

# Pillar Ridge Manufactured Home Community

## *Millennium Housing*



## 2009 Consumer Confidence Report (CCR)

LSCE File No: 10-5-020

June 2010

Prepared By:



# MEMORANDUM

June 24, 2010  
File No. 10-5-020

**TO:** Paul Bowman, Community Manager  
Residents of Pillar Ridge  
164 Culebra Lane  
Moss Beach, CA 94038

**SUBJECT: PILLAR RIDGE MANUFACTURED HOME COMMUNITY  
2009 CONSUMER CONFIDENCE REPORT (CCR)**

Dear Mr. Bowman, and Residents of Pillar Ridge:

We are pleased to present this Consumer Confidence Report (CCR) for water supplied to Pillar Ridge Manufactured Home Community (PRMHC) for the period of January 1 to December 31, 2009. This report is designed to inform the Community about its water system, and about the quality of water delivered to its residents. If you have any questions about Pillar Ridge's water system, or this report, please contact Mr. John Davis at (909) 930-9750.

Sincerely,

Justin Shobe  
Engineer



## 2009 Consumer Confidence Report

Water System Name: Pillar Ridge Manufactured Home Community Report Date: June 28, 2010

*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, 2009.*

**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 three 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); 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 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.

**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, 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 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 COILFORM BACTERIA**

**PILLAR RIDGE – Treated Drinking Water**

Microbiological Contaminants	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

**MONTARA WATER AND SANITARY DISTRICT (2009 CCR)\*\***

Microbiological Contaminants	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 coliforms and either sample also detects fecal coliforms or <i>E. coli</i>	0	Human and animal fecal waste

**TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER**

**PILLAR RIDGE – Treated Drinking Water (Distribution System)**

Lead and Copper (reporting units)	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	11	<1.0	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	11	0.110	0	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**MONTARA WATER AND SANITARY DISTRICT (2009 CCR)**

Lead and Copper (reporting units)	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	33	2.5	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	33	0.3	1	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>						
<b>Chemical or Constituent</b> (reporting units)	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>MCL</b>	<b>PHG (MCLG)</b>	<b>Typical Source of Contaminant</b>
Sodium (ppm)	10/22	70.3	61 – 87	none	none	Generally found in ground & surface water
Hardness (ppm)	10/22	183.3	150 – 240	none	none	Generally found in ground & surface water
<b>MONTARA WATER AND SANITARY DISTRICT (2009 CCR)**</b>						
<b>Chemical or Constituent</b> (reporting units)	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>MCL</b>	<b>PHG (MCLG)</b>	<b>Typical Source of Contaminant</b>
Sodium (ppm)	8/25, 12/1	46.5	21 - 89	none	none	Generally found in ground & surface water
Hardness (ppm)	1/27, 8/25, 12/1	153.14	57 - 230	none	none	Generally found in ground & surface water

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

<b>PILLAR RIDGE – Raw Water</b>						
<b>Chemical or Constituent</b> (reporting units)	<b>Sample Date</b> (frequency)	<b>Level Detected</b>	<b>Range of Detections</b>	<b>MCL [MRDL]</b>	<b>PHG (MCLG) [MRDLG]</b>	<b>Typical Source of Contaminant</b>
Arsenic (ppb)	10/22	2.9	2.3 – 3.3	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	10/22	1.12	0.96 – 1.30	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Cis-1,2 –Dichloroethylene (DCE) (ppb)	09/17 (quarterly)	0.66	ND – 2.9	6	100	Discharge from industrial chemical factories
Trans-1,2- Dichloroethylene (ppb)	09/17 (quarterly)	0.08	ND – 1.0	10	60	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination
Trichloroethylene (TCE) (ppb)	09/17 (quarterly)	0.62	ND – 2.6	5	0.8	Discharge from metal degreasing sites and other factories
Xylenes (ppm)	02/19 (quarterly)	0.07	ND – 0.88	1.75	1.8	Discharge from petroleum and chemical factories; fuel solvent
<b>PILLAR RIDGE – Treated Drinking Water</b>						
<b>Chemical or Constituent</b> (reporting units)	<b>Sample Date</b> (frequency)	<b>Level Detected</b>	<b>Range of Detections</b>	<b>MCL [MRDL]</b>	<b>PHG (MCLG) [MRDLG]</b>	<b>Typical Source of Contaminant</b>
Cis-1,2 –Dichloroethylene (DCE) (ppb)	monthly	ND	ND	6	100	Discharge from industrial chemical factories

Trans-1,2-Dichloroethylene (ppb)	monthly	ND	ND	10	60	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination
Trichloroethylene (TCE) (ppb)	monthly	ND	ND	5	0.8	Discharge from metal degreasing sites and other factories
Xylenes (ppm)	monthly	ND	ND	1.75	1.8	Discharge from petroleum and chemical factories; fuel solvent
Total Trihalomethanes (TTHMS) (ppb)	10/22	45.6	34 – 68	80	none	Byproduct of Drinking Water Chlorination
Haloacetic Acids (HAA5) (ppb)	1/15	10.9	ND - 13.3	60	none	Byproduct of Drinking Water Chlorination
Chlorine (ppm)	8/20	0.46	0.17 – 0.73	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	Drinking water disinfectant added for treatment

**MONTARA WATER AND SANITARY DISTRICT (2009 CCR)\*\***

Chemical or Constituent (reporting units)	Sample Date (frequency)	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Turbidity (NTU)	8/25, 12/21	0.42	ND – 1.7	TT	none	Soil runoff
Fluoride (ppm)	8/25, 12/1	0.63	0.58 – 0.67	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	As Needed	18.11	ND – 41.43	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	8/25, 12/1	4	2.6 – 5.4	50	(50)	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Total Trihalomethanes (TTHMS) (ppb)	Annually	14.8	7.2 – 22	80	none	Byproduct of Drinking Water Chlorination
Haloacetic Acids (HAA5) (ppb)	Annually	3.68	2.4 – 5.6	60	none	Byproduct of Drinking Water Chlorination
Control of DBP precursors (TOC)(ppm)	Monthly	0.71	0.24 – 2	TT	none	Various natural and man-made sources

**TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD****PILLAR RIDGE – Raw Water**

Chemical or Constituent (and reporting units)	Sample Date (frequency)	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Iron (ppb)	5/21 (monthly)	*3750	2600-4600	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	11/19 (monthly)	*277.5	210-310	50	N/A	Leaching from natural deposits
Chloride (ppm)	10/22	90.7	85 – 97	500	N/A	Runoff/leaching from natural deposits; seawater influence

Sulfate (ppm)	10/22	28.1	9.2 - 51	500	N/A	Runoff/leaching from natural deposits; industrial wastes
<b>PILLAR RIDGE – Treated Drinking Water</b>						
Chemical or Constituent (and reporting units)	Sample Date (frequency)	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Iron (ppb)	3/19/09 (monthly)	35.6	ND - 300	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	3/19/09 (monthly)	3	ND - 36	50	N/A	Leaching from natural deposits
<b>MONTARA WATER AND SANITARY DISTRICT (2009 CCR)**</b>						
Chemical or Constituent (and reporting units)	Sample Date (frequency)	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Color	8/25, 12/1	0.42	ND – 2.5	15	N/A	Naturally-occurring organic materials
Iron (ppb)	Varies	7.86	ND – 55	300	N/A	Leaching from natural deposits; industrial wastes
<b>Manganese (ppb)</b>	<b>Varies</b>	<b>*108.27</b>	<b>ND – 422.5</b>	<b>50</b>	<b>N/A</b>	<b>Leaching from natural deposits</b>
Odor	8/25, 12/1	0.08	ND – 0.5	3	N/A	Naturally-occurring organic materials
Turbidity (NTU)	8/25, 12/1	0.42	ND – 1.7	5	N/A	Soil runoff
Total Dissolved Solids (ppm) (TDS)	1/27, 8/25, 12/1	354.17	230 – 550	1000	N/A	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	4/29, 8/25, 12/1	589.17	400 – 880	1600	N/A	Substances that form ions when in water; seawater influence
Chloride (ppm)	8/25, 12/1	75.75	48 – 120	500	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	8/25, 12/1	50	16 – 97	500	N/A	Runoff/leaching from natural deposits; industrial wastes

**TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS**

<b>PILLAR RIDGE</b>						
Chemical or Constituent (and reporting units)	Sample Date (frequency)	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Boron (ppb)	4/16, 10/22	188.0	130 - 250	500	N/A	Runoff/leaching from natural deposits; seawater influence
<b>MONTARA WATER AND SANITARY DISTRICT (2009 CCR)**</b>						
Chemical or Constituent (and reporting units)	Sample Date (frequency)	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
None Detected						

**TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES****MONTARA WATER AND SANITARY DISTRICT (2009 CCR) \*\***

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

\*\* For more information on the MWSD 2009 CCR, or to request a copy, please contact MWSD at (650)-728-3545.

### **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 Contaminants Exceeding an MCL, MRDL, or AL, or a Violation of Any Treatment Technique or Monitoring and Reporting Requirement**

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

Although some contaminants with a primary drinking water standard were detected in the raw water supply for Pillar Ridge (arsenic, fluoride, DCE, trans-1-2- dichloroethylene, TCE, xylenes) as shown in Table 4, we employ air stripping treatment and oxidation with filtration to remove these chemicals. 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 2009, iron and manganese were detected in the treated water at the treatment facility at levels below their respective secondary MCLs. There were no detections of iron or manganese from water samples collected in the distribution system.

#### **Water 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. As shown in Table 4, there were no detections of contaminants in excess of a primary MCL from water provided by the MWSD (MWSD CCR 2009). Manganese was found in the MWSD water system in 2009 at levels that exceeded the secondary MCL of 50 ppb (Table 5). 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. There was no detection of manganese in the Pillar Ridge distribution system.

Copper was found in the MWSD water distribution system at a level that exceeded the Regulatory Action Level (AL) of 1.3 ppm (Table 2). Out of 33 locations sampled in the MWSD distribution system, there was 1 location that exceeded the AL for copper. The typical source for copper contamination is internal corrosion of household plumbing systems, erosion of natural deposits or leaching from wood preservatives. Pillar Ridge distribution system was sampled in 2009 for lead and copper, and there were no detections above the AL for either chemical (Table 2).