CITY OF SIERRA MADRE

2016 CONSUMER CONFIDENCE REPORT

Dear Sierra Madre Water Customer:

In spite of the Governor's recent declaration calling for an end to the most recent drought, Sierra Madre, as well as other regions in Southern California, remain in a drought emergency. Especially communities like Sierra Madre that rely on groundwater. The reality is the historic drought of the past five years depleted groundwater levels and it takes much longer for groundwater aquifers to recover. Sierra Madre recorded an average year of rainfall. As a result we were able to spread local runoff to help groundwater level recovery. However one year of average rainfall does not make up for the past 5 years of below average rain. Due to low groundwater levels Sierra Madre's groundwater pumping rights are reduced from our normal adjudicate rights of 1,764 acre feet per year to 940 acre fee. In order to make up the difference between available water and community demand, the City purchases water from the San Gabriel Municipal Water District and spreads it in our spreading basins. This allows the City to meet the community's demands while maintaining groundwater levels.

Although the Governor has lifted the drought emergency new legislation by means of Executive Order B-37-16 Making Water Conservation A California Way Of Live will establish new water use targets for all urban water agencies. This will put a limit on the amount of water we can provide to our residents, making conservation targets a permanent framework for Sierra Madre and all other urban water agencies.

For more information on water conservation please visit the City's web site at www.cityofsierramadre.com and our Water District's web site at www.sgvmwd.org. There you will find conservation advise, rebate information, and links to other water conservation assistance. You can also contact Ms. Clare Lin at the Sierra Madre Hall to schedule a free home water audit. The audits are performed by Ms. Lin and other City-staff who are professional Water Conservation Practitioners. The water audits are designed to help you optimize the use of water for both indoor and outdoor use.

Feel free to contact me should you have any questions. I can be reached at 626-264-8489

Sincerely,
Jose Reynoso
Utilities Director

INTRODUCTION

The City of Sierra Madre is committed to keeping you informed about the quality of your drinking water. This report is provided to you annually and includes information about where your drinking water comes from, the constituents found in your drinking water and how the water quality compares with the regulatory standards. We remain dedicated to providing you with a reliable supply of high quality drinking water.

Our City Council meets on the second and fourth Tuesday of each month (except holidays) at 6:30 p.m. in the City Council Chambers located in City Hall at 232 W. Sierra Madre Blvd., Sierra Madre, California 91024. Please feel free to participate in these meetings.

WHERE DOES MY DRINKING WATER COME FROM?

During calendar year 2016, the water supply for the City of Sierra Madre came from two sources: (1) groundwater from wells in the East Raymond Basin and (2) natural spring tunnel located in our foothills. All water is treated with chlorine disinfection before it is delivered to your home.

WHAT ARE WATER QUALITY STANDARDS?

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and State Water Resources Control Board, Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water standards established by USEPA and DDW are 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** are set to protect the odor, taste, and appearance of drinking water.
- **Primary Drinking Water Standard:** MCLs and MRDLs 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.
- **Notification Level (NL):** An advisory level which, if exceeded, requires the drinking water system to notify the governing body of the local agency in which users of the drinking water reside (i.e. city council, board of directors, and county board of supervisors).
- **Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.

WHAT IS A WATER QUALITY GOAL?

In addition to mandatory water quality standards, USEPA and DDW 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 the 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.

WHAT CONTAMINANTS MAY BE PRESENT IN SOURCES OF DRINKING WATER?

The sources of drinking water generally 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.

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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 or farming.
- **Pesticides and herbicides** that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Radioactive contaminants** that can be naturally-occurring or can be the result of oil and gas production and mining activities.
- **Organic chemical contaminants,** including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agriculture application and septic systems.

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 (1-800-426-4791).

Your drinking water is regularly tested using DDW approved methods to ensure its safety. The table in this report lists all the constituents **detected** in your drinking water that have Federal and State drinking water standards. **Detected** unregulated constituents and other constituents of interest are also included.

ARE THERE ANY PRECAUTIONS THE PUBLIC SHOULD CONSIDER?

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).

NITRATE

Although nitrate in your drinking water never exceeds the MCL of 10 milligrams per liter (mg/l), nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. Nitrate in drinking water at levels above 10 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 10 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 for advice from your health care provider.

LEAD IN TAP WATER

If present, elevated levels of lead can cause serious 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 of Sierra Madre 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 U.S, Environmental Protection Agency's Safe Drinking Water Hotline or at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

FLUORIDE VARIANCE

The City of Sierra Madre has been granted a Fluoride Variance from DDW. The City of Sierra Madre first requested the variance in 1994. On June 6, 1995, DDW conducted a public hearing in the City of Sierra Madre to determine if there was substantial public opposition to the City receiving a variance from the California drinking water standard for fluoride. DDW found that there is not substantial community opposition to the City receiving the variance from the California drinking water standard for fluoride.

In the meantime, DDW has raised the MCL for fluoride to 2 ppm with a PHG of 1 ppm. In 2016, the City on an average did not exceed the PHG of 1 ppm and the MCL of 2 ppm in water delivered to our customers. It should be noted that due to the fluoride concentration of our water, additional fluoride products are not necessary for children.

DRINKING WATER SOURCE ASSESSMENT

In accordance with the federal Safe Drinking Water Act, an assessment of the drinking water sources for the City of Sierra Madre was completed in November 2002. The purpose of the drinking water source assessment is to promote source water protection by identifying types of activities in the proximity of the drinking water sources which could pose a threat to the water quality. The assessment concluded that City of Sierra Madre's groundwater wells generally are not vulnerable to contamination. However, wells are located within the proximity of gasoline stations, chemical and petroleum storage facilities, automobile repair shops, and areas of fertilizer/pesticide applications, which are possible sources of contamination. You may request a summary of the assessment to be sent to you by contacting Mr. Jose Reynoso at 626-355-7135 ext 813.

2016 CITY OF SIERRA MADRE GROUNDWATER QUALITY [1]

Chemical	MCL	PHG or (MCLG)	Average Amount	Range of Detections	MCL Violations?	Most Recent Testing	Typical Source of Contaminant
Primary Drinking Water Standards--Health-Related Standards							
Inorganic Chemicals							
Aluminum (ppm)	1	0.6	0.058	ND - 0.2	No	2014	Erosion of natural deposits
Fluoride (ppm)	2	1	0.92	0.55 - 1.7	No	2014	Erosion of natural deposits
Chromium, Hexavalent (ppb)	10	0.02	<1	ND - 2	No	2013	Erosion of natural deposits; industrial discharge
Nitrate as N (ppm)	10	10	2.8	1.6 - 8.5	No	Quarterly	Fertilizers, Septic Tanks
Organic Chemicals							
Trichloroethylene (ppb)	5	1.7	<0.5	ND - 1	No	Monthly	Industrial discharge
Radiologicals							
Uranium (pCi/L)	20	0.43	1.1	ND - 1.7	No	2015	Erosion of natural deposits
Secondary Standards[2]							
Aluminum (ppb)[3]	200	600	58	ND - 200	No	2014	Erosion of natural deposits
Chloride (ppm)	500	n/a	12	8 - 19	No	2015	Erosion of natural deposits
Foaming Agents (MBAS) (ppb)	500	n/a	14	ND - 69	No	2014	Municipal and industrial waste discharges
Iron (ppb)	300	n/a	100	ND - 260	No	2014	Leaching from natural deposits; industrial wastes
Odor (threshold odor number)	3	n/a	1	1	No	2016	Naturally present in the groundwater
Specific Conductance (µmho/cm)	1,600	n/a	420	370 - 470	No	2015	Substances that form ions in water
Sulfate (ppm)	500	n/a	25	15 - 37	No	2016	Erosion of natural deposits
Total Dissolved Solids (ppm)	1,000	n/a	300	210 - 530	No	2016	Erosion of natural deposits
Turbidity (NTU)	5	n/a	0.94	ND - 2.8	No	2016	Erosion of natural deposits
Unregulated Chemicals							
Alkalinity, total as CaCO3 (ppm)	Not Regulated	n/a	170	150 - 180	n/a	2015	Run off / leaching from natural deposits
Calcium (ppm)	Not Regulated	n/a	50.2	42.1 - 64.6	n/a	2015	Run off / leaching from natural deposits
Hardness, total as CaCO3 (ppm)	Not Regulated	n/a	178	157 - 198	n/a	2014	Erosion of natural deposits
Hardness, total (grains/gal)	Not Regulated	n/a	10.4	9.21 - 11.6	n/a	2014	Erosion of natural deposits
Magnesium (ppm)	Not Regulated	n/a	12	8.9 - 14	n/a	2014	Run off / leaching from natural deposits
pH (pH Units)	Not Regulated	n/a	7.6	7.5 - 7.7	n/a	2014	Hydrogen ion concentration
Potassium (ppm)	Not Regulated	n/a	1.4	1.1 - 1.9	n/a	2014	Run off / leaching from natural deposits
Sodium (ppm)	Not Regulated	n/a	16	14 - 19	n/a	2014	Erosion of natural deposits
Total Organic Carbon (ppm)	TT [4]	n/a	0.61	0.31 - 1.1	n/a	Monthly	Naturally present in the groundwater

2016 CITY OF SIERRA MADRE UNREGULATED CHEMICALS REQUIRING MONITORING

Chemical	Notification Level	PHG or (MCLG)	Average Amount	Range of Detections	Most Recent Testing
Chlorate (ppb)	800	n/a	67	ND - 130	2013
Chromium, Hexavalent (ppb) [5]	MCL = 10	0.02	0.55	ND - 1.4	2013
Chromium, Total (ppb) [6]	MCL = 50	(100)	<0.2	ND - 0.39	2013
Estriol (ppb)	n/a	n/a	<0.0008	ND - 0.0011	2013
Molybdenum, Total (ppb)	n/a	n/a	2.9	ND - 4.3	2013
Strontium, Total (ppb)	n/a	n/a	730	290 - 960	2013
Vanadium, Total (ppb)	50	n/a	4.2	2.7 - 6.6	2013

2016 CITY OF SIERRA MADRE DISTRIBUTION SYSTEM WATER QUALITY

Bacterial Quality	MCL	MCLG	Highest Monthly # of Positives	MCL Violations?	Most Recent Testing	Typical Source of Contaminant
Total Coliform Bacteria	1	0	1	No	Weekly	Naturally present in the environment

No more than one monthly sample may be positive for total coliform bacteria.

Chemical	MCL or (MRDL)	PHG or (MRDLG)	Average Amount	Range of Detections	MCL Violations?	Most Recent Sampling Date	Typical Source of Contaminant
Haloacetic Acids (ppb)	60	n/a	13	ND - 4	No	Quarterly	Byproducts of chlorine disinfection
Total Trihalomethanes (ppb)	80	n/a	30	ND - 22	No	Quarterly	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4)	(4)	1.5	0.4 - 1.7	No	Weekly	Drinking water disinfectant
Fluoride (ppm)	2	1	1.1	0.77 - 1.9	No	Quarterly	Erosion of natural deposits
Odor (threshold odor number)[2]	3	n/a	1	1	No	Monthly	Naturally present in the groundwater
Turbidity (NTU)[2]	5	n/a	0.1	ND - 0.7	No	Monthly	Erosion of natural deposits

At-The-Tap Lead and Copper Testing*	Action Level	PHG	90th Percentile Value	Sites Exceeding Action Level	AL Violations?	Typical Source of Contaminant
Copper (ppm)	1.3	0.3	0.14	0 / 30	No	Corrosion of household plumbing
Lead (ppb)	15	1.2	ND	2 / 30	No	Corrosion of household plumbing

*Every three years, 30 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2014. Lead was detected in two samples, both of which exceeded the lead AL. Copper was detected in 14 samples, none of which exceeded the copper AL. An AL is the concentration of a contaminant which, if exceeded in more than 10 percent of the samples, triggers treatment or other requirements that a water system must follow. The City of Sierra Madre complies with the Lead and Copper ALs.

2016 CITY OF SIERRA MADRE UNREGULATED CHEMICALS REQUIRING MONITORING IN THE DISTRIBUTION SYSTEM

Chemical	Notification Level	PHG or (MCLG)	Average Amount	Range of Detections	Most Recent Testing
Chlorate (ppb)	800	n/a	92	64 - 120	2013
Chromium, Hexavalent (ppb) [5]	MCL = 10	0.02	0.83	0.16 - 1.5	2013
Chromium, Total (ppb) [6]	MCL = 50	(100)	0.85	ND - 1.7	2013
Molybdenum, Total (ppb)	n/a	n/a	3.4	3.2 - 3.6	2013
Strontium, Total (ppb)	n/a	n/a	630	390 - 860	2013
Vanadium, Total (ppb)	50	n/a	7.3	4.9 - 9.7	2013

TABLE DEFINITIONS

MCL = Maximum Contaminant Level;

MCLG = Maximum Contaminant Level Goal;

MRDL = Maximum Residual Disinfectant Level;

MRDLG = Maximum Residual Disinfectant Level Goal; ;

n/a = not applicable;

ND = not detected;

NTU = nephelometric turbidity units;

PHG = California Public Health Goal;

ppb = parts-per-billion;

ppm = parts-per-million;

TT = Treatment Technique;

µmho/cm = micromho per centimeter;

pCi/L = picoCuries per liter;

< = detected but average is less than the required reporting limit

[1] This table includes groundwater quality for water sampled at City of Sierra Madre's wells and tunnel.

Results are from the most recent testing performed pursuant to state and federal drinking water regulations.

[2] Chemical is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

[3] Aluminum has primary and secondary standards.

[4] 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.

[5] Hexavalent chromium was included as part of the unregulated chemicals requiring monitoring.

[6] Total chromium is regulated with an MCL of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 10 ppb.

Total chromium was included as part of the unregulated chemicals requiring monitoring.

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