LAKESIDE WATER DISTRICT Pipeline

PIPELINE is a community newsletter published by the Lakeside Water District. JUNE 2021

LAKESIDE'S WATER SUPPLY
AND THE UPPER SAN DIEGO RIVER BASIN

Windmills and shallow wells were once the only way to get water here in the Lakeside area. Increasing demand though, required many changes over the years, moving away from windmills, to using motorized pumps and then from groundwater to surface water and the famous wooden flume from Lake Cuyamaca to the treated water pipelines from the north.

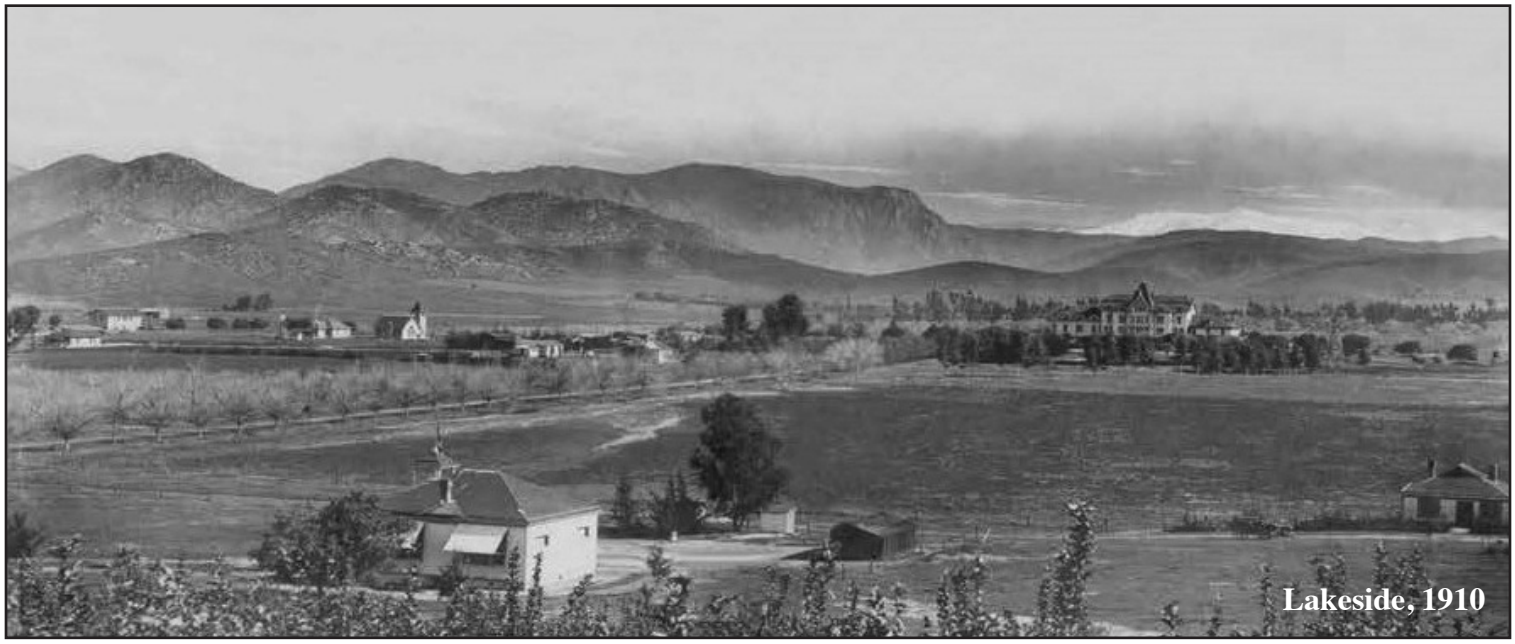
When Lakeside Water District was formed 1924 as an Irrigation District, groundwater and delivery from the Cuyamaca Flume were our only sources. In the early 1940's as the community expanded, Lakeside Water District (District) teamed up with eight other agencies to form the San Diego County Water Authority (WA) to bring Colorado River water to the county. This change occurred in part because of World War II, but also because of drought and the lack of sufficient water for a growing region.

Lakeside lies within the El Cajon Rancho one of the original Mexican Land Grants, which included the El Cajon Valley and was one of the largest land grants in California at 48,799 acres. Lakeside was established in 1886, and soon after the Lakeside Inn was built the area began to flourish. Lakeside was a resort destination as well as a train transfer point to horse drawn carriages for travel east and north to Julian. The area historically had been prime agricultural land, as early residents used groundwater and water delivered from the Cuyamaca Flume Company to grow crops and raise cattle.

In the 1920s, the City of San Diego also pumped water from the Upper San Diego River Basin to serve the growing City, but growth soon outgrew supply, and city engineers were looking how to develop surface water supplies and storage reservoirs. The City built the El Capitan Reservoir in the early 1930s and followed up with San Vicente Reservoir in 1946 which abruptly changed how water was able to be delivered to the East County and into the City. The opening of San Vicente Reservoir coincided with the completion of the first aqueduct bringing Colorado River water into the County.

Additional pipelines quickly followed and the population grew exponentially with the abundance of low cost water. As has been the story of Southern California over time, drought reared up again and again over the years. Finally, during the drought of the late 1980's the District decided that is was time to dust off the groundwater supply and start pumping again.

For well over 130 years the basin has maintained a healthy groundwater supply for the community, and so importantly this resource continues to be used to supplement our purchased water supply. The District protects our groundwater source and wants the community to know that every piece of trash or chemical waste that is disposed of properly helps to maintain the water quality of the basin. It's a very important part of our ability to keep our rates as low as possible, and to be able to continue to utilize the precious resource available right here in our community.



Lakeside, 1910

LAKESIDE WATER DISTRICT CONSUMER CONFIDENCE REPORT

Test Results from Calendar Year 2020

(Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	LAKESIDE WELLS	HELIX PLANT	SKINNER PLANT	MAJOR SOURCES IN DRINKING WATER
Percent State					RANGE	NA	NR	0-84%	
Project Water	%	NA	NA	NA	AVERAGE	NA	NR	32%	Lakeside Water District's major water source is SDCWA-treated surface water via Helix Water District
PRIMARY STANDARDS: MANDATORY HEALTH-RELATED STANDARDS									
CLARITY									
Combined Filter	NTU	0.3			HIGHEST	0.22	0.16	0.09	
Effluent Turbidity	%	95 (a)	NA	NA	% < 0.3 NTU	100%	100%	100%	Soil runoff
MICROBIOLOGICAL									
Total Coliform Bacteria (b)					RANGE	0	0	NA	Naturally present in the environment
Distribution System-wide	%	5.0	(0)	NA	AVERAGE	0%	0%	NA	
E. coli					RANGE	ND	0	NA	Human and animal fecal waste
Distribution System-wide	(c)	(c)	(0)	NA	AVERAGE	ND	0%	NA	
INORGANIC CHEMICALS									
					RANGE	ND	ND-200	ND-200	Residue from water treatment process; erosion of natural deposits
Aluminum (Al) (d)	ppb	1000	600	50	HIGHEST RAA	ND	118	108	
					RANGE	ND	ND	ND	Erosion of natural deposits, glass and electronics production wastes
Arsenic (As)	ppb	10	0.004	2	HIGHEST RAA	ND	ND	ND	
					RANGE	132-202	NR	ND	Oil and metal refineries discharge; erosion of natural deposits
Barium (Ba)	ppb	1000	2000	100	AVERAGE	177	NR	ND	
Flouride (e)	ppm	2.0	1	0.1	CONTROL RANGE			NR	Water additive; Lakeside Water District has naturally occuring fluoride from erosion of natural deposits
Treatment-related					OPTIMAL LEVEL			NR	
					RANGE	0.27-0.45	0.6-0.8	0.6-0.9	
					AVERAGE	0.34	0.7	0.7	
					RANGE	1.7-2.4	ND	ND	Runoff and leaching from fertilizer usage; septic tanks and sewage; natural deposits erosion
Nitrate (as N)	ppm	10 (as N)	10 (as N)	0.4	HIGHEST RAA	2.1	ND	ND	
RADIOLOGICALS (k)									
Gross Alpha					RANGE	3.9-7.5	5.3-8.0	ND-3	Erosion of natural deposits
Particle Activity	pCi/L	15	(0)	3	AVERAGE	5.7	6.5	ND	
Gross Beta					RANGE	ND	NR	ND-5	Decay of natural and man-made deposits
Particle Activity (f)	pCi/L	50	(0)	4	AVERAGE	ND	NR	ND	
					RANGE	1.2-4.7	1.4-5.4	ND-2	Erosion of natural deposits
Uranium	pCi/L	20	0.43	1	AVERAGE	3.4	3.3	2	
DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS PRECURSORS (g) Lakeside results for distribution only									
Total Trihalomethanes (TTHM) (g) (l)					RANGE	9.8-47	13.9-46	13-24	By-product of drinking water chlorination
Distribution System-wide	ppb	80	NA	1	HIGHEST LRAA	45	30	23	
Haloacetic Acids (five) (HAA5) (g) (l)					RANGE	1-9.6	3.5-23.9	3.5-12	By-product of drinking water chlorination
Distribution System-wide	ppb	60	NA	1	HIGHEST LRAA	10	9.8	8.5	
Total Chlorine Residual					RANGE	1.4-2.3	0.0-3.7	NA	Drinking water disinfectant treatment
(Chloramine)	ppm	[4.0]	[4.0]	NA	RAA	1.9	2.1	NA	
DBP Precursors Control					RANGE	NA	NR	1.9-2.6	Various natural and manmade sources
(TOC)	ppm	TT	NA	0.30	AVERAGE	NA	NR	2.3	
SECONDARY STANDARDS: AESTHETIC STANDARDS (CONTAMINANTS WITH AN ASTERISK EXCEEDED THE SECONDARY STANDARD)									
					RANGE	145-312	85-85	81-92	Runoff/leaching from natural deposits; seawater influence
Chloride	ppm	500	NA	NA	AVERAGE	221	85	86	
					RANGE	1-4	ND	2	Naturally occuring organic materials
Color	Units	15	NA	NA	AVERAGE	2.3	ND	2	
					RANGE	ND	ND	2	Naturally occuring organic materials
Odor Threshold (h)	TON	3	NA	1	AVERAGE	ND	ND	2	
					RANGE	1000-1200	530-912	796-956	Substances that form ions in water; seawater influence
Specific Conductance	µS/cm	1600	NA	NA	AVERAGE	1133	721	876	
					RANGE	107-185	180-180	152-208	Runoff/leaching from natural deposits; industrial waste
Sulfate (SO_4)	ppm	500	NA	0.5	AVERAGE	144	180	180	
					RANGE	851-1040*	258-572	472-588	Runoff/leaching from natural deposits; seawater influence
Total Dissolved Solids (TDS)	ppm	1000	NA	NA	AVERAGE	967	397	530	
					RANGE	0.1-0.9	0.0-0.07	ND	Soil runoff
Turbidity (a)	NTU	5	NA	NA	AVERAGE	0.37	NA	ND	
OTHER PARAMETERS									
CHEMICAL									
					RANGE	240-301	88-128	105-121	Runoff/leaching from natural deposits; substances that form ions in water
Alkalinity ($CaCO_3$)	ppm	NA	NA	NA	AVERAGE	278	108	113	
					RANGE	67-81	NR	130	Runoff/leaching from natural deposits; industrial wastes
Boron (B)	ppb	NA	NL = 1000	100	AVERAGE	76	NR	130	
					RANGE	113-121	57-57	56-72	Runoff/leaching from natural deposits
Calcium (Ca)	ppm	NA	NA	NA	AVERAGE	116	57	62	
					RANGE	ND	ND-26	34	Byproduct of drinking water chlorination; industrial processes
Perchlorate	ppb	NA	NL = 800	20	AVERAGE	ND	ND	34	
					RANGE	ND	ND-0.11	ND	Industrial waste discharge; could be naturally present as well
Chromium VI (i)	ppb	NA	NA	1	AVERAGE	ND	ND	ND	
Corrosivity (j) Langelier**					RANGE	0.266-0.30**	12.07-12.5	12.3-12.5	Elemental balance in water; affected by temperature, other factors
(Aggressiveness Index)	AI	NA	NA	NA	AVERAGE	0.285**	12.3	12.4	
					RANGE	500-565	92-257	211-273	Runoff/leaching from natural deposits; municipal and industrial waste discharges
Hardness, Total	ppm	NA	NA	NA	AVERAGE	530	166	242	
					RANGE	49.9-58.3	22-22	20-26	Runoff/leaching from natural deposits
Magnesium (Mg)	ppm	NA	NA	NA	AVERAGE	54	22	23	
	pH				RANGE	7.31-7.41	7.9-8.4	8.1	Runoff/leaching from natural deposits; substances that form ions in water
pH	Units	NA	NA	NA	AVERAGE	7.36	8.2	8.1	
					RANGE	3.85-4.56	4.9-4.9	4.0-4.8	Runoff/leaching from natural deposits
Potassium	ppm	NA	NA	NA	AVERAGE	4.17	4.9	4.4	

Sodium (Na)	ppm	NA	NA	NA	Range	119-171	52-71	76-98	Runoff/leaching from natural deposits
					Average	151	60	87	
Vanadium (V)	ppb	NA	NL = 50	3	Range	5.63-9.31	ND-2.9	ND	Naturally occurring; industrial waste discharge
					Average	6.93	ND	ND	
N-Nitrosodimethylamine (NDMA) Distribution System-wide	ppt	NA	3	2	Range	NA	NR	4.2	Byproduct of drinking water chlorination; industrial processes
					Average	NA	NR	4.2	

Levels testing for lead and copper is required every three years. | Latest test: **June 2019** | Number of Sample Sites: **30** | 90th Percentile Levels: **COPPER = 0.086 ppm**; **LEAD = 1.7 ppb**
Number of sites above action level of 15 ppb Lead, 1.3 ppm Copper = **0** | Number of schools served by Lakeside Water District that requested Lead samplng during the calendar year = **10**

ABBREVIATIONS AND FOOTNOTES

ABBREVIATIONS

AI ..... Aggressiveness Index or Langelier Index
AL..... Action Level
CFU..... Colony-Forming Units
DBP ..... Disinfection By-Products
DLR ..... Detection Limits for Reporting Purposes
MCL..... Maximum Contaminant Level
MCLG..... Maximum Contaminant Level Goal
MRDL ..... Maximum Residual Disinfectant Level
MRDLG ..... Maximum Residual Disinfectant Level Goal
N ..... Nitrogen
NA..... Not Applicable
ND..... Not Detected
NL ..... Notification Level
NR..... Not Reported
NTU ..... Nephelometric Turbidity Units
P or ND ..... Positive or Not Detected
pCi/L ..... picoCuries per Liter
PHG..... Public Health Goal
ppb ..... parts per billion or micrograms liter (µg/L)
ppm ..... parts per million or milligrams per lieter (mg/L)
ppq ..... parts per quadrillion or picograms per liter (pg/L)
ppt ..... parts per trillion or nanograms per liter (ng/L)
RAA..... Running Annual Average
SI..... Saturation Index (Langelier)
TOC..... Total Organic Carbon
TON ..... Threshold Odor Number
TT..... Treatment Technique
µS/cm ..... microSiemen per centimeter or micromho per centimeter (µmho/cm)

FOOTNOTES

(a) 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 NTU at any time. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance. The averages and ranges of turbidity shown in the Secondary Standards were based on the treatment plant effluent.
(b) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive.
(c) *E. coli* MCL: The MCL was not violated. *(The occurrence of two consecutive total coliform-positive samples, one of which contains E. coli, constitutes an acute MCL violation.)*
(d) Aluminum has both primary and secondary standards.
(e) MWD, Helix and Lakeside were in compliance with all provisions of the State's Fluoridation System Requirements.
(f) The gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ. The screening level is 50 pCi/L.
(g) MWD, Helix, and Lakeside were in compliance with all provisions of the Stage 1 Disinfectants/Disinfection By-Products (D/DBP) Rule. Lakeside compliance was based on Distribution System RAA.
(h) Metropolitan utilizes a flavor-profile analysis method that can detect odor occurrences more accurately.
(i) Chromium VI reporting level is 0.03 ppb.
(j) *Highly aggressive and very corrosive water:* AI <10.0 or Lagnelier Index (LI) <-2.0; *Moderately aggressive water:* AI (10-11.9) or LI -2.0-0.1; *Non-aggressive water:* AI >12.0 or LI > or to 0.
(k) Radiological sampling is required only every third year.
(l) Helix THM and HAA5 available upon request from Helix Water District.

DEFINITIONS

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminate 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. Secondary MCLs are set to protect the set to protect the odor, taste, and appearance of drinking water.•
Maximum Contaminate Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLs are set by California Environmental Protection Agency (CalEPA).
Public Health Goal (PHG): The level of a contaminant in drinking water below which there are no known or expected health risks. PHGs are set by the CalEPA.
Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health, along with their monitoring, reporting, and water treatment requirements.
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.
Regulatory Action Level: The concentration of a contminant which, if exceeded, triggers treatment or other recourse that a water system must follow.

BILL PAYMENT OPTIONS

The account number, as it appears on your bill, will be required for all payment methods.

Mail *using the envelope provided*
Online ***www.lakesidewater.org***
No fee for automatic draft payments; credit card or electronic checks are also accepted.
Phone ***(619) 443-3805****, option 3*
In Person ***Monday-Friday 8am-5pm***
Lakeside Water District office, 10375 Vine Street, Lakeside.
Drop Box *after hours; located in front of the office*

LAKESIDE WATER DISTRICT BOARD OF DIRECTORS

President:	Steve Robak
Vice President:	Eileen Neumeister
Directors:	Frank Hilliker
	Pete Jenkins
	Steve Johnson
General Manager:	Brett Sanders

Board meetings are held at the District office the first Tuesday of each month at 5:30 p.m.

CONSUMER CONFIDENCE REPORT: Educational Information

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 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 from human activity.

Lakeside Water District's groundwater source is the Santee-El Monte Basin, a groundwater source for many in our community. The basin provides good water quality that has small amounts of iron and manganese which we remove with a specially designed treatment plant located at our Administration and Operations facility at 10375 Vine Street, Lakeside. A source water assessment detailing potential sources of contamination completed in January 2010 is available for review upon request at the District office. The remainder of Lakeside Water District's water is imported from the Metropolitan Water District of Southern California and the San Diego County Water Authority. This water is treated at Metropolitan's Skinner Treatment Plant near Temecula and Helix Water District's Levy Treatment Plant. This water is a blend of water from the Colorado River System and the California State Water Project.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- 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. Lakeside Water District 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 Drinking Hotline or at http://www.epa.gov/safe water/lead.
- 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activates.

In order to ensure that tap water is safe to drink, the USEPA and the California State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB 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 posses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants 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 providers. USEPA/ 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 (1-800-426-4791).

If you should have any questions about the CCR or water quality in general, please call Lakeside Water District at 619-443-3805.

LAKESIDE WATER DISTRICT

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Lakeside, CA 92040-2440

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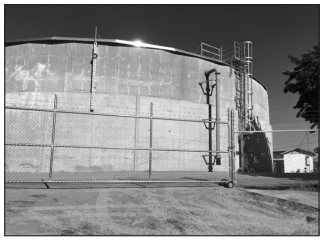

Neighbors! Would you help us out?
If you notice anything out of the ordinary at one of our facilities, pump stations, or reservoir sites, let us know! **(619) 443-3805**

Things like...
- Excessive standing water
- Any flowing water
- Unexpected noises

or unusual activity

As always, in the event of an emergency, call 911.

SHERMAN RESERVOIR PROJECT UPDATE

Lakeside Water District has completed the rehabilitation of the 1.4 million gallon Sherman Reservoir. Built in the 1950s, its framed wood roof needed upgrading. In February 2021, work began to replace the original roof with an aluminum dome that will improve water quality and reduce future maintenance and operational costs.

The project is scheduled for completion in late June. The total cost was $490,000. Our contractors for the improvements were Dexter Wilson Engineering of Carlsbad, M-Rae Engineering of Descanso, and CST Covers of Gardena.