

2010 Consumer Confidence Report

Water System Name: **CITY OF SANGER**

Report Date:

June 30, 2011

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 - December 31, 2010.

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

Type of water sources used: The City of Sanger supplies potable water from City Wells.

Name & location of source(s): Well 2A, Well 6, Well 7A, Well 8, Well 9, Well 11, Well 12, Well 14 and Well 25 are all located within the City of Sanger city limits.

Drinking Water Source Assessment information: A source water assessment was conducted for Well 2A, Well 6, Well 7A, Well 8, Well 9, Well 11, Well 12, Well 14 and Well 25.

A copy of the complete assessment may be viewed at:
City of Sanger
1700 7th Street
Sanger, CA 93657

You may request a summary of the assessment be sent to you by contacting:
John Mulligan
Interim Public Works Director
559-876-6300 x 1250

Well 2A—The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

- Photo processing/printing
- Automobile—Body shops
- Automobile—Repair shops
- Machine shops
- Pesticide/fertilizer/petroleum storage & transfer areas
- Hospitals
- Crops, irrigated
- Fertilizer, Pesticide/Herbicide Application
- Housing—high density
- Parks
- Appliance/Electronic Repair
- Medical/dental offices/clinics
- Veterinary offices/clinics
- Apartments and condominiums
- Office buildings/complexes
- Schools

The source is considered most vulnerable to the following activities not associated with any detected contaminants:
Historic gas stations

Discussion of Vulnerability:

The following constituents were detected in the source:

- Tetrachloroethylene
- Nitrate
- Trihalomethanes

These constituents were found after running the trigger report from the Water Quality Inquire and from the DHS system files.

Well 6—The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

- Fertilizer, Pesticide/Herbicide Application

The source is considered most vulnerable to the following activities not associated with any detected contaminants:
Automobile—Gas stations

Discussion of Vulnerability:

The following constituents were detected in the source:

- Dibromochloropropane (DBCP)

These constituents were found after running the trigger report from the Water Quality Inquire and from the DHS system files.

Well 7A—The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

- Pesticide/fertilizer/petroleum storage & transfer areas
- Crops, irrigated
- Fertilizer, Pesticide/Herbicide Application
- Hospitals
- Housing—high density
- Parks
- Apartments and condominiums
- Medical/dental offices/clinics
- Septic systems—low density

The source is considered most vulnerable to the following activities not associated with any detected contaminants:
Wells-Agricultural/Irrigation

Discussion of Vulnerability:

The following constituents were detected in the source:

- Tetrachloroethylene
- Dibromochloropropane (DBCP)
- Gross Alpha
- Nitrate

These constituents were found after running the trigger report from the Water Quality Inquire and from the DHS system files.

Well 8—The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

- Pesticide/fertilizer/petroleum storage & transfer areas
- Veterinary offices/clinics
- Automobile—Repair shops
- Crops, irrigated
- Fertilizer, Pesticide/Herbicide Application
- Housing—high density
- Parks
- Septic systems—high density
- Apartments and condominiums
- Medical/dental offices/clinics
- Septic systems—low density

The source is considered most vulnerable to the following activities not associated with any detected contaminants:
Automobile—Gas stations

Discussion of Vulnerability:

The following constituents were detected in the source:

- Nitrate
- Nitrite
- Gross Alpha
- Dibromochloropropane (DBCP)

These constituents were found after running the trigger report from the Water Quality Inquire and from the DHS system files.

DBCP is a pesticide that was used on vineyards prior to 1979. The City has installed granular activated carbon (GAC) for the removal of DBCP from the water produced by Well 8.

Well 9—The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

- Pesticide/fertilizer/petroleum storage & transfer areas
- Fertilizer, Pesticide/Herbicide Application

The source is considered most vulnerable to the following activities not associated with any detected contaminants:
Septic systems—high density

Discussion of Vulnerability:

The following constituents were detected in the source:

- Dibromochloropropane (DBCP)

These constituents were found after running the trigger report from the Water Quality Inquire and from the DHS system files.

DBCP is a pesticide that was used on vineyards prior to 1979. The City has installed granular activated carbon (GAC) for the removal of DBCP from the water produced by Well 9.

Well 11—The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

- Pesticide/fertilizer/petroleum storage & transfer areas
- Fertilizer, Pesticide/Herbicide Application

The source is considered most vulnerable to the following activities not associated with any detected contaminants:
Septic systems—high density

Discussion of Vulnerability:

The following constituents were detected in the source:

- Dibromochloropropane (DBCP)

These constituents were found after running the trigger report from the Water Quality Inquire and from the DHS system files.

Well 12—The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

- Fertilizer, Pesticide/Herbicide Application

The source is considered most vulnerable to the following activities not associated with any detected contaminants:

- Septic systems—high density
- Wells-Agricultural/Irrigation
- Automobile—Gas stations

Discussion of Vulnerability:

The following constituents were detected in the source:

- Dibromochloropropane (DBCP)

These constituents were found after running the trigger report from the Water Quality Inquire and from the DHS system files.

Well 14—The source is considered most vulnerable to the following activities not associated with any detected contaminants:

- Automobile-Body shops
- Automobile-Repair shops
- Junk/scrap/salvage yards
- Lumber processing and manufacturing
- Machine shops
- Septic systems-low density (<1/acre)
- Wood/pulp/paper processing and mills
- Automobile-Gas stations
- Metal plating/finishing/fabricating

Discussion of Vulnerability:

This well has had Dibromochloropropane (DBCP) detected at levels higher than the MCL. There are no PCAs associated with this well that could account for the high DBCP levels.

Well 25— The source is considered most vulnerable to the following activities not associated with any detected contaminants:

- Storm Drain Discharge Points
- Storm Water Detention Facilities
- Transportation corridors - Road Right-of-ways [herbicide use areas]
- Wells - Water supply

Discussion of Vulnerability:

The following constituents were detected in the source:

- Dibromochloropropane (DBCP)

These constituents were found after running the trigger report from the Water Quality Inquire and from the DHS system files.

Time and place of regularly scheduled City Council meetings for public participation:

First & Third Thursdays of the month at 6 p.m.
1700 7th St., Sanger, CA 93657

For more information, contact:

John Mulligan, Interim Public Works Director

Phone:

(559) 876-6300 x 1250

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.

Primary Drinking Water Standards (PDWS): MCLs 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.

ND: not detectable at testing limit

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

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

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

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

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 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).

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

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

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

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

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.
- *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, and septic systems.
- *Radioactive contaminants*, which 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, USEPA and the state Department of Health Services (Department) prescribe regulations that 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 protection for public health.

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 requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (to be completed only if there was a detection of bacteria)	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 4	1	More than 1 sample in a month with detection.	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

**TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER
(DATE OF MONITORING: SEPTEMBER 2010)**

Lead and Copper (to be completed only if there was a detection of lead or copper in the last sample set)	No. of samples collected	90 th percentile level detected	No. Sites exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead (ppb)	30	< 0.005	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	30	<0.05	0	1.3	0.17	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Last Sampled	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	May 2008	15.0	7.8-35	none	none	Generally found in ground and surface water
Hardness (ppm)	May 2008	108.0	48-230	none	none	Generally found in ground and surface water

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided on the next page.

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

Chemical or Constituent (and reporting units)	Last Sampled	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Gross Alpha Activity	2010	9.3 pCi/l	9.0 - 9.5 pCi/l	15 pCi/l	N/A	Erosion of natural deposits
Nitrate (as nitrate, NO ₃)	2010	11.8 mg/l	2.9 - 33.0 ¹ mg/l	45 mg/l	45 mg/l	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Dibromochloropropane [DBCP]	2010	0.02 ug/l	<0.01-0.04ug/l	0.2 ug/l	0.0017 ug/l	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
TTHMs [Total trihalomethanes]	2010	2.6 ug/l	2.6 ug/l	40 ug/l	N/A	By-product of drinking water chlorination
HAA5 [Haloacetic Acids Five]	2010	< 6 ug/l	< 6 ug/l	30 ug/l	N/A	By-product of drinking water chlorination
Chlorine Residual	2010	0.94 mg/l	0.25 - 2.20 mg/l	4.0 mg/l	N/A	Added to drinking water for disinfection

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

Chemical or Constituent (and reporting units)	Last Sampled	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride	2008	7.9 mg/l	2.1 - 31.0 mg/l	500 mg/l	N/A	Runoff/leaching from natural deposits; seawater influence
Specific Conductivity	2008	275 umhos	130 - 590 umhos	1,600 umhos	N/A	Substances that form ions when in water; seawater influence
Sulfate	2008	22 mg/l	5.5-72.0 mg/l	500 mg/l	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	2008	176 mg/l	89 - 360 mg/l	1,000 mg/l	N/A	Runoff/leaching from natural deposits
Turbidity	2008	.19 units	ND -.46 units	5 units	N/A	Soil runoff

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent	Last Sampled	Level Detected	Notification Level	Health Effects Language
Vanadium	2004	6.7 ug/l	50 ppb	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

Additional General Information On Drinking Water

All 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).

ABOUT NITRATE: Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.

Summary Information for Contaminants Exceeding an MCL or AL, or a Violation of any Treatment or Monitoring and Reporting Requirements

On September 7, 2010, the City of Sanger collected eight of its forty monthly samples for total coliform bacteria. Three of the eight initial samples taken were positive for total coliform. Repeat samples were collected from the same three sites; from upstream and downstream of the three sites; and from the wells that serve water to the three sites.

All of the repeat samples were negative for coliform. This has led us to conclude that a sampling error may have occurred on September 7, 2010. As a precautionary measure, the City has increased the amount of chlorine added to the water distribution system.

On September 15, 2010, the City of Sanger collected eight of its forty monthly samples for total coliform bacteria. One of the eight initial samples taken was positive for total coliform. Repeat samples were collected from the same initial site; from upstream and downstream of the initial site; and from the well that serves water to the initial site.

All of the repeat samples were negative for coliform. This has led us to conclude that a sampling error may have occurred on September 15, 2010. As a precautionary measure, the City has further increased the amount of chlorine added to the water distribution system.

The City of Sanger published the "Important Information about Your Drinking Water" notice in the Sanger Herald on October 7, 2010.

A CONSUMER CONFIDENCE REPORT SHALL BE PREPARED ANNUALLY AND MAILED OR DELIVERED TO EACH CUSTOMER ON OR BEFORE JULY 1ST OF EACH YEAR.

For Systems Providing Ground Water as a Source of Drinking Water

(Refer to page 1, "Type of water source in use" to see if your source of water is surface water or groundwater)

TABLE 7 - SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	(In the year) 0		0	(0)	Human and animal fecal waste
Enterococci	(In the year) 0		TT	n/a	Human and animal fecal waste
Coliphage	(In the year) 0		TT	n/a	Human and animal fecal waste

Summary Information for Fecal Indicator-Positive Ground Water Source Samples, Uncorrected Significant Deficiencies, or Violation of a Ground Water Treatment