



City of San Jacinto 2011 Annual Water Quality Report

The City of San Jacinto is pleased to provide our customers with its Annual Water Quality Report

This report contains information about the sources and quality of drinking water we deliver to our customers. This includes details about where the City of San Jacinto water originates, what it contains, and how it compares to standards set by regulatory agencies. In 2011, your drinking water has met all U.S. Environmental Protection Agency (USEPA) and California Department of Public Health (CDPH) standards. The City of San Jacinto's source of water for 2011 is from four deep wells. These wells are located in the San Jacinto Groundwater Basin.

The San Jacinto City Council meets the first and third Tuesday of each month in the Council Chambers at 625 S Pico Ave., San Jacinto, CA. These meetings provide an opportunity for public participation in decisions that may affect the quality of your water. For more information, please contact the City of San Jacinto Water Utilities Supervisor, Dan Mudrovich at (951) 487-7381.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Information on City of San Jacinto Water Quality Monitoring

The City of San Jacinto routinely monitors for contaminants in your drinking water in accordance with USEPA and CDPH. The table in this report shows the results of our monitoring for calendar year 2011 and earlier since the State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants in groundwater do not change frequently. Therefore, some of our data, although representative, are more than one year old. The table lists all the contaminants **detected** in your drinking water that have federal and state drinking water standards. Detected unregulated contaminants of interest are also included. Although 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.**

What May Be Present in Sources of Drinking Water?

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**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Radioactive contaminants**, which can be naturally-occurring or 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 gas stations, urban stormwater runoff, agricultural 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).

An assessment of the drinking water sources for the City of San Jacinto was completed in May 2001, October 2004, and May 2008. The sources are considered to be most vulnerable to the following activities not associated with contaminants detected in the water supply: septic system and gasoline stations. A copy of the complete assessment is available at 270 Bissell Place, San Jacinto, CA 92583. You may request a summary of the assessment be sent to you by contacting Dan Mudrovich at (951) 487-7381.

What are Water Quality Standards?

In order to ensure that tap water is safe to drink, the USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water standards established by USEPA and CDPH 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:

- **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 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.
- **Primary Drinking Water Standard (PDWS):** 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.

In addition to mandatory water quality standards, USEPA and CDPH 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 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 causes the brownish discoloration in our water?

IRON & MANGANESE: These natural minerals are found in the water that is produced by the City's three well sites. Although these minerals produce no known health concerns, they are aesthetically unpleasant and can cause unwanted color, taste and odors. Iron and Manganese at high concentrations can also stain clothing and fixtures at home. The City operates two groundwater treatment plants for removal of Iron and Manganese, and we have implemented a comprehensive water flushing program to keep any build up in our Water Distribution System to a minimum.

Water Disinfection

All well sites are visited daily and chlorine residual samples are collected throughout the distribution system to ensure disinfection equipment is working properly. The average chlorine residual in the distribution system for samples collected during 2011 was 1.2 mg/l. A total of 208 samples were collected in the distribution system for bacteriological analysis. No samples tested positive for coliform bacteria.

Educational Information

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 San Jacinto 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: <http://www.epa.gov/safewater/lead>.

**Water Is A Precious Resource
Please Practice Water Conservation**



CITY OF SAN JACINTO 2011 DRINKING WATER QUALITY

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

CONSTITUENT AND (UNITS)	MCL or [MRDL]	PHG (MCLG) or [MRDLG]	GROUNDWATER SOURCES		MOST RECENT TESTING	MCL VIOLATION ?	TYPICAL ORIGINS OF DETECTED CONSTITUENTS
			AVERAGE (a)	RANGE			

Primary Drinking Water Standards -- Health Related Standards

MICROBIOLOGICAL CONTAMINANTS (b)

Total Coliform Bacteria (Total Coliform Rule)	No more than 1 positive monthly sample	(0)	0	NA	2011	No	Naturally present in the environment
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DISINFECTANT AND DISINFECTION BY-PRODUCTS ©

Chlorine Residual (mg/l)	[4.0 as Cl ₂]	[4 as Cl ₂]	1.2	.20 - 2.0	2011	No	Drinking water disinfectant
Total Trihalomethanes (µg/l)	80	NA	14.8	2.3 - 24.0	2011	No	By-product of drinking water chlorination
Haloacetic Acids (HAA) (µg/l)	60	NA	5.5	ND - 7.9	2011	No	By-product of drinking water chlorination

INORGANIC CHEMICALS

Barium (mg/l)	1	2	67.5	ND - 140	2010-2011	No	Leaching of natural deposits
Copper (mg/l) (d)	AL = 1.3	0.3	0.66	None of the 31 Samples Exceeded the Action Level	2011	No	Corrosion of household plumbing system; erosion of natural deposits
Fluoride (mg/l)	2	1	0.3	0.2 - 0.4	2010-2011	No	Leaching of natural deposits
Lead (µg/l) (d)	AL = 15	0.2	ND	None of the 31 Samples Exceeded the Action Level	2011	No	Corrosion of household plumbing system; erosion of natural deposits

SYNTHETIC ORGANIC CONTAMINANTS

Di(2-ethylhexyl)adipate (µg/L)	400	200	0.3	ND - 5.2	2008-2011	No	Discharge from chemical factories
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Secondary Drinking Water Standards -- Aesthetic Standards, Not Health-Related

Chloride (mg/l)	500	NA	11	9 - 13	2010-2011	No	Leaching of natural deposits
Color (NTU)	15	NA	7.0	ND - 20	2010-2011	No	Naturally occurring organic material
Iron (µg/l) (e)	300	NA	100	100	2011	No	Leaching of natural deposits
Manganese (µg/l) (e)	50	NA	17	ND - 45	2011	No	Leaching of natural deposits
Specific Conductance (µmho/cm)	1,600	NA	400	330 - 450	2010-2011	No	Substances that form ions when in water
Sulfate (mg/l)	500	NA	21.6	3.2 - 47	2010-2011	No	Leaching of natural deposits
Total Dissolved Solids (mg/l)	1,000	NA	245	180 - 290	2010-2011	No	Leaching of natural deposits
Turbidity (NTU)	5	NA	0.36	ND - 0.57	2010-2011	No	Soil runoff

Other Constituents of Interest

Hardness as CaCO ₃ (mg/l)	NA	NA	132.5	110 - 170	2010-2011	No	Naturally occurring cations present in water, generally magnesium and calcium
Sodium (mg/l)	NA	NA	27	20 - 39	2010-2011	No	Salt present in water; naturally occurring

mg/l = parts per million or milligrams per liter µg/l = parts per billion or micrograms per liter µmho/cm = micromhos per centimeter AL = Action Level	MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal MRDL = Maximum Residual Disinfectant Level MRDLG = Maximum Residual Disinfectant Level Goal	ND = Not Detected at DLR NTU = Nephelometric Turbidity Units PHG = Public Health Goal NA = Not Applicable
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Footnotes

- (a) The results reported in the table are average concentrations of the constituents tested during 2011 or from the most recent tests, except for Total Trihalomethanes, Haloacetic Acids, Chlorine Residual, Iron, Manganese, Lead and Copper, which are described below.
- (b) Samples were collected in the distribution system. The highest number of positive samples collected any one month for 2011 is presented.
- (c) Samples were collected in the distribution system. The highest running annual average and the range of the individual results for 2011 are presented. Compliance is based on the running annual average.
- (d) Thirty-one (31) Lead and Copper Rule compliance samples were collected at representative residential taps in 2011. The 90th percentile concentration of Lead and Copper is reported in the table.
- (e) Test results are from treated water samples. Wells are treated to remove Iron and Manganese which exceed the secondary standards in raw groundwater.

EMWD Well 25 2011 DRINKING WATER QUALITY : EMWD Emergency Connection (e)

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

CONSTITUENT AND (UNITS)	MCL or [MRDL]	PHG (MCLG) or [MRDLG]	GROUNDWATER SOURCES		MOST RECENT TESTING	MCL VIOLATION ?	TYPICAL ORIGINS OF DETECTED CONSTITUENTS
			AVERAGE (a)	RANGE			
Primary Drinking Water Standards -- Health Related Standards							
MICROBIOLOGICAL CONTAMINANTS (b)							
Total Coliform Bacteria (Total Coliform Rule)	NA	(0)	N/A	NA	NA	No	Naturally present in the environment
DISINFECTANT AND DISINFECTION BY-PRODUCTS (c)							
Chlorine Residual (mg/l)	[4.0 as Cl ₂]	[4 as Cl ₂]	1.7	1.2-2.4	2011	No	Drinking water disinfectant
Total Trihalomethanes (µg/l)	80	NA	ND	ND	2011	No	By-product of drinking water chlorination
Haloacetic Acids (HAA) (µg/l)	60	NA	ND	ND	2011	No	By-product of drinking water chlorination
INORGANIC CHEMICALS							
Barium (mg/l)	1	2	ND	ND	2011	No	Leaching of natural deposits
Copper (mg/l)	NA	NA	NA	NA	NA	No	Corrosion of household plumbing system; erosion of natural deposits
Fluoride (mg/l)	2	1	0.33	0.33	2011	No	Leaching of natural deposits
Lead (µg/l)	NA	NA	NA	NA	NA	No	Corrosion of household plumbing system; erosion of natural deposits
Secondary Drinking Water Standards -- Aesthetic Standards, Not Health-Related							
Chloride (mg/l)	500	NA	14	14	2011	No	Leaching of natural deposits
Color (NTU)	15	NA	2.5	2.5	2011	No	Naturally occurring organic material
Iron (µg/l) (d)	300	NA	ND	ND	2011	No	Leaching of natural deposits
Manganese (µg/l) (d)	50	NA	32	32	2011	No	Leaching of natural deposits
Specific Conductance (µmho/cm)	1,600	NA	390	390	2011	No	Substances that form ions when in water
Sulfate (mg/l)	500	NA	46	46	2011	No	Leaching of natural deposits
Total Dissolved Solids (mg/l)	1,000	NA	210	210	2011	No	Leaching of natural deposits
Turbidity (NTU)	5	NA	0.1	0.1	2011	No	Soil runoff
Other Constituents of Interest							
Hardness as CaCO ₃ (mg/l)	NA	NA	120	120	2011	No	Naturally occurring cations present in water, generally magnesium and calcium
Sodium (mg/l)	NA	NA	39	39	2011	No	Salt present in water; naturally occurring

mg/l = parts per million or milligrams per liter
 µg/l = parts per billion or micrograms per liter
 µmho/cm = micromhos per centimeter
 AL = Action Level

MCL = Maximum Contaminant Level
 MCLG = Maximum Contaminant Level Goal
 MRDL = Maximum Residual Disinfectant Level
 MRDLG = Maximum Residual Disinfectant Level Goal

ND = Not Detected at DLR
 NTU = Nephelometric Turbidity Units
 PHG = Public Health Goal
 NA = Not Applicable

Footnotes

- (a) The results reported in the table are average concentrations of the constituents tested during 2011 or from the most recent tests, except for Total Trihalomethanes, Haloacetic Acids, Chlorine Residual, Iron, Manganese, Lead and Copper, which are described below.
- (b) Samples were collected in the distribution system. The highest number of positive samples collected any one month for 2011 is presented.
- (c) Samples were collected in the distribution system. The highest running annual average and the range of the individual results for 2011 are presented. Compliance is based on the running annual average.
- (d) Test results are from treated water samples. Wells are treated to remove Iron and Manganese which exceed the secondary standards in raw groundwater.
- (e) EMWD emergency connection ran for 12 hours for preventative maintenance.