

Rusty water & main line flushing

Much of the water system installed in Lakewood in the late 1950s conveys water through unlined cast iron pipes that are considered under-sized by modern standards.

Rust and sediment cling to these old pipes but can break free with rapid changes in the volume and direction of the water, for example, when a vehicle accidentally shears off a fire hydrant. In these situations, you can see a slight red discoloration—rust—in the water flowing from your tap.

When rusty water occurs, you can call the Lakewood Department of Water Resources at 562-866-9771 any time day or night. On these occasions, avoid drawing rust into your plumbing, especially your hot water heater, by limiting your water use until the water clears. You can check the quality of your water by running the water at the outside faucet on the front of your home for 30 to 60 seconds. Clear water at this tap means it is OK to resume water use inside.

Lakewood's water utility staff conducts routine water system maintenance to reduce rusty water occurrences. In our annual mainline flushing program, crews open fire hydrants

to increase the flow of water through the pipe. The increased flow scrubs the inside of the pipe removing rust and sediment. The hydrant flows until the water clears.

Main line flushing temporarily affects water quality and water pressure. Customers are notified several days in advance by hanging an orange door tag at each affected home and business. You should limit water use during the times listed on the tag. If you forget, accidentally consuming small amounts of rusty water should not be harmful. It can, however, stain laundry. Should your laundry become stained, keep your clothes wet and call the water department. Staff can deliver a cleaning aid to remove the rust from your wash.

Lakewood's annual main line flushing program is a necessary component of keeping our water system healthy and bringing top quality water to your tap.



Workers flush main line using methods that meet all regulations for water flowing into the storm drains.

LAKEWOOD
Water Quality Report

5050 Clark Avenue
Lakewood, CA 90712

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LAKEWOOD WATER WISE REBATES It Pays to Conserve

Lakewood water customers can save water & save money by participating in the city's Water Conservation Rebate Program. It's easy to save water & it's easy to collect!

Lakewood's Water Conservation Program Offers 2 Options—Do One or Both; It's Up to You!

Device Rebates Up to \$50—Install Water-Saving Devices for Watering Lawns & Gardens—

- ◆ Rotor Sprinkler Heads
- ◆ Drip Irrigation Kits
- ◆ Irrigation Timer
- ◆ Moisture Sensor
- ◆ And More!

Rebates Up to \$800 to Remove Water-Thirsty Grass—

- ◆ \$1.00 per Square Foot of Grass Removed & Replaced with New Water-Wise Plants, Irrigation & Water-Permeable Surfaces
- ◆ Projects Must Be Pre-Approved by the City



Save Even More— Purchase your water-saving devices from a Lakewood merchant & save a little more!

Rebates granted as a credit on customer's water bill.

Interested? Get all the details at www.lakewoodcity.org/waterrebates or call us at 562-866-9771, extension 2700.



No Drugs Down The Drain

In the past, it was common to flush old medications down the toilet. Now, we know that these substances often survive sewage treatment plant processing and end up traveling to the rivers and ocean where they can contaminate the water we drink and the fish we eat.

So, what should you do?

Lakewood residents have four options.

1) Take your old pharmaceuticals to the drop-off box in front of the Lakewood Sheriff's Station on Clark Avenue. The box is accessible 24 hours a day.



2) Take your medications to the new hazardous waste disposal center that Lakewood's trash and recycling contractor, EDCO, now operates at its transfer facility at 2755 California Ave. in Signal Hill. The facility accepts old medications on the second Saturday of each month from 9:00 a.m. to 2:00 p.m. Remove or scratch off any personally-identifying information from medicine containers. Call (562) 997-1122 for questions and information about other hazardous and bulky materials accepted at the site.

3) Bring your old medications to a scheduled hazardous waste roundup event, where you can also bring old paint, batteries and other hazardous materials. Check www.cleanla.com or call 888-Clean-LA for nearby roundup events.

4) The best disposal method is to use one of the official drop-off sites above. But if you can't utilize one of those, an alternative method is to "spoil" unused pharmaceuticals by adding water to pill containers (or salt to liquid medications). Put the container in a box, tape it shut, and dispose in your trash can where children and animals can't easily reach it.

LAKEWOOD

News from the
City of Lakewood

www.lakewoodcity.org
City Hall: 562-866-9771



Water Quality Report

March 2013 • Volume 34 • No. 2

Lakewood's 2012 water quality report shows that the city's drinking water meets all state and federal drinking water quality standards.

The city's annual water quality report may look highly technical, but it's designed to provide you with a lot of information in a form that can easily be compared. The report lists the results of analyses that describe and quantify the constituents found in Lakewood's water samples.

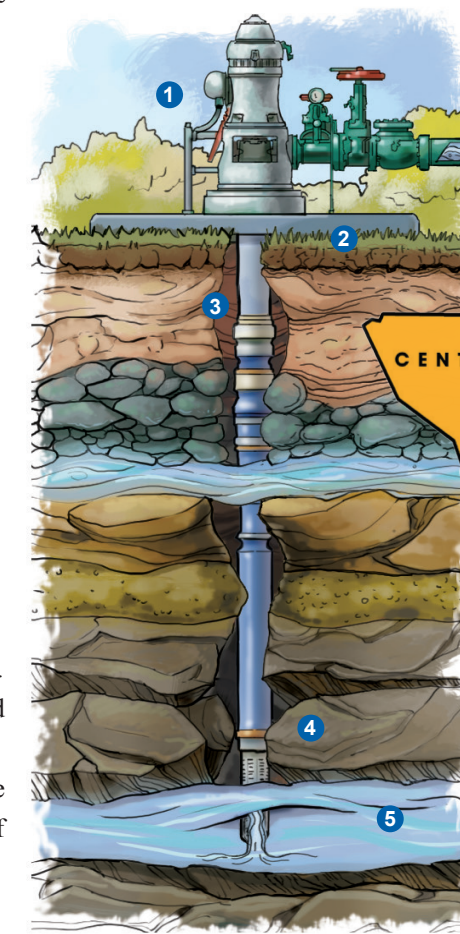
If you look at all the possible sources of drinking water (including tap water and bottled water), you'll find that water comes from rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or underground through aquifers, it dissolves naturally occurring minerals (and in some cases, radioactive material) and can pick up substances resulting from the presence of animals or human activity.

All drinking water, including bottled water, can reasonably be expected to contain at least small amounts of some constituents. However, the presence of any of these constituents in drinking water does not necessarily indicate that the water poses a health risk.

To ensure that tap water is safe to drink, the United States Environmental Protection Agency and the California Department of Public Health set regulations that limit the amount of certain constituents in the water provided by public water systems.

Health department regulations also establish limits for contaminants in bottled water to provide the same protection for public health.

Lakewood's water is drawn from the Central Basin. Spreading grounds north of Lakewood allow recharge of the aquifers in wet years. The freshwater barrier south of Lakewood holds back the inflow of seawater.



How a city well works. The wellhead pump 1 sits on a concrete base 2 that protects the well casing and keeps out surface contaminants. Depending on the location and the age of the well, the casing may extend more than 1,000 feet below ground 3. A deep well may draw on several water-bearing zones along the well's length. The underground casing is grouted until it reaches a water-bearing aquifer 4 where the casing is perforated to allow water to be drawn into the well 5.



Constituents 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- ◆ Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- ◆ Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, can come from gas stations, urban storm water runoff, agri-

cultural applications, and septic systems.

◆ Radioactive contaminants, which can be naturally occurring, or the result of oil and gas production or mining activities.

More information

More information about constituents in drinking water and their potential health effects is available by calling the U. S. Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or logging on to the USEPA's website at www.epa.gov/safewater/.

Lakewood's 2012 water quality report is available on the city's website, www.lakewoodcity.org, as a PDF document.

Call city hall at 562-866-9771 to voice water quality concerns or schedule a free appointment for a water shutdown to make plumbing repairs or locate a water leak.

Water department staff members provide Lakewood water customers with service 24 hours a day, seven days a week. If you need assistance after normal business hours, call 562-866-9771 and follow the directions for a water emergency. A department representative will respond to your request.

A note on lead

If present, elevated levels of lead can cause serious health

■ Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para ayuda en Español, por favor llame Alma Varela, 562-866-9771, extensión 2103.

■ Mahalaga ang nilalaman nito. Mangyaring ipasalin ito. Kung gusto ninyong makausap sa Tagalog ang kinatawan ng lungsod ng Lakewood, tawagan si Leon de los Reyes sa 562-866-9771, extension 2700.

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. Lakewood is responsible for providing high quality drinking water, but cannot control the variety of materials used in home plumbing.

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 at 1-800-426-4791 or online at <http://www.epa.gov/safewater/lead>.

Sensitive populations may be more vulnerable

Some people may be more vulnerable to constituents in drinking water than the general population.

Immuno-compromised persons, such as persons with cancer 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 about drinking water from their health care provider.

The United States Environmental Protection Agency and the national Centers for Disease Control have guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial constituents. These are available by calling the Safe Drinking Water Hotline at 1-800-426-4791.



■ Need more water quality information? Interested in sharing views on water quality issues? Contact Leon de los Reyes, Water Operations Superintendent, or Nancy van der Linden, Water Administration Manager at 562-866-9771, extension 2700.

Opinions on the water supply can also be expressed at Lakewood City Council meetings held the second and fourth Tuesday of each month at 7:30 p.m. in the City Council Chambers, 5000 Clark Avenue.

■ About 6,000 Lakewood households east of the San Gabriel River are served by Golden State Water Company, an investor-owned water company. For information on Golden State's water quality report, call 1-800-999-4033.

Environmentally friendly habits include:

- Avoid hosing down your driveway. Sweep instead.
- Pick up pet waste.
- Pick up grass clippings, leaves and branches and dispose in green waste containers. Do not sweep or blow trimmings into the street.
- Eliminate excess use of lawn and garden fertilizers and pesticides which contain hazardous chemicals that can reach groundwater supplies or the ocean.

- Discuss natural solutions to pest control with your local nursery.
- Lakewood's backyard mechanics should "finish the job right" when it comes to oil changes. Residents can pick up an oil collection kit at city hall for free. It includes a wide-mouth plastic funnel, shop rag and cardboard "creeper mat" to deal with drips or spillage under your car.
- Dispose of unused chemicals properly. Lakewood residents can drop hazardous waste at roundup events. Check www.cleanla.com or call 888-Clean-LA for nearby event dates.

(Continues on flap)

City of Lakewood Department of Water Resources 2012 Annual Water Quality Report

DISTRIBUTION SYSTEM ANALYSES (a)

PRIMARY DRINKING WATER STANDARDS (b)						HEALTH RELATED STANDARDS	
CONSTITUENT (c)	UNIT OF MEASURE	MAXIMUM CONTAMINANT LEVEL (MCL) (d) OR MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL) (e)	PHG (f), (MCLG) (g) OR MRDLG (h)	RANGE	AVERAGE	MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER (i)	HEALTH EFFECTS (j)
MICROBIOLOGICAL							
Total Coliform Bacteria (Non-Fecal Coliform)	% Positive (k)	5%	(0)	0%	0%	Naturally present in the environment	
DISINFECTION BY-PRODUCTS & DISINFECTANT RESIDUALS							
Chlorine	ppm	MRDL=4 as CL ₂	MRDLG=4 as CL ₂	0.2 - 2	1	Drinking water disinfectant added for treatment	
Haloacetic Acids	ppb	60	NA	ND (l) - 20	9	By-product of drinking water disinfection	
Total Trihalomethanes (TTHMs)	ppb	80	NA	ND - 48	23	By-product of drinking water disinfection	

ppb=parts per billion, or micrograms per liter (ug/l) • ppm=parts per million, or milligrams per liter (mg/l) • NA=Not Applicable

SECONDARY DRINKING WATER STANDARDS (m)

AESTHETIC STANDARDS					
CONSTITUENT	UNIT OF MEASURE	MCL	RANGE	AVERAGE	MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER
GENERAL PHYSICAL CHARACTERISTICS OF WATER SUPPLY					
Color	units	15	<5	<5	Naturally occurring organic materials
Odor-Threshold	units	3	ND - 1	0.04	Naturally occurring organic materials
Turbidity (n)	units	5	0.05 - 0.5	0.2	Soil runoff

NA=Not Applicable

SOURCE OF SUPPLY ANALYSES (a)

PRIMARY DRINKING WATER STANDARDS (b)						HEALTH RELATED STANDARDS	
CONSTITUENT	UNIT OF MEASURE	MCL	PHG OR (MCLG)	RANGE	AVERAGE	MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER	HEALTH EFFECTS
RADIOACTIVE							
Gross Alpha particle activity	pCi/l	15	(0)	0.06 - 5	2	Erosion of natural deposits	
Uranium	pCi/l	20	0.43	ND - 2	0.8	Erosion of natural deposits	
INORGANIC CHEMICALS							
Aluminum	ppm	1	0.6	ND - 0.002	0.0002	Erosion of natural deposits	
Arsenic	ppb	10	0.004	ND - 7	4	Erosion of natural deposits	
Arsenic: While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The USEPA 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.							
Barium	ppm	1	2	ND - 0.2	0.1	Erosion of natural deposits	
Fluoride	ppm	2	1	0.3 - 0.4	0.4	Erosion of natural deposits	
Nickel	ppb	100	12	ND - 1	0.1	Erosion of natural deposits	
Nitrate (as NO ₃)	ppm	45	45	ND - 7	2	Erosion of natural deposits	

pCi/L= picocuries per liter (a measure of radioactivity) • ppb=parts per billion, or micrograms per liter (ug/l) • ppm=parts per million, or milligrams per liter (mg/l)

SECONDARY DRINKING WATER STANDARDS (m)

AESTHETIC STANDARDS					
CONSTITUENT	UNIT OF MEASURE	MCL	RANGE	AVERAGE	MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER
INORGANIC CHEMICALS					
Chloride	ppm	500	7 - 35	18	Runoff/leaching from natural deposits
Iron	ppb	300	ND - 2	0.1	Leaching from natural deposits
Manganese	ppb	50	ND - 43	4	Leaching from natural deposits
Specific Conductance	micromhos	1,600	296 - 610	437	Substances that form ions when in water
Sulfate	ppm	500	11 - 78	39	Runoff/leaching from natural deposits
Total Dissolved Solids (TDS)	ppm	1,000	179 - 440	285	Runoff/leaching from natural deposits

ppb=parts per billion, or micrograms per liter (ug/l) • ppm=parts per million, or milligrams per liter (mg/l) • micromhos=micromhos per centimeter (umho/cm) • NA=Not Applicable



ADDITIONAL PARAMETERS

CONSTITUENT	UNIT OF MEASURE	MCL	RANGE	AVERAGE	MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER
Alkalinity, Total (as CaCO ₃)	ppm	NS (o)	120 - 200	157	
Calcium	ppm	NS	23 - 82	51	
Corrosivity	SI Units	Non-corrosive	12 - 13	13	Natural or industrially influenced balance of hydrogen, carbon and oxygen in the water, affected by temperature and other factors
Hardness (CaCO ₃) (p)	ppm	NS	66 - 250	159	
Magnesium	ppm	NS	2 - 13	7	
pH	units	6.5 - 8.5	8.1 - 8.5	8.2	
Potassium	ppm	NS	2 - 4	3	
Sodium (q)	ppm	NS	25 - 49	32	

SI Units= Saturation Index Units • ppm=parts per million, or milligrams per liter (mg/l) • NA=Not Applicable

AT-THE-TAP MONITORING PROGRAM (r)

CONSTITUENT	UNIT OF MEASURE	REGULATORY ACTION LEVEL (AL) (s)	PHG OR (MCLG)	HIGHEST LEVEL DETECTED	90 TH PERCENTILE VALUE (t)	# OF SITES WITH ANALYSES ABOVE THE AL	MAJOR SOURCE IN LAKEWOOD'S DRINKING WATER
Copper	ppm	1.3	0.3	0.469	0.329	0 of 30	Internal corrosion of household plumbing systems
Lead	ppb	15	0.2	0	0	0 of 30	Internal corrosion of household plumbing systems

ppb=parts per billion, or micrograms per liter (ug/l) • ppm=parts per million, or milligrams per liter (mg/l)

DEFINITIONS

- (a) **Distribution System and Source of Supply Analyses:** The city draws most water quality samples from 11 wells, the source of the city's water supply. The California EPA also requires water quality monitoring throughout the city's 175 miles of water distribution mains each week. Those constituents listed in the section entitled Distribution System Analyses are monitored quarterly or weekly. The city conducts over 4,960 water quality tests on water in the distribution system annually. The remaining constituents are sampled at the city's well sites. The results of these analyses are listed in the section entitled Source of Supply Analyses.
- (b) **Primary Drinking Water Standards:** Maximum Contaminant Levels (MCLs) and Maximum Residual Disinfectant Levels (MRDLs) for constituents that affect health along with monitoring and reporting requirements, and water treatment requirements. The city tested for 86 additional regulated chemicals in 2012.
- (c) **Constituent:** A constituent is any naturally occurring or manmade substance found in drinking water. The USEPA and the California EPA establish the list of constituents that require testing and the frequency of each test. Some data, though representative of current water quality conditions, are three years old. The state allows water utilities to monitor some constituents less than once a year because the concentrations of these constituents do not change frequently. All data included in this report was collected between January 1, 2010 and December 31, 2012. Only samples with detectable levels of a constituent are listed in the tables.
- (d) **Maximum Contaminant Level (MCL):** Highest level of a constituent allowed in drinking water. Primary MCLs are set as close to Maximum Contaminant Level Goals (MCLGs) and Public Health Goals (PHGs) as technically and economically feasible. (See definitions (f) and (g) for further information on MCLGs and PHGs.)
- (e) **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.
- (f) **Public Health Goal (PHG):** The level of a constituent in drinking water below which there is no known or expected risk to health. The California EPA establishes PHGs.
- (g) **Maximum Contaminant Level Goal (MCLG):** The level of a constituent in drinking water below which there is no known or expected risk to health. The USEPA establishes MCLGs. MCLGs are indicated in ().
- (h) **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.
- (i) **Major Source in Lakewood's Drinking Water:** This column indicates the likely source of the constituent listed.
- (j) **Health Effects:** The USEPA and the California EPA require water utilities exceeding an MCL to list potential health effects caused by the ingestion of any constituent that fails to meet a primary drinking water standard.
- (k) **% Positive:** Laboratory analysis for coliform bacteria measures the presence or absence of bacteria. The MCL is exceeded when over 5 percent of the samples drawn in a distribution system during a month detect the presence of coliform bacteria.
- (l) **Non Detectable (ND):** Laboratory analyses cannot confirm zero detection of a constituent in drinking water. A non detectable result indicates that the constituent is not contained in the sample or the amount of a constituent found in drinking water is lower than the testing procedure can detect.

(m) Secondary Drinking Water Standard:

The USEPA and the California EPA set guidelines for constituents found in drinking water that may cause aesthetic or cosmetic effects. Secondary MCLs are set to protect the odor, taste and appearance of drinking water. Constituents with secondary drinking water standards are not assigned a PHG or MCLG.

(n) **Turbidity:** A measure of the cloudiness of water. Turbidity serves as an indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

(o) **No Standard (NS):** Constituent for which no regulation established by the USEPA and the California EPA exists.

(p) **Hardness:** Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occurring. Hardness is also measured in grains per gallon. This form is used when calculating hardness levels to operate irons and dishwashers. Hardness levels in Lakewood's water average 10 grains per gallon.

(q) **Sodium:** Sodium refers to the salt present in the water and is generally naturally occurring. Intake from drinking water is not considered a factor for healthy individuals. However, the American Heart Association recommends a sodium intake of 20 ppm in drinking water for high risk populations, e.g. a person on a low-sodium diet. Home water softeners that use the ion-exchange method increase the amount of sodium in water.

(r) **At-the-Tap Monitoring:** The California Department of Public Health and the USEPA require water utilities to conduct at-the-tap monitoring for lead and copper. The results from 30 samples drawn by customers indicate that levels of both lead and copper are below the state and federal standards.

(s) **Regulatory Action Level (AL):** The concentration of a constituent which, if exceeded, triggers treatment or other requirements that a water system must follow.

(t) **90th Percentile Value:** The Action Level for Lead and Copper is exceeded if 10% of the sample results are greater than 15 ppb for lead and 1.3 ppm for copper.

Capital improvements keep Lakewood's water flowing

Delivering water that meets state and federal drinking water standards starts with an ongoing capital improvement program, which Lakewood is committed to carrying out.

In 2012, Lakewood continued its water main replacement program with the installation of an additional two miles of larger sized water mains to increase water reliability and improve water quality and fire fighting capabilities. The project included the upgrade of 19 fire hydrants and the installation of 349 new service lines and 36 new operating valves that will allow crews to isolate leaks and reduce the number of homes inconvenienced by emergency repair work.

For 2013, a project to install an additional two miles of enlarged water mains is in design and scheduled for construction later in the year. Three large valves are also scheduled for replacement in 2013.

Lakewood upgraded several water wells in 2012. The department rehabilitated Well 22 to improve water quality and extend its useful life. Next up in 2013 is the design of a treatment plant that will allow the city to send water into the city system independently of the use of the adjacent reservoir. This increases the emergency-preparedness of Lakewood's water network.

In 2012, Well 18 was rehabilitated with a new electric motor to increase pumping efficiency. In 2013, Lakewood will rehabilitate the booster pump at the Plant 4 storage facility and upgrade the electrical panel and booster pumps at Plant 13.



Well 22 being renovated to improve water quality and extend the life of the well.

City of Lakewood Groundwater Vulnerability Assessment

WELL NUMBER	ASSESSMENT COMPLETION DATE	POTENTIAL SOURCES OF GROUNDWATER CONTAMINATION			
		GAS STATIONS & REPAIR SHOPS	HISTORIC GAS STATION LOCATIONS	STORAGE TANKS	DRY CLEANERS
2A	April 2003		✓	✓	
4	April 2003	✓	✓	✓	
8	April 2003	✓	✓	✓	✓
10	April 2003	✓	✓	✓	✓
13A	July 2003		✓		
14	April 2003	✓	✓	✓	
15A	April 2003	✓	✓		
17	April 2003	✓	✓	✓	✓
18	April 2003	✓		✓	✓
22	April 2003	✓			
27	October 2006	✓	✓	✓	✓

The Lakewood Department of Water Resources completed an assessment of all drinking water wells that serve the city's drinking water system. These studies examined the potential vulnerability of each well to contaminants that could enter the water supply. The table on this page indicates the results. The checks indicate the type of business or activity that could potentially contaminate the groundwater supply. To learn more about the constituents found in the city's drinking water supply, please refer to the charts located on the center pages of this report.

A copy of the complete assessment is available at the Lakewood City Clerk's Office at 5050 Clark Avenue. You may request a summary of the assessment by contacting the Lakewood Department of Water Resources, at 562-866-9771, extension 2700.