

City of Escondido

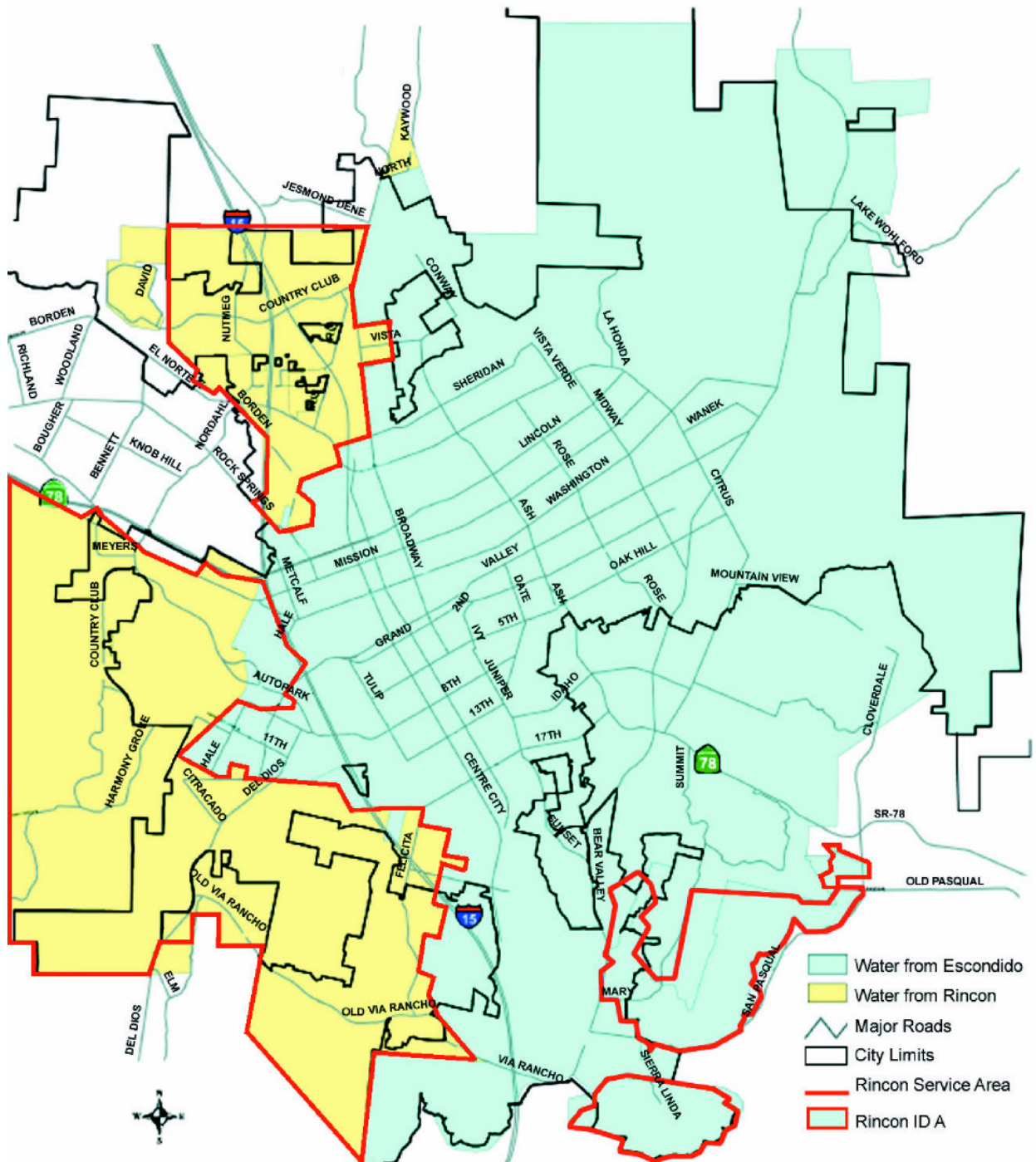
2009 Consumer Confidence Report

The **City of Escondido Utilities Department** (City) is pleased to provide you with this year's Consumer Confidence Report. This report is to inform you about the quality of water that is delivered to you every day.

Over the many years that the City and the Rincon del Diablo Municipal Water District (Rincon) have served the greater Escondido community, geographic characteristics of the area have led to unique agency boundaries. With existing water exchange agreements between the two agencies, some customers of one agency may be provided water originating from the other. Those customers serviced by Rincon will receive a Consumer Confidence Report directly from that agency.

The map below is an indicator of the **source** of your drinking water. Once you have determined where your service address is located on the map, please refer to the chart located inside this report for information on how your drinking water compared to the State of California standards. **If you have any questions regarding this information, please be certain to call the agency that regularly bills you for water service.**

CITY OF ESCONDIDO



City of Escondido 2009 Consumer Confidence Report

Your Water Source

Surface Water Source: The City of Escondido uses two sources for drinking water. The first is local water, which originates from the watershed and well fields near Lake Henshaw. This water is transferred to Lake Wohlford via an open canal. The second source of drinking water is purchased from the San Diego County Water Authority (CWA) and imported from the Colorado River via the Colorado Aqueduct and Northern California via the State Water Project. All water, regardless of the source, is treated at the Escondido-Vista Water Treatment Plant adjacent to Lake Dixon Dam.

Drinking Water Fluoridation

The State of California requires that water agencies serving more than 10,000 customers fluoridate their drinking water supplies. Our water system treats your water by adding fluoride to the naturally occurring level in order to help prevent dental decay in consumers. The fluoride levels in the treated water are maintained within a range of 0.7-1.3 ppm as required by Department regulations.

Potable Water

Since your water comes from a natural source and has met the federal and state standards, it is considered safe or “potable” (rhymes with “floatable”). In accordance with state regulations, your drinking water is routinely monitored for numerous contaminants. These contaminants include inorganic contaminants, lead, copper, nitrates, volatile contaminants, synthetic organic contaminants, disinfection by-products, and microbiological contaminants.

Note: All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA’s Safe Drinking Water Hotline** at 1-800-426-4791.

Safe Drinking Water Hotline

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/ CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Hard Water

Water is considered “hard” when two nontoxic minerals, calcium and magnesium, are present in water in substantial amounts. The term “hard” refers to the difficulty of getting soap to lather when used with this water.

You may see the affects of hardness around your kitchen and bathrooms. Hardness is the cause for white scaling in tea kettles and on shower heads and faucets. In some instances, water-related appliances (e.g. dishwashers, water heaters, etc.) may be affected by the level of hardness. When this is the case, the manufacturer of the appliance may ask you to verify the level of hardness in your water.

In 2009, hardness ranged from 11.1 - 16.4 grains/gallon.

Two significant sources of your drinking water are the Colorado River and the California State Water Project (imported water from Northern California). Of the two, the Colorado River water is considered “harder.”

The ratio of water received from the Colorado River versus that from the California State Water Project varies throughout the year due to availability, judicial issues, drought etc. When the ratio of Colorado River water increases, your water becomes harder. Similarly, when the amount of water received from the California Water Project increases, the hardness is reduced.



PARAMETER (a)	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	DLR	Range	Average	Typical Source / Comments
Clarity (Turbidity) (b, c)							
Turbidity of Combined Filter Effluent in WTP (at 4 hour intervals)	NTU	TT = 1	NS	-	0.03 - 0.12	0.05	Soil runoff
	%	95%(<0.3)			Highest NTU = 0.12	%($<0.3\text{NTU}$) = 100 %	
Microbiological Contaminants (d,e)							
Total Coliform Bacteria (Monthly) in Distribution System	%	5	(0)	-	0 - 2.84	0.39	Naturally present in the environment
					Monthly Highest = 2.84%		
Fecal coliform and E.coli (Monthly) in Distribution System	Number Positives	0	(0)	-	0 - 1	0.006	Human and animal fecal waste. An acute MCL violation occurred in June 2009
					Monthly Highest = 1		
An acute MCL violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E.coli positive							
Disinfectants / Disinfection By-products in the Distribution System							
Total Trihalomethanes (TTHMs) Running Annual Average(RAA) Highest Annual Running Ave.	ug/L	80	NS	1	27 - 76	43	By-products of drinking water chlorination; Sampled quarterly in distribution system. (f)
					43 - 52	46	
						52	
Haloacetic Acids (HAA5) Running Annual Average(RAA) Highest Running Annual Ave.	ug/L	60	NS	1	9 - 33	20	By-products of drinking water chlorination; Sampled quarterly in distribution system. (g)
					18 - 21	20	
						21	
Total Chlorine Residual (Cl2) Running Annual Average(RAA) Highest Running Annual Ave.	mg/L	[4.0]	[4.0]	-	0.1 - 2.7	2.0	Addition of chlorine and ammonia as a combined disinfectant, chloramine. Calculated quarterly with monthly average values.
					1.8 - 2.0	1.9	
						2.0	
Chlorite (ClO2-) Monthly Average	mg/L	1	(0.8)	0.02	0.58 - 0.69	0.62	By-products of drinking water chlorination. Monitored during pre-chlorination with chlorine dioxide.
					0.61 - 0.65	0.62	
Chlorate (ClO3-) Monthly Average	ug/L	(NL=800)	NS	20	150 - 240	210	By-products of drinking water chlorination. Monitored during pre-chlorination with chlorine dioxide.
					180 - 230	210	
Inorganic Contaminants - Copper / Lead in Residential Taps (h)							
		State AL (i)			90th Percentile of 64 Samples	# of Sites > AL	
Copper (Cu)	mg/L	1.3	0.17	0.05	0.62	0	Corrosion of household plumbing systems.
Lead (Pb)	ug/L	15	2	5	< 5	0	Corrosion of household plumbing systems; Erosion of natural deposits.
Inorganic Contaminants - Primary Standards (Finished Water)							
Barium (Ba)	mg/L	1	2	0.1	ND - 0.1	ND	Discharges of oil drilling wastes and from metal refineries; Erosion of natural deposits.
Fluoride (F)	mg/L	2	1	0.1	0.79 - 0.90	0.82	Erosion of natural deposits; Adding fluoride helps prevent dental caries in consumers. (Control Range: 0.7 - 1.3 ppm)
Organic Contaminants - Primary Standards (Finished Water)							
Dichloromethane	ug/L	5	4	0.5	ND - 0.56	ND	Discharges from pharmaceutical and chemical factories; Insecticide
Inorganic Contaminants - Secondary Standards (Finished Water)							
Color	Units	15	NS	-	1 - 1	1	Decaying vegetation or other naturally occurring organic materials
Chloride (Cl-)	mg/L	500	NS	-	77 - 93	85	Runoff/leaching from natural deposits; seawater influence
Sulfate (SO4)2-	mg/L	500	NS	0.5	170 - 240	195	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	mg/L	1000	NS	-	436 - 647	550	Runoff/leaching from natural deposits; industrial wastes
Specific conductance	umho/cm	1600	NS	-	779 - 996	890	Substances that form ions when in water; seawater influences
pH	Units	6.5 - 8.5	NS	-	7.4 - 7.9	7.7	
Corrosivity	SI	Non-corrosive	NS	-	0.13 - 0.32	0.24	Natural or industrial-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Inorganic Contaminants - Unregulated (Finished Water)							
Boron	mg/L	(NL=1)	NS	0.1	0.14 - 0.15	0.15	Runoff/leaching from natural deposits; Industrial wastes
Radionuclides Contaminants (Finished Water) - (Sampled in year 2008)							
Uranium	pCi/L	20	0.43	1	1.9 - 1.9	1.9	Erosion of natural deposits.
Additional Analyzed (Finished Water)							
Bicarbonate (HCO3)-	mg/L	NS	NS	-	115 - 150	141	Erosion of natural deposits; Leaching
Total Alkalinity as CaCO3	mg/L	NS	NS	-	94 - 120	114	Erosion of natural deposits; Leaching
Calcium (Ca)	mg/L	NS	NS	-	46 - 71	58	Erosion of natural deposits; Leaching
Magnesium (Mg)	mg/L	NS	NS	-	18 - 25	22	Erosion of natural deposits; Leaching
Sodium (Na)	mg/L	NS	NS	-	81 - 92	88	Erosion of natural deposits; Leaching
Potassium (K)	mg/L	NS	NS	-	4.1 - 4.9	4.5	Erosion of natural deposits; Leaching
Silica (SiO2)	mg/L	NS	NS	-	7.2 - 8.9	7.7	
Hardness as CaCO3	mg/L	NS	NS	-	190 - 280	238	Erosion of natural deposits; Leaching
Heterotrophic Plate Count	CFU/mL	500	NS	-	< 1 - 3	0.3	Naturally present in the environment
Haloacetic Acids (HAA5)	ug/L	60	NS	1	9 - 33	20	By-products of drinking water chlorination.
Total Trihalomethanes (TTHMs)	ug/L	80	NS	1	28 - 63	43	By-products of drinking water chlorination.
Total Chlorine Residual (Cl2)	mg/L	[4.0]	[4.0]	-	2.0 - 2.8	2.6	Addition of chlorine and ammonia as a combined disinfectant, chloramine
Total Organic Carbon(TOC)	mg/L	NS	NS	0.3	2.2 - 3.9	2.8	TOC provides a medium for the formation of disinfectant by-products. These by-products include TTHMs and HAAs.
Chlorite (ClO2-)	mg/L	1	(0.8)	0.02	0.6 - 0.7	0.7	By-products of drinking water chlorination. Monitored during pre-chlorination with chlorine dioxide.
Chlorate (ClO3-)	ug/L	(NL=800)	NS	20	160 - 220	190	By-products of drinking water chlorination. Monitored during pre-chlorination with chlorine dioxide.
Violations and Exceedances							
Fecal coliform / E.coli - in the distribution system : Fecal coliform and E.coli are bacteria whose presence indicates that the water may be contaminated with human or animal waste. Microbes in these wastes can cause short-term effects such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. The repeat sample taken at A-3 reservoir on 6/30/2009 tested positive for E.coli, later found to be caused by animal waste. It triggered the acute MCL violation for the Total Coliform Rule and required immediate notification to the California Department of Public Health. A boil water advisory notification for the affected area started on 7/1/2009 and was lifted on 7/6/2009. During the boil water advisory, the City isolated the A-3 reservoir from the distribution system. After removing the source of contamination, the A-3 reservoir was disinfected and was returned to normal service on 7/22/2009.							

Water - Taste and Smell

When your water tastes or smells funny, the problem might be in the water or it might not. The odor may actually be coming from your sink drain where bacteria grow on food, soap, hair, and other things that get trapped. Gases in the drain that smell get stirred up when water goes down the pipe. Odor can also come from bacteria growing in water heaters - usually ones that have been turned off for a while or have the thermostat set too low.

Chlorine is added to tap water to ensure that germs in the water are killed. When you can taste or smell a hint of chlorine, your water has been properly treated. There are regulations that limit the amount of chlorine added to tap water. An easy way to get rid of chlorine taste and smell is to let the water sit in a glass for a few minutes or put the water in a covered container and chill it in the refrigerator.

For odor, does it come from only one faucet? Does it go away after running the water for a few minutes? If the answer is yes to either question, the source of the odor is probably within your plumbing system. If no to both questions, please call the agency that bills you for water.

Volumetric Measurements Used in This Report

With the development of sensitive scientific instruments, it is possible to measure water characteristics in precise and minute quantities. The measurements used in this report are in **parts per million**, which is equivalent to **mg/L** (*milligrams per liter*). Also used are **parts per billion** and **parts per trillion**, which are equivalent to **ug/L** (*micrograms per liter*) and **ng/L** (*nanograms per liter*), respectively. For perspective purposes, consider the following approximations:

1 part per million = 1 packet of artificial sweetener added to 250 gallons of iced tea.

1 part per billion = 1 packet of artificial sweetener added to an Olympic size swimming pool

1 part per trillion = 3 grains of artificial sweetener added to an Olympic size swimming pool

The Sacramento Delta

The Sacramento Delta is a major collection point of drinking water for over 20 million people -- that's more than 2/3's of California's population.



Abbreviations Key

AL	Regulatory Action Level: The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.
CFU	Colony-Forming Units
DLR	Detection Limit for Reporting: A detected contaminant is any contaminant detected at or above its detection level for purposes of reporting.
DSYS	Distribution System.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to PHGs, MRDLGs, and maximum contaminant level goals as economically or technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
MCLG	Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the <i>United States Environmental Protection Agency</i> (US EPA).
Mg/L	Milligrams Per Liter: Parts per million (ppm).
NA	Not Applicable.
ND	None Detected: Parameters for detection limits available upon request.
Ng/L	Nanograms Per Liter: Parts per trillion (ppt).
NL	Notification Level.
NS	No Standard.
MRDL	Maximum Residual Disinfection Limit: The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
MRDLG	Maximum Residual Disinfectant Level Goal: The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLs are set by the <i>United States Environmental Protection Agency</i> .
NTU	Nephelometric Turbidity Units: A measure of the cloudiness in water. It is a good indicator of the effectiveness of the WTP and DSYS.
pCi/L	PicoCuries Per Liter: A measure of radioactivity.
PDWS	Primary Drinking Water Standard: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
PHG	Public Health Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. PGHs are set by the <i>California Environmental Protection Agency</i> .
SI	Saturation Index (Langelier).
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
Ug/L	Micrograms Per Liter: Parts per billion (ppb).
Umho/cm	Micromhos Per Centimeter: A measure of a substance's ability to convey electricity.
WTP	Water Treatment Plant.

Technical Assistance

This is a “report card” of how we are doing in terms of providing our customers with safe, reliable, and high-quality drinking water. The federal and state governments require us to publish our annual testing results to reassure you that we are meeting strict government standards. Although the charts can be highly technical and somewhat confusing, the table content and a portion of the report language are mandated by federal law. We would be glad to assist you if you have any questions about our Consumer Confidence Reports.

If you need assistance with the information contained in this report, please call Timothy Kwak, Supervising Chemist at (760) 839-6274.

Are You Part of the Conservation Solution?

Water is an important part of every day – for residents, schools and businesses. Conservation helps make the most of every drop. The City of Escondido is working to bring our existing infrastructure up to date to minimize water loss, while also finding new ways to continue providing you safe and reliable water.

You can continue to be part of the conservation solution! Look for ways to change how you use water – especially in your landscaping – by visiting www.h2ouse.org.



Get Involved

The City Council of the City of Escondido normally meets the first four Wednesdays of each month at 4:00 p.m. and 7:00 p.m. in the Council Chambers at City Hall. The address is 201 North Broadway, Escondido. Call (760) 839-4638 or visit www.escondido.org for details.

Foot Notes

- (a) **Data** shown are annual averages and ranges.
- (b) **Tests are performed on drinking water turbidity** (clarity) at the Water Treatment Plant and in the distribution system. The turbidity tests are done continuously at the WTP. In addition, samples are taken each week at various points in the distribution system. This table reflects the clarity or turbidity produced at the WTP and in the distribution system.
- (c) **The turbidity** level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU at any time.
- (d) **Total coliform MCLs:** No more than 5% of the monthly samples may be total coliform positive.
- (e) **The City of Escondido Water Distribution System** consists of approximately 350 miles of pipelines. Tests are performed each week at various points along the system for compliance with bacteriological and physical parameters. Of concern to all customers is the bacteriological quality of the drinking water. The distribution system table indicates the amount of positive samples found in the system.
- (f) **Calculated** from the average of quarterly samples.
- (g) **Calculated** from the average of quarterly samples.
- (h) **This table shows the levels of copper and lead** found in the homes of selected customers. The Copper Lead Rule requires the collection of special samples from designated residents every three years. The amount of lead and copper found in the samples is an indication of the degree of leaching within the customer-owned copper plumbing and brass faucets. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that your home's level may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about the elevated lead levels in your home's water, you may wish to have your water tested. As a rule, flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791 or online at www.epa.gov/safewater.
- (i) **The Federal and State standards** for lead and copper are treatment techniques requiring agencies to optimize corrosion control treatment. Average of the highest value is the 90th percentile value.

Notice – Sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water:

- **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, pets, and wildlife.
- **Inorganic contaminants**, such as salts and metals that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, which may come from a variety of sources like agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or the result of oil and gas production and mining activities.



Utilities Department
201 North Broadway
Escondido, CA 92025

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About Our Watersheds...

Colorado River and State Water Project Supplies:

In December 2002, Metropolitan Water District of Southern California (MWD) completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed, and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting MWD by telephone at (213) 217-6850.

Local Supplies:

In December of 2005, the City of Escondido prepared a *Sanitary Survey Update* of the local watershed. While the survey identifies a number of activities that have the potential to adversely affect water quality, including residential septic facilities, highway runoff, and agricultural and recreational activities, no contaminants from these activities were detected in the local water supply in 2009.

There have been no contaminants detected in the water supply; however, it is still considered vulnerable to nearby activities. The primary activity of concern is the use of Lake Dixon and Lake Wohlford for non-body contact recreational activities such as boating (row boat and motor boat rentals), fishing, picnicking, and camping.

Lake Dixon is owned and operated by the City of Escondido. Access to Lake Dixon is restricted in the vicinity of the dam and intake by in-water buoys and on-shore fences. The level is controlled by water imported from the aqueduct and any water released to the plant for treatment. Direct management and surveillance at the lake are provided by park rangers. No swimming or body contact is allowed. A copy of the *Watershed Sanitary Survey*, which is similar to the *Source Water Assessment Program*, is available for review at City Hall (760) 839-4662.



The Colorado River - Arizona
Photo courtesy of www.wallpaperdave.com

Este informe contiene informacion muy importante sobre su agua potable. Treduzcalo o hable con alguien que lo entienda bien. Si tiene preguntas favor de llamar al numero: (760) 839-4662.