

**Free Services Provided:**

**eBILL** - IRWD, in partnership with Fiserv, is pleased to bring you an eBill service that offers the convenience of receiving and paying your water bill online, free of charge. When you sign up for eBill you will no longer receive a paper bill. Instead, you'll be able to go online and view your most recent bill. More information is available at [www.irwd.com](http://www.irwd.com).

**Automatic Debit** - Automatic debit, in which the amount of your IRWD bill is automatically withdrawn from your checking account, is available. Visit [www.irwd.com](http://www.irwd.com) or call Customer Service at (949) 453-5300 for assistance.

**Conservation Devices** - Water conservation devices (showerheads, faucet aerators, dye tablets, etc.) are available free to any IRWD customer. The devices may be picked up at IRWD headquarters, 15600 Sand Canyon Avenue, Irvine. For more ways to save water visit [www.AlwaysWaterSmart.com](http://www.AlwaysWaterSmart.com).

**Customer Variances** - Customers with a larger than average family, large landscaped areas or special medical needs may qualify for an allocation variance. One-time courtesy adjustments are also available when filling a pool and other special circumstances. Call (949) 453-5300 for details or email [customerservice@irwd.com](mailto:customerservice@irwd.com).

*Note: The former Santiago County Water District and Orange Park Ares Mutual Water Company areas are not on the IRWD rate structure and therefore do not qualify for variances at this time.*

**Home Water Survey Program** - Voluntary water use surveys are available to residential customers on the tiered rate structure who are experiencing problems with high water use. The goal is to improve water efficiency and keep water bills as low as possible. A trained conservation specialist will visit your home, check for leaks, and make recommendations for water savings. For more information, call (949) 453-5581.

**Water Awareness Tours** - Customers of IRWD can learn more about their local water supply and distribution system by signing up for a free Water Awareness Tour. These tours are held annually in the Spring. Call (949) 453-5500 or register online at [www.irwd.com](http://www.irwd.com).

**Workshops**- Free informational presentations:

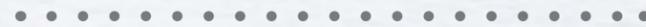
- **Landscape Workshops** - designed for residential customers to provide landscape techniques to save water, maintenance time, and money.
- **Conservation Workshops** - designed for commercial and industrial customers to provide information and to serve as a forum for open discussion on ways to conserve water. Call (949) 453-5581 for information.

**Water Awareness Education Program** - Since the mid-1970s, IRWD has provided free water education programs to schools within our service area. We are delighted to now team up with Discovery Science Center to present exciting new water education programs at local schools for grades K-8. Programs are still FREE to schools in the IRWD service area.

The IRWD/Discovery Science Center programs feature state-of-the-art touch pads that students use to electronically play along with interactive learning games. To schedule a program, teachers should call (714) 913-5030.

IRWD staff continues to provide in-classroom programs and field trips for local high schools and community organizations such as Boy Scouts and Girl Scouts. For more information, call (949) 453-5500.

**Speakers Bureau** - The IRWD Speakers Bureau welcomes invitations for speaking engagements. If you know of any group wishing to learn about water, please call Public Affairs at (949) 453-5500 or email [webmaster@irwd.com](mailto:webmaster@irwd.com).



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**Water Quality**

Water District's Diemer Filtration Plant before it enters the IRWD distribution system. Local wellwater is purified at disinfection facilities near the Dyer Road Wellfield before it is provided to customers.

IRWD distributes an informative Annual Water Quality Report (Consumer Confidence Report) to customers. This report provides customers with water analyses test results and an explanation of how to interpret the information. Feel free to call the District at (949) 453-5500 to request an additional copy.



**IRWD Board of Directors**

- Steven E. Lamar, President
- Mary Aileen Matheis, Vice President
- Douglas J. Reinhart
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**General Manager**

Paul D. Jones II

Updated March 2011



# Who We Are What We Do

## Irvine Ranch Water District

# Fact Sheet

The Irvine Ranch Water District (IRWD) was established in 1961 as a California Water District under the provisions of the state of California Water Code. The District provides potable water, sewage collection and treatment, and produces tertiary-treated recycled water. Wastewater is treated at the Michelson Water Reclamation Plant (MWRP), and at the Los Alisos Water Reclamation Plant (LAWRP), providing recycled water for landscape irrigation, agriculture, industrial and commercial needs.

Located in the south-central portion of Orange County, IRWD encompasses approximately 181square miles. The District serves the city of Irvine and portions of Costa Mesa, Lake Forest, Newport Beach, Orange, Tustin and unincorporated areas of Orange County. IRWD extends from the Pacific Coast to the foothills, with elevations ranging from sea level to 3,200 feet. This is a semi-arid region with a mild climate and an average annual rainfall of 12 to13 inches.

As an independent public agency, IRWD is governed by a five-member, publicly elected board of directors. These officials are responsible for the District's policies and decision making. Day-to-day operations are supervised by the general manager and his staff.

**IRWD's Domestic Water Sources**

Approximately 31 percent of IRWD's drinking water is purchased from the Metropolitan Water District of Southern California. Imported water comes from the Colorado River via the Colorado River Aqueduct and from Northern California via the State Water Project. The Remaining 69 percent of our supply comes from local wells.

- **Colorado River Project** - The Colorado River Aqueduct brings water 242 miles through deserts and over mountain ranges to its terminal reservoir, Lake Mathews, in Riverside County. The aqueduct system includes five pumping plants which lift the water 1,617 feet in elevation.
- **State Water Project** - The State Water Project, also known as the California Aqueduct, transports water 600 miles from Northern California. Owned and operated by the State of California, this is the longest aqueduct system in the world. The system includes 23 dams and reservoirs, 22 pumping plants which lift the water to heights of 3,500 feet in elevation, and six power plants. The aqueduct is comprised of 473 miles of canals, 175 miles of pipeline and 20 miles of tunnels.
- **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**

Providing our customers with safe, high quality drinking water is a main priority of Irvine Ranch Water District. The drinking water provided by IRWD is safe and meets all quality standards set by both the state and federal government. Our Water Quality staff continuously monitors the water supply, conducting over a quarter of a million laboratory tests each year from water taken from over 70 sample points throughout the District. IRWD's state-of-the-art Water Quality Laboratory is one of the best equipped water laboratories in Southern California.

Water imported from the Colorado River and Northern California is purified at the Metropolitan

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# Irvine Ranch Water District Fact Sheet

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.”

Saving water also helps conserve energy. Water-related electrical use accounts for approximately 19 percent of the state’s total electrical demand. Most of the state-wide water-related electrical use is by individual customers for heating, pressurizing and other on-site needs. A smaller portion of electricity is used by water and wastewater utilities for pumping, storing, treating and distributing water throughout the state. Additional electricity is also used for wastewater collection, treatment, and disposal. Water conservation programs provide multiple energy saving benefits, including: saving water, a precious natural resource; reducing the amount of energy that is used by the customer and the water supply and delivery system to provide that water; and decreasing energy requirements for wastewater treatment and disposal.

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 carrying fertilizers, pesticides, oil and trash into storm drains, which ultimately empty into the ocean. **Therefore, 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 plant needs, 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:
  - Misting (reduce valve pressure)
  - Over-spraying on streets and sidewalks (adjust sprinkler heads)
  - 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. Water clay soils 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) in July
- 5,300 gallons (7 ccf) in September
- 1,900 gallons (2 ccf) in December
- 3,000 gallons (4 ccf) 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 - 3,080 AF (916 MG) recycled water
- Twelve additional recycled water reservoirs with 656.9 MG storage capacity
- Thirty-four domestic water reservoirs with 144.16 MG storage capacity

### Water Too Valuable To Use Only Once

In many areas throughout the State, potable water is used for non-potable purposes which reduces the amount of potable water available for potable purposes such as drinking, cooking and bathing. IRWD’s philosophy is that water is too valuable

to be used just once and that we should maximize the use of non-potable water for approved non-potable uses. Because of IRWD’s philosophy and commitment to increasing local reliability, recycled water now makes up more than 20-percent of IRWD’s total water supply, reducing the need to import expensive water and helping keep water rates low.

Wastewater from the community is collected and treated through a highly regulated and controlled three-step treatment process at the Michelson Water Reclamation Plant located in Irvine and at the Los Alisos Water Reclamation Plant located in Lake Forest. These two treatment plants have the collective capacity to produce approximately 23 million gallons per day of recycled water which can be reused immediately or stored in any of the 13 storage reservoirs for re-use later. This highly treated recycled water is delivered to the more than 4,000 recycled water use sites throughout the community through a distribution system dedicated for recycled water which includes over 300 miles of pipelines.

The primary uses of recycled water are landscape and agricultural irrigation. In fact, 80-percent of all landscaping in IRWD’s service area is irrigated with recycled water. Recycled water is used to irrigate parks, school grounds, golf courses, freeway landscaping and irrigation of common areas managed by homeowners’ associations. Recycled water is also used for front and backyard irrigation in eligible estate-sized residential lots, for toilet and urinal flushing in 40 dual-plumbed office buildings and as make-up water in several cooling towers.

### IRWD Facts and Figures

Size of District ..... 181 square miles (115,531 acres)  
 Population served..... 331,500  
 Employees ..... 300

### Total Number of Connections (updated 7/10)

DOMESTIC	
Residential.....	84,295
Commercial.....	4,952
Industrial.....	861
Public Authority.....	281
Construction & Temporary.....	93
Fire Protection.....	4,550
Landscape Irrigation.....	1,814
Agricultural.....	11
RECYCLED	
Commercial.....	50
Industrial.....	3
Landscape Irrigation.....	4,437
Agricultural - R/W & untreated.....	30
Total number of connections.....	101,377

### Amount of Water Delivered in acre-feet\*(FY 2009-2010)

Treated (potable).....	51,358 af
Untreated (non-potable).....	7,461 af
Recycled.....	22,863 af
Total.....	81,682 af

### 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 Rates Among 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 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 for Irvine Ranch Service Area / Potable Water (effective July 1, 2010)

Tier	Rate (per ccf**)	Percent of Allocation
Low Volume	\$0.91	0 - 40%
Base Rate	\$1.21	41 - 100%
Inefficient	\$2.50	101 - 150%
Excessive	\$4.32	151 - 200%
Wasteful	\$9.48	200+%

\*One acre-foot (af) of water equals 326,000 gallons and covers one acre of land, one foot deep.  
 \*\*One ccf equals 748 gallons.