Yucaipa Valley Water District

BUILDING
A SUSTAINABLE FUTURE TOGETHER




2007

YUCAIPA VALLEY WATER DISTRICT
2007 ANNUAL REPORT

Water Resource Sustainability
A Key Element To Our Future

The Yucaipa Valley Water District invites public input on a long-term plan to protect local residents and businesses from periodic droughts and occasional interruptions in water imports.

The District staff has recently released *A Strategic Plan for a Sustainable Future - The Integration and Preservation of Resources.* This comprehensive plan was designed to help insulate the District's business and residential customers from periodic droughts as well as occasional interruptions in water imports.

"We think this is a responsible way to plan for our future," YVWD General Manager Joe Zoba said of the District's strategic plan, which will be discussed during public hearings in July. "We are inviting members of the public to offer their feedback on the plan, which will guide the District's policy, planning and management practices for the next 50 years," Joe said.

The plan, which anticipates growth, water consumption and worst case scenario weather patterns during the next 50 years, includes a water banking strategy, which is designed to ensure that the District has enough water to accommodate existing demands as well as future business and residential development.

The proposed water banking strategy involves both existing and future YVWD customers. Existing customers will add 15 percent of their monthly water consumption to the water bank beginning January 1, 2009. This water will come from northern California and be filtered at the new water filtration facility. Similar to a financial savings account, the water bank will store pure drinking water in our local aquifers to be used when imported water sources are not available. The cost for a typical homeowner would be about $2.50 per month.

The District will also require anyone planning to build a new home or business to deposit about 15 acre feet, which is about five million gallons, of water before they would be allowed to build on their property. This is enough water to supply a typical homeowner for 20 years and is enough to demonstrate that imported water supplies are sufficient water to accommodate the new development.

In addition to the local water bank, the District will be expanding the existing recycled water delivery system to maximize the use of recycled water for irrigation purposes. The District is in the process of doubling the recycled water production capability to 8 million gallons per day through a $40 million expansion and enhancement of the wastewater treatment plant. By 2025, we expect recycled water to provide one-third of our total water requirement. The recycled water produced by the District is a drought tolerant water resource that will be used to irrigate the front yard and backyard of new homes constructed in the area.

The strategic plan also calls for stepped up water conservation efforts and construction of new surface water retention basins to capture more rainfall and allow it to percolate into the local groundwater basin.

This sustainability strategy will eventually enable the District to satisfy its water needs entirely through groundwater, surface water and recycled water. It will also help to insulate the District from periodic droughts as well as fluctuations in the availability of imported water.

YVWD's strategic plan can be viewed in its entirety at www.yvwd.dst.ca.us/sustainability.

Yucaipa's Dual Plumbed Homes to Reduce Potable Water Use

At a recent annual meeting of the California Water Reuse Association, the Yucaipa Valley Water District General Manager Joe Zoba outlined the District's plans to require new homes to be dual plumbed for both fresh and recycled water.

"Recycled water is on everyone's minds, particularly with the cutbacks involving the Sacramento Delta," YVWD Recycled Water Manager Rodd Greene said of the meeting. The state has ordered a 30 percent cutback in water deliveries from the Delta, which supplies about 40 percent of Southern California's water.

The District, however, is working to offset the vagaries of water imports by increasing the use of recycled water, and one way to do it is by requiring new homes to be dual plumbed so that recycled water can be used for outdoor irrigation.

Rodd will be heading up a team of individuals to insure onsite plumbing is properly installed at each of the new homes. Depending on the size of the lot, this plan is expected to reduce potable water demands by 50%-60% at each home. Rodd continued, "Our plan for new development will mean that the District will be less reliant on imported water supplies than other agencies." Our new customers will be using drought tolerant recycled water to keep their lawns and gardens green.

Did You Know

Water conservation is the most cost-effective and environmentally sound way to reduce the demand for water. This stretches our local and statewide water supplies farther. Using less water also puts less pressure on our sewage treatment facilities, and uses less energy for water heating.

The Water and Energy Connection - Saving water also saves energy. About 6.5% of the energy used in the state of California is for pumping and treating water--in fact, pumping water from the Sacramento Delta to southern California in the State Water Project accounts for 2-3% of all the electricity used in the state.

For more information on ways to save water visit our website or **www.wateruseitwisely.com**.

New Asset Management System Now Online

The implementation of our new asset management program will significantly improve the maintenance of pumps, pipelines, vehicles and other equipment

The Yucaipa Valley Water District currently maintains, operates and manages more than $243 million in water and wastewater treatment plants, wells, boosters, pumps, pipelines, equipment and vehicles.

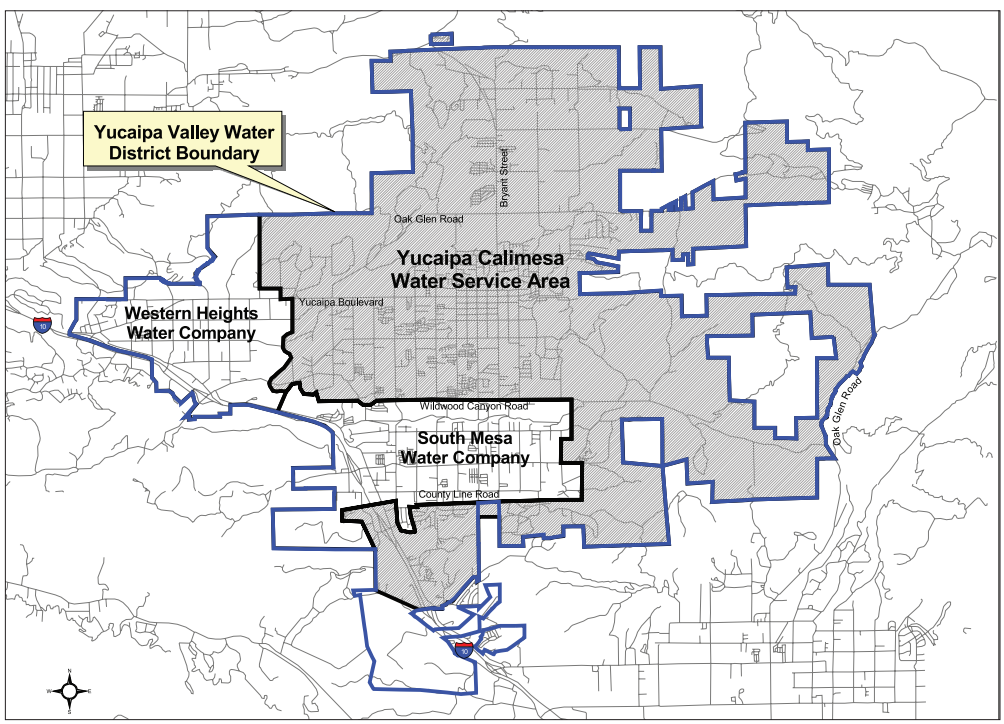
Managing this equipment has always been challenging for the District's employees, who have had to manually keep track of everything from maintenance schedules to the service or repair histories of each piece of infrastructure. "It's a daunting task," said Linda Kilday, an engineering technician who has worked for the District for 16 years.

Linda knows this challenge better than most. For the past several years, she has developed GIS computer maps that show the location of every pipe, fire hydrant and manhole cover in the District. But last year, the District purchased a computer maintenance management system (CMMS) that enables us to track the maintenance histories of every piece of infrastructure we own.

The CMMS system is being merged with the GIS maps Linda created, establishing a comprehensive management system that is more efficient than anything the District has ever had before. "We can even use the CMMS database to set up a preventative maintenance program," Linda said, "this helps ensure that we always know when it's time to replace assets or perform maintenance on our vehicles, tractors, pumps and other infrastructure."

In fact, with the CMMS database, she can literally click on a piece of equipment highlighted on a GIS map and pull up its entire maintenance history, much like a car dealer does when pulling up the service record for a particular vehicle.

The District takes our responsibility to protect the infrastructure entrusted to us seriously. The amount of money invested in our local infrastructure by our ratepayers requires detailed tracking and management.



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Harley Slater, Linda Kilday and Bob Wall (pictured above from left to right) are part of the team tracking the buildings, pipelines, filtration systems, automation equipment and other assets at the new water filtration facility.

The Yucaipa Valley Water District provides to its customers both treated surface water (2%) from a surface water treatment facility in the community of Oak Glen and groundwater (98%) pumped from wells located throughout the Yucaipa Valley. The water service area is shown on the adjacent map.

Some customers take sewer service only from Yucaipa Valley Water District, and receive their water from other water purveyors. If you reside outside of the District's water service area and want to learn more about your water quality, please contact your local water purveyor.

New Equipment and Increased Staff Help Keep Our Sewer Lines Clean

James O'Brien, Ryan Janisch, John Wrobel, Craig Jones and Sean Trost (pictured above from left to right) work together to maintain nearly 300 miles of sewer collection pipelines and six sewer lift stations. These facilities are important to transport wastewater from your home to the Wochholz Regional Water Recycling Facility.

From a distance, Ryan Janisch, Sean Trost, James O'Brien and Craig Jones could be mistaken for bottled water delivery men. After all, they wear uniforms and drive big green trucks up and down local streets. "They certainly don't deliver water," laughed John Wrobel, utility service superintendent for Yucaipa Valley Water District (YVWD).

Ryan, Sean, James and Craig are sewer maintenance workers for Yucaipa Valley Water District and their big green trucks contain high pressure hoses and other equipment they use to scour some 255 miles of sewer lines that run throughout Yucaipa and Calimesa. "They work every day to keep our sewer lines free of roots, grease and other debris so that we don't have raw sewage bubbling up through manhole covers on city streets," John said.

Sewage flows are often impeded by a buildup of cooking grease and other materials, which can line the insides of pipelines. But while restaurants have their own cooking grease interceptors, which they are required to maintain, local residents often wash cooking grease, coffee grounds and egg shells down their drains, which can build up in sewer lines and create blockages.

About a decade ago, the District experienced several sewage overflow incidents each year," John said. Since then, the District has invested in two sewer maintenance trucks and increased the size of its sewer maintenance team. Each of the two maintenance trucks cost as much as a new fire engine. "As a result of these efforts, the number of overflows has been significantly reduced to about one per year," John said, adding that it takes his crew about a year to clean the entire sewer system in Yucaipa and Calimesa.

Footnotes and Definitions for the 2007 Annual Water Quality Report

Abbreviations:

- mg/L - Parts per million (ppm) or milligrams per liter
- ug/L - Parts per billion (ppb) or micrograms per liter
- pCi/L - Picocuries per liter is a measure of the radioactivity in water
- AL - Action Level
- MCL - Maximum Contaminant Level
- MCLG - Maximum Contaminant Level Goal(s)
- ND - No Detection
- RAA - Running Annual Average

This report contains data that is not entirely from the calendar year indicated. The state allows the monitoring for some chemical contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of the data presented in the following table, though representative, may be more than one year old.

About the Results:

* Compliance with the MCL for Total Trihalomethanes is based on an annual running average of four quarterly samples. The District did record one sample higher than the MCL but our running annual average was in compliance.

** The District is required to report values for all sampling events. One sampling event was from a water source that was activated just to collect water quality samples and the water produced was not part of the District's water supply. This source contained higher than normal levels of turbidity, color, chromium, and magnesium. If this sampling event was not included in the monitoring record, then the average and range of results would be: Turbidity ND, ND-1.70 units; Color ND, ND-15 units; Chromium 1.96 ug/L, ND-13.00 ug/L; and Manganese ND, ND ug/L, respectively.

*** **About Arsenic:** While your drinking water meets the current standard for arsenic, a small portion of our water does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The California Department of Public Health continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. The U.S. Environmental Protection Agency has adopted a revised MCL of 10 ug/L (10 PPB).

****About Nitrate:** Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

2007 Annual Water Quality Report

The following table illustrates the results of water quality monitoring for the year 2007. The water quality served to our customers is better than the federal and state standards. We take a great deal of pride in providing the community with safe, reliable and high quality drinking water. Este informe contiene informacion muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Constituent	Average	Range of Results	Highest Level Allowed (MCL)	Ideal Public Health Goal (MCLG)	Major Sources of Contaminants in Drinking Water
PRIMARY DRINKING WATER STANDARDS - Mandatory Health Related Standards					
T. Trihalomethanes (TTHM)	29 ug/L	ND - 99 ug/L *	80 ug/L	N/A	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	12.9 ug/L	ND - 33 ug/L	60 ug/L	N/A	By-product of drinking water chlorination
Chlorine Residual RAA	0.97 mg/L	0.7 - 1.4 mg/L	4 mg/L	4 mg/L	Drinking water disinfectant added for treatment
Alpha Activity, Gross	1.78 pCi/L	ND - 6.5 pCi/L	15 pCi/L	N/A	Erosion of natural deposits
Uranium	1.8 pCi/L	ND - 5.9 pCi/L	20 pCi/L	0.43 pCi/L	Erosion of natural deposits
Copper (Measured at the tap; 90th percentile)	@ 90th% 150 ug/L	ND - 2000 ug/L 39 tests collected	AL=1,300 ug/L	170 ug/L	Internal corrosion of household plumbing systems
Chromium, Total	3.93 ug/L**	ND - 13.00 ug/L**	50 ug/L	100 ug/L	Discharge from steel, pulp mills, and chrome plating; erosion of natural deposits
Aluminum	2.1 ug/L	ND - 60 ug/L	1,000 ug/L	600 ug/L	Erosion of natural deposits; residual from some surface water treatment processes
Arsenic***	ND	ND - 6.6 ug/L	10 ug/L	0.004 ug/L	Erosion of natural deposits; runoff from orchards, glass and electronics production waste
Fluoride	0.5 mg/L	0.1 - 1.0 mg/L	2 mg/L	1 mg/L	Erosion of natural deposits, discharge from fertilizer and aluminum factories
Nitrate (as NO3)****	21 ug/L	ND - 42 mg/L	45 mg/L	45 mg/L	Runoff from fertilizer use, leaching from septic tanks and sewage; erosion of natural deposits
1,1 Dichloroethylene - DCE	0.077 ug/L	ND - 2.4 ug/L	6.0 ug/L	10 ug/L	Discharge from industrial chemical factories
1,1,1 Trichloroethane - TCA	0.112 ug/L	ND - 3.6 ug/L	200 ug/L	1000 ug/L	Discharge from metal degreasing sites; manufacture of food wrappings
Total Coliform Bacteria	ND	0 - 2%	5% a month	0%	Naturally present in the environment
SECONDARY DRINKING WATER STANDARDS - Aesthetic Standards					
Color	0.18	ND - 5	15 Units	None	Naturally occurring organic materials
Turbidity	0.15 NTU	ND - 1.10 NTU	5 NTU	N/A	Turbidity is a measure of the cloudiness of the water. It is a good indicator the effectiveness of a filtration system and distribution system
Aluminum	2.1 ug/L	ND - 60 ug/L	200 ug/L	600 ug/L	Erosion of natural deposits
Chloride	21.4 mg/L	5.6 - 110 mg/L	500 mg/L	None	Runoff/leaching from natural deposits
Sulfate	31.5 mg/L	13 - 57 mg/L	500 mg/L	None	Runoff/leaching from natural deposits
Iron	6.1 ug/L	ND - 170 ug/L	300 ug/L	None	Leaching from natural deposits; industrial wastes
Total Dissolved Solids	315 mg/L	170 - 540 mg/L	1,000 mg/L	None	Runoff/leaching from natural deposits
Manganese	<20 ug/L**	ND - 31 ug/L**	50 ug/L	None	Leaching from natural deposits
Total Hardness	199 mg/L	100 - 420 mg/L	No Standard	None	Hardness is a measure of minerals in drinking water
Sodium	32.4 mg/L	14 - 51 mg/L	No Standard	None	Mineral naturally found in drinking water supplies
UNREGULATED CONSTITUENTS - Additional chemical monitoring performed by the District					
Calcium	55.0 mg/L	23 - 110 mg/L	No Standard	None	Mineral naturally found in drinking water supplies
Potassium	1.9 mg/L	ND - 5.2 mg/L	No Standard	None	Mineral naturally found in drinking water supplies
Magnesium	14.6 mg/L	4.9 - 37 mg/L	No Standard	None	Mineral naturally found in drinking water supplies

	Oak Glen Surface Water Filtration Facility (EPD Dual Stage Garnet Filtration System)	Interim Filtration Facility (Microfiltration) & Yucaipa Valley Regional Water Filtration Facility (Microfiltration and Nanofiltration)
Turbidity Performance Standards - Those standards that must be met through the water filtration processes.	Turbidity of filtered water must: 1. Be ≤ 0.3 NTU in 95% of measurements in a month 2. Not exceed 1 NTU for more than eight consecutive hours 3. Not exceed 1 NTU at any time	Turbidity of filtered water must: 1. Be ≤ 0.1 NTU in 95% of measurements in a month 2. Not exceed 1 NTU for more than eight consecutive hours 3. Not exceed 1 NTU at any time
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%	100% / 100%
Highest single turbidity measurement during the year.	0.065 NTU	0.080 NTU / 0.060 NTU
Number of violations of any surface water treatment requirements.	Zero	Zero / Zero

Don't Throw Unused Or Outdated Medicine Down the Drain

New Procedures are Being Recommended For Disposal Of Pharmaceutical Products

If you have unused pharmaceutical products that you are ready to dispose of, don't throw them down the toilet. Instead, capsules and tablets should be made unusable by wetting, breaking and crushing. The remnants should then be placed in the original childproof container with your personal information removed. Seal the container with tape and throw it in the trash. Another option is to mix the medication with decaying food, used coffee grounds or kitty litter for disposal with your household trash. A third option is to take the medications to a collection center, much like you would go to a hazardous waste facility to dispose of old paint, batteries and computers.

The new guidelines, which are posted at www.nodrugsdownthedrain.org, are being implemented across the country as water agencies respond to recent studies highlighting the increased presence of pharmaceutical products in America's drinking water. *(continued on back)*

A report issued by George Washington University's School of Public Health and Health Services confirmed that "conventional wastewater treatment was not designed to break down pharmaceutical chemicals, and it is not efficient at doing so". The report highlighted research from across the country, including an Associated Press study that documented traces of antibiotics, anti-convulsants, mood stabilizers and sex hormones have been found in the drinking water supplies of at least 41 million Americans.

"There may be no immediate health effects at the tiny concentrations in which these drugs have been detected, but scientists worry about the consequences of long-term, low-level exposure," the George Washington University report said.

As emerging contaminants, pharmaceuticals in drinking water are largely unregulated, and there is no federal requirement that utilities test water for the presence of drugs. But a logical first step in reducing potential exposure is to eliminate the practice of discarding unused pharmaceutical products down the toilet.

Yucaipa Valley Water District does not have pharmaceutical chemicals in its drinking water supplies, but is actively working with other local agencies to develop collection points for disposal of unused or out-of-date pharmaceutical products. In the meantime, local residents are encouraged to dispose of unneeded medications using the procedures outlined above.

For more information

If you have any questions about this report, please contact Jack Nelson, Assistant General Manager at 909.797.5119

Yucaipa Valley Water District
12770 Second St. Yucaipa, CA 92399

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first and third Wednesday of each month at 6:00 p.m. All regular meetings are held at the District office located at 12770 Second Street, Yucaipa, California