

COMMUNITY HOSPITAL OF THE MONTEREY PENINSULA

2001 AMENDED PLANNED COMMUNITY PLAN Water Resources

ENVIRONMENTAL SETTING

Regional Water Resources

The Monterey Peninsula Water Management District (MPWMD) regulates and manages water supplies for the area within its boundaries, which extend from Seaside to the Carmel River and easterly covering the Carmel Valley watershed. The city of Monterey is supplied and serviced by the California-American Water Company (Cal-Am), a privately owned, franchised water purveyor.

With about 36,000 customers, Cal-Am is the largest water purveyor within the MPWMD boundaries. Cal-Am draws from surface water in addition to wells in Carmel Valley alluvial aquifer and the Seaside coastal groundwater sub-basin. In 1995, Cal-Am delivered to the city approximately 4,539 acre-feet (AF) of water, and approximately 13,392 AF of water to its entire service area. One AF equals 325,541 gallons of water.

Surface water sources for the project site include the San Clemente Dam and the Los Padres Dam. The San Clemente dam was built in 1921 with a total storage capacity of 2,140 AF. The Los Padres Dam was constructed in 1948 with a total storage capacity of 3,030 AF. Due to siltation, these two dams have reduced their original capacity. The existing reservoirs' storage capacity represents only a fraction of the community's estimated normal-year water demand.

In 1981, Cal-Am production was limited to 20,000 AF annually (AFA) by the MPWMD Water Allocation Program. This production maximum is presently 17,621.15 acre-feet as allowed by the adoption of MPWMD Ordinance No. 83 in April 1996. The EIR findings determined that Cal-Am's "normal-year" use was about 17,000 AFA in 1991.

In July 1995, the State Water Resources Control Board (SWRCB) found that Cal-Am did not have rights for its current level of diversion from the Carmel River, and ordered Cal-Am to reduce its

diversion from the Carmel River to no more than 14,106 AFA and to implement a water conservation plan to further reduce this amount of diversion by 15 percent during 1996, and an additional 5 percent thereafter (SWRCB Order No. WR 95-10).

Limited water supplies and the community's vulnerability to droughts have spurred water conservation efforts since the mid-1980s. Conservation is a means to stretch existing water supplies, reduce stress to the environment and increase community protection from drought.

Even with the already low water use rates, the MPWMD, in 1987, adopted a water conservation goal of 9 percent by the year 1990, which corresponded to a decrease in Cal-Am demand of about 1, 600 AF. In addition, the District has a long-range goal of a 15 percent reduction of projected use by the year 2020 (that is, 15 percent less demand than build-out level if conservation were not practiced).

Since 1995 CHOMP has been in the process of retrofitting in compliance with the conditions of a water permit described by a letter from the MPWMD dated October 20, 1994. This retrofit program was undertaken as a result of the remodeling activities under the city's Amended Use Permit No. 86-76, dated January 25, 1994, for the Fourth Floor North project. This retrofitting project was completed in June 2001.

On January 28, 2002 Ca-Am and Thames Water Plc and affiliated companies filed Joint Application No. 02-01-036 with the California Public Utilities Commission, requesting authorization for Thames to acquire all of the stock of Cal-Am's parent company, American Water Works Company. The acquisition would result in an indirect change in control of Cal-Am.

Project Water Resources

In 1987 WPWMD enacted a "Community Benefit Ordinance" No. 87 to provide 18.28 acre-feet, the necessary water for the added clinical spaces in CHOMP's 1995 Amended PC Plan. MPWMD bases its demand factor for institutional water usage on a square foot basis. For CHOMP, that basis, as established in the EIR for the 1995 Amended PC Plan and certified by the City of Monterey, is 0.0002 acre-feet per year per gross building area (p.45, CHOMP Amended Planned Community Plan EIR, by EMC Planning Group, 1996). The EIR determined the estimated usage of the permitted 91,430 square feet of clinical area of the 1995 Amended PC Plan by multiplying the area times the demand factor: $91,430 \text{ s.f.} \times 0.0002 = 18.28 \text{ acre-feet per year}$. In the table below, the 91,430 square

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feet of clinical area is rounded to 91,000 square feet, the amount authorized under the 1997 Use Permit.

Water Approved for the 1995 Amended PC Plan & the 1997 Use Permit

Cancer Center	17,070 s.f.	3.41*	acre-feet	MPWMD Permit 16235, 7/15/97
South Pavilion	<u>74,360 s.f.</u>	<u>14.87</u>	acre-feet	
TOTALS	91,430 s.f.	18.28	acre-feet	

*drawn from Community Benefit Allocation, MPWMD Ordinance No. 87

Estimated Water Demand for the 2001 Amended PC Plan

Under the MPWMD formula, the proposed Forest Pavilion addition of 120 patient beds and 50,114 square feet of clinical space would create a demand for 10.02 acre-feet of water; (50,114 x 0.0002 = 10.02).

	Clinical Space	Support Space	Total	Approved Water	Water Demand	Unutilized Allocation
Permitted by 1997 Use Permit	91,000	179,000	270,000			
TOTAL	91,000	179,000	270,000	18.28		
As-built to date (Cancer Center)	6,417	10,653	17,070	3.41	1.28	2.13
Proposed, 2001 PC Plan						
South Pavilion	47,321	52,906	100,227	14.87	9.46	5.41
Forest Pavilion	50,114	47,624	97,738		10.02	
TOTAL	103,852	111,183	215,035	18.28	20.76	7.54
Increase (Decrease) in As-built and Proposed Areas, over (under) 1997 Permit Approvals	12,852	(67,817)	(54,965)			

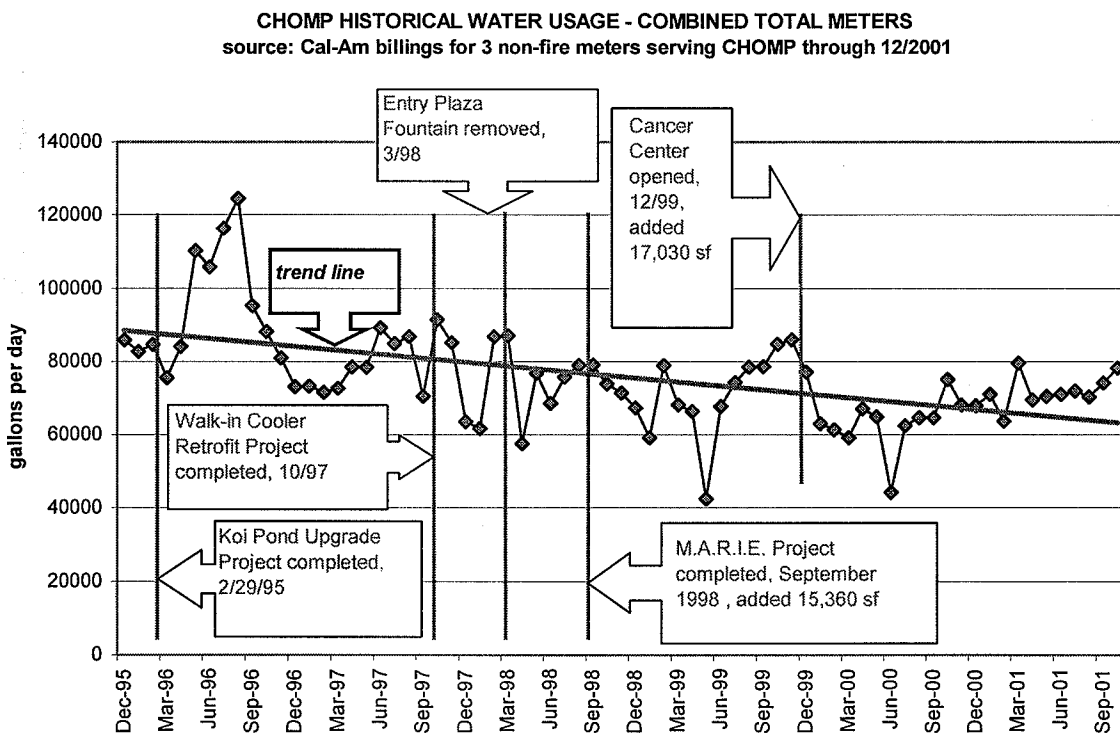
WATER: APPROVED, DEMAND, AND UNUTILIZED

Supply of Water for the 2001 Amended PC Plan

There are three ways in which water can be provided for a project in the jurisdiction of the Monterey Peninsula Water Management District:

- By allocation by one of the cities in the district or by the district
- By on-site credits
- By conservation or retrofit efforts which reduce measured water consumption

Conservation. Three meters that serve the hospital proper measure CHOMP's water usage. The following chart plots the combined water usage from these three meters from December 1995 through December 2000. This chart shows a very significant trend: despite the addition of over 32,000 square feet of new space since 1995, CHOMP's water usage has decreased by nearly one-third during that time. Its usage in 1999 was less than 60% of its usage in 1987. In 1996, CHOMP used over 104 acre-feet of water; in 1999, less than 81 acre-feet. This decrease in usage occurred while general acute care patient days were increasing 12.8% (from 36,570 to 41,250) from 1997 to 2000, and hospital occupancy went from 72% in 1997 to 81% in 2000. Although there continues to be variation from month to month, CHOMP's successful continuing efforts at conservation are evident in this trend.



Through its house-wide conservation efforts, after a peak of over 100 acre-feet per year in both 1995 and 1996, CHOMP has consumed less than 85 acre-feet per year every year since 1997. This is a saving of a minimum of 15 acre-feet per year.

HISTORICAL WATER CONSUMPTION, CHOMP THREE COMBINED METERS ¹

<u>Year</u>	<u>Acre-feet</u>
1987	134.58
1992	95.08
1993	83.33
1994	112.70
1995	101.11
1996	104.66
1997	88.27
1998	82.59
1999	80.49
2000	77.67

Unutilized Allocation. The 18.28 acre-feet of water dedicated by MPWMD Ordinance No. 87 provides for the 91,430 square feet of Clinical Space in the 1995 PC Plan, which included the Cancer Center and the South Pavilion. As shown in the table above, the Cancer Center's actual clinical square footage as built is only 6,417 square feet, so its use of water is 1.28 acre-feet, or 2.13 acre-feet less than the projected and allotted 3.41 acre-feet. This is borne out by the historical water usage table above. Similarly, detailed design for the South Pavilion now projects only 47,321 square feet of clinical space, and its use of water is thus 9.46 acre-feet, or 5.41 acre-feet less than the previously projected and allotted 14.87 acre-feet. These reductions in total clinical space area for the 1995 PC Plan translates into a total of 7.54 acre-feet that are unused from the Community Benefit Allocation of Ordinance No. 87.

Retrofits. Since 1995, CHOMP has voluntarily undertaken several retrofit water conservation projects. These include a new filtration system for the koi pond and a recirculation loop for the walk-in cooler in the hospital kitchen. Studies are underway to analyze the feasibility of reclaiming cooling tower water. CHOMP proposes to provide water for this project through its MPWMD allocations and its successful conservation measures.

¹ Source: Cal-Am meter readings for meters 84660953, 31837213, and 31838319

Proposed Sources of Water

Historic Conservation, 1995-2000 ¹	15.00	acre-feet	
Community Benefit Unutilized Allocation	5.82	acre-feet	MPWMD Ordinance 87, 2/28/97
CDF Site Credit, 1995 ²	<u>1.26</u>	acre-feet	MPWMD letter 4/21/95
Subtotal	22.08	acre-feet	
Cooling Tower Retrofit, 2002-2003	<u>2.02</u>	acre-feet	estimate, to be verified
TOTAL WATER SOURCES	24.10	acre-feet	

¹ includes Koi Pond Retrofit, 1995 and Walk-in Cooler Retrofit, 1998

² request for extension pending

MPWMD regulations provide for a "Water Use Credit" for measures that permanently reduce water use beyond MPWMD required retrofit programs. Water use credits may be issued for permanent conservation measures undertaken either prospectively or implemented within the preceding 18 months. These water use credits may then be used for new building projects that intensify water use.

PROJECT ANALYSIS

Current water use at the hospital is approximately 77 AF per year. By comparison, water use in 1987 was 134.58 acre-feet and 112.70 acre-feet in 1995. Water consumption at CHOMP in 2000 was less than 58% of its 1987 use.

The MPWMD applies a separate demand factor for forecasting potential future water use. The MPWMD has a variety of water use factors that it applies to a variety of projects to determine potential future water use. As it pertains to the proposed project, the MPWMD factor of .0002 AF per gross square feet of new building area is the factor used.

The proposed Forest Pavilion project will add 50,114 square feet of new building area for hospital clinical functions. Based on the MPWMD water use factor of .0002 acre-feet per year will result in an increase in water demand at the hospital for the Forest Pavilion by approximately 10.02 acre-feet per year ($50,114 \times .0002 = 10.02$).

This increase in demand can be met from several sources, and more than offsets the increase:

1. Historic conservation measures at CHOMP over the past five years have saved approximately 15.00 acre-feet per year.

2. Due to decreased as-built clinical building areas for the Cancer Center and reducing modifications to the South Pavilion design since the 1997 Use Permit, 7.54 acre-feet of the 18.48 acre-feet authorized by Ordinance 87 are / will be unutilized.
3. Elimination of water usage on the former CDF site freed up 1.26 acre-feet.
4. Ongoing voluntary efforts, particularly with respect to retrofit of existing cooling towers, may save as much as 2.02 acre-feet.

CONSISTENCY WITH RELEVANT POLICIES

Policies relating to water supply are contained in the City of Monterey's ordinances and regulations. As required by MPWMD, all new development is required to implement water conservation measures, which include installation of low water use fixtures and replacement of existing fixtures with new low water use fixtures. CHOMP will implement the current requirements of the City of Monterey and the MPWMD.

IMPACTS AND MITIGATION MEASURES

Standard of Significance

An impact is generally considered to be significant on the environment if it will significantly deplete groundwater resources.

Impact

The Forest Pavilion addition is projected to add 10.02 acre-feet of water per year to the hospital's water usage.

Proposed Mitigation

The impact of this project will be mitigated or eliminated because the project can obtain water through voluntary conservation efforts and reduction in the extent of clinical space in projects approved under the 1995 Amended PC Plan that provide a total supply of 22.08 acre-feet, or 24.10 acre-feet if the proposed cooling tower retrofit is implemented. This exceeds the projected demand of 20.76 acre-feet by 1.32 to 3.34 acre-feet. No net increase in water consumption would result.