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Loch A. Dreizler General Manager

2018 MISSION HILLS CSD CONSUMER CONFIDENCE REPORT

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2018 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Mission Hills CSD a 1550 East Burton Mesa Boulevard, Lompoc, CA, 93436, (805) 733-4366 para asistirlo en español.

这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 Mission Hills CSD 以获得中文的帮助: 1550 East Burton Mesa Boulevard, Lompoc, CA, 93436, (805) 733-4366

Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa Mission Hills CSD, 1550 East Burton Mesa Boulevard, Lompoc, CA, 93436 o tumawag sa (805) 733-4366 para matulungan sa wikang Tagalog.

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ Mission Hills CSD tại 1550 East Burton Mesa Boulevard, Lompoc, CA, 93436, (805) 733-4366 để được hỗ trợ giúp bằng tiếng Việt.

Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau Mission Hills CSD ntawm 1550 East Burton Mesa Boulevard, Lompoc, CA, 93436, (805) 733-4366 rau kev pab hauv lus Askiv.

WHAT IS A CONSUMER CONFIDENCE REPORT?

In 1996, Congress amended the Safe Drinking Water Act, adding a requirement that water systems make available a brief Consumer Confidence Report (CCR). This CCR summarizes information that Mission Hills collects to comply with regulations, you do not need to respond to this report. The CCR includes information on our groundwater source, tables with sample results, and compliance information for drinking water regulations.

This CCR is an opportunity to communicate the value of water (both as a product and as a service), to promote wise use, to build community trust and customer satisfaction, and to encourage investment in resource protection and infrastructure.

Sources of Drinking Water

Mission Hills CSD utilizes Groundwater Wells as our source of drinking water. Our drinking water wells are located near 1550 Burton Mesa Boulevard, where water is drawn from the Lompoc Uplands Aquifer. MHCSO conducted the drinking water source assessment of Well 5 in 2002 and Wells 6 and 7 in 2009. The wells were found to be most susceptible to possible contamination from utility station maintenance areas, drinking water treatment plants, high density housing, historic gas stations, wastewater treatment plants, lagoons/liquid wastes, parks, water supply wells, sewer collection systems, contractor or government agency equipment storage yards, and storm drain discharge points.

The most recent Sanitary Survey was completed in 2018. Complete copies of the Source Assessment and Sanitary Survey Report are available from the State Water Resource Control Board (SWRCB) Division of Drinking Water's Santa Barbara Office located at 1180 Eugenia Place, Suite 200, Carpinteria, CA, 93013 or by calling (805) 566-5208.

Mission Hills CSD Board Meetings

Mission Hills CSD Board Meetings are held on the third Wednesday of each month at 4:30PM at our District Office located at 1550 East Burton Mesa Boulevard, Lompoc, CA 93436-2100. All interested members of our community are encouraged to attend and participate.

Contact Information

For more information, please contact Loch Dreizler, General Manager of Mission Hills CSD at (805) 733-4366.

TERMS USED IN THIS REPORT

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

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 U.S. Environmental Protection Agency (U.S. EPA).

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.

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.

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.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

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

Variations and Exemptions: Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (µg/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

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.

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 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.
- *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 stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board 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.

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	(In a mo.)	0	1 positive monthly sample	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	(In the year)	0	A routine sample and a repeat sample are total coliform-positive, and one of these is also fecal coliform or <i>E. coli</i> positive	0	Human and animal fecal waste
<i>E. coli</i> (federal Revised Total Coliform Rule)	(In the year)	0	See (a) below	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive, and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	January 2018 July 2018	23 22	ND ND	0 0	15	0.2	No schools requested sampling in 2018.	Internal corrosion of household water plumbing systems; discharges from erosion of natural deposits
Copper (ppm)*	January 2018 July 2018	23 22	1.13 mg/L 1.2 mg/L	2 0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	5/23/18 11/13/18	81.17	59 – 120	N/A	N/A	Salt present in groundwater, generally naturally occurring
Hardness (ppm)	11/13/18	296.67	240 – 390	N/A	N/A	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ppb)	11/13/18	1.17	ND – 3.5	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	11/13/18	0.071	0.049 – 0.11	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD, CONT'D

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Chlorine (ppm)*	2018 (various)	0.29	0.05 – 0.63	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	Drinking water disinfectant added for treatment
Chromium (ppb)	11/13/18	29.33	19 – 48	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Copper (ppm)	11/13/18	0.0019	ND – 0.0058	(AL=1.3)	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Haloacetic Acids – HAA5 (ppb)	10/10/18	3.3	N/A	60	N/A	Byproduct of drinking water disinfection
Nickel (ppb)	11/13/18	11.17	ND – 31	100	12	Erosion of natural deposits; discharge from metal factories
Nitrate (ppm)	5/23/18 11/13/18	2.83	ND – 7.8	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	11/13/18	12.2	2.9 – 27	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Total Trihalomethanes – TTHMs (ppb)	10/10/18	9.3	N/A	80	N/A	Byproduct of drinking water disinfection

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	5/23/18 11/13/18	165	110 – 290	500	N/A	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)*	11/13/18	180	ND – 310	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)*	11/13/18	43.33	ND – 130	50	N/A	Leaching from natural deposits
Specific Conductance (µS/cm)	11/13/18	1,006.67	790 – 1,400	1,600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	11/13/18	110.33	71 – 150	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids – TDS (ppm)	5/23/18 11/13/18	630	440 – 910	1,000	N/A	Runoff/leaching from natural deposits
Turbidity (NTU)	11/13/18	1.54	0.13 – 3.4	5	N/A	Soil runoff
Zinc (ppm)	11/13/18	21.27	8.4 – 47	5	N/A	Runoff/leaching from natural deposits; industrial wastes

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Additional General Information about Drinking Water

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. 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. U.S. EPA/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 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. Mission Hills CSD 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. 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 (1-800-426-4701) or at <http://www.epa.gov/lead>

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 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 specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. Iron and manganese were found at levels that exceed the secondary MCL (Maximum Contaminant Level) standards. The secondary MCLs, were set to protect you against unpleasant aesthetic effects (e.g., color, taste, and odor) and the staining of plumbing fixtures (e.g., tubs and sinks) and clothing while washing. The high levels were likely due to leaching from natural deposits. The notification level for manganese is used to protect consumers from neurological effects. High levels of manganese in people have been shown to result in effects of the nervous system. (The notification level for manganese is 500 ppb.)

Monitoring and Reporting Requirement or a Summary Information for Violation of a MCL, MRDL, AL, TT

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Chlorine residual within distribution system below minimum standard	For Personnel safety and greater efficiency MHCS D began using a bulk chlorine storage tank; the new configuration would occasionally airlock and fail to pump chlorine. A solution was put into action.	Ongoing	MHCS D has reconfigured the chlorination tank to pump chlorine to an intermediary tank. Since taking this action, the District has maintained a chlorine residual above 0.30 ppm.	N/A
Copper Action Limit Exceedance	Results from routine copper samples collected at two locations came back above the action limit. Staff depends on volunteer ratepayers to take copper samples from inside their homes, and Staff cannot always confirm that sampling instructions were followed accurately. Staff continues to improve sampling controls. Lead and copper samples were collected twice during 2018; results from samples collected in July 2018 were below the action limit. The next round of lead and copper samples are scheduled for Summer 2019.	January 2018	The typical source of copper is Internal corrosion of household plumbing systems. MHCS D conducts regular Corrosion Control Treatment (CCT) monitoring to track pH levels, water temperature, and orthophosphate residual. MHCS D will continue regular monitoring and make treatment adjustments as needed.	Copper is an essential nutrient, and some people who drink water containing copper over the action level over a relatively short amount of time may experience gastrointestinal distress.