Morro Rock Mutual Water Company
2012 Water Quality Report

Morro Rock Mutual Water Company P.O. Box 757, 201 Cayucos Drive , Cayucos, CA 93430
Ph: (805) 995-3766

PUBLISHED JUNE 2013

To our customers: Morro Rock Mutual Water Company is pleased to present this annual report describing the quality of your drinking water.

Este informe contiene informacíon muy importante sobre su agua dé beber. Tradúzcalo ó hable con alguien que lo* entienda *bien.

What is the source of my drinking water?

Your water comes from Whale Rock Reservoir and a groundwater well located adjacent to Cayucos on the east side of Highway One. Whale Rock Reservoir has a total capacity of 40,660 acre-feet and is managed by the Whale Rock Commission (City of San Luis Obispo, California Men's Colony, and Cal Poly University). No swimming or other body contact sports are allowed on the reservoir in order to minimize viral contamination from human contact. Water from the reservoir is piped downstream to the Cayucos Water Treatment Plant (WTP) where it is filtered with a percentage of the water passing through two granular activated carbon filters. Water is then chlorinated prior to distribution.

Treated water is distributed to the Cayucos Area Water Organization (CAWO) which consists of three water agencies: Morro Rock Mutual Water Company (MRMWC), Paso Robles Beach Water Association (PRBWA) and the County of San Luis Obispo County Service Area 10A (CSA 10A). These three agencies have a combined entitlement of 582 acre-feet per year of Whale Rock Reservoir water plus access to a small amount of groundwater.

The Whale Rock watershed is approximately 20.3 square miles in size and is susceptible to the following contamination: wastewater, animal grazing, recreational activities, unauthorized activities, use of pesticides/ herbicides, geological formations and hazardous materials spills. The watershed is well managed and these potential sources of contamination are minimized.

Sanitary surveys of the watersheds above and below Whale Rock Reservoir were updated in 2010. The source assessments of selected CAWO wells were also updated in 2010. The surveys and assessments were conducted to locate potential sources of contamination and evaluate the ability of the water treatment plant and wells to handle the contamination. The updated studies included a review of water system information, meetings with water system staff, and field reconnaissance. No significant changes were noted in the watersheds. The source assessments continue to conclude that the wells were most vulnerable to the following activities <u>for which no associated contaminant has been detected in the water supply</u>: Sewer collection system, low-density septic systems, agricultural drainage and an agricultural well.

A copy of the complete assessment is available at:
California Department of Public Health, (CDPH)
1180 Eugenia Place, Suite 200,
Carpinteria, California 93013
or
Morro Rock Mutual Water Company
201 Cayucos Drive, Cayucos CA 93430
or
County of San Luis Obispo, Department of Public Works,
County Government Center, Room 207, San Luis Obispo, CA 93408.

You may also request a summary of the source assessment by contacting:
John Beaton, Water Quality Manager
County of San Luis Obispo, at (805) 781-5111

Where is the water tested?

Water analyses are performed by the San Luis Obispo County Water Quality Laboratory or contracted to another certified laboratory. The lab is certified by the CPHD as an environmental testing laboratory for bacteriological and chemical analyses. Federal and State requirements dictate that all regulatory analyses be performed by certified labs following approved procedures. John Beaton, Water Quality Manager, can be reached at (805) 781-5111 or by email JBeaton@co.slo.ca.us
The CAWO each monitor their water wells on a regular basis for regulated and unregulated chemicals and evaluate the findings relative to the California Drinking Water Primary and Secondary Maximum Contaminant Level (MCL) Standards. These monitoring results are then submitted to the California Department of Public Health (CDPH).

Who operates the distribution system?

Robert Ruiz and Tim O'Marr are both certified by the California Department of Public Health (CDPH). Robert is D3 and T1 certified and Tim is D2 certified. Ron Boyte, D2 certified, is our retired employee who is still around to consult as needed . All three are knowledgeable professionals who have many years of experience. Daily and weekly inspections of the well, tanks and distribution system are done to ensure a safe and reliable water supply. In addition, the CDPH routinely inspects the facilities, operating procedures and water quality monitoring records to verify compliance with state and federal regulatory requirements.

Where can the community participate in decisions regarding water quality or other water issues?

The Cayucos Area Water Organization (CAWO) meets the first Monday of every other month at 201 Cayucos Drive (In the classroom at the Cayucos Fire Station) at 1:30 p.m.
The Morro Rock Mutual Water Co. Board of Directors meets the first Tuesday of the month at 9:00 a.m. at 201 Cayucos Drive (In the classroom at the Cayucos Fire Station).
The Annual Shareholders meeting is held on the first Wednesday following the 15th of March at 7:00 p.m. at 201 Cayucos Drive, Cayucos CA 93430.

Sources of Drinking Water

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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which 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*, which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- *Radioactive contaminants* which 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 United States Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.

USEPA Office of Ground Water and Drinking Water
www.epa.gov/safewater/
California Department of Public Health
www.cdph.ca.gov/programs/Pages/DDWEM.aspx
San Luis Obispo County Public Works Department
www.slocountywater.org

All 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 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.

Immune-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. The USEPA and Centers for Disease Control 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.
Additionally, the EPA Office of Ground Water and Drinking Water maintains a website with useful information on drinking water. The address is www.epa.gov/safewater/. Information can also be obtained by accessing the American Water Works Association's website at www.awwa.org, the CDPH website at www.ca.gov, or by calling John Beaton, Water Quality Manager, at (805) 781-5111.

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. The 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 it 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 1-800-426-4791or at http://www.epa.gov/safewater/lead.

HELP CONSERVE WATER

WATER CONSERVATION TIPS FOR CONSUMERS

Water is our most precious resource, please use it wisely. Luckily, there are many low-cost and no-cost ways to conserve.

- Take short showers– a 5 minutes shower uses 4 to5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, or shaving and save up to 500 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You save up to 1,000 gallons a month.
- Check water sprinklers and timer, can save up to 2,000 gallons a month.
- To check your toilets for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Can save up to 1,000 gallons a month.
- TEACH KIDS - Teaching kids about water conservation helps create a future generation that will use water wisely.
- Visit **www.epa.gov/watersense** for more information
- **Free** tours at our treatment plant Facility by appointment only (805) 995-1007

Throughout 2012, hundreds of water samples were collected in order to determine the presence or absence of any biological, radioactive, inorganic or organic contaminants in your drinking water. On the next page are the Tables that list all of the drinking water contaminants that were detected from January 2012 through December 2012, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The State Department of Public Health does not require us to monitor for certain contaminants every year because the concentrations of these are not expected to vary significantly from year to year. Some of this data may be more than one year old, but is still representative of the water quality. In these cases, the most recent sample data are included along with the year in which the sample was collected. Below is a list of Key Terms used in this report.

KEY TERMS

AL (Action Level, Regulatory): The concentration of a contaminant that, if exceeded, triggers treatment or other requirement which a water system must follow.
CDPH: California Department of Public Health
CFU/mL: Colony Forming Units per milliliter
CU: color units
DBP: Disinfection Byproduct
LRAA (Locational Running Annual Average): An arithmetic average is computed quarterly for each site and compliance is based on the running average of quarters,
MCL (Maximum Contaminant Level): 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.
MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health.
MCLGs are set by the United States Environmental Protection Agency.
MRDL (Maximum Residual Disinfectant Level): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
MRDLG (Maximum Residual Disinfectant Level Goal): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.
ND (Not Detected): Contaminant is not detectable at testing limit. **NA:** Not Applicable **NL (Notification):** The concentration of a contaminate that, if exceeded triggers treatment or other requirement which a water system must follow. **NS:** No Standard
NTU: Nephelometric Turbidity Unit
PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
PHG (Public Health Goal): 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.
pCi/L: (picoCuries per liter) a measure of radioactivity.
ppm: parts per million, or milligrams per liter (mg/L)
ppb: parts per billion, or micrograms per liter (µg/L)
RAA (Running Annual Average): Average data for last four quarters.
SDWS (Secondary Drinking Water Standard): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with
SDWSs do not affect health at the MCL levels.
TON: Threshold Odor Number
TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.
µS/cm (microSiemens per centimeter): A measure of electrical conductance.
(1 S = 1 ohm-1)

MORRO ROCK MUTUAL WATER COMPANY 2012 DATA SUMMARY TABLE

Delivered Water is a combination of water from two sources, CAWO Well and Whale Rock Reservoir. In 2012, CAWO Well provided 2.5% and Whale Rock Reservoir (Treated) provided 97.5% of the water delivered. For questions about this data, contact John Beaton, San Luis Obispo County Water Quality Manager, at (805) 781-5111 or email JBeaton@co.slo.ca.us

DETECTION OF PRIMARY DRINKING WATER STANDARDS

TABLE: 1 MICROBIOLOGICAL CONTAMINANTS

CONTAMINANT	UNITS	YEAR SAMPLED	AVERAGE DETECTED	RANGE DETECTED	POTENTIAL SOURCE OF CONTAMINATION
Total Coliform	Present or Absent	2012	Absent	Absent	Naturally present in the environment
E. coli	Present or Absent	2012	Absent	Absent	Human and animal fecal waste
Heterotrophic Plate Count	CFU/mL	2012	2	ND – 11	Naturally present in the environment

TABLE 2: LEAD AND COPPER FROM CONSUMER'S HOMES

CONTAMINANT	UNITS	YEAR SAMPLED	NUMBER OF SAMPLES COLECTED	90th PERCENTILE COLLECTED	NUMBER OF SITES EXCEEDING ACTION LEVEL	ACTION LEVEL	PUBLIC HEALTH GOAL	AVERAGE (RANGE)	POTENTIAL SOURCE OF CONTAMINATION
Copper	ppb	2010	11	190	0	1300	170	ND (ND -230)	Internal corrosion of household plumbing;erosion of natural deposits, leaching from wood preservatives
Lead	ppb	2010	11	ND	0	15	0	ND	Internal corrosion of household plumbing;erosion of natural deposits

TABLE 3: DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS, and DISINFECTION BYPRODUCT PRECURSORS

CONTAMINANT	UNITS	WHERE SAMPLED	YEAR SAMPLED	HIGHEST RUNNING ANNUAL AVERAGE	RANGE DETECTED	MCL [MRDL]	POTENTIAL SOURCE OF CONTAMINATION
Total Trihalomethane	ppb	Distribution	2012	60	43.0-79.1	RAA = 80	Byproduct of drinking water chlorination
Haloacetic Acids	ppb	Distribution	2012	17	11.1-25.0	RAA = 60	Byproduct of drinking water chlorination
Chlorine Residuals	ppm	Distribution	2012	0.85 (Annual Average)	0.32 - 2.18	[4.0 as Cl2]	Drinking water disinfectant added for treatment

TABLE 4: RADIOACTIVE CONTAMINANTS

CONTAMINANT	UNITS	YEAR SAMPLED	Treated Water Average Detected (Range)	CAWO Well Average Detected (Range)	MCL	MCLG	POTENTIAL SOURCE OF CONTAMINATION
Radium 228	pCi/L	2004	0.34 (0.27 – 0.461)	0.29 (ND – 0.554)	Combined Radium = 5	0	Erosion of natural deposits

TABLE 5: INORGANIC CONTAMINANTS

CONTAMINANT	UNITS	YEAR SAMPLED	Average Detected (Range)	Where Sampled	MCL	PHG (MCLG)	POTENTIAL SOURCE OF CONTAMINATION
Aluminum	ppb	2012	0.14	Treated Water	1	0.06	Erosion of natural deposits; residue from surface water treatment processes
Fluoride	ppb	2012	0.619	Treated Water	2	1	Erosion of natural deposits

TABLE 6: DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

CONTAMINANT	UNITS	YEAR SAMPLED	Average Detected (Range)	Where Sampled	MCL	PHG (MCLG)	POTENTIAL SOURCE OF CONTAMINATION
Aluminum	ppb	2012	140	Treated Water	200	600	Erosion of natural deposits; residue from surface water treatment processes
Chloride	ppm	2012	62.8	Treated Water	500		Runoff/leaching from natural deposits;seawater influence
Color	CU	2012	1 ND-3	Delivered	15	1	Naturally occuring organic materials
Odor - Threshold	TON	2012	1.6 (1.0 - 3.0)	Delivered	3		Naturally occuring organic materials
Specific Conductance	µS/cm	2012	663	Treated Water	1600		Substances that form ions when in water;seawater influence
Sulfate	ppm	2012	82.2	Treated Water	500		Runoff/leaching from natural deposits
Total Dissolved Solids	ppm	2012	410	Treated Water	1000		Runoff/leaching from natural deposits
Turbidity	NTU	2012	0.08 (0.05 - 0.21)	Delivered	5		Soil Runoff

TABLE 7: DETECTION OF CONTAMINANTS WITHOUT A DRINKING WATER STANDARD

CONTAMINANT	UNITS	YEAR SAMPLED	Average Detected (Range)	Where Sampled	MCL	PHG (MCLG)	POTENTIAL SOURCE OF CONTAMINATION
Alkalinity as CaCO3	ppm	2012	240	Treated Water	NS		Runoff/leaching from natural deposits;seawater influence
Calcium	ppm	2012	46	Treated Water	NS		Runoff/leaching from natural deposits;seawater influence
Hardness as CaCO3	ppm	2012	290 (0-300)	Treated Water	NS		Generally found in ground and surface water
Magnesium	ppm	2012	42	Treated Water	NS		Runoff/leaching from natural deposits;seawater influence
pH	pH units	2012	8.22	Treated Water	NS		Runoff/leaching from natural deposits;seawater influence
Sodium	ppm	2012	38	Treated Water	NS		Runoff/leaching from natural deposits;seawater influence