



# Laguna Beach County Water District

**2011-2012 Annual Budget**

# LAGUNA BEACH COUNTY WATER DISTRICT

## **2011/12 Annual Budget**

### Board of Directors

Jane Egly, President  
Kelly Boyd, Vice President  
Toni Iseman  
Elizabeth Pearson  
Verna Rollinger

### Commission

Bruce R. Scherer, Chairman  
Marvin Johnson  
Cheryl Kinsman  
Mark B. Lewis  
Deborah K. Neev

Adopted: June 7, 2011

# Table of Contents

<b>1</b>	<b>District Overview</b>	<b>1</b>
	History of the District . . . . .	1
	The District Today . . . . .	1
	Operations . . . . .	1
	How the District is Governed . . . . .	2
	District Service Area Map . . . . .	2
<b>2</b>	<b>Budget Assumptions</b>	<b>3</b>
	Labor . . . . .	3
	Benefits . . . . .	3
	Water Purchases . . . . .	3
	Water Sales . . . . .	3
<b>3</b>	<b>Revenue and Expenses</b>	<b>4</b>
	2011/12 Revenue and Expenditures . . . . .	4
	Revenue Projection . . . . .	5
<b>4</b>	<b>Budget Overview</b>	<b>6</b>
	2011/12 Operations Budget . . . . .	6
	2011/12 Capital Budget . . . . .	7
	2010/11 and 2011/12 Operating and Maintenance Budget Comparison . . . . .	9
	2011/12 Operating and Maintenance Budget Summary by Expense . . . . .	10
	2011/12 Capital Budget Summary . . . . .	11
<b>5</b>	<b>Operating and Maintenance Budget Detail</b>	<b>12</b>
	Budget Detail - Operations - Source of Supply . . . . .	13
	Budget Detail - Operations - Pumping . . . . .	14
	Budget Detail - Operations - Transmission and Distribution . . . . .	15
	Budget Detail - General Manager's Office . . . . .	16
	Budget Detail - Administration and Customer Service . . . . .	17
	Budget Detail - Finance . . . . .	19
	Budget Detail - Engineering . . . . .	20

# Table of Contents (continued)

<b>6</b>	<b>Capital Budget Detail</b>	21
	2011/12 Capital Budget Summary . . . . .	22
	Joint Powers Projects . . . . .	23
	Reservoir and Pump Station Improvements . . . . .	24
	Transmission and Distribution . . . . .	25
	Cast Iron Replacement . . . . .	26
	Master Plan Improvements . . . . .	27
	Office Equipment . . . . .	28
	Equipment and Vehicles . . . . .	29
	Facilities Improvements . . . . .	31
	Water Supply Reliability Projects . . . . .	32
<b>7</b>	<b>Resolutions</b>	33
	Resolution 772 Adopting the LBCWD 2011/12 Budget . . . . .	34
	Resolution 773 Establishing the LBCWD's Job Classification Plan and . . . . . Salary Ranges . . . . .	36
<b>8</b>	<b>Appendices</b>	40
	Tap Water - What a Deal . . . . .	41
	Laguna Beach County Water District Water Rate History, 1975-Present . . . . .	45
	2009 Retail Domestic Water Commodity Rates and Fixed Charges . . . . .	47
	2009 Monthly Residential Water Bill . . . . .	48
	Retail Agency Water Sources, FY 2009/10 . . . . .	49
	2009 Agency Population and Water System Facilities . . . . .	50
	Number of Water Services and Sales, by Service Type, FY 2009/10 . . . . .	51
	Per Capita Water Usage, FY 2009/10 . . . . .	52
	Why Retail Water Rates Vary in Orange County . . . . .	53
	Analysis of COLA History . . . . .	58

# 1 District Overview

Since 1925, the Laguna Beach County Water District (District) has proudly provided retail water service to our customers. The mission of the District is to furnish a high quality, reliable water supply in a financially responsible manner, while promoting water-use efficiency.

## History of the District

Until the early 1920's, the residents of Laguna Beach relied on privately owned shallow wells and intermittent rainfall for their water supply. Then, in the mid-20s, poor water quality and well failure combined to make an alternate water source urgent. The Laguna Beach County Water District was created by public vote in 1925. A year later, District voters approved a \$600,000 bond issue to purchase a well site in Huntington Beach, construct a transmission line, and acquire an existing private water company to provide service. The original bond was paid off in 1955.

With its continuing growth, the District was unable to rely solely on its wells and looked to imported water supplies. In 1943, it started purchasing Colorado River water supplied by the Metropolitan Water District of Southern California. Currently, all potable water is imported into Laguna Beach County Water District from both the State Water Project and the Colorado River. However, the District is again looking at various projects in the Santa Ana River Basin and elsewhere, as future sources of water.

## The District Today

The District provides water services to approximately 23,000 people within an 8.5 square mile area of southern Orange County, including portions of the city of Laguna Beach and Crystal Cove State Park.

On January 1, 2004, Emerald Bay Services District was deannexed from the District's service area. This represents approximately 556 customers or 6 percent of the District's services and accounts for approximately 337 acre feet of water provided by the District. The District continues to provide water service and administrative support through an agreement with Emerald Bay Services District.

The District's approximately 8,000 service connections are mostly residential water users. The District purchases about 3,920 acre-feet of water annually. This is equal to approximately 1.3 billion gallons delivered on an annual basis. An acre-foot of water is enough to cover a football field one-foot deep or serve two average sized households for a year.

## Operations

There are 21 water storage reservoirs with a total storage capacity of 33.5 million gallons within the District, providing up to approximately ten days of water to the community in the event of an emergency. These reservoirs are located within five elevation zones to ensure reliable distribution to all customers. They are monitored by the District's state-of-the-art telemetry system, allowing District personnel to manage water distribution throughout the system from the District's headquarters.

District staff operates and maintains 36 pumps in 14 pumping stations, a total approximate connected horsepower of 2,660. The system encompasses 135 miles of distribution pipelines, which range in diameter from 4 to 16 inches.

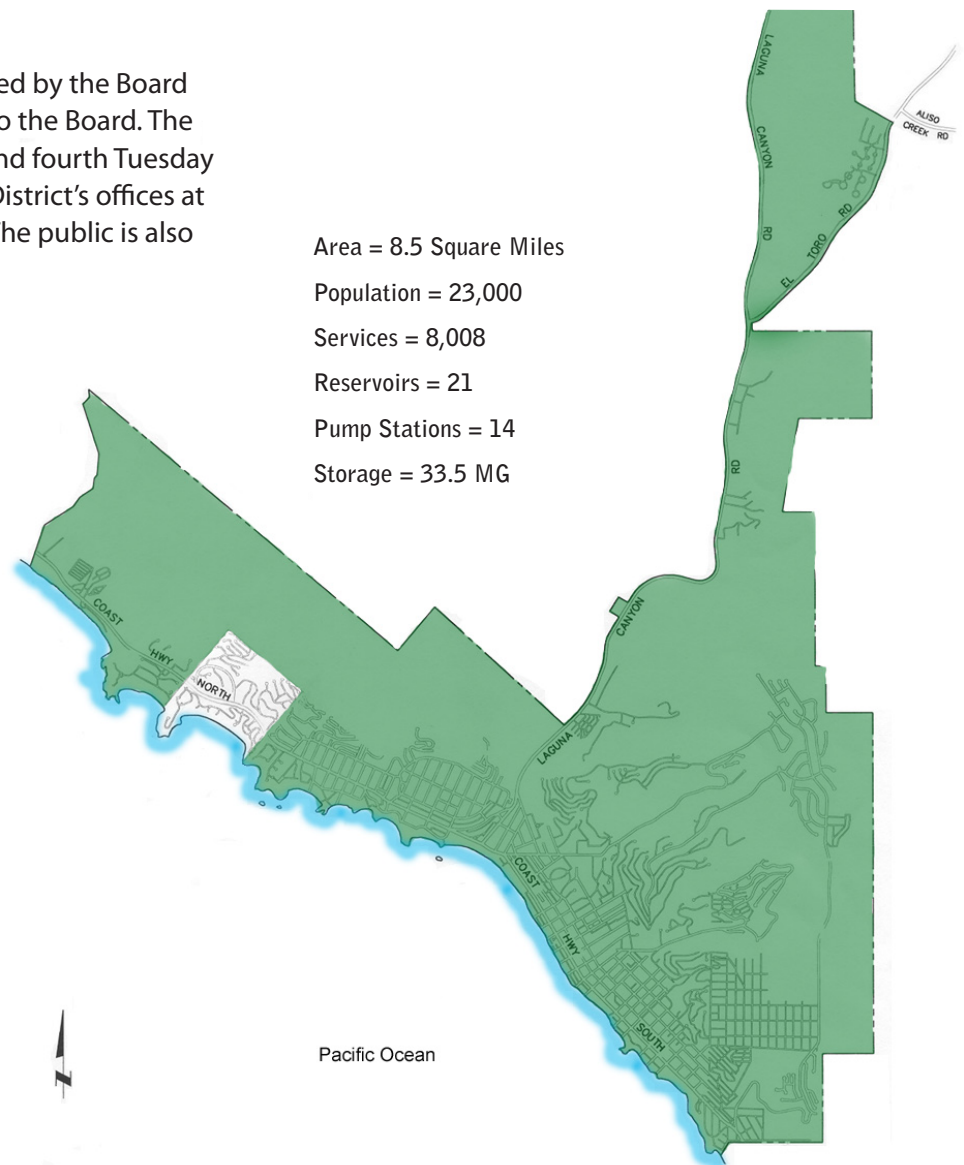
As lead agency in a joint powers relationship with the South Coast Water District, Irvine Ranch Water District, the city of Newport Beach, and the Santa Margarita Water District, the District also operates and maintains the Aufdenkamp and the Coast Supply transmission lines. These pipelines range in size from 24 to 42 inches in diameter and provide the District's imported water supply.

### How the District is Governed

The publicly-elected Laguna Beach City Council members serve as the Board of Directors of the Laguna Beach County Water District, providing local control over the policies and decisions affecting water service in the community. The Board meets quarterly. The public is welcome.

A District Commission is appointed by the Board to serve in an advisory capacity to the Board. The Commission meets the second and fourth Tuesday of each month at 4:30PM in the District's offices at 306 Third Street, Laguna Beach. The public is also welcome.

### District Service Area Map



# 2 Budget Assumptions

The proposed fiscal year (FY) 2011/12 budget increases from the FY 2010/11 budget by 7.53 percent.

## Labor

The 2011/12 labor budget has increased 7.29 percent or \$226,630 above the 2010/11 budgeted amounts. This is based on the following factors:

- A. 40 Full-time positions (40 in 2010/11)
- B. 1 Part-time position (0 in 2010/11)
- C. Cost of Living Adjustment 2011/12 - 3.50 percent (Index for March 2011) (2010/11 - 2.40 percent)
- D. Average Merit 3.0 percent

## Benefits

The 2011/12 benefits budget has increased 16.78 percent or \$178,180 above the 2010/11 budgeted amount. This is based on the following factors:

- A. PERS
  - 1. Employer Contribution 2011/12 – 8.208 percent (2010/11 – 7.052 percent)
  - 2. Employee Contribution 2011/12 – 7 percent
- B. Insurance
  - 1. Workers Comp Insurance E-Mod Rate 2011/12 - Estimated 110 (2010/11 -103)
  - 2. Workers Comp Insurance 2011/12 Rates estimated at 100 percent of 2010/11.
  - 3. Medical insurance increased January 2011 by 12.0 percent; projected increase January 2012 by 12 percent. Employees pay a portion of medical insurance premiums. 2010/11 - 10 percent amount over single rate, 2011/12 - 12.5 percent amount over single rate.

- 4. Dental Insurance increase of 6 percent.
- 5. All other insurance coverage remain at same levels as 2010/11 Budget.

## Water Purchases

The cost for water purchases will increase by 4.39 percent or \$137,920 over 2010/11 charges due to a rate increase from Metropolitan Water District (MWD).

- A. Water Purchases
  - 1. Estimated volume of water purchases is 3,920 acre feet (AF).
- B. MWD Water Rates
  - 1. MWD Water Rate - \$744/AF – July through December 2011. \$794/AF – January through June 2012
  - 2. MWD RTS Charges - 2011/12 – \$171,900/yr (2010/11 - \$140,520/yr)
  - 3. MWD Capacity Charges - 2011/12 - \$40,620/yr (2010/11 - \$38,930)
- C. Municipal Water District of Orange County (MWD OC) Charges - 2011/12 – \$6.25 per meter (5.75 in 2010/11) and \$4.25/AF (6.75 in 2010/11).

## Water Sales

Water sales are estimated at 3,763/AF. The District is estimating a 4 percent unaccounted for water, which is the difference between the amount of water received and sold.

# 3 Revenue and Expenditures

Allocation of Projected Revenue vs. Expenditures	PROJECTED 2011/12
<hr/>	
<b>OPERATING REVENUE</b>	\$ 8,745,340
LESS: OPERATION AND MAINTENANCE EXPENSE	8,890,300
OPERATING INCOME/(LOSS)	<u>(144,960)</u>
<b>CAPITAL REVENUE</b>	2,803,090
LESS: CAPITAL PROJECTS	4,959,340
INCREASE TO/(DECREASE FROM) RESERVES	<u>(2,156,250)</u>
<b>MISCELLANEOUS REVENUE</b>	
EMERALD BAY CONTRIBUTION TO DESIGNATED RESERVE	<u>28,000</u>
<b>INCREASE TO/(DECREASE FROM) CASH BALANCE</b>	<u><u>\$ (2,273,210)</u></u>



## Analysis of 2011/12 Budget Revenue Projection

	BUDGET 2010/11	BUDGET 2011/12
OPERATING REVENUE		
WATER SALES	\$ 7,838,890	\$ 8,316,400
FIRE SERVICE	9,040	9,660
FEES & PENALTIES	71,220	65,040
OVERHEAD CHARGE	11,100	12,000
EQUIPMENT CHARGE	24,000	24,000
ANTENAE LEASE REVENUE	289,210	294,240
MISCELLANEOUS	24,000	24,000
TOTAL OPERATING REVENUE	8,267,460	8,745,340
TOTAL OPERATIONS & MAINTENANCE EXPENSE	8,267,460	8,890,300
OPERATING GAIN/(LOSS)	\$ 0	(144,960)
CAPITAL REVENUE		
RESERVE STORAGE	\$ 24,000	\$ 24,000
INTEREST REVENUE	648,100	637,390
PROPERTY LEASE REVENUE	34,680	35,400
PROPERTY TAX REVENUE	2,065,000	2,106,300
LOAN		
TOTAL CAPITAL REVENUE	2,771,780	2,803,090
CAPITAL EXPENDITURES		
CAPITAL PROJECTS	4,572,820	4,959,340
TOTAL CAPITAL EXPENDITURES	4,572,820	4,959,340
INCREASE TO/(DECREASE FROM) DESIGNATED RESERVES	\$ (1,801,040)	\$ (2,156,250)
MISCELLANEOUS REVENUE		
EMERALD BAY CONTRIBUTION TO DESIGNATED RESERVES	\$ 28,000	\$ 28,000
MISC GAIN/(LOSS)	\$ 28,000	\$ 28,000

# 4 Budget Overview

## 2011/12 Operating Budget

The operating budget includes the day-to-day operations of the District, which includes operations and maintenance, customer service, engineering, and administration. This fiscal year, labor and benefits, and water supply costs have increased, accounting for much of the \$622,840 increase in expenditures. This equates to 7.53 percent increase from the previous year's operating budget.

### Water Purchases

Water supply costs from Metropolitan Water District of Southern California (MWD) and Municipal Water District of Orange County (MWDOC) will increase by \$155,920 for the 2011/12 budget. Water purchases are estimated at 3,920 acre-feet for the fiscal year. The District's wholesale rates from MWD will increase from \$744 to \$794 an acre-foot in January 2012. This \$50 increase comes on top of a \$43 increase an acre-foot last year and a \$112 an acre-foot increase in 2009/10 for imported water. In addition, MWDOC increased its meter connection charge from \$5.75 to \$6.25. However, its per acre-foot charge, based on the water the District purchases, decreased from \$6.75 to \$4.25. MWDOC is changing its philosophy regarding collecting revenue from its member agencies by charging more per meter connection and slowly phasing out the per acre-foot charge.

### Labor and Benefits

Labor and benefits are projected to increase \$404,810, due to a 12 percent increase in insurance premiums and a 3.5 percent cost of living adjustment, which will be partially offset by increasing the

employee's portion of the cost of dependent health coverage to 12.5 percent. The District will contribute 8.2 percent of payroll to PERS, versus last year's contribution of 7.0 percent. All other benefit coverages are either based upon no change or have been adjusted accordingly for inflation. Workers' Compensation Insurance rates are expected to remain the same as last year, but the carriers' experience modification rate will increase from 103 to 110.

### Field and Maintenance

The field operations and maintenance component of the budget increased by \$250,320 or 9.44 percent. This area covers all operation and maintenance of the District's facilities, which include reservoirs, pump stations, distribution pipelines and appurtenances, vehicle maintenance, and all buildings. No appreciable program changes are projected for this fiscal year. The change in this area is attributed to higher energy, fuel, copper and steel costs, and keeping existing programs at the same levels.

### General Manager's Office

Expenses relating to the Board, Commission, General Manager, Legal, Audit, and professional memberships, such as the Association of California Water Agencies (ACWA) and the American Water Works Association (AWWA), are under the General Manager's Office section. An increase of \$27,160 or 5.4 percent to this area is mainly due to salaries and benefits and an increase in memberships and legal costs.

## Administration and Customer Service

Expenses in Administration and Customer Service budget increased \$148,540 or 13.16 percent. In customer service, a part-time position was added for better front lobby coverage on Fridays. The water use efficiency program budget increased by \$56,840, as the District continues its proactive approach to public information, community relations, and water efficiency programs. It is important to note that the funds for the District's water use efficiency programs are generated through the District's Tier 2 Rate, with those customers using in excess of their water budget funding programs and projects that either conserve water or bring in additional supplemental water supplies to meet the higher demand. Other expenses included in Administration and Customer Service are human resources, meter reading, records retention and destruction, data management, and customer billing.

## Finance

The finance section has increased \$23,340 or 4.03 percent. An increase in labor, benefits, and insurance comprise the majority of the increased costs.

## Engineering

The engineering section of the budget increased \$17,560 or 7.06 percent. The engineering department primarily deals with customer inquiries concerning engineering and water quality, designing and managing capital projects, and is a source of support for the Operations Department. The increase is due to increased costs in the routine sampling of water quality and higher fees paid to the Department of Health Services.

## 2011/12 Capital Budget

This year, the District proposes to spend \$4,959,340 on capital improvements. This is a slight increase from the 2010-2011 Capital Budget, as the District is pursuing local water supply projects to reduce our 100 percent dependence on imported water (as noted below in the Water Supply Reliability Projects). In the past five years, imported water supply costs have increased dramatically. Due to the region's limited water reserves and worsening environmental and regulatory

conditions in Northern California's Sacramento-San Joaquin Delta, the District's continues to pursue other sources of water supply.

## Joint Powers

The District manages the Aufdenkamp Transmission Main and the Coast Supply Line, which are both jointly owned with other water agencies. This category covers projects specific to these facilities and costs are shared by each agency according to its capacity rights in each pipeline. The total cost of all projects for this fiscal year is \$243,710 with the District's share of costs at \$109,340.

## Reservoir and Pump Station Improvements

These are projects that are too large to be considered maintenance items. Seven projects totaling \$157,500 are being proposed for this fiscal year. They include replacement of seismic valves at Hastie and Moorhead Reservoirs, a SCADA program upgrade project, Ridge Pump Station pump rehabilitation project, Arch Beach Reservoir removal project, Tiajuana Pump Station pump rehabilitation project, and an assessment of the wood roof at San Joaquin Reservoir.

## Transmission and Distribution

Capital funds are designated annually for ongoing maintenance programs and miscellaneous projects that are large enough to be considered capital in nature. The majority of work in this category includes valves, fire hydrants, and meter replacement. The goal is replacement before these items fail. This year, \$644,000 will be spent in this category.

## Cast Iron Pipe Replacement

The District started replacing its old cast iron pipe in the 1970's. It continues its aggressive program per CADPH guidelines. It's the District's goal to complete all CIP replacement by the end of the 2014-2015 fiscal year. This year, the District proposes two projects, one in Pala Way, and the second in Thalia Street, totaling \$320,000 for both projects.

## Master Plan Improvements

The District has completed most of the critical projects outlined in the 1996 Master Plan. Its goal is to complete all of the projects by the 2014-2015 fiscal year. For this

budget, the District proposes two projects to improve flow. The first is in the area served by the La Brea Pressure Regulating Station in the north end of the District; the second is the San Joaquin Pump Station Improvements. Total expenses for these two projects are \$645,000.

reliability studies to assess other sources of water. The expenses proposed for this category total \$2,502,000.

### **Office Equipment**

This category includes network improvements, implementation of the second phase of GIS, miscellaneous office furnishings in need of replacement, computer replacement, update of the District's website, and purchase of a digital copier/scanner. Total expenses are \$156,000.

### **Equipment and Vehicles**

The District manages the Aufdenkamp Transmission Main and the Coast Supply Line, which are both jointly owned with other water agencies. This category covers projects specific to these facilities and costs are shared by each agency according to its capacity rights in each pipeline. The total cost of all projects for this fiscal year is \$243,710 with the District's share of costs at \$109,340.

### **Facility Improvements**

This category covers improvements to the remaining District facilities that are not covered under reservoirs, pump stations, or pipelines. This fiscal year, \$190,000 is proposed for replacement of the District's office heating/air conditioning systems, including load and duct size calculation, zone damper, heating and cooling units, and duct installation. Also, an assessment of all high voltage switchgear required by Cal OSHA at \$30,000, painting of the District office for \$28,000, and restroom restoration for \$25,000. This fiscal year, \$273,000 has been budgeted for this category.

### **Water Supply Reliability Projects**

The District continues to seek alternate sources of supply as water reliability becomes more critical and imported supplies become less reliable. The expenditures being proposed in this category address securing additional supplies. These projects include continued work on Phase 3 of the Dana Point Ocean Desalination Project, a proposed recycled water project with Moulton Niguel Water District, a new Water Master Plan as the District's last update was in 2001, and water

## 2009/10 &amp; 2010/11 OPERATING AND MAINTENANCE BUDGET COMPARISON

SECTION/PAGE	DESCRIPTION	BUDGET 2010/11	BUDGET 2011/12
5-12	<b>OPERATIONS - SOURCE OF SUPPLY (51000)</b>		
	SOURCE OF SUPPLY - SYSTEM OPERATIONS (51100)	\$ -	\$ -
	SOURCE OF SUPPLY-CSL (51200)	47,880	56,560
	SOURCE OF SUPPLY-ATM (51300)	52,320	84,320
	SOURCE OF SUPPLY-WELLS (51400)	-	-
	PURCHASED WATER (51500)	3,141,420	3,297,340
	<b>TOTAL SOURCE OF SUPPLY</b>	<b>3,241,620</b>	<b>3,438,220</b>
5-13	<b>OPERATIONS - PUMPING (52000)</b>		
	PUMPING EXPENSE (52100)	282,900	334,500
	PUMPING POWER (52200)	162,060	186,000
	<b>TOTAL PUMPING</b>	<b>444,960</b>	<b>520,500</b>
5-14	<b>OPERATIONS - TRANSMISSION &amp; DISTRIBUTION (54000)</b>		
	RESERVOIR EXPENSE (54100)	462,540	501,060
	MAINLINE EXPENSE (54200)	1,086,120	1,185,360
	METER EXPENSE (54300)	125,040	79,540
	VALVE, VAULT, FIRE HYDRANT EXPENSE (54400)	234,240	236,940
	PAVING EXPENSE (54500)	50,040	50,000
	GENERAL PLANT - EQUIPMENT O&M (54600)	-	-
	GENERAL PLANT - BUILDING (54700)	148,560	187,740
	<b>TOTAL TRANSMISSION &amp; DISTRIBUTION</b>	<b>2,106,540</b>	<b>2,240,640</b>
5-15	<b>GENERAL MANAGERS OFFICE (55000)</b>		
	GENERAL MANAGERS OFFICE EXPENSE (55100)	359,820	380,100
	COMMISSION/BOARD (55400)	103,560	106,200
	LEGAL (55500)	38,040	42,000
	AUDIT(55600)	16,620	16,900
	<b>TOTAL GENERAL MANAGERS OFFICE</b>	<b>518,040</b>	<b>545,200</b>
5-16 & 5-17	<b>ADMINISTRATION AND CUSTOMER SERVICE (56000 &amp; 57000)</b>		
	ADMINISTRATIVE OFFICE EXPENSE (56100)	161,340	174,460
	DATA MANAGEMENT (56200)	51,180	51,900
	RECORDS RETENTION (56300)	840	400
	PUBLIC INFORMATION (56400)	30,600	38,160
	WATER USE EFFICIENCY (56600)	235,560	292,400
	DISTRICT RECOGNITION (56800)	27,540	27,060
	HUMAN RESOURCES (56900)	141,360	149,280
	CUSTOMER SERVICE (57200)	480,420	543,720
	<b>TOTAL ADMINISTRATION AND CUSTOMER SERVICE</b>	<b>1,128,840</b>	<b>1,277,380</b>
5-18	<b>FINANCE (58000)</b>		
	FINANCE EXPENSE (58100)	376,860	397,560
	GENERAL OFFICE EXPENSE (58200)	55,920	57,000
	INSURANCE (58300)	144,960	147,600
	INSURANCE CLAIMS (58400)	1,080	-
	<b>TOTAL FINANCE</b>	<b>578,820</b>	<b>602,160</b>
5-19	<b>ENGINEERING (59000)</b>		
	ENGINEERING OFFICE EXPENSE (59100)	46,020	45,000
	WATER QUALITY EXPENSE (59200)	202,620	221,200
	<b>TOTAL ENGINEERING</b>	<b>248,640</b>	<b>266,200</b>
	<b>TOTAL OPERATING BUDGET</b>	<b>\$ 8,267,460</b>	<b>\$ 8,890,300</b>

## 2011/12 OPERATING AND MAINTENANCE BUDGET SUMMARY BY EXPENSE

SECTION/PAGE	DESCRIPTION	BUDGET 2011/12
5-12	<b>OPERATIONS - SOURCE OF SUPPLY (51000)</b>	
	LABOR	\$ 65,340
	BENEFITS	46,980
	MATERIALS	3,035,530
	OUTSIDE SERVICES	277,890
	VEHICLE/EQUIPMENT	12,480
	<b>TOTAL SOURCE OF SUPPLY</b>	<b>3,438,220</b>
5-13	<b>OPERATIONS - PUMPING (52000)</b>	
	LABOR	143,400
	BENEFITS	100,860
	MATERIALS	20,640
	OUTSIDE SERVICES	223,560
	VEHICLE/EQUIPMENT	32,040
	<b>TOTAL PUMPING</b>	<b>520,500</b>
5-14	<b>OPERATIONS - TRANSMISSION &amp; DISTRIBUTION (54000)</b>	
	LABOR	958,840
	BENEFITS	613,980
	MATERIALS	110,100
	OUTSIDE SERVICES	380,180
	VEHICLE/EQUIPMENT	177,540
	<b>TOTAL TRANSMISSION &amp; DISTRIBUTION</b>	<b>2,240,640</b>
5-15	<b>GENERAL MANAGERS OFFICE (55000)</b>	
	LABOR	234,000
	BENEFITS	211,380
	MATERIALS	7,200
	OUTSIDE SERVICES	92,620
	VEHICLE/EQUIPMENT	-
	<b>TOTAL GENERAL MANAGERS OFFICE</b>	<b>545,200</b>
5-16 & 5-17	<b>ADMINISTRATION AND CUSTOMER SERVICE (56000 &amp; 57000)</b>	
	LABOR	611,760
	BENEFITS	335,880
	MATERIALS	87,840
	OUTSIDE SERVICES	241,900
	VEHICLE/EQUIPMENT	-
	<b>TOTAL ADMINISTRATION AND CUSTOMER SERVICE</b>	<b>1,277,380</b>
5-18	<b>FINANCE (58000)</b>	
	LABOR	225,540
	BENEFITS	135,480
	MATERIALS	25,080
	OUTSIDE SERVICES	216,060
	VEHICLE/EQUIPMENT	-
	<b>TOTAL FINANCE</b>	<b>602,160</b>
5-19	<b>ENGINEERING (59000)</b>	
	LABOR	108,480
	BENEFITS	57,660
	MATERIALS	3,540
	OUTSIDE SERVICES	96,520
	VEHICLE/EQUIPMENT	-
	<b>TOTAL ENGINEERING</b>	<b>266,200</b>
	<b>TOTAL OPERATING BUDGET</b>	<b>\$ 8,890,300</b>

# 2011/12 CAPITAL BUDGET SUMMARY

SECTION/PAGE	DESCRIPTION	BUDGET 2011/12
6-23	<b>JOINT POWERS PROJECTS</b>	
	COAST SUPPLY LINE	\$ 72,020
	AUFDENKAMP TRANSMISSION LINE	37,320
	<b>TOTAL JOINT POWERS PROJECTS</b>	<b>109,340</b>
6-24	<b>RESERVOIR AND PUMP STATION IMPROVEMENTS</b>	
	RESERVOIR SEISMIC VALVE REPLACEMENT PROJECT	40,000
	SAN JOAQUIN RESERVOIR ASSESSMENT OF PRESSURE TREATED WOOD	15,000
	ARCH BEACH RESERVOIR REMOVAL PROJECT	35,000
	SCADA PROGRAM/COMPUTERS UPGRADE PROJECT	22,500
	SOLAR BEE LED INDICATOR SYSTEM	15,000
	RIDGE PUMP STATION PUMP REHAB PROJECT	15,000
	TIAJUANA PUMP STATION REHAB PROJECT	15,000
	<b>TOTAL PUMP STATION IMPROVEMENTS</b>	<b>157,500</b>
6-25	<b>TRANSMISSION AND DISTRIBUTION</b>	
	METER REPLACEMENT	80,000
	FIRE METER REPLACEMENT	100,000
	VALVE REPLACEMENT	200,000
	FIRE HYDRANT REPLACEMENT	100,000
	WATER LOSS AUDIT	10,500
	CITY PROJECTS	50,000
	I-WATER FIELD IMPLEMENTATION	18,500
	PROTECTION OF TRANSMISSION AND DISTRIBUTION FACILITIES	85,000
	<b>TOTAL TRANSMISSION AND DISTRIBUTION PROJECTS</b>	<b>644,000</b>
6-27	<b>CAST IRON PIPE REPLACEMENT PROJECTS</b>	
	PALA WAY	160,000
	THALIA STREET	160,000
	<b>TOTAL CAST IRON REPLACEMENT PROJECTS</b>	<b>320,000</b>
6-28	<b>MASTER PLAN IMPROVEMENTS</b>	
	LA BREA AREA FLOW IMPROVEMENT, PHASE 2	525,000
	SAN JOAQUIN PUMP STATION IMPROVEMENT	120,000
	<b>TOTAL MASTER PLAN IMPROVEMENTS</b>	<b>645,000</b>
6-29	<b>OFFICE EQUIPMENT</b>	
	OFFICE FURNITURE	18,000
	COMPUTERS	12,000
	NETWORK IMPROVEMENTS	10,000
	DISTRICT GIS SYSTEM	75,000
	UPDATE DISTRICT WEBSITE	24,000
	DOCUMENT MANAGEMENT SOFTWARE LICENSES	3,000
	DIGITAL COPIER/SCANNER	14,000
	<b>TOTAL OFFICE EQUIPMENT</b>	<b>156,000</b>
6-30	<b>EQUIPMENT AND VEHICLES</b>	
	1300 POUND TOMMY LIFT GATE	2,500
	CHLORINE MIXERS	7,000
	PORTABLE GPS DEVICE	3,000
	DISTRICT VEHICLE NO. 34 REPLACEMENT (1993 F-350 HD)	65,000
	DISTRICT VEHICLE NO. 38 REPLACEMENT (1995 F-250)	60,000
	PAYMENT NO.3 - LEASED DUMP TRUCK	15,000
	<b>TOTAL EQUIPMENT AND VEHICLES</b>	<b>152,500</b>
6-31	<b>FACILITY IMPROVEMENTS</b>	
	DISTRICT OFFICE - HEATING/AIR CONDITIONING	190,000
	ARC SAFETY LEVEL 3 SURVEY	30,000
	DISTRICT OFFICE - EXTERIOR PAINT	28,000
	DISTRICT HEADQUARTERS OFFICE RESTROOM RESTORATION PROJECT	25,000
	<b>TOTAL FACILITIES IMPROVEMENT</b>	<b>273,000</b>
6-32	<b>WATER SUPPLY RELIABILITY PROJECTS</b>	
	DANA POINT OCEAN DESALINATION PROJECT	212,000
	LAGUNA CANYON RECYCLING PROJECT	1,600,000
	SANTA ANA BASIN PROJECT	250,000
	WATER MASTER PLAN	250,000
	WATER RELIABILITY STUDY	190,000
	<b>TOTAL SUPPLY SOURCE PROJECTS</b>	<b>2,502,000</b>
	<b>TOTAL CAPITAL BUDGET</b>	<b>\$ 4,959,340</b>

# 5 Operating and Maintenance Budget Detail



<b>Source of Supply</b>	<b>Labor</b>	<b>Benefits</b>	<b>Materials</b>	<b>Outside Services</b>	<b>Vehicles/ Equipment</b>	<b>Totals</b>
<b>SOURCE OF SUPPLY (51000)</b>						
<b>SYSTEM OPERATIONS (51100)</b>						
SYSTEM OPERATION - EXPENSE (51110)	\$ 75,360	\$ 45,900	\$ 1,080	\$ 27,000	\$ 14,000	\$ 163,340
SYSTEM OPERATION - REALLOCATION (51120)	(75,360)	(45,900)	(1,080)	(27,000)	(14,000)	(163,340)
<b>SOURCE OF SUPPLY - COAST SUPPLY LINE (51200)</b>						
REACH 1 (51210)	7,860	5,640	1,260	1,620	1,080	17,460
REACH 2 (51220)	7,820	5,640	120	1,320	1,140	16,040
REACH 3 (51230)	10,460	7,500	240	2,160	2,700	23,060
<b>SOURCE OF SUPPLY - AUFDENKAMP TRANS. LINE (51300)</b>						
REACH 1 (51310)	13,720	9,900	1,080	2,160	2,520	29,380
IRWD METER (51320)						
SMWD METER (51330)						
REACH 2 (51340)	13,720	9,840	480	2,040	2,520	28,600
REACH 3 (51350)	11,760	8,460	480	2,040	2,520	25,260
LBCWD METER (51360)			480	600		1,080
<b>PURCHASED WATER (51500)</b>						
WATER CHARGE (51510)			3,031,390			3,031,390
METROPOLITAN WATER DISTRICT CHARGES (51520)				212,370		212,370
MUNICIPAL WD OF ORANGE COUNTY CHARGES (51530)				53,580		53,580
<b>TOTAL SOURCE OF SUPPLY (51000)</b>	<b>\$ 65,340</b>	<b>\$ 46,980</b>	<b>\$3,035,530</b>	<b>\$277,890</b>	<b>\$ 12,480</b>	<b>\$ 3,438,220</b>

**Pumping**

	Labor	Benefits	Materials	Outside Services	Vehicles/ Equipment	Totals
<b>PUMPING (52000)</b>						
<b>PUMPING EXPENSE( 52100)</b>						
GENERAL EXPENSE (52110)	\$ 143,400	\$ 100,860	\$ 20,640	\$28,680	\$ 32,040	<b>\$325,620</b>
SCADA (52120)				8,880		<b>8,880</b>
<b>POWER (52200)</b>				186,000		<b>186,000</b>
<b>TOTAL PUMPING (52000)</b>	<b>\$ 143,400</b>	<b>\$ 100,860</b>	<b>\$ 20,640</b>	<b>\$223,560</b>	<b>\$ 32,040</b>	<b>\$ 520,500</b>

## Transmission and Distribution

	Labor	Benefits	Materials	Outside Services	Vehicles/ Equipment	Totals
<b>TRANSMISSION AND DISTRIBUTION (54000)</b>						
<b>RESERVOIR EXPENSE (54100)</b>						
RESERVOIR EXPENSE (54110)	\$ 136,680	\$ 88,980	\$ 15,960	\$ 25,020	\$ 28,800	\$ 295,440
LANDSCAPING (54120)			600	65,820		66,420
TREE TRIMMING (54130)				57,000		57,000
CHLORINATION/INSPECTION (54140)				2,100		2,100
SCADA (54150)			180	2,280		2,460
EL MORRO (54160)	3,780	2,280	240	4,080	600	10,980
WATER TREATMENT (54170)	28,500	15,960	12,720	480	9,000	66,660
<b>MAINLINE EXPENSE (54200)</b>						
MAINLINE EXPENSE (54210)	568,020	374,400	40,020	24,840	86,520	1,093,800
UNIFORMS EXPENSE (54220)			4,020	14,280		18,300
PROFESSIONAL DEVELOPMENT (54230)			1,200	5,040		6,240
COMMUNICATIONS (54240)				7,020		7,020
EMERGENCY RESPONSE HOUSING (54250)				54,000		54,000
TRUCKING/COUNTY FEES (54260)				6,000		6,000
OUTSIDE CONTRACTORS (54270)						
<b>METER EXPENSE (54300)</b>						
METER EXPENSE (54310)	33,580	19,200	12,600	1,560	12,600	79,540
OUTSIDE CONTRACTORS (54320)						
<b>VALVE, VAULT, FIRE HYDRANT EXPENSE (54400)</b>						
VALVE, VAULT, FIRE HYDRANT EXPENSE (54410)	113,940	69,540	6,540	2,100	40,020	232,140
OUTSIDE CONTRACTORS (54420)				4,800		4,800
<b>PAVING EXPENSE (54500)</b>						
				50,000		50,000
<b>EQUIPMENT EXPENSE (54600)</b>						
EQUIPMENT EXPENSE (54610)	98,880	60,480	16,440	4,800		180,600
FUEL (54620)			48,000	10,020		58,020
OUTSIDE CONTRACTORS (54630)				38,040		38,040
REALLOCATION (54650)	(98,880)	(60,480)	(64,440)	(52,860)		(276,660)
<b>BUILDING/WAREHOUSE EXPENSE (54700)</b>						
BUILDING EXPENSE (54710)	74,340	43,620	10,020	14,040		142,020
LANDSCAPING (54720)				4,980		4,980
UTILITIES (54730)				22,380		22,380
JANITORIAL (54740)			6,000	12,360		18,360
<b>TOTAL TRANSMISSION AND DISTRIBUTION (54000)</b>	<b>\$ 958,840</b>	<b>\$ 613,980</b>	<b>\$ 110,100</b>	<b>\$ 380,180</b>	<b>\$ 177,540</b>	<b>\$ 2,240,640</b>

**General Manager's Office**

	Labor	Benefits	Materials	Outside Services	Vehicles/ Equipment	Totals
<b>GENERAL MANAGER (55000)</b>						
<b>GENERAL MANAGER EXPENSE (55100)</b>						
OFFICE EXPENSE (55110)	\$ 220,200	\$ 128,220	\$ 840	\$ 1,440		\$ 350,700
PUBLICATIONS/MEMBERSHIPS (55120)			480	19,800		20,280
PROFESSIONAL DEVELOPMENT (55130)			2,940	4,140		7,080
GRANT WRITING SERVICES (55140)				2,040		2,040
<b>COMMISSION/BOARD (55400)</b>						
OFFICE EXPENSE (55410)	13,800	83,160	900	480		98,340
PROFESSIONAL DEVELOPMENT (55420)			2,040	5,820		7,860
<b>LEGAL (55500)</b>						
				42,000		42,000
<b>AUDIT (55600)</b>						
				16,900		16,900
<b>TOTAL GENERAL MANAGER'S OFFICE (55000)</b>	<b>\$ 234,000</b>	<b>\$ 211,380</b>	<b>\$ 7,200</b>	<b>\$ 92,620</b>		<b>\$ 545,200</b>

**Admininstration and Customer Service**

	Labor	Benefits	Material	Outside Services	Vehicles/ Equipment	Totals
<b>ADMINISTRATIVE SERVICES (56000)</b>						
<b>ADMINISTRATIVE EXPENSE (56100)</b>						
OFFICE EXPENSE (56110)	\$ 116,500	\$ 52,260	\$ 720	540		\$ 170,020
PUBLICATIONS/MEMBERSHIPS (56120)			120	\$ 180		300
PROFESSIONAL DEVELOPMENT (56130)			120	4,020		4,140
<b>DATA MANAGEMENT (56200)</b>						
CONSULTING SERVICES (56210)			1,500	50,400		51,900
<b>RECORDS RETENTION (56300)</b>						
RECORDS MANAGEMENT (56320)				400		400
<b>PUBLIC INFORMATION (56400)</b>						
PUBLIC INFORMATION OUTREACH (56410)			5,040	10,020		15,060
COMMUNITY PARTICIPATION (56420)			2,520	1,500		4,020
SCHOOL EDUCATION (56430)			4,020			4,020
WATER-WISE GARDEN (56440)			10,020	5,040		15,060
<b>WATER USE EFFICIENCY (56600)</b>						
OFFICE EXPENSE (56610)	104,120	58,680	1,500	540		164,840
PROGRAMS/REBATES (56620)			10,020	90,000		100,020
OUTREACH/EVENTS (56630)			15,000	2,520		17,520
DEVICES/MATERIALS (56640)			10,020			10,020
CONSULTING SERVICES (56650)						
<b>DISTRICT RECOGNITION (56800)</b>						
MISCELLANEOUS DISTRICT ACTIVITIES (56810)			3,000	4,020		7,020
EMPLOYEE RECOGNITION PROGRAMS (56820)			16,020	4,020		20,040
<b>HUMAN RESOURCES (56900)</b>						
OFFICE EXPENSE (56910)	84,840	49,320	1,440	840		136,440
PUBLICATIONS/MEMBERSHIPS (56920)			180	1,200		1,380
PROFESSIONAL DEVELOPMENT (56930)			240	1,440		1,680
SAFETY TRAINING (56940)			120	1,440		1,560
HEALTH AND WELLNESS PROGRAM (56950)			3,000	1,020		4,020
EMPLOYEE EDUCATION (56960)				3,000		3,000
EMPLOYEE RECRUITMENT (56970)				1,200		1,200
<b>TOTAL ADMINISTRATION (56000)</b>	<b>305,460</b>	<b>160,260</b>	<b>84,600</b>	<b>183,340</b>		<b>733,660</b>

**ADMINISTRATION AND CUSTOMER SERVICE  
(CONTINUED ON NEXT PAGE)**

**Admininstration and Customer Service**

	Labor	Benefits	Materials	Outside Services	Vehicles/ Equipment	Totals
<b>CUSTOMER SERVICE (57000)</b>						
<b>CUSTOMER SERVICE OFFICE (57200)</b>						
OFFICE EXPENSE (57210)	260,700	149,160	3,240	3,000		<b>416,100</b>
METER READING (57220)	45,600	26,460				<b>72,060</b>
PROFESSIONAL DEVELOPMENT (57230)				1,500		<b>1,500</b>
BILL OUTSOURCING (57240)				32,040		<b>32,040</b>
CONSULTING SERVICES (57250)				10,020		<b>10,020</b>
UNCOLLECTIBLES (57260)				12,000		<b>12,000</b>
<b>TOTAL CUSTOMER SERVICE (57000)</b>	<b>306,300</b>	<b>175,620</b>	<b>3,240</b>	<b>58,560</b>		<b>543,720</b>
<b>TOTAL ADMINISTRATION AND CUSTOMER SERVICE (56000 &amp; 57000)</b>	<b>\$ 611,760</b>	<b>\$ 335,880</b>	<b>\$ 87,840</b>	<b>\$ 241,900</b>		<b>\$ 1,277,380</b>

**Finance**

	Labor	Benefits	Materials	Outside Services	Vehicles/ Equipment	Totals
<b>FINANCE (58000)</b>						
<b>FINANCE EXPENSE (58100)</b>						
OFFICE EXPENSE (58110)	\$ 225,540	\$ 135,480	\$ 540	\$ 600		\$ 362,160
PUBLICATIONS/MEMBERSHIPS (58120)				300		300
PROFESSIONAL DEVELOPMENT (58130)			480	1,800		2,280
PAYROLL SERVICES (58140)				7,500		7,500
BANKING SERVICES (58150)				11,400		11,400
SAFEKEEPING - INVESTMENTS (58160)				1,800		1,800
CONSULTING SERVICES (58170)				12,120		12,120
<b>GENERAL OFFICE EXPENSE (58200)</b>						
OFFICE EXPENSE (58210)			20,040			20,040
POSTAGE (58220)			4,020	13,020		17,040
UTILITIES (58230)				10,800		10,800
MAINTENANCE - OFFICE EQUIPMENT (58240)				9,120		9,120
<b>INSURANCE (58300)</b>						
GENERAL LIABILITY (58310)				126,480		126,480
PROPERTY (58320)				17,520		17,520
STORAGE TANKS (58330)				2,400		2,400
MISCELLANEOUS (58340)				1,200		1,200
<b>INSURANCE CLAIMS (58400)</b>						
GENERAL LIABILITY (58410)						
PROPERTY (58420)						
<b>TOTAL FINANCE (58000)</b>	<b>\$ 225,540</b>	<b>\$ 135,480</b>	<b>\$ 25,080</b>	<b>\$ 216,060</b>		<b>\$ 602,160</b>

**Engineering**

	Labor	Benefits	Materials	Outside Services	Vehicles/ Equipment	Totals
<b>ENGINEERING (59000)</b>						
<b>ENGINEERING EXPENSE (59100)</b>						
OFFICE EXPENSE (59110)						
PUBLICATIONS/MEMBERSHIPS (59120)						
PROFESSIONAL DEVELOPMENT (59130)						
CONSULTING SERVICES (59140)				\$ 45,000		\$ 45,000
<b>WATER QUALITY EXPENSE (59200)</b>						
ROUTINE SAMPLING (59210)	\$ 59,700	\$ 31,740	\$ 2,040	15,980		109,460
RESERVOIR SAMPLING (59220)	32,520	17,280	540	15,980		66,320
BACKFLOW (59230)	16,260	8,640	960	540		26,400
DHS FEES (59240)				15,000		15,000
ANNUAL WATER QUALITY REPORT (59250)				4,020		4,020
<b>TOTAL ENGINEERING (59000)</b>	<b>\$ 108,480</b>	<b>\$ 57,660</b>	<b>\$ 3,540</b>	<b>\$ 96,520</b>		<b>\$ 266,200</b>



# 6 Capital Budget Detail

Since its incorporation, the District has provided a reliable source of high quality potable water and excellent service to the community at a reasonable cost. The Capital portion of the budget has always been an integral part of the District's overall program of system maintenance and improvement. The Capital Budget is funded by property taxes, office lease revenue, reserve storage fees, and interest income earned.

Categories within the Capital Budget include:

## **Joint Powers Projects**

The District manages two jointly owned water transmission lines that convey potable water into the District. These pipelines are the District's only source of supply.

The Coast Supply Line (CSL) delivers domestic water to the District from an MWD connection in Newport Beach. Originally built in 1926, it is jointly owned by the City of Newport Beach, Irvine Ranch Water District (IRWD) and the District. The pipeline ranges in diameter from 27-inches to 24-inches and runs parallel to Pacific Coast Highway from Fernleaf Street in Newport Beach to San Joaquin Street in Laguna Beach. Imported water from Metropolitan Water District of Southern California (MWD) supplies the CSL at its connection (CM-1) in Newport Beach. The El Morro Reservoirs, which are connected directly to the CSL, are used as flow equalizing structures. El Morro Reservoir No. 1 is jointly owned by LBCWD (67 percent) and IRWD (33 percent).

The Aufdenkamp Transmission Line (ATM) delivers domestic water to the District from an MWD connection in Irvine. The transmission line runs through Laguna Canyon and terminates at Agate Street in Laguna Beach where it splits and feeds South Coast Water District

(SCWD) and the District. The pipeline ranges in diameter from 42-inches in Irvine to 30-inches at its terminus on Agate Street. Owners in the ATM include IRWD, Santa Margarita Water District, SCWD, and the District.

## **Reservoir and Pump Station Improvements**

This category funds large reservoir and pump station improvement projects.

## **Transmission and Distribution**

This category funds valve, fire hydrant, and meter replacement projects.

## **Cast Iron Pipe Replacement**

This category funds the replacement of cast iron pipe in the District's distribution system.

## **Master Plan Improvements**

This category funds improvements to the District's distribution system as outlined in the District's Master Plan.

## **Office Equipment**

This category funds office system improvements.

## **Equipment and Vehicles**

The items listed in this category cover replacement of District equipment and vehicles.

## **Facility Improvements**

This category funds improvements to District facilities not covered in reservoirs, pump stations, or pipelines.

## **Water Supply Reliability Projects**

The District continues to seek alternate sources of water supplies as water reliability becomes more critical and imported supplies continue to be cut back.

SECTION/PAGE	DESCRIPTION	BUDGET 2011/12
6-23	<b>JOINT POWERS PROJECTS</b>	
	{ COAST SUPPLY LINE	\$ 72,020
	{ AUFDENKAMP TRANSMISSION LINE	37,320
	<b>TOTAL JOINT POWERS PROJECTS</b>	<u>109,340</u>
6-24	<b>RESERVOIR AND PUMP STATION IMPROVEMENTS</b>	
	RESERVOIR SEISMIC VALVE REPLACEMENT PROJECT	40,000
	SAN JOAQUIN RESERVOIR ASSESSMENT OF PRESSURE TREATED WOOD	15,000
	ARCH BEACH RESERVOIR REMOVAL PROJECT	35,000
	SCADA PROGRAM/COMPUTERS UPGRADE PROJECT	22,500
	SOLAR BEE LED INDICATOR SYSTEM	15,000
	RIDGE PUMP STATION PUMP REHAB PROJECT	15,000
	TIAJUANA PUMP STATION REHAB PROJECT	15,000
	<b>TOTAL PUMP STATION IMPROVEMENTS</b>	<u>157,500</u>
6-25	<b>TRANSMISSION AND DISTRIBUTION</b>	
	METER REPLACEMENT	80,000
	FIRE METER REPLACEMENT	100,000
	VALVE REPLACEMENT	200,000
	FIRE HYDRANT REPLACEMENT	100,000
	WATER LOSS AUDIT	10,500
	CITY PROJECTS	50,000
	I-WATER FIELD IMPLEMENTATION	18,500
	PROTECTION OF TRANSMISSION AND DISTRIBUTION FACILITIES	85,000
	<b>TOTAL TRANSMISSION AND DISTRIBUTION PROJECTS</b>	<u>644,000</u>
6-27	<b>CAST IRON PIPE REPLACEMENT PROJECTS</b>	
	PALA WAY	160,000
	THALIA STREET	160,000
	<b>TOTAL CAST IRON REPLACEMENT PROJECTS</b>	<u>320,000</u>
6-28	<b>MASTER PLAN IMPROVEMENTS</b>	
	LA BREA AREA FLOW IMPROVEMENT, PHASE 2	525,000
	SAN JOAQUIN PUMP STATION IMPROVEMENT	120,000
	<b>TOTAL MASTER PLAN IMPROVEMENTS</b>	<u>645,000</u>
6-29	<b>OFFICE EQUIPMENT</b>	
	OFFICE FURNITURE	18,000
	COMPUTERS	12,000
	NETWORK IMPROVEMENTS	10,000
	DISTRICT GIS SYSTEM	75,000
	UPDATE DISTRICT WEBSITE	24,000
	DOCUMENT MANAGEMENT SOFTWARE LICENSES	3,000
	DIGITAL COPIER/SCANNER	14,000
	<b>TOTAL OFFICE EQUIPMENT</b>	<u>156,000</u>
6-30	<b>EQUIPMENT AND VEHICLES</b>	
	1300 POUND TOMMY LIFT GATE	2,500
	CHLORINE MIXERS	7,000
	PORTABLE GPS DEVICE	3,000
	DISTRICT VEHICLE NO. 34 REPLACEMENT (1993 F-350 HD)	65,000
	DISTRICT VEHICLE NO. 38 REPLACEMENT (1995 F-250)	60,000
	PAYMENT NO.3 - LEASED DUMP TRUCK	15,000
	<b>TOTAL EQUIPMENT AND VEHICLES</b>	<u>152,500</u>
6-31	<b>FACILITY IMPROVEMENTS</b>	
	DISTRICT OFFICE - HEATING/AIR CONDITIONING	190,000
	ARC SAFETY LEVEL 3 SURVEY	30,000
	DISTRICT OFFICE - EXTERIOR PAINT	28,000
	DISTRICT HEADQUARTERS OFFICE RESTROOM RESTORATION PROJECT	25,000
	<b>TOTAL FACILITIES IMPROVEMENT</b>	<u>273,000</u>
6-32	<b>WATER SUPPLY RELIABILITY PROJECTS</b>	
	DANA POINT OCEAN DESALINATION PROJECT	212,000
	LAGUNA CANYON RECYCLING PROJECT	1,600,000
	SANTA ANA BASIN PROJECT	250,000
	WATER MASTER PLAN	250,000
	WATER RELIABILITY STUDY	190,000
	<b>TOTAL SUPPLY SOURCE PROJECTS</b>	<u>2,502,000</u>
	<b>TOTAL CAPITAL BUDGET</b>	<u><u>\$ 4,959,340</u></u>

## Joint Powers Projects - Coast Supply and Aufdenkamp Transmission Line

To address future improvements that were recommended in the Vulnerability Assessment required by EPA, it is recommended that the existing 12 year old SCADA system computers and "Wonder Ware" program be upgraded. The communication upgrades projects are completed which have greatly reduced system failures and after hour callouts. The Computers and the Program Upgrade Project which is the final phase of the overall SCADA upgrade is expected to provide a service life of 10 years.

The District has a 5 Year Plan to install insertion points and leak test all the reaches of both the Aufdenkamp Transmission Line (ATM) and the Coast Supply Line (CSL). The 2011/2012 Budget lists the improvements needed to leak test 20,000 feet of Reach 1 and Reach 2 of the CSL using the "Smart Ball" method as performed by the Pure Technologies.

The 2011/2012 Budget also lists continuation of the cathodic protection program on both the ATM and the CSL by a corrosion control engineering firm and the replacement of rectifiers on Reach 2 and Reach 3. The budget also includes Air/Vacuum Valve Replacement on Reach 2 and Reach 3.

	Total	LBCWD	NB	IRWD	SMWD	SCWD
<b>COAST SUPPLY LINE</b>						
1.1 Upgrade SCADA Program and Computers						
1.1.1 CM-1A	\$ 3,334	\$ 1,515	\$ 304	\$ 1,515	\$ 0	\$ 0
1.1.2 Signal Peak (IRWD)	3,334	0	0	3,334	0	0
1.2 Leak Test 20,000 Feet of CSL						
1.2.1 Reach 1	70,000	31,808	6,384	31,808	0	0
1.2.2 Reach 2	70,000	35,000	0	35,000	0	0
1.2.3 Reach 3	0	0	0	0	0	0
1.3 Pressure Differential Transmitter Reach 3	3,700	3,700	0	0	0	0
<b>AUFDENKAMP TRANSMISSION LINE</b>						
1.4 Upgrade SCADA Program and Computers						
1.4.1 CM-12	3,334	987	0	695	435	1,217
1.4.2 PA-17 (IRWD)	3,334	0	0	3,334	0	0
1.4.3 Lion Country (IRWD)	3,334	0	0	3,334	0	0
1.4.4 SMWD	3,334	0	0	0	3,334	0
1.4.5 PC-1	3,334	987	0	695	435	1,217
1.4.6 PC-2	3,334	1,407	0	0	0	1,927
1.4.7 Agate Street	3,334	1,407	0	0	0	1,927
1.5 Air/Vac Replacements						
1.5.1 Reach 2	15,000	8,145	0	0	0	6,855
1.5.2 Reach 3	15,000	6,330	0	0	0	8,670
1.6 Rectifier Replacements						
1.6.1 Reach 2	10,000	5,430	0	0	0	4,570
1.6.2 Reach 3	10,000	4,220	0	0	0	5,780
1.8 Cathodic Protection Assessment and Rectifier Replacement						
1.8.1 Reach 1	6,667	1,971	0	1,394	869	2,434
1.8.2 Reach 2	6,667	3,620	0	0	0	3,047
1.8.3 Reach 3	6,667	2,813	0	0	0	3,854
<b>TOTAL</b>	<b>\$243,707</b>	<b>\$109,340</b>	<b>\$6,688</b>	<b>\$80,858</b>	<b>\$5,073</b>	<b>\$41,498</b>

## Reservoir and Pump Station Improvements

The District currently has 22 reservoirs and 14 pump stations that serve areas within the District from sea level to over 1,000 feet in elevation. All of these reservoirs and pump stations must be maintained. Constant preventive maintenance is performed throughout the year that is part of the Operations and Maintenance Budget. Larger improvement projects occur on a regular basis and are included in this Capital Budget.

2.1	<b>Reservoir Seismic Valve Replacement Project</b> – This project consists of the upgrade replacements for two (2) valves needed to ensure proper operation of seismic valves during an earthquake event at Hastie and Moorhead Reservoirs.	\$ 40,000
2.2	<b>San Joaquin Reservoir Assessment of Pressure Treated Wood</b> – This project would hire a qualified consultant to perform an assessment on the pressure treated lumber used to replace the roof.	15,000
2.3	<b>Arch Beach Reservoir Removal Project</b> - This project includes the disassembly, removal, and disposal of the abandoned reservoir.	35,000
2.4	<b>SCADA Program/Computers Upgrade Project</b> – This a continuation of the project started the year prior, this final phase will address discrepancies and upgrades needed to update the computers and program to provide a service life of 10 years. This portion of the project is for the SCADA system that operates the District’s pump stations and reservoirs.	22,500
2.5	<b>Solar Bee LED Indicator System</b> – This project includes the installation of a controller indicator system to monitor the proper operation of the (4) Solar Bees without making a confined space entries into reservoirs.	15,000
2.6	<b>Ridge Pump Station Pump Rehab Project</b> - This is phase 2 of a 3 phase Project to rehab all three pumps at the Ridge Pump Station. All pumps have over 10,000 operational hours and are displaying signs of wear.	15,000
2.7	<b>TiaJuana Pump Station Pump Rehab Project</b> - This is phase 2 of a 2 phase project to rehab both pumps and install an anti-cavitation valve at the TiaJuana Pump Station. The pumps are showing signs of deterioration.	<hr style="width: 100%;"/> 15,000
		<hr style="width: 100%;"/> <b>\$ 157,500</b> <hr style="width: 100%;"/>

## Transmission and Distribution

From the Aufdenkamp Transmission Main and Coast Supply Line, the District's water is fed into smaller transmission and distribution lines. Most of the work required within this category includes valves, fire hydrants and meters replacement. The programs of meter, fire hydrant, and valve replacement were developed to address those facilities identified as potential problems during the District's yearly inspection program. The goal is preventive replacement before these items fail. Capital funds are designated annually for ongoing replacement programs and miscellaneous projects that are large enough to be considered capital in nature.

- |  |           |
|--|-----------|
| <p>3.1 <b>Meter Replacement</b> - This is an ongoing program to replace damaged or worn out water meters throughout the distribution system. Our experience with residential meters as well as industry standards suggests that a meter may last approximately 17.5 years before it should be replaced. An in-house survey revealed that over 25% of the District's meters are over 20 years old and 50% of the meters are over 15 years old. This budgeted amount is being increased from the \$25,000 (450 meters).</p>  | \$ 80,000 |
| <p>3.2 <b>Fire Meter Replacement</b> - This is a program to replace designated water meters that serve fire sprinklers throughout the distribution system. AWWA industry standards do not approve positive displacement (PD) meters to be used in a fire sprinkler application. Studies show that PD meters may seize up during high usage preventing proper fire sprinkler operation.</p>   | 100,000   |
| <p>3.3 <b>Valve Replacement</b> - The District has an ongoing program of inspecting and exercising valves throughout the distribution system. A list is generated of valves that no longer function properly. Funds are set aside annually to replace these valves. With approximately 1,800 valves in the system, the District should be replacing approximately 30 valves per year assuming that their useful life is 60 years.</p>  | 200,000   |
| <p>3.4 <b>Fire Hydrant Replacement</b> - The District has an ongoing program of inspecting and exercising fire hydrants throughout the distribution system. A list is generated of hydrants that no longer function properly. Funds are set aside annually to replace these hydrants. Our experience with fire hydrants shows that their useful life is about 70 years. With regular maintenance, this number can be extended as long as replacement parts can be found. Using 70 years as the useful life for the 830 fire hydrants within the District, we should be replacing them at a rate of around 12 per year.</p> | 100,000   |
| <p>3.5 <b>Water Loss Audit</b> - This project includes water leak testing conducted by an outside contractor for selected portions of the system and water meter accuracy test on 100 selected meters per year</p>   | 10,500    |

**Transmission and Distribution (continued on next page)**

## Transmission and Distribution (continued)

3.6	<b>City Projects</b> - The City of Laguna Beach has ongoing projects that often require the Water District to modify or relocate its facilities. Smaller items, such as the raising of valve cans or meter boxes due to street paving make up the bulk of this item.	50,000
3.7	<b>I-Water Field Implementation</b> - This project is phase 1 of a 3 phase project to implement I-Water software.	
	(2) Licenses and Software	\$ 11,000
	(1) Hardbook Lap Top	\$ 4,500
	Initial Set-up and Programming	\$ 3,000
		18,500
3.8	<b>Protection of Transmission and Distribution Facilities</b> - These projects are to protect District transmission and distribution facilities in cases of protect in place, realignment, relocation, and raising of valve and vault covers in situations of other utility or outside projects (i.e. CalTrans). It also covers protection of District facilities in preparation and recovery from disaster occurrences (i.e. fire, flood, earthquake protection).	85,000
	<b>TOTAL</b>	\$ 644,000

## Cast Iron Replacement

The District continues on an aggressive program to replace all cast iron pipe within the District, per CADPH guidelines. The District's goal is to complete all of the CIP replacement by the end of the 2014/15 fiscal year. The prioritization of the projects may change as warranted by conditions and is based on several factors which include leak reports, location, fireflow conditions, length of project, difficulty of project, and other criteria. As part of the District's ongoing program, the following projects are recommended for this fiscal year:

4.1	<b>Pala Way</b> - Replace approximately 300 lineal feet of 4-inch cast iron pipe with 6-inch PVC pipe in Pala Way from Alta Vista to the end of Pala Way.	
	Design	\$ 15,000
	Construction	125,000
	Project Management	20,000
4.2	<b>Thalia Way</b> - Replace approximately 300 lineal feet of 4-inch cast iron pipe with 6-inch PVC pipe in Thalia Street from Pacific Coast Highway to Glenneyre.	
	Design	15,000
	Construction	125,000
	Project Management	20,000
		<hr/>
	TOTAL	\$ 320,000
		<hr/> <hr/>

## Master Plan Improvements

These projects are compiled from the recommendations made in the 1996 Water Master Plan Update. It is the District's goal to complete these projects by the 2013/14 fiscal year. The prioritization of the projects may change from time to time, and therefore the list is reviewed on a regular basis. The following projects are recommended for this fiscal year:

- 5.1 **La Brea Area Flow Improvement, Phase II**- In continuation of flow improvements in the La Brea area, it is recommended that 1,500 lineal feet of 6-inch pipeline be constructed on San Joaquin, Wave, and Beverly Streets. It is also recommended that the existing PRV station at La Brea Street be upgraded to a 6-inch PRV Valve. Residents at this area will benefit from a new loop system (which minimizes the emergency shut downs) and increased flows from 500-gpm to 1500-gpm.

Design	\$ 40,000
Construction	450,000
Project Management	35,000
TOTAL	<u>525,000</u>

- 5.2 **San Joaquin Pump Station Improvements** - To improve transferring flows to Viejo Reservoir in order to reduce the replenishment time in Zitnik Reservoir in summer time and also during a fire storm, it is recommended that San Joaquin Pump Station and its appurtenances be upgraded to the full capacity of the existing transmission system. Preliminary studies and final design will be accomplished in 2011/12 fiscal year and construction of the proposed improvements will take place in 2012/13 fiscal year.

Design	85,000
Project Management	35,000
TOTAL	<u>120,000</u>

<b>TOTAL</b>	<u><u>\$ 645,000</u></u>
--------------	--------------------------



## Office Equipment

The items listed under this category cover necessary office system improvements as well as larger office needs.

6.1	<b>Office Furniture</b> - Purchase miscellaneous large office furnishings that are in need of replacement. Upgrade Audio/Visual equipment in Board Room.	\$ 18,000
6.2	<b>Computers</b> - There are approximately 25 computers being used at the District, with associated peripherals. It is recommended that the District have an annual program of computer replacement as the need occurs.	12,000
6.3	<b>Network Improvements</b> – This is an ongoing project to improve security and add redundancy to the District’s computer network system.	10,000
6.4	<b>District GIS System</b> – Implement the second phase of a District Geographical Information System (GIS).	75,000
6.5	<b>Update District Website</b> - The District’s web site was launched in 2007. Since then, new technologies, content management software, customer notification capabilities, and social networking opportunities have been developed that would enhance our ability to regularly update the site.	24,000
6.6	<b>Document Management Software Licenses</b> - Purchase two additional user licenses for Laserfische, the District’s document management software.	3,000
6.7	<b>Digital Copier/Scanner</b> - The District’s existing copier is over 7 years old and the repair cycle is increasing. The copier serves all 40 employees and is used to scan documents into the District’s Document Management system. It is recommended that a new copier be purchased.	14,000
	<b>TOTAL</b>	<hr/> <u>\$ 156,000</u>

## Equipment and Vehicles

The annual auditor’s report states that replacement of vehicles should be considered between four and ten years. Presently, approximately half of the fleet is over 10 years old. Approximately two or three vehicles and some minor miscellaneous equipment are scheduled to be replaced each year based upon wear and tear, cost of maintenance, and mileage. The current fleet consists of 28 light-medium duty vehicles (pick-up trucks and admin. vehicles) and 5 heavy duty vehicles (dump trucks and flat-beds). This does not include equipment such as backhoes, bobcats, tractors, portable generators, or portable pumps.

7.1	<b>(1) - 1300 pound Tommy Lift Gate</b> - To be mounted on the rear tailgate of Vehicle No. 5 to safely load fire hydrants and large valves for the Valve and Hydrant Maintenance Crew	\$ 2,500
7.2	<b>(2) - Chlorine Mixers</b> - To apply chlorine in reservoirs to maintain water quality	7,000
7.3	<b>(1) - Portable GPS</b> - For marking exact location and reference for various buried appurtenances, piping, and valves.	3,000
7.4	<b>Replace Vehicle No. 34 1993 F-350 HD</b> - Used by the Pump and Motor Maintenance Crew for pump station maintenance with 62,373 miles. (Equipment to include utility bed, spray in bed liner, Radio for communications, overhead safety lighting and controls, back up alarm, crane and air compressor).Recommendation to replace existing vehicle and retire from fleet.	
	Vehicle cost	\$61,000
	Tax and License	2,400
	Emergency lighting and radio	1,600
		65,000
7.5	<b>Replace Vehicle No. 38 1995 F-250</b> with an arrow board and valve exercise equipment used by valve and fire hydrant repair crew with 36,898 miles. (Equipment to include Wach’s valve exercise equipment, utility bed, spray in bed liner, Radio for communications, overhead safety lighting and controls and a back up alarm,).Recommendation to replace existing vehicle and retire from fleet.	
	Vehicle cost	\$26,000
	Valve & Exercise Equipment	27,000
	Tax and License	2,400
	Emergency lighting and radio	4,600
		60,000
7.6	<b>Payment No. 3 of 5 - Leased Dump Truck</b>	15,000
	<b>TOTAL</b>	152,500

## Facility Improvements

This category covers improvements to the District's facilities that are not covered under reservoir, pump station, or pipeline facilities.

8.1	<b>District Office</b> – Assess and replace the District office Heating/Air Conditioning Systems (including load and duct size calculations, heating and cooling units, zone damper, and duct installation).	\$ 190,000
8.2	<b>Arc Safety Level 3 Survey</b> - This project is a Cal OSHA requirement to assess all high voltage switchgear and make recommendations to prevent arc-flash injuries to employees operating electrical equipment and components. Strongly recommended by JPIA.	30,000
8.3	<b>District Office - Exterior Paint</b> – This project includes improvements to District office by prepping and painting exterior of headquarters office building.	28,000
8.4	<b>District Headquarters Office Restroom Restoration Project</b> - This project includes restoration of flooring, walls, sinks, fixtures, and counter tops.	<u>25,000</u>
	<b>TOTAL</b>	<u><u>\$ 273,000</u></u>

## Water Supply Reliability Projects

The District relies totally on imported water supply. As the reliability of the region's supply becomes more fragile, finding new sources that can augment that supply is a high priority. Several projects fall within this category. These projects will improve the District's source of supply, as well as its flexibility in the event of a major catastrophe.

9.1	<b>Dana Point Ocean Desalination Project</b> - Preliminary studies have shown there is potential for an ocean desalination plant in Dana Point. The District has agreed to participate in further study to determine the viability of the project as an additional source of potable water.	\$ 212,000
9.2	<b>Laguna Canyon Recycling Project</b> - Purchase recycle water from Moulton Niguel Water District for the purpose of the distribution and resale of recycle water in the El Toro Road area as recommended by the recycled water planning study.	1,600,000
9.3	<b>Santa Ana Basin Project</b> – Continue the District's mission to exercise its 2,025 acre-feet adjudicated water right in the Santa Ana Basin.	250,000
9.4	<b>Water Master Plan</b> – The last full scale master plan for the District was prepared in 1996. It was updated in 2001. This item is for preparing a new water master plan for the District's infrastructure that will take into consideration changes in the system and water reliability since the last master plan.	250,000
9.5	<b>Water Reliability Study</b> - Investigate potential supplemental water supply sources to augment the District's water supply portfolio.	<u>190,000</u>
	<b>TOTAL</b>	<u><u>\$ 2,502,000</u></u>

# 7 Resolutions

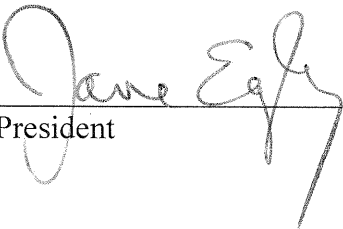
**RESOLUTION NO. 772**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE LAGUNA BEACH COUNTY WATER DISTRICT OF ORANGE COUNTY, CALIFORNIA, ADOPTING THE LBCWD 2011-2012 BUDGET**

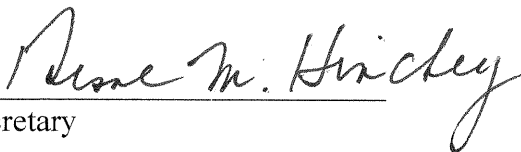
**NOW, THEREFORE, BE IT RESOLVED**, the Board of Directors of Laguna Beach County Water District, does hereby resolve and order as follows:

1. That the budget estimate for the General Fund and Capital Fund of the District as submitted for fiscal year 2011-2012 is hereby approved.

**ADOPTED, SIGNED, AND APPROVED** this 7<sup>th</sup> day of June, 2011.

  
\_\_\_\_\_  
President

ATTEST:

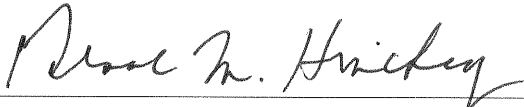
  
\_\_\_\_\_  
Secretary

**CERTIFICATION**

I, Renae M. Hinchey, Secretary of the Laguna Beach County Water District, of Orange County, California, do hereby certify that the foregoing Resolution No. 772 was duly adopted at a regular meeting of the Board of Directors of said District, held on the 7<sup>th</sup> day of June, 2011, by the following vote of Members of the Board:

AYES: Directors: - Egly, Boyd, Iseman, Pearson, Rollinger  
NOES: Directors: - None  
ABSENT: Directors: - None

And I further certify that Jane Egly as President, and Renae M. Hinchey, as Secretary, signed and approved said Resolution on the 7<sup>th</sup> day of June, 2011.

  
Secretary, Laguna Beach County Water District

(District Seal)

STATE of CALIFORNIA )  
 ) ss.  
COUNTY OF ORANGE )

I, Renae M. Hinchey, Secretary of the Laguna Beach County Water District of Orange County, California, do hereby certify that the foregoing is a full, true and clear copy of Resolution No. 772 passed and adopted by the Board of Directors of said District at a regular meeting hereof held on June 7, 2011. In witness whereof, I have hereunto set by hand and affixed the official seal of said district this 7<sup>th</sup> day of June, 2011.

(District Seal)

  
Secretary, Laguna Beach County Water District

**RESOLUTION NO. 773**

**A RESOLUTION OF THE LAGUNA BEACH COUNTY WATER DISTRICT, OF ORANGE COUNTY, CALIFORNIA, ESTABLISHING A JOB CLASSIFICATION PLAN AND SALARY RANGES; AND REPEALING RESOLUTION NO. 751 AND ALL OTHER RESOLUTIONS AND MOTIONS INCONSISTENT HEREWITH TO THE EXTENT OF SUCH INCONSISTENCY.**

**NOW, THEREFORE BE IT RESOLVED**, The Board of Directors of the Laguna Beach County Water District, does hereby resolve and order as follows:

1. That pursuant to the authorization contained in Ordinance No. 91, adopted June 2, 1987, authorizing the Salary Schedule of Section 11 entitled "Basic Pay Plan" of Ordinance No. 65, adopted February 6, 1973, as amended, to be established from time to time by resolution of this District, the Board of Directors does hereby resolve and order as follows:
2. That effective July 8, 2011, the beginning of the first payroll period in July, the "Salary Schedule" of the "Job Classification Plan" is hereby fixed and established as follows:

MONTHLY SALARY SCHEDULE

<b>Grade</b>	<b>Minimum</b>	<b>Control Point</b>	<b>Maximum</b>
31	12,271	15,339	17,640
30	10,671	13,339	15,339
29	9,279	11,599	13,339
28	8,436	10,545	12,126
27	7,848	9,809	11,281
26	7,300	9,125	10,494
25	6,790	8,488	9,761
24	6,317	7,896	9,080
23	5,876	7,345	8,447
22	5,466	6,833	7,858
21	5,085	6,356	7,309
20	4,843	6,053	6,962
19	4,612	5,765	6,630
18	4,393	5,491	6,314
17	4,183	5,229	6,014
16	3,984	4,980	5,727
15	3,794	4,743	5,454
14	3,613	4,517	5,195
13	3,442	4,302	4,947
12	3,202	4,002	4,602

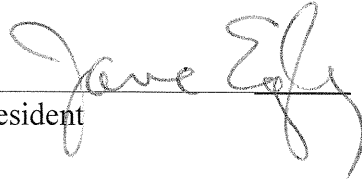


3. That effective July 8, 2011, the beginning of the first payroll period in July, the following pay grade numbers shall replace those as set forth in Section 11 of Ordinance No. 65 of this District and are hereby allocated and assigned to the following employment positions of the Laguna Beach County Water District, as follows:

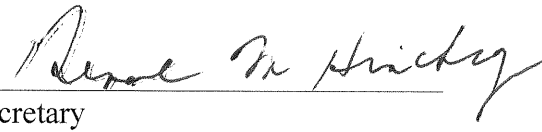
<b><u>EMPLOYMENT POSITION CLASSIFICATION</u></b>	<b><u>PAY GRADE NUMBER</u></b>
<b>GENERAL MANAGER'S OFFICE:</b>	
General Manager	31
Executive Assistant	20
<b>ADMINISTRATION/CUSTOMER SERVICE:</b>	
Assistant General Manager	30
Customer Service Supervisor	24
Human Resources Manager	23
Customer Service/Water Use Efficiency Technician	20
Customer Service Representative II	16
Community Relations/Water Use Efficiency Coordinator	14
Customer Service Representative	13
Meter Reader	13
Customer Service Technician	13
<b>FINANCE:</b>	
Manager of Finance	27
Accountant	22
Senior Accounting Technician	17
<b>OPERATIONS</b>	
Manager of Operations	29
Facilities Maintenance Supervisor	24
Field Maintenance Supervisor	24
Mapping/GIS Specialist	22
Water Resources and Transmission Foreman	22
Construction Inspector	21
Maintenance Worker III	21
Water Quality Specialist	21
Underground Facility Locator	19
Maintenance Worker II	17
Maintenance Worker I	13
Office Assistant	13
Facilities Maintenance Worker	12

4. That Resolution No. 751 and all other resolutions and motions inconsistent herewith be and the same are hereby repealed to the extent of such inconsistency. This resolution shall be in effect on July 8, 2011, beginning with the first payroll period in July.

**ADOPTED, SIGNED AND APPROVED** this 7<sup>th</sup> day of June, 2011.

  
\_\_\_\_\_  
President

ATTEST:

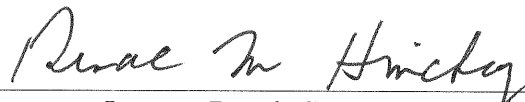
  
\_\_\_\_\_  
Secretary

**CERTIFICATION**

I, Renae M. Hinchey, Secretary of the LAGUNA BEACH COUNTY WATER DISTRICT, of Orange County, California, do hereby certify that the foregoing Resolution No.773 was duly adopted at a regular meeting of the Board of Directors of said District, held on the 7<sup>th</sup> day of June, 2011, by the following vote of members of the Board:

AYES: Directors: - Egly, Boyd, Iseman, Pearson, Rollinger  
NOES: Directors: - None  
ABSENT: Directors: - None

And I further certify that Jane Egly, as President, and Renae M. Hinchey, as Secretary, signed and approved said Resolution on the 7<sup>th</sup> day of June, 2011.

  
\_\_\_\_\_  
Secretary, Laguna Beach County Water District

(District Seal)


STATE of CALIFORNIA)

) ss.

COUNTY OF ORANGE )

I, Renae M. Hinchey, Secretary of the Laguna Beach County Water District of Orange County, California, do hereby certify that the foregoing is a full, true and clear copy of Resolution No. 773 passed and adopted by the Board of Directors of said District at a regular meeting hereof held on June 7, 2011. In witness whereof, I have hereunto set by hand and affixed the official seal of said District this 7<sup>th</sup> day of June, 2011.

(District Seal)







  
\_\_\_\_\_  
Secretary of said District

# 8 Appendices

# Tap Water – What a Deal!

For 1/3 of a penny, a gallon of high quality water, fully tested, certified safe & healthy is delivered to your home, right at the tap!

## Value Comparisons

Item	Cost per Gallon	Quality Assurance Agency	Frequency of Quality Testing
 Premium Bottled Water	\$25.00	Federal Food & Drug Administration	Annual
 Premium Soda	\$8.50	Federal Food & Drug Administration	Annual
 Milk	\$3.50	Federal Food & Drug Administration	Annual
 Regular Unleaded Gasoline	\$4.25	United States Department of Transportation	Annual
 Generic Bottled Water	\$1.00	Federal Food & Drug Administration	Annual
 Tap Water	\$0.0033 (1/3 of a penny)	United States Environmental Protection Agency & California Department of Public Health Services & Your Local Water Provider	Daily

## Introduction

**Water rates differ substantially among the 30 retail water entities in Orange County, as do rates between other utilities, such as sewer, gas and electric services. State law dictates that water agencies may only charge a rate that is necessary to cover their anticipated costs - but the rate that one entity charges in Orange County may not be sufficient to cover the costs of another entity, even though they are both water entities in the same County.**

**Key reasons for these differences are:**

- **Source of Water - does the water entity have access to groundwater or is all the water imported from far away?**
- **Topography - is the service area hilly and does the water need to be pumped to higher elevations or is the topography flat? Do the regional pipelines deliver water nearby or must the water be conveyed long distances via local facilities?**
- **Sources of revenue other than the rates charged for water – does the entity receive a portion of the property tax revenue, do they have other sources of income, what is the level of investment income?**
- **Age of their capital facilities - are they older or newer? What has been the level of maintenance and refurbishment for the facilities - have they received a higher or lower level of maintenance?**

**Table 1 is a more complete list of the factors that affect water rates. For further information on the specific applicability of these factors to any one entity, we refer you to the Contact Information for each entity. Additional information can be found in the following article:**

***“Why Retail Water Rates Vary in Orange County”***



**Table 1**

<b>Factors Causing Differences in Water Rates Between Entities</b>
<b>1. Source of Supply – Imported Metropolitan water is typically more expensive than local groundwater (especially the groundwater in the Orange County Water District which is about half the cost of imported water). It should be noted that some local supplies can actually cost more than imported water.</b>
<b>2. Distance to Metropolitan import pipelines or other major sources. Some entities are very close to their main source of water, while others need pumping and conveyance systems to move the water into their service area.</b>
<b>3. Service area elevation and amount of pumping required. Entities with hilly terrain typically have more pumping facilities and more storage reservoirs and have a higher capital and operating expense.</b>
<b>4. Configuration of service area. Some water service areas are more compact and require fewer facilities to distribute the water whereas other service areas are more spread out or less densely populated, thus requiring higher costs per unit of population.</b>
<b>5. Ability to interconnect with surrounding entities or adjacent facilities. Entities ability to partner or interconnect with neighboring entities or facilities will have a lower level of costs compared to an entity that is independent and has to build all redundancies into their own system.</b>
<b>6. Age of system. Typically a system constructed long ago requires a higher level of investment or even replacement at a certain time. Also, facilities can be maintained at a higher or lower level, thus requiring a different level of investment. Newer facilities result in a higher capital cost, but lower costs to support a similar level of facilities.</b>
<b>7. Service area mix of commercial, industrial, single family, etc. Differing mixes of demands in the system require a difference in facility needs. Cost recovery needs will differ and result in varying impacts on water rates.</b>
<b>8. Density and lot sizes. These impact the cost of operating a system.</b>
<b>9. Customer income. Generally, as income rises, water use increases. This can allow the cost of facilities to be spread over a larger customer base of usage, but can also increase the cost of serving higher using customers.</b>
<b>10. Funding of capital - pay as you go vs. debt financing. The philosophical question to be addressed by the entity is one of equity of who is paying for the system, existing customers, new customers or a combination. Using financing increases the cost of facilities due to the cost of borrowing, but it also allows the costs to be spread out and repaid over time.</b>
<b>11. Funding of repairs, replacements and depreciation. How these needs are funded and the level of investments made impact the cost of service and thus the rates of an entity.</b>
<b>12. Water only vs. water and sewer by same entity. Spreading the overhead and management costs of multiple functions can create economies of scale and can result in symbiotic relationships.</b>

Table 1 *continued...*

Factors Causing Differences in Water Rates Between Entities
<p><b>13. Recycling supplies and water use efficiency (conservation) philosophy.</b> The cost of service model for an entity covers the cost recovery aspects from various customer classes and functions. Having multiple functions can create economies of scale and symbiotic relationships. The issue of how to fund water conservation or water use efficiency functions (e.g., all users or just high water users) affects water rates.</p>
<p><b>14. Recovery of administrative services by municipalities.</b> Cities typically require a cost recovery item for the benefits received from the functions provided by the city to the enterprise fund of the water department. The level of these costs varies from city to city and can impact costs and rates.</p>
<p><b>15. Level of grant funding or other funding incentives.</b> Some entities do very well in seeking and obtaining outside funding to help reduce the costs of certain services to their customers.</p>
<p><b>16. Rate setting philosophy and methodology –</b> The cost of service model dictates how rates and charges are established and collected from customers, including capital and operations and maintenance costs. Some agencies have budget based tiered rates where each customer is provided a water “budget” which allows for a reasonable amount of water for both indoor and outdoor water usage each month. Water use over the “budget” is charged at higher and higher rates to send an economic message to customers regarding efficient water use and to cover the costs of securing additional supplies or implementing additional conservation efforts in other parts of the service area.</p>
<p><b>17. Funding of growth through developers or water rates.</b> Part of the rate setting process addresses existing customers vs. new customers and how rates and charges are set and collected. Access to developer investments to construct and improve water systems can result in lower rates.</p>
<p><b>18. Level of taxes to entity.</b> Some entities receive tax funds whereas others do not. It is not equal from entity to entity and results in differences in rates.</p>
<p><b>19. Level of reserves (cash flow, replacement, rate stabilization, etc.).</b> Entities differ on the level of reserves they want and need on hand and the levels of risks they are subject to and hence the costs of these items are put on the water rates.</p>
<p><b>20. Public input during ratemaking.</b> Different entities have different philosophies, often with input from the local community.</p>
<p><b>21. Availability of redevelopment funding.</b> Can impact the cost of service and revenues to an entity.</p>
<p><b>22. Master metering vs. individual meters to individual units.</b> The costs of service and collection of revenue is affected under these policies.</p>
<p><b>23. Level of treatment required for local supplies and the distribution system.</b> Chlorination, chloramination and fluoridation of supplies all add expenses as well as other types of treatment for specific situations.</p>



**LAGUNA BEACH COUNTY WATER DISTRICT  
WATER RATE HISTORY  
1975 TO PRESENT**

RESOLUTION OR ORDINANCE #	EFFECTIVE DATE	SERVICE CHARGE BI-MONTHLY		WATER CHARGE (PER CCF)	%WATER CHARGE INCREASE	MWD WATER RATE (AF)	%MWD WATER RATE INCREASE
ORD. #69	07/01/75	3/4" - 5.00 1 1/2" - 11.25 3" - 25.00	1" - 7.50 2" - 15.00 4" - 40.00	0.28			
	07/01/77					75	
RES. # 301	07/01/78	3/4" - 7.50 1 1/2" - 16.88 3" - 37.50	1" - 11.25 2" - 22.50 4" - 60.00	0.52	86%	84	12%
	07/01/81		SAME	SAME		121	44%
RES. # 367	07/01/82		SAME	0.62	19%	192	59%
RES. # 377	07/01/83		SAME	0.71	15%	SAME	
RES. # 384 (AMENDS SEC 2-377)	07/01/83		SAME	0.83	17%	SAME	
RES. # 395	07/01/84		SAME	0.87	5%	SAME	
RES. # 406 (AMENDS SEC 2-395)	07/01/85		SAME	0.91	5%	224	17%
RES. # 424 (AMENDS SEC 2-406)	07/01/86		SAME	0.96	5%	230	3%
RES. # 499 (REPEALS 377,384,395)	07/01/91		SAME	1.11	16%	261	13%
RES. # 503 (REPEALS ORD.67,69, RES.301,367,395,424,499)	07/01/92	3/4" - 10.00 1 1/2" - 22.50 3" - 50.00	1" - 15.00 2" - 30.00 4" - 80.00	1.37	23%	322	23%
BOARD MOTION	01/06/93		SAME	1.65	20%*	SAME	
RES. # 523 (REPEALS RES. #503)	07/01/93		SAME	1.98	20%	385	20%
	07/01/94		SAME	1.98		412	7%
BOARD MOTION	02/01/95		SAME	2.12	7%	SAME	
	07/01/95		SAME	2.12		426	3%
BOARD MOTION	09/01/95	3/4" - 11.50 1 1/2" - 45.00 3" - 100.00	1" - 23.00 2" - 60.00 4" - 160.00	2.20	4%	SAME	
	1/1/1997		SAME	2.20		431	1%
BOARD MOTION	3/1/1999		SAME	2.31	5%	SAME	
BOARD MOTION	4/1/2000		SAME	2.43	5%	SAME	
BOARD MOTION	7/1/2001		SAME	2.50	3%	SAME	
BOARD MOTION	7/1/2002	3/4" - 15.00 1 1/2" - 60.00 3" - 130.00	1" - 30.00 2" - 75.00 4" - 205.00	2.50			
BOARD MOTION	7/1/2003		SAME	2.64	6%	435	1%
	1/1/2004		SAME	2.64		451	3%
BOARD MOTION	7/1/2004		SAME	2.74	4%	451	
	1/1/2004		SAME	2.74		476	6%
RESOLUTION # 680	7/1/2005		SAME	2.82	3%	473	-1%
	1/1/2006		SAME	2.82		482	2%
RESOLUTION # 700	7/1/2006	3/4" - 18.00 1 1/2" - 72.00 3" - 156.00	1" - 36.00 2" - 90.00 4" - 246.00	2.85	1%	479	-1%
	1/1/2007		SAME	2.85		490	2%
RESOLUTION #710	7/1/2007	3/4" - 20.00 1 1/2" - 80.00 3" - 173.00	1" - 40.00 2" - 100.00 4" - 273.00	2.94	3%	490	
	1/1/2008		SAME	2.94		520	6%
	7/1/2008		SAME	2.94		529	2%

**LAGUNA BEACH COUNTY WATER DISTRICT  
WATER RATE HISTORY  
1975 TO PRESENT**

RESOLUTION OR ORDINANCE #	EFFECTIVE DATE	SERVICE CHARGE BI-MONTHLY		WATER CHARGE (PER CCF)	%WATER CHARGE INCREASE	MWD WATER RATE (AF)	%MWD WATER RATE INCREASE
RESOLUTION #729	12/01/08	3/4" - 21.60 1 1/2"-107.98 3" - 345.52	1" - 53.99 2" - 172.76 4" - 539.88	30 - 3.02 over - 3.29 (single fam) 3.17 (all others)	3%	604	14%
RESOLUTION # 736	07/01/09	3/4" - 22.69 1 1/2"-113.46 3" - 363.06	1" - 56.73 2" - 181.53 4" - 567.28	30 - 3.23 over - 3.58 (single fam) 3.42 (all others)	7%	586 701	-3% 16%
RESOLUTION # 765	01/01/11	3/4" - 24.04 1 1/2"-120.18 3" - 360.55	1" - 60.09 2" - 192.29 4" - 600.92	Tier 1 - 3.56 (Budgeted) Tier 2 -5.96 (Inefficient)	10%  66%	744	6%
RESOLUTION #765	01/01/12	3/4" - 24.77 1 1/2"-123.84 3" - 371.53	1" - 61.92 2" - 198.15 4" - 619.21	Tier 1 - 3.66 (Budgeted) Tier 2 -6.10 (Inefficient)	3%  2%	794	7%

\* Offsets Property Tax Revenue Loss

Revised 07/01/11

For Different Volumes (ccf) of Potable Water Used in 1 Month by a Single-Family Residence, showing Fixed and Commodity Portions of the Bill \*

Assumed Monthly Usage →	7,480 gallons 10 ccf		18,700 gallons 25 ccf		29,920 gallons 40 ccf		41,140 gallons 55 ccf		Typical Bill * in this Entity			
	Fixed	Commodity = Total	Commodity = Total	Commodity = Total	Commodity = Total	Commodity = Total	Typical [1] ccf	Fixed	Commodity = Total	= Total		
Entities with Uniform Rates												
Anaheim, City of	5.00	18.7 \$ 23.70	46.75 \$ 51.75	74.80 \$ 79.80	102.85 \$ 107.85	20	5.00	37.40 \$ 42.40	Anaheim, City of			
East Orange CWD Retail Zone	20.75	20.00 \$ 40.75	50.00 \$ 70.75	89.10 \$ 109.75	110.00 \$ 130.75	27.5	20.75	55.00 \$ 75.75	East Orange CWD Retail Zone			
Fountain Valley, City of	3.00	24.20 \$ 27.20	60.50 \$ 63.50	96.80 \$ 99.80	133.10 \$ 136.10	25	3.00	60.50 \$ 63.50	Fountain Valley, City of			
Huntington Beach, City of	10.90	17.49 \$ 28.39	43.71 \$ 54.61	69.93 \$ 80.83	96.50 \$ 107.40	12	10.90	20.98 \$ 31.88	Huntington Beach, City of			
Mesa Consolidated WD	8.50	27.00 \$ 35.50	67.50 \$ 76.00	103.00 \$ 111.50	148.50 \$ 157.00	16	8.50	43.20 \$ 51.70	Mesa Consolidated WD			
Newport Beach, City of	8.27	22.00 \$ 30.27	55.00 \$ 63.27	88.00 \$ 96.27	121.00 \$ 129.27	17	8.27	37.40 \$ 45.67	Newport Beach, City of			
Serrano WD	26.63	12.45 \$ 39.08	49.80 \$ 76.43	87.15 \$ 113.78	124.50 \$ 151.13	49	26.63	109.56 \$ 136.19	Serrano WD			
Yorba Linda WD	11.73	25.20 \$ 36.93	63.00 \$ 74.73	100.80 \$ 112.53	138.60 \$ 150.33	30	11.73	75.60 \$ 87.33	Yorba Linda WD			
Entities with Tiered Rates but not budget-based or seasonal												
Brea, City of	5.68	24.30 \$ 30.16	67.29 \$ 73.17	118.72 \$ 124.60	169.67 \$ 175.55	16	5.68	40.80 \$ 46.68	Brea, City of			
Buena Park, City of [2]	16.05	8.39 \$ 24.45	31.11 \$ 47.16	60.59 \$ 76.65	91.70 \$ 107.75	30	16.05	39.86 \$ 55.91	Buena Park, City of			
Fullerton, City of	7.12	19.63 \$ 26.75	53.00 \$ 60.12	89.10 \$ 96.22	125.58 \$ 132.70	20	7.12	41.94 \$ 49.06	Fullerton, City of			
Garden Grove, City of	6.38	25.40 \$ 31.78	64.06 \$ 70.44	103.96 \$ 109.74	142.68 \$ 148.04	14.5	6.38	36.63 \$ 43.21	Garden Grove, City of			
Golden State WC [3]	15.38	31.57 \$ 46.94	86.43 \$ 101.80	147.94 \$ 163.31	209.45 \$ 224.82	18	15.38	59.15 \$ 74.53	Golden State WC			
La Habra, City of	11.11	24.90 \$ 36.01	62.25 \$ 73.36	99.80 \$ 110.71	136.95 \$ 148.06	18	11.11	44.82 \$ 55.93	La Habra, City of			
La Palma, City of	19.50	14.03 \$ 33.53	46.76 \$ 60.28	123.11 \$ 142.61	199.46 \$ 218.96	18	19.50	30.94 \$ 50.44	La Palma, City of			
Moulton Niquel WD	8.91	11.60 \$ 20.16	32.45 \$ 41.36	58.70 \$ 67.61	86.95 \$ 95.86	18	8.91	22.00 \$ 30.91	Moulton Niquel WD			
Orange, City of	10.07	10.09 \$ 20.16	28.62 \$ 38.69	53.92 \$ 63.99	79.23 \$ 89.30	22	10.07	23.55 \$ 33.62	Orange, City of			
Santa Ana, City of	3.50	26.73 \$ 30.23	68.10 \$ 71.60	114.55 \$ 118.05	161.01 \$ 164.51	17	3.50	45.44 \$ 48.94	Santa Ana, City of			
Santa Margarita WD	6.03	19.58 \$ 25.61	51.76 \$ 57.81	91.13 \$ 97.18	135.38 \$ 141.41	16	6.03	31.44 \$ 37.47	Santa Margarita WD			
Seal Beach, City of	16.94	19.30 \$ 36.24	48.25 \$ 64.59	86.16 \$ 102.50	124.71 \$ 141.05	11	16.94	21.23 \$ 37.37	Seal Beach, City of			
South Coast WD	19.66	22.80 \$ 42.46	66.30 \$ 106.30	117.84 \$ 197.50	209.04 \$ 288.70	20	19.66	63.84 \$ 83.50	South Coast WD			
Tustin, City of	17.25	8.00 \$ 25.25	32.75 \$ 50.00	70.40 \$ 87.65	109.70 \$ 126.95	20	17.25	22.90 \$ 40.15	Tustin, City of			
Westminster, City of [4]	7.20	23.40 \$ 30.60	58.50 \$ 65.70	109.95 \$ 117.15	165.48 \$ 172.68	17	7.20	39.78 \$ 46.98	Westminster, City of			
Entities with Seasonal Rates												
San Clemente summer	10.92	21.30 \$ 32.22	62.89 \$ 93.81	194.19 \$ 205.11	305.49 \$ 316.41	15	10.92	34.07 \$ 44.99	San Clemente, City of			
San Clemente winter	10.92	22.36 \$ 33.28	112.51 \$ 123.43	223.81 \$ 234.73	335.11 \$ 346.03	15	10.92	38.31 \$ 49.23	San Clemente, City of			
San Juan Capistrano July	18.00	32.98 \$ 50.98	91.18 \$ 109.18	178.63 \$ 196.63	290.33 \$ 308.33	14	18.00	48.50 \$ 66.50	San Juan Capistrano, City of			
San Juan Capistrano Jan.	18.00	30.98 \$ 50.98	121.38 \$ 139.38	281.58 \$ 299.58	441.78 \$ 459.78	14	18.00	52.40 \$ 70.40	San Juan Capistrano, City of			
Trabuco Canyon WD warm	24.75	21.05 \$ 45.80	53.65 \$ 78.40	96.14 \$ 118.59	150.18 \$ 174.93	22	24.75	47.05 \$ 71.80	Trabuco Canyon WD			
Trabuco Canyon WD cool	24.75	21.20 \$ 45.95	56.06 \$ 82.81	115.32 \$ 140.07	194.77 \$ 219.52	22	24.75	49.46 \$ 74.21	Trabuco Canyon WD			
Entities with Budget-Based Allocation Rates												
El Toro WD [5] with July outdoors allocation	13.45	16.00 \$ 31.45	54.00 \$ 67.45	84.00 97.45	111.00 \$ 124.45	18	13.45	32.40 \$ 45.85	El Toro WD			
Emerald Bay Serv. Distr. with allocation of 40 ccf	12.02	32.80 \$ 44.82	62.00 \$ 94.02	131.20 \$ 143.22	180.40 \$ 192.42	19	12.02	62.32 \$ 74.34	Emerald Bay Serv. Distr.			
Irvine Ranch WD with allocation of 40 ccf	8.00	9.10 \$ 17.10	25.45 \$ 33.45	43.60 51.60	81.10 \$ 89.10	13	8.00	11.83 \$ 19.83	Irvine Ranch WD			
Irvine Ranch WD with allocation of 25 ccf	8.00	9.10 \$ 17.10	27.25 \$ 35.25	64.75 72.75	159.90 \$ 167.90	13	8.00	12.73 \$ 20.73	Irvine Ranch WD			
Laguna Beach CWD with an allocation of 15 ccf	12.02	35.60 \$ 47.62	113.00 \$ 125.02	202.40 214.42	291.80 \$ 303.82	15	12.02	53.40 \$ 65.42	Laguna Beach CWD			

ccf = one hundred cubic feet. 1 ccf = 748 gallons.

\* Bill shown does not include pumping energy surcharge that may be applicable only to the higher zones of a system.

[1] Typical single-family water usage varies within Orange County due to local climate, lot size, and other factors. Typical usage ccf number shown was provided by the entity.

[2] Buena Park has a 10.0% Capital Improvements charge that is included in all its numbers shown on this page

[3] Golden State WC has a 1.5% PUC surcharge included in all its numbers shown on this page

[4] Westminster has a 4.0% general utility users' tax, included in numbers shown on this page

[5] El Toro WD bills were based on occupancy, billing days, irrigable area and ET factor. Above calculations assumes varying occupancy, 31 days in the billing cycle, 7,000 square feet and a 10-year historical ET factor for July. All scenarios assume efficient use of water. Households with inefficient water use would expect to pay more.

See also notes on individual entity water rate structure on Table 2.



Fixed Rates

Commodity Rates

Water Entity	Date Effective	Uniform Rate \$/ccf	ccf up to \$/ccf	ccf up to \$/ccf	ccf up to \$/ccf	ccf up to \$/ccf	ccf up to \$/ccf	ccf up to \$/ccf	ccf up to \$/ccf	Typical Residential Meter Size (inch)	Type Res Meter Charge \$/Month	Capital [9] Charges \$/Month				
Anaheim, City of	Jul-2010	1.870	12	2,430	24	2,910	36	3,210	above	5/8 or 3/4	5.00					
Brea, City of	Jul-2010		10.7	0.763	28.1	1,406	132	1,885	above	5/8 or 1	5.88					
Buena Park, City of [1]	Jan-2010									5/8 or 3/4	14,595	10% of sum of other charges				
East Orange CWD Retail	Jun-2009	2.000								3/4	10.75					
El Toro WD [10]	Jul-2010									3/4	10.14					
Emerald Bay Serv. Distr.	Jan-2011									3/4	12.02	3.31				
Fountain Valley, City of	Jul-2010	2.420								5/8 or 3/4	3.00					
Fulkerson, City of [1]	Jul-2010		10	1,983	27	2,212	above	2,432		5/8 or 3/4	7.12					
Garden Grove, City of	Jan-2011		18	2,540	125	2,620	230	2,690	above	5/8	5.69	0.69				
Golden State WC [8]	Mar-2011		13	3,110	21	3,570	above	4,040		5/8	15.15					
Huntington Beach, City of	Oct-2010	1.7483								3/4	10.90					
Irvine Ranch WD Allocation=			16	0.910	40	1,210	60	2,500	80	4,320	above	9.480				
40 ccf's [5][6]	Jul-2010									5/8 or 3/4	8.00					
Irvine Ranch WD Allocation=			10	0.910	25	1,210	37.5	2,500	50	4,320	above	9.480				
25 ccf's [5][6]	Jul-2010									5/8 or 3/4	8.00					
La Habra, City of [3]	Jul-2010		170	2,490	above	2,700				5/8	11.11					
La Palma, City of [2]	Jul-2010		13	1,870	25	2,260	above	5,090		5/8 or 3/4	18.50					
Laguna Beach CWD	Jan-2011									3/4	12.02					
Mesa Consolidated WD	Jul-2010	2.700								5/8	8.50					
Modesto Miguel WD	Jul-2010		10	1,160	20	1,300	30	1,570	50	1,840	above	1,970				
Newport Beach, City of	Jan-2010	2.200								3/4	8.27					
Orange, City of [9]	Mar-2011		20	1,009	70	1,687	above	1,818		5/8 or 3/4	10.07					
San Clemente summer [7]	Sep-2010		13	2,130	21	3,190	above	7,420		1	10.92					
San Clemente winter [7]	Sep-2010		9	2,130	15	3,190	above	7,420		1	10.92					
San Juan Capistrano July [4]	Jul-2010		6	2,910	25	3,880	50	5,830	above	5/8	18.00					
San Juan Capistrano Jan. [4]	Jul-2010		6	2,910	12	3,880	24	5,830	above	5/8	18.00					
Santa Ana, City of	Jul-2009		22	2,673	above	3,097				5/8	3.50					
Santa Margarita WD [6]	Sep-2009		6	1,890	20	2,010	35	2,460	70	2,950	above	3,770				
Seal Beach, City of [2]	Jul-2010		26	1,930	above	2,570				3/4	6.03					
Serrano WD [2]	Jul-2009	2.490								5/8	16.34					
South Coast WD	Jul-2010		5	1,520	13	3,040	25	4,560	62	6,080	above	7,600				
Trabuco Canyon WD Warm	Jan-2011		9	2,100	18	2,150	27	2,200	36	2,690	45	3,820	63	4,560	above	5.110
Trabuco Canyon WD Cool	Jan-2011		6	2,100	12	2,150	18	2,200	24	2,690	30	3,820	42	4,560	above	5.110
Tustin, City of	Jul-2010		5	0,580	10	1,020	15	1,330	20	1,650	25	1,970	30	2,290	above	2,620
Westminster, City of [9]	Jul-2010		28	2,250	above	3,560				5/8 or 3/4	3.66					
Yorba Linda WD	Sep-2010	2.520								1	11.73					

ccf = hundred cubic feet. 1 ccf = 748 gallons.

[1] Fullerton monthly tiers for single-family residences shown were converted from gallons to ccf; Fullerton has 50% lower tiers for multi-family residences. Buena Park monthly tiers for single-family shown were converted from bi-monthly gallons to monthly ccf. All other customers price is \$1,406 per ccf.

[2] La Palma commodity rate applies to each ccf above the first 5 ccf in two months i.e. above the first 2.5 ccf in one month.

[3] Serrano WD commodity rate applies to each ccf above the first 5 ccf.

[4] La Habra's upper tier rate is applicable only May-Sept.

[5] San Juan Capistrano's tier ccf's vary by user type, month and lot size. Shown tiers are for a single family residential lot < 7,000 sq. ft.

[6] IRWD customer's water demand needs are met by the Low Volume and Base Rate tiers. Generally no more than 6% of the customers base exceeds these tiers. All water used between 100% and 150% of the allocation will be charged @ \$9.48/ccf.

[7] IRWD provides water to three areas. The rates presented identify 89% of the water usage within the District.

[8] San Clemente "summer" = May-December, "winter" = January-April. Tiers shown are for SFR with lot size < 7,000 sq. ft. Average commodity rate is \$2.33 /ccf.

[9] The following agencies have a tax or surcharge on top of the rates shown:  
 Irvine Ranch WD, Orange, and Santa Margarita WD have Power Surcharges for high elevation areas, not included here.  
 Golden State Water Co. 1.5% PUC surcharge  
 Westminster 4.0% general utility users' tax

[10] These agencies have a fixed charge that is in addition to a "meter charge"; various names are used, and the following should be noted:  
 Buena Park has a Capital Improvements charge that is 10% of the sum of consumption and meter charges.  
 East Orange CWD has a "Capital Project Fee", \$10 per month  
 El Toro WD has a Capital Replacement & Refurbishment Charge \$3.31 per month for a 5/8" or 3/4" meter.  
 Garden Grove has a "Water Capital Improvement" charge \$1.38 per 2 months  
 Trabuco Canyon WD has a Water Reliability and Emergency Storage Charge \$16.50 per month for a 5/8" or 3/4" meter.  
 Tustin has implemented a "Capital Project Fee" of \$10 per 2 months  
 Westminster has a Service Charge of \$6.52 per 2 months for all size of meter

[11] ETWWD Water Budget Based Tiered Conservation Rate Structure assigns budgets to individual customers based on meeting efficient water needs.  
 (A) Tier I rates applied to Tier I budgets which are based on occupancy and number of billing days.  
 (B) Tier II rates are applied to Tier II budgets which are based on irrigable area and ET factors.  
 (C) Tier III rates are applied to consumption over Tier I and Tier II and up to 130% of Tier I and Tier II.  
 (D) Tier IV rates apply to consumption over Tier III.

## RETAIL ENTITY WATER SOURCES, FY 2009-10

## Source of Water, %

Retail Water Entity	Metropolitan Water [1]	Ground Water	Surface Water	Recycled/ Non-Potable Water [2]	Total	Comments
Anaheim, City of	37%	63%			100%	CUP water is counted as imported water
Brea, City of	28%	72%			100%	
Buena Park, City of	18%	82%			100%	CUP water is counted as Groundwater
East Orange CWD Retail Zone	38%	62%			100%	
El Toro WD	96%			4%	100%	
Emerald Bay Serv. Distr.	100%				100%	EBSB contracts w/ Laguna Beach CWD for water
Fountain Valley, City of	32%	62%		6%	100%	
Fullerton, City of	38%	62%			100%	
Garden Grove, City of	38%	62%			100%	
Golden State WC	38%	62%			100%	
Huntington Beach, City of	32%	68%			100%	
Irvine Ranch WD	27%	50%		23%	100%	
La Habra, City of	20%	80%			100%	
La Palma, City of	34%	66%			100%	
Laguna Beach CWD	100%				100%	
Mesa Consolidated WD	12%	83%		5%	100%	Colored water included with groundwater
Moulton Niguel WD	n.r.			n.r.		
Newport Beach, City of	38%	62%		<1%	100%	
Orange, City of	34%	62%	5%		100%	
San Clemente, City of	88%	7%		5%	100%	
San Juan Capistrano, City of	73%	22%		5%	100%	
Santa Ana, City of	38%	62%		<1%	100%	C.U.P. "In-lieu" water counted w/ MET water
Santa Margarita WD	90%	0%		10%	100%	
Seal Beach, City of	40%	60%			100%	
Serrano WD		39%	61%		100%	
South Coast WD	79%	9%	0%	12%	100%	Includes the South Laguna service area.
Trabuco Canyon WD	71%	7%	5%	17%	100%	
Tustin, City of	9%	91%			100%	
Westminster, City of	32%	68%			100%	
Yorba Linda WD	54%	46%			100%	

[1] Metropolitan Water District of Southern California (MET) imports water to Southern California from the Colorado River Basin and from Northern California. Long-Term "In-Lieu" water deliveries that indirectly replenish aquifers are counted here as MET water, and are not counted as Groundwater, unless indicated otherwise.

[2] Recycled municipal wastewater and/or Non-Potable surface or ground water.

C.U.P. In the Conjunctive Use Program, MET stores water in the groundwater basin. The storage may be accomplished by "In-Lieu" deliveries. n.r. No response was received for this item.

AGENCY POPULATION AND WATER SYSTEM FACILITIES, 2009

Water Agency	Population Served [1]	POTABLE WATER SYSTEM										NON-POTABLE *		
		Miles of 8" or Larger Pipe	Number of Active Wells	Capacity of Active Wells (GPM)	Number of Potable Water Tanks & Resvs.	Potable Water Storage Capacity (MG)	Untreated Water Stored for Potable Use (MG)	Surface Water Treatment Capacity (MGD)	Number of Booster Pump Stations	Capacity of Booster Pumps (GPM)	Miles of 8" or Larger Pipe	Number of Non-Pot. Water Tanks & Resvs.	Non-Pot. Water Storage Capacity (MG)	
Anaheim, City of	355,252	750	20	55,970	13	29	920	15	9	71,010				
Brea, City of	40,016	162	0	-	6	67			4	8,300				
Buena Park, City of	83,834	216	8	16,000	1	20			1	4,000				
East Orange CWD Retail	3,463	17	2	1,500	3	1.8			2	2,000				
El Toro WD	52,170	148	0		6	137			8	18,300	1	12		
Emerald Bay Serv. Distr.	1,268	2	0											
Fountain Valley, City of	58,803	142	5	15,000	2	10			2	14,000	7	0		
Fullerton, City of	137,088	300	11	22,950	16	69.5			12	19,000				
Garden Grove, City of	176,526	433	10	32,150	8	53			5	41,600				
Golden State WC	168,846	224	28	21,175	15	13			13	20,930				
Huntington Beach, City of	203,649	376	10	30,000	4	55			3	44,365				
Irvine Ranch WD	334,010	1,131	27	52,513	38	149			45	93,120	399	15		
La Habra, City of	62,687	63	1	1,600	3	17.5			5	6,639				
La Palma, City of	15,543	34	2	3,400	2	4.5			2	5,975				
Laguna Beach CWD	20,844	132	0		21	34			14	19,100				
Mesa Consolidated WD	110,568	197	9	15,000	2	28			2	29,000				
Moulton Niguel WD	170,169	740	0	0	28	83.4			28	80,700	140	12		
Newport Beach, City of	66,417	169	4	11,000	3	200			5	37,000				
Orange, City of	139,902	259	16	28,279	18	43			16	50,095				
Orange County WD											32	1		
San Clemente	57,431	175	2	1,200	14	23	0	0	16	26,000	6	0		
San Juan Capistrano	39,791	161	8	5,080	9	14.0			8	10,350	12	1		
Santa Ana, City of	355,564	236	20	45,090	8	49			7	72,490		0.5		
Santa Margarita WD	152,665	579	2	600	31	246			19	166,774	114	9		
Seal Beach, City of	25,147	66	3	8,000	2	7			2	6,500		1,478		
Serrano WD	6,756	43	3	3,900	2	9	387	4	2	5,800				
South Coast WD [1]	36,785	119	1	690	13	21.6			10	23,230	29	3		
Trabuco Canyon WD	14,126	57	2	850	7	10		4	5	8,100	3	1		
Tustin, City of	68,355	67	11	10,400	6	12			4	11,000		44		
Westminster, City of	94,914	150	11	19,649	2	16			1	9,000				
Yorba Linda WD	77,097	125	9	12,600	13	50			12	38,000				
<b>Totals</b>	<b>3,129,686</b>	<b>7,272</b>	<b>225</b>	<b>414,596</b>	<b>296</b>	<b>1,471</b>	<b>1,307</b>	<b>23</b>	<b>262</b>	<b>942,378</b>	<b>742</b>	<b>43</b>	<b>11,190</b>	

\* "Non-Potable" system is for landscape irrigation and other non-domestic uses. The water served includes recycled water and/or non-potable ground and surface water. n.r. No response was given to this item.

[1] Population as of Jan. 1 2008 per Center for Demographic research, CSU Fullerton. Draft unpublished data set. Population is for the actual service area of the water agency. Population for a City water department will be different than for the City if the water service area is different than the City area.

NUMBER OF WATER SERVICES, AND SALES VOLUME, BY SERVICE TYPE FY 2009-10

Number of Water Services (i.e. "Meters")										Sales Volume (Acre-Feet)				
Single Family Residential	Multi-Family Residential [1]	C-I-I Dedicated Irrigation Meters	C-I-I mixed use [2]	Agricultural	Recycled & Non-Potable mixed use [4]	Totals	Retail Water Entity	Single Family Residential	Multi-Family Residential [1]	C-I-I Dedicated Irrigation Meters	C-I-I mixed use [2]	Agricultural	Recycled & Non-Potable mixed use [4]	Totals
49,783	4,247	0	8,577	0	62,607	Anaheim, City of	25,316	13,675	0	23,886	0	62,877		
9,792	181	0	1,906	0	11,879	Brea, City of	4,047	989	0	4,207	0	9,243		
16,389	677	428	1,420	0	18,914	Buena Park, City of	6,590	2,518	785	4,291	0	14,184		
1,168	26	13	4	1	1,212	East Orange CWD Retail	870	19	38	12	1	940		
5,677	2,613	0	1,746	0	10,037	El Toro WD	2,323	3,172	2,168	1,089	0	9,171		
528			20		548	Emerald Bay Serv. Distr.	274			31		305		
15,240	177	0	1,472	1	16,905	Fountain Valley, City of	5,692	706	0	2,816	8	1,366	0	10,588
26,226	2,291	0	2,880	4	31,401	Fullerton, City of	12,409	5,533	0	8,058	15	0	0	26,015
29,900	1,726	0	2,263	5	33,894	Garden Grove, City of	12,522	4,984	0	5,966	12			23,484
n.r.	n.r.	n.r.	n.r.	n.r.	n.r.	Golden State WC	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.
44,347	4,119	1,200	2,690	0	52,356	Huntington Beach, City of	14,012	6,298	2,912	4,674				27,896
81,689	2,606	1,811	9,123	66	100,206	Irvine Ranch WD	33,711	4,180	4,712	14,717	6,928	19,444	0	83,692
11,549	827	0	262		12,638	La Habra, City of	5,234	1,616	621	1,502				8,973
4,113	71	185	0	0	4,369	La Palma, City of	2,228	all other combined with Single Fam. Res.						2,228
6,258	1,062	125	570	0	8,015	Laguna Beach CWD	2,154	544	0	673				3,371
13,761	5,740	959	3,466	0	23,968	Mesa Consolidated WD	6,180	5,493	1,056	4,472	0	1,034	0	18,235
33,980	14,694	1,396	2,831	0	54,144	Moulton Niguel WD	17,585	2,599	3,859	2,677	0	7,118	0	33,838
19,236	4,193	1,017	1,940	0	26,395	Newport Beach, City of	7,661	2,266	3,210	3,126	0	367	0	16,630
26,738	6,134	206	3,975	13	37,066	Orange, City of	13,850	4,560	4,72	8,818	180	0	0	27,880
12,059	3,542	765	881	0	17,249	San Clemente	4,302	1,403	1,728	768	0	431	0	8,632
6,551	3,045	0	1,133	15	10,818	San Juan Capistrano	4,008	1,194	0	2,140	190	0	0	8,202
35,297	3,648	712	4,743	0	44,410	Santa Ana, City of	14,099	11,129	1,966	9,167	0	137	0	36,498
35,627	12,755	1,480	2,193	0	53,269	Santa Margarita WD	16,330	2,631	5,508	1,368	0	6,416	195	32,448
4,331	579	88	351	0	5,349	Seal Beach, City of	3,655	all other combined with Single Fam. Res.						3,655
2,202	0	0	81	4	2,287	Serrano WD	2,842	0	0	78	5	0	0	2,925
9,595	1,560	369	674	0	12,369	South Coast WD	2,877	1,123	1,001	976	0	790	0	6,767
3,814	31	0	191	3	4,061	Trabuco Canyon WD	1,619	30	461	112	626	0	0	2,848
11,450	839	0	1,828	0	14,117	Tustin, City of	6,292	2,638	0	2,347	0	0	0	11,277
17,626	993	0	1,675	0	20,294	Westminster, City of	6,207	2,462	0	2,814	0	0	0	11,473
21,895	229	0	1,683	12	23,820	Yorba Linda WD	13,838	417	0	4,663	84	351	0	19,353
<b>556,821</b>	<b>78,605</b>	<b>10,754</b>	<b>60,578</b>	<b>124</b>	<b>714,597</b>	<b>Totals</b>	<b>248,726</b>	<b>82,169</b>	<b>30,036</b>	<b>115,797</b>	<b>7,535</b>	<b>39,168</b>	<b>195</b>	<b>523,627</b>

(totals are incomplete due to some non-responders)

n.r. No response was given to this item.

[1] Multi-Family sector includes apartments, master-metered condominiums, mobile homes, et al. that are not billed individually.

[2] Commercial Industrial & Institutional (C-I-I) sector includes businesses, schools, hydrants, fountains, etc. Mixed use meters can serve indoor and outdoor uses.

[3] Recycled wastewater and other Non-potable water used for irrigation. Note: exclude Agricultural usage of Recycled/Non-Potable Water.

[4] Recycled wastewater and other Non-potable water other-than-irrigation uses: toilet flushing, carpet dyeing, fountains, etc.

PER-CAPITA WATER USAGE, FY 2009-10

Retail Water Entity	M&I [1]				M&I Excluding Recycled				Residential				
	T	A	M&I T-A	P	M&I / P	R	M&I - R	P	(M&I - R) / P	Res	P	Res / P	Comments
	Total Water Usage (AF)	Agricultural Water Usage (AF)	M&I Water Usage (AF)	Population Served [2]	M&I Per Capita Usage (gpcd)	Recycled Water Usage [3] (AF)	M&I Excluding Recycled Usage (AF)	Population Served [2]	M&I Excluding Recycled Per Capita Usage (gpcd)	Residential Water Sales [4] (AF)	Population Served [2]	Residential Per Capita Sales [4] (gpcd)	
Anaheim, City of	66,693	0	66,693	361,043	165	0	66,693	361,043	165	38,991	361,043	96	includes unincorp. SW Anah.
Brea, City of	9,978	0	9,978	40,368	221	0	9,978	40,368	221	5,036	40,368	111	
Buena Park, City of	14,777	0	14,777	84,557	156	0	14,777	84,557	156	9,108	84,557	96	
East Orange CWD Retail	1,021	1	1,020	3,656	249	0	1,020	3,656	249	889	3,656	217	
El Toro WD	8,993	0	8,993	52,019	154	418	8,574	52,019	147	5,495	52,019	94	
Emerald Bay Serv. Distr.	305	0	305	1,267	215	0	305	1,267	215	n.p.	204,831	88	includes Sunset Beach
Fountain Valley, City of	11,164	8	11,155	59,227	168	1,366	9,789	59,227	147	6,397	59,227	96	includes OPA
Fullerton, City of	27,851	15	27,836	138,600	179	0	27,836	138,600	179	17,942	138,600	115	
Garden Grove, City of	25,991	12	25,979	177,020	131	0	25,979	177,020	131	17,506	177,020	88	
Golden State WC	26,316	0	26,316	169,944	138	0	26,316	169,944	138	n.p.	204,831	88	
Huntington Beach, City of	29,469	0	29,469	204,831	128	0	29,469	204,831	128	20,310	204,831	118	not including Emerald Bay
Irvine Ranch WD	86,454	6,928	79,526	337,876	210	19,444	60,082	337,876	159	37,891	337,876	100	
La Habra, City of	9,803	0	9,803	63,118	139	0	9,803	63,118	139	6,860	63,118	97	
La Palma, City of	2,276	0	2,276	15,544	131	0	2,276	15,544	131	n.p.	n.p.	n.p.	
Laguna Beach CWD	3,762	0	3,762	20,451	164	0	3,762	20,451	164	2,698	20,451	118	
Mesa Consolidated WD	19,142	0	19,142	111,166	145	1,034	18,108	111,166	145	11,673	111,166	94	
Moulton Niguel WD	36,366	0	36,366	172,068	189	7,118	29,248	172,068	152	20,184	172,068	105	
Newport Beach, City of	16,662	0	16,662	67,030	222	367	16,295	67,030	217	9,927	67,030	132	
Orange, City of	30,579	180	30,399	141,107	192	0	30,399	141,107	192	18,410	141,107	116	
Orange, City of	9,645	0	9,645	55,398	155	431	9,214	55,398	148	5,705	55,398	92	
San Clemente, City of	8,783	190	8,593	40,262	190	670	7,923	40,262	176	5,202	40,262	115	
San Juan Capistrano, City of	39,161	0	39,161	358,136	98	137	39,024	358,136	97	25,228	358,136	63	
Santa Ana, City of	34,169	0	34,169	155,229	196	6,611	27,558	155,229	158	18,961	155,229	109	
Santa Margarita WD	3,722	0	3,722	25,561	130	0	3,722	25,561	130	n.p.	n.p.	n.p.	
Seal Beach, City of	3,009	5	3,004	6,651	403	0	3,004	6,651	403	2,842	6,651	381	
Serrano WD	6,903	0	6,903	38,641	159	790	6,113	38,641	141	4,000	38,641	92	includes S Laguna area.
South Coast WD	3,519	112	3,407	14,907	204	626	2,781	14,907	166	1,649	14,907	99	
Trabuco Canyon WD	12,117	0	12,117	69,010	156	0	12,117	69,010	156	8,930	69,010	115	
Tustin, City of	12,357	0	12,357	95,793	115	0	12,357	95,793	115	8,659	95,793	81	includes por. of Midway City
Westminster, City of	20,221	84	20,137	77,320	232	351	19,786	77,320	228	14,255	77,320	164	
Yorba Linda WD	581,307	7,535	573,771	3,157,800	162	39,363	534,408	3,157,800	151	incomplete	2,946,751	98	

AF= acre-feet  
 gpcd= gallons per capita per day  
 n.p. data was not provided by the retail water entity

[1] Municipal, Commercial & Industrial (M&I) water is all water use except for Agricultural or Power Plant water use. Total water usage includes Recycled water usage and system losses. M&I Per Capita can be considered to be Urban water use per resident. M&I Per Capita lacks validity when comparing areas with dissimilar climate, land use, and other factors. Data per MWDOC database.  
 [2] Population as of Jan. 1 2010 per Center for Demographic research, CSU Fullerton. Draft unpublished data set. Population is for the actual service area of the water entity. Population for a City water department will be different than for the City if the water service area is different than the City area. Population number does not reflect employees or visitors, etc.  
 [3] Recycled water system sales may include some non-potable surface water or groundwater in addition to recycled wastewater.  
 [4] Sales of water to residences (includes detached and multiple-residential housing). Data is per the retail water agencies (see Table 9). Sales numbers do not include system losses. Residential Per Capita lacks validity when comparing areas with dissimilar climate, lot size, seasonal rental, and other factors.



## Orange County Water Entities Water Rates, Water System Operations and Financial Information

### Why Retail Water Rates Vary in Orange County

#### Summary

- Retail water rate setting is a complicated and complex process that varies somewhat from jurisdiction to jurisdiction. Each year as the Orange County Water Rates Survey is compiled, it is important to review the rate setting process and the factors involved. Retail water rate setting involves capturing the external costs of importing water from Metropolitan Water District of Southern California (MET) or producing the water from local sources, the internal costs of distribution and service and establishing the financing or funding sources for these costs.
- There are understandable reasons, both physical and philosophical, that cause retail rates to vary from entity to entity. These will be discussed below.
- Providing a reliable and high quality water supply system for existing and future users is a capital-intensive process. Water rates are significantly affected by the level of capital funding required, the financing mechanisms and the other sources of revenue available to an entity. These issues will also be discussed below.

#### Detailed Discussion

Discussed below are the following sections pertaining to retail water rate setting:

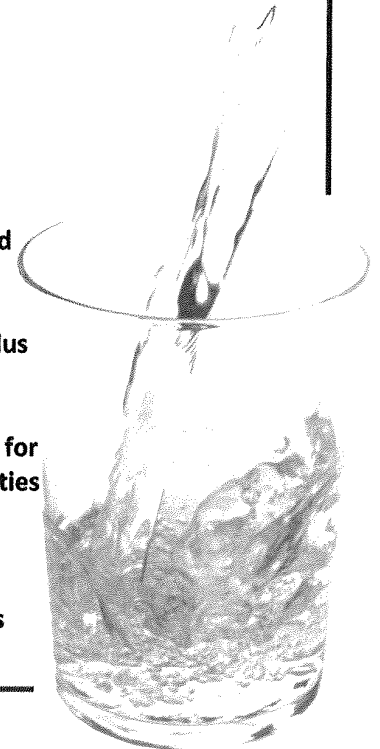
- Sources and Uses of Funds Available to a Water Utility
- Geographical Factors Affecting Water Rates
- Rate Design - Identifying Costs and Funding Them
- Purpose and Function of "Reserve Funds"

#### Sources and Uses of Funds Available to a Water Utility

The sources of funds available to a water utility for any use (not restricted in the type of use) include:

Retail water sales, fixed service charges on monthly or bimonthly basis plus variable charges based on water use, wholesale water sales for those entities that provide water to other entities, fees charged for services rendered (such as engineering and plan check fees), delinquent penalties for non-payment, investment earnings on funds set aside, rents from properties and tax revenues from the general 1% property tax levy (not all entities receive these funds).

Sources of funds that are restricted for use only for capital improvements include:



Voter authorized taxes and assessments, developer and customer contributions such as connection charges, development impact fees and contributed facilities, standby charges, proceeds from long-term financings, redevelopment funds, grants in aid of construction and investment earnings. If these sources of funds are not used or only partially cover the capital improvements necessary, water sales revenue must be structured to carry a heavier burden.

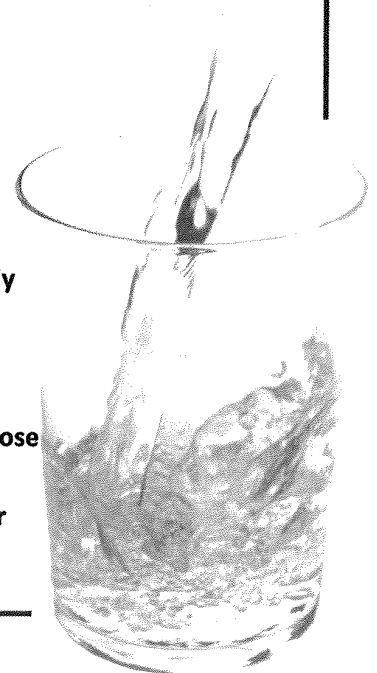
The uses of funds for a water utility include (1) the external costs of getting the supply to the entity, water costs, pumping, storage and water treatment; (2) the internal costs of transmission, distribution and storage to serve the consumers, customer service (billing, meter reading, etc.) and general and administrative expenses (including insurance, office and office maintenance costs and office staff); (3) the funding requirements for debt service and capital improvements (new construction, replacements and upgrades and rehabilitation).

It is likely that the two most predominant geographical factors affecting retail water rates from area to area are (1) whether an area receives local groundwater from the lower Santa Ana River groundwater basin managed by Orange County Water District (OCWD), and (2) how much pumping is required to provide water throughout an entity's service area.

Portions of the county overlie the OCWD groundwater basin area. Water supplies produced from the basin area cost around \$437 per AF (includes a replenishment assessment paid to OCWD for basin operations and to purchase imported replenishment water to balance the basin needs, energy and other operational costs for well production and an estimate of annual amortized costs for land and facilities). This cost is considerably less than the cost of receiving imported water from MET at around \$738 per AF. These costs just discussed, \$437 per AF for groundwater and \$738 for imported water, are essentially the production costs and do not include the costs of distribution, storage, treatment or pumping (except to pump the groundwater to system pressure). Translating these basic source costs down to the consumer and given the assumption that the groundwater basin areas can produce 62% of their supplies from the groundwater basin, the average source costs for the two areas would be:

- Non-Basin Area: 100% MET Import = \$738/AF or \$1.70/ccf
- Basin Area: 62% Groundwater and 38% Import = \$551/AF or \$1.27/ccf
- This factor is one of the major factors affecting rates to the consumer.

The next geographical factor affecting retail rates is the proximity to the MET feeders. MET feeders are MET facilities and paid for by water rates paid when purchasing imported water; these costs are already in the \$738 per AF cost of water paid to MET. The local entity feeders have had to be constructed, operated, maintained and repaired with local entity funding in addition to the water rates paid to MET. Once again, the entities overlying the groundwater basin are generally those entities which lie in close proximity to the MET feeders as they crisscross the northern portion of the county, and hence, these entities do not incur additional costs for facilities to distribute the MET supplies. Some of the



entities had to build transmission pipelines 20 to 30 miles to get the water into their service area from where the MET lines stop. Considerable costs are incurred for these extensions.

Another significant geographical factor is that of system elevation and the pumping necessary to lift the water to the service elevation of the homes and businesses. For example, Trabuco Canyon WD must pump virtually 100% of its import supplies to serve its consumers in the 1100 foot to 1400 foot service elevations of the foothills of the Santa Ana Mountains. The cost for pumping to the higher elevations must be factored into the retail rate. Some entities charge a similar rate throughout their service area while other entities charge more to residents living at a higher elevation. For example, the first block of water in the IRWD service area costs \$0.91 per ccf, however, a pumping surcharge of \$0.42 per ccf is imposed for the pumping required to get the water to the higher elevation of the Portola Hills service area of IRWD, thus raising the rate on the first block of water sold in Portola Hills, Zone 9 to \$1.33 per ccf.

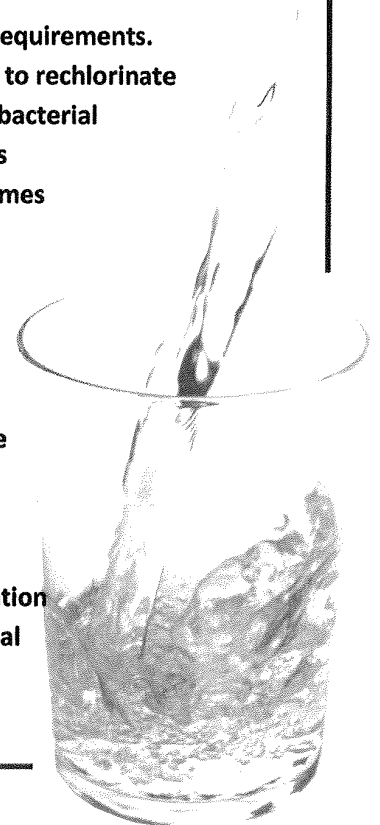
In addition, those areas with hilly terrain include multiple service elevations and the associated facilities, capital costs and O&M costs for additional pump stations, reservoirs and pressure reducing stations. Both San Juan Capistrano and Laguna Beach are examples of this type of terrain that ultimately leads to higher consumer costs.

Also, in communities surrounded by vast areas of open-space vegetation, provision of sufficient storage for firefighting is an added cost.

The last geographical factor influencing water rates is that of treatment requirements. For example, the areas furthest away from the MET sources are required to rechlorinate the supplies as they are conveyed to the service areas to protect against bacterial growth. Also, some areas of the groundwater basin contain contaminants or constituents such as high salts or color that must be removed - sometimes a very expensive process that can drive the costs of local water to that of MET water or beyond.

### **Rate Design - Identifying Costs and Funding Them**

Rate Design involves figuring out the revenue needs and how to structure and establish the rates within a service area to generate the required revenue. The costs of a water system vary for geographical reasons, but they also vary due to the age of the system, the level of development, density, due to the types of businesses in the service area, the cost allocation methodology to the various customer groups, and due to the philosophical factors of an entity such as providing lifeline service at minimal costs.



Times have changed since the passage of Proposition 13 in 1978 which lowered tax revenue and eliminated the use of general obligation bonds as a financing vehicle for capital improvements, unless voter approval is secured. Decisions must be made regarding how to fund new growth - whether through bonds other than general obligation bonds, a connection or meter fee, a fixed charge collected through an assessment district or directly with revenue generated through water sales. All of these options will affect what the consumer sees when he pays his monthly or bimonthly water bill.

There are many theories for the allocation of both fixed and variable costs within a retail water service area and how to fund them through the water rates. Some propose that all fixed costs be funded via a fixed revenue source such as the fixed monthly or bimonthly service charge to consumers and that the commodity rate be structured to cover the variable costs of water such as the cost of the source water itself, treatment costs and pumping costs. Others subscribe to different theories. The theory adopted by the local jurisdiction should reflect the philosophy of the constituents.

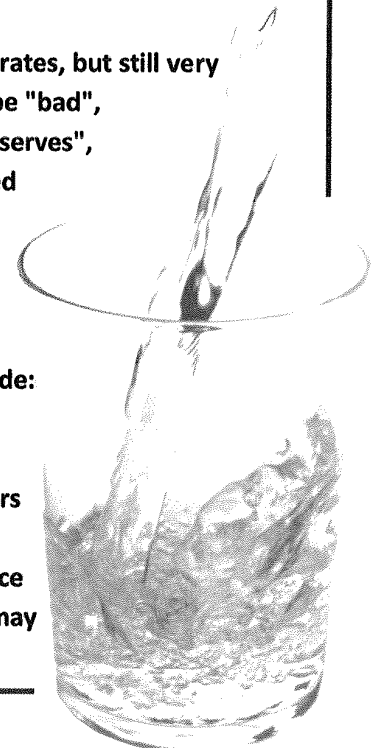
Lastly, the level of conservation and recycling in a community also affects the retail water rates. These efforts typically require capital expenditures and may actually result in somewhat higher costs in the short run but will save costs in the long run as the availability of these sources (or reduced demand) offsets the need for higher cost imported supplies. In addition, the lot size and home size of the community served will also affect the rate structure design and the actual rates charged.

### Purpose and Function of "Reserve Funds"

The level of "reserve funds" is indirectly related to the process of setting rates, but still very important. Reserve funds are misunderstood by some and construed to be "bad", yet reserve funds have a necessary and usually specific purpose. True "reserves", similar to our own personal savings accounts that are used for unexpected purposes or that have been set aside for specific planned uses, can be distinguished from "encumbered" funds that are necessary for specific financial or legal purposes.

Reserve funds include many types of funds with specific uses; these include:

(1) Working Capital Funds to meet cash flow purposes, (2) Construction Funds from bond proceeds that generally must be spent within three years of issuance, (3) Rate Stabilization Funds to moderate short term rate fluctuations, (4) Debt Service Funds to collect funds and make debt service payments when due, (5) Conservation Revenue Funds which all entities may



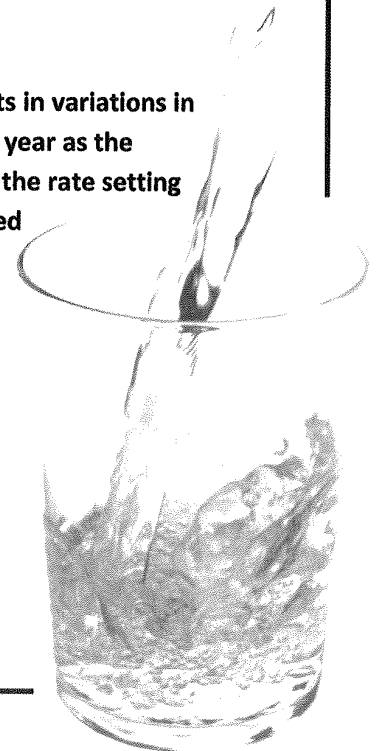
not have but which collect payments from high water users and reinvests in the system for conservation purposes and (6) Self Insurance Funds, similar to normal business insurance funds. The only "true" reserves are made up of (7) Capital Replacement Funds, which all entities do not necessarily have, which consist basically of funds set aside for future improvements and (8) Emergency Repair Funds which is a contingency fund to handle emergencies (also a normal business requirement).

Variances exist in these funds when compared from entity to entity. In part, the differences are explained by the development cycle of a water supply system. Initially in the development cycle, when an entity is "young," an entity incurs disproportionately high costs because investments are made not only to meet the existing needs but also as an investment to minimize future costs (e.g., only certain components of a treatment plant can be phased on a capacity basis, a pipeline is constructed to supply existing demands and some level above that for meeting future demands). In the next part of the cycle, as an entity "ages," smaller investments are required on an incremental basis as demands build because the system is supported by past investments; however, it is also at this time that preparations must be made to bridge to the third phase, which is that of an older system that requires high repair, maintenance and replacement obligations (this is when capital replacement funds come in handy). An entity can approach Replacement Funds in three manners or a combination thereof, (1) "pre-paying" by setting aside funds for the future, (2) "pay-as-you-go" in which annual capital requirements are generated directly from water sales, or (3) "post pay" in which debt is issued and the payments for the improvements are made over time into the future. How replacements are handled is up to the discretion of the governing board with input from the community at the time of rate setting and budget adoption.

### Conclusion

Retail water rate setting is a complicated and complex process that results in variations in retail water rates from jurisdiction to jurisdiction in Orange County. Each year as the Orange County Water Rates Survey is compiled, it is important to review the rate setting process and the factors involved. These factors have been briefly discussed herein and are summarized in Table 1.

[Return to top](#)



LAGUNA BEACH COUNTY WATER DISTRICT COLA HISTORY		
MARCH OF:	CPI	LBCWD COLA
1987		4.00%
1988		3.00%
1989		4.70%
1990		5.50%
1991		3.10%
1992		3.86%
1993		1.50%
1994		1.80%
1995		1.40%
1996	1.70%	1.70%
1997	1.50%	1.60%
1998	0.60%	3.00%
1999	2.10%	3.00%
2000	3.50%	3.40%
2001	3.20%	3.20%
2002	2.80%	2.80%
2003	4.50%	2.80%
2004	1.80%	1.80%
2005	3.90%	3.00%
2006	4.50%	4.36%
2007	4.00%	3.86%
2008	3.60%	3.45%
2009	-1.60%	0.00%
2010	2.40%	2.40%
2011	3.50%	3.50%