |
| Ord | BPS | B-Booster | 250 | HP | \$6,000.00 | \$1,500,000 | Yes | \$1,500,000 |
| Ord | BPS | C-Booster | 625 | HP | \$6,000.00 | \$3,750,000 | Yes | \$3,750,000 |
| Ord | BPS | D-Booster | 150 | HP | \$6,000.00 | \$900,000 | Yes | \$900,000 |
| Ord | BPS | E-Booster | 280 | HP | \$6,000.00 | \$1,680,000 | Yes | \$1,680,000 |
| Ord | BPS | F-Booster | 300 | HP | \$6,000.00 | \$1,800,000 | Yes | \$1,800,000 |
| Ord | BPS | ASP-Booster | 300 | HP | \$6,000.00 | \$1,800,000 | No | |

Table 5: MCWD Existing Infrastructure Cost Basis

| System | Category | Description | Size | Unit | Cost/Unit | Cost | Replace per M.P. | Cost to Replace |
|---------------|-----------------|--------------------|-------------|-------------|------------------|----------------|-------------------------|------------------------|
| Marina | Desal | Pilot Desal Plant | | 300 AFY | N/A | \$4,870,000.00 | No | |
| Marina | PRV | PRV-02 LG | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Marina | PRV | PRV-02 SM | 3 IN | | N/A | \$10,000 | Yes | \$10,000 |
| Ord | PRV | Bermad Valve | 16 IN | | N/A | \$100,000 | No | |
| Ord | PRV | PRV-EG LG | 12 IN | | N/A | \$80,000 | Yes | \$80,000 |
| Ord | PRV | PRV-EG SM | 4 IN | | N/A | \$10,000 | Yes | \$10,000 |
| Ord | PRV | PRV-10 LG | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-10 SM | 3 IN | | N/A | \$10,000 | Yes | \$10,000 |
| Ord | PRV | PRV-11 LG | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-11 SM | 3 IN | | N/A | \$10,000 | Yes | \$10,000 |
| Ord | PRV | PRV-12 | 6 IN | | N/A | \$35,000 | Yes | \$35,000 |
| Ord | PRV | PRV-13 LG | 12 IN | | N/A | \$80,000 | Yes | \$80,000 |
| Ord | PRV | PRV-13 SM | 3 IN | | N/A | \$10,000 | Yes | \$10,000 |
| Ord | PRV | PRV-17 | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-18 | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-20 | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-22 LG | 6 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-22 SM | 2 IN | | N/A | \$10,000 | Yes | \$10,000 |
| Ord | PRV | PRV-24 | 10 IN | | N/A | \$60,000 | Yes | \$60,000 |
| Ord | PRV | PRV-25 LG | 10 IN | | N/A | \$60,000 | Yes | \$60,000 |
| Ord | PRV | PRV-25 SM | 4 IN | | N/A | \$10,000 | Yes | \$10,000 |
| Ord | PRV | PRV-26 | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-27 | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-28 LG | 6 IN | | N/A | \$35,000 | Yes | \$35,000 |
| Ord | PRV | PRV-28 SM | 2 IN | | N/A | \$10,000 | Yes | \$10,000 |
| Ord | PRV | PRV-419 | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-50 | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |
| Ord | PRV | PRV-SUNBAY | 8 IN | | N/A | \$40,000 | Yes | \$40,000 |

Table 5: MCWD Existing Infrastructure Cost Basis

| System | Category | Description | Size | Unit | Cost/Unit | Cost | Replace per M.P. | Cost to Replace |
|---------------|-----------------|-------------------------------|-------------|-------------|------------------|--------------|-------------------------|------------------------|
| Marina | Genset | Portable | 60 KW | | N/A | \$33,100 | Yes | \$33,100 |
| Marina | Genset | Well 11 | 300 KW | | N/A | \$79,600 | Yes | \$79,600 |
| Ord | Genset | Well 30 | 300 KW | | N/A | \$79,600 | Yes | \$79,600 |
| Ord | Genset | Well 31 | 300 KW | | N/A | \$79,600 | Yes | \$79,600 |
| Ord | Genset | Well 35 | 400 KW | | N/A | \$108,900 | Yes | \$108,900 |
| Ord | Genset | B/C Booster | 500 KW | | N/A | \$135,500 | Yes | \$135,500 |
| Ord | Genset | D-Booster | 100 KW | | N/A | \$47,200 | Yes | \$47,200 |
| Ord | Genset | E-Booster | 200 KW | | N/A | \$63,800 | Yes | \$63,800 |
| Ord | Genset | F-Booster | 150 KW | | N/A | \$57,000 | Yes | \$57,000 |
| Ord | Genset | ASP-Booster | 200 KW | | N/A | \$63,800 | No | |
| Marina | | Subtotal, Marina Water | | | | \$13,607,700 | | \$3,762,700 |
| Ord | | Subtotal, Ord Water | | | | \$40,458,900 | | \$32,151,600 |
| | | Subtotal, Water | | | | \$54,066,600 | | \$35,914,300 |

Table 5: MCWD Existing Infrastructure Cost Basis

| System | Category | Description | Size | Unit | Cost/Unit | Cost | Replace per M.P. | Cost to Replace |
|--|-----------------|-------------------------------|-------------|-------------|------------------|--------------|-------------------------|------------------------|
| Marina | SS_LS | LS2 - Dunes Dr | 40 | HP | \$7,500 | \$575,000 | Yes | \$575,000 |
| Marina | SS_LS | LS3 - San Pablo Ct | 10 | HP | \$7,500 | \$350,000 | Yes | \$350,000 |
| Marina | SS_LS | LS5 - Cosky Ct | 30 | HP | \$7,500 | \$500,000 | Yes | \$500,000 |
| Marina | SS_LS | LS6 - Crescent Ave | 4 | HP | \$7,500 | \$305,000 | Yes | \$305,000 |
| Ord | SS_LS | Booker | 50 | HP | \$7,500 | \$650,000 | Yes | \$650,000 |
| Ord | SS_LS | Carmel | 6 | HP | \$7,500 | \$320,000 | Yes | \$320,000 |
| Ord | SS_LS | Clark | 30 | HP | \$7,500 | \$500,000 | Yes | \$500,000 |
| Ord | SS_LS | East Garrison | 50 | HP | \$7,500 | \$650,000 | Yes | \$650,000 |
| Ord | SS_LS | Fritzche Field | 30 | HP | \$7,500 | \$500,000 | Yes | \$500,000 |
| Ord | SS_LS | Giggling | 90 | HP | \$7,500 | \$950,000 | Yes | \$950,000 |
| Ord | SS_LS | Hatten | 4 | HP | \$7,500 | \$305,000 | Yes | \$305,000 |
| Ord | SS_LS | Hodges | 10 | HP | \$7,500 | \$350,000 | Yes | \$350,000 |
| Ord | SS_LS | Imjin | 40 | HP | \$7,500 | \$575,000 | Yes | \$575,000 |
| Ord | SS_LS | Landrum | 20 | HP | \$7,500 | \$425,000 | Yes | \$425,000 |
| Ord | SS_LS | Neeson | 2 | HP | \$7,500 | \$290,000 | No | |
| Ord | SS_LS | Ord Village | 180 | HP | \$7,500 | \$1,625,000 | Yes | \$1,625,000 |
| Ord | SS_LS | Reservation | 100 | HP | \$7,500 | \$1,025,000 | Yes | \$1,025,000 |
| Ord | SS_LS | Schoonover | 30 | HP | \$7,500 | \$500,000 | Yes | \$500,000 |
| Ord | SS_LS | Wittemeyer | 10 | HP | \$7,500 | \$350,000 | Yes | \$350,000 |
| Ord | SS_LS | DEH | 6 | HP | \$7,500 | \$320,000 | No | |
| Ord | SS_LS | TAC | 10 | HP | \$7,500 | \$350,000 | Yes | \$350,000 |
| Note: Cost formula = \$275,000 + (\$7,500* __HP) | | | | | | | | |
| Marina | | Subtotal, Marina Sewer | | | | \$1,730,000 | | \$1,730,000 |
| Ord | | Subtotal, Ord Sewer | | | | \$9,015,000 | | \$8,725,000 |
| | | Subtotal, Sewer | | | | \$10,745,000 | | \$10,455,000 |

MCWD Capital Infrastructure
Table 6: Central Marina Replacement Costs

| Component | Qty | Unit | Replacement Cost | Remarks |
|--------------------------------|------------|-------------|-------------------------|-----------------------------------|
| Water Pipelines | 159,474 | LF | \$16,250,000 | Approx 30 miles, 4- thru 20-inch |
| Hydrants | 465 | EA | \$2,604,000 | |
| Meters | 3,887 | EA | \$2,401,200 | |
| Wells | 5 | EA | \$3,600,000 | 3 potable, 1 seawater, 1 disposal |
| Water Storage Tanks | 2,000,000 | GAL | \$3,000,000 | replace with new A-Zone tank |
| Booster Pump Stations | 1 | Station | \$0 | not needed after new A-tank |
| Pilot Desal Plant | 1 | Station | \$0 | replace with larger facility |
| Pressure Reducing Valves | 2 | EA | \$50,000 | |
| Generators | 2 | EA | \$113,000 | |
| Sub-Total, Water System | | | \$28,018,200 | |
| Sewer Gravity Pipelines | 206,240 | LF | \$25,276,000 | Approx 40 miles, 6- thru 72-inch |
| Force Mains | 5,650 | LF | \$678,650 | |
| Lift Stations | 4 | Station | \$1,730,000 | |
| Sub-Total, Sewer System | | | \$27,684,650 | |
| Total | | | \$55,702,850 | |

MCWD Capital Infrastructure
Table 7: Ord Community Replacement Costs

| Component | Qty | Unit | Replacement Cost | Remarks |
|--------------------------------|------------|-------------|-------------------------|-----------------------------------|
| Water Pipelines | 593,080 | LF | \$76,608,000 | Approx 112 miles, 6- thru 30-inch |
| Hydrants | 1,011 | EA | \$5,661,600 | |
| Meters | 2,814 | EA | \$5,522,300 | 1,100 accounts still unmetered |
| Wells | 5 | EA | \$6,000,000 | |
| Water Storage Tanks | 11,289,000 | GAL | \$15,090,000 | 2 tanks won't be replaced |
| Booster Pump Stations | 6 | Station | \$9,630,000 | |
| Pressure Reducing Valves | 25 | EA | \$860,000 | |
| Generators | 8 | EA | \$571,600 | |
| Sub-Total, Water System | | | \$119,943,500 | |
| Sewer Gravity Pipelines | 373,740 | LF | \$49,265,000 | Approx 71 miles, 6- thru 36-inch |
| Force Mains | 33,200 | LF | \$4,346,100 | |
| Lift Stations | 17 | Station | \$8,725,000 | |
| Sub-Total, Sewer System | | | \$62,336,100 | |
| Total | | | \$182,279,600 | |

Ord Community Water/Wastewater Systems

Proposed Compensation Plan

For FY 2014-2015

Presented to

Fort Ord Reuse Authority

Water Wastewater Oversight Committee

March 5, 2014

by

Marina Coast Water District



Draft FY 2014-2015 Ord Community Service Area Compensation Plan Summary

Introduction. This summary provides an overview of the FY 2014-2015 Compensation Plan, outlining key assumptions used in developing this plan.

In, accordance with Article 7 of the Water Wastewater Facilities Agreement between Marina Coast Water District (MCWD) and Fort Ord Reuse Authority (FORA), the District maintains separate cost centers to ensure that revenues and expenses are appropriately segregated and maintained for the Marina systems, the Ord Community systems, and the accruing costs for the Regional Water Augmentation Project. On October 25, 2006, the MCWD Board adopted Ordinance No. 43 which also requires the cost centers to remain separated after the expiration of the Agreement between MCWD and FORA.

District costs that are not dedicated to a specific cost center are shared among the four primary cost centers – Marina Water, Marina Wastewater Collection, Ord Community Water and Ord Community Wastewater Collection. Sharing of these expenses, in turn, creates efficiencies and cost savings for administrative functions for the two service areas that would otherwise not be realized. The District uses the operating expenses ratio to allocate the shared expenses. The allocation rate for the proposed fiscal year has changed based on previous year (FY 2012-2013) audited expenditure figures.

The FORA Board adopts the Ord Community Compensation Plan by ordinance or resolution concurrent with MCWD Board adopting the Plan by resolution at a joint meeting of the FORA and MCWD Boards.

MCWD conducts a financial plan and rate study every five years to establish rates that provide sufficient and predictable revenues to adequately fund the maintenance and operations, and capital improvement/replacement of its water and sewer systems. In September 2013, the District completed the current five-year financial plan and rate study which recommended rates for FY's 2013/2014 through 2017/2018. The 2013 Study included recommendations to increase residential water and wastewater rates for all years addressed in the Study, however, the recommended rates for FY 2013/2014 were not implemented. In order to meet operating and capital needs of the of the Ord Community systems, this compensation plan includes residential rate increases of 22.3% for water and 7.8% for wastewater.

The 2013 Study also recommended increases to the Capacity Charges for both the water and wastewater systems however; the District conducted further analyses on the recommended increases which resulted in a lower increase than recommended in the Study.

Cost Centers:

- Ord Community Water
- Ord Community Wastewater Collection (Sewer)

Assumptions:

- Total Revenues:
 - Ord Community Water \$9.501 million
 - Operating Revenue \$6.140 million

- Capacity Charges \$1.922 million
- Capital Surcharge and Other Non-Operating \$0.308 million
- Funding Source to be Obtained \$1.131 million
- Ord Community Wastewater Collection \$3.081 million
 - Operating Revenue \$2.039 million
 - Capacity Charges \$0.668 million
 - Capital Surcharge and Other Non-Operating \$0.057 million
 - Funding Source to be Obtained \$0.317 million
- Total Expenses:
 - Ord Community Water \$9.271 million
 - Operating (including payments to Land Use Jurisdictions/FORA) \$5.534 million
 - CIP Projects and General CIP \$1.769 million
 - Seaside Land Transfer \$1.007 million
 - Debt Service (Principal Only) \$0.868 million
 - FORA Lease Agreement \$0.093
 - Ord Community Wastewater Collection \$2.400 million
 - Operating (including payments to Land Use Jurisdictions/FORA) \$1.397 million
 - CIP Projects and General CIP \$0.687 million
 - Debt Service (Principal Only) \$0.296 million
 - FORA Lease Agreement \$0.020

Ord Community Water Rates (monthly):

| | FY 2013-2014 | FY 2014-2015 |
|---------------------------------|--------------|--------------|
| Meter Service Charge | \$17.11 | \$31.48 |
| First Tier (0-8 hcf) | 2.33 | 2.60 |
| Second Tier (8-16 hcf) | 3.27 | 3.98 |
| Third Tier (16+ hcf) | 4.22 | 5.37 |
| Average Monthly bill (13 units) | \$52.10 | \$63.72 |
| Flat Rate Billing | 84.34 | 112.65 |

Ord Community Wastewater Collection Rates (monthly):

| | FY 2013-2014 | FY 2014-2015 |
|-----------------------|--------------|--------------|
| Monthly Flat Fee Bill | \$25.56 | \$27.55 |

Capacity Charge:

Capacity charges are one-time charges collected from new connections to the water and wastewater systems based on equivalent dwelling units (EDU).

- Ord Community Water Capacity Charge \$8,010 per EDU
- Ord Community Wastewater Collection Capacity Charge \$3,322 per EDU

Monthly Capital Surcharge*:

- Ord Community Water Monthly Capital Surcharge for NEW Customers (\$20.00 per EDU)
 - Ord Community Wastewater Monthly Capital Surcharge for NEW Customers (\$5.00 per EDU)
- * Monthly Capital Surcharge applies to all new customers effective July 2005

Annual Capital Improvement Programs:

- Ord Community Water \$1.575 million
- Ord Community Wastewater Collection \$0.646 million

District Staffing:

The proposed plan supports a staff of 36 positions.

- Support for a staff of 36 positions:
 - Administration – 12
 - Operations & Maintenance – 16
 - Laboratory – 1
 - Conservation – 1
 - Engineering – 6

Annexation Efforts:

Initial correspondence from LAFCO to the District indicated that the Municipal Service Review (MSR) would be completed by year end 2012. MCWD has complied with all requests from LAFCO to complete the MSR and continues to coordinate with LAFCO staff regarding the Municipal Service Review (MSR). The District's intent is to use the final MSR as a starting point for discussions with jurisdictions and LAFCO regarding the potential Sphere of Influence modification and annexation of the Ord Community. A final MSR is planned for release by LAFCO sometime in 2014. A Sphere of Influence application could begin immediately afterward.

**ORD COMMUNITY
WATER & WASTEWATER SYSTEM
RATES, FEES and CHARGES
FY 2014 - 2015
Effective July 1, 2014 and January 1, 2015**

| | <u>July 1, 2014</u> | <u>January 1, 2015</u> |
|---|-----------------------|------------------------|
| Water Consumption Charge | | |
| 0 - 8 hcf First Tier | 2.22 per hcf | 2.60 per hcf |
| 8 - 16 hcf Second Tier | 3.40 per hcf | 3.98 per hcf |
| 16+ hcf Third Tier | 4.59 per hcf | 5.37 per hcf |
| Monthly Capital Surcharge (Connections after June 30, 2005) | 20.00 per EDU | 20.00 per EDU |
| Flat Rate | 98.36 per unit | 112.65 per unit |
| Monthly Minimum Water Charges | | |
| <u>Size</u> | <u>Fee</u> | <u>Fee</u> |
| 5/8" or 3/4" | 28.96 per month | 31.48 per month |
| 1" | 45.18 per month | 49.11 per month |
| 1 1/2" | 72.21 per month | 78.49 per month |
| 2" | 104.64 per month | 113.74 per month |
| 3" | 180.37 per month | 196.05 per month |
| 4" | 288.45 per month | 313.52 per month |
| 6" | 558.75 per month | 607.31 per month |
| 8" | 1,099.66 per month | 1,195.24 per month |
| Monthly Minimum Sewer Charges | | |
| Monthly Wastewater Charge | 26.49 per EDU | 27.55 per EDU |
| Monthly Capital Surcharge (Connections after June 30, 2005) | 5.00 per EDU | 5.00 per EDU |
| Temporary Water Service | | |
| Meter Deposit Fee | 650.00 | 650.00 |
| Hydrant Meter Fee (Set/Remove Fee) | 140.00 one time fee | 140.00 one time fee |
| Hydrant Meter Fee (Relocate Fee) | 140.00 per occurrence | 140.00 per occurrence |
| Minimum Monthly Service Charge | 82.24 per month | - per month |
| Estimated Water Consumption Deposit | 1,100.00 minimum | 1,100.00 minimum |
| Private Fire Meter Charge | | |
| <u>Size</u> | <u>Fee</u> | <u>Fee</u> |
| 5/8" or 3/4" | 1.69 per month | 1.83 per month |
| 1" | 4.90 per month | 5.33 per month |
| 1 1/2" | 10.44 per month | 11.35 per month |
| 2" | 18.78 per month | 20.41 per month |
| 3" | 30.34 per month | 32.97 per month |
| 4" | 64.65 per month | 70.26 per month |
| 6" | 187.79 per month | 204.11 per month |
| 8" | 400.18 per month | 434.96 per month |
| Capacity Charges | | |
| Water | \$8,010.00 per edu | \$8,010.00 per edu |
| Sewer | \$3,322.00 per edu | \$3,322.00 per edu |

**MARINA & ORD COMMUNITY
WATER & WASTEWATER SYSTEM
RATES, FEES and CHARGES
FY 2014 - 2015
Effective July 1, 2014**

| | |
|--|-------------------|
| General Manager | \$143.00 per hour |
| Deputy General Manager/District Engineer | \$128.00 per hour |
| Director of Administrative Services | \$96.00 per hour |
| Capital Projects Manager | \$82.00 per hour |
| Projects Manager | \$89.00 per hour |
| Associate Engineer | \$79.00 per hour |
| Assistant Engineer | \$65.00 per hour |
| Engineering Administrative Assistant | \$56.00 per hour |
| Lab Supervisor | \$77.00 per hour |
| O&M Superintendent | \$94.00 per hour |
| O&M Supervisor | \$90.00 per hour |
| Operations & Maintenance System Operator 3 | \$68.00 per hour |
| Operations & Maintenance System Operator 2/Backflow Specialist | \$68.00 per hour |
| Operations & Maintenance System Operator 2 | \$67.00 per hour |
| Operations & Maintenance System Operator 1 | \$49.00 per hour |
| Conservation Specialist | \$55.00 per hour |

| | |
|------------------------------|------------------|
| Work Truck | \$20.00 per hour |
| Backhoe Tractor | \$30.00 per hour |
| Front Loader Tractor | \$58.00 per hour |
| Vactor Truck | \$30.00 per hour |
| Dump Truck | \$30.00 per hour |
| Ground Penetrating Radar Uit | \$10.00 per hour |
| CCTV Camera | \$65.00 per hour |

Photocopy Charges \$0.20 per copy

| <u>Size</u> | <u>Fee</u> |
|--------------|--|
| 5/8" or 3/4" | \$350.00 |
| 1" | \$400.00 |
| 1 1/2" | \$450.00 |
| 2" | \$700.00 |
| 3" or Larger | Actual direct and indirect cost to district. Advance payment to be based on estimated cost. |

| | |
|---|--|
| Preliminary Project Review Fee (large projects) | \$500.00 |
| Plan Review Fees: | |
| Existing Residential Modifications | \$200.00 per unit plus additional fees |
| Existing Commercial Modifications | \$400.00 per unit plus additional fees |
| Plan Review | \$500.00 per unit plus additional fees |
| Water/Sewer Permit Fee | \$30.00 each |
| Small Project Inspection Fee (single lot) | \$400.00 per unit |
| Large Project Inspection Fee (large projects) | \$500.00 per unit plus 3% of water & sewer construction cost |
| Building Modification/Addition Fee | \$200.00 per unit |
| Deposit for a Meter Relocation | \$200.00 deposit, plus actual costs |
| Mark and Locate Fee (USA Markings) | \$100.00 first mark and locate at no-charge, each additional for \$100 |
| Backflow/Cross Connection Control Fee | \$45.00 per device |
| Additional Backflow/Cross Connection Device | \$30.00 per device |
| Deposit for New Account | \$35.00 per edu |
| Meter Test Fee | \$15.00 for 3/4" meter, actual cost for 1" and larger |

Ord Community Water System

**MARINA COAST WATER DISTRICT
ORD COMMUNITY WATER SYSTEM OPERATIONS
SUMMARY**

EXHIBIT W-1

| | Actual FY 2011-2012 | Actual FY 2012-2013 | Adopted FY 2013-2014 | Estimated FY 2013-2014 | Proposed FY 2014-2015 | BUD vs BUD % | BUD vs EST % |
|---|------------------------|------------------------|-------------------------|---------------------------|--------------------------|-----------------|-----------------|
| Number of water services | | | | | | | |
| # Flat Rate Customers | 1,200 | 1,200 | 1,100 | | | | |
| # Metered Customers | 2,808 | 2,808 | 2,908 | | | | |
| Total Customers | 4,008 | 4,008 | 4,008 | | | | |
| Annual Water Usage (in AF) | | | | | | | |
| Metered use | 1,650 | 1,650 | 1,800 | | | | |
| Unmetered use / Losses | 800 | 800 | 770 | | | | |
| Total Water Usage | 2,450 | 2,450 | 2,570 | | | | |
| Monthly Service Charges | | | | | | | |
| Flat Rate Billing | \$80.40 | \$80.40 | \$88.56 | \$88.56 | \$112.65 | | |
| Metered Service Charge - 3/4" Meter | \$16.31 | \$16.31 | \$17.97 | \$17.97 | \$31.48 | | |
| Monthly Quantity Rates | | | | | | | |
| Tier 1 (0-8 hcf) | \$2.22 | \$2.22 | \$2.45 | \$2.30 | \$2.22 | | |
| Tier 2 (8 - 16 hcf) | \$3.12 | \$3.12 | \$3.43 | \$3.27 | \$3.40 | | |
| Tier 3 (16+ hcf) | \$4.02 | \$4.02 | \$4.43 | \$4.22 | \$4.59 | | |
| Monthly Capital Surcharge (per EDU) | \$20.00 | \$20.00 | \$20.00 | \$20.00 | \$20.00 | | |
| Annual Revenue Calculations | | | | | | | |
| Flat Rate Accounts | 1,121,129 | 1,065,214 | 1,177,545 | 997,236 | 1,216,628 | 3.3% | 22.0% |
| Metered Accounts | 3,196,497 | 3,257,395 | 3,021,466 | 3,487,695 | 3,722,729 | 23.2% | 6.7% |
| Other Water Sales | 881,793 | 522,634 | 915,000 | 972,399 | 1,006,500 | 10.0% | 3.5% |
| Fire System Charge | 0 | 0 | 0 | 0 | 135,479 | 0.0% | 0.0% |
| Other Fees & Charges | 185,273 | 180,271 | 59,500 | 235,112 | 58,670 | -1.4% | -75.0% |
| A Total Operating Revenue | \$5,384,692 | \$5,025,514 | \$5,173,511 | \$5,692,442 | \$6,140,006 | 18.7% | 7.9% |
| B Capacity Charges (Based on \$8,010 per EDU) | 472,476 | 109,042 | 50,000 | 1,551,894 | 1,922,400 | 3744.8% | 23.9% |
| C Capital Surcharge Revenue | 81,874 | 85,581 | 80,000 | 109,120 | 110,000 | 37.5% | 0.8% |
| D Bond Revenue | 25,675 | 25,534 | 22,580 | 0 | 0 | -100.0% | #DIV/0! |
| E Grant Revenue | 1,185,312 | 11,680 | 0 | 0 | 0 | 0.0% | #DIV/0! |
| F Non-operating Revenue (Including Interest Income) | 195,863 | 196,655 | 90,540 | 184,666 | 197,724 | 118.4% | 7.1% |
| G Funding Source to be Obtained | | | | 150,000 | 1,131,200 | | |
| TOTAL REVENUE (A through G) | \$7,345,892 | \$5,454,006 | \$5,416,631 | \$7,688,122 | \$9,501,330 | 75.4% | 23.6% |
| H Operating Expenditures | 3,819,212 | 4,430,826 | 4,543,060 | 4,816,942 | 5,201,999 | 14.5% | 8.0% |
| I CIP Projects | 3,804,699 | 457,376 | 611,250 | 219,450 | 1,574,764 | 157.6% | 617.6% |
| J Seaside Land Transfer | 881,793 | 522,634 | 915,000 | 972,399 | 1,006,500 | 10.0% | 3.5% |
| K General Capital Outlay | 84,144 | 47,990 | 159,940 | 49,519 | 194,707 | 21.7% | 293.2% |
| L Debt Service | 682,500 | 656,931 | 656,931 | 612,500 | 867,500 | 32.1% | 41.6% |
| M FORA Lease Agreement | 82,243 | 89,719 | 0 | 89,719 | 93,308 | 0.0% | 4.0% |
| N Capital Replacement Reserve Fund | 200,000 | 200,000 | 200,000 | 200,000 | 0 | -100.0% | -100.0% |
| O Payments to Land Use Jurisdictions/FORA | | | | | | | |
| Reimb. to Land Use Agencies | 38,120 | 33,160 | 34,000 | 33,039 | 34,000 | 0.0% | 2.9% |
| FORA Admin/Liaison Fees | 25,000 | 25,000 | 25,000 | 25,000 | 25,000 | 0.0% | 0.0% |
| Reimbursements to FORA | 116,752 | 218,700 | 250,000 | 233,259 | 236,000 | -5.6% | 1.2% |
| Mmbrshp on FORA Bd. of Directors | 37,000 | 37,000 | 37,000 | 37,000 | 37,000 | 0.0% | 0.0% |
| TOTAL EXPENDITURES (H through M) | \$9,771,463 | \$6,719,336 | \$7,432,181 | \$7,286,827 | \$9,270,776 | 24.7% | 27.2% |
| TRANSFER FROM/(TO) RESERVES | \$2,425,571 | \$1,265,330 | \$2,015,550 | (\$399,295) | (\$230,552) | | |
| NET REVENUE | \$0 | \$0 | \$0 | \$0 | \$0 | | |

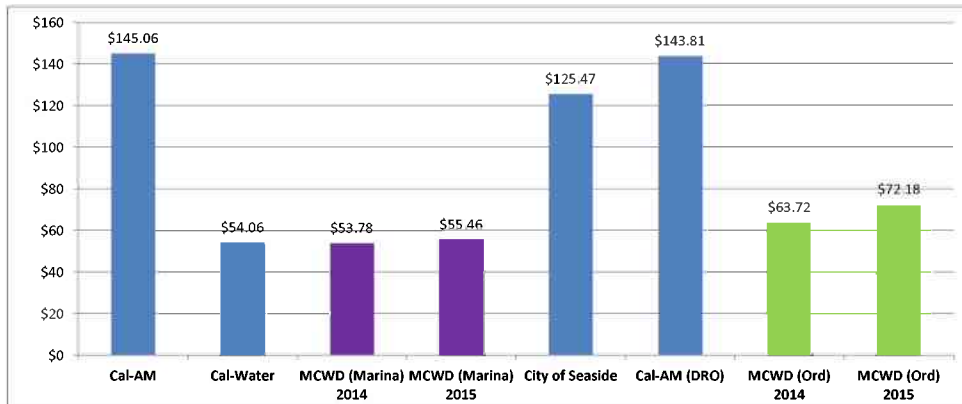
MONTHLY WATER RATES FOR REGION SURROUNDING THE ORD COMMUNITY

HCF = 100 cubic feet

| TYPE OF FEE | CAL-AM ¹ | California Water Service Company ² | Proposed MCWD City of Marina ³ | Proposed MCWD City of Marina ³ | Seaside Mun. Water ² | City of Del Rey Oaks (Cal-Am) ¹ | Proposed MCWD Ord Community ³ | Proposed MCWD Ord Community ³ | Median Rates |
|--|---------------------|---|---|---|---------------------------------|--|--|--|--------------|
| Quantity Rate per 100 cu.ft. | | | | | | | | | |
| 1st tier | \$0.3096 | \$1.9298 | \$2.47 | \$2.55 | \$3.67 | \$0.3096 | \$2.22 | \$2.60 | \$2.22 |
| 2nd tier | \$0.6193 | \$2.0314 | \$2.83 | \$2.92 | \$7.94 | \$0.6193 | \$3.40 | \$3.98 | \$2.83 |
| 3rd tier | \$1.2385 | \$2.2752 | \$5.00 | \$5.15 | \$12.87 | \$1.2385 | \$4.59 | \$5.37 | \$4.59 |
| 4th tier | \$2.4771 | | | | \$18.36 | \$2.4771 | | | \$2.48 |
| 5th tier | \$2.9474 | | | | \$25.18 | \$2.9474 | | | \$2.95 |
| 6th tier | | | | | \$32.86 | | | | |
| Breakpoint for 1st tier | 40 | 600 | 800 | 800 | 400 | 40 | 800 | 800 | 600 |
| Breakpoint for 2nd tier | 80 | 1,100 | 1,600 | 1,600 | 1,000 | 80 | 1,600 | 1,600 | 1,100 |
| Breakpoint for 3rd tier | 120 | 1700+ | 1600+ | 1600+ | 2,000 | 120 | 1600+ | 1600+ | 1,600 |
| Breakpoint for 4th tier | 160 | | | | 3,000 | 160 | | | |
| Breakpoint for 5th tier | 200 | | | | 4,000 | 200 | | | |
| | | | | | 4,000 + | | | | |
| Meter Service Charge per month | | | | | | | | | |
| 3/4-inch | \$14.93 | \$24.79 | \$19.87 | \$20.46 | \$24.54 | \$14.93 | \$28.96 | \$31.48 | \$20.46 |
| Service Charge (hcf) | | 0.200 | | | | | | | \$0.20 |
| Service Charge (monthly) | 3.8100 | 1.547 | | | | 2.5600 | | | \$2.56 |
| Surcharges (%) | 11.1467 | | | | | 11.1467 | | | \$11.15 |
| Surcharges | 3.71 | -1.163 | | | | 3.71 | | | \$3.71 |
| For illustrative purposes only, monthly rates based on 13 hcf/month, or 0.358 acre feet/year | \$145.06 | \$54.06 | \$53.78 | \$55.46 | \$125.47 | \$143.81 | \$63.72 | \$72.18 | \$77.73 |

1. Rates effective as of January 1, 2013.
2. Rates effective as of May 1, 2013.
3. Proposed rates effective as of July 1, 2014.
4. Proposed rates effective as of January 1, 2015.

MONTHLY WATER RATES FOR REGION SURROUNDING THE ORD COMMUNITY - 13 hcf



2013 Ord Community Water Consumption vs. Allocation (in Acre Feet per year)

EXHIBIT W-3

| Entity | 2012 Consumption | 2013 Consumption | Fort Ord Reuse Plan Allocation (AFY) | % of |
|------------------------------|------------------|------------------|--------------------------------------|------------|
| OMC | | | | |
| Nonresidential | 25 | 28 | | |
| Residential | 228 | 263 | | |
| Residential (e) | 377 | 377 | | |
| Irrigation | 39 | 39 | | |
| Subtotal | 669 | 706 | 1,577.0 (1) (4) | 45% |
| Construction Water - Army | 0 | 0 | | |
| CSUMB | | | | |
| Main Campus | 179 | 197 | | |
| CSUMB Housing (metered) | 212 | 210 | | |
| CSUMB Housing (e) | 0 | 0 | | |
| CSUMB Irrigation | 35 | 35 | | |
| CSUMB Irrigation (e) | 0 | 0 | | |
| Subtotal | 426 | 442 | 1,035.0 | 43% |
| UC MBEST | 3 | 1 | 230.0 | |
| County | 9 | 15 | 710.0 (7) | |
| County/State Parks | 0 | 0 | 45.0 | |
| Cty/Del Rey Oaks | 0 | 0 | 242.5 (6)(7) | |
| Cty/Monterey | 0 | 0 | 65.0 | |
| Cty/Marina (Sphere) | 0 | 0 | 10.0 | |
| Subtotal | 11 | 17 | 1,302.5 | 1% |
| Seaside | | | | |
| Golf Course | 265 | 457 | | |
| MPUSD | 79 | 103 | | |
| Brostrom | 61 | 64 | 85.0 (4) | |
| Thorson | 67 | 64 | 120.0 (3) | |
| Seaside Highlands | 153 | 170 | | |
| Monterey Bay Land, LLC | 0 | 0 | 114.0 (5) | |
| Other | 7 | 7 | 693.0 (7) | |
| Subtotal | 632 | 865 | 1,012.0 (4) | 86% |
| Construction Water - Seaside | 0 | 0 | | |
| Marina | | | | |
| Preston/Abrams | 187 | 182 | | |
| Airport | 5 | 4 | | |
| Other | 65 | 76 | | |
| Subtotal | 257 | 262 | 1,325.0 (7) | 20% |
| Construction Water - Marina | 8 | 11 | | |
| Total | 2,004 | 2,303 | 6,251.5 | 37% |
| Assumed Line Loss | 365 (8) | -10 (8) | 348.5 (7) | |
| Total Extracted | 2369 | 2293 | | |
| Reserve | 4231 | 4307 | 0 (7) | |
| Total | 6600 | 6600 | 6,600 | |

Notes:

(e) indicates water use is estimated; meters are not installed.

Footnotes:

(1) The 1996/1998 FORA Board Allocation Plan reflects 1410 afy that considers future conservation on the POM Annex. The OMC's current reservation of 1577 afy reflects the decrease of 38 afy and 114 afy (see footnote [4]) from the original 1729 afy. The FORA Board has not yet revised the allocation numbers to reflect this change.

(3) The Sunbay/Thorson property was given its own allocation (120 afy) as part of the transfer of real estate from the US Army to the Southwest Sunbay Land Company.

(4) Seaside's original allocation of 710 afy was augmented by 38 afy by agreement with the OMC and Brostrom, and by 114 afy under final terms of the land exchange agreement among the City of Seaside, Monterey Bay Land, LLC and the US Army.

(5) 114 afy of Monterey Bay Land, LLC controlled potable water includes the proviso that the City of Seaside shall use no less than 39 afy of such water for affordable or workforce housing.

(6) The FORA Board approved an additional 17.5 afy for Del Rey Oaks on 05/13/2005.

(7) In January 2007, the FORA Board changed the 150 afy interim use loans to Marina, Seaside, Del Rey Oaks and Monterey County in October 1998 to add to their permanent allocations.

(8) Line loss figures include water transferred from Ord to Marina system through the inter-tie. The transferred numbers are tracked in the SCADA system and will be repaid back to Ord from Marina over time.

**MARINA COAST WATER DISTRICT
ORD COMMUNITY WATER SYSTEM OPERATIONS
PROPOSED BUDGET**

EXHIBIT W-4

| | Actual Ord Community Water Expenses FY 2011-2012 | Actual Ord Community Water Expenses FY 2012-2013 | Adopted Budget Ord Community Water Expenses FY 2013-2014 | Estimated Ord Community Water Expenses FY 2013-2014 | Proposed Budget Ord Community Water Expenses FY 2014-2015 | BUD vs BUD % CHANGE | BUD vs EST % CHANGE |
|-------------------------------------|---|---|---|--|--|------------------------|------------------------|
| Administration/Management | | | | | | | |
| Personnel | \$645,037 | \$843,713 | \$692,801 | \$725,722 | \$951,421 | 37.3% | 31.1% |
| Expenses | \$497,959 | \$628,037 | \$696,100 | \$658,093 | \$743,946 | 6.9% | 13.0% |
| Insurance | \$57,479 | \$58,571 | \$62,000 | \$58,570 | \$65,520 | 5.7% | 11.9% |
| Legal | \$60,681 | \$103,169 | \$15,000 | \$117,891 | \$118,560 | 690.4% | 0.6% |
| Interest Expense | \$1,143,740 | \$1,095,565 | \$1,072,122 | \$1,075,156 | \$1,046,202 | -2.4% | -2.7% |
| subtotal | \$2,404,896 | \$2,729,055 | \$2,538,023 | \$2,635,432 | \$2,925,649 | 15.3% | 11.0% |
| Operations & Maintenance | | | | | | | |
| Personnel | \$649,492 | \$625,801 | \$796,995 | \$805,598 | \$763,988 | -4.1% | -5.2% |
| Maintenance Expenses | \$117,424 | \$229,650 | \$226,900 | \$245,012 | \$280,352 | 23.6% | 14.4% |
| Power Costs | \$402,579 | \$451,870 | \$539,450 | \$589,701 | \$740,500 | 37.3% | 25.6% |
| Annual Maintenance | \$5,352 | \$6,537 | \$50,000 | \$42,018 | \$33,800 | -32.4% | -19.6% |
| subtotal | \$1,174,847 | \$1,313,858 | \$1,613,345 | \$1,682,329 | \$1,818,640 | 12.7% | 8.1% |
| Laboratory | | | | | | | |
| Personnel | \$91,122 | \$100,622 | \$107,679 | \$107,071 | \$113,335 | 5.3% | 5.9% |
| Equipment/Expenses | \$29,050 | \$26,807 | \$49,961 | \$42,578 | \$50,900 | 1.9% | 19.5% |
| Lab Contract Services | \$8,996 | \$17,860 | \$37,800 | \$36,738 | \$38,608 | 2.1% | 5.1% |
| subtotal | \$129,168 | \$145,289 | \$195,440 | \$186,387 | \$202,843 | 3.8% | 8.8% |
| Conservation | | | | | | | |
| Personnel | \$76,266 | \$81,593 | \$91,320 | \$87,898 | \$97,151 | 6.4% | 10.5% |
| Expenses | \$33,925 | \$32,138 | \$48,460 | \$47,226 | \$63,558 | 31.2% | 34.6% |
| subtotal | \$110,191 | \$113,731 | \$139,780 | \$135,124 | \$160,709 | 15.0% | 18.9% |
| Engineering | | | | | | | |
| Personnel | \$169,798 | \$350,568 | \$337,472 | \$352,999 | \$272,571 | -19.2% | -22.8% |
| Expenses | \$33,438 | \$4,374 | \$1,250 | \$90,672 | \$51,587 | 4027.0% | -43.1% |
| Outside Consultants | \$13,746 | \$87,811 | \$63,750 | \$62,297 | \$102,000 | 60.0% | 63.7% |
| subtotal | \$216,982 | \$442,753 | \$402,472 | \$505,968 | \$426,158 | 5.9% | -15.8% |
| Total Operating Expenses | \$4,036,084 | \$4,744,686 | \$4,889,060 | \$5,145,240 | \$5,533,999 | 13.2% | 7.6% |

Ord Community Wastewater System

**MARINA COAST WATER DISTRICT
ORD COMMUNITY WASTEWATER SYSTEM OPERATIONS
SUMMARY**

EXHIBIT WW-1

| | | Actual FY 2011-2012 | Actual FY 2012-2013 | Adopted FY 2013-2014 | Estimated FY 2013-2014 | Proposed FY 2014-2015 | BUD vs BUD % | BUD vs EST % |
|----------|--|------------------------|------------------------|-------------------------|---------------------------|--------------------------|-----------------|-----------------|
| | Estimated # of EDU's | 5,794 | 5,584 | 5,595 | 5,631 | 6,169 | | |
| | Flat Rate Billing per EDU | \$24.36 | \$25.56 | \$25.56 | \$25.56 | \$27.55 | | |
| | Monthly Capital Surcharge (per EDU) | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | | |
| | Annual Revenue - Flat Rate Billing | 1,693,668 | 1,712,700 | 1,693,559 | 1,727,045 | 2,039,607 | 20.4% | 18.1% |
| | Other Fees & Charges | 12,790 | 15,078 | 5,000 | 78,817 | 0 | -100.0% | -100.0% |
| A | Total Operating Revenue | 1,706,458 | 1,727,778 | 1,698,559 | 1,805,862 | 2,039,607 | 20.1% | 12.9% |
| B | Capacity Fee (Based on \$2,150 per EDU. Proposed rate = \$7,636 per EDU) | 146,673 | 57,191 | 4,000 | 569,045 | 667,722 | 16593.1% | 17.3% |
| C | Capital Surcharge Revenue | 18,630 | 19,531 | 18,000 | 33,141 | 0 | -100.0% | -100.0% |
| D | Bond Revenue | 9,431 | 9,392 | 8,550 | 0 | 0 | -100.0% | #DIV/0! |
| E | Non-Operating Revenue (Including Interest Income) | 87,412 | 72,602 | 44,760 | 63,400 | 57,233 | 27.9% | -9.7% |
| F | New Funding Source to be Obtained | 0 | 0 | 0 | 42,000 | 316,736 | 0.0% | 0.0% |
| | TOTAL REVENUE (A through E) | \$1,968,604 | \$1,886,494 | \$1,773,869 | \$2,513,448 | \$3,081,298 | 73.7% | 22.6% |
| G | Operating Expenditures | 1,127,157 | 1,280,788 | 1,141,673 | 1,147,275 | 1,382,622 | 21.1% | 20.5% |
| H | CIP Projects | 35,229 | 224,400 | 659,135 | 101,462 | 646,443 | -1.9% | 0.0% |
| I | General Capital Outlay | 16,451 | 10,558 | 27,555 | 10,681 | 40,213 | 45.9% | 276.5% |
| J | Debt Service (principal) | 277,700 | 277,700 | 272,896 | 272,896 | 296,500 | 8.6% | 8.6% |
| K | FORA Lease Agreement | 23,028 | 19,738 | 0 | 19,738 | 19,738 | 0.0% | 0.0% |
| L | Capital Replacement Reserve Fund | 100,000 | 100,000 | 100,000 | 100,000 | 0 | -100.0% | -100.0% |
| M | Reimb. To Land Use Agencies | -24,413 | -24,413 | 12,000 | 9,551 | 14,300 | 19.2% | 49.7% |
| | TOTAL EXPENDITURES (G through L) | \$1,555,152 | \$1,888,771 | \$2,213,259 | \$1,661,603 | \$2,399,816 | 8.4% | 44.4% |
| | Transfer From/(To) Reserves | (\$413,452) | \$2,277 | \$439,390 | (\$851,845) | (\$681,482) | | |
| | BALANCE | \$0 | \$0 | \$0 | \$0 | \$0 | | |

MONTHLY WASTEWATER COLLECTION RATES FOR REGION SURROUNDING THE ORD COMMUNITY

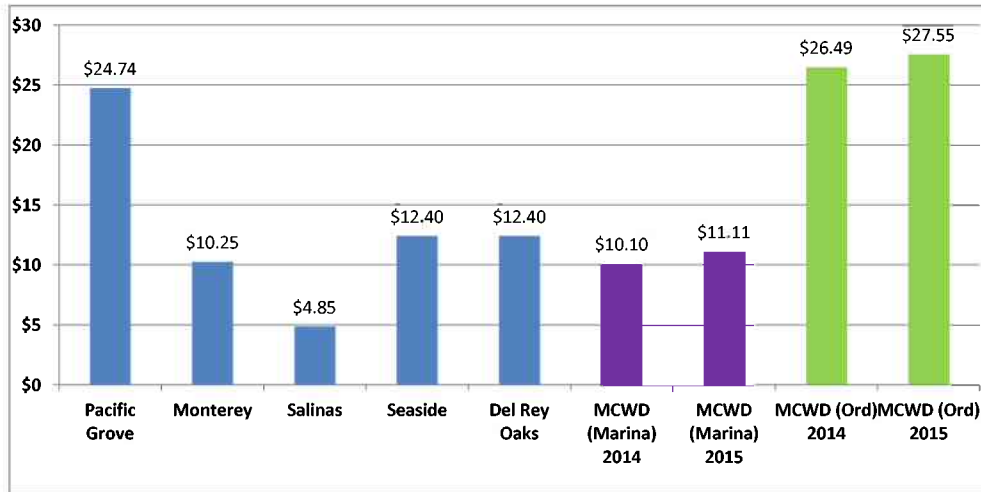
| SERVICE DESCRIPTION | City of Pacific Grove ¹ | City of Monterey ² | City of Salinas ² | SCSD City of Seaside ² | SCSD City of Del Rey Oaks ² | Proposed MCWD City of Marina ³ | Proposed MCWD City of Marina ⁴ | Proposed MCWD Ord Community ³ | Proposed MCWD Ord Community ⁴ |
|---|------------------------------------|-------------------------------|------------------------------|-----------------------------------|--|---|---|--|--|
| Residential - per Living Unit | \$24.74 | \$10.25 | \$4.85 | \$12.40 | \$12.40 | \$10.10 | \$11.11 | \$26.49 | \$27.55 |
| Business - 15 employees | \$33.74 | \$15.79 | \$7.50 | \$19.14 | \$19.14 | \$15.15 | \$16.67 | \$39.74 | \$41.33 |
| Church - over 100 members | \$33.74 | \$15.79 | \$9.70 | \$19.14 | \$19.14 | \$10.10 | \$11.11 | \$26.49 | \$27.55 |
| Laundromat - each washing machine | \$13.58 | \$6.87 | \$3.26 | \$8.33 | \$8.33 | \$6.06 | \$6.67 | \$15.89 | \$16.53 |
| General Hospital - each bed | \$37.97 | | \$8.21 | \$20.99 | \$20.99 | \$8.08 | \$8.89 | \$21.19 | \$22.04 |
| Motel/hotel - each room | \$10.29 | \$4.41 | \$2.10 | \$5.38 | \$5.38 | \$2.53 | \$2.78 | \$6.62 | \$6.89 |
| Restaurant - each seat | \$4.67 | \$1.13 | \$0.54 | \$1.38 | \$1.38 | \$0.71 | \$0.78 | \$1.85 | \$1.93 |
| High School/University - each student/faculty | \$0.35 | \$0.21 | \$0.10 | \$0.26 | \$0.26 | \$0.71 | \$0.78 | \$1.85 | \$1.93 |
| Supermarket - 30 Employees | \$167.46 | \$43.26 | \$20.45 | \$52.29 | \$52.29 | \$30.30 | \$33.33 | \$79.47 | \$82.65 |

¹Rate is 173% of MRWPCA rate

²Rate is for FY 2013/2014 published by MRWPCA

³Rate to be effective July 1, 2014

⁴Rate to be effective January 1, 2015



MCWD (Ord) rate will decrease as rate base increases. Current rate base must support operating costs and debt service on system.

**MARINA COAST WATER DISTRICT
ORD COMMUNITY WASTEWATER SYSTEM OPERATIONS
PROPOSED BUDGETS**

| | Actual Ord Community Wastewater Expenses FY 2011-2012 | Actual Ord Community Wastewater Expenses FY 2012-2013 | Adopted Budget Ord Community Wastewater Expenses FY 2013-2014 | Estimated Ord Community Wastewater Expenses FY 2013-2014 | Proposed Budget Ord Community Wastewater Expenses FY 2014-2015 | BUD vs BUD % CHANGE | BUD vs EST % CHANGE |
|-------------------------------------|---|---|---|--|--|------------------------|------------------------|
| Administration/Management | | | | | | | |
| Personnel | \$160,948 | \$185,762 | \$152,424 | \$158,246 | \$201,262 | 32.0% | 27.2% |
| Expenses | \$66,664 | \$87,030 | \$89,030 | \$89,070 | \$99,378 | 11.6% | 11.6% |
| Insurance | \$13,736 | \$12,522 | \$13,640 | \$13,637 | \$13,860 | 1.6% | 1.6% |
| Legal | \$16,865 | \$18,795 | \$3,300 | \$24,335 | \$25,080 | 660.0% | 3.1% |
| Interest Expense | \$331,321 | \$446,099 | \$395,300 | \$396,010 | \$421,423 | 6.6% | 6.4% |
| subtotal | \$589,534 | \$750,208 | \$653,694 | \$681,298 | \$761,003 | 16.4% | 11.7% |
| Operations & Maintenance | | | | | | | |
| Personnel | \$198,580 | \$254,542 | \$227,588 | \$254,328 | \$321,679 | 41.3% | 26.5% |
| Maintenance Expenses | \$93,134 | \$40,818 | \$109,510 | \$71,046 | \$161,849 | 47.8% | 127.8% |
| Power Costs | \$50,056 | \$47,180 | \$52,825 | \$46,929 | \$53,325 | 0.9% | 13.6% |
| Annual Maintenance | \$809 | \$11,737 | \$15,000 | \$10,160 | \$7,150 | -52.3% | -29.6% |
| subtotal | \$342,579 | \$354,277 | \$404,923 | \$382,463 | \$544,003 | 34.3% | 42.2% |
| Engineering Department | | | | | | | |
| Personnel | \$159,077 | \$95,222 | \$76,931 | \$78,345 | \$58,790 | -23.6% | -25.0% |
| Expenses | \$994 | \$1,999 | \$275 | \$1,145 | \$11,126 | 3945.8% | 871.7% |
| Outside Consultants | \$10,560 | \$54,669 | \$17,850 | \$13,575 | \$22,000 | 23.2% | 62.1% |
| subtotal | \$170,631 | \$151,890 | \$95,056 | \$93,065 | \$91,916 | -3.3% | -1.2% |
| TOTAL | \$1,102,744 | \$1,256,375 | \$1,153,673 | \$1,156,826 | \$1,396,922 | 21.1% | 20.8% |

Ord Community Capital Improvement Projects

**MARINA COAST WATER DISTRICT
ORD COMMUNITY WATER AND WASTEWATER SYSTEMS
CAPITAL IMPROVEMENT PROJECT BUDGET FOR FY 2014-2015**

EXHIBIT CIP-1

| Project No. | Project Name | | Amount |
|----------------------------|--|---------------------|---------------------------|
| WD-0203 | MCWD Fort Ord Office Landscape Project | | \$12,915 |
| | | Ord Community Water | \$10,660 |
| | | Ord Community Sewer | \$2,255 |
| WD-0115 | SCADA System Improvements - Phase I | | \$20,650 |
| | | Ord Community Water | \$9,100 |
| | | Ord Community Sewer | \$11,550 |
| WD-0202 | IOP Building (BLM) | | \$1,447,936 |
| | | Ord Community Water | \$1,131,200 |
| | | Ord Community Sewer | \$316,736 |
| GW-0212 | Potable Water Tank Compliance Project | | \$36,540 |
| | | Ord Community Water | \$36,540 |
| GW-0112 | A1 & A2 Zone Tanks & B/C Booster Station @ CSUMB | | \$175,464 |
| | | Ord Community Water | \$175,464 |
| OW-0223 | Well 30 Pump Replacement | | \$210,000 |
| | | Ord Community Water | \$210,000 |
| OW-0201 | Gigling Transmission from D Booster to JM Blvd | | \$1,800 |
| | | Ord Community Water | \$1,800 |
| OS-0200 | Clark Lift Station Improvement | | \$287,902 |
| | | Ord Community Sewer | \$287,902 |
| OS-0150 | Imjin LS & Force Main Improvements - Phase I | | \$28,000 |
| | | Ord Community Sewer | \$28,000 |
| TOTALS | | | <u>\$2,221,207</u> |
| Ord Community Water | | | \$1,574,764 |
| Ord Community Sewer | | | \$646,443 |
| TOTALS | | | <u>\$2,221,207</u> |

Capital Improvement Project Sheet

| | |
|---------------------|---|
| Project: | MCWD Fort Ord Office Landscape Project |
| Project No: | WD-0203 |
| Cost Center: | Marina Water; Marina Sewer; Ft Ord Water; Ft Ord Sewer |

Project Description
 This project is for completing the installation of landscaping at MCWDs' Fort Ord Office located at 2840 4th Avenue in Marina, CA. the project scope includes installing a "water-wise" irrigation system and the planting of native plant species and other low water use plants.

Project Justification
 A landscape installed as a demonstration "garden", which will be open to the general public, will enhance the public's understanding of the District's landscape and conservation ordinances.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|----------|----------|----------|----------|----------|-----------|--------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Design | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Construction | | | | | | | | |
| External Services | | 11,500 | | | | | | 11,500 |
| Internal Services | | 9,000 | | | | | | 9,000 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 20,500 | 0 | 0 | 0 | 0 | 0 | 20,500 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------------------|---------------|-------------|---------------|----------|----------|----------|----------|-----------|---------------|
| 01 - Marina Water | 01-00-160-402 | 29% | 0 | 5,945 | 0 | 0 | 0 | 0 | 0 | 5,945 |
| 02 - Marina Sewer | 02-00-160-402 | 8% | 0 | 1,640 | 0 | 0 | 0 | 0 | 0 | 1,640 |
| 03 - Ft Ord Water | 03-00-160-402 | 52% | 0 | 10,660 | 0 | 0 | 0 | 0 | 0 | 10,660 |
| 04 - Ft Ord Sewer | 04-00-160-402 | 11% | 0 | 2,255 | 0 | 0 | 0 | 0 | 0 | 2,255 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 20,500 | 0 | 0 | 0 | 0 | 0 | 20,500 |

Capital Improvement Project Sheet

| | |
|---------------------|---|
| Project: | SCADA System Improvements - Phase I |
| Project No: | WD-0115 |
| Cost Center: | Marina Water; Marina Sewer; Ft Ord Water; Ft Ord Sewer |

Project Description
 This project is for improving the Supervisory, Control, and Data Acquisition (SCADA) facilities. MCWD has more than 40 (current) remote water and sewer infrastructure sites that need SCADA improvement. The current phase of the project will result in functional and expandable SCADA "hubs" that will transmit signals to MCWD's O&M control room while the future phases will up-grade the remote sites.

Project Justification
 This project is needed to increase the reliability of the SCADA facilities. A well-functioning SCADA system is fundamental to efficient operation of water and wastewater systems and reliable SCADA facilities reduce risk because problems with remote infrastructure can be identified, communicated and/or prevented prior to failure.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|------------------|---------------|----------------|----------------|----------------|----------|-----------|------------------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Design | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Construction | | | | | | | | |
| External Services | 1,008,456 | 25,000 | 127,500 | 130,050 | 132,651 | | | 1,423,657 |
| Internal Services | | 10,000 | 10,200 | 10,404 | 10,612 | | | 41,216 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 1,008,456 | 35,000 | 137,700 | 140,454 | 143,263 | 0 | 0 | 1,464,873 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------------------|---------------|------------------|---------------|----------------|----------------|----------------|----------|-----------|------------------|
| 01 - Marina Water | 01-00-160-402 | 25% | 252,114 | 8,750 | 34,425 | 35,114 | 35,816 | 0 | 0 | 366,218 |
| 02 - Marina Sewer | 02-00-160-402 | 16% | 161,353 | 5,600 | 22,032 | 22,473 | 22,922 | 0 | 0 | 234,380 |
| 03 - Ft Ord Water | 03-00-160-402 | 26% | 262,199 | 9,100 | 35,802 | 36,518 | 37,248 | 0 | 0 | 380,867 |
| 04 - Ft Ord Sewer | 04-00-160-402 | 33% | 332,790 | 11,550 | 45,441 | 46,350 | 47,277 | 0 | 0 | 483,408 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 1,008,456 | 35,000 | 137,700 | 140,454 | 143,263 | 0 | 0 | 1,464,873 |

Capital Improvement Project Sheet

| | |
|------------------------|--|
| Project: | IOP Building E (BLM) |
| Project Number: | WD-0202 |
| Cost Center: | Marina Water; Marina Sewer; Ft Ord Water; Ft Ord Sewer |

Project Description
 Construction of a building at the Imjin Office Park to house the BLM Regional Offices.
 The project cost will be recouped via a long term lease with the Government.

Project Justification
 This project takes advantage of property owned by the District intended for future use beyond the lease term.
 The majority of this project will be financed and the expenses will be recouped via lease revenue.
 The BLM would like to occupy the building as soon as it becomes available.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|----------------|------------------|----------|----------|----------|----------|-----------|------------------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | 75,000 | | | | | | | 75,000 |
| Internal Services | 10,000 | | | | | | | 10,000 |
| Design | | | | | | | | |
| External Services | 450,000 | | | | | | | 450,000 |
| Internal Services | 100,000 | | | | | | | 100,000 |
| Construction | | | | | | | | |
| External Services | 300,000 | 2,175,000 | | | | | | 2,475,000 |
| Internal Services | 12,600 | 87,400 | | | | | | 100,000 |
| Property Easement / Acquisitions | | | | | | | | 0 |
| | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 947,600 | 2,262,400 | 0 | 0 | 0 | 0 | 0 | 3,210,000 |

| Project Funding / Cost Centers | G L CODE | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|---------------|---------------|----------------|------------------|----------|----------|----------|----------|-----------|------------------|
| 01 - Marina Water | 01-00-163-050 | 28% | 265,328 | 633,472 | 0 | 0 | 0 | 0 | 0 | 898,800 |
| 02 - Marina Sewer | 02-00-163-050 | 8% | 75,808 | 180,992 | 0 | 0 | 0 | 0 | 0 | 256,800 |
| 03 - Ft Ord Water | 03-00-163-050 | 50% | 473,800 | 1,131,200 | 0 | 0 | 0 | 0 | 0 | 1,605,000 |
| 04 - Ft Ord Sewer | 04-00-163-050 | 14% | 132,664 | 316,736 | 0 | 0 | 0 | 0 | 0 | 449,400 |
| | | | | | | | | | | |
| Funding By Fiscal Year | | | 947,600 | 2,262,400 | 0 | 0 | 0 | 0 | 0 | 3,210,000 |

Capital Improvement Project Sheet

| | |
|---------------------|---------------------------------------|
| Project: | Potable Water Tank Compliance Project |
| Project No: | GW-0212 |
| Cost Center: | Marina Water; Ord Community Water |

Project Description
 All of MCWD's potable water tanks/reservoirs will be inspected, cleaned, and maintained within FY 13/14. The inspection will be conducted by a diver and cleaned with a vacuum operation such that the tanks will not require draining.

Project Justification
 CA DPH requires this activity based on their December, 2012 report reviewing MCWD's permitted potable water system.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|---------------|---------------|----------|----------|----------------|-----------|----------------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | 0 |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | |
| Design | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | 8,000 | 2,000 | | | | | 10,000 |
| Construction | | | | | | | | |
| External Services | | 45,000 | 40,000 | | | 108,243 | | 193,243 |
| Internal Services | | 5,000 | 3,000 | | | | | 8,000 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 58,000 | 45,000 | 0 | 0 | 108,243 | 0 | 211,243 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------|---------------|-------------|---------------|----------|----------|----------|----------------|-----------|----------------|
| 01 - Marina Water - | | 37% | | 21,460 | 0 | 0 | 0 | 40,050 | 0 | 61,510 |
| 03 - Ft Ord Water | | 63% | | 36,540 | 0 | 0 | 0 | 68,193 | 0 | 104,733 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 58,000 | 0 | 0 | 0 | 108,243 | 0 | 166,243 |

Capital Improvement Project Sheet

| | |
|------------------------|---|
| Project: | A1 & A2 Zone Tanks & B/C Booster Station |
| Project Number: | GW-0112 |
| Cost Center: | Ord Community Water; Marina Water |

Project Description
 Two A-Zone storage tanks with a total usable storage capacity of 5.2 Million Gallons, B-Zone and C-Zone Booster Pump Station, and associated piping and facilities.
 The project location is currently being negotiated with CSUMB at the time of preparing this document. At least one Tank will be placed at or near CSUMB main campus.

Project Justification
 The District has minimal "A" Zone storage capacity. The A1/A2 Zone Tanks are to provide operational, fire, and emergency water storage for Zone A in the Ord Community and Central Marina. The B and C booster pumps will pump water from Zone A to Zones B and C. The facilities currently serving these functions are over sixty years old and are approaching the end of their useful life.

| PROJECT COSTS: 1 | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|--------------------|-----------------|------------------|------------------|-----------------|------------------|------------------|-------------------|
| Cost Category / Phasing₂ | | | | | | | | |
| Planning | | | | | | | | |
| External Services | 120,017 | 93,924 | 82,616 | | | 77,050 | | 373,607 |
| Internal Services | 8,705 | 19,740 | 8,980 | | | 13,400 | | 50,825 |
| Design | | | | | | | | |
| External Services | | 75,250 | 107,500 | 32,250 | | 25,000 | | 240,000 |
| Internal Services | | 89,600 | 85,120 | 71,680 | | 91,000 | | 337,400 |
| Construction | | | | | | | | |
| External Services | | | 3,205,563 | 3,071,391 | | 3,072,699 | | 9,349,652 |
| Internal Services | | | 120,680 | 120,802 | | 114,000 | | 355,482 |
| Property Easement / Acquisitions | | | | | | | | 0 |
| Property rights have been paid for through a settlement agreement with CSUMB | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 128,722 | 278,514 | 3,610,459 | 3,296,123 | 0 | 3,393,149 | 0 | 10,706,966 |

| Project Funding / Cost Centers | G L CODE | % Cost | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---------------------------------------|-----------------|---------------|--------------------|-----------------|------------------|------------------|-----------------|------------------|------------------|-------------------|
| 01 - Marina Water | 01-00-160-327 | 37% | 47,627 | 103,050 | 1,335,870 | 1,219,565 | 0 | 1,255,465 | 0 | 3,961,578 |
| 03 - Ft Ord Water | 03-00-160-327 | 63% | 81,095 | 175,464 | 2,274,589 | 2,076,557 | 0 | 2,137,684 | 0 | 6,745,389 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Funding By Fiscal Year | | | 128,722 | 278,514 | 3,610,459 | 3,296,123 | 0 | 3,393,149 | 0 | 10,706,966 |

1 Budget Estimates are based on a specific project site location at the N/W corner of Intergarrison Rd & Sixth Avenue, additional Site Preparation, Environmental Studies & Piping costs maybe incurred if a different site is selected. In addition, it's assumed that the tank construction material will be Steel, a prestressed concrete tank will entail a 33% increase in the initial capital costs

Capital Improvement Project Sheet

| | |
|--------------------|--------------------------|
| Project: | Well 30 Pump Replacement |
| Project No: | OW-0223 |
| Cost Center | Ord Community Water |

Project Description
 Replacement of Well 30 pump, casing, and shaft assembly and the installation of a transducer to monitor water levels.

Project Justification
 The Well 30 Pump and casing have reached the end of their useful life and require replacement. O & M staff removed the pump and casing after abnormal vibrations were encountered. Once extracted it was determined the assembly was no longer operating properly and would require replacement. This work is required to get the well back online.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|----------|----------|----------|----------|----------|-----------|---------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Design | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Construction | | | | | | | | |
| External Services | | 200,000 | | | | | | 200,000 |
| Internal Services | | 10,000 | | | | | | 10,000 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 210,000 | 0 | 0 | 0 | 0 | 0 | 210,000 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------|---------------|-------------|----------------|----------|----------|----------|----------|-----------|----------------|
| 01 - Marina Water - | | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03 - Fort Ord Water - | | 100% | 0 | 210,000 | 0 | 0 | 0 | 0 | 0 | 210,000 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 210,000 | 0 | 0 | 0 | 0 | 0 | 210,000 |

Capital Improvement Project Sheet

| | |
|--------------------|--|
| Project: | Gigling Transmission from D Booster to JM Blvd |
| Project No: | OW-0201 |
| Cost Center | Ord Community Water |

Project Description
 This project entails the construction of approximately 1,800-LF of 12-inch PVC potable water pipeline to replace an existing 12-inch AC pipeline installed by the Army. The section of pipeline being installed will be within the Gigling Road alignment from the D-BPS and extending to the west of the General Jim Moore Boulevard intersection.

Project Justification
 This project was originally identified in the Ord Community Water Distribution Master Plan (2004, RBF). Staff identified the need to increase the scope of the project based on the existing condition and installation failings of the facility. The condition and installation failings were discovered in 2011 through a significant water outage event. Staff has re-estimated the cost of this CIP based on the new scope (thus the Source of the project is now Internal).

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|----------|----------|----------|----------|----------|-----------|---------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | 1,800 | | | | | | 1,800 |
| Design | | | | | | | | |
| External Services | | | 107,100 | | | | | 107,100 |
| Internal Services | | | | | | | | 0 |
| Construction | | | | | | | | |
| External Services | | | 321,300 | | | | | 321,300 |
| Internal Services | | | 10,800 | | | | | 10,800 |
| Property / Easement Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 1,800 | 439,200 | 0 | 0 | 0 | 0 | 441,000 |

| Project Funding / Cost Centers | G L Code | % Cost Splits | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------|---------------|-------------|----------|----------|----------|----------|----------|-----------|---------|
| 01 - Marina Water - | | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03 - Fort Ord Water - | | 100% | 0 | 1,800 | 439,200 | 0 | 0 | 0 | 0 | 441,000 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 1,800 | 439,200 | 0 | 0 | 0 | 0 | 441,000 |

Capital Improvement Project Sheet

| | |
|------------------------|--------------------------------|
| Project: | Clark Lift Station Improvement |
| Project Number: | OS-0200 |
| Cost Center: | Ord Community Sewer |

Project Description
 This project is for replacing the current sanitary sewer lift station with an improved lift station. The project scope includes an up-graded concrete below-grade we-well, a dual submersible pump, and a valve vault. A back-up generator is also included in the scope. The project is located at the intersection of Brostrom and Clark Court in the Former Fort Ord portion on eastern Marina.

Project Justification
 This project is needed because the existing lift station is beyond its useful life. The lift station is costly to maintain and operate; replacement will result in lower operational expense.

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|----------------|----------------|----------|----------|----------|----------|-----------|----------------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Design | | | | | | | | |
| External Services | 23,726 | | | | | | | 23,726 |
| Internal Services | 1,840 | | | | | | | 1,840 |
| Construction | | | | | | | | |
| External Services | 95,117 | 279,902 | | | | | | 375,019 |
| Internal Services | | 8,000 | | | | | | 8,000 |
| Property Easement / Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 120,683 | 287,902 | 0 | 0 | 0 | 0 | 0 | 408,585 |

| Project Funding / Cost Centers | G L CODE | % Cost | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------|-------------|----------------|----------------|----------|----------|----------|----------|-----------|----------------|
| 04 - Fort Ord Sewer | | 100% | 120,683 | 287,902 | 0 | 0 | 0 | 0 | 0 | 408,585 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 120,683 | 287,902 | 0 | 0 | 0 | 0 | 0 | 408,585 |

Capital Improvement Project Sheet

| | |
|------------------------|--|
| Project: | Imjin LS & Force Main Improvements - Phase I |
| Project Number: | OS-0205 |
| Cost Center: | Ord Community Sewer |

Project Description
 The first phase of this project includes constructing another wetwell, installing two pumps with all accessories and appurtenances.

Project Justification:
 The existing lift station and forcemain can't handle all the anticipated wastewater flows from East Garrison, UCMBEST, Marina Airport, Existing Marina lift Station as was stated in the Ord Community Wastewater Master Plan; the project will be split into two phases and is necessary to accommodate near to long term future development

| PROJECT COSTS: | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|---|-------------|----------|----------|----------|----------|----------|-----------|---------|
| Cost Category / Phasing | | | | | | | | |
| Planning | | | | | | | | |
| External Services | | | | | | | | 0 |
| Internal Services | | | | | | | | 0 |
| Design | | | | | | | | |
| External Services | | 20,000 | | | | | | 20,000 |
| Internal Services | | 8,000 | | | | | | 8,000 |
| Construction | | | | | | | | |
| External Services | | | 490,000 | | | | | 490,000 |
| Internal Services | | | 40,000 | | | | | 40,000 |
| Property Easement / Acquisitions | | | | | | | | 0 |
| Other Project Costs | | | | | | | | 0 |
| Estimated Cost By Fiscal Year | 0 | 28,000 | 530,000 | 0 | 0 | 0 | 0 | 558,000 |

| Project Funding / Cost Centers | G L CODE | % Cost | Prior Years | FY 14/15 | FY 15/16 | FY 16/17 | FY 17/18 | FY 18/19 | OUT YEARS | Total |
|--------------------------------|----------|--------|-------------|----------|----------|----------|----------|----------|-----------|---------|
| 02 - Marina Sewer | | | | | | | | | | 0 |
| 04 - Fort Ord Sewer | | 100% | | 28,000 | 530,000 | 0 | 0 | 0 | 0 | 558,000 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| | | | | | | | | | | 0 |
| Funding By Fiscal Year | | | 0 | 28,000 | 530,000 | 0 | 0 | 0 | 0 | 558,000 |

Ord Community Reserves

**MARINA COAST WATER DISTRICT
ORD COMMUNITY RESERVE DETAIL
PROJECTED AS OF JUNE 30, 2014**

EXHIBIT RES-1

| | Ord Water | Ord Sewer | TOTALS |
|--|---------------------------|-------------------------|---------------------------|
| <u>Description</u> | | | |
| Debt Reserve Fund (2006 Bond)* | 1,664,919 | 649,091 | 2,314,010 |
| Debt Reserve Fund (2010 Bond)* | 433,245 | 101,940 | 535,185 |
| IOP CD Account* | 1,689,201 | 397,459 | 2,086,660 |
| Sub-total | <u>3,787,365</u> | <u>1,148,490</u> | <u>4,935,855</u> |
| Capital Reserves | | | |
| Bond Series 2006 Construction Funds** | - | 781,990 | 781,990 |
| Capacity Charge/Capital Surcharge** | 1,584,193 | 115,404 | 1,699,597 |
| Capital Replacement** | 1,218,796 | 609,398 | 1,828,194 |
| Sub-total | <u>2,802,989</u> | <u>1,506,793</u> | <u>4,309,782</u> |
| General Operating Reserve (#) | 31,277 | 157,698 | 188,975 |
| Total Projected Reserve as of 06-30-2014 | <u>6,621,631</u> | <u>2,812,981</u> | <u>9,434,612</u> |
| <u>FY 2013-2014 Operating Reserve</u> | | | |
| Beginning operating reserve | 31,277 | 157,698 | 188,975 |
| A Proposed transfers to operations | (1,355,284) | - | (1,355,284) |
| Due to/(Due From) Interfund Transfers | 1,324,007 | 55,078 | 1,379,085 |
| B Proposed transfers from operations | - | 256,967 | 256,967 |
| Projected Ending Balance @ 06-30-2014 | - | 469,743 | 469,743 |
| 6 mths avg operating expenses required by Board*** | 2,767,000 | 698,461 | 3,465,461 |
| Projected available Operating Reserve @ 06-30-2014 | <u>(2,766,999)</u> | <u>(228,719)</u> | <u>(2,995,718)</u> |
| <u>FY 2013-2014 Capital Reserve</u> | | | |
| Beginning capital reserve | 2,802,989 | 1,506,793 | 4,309,782 |
| Due to/(Due From) Interfund Transfers | (1,750,000) | - | (1,750,000) |
| Proposed transfer to capital reserve | - | - | - |
| C Proposed transfer from capital reserve | 1,588,836 | 338,015 | 1,926,851 |
| Projected Ending Balance @ 06-30-2014 | 2,641,825 | 1,844,808 | 4,486,633 |
| Capital minimum balance required by Board*** | 1,000,000 | 1,000,000 | 2,000,000 |
| Projected available Capital Reserve @ 06-30-2014 | <u>1,641,825</u> | <u>844,808</u> | <u>2,486,633</u> |
| Proposed Net Transfers from (To)/From Reserves (A+B+C) | 233,552 | 594,982 | 828,534 |
| <p>\$12,671,753 is expected to be reimbursed to Ord Operating Reserves through Regional Project financing/settlement</p> <p>* Held by external Agencies</p> <p>** Restricted to only capital spending</p> <p>***Per Board Policy</p> | | | |
| Operating Expenses plus Interest & Bond Amortization - 2011/2012 | 5,533,999 | 1,396,922 | 6,930,921 |