

WEST BASIN MUNICIPAL WATER DISTRICT

JUNE 4, 2003 - Water Resources

Little, Kwan

JUNE 23, 2003 - Board Meeting

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CONSENT CALENDAR

WATER QUALITY UPDATESUMMARY:

Water meters are a common way of life for residents of Southern California - every home in Los Angeles had a water meter installed by 1905. Each month a bill is received with charges for the specific amount of water used measured by a water meter. The water bills may include some sort of standing charge for minimum usage, pipe maintenance, wastewater removal, etc., but will always have a summary of water volume used in the previous reporting period.

**Water Meters**

Knowing how water meters work and being able to read the meter, not only allows monitoring personal water consumption, but it is also a way to check for leaks in home plumbing systems. Water meters measure usage in cubic feet; one cubic foot equals 7.48 gallons.

Water meters typically come in two basic types - the straight read meters, or the round-read meters. Straight-read water meters resemble the odometer in our vehicles. To read this kind of meter, simply register the numbers from left to right (ignore the last two numbers on the right by assuming they are zero). This will give cubic feet of water.

The round-read meters contain six separate, miniature dials that are usually labeled 1, 10, 100, 1,000, 10,000, and 100,000 cubic feet. If they are not labeled, there is usually an indication where the "1" cubic foot dial is located. These meters are usually read clockwise, beginning with the 100,000 cubic foot dial. Within each dial, the lower number (if the meter hand is between two numbers the lowest is used) is registered, following to the 10,000, 1,000, and 100 cubic feet dials. Again, the last two numbers are typically ignored (10 and 1 cubic feet), giving cubic feet of water.

**Water Use**

To calculate how much water a home uses over a period of time, simply take a reading of the meter at the beginning and end of whatever period is used. The difference in readings is the consumption. This is the same technique used by meter readers when utility companies calculate the usage and bill charges, but utility companies usually bill in hundred cubic foot units (748 gallons).

The meter can be read to determine just how much water is used for specific activities such as running the dishwasher. As long as all other water use in the home is stopped, it is possible to measure the meter before and after the activity is completed.

### **Water Leaks**

Leaks can be tested for in the plumbing systems by turning off all water fixtures (humidifiers, ice makers, etc.), and then leaving for several hours. Check the meter reading before leaving and again when returning. If the meter has recorded water use, there is likely a leak in a faucet, toilet, or pipe somewhere in the house.

Another way to check for water leaks with the meter is to observe the meter sweep hand when all water fixtures are turned off in the house.

### **Unmetered Homes**

This concept of metered water, bills issued for actual water consumed, and the availability to validate water use is commonplace to us in Southern California. It is proven that metered homes use at least 20% less water than unmetered homes. Almost 700,000 homes in California are without meters, which is difficult to comprehend with such strained resources and drought periods.

Most of the unmetered communities are in the Central Valley and Sacramento area, including Fresno, Sacramento, Bakersfield, Port Hueneme, Turlock, Woodland, Parlier, Visalia, and Modesto.

Although 1992 legislation required all new homes to be metered in California, it exempted existing homes, which has placed complexity on these cities to try and now meter older homes. Met with retrofit costs in the millions, resistance from customers, and mandates from water supply agencies, these cities are in difficult circumstances.

However, a new bill is on the horizon mandating the installation of water meters in all homes regardless of age and to begin volume-based billing by 2009. Assemblywoman Christine Kehoe (D-San Diego) has submitted AB 306, which has already garnered support in the Assembly and from environmental groups, Southern California water interests, and the Association of California Water Agencies.

If this bill should become legislation, then those 51 cities/communities currently unmetered can join the near 100-year history Los Angeles has experienced with metered water services, adding to the conservation efforts California desperately needs.

### **FISCAL IMPACTS:**

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on June 4, 2003 and agendaized to the June 23, 2003 Board meeting Consent Calendar.

RECOMMENDED MOTION:

This item is for information only.

LIST OF EXHIBITS:

None.

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