



City of **Garden Grove**
Water Services Division



2014

Water Quality Report



Your 2014 Water Quality Report

Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers calendar year 2013 drinking water quality testing and reporting.** The City of Garden Grove Water Service

Division (City) vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the quality standards required by federal and state regulatory agencies. The U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) are the agencies responsible for establishing and enforcing drinking water quality standards.

In some cases, the City goes beyond what is required by testing for unregulated chemicals that may have known health risks but do not have drinking water standards. For example, the Orange County Water District

(OCWD), which manages the groundwater basin, and the Metropolitan Water District of Southern California (MWDSC), which supplies imported treated surface water to the City test for unregulated chemicals in our water supply. Unregulated chemical monitoring helps USEPA and CDPH determine where certain chemicals occur and whether new standards need to be established for those chemicals to protect public health.

Through drinking water quality testing programs carried out by OCWD for groundwater, MWDSC for treated surface water and the City for the water distribution system, your drinking water is constantly monitored from source to tap for regulated and unregulated constituents.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

The Quality of Your Water is Our Primary Concern

Sources of Supply

Your drinking water is a blend of mostly groundwater from 12 wells in the Orange County groundwater basin and also surface water imported by MWDSC. MWDSC's imported water sources are a blend of State Water project water from northern California and water from the Colorado River



Aqueduct. Your groundwater comes from a natural underground reservoir managed by the Orange County Water District (OCWD) that stretches from the Prado Dam and fans across the northwestern portion of Orange County, excluding the communities of Brea and La Habra, and stretching as far south as the El Toro 'Y.'

Last year, as in years past, your tap water met all USEPA and State drinking water health standards. The City vigilantly safeguards its

water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or any other water quality standard. This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to Federal and State standards.

Basic Information

About Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) 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.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **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 stormwater runoff, agricultural application and septic systems.

In order to ensure that tap water is safe to drink, USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in 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 USEPA's Safe Drinking Water Hotline at (800) 426-4791.

Drinking Water Fluoridation

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water. In December 2007, MWDSC joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. In line with recommendations from the CDPH, as well as the U.S. Centers for Disease Control and Prevention, MWDSC adjusted the natural fluoride level in imported treated water from the Colorado River and State Project water to the optimal range for dental health of 0.7 to 1.3 parts per million. Our local water is not supplemented with fluoride. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

For Your Information...

Disinfection: Water provided by the City contains chlorine used for disinfection and chloramines used by MWDSC, also for disinfection purposes. Customers on kidney dialysis should consult their physicians.

Fish or Amphibians: If you have fish or amphibians, make sure to remove any chloramines and chlorine before changing or adding water to the tanks. Remember, allowing drinking water to stand will not remove chloramines. Consult your local aquarium store for products that will remove the disinfectants.

Hot Water Heaters: Many odor complaints may be traced to the home's hot water heater. Remember to follow manufacturer's instructions and flush hot water heaters regularly. This will flush out any sediments that may have accumulated, provide good water turnover to maximize water quality, and help keep your unit in good working order.

Point of Use or Home Water Filtration Units: Be vigilant in changing or cleaning any filters or media on your home units. Always follow the manufacturer's instructions. Remember, the water is only as clean as the filter allows. Improperly maintained filters can deliver very poor quality water.

Conservation Tips for Inside Your Home

Wash only full loads of laundry and dishes: Saves up to 50 gallons per week

Fix household leaks promptly: Saves up to 20 gallons per day

Spend only 5 minutes in the shower: Saves up to 8 gallons each time

Turn off the water while you brush your teeth: Saves up to 2.5 gallons per minute

Buy water-saving devices like high-efficiency toilets and clothes washers. You'll save many gallons of water per day, and many of them are eligible for rebates. To learn more, check on www.bewaterwise.com.

Talk to your family and friends about saving water. If everyone does a little, we all benefit a lot.



Questions about your water? Contact us for answers.

For information about this report, or your water quality in general, please contact Zachary Barrett, Water Quality Supervisor, or Cel Pasillas or Cody Nicolae, Water Quality Technicians, at (714) 741-5395.

Public City Council meetings are held on the second and fourth Tuesdays of each month at 6:45 p.m. in the Council Chambers at the Community Meeting Center, 11300 Stanford Avenue, Garden Grove, California. You may also contact our City Clerk's Office, Garden Grove City Hall, 11222 Acacia Parkway, Garden Grove, CA 92840 or call (714) 741-5040 for information about Garden Grove City Council meetings. Please feel free to participate in these meetings.

For more information about the health effects of the listed contaminants in the following tables, call the USEPA hotline at (800) 426-4791.

Important Information the EPA Would Like You to Know

Issues in Water Quality that Could Affect Your Health

Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer who are undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can cause diarrhea, fever and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. MWSDSC tested its source water and treated surface water for *Cryptosporidium* in 2013, but did not detect it. If it ever is detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other



microbial contaminants are available from USEPA's Safe Drinking Water Hotline at (800) 426-4791 between 10 a.m. and 4 p.m. Eastern Time (7 a.m. to 1 p.m. in California).

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 associated with service lines and home plumbing. The City is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for

drinking or cooking. If you are concerned about lead in your water, you may wish 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 Safe Drinking Water Hotline, (800) 426-4791, or at: www.epa.gov/safewater/lead.

Want Additional Information?

There's a wealth of information on the internet about Drinking Water Quality and water issues in general. A good place to begin your own research is the California Department of Public Health website:

www.cdph.ca.gov

In addition to extensive information about your local water, you'll find links for many other local, statewide, and national resources.

2013 Metropolitan Water District of Southern California Treated Surface Water

Chemical	MCL	PHG, or (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Radiologicals – Tested in 2011						
Alpha Radiation (pCi/L)	15	(0)	3	ND – 3	No	Erosion of Natural Deposits
Beta Radiation (pCi/L)	50	(0)	ND	ND – 4	No	Decay of Man-made or Natural Deposits
Uranium (pCi/L)	20	0.43	2	2	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2013						
Aluminum (ppm)	1	0.6	0.16	0.1 – 0.23	No	Treatment Process Residue, Natural Deposits
Arsenic (ppb)	10	0.004	2	2	No	Erosion of Natural Deposits
Nitrate (ppm as NO ₃)	45	45	1.8	1.8	No	Agriculture Runoff and Sewage
Fluoride (ppm) treatment-related	Control Range 0.7 – 1.3 ppm Optimal Level 0.8 ppm		0.8	0.7 – 1	No	Water Additive for Dental Health
Secondary Standards* – Tested in 2013						
Aluminum (ppb)	200*	600	160	100 – 230	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	86	84 – 87	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	1	1	No	Naturally-occurring Organic Materials
Odor (threshold odor number)	3*	n/a	3	3	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	890	870 – 900	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	190	180 – 200	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	540	520 – 560	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2013						
Alkalinity, total as CaCO ₃ (ppm)	Not Regulated	n/a	110	93 – 120	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.14	0.14	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	2.8	2.3 – 3	n/a	Runoff or Leaching from Natural Deposits
Chlorate (ppb)	NL = 800	n/a	53	38 – 68	n/a	Byproduct of Drinking Water Chlorination; Industrial Processes
Chromium, Hexavalent (ppb)	Not Regulated	0.02	0.07	0.03 – 0.12	n/a	Erosion of Natural Deposits; Industrial Discharge
Chromium, Total (ppb)	Not Regulated	n/a	<0.2	ND – 0.5	n/a	Erosion of Natural Deposits; Industrial Discharge
Hardness, total as CaCO ₃ (ppm)	Not Regulated	n/a	250	240 – 250	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	15	14 – 15	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	22	22 – 23	n/a	Runoff or Leaching from Natural Deposits
Molybdenum, Total (ppb)	Not Regulated	n/a	4.8	4.5 – 5.3	n/a	Erosion of Natural Deposits
pH (pH units)	Not Regulated	n/a	8.1	8.1	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.2	4 – 4.4	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	84	82 – 87	n/a	Runoff or Leaching from Natural Deposits
Strontium, Total (ppb)	Not Regulated	n/a	940	850 – 1,100	n/a	Erosion of Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.5	2.2 – 2.7	n/a	Various Natural and Man-made Sources
Vanadium, Total (ppb)	NL = 50	n/a	2.8	2.3 – 3	n/a	Erosion of Natural Deposits; Industrial Discharge

ppb = parts-per-billion; ppm = parts-per-million; pCi/L = picoCuries per liter; µmho/cm = micromhos per centimeter; ND = not detected; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; NL = Notification Level; n/a = not applicable; TT = treatment technique * Contaminant is regulated by a secondary standard.

Turbidity – combined filter effluent Metropolitan Water District Diemer Filtration Plant	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Contaminant
1) Highest single turbidity measurement	0.3 NTU	0.06	No	Soil Runoff
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. NTU = nephelometric turbidity units. Low turbidity in 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.

What are Water Quality Standards?

Drinking water standards established by USEPA 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 PHGs (or 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 addition of a disinfectant is necessary for control of microbial contaminants.
- **Secondary MCLs:** 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, USEPA and CDPH 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 USEPA.
- **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.

2013 City of Garden Grove Groundwater Quality

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Contaminant
Radiologicals							
Uranium (pCi/L)	20	0.43	9.3	4.6 – 15	No	2012	Erosion of Natural Deposits
Inorganic Chemicals							
Arsenic (ppb)	10	0.004	<2.0	ND – 3.9	No	2013	Erosion of Natural Deposits
Barium (ppm)	1	2	<0.10	ND – 0.13	No	2013	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.44	0.37 – 0.50	No	2012	Erosion of Natural Deposits
Nitrate (ppm as NO ₃)	45	45	16	ND – 36	No	2013	Fertilizers, Septic Tanks
Nitrate+Nitrite (ppm as N)	10	10	3.6	0.44 – 8.2	No	2013	Fertilizers, Septic Tanks
Perchlorate (ppb)	6	6	<4.0	ND – 4.8	No	2013	Industrial Waste Discharge
Secondary Standards*							
Chloride (ppm)	500*	n/a	73	27 – 120	No	2012	Erosion of Natural Deposits
Manganese (ppb)	50*	n/a	<20	ND – 20	No	2013	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	830	520 – 1,200	No	2013	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	120	52 – 180	No	2012	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	510	310 – 740	No	2012	Erosion of Natural Deposits
Turbidity (NTU)	5*	n/a	0.21	ND – 0.70	No	2012	Erosion of Natural Deposits
Unregulated Contaminants Requiring Monitoring							
1,1-Dichloroethane (ppb)**	Not Regulated	3	<0.03	ND – 0.04	n/a	2013	Industrial Waste Discharge
1,4-Dioxane (ppb)	NL = 1	n/a	0.54	ND – 1.33	n/a	2013	Industrial Waste Discharge
Alkalinity, total (ppm as CaCO ₃)	Not Regulated	n/a	180	170 – 220	n/a	2012	Erosion of Natural Deposits
Boron (ppm)	NL = 1	n/a	<0.1	ND – 0.22	n/a	2012	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	98	61 – 130	n/a	2012	Erosion of Natural Deposits
Chlorate (ppb)	NL = 800	n/a	86	28 – 190	n/a	2013	Byproduct of Drinking Water Chlorination; Industrial Processes
Chlorodifluoromethane (ppb)	Not Regulated	n/a	<0.08	ND – 0.38	n/a	2013	Industrial Waste Discharge
Chromium, Hexavalent (ppb)	Not Regulated	0.02	1.4	0.62 – 2.16	n/a	2013	Erosion of Natural Deposits; Industrial Discharge
Chromium, Total (ppb)	Not Regulated	n/a	1.3	0.4 – 1.8	n/a	2013	Erosion of Natural Deposits; Industrial Discharge
Hardness, total (grains/gal)	Not Regulated	n/a	19	12 – 26	n/a	2012	Erosion of Natural Deposits
Hardness, total (ppm as CaCO ₃)	Not Regulated	n/a	320	200 – 440	n/a	2012	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	18	11 – 25	n/a	2012	Erosion of Natural Deposits
Molybdenum, Total (ppb)	Not Regulated	n/a	4.3	3.2 – 5.6	n/a	2013	Erosion of Natural Deposits
Perfluoro octane sulfonic acid (ppb)	Not Regulated	n/a	<0.04	ND – 0.05	n/a	2013	Industrial Waste Discharge
pH (pH units)	Not Regulated	n/a	7.9	7.8 – 8.0	n/a	2012	Acidity, hydrogen ions
Potassium (ppm)	Not Regulated	n/a	3.7	2.5 – 5.1	n/a	2012	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	51	36 – 80	n/a	2012	Erosion of Natural Deposits
Strontium, Total (ppb)	Not Regulated	n/a	760	460 – 880	n/a	2013	Erosion of Natural Deposits
Vanadium, Total (ppb)	NL=50	n/a	3.1	2.2 – 4.3	n/a	2013	Erosion of Natural Deposits; Industrial Discharge

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

**1,1-Dichloroethane is regulated with an MCL of 5 ppb but was not detected, based on the detection limit for purposes of reporting of 0.5 ppb. 1,1-Dichloroethane was included as part of the unregulated contaminants requiring monitoring.

2013 City of Garden Grove Distribution System Water Quality

Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	50	ND – 51	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	19	ND – 29	No	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	1.1	0.21 – 2.8	No	Disinfectant Added for Treatment

Aesthetic Quality

Turbidity (NTU)	5*	0.11	0.1 – 1.6	No	Erosion of Natural Deposits
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Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; thirty-three locations are tested each month for color, odor and turbidity. Color and odor were not detected in 2013. MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal; NTU = nephelometric turbidity units; ND = not detected *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Bacterial Quality	MCL	MCLG	Highest Monthly Positive Samples	MCL Violation?	Typical Source of Contaminant
Total Coliform Bacteria	5%	0	1%	No	Naturally Present in the Environment

No more than 5% of the monthly samples may be positive for total coliform bacteria. The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/E. coli, constitutes an acute MCL violation.

Lead and Copper Action Levels at Residential Taps

	Action Level (AL)	Health Goal	90 th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Contaminant
Lead (ppb)	15	0.2	ND<5	0 / 50	No	Corrosion of Household Plumbing
Copper (ppm)	1.3	0.3	0.26	0 / 50	No	Corrosion of Household Plumbing

Every three years, 50 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2013. Lead was detected above the reporting level in one sample, but none of the samples exceeded the lead Action Level. Copper was detected above the reporting level in 42 samples, but none of the samples exceeded the copper Action Level. A regulatory Action Level (AL) is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Unregulated Chemicals Requiring Monitoring

Chemical	Notification Level	PHG	Average Amount	Range of Detections	Most Recent Sampling Date
Chlorate (ppb)	800	n/a	100	52 – 140	2013
Chromium, Hexavalent (ppb)	n/a	0.02	1.3	0.15 – 1.5	2013
Chromium, Total (ppb)	n/a	n/a	1	ND – 1.3	2013
Molybdenum, Total (ppb)	n/a	n/a	4.5	3.2 – 5.8	2013
Strontium, Total (ppb)	n/a	n/a	710	460 – 870	2013
Vanadium, Total (ppb)	50	n/a	3	1.9 – 3.6	2013

Nitrate Advisory

At times, nitrate in your tap water may have exceeded one-half the MCL, but it was never greater than the MCL of 45 milligrams per liter (mg/L). Nitrate in your drinking water in 2013 ranged from non-detect to 36 mg/L. The following advisory is issued because in 2013 we recorded nitrate measurements in the drinking water supply which exceeded one-half the nitrate MCL.

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 caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Source Water Assessments

Imported (MWDSC) Water Assessment

Every five years, MWDSC is required by CDPH to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters.

In 2012, MWDSC submitted to CDPH its updated Watershed Sanitary Surveys for the Colorado River and State Water Project, which include suggestions for how to better protect these source waters. Both source waters are exposed to stormwater runoff, recreational activities, wastewater discharges, wildlife, fires, and other watershed-related factors that could affect water quality.

Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

USEPA also requires MWDSC to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWDSC completed its SWA in December 2002. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

A copy of the most recent summary of either Watershed Sanitary Survey or the SWA can be obtained by calling MWDSC at (213) 217-6850.

Groundwater Assessment

An assessment of the drinking water sources for the City was completed in December 2002. The groundwater sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: known contaminant plumes, historic agricultural activities and application of fertilizers, and parks. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: confirmed leaking underground storage tanks, dry cleaners, gas stations, and photo processing/printing.

A copy of the complete assessment is available at Department of Public Health Office of Drinking Water, Santa Ana District, 28 Civic Center Plaza, Room 325, Santa Ana, California 92701. You may request a summary of the assessment by contacting the City at (714) 741-5395.

Drought Devastated Lake Oroville (January, 2014)



Lake Oroville (2011)

Lake Oroville, a key reservoir in the State Water Project system, and a major source of water for southern California, shows the effects of the drought.

It's official: California is in a drought.

2013 was the driest year on record, and as dry conditions continue, some regions throughout the state are being severely impacted.

On January 17, 2014, Governor Brown declared a drought emergency and asked that all Californians voluntarily reduce their water use by 20%. While there is no immediate danger of water supply interruptions here in Orange County, we must use our water supplies as efficiently as possible because we don't know how long the drought will last.

Southern California is well-prepared and in better shape than many of those in other parts of the state because we made investments for dry periods like this. Over the past 20 years, we have invested more than \$15 billion in water storage and infrastructure improvements that will help sustain us now, and will help ensure reliability in the future. The drought is a serious reminder that we must continue to invest in water infrastructure and reliability projects.



City of Garden Grove

Public Works Department
Water Service Division
13802 Newhope Street
Garden Grove, California 92843



This report contains important information about your drinking water.

Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

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.

يحتوي هذا التقرير على معلومات هامة عن نوعية ماء الشرب في منطقتك. يرجى ترجمته، أو ابحث التقرير مع صديق لك يفهم هذه المعلومات جيداً.

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。

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

この資料には、あなたの飲料水についての大切な情報が書かれています。内容をよく理解するために、日本語に翻訳して読むか説明を受けてください。