

2012 Consumer Confidence Report

Water System Name: City of Westmorland Water Plant Report Date: 6/22/13

*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, 2012 and may include earlier monitoring data.. Last year, we conducted tests for over 80 contaminants. We detected a few of these contaminants at a level higher than the State allows. As we told you at the time, our water exceeded drinking water standards. For more information, see the paragraph marked **Violation** on the bottom. This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards. We are committed to providing you with information because informed customers are our best allies.*

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 Phone: (760) 344-9274
Supervisor

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

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.

Variations 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 (ug/L)

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

ppq: parts per quadrillion or picogram per liter (pg/L)

of disinfectants to control microbial contaminants.

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 California 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, 6, 7 and 8 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	90th percentile level detected	No. sites exceeding AL	AL	PHG	Violation	Typical Source of Contaminant
Lead (ppb)	10	< 5 ppb	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)	2012	120	N/A	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2012	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 units)	Sample Date	Level Detected	Range of Detections	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Violation	Typical Source of Contaminant
	Raw Water			Treated Water						
Aluminum (ppm) (potable water)	NA	NA	NA	11 monthly samples in 2012	0.034	ND-.068	1	0.6	No	Erosion of natural deposits: residue from some surface water treatment processes
Arsenic (ppb)	1 sample in 2012	2.4	NA	NA	NA	NA	10	0.004	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Barium (ppm)	1 sample in 2012	0.11	N/A	NA	NA	NA	1	2	No	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposit
Flouride (ppm)	1 sample in 2012	0.33	N/A	NA	NA	NA	2	1	NA	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)	Quarterly samples in 2012	955*	650-1500*	11 monthly samples in 2012	33.8	ND-67.6	200	600	Erosion of natural deposits: residue from some surface water treatment processes
Iron (ppb)	Quarterly samples in 2012	837.5*	470-1500*	11 monthly samples in 2012	28.6	ND-66.5	300	None	leaching from natural deposits; industrial wastes.
Color (unfiltered)	2012	20.0*	NA	NA	NA	NA	15	NA	Naturally-occurring organic materials
Turbidity (ntu)	2012	299*	2-299*	NA	NA	NA	5	NA	Soil runoff
Chloride (ppm)	2012	110	NA	NA	NA	NA	500	NA	Naturally-occurring organic materials
Specific Conductance (umhos/cm)	2012	1200	NA	NA	NA	NA	1600	NA	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2012	280	NA	NA	NA	NA	500	NA	Runoff/leaching from natural deposits; industrial wastes

Total Filterable Residue (TDS)(ppm)	2012	750	NA	NA	NA	NA	1000	NA	Runoff/leaching from natural deposits
Manganese (ppb)	2012	22	NA	NA	NA	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)	2012	83.9*	61.1-92.7*	80	N/A	Yes	Byproduct of drinking water disinfection Sampled Quarterly
HAA5 (ppb)	2012	30.9	14.7-31	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)	2012	0.14	NA	1 ppm	

TABLE 7 – DETECTION OF GENERAL CHEMICALS

Alkalinity (ppm)	2012	160	NA	NA	NA
Bicarbonate (ppm)	2012	190	NA	NA	NA
Calcium (ppm)	2012	89	NA	NA	NA
Magnesium (ppm)	2012	31	NA	NA	NA
Hardness (ppm)	2012	350	NA	NA	NA
Potassium (ppm)	2012	5.3	NA	NA	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	Quarterly samples in 2012	<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	Quarterly samples in 2012	<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 two 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.	2012 2 nd , 3 rd 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 2012	Our plant removes sediments and turbidity which meets Public Health regulations,		
Turbidity Secondary Standard	Canals contained high levels of sediment.	Daily sampling in 2012	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.	89.2%
Highest single turbidity measurement during the year	0.97 ntu
Number of violations of any surface water treatment requirements	1

(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.

Summary Information for Violation of a Surface Water TT

VIOLATION OF A SURFACE WATER TT

TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Turbidity Primary Standard	Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what you should do, what happened, and what we did to correct this situation. We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. – “Water samples for July 2012 showed that 10.8 percent of turbidity measurements were over 0.30 turbidity units. The standard is that no more than 5 percent of samples may exceed 0.30 turbidity units per month. The turbidity levels are relatively low. However, their persistence is a concern. Normal turbidity levels at our plant are 0.12 turbidity units.”	July 13, 2012-July 15, 2012	A problem occurred with the treatment system at the water plant. On July 13 th 2012 heavy rainfall negatively impacted the treatment plant causing effluent turbidity levels to exceed the standard of 0.30 turbidity units. Corrective actions were taken to bring the plant back into compliance by July 15 th .	Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

VIOLATION OF A SURFACE WATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Failure to remove required amount of total organic carbon (TOC) [disinfection byproduct precursor (DBPP)] (only conventional filtration systems).	We routinely monitor for the presence of drinking water contaminants. Water sample results taken on 9 monthly samples showed that the TOC reduction levels were not achieved.	9 monthly samples in 2012	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 TOC'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.	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer.