

## Consumer Confidence Report Certification Form

Water System Name: City of Anaheim

Water System Number: 3010001

The water system named above hereby certifies that its Consumer Confidence Report was distributed on June 22, 2012 (date) to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the Department of Public Health.

Certified by: Name: Richard Wilson  
Signature: \_\_\_\_\_  
Title: Environmental Serv. Mgr.  
Phone Number: ( 714 ) 765-4277 Date: \_\_\_\_\_

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*To summarize report delivery used and good-faith efforts taken, please complete the below by checking all items that apply and fill-in where appropriate:*

- CCR was distributed by **mail** or other direct delivery methods. Specify other direct delivery methods used: \_\_\_\_\_
- "Good faith" efforts were used to reach non-bill paying consumers. Those efforts included the following methods:
  - Posting the CCR on the Internet at: <http://www.anaheim.net/article.asp?id=1206>
  - Mailing the CCR to postal patrons within the service area (attach zip codes used)  
**92801, 92802, 92803, 92804, 92805, 92806, 92807, 92808**
  - Advertising the availability of the CCR in news media (attach copy of press release)
  - Publication of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including name of newspaper and date published)
  - Posted the CCR in public places (attach a list of locations)
  - Delivery of multiple copies of CCR to single-billed addresses serving several persons, such as apartments, businesses, and schools
  - Delivery to community organizations (attach a list of organizations)
- For systems serving at least 100,000 persons:* Posted CCR on a publicly-accessible internet site at the following address: <http://www.anaheim.net/article.asp?id=1206>
- For privately-owned utilities:* Delivered the CCR to the California Public Utilities Commission

# ANAHEIM



PUBLIC UTILITIES



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## 2012 Water Quality Report

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*For Year 2011*



# Letter from the General Manager

## *Anaheim Public Utilities*

Thank you for taking the time to read your water quality report. We want you to know that Anaheim Public Utilities is committed to providing our customers high quality water, while providing you with some of the lowest rates in Orange County. We conduct more than 44,000 analyses each year to ensure our water is clean, safe, and reliable.



This year's report covers the 2011 calendar year and provides information about some of the many compounds we test for in our water.

We are pleased that Anaheim's water not only meets but often exceeds the state and federal drinking water standards.



This Water Quality Report is required by the U.S. Environmental Protection Agency and the California Department of Public Health.

If you have any questions, please contact our Water Quality Laboratory at 714.765.4556, or email us at [waterquality@anaheim.net](mailto:waterquality@anaheim.net).

*Marcie L. Edwards*

Marcie L. Edwards  
GENERAL MANAGER  
ANAHEIM PUBLIC UTILITIES

## Anaheim's Sources of Supply

Anaheim's water supply is a blend of groundwater from our own wells, and water imported from Northern California and the Colorado River by the Metropolitan Water District of Southern California (MWD).

The source water for our wells is a natural aquifer that is replenished with water from the Santa Ana River, local rainfall, and imported water. Managed by the Orange County Water District, the groundwater basin is 350 square miles in area and lies beneath most of northern and central Orange County. Anaheim and more than 20 cities and retail water districts pump from the groundwater basin to provide water to homes and businesses.

Your water source depends on where you live or work within the boundaries of our community. Generally, the source of water for areas east and south of the 57 and 91 freeway interchange is imported water. The central and western portions of Anaheim mostly receive groundwater or a blend with imported supplies. Customers may also receive water from Anaheim's owned and operated Lenain Water Treatment Facility.

## Basic Information about Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) can include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the layers of the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal and human activity.

Contaminants that may be present in source water include:

- ▶ Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife
- ▶ Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses



- ▶ Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming
- ▶ Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm water runoff, agricultural application, and septic systems
- ▶ Radioactive contaminants, which can be naturally occurring or the result of oil and gas production or mining activities

### Questions about your water? Contact us for answers.

For information about this report, or your water quality in general, please contact our Water Quality Laboratory at 714.765.4556, or e-mail us at [waterquality@anaheim.net](mailto:waterquality@anaheim.net). You may also address water quality and other utility issues by attending a Public Utilities Board meeting scheduled for 5 p.m. on the fourth Wednesday of each month, at Anaheim West Tower, 11th Floor Conference Room, Anaheim, California.

To learn more about the potential health effects of contaminants listed in this report, call the U.S. Environmental Protection Agency hotline at 800.426.4791.

Este informe contiene información muy importante sobre su agua potable. Para más información ó traducción, favor de contactar a Customer Service Representative. Telefono: 714.765.4151.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

这份报告中有些重要的信息。讲到关于您所在社区的水的品质。请您找人翻译一下。或者请能看得懂这份报告的朋友给您解释一下。

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong cộng đồng quý vị. Hãy nhờ người thông dịch, hoặc hỏi một người bạn biết rõ về vấn đề này.

이 보고서에는 귀하가 거주하는 지역의 수질에 관한 중요한 정보가 들어 있습니다. 이것을 번역하거나 충분히 이해하시는 친구와 상의하십시오.

We comply with the AMERICANS WITH DISABILITIES ACT.  
For this information in other formats, contact: 714.765.3300, TTY 714.765.5125 or visit [anaheim.net/utilities](http://anaheim.net/utilities).

Each of Anaheim's new high-production wells, such as the one shown here, can produce over four million gallons per day.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in the water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at 800.426.4791.

## Be Consumer Aware

Vendors may claim their product or service can improve your water quality, or that your water is contaminated. This can be a marketing tactic designed to get you to buy their product. In many cases, their product may only help to reduce calcium build-up or soften your water.

Anaheim conducts tests weekly and is legally obligated by the California Department of Public Health to notify you when conditions warrant a concern.

Please do not hesitate to contact us if you have questions about your water quality or to verify if a vendor is working on behalf of the City at 714.765.4556.



# Information the EPA Would Like You to Know

## Immuno-Compromised People

Some individuals may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer undergoing chemotherapy; those who have undergone organ transplants; those with HIV/AIDS or other immune system disorders; some elderly; and infants can be particularly at risk from infections.

These individuals or their caretakers should seek advice about drinking water from their health care providers.

The U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 800.426.4791.

## About Lead in Tap Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components

components associated with service lines and home plumbing.

Anaheim Public Utilities is responsible for providing high-quality drinking water, but cannot control the variety of materials used in home plumbing components.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by running your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may want to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the U.S. EPA's Safe Drinking Water Hotline, 800.426.4791, or online at: [epa.gov/safewater/lead](http://epa.gov/safewater/lead).



## Radon Advisory

Radon is a colorless, odorless gas that is formed from radioactive decay of uranium in the ground, which is found throughout the U.S. It can move up through the ground and into a home through cracks and holes in the foundation.

Radon can build up to high levels in all types of homes and can get into indoor air when released from tap water during showering, dishwashing, and other household activities. Breathing air containing radon can lead to lung cancer. The radon entering a home through tap water, however, is negligible compared to the amount that can enter a home through soil.

The U.S. EPA Action Level for radon in indoor air is 4.0 picocuries per liter. Radon from your tap water contributes no more than 0.1 picocurie per liter in indoor air.

If you are concerned about radon in your home, test the air. If the level of radon is 4 picocuries per liter of air or higher, there are ways to address a radon problem that are cost effective.

For additional information, call the California radon program (800.745.7236), the EPA Safe Drinking Water Hotline (800.426.4791), or the National Safety Council Radon Hotline (800.SOS.RADON).

## Source Water Assessments

### Imported Water Assessment

The Metropolitan Water District of Southern California updated its source water assessment of the Colorado River and State Water Project supplies in 2012. Colorado River supplies are considered to be most vulnerable to recreation contamination, urban/storm water runoff, increasing urbanization, 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 Metropolitan by phone, at 213.217.6850.

### Groundwater Assessment

Anaheim has completed source water assessments of areas around each well and around the Walnut Canyon Reservoir, which provides imported water to the Lenain Treatment Plant. As in any urban area, Orange County's groundwater is considered potentially vulnerable to contamination from sources such as gas stations, dry cleaners, and industrial activities. To help prevent surface contamination of our wells, we seal the upper 400 to 500 feet of the well casing.

A copy of the complete assessment is available at the Department of Public Health, Drinking Water Field Operations Branch, 605 W. Santa Ana Boulevard, Building 28, Santa Ana, CA 92701. You may request a summary of the assessment by contacting DPH Sanitary Engineer Yen Tran at 714.558.4707 or Anaheim's Environmental Services Division at 714.765.4277.

## Chart Legend

### What are Water Quality Standards?

Drinking water standards established by the U.S. EPA and CDPH set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the Public Health Goals (PHGs) or Maximum Contaminant Levels Goals (MCLGs) as is economically and technologically feasible.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.
- **Notifications Level (NL):** The level above which a water agency is required to notify its governing body if an unregulated contaminant is found in its drinking water.
- **Secondary MCLs** are set to protect the odor, taste, and appearance of drinking water.
- **Primary Drinking Water Standard:** MCLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

### How are Contaminants Measured?

Water is sampled and tested throughout the year. Contaminants are measured in:

- parts per million (ppm) or milligrams per liter (mg/L)
- parts per billion (ppb) or micrograms per liter (µg/L)
- parts per trillion (ppt) or nanograms per liter (ng/L)

### What is a Water Quality Goal?

In addition to mandatory water quality standards, U.S. EPA and Cal/EPA have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart in this report includes three types of water quality goals:

- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by U.S. EPA.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

## Want Additional Information?

There is information on our website about your drinking water quality and water issues in general, visit [anaheim.net/utilities](http://anaheim.net/utilities) to learn more. Click on Public Utilities, then "Focus on Water Quality." Or, feel free to contact our water quality staff at 714.765.4556.



2012 City of Anaheim Water Quality (based on 2011 data)								
Chemical	MCL	PHG (MCLG)	Groundwater Average Amount	Lenain Average Amount	MWD Average Amount	Range of Detections	Most Recent Sampling Date	Typical Source of Contaminant
<b>Radiologicals</b>								
Radon (pCi/L)	Not Regulated	n/a	349	n/a	ND	ND - 378	2011	Soil Gas from Natural Deposits
Uranium (pCi/L)	20	0.43	8.9	4.7	2.0	1.0 - 11	2011	Erosion of Natural Deposits
Gross Beta (pCi/L)	50(a)	(0)	n/a	n/a	<4	ND - 6	2011	Decay of Natural or Man-made Deposits
<b>Organic Chemicals</b>								
Trichloroethylene (ppb)	5	1.7	<0.5	ND	ND	ND - 0.8	2011	Chemical Factories Discharge
<b>Inorganic Chemicals</b>								
Aluminum (ppm)	1	0.6	ND	0.18	0.12	ND - 0.29	2011	Water Treatment Chemical
Arsenic (ppb)	10	0.004	<2	ND	ND	ND - 2.4	2011	Erosion of Natural Deposits
Barium (ppm)	1	2	ND	0.12	ND	ND - 0.12	2011	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.44	0.34	0.8	0.34 - 1.0	2011	Erosion of Natural Deposits
Nitrate as NO <sub>3</sub> (ppm)	45	45	12	ND	ND	4.8 - 20	2011	Fertilizers, Septic Tanks
Nitrate+Nitrite as N (ppm)	10	10	2.8	ND	ND	1.1 - 4.4	2011	Fertilizers, Septic Tanks
<b>Secondary Standards*</b>								
Aluminum (ppb)	200*	600	ND	180	120	ND - 290	2011	Water Treatment Chemical
Chloride (ppm)	500*	n/a	81	110	71	33 - 111	2011	Erosion of Natural Deposits
Color (units)	15*	n/a	<1	ND	2	ND - 3	2011	Natural Organic Materials
Odor (threshold odor number)	3*	n/a	ND	1	2	ND - 2	2011	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	902	1008	660	320 - 1100	2011	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	137	270	155	76 - 270	2011	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	569	680	455	354 - 716	2011	Erosion of Natural Deposits
Turbidity (NTU)	5*	n/a	0.49	0.06	0.05	ND - 1.4	2011	Erosion of Natural Deposits
<b>Unregulated Contaminants Requiring Monitoring</b>								
Bicarbonate (as HCO <sub>3</sub> ) (ppm)	Not Regulated	n/a	224	160	n/a	160 - 257	2011	Erosion of Natural Deposits
Boron (ppb)	NL = 1,000	n/a	110	n/a	130	ND - 220	2011	Erosion of Natural Deposits
Chromium-6 (ppb)	Not Regulated	n/a	0.44	n/a	0.10	ND - 2.9	2011	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	99	72	50	41 - 117	2011	Erosion of Natural Deposits
Dichlorodifluoromethane (ppb)	NL = 1,000	n/a	0.14	n/a	n/a	ND - 4.7	2011	Industrial Waste Discharge
Magnesium (ppm)	Not Regulated	n/a	18	28	19	13 - 28	2011	Erosion of Natural Deposits
N-Nitrosodimethylamine (NDMA)(ppt)	NL = 10	n/a	ND	ND	<2	ND - 3	2011	Chloramination and Industrial Processes
pH (pH units)	Not Regulated	n/a	7.9	7.7	8.0	7.0 - 8.8	2011	Erosion of Natural Deposits
Potassium (ppm)	Not Regulated	n/a	4.0	5.4	3.8	3.1 - 5.4	2011	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	63	100	70	39 - 100	2011	Erosion of Natural Deposits
Total Alkalinity (ppm as CaCO <sub>3</sub> )	Not Regulated	n/a	184	117	86	43 - 210	2011	Erosion of Natural Deposits
Total Hardness (grains/gal)	Not Regulated	n/a	19	17	11	3.3 - 22	2011	Erosion of Natural Deposits
Total Hardness (ppm as CaCO <sub>3</sub> )	Not Regulated	n/a	321	285	180	57 - 373	2011	Erosion of Natural Deposits
Total Organic Carbon (ppm)	Not Regulated	TT	0.34	2.2	2.4	ND - 3.2	2011	Various Natural and Man-made Sources
Vanadium (ppb)	NL = 50	n/a	3.6	n/a	ND	ND - 5.9	2011	Erosion of Natural Deposits

ppm = parts-per-million; ppb = parts-per-billion; ppt = parts-per-trillion; pCi/L = picoCuries per liter; NTU = nephelometric turbidity units; NL = notification level; ND = not detected; n/a = not applicable; < = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; MCLG = federal MCL Goal; PHG = California Public Health Goal µmho/cm = micromho per centimeter; TT = treatment technique \*Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Turbidity - treatment plant combined filter effluent	Treatment Technique	Turbidity Measurements	Sample Date	Typical Source of Contaminant
1) Highest single turbidity measurement	1 NTU	Lenain = 0.19 NTU	2011	Soil run-off
	1 NTU	MWD = 0.08 NTU	2011	Soil run-off
2) Percentage of samples less than 0.3 NTU	95%	Lenain = 100%	2011	Soil run-off
	95%	MWD = 100%	2011	Soil run-off

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in the City of Anaheim's and Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT). A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.

2012 City of Anaheim Distribution System Water Quality (based on 2011 data)				
Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	33	0.6 - 67	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	14	ND - 38	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	1.1	0.1 - 2.7	Disinfectant Added for Treatment
<b>Aesthetic Quality</b>				
Color (color units)	15*	ND	ND	Erosion of Natural Deposits
Odor (threshold odor number)	3*	1	ND - 1	Erosion of Natural Deposits
Turbidity (ntu)	5*	0.11	0.04 - 0.58	Erosion of Natural Deposits

Total trihalomethanes and haloacetic acids are tested quarterly at 12 locations. Chlorine residual disinfectant levels are tested weekly at 51 locations. Color, odor, and turbidity are tested quarterly at 11 locations. MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal; ND = not detected; ntu = nephelometric turbidity units \*Contaminant is regulated by a secondary standard to maintain aesthetic qualities (color, odor, clarity).

Lead and Copper Action Levels at Residential Taps					
	Action Level (AL)	Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	Typical Source of Contaminant
Lead (ppb)	15	0.2	ND<5	0 / 57	Corrosion of Household Plumbing
Copper (ppm)	1.3	0.3	0.23	0 / 57	Corrosion of Household Plumbing

Every three years, at least 50 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2009. Lead was detected in 2 samples; none exceeded the action level. Copper was detected in 29 samples; none exceeded the action level. The regulatory action level is the concentration which, if exceeded in more than ten percent of the homes tested, triggers treatment or other requirements that a water system must follow. The City of Anaheim complied with the lead and copper action levels.

*On the Cover:*

## **Walnut Canyon Reservoir**

Constructed in the 1960s, the image is of our Walnut Canyon Reservoir – a 920-million-gallon reservoir that recently underwent major rehabilitation to ensure its continued service to the homes and businesses in the City’s hill and canyon area. In the event of an interruption to our imported water supply, the reservoir can sustain the neighboring area for 30 to 45 days. It also serves as a major source of water for fire fighting needs.

### **CITY COUNCIL**

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Gail E. Eastman, *Council Member*

Kris Murray, *Council Member*

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PUBLIC UTILITIES

## **Anaheim Public Utilities**

201 S. Anaheim Boulevard, Suite 601

Anaheim, California 92805

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