

2013 Consumer Confidence Report

Drinking Water Source Assessment information:	DWSA completed: Well 4: 8/01; Well 5: 4/03 and Well 6: 2/09
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Water System Name: **Meadowbrook Water Co of Merced, Inc.** Report Date: **January 6, 2014**

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, 2013 and may include earlier monitoring data.

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

Daimntawv tshaj tawm no muaj lus tseemceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub txog nws.

Type of water source(s) in use:	Groundwater
Name & general location of source(s):	Wells 4, 5 and 6

The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

- Automobile - Gas stations
- Historic gas stations
- Injection wells/dry wells/ sumps
- Known contaminant plumes
- Septic systems - high density [>1 /acre]
- Underground Injection of Commercial/Industrial Discharges

Discussion of Vulnerability

Well No. 4 is the deepest well. It is properly constructed and situated away from sanitary hazards. The well will eventually serve vacant land surrounding the site. There are industrial and sewage hazards in the protection zones, but the monitoring to date indicates it has not adversely impacted the quality of water produced. However, the well is not operated continuously due to its high production capacity and lack of a storage tank.

There is the BAC Pritchard hazardous waste clean-up site located in Zone A (2 year time of travel), but it has not been found to impact Well No. 4 or any other Meadowbrook wells. The wastes of concern at the BAC Pritchard site are chromium, arsenic, copper and silver. The cleanup operations include on-site ground water extraction/treatment facilities and a network of off-site monitoring wells.

A field survey of surrounding land uses found a variety of petroleum-related activities, but a review of the organic chemical monitoring indicates the water system has not had any detectable concentrations from any of its well sources.

Time and place of regularly scheduled board meetings for public participation:	As announced		
For more information, contact:	Connie Farris or Kelly Barrows	Phone:	(209)722-1069

TERMS USED IN THIS REPORT

<p>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.</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>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.</p>	<p>Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.</p> <p>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.</p> <p>Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.</p> <p>Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.</p> <p>Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.</p> <p>ND: not detectable at testing limit</p> <p>ppm: parts per million or milligrams per liter (mg/L)</p> <p>ppb: parts per billion or micro grams per liter (μg/L)</p> <p>ppt: parts per trillion or nanograms per liter (ng/L)</p> <p>ppq: parts per quadrillion or picogram per liter (pg/L)</p> <p>pCi/L: picocuries per liter (a measure of radiation)</p>
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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 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*, 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 the result of oil/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, 7, and 8 list all 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.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	None	None	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) None	None	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

Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) 10/18/2010	21	Non-detect (ND)	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 10/18/2010	21	0.36	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) Average	Various	32	30 - 34	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm) Average	Various	250	179 - 301	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
PH Std. Units	2011	7.4	n/a	n/a	n/a	

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

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic ppb - Well 5 Wells 4 and 6	2011	3.4 <2.0, <2.0	<2.0 - 3.4	10	.004	Erosion of natural deposits; runoff from orchards; glass & electronics production wastes.
Barium ppm – Well 4 Wells 5 and 6	2011 2011	.24 .11, .36	.11 - .36	1	2	Discharges of oil drilling wastes & from metal refineries; erosion of natural deposits.
Calcium ppm – Well 4 Wells 5 and 6	2011 2011	42.4 37.7, 71.0	37.7 - 71.0	n/a	n/a	
Chlorine Residuals ppm Average	2011	.20	.08 - .30	4	4	Drinking water disinfectant added for treatment
Gross Alpha Particle pCi/L Well 5 -- Well 6	2008/ 2012	3.8 9.38	3.8 – 9.38	15	(0)	Erosion of natural deposits
Magnesium ppm – Well 4 Wells 5 and 6	2011 2011	15.0 3.7, 29.0	3.7 - 29.0	n/a	n/a	
Nitrate ppm – Well 4 Wells 5 and 6	2013 2013	13.8 9.8, 20	9.8-20	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Potassium mg/L –Well 4 Wells 5 and 6	2011 2011	5.5 6.4, 6.0	5.5 - 6.4	n/a	n/a	
Total Alkalinity ppm – Well 4 Wells 5 and 6	2011 2011	231 117, 316	117 - 316	n/a	n/a	
Turbidity -- Well 5 Well 6	2008 2011	.05 .37	.05 - .37	5	n/a	Soil runoff

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Aluminum ppm – Well 4 Wells 5 and 6	2008 2008	.097 <.05, <.05	<.05 - .097	1	.6	Erosion of natural deposits; residue from some surface water treatment processes
Bicarbonate ppm – Well 4 Wells 5 and 6	2011 2011	282 142, 386	142 - 386	n/a	n/a	
Chloride ppm – Well 4 Wells 5 and 6	2011 2011	6.0 14.0, 27.4	6.0 - 27.4	500	n/a	Runoff/ leaching from natural deposits; seawater influence
Copper ppm – Well 4 Wells 5 and 6	2008 2008	.18 <.05, <.05	<.05 - .18	1.3	.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Foaming Agents (MBAS) ppb Wells 5 and 6	2008	20	20 - 20	500	n/a	Municipal and industrial waste discharges
Iron ppb – Well 4 Wells 5 and 6	2008 2008	120 <100, <100	<100 - 120	300	100	Leaching from natural deposits; industrial wastes
Specific Conductance μ S/cm – Wells 4, 5 and 6	2011 2011	438 307, 714	304 - 714	1600	n/a	Substances that form ions when in water; seawater influence
Sulfate ppm –Well 4 Wells 5 and 6	2011 2011	8.2 7.8, 16.0	7.8 - 16.0	500	n/a	Runoff/ leaching from natural deposits; industrial wastes

Total Filterable Residue (TDS) mg/L – Wells 4, 5 and 6	2011 2011	313 203, 432	203 - 432	1000	n/a	Runoff/ leaching from natural deposits
Zinc ppm – Well 4 Wells 5 and 6	2008 2008	.064 <.05, <.05	<.05 - .064	5	n/a	Runoff/leaching from natural deposits; industrial wastes

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Hexavalent Chromium ppb ¹	2013	3.32 (Avg.)	none	n/a	n/a

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

¹ Hexavalent Chromium is not a currently regulated contaminant therefore there are no Range of Detections, Notification Levels or Health Effects Language.

Additional General Information on Drinking Water

Drinking water, including bottled water, may be reasonably 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-Specific Language for Community Water Systems: 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. Meadowbrook Water Company 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>.

For Water Systems Providing Ground Water as a Source of Drinking Water

**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>	NONE		0	(0)	Human and animal fecal waste
Enterococci	NONE		TT	n/a	Human and animal fecal waste
Coliphage	NONE		TT	n/a	Human and animal fecal waste