2018 Consumer Confidence Report

Public Water System Number 0410004

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 2018 - December 2018.

WATER SUPPLY SOURCES

The City has seven wells, identified as Spruce Well, Wilson Well, Fairview Well, Parkside Well, Little Avenue Well, Liberty Well and Jay Drive Well that supply water to the system.

The wells are distributed throughout the City, and range in depth from 240 feet to 450 feet. The wells produce between 500 and 1,500 gallons per minute each, and are automatically regulated by the water pressure in the distribution system.

A source water assessment was completed in 2002 for the seven wells serving the City of Gridley. The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

Fairview Well: Historic and existing gasoline stations, known gasoline contaminant plumes, and confirmed leaking underground storage tanks. (47 Fairview Dr.)

Parkside Well: Historic gasoline stations and high density septic systems. (270 Oregon St.)

Spruce Well: Historic and existing gasoline stations, known gasoline contaminant plumes, and confirmed leaking underground storage tanks. (480 Spruce St.)

Wilson Well: Historic and existing gasoline stations, chemical/petroleum processing/storage, and confirmed leaking underground storage tanks. (390 Magnolia St.)

Little Avenue Well: Agricultural drainage, farm machinery repair, septic systems, and sewer collection systems. (448 Little Ave.)

Liberty Well: Agricultural drainage, farm machinery repair, and sewer collection systems. (1230 Intemperance Pl.)

Jay Drive Well: Agricultural drainage, farm machinery repair, septic systems, and sewer collection systems. (1687 Jay Dr.)

A copy of the complete assessment may be viewed at:

CDPH Valley District Office
415 Knollcrest Drive, Suite 110
Redding, CA 96002
Attention: Reese Crenshaw
(530) 224-4861

or at

City of Gridley
685 Kentucky Street
Gridley, CA 95948
Attention: Daryl Dye
(530) 846-2298

The Gridley City Council meetings are held on the first and third Monday of each month at 6:00 p.m. in City Hall.

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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.	**Primary Drinking Water Standards (PDWS)**: MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
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 (USEPA).	**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.
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.	**Treatment Technique (TT)**: A required process intended to reduce the level of a contaminant in drinking water.
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 (AL)**: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
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.	**Variances and Exemptions**: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions. **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 before we treat it 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*, which 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*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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In order to ensure that tap water is safe to drink, the USEPA and the California Department of Health Services (Department) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protections for public health.

MICROBIOLOGICAL WATER QUALITY

Testing for bacteriological contaminants in the water distribution system is required by State regulations. This testing is done regularly to verify that the water distribution system is free of coliform bacteria. Two samples are taken weekly at dedicated locations in the distribution system for bacteriological testing. There were no positive tests for Total Coliform or Fecal Coliform in 2018.

Total Coliforms are common in the environment and are generally not harmful themselves. Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Fecal Coliform and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these waters can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

WATER TREATMENT

Fluoride is added to the water in the City system to help prevent tooth decay. Fluoride concentration is controlled between 0.7 and 1.3 mg/l. An optimum concentration of 0.8 mg/l is recommended by the American Dental Association for optimum preventative effectiveness. Chlorine is added to the water from all seven of the wells as a preventative measure due to intermittent positive bacteriological tests of the wells and/or the distribution system.

DETECTED CONTAMINANTS IN OUR WATER

Tables 1, 2, 3, 4 and 5 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 Department 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.

Table 1 - SAMPLING RESULTS SHOWING DETECTION OF LEAD AND COPPER

Lead and Copper (and reporting units)	Sample Date	Number of samples collected	90th percentile level detected	Number of sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	2015-2018	21	0	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppb)	2015-2018	20	147	0	1300	170	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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Table 2 - 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)	2015-2018	14	13-15	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2015-2018	163.53	70.2-260	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

Table 3 - 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) [MRDL]	Typical Source of Contaminant
Arsenic (ppb)	2015-2018	8.625	7-13	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chromium (ppb)	2015-2018	9.5	8-11	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (before treatment) (ppm)	2015-2018	0.608	0-1.4	2	1	Erosion of natural deposits which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as NO_3) (ppm)	2015-2018	5.769	1.2-13.2	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
1,2,3-Trichloropropane	2018	0	0	0.005	0.005	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent; byproduct during the production of other compounds and pesticides.

Table 4 - DETECTION OF CONTAMINANTS WITH A SECONDARY 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
Chloride (ppm)	2015-2018	4	4	500	none	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	2015-2018	4.15	4-4.3	500	none	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2004-2012	228	161-312	1000	none	Runoff/leaching from natural deposits

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Table 5 - DETECTION OF UNREGULATED CONTAMINANTS						
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [mrdlg]**	**Typical Source of Contaminant**
Vanadium (ppb)	2015-2018	22.5	21-24	50	none	Erosion of natural deposits
Chromium VI (Hexavalent Chromium (ppb)	2003-2004	6.6	1.8-13.0	none	none	Erosion of natural deposits; discharge from steel mills and chrome plating

While your drinking water meets the EPA 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 cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency 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.

ADDITIONAL GENERAL INFORMATION ON 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 USEPA'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 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. The City of Gridley 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 Hotline or at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water. The City of Gridley is responsible for testing the schools in the service area for lead at the request of the school. Wilson Elementary School, McKinley Elementary School, Sycamore Middle School, Esperanza High School, and Gridley High School were all tested for lead in 2018. No lead was found in any of the tested schools.