

# **Water Submetering in Mobile Home Parks**

**August 13, 2007**

**Santa Clara Valley Water District  
Water Use Efficiency Unit**



## Water Submetering in Mobile home Parks

In 2000, the Santa Clara Valley Water District (District) began a pilot program to provide water submeters to mobile home parks in order to assist them in conserving water. In 2002, the District equipped four large mobile home parks with submeters, replacing one-meter systems in which residents in the same complex split water costs evenly, with submeters at each unit. A total of 754 submeters were installed through this program at the following mobile home parks<sup>1</sup>:

- Park A (99 submeters)
- Park B (108 submeters)
- Park C (361 submeters)
- Park D (186 submeters)

The District provided the water submeters to the mobile home park management companies, who in turn agreed to install the submeters. Additionally, the District asked the mobile home parks to all receive an Irrigation Technical Assistance Program (ITAP) evaluation to help improve irrigation efficiency. The District also offered residents the opportunity to participate in the Water Wise House Call Program, a home water survey program that can help residents save water indoors and outdoors.

It is estimated that tenants in submetered dwellings, with billing based upon actual use, **reduce water use in the 10% to 20% range**. This is partly due to changed habits caused by the pricing signal and partly due to the identification and repair of leaks. Tenants who are individually metered can benefit by being able to monitor and control their water use – with submetering, they only pay for what they use, not what others use. A study by the Seattle Public Utilities found that about 10% of the monitored tenants used 50% of the water. 80% of the tenants consumed water at a rate of \$15 or less per month and 20% consumed water at a rate in excess of \$50 per month. Some tenants were found to be conducting water intensive businesses, such as laundries and photo labs, in their units. (AWWA, 2001)

The mobile home park management companies agreed to track water bills for the submetered complexes so that water savings could be determined. In August, 2007, the property management company provided water use information for the aforementioned mobile home parts for the last ten years (about two to three years before the submeters were installed and the years following installation, up until 2007).

The water usage data for the four mobile home parks examined shows an annual water savings of from 15 to 30% (see Attachment 1: Water Use Data). The data was analyzed and it was determined that the average water savings was 24.8 CCF or about 18,500 gallons per household per year. The data was normalized for weather<sup>2</sup> and tenant occupancy. The submeters were installed during 2002 and so it is not included in the pre- or post-installation water use average (see Attachment 1).

---

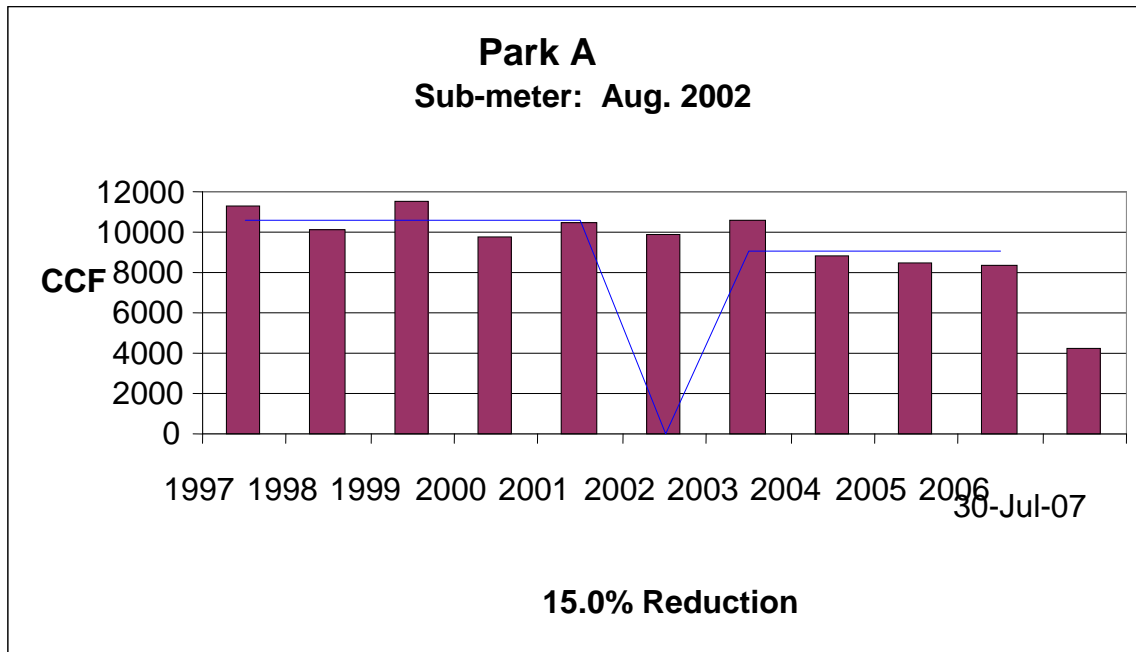
<sup>1</sup> To ensure privacy, names of actual parks not included in this report.

<sup>2</sup> The pertinent environmental parameters were considered to be mean monthly maximum temperature, cumulative monthly ET<sub>o</sub>, and cumulative monthly precipitation.

## ATTACHMENT 1: Water Use Data

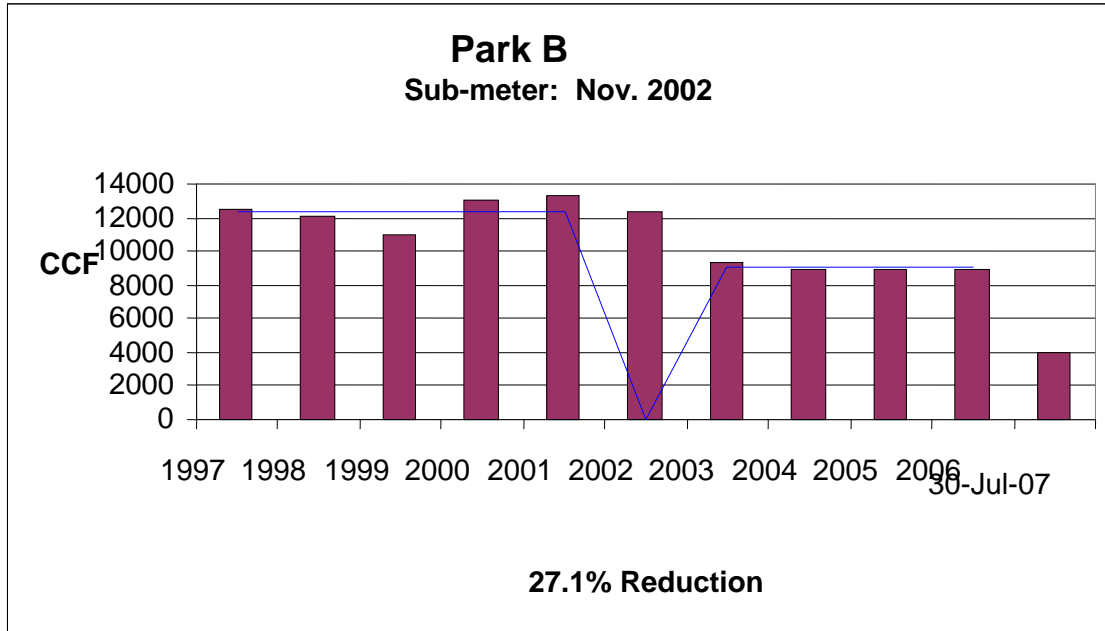
### PARK A MOBILE HOME PARK

		Park A
Sub-meter Date:		Aug-02
Average '97 - '01	Year	Total CCF
10628.8	1997	11327
10628.8	1998	10060
10628.8	1999	11491
10628.8	2000	9793
10628.8	2001	10473
Average '03 - '06	2002	9836
9039.25	2003	10532
9039.25	2004	8863
9039.25	2005	8456
9039.25	2006	8306
	30-Jul-07	4235
<b>15.0%</b>	<b>Average Reduction</b>	



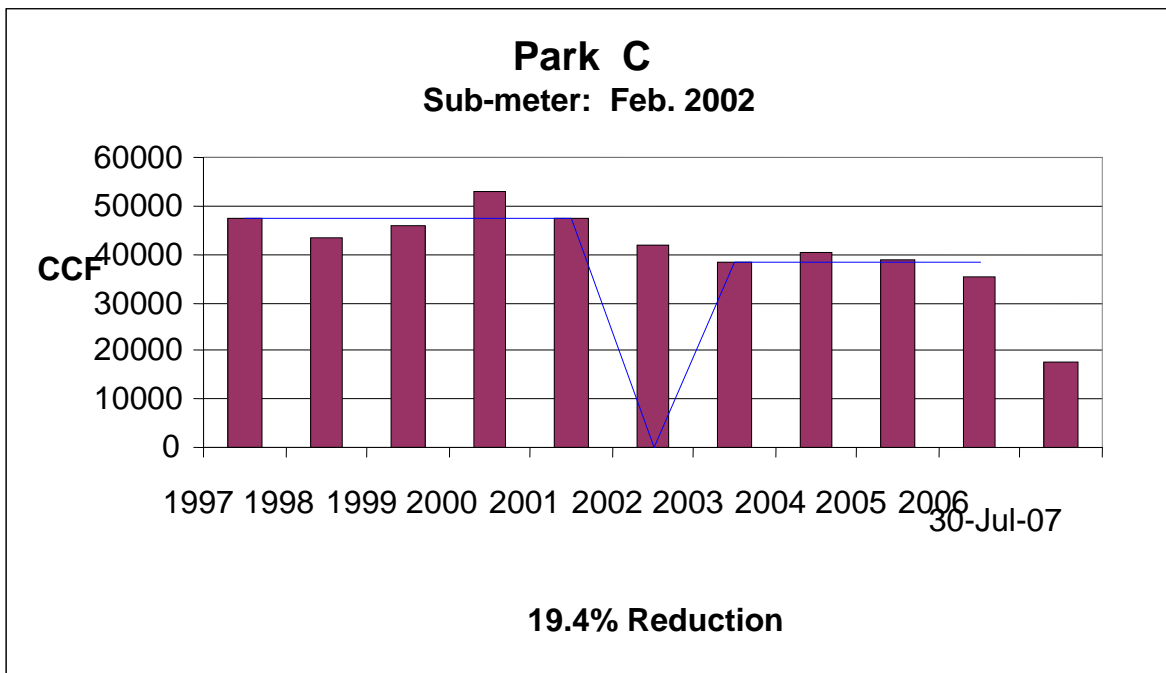
**Park B MOBILE HOME PARK**

		Park B
Sub-meter Date:		Nov-02
Average '97 - '01	Year	Total CCF
12403.8	1997	12484
12403.8	1998	12105
12403.8	1999	10983
12403.8	2000	13076
12403.8	2001	13371
Average '03 - '06	2002	12361
9043.75	2003	9342
9043.75	2004	8962
9043.75	2005	8942
9043.75	2006	8929
	30-Jul-07	3925
<b>27.1%</b>	<b>Average Reduction</b>	



**Park C MOBILE HOME PARK**

		Park C
		Feb-02
Average '97 - '01	Sub-meter Date: Year	Total CCF
47421.6	1997	47245
47421.6	1998	43484
47421.6	1999	45997
47421.6	2000	52780
47421.6	2001	47602
Average '03 - '06	2002	42068
38244	2003	38512
38244	2004	40216
38244	2005	38786
38244	2006	35462
	30-Jul-07	17501
<b>19.4%</b>	<b>Average Reduction</b>	



**Park D MOBILE HOME PARK**

		Park D
		Mar-02
Average '97 - '01	Sub-meter Date: Year	Total CCF
16315.17	1997	17964
16315.17	1998	15937
16315.17	1999	16651
16315.17	2000	17273
16315.17	2001	14829
16315.17	2002	15237
Average '03 - '06	2003	13357
11435	2004	12564
11435	2005	10539
11435	2006	11202
	30-Jul-07	5285
<b>29.9%</b>	<b>Average Reduction</b>	

