# City of Los Banos
# 2011 Drinking Water Consumer Confidence Report

## This report contains important information on your drinking water.

## Este informe contiene informacion muy importante sobre su agua potable. Para una version en Espaniol ir al www.LosBanos.org, menu de Enlaces Rapidos (Quick Links Menu), Documentos de Obras Publicas (Public Works). Usted tambien puede obtener una copia en la oficina principal del Departamento de Obras Publicas, ubicado en el 411 Madison Avenue.

The information gathered here is compiled from the testing of all drinking water sources, which the City of Los Banos uses to provide potable drinking water to your homes and businesses. During the 2011 Calendar Year, your tap water was below all regulated Primary Maximum Contaminant Levels for EPA and State testing requirements for drinking water. This report includes information regarding where your water comes from, what it contains, and how it compares to State water quality standards. We are committed to providing you with information because informed customers are our best allies. Listed in the tables of this report are the contaminants found in your drinking water. We have also included information on bacteria testing of which no positive samples occurred in 2011. If you would like additional water quality information or have any questions regarding the information covered in this report, you may contact the Public Works Department or Gary Hutsell, Assistant Public Works Director at (209) 827-7056.

**As a resident, you may participate in decisions that affect drinking water quality.** City Council meetings are scheduled at 7:00 P.M. on the first and third Wednesdays of each month. City Council meetings are open to the public, and are televised on Cable Channel 96 and available on the internet at *www.LosBanos.org*. For more information, call (209) 827-7056.

## WHERE YOUR DRINKING WATER COMES FROM

The City of Los Banos owns and operates thirteen approved groundwater production wells, one of which is on standby status, that work in conjunction with each other to provide adequate pressure and volume to your location. These groundwater extraction wells draw water at various depths from water producing zones called "Aquifers." Clay layers separate each of the zones. These wells are located in and around the City Limits at various locations. The City owns the land immediately around these wells and restricts any activity that could contaminate them.

**A Source Water Assessment** was conducted for the active water supply wells of the City of Los Banos Water System in December 2001. The sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply:

| | | |
|---|---|---|
| Agricultural Drainage | Fleet/Truck/Bus Terminals | Rental Yards |
| Apartments & Condominiums | Food Processing | RV/Mini Storage |
| Automobile Body Shops | Hardware/Lumber/Parts Stores | Schools |
| Automobile Car Washes | Housing (high density) | Septic Systems (low density) |
| Automobile Gas Stations | Machine Shops | Septic Systems (high density) |
| Automobile Repair Shops | Medical/Dental Offices/Clinics | Sewer Collection Systems |
| Chemical/Petroleum Pipelines | Office Buildings/Complexes | Veterinary Offices/Clinics |
| Drinking Water Treatment Plants | Parks | Wood/Pulp/Paper Processing & Mills |

| | |
|---|---|
| Dry Cleaners | Photo Processing/Printing |
| Fertilizer, Pesticide/Herbicide Application | Pesticide/Fertilizer/Petroleum Storage & Transfer Areas |

The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

| | |
|---|---|
| Airports | Historic Waste Dumps/Landfills |
| Concentrated Animal Feeding Operations | Known Contaminant Plumes |
| Historic Gas Stations | Wells (agricultural/irrigation) |

A copy of the complete assessment may be viewed at the City of Los Banos Public Works Department, 411 Madison Avenue. You may request a summary of the assessment be sent to you by contacting the Public Works Department at (209) 827-7056.

## IS YOUR WATER TREATED WITH ANY CHEMICALS?

The answer is **yes**. **Chlorine (Sodium Hypochlorite)** and **Fluoride (Sodium Fluoride)** are introduced to the system as the water is pumped from the wells. Chlorine is used to disinfect drinking water. Fluoride is added for dental health. Both chemicals are monitored daily to ensure concentrations are kept at regulated levels. For additional information on the internet regarding Fluoridation you may access *(www.cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx).*

## IMPORTANT HEALTH INFORMATION

**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.** 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)

**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:

A.) **Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
B.) **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 and farming.
C.) **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture and residential uses.
D.) **Radioactive contaminants** that are naturally-occurring, or the result of oil and gas production and mining activities.
E.) **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, agricultural application, and septic systems.

**In order to ensure that tap water is safe to drink,** U.S. Environmental Protection Agency (USEPA) and the State Department of Public Health 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 must provide the same protection for public health.

The following tables are based on testing taken during the 2011 Calendar year. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. Contaminant testing for certain unregulated contaminants and some radiological contaminants were only required to be tested for once and the results are indicated. Some contaminants are tested more than once a year and each month a test was taken will be indicated in the tables.

**TERMS AND ABBREVIATIONS USED IN THE TABLES:**

**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 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.
**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.
**PRIMARY DRINKING WATER STANDARD (PDWS):** MCLs and MRDLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.
**REGULATORY ACTION LEVEL (AL):** The concentration of a contaminant which if exceeded, triggers treatment or other requirements that a water system must follow.
**PARTS PER MILLION (PPM):** or milligrams per liter. It means one part per million parts.
**PARTS PER BILLION (PPB**): or micrograms per liter. It means one part per billion parts.
**PARTS PER TRILLION (PPT)**: This means 1 part per trillion parts.
**PICO CURIES PER LITER (pCi / L**): A measure of radioactivity.
**NONE DETECTED (N/D):** Contaminant not detected.
**NOT APPLICABLE (N/A):** Does not apply.
**TREATMENT TECHNIQUE (TT);** A required process intended to reduce the level of a contaminant in drinking water.

## COLIFORM BACTERIA – DISTRIBUTION SYSTEM

| Microbiological Contaminant | Highest Number of Detections | Number of Months in Violation | MCL | MCLG | Typical Source of Bacteria |
|---|---|---|---|---|---|
| Total Coliform Bacteria **Tested Weekly 2011** | 0 | 0 | More than one sample a month with a detection | 0 | Naturally present in the environment |

| | | | | | |
|---|---|---|---|---|---|
| Fecal Coliform or *E. coli* | 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 |

## FECAL BACTERIA INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES

| Microbiological Contaminants | Total No. of Detections | Sample Dates | MCL [MRDL] | PHG (MCLG) [MRDLG] | Typical Source of Contaminant |
|---|---|---|---|---|---|
| *E. coli* | 0 | N/A | 0 | (0) | Human and animal fecal waste |
| Enterococci | 0 | N/A | TT | N/A | Human and animal fecal waste |
| Coliphage | 0 | N/A | TT | N/A | Human and animal fecal waste |

## DISINFECTION BY-PRODUCTS

| Contaminant | Date(s) Tested | Unit of Measure-ment | MCL or MRDL | PHG (MCLG) 0r MRDLG | Average Detected Level | Range of Detection | Source of Contaminants |
|---|---|---|---|---|---|---|---|
| HAA5 (Haloacetic Acids) | Aug. ’11 | PPB | 60 | N/A | 14 | 14 | By-product of drinking water disinfection |
| TTHMS ( Total Trihalomethanes) | July Aug. ’11 | PPB | 80 | N/A | 24 | 24 | By-product of drinking water disinfection |
| Chlorine | Daily ‘11 | PPM | 4.0 as CL2 | 4.0 as CL2 | 0.5 | 0.1 – 0.6 | Drinking water disinfectant added for treatment |

## PRIMARY INORGANIC CONTAMINANTS

| Contaminant | Date(s) Tested | Unit of Measurement | MCL | PHG (MCLG) | Average Detected Level | Range of Detection | Source of Contaminants |
|---|---|---|---|---|---|---|---|
| ARSENIC | July ‘11 | PPB | 10 | 4 | 5 | 3 - 7 | Erosion of natural deposits Runoff from orchards |
| BARIUM | July ‘11 | PPM | 1 | 2 | 0.038 | N/D - 0.13 | Erosion of natural deposits |
| TOTAL CHROMIUM | July ‘11 | PPB | 50 | (100) | 27 | 19 - 34 | Erosion of natural deposits. Discharge from steel and pulp mills and chrome plating |
| NITRATE As nitrate | Jan. ‘11 April ‘11 June ‘11 July ‘11 Oct ‘11 | PPM | 45 | 45 | 23 | 7 - 45 | Leaching from livestock confinement areas, leaching from fertilizer use, leaching from septic tanks. Erosion of natural deposits |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FLUORIDE ** (naturally-occurring) | July '11 | PPM | 2.0 | 1.0 | 0.15 | 0.1 – 0.48 | Erosion of natural deposits |

** Our water system treats your drinking water by adding fluoride to the naturally-occurring fluoride, in order to promote dental health in consumers. The fluoride levels in the treated water are tested daily and maintained within a range of 0.6 to 0.9 ppm, as required by California Department of Public Health regulations.

## HEALTH STATEMENT ON ARSENIC

While your 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 costs 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.

## HEALTH STATEMENT ON NITRATE

Your drinking water meets the state standard for Nitrate; however, it does contain low levels of Nitrate. Nitrate in drinking water at levels above 45 parts per million 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 infants' blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of skin. Nitrate levels above 45 parts per million may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain 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.

## HEALTH STATEMENT ON LEAD

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 Los Banos 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 the 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*.

## HEALTH INFORMATION ON CHROMIUM

Chromium is a metallic element in the periodic table. It is odorless and tasteless. Chromium is found naturally in rocks, plants, soil and volcanic dust, humans and animals. The most common forms of chromium in the environment are trivalent (chromium-3), hexavalent (chromium-6) and the metal form, (chromium-0). Chromium-3 occurs naturally in many vegetables, fruits, meats, grains and yeast. Chromium-6 is generally produced by industrial processes and can also be naturally-occurring. Chromium-0 is generally produced by industrial processes. Chromium-3 is a nutritionally essential element in humans and is often added to vitamins as a dietary supplement. Chromium-3 has relatively low toxicity and would be a concern in drinking water only at very high levels of contamination, unlike chromium-6 and -0, which are more toxic and pose potential health risks to people. Some people who use water containing chromium (total) well in excess of the maximum contaminant level (MCL) over many years could experience allergic dermatitis. Chromium-6 (hexavalent chromium) is currently regulated under the 50-micrograms per liter (µg/L or Parts Per

Billion) maximum contaminant level (MCL) for total chromium. For more information regarding Chromium-6 you can go to the California Department of Public Health website at: http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Chromium6.aspx.

## RADIOACTIVE CONTAMINANTS

| Contaminant | Date(s) Tested | Unit of Measurement | MCL | PHG (MCLG) | Average Detected Level | Range of Detection | Source of Contaminants |
|---|---|---|---|---|---|---|---|
| Gross Alpha Particle Activity | Nov. '11 | pCi / L | 15 | (0) | 6 | 1.6 - 14.9 | Erosion of natural deposits |
| URANIUM | Nov.'11 | pCi / L | 20 | 0.43 | 7 | 3.9 - 11 | Erosion of natural deposits |
| RADIUM 226 | May '06 | pCi / L | 5 | 0.05 | 0.09 | N/D – 0.19 | Erosion of natural deposits |

## VOLATILE ORGANIC CONTAMINANTS

| Contaminant | Date(s) Tested | Unit of Measurement | MCL | PHG (MCLG) | Average Detected Level | Range of Detection | Source of Contaminants |
|---|---|---|---|---|---|---|---|
| TETRACHLOROETHYLENE (PCE) | July '11 | PPB | 5 | 0.06 | 0.08 | N/D - 0.92 | Discharge from factories, dry cleaners, and auto shops (metal degreaser) |
| METHYL-TERT-BUTYL ETHER (MTBE) | July '11 | PPB | *5<br>13 | 13 | 0.36 | N/D – 4.3 | Leaking underground storage tanks |

*****Indicates Secondary MCL for taste and odor. One City well has detected MTBE in 2011 and did not exceed either MCL.

## LEAD AND COPPER HOUSEHOLD TAP MONITORING

The Department of Health Services requires our water system to test for lead and copper at household tap sources. The required testing is performed every three years at a representative amount of houses based on service connections and possible at risk household plumbing. The AL is based on the 90th percentile of the number of sites tested.

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

| Contaminant | Date Tested | Unit of Measurement | Regulatory Action Level | Public Health Goal | Average Detected Level | Range of Detection | Source of Contaminants |
|---|---|---|---|---|---|---|---|
| LEAD | Aug. '11 | PPB | 15 | 0.2 | 90th Percentile detected level is 0 | Number of sites tested above the AL is 0 of 39 | Internal corrosion of household plumbing systems |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| COPPER | Aug. '11 | PPM | 1.3 | 0.3 | 90th Percentile level is 0.41 | Number of sites tested above AL is 0 of 39 | Internal corrosion of household plumbing systems |

## UNREGULATED CONTAMINANTS

Unregulated contaminant monitoring helps EPA and the California Department of Public Health to determine where certain contaminants occur and whether the contaminants need to be regulated. While the following contaminants are unregulated, there are California notification levels. Notification levels are advisory levels and not enforceable.

| Contaminant | Date(s) Tested | Unit of Measurement | Notification Level (PHG) | Average Detected Level | Range of Detection | Health Effects Language |
|---|---|---|---|---|---|---|
| Boron | May '03 May '04 | PPM | 1.0 | 0.75 | ND -1.5 | 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 |
| Chromium VI (Hexavalent Chromium) | Jan '11 | PPB | (0.02) | 29 | 20 - 36 | See Health Information on Chromium on page 5 of this report |
| Radon | July '01 | pCi / L | N/A | 560 | 478 - 637 | See Health Information on Radon below |
| Vanadium | May '03 May '04 | PPB | 50 | 14 | 7 - 20 | The babies of some pregnant women who drink water containing Vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals |

## HEALTH INFORMATION ON RADON

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to Radon entering the home through soil, Radon entering the home through tap water will in most cases be a small source of Radon in indoor air. Radon is a known human carcinogen. Breathing air containing Radon can lead to lung cancer. Drinking water containing Radon may also cause increased risk of stomach cancer. If you are concerned about Radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue Radon removal for your home if the level of Radon in your air is 4 Pico curies per liter of air (pCi/L) or higher. There are simple ways to fix a Radon problem that are not too costly. For additional information, call your State Radon program (1-800-745-7236), the EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-SOS-RADON).

# SECONDARY INORGANIC CONTAMINANTS

**Secondary Contaminant Levels address aesthetics, such as taste and odor**.

| Contaminant | Date(s) Tested | Unit of Measurement | MCL | Average Detected Level | Range of Detection | Source of Contaminants |
|---|---|---|---|---|---|---|
| Total Dissolved Solids (TDS) | July '11 | PPM | 1000 | 687 | 390 - 1100 | Runoff/leaching from natural deposits |
| Specific Conductance | July '11 | uS/cm | 1600 | 1052 | 640 - 1700 | Substances that form ions when in water |
| CHLORIDE | July '11 | PPM | 500 | 118 | 61 – 200 | Runoff/leaching from natural deposits |
| SULFATE | July '11 | PPM | 500 | 117 | 40 - 270 | Runoff/leaching from natural deposits |
| PH | July '11 | Standard units | 6.5 – 8.5 | 8.1 | 8 – 8.2 | Leaching from natural deposits |
| TURBIDITY | July '11 | NTU | 5 | 0.16 | N/D – 1.9 | Soil runoff |

# SODIUM AND HARDNESS

| Contaminant | Date(s) Tested | Unit of Measurement | MCL | Average Detected Level | Range of Detection | Source of Contaminants |
|---|---|---|---|---|---|---|
| SODIUM | July '11 | PPM | N/A | 94 | 48 – 180 | Salt present in the water is generally naturally-occurring |
| TOTAL HARDNESS | July '11 | PPM | N/A | 349 | 210 - 600 | Is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occurring. |
| Bicarbonate | July '11 | PPM | N/A | 259 | 140 - 400 | Leaching from natural deposits |
| CALCIUM | July '11 | PPM | N/A | 73 | 42 - 120 | Leaching from natural deposits |
| ALKALINITY (Total) | July '11 | PPM | N/A | 212 | 120 - 330 | Leaching from natural deposits |
| Magnesium | July '11 | PPM | N/A | 40 | 24 - 70 | Leaching from natural deposits |
| Potassium | July '11 | PPM | N/A | 2.3 | 2.1 – 2.5 | Leaching from natural deposits |

# WATER CONSERVATION PROGRAM

The water conservation program is currently underway. The Public Works Department would like to take this opportunity to thank everyone for the success of last year's program. This year's program will be the same as last year. The schedule is as follows:

- If your street address ends with an **odd** number, your watering days are Tuesday, Thursday and Saturday.
- If your street address ends with an **even** number, your watering days are Sunday, Wednesday and Friday.
- No watering is allowed on Mondays.
- No watering is allowed between the hours of 11:00 a.m. and 7:00 p.m., beginning May 1 through and including September 30.
- New plantings, such as new lawns, ground covering or bedding plants, may be watered every day before 11:00 a.m. and after 7:00 p.m., providing the following conditions are met:

  New lawns, ground covering, and bedding plants shall be considered new for a period of one (1) year from planting date.

If you have questions regarding this program or need assistance programming your sprinkler timers, contact the Public Works Department at (209) 827-7056.

# WATER CONSERVATION TIPS FOR CONSUMERS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Take short showers – a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons per month.
- Use a water-efficient shower head. They are inexpensive, easy to install, and can save up to 750 gallons per month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons per month.
- Water plants only when necessary and follow the Los Banos irrigation schedule.
- Fix leaking toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet 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. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Pick up after your pets.
- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Teach your kids about water conservation to insure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!