2024 WATER QUALITY REPORT

ANAHEIM PUBLIC UTILITIES

Letter from the

GENERAL MANAGER

At Anaheim Public Utilities, our employees work around the clock to operate and maintain your locally-owned water system. This means that the money collected on utility bills pays for purchasing, treating, and delivering water to our customers. To give you peace of mind whenever you turn on a faucet, we conduct over 44,000 water quality tests each year to ensure we consistently meet or surpass all federal and state drinking water standards.

In 2023, we achieved a major milestone that restored access to our lowest cost water supply —the Orange County Groundwater Basin. About half of our capacity was restored after years of being shut down, as the water industry grappled with synthetic chemicals from industrial processes for consumer products such as nonstick pans and waterproof clothing—that had worked their way into water supplies. We began construction on treatment plants that remove the microscopic chemicals which only recently became measurable (equivalent to a few grains of sand in an Olympic size pool). We expect the balance of our treatment systems to come online in 2024, allowing us to get the majority of our supplies from local groundwater as our primary water source and reduce our reliance on imported water.

Why is this important? Because droughts are always around the corner in California, and we need to access this important and reliable water supply. Since rain is not consistent, the local groundwater basin is also replenished through recycled water, making it a sustainable resource for future generations.

Our employees are here to provide high quality, affordable, and reliable water service to our valued customers. If you have any questions about your water quality, please do not hesitate to get in touch with us at **714-765-4556** or **waterquality@anaheim.net**. You can also visit **anaheim.net/utilities** for information on rebates and programs to help save on your water bill.

Sincerely,

DUKKU LEE
General Manager

ANAHEIM'S SOURCE OF SUPPLY

Anaheim's water supply is a blend of groundwater and imported water from Northern California and the Colorado River. Groundwater is managed by the Orange County Water District (OCWD) and is a low cost resource that replenishes a 350 square mile basin with water from the Santa Ana River, local rainfall, recycled water, and imported water. Imported water resources are accessible through the Metropolitan Water District of Southern California (MWD). Anaheim has the ability to purify untreated water that is lower in cost than fully treated water from MWD Having multiple water sources ensures Anaheim can continue supplying safe and reliable water. Each source is tested to make sure we continue to supply the highest quality water.

WATER QUALITY STANDARDS

Drinking water standards established by the U.S. EPA and the State Water Resources Control Board 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:

MCL

MAXIMUM CONTAMINANT LEVEL

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. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MRDL

MAXIMUM RESIDUAL DISINFECTANT LEVEL

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. MCLs and MRDLs for contaminants that affect health, along with their monitoring and reporting requirements, and water treatment requirements.

AL

REGULATORY ACTION LEVEL

The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

NL

NOTIFICATION LEVEL

The level above which a water agency is required to notify its governing body if an unregulated contaminant is found in its drinking water.

WATER QUALITY GOAL

In addition to mandatory water quality standards, the U.S. EPA and California EPA have set voluntary water quality goals for some contaminants. The chart in this report includes three types of water quality goals:

MCLG

MAXIMUM CONTAMINANT LEVEL GOAL

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

MRDLG

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL

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.

PHG

PUBLIC HEALTH GOAL

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.

2024 | CITY OF ANAHEIM WATER QUALITY

2024 CITY OF ANAHEIM WATER QUALITY

(BASED ON 2023 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
RADIOLOGICALS								
Uranium (pCi/L)	20	0.43	7.0	2.5	ND	ND - 12	2023	Erosion of Natural Deposits
Gross Alpha (pCi/L)	15	(0)	ND	5.5	ND	ND - 5.5	2023	Erosion of Natural Deposits
Gross Beta (pCi/L)	50 (b)	(0)	n/a	n/a	ND	ND - 6.0	2023	Decay of Natural or Human-Made Deposits
ORGANIC CHEMICALS								
1,1-Dichloroethene (ppb)	6	10	ND	ND	ND	ND - 0.7	2023	Industrial Discharge
Trichloroethene (ppb)	5	0.5	ND	ND	ND	ND - 1.1	2023	Industrial Discharge
INORGANIC CHEMICALS								
Aluminum (ppm)	1	0.6	ND	0.2	0.1	ND - 0.3	2023	Water Treatment Chemical
Arsenic (ppb)	10	0.004	ND	2.1	ND	ND - 2.1	2023	Erosion of Natural Deposits
Barium (ppm)	1	2	ND	0.1	ND	ND - 0.1	2023	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.4	0.3	0.7	0.3 - 0.8	2023	Erosion of Natural Deposits; Industrial Discharge; water additive
Nickel (ppb)	100	12	ND	ND	ND	ND - 22	2023	Erosion of Natural Deposits
Nitrate as N (ppm)	10	10	1.8	ND	0.8	ND - 3.1	2023	Fertilizers, Septic Tanks
Nitrate+Nitrite as N (ppm)	10	10	2.1	ND	ND	ND - 3.1	2023	Fertilizers, Septic Tanks
Perchlorate (ppb)	6	1	ND	ND	ND	ND - 2.8	2023	Rocket propellant, Fireworks, Explosives
DISINFECTION BYPRODUCTS								
Bromate (ppb)	10 (RAA)	0.1	n/a	ND	ND	ND - 12	2023	Water Disinfection Byproduct
Chlorate (ppb)	NL = 800	n/a	n/a	n/a	19	19	2023	Water Disinfection Byproduct; Industrial Discharge
SECONDARY STANDARDS*								
Aluminum (ppb)	200* (c)	600	ND	198	110	ND - 310	2023	Water Treatment Chemical
Chloride (ppm)	500*	n/a	90	100	55	34 - 148	2023	Erosion of Natural Deposits
Color	15*	n/a	ND	4	2	ND - 4	2023	Erosion of Natural Deposits
Copper (ppb)	1000*	n/a	ND	2.0	ND	ND - 2.0	2023	Erosion of Natural Deposits
Manganese (ppb)	50* (c)	n/a	32	16	ND	ND - 437	2023	Erosion of Natural Deposits
Odor (threshold odor number)	3*	n/a	ND	ND	2	ND - 2	2023	Naturally-Occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	961	950	537	357 - 1210	2023	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	127	240	92	1.2 - 240	2023	Erosion of Natural Deposits
Dichlorodiflоromethane	NL = 1000	n/a	ND	ND	ND	ND - 0.8	2023	Industrial Discharge
Total Dissolved Solids (ppm)	1,000*	n/a	536	600	323	209 - 784	2023	Erosion of Natural Deposits
Turbidity (NTU)	5*	n/a	0.1	0.04	ND	ND - 0.4	2023	Erosion of Natural Deposits
Zinc (ppm)	5000*	n/a	4.0	ND	ND	ND - 75	2023	Erosion of Natural Deposits

2024 CITY OF ANAHEIM WATER QUALITY (BASED ON 2023 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
UNREGULATED COMPOUNDS								
Bicarbonate (as HCO3) (ppm)	Not Regulated	n/a	236	170	n/a	157 - 306	2023	Erosion of Natural Deposits
Boron (ppb)	NL=1,000	n/a	133	n/a	135	ND - 260	2023	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	107	69	31	20 - 135	2023	Erosion of Natural Deposits
Chromium, Hexavalent (ppb)	Not Regulated	n/a	0.55	n/a	ND	ND - 1.8	2023	Erosion of Natural Deposits
Lithium (ppb) (a)	Not Regulated	n/a	n/a	n/a	13	ND - 30	2023	Erosion of Natural Deposits; Electronics; Pharmaceuticals
Magnesium (ppm)	Not Regulated	n/a	20	26	13	7.8 - 26	2023	Erosion of Natural Deposits
pH	Not Regulated	n/a	7.8	7.7	8.6	7.3 - 8.6	2023	Erosion of Natural Deposits
Potassium (ppm)	Not Regulated	n/a	4.4	4.8	3.1	2.6 - 5.5	2023	Erosion of Natural Deposits
Selenium (ppb)	Not Regulated	30	ND	1.4	ND	ND - 1.4	2023	Industrial Discharge
Sodium (ppm)	Not Regulated	n/a	74	91	58	39 - 103	2023	Erosion of Natural Deposits
Total Alkalinity (ppm as CaCO3)	Not Regulated	n/a	168	140	78	65 - 251	2023	Erosion of Natural Deposits
Total Hardness (grains/gal)	Not Regulated	n/a	21	16	7.7	4.7 - 25	2023	Erosion of Natural Deposits
Total Hardness (ppm as CaCO3)	Not Regulated	n/a	351	278	131	81 - 431	2023	Erosion of Natural Deposits
Total Organic Carbon (ppm) (a)	Not Regulated	TT	0.1	2.5	2.4	ND - 3.5	2023	Erosion of Natural Deposits and Various Human-Made Sources
Bromide (ppm) (a)	Not Regulated	n/a	0.1	0.06	n/a	ND - 0.3	2023	Erosion of Natural Deposits
Germanium (ppb) (a)	Not Regulated	n/a	0.04	0.1	0.1	ND - 0.4	2020	Erosion of Natural Deposits
Vanadium (ppb)	NL=50	n/a	3.1	2.5	3.3	ND - 4.4	2023	Erosion of Natural Deposits
Perfluoro butane sulfonic acid (ppt)	NL = 500	RL = 5000	ND	n/a	ND	ND - 2.7	2023	Industrial Waste Discharge
Perfluorobutanoic acid (ppt)	Not Regulated	n/a	2.6	n/a	ND	ND - 14	2023	Industrial Waste Discharge
Perfluoro heptanoic acid (ppt)	Not Regulated	n/a	ND	n/a	ND	ND - 2.3	2023	Industrial Waste Discharge
Perfluoro hexane sulfonic acid (ppt)	NL = 3	RL = 20	2.9	n/a	ND	ND - 11	2023	Industrial Waste Discharge
Perfluorohexanoic acid (ppt)	Not Regulated	n/a	1.0	n/a	ND	ND - 4.5	2023	Industrial Waste Discharge
Perfluorooctanesulfonic acid (ppt)	NL = 6.5	RL = 40	6.5	n/a	ND	ND - 28	2023	Industrial Waste Discharge
Perfluorooctanoic acid (ppt)	NL = 5.1	RL = 10	2.4	n/a	ND	ND - 9.9	2023	Industrial Waste Discharge
Perfluoropentanoic acid (ppt)	Not Regulated	n/a	1.2	n/a	ND	ND - 4.4	2023	Industrial Waste Discharge

ppm = parts-per-million; **ppb** = parts-per-billion; **ppt** = parts-per-trillion; **pCi/L** = picoCuries per liter; **NTU** = nephelometric turbidity units; **NL** = notification level; **n/a** = not applicable; **RAA** = Running Annual Average; **ND** = not detected; **MCL** = Maximum Contaminant Level; **MCLG** = federal MCL Goal; **PHG** = California Public Health Goal; **RL = Response Level** - wells above the RL were removed from service
µmho/cm = micromho per centimeter; OOS = out of service; TT = treatment technique; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).
(a) **UCMR** (Federal Unregulated Contaminant Monitoring Rule) – detection/reporting levels are much lower than current California regulatory detection/reporting level standards.
(b) **Gross Beta MCL**: DDW considers 50 pCi/L to be the level of concern. The official MCL is '4 millirem/year (approximately 200 pCi//L) annual dose equivalent to the total body or any internal organ.
(c) **Aluminum and Manganese Secondary MCL:** The aluminum and manganese secondary MCLs are calculated on a RAA. The RAA for MCL compliance was below the MCL.

Turbidity - treatment plant combined filter effluent	Treatment Technique	Turbidity Measurement	Sample Date	Typical Source of Contaminant
1) Highest single turbidity measurement	1 NTU	Lenain = 0.23 NTU	2023	Soil Run-Off
	1 NTU	MWD = 0.07 NTU	2023	Soil Run-Off
2) Percentage of samples less than 0.3 NTU	95%	Lenain = 100%	2023	Soil Run-Off
	95%	MWD = 100%	2023	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 MWD treated water is a good indicator of effective filtration. Filtration is called a "treatment technique". 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.

2024 CITY OF ANAHEIM DISTRIBUTION SYSTEM WATER QUALITY (BASED ON 2023 DATA)

	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	Typical Source of Contaminant
DISINFECTION BYPRODUCTS				
Total Trihalomethanes (ppb) (a)	80	Highest LRAA = 60	2 - 74	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	Highest LRAA = 12	4.8 - 17	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	1.1	ND - 3.0	Disinfectant Added for Treatment
AESTHETIC QUALITY				
Color (color units)	15*	ND	ND	Erosion of Natural Deposits
Odor (threshold odor number)	3*	ND	ND	Erosion of Natural Deposits
Turbidity (ntu)	5*	0.10	0.02 - 0.35	Erosion of Natural Deposits
UCMR4 ANALYSES - HALOACETIC ACIDS (A) (2020 DATA)				
Bromochloroacetic Acid (ppb)	n/a	2.83	1.3 - 5.4	Byproducts of Chlorine Disinfection
Bromodichloroacetic Acid (ppb)	n/a	2.26	0.6 - 5.0	Byproducts of Chlorine Disinfection
Chlorordibromoacetic Acid (ppb)	n/a	1.19	0.7 - 1.8	Byproducts of Chlorine Disinfection
Dibromoacetic Acid (ppb)	n/a	1.55	0.9 - 2.8	Byproducts of Chlorine Disinfection
Dichlororacetic Acid (ppb)	n/a	4.42	0.6 - 11.5	Byproducts of Chlorine Disinfection
Monobromoacetic Acid (ppb)	n/a	0.14	ND - 0.6	Byproducts of Chlorine Disinfection
Trichlororacetic Acid (ppb)	n/a	3.18	ND - 12.3	Byproducts of Chlorine Disinfection

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 monthly at 12 locations. **MRDL** = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal; **LRAA** = Locational Running Annual Average;
ND = not detected; **ntu** = nephelometric turbidity units; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (color, odor, clarity).
(a) Total trihalomethanes are evaluated using a LRAA (running average). None of the LRAA values exceeded the MCL.
(b) **UCMR4** (Federal Unregulated Contaminant Monitoring Rule / Phase 4) – detection/reporting levels are much lower than current EPA/California regulatory detection/reporting level standards.

	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 / 51	Corrosion of Household Plumbing
Copper (ppm)	1.3	0.3	0.10	0 / 51	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 2021. Lead was detected in zero samples; and none exceeded the action level. Copper was detected in 16 samples; and 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.

ABOUT DRINKING WATER

THE EPA WOULD LIKE YOU TO KNOW:

"As water travels over the surface of 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 animal or human activity. All 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. In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in the water provided by public water systems. State Board Regulations also establish limits for contaminants in bottled water that provide the same protection for public health. More information about contaminants and potential health effects can be obtained at **water.epa.gov/drink** or by calling the U.S. EPA's Safe Drinking Water Hotline at **800-426-4791.**"

Throughout California, the EPA wants you to be aware that 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
- Pesticides and herbicides, that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses, radioactive contaminants, that can be naturally occurring or the result of oil and gas production or mining activities
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, and the urban storm water runoff, agricultural application and septic systems

ABOUT LEAD IN TAP WATER

THE EPA WOULD LIKE YOU TO KNOW:

"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.

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 it for drinking or cooking. If you are concerned about lead in your water, you may wish to have it tested.

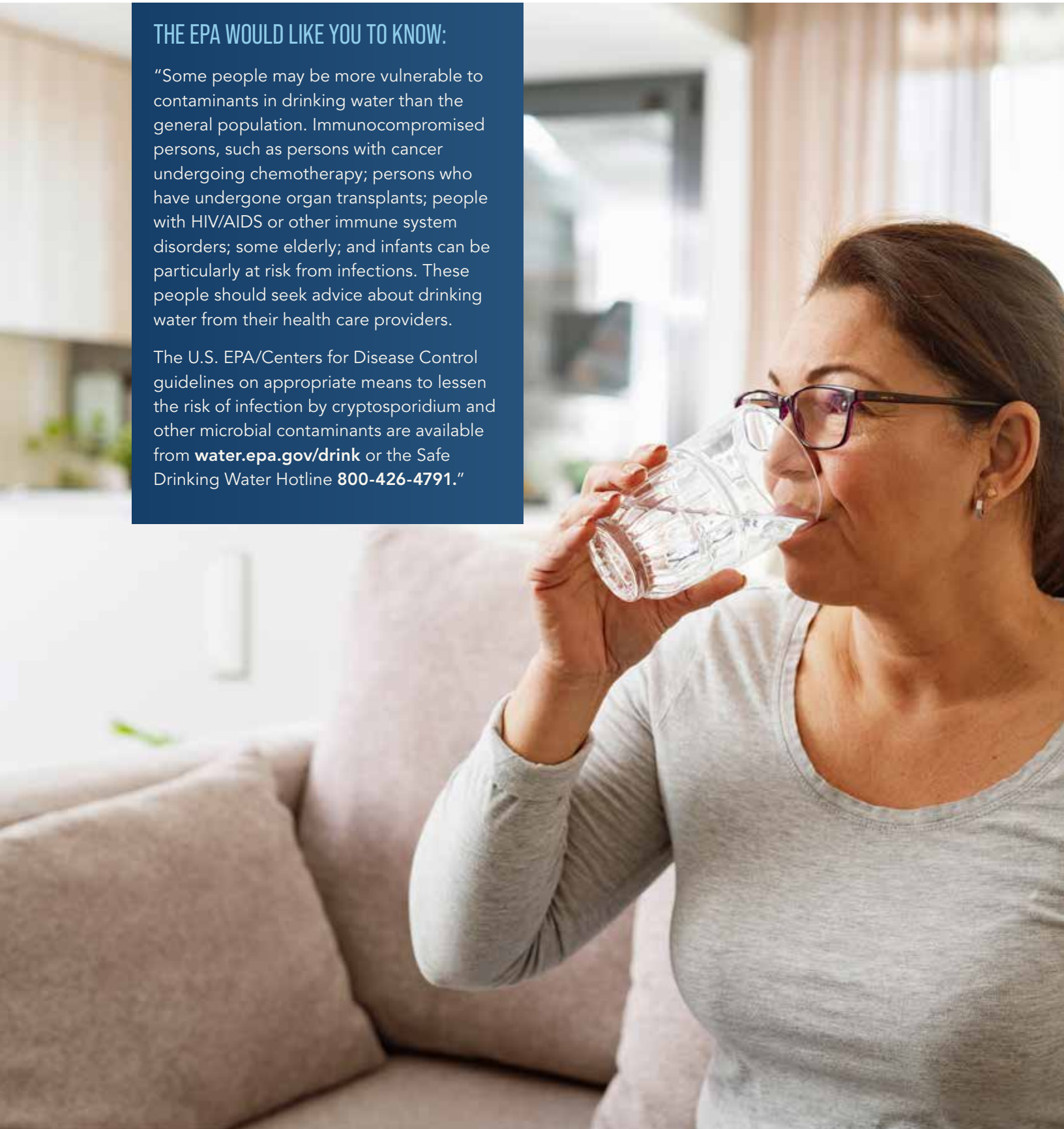
Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline, **800-426-4791**, or online at **epa.gov/lead**."

NOTICE FOR IMMUNOCOMPROMISED PEOPLE

THE EPA WOULD LIKE YOU TO KNOW:

"Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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.

The U.S. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from **water.epa.gov/drink** or the Safe Drinking Water Hotline **800-426-4791.**"



SOURCE WATER ASSESSMENTS

GROUNDWATER ASSESSMENT

Anaheim has completed source water vulnerability assessments of areas around each well and around the Walnut Canyon Reservoir, which provides imported water to the Lenain Water Treatment Facility. 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. These water sources are tested throughout the year to ensure the supplied water remains safe.

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 State Water Resources Control Board, Division of Drinking Water, 605 W. Santa Ana Boulevard, Building 28, Santa Ana, CA 92701. You may request a summary of the assessment by contacting the Division of Drinking Water – Sanitary Engineer at **714-558-4410** or Anaheim Public Utilities, Environmental Services at **714-765-4117**.

IMPORTED WATER ASSESSMENT

The Metropolitan Water District of Southern California (MWD) updated its source water assessment of the Colorado River and State Water Project supplies in 2016. 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 MWD by phone at **213-217-6850**.

2024 | CITY OF ANAHEIM LEADERSHIP

CITY COUNCIL

Led by a mayor, the seven-member council represent our 350,000 residents city-wide. Our leaders identify community needs in their respective district – and mayor at large – to establish city policy and help us deliver safe and reliable service to those we serve.

ASHLEIGH E. AITKEN, Mayor

NORMA CAMPOS KURTZ, Mayor Pro Tem, District 4

JOSE DIAZ, District 1

CARLOS A. LEON, District 2

NATALIE RUBALCAVA, District 3

STEPHEN FAESSEL, District 5

NATALIE MEEKS, District 6

PUBLIC UTILITIES BOARD

The Public Utilities Board members are appointed by City Council to represent the community's interests, review operating and financial practices, and conduct public hearings.

JOHN SEYMOUR, Chairperson, District 6

AB ABDULRAHMAN, Vice-Chairperson, District 1

TANYA BILEZIKJIAN, PE, At Large

ANH PHAM, M.Ed., District 2

ALBERT MCMENAMIN, District 3

TALAB IBRAHIM, District 4

MITCH LEE, District 5

PUBLIC UTILITIES MANAGEMENT

With the support of city leadership, the Anaheim Public Utilities management team develops strategy to support safe and reliable water and power for the Anaheim community. Anaheim Public Utilities employees proudly maintain operations, improve infrastructure, implement programs to educate our community, and continue to provide sustainable, safe, and low cost energy and water.

DUKKU LEE, General Manager

JANET LONNEKER, Assistant General Manager, Electric Services

BRIAN BEELNER, Assistant General Manager, Finance & Energy Resources

CRAIG PARKER, Assistant General Manager, Water Services

JANIS LEHMAN, Assistant General Manager, Administration & Risk Services

MELINDA AVELINO-WALKER, General Services Officer

For information about this report or your water quality in general, please contact our Water Quality Laboratory at **714-765-4556**, or feel free to e-mail us at **waterquality@anaheim.net**. You may also address water quality and other utility issues by attending a Public Utilities Board meeting, typically scheduled for 5 p.m. on the fourth Wednesday of each month, at 201 South Anaheim Boulevard, Anaheim, California.

Contact the U.S. Environmental Protection Agency to learn more about the potential health effects of contaminants listed in this report, visit **water.epa.gov/drink** or call their hotline at **800-426-4791**.

This information about your drinking water is very important. For more information or translation, contact us at **714-765-3300**.

Esta información acerca de su agua potable es muy importante. Para más información o traducción, llámenos al **714-765-3300**.

귀하의 음용수에 관한 이 정보는 매우 중요합니다.
보다 상세한 정보, 또는 번역은 **714-765-3300** 으로 문의하십시오.

这则有关饮用水的信息非常重要。
欲了解更多信息或译文，请致电**714-765-3300**与我们联系。

Ang impormasyong ito tungkol sa inyong inuming tubig ay napakahalaga. Para sa karagdagang impormasyon o pagsasaling-wika, makipag-ugnay sa amin sa **714-765-3300**.

ANAHEIM
PUBLIC UTILITIES