

# Reliability Today and Tomorrow



2011 ANNUAL REPORT

# Contra Costa Water District

## Board of Directors

<b>Joseph L. Campbell</b>	President, Division 3
<b>Karl L. Wandry</b>	Vice President, Division 5
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<b>John Burgh</b>	Director, Division 2
<b>Mary Neher</b>	District Secretary

## General Manager

**Jerry Brown**

## Contra Costa Water District Board Meetings

The Board meets in regular session at 6:30 p.m. on the first and third Wednesdays of each month. Meetings are held in the Board Room at the Contra Costa Water District Administration Building, 1331 Concord Avenue, Concord. For meeting agendas, contact the District Secretary at **925-688-8024**, or visit the District's website at [www.ccwater.com](http://www.ccwater.com).



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# A Message from the General Manager



## Reliability Today and Tomorrow

The District is dedicated to providing its customers with excellent, reliable service and high-quality water year round for many years to come. We do this by improving and maintaining our system of infrastructure proactively, protecting the ecosystem that provides our water supply, and operating in a fiscally responsible manner to ensure long-term financial stability.

In 2011, the District accomplished much toward meeting its goals.

- Construction began on the Los Vaqueros Reservoir Expansion Project, which will provide water supply reliability and water quality benefits to customers, as well as environmental benefits to the Delta upon its completion date in 2012.
- At the Rock Slough intake of the Contra Costa Canal, construction was completed on a fish screen that was built with federal stimulus funds to protect the environment and the District's access to that water source.
- In the spring, the District received delivery of high-quality Sacramento River water through East Bay Municipal Utility District's Freeport Project under the terms of an agreement reached several years earlier.
- And by the end of the year, the District had five clean energy projects either completed or under way to generate solar and hydroelectric power and reduce its electric bills.

Financially, the District continued to adhere to its Ten-Year Capital Improvement and Financial Plan, which provides a solid foundation of long-range planning and sound investment strategies. By planning 10 years into the future,

we can maintain and upgrade facilities in a preventative manner and avoid major financial surprises. Through conservative financial planning, diversification of revenue and cost containment, we continue to provide excellent customer service at reasonable water rates in a difficult economy.

Throughout the year, the District also continued to be a strong advocate for the Sacramento-San Joaquin Delta. The connection between this District and the Delta is unique in California. Nearly all of the District's water is pumped directly from the Delta, and the health of the Delta ecosystem is one of our highest priorities. Our projects are implemented in ways that improve ecosystems and protect resources for everyone, as we are not interested in improving our operations at someone else's expense. We involve stakeholders in our projects, listen to their feedback and adapt our projects to their concerns. We also apply the best science available and only move forward when we have a strong business case to do so. This approach has proven to be successful for both the Delta and our customers.

I am pleased to present this annual report, which details the District's major accomplishments of 2011. We successfully met many challenges during the year, and we look forward to successfully serving our customers in 2012.

A handwritten signature in black ink that reads "Jerry Brown". The signature is stylized and cursive.

**Jerry Brown**  
General Manager

# Mission Statement

The Mission of the Contra Costa Water District is to strategically provide a reliable supply of high-quality water at the lowest cost possible, in an environmentally responsible manner.

In fulfilling our mission, we will:

- Responsibly serve the public
- Provide District employees a safe and healthy work environment
- Ensure fair and equitable rates and charges
- Work cooperatively with local, regional, state and federal agencies
- Practice ethical behavior
- Ensure an open process
- Ensure equal opportunity and diversity in personnel matters and contracting



Water Conservation Tech Kim Childers teaches customer Joe Harn of Martinez how to read his water meter.

# About the Contra Costa Water District

The Contra Costa Water District serves treated and untreated water to approximately 500,000 people in central and eastern Contra Costa County in Northern California.

Formed in 1936 to provide water for irrigation and industry, the District is now a major urban water supplier and a leader in drinking-water treatment technology and protection of the Sacramento-San Joaquin Delta.

The District provides treated water to Clayton, Clyde, Concord, Pacheco, Port Costa and parts of Martinez, Pleasant Hill and Walnut Creek. In addition, the District sells wholesale treated water to Antioch, the Golden State

Water Company in Bay Point, the Diablo Water District in Oakley, and Brentwood.

The District sells untreated water to the cities of Antioch, Martinez and Pittsburg, as well as to industrial and irrigation customers.

The District pumps water from four intakes in the Sacramento-San Joaquin Delta. The intakes are located at Rock Slough, Old River, Victoria Canal and at Mallard Slough. All four intakes are screened to protect fish. The backbone of the District's water conveyance system is the 48-mile Contra Costa Canal, which starts at Rock Slough and ends at the Martinez Reservoir.



# Improving Water Quality

As it has for many years, the District continued to work diligently throughout 2011 to protect and improve the quality of the water it provides for 500,000 residents of Central and Eastern Contra Costa County.

## Customers' Return on Investment

Over the past 15 years, the District has steadily and significantly improved its water quality by upgrading and adding to its system of infrastructure. No longer is the District limited to pumping and delivering water from the Rock Slough Intake regardless of salt levels or overall quality. It now has four fully screened Delta intakes, allowing the District to monitor water quality and environmental conditions at various locations and pump from the best location at any given time. The newest of these intakes—the Middle River Intake on Victoria Canal—went on-line in 2010 and provided high-quality water throughout 2011 while the water level of the Los Vaqueros Reservoir was drawn down for construction.

For the past 14 years, customers have enjoyed the benefits of the Los Vaqueros Reservoir. Now that important reservoir is being expanded by 60 percent to a capacity of 160,000 acre-feet. In 2011, ground was broken and work got under way. When the expansion is completed in 2012, it will enhance water quality, water-supply reliability and the Delta environment for many years to come. Also, the expansion opens the door to partnership opportunities with other

Bay Area agencies, which could prove to be beneficial to District customers.

Additional water quality benefits have been realized over the years from major upgrades to the District's two treatment plants and the construction of the 21-mile, 42-inch Multi-Purpose Pipeline that connects the Randall-Bold Water Treatment Plant in eastern county to the District's treated-water distribution system in central county. The Multi-Purpose Pipeline ensures reliability in emergencies and gives the District a high degree of operational flexibility by making it possible to serve customers from either plant or shut down one plant entirely for maintenance.

## Benefitting From Regional Cooperation

In 2011, the District reached another milestone in water quality by utilizing its interconnection with the East Bay Municipal Utility District's (EBMUD) Mokelumne Aqueduct to receive its first delivery of 1,500 acre-feet of high-quality Sacramento River water from EBMUD's new intake at Freeport. Annual water deliveries from Freeport are part of a 2007 agreement in which EBMUD agreed to provide water from the recently completed Freeport intake to ensure that the quality of the District's water supply would not be affected by EBMUD's Sacramento River diversions. The interconnection facility in Brentwood allows the two agencies to share water supplies and ensures supply reliability for both agencies in emergencies.



Los Vaqueros Reservoir Expansion construction



# Providing a Reliable Supply



The Contra Costa Water District is committed to providing its customers with a reliable supply of high-quality water for the long term. To do this, the District employs a multi-pronged approach that focuses on developing appropriate storage capacity, conservation and water recycling.

## Establishing Additional Storage

In 2011, construction began and major gains were made on expanding the Los Vaqueros Reservoir. The \$120 million project raises the height of the reservoir's dam by 34 feet and increases capacity to 160,000 acre-feet. Widely considered environmentally sensitive and a model water storage project, the expansion of the off-stream reservoir will provide water-quality assurances for District customers, improved reliability during drought and protections for Delta fisheries and the environment. Refilling of the reservoir started in November, and construction will be completed in spring 2012.

Several neighboring agencies are evaluating potential future partnerships in the project, and in 2012, the East Bay Municipal Utility District will consider including a potential partnership in Los Vaqueros in its long-term water management planning.

In addition to raising the dam, the project relocates the Los Vaqueros Marina to higher ground, realigns trails to reflect the new shoreline and establishes mitigation areas. Also, fishing piers and the boat dock are being rehabilitated to give anglers safe access to some of the best fishing in the Bay Area.

While the enlarged reservoir allows the District to hold more water in storage, the amount of the District's overall water supply remains the same. The District contracts with the U.S. Bureau of Reclamation for its Delta supply, and those contracts have not changed.

## Conserving the Delta Water Supply

For more than 20 years, the District's highly successful water conservation program has encouraged reasonable water use in order to conserve the District's Delta supply and reduce long-term demand. Annual total water use in

the District is now less than it was in the late 1980s (before the program's inception) despite an increase of more than 40 percent in the region's population.

The program is service oriented and geared toward educating customers about everyday ways to save water and money. Elements of the program include on-site surveys, free conservation devices, educational materials, toilet and clothes-washer rebates and other services.

During dry years, the District steps up its already-active program and increases its outreach. Customers have always responded positively. During the 2009 drought, for example, customers were receptive to the District's calls to conserve and cut their water consumption by 20 percent.

In the coming years, the conservation program is sure to play a critical role in the District's efforts to reduce water use by 20 percent by 2020, as mandated by the State of California.

## The Role of Recycled Water

The District is committed to water recycling as an important component of its water-supply portfolio. It cooperates with local water recyclers and partners with businesses, cities and wastewater agencies on the development of cost-effective, environmentally sound recycled-water projects.

Almost 10 percent of the demand for water within the District's boundaries is met with recycled water from the Central Contra Costa Sanitary District in Martinez and the Delta Diablo Sanitation District in Antioch. In other words, of the water used annually by the District's 500,000 customers, 6,100 gallons per person is recycled and reused for industrial and irrigation purposes. This makes more of the District's Delta water supply available for potable water uses.

Long-term plans to address the region's future water needs include recycled water as a key component. It is anticipated that upcoming projects, like the development of the Concord Naval Weapons Station land, will raise the total amount of water recycled annually within the District's boundaries to 6.3 billion gallons by 2019, roughly 20 percent of the overall water demand.

# Ensuring Environmental Sustainability



The Contra Costa Water District understands the critical importance of environmental balance. Keeping the Sacramento-San Joaquin Delta, the Los Vaqueros Watershed and the lands surrounding these features ecologically healthy is essential to sustaining the District's water supply, meeting public health goals and supporting a vibrant regional economy.

In 2011, the District took major steps toward protecting and strengthening its long-term access to its water supply.

## All Delta Intakes Are Now Screened to Protect Fish

A 320-foot-long, state-of-the-art fish screen was built at the entrance of the Contra Costa Canal in Rock Slough in far eastern Contra Costa County. With this new facility, all four of the District's intakes are now fully screened to prevent Delta fish from entering the District's pumping facilities.

The \$27 million project was completely funded by federal stimulus dollars and built by the Bureau of Reclamation in partnership with the District. At a dedication ceremony in September, the project was visited by U.S. Secretary of the Interior Ken Salazar and Reclamation Commissioner Michael Connor, both of whom praised the project for securing an important water supply and providing thousands of hours of employment for local workers.

## Environmental Stewardship Continues at Los Vaqueros

From the inception of the original Los Vaqueros Project more than 25 years ago, the District adopted a philosophy of protecting and improving the environment. It was the environmentally responsible approach, and it was the necessary one to take in order to obtain approvals and permits from the overseeing regulatory agencies.

Over the years, extensive measures have been taken at Los Vaqueros to safeguard the

environmental integrity of the watershed, mitigate the effects of the reservoir on plants and wildlife, and document and preserve the area's cultural history. Today, the Los Vaqueros project is known statewide as a model project and has received broad support from local environmentalists. With the current expansion of the reservoir to a capacity of 160,000 acre-feet, the District continues to be committed to environmental preservation. In 2011, it purchased 5,000 acres of grasslands and other habitats that will be managed as protected open space to mitigate for the environmental impacts of the expansion project. The grassland habitat purchased was specifically selected to protect a wildlife corridor and regional movement opportunities for the San Joaquin kit fox. Other endangered and threatened species protected on the mitigation lands include California red-legged frog, California tiger salamander and Alameda whipsnake.

## Generating Clean Energy

The District currently has five clean energy projects either completed or underway. Four of the projects are solar power installations capable of generating more than one million kilowatt hours of electricity annually at the District's Bailey, Lime Ridge, San Miguel and Ygnacio reservoir and/or pump stations. These projects diversify the District's energy supply, limit its exposure to Pacific Gas and Electric Company's rising rates, and reduce the District's carbon footprint.

The fifth project is a hydroelectric generation facility that will produce 1,000 kilowatts of electricity by capturing and converting the hydraulic energy available in the Los Vaqueros Pipeline. Construction started in 2011 on this project, which will offset some of the electricity the District purchases to operate pumping and conveyance facilities. The facility is located in Antioch and is scheduled for completion in 2012.



# Long-Range Planning Maintains Financial Stability

The Contra Costa Water District maximizes its control over operations and prevents financial surprises by utilizing an on-going financial planning process that projects 10 years into the future and is updated every year. With this long-range planning process, the District can ensure the sustainability of its water system and fulfill its mission of providing 500,000 people with high-quality water in a cost-effective and environmentally responsible manner.

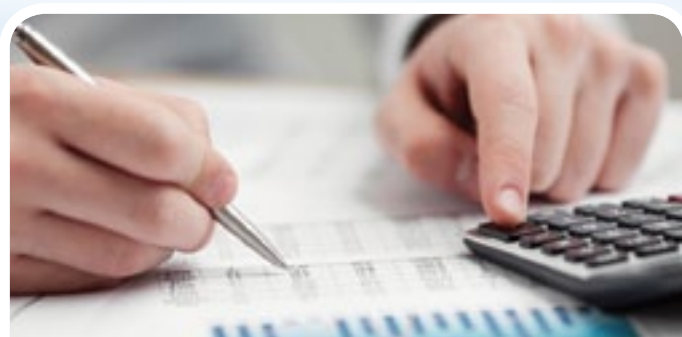
The District's long history of effective financial management has placed it among the few water agencies in California to earn debt credit ratings of AA+ from Standard and Poors (S&P) and Fitch Ratings, and Aa2 from Moody's Investors Services. With these excellent ratings, the District can obtain favorable financing for essential projects and continue to meet and exceed its customers' service expectations.

The District is also taking advantage of the current economic climate by investing in planned infrastructure projects now, while the construction-bidding and debt-financing

environments are favorable. This practice provides long-term value to customers at a cost that might not be possible in future years. A good example of a project that is currently underway and will provide excellent value for customers is the expansion of the Los Vaqueros Reservoir, which will assure water quality and improve reliability.

Over the past several years, the District has been successful at reducing the pressure on water rates by diversifying its revenue sources. As a result, the District currently receives less than 70 percent of its revenue from rates, down from more than 90 percent in 1997. Also, the District has added about \$400 million in assets over the last 12 years without increasing staff, and employees are paying more of their benefit costs to ease the burden on ratepayers.

Overall, by utilizing long-range financial planning, the District operates as a responsible utility, ensures that it is sustainable, and protects the purchasing power of its customers, even in a volatile economy.



Los Vaqueros Expansion  
construction

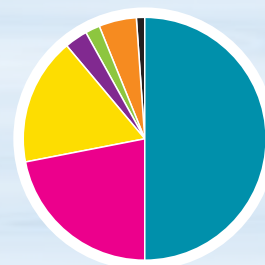


# Comparative Financial Highlights

## Sources and Uses of Funds (Cash Flows)

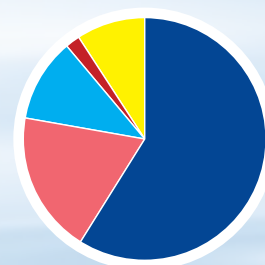
### What We Received (in thousands of dollars)

Receipts from customers	\$ 92,803	50%
Capital financing	40,800	22%
Grants*	30,859	17%
Contributions in aid of construction	6,073	3%
Investment income	4,285	2%
Other income	9,129	5%
Property taxes	2,880	1%
	<u>\$186,829</u>	<u>100%</u>



### How It Was Used (in thousands of dollars)

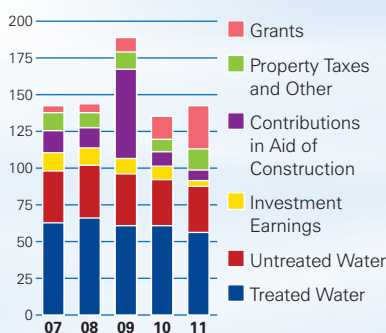
Investment in infrastructure	\$109,927	59%
Water operations	35,637	19%
Administrative and general	20,478	11%
Public information and customer service	3,759	2%
Reserves*	17,028	9%
	<u>\$186,829</u>	<u>100%</u>



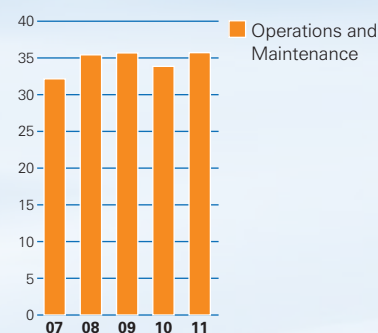
\*Includes Proposition 84 grant funding, related expenditures paid in FY12. Receipt in FY11 temporarily shown as funding of Reserves pending payment of expenditures in FY12

## Trends

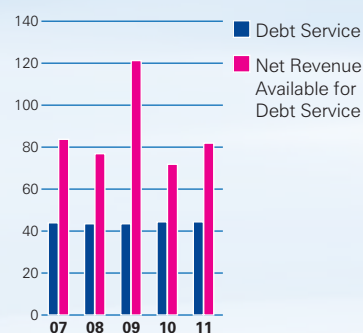
### Revenues (Millions \$)



### Operations and Maintenance Expense (Millions \$)



### Net Revenues and Debt Service (Millions \$)



**NOTE:** FY09 Revenues and Net Revenues available for debt service include a \$52 million reimbursement from the City of Brentwood to pay for the Brentwood Water Treatment Plant.

The District's fiscal position is managed to provide sustainable funding of its long-term financial plan and infrastructure improvement program. The five-year comparative charts above depict the District's consistent financial performance, built on a foundation of treated and untreated water revenues. This base is augmented by diversifying revenue sources to include: grants, investment earnings, contributions from developers for new infrastructure, and other non-operating revenues, such as livestock grazing, lease revenues,

and easements. These revenues offset costs that would otherwise be borne by the District's ratepayers. Over the past decade-plus, the District has reduced its reliance on rate revenues from 85% to an average of 68% through revenue diversification. Operations and maintenance expenses are effectively utilized to ensure our customers a reliable supply of high quality water. The net revenues and debt service graph reflects a reasonable margin for the District to repay its annual debt service obligations.

# Balance Sheet



	<u>2011</u>	<u>2010</u>
<b>Assets</b>		
<b>Noncurrent assets:</b>		
Capital assets	\$ 1,175,932,399	\$ 1,135,779,965
Notes receivable	743,073	977,136
Prepaid other post-employment benefit	3,202,512	3,043,778
Restricted cash and investments	168,333,573	183,210,806
Unamortized bond issuance costs	<u>2,412,248</u>	<u>2,877,062</u>
Total noncurrent assets	1,350,623,805	1,325,888,747
<b>Current assets:</b>		
Unrestricted cash and investments	96,651,658	102,514,697
Receivables	21,799,756	30,115,780
Other current assets	<u>1,771,147</u>	<u>2,527,427</u>
Total current assets	120,222,561	135,157,904
<b>Total assets</b>	<b><u>\$ 1,470,846,366</u></b>	<b><u>\$ 1,461,046,651</u></b>
<b>Liabilities and Net Assets</b>		
<b>Noncurrent liabilities:</b>		
Notes payable	\$ 99,979,872	\$ 131,530,095
Long-term debt	418,384,741	439,031,146
Advances for construction	4,445,696	4,472,011
Deferred revenue and other	<u>976,651</u>	<u>1,203,510</u>
Total noncurrent liabilities	523,786,960	576,236,762
<b>Current liabilities:</b>		
Current notes and contracts payable	31,092,392	1,160,142
Current maturities of long-term debt	21,729,502	21,020,787
Accounts payable	17,964,596	17,895,855
Accrued payroll and related expenses	6,352,190	5,806,189
Interest payable	<u>6,453,735</u>	<u>5,894,708</u>
Total current liabilities	83,592,415	51,777,681
Total liabilities	<u>607,379,375</u>	<u>628,014,443</u>
<b>Net assets:</b>		
Invested in capital assets, net of related debt	663,118,912	639,237,428
Restricted for capital projects	112,372,800	89,888,234
Unrestricted new assets (deficit)	<u>87,975,279</u>	<u>103,906,546</u>
Total net assets	863,466,991	833,032,208
<b>Total liabilities and net assets</b>	<b><u>\$ 1,470,846,366</u></b>	<b><u>\$ 1,461,046,651</u></b>

# Income Statement

	<u>2011</u>	<u>2010</u>
<b>Operating revenues:</b>		
Untreated water sales	\$ 31,116,132	\$ 31,921,696
Treated water sales	57,064,934	60,964,303
Reimbursement of operating expenses	4,477,957	3,725,519
Miscellaneous service charges	143,576	139,306
Total operating revenues	<u>92,802,599</u>	<u>96,750,824</u>
<b>Operating expenses:</b>		
Source of supply	5,385,065	5,692,705
Water treatment	7,826,702	7,742,452
Pumping	4,487,442	4,187,622
Transmission and distribution	1,112,076	994,399
Maintenance	16,824,696	15,518,557
Public information and customer service	3,758,649	4,014,269
Administration and general	20,447,853	22,144,516
Depreciation and amortization	27,109,127	26,486,715
Total operating expenses	<u>86,951,610</u>	<u>86,781,235</u>
<b>Operating income</b>	5,850,989	9,969,589
<b>Nonoperating revenue (expense):</b>		
Property taxes	2,880,114	2,678,217
Investment earning	4,359,217	6,251,399
Net increase in fair value of investments	(74,283)	2,564,544
Contributions in aid of construction	6,072,676	6,649,595
Interest expense	(24,020,504)	(25,976,023)
Grants	30,858,703	18,971,886
Rent and other, net	4,507,871	1,649,615
Total nonoperating revenue (expense)	<u>24,583,794</u>	<u>12,789,233</u>
<b>Change in net assets</b>	<b><u>\$ 30,434,783</u></b>	<b><u>\$ 22,758,822</u></b>

# District Profile

## Total District

### Service Area

Central and Eastern Contra Costa County

Total Area of District . . . . .137,127 acres

Population Served. . . . .500,000

### Water Revenues

Municipal. . . . .20.0%

Industrial . . . . .15.9%

Residential. . . . .50.4%

Commercial. . . . .9.6%

Public Facilities and Other. . . . .4.1%

Number of Budgeted Employees . . . .329.5 (*full-time equivalents*)

Capital Assets . . . . . \$1,175,932,399

### Retail Treated Water Service

Clayton	Pacheco
Clyde	Pleasant Hill ( <i>portion</i> )
Concord	Port Costa
Martinez ( <i>portion</i> )	Walnut Creek ( <i>portion</i> )

### Wholesale Treated Water Customers

Antioch	Golden State Water Company (Bay Point)
Brentwood	Diablo Water District ( <i>from jointly owned treatment plant</i> )

### Wholesale Untreated Water Customers

(*Purchasers of untreated water from CCWD for treatment and distribution*)

City of Antioch	City of Pittsburg
City of Martinez	

### Major Industrial Customers

Tesoro Refining and Marketing	GWF Power
Shell Oil	General Chemical
Foster Wheeler	Calpine
Rhodia	USS Posco
Dow Chemical Company	Eight other smaller industries

### Agricultural

22 customers

## Untreated Water Supply Facilities

### Intakes

Delta water is drawn from four intakes: the Rock Slough Intake near Oakley, the Old River Intake near Discovery Bay, the Middle River Intake on Victoria Canal and the Mallard Slough Intake in Bay Point. Depending on the intake and where water is needed, the water is diverted into the Contra Costa Canal and/or the Los Vaqueros Pipeline and conveyed to treatment plants and reservoirs located throughout eastern and central Contra Costa County.

### Contra Costa Canal

Part of the Central Valley Project, the Contra Costa Canal is the backbone of the Contra Costa Water District, delivering water from the Delta to the District's treatment facilities and untreated-water customers. The canal is a 48-mile long facility that starts at Rock Slough and ends at the Terminal Reservoir in Martinez. It travels through a four-mile unlined channel before entering the concrete-lined section of the canal in Oakley.

### Los Vaqueros Pipeline

A 20-mile-long buried pipeline transports water from the Old River Intake and the Middle River Intake to a Transfer Station outside Brentwood, then south to the Los Vaqueros Reservoir and north to the Contra Costa Canal.

### Pumping Plants

Four stations lift water 124 feet above sea level from Rock Slough to the Contra Costa Canal's Antioch summit, after which gravity propels the water to its terminus in Martinez. The District also operates pumping plants at the Old River Intake, Middle River Intake, Mallard Slough Intake and the Los Vaqueros Transfer Facility.

### Reservoirs

Martinez Reservoir . . . . .	270 acre-feet	Mallard Reservoir . . . . .	3,000 acre-feet
Contra Loma Reservoir . . . . .	2,500 acre-feet	Los Vaqueros Reservoir . . . . .	160,000 acre-feet

## Treated Water Distribution Facilities

Pipelines . . . . .	868 miles	Pump Stations . . . . .	31
Storage Reservoirs . . . . .	40	Connections . . . . .	60,980

### Ralph D. Bollman Water Treatment Plant

Conventional treatment (coagulation, flocculation, sedimentation); mixed media GAC (granular activated carbon) filtration; intermediate and post ozonation.

Plant Capacity . . . . . 75 million gallons a day

### Randall-Bold Water Treatment Plant

Conventional treatment (coagulation, flocculation, sedimentation); dual media GAC (granular activated carbon) filtration; intermediate and post ozonation.

Plant Capacity . . . . . 50 million gallons a day

*(This plant is jointly owned with the Diablo Water District.)*

### CCWD/City of Brentwood Treatment Plant

Conventional treatment (coagulation, flocculation, sedimentation); dual media GAC (granular activated carbon) filtration; and intermediate ozonation.

Plant Capacity . . . . . 16.5 million gallons a day

*(This plant was built for and is operated for the City of Brentwood.)*





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