

# **Pillar Ridge Manufactured Home Community**

## *Millennium Housing*



## **2011 Consumer Confidence Report (CCR)**

LSCE File No: 12-5-016

June 2012

Prepared By:



# 2011 Consumer Confidence Report

Water System Name: Pillar Ridge Manufactured Home Community Report Date: June 13, 2012

*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: Groundwater from two wells located on Pillar Ridge premises. Groundwater and surface water purchased from Montara Water and Sanitary District (MWSD) water system.

Name & location of source(s): Corona Well (102 Corona Street) (offline- 2011); Retiro Well (111 Retiro Street); Culebra Well (106 Culebra Lane); MWSD meter (104 Culebra Lane)

Drinking Water Source Assessment information:

A Drinking Water Source Assessment was conducted of the drinking water sources used by the Pillar Ridge Manufactured Home Community (PRMHC) water system: Corona Well, Retiro Well, and Culebra Well. The three on-site wells are considered most vulnerable to a nearby subsurface contaminant plume, which may be associated with the volatile organic compounds detected in the water supply. Air stripping treatment is provided to remove these compounds from the water down to levels below the maximum limit prior to delivery to the customers. The wells are also considered most vulnerable to the following activities, which are not associated with any detected contaminants: automobile-repair shops, furniture repair, and manufacturing and sewer collection systems. A copy of the complete assessment may be viewed by contacting the water system (164 Culebra Lane, Moss Beach, CA 94038), or by contacting the California Department of Health Services, Santa Clara District Office 850 Marina Bay Parkway, Building P, 2<sup>nd</sup> Floor, Richmond, CA 94804. You may request a summary of the assessment be sent to you by contacting the Santa Clara District Office at (510) 620-3474. PRMHC also utilized water from the Montara Water and Sanitary District sources during routine and preventive maintenance this past year. A Drinking Water Source Assessment was conducted for the MWSD sources in January 2003 and is on file with the California Department of Public Health, or you may call MWSD at (650) 728-3545 for more information.

Time and place of regularly scheduled board meetings for public participation:

Currently, there are no regularly scheduled public meetings. However, residents of Pillar Ridge are encouraged to contact Mr. John Davis, of Haven Management Services, with water system related questions or concerns. Should a public meeting be deemed necessary on a given subject(s), it will be held at the Community Office (164 Culebra Lane), and residents will be notified of the meeting time by first-class mail and/or door-to-door contact at least 10 business days in advance.

For more information, contact: John Davis Phone: (909) 930-9750

## 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

**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.

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.

**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)

**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, 6, and 7 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.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
PILLAR RIDGE – Treated Drinking Water					
Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0 (In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment

Fecal Coliform or <i>E. coli</i>	0 (In the year)	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
<b>MONTARA WATER AND SANITARY DISTRICT (2011 CCR) **</b>					
Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0 (In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	0 (In the year)	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**

<b>PILLAR RIDGE – Treated Drinking Water (Distribution System)</b>						
Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) August 2009	11	<1.0	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) August 2009	11	0.110	0	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>MONTARA WATER AND SANITARY DISTRICT (2011 CCR) **</b>						
Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	26 2005 Tap Sampling	6	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)*	26 2005 Tap Sampling	1.3	3	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**

<b>PILLAR RIDGE – Raw Water</b>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	10/22/09	70.3	61 – 87	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	10/22/09	183.3	150 – 240	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
<b>MONTARA WATER AND SANITARY DISTRICT (2011 CCR) **</b>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG	Typical Source of Contaminant

					(MCLG)	
Sodium (ppm)	2/2/11	41		none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2/2/11	100		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 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD**

<b>PILLAR RIDGE – Raw Water</b>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ppb)	10/22/09	2.9	2.3 – 3.3	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	1/20 (quarterly)	.95	0.69 – 1.20	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Cis - 1, 2 - Dichloroethylene (DCE)	1/20 (quarterly)	0.52	ND – 0.52	6	100	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination
<b>PILLAR RIDGE – Treated Drinking Water</b>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Total Trihalomethanes (TTHMS) (ppb)	10/20 (quarterly)	53	38 – 59	80	none	Byproduct of Drinking Water Chlorination
Haloacetic Acids (HAA5) (ppb)	7/21 (quarterly)	9.95	8.3 – 10.4	60	none	Byproduct of Drinking Water Chlorination
Chlorine (ppm)	1/20 (monthly)	0.42	ND – 0.42	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	Drinking water disinfectant added for treatment
<b>MONTARA WATER AND SANITARY DISTRICT (2011 CCR) **</b>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ppb)	02/02, 05/18, 08/17, 11/29	5.65	4.7 – 6.6	10	.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	11/29	0.062	0.057 – 0.066	10	.004	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	02/02, 08/17, 11/29, 12/13	0.58	0.27 – 0.77	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)*	As needed	11.32	1.3 – 51	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate (ppb)	12/13	2.3		6	6	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental

						contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
Selenium (ppb)	11/29, 12/13	10.85	7.7 – 14	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
1,2- Dichloropropane (ppb)	08/17	0.63		5	0.5	Discharge from industrial chemical factories; primary component of some fumigants
Total Trihalomethanes (TTHMS) (ppb)	Annually	23.3	0.82 – 50	80	None	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	Annually	5.96	4.5 – 8.4	60	None	Byproduct of drinking water disinfection
Control of DBP precursors [TOC] (ppm)	Annually	0.68	0.44 – 0.89	TT	None	Various natural and man-made sources

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

<b>PILLAR RIDGE – Raw Water</b>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Iron (ppb) *	9/15 (monthly)	4,125	3100 – 4800	300	none	Leaching from natural deposits; industrial wastes
Manganese (ppb) *	8/18 (monthly)	290	210 – 330	50	none	Leaching from natural deposits
<b>PILLAR RIDGE – Treated Drinking Water</b>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Iron (ppb)	1/20 (monthly)	33.3	ND – 160	300	none	Leaching from natural deposits; industrial wastes
<b>MONTARA WATER AND SANITARY DISTRICT (2011 CCR) **</b>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Manganese (ppb) *	Varies	1565	ND – 8400	50	None	Leaching from natural deposits
Total Dissolved Solids [TDS] (ppm)	02/02	240		1000	None	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	02/02, 10/21, 11/29, 12/13	518	380 – 670	1600	None	Substances that form ions when in water; seawater influence
Chloride (ppm)	02/02	66		500	None	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	02/02	13		500	None	Runoff/leaching from natural deposits; industrial wastes

**TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS**

<b>PILLAR RIDGE – Raw Water</b>					
<b>Chemical or Constituent</b> (and reporting units)	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>Notification Level</b>	<b>Health Effects Language</b>
Boron (ppb)	4/21, 10/20	190	150 – 230	1 ppm	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
<b>MONTARA WATER AND SANITARY DISTRICT (2011 CCR) **</b>					
<b>Chemical or Constituent</b> (and reporting units)	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>Notification Level</b>	<b>Health Effects Language</b>
Trichloropropane [1,2,3-TCP] (ppt)***	02/02, 05/18, 08/30	8.76	ND – 19	5	Some people who use water containing 1,2,3-trichloropropane in excess of the notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals.

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

\*\* For more information on the MWSD 2011 CCR, or to request a copy, please contact MWSD at (650)-728-3545.

\*\*\* State or Federal unregulated contaminants are unregulated and have no MCL. Therefore, inclusion of the notification level and health effects language for levels above the notification level is only recommended and not required by CDPH.

### For Systems Providing Surface Water as a Source of Drinking Water

**TABLE 7 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES**

<b>MONTARA WATER AND SANITARY DISTRICT (2011 CCR) **</b>	
Treatment Technique <sup>(a)</sup> (Type of approved filtration technology used)	Dual-media pressure filters, coagulation and contact clarifiers
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 0.3 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	0.28
Number of violations of any surface water treatment requirements	0

(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.

### 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).

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. Pillar Ridge water system 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**

### **Pillar Ridge Treated Water Quality**

There were no violations of an MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement for Pillar Ridge treated water. Though no violations of treated water occurred, some contaminants with a primary drinking water standard were detected in the raw water supply (arsenic, fluoride, cis-1-2- dichloroethylene) as shown in Table 4. We employ air stripping treatment to remove volatile organic compounds such as cis-1-2- dichloroethylene. We monitor the treatment system daily and we test our treated water quality from the treatment plant on a monthly basis to ensure the customers receive clean water that meets drinking water quality standards. As shown in Table 4, the "Treated Drinking Water" that is served to our customers is Non-Detect for the volatile organic chemicals and meets all primary drinking water standards. The non-volatile organics (arsenic and fluoride) that were detected in the raw water were detected at levels below the Maximum Contaminant Level (MCL). If any samples were to ever be reported above the Maximum Contaminant Level (MCL), then the residents of PRMHC and the California Department of Public Health would be notified immediately.

Part of the treatment process at the Pillar Ridge Treatment Facility includes chlorine treatment for disinfection and oxidation. Systems that use chlorine treatment commonly have small levels of byproduct contaminants in the treated drinking water. The only other contaminants with a primary drinking water standard detected in the treated drinking water were those that result as a byproduct of chlorine treatment (total trihalomethanes, haloacetic Acids, chlorine residual), as shown in Table 4 under "Treated Drinking Water". These contaminants were detected at levels below their respective MCLs. The water that is served to the residents of PRMHC meets all of the primary drinking water standards. This includes the water that is supplied from the Montara Water and Sanitary District (see discussion below).

Although secondary drinking water parameters (iron and manganese) were detected in the Pillar Ridge raw water supply, as shown in Table 5, we provide chemical oxidation and filtration treatment to remove these contaminants. We monitor the quality of treated water at the effluent of the treatment plant and at various locations in the distribution system to ensure water supplied to our residents meets drinking water standards. In 2011, iron was detected in the treated water at the treatment facility at levels below its secondary MCL. Manganese was not detectable (ND) in the treated drinking water. There were no detections of iron or manganese from water samples collected in the distribution system.

### **Water Supplied from MWSD**

During this past year, Pillar Ridge water system utilized the metered connection to the Montara Water and Sanitary District (MWSD) in order to supply the distribution system with water during routine maintenance of the facilities. The following information is provided in the MWSD 2011 CCR regarding its drinking water quality:

**Copper** was found at levels that exceeded the Regulatory Action Level (AL) of 1.3 ppm in the 2005 residential tap sampling. No exceedance was found in the distribution system. The typical source for copper contamination is internal corrosion of household plumbing systems, erosion of natural deposits or leaching from wood preservatives.

**Nitrate** was detected at one District well at levels above the MCL of 45 ppm. This well is currently kept offline. Nitrate in drinking water at levels above the MCL is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

**Manganese** was found at levels that exceeded the secondary MCL of 50 ppb. Secondary MCLs were set to protect you against unpleasant aesthetic effects such as color, taste, odor, and the staining of plumbing fixtures and clothing while washing. Exceeding the secondary MCLs poses no health risks. The high manganese levels are most likely due to leaching of natural deposits soil where groundwater is in contact with naturally-occurring deposits. There was no detection of manganese in the Pillar Ridge distribution system.

**Arsenic** was detected at one District well at levels *below* the MCL but above 5 ppm. While this drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.