I R W D

Fact Sheet

IRVINE RANCH WATER DISTRICT

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Dyer Road Wellfield

For many years, IRWD received all of its drinking water from the imported sources mentioned above. To alleviate our total dependency on imported water, the District in 1979 began to develop a series of local wells in an area called the Dyer Road Wellfield. These wells extract high quality water from the Orange County Groundwater Basin.

Water Quality

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Saving Water Saves Energy and Prevents Urban Runoff

Using water wisely not only saves you money, it also saves energy and prevents urban runoff that causes ocean pollution. IRWD encourages all customers to use water wisely and strive to make yours a "zero runoff home."

It takes energy to move water into reservoirs and from reservoirs to homes and businesses. It takes energy to pump water from aquifers, treat water, heat water and make it available for people, business and environmental uses. In California, 40 percent of all the energy used goes to treating, heating and moving water around the state. "The less water used, the more energy saved."

Using water efficiently also means lower water bills. The best place to save water is in the garden. Approximately 50 percent of all the water used in a residential setting goes to the landscape. A typical home landscape (2,000 square feet) with turfgrass in this climate uses 60,000 gallons of water per year. A landscape with low water use plants only needs 30,000 gallons a year. Whatever type of landscape you have, using water wisely produces a healthier, more attractive lawn and plants. When too much water is applied, it will flow into the street and become urban runoff. **So how you water your yard has a direct affect on the quality of the ocean!**

Become water-efficient in the garden:

- Check irrigation controllers. If there is a red light flashing (from a power surge, power outage or dead battery) reset the controller times and change the battery
- Check how many days and minutes are programmed on the clock. **Remember to turn water down 25 percent in September to match the changing weather,** and **keep turning water down as we head into winter**
- Check the soil moisture with a soil probe or small shovel. If the soil is moist, wait another day or two before watering
- Trees, shrubs and groundcovers need about half as much water as turfgrass
- Make sure sprinklers are working properly; watch for these problems:
  (1) misting (reduce valve pressure)
  (2) over-spraying on streets and sidewalks (adjust sprinkler heads)
  (3) leaking, clogged, or blocked sprinkler heads (fix leaks and clogs, prune plants or mow grass around heads for clearance)

Plant water needs:

The mix of plants, the weather, the efficiency of the irrigation system, and the size of the landscape determine how much water is needed. Soil type affects how long to water the landscape to avoid water runoff. For clay soils water in short cycles. Knowing how much water plants need is another key to saving water.

- Annual flowers and lawns, such as fescue grasses, are considered in the high water use category (bermuda grass needs about 20 percent less water)
- Medium water use plants include roses, jasmine, daylillies, agapanthus, trumpet vines, photinia, myoporum, hibiscus, palms, ferns and most trees
- Low water use plants include lavenders, acacia, rosemary, native plants, pepper trees, eucalyptus, sages, junipers and succulents

How much water do you "need"?

A family of four needs approximately 7,800 gallons of water per month for inside-the-home uses (65 gallons per person per day)

A landscape of 2,000 square feet needs:

- 7,500 gallons (10 ccf's) in July
- 5,300 gallons (7 ccf's) in September
- 1,900 gallons (2 ccf's) in December
- 3,000 gallons (4 ccf's) in March

Note: A ccf is one hundred cubic feet of water, or 748 gallons.

Too much water causes most plant problems, including diseases, yellowing leaves, branch die-back and stunted growth. Now is the time to reduce water use and save energy in the process.

IRWD FACILITIES:

- IRWD Headquarters
- IRWD Operations Center
  - Michelson Water Reclamation Plant
  - San Joaquin Wildlife Sanctuary (Duck Club and Audubon House)
- Los Alisos Water Reclamation Plant
- Irvine Lake (untreated water) - 25,000 AF storage capacity or 8,147.5 million gallons (MG)
- Dyer Road Wellfield - local groundwater (potable)
- San Joaquin Reservoir - 3,058 AF (996.6 MG) currently empty
- 12 reclaimed water reservoirs with 656.9 MG storage capacity
- 24 domestic water reservoirs with 131.75 MG storage capacity

Water Too Valuable To Use Only Once

IRWD's philosophy is that water is too valuable to be used just once. Every gallon of reclaimed water used to irrigate crops or landscaping means a gallon of drinking water that can be saved for potable uses. Reclaimed water now makes up approximately 20 percent of IRWD's total water supply, reducing the need to import expensive water and helping to keep water rates low. *Eighty percent of all business and community (parks, school grounds, etc.) landscaping in the District is irrigated with reclaimed water.*

Wastewater from the community is collected and treated to tertiary standards at the Michelson Water Reclamation Plant (MWRP), which has a 15 million gallon per day (MGD) capacity, and at the Los Alisos Water Reclamation Plant (LAWRP), which has a 5.5 MGD capacity. This water is delivered throughout the community through a completely separate dual distribution system which includes over 300 miles of pipelines. The reclaimed system includes 12 storage reservoirs and 15 pump stations.

The primary uses of reclaimed water are landscape and agricultural irrigation. Landscape uses include parks, school grounds, golf courses, freeway landscaping and irrigation of common areas managed by many homeowner associations. Reclaimed water is also used for front and backyard irrigation in eligible estate-sized residential lots, for toilet flushing in high rise office buildings, and soon will be used in office cooling towers.

IRWD Facts and Figures

- Size of District .....85,019 acres
  .....(approximately 133 square miles)
- Population served 266,000
- Employees 278

TOTAL NUMBER OF CONNECTIONS

DOMESTIC

- Residential 72,032
- Commercial 2,418
- Industrial 1,919
- Public Authority 190
- Construction & Temporary 151
- Fire Protection 1,948
- Landscape Irrigation 1,711
- Agricultural 24

RECLAIMED

- Commercial 3
- Industrial 10
- Landscape Irrigation 3,258
- Agricultural - R/W & untreated 44

TOTAL NUMBER OF CONNECTIONS 83,708

AMOUNT OF WATER DELIVERED (FY 2001-2002)

- Treated (potable) .....52,926 af
- Untreated (non-potable) .....9,213 af
- Reclaimed .....23,383 af
- Total .....85,522 af

af = acre feet

An acre-foot of water covers one acre of land one foot deep. One acre-foot of water, or 326,000 gallons, represents the needs of two average families, in and around the home, for one year.

Financial Operations

To ensure equity among our customers, IRWD separates the cost of building water and sewer infrastructure from the cost of daily operations and maintenance. Infrastructure costs, called capital projects, are financed directly or through general obligation bonds, the costs for which are paid through a combination of property taxes and connection fees. Daily operation and maintenance costs, which are further separated between the water and sewer systems, are funded primarily through monthly user rates. The fundamental principle behind this precise allocation of costs is that each user pays his or her fair share.

IRWD Water Rates the Lowest in Orange County

IRWD's monthly water rates have two components: a commodity rate set to recapture the variable cost of imported water and local groundwater; and a service charge set to recover the fixed costs of maintaining the water distribution system.

IRWD has a five-tiered ascending block rate structure that is intended to promote the efficient use of water year in and year out—not just during drought years. The less imported water that IRWD has to buy, the lower the rates are for those who practice good water management. IRWD offers many free services (see back page) to assist customers in saving water. The monthly water charges for a typical residential customer are among the lowest in Orange County.

The IRWD allocation system is based on science, taking into consideration both indoor water use and the actual evapotranspiration (ET) rate needed to maintain healthy landscaping in this area. This system was further refined to reflect the "microclimates" of Foothill Ranch/Portola Hills and the Newport Coast, where weather can be warmer or cooler than the central Irvine area. This program uses daily data from weather stations in each of these zones to automatically calculate an appropriate amount of water for residential landscaping. The amount of water in a customer's "base rate" tier can be increased through a variance procedure if there are more than the average number of persons living in the home, special medical needs, etc. IRWD even offers courtesy adjustments for events such as filling a swimming pool.

IRWD Rate Structure

Tier Used	Percent of Allocation	Base Rate	Cost per ccf
Discount	0-40%	3/4 Base Rate	$.53
Base Rate	41-100%	Base Rate	$.69
Inefficient	101-150%	2x Base Rate	$1.38
Excessive	151-200%	4x Base Rate	$2.76
Wasteful	201%+	8x Base Rate	$5.52

Note: Santa Ana Heights and Los Alisos customers are billed on a flat rate and do not qualify for variances at this time.

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