

SECTION 4.0

CONTRA COSTA WATER DISTRICT

WATER SERVICES

4.1 Overview

The Contra Costa Water District (CCWD) was formed in 1936, pursuant to the County Water District Law (California Water Code §30000 et seq.), to purchase and distribute water provided by the US Bureau of Reclamation (USBR) from the federal government's Central Valley Project (CVP). The District boundaries encompass approximately 214 square miles in central and eastern Contra Costa County. CCWD's untreated water service area includes Antioch, Bay Point, Oakley, Pittsburg, and portions of Brentwood and Martinez. The District's Treated Water Service Area includes Clayton, Clyde, Concord, Pacheco, Port Costa, and parts of Martinez, Pleasant Hill, and Walnut Creek. CCWD also treats and delivers water to the City of Brentwood, Golden State Water Company (Bay Point), Diablo Water District (Oakley), and the City of Antioch. CCWD serves approximately 510,000 people within both service areas combined.

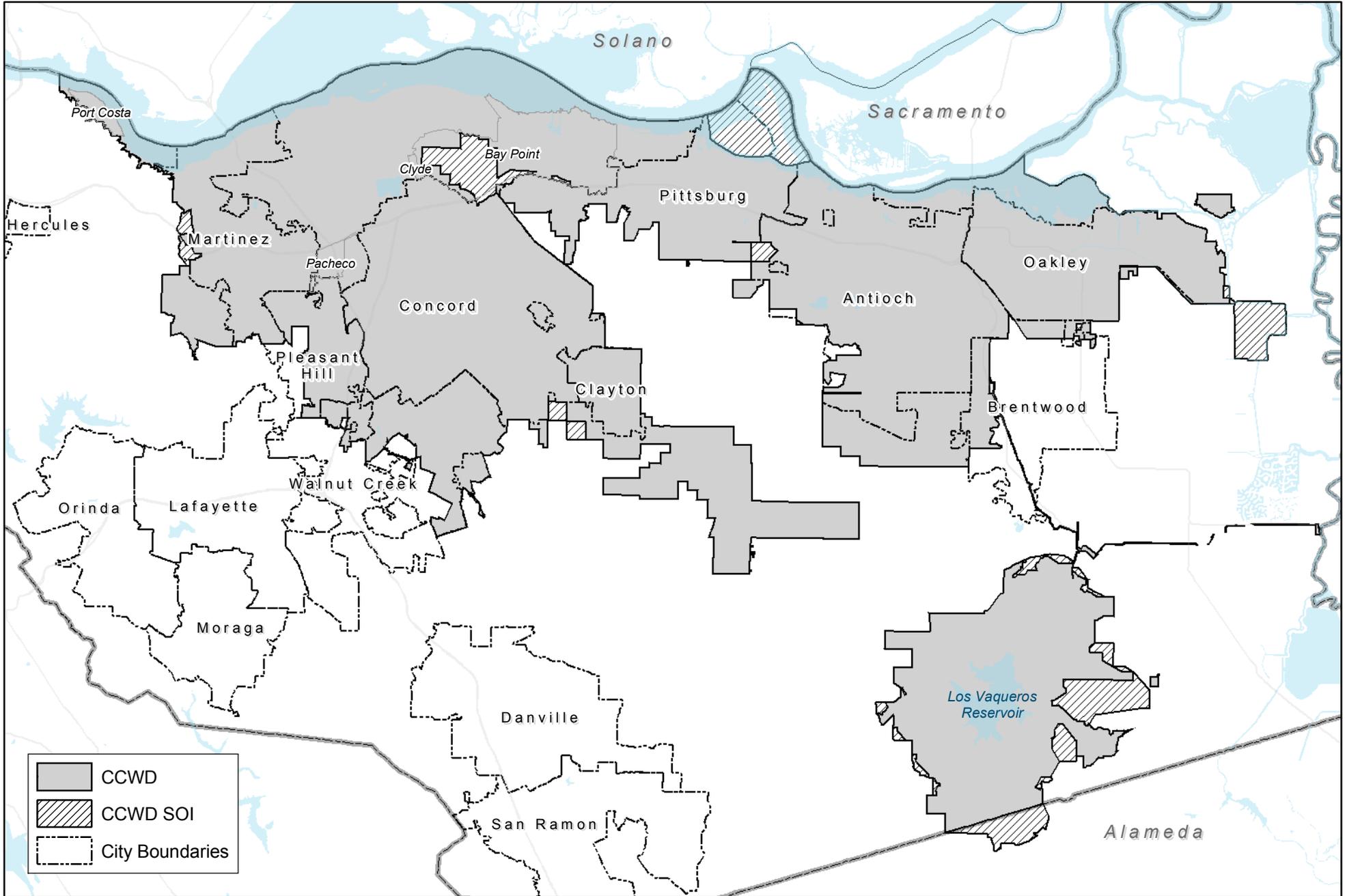
CCWD's primary source of water supply is the United States Bureau of Reclamation's (USBR) Central Valley Project (CVP). Water is diverted from the Delta and conveyed through the 48-mile Contra Costa Canal. CCWD has four untreated water storage reservoirs, including the 100,000 acre foot (af) Los Vaqueros Reservoir in southeastern Contra Costa County. CCWD owns and operates the 75 million gallon per day (mgd) Bollman Water Treatment Plant north of Concord, which serves central Contra Costa County, and the 40 mgd Randall-Bold Water Treatment Plant in Oakley. The Randall-Bold Water Treatment Plant is jointly owned with the Diablo Water District and provides water to the cities of Brentwood and Antioch and the District's Treated Water Service Area. By agreement, CCWD is constructing and will own and operate the new 12 mgd City of Brentwood Water Treatment Plant located adjacent to the Randall-Bold Water Treatment Plant.

The District's profile for water service is shown in *Table 4.1*. A map of the District's boundary and current SOI are shown in *Figure 4.1*, and a map of the District's treated water service area is shown in *Figure 4.2*.

**Table 4.1
Contra Costa Water District
Water Service Information**

Service Area / Financial Summary	
District Office:	1331 Concord Avenue – PO Box H20 Concord, CA 94524 (925) 688-8000 www.ccwater.com
Service Area:	214 square miles
Population:	507,823 (Year 2005) 649,265 (Year 2030) Average Annual Growth Rate = 1.0%
Operating Budget (FY 2007-2008): Water District Enterprise Fund	Revenues / Expenditures: \$95,828,000 / \$61,387,075
Net Assets:	Water District Fund Net Assets 06/30/2006: \$674,608,411
Water Service Data	
Services	Untreated Water Supply, Water Treatment and Distribution
Untreated Water System:	
Primary Source of Supply	Central Valley Project / Delta Diversions
Conveyance	Contra Costa Canal (48 miles) / Los Vaqueros Pipeline (20 miles) 7 pump stations
Storage	4 reservoirs / 106,000 af
Treated Water System:	
Number of Treated Water Service Connections	60,636
Water Main / Pump Stations	800 miles / 30 pump stations / 8 pressure zones
Average Age of Distribution System	32 years
Treatment and Capacity	Bollman Water Treatment Plant / 75 mgd Randall-Bold Water Treatment Plant / 40 mgd (25 mgd CCWD / 15 mgd Diablo Water District) City of Brentwood Water Treatment Plant / 12 mgd (under construction)
Storage Capacity	40 reservoirs / 70 mg
Average Day Demand / Maximum Day Demand	40 mgd / 80 mgd

Contra Costa Water District and Sphere of Influence



	CCWD
	CCWD SOI
	City Boundaries

Map created 11/28/2007
by Contra Costa County Community Development, GIS Group
601 Pine Street, 4th Floor North Wing, Martinez, CA 94553-2055
37.59.48.455N 122.06.35.384W

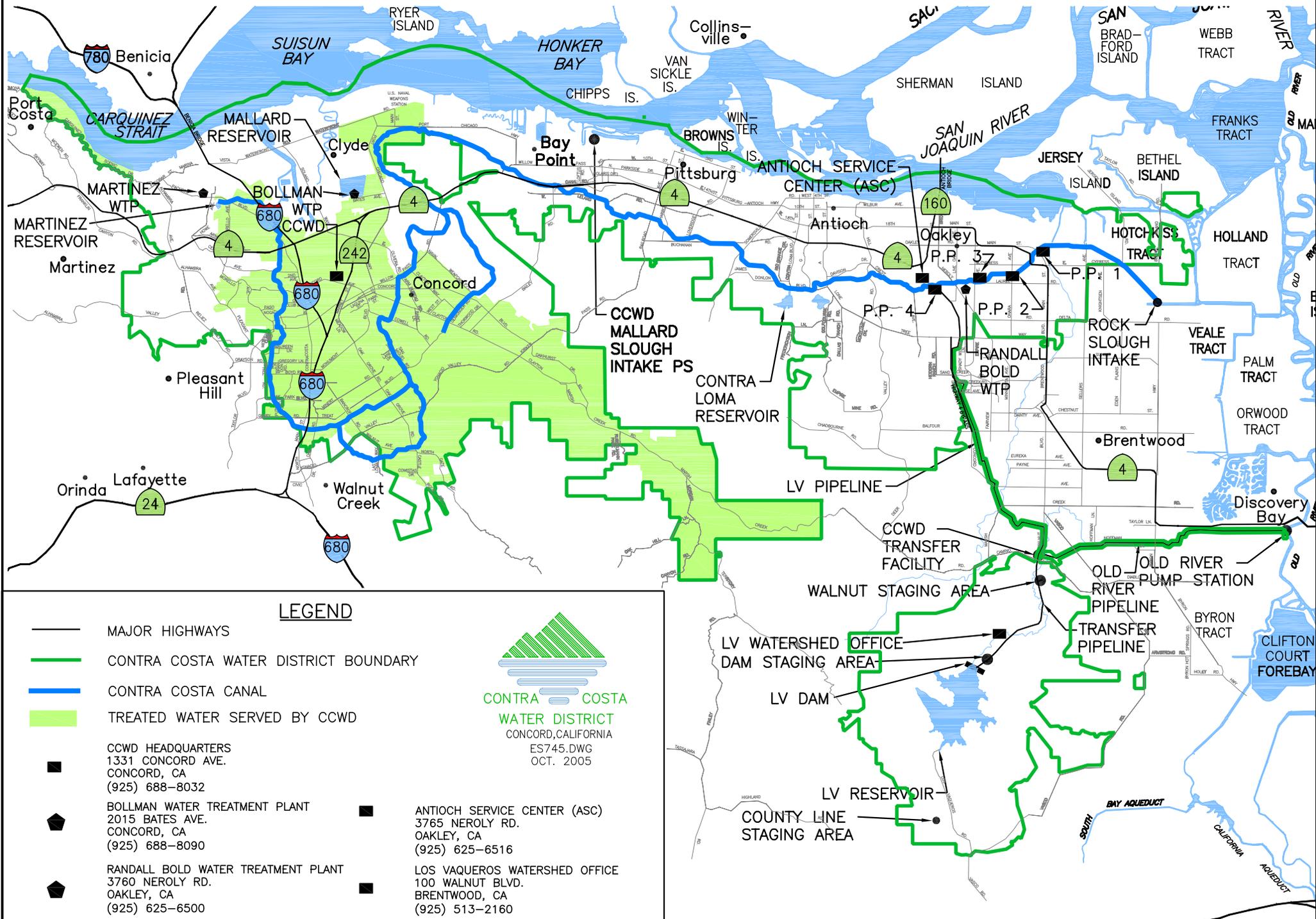
This map was created by the Contra Costa County Community Development Department with data from the Contra Costa County GIS Program. Some base data, primarily City Limits, is derived from the CA State Board of Equalization's tax rate areas. While obligated to use this data the County assumes no responsibility for its accuracy. This map contains copyrighted information and may not be altered. It may be reproduced in its current state if the source is cited. Users of this map agree to read and accept the County of Contra Costa disclaimer of liability for geographic information.



CONTRA COSTA WATER DISTRICT

Figure 4.2

FIGURE 2-1 MAJOR FACILITIES



LEGEND

- MAJOR HIGHWAYS
- CONTRA COSTA WATER DISTRICT BOUNDARY
- CONTRA COSTA CANAL
- TREATED WATER SERVED BY CCWD



- CCWD HEADQUARTERS
1331 CONCORD AVE.
CONCORD, CA
(925) 688-8032
- BOLLMAN WATER TREATMENT PLANT
2015 BATES AVE.
CONCORD, CA
(925) 688-8090
- RANDALL BOLD WATER TREATMENT PLANT
3760 NEROLY RD.
OAKLEY, CA
(925) 625-6500

- ANTIPOCH SERVICE CENTER (ASC)
3765 NEROLY RD.
OAKLEY, CA
(925) 625-6516
- LOS VAQUEROS WATERSHED OFFICE
100 WALNUT BLVD.
BRENTWOOD, CA
(925) 513-2160

4.2 Growth and Population Projections

The Contra Costa Water District (CCWD) serves an area of approximately 214 square miles (137,127 acres) in central and eastern Contra Costa County. CCWD’s untreated water service area includes Antioch, Bay Point, Oakley, Pittsburg, and portions of Brentwood and Martinez. The District’s Treated Water Service Area includes Clayton, Clyde, Concord, Pacheco, Port Costa, and parts of Martinez, Pleasant Hill, and Walnut Creek. CCWD also treats and delivers water to the City of Brentwood, Golden State Water Company (Bay Point), Diablo Water District (Oakley), and the City of Antioch. Based on the 2005 population projections prepared by the Association of Bay Area Governments (ABAG), CCWD serves approximately 510,000 people. This is projected to reach nearly 650,000 by 2030. *Table 4.2* summarizes the population projections within CCWD’s service areas.

**Table 4.2
Contra Costa Water District
Population Projections**

	2005	2010	2015	2020	2025	2030	Avg. Annual Growth Rate
Treated Water Service Area <i>Clayton, Clyde, Concord, Martinez, Pacheco, Pleasant Hill, Port Costa, Walnut Creek, and unincorporated</i>	207,313	212,958	221,102	230,146	240,429	249,525	0.8%
Untreated Water Service Area <i>Antioch, Bay Point, Brentwood overlap area, Martinez, Oakley, and Pittsburg</i>	252,559	266,929	282,379	298,930	312,880	327,020	1.1%
Other Unincorporated Areas¹ <i>Areas within CCWD boundaries or untreated water customer planning areas: Bethel Island, Cypress Corridor, Knightsen, Veale Tract</i>	9,860	13,490	17,290	21,090	21,475	21,860	3.3%
Subtotal	469,732	493,377	520,771	550,166	574,784	598,405	1.0%
City of Brentwood (remaining) ²	38,091	42,881	44,171	44,960	48,060	50,860	1.2%
Total	507,823	536,258	564,942	595,126	622,844	649,265	1.0%

Source: CCWD 2005 Urban Water Management Plan; based on ABAG Projections 2005.

¹*The City of Oakley annexed 2,100 acres of the East Cypress Corridor in 2006; this area is now within CCWD’s untreated water service area.*

²*Once the Brentwood Water Treatment Plant is operational, CCWD will be providing water treatment services for the entire city.*

The majority of the population is in CCWD's untreated water service area; this area, along with unincorporated areas in the eastern portion of the District, will experience the most significant growth. In the District's December 2006 Water Management Plan submitted to USBR, four significant future land use changes were noted:

- Concord Naval Weapons Station Reuse, Concord: The Reuse Plan currently includes seven conceptual development alternatives, ranging from 6,230 residential units with a population of 14,700 to 13,000 residential units with a population of 30,600.
- East Cypress Corridor Specific Plan, Oakley: The Specific Plan proposes the development of mixed uses for the 2,546 acre site that is currently in open space and agricultural use.
- Roddy Ranch, Antioch: Future development will include approximately 1,300 homes.
- City of Pittsburg Urban Limit Line Expansion: The City's Urban Limit Line expansion included approximately 2,000 acres, most of which is currently outside the service areas for CCWD and the Central Valley Project (CVP), as well as CCWD's Los Vaqueros Planning area.

CCWD's service area includes a significant industrial base with oil refineries, steel mills, and chemical manufacturing facilities. Large industrial accounts represent approximately one-third of total water use within the District's boundaries. These entities are an important component of the region's economy and will continue to be a significant customer class for CCWD.

There will be an increased need for the District's services as growth occurs. CCWD is a Central Valley Project contractor delivering water to the central and eastern portions of the county. CVP water is an essential source of water supply for the region. CCWD also has ongoing programs to evaluate and develop other water resources, such as water transfers, conservation, desalination, and expanding the use of recycled water. CCWD has planned for projected growth within its treated and untreated water service areas to ensure that water supplies remain reliable.

4.3 Infrastructure Needs or Deficiencies

4.3.1 Water Supply and Demand

Water Supply

CCWD is a Central Valley Project contractor and delivers untreated water through the USBR CVP. CCWD's untreated water service area includes Antioch, Bay Point, Oakley, Pittsburg, and portions of Brentwood and Martinez. The untreated water is conveyed through the Contra Costa Canal.

The District's Treated Water Service Area includes Clayton, Clyde, Concord, Pacheco, Port Costa, and parts of Martinez, Pleasant Hill, and Walnut Creek. CCWD also treats and delivers water to the City of Brentwood, Golden State Water Company (Bay Point), Diablo Water District (Oakley), and the City of Antioch.

CVP water includes regulated and unregulated flows from storage releases from Shasta, Folsom, and Clair Engle reservoirs into the Sacramento River. CCWD's long-term CVP contract was renewed in May 2005 for a 40-year term. The contract provides for a maximum delivery of 195,000 acre-feet per year (af/yr) with reductions in deliveries during water shortages including regulatory restrictions and drought. USBR's Municipal and Industrial Water Shortage Policy was developed to establish CVP water supply levels that would sustain urban areas during severe or continuing droughts. The Policy provides for a minimum allocation of 75 percent of adjusted historical use until irrigation allocations fall below 25 percent. In 2007, CCWD is receiving 100 percent of its allocated supply. However, if conditions are dry again next year, the District anticipates that the CVP allocation would likely be less than 100 percent due to lower storage levels in CVP reservoirs.

In addition to CVP water, CCWD has water rights for surplus Delta flows for filling Los Vaqueros Reservoir, water rights at Mallard Slough, and a permanent entitlement to surplus irrigation water from the East Contra Costa Irrigation District (ECCID). Up to 95,980 acre-feet may be diverted to fill the Los Vaqueros Reservoir from November 1 to June 30 each year under Water Rights Permit No. 20749. When Los Vaqueros water rights water is used, CVP supplies are reduced by the same amount. The Mallard Slough right is for a maximum of 26,700 af/yr but is limited to an average of 3,100 af/yr due to water quality, with none available in dry years. The entitlement from ECCID is for a maximum of 8,200 af/yr with about 6,000 acre feet currently available for use. The agreement with ECCID also includes a dry year groundwater exchange option that provides an additional 4,000 af when the CVP is in a shortage condition.

Water quality in the Delta fluctuates seasonally, depending on the amount of fresh water flows. CCWD uses the Los Vaqueros Reservoir for water quality and emergency storage purposes, not new supply. The reservoir has a capacity of 100,000 acre feet and is filled with high quality water from the Delta during the winter and spring. During the summer months when salinity levels are higher in the Delta, water from the reservoir is blended with the water pumped from the Delta to achieve the District's water quality objectives.

In 1996, CCWD completed the Future Water Supply Study (FWSS) to identify alternatives to ensure a reliable water supply for its wholesale and retail customers for the next 50 years, which provides drought management strategies that will be used such as enhanced conservation, water transfers, and increased use of local resources. The FWSS was updated in 2002. The FWSS, adopted by the CCWD Board of Directors, considers water demand, conservation, and existing

and potential supplies for a range of service alternatives. The water supply reliability goal adopted by the Board of Directors is to meet at least 85 percent of demand in a second and third dry year, and 100 percent of demand in all other years.

CCWD is collaborating with the East Bay Municipal Utility District, Santa Clara Valley Water District, and the San Francisco Public Utilities Commission on planning and studies for a regional desalination facility that would provide a supplemental water source for the region. Pilot testing is planned for 2007/2008.

Current water conditions within the State are unprecedented, with historic dry year conditions and environmental issues within the Bay-Delta system that may impact how the Delta is managed in the future. Dry year conditions reduce Delta outflow causing poorer water quality in the Delta. This requires additional releases from Los Vaqueros to ensure water quality for CCWD deliveries. Ultimately this condition may affect how CCWD manages its water supplies for the long term, and the District's wholesale customers would be subject to those terms and conditions.

Increasingly stringent drinking water regulations and pressures on the Delta that trend in the direction of worsening Delta water quality will continue to be a challenge in the future. CCWD has plans and projects in planning stages, such as the Alternative Intake Project, to overcome these water quality challenges. The District intends to continue to advocate at regional, state, and federal levels for policies and programs that improve Delta water quality such as guaranteed fresh water flows into and through the Delta.

Water Demand

In 2005, approximately 64 percent of the District's water supply was delivered to the District's ~~raw~~ untreated water service area. Of this amount, demand was equally split between municipal use and major industrial/irrigation/agriculture accounts. Within the treated water service area, the majority of water demand is for residential use (approximately 69 percent in 2004).

Balancing Supply and Demand

The projected water supply and demand within CCWD's service area is shown in *Table 4.3*. The industrial diversions, Antioch diversions, groundwater, and recycled water projections represent water supplies available within CCWD's service area, but are not directly managed by the District. The industrial diversions pertain to water rights to the San Joaquin River held by private industries. The City of Antioch has rights to pump from the San Joaquin River as well.¹ There are an undetermined number of wells throughout the CCWD service area owned by

¹ See discussion in the Contra Costa LAFCO Water and Wastewater Municipal Services Review for Eastern Contra Costa County, December 2007.

**4.0 Contra Costa Water District
Water Services**

industries, private individuals, and public municipal water utilities. The District does not manage groundwater, but estimates total use within District boundaries at 3,000 af/yr. Recycled water is currently provided by the Central Contra Costa Sanitary District (CCCSD) and Delta Diablo Sanitation District.

Table 4.3
Projected Water Supply and Demand
(AF/Yr)

	2005	2010	2015	2020	2025	2030
Normal Conditions						
Supply:						
CVP	174,100	194,700	195,000	195,000	195,000	195,000
Mallard Slough	3,100	3,100	3,100	3,100	3,100	3,100
ECCID Purchases	5,700	7,000	8,200	8,200	8,200	8,200
Industrial Diversions	10,000	10,000	10,000	10,000	10,000	10,000
Antioch Diversions	6,700	6,700	6,700	6,700	6,700	6,700
Groundwater	3,000	3,000	3,000	3,000	3,000	3,000
Recycled Water	7,500	12,000	12,000	12,000	12,000	12,000
Total Firm Supply	210,100	236,500	238,000	238,000	238,000	238,000
Conservation Savings	0	3,800	6,200	8,500	11,100	13,600
Total Planned Supply	210,100	240,300	244,200	246,500	249,100	251,600
Demand:						
Untreated Water Service Area	106,148	130,169	136,344	142,518	146,438	150,357
Treated Water Service Area	46,434	51,769	54,162	56,555	57,795	59,034
Other Unincorporated Areas	262	310	354	398	428	457
Unaccounted for Water*	12,500	12,500	12,500	12,500	12,500	12,500
Total Water Use	165,300	194,700	203,400	212,000	217,200	222,300
Difference	44,800	45,600	40,800	34,500	31,900	29,300
Single Dry Year						
Total Planned Supply	168,200	195,300	204,200	212,500	218,100	222,600
Demand	143,750	194,700	203,400	212,000	217,200	222,300
Difference	24,450	600	800	500	900	300

Source: CCWD 2005 Urban Water Management Plan Tables 2-3, 2-4, 2-6

*Unaccounted for water includes untreated water conveyance losses and Mallard and Los Vaqueros evaporative losses

The District has a four stage water shortage contingency plan, with various stages triggered by supply reductions. Per the District’s adopted 2005 Urban Water Management Plan, CCWD’s firm water supply is adequate to meet demands in normal and single dry years through 2030. The District plans to meet its water supply reliability goal of 85 percent of demand in the second and third years of a multi year dry period through a variety of programs, including short term water transfers and enhanced conservation. The District is a member of the California Urban Water Conservation Council and is signatory to the Council’s Memorandum of Understanding Regarding Urban Water Conservation in California. As such, CCWD is implementing comprehensive demand management measures directly within the treated water service area and indirectly through the retail providers within the untreated water service area.

4.3.2 Water System Infrastructure

The District’s water system infrastructure includes untreated water conveyance and reservoirs, and water treatment and conveyance facilities. The District has a catastrophic supply interruption plan and an Emergency Operations Plan. *Table 4.4* summarizes the existing water system facilities:

Table 4.4
Contra Costa Water District
Water System Overview

	Quantity
<i>Untreated Water System:</i>	
Conveyance	Contra Costa Canal (48 miles)/ Los Vaqueros Pipeline (20 miles) / 7 pump stations
Reservoirs	4 reservoirs / 106,000 af
<i>Treated Water System</i>	
Water Mains / Booster Stations	800 miles / 30 pump stations / 8 pressure zones
Storage Capacity	40 reservoirs / 70mg
Average Age of Distribution System	32 years
Treatment / Capacity	Bollman Water Treatment Plant / 75 mgd Randall-Bold Water Treatment Plant / 40 mgd (25 mgd CCWD / 15 mgd Diablo Water District) City of Brentwood Water Treatment Plan/12 mgd (under construction)
Average Day Demand / Maximum Day Demand	40 mgd/ 80 mgd

Untreated Water System

The primary conveyance facility for CCWD’s untreated water supply is the 48-mile Contra Costa Canal, which carries water from Rock Slough. The major deliveries are in the first 19

miles. Four pumping plants within the first 7.1 miles lift the water 124 feet to flow the remaining length of the main canal by gravity. The Canal terminates in the Martinez Reservoir.

For the Los Vaqueros project, the District diverts water at Old River, south of the Highway 4 crossing. The Old River diversion works in conjunction with the Rock Slough diversion point, associated water transmission facilities, pumping plants, and other facilities. The Old River pumping plant supplies untreated water to the Contra Costa Canal and is used to replenish the Los Vaqueros Reservoir through the Transfer Reservoir. Water stored in the Los Vaqueros Reservoir is conveyed to the Canal by gravity through the Los Vaqueros Pipeline.

The District has established the Los Vaqueros Project (LVP) area. Water from LVP facilities is approved for use in a defined area set forth in the permits and environmental documentation for the Los Vaqueros Project. The District must approve the addition of any lands to the LVP Service Area before such lands can receive service from LVP facilities.

CCWD has four untreated water storage reservoirs: Mallard, Contra Loma, Martinez, and Los Vaqueros. The following *Table 4.5* summarizes the reservoirs:

Table 4.5
Contra Costa Water District
Untreated Water Reservoirs

Reservoir	Use	Capacity
Mallard	Provides water to Bollman WTP; emergency use, flow regulation	3,000 af
Contra Loma	Regulating reservoir for peak demands, short term supplies, emergency storage	2,500 af
Martinez	Regulating storage to capture Canal flows; water supply for City of Martinez Water System	270 af
Los Vaqueros	Water quality; minimum 3-month emergency supply; operational flexibility to protect fisheries	100,000 af
Total		105,770 af

In 2007, CCWD and EBMUD completed an intertie between CCWD’s Los Vaqueros Pipeline and EBMUD’s Mokelumne Aqueduct, two critical water supply conveyance facilities. Through the intertie the agencies can assist each other in the event of an emergency, such as an earthquake, Delta levee break, or drought.

CCWD completed a Seismic Reliability and Improvements Study in 1997 of the reliability and capacity of its water distribution facilities. As a result of the study, the District completed three major capital projects to improve capacity and reliability of the untreated water system. The Raw Water Seismic Improvement Project reinforced seven areas of seismic vulnerability along

the Contra Costa Canal. The Mallard Slough Pump Station project replaced the existing 65 year old Mallard Slough intake at Bay Point. Lastly, the Multi-Purpose Pipeline (MPP) supplemented the capacity of the Contra Costa Canal and provided a seismically reliable connection between Randall-Bold and Bollman Water Treatment Plants.

Treated Water System

CCWD's primary water treatment facility is the Bollman Water Treatment Plant located north of Concord. The plant has a permitted capacity of 75 million gallons per day (mgd). Water is pumped from the plant to the treated water service area.

CCWD jointly owns the Randall-Bold Water Treatment Plant in Oakley with the Diablo Water District (DWD); CCWD operates the 40 mgd plant. The DWD portion of the plant provides treated water to the DWD service area in Oakley. The CCWD portion delivers treated water to the cities of Brentwood and Antioch and the District's Treated Water Service Area.

In 2003, CCWD completed a 22 mile Multi-Purpose Pipeline (MPP) to increase system conveyance capacity and improve reliability. The MPP delivers treated water from the Randall-Bold Water Treatment Plant to customers in the Central County so that capacity in the Canal is freed up for use by wholesale and industrial customers.

In 2004, CCWD entered into an agreement to treat water for the City of Brentwood. Under the agreement, CCWD will construct and operate the 12 mgd plant located adjacent to the Randall-Bold Water Treatment Plant. The plant is designed to allow for expansion to 30 mgd. Brentwood is financing the construction and will reimburse CCWD for all operating, maintenance, and capital costs.

CCWD's Treated Water Master Plan Update (2002) identifies treated water system improvements needed to upgrade the existing distribution system to meet District performance criteria under current demand conditions. It also recommends improvements to accommodate future growth. The plan recommends \$116 million in improvements, of which \$58 million is to correct existing deficiencies. The plan uses a phased approach to meeting District adopted criteria for emergency storage for cost effectiveness and to avoid water quality impacts. The recommendations in the Master Plan are incorporated into the District's Ten Year Capital Improvement Program and are being implemented based on priority.

The State Water Resources Control Board (SWRCB) maintains an online database, the California Integrated Water Quality System (CIWQS), which lists violations and enforcement actions for the facilities under its regulatory oversight. There are no violations listed for either the Randall-Bold or Bollman Water Treatment Plants.

Capital Improvements

CCWD plans for capital improvements through a variety of master planning documents, as well as maintenance reports and field inspection records, legislation, regulations, agreements, or Board policy. *Table 4.6* identifies the District’s planning documents and the next scheduled update, if applicable.

**Table 4.6
Contra Costa Water District
Master Plans and Planning Documents**

Document	Completed	Next Update
Canal Drainage Study	1995	(a)
Delta Region Drinking Water Quality Management Plan	2005	(a)
Facilities Master Plan	1999	(a)
Facility Reserve Charge Analysis	1998/2002	(b)
Future Water Supply Study	1996/2002	2007
Seismic and Reliability Improvements Project	1997	(a)
Treated Water Master Plan Update	2002	2007
Treated Water Renewal/Replacement Study	2005	2011
Untreated Water Renewal/Replacement Study	2006	2011
Water Treatment Plant Master Plan	2003	2012
Watershed Management Program	1997	(a)

Source: CCWD Ten Year Capital Improvement Program FY 2008-2017

(a) An update is not necessary or is not currently scheduled.

(b) Annual inflation adjustments are incorporated in construction-related elements of the FRC.

The update to the FWSS is expected to be complete in April 2008 and the Treated Water Master Plan Update is expected to be complete in December 2007.

CCWD’s Ten Year Capital Improvement Program (CIP) for FY 2008-2017 includes 59 projects with a total estimated cost of \$503.4 million. The CIP is updated annually, and the costs are equitably allocated between the untreated and treated water funds. Projects are ranked within three priority levels, with the highest priority assigned to projects already under construction and those required by legislation, regulation, contract, or for protecting health and safety. The second priority level includes projects that provide measurable progress toward achieving the District’s goals, but over which the District has a moderate level of control as to when they should be performed. The District’s financial plan assumes that first and second level projects totaling \$367.3 million are funded. Nearly half of this amount is for three projects:

- Alternative Intake Project: \$90.3 million to improve delivered water quality

- City of Brentwood Water Treatment Plant: \$39.5 million (fully funded by Brentwood)
- City of Brentwood Water Treatment Plant Expansion: \$41.1 million (fully funded by Brentwood)

The Alternative Intake Project will construct a new intake in the Central Delta, providing a fourth intake in a location where better water quality is available at key times of the year. The new intake will change the location and timing of diversions, but will not increase the amount of water diverted from the Delta.

The District is studying the possible expansion of the Los Vaqueros Reservoir. The USBR has completed a study indicating that it would be cost-efficient to expand the reservoir to 275,000 af to store water that could be used to offset pumping in the Delta and reduce impacts to Delta fisheries. A Draft Environmental Impact Statement/Environmental Impact Report is expected to be completed in early 2008. Federal and State feasibility reports will follow later in 2008.

CCWD is planning to replace approximately four miles of the Contra Costa Canal where the canal is open and unlined with buried pipeline. The \$71.5 million project will improve water quality, enhance public safety and flood control, and reduce water loss.

Table 4.7 summarizes planned capital projects by program:

Table 4.7
Contra Costa Water District
FY 2008 Capital Improvement Program Summary

Program	Amount (in millions)
Delta Projects	\$96.7
Treated Water System	\$66.7
Untreated Water Supply and Transport	\$126.7
Water Treatment Facilities	\$96.0
Administrative, Support and Maintenance Facility Improvements	\$4.6
Equipment and Other Capital Purchases	\$15.2
Expansion of Services (includes Brentwood WTP)	\$82.0
Future Water Supplies	\$3.7
Water Demand Reduction	\$7.0
Los Vaqueros Watershed and Recreation	\$4.8
Total	\$503.4

Source: CCWD Ten Year Capital Improvement Program FY 2008-2017

For FY 2007/2008, the District budgeted \$64.8 million for capital projects (\$23.5 million is for Brentwood and funded through City debt). The City of Brentwood Water Treatment Plant will be completed in FY 2008/2009. Other than the Brentwood project and other applicant funded projects, the planned capital projects will be funded through District revenues, including water sales, Facility Reserve Charges, grants, and reserves.

4.3.3 Summary

CCWD is a Central Valley Project contractor with diversions at Rock Slough and Old River in the western Delta. CCWD's untreated water service area includes Antioch, Bay Point, Oakley, Pittsburg, and portions of Brentwood and Martinez. The District's Treated Water Service Area includes Clayton, Clyde, Concord, Pacheco, Port Costa, and parts of Martinez, Pleasant Hill, and Walnut Creek. CCWD also treats and delivers water to the City of Brentwood, Golden State Water Company (Bay Point), Diablo Water District (Oakley), and the City of Antioch. Per the District's 2005 Urban Water Management Plan, CCWD's firm water supply is adequate to meet demands in normal and single dry years. The District plans to meet its water supply reliability goal of 85 percent of demand in the second and third years of a multi year dry period through a variety of programs, including short term water transfers and enhanced conservation.

CCWD's Future Water Supply Study (2002), 2005 Urban Water Management Plan, Treated Water Master Plan Update (2002), and other master planning documents provide guidance on infrastructure needs. The District's infrastructure and facilities are generally in good condition. The District has a ten-year CIP that includes projects for both the untreated water system and treated water system to ensure that the District's water supply and services meet Board adopted criteria for water quality and reliability, among others. CCWD is constructing and will operate the new 12 mgd City of Brentwood Water Treatment Plant for the exclusive use of the City of Brentwood. With the exception of the Brentwood facility and other applicant funded projects, the District plans to fund capital projects through District revenues, including water sales, Facility Reserve Charges, grants, and reserves.

4.4 Financing Constraints and Opportunities

CCWD's primary source of revenue is treated and untreated water sales. For FY 2006/2007, the District had \$98 million in water sales, allocated as follows: Municipal 19.5 %, Industrial 16.7%, Residential 48.0%, Commercial 9.0%, and Public Facilities/Other 6.8%. CCWD receives a portion of the base property tax (\$3.3 million in FY 2006/2007). The District adopts a biennial budget, and operations are accounted for in an enterprise fund. *Table 4.8* summarizes the financial history of CCWD's Water District fund.

Table 4.8
Contra Costa Water District
Water District (Enterprise) Fund Summary

	FY 2004/2005 Actual	FY 2005/2006 Actual	FY 2006/2007 Actual	FY 2007/2008 Budgeted
Operating Revenues	\$90,337,222	\$92,480,567	\$99,783,777	\$98,645,000
Operating Expenses	\$75,141,868	\$77,407,900	\$78,390,180	\$63,395,507
Net Non-operating Revenues / (Expenses)	\$9,978,986	(\$13,334,198)	(\$48,868)	
Contributions/Transfers		\$15,622,191	\$14,720,242	
Change in Net Assets	\$25,174,340	\$17,360,660	\$36,064,971	
Beginning Balance	\$632,073,411	\$657,247,751	\$674,608,411	
Net Assets, End of Year	\$657,247,751	\$674,608,411	\$710,673,382	

Source: CCWD Comprehensive Annual Reports and Adopted Budgets

The Water District Enterprise Fund had an unrestricted net asset balance of \$89 million at June 30, 2007.

CCWD and DWD formed the Contra Costa Water Authority in 1990 to finance, construct, maintain, operate, and make improvements to the 40 mgd Randall-Bold Water Treatment Plant. CCWD is responsible for the Authority’s outstanding debt that was used to finance construction. DWD reimburses CCWD for its portion of the debt service, operating costs, and certain capital projects. At June 30, 2007, the Water Authority Fund (used to account for Authority finances) had \$2.6 million in net assets.

CCWD has entered into an agreement with the City of Brentwood to construct, operate, and maintain the new City of Brentwood Water Treatment Plant. Brentwood is financing the construction, and the City will reimburse CCWD for operating and maintenance costs.

At June 30, 2007, CCWD had outstanding long-term debt obligations of approximately \$542 million, as shown in *Table 4.9*.

Table 4.9
Contra Costa Water District
Outstanding Debt Obligations at June 30, 2007

Obligation	Balance (in millions)
Los Vaqueros long term debt (including reserves)	\$374
Randall-Bold long term debt	\$39
Multi-Purpose Pipeline long term debt	\$107
USBR	\$2

Table 4.9
Contra Costa Water District
Outstanding Debt Obligations at June 30, 2007

Obligation	Balance (in millions)
Castle Rock / Northgate Assessment Districts	\$1
Bollman Safety & Water Quality State Revolving Fund Loan	\$12
Contra Loma Revolving Fund Loan	\$2
Bollman Sedimentation Basin Revolving Fund Loan	\$5
Total	\$542

Source: CCWD Budget Overview FY 2006-2007/FY 2007-2008

CCWD funds its operations, capital and debt service from ongoing revenues. The District has established reserves for its legal requirements, such as those required by the sale of bonds, as well as for specific purposes. CCWD uses certain reserve funds to smooth rate increases over a ten year period. At June 30, 2007, the District had \$43.9 million in legally restricted reserves, \$162.8 million in Board designated reserves, and \$49.2 million in unrestricted reserves.

CCWD has the financial resources and fee structures in place to provide for infrastructure needs and improvements and to continue to maintain adequate service levels for water service.

4.5 Cost Avoidance Opportunities

CCWD is controlling costs for its services through master planning studies, capital planning, and the biennial budgeting process. As discussed in *Section 4.7* below, the District leverages opportunities to share facilities and resources with other agencies to improve cost effectiveness. CCWD also proactively pursues grant funding for programs, and offers an extensive water conservation program to reduce demand.

The District collaborates with the wastewater agencies within its service area to implement the use of recycled water where cost effective, thereby reducing demand for untreated and treated water supplies. The District is constructing infrastructure improvements that will improve water quality and increase efficiency. Untreated water quality improvements reduce the need for additional treatment processes and technologies. Lastly, the District is increasing its emergency storage capacity incrementally, rather than attempting to meet District goals within a short time period at a significant cost.

4.6 Opportunities for Rate Restructuring

In 1994, CCWD adopted a rate setting policy that provides for an annual review of water rates, fees, and charges to ensure that sufficient funding is available to meet operating, capital, and debt service needs. The District also has a policy of keeping increases at or below projected inflation. The District’s rate structure was updated in February 2007, with water rates increased approximately three percent.

CCWD charges a Facilities Reserve Charge (FRC) for each new connection to the treated water system, and for each new connection within a wholesale municipal customer’s system. The FRC covers a portion of the costs for water supply, treatment, storage, transmission, and distribution facilities available to serve new connections. In 2003, the District completed a FRC Study, which recommended that those elements of the FRC subject to inflation be adjusted annually by the Engineering News Record (ENR) index. The CCWD Board of Directors adopted this recommendation and applies an annual inflation adjustment to the FRC.

A Land Levy is collected to pay USBR for building the canal system. The County collects approximately \$740,000 each year, through 2010, on behalf of CCWD. The levy is assessed on the unimproved value of the property, based on the percentage each property represents of total unimproved property value within the assessment area. In 2006, the percentage applied to each dollar of unimproved value was approximately 0.0045% (i.e., \$100,000 in unimproved property value would be assessed \$4.50).

4.6.1 Treated Water Service

The treated water service rate structure includes a service and demand charge based on meter size, single rate quantity charge, and an energy surcharge based on service zone. The same rates apply to all treated water customers, with the exception of lower service and demand charges on larger meters for non-residential customers. CCWD has a lifeline rate for low income elderly and disabled customers. The current rates are shown in *Table 4.10* below:

Table 4.10
Contra Costa Water District
2007 Treated Water Rates – monthly

Type	Residential
Water Service Charge – 5/8 inch meter	\$0.5344 per day (\$16.03 per month)
Quantity Charge	\$2.3851 per ccf
Energy Surcharge	Ranges from \$0.0767 - \$0.7545 per ccf

Based on the 2007 rates, a typical residential customer using 320 gallons per day in Service Zone No. 1 (lowest energy surcharge) would pay \$48.69 per month for water service. This rate structure qualifies as a “water conserving rate” under the California Urban Water Conservation Council Best Management Practices because at least 75% of the revenue generated is from the volumetric portion of the charge. The quantity charge is approximately \$2.40 per hundred cubic feet. This is equal to the upper tier for many agency tiered rates.

The FRC for a 5/8 inch meter is currently \$15,962, reflecting a 4.8 percent increase over the prior year.

4.6.2 Untreated Water Service

The untreated water service rate structure includes a monthly service charge and single rate quantity charge. The same rates apply to wholesale municipal and industrial customers. The current rates are shown in *Table 4.11* below:

Table 4.11
City of Martinez
2007 Untreated Water Rates – monthly

Type	Municipal / Industrial
Water Service Charge	\$143.92 / month
Quantity Charge	\$1.4923/ 1,000 gal

CCWD charges an FRC for all new or larger meters issued by wholesale municipal customers to their customers. The District has three service areas based on the infrastructure that serves a given area, and the FRC varies accordingly. For a 5/8 inch meter, the charge ranges from \$3,702 to \$5,235. The highest increase in 2007 was approximately 5 percent over prior year charges. The charges are either paid directly to CCWD or to the municipal customer who in turn remits the funds to CCWD.

4.7 Opportunities for Shared Facilities

CCWD shares resources with a number of agencies in the region. This improves cost effectiveness, efficiencies, and allows for multiple benefits in some cases. The following summarizes key opportunities in which CCWD is or has participated:

- **Contra Costa Water Authority:** formed in 1990 by a Joint Powers Agreement between CCWD and DWD. The Authority provides the mechanism for financing the Randall-Bold Water Treatment Plant.

- **Water Treatment:** CCWD has agreements in place to provide treated water from both its treatment plants to municipal customers including Antioch and Brentwood from Randall-Bold and Golden State Water Company from Bollman.
- **Emergency Interties:** CCWD has emergency interties with EBMUD, City of Antioch, City of Pittsburg, and City of Martinez.
- **East Contra Costa Habitat Conservation Plan Association (HCPA) Agreement:** The agreement established the HCPA to manage and fund the development of a Habitat Conservation Plan, Natural Communities Conservation Plan for protecting natural resources and securing regulatory permits in East Contra Costa County. The HCP/NCCP is complete and the HCPA has now been replaced with the East Contra Costa County Habitat Conservancy that oversees implementation of the plan. CCWD is not a member of the Conservancy but is cooperating with the implementation.
- **East County Integrated Regional Water Management (IRWM) Plan:** CCWD along with seven other water, wastewater, city, and county agencies serving the east county area adopted an IRWM Plan that supports coordinated water resource management.
- **San Francisco Bay Area IRWM Plan:** CCWD is a participant in the Bay Area IRWM Plan that covers the portions of the 9-county Bay Area that are within the boundaries of Region 2 of the Regional Water Quality Control Board. The plan supports integrated water management activities throughout the Bay Area.
- **Regional Desalination Project:** CCWD is partnering with EBMUD, Santa Clara Valley Water District, and the San Francisco Public Utilities Commission to jointly study the feasibility of utilizing desalination as a means to provide supplemental water supply to the Bay Area.

4.8 Evaluation of Management Efficiencies

CCWD operates under the direction of the General Manager, with oversight from the elected Board of Directors. The District regularly reviews its operations and plans for maintenance and capital needs, in accordance with the District's mission, goals, and regulations. As noted in *Table 4.6*, the District has numerous master planning documents that guide planning and implementation for capital improvements. Several of these documents have planned updates.

4.9 Government Structure Options

CCWD's untreated water service area includes Antioch, Bay Point, Oakley, Pittsburg, and portions of Brentwood and Martinez. The District's Treated Water Service Area includes Clayton, Clyde, Concord, Pacheco, Port Costa, and parts of Martinez, Pleasant Hill, and Walnut Creek. CCWD also treats and delivers water to the City of Brentwood, Golden State Water

Company (Bay Point), Diablo Water District (Oakley), and the City of Antioch. Changes in CCWD's boundaries are generally reorganizations initiated by a city, and the District anticipates that these requests could continue as the cities expand their boundaries.

CCWD has historically provided water service to the Port Costa area; the City of Martinez now delivers water to Port Costa via an exchange agreement with CCWD. CCWD delivers the treated water for Port Costa into the Martinez system and is responsible for the infrastructure within Port Costa. EBMUD is providing water service to the west of Port Costa in the Crockett area. The Port Costa water system is designed to distribute treated water from a delivery point to the east. Due to topography and system design, the option for EBMUD to serve the Port Costa area rather than Martinez delivering water through their system is not considered an option.

It should be noted that the City of Brentwood has been providing water to the Clayton Regency Mobile Home Park on Marsh Creek Road on an emergency basis from a metered hydrant in Brentwood due to the failure of the Mobile Home Park's on-site potable water wells and the lack of other viable service alternatives. The Contra Costa Environmental Health Department has declared this a public health hazard due to the potential for contaminants to enter the water supply. The mobile home park is closest to CCWD's service area, and at the City and County's request, CCWD will be evaluating a means to provide a reliable, long term water source through an out of agency agreement.

USBR Approval for Annexations

According to the terms of CCWD's contract with USBR for CVP water, the Contracting Officer must formally consent to the inclusion of newly annexed lands into the District before such lands can receive CVP water. The inclusion process is discretionary, subject to additional environmental review pursuant to the National Environmental Policy Act. In addition to USBR, various federal and state agencies are involved in the inclusion process, including the U.S. Fish & Wildlife Service and U.S. Army Corps of Engineers (USCOE). The USCOE permitting process needs to be completed prior to initiation of the USBR application process. One of the factors for USBR approval is LAFCO approval of the annexation. However, before LAFCO can approve the annexation it must consider the timely and available supply of water to the project area (Government Code §56668). This continues to be a challenging issue for LAFCO.

Government Structure Options

Three government structure options were identified for CCWD:

- Maintain the status quo
- Consolidate water service with DWD
- Consolidate water service with the City of Martinez

Maintain the Status Quo: CCWD is providing water service within its untreated and treated water service areas. The District is not experiencing infrastructure or financial challenges. The advantages of this option are continuity of service and economies of scale due to the District's infrastructure for water conveyance, storage, and treatment as well as staff resources.

Consolidate with the Diablo Water District: CCWD provides similar services within its treated water service area in central Contra Costa County and is operating the Randall-Bold Water Treatment Plant that delivers treated water to DWD. CCWD and DWD were both formed under the County Water District Law (Water Code §30000 et seq.). The advantages of this option may include economies of scale due to operational efficiencies. However, the two Districts are focused on serving the needs of the communities within their respective treated water service areas at opposite ends of the county. DWD is providing services to two communities on Bethel Island that are outside the boundaries of CCWD. A consolidation could result in increased costs, loss of efficiency, and loss of local control regarding the level of service, the use of groundwater resources, setting of water rates and capital improvements. Further study would be needed to determine the merits of this option and benefit/costs which would affect ratepayers for both DWD and CCWD.

Consolidate water service with Martinez: The City of Martinez provides retail water service inside and outside the city limits. CCWD is providing the untreated water supply and operates the Martinez Reservoir (owned by USBR), and is providing similar treated water services to the east of Martinez. The advantages of this option are potential economies of scale and other efficiencies that might be available due to the single-purpose focus of CCWD. However disadvantages such as administrative costs, increased costs to other services the City provides, political opposition, and loss of local control within the city could outweigh the benefits. Further study would be needed to determine the merits of this option and level of benefit versus costs which would affect ratepayers for both the City of Martinez Water Service and CCWD.

4.10 Local Accountability and Governance

CCWD operates under the oversight and guidance of an elected Board of Directors that includes five voting members, each representing a division of approximately 110,000 residents. The Board has established five committees to address key issues and make recommendations to the Board as necessary. The committees include East County, Finance, Operations and Engineering, Public Information and Conservation, and Retirement. Regular Board and committee meetings are open to the public. The District's governance is summarized in *Table 4.12* below.

Table 4.12
Contra Costa Water District Governance

Date Formed:	May 9, 1936		
Statutory Authorization:	County Water District Law (California Water Code §30000 et seq.)		
Board Meetings:	District Office, 1 st and 3 rd Wednesday of each month at 6:30 pm		
Member	Title	Term Expires	Compensation*
Joseph L. Campbell	President – Division 3	2008	\$100/mtg
Elizabeth R. Anello	Vice President – Division 1	2010	
John Burgh	Director – Division 2	2010	
Bette Boatman	Director – Division 4	2008	
Karl L. Wandry	Director – Division 5	2008	

* Directors are eligible for District funded participation in group insurance benefits including retirement, medical, dental, vision, and life insurance plans.

Meeting notices, agendas, and supporting documentation are posted at least 72 hours in advance at the District office. The District website, www.ccwater.com, includes comprehensive information on District activities and services, including recreation within the Los Vaqueros watershed. Board meeting agendas and minutes, financial information, special project information, studies, reports, and water service information are available online.

4.11 Sphere of Influence Recommendations

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires that LAFCO review and update the sphere of influence (SOI) for each of the special districts and cities within the county at least once every five years in order to promote logical and orderly development of areas within the sphere.² CCWD provides water service within central and northeastern Contra Costa County; the District’s boundaries also include the Los Vaqueros watershed in the southeastern portion of the county (this area extends into Alameda County). CCWD has both treated and untreated water service areas. The District’s mission is to “provide a reliable supply of high quality water at the lowest possible cost, in an environmentally responsible manner.”

CCWD’s SOI includes the following areas (see *Figure 4.1*): two adjacent areas south of Concord and Clayton; areas around the periphery of the Los Vaqueros watershed, including area in Alameda County; an unincorporated area between Pittsburg and Antioch (within Antioch’s SOI); Veale Tract east of Oakley; and Browns Island and Winter Island northeast of Pittsburg. CCWD identifies the areas of planned service within its Future Water Supply Study. Changes in

² Government Code Section 56425 et seq.

CCWD's boundaries are generally reorganizations initiated by a City, and the District anticipates that these requests could continue as the cities expand their boundaries.

Two potential options are identified for the CCWD SOI:

- **Retain the existing SOI:** If LAFCO determines that the existing government structure is appropriate, then the existing SOI should be retained. This option would enable the District to continue to include the areas within its existing SOI in its long-term water supply, facilities and capacity planning based on the adopted land use.

- **Remove the Veale Tract, Browns Island, and Winter Island from CCWD's SOI:** As noted above, CCWD's SOI currently includes the 1,095-acre Veale Tract³, Browns Island, and Winter Island. The Veale Tract and Winter Island are outside the County Urban Limit Line approved by the voters in 2006. The Veale Tract is designated as Delta Recreation and Resources with land uses such as agriculture, wildlife habitat, and low intensity recreational use. Winter Island is designated as agricultural lands. Browns Island includes the Browns Island Regional Preserve and has land uses designated for open space and recreation. These areas will not need water service from CCWD.

Consolidation of DWD with CCWD was identified as a government structure option in *Section 4.9*, as was consolidation with the City of Martinez water system. Further study would be needed to determine whether operational efficiencies, costs savings, and other benefits would be achieved.

Once the new City of Brentwood Water Treatment Plant is operational, CCWD, as the water treatment plant operator, will be providing water treatment services for the entire City of Brentwood. Currently, only a portion of the City is within CCWD's boundaries. However, the treatment plant is located within CCWD's boundaries and the District is not responsible for Brentwood's storage and distribution system. CCWD will be treating Brentwood's water supply purchased from the East Contra Costa Irrigation District (ECCID) and not CVP water. Inclusion in CCWD's SOI generally signifies the potential for CVP water use in the future. At this point in time, this is not planned for Brentwood as they have reliable supplies from ECCID.

SOI Recommendation

The District has a reliable source of water supply, and provides services that are cost-effective, efficient, and environmentally sound. CCWD has planned for the financial and capital needs of

³ The Veale Tract is also in the Diablo Water District SOI; see the Water and Wastewater Municipal Services Review for Eastern Contra Costa County, December 2007

the District through its biennial budgeting process, ten year CIP, and numerous master planning documents. Given the conditions described above, it is recommended that the Veale Tract, Browns Island, and Winter Island be removed from CCWD’s sphere of influence.

The analysis of SOI issues is included in *Table 4.13* below.

**Table 4.13
Contra Costa Water District
SOI Issue Analysis**

Issue	Comments
SOI Update Recommendation	Remove Veale Tract, Browns Island, and Winter Island from CCWD SOI
Services authorized to provide	Wholesale (untreated) and retail (treated) water service
Existing and Planned Land Uses and Policies	The District has no land use authority for the area where it provides wholesale and retail water services. County and city plans include land uses and population growth that will need increased, comprehensive water services. County and city policies support the provision of adequate water service for residents and businesses.
Potential effects on agricultural and open space lands	There are agricultural and open space lands within the District’s SOI and boundaries; however, water services within developed areas do not by themselves induce growth on agricultural or open space lands. No Williamson Act contracts would be affected.
Opportunity for Infill Development rather than SOI expansion	The District has no land use authority and has no control over the location of infill development; no SOI expansion is proposed.
Projected Growth in the Affected Area	Population within CCWD’s service area is expected to increase by 29% over the next 23 years to approximately 650,000 residents. There will be an increased need for comprehensive water services.
Services to be Provided to any areas added to the SOI	No areas are proposed to be added to the CCWD SOI.
Service Capacity and Adequacy	The District is providing adequate service, is financially stable, and has the capacity to continue to provide services within its boundaries. The District has planned for capital needs based on the condition of the infrastructure and is implementing projects to extend the life of existing infrastructure.
Location of Facilities, Infrastructure and Natural Features like rivers and ridgelines	The District provides services within central and eastern Contra Costa County, including cities and unincorporated areas. The District’s offices and Bollman treatment plant are located in Concord; the Randall-Bold Water Treatment Plant and adjacent City of Brentwood Water Treatment Plant (under construction) are located in Oakley. The 48-mile Contra Costa Canal extends from the Rock Slough intake to Martinez. The Los Vaqueros Reservoir is located in southeastern Contra Costa County. A buried pipeline connects the Reservoir to

Table 4.13
Contra Costa Water District
SOI Issue Analysis

Issue	Comments
	the Canal in Oakley near Randall-Bold.
Effects on Other Agencies	Reducing the District’s SOI by removing the Veale Tract, Browns Island, and Winter Island would have no effect on other agencies as these areas are not planned for development
Potential for Consolidations or other Reorganizations when Boundaries Divide communities	Although the District serves a portion of Martinez and Brentwood, the District’s current boundaries do not divide any communities.
Social or economic communities of interest in the area	The District was formed in 1936. The District collects service charges from existing users and fees for new development; the District also receives a portion of the 1% property tax. The District has entered into long-term debt obligations to fund various major facilities, including the Los Vaqueros Reservoir. Property owners within the area and ratepayers have an economic interest in receiving services from this investment.
Willingness to serve	The District wishes to continue to provide services within its boundary.

4.12 Determinations

4.12.1 Growth and Population

Purpose: To evaluate service needs based upon existing and anticipated growth patterns and population projections.

The Contra Costa Water District serves the central and northeastern portions of the county. The population within CCWD’s service area is expected to reach nearly 650,000 by 2030 with an average annual growth rate of one percent. The majority of the population is in CCWD’s untreated water service area; this area, along with unincorporated areas in the eastern portion of the District, will experience the most significant growth. CCWD is a Central Valley Project contractor, delivering water to the central and eastern portions of the county. The District also has ongoing programs to evaluate and develop other water resources, including water transfers, conservation, desalination, and expanded use of recycled water. There will be an increased need for the District’s services as growth occurs.

4.12.2 Infrastructure Needs or Deficiencies

Purpose: To evaluate the infrastructure needs and deficiencies in terms of supply, capacity, condition of facilities, and service quality.

CCWD is a Central Valley Project contractor and delivers untreated water through the US Bureau of Reclamation (USBR) Central Valley Project (CVP). CCWD's untreated water service area includes Antioch, Bay Point, Oakley, Pittsburg, and portions of Brentwood and Martinez. The District's Treated Water Service Area includes Clayton, Clyde, Concord, Pacheco, Port Costa, and parts of Martinez, Pleasant Hill, and Walnut Creek. CCWD also treats and delivers water to the City of Brentwood, Golden State Water Company (Bay Point), Diablo Water District (Oakley), and the City of Antioch. Per the District's 2005 Urban Water Management Plan, CCWD's firm water supply is adequate to meet demands in normal and single dry years. The District plans to meet its water supply reliability goal of 85 percent of demand in the second and third years of a multi year dry period through a variety of programs, including short term water transfers and enhanced conservation.

CCWD's Future Water Supply Study (2002), 2005 Urban Water Management Plan, Treated Water Master Plan Update (2002) and other master planning documents provide guidance on infrastructure needs. The District's infrastructure and facilities are generally in good condition. The District has a ten-year CIP that includes projects for both the ~~raw~~ untreated water system and treated water system to ensure that the District's water supply and services meet Board adopted criteria for water quality and reliability, among others.

CCWD is constructing, and will own and operate, a new 12 mgd water treatment plant for the City of Brentwood. With the exception of the Brentwood facility and other applicant funded projects, the District plans to fund capital projects through District revenues, including water sales, Facility Reserve Charges, grants, and reserves.

4.12.3 Financing Constraints and Opportunities

Purpose: To evaluate a jurisdiction's capacity to finance needed improvements and services.

CCWD funds water services, capital improvements and debt service through ongoing revenues, including water sales, Facility Capital Reserve fees, grants, interest on investments, and other revenues sources. The District has outstanding long-term debt related to its ~~raw~~ untreated and treated water systems, and maintains reserves for debt service coverage in accordance with the requirements of the financing. In addition, the District has Board designated reserves and unrestricted reserves. CCWD has the financial resources and fee structures in place to provide for infrastructure needs and improvements and to continue to maintain adequate water service with a reliable source of supply.

4.12.4 Cost Avoidance Opportunities

Purpose: To identify practices or opportunities that may help eliminate unnecessary costs.

CCWD is controlling costs for its services through master planning studies, capital planning, and the biennial budgeting process. CCWD also proactively pursues grant funding for programs. The District collaborates with wastewater agencies to implement recycled water projects where cost effective and offers an extensive water conservation program to reduce demand.

4.12.5 Opportunities for Rate Restructuring

Purpose: To identify opportunities to impact rates positively without decreasing service levels.

CCWD has an adopted rate setting policy that provides for an annual review of water rates, fees, and charges to ensure that sufficient funding is available to meet operating, capital, and debt service needs. The District also has a policy of keeping increases at or below projected inflation. This rate structure qualifies as a “water conserving rate” under the California Urban Water Conservation Council Best Management Practices because at least 75% of the revenue generated is from the volumetric portion of the charge. The District’s rate structures for treated and untreated water service were updated in February 2007, with water rates increased approximately three percent.

4.12.6 Opportunities for Shared Facilities

Purpose: To evaluate the opportunities for a jurisdiction to share facilities and resources to develop more efficient service delivery systems.

CCWD shares resources with a number of agencies in the region, for facilities, programs, and planning efforts. This improves cost effectiveness, efficiencies, and allows for multiple benefits in some cases.

4.12.7 Evaluation of Management Efficiencies

Purpose: To evaluate management efficiencies of the jurisdiction.

CCWD regularly reviews its operations and plans for maintenance and capital needs, in accordance with the District’s mission, goals, and regulations. The District has numerous master planning documents that guide planning and implementation for capital improvements.

4.12.8 Government Structure Options

Purpose: To consider the advantages and disadvantages of various government structures to provide public services.

CCWD's untreated water service area includes Antioch, Bay Point, Oakley, Pittsburg, and portions of Brentwood and Martinez. The District's Treated Water Service Area includes Clayton, Clyde, Concord, Pacheco, Port Costa, and parts of Martinez, Pleasant Hill, and Walnut Creek. CCWD also treats and delivers water to the City of Brentwood, Golden State Water Company (Bay Point), Diablo Water District (Oakley), and the City of Antioch.

Three government structure options were identified for CCWD:

- Maintain the status quo
- Consolidate water service with DWD
- Consolidate water service with Martinez

Maintain the Status Quo: CCWD is providing water service within its untreated and treated water service areas. The District is not experiencing infrastructure or financial challenges. The advantages of this option are continuity of service and economies of scale due to the District's infrastructure for water conveyance, storage, and treatment as well as staff resources.

Consolidate with the Diablo Water District: CCWD provides similar services within its treated water service area in central Contra Costa County and is operating the Randall-Bold Water Treatment Plant that delivers treated water to DWD. CCWD and DWD were both formed under the County Water District Law (Water Code §30000 et seq.). The advantages of this option may include economies of scale due to operational efficiencies. However, the two Districts are focused on serving the needs of the communities within their respective treated water service area at opposite ends of the county. DWD is providing services to two communities on Bethel Island that are outside the boundaries of CCWD. A consolidation could result in increased costs, loss of efficiency, and loss of local control regarding the level of service, the use of groundwater resources, setting of water rates and capital improvements. Further study would be needed to determine the merits of this option and benefit/costs which would affect ratepayers for both DWD and CCWD.

Consolidate water service with Martinez: The City of Martinez provides water treatment and distribution services. CCWD is providing the untreated water supply, owns and operates the Martinez Reservoir, and is providing similar treated water services to the east of Martinez. The advantages of this option are potential economies of scale and other efficiencies that might be available due to the single-purpose focus of CCWD. However disadvantages such as administrative costs, increased costs to other services the City provides, political opposition, and

loss of local control within the city could outweigh the benefits. Further study would be needed to determine the merits of this option and level of benefit versus costs which would affect ratepayers for both the City of Martinez Water Service and CCWD.

4.12.9 Local Accountability and Governance

Purpose: To evaluate the accessibility and levels of public participation associated with the agency's decision-making and management process.

CCWD is governed by a five-member elected Board of Directors representing five divisions. District Board meetings and committee meetings are open and accessible to the public. Comprehensive information on the District is available on the District website, and public participation is encouraged.