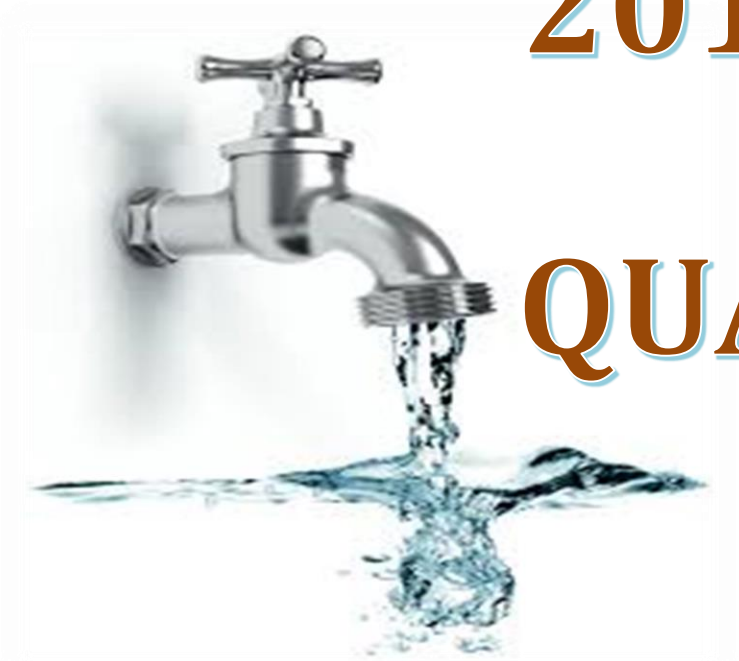
CITY OF GREENFIELD

2019 WATER QUALITY REPORT



PWS ID# 2170008

For more information about this report, or for any questions relating to your drinking water, please call Arturo Felix, Public Works Operations Manager, at (831) 674-2635 or email at publicworks@ci.greenfield.ca.us

Para obtener más información sobre este informe, o para cualquier pregunta relacionada con su agua potable, llame a Arturo Felix, Gerente de Operaciones de Obras Públicas, al (831) 674-2635 o envíe un correo electrónico a publicworks@ci.greenfield.ca.us

Water Quality and You

The City of Greenfield is committed to providing a safe, reliable supply of excellent quality drinking water. The City encourages public interest and participation in decisions affecting the community's drinking water supply.

Our City Council meets regularly at 6:00 P.M. on the second and fourth Tuesday of each month at 599 El Camino Real in the City's Council Chambers. Occasionally special meetings are called to address issues of public interest that need immediate attention. The times and locations for these special meetings will be posted in front of City Hall in the public bulletin board.

This report, produced by the City, conforms to the federal regulation that requires each community water system to provide customers with annual information about the quality of the drinking water. This includes details about sources and quality; regulations that protect public health; programs that protect the water quality of our supply sources; and the treatment that assures our drinking water meets or surpasses all Federal and State standards. We hope the information presented here enhances your understanding and gains your confidence in the quality and integrity of the water you drink and use everyday.

Last year, as in past years, your tap water met all USEPA and State drinking water health standards. Local water agencies vigilantly safeguards its water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or any other water quality standard. This brochure is a snapshot of last year's water quality. Included are the details about where your water comes from, what it contains and how it compares to State standards. We are committed to provide you with this information because informed customers are the best allies.

The State Water Resources Control Board (SWRCB) formally the California Department of Health Services (CDHS), Drinking Water Field Operations Branch requires water agencies to annually notify their customers of the contaminants or elements in their drinking water.

This is not the result of punitive action, nor is it indicative of any violation of treatment practices. It is strictly a mandated public information service legislated to keep you informed each year of the facts about your drinking water.

Our Drinking Water Source

The City of Greenfield is located in Monterey County, Approximately 32 miles southeast of the city of Salinas, Between Soledad on the North and King City on the south.

The Water Division provides water to approximately 3,800 customers within the City limits of Greenfield. The Water Division operates and maintains 17 miles of pipelines ranging from 4 inches diameter to 16 inches diameter.

Corporation Yard Booster Station & Water Tank

The City of Greenfield obtains its municipal potable water supply from the Central Salinas Valley Groundwater Basin (SVGB) – Fore Bay Aquifer Sub-basin occupies the central portion of the Salinas Valley and extends from the town of Gonzales in the north to approximately three miles south of Greenfield (Figure A-1).

The Oak Avenue System consist of wells #1 & # 6, located on 14th Street and Cherry Avenue on the northwest of town. The water is treated with 12 .5% sodium hypochlorite, upstream of the well meter; They supply about 2500 gallons per minute of water to a 1 million gallon storage tank and booster pump station located on Oak Avenue and 13th Street. Water is then pump into the distribution system by booster pumps at 54 psi.

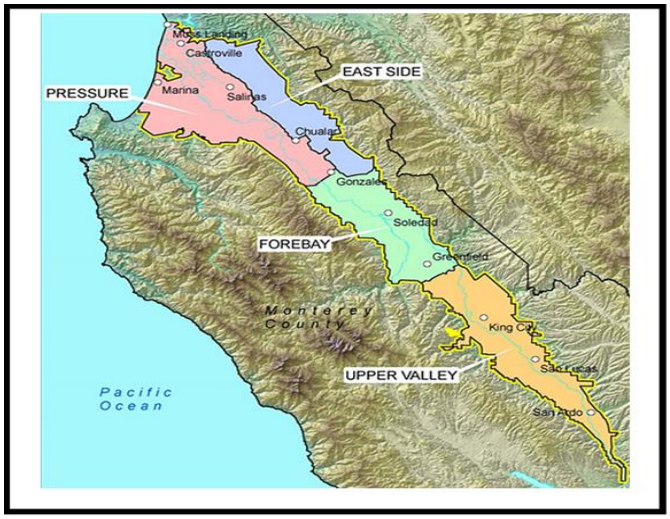


Figure A-1-Fore Bay Aquifer Sub-basin

The Corporation Booster Station is located behind the Corporation Yard located at Walnut Avenue and Tenth Street consisting of Well #7, which pumps about 1800 gallons per minute to a 1.5 million gallon tank treated with 12.5% sodium hypochlorite, upstream of the well meter. The water is then pump into the distribution system by booster pumps at 65 psi. It joins the distribution system on Tenth and Walnut Avenue. In 2019, these wells supplied 579 million gallons of water (1771 Acre Feet) for Greenfield's 17,898 residents

Water Quality Assurance Program

The City water system is owned and operated by the City of Greenfield. All personnel who operating the water system are certified under the State Water Resources Control Board; Title 22 Code of Regulation; Division 4 Environmental Health; Chapter 13 Operator Certification; Section 63750-63770.

The Greenfield Water Division conducts a comprehensive water quality assurance program. We collect and report over twenty samples a month throughout our system to regularly monitor water quality. We send samples to a state certified laboratory for testing. The City had two positive Total Coliform Violation to report in May of 2019 in the distribution system. The Total Coliform test is extremely sensitive which is why it is used as an indicator sample. We are pleased to report that all other samples since then have tested negative.

Other water samples are collected periodically to check for levels of lead and copper, disinfection by-products trihalomethanes and halo acetic acids (THMs and HAAs) and general physical components as required by state and federal regulations.

The Public Works and Building Department work together to ensure that appropriate external Backflow Prevention Assemblies are installed on all new construction projects and tenant improvements. Further, Public Works administers and manages a Cross-Connection Control Program to eliminate possible contamination to our drinking water through backflow prevention devices. Required by Section 7584 of Title 17, California Code of Regulations , to protect water system from actual/potential cross connections. The program includes annual testing of all backflow prevention devices and monitoring of compliance*.

***A note to residents and business owners who have backflow prevention devices: State regulations require that all backflow prevention devices be tested annually by a certified backflow tester.**

GENERAL INFORMATION ABOUT WATER:

The safety of public water supplies has received much attention in recent years. City of Greenfield customers should know that your water supply meets all regulatory standards. 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

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 Act 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 persons, 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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Types of contaminants that may be present in some source waters prior to treatment could 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 storm water 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 storm water runoff, and residential uses.
- **Organic chemical contaminants,** 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, urban storm water 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.

California drinking water regulations require that water delivered by public water systems be, at all times, pure, wholesome and potable, as required by the federal and state Safe Drinking Water Acts. To accomplish this mandate, domestic water must meet strict standards, as provided in the California Domestic Water Quality and Monitoring Regulations. This regulation includes primary and secondary maximum contaminant levels (MCL) and monitoring frequencies for specified microbiological, chemical and radionuclide contaminants. Primary contaminants are those, which may have an adverse health effect. Secondary contaminants are those which may adversely affect the aesthetic quality of the drinking water. The regulation includes the provisions adopted by the federal Safe Drinking Water Act of 1974. The State has direct enforcement responsibility for all.

The following table lists all the drinking water contaminants that we detected during the 2018 and 2019 calendar year. In order to ensure that tap water is safe to drink, the California Department of Health Services prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. We treat our water according to the Departments regulations. The Department's Food and Drug Branch establishes limits for contaminants in bottled water that must provide the same protection for the public. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, data presented in this table is an average of testing done on all 3 wells. The State allows us to monitor for some 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, is more than a year old.

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The USEPA has determined that your water IS SAFE at these levels.

Federal Unregulated Contaminants Monitoring Rule-4 (UCMR-4)

In 2018, the District participated in the fourth phase of the Unregulated Contaminant Monitoring Rule (UCMR4). Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring assists the EPA in determining the occurrence of these compounds and whether or not regulation is warranted. Our system conducted an Assessment Monitoring UCMR-4 chemicals specified by the US Environmental Protection Agency (USEPA). The results were reported directly to the USEPA. Some UCMR4 chemicals were detected in Greenfield community. Detections are summarized in the UCMR4 table, along with typical contaminant sources. Visit http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ ucmr for general information on UCMR 4.

Definitions of Terms & Abbreviations Used in the Table:

- 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 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.

- 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 Standard (PDWS): MCLs and MRDLs for contaminants that affect health, along with their monitoring and reporting requirements, and water treatment requirements.

- 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 that, if exceeded, trigger's treatment or other requirements that a water system must follow.

SUMMARY OF WATER QUALITY DATA FOR THE YEAR 2019 - WELLS 1, 6 AND 7

Primary Standards - Mandated Health Related Standards

Coliform Bacteria	Number of Detections	MCL	PHG	MCLG	Likely Source of Contamination
Total Coliform Bacteria (Total Coliform Rule)	0	No more than one positive monthly sample	0	0	Naturally present in the environment
Fecal Coliform Bacteria (Total Coliform Rule)	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or E.coli positive	0	0	Human and animal fecal waste

Radioactive Contaminants	Violation Y/N	Level Detected	Range	Unit	MCL or [MRDL]	PHG	MCLG	Likely Source of Contamination
Gross Alpha particle activity	N	1.55	1.31-1.69	pCi/L	15	15	15	Erosion of natural deposits
Combined radium	N	0.06	ND-0.363	pCi/L	5	5	5	Erosion of natural deposits
Uranium	N	5.4	4.62-7.0	pCi/L	20	20	0.43	Erosion of natural deposits

Contaminant	Violation Y/N	Level Detected	Range	Unit	MCL or [MRDL]	PHG	MCLG	Likely Source of Contamination
Inorganic Contaminants								
Arsenic	N	0.7	ND-2.1	ppb	10	0.004	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium	N	0.047	0.032-0.063	ppm	1	2	2	Discharge from oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (Total)	N	1.4	ND-4.2	ppb	50	100	100	Discharge from Steel and pulp mills and chrome plating; erosion from natural deposits
Hexavalent Chromium *1	***N***	***1.8***	***1.2-2.8***	***ppb***	***10***	***0.02***	***0.02***	*Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits*
Fluoride	N	0.17	ND-0.363	ppm	2	1	1	Erosion of natural deposits; water additive that promotes strong teeth, discharge from fertilizer and aluminum factories.
Nitrate (as N)	N	2.14	0.5-4.5	ppm	10	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	0.97	ND-2.9	ppb	50	30	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive
Haloacetic Acids (HAA5)	N	0.5	ND-5	ppb	60	N/A	N/A	By-product of drinking water disinfection
Total Trihalomethanes	N	4	ND-26	ppb	80	N/A	N/A	By-product of drinking water disinfection
Secondary Standards - Aesthetic Standards								
Color	N	ND	ND	Units	15	N/A	N/A	Naturally occurring organic materials
Turbidity	N	0.13	0.1-0.15	Units	5	N/A	N/A	Soil runoff
Total Dissolved Solids	N	538	377-760	ppm	1000	N/A	N/A	Runoff/leaching from natural deposits
Specific Conductance	N	801	566-1122	µS/cm	1600	N/A	N/A	Substance that form ions when in water: seawater influence
Chloride	N	53	22-97	ppm	500	N/A	N/A	Runoff/leaching from natural deposits; sea water influence
Iron	N	14.7	ND-29	ppb	300	N/A	N/A	Leaching from natural deposits; industrial wastes
Sulfate	N	155	97-245	ppm	500	N/A	N/A	Runoff/leaching from natural deposits; industrial waste
Other Constituents								
Sodium	N	54	26-82	ppm	N/A	N/A	N/A	Generally found in ground and surface water
Total Hardness	N	17.91	14-23	Grains per Gallon	N/A	N/A	N/A	Generally found in ground and surface water

LEAD and COPPER	# Of Samples Collected	#of Schools Requesting Lead Sampling	90th Percentile Level	# Of Sites Exceeding AL	AL	PHG			Likely Source of Contamination
Lead (ppb)	30	5	ND	0	15	0.2	0.2	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	30	0	0.13	0	1.3	0.3	0.2	0.2	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Unregulated Contaminant Monitoring

UCMR3		Entry Point to the Distribution System			Distribution System Maximum Residence Time			Major Sources in Drinking Water
Detected Contaminants	Units	Annual Average	Range Low-High	Tested Year	Annual Average	Range Low-High	Violation	Major Sources in Drinking Water
Chromium	ppt	2300	2100-2500	2014	2150	2100-2200	No	Erosion of Natural Deposits
Molybdenum	ppb	22	13-31	2014	26	25-27	No	Erosion of Natural Deposits
Strontium	ppb	630	430-820	2014	725	710-740	No	Erosion of Natural Deposits
Vanadium	ppb	13.75	13-14	2014	13	12-14	No	Erosion of Natural Deposits
Hexavalent Chromium	ppt	2125	1800-2400	2014	2300	1900-2700	No	Erosion of Natural Deposits
Chlorate	ppb	135	ND-160	2014	160	150-170	No	Disinfectant added for treatment, an agricultural defoliant or desiccant

UCMR4		Entry Point to the Distribution System			Distribution System Maximum Residence Time			Major Sources in Drinking Water
Detected Contaminants	Units	Annual Average	Range Low-High	Tested Year	Annual Average	Range Low-High	Violation	Major Sources in Drinking Water
Bromide	ppb	280	150-410	2018			No	Erosion of Natural Deposits
Manganese	ppb	1.45	ND-2.9	2018			No	Erosion of Natural Deposits
Bromochloroacetic Acid (BCAA)	ppb			2018	0.13	ND-0.51	No	By-product of drinking water disinfection
Dibromoacetic Acid (DBAA)	ppb			2018	2.5	1.1-5.5	No	By-product of drinking water disinfection

Key to Table

	Units		Equivalence
ND: not detectable at testing limit	mg/L –milligrams per liter	ppm – parts per million	1 second in 11.5 days
µS/cm: a measure of specific conductance	µg/L–micrograms per liter	ppb – parts per billion	1 second in nearly 32 years
	ng/ – nanograms per liter	ppt – parts per trillion	1 second in nearly 32,000 years
	pg/L – picograms per liter	ppq – parts per quadrillion	1 second in nearly 32,000,000 years

1 - There is currently no MCL for hexavalent chromium. The previous MCL of 0.010mg/L was withdrawn on September 11, 2017.

Water Conservation and You

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

Remember indoors

Take shorter showers — five minutes or less is best.

Turn off the water while soaping hands and brushing teeth.

Turn off sink faucet while scrubbing dishes and pots.

Install new toilets that use less than 1.6 gallons per flush.

Put faucet aerators on sink faucets.

Get an Energy Star labeled washing machine.

Wash only full loads.

Use a low flow showerhead.

Remember outdoors

Us a broom, not a hose, to clean driveways and walkways.

Water your yard and outdoor plants early or late in the day to reduce evaporation.

Mulch around plants to hold water in the soil.

Use a shut-off nozzle on your hose.

Use plants that require less water.