2012 Consumer Confidence Report

Water System Name: **Cuesta La Honda Guild, 411012** Report Date: 4/23/13

We test the drinking water quality for many Haloacetic 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: Creeks, Springs, Reservoirs

Name & location of source(s): Upper Woodhams Creek, Lower Woodhams Creek, Mindego Creek, and Bobcat Well(out of Service); San Mateo County, La Honda, California

Drinking Water Source Assessment information: An assessment of the drinking water source(s) for Water System # 4110012, Cuesta La Honda, was completed for Lower Woodhams Creek in October 2011; Upper Woodhams Creek and Mindego Creek in March 2003. Upper Woodhams and Mindego Creeks are considered the most vulnerable to the following activities associated with contaminants detected in the water supply: agricultural practices, storm water runoff; animal husbandry. Mindego Creek is tested for Glysophate and Diquat to establish a monitoring baseline for the weed abatement program practiced by the neighboring open space district. To date no detectible levels of either constituent has been found. Bobcat Reservoir was sampled for Cryptosporidium and Giardia for 12 months in 2010-2011. There were insufficient amounts of Cryptosporidium, or Giardia, to warrant upgrades in water treatment. In addition, Upper Woodhams Creek is tested quarterly. Aluminum and Iron, above the Maximum Contaminant Level (MCL) for Secondary Drinking Water Standards have previously been, and were, detected in Upper Woodhams Creek. Treated water samples tested non-detect for Iron and Aluminum. Our membrane treatment does not filter out all of the aluminum ions from raw water sources. At the time of this report the *treated* water has not exceeded either primary, or secondary, standards for aluminum, or iron.

Source Water assessments are available at RealManage Office upon request; (www.Realmanage.com. Go to resident portal>contact us> service request, or call 866 473-2573)

Time and place of regularly scheduled board meetings for public participation: 3rd Wednesday of each month at the Cuesta La Honda Guild Clubhouse.

For more information, contact: Attn: Vicki Lynch

RealManage
7655 Redwood Blvd., Ste. 100

Novato, CA 94945
Phone: 866 473-2573

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TERMS USED IN THIS REPORT	
Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking	**Primary Drinking Water Standards (PDWS)**: MCLs and MRDLs for contaminants that affect health along with their

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.

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.

Variances 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: Cuesta La Honda has a supply collection system that includes; Upper Woodhams Creek, Lower Woodhams Creek, and Mindego Creek. (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, 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.

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	(In a mo.) 0	0	More than 1 sample in a month with a detection.	0	Naturally present in the environment.
Fecal Coliform or *E. coli*	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli.*	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**	**90th percentile level detected**	**No. sites exceeding AL**	**AL**	**PHG**	**Typical Source of Contaminant**
Lead (ppb): Last Sampled 10/21/2011	10	0.0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm): Last Sampled 10/21/2011	10	0.21	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)	10/30/2012	34	26-39	none	none	Salt present in the water and is generally naturally occurring.
Hardness (ppm)	10/30/2012	391	346-468	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

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Aluminum (ppm)	10/30/2012 All sources	0.08	ND-0.170	1	0.6	Erosion of natural deposits residue from some surface water treatment processes.
Arsenic (ppb)	10/30/2012	0.70	ND-2.1	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Fluoride (ppm)	10/30/2012	0.44	0.38 – 0.53	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.

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
***Odor (TON)**	**10/30/12**	**5.8**	**4.6-7.1**	**3**	**N/A**	**Dissolved gases; minerals; chemicals; leaking underground storage tanks; landfill or septic runoff; organic matter.**
***Aluminum (ppb)**	**Quarterly Upper Woodhams Creek**	**520**	**260-1700**	**200**	**N/A**	**Erosion of natural deposits residue from some surface water treatment processes.**
***Iron (ppb)**	**Quarterly Upper Woodhams Creek**	**710**	**280-1800**	**300**	**N/A**	**Leaching from natural deposits; Industrial wastes.**
Iron (ppb)	10/30/2012 From all Sources	180	ND-230	300	N/A	Leaching from natural deposits; Industrial wastes.
Color (units)	10/30/2012	12	8-17	15	N/A	Naturally-occurring organic materials.
Manganese (ppb)	10/30/2012	11	ND-32	50	N/A	Natural deposits in rock and soil.
Chloride (ppm)	10/30/2012	17	14-19	500	N/A	Runoff/leaching from natural deposits; seawater influence.
Sulfate (ppm)	10/30/2012	139	87-170	500	N/A	Runoff/leaching from natural deposits; industrial wastes.
Magnesium (ppm)	10/30/2012	44	36-54	N/A	N/A	Leaching from natural deposits.
Calcium (ppm)	10/30/2012	84	69-99	N/A	N/A	Leaching from natural deposits.
Specific Conductance (umhos/cm)	10/30/2012	807	740-890	1600	N/A	Substances that form ions when in water; seawater influence.
Total Dissolved Solids (ppm)	10/30/2012	530	440-620	1000	N/A	Runoff/leaching from natural deposits.
Turbidity (NTU)	10/30/2012	0.81	0.30-1.4	5	N/A	Soil Runoff.

TABLE 6 – DETECTION OF REGULATED ORGANIC CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language

**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).

Secondary Drinking Water Standards are not imminent threats to public health. There are no Public Health Goals, (PHGs), Maximum Contaminant Level Goals (MCLGs), or mandatory standard health effects language for these Constituents because secondary MCLs are set on the basis of aesthetics.

Maximum Contaminant Levels for Secondary Drinking Water Standards samples taken from all sources were exceeded from Odor.

Aluminum and Iron were found to be in excess of the Secondary MCL in the raw water in Upper Woodhams Creek in 2012, (see Table 5). Our membrane filtration system cannot provide complete removal of the aluminum ion. Finished water samples are taken to demonstrate adequate removal of Aluminum and Iron. The finished water and distribution system samples were tested for Iron and Aluminum on April 25, 2012.

Neither, Iron or Aluminum, were found in the treated water.

Starting in April 5, 2010, Cuesta La Honda began bi-weekly testing for Cryptosporidium, and Giardia, in Bobcat Reservoir. Bobcat represents a composite of the combine water sources for Cuesta La Honda; Upper Woodhams Creek, Lower Woodhams Creek, and Mindego Creek. There were a total of 24 tests taken for Cryptosporidium and Giardia (EPA-821-R-025). Sampling began in April 2010 and ended March 2011.

On May 4, 2010 one Giardia was counted. On February 8, 2011 one Giardia was counted.

There was no Cryptosporidium found during the year long sampling period. Sampling will repeat every six years.

Diquat and Glysophate are Synthetic Organic Chemicals used for weed abatement. Cuesta La Honda tests for Synthetic Organic Contaminants (SOC), triennially. The next SOC test will be in 2014.The Cuesta La Honda Guild is establishing a baseline for Diquat, and Glysophate. Potential contamination from the weed abatement programs started up by the Mid Peninsula Regional Open Space District has motivated the Guild to adopt additional annual testing.

Diquat and Glysophate were sampled from Mindego Creek on December 27, 2011. There have been no detections of either constituent. No SOC had been detected during routine source water sampling in 2011.

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**
April 24, 2012; Cuesta La Honda was issued Citation # 02-17-12C-015.	**HAA5 MCL Violation.**	**Water system failed to comply with the Haloacetic Acid maximum contaminant level based on the-Running Annual Average throughout 2012.**	**Cuesta La Honda is working in conjunction with the California Department of Public Health to modify treatment techniques in an effort to reduce Haloacetic Acids. A pilot test for HAA5 removal using GAC, with water quality specialist WTQS, is currently under way. Quarterly public notifications are issued to the customers.**	**Some people who drink water containing Haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.**
June 6, 2012; Cuesta La Honda was issued Citation # 02-17-12C-017	**Failure to meet monitoring requirement for Routine Bacteriological sample for the month of May 2012.**	**One month**	**Public Notification by mail and posting in public places. A Corrective Action Plan requires posting a calendar, scheduling all water quality monitoring tests, in the office at the water treatment plant in plain view.**	**Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.**
January 3, 2013; Cuesta La Honda was issued a Citation # 02-17-13C-001	**Failure to meet monitoring requirement for Routine Bacteriological sample for the month of December 2012.**	**One month**	**Public Notification by mail and posting in public places. As part of the Corrective Action Plan the Shift-Operator takes test before the 10th of month and notifies Chief Operator who notifies the department.**	**Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.**

Disinfection Byproducts Monitoring

The Cuesta La Honda Guild *did not* meet regulatory compliance on a Running Annual Average for Haloacetic Acids of 60 parts per billion, (60 ppb) in 2012. The System-wide Trihalomethanes test results were within State and Federal standards of 80 (ppb). In the first and quarters of 2012 Haloacetic Acids exceeded MCL of 60 ppb at all sampling sites. These samples were taken at SMCO Yd, 211 Redwood Drive, and. Tank A (Clearwell). State and Federal regulatory compliance water quality standards *were not* met on a Running Annual Average for Haloacetic Acids in large part to poor Disinfection ByProduct sample results from the 1st quarter of 2012. Cuesta La Honda was issued a citation # 02-17-12C-015 shortly thereafter in April 2012. Cuesta La Honda is working with the California Department of Public Health and a water quality engineer, Issam Najm of WTQS, to actively seek a treatment technology to reduce the amount of Haloacetic Acid precursors in the drinking water.

TTHM MCL	0.080 ppm			
MCL in CCR units	80 ppb			
Location	2012 TTHM Results (ppb)			
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
SMCO YD. (ppb)	69	50	66	49
211 REDWOOD (ppb)	61	46	59	49
TANK A (ppb)	51	47	55	43
System-wide Quarterly Average (ppb)	60	48	60	47
System-wide Running Annual Average (ppb)	51	51	55	54

HAA5 MCL	0.060 ppm			
MCL in CCR units	60 ppb			
Location	2012 HAA5 Results (ppb)			
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
***SMCO YD (ppb)**	**92**	59	55	51
***211 REDWOOD (ppb)**	**99**	57	56	53
***TANK A (ppb)**	**78**	53	51	51
***System-wide Quarterly Average (ppb)**	**90**	56	54	51
*** System-wide Running Annual Average (ppb)**	**62**	**62**	**63**	**63**

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)	PALL ARIA 1 MICRON MEMBRANE FILTER
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 _0.1.____ NTU in 95% of measurements in a month. 2 – Not exceed __0.1___ NTU for more than eight consecutive hours. 3 – Not exceed __1.0__ NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	99.0%
Highest single turbidity measurement during the year	0.10 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.*

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**
***Water Treatment failed to remove adequate Disinfection ByProducts (DBP) precursors and exceeded the HAA5 Maximum Contaminant Level (60 ppb). Citation: # 02-17-12C-015 Issued April 24th 2012.**	**Variations in seasonal water quality, including algal blooms, compromised the performance of the membrane filtration plant. Increasing amounts of disinfection byproduct precursors, both Total Organic Carbon (TOC) and Dissolved Organic Carbon (DOC) can pass through the membrane filtration plant.**	**During the first quarter of 2012; January, February, and March, Cuesta La Honda water exceeded the Maximum Contaminant Level for Haloacetic Acids. During the remainder of 2012 Cuesta La Honda met State and Federal drinking water standards for both Trihalomethanes, and Haloacetic Acids, on a monthly, and a quarterly, sampling schedule.**	**A water quality engineering firm WTQS has been hired to pilot test Granular Activated Carbon (GAC), post filtration, to reduce the amount of TOC and DOC that passes through the membranes. Efforts are being made to reduce the uptake of disinfection byproduct precursors including; Cleaning Lower Reservoir for sludge removal and disposal.**	**Total organic carbon (TOC) has no health effects. However, TOC 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 getting cancer.**

Summary Information for Operating Under a Variance or Exemption

The Cuesta La Honda Guild is using Post Treatment Aeration(PTA) to reduce Disinfection Byproducts. Trihalomethanes were successfully removed using PTA. However there was little impact on the removal of Haloacetic Acids. The Guild is investigating mitigation strategies to remove Haloacetic Acids.