

2011 Consumer Confidence Report

Water System Name: City of Westmorland Water Plant Report Date: 6/22/12

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, 2011.

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

Type of water source(s) in use: Surface Water - Canal

Name & location of source(s): Trifolium South 5 Canal - South of City

Drinking Water Source Assessment information: Trifolium South 5 Canal - South of City

This source is considered most vulnerable to these activities, for which no associated contaminant has been detected: concentrated animal feeding operations, agricultural activities; pesticide and farm chemicals distribution, mining, geothermal wells, landfills/dumps, and illegal dumping.

Time and place of regularly scheduled board meetings for public participation: First and third Wednesday of each month at 6:00p.m. at Westmorland City Hall.

For more information, contact: Ramiro Barajas, Public Works Supervisor Phone: (760) 344-9274

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 (USEPA).

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.

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)

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 by-products 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 USEPA and the state Department of Public Health (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 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 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.

Lead and Copper Sampled Aug. 2011	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Violation	Typical Source of Contaminant
Lead (ppb)	10	<0.002 mg/l	0	15	0.2	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	10	0.062 mg/l	0	1.3	0.3	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2011	130	N/A	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2011	350	N/A	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

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

TABLE 3 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting)	Sample Date	Level Detected	Range of Detections	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG)	Violation	Typical Source of Contaminant
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units)	Raw Water			Treated Water				[MRDLG]		
Aluminum (ppb)(raw water)	10 monthly samples in 2011	725	89-1700	3 monthly samples in 2011	<0.055	<0.05-0.08	1000	600		Erosion of natural deposits: residue from some surface water treatment processes
Barium (ppm)	2011	0.13	N/A	-	-	-	1	2	No	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposit
Flouride (ppm)	2011	0.44	N/A	-	-	-	2	1	-	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
	Raw Water			Treated Water					
Aluminum (ppb)(raw water)	10 monthly samples in 2011	725*	89-1700	3 monthly samples in 2011	<0.055	<0.055-0.08	200	600	Erosion of natural deposits: residue from some surface water treatment processes
Iron (ppb)(raw water)	10 monthly samples in 2011	585*	ND-1100	3 monthly samples in 2011	<0.05	<0.05	300	None	leaching from natural deposits; industrial wastes.
Color (unfiltered)	2011	35.0*	NA	-	-	-	15	NA	Naturally-occurring organic materials
Turbidity (ntu)		190*	2-190	-	-	-	5	NA	Soil runoff
Zinc (ppm)	2011	0.07	-	-	-	-	5	NA	Runoff/leaching from natural deposits; industrial wastes
Chloride (ppm)	2011	110	NA	-	-	-	500	NA	Naturally-occurring organic materials
Specific Conductance (umhos/cm)	2011	1200	NA	-	-	-	1600	NA	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2011	280	NA	-	-	-	500	NA	Runoff/leaching from natural deposits; industrial wastes
Total Filterable Residue (TDS)(ppm)	2011	760	NA	-	-	-	1000	NA	Runoff/leaching from natural deposits
Manganese (ppb)	2011	29	NA	-	-	-	50	NA	Leaching from natural deposits

TABLE 5 – DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Violation	Typical Source of Contaminant
TTHM (ppb)	2011	89.5*	61.6-95.2	80	N/A	Yes	Byproduct of drinking water disinfection Sampled Quarterly
HAA5 (ppb)	2011	22.6	18.3-40.1	60	N/A	No	Byproduct of drinking water disinfection Sampled Quarterly

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Boron (ppm)	2011	0.15	NA	1 ppm	
Potassium (ppm)	2011	4.9	NA		

TABLE 7 – DETECTION OF GENERAL CHEMICALS

Alkalinity (ppm)	2011	160	NA		
Bicarbonate (ppm)	2011	200	NA		
Calcium (ppm)	2011	89	NA		
Magnesium (ppm)	2011	31	NA		
Hardness (ppm)	2011	350	NA		

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

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).

Lead: 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 services lines and home plumbing. Westmorland Water Plant 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>.

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

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT					
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language	Aesthetic Effects
Aluminum secondary standard	Canals contained high levels of sediment. <i>(If applicable, our plant also adds an aluminum-based coagulant as part of the treatment process.)</i> Most aluminum should have been filtered out during treatment	8 out of 10 samples in 2011	<i>(If applicable) System began monthly or quarterly sampling of treated water to show that it is being removed below the secondary standard</i>	None	Aluminum levels over the secondary standard may cause colored water
Iron secondary standard	Canals contained high levels of sediment. <i>(If applicable, our plant also adds an iron based coagulant as part of the treatment process.)</i> Most iron particles should have been filtered out	6 out of 10 samples in 2011	<i>(If applicable) System began monthly or quarterly sampling of treated water to show that it is being removed below the secondary standard</i>	None	Iron levels over the secondary standard may cause rusty color; sediment; metallic taste; reddish or orange staining
TTHM Primary Standard	The annual running average for three consecutive quarters exceeded the drinking water standard of 80 ppb. Trihalomethanes (TTHM) is a disinfection byproduct, which occurs when chlorine is used for disinfection and it reacts with naturally-occurring matter present in the water.	2011 2 nd , 3 rd , and 4 th quarter	We are working with California Department of Public Health Office to evaluate the water supply and researching options to correct the problem. These options may include treating the water to reduce TTHM's or connecting to another water supply. We anticipate resolving the problem as soon as is feasibly possible to meet all required Public Health regulations.	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.	
Color Secondary Standard	Canals contained naturally occurring organic materials and sediments causing high color in the water.	1 sample in 2011	Our plant removes sediments and turbidity which meets Public Health regulations,		
Turbidity Secondary Standard	Canals contained high levels of sediment.	Daily sampling in 2011	Our sedimentation basins and filters remove the turbidity.		

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique ^(a) (Type of approved filtration technology used)	Conventional Filtration
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.30 NTU in 95% of measurements in a month. 2 – Not exceed 0.5 NTU for more than eight consecutive hours. 3 – Not exceed 1 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.20 ntu
Number of violations of any surface water treatment requirements	NONE

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

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided below.