

Alameda County Water District

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Service Area

Alameda County Water District (ACWD) supplies water to the cities of Fremont, Newark, and Union City.

System

Profile

Area Size	104.8 sq. miles
Service Population	332,000
Number of Accounts	82,055
Number of SFPUC Connections	7
Connections To SFPUC Mains	BDPL 1, 2, 3, and 4
Avg. Day Demand (mgd)	42.35
Avg. Day Purchases From SFPUC (mgd)	10.46
% Demand Met With SFPUC Supplies	24.7%
Maximum Local Water Production (mgd)	64.7 (7/17/09, Production facilities + direct SFPUC TOs + NUMMI)
Alternative Supply Sources	SFPUC, State Water Project (SWP), Local Groundwater
Interties With Other Agencies	Milpitas, Hayward
Local Storage (mg)	85.8 maximum capacity - volume in storage is typically 60 to 80% based on seasonal operating conditions
Days of Storage	1.8 - based on maximum capacity storage and average daily demand 42 mg of new treated water storage planned available by 2014

Summary

ACWD currently has three primary sources of water supply: (1) the State Water Project (SWP), (2) San Francisco's Regional Water System and (3) local supplies. The SWP and San Francisco Regional Water Supplies are imported into the District service area through the South Bay Aqueduct and Hetch-Hetchy Aqueduct, respectively. Local supplies include fresh groundwater from the Niles Cone Groundwater Basin (underlying the District service area), desalinated brackish groundwater from portions of the groundwater basin previously impacted by seawater intrusion, and surface water from the Del Valle Reservoir. The primary source of recharge for the Niles Cone Groundwater Basin is from percolation of runoff from the Alameda Creek watershed. To a lesser degree, a portion of ACWD's SWP supplies are also used for local groundwater percolation. Infiltration of rainfall and applied water also contribute to local groundwater recharge.

Before being supplied to ACWD's customers, the source water supplies are treated to meet and surpass all state and federal drinking water standards. ACWD operates two surface water treatment plants that treat SWP and local surface water from Del Valle Reservoir. The Newark Desalination Facility treats brackish groundwater to remove salts and other impurities, and the Blending Facility blends high quality San Francisco water with local fresh groundwater (with higher hardness) to provide a blended supply with lower overall hardness.

Over the 1994-2004 period, 36% of the District's distribution system water supply was from the State Water Project. This water was either purified at one of ACWD's two water treatment plants or used to recharge local aquifers. Water from the San Francisco Regional System provided approximately 25% of the distribution system water supply and local supplies from Del Valle Reservoir and groundwater (recharged from runoff from the Alameda Creek Watershed and infiltration of rainfall and applied water) accounted for the balance (about 39%) of the distribution system supplies.

Water Supply and Demand

Supply by Source	Actual FY 06-07 (ccf)	Actual FY 07-08 (ccf)	Actual FY 08-09 (ccf)	Actual FY 09-10 (ccf)
San Francisco Water	6,667,959	6,534,358	5,477,714	5,102,005
State Water Project	4,007,520	9,081,389	7,245,336	7,324,179
Desalinated Water	1,219,680	1,547,193	1,396,163	456,550
Local Groundwater	8,058,600	6,454,412	6,192,794	6,651,067
Surface Water	4,094,640	212,137	1,814,611	1,131,689
Recycled Water	0	0	0	0
Other	0	0	0	0
Total	24,048,399	23,829,489	22,126,618	20,665,490
mgd equivalent	49.28	48.83	45.34	42.35

Demand by Sector

Residential	15,281,883	15,051,716	14,767,696	12,687,592
Commercial/Industrial	5,004,044	4,805,518	4,611,802	3,163,521
Other	1,497,954	1,516,681	1,507,119	821,218
Dedicated Irrigation	0	0	0	2,082,462
Unaccounted for	2,264,518	2,455,574	1,240,001	1,910,697
Total	24,048,399	23,829,489	22,126,618	20,665,490
mgd equivalent	49.28	48.83	45.34	42.35

Per Capita Use	Actual FY 06-07 (gpcpd)	Actual FY 07-08 (gpcpd)	Actual FY 08-09 (gpcpd)	Actual FY 09-10 (gpcpd)
Residential	96	93	91	78
Gross	150	148	137	128

Storage Reservoirs

Designation	Capacity (gallons)	Designation	Capacity (gallons)
Alameda	16,250,000	Mayhew	4,600,000
Appian	780,000	Middlefield	7,230,000
Avalon	2,750,000	Ohlone	1,500,000
Canyon Heights	500,000	Patterson	14,400,000
Decoto	14,800,000	Vineyard Heights	500,000
Hidden Valley	2,000,000	Whitfield	2,200,000
		Total	85,510,000

ACWD Engineering Report, 1995. (Mayhew and Canyon Heights updated to reflect changed conditions)

Water Treatment Facilities

Designation	Capacity (mgd)	Status	Designation	Capacity (mgd)	Status
WTP #2	21	Active	Mission San Jose WTP	4	Active
Blending Facility	47	Active	Newark Desalination Facility	5	Active
			Total	77	

Wells

Name	Capacity (mgd)	Status	Name	Capacity (mgd)	Status
Mowry 1	1.4	Active	PT 1	3.4	Active
Mowry 2	3.2	Active	PT 2	3.4	Active
Mowry 3	3.2	Active	PT 3	3.4	Active
Mowry 4	3.0	Active	PT 4	3.4	Active
Mowry 6	3.3	Active	PT 5	3.4	Active
Mowry 7	3.3	Active	PT 6	3.4	Active
Mowry 8	3.0	Active	PT 7	3.4	Active
Mowry 9	3.3	Active	PT 8	3.4	Inactive
			Total	50.9	

Interties

Name	No.	Diameter* (in.)
Hayward	1	12
Hayward	2	**
Milpitas	1	8
Milpitas	2	8

*Diameter of main connected

**3.6 mgd connection to Hayward's SFPUC Line