



IRVINE RANCH WATER DISTRICT

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December 5, 2008

The Honorable Nancy Wieben Stock
Presiding Judge of the Superior Court
700 Civic Center Drive West
Santa Ana, CA 92701

Subject: Response to Orange County Grand Jury report "Water Budgets, Not Water Rationing"

Dear Judge Wieben Stock:

The Irvine Ranch Water District (IRWD) is pleased to have the opportunity to submit a response to the Orange County Grand Jury report "Water Budgets, Not Water Rationing". As the report states, IRWD uses an allocation-based tiered rate structure to effectively promote water conservation, provide customer equity, and discourage wasteful use, and has been a leader in water use efficiency.

IRWD was required to provide a response to two findings, and four recommendations which are enclosed.

We appreciate the efforts and interest of the Grand Jury to investigate and address the effectiveness of water conservation methods, and support the findings and recommendations of the Grand Jury.

Sincerely,

Paul D. Jones II, P.E.
General Manager

Enclosure

cc: Orange County Grand Jury
Greg Heiertz, IRWD
Fiona Sanchez, IRWD

IRWD was required to respond to two findings F-1 and F-2:

F-1 Opportunities for further water conservation exist especially with regard to landscape watering.

The respondent agrees with the finding.

F-2 Conservation pricing, or tiered pricing, with a fair and reasonable base allotment, followed by tiers of higher rates, can be an effective tool to motivate and further conservation.

The respondent agrees with the finding.

IRWD was also required to respond to four recommendations R-1, R-2a, R-2b and R-2c:

R-1 Continue to emphasize methods and availability of tools that assist the customers in understanding weather-based irrigation practices by:

- **Providing a hotline for assisting the public with landscape irrigation information**
- **Providing a countywide soil texture map on the MWDOC website**
- **Developing an Orange County specific water calculator on the MWDOC website**

IRWD has already implemented this recommendation.

- IRWD has a 24-hour customer service line which serves as a hotline for any customer inquiries regarding landscape irrigation information. It is staffed by representatives during regular office hours and an after-hours service is available for any leak reports.
- IRWD also provides a dedicated phone line that provides evapotranspiration (ET) data in English and Spanish. This information, used to calculate landscape irrigation requirements, is updated on a weekly basis.
- IRWD has a full-time landscape conservation specialist, who is a Certified Landscape Irrigation Auditor, on staff. IRWD's landscape conservation specialist is available to respond to telephone inquiries, as well as provide on-site assistance and recommendations regarding landscape irrigation.
- IRWD also provides landscape irrigation information in its monthly billing inserts as well as on the IRWD website.
- MWDOC has indicated that it will be providing the soil texture map and developing the Orange County specific water calculator, and therefore implementing those elements of the recommendation.

R-2b Develop a tiered-pricing structure with the first tier based on individual customer water allocation priced at a commodity rate, and subsequent tiers priced significantly higher to encourage conservation. The pricing shall be structured in a manner that will preclude the necessity of price increases as a result of reduced water use.

IRWD has already implemented this recommendation.

- IRWD adopted an allocation-based tiered pricing structure in 1991 that allocates water to customers based upon specific indoor uses and outdoor irrigation needs as shown in Table 1. It encourages use within allocation through a significantly tiered commodity pricing system, and discourages wasteful use.
- The structure includes a five-tiered system for residential customers and a four-tiered system for non-residential customers, and charges progressively higher rates for progressively higher amounts of water used.
- Customers are charged a monthly service fee based on meter size and charged for commodity costs on a volumetric basis. The monthly service fee is designed to recover fixed operating costs. This structure was designed to provide revenue stability. If usage declines in response to additional conservation measures, the fixed operating budget remains unaffected, and reduces the need to increase rates in response to a decline in water sales.

Table 1: Base Allocations for Commodity Charges

| Account Type | Base Allocation Number of Residents | Landscape Area (LA) | Base Allocation Indoor | Base Allocation Outdoor | Total Allocation |
|---------------------------------------|-------------------------------------|--|--|--|---|
| Single Family Detached | 4 | 1300 sq. ft (0.03 acres) | # Residents x 75 gpd | ET x Kc x 1.25 x LA | (Indoor + Outdoor) x # days in bill service period |
| Attached Dwelling Unit | 3 | 435 sq. ft | # Residents x 75 gpd | ET x Kc x 1.25 x LA | (Indoor + Outdoor) x # days in bill service period |
| Apartments | 2 | N/A | # Residents x 75 gpd | | Outdoor x # days in bill service period |
| Irrigation | | Site specific based on irrigated acreage | N/A | ET x Kc x 1.25 x LA | Outdoor x # days in bill service period |
| Commercial, Industrial, Institutional | | | Site specific, based on productivity, employees, water use efficiency practices etc. | Site specific, based on irrigation needs | Site specific, adjusted for # days in bill service period |

gpd = gallons per day

ET (evapotranspiration) – from IRWD weather stations located in coastal, central or foothill zones

Kc (crop co-efficient) – relative amount of water cool-season turf needs at various times of the year

1.25 for 80% irrigation system efficiency – extra water to make up for inefficiencies in the irrigation system

LA = landscape acreage. Assumes that 100% of the landscape is cool-season turf-grass

R-2c Modify water bills to clearly explain customer monthly allotment and monthly water usage.

IRWD has already implemented this recommendation.

- IRWD's water bills state the total usage and total allocation for the exact billing period. Information on the bill indicates the basis for the allocation and associated irrigated area.
- Usage in each of IRWD's billing tiers is indicated on the bill. The five tiers are clearly labeled on the bill and the total usage is broken down by tier.
- The five tiers are: Low Volume, Base, Inefficient, Excessive and Wasteful.
- The bill also indicates customer usage for the same period the previous year for comparison purposes.
- Sewer charges, service charges and pumping surcharges (where applicable) are listed as separate, clearly identified line items.