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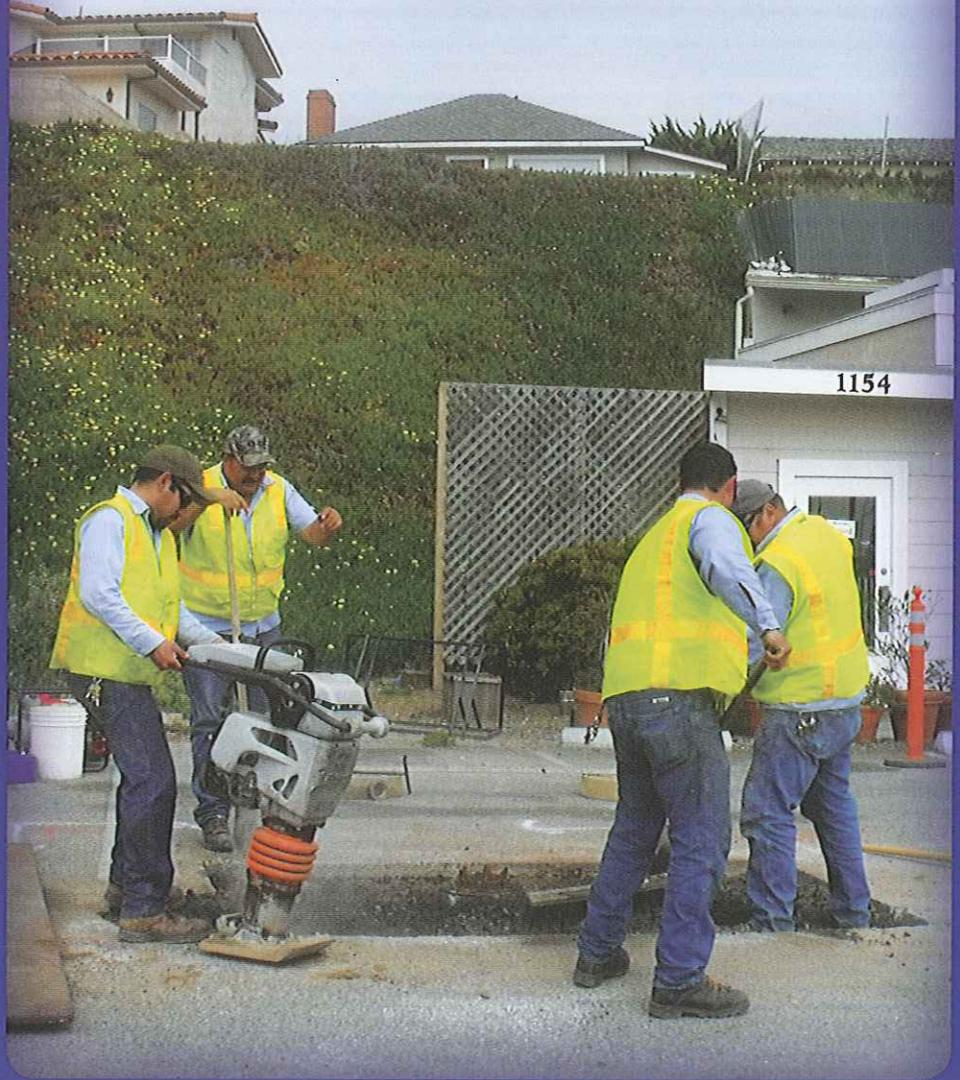
*Este informe contiene información muy importante
sobre su agua potable. Tradúzcalo o hable con
alguien que lo entienda bien.*

City of Morro Bay

ANNUAL CONSUMER CONFIDENCE REPORT

Water Testing Performed in 2011

PWS ID#: CA4010011



Continuing Our Commitment

The City of Morro Bay presents our annual water quality report. This report shows the results from all of our water quality testing completed from January through December 2011.

For more information about this report, or for any questions relating to your drinking water, you may call Dylan Wade, the Utilities/Capital Projects Manager, at the City of Morro Bay Public Services Department: (805) 772-6266.



Where Does My Water Come From?

The City of Morro Bay's primary source of water is surface water from the State Water Project. The State Water Project is administered locally by the Central Coast Water Authority (www.ccwa.com). The water is treated at the Polonio Pass Water Treatment Plant, which is near the junction of Highways 41 and 46. The water is then pumped to Morro Bay. The state water supply is augmented by and blended with water pumped from wells located near Keiser Park (Morro Basin) and Chorro Creek Road (Chorro Basin). Some of the well water has nitrate contaminant levels that require treatment through either blending or filtration. In addition, wells in both the Morro and Chorro basins have had periodic episodes of bacteriological contamination. All well water has a disinfectant added prior to use. The City also has a desalination plant, which is utilized as a standby source. During 2011, state water provided 92% of the City's drinking water and the wells provided the remaining 8%, with much of this well water being treated by the Brackish Water Reverse Osmosis plant.

Drinking water source assessments for the Morro and Chorro wells were completed during the 2001 fiscal year, an assessment was completed in 2009 for additional wells in the Morro basin that are being used as irrigation and feed water for the desalination plant. The results of these assessments are available to the public

by contacting the Public Services Department or by visiting the California Department of Public Health's website at: <http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx>

Overall, the wells had a risk assessment of low to medium. The Morro Basin wells are considered most vulnerable to the following activities not associated with any detected contaminants: gas stations, known contaminant plumes, and agricultural drainage. The Chorro Basin wells are considered most vulnerable to the following activities not associated with any detected contaminants: agricultural drainage, septic systems, wells (agricultural, irrigation), and other animal operations. Both groundwater basins have been impacted by nitrate contamination and periodic episodes of bacteriological contaminants. The City has made significant investments in providing treatment for the Morro groundwater basin.

Substances That Might Be in 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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of 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.

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 U.S. EPA's Safe Drinking Water Hotline at: 1-800-426-4791.

Important Health Information

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. U.S. EPA/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 at: 1-800-426-4791.

Nitrate in Drinking Water

Nitrate in drinking water at levels above 45 ppm 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. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

Lead in Drinking Water

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 City of Morro Bay 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 at: 1-800-426-4791 or <http://www.epa.gov/safewater/lead>.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill.

Information on ways to conserve water can be found at:
<http://www.morro-bay.ca.us/index.aspx?nid=320>

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, agri-cultural 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 applications, and septic systems.

Radioactive Contaminants that can be naturally occurring or be the result of oil and gas production and mining activities.

SAMPLING RESULTS

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. We are happy to report that for 2011 we were not in violation at any time. While the range of contamination in the raw well water may have exceeded the drinking water standards, all of the water delivered to your home had contaminant levels reduced through either blending or treatment. The table below lists all of the drinking water contaminants that were detected during the most recent sampling for the constituent. If a contaminant was tested for and not found in the system or source water, it is not included in this report. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State 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.

PRIMARY DRINKING WATER STANDARD (Regulated In Order To Protect Against Possible Adverse Health Effects)

SUBSTANCE (UNITS)	YEAR SAMPLED	State Water		Well Water ⁴		VIOLATION	TYPICAL SOURCE		
		MCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH			AMOUNT DETECTED	RANGE LOW-HIGH
Aluminum (ppb)	2011	1000	600	70	ND - 130	ND	ND	No	Erosion of natural deposits; residue from water treatment processes
Arsenic (ppb)	2009	10	0.004	ND	ND	2.5 ¹	2 - 3 ¹	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Asbestos (MFL)	2010	7	7	ND	ND	1.167 ¹	.2 - 2 ¹	No	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Barium (ppb)	2010	1000	2000	ND	ND	100 ¹	100 ¹	No	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2010	50	100	ND	ND	20 ¹	20 ¹	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppb)	2010	2000	1000	ND	ND	300 ¹	300 ¹	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as nitrate, NO ₃) (ppm) ²	2011	45	45	1.8	1.8	29.1	ND - 93	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L)	2008	1	0.019	NC	NC	0.725 ¹	0.55 - 0.80 ¹	No	Erosion of natural deposits
Selenium (ppm)	2010	0.05	0.03	ND	ND	0.009 ¹	.006 - .012 ¹	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)

CITY OF MORRO BAY DISTRIBUTION SYSTEM

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Haloacetic Acids (ppb)	2011	60	NA	15.8	5 - 28	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	26.7	18.2 - 33	No	By-product of drinking water disinfection
Chloramines (ppm) (as Cl ₂)	2011	4	4	1.61	.29 - 2.2	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from 20 homes throughout the distribution system

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	PHG (MCLG)	AMOUNT DETECTED (90th%Tile)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2009	1.3	.3	0.18 ¹	0	No	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) ²	2009	15	.2	11 ¹	1	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY DRINKING WATER STANDARD (Regulated In Order To Protect The Odor, Taste And Appearance Of Drinking Water)

SUBSTANCE (UNITS)	YEAR SAMPLED	State Water		Well Water ⁴		VIOLATION	TYPICAL SOURCE		
		SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH			AMOUNT DETECTED	RANGE LOW-HIGH
Chloride (ppm)	2011	500	NA	38	17-78	51.2 ¹	35 - 64 ¹	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2011	15	NA	ND	ND	12 ¹	10 - 20 ¹	No	Naturally occurring organic materials
Iron (ppb)	2011	300	NA	ND	ND	197 ¹	90 - 400 ¹	No	Runoff/leaching from natural deposits; industrial wastes
Manganese (ppb)	2010	50	NA	ND	ND	20 ¹	20 ¹	No	Runoff/leaching from natural deposits
Odor (units)	2011	3	NA	1	1	1 ⁵	1 ⁵	No	Naturally-occurring organic materials
Specific Conductance (umhos/cm)	2011	1600	NA	311	208-467	872.8 ¹	662 - 1080 ¹	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2011	500	NA	38	38	75.6 ¹	55.2 - 93.9 ¹	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS] (ppm)	2011	1000	NA	190	123 - 277	519.2 ¹	393 - 637 ¹	No	Runoff/leaching from natural deposits
Turbidity (NTU) ³	2011	5	0.03	0.05	0.04 - 0.10	5.6 ¹	ND - 11.2 ¹	No ⁶	Soil runoff

UNREGULATED AND OTHER SUBSTANCES (Used To Monitor Certain Contaminant Occurrences)

SUBSTANCE (UNITS)	YEAR SAMPLED	State Water		Well Water ⁴		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Alkalinity (ppm)	2011	50	34 - 70	310 ¹	240 - 430 ¹	Runoff/leaching from natural deposits; seawater influence
Calcium (ppm)	2011	37	22 - 54	57.02 ¹	45.3 - 65.5 ¹	Runoff/leaching from natural deposits; seawater influence
Corrosivity	2010	ND	ND	.12 ¹	-.1 - .4 ¹	Balance of hydrogen, carbon & oxygen in water, affected by temperature & other factors
Hardness (ppm)	2011	68	40 - 96	401.6 ¹	286 - 533 ¹	Runoff/leaching from natural deposits
Magnesium (ppm)	2011	6.7	6.7	0.02 ¹	0.02 ¹	Runoff/leaching from natural deposits; seawater influence
pH (units)	2011	8.3	7.3 - 9.5	7.38 ¹	7.3 - 7.51	Runoff/leaching from natural deposits
Potassium (ppb)	2011	1.8	1.8	.62 ¹	.5 - .7 ¹	Runoff/leaching from natural deposits; seawater influence
Sodium (ppm)	2011	32	32	42.18 ¹	35.8 - 48.7 ¹	Runoff/leaching from natural deposits; seawater influence
Total Organic Carbon (ppm)	2011	1.8	1.3 - 2.4	NA	NA	Various natural and manmade sources
Heterotrophic Plate Count (HPC)	2011	0.4	0 - 2	7.17 ⁵	ND - 47 ⁵	HPC has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water

FOOTNOTES:

¹ Sample results reported are from previous years sampling events.

² Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the U.S. EPA Safe Drinking Water Hotline at (800) 426-4791.

³ Turbidity (NTU) is a measure of the cloudiness of the water and it is a good indicator of the effectiveness of a treatment plant's filtration system.

⁴ Sampling from well water is for raw water results. Samples are taken prior to either treatment or blending.

⁵ Reported results are for the distribution system, not well water as indicated by the table.

⁶ High results were for an inactive well. All active well results were ND.

TABLE DEFINITIONS

Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Amount Detected: The amount detected; or when a range of values is shown, the average detected.

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.

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.

Million Fibers per Liter (MFL): EPA has established a maximum contaminant level (MCL) for asbestos in drinking water: 7 MFL (million fibers per liter).

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

NA: Not applicable

NC: Not collected

ND: Not detected

NS: No standard

Nephelometric Turbidity Units (NTU): Measurement of the clarity, or turbidity, of water.

Picocuries per liter (pCi/L): A measure of radioactivity.

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.

Parts per billion (ppb): One part substance per billion parts water (or micrograms per liter).

Parts per million (ppm): One part substance per million parts water (or milligrams per liter).

INFORMATION ON THE INTERNET

The California Department of Public Health (<http://ww2.cdph.ca.gov>), the U.S. EPA Office of Water (www.epa.gov/safewater), and the Centers for Disease Control and Prevention (www.cdc.gov) web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health.



COMMUNITY PARTICIPATION

The Morro Bay City Council meets the second and fourth Tuesday of each month at the Veterans Hall on Surf Street at 6:00 p.m. If you have concerns you wish to express about our drinking water, time is set-aside at the beginning of each meeting for public input.