EBMUD is proud to report that in 2014, your drinking water surpassed every state and federal public health requirement.

YOUR WATER

In the East Bay, 1.3 million customers rely on high-quality EBMUD water. Almost all of EBMUD’s water comes from the 577-square mile watershed of the Mokelumne River on the western slope of the Sierra Nevada. This area is mostly national forest, EBMUD-owned lands and other undeveloped lands little affected by human activity.

The Mokelumne watershed collects snowmelt from Alpine, Amador and Calaveras counties, which flows into Pardee Reservoir near the town of Valley Springs. During times of high water demand, system maintenance or for operational needs, EBMUD may draw water from local watersheds. During drought emergencies, EBMUD may use water from the Sacramento River to meet customer needs.

Three large aqueducts carry water 90 miles from Pardee Reservoir to the East Bay. EBMUD’s network of reservoirs, pipelines, pumps and water treatment plants are put to work to provide great water quality every day, as reflected in this report.

Dismal precipitation in 2014 meant EBMUD reservoirs did not refill back to normal levels. EBMUD used supplemental water supplies from the Sacramento River for the first time.

In early summer, 23,000 acre-feet of Sacramento River water was diverted into Upper San Leandro and San Pablo reservoirs in the East Bay — about a month’s supply. A half-billion dollar investment by ratepayers for dry-year infrastructure combined with solid efforts by customers to conserve precious water helped us weather one of the driest years in California history. Drought conditions have worsened. Visit ebmud.com/drought for the latest news.

HOW WE MANAGE WATER QUALITY

Regardless of source, all water is treated at an EBMUD water treatment plant before it reaches your tap.

EBMUD takes many steps to ensure high water quality including managing watershed lands and reservoirs, treating the water, operating a complex distribution system, maintaining facilities and addressing customer concerns.

In laboratories and in the field, EBMUD samples and tests your water extensively to ensure it is safe to drink. We look for more than 100 substances including microorganisms, pesticides, herbicides, asbestos, lead, copper, petroleum products and by-products of industrial and water treatment processes. More than 20,000 laboratory tests each year ensure the safety of your drinking water.
WHERE YOUR WATER IS TREATED

Most of the year, your drinking water comes from Pardee Reservoir in the Sierra Nevada mountains. Before reaching your tap, most water is treated at a facility in Walnut Creek, Orinda or Lafayette. Some parts of EBMUD's service area draw water year-round from EBMUD's Sierra Nevada supply. During times of high water demand, system maintenance or for operational needs, drinking water may come from local watersheds and may be treated at a different facility. Some customers receive water from multiple sources at different times of the year.

WHAT WAS DETECTED AND REPORTED

In 2014, EBMUD treated raw water from multiple sources, including Sacramento River water, and consistently provided high-quality drinking water, surpassing every public health requirement set by the State Water Resources Control Board (State Board) and the U.S. Environmental Protection Agency.

Drinking water requirements were formerly set by the California Department of Public Health. On July 1, 2014, the Drinking Water Program was transferred to the State Board.

The tables on the following pages show the measured amounts of contaminants detected in 2014 or in the most recent year sampling was required. Water is sampled in EBMUD's source waters, at water treatment plants, in the distribution system or at customers' taps.

Although EBMUD tests for more than 100 substances, this report only lists those detected at or above the state or federal level required for reporting. In this case, no news is good news!

Table 1 – Regulated for public health

These contaminants are regulated to protect your health. They have maximum contaminant levels, known as primary MCLs, set by the State Board or U.S. Environmental Protection Agency. These levels are set as close to the established public health goals as is economically and technologically feasible.

Table 2 – Regulated for drinking water aesthetics

These contaminants are regulated to maintain aesthetic standards to maintain the odor, taste and appearance of drinking water. They have maximum contaminant levels, also known as secondary MCLs, set by the State Board.

Table 3 – Unregulated with no established maximum contaminant level

Water agencies are required to report these contaminants if detected, but no maximum contaminant levels have been established by the State Board or U.S. Environmental Protection Agency.

Table 4 – Other parameters of interest to customers

These water measurements, such as pH, hardness and alkalinity, may be of interest to customers.

HOW TO READ THE WATER QUALITY TABLE

Find your location on the map on page 2. Note which water treatment plant(s) serve that area.

1. Go to the table on page 4 to find the contaminant you are interested in.
2. Column two notes the unit of measurement.
3. Column three lists the most recent year the contaminant was tested.
4. Column four lists the state or federal goal. At that amount or lower, there is no known or expected risk to health from its presence in drinking water. Not all listed contaminants have goals set by the California or U.S. Environmental Protection Agency.
5. Column five notes the highest amount the State Board or U.S. Environmental Protection Agency allows. This amount is usually not as low as the public health goal in column four.
6. Column six lists the average amount detected across the EBMUD service area or at designated locations.
7. Find the column that corresponds to the water treatment plant(s) that serve you. This is the amount of the contaminant detected in your area’s water. All reported contaminants were detected at amounts lower than the highest amount allowed (column 5) by the State Board and U.S. Environmental Protection Agency.
8. The last column lists how the contaminant typically gets into your drinking water.

ARE YOU READY FOR A WATER EMERGENCY?

Natural disasters or other emergencies can temporarily cut off the East Bay’s water supply or affect water quality. Be prepared with your own supplies until water is restored. This will be your water supply while emergency management agencies set up temporary water distribution in your community.

You need one to two gallons per day per person for at least 3-7 days. Store extra water for pets and frequent visitors. Store water in clean, airtight, food-grade plastic containers and keep in a dark, cool place.

In case of a water quality emergency, be prepared to disinfect your tap water. In your emergency kit include a heat source, such as a camping stove, plus a clean pot to boil water for two minutes before consuming. If power supplies are disrupted or boiling water is not possible, disinfect your water with 1/2 teaspoon (16 drops) of liquid bleach per gallon of water and then let stand for 30 minutes. Add measuring spoons, a bottle of regular, unscented liquid chlorine bleach, a cleaning dropper and a sealed bottle of regular, unscented liquid bleach to your emergency supplies.
In 2014, your drinking water was consistently the highest quality, surpassing every public health requirement set by the State Water Resources Control Board (State Board), Division of Drinking Water and the U.S. Environmental Protection Agency.

KEY TERMS
- **AL**: Regulatory action level. The concentration which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **DBP**: Disinfection by-products. These are formed when chlorine and/or ozone reacts with natural constituents in water.
- **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. Secondary MCLs address odor, taste and/or aesthetic quality of the water.
- **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 allow for the inclusion of the safety factor of 10, unlike MCLs, which do not.
- **MRDL**: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is evidence that a disinfectant is necessary for control of microbial pathogens.
- **MRDLG**: Maximum residual disinfectant level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health.
- **Notification level**: A health-based advisory level established by the State Board for chemicals in drinking water that lack MCLs.
- **Primary drinking water standard**: These standards regulate contaminants that affect health by setting MCLs and MCLGs along with their monitoring, reporting, 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.
- **Turbidity**: A measure of the cloudiness of water. Turbidity is monitored to ensure that drinking water is aesthetically acceptable.
- **TT**: Treatment technique. A required process intended to reduce the level of a contaminant in drinking water.
- **90th percentile**: A measure that indicates 90 percent of the samples had a lower result.

**ABBREVIATIONS**
- **ppb**: parts per billion. One ppb is like 3 seconds in 100 years.
- **ppm**: parts per million. One ppm is like 32 seconds in one year.
- **μS/cm**: microsiemens per centimeter, a measure of electrical conductance.
- **NTU**: nephelometric turbidity unit, a measure of the cloudiness of water.
- **pCi/L**: picocuries per liter, a measure of radioactivity.
- **ppb**: parts per billion. One ppb is like 3 seconds in one year.
- **SON**: Soil organisms.
- **SDIC**: Sodium dicitrat.</div>
**WATER QUALITY REGULATIONS**

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled 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, bacteria and protozoa, such as Cryptosporidium, 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Synthetic organic contaminants**, such as pesticides and herbicides that may come from a variety of sources, including agriculture, urban storm water and residential uses.
- **Volatile organic chemical contaminants** from industrial processes and petroleum production, and from gas stations, urban areas, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Radioactive contaminants** that can be naturally occurring or be the result of oil and gas production and mining activities.

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 is available from the U.S. Environmental Protection Agency’s Safe Drinking Water Hotline at 800-426-4791 or online at www.epa.gov/safewater. Contact your healthcare provider or visit the Centers for Disease Control and Prevention website for guidelines on appropriate means to lessen the risk of infection by these contaminants.

**Cryptosporidium**

Cryptosporidium is a microbial contaminant found in surface water throughout the United States. Although filtration is highly effective in removing Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal.

Our monitoring indicates the presence of these organisms in one of our source waters. Current test methods cannot determine if the organisms are dead or are capable of causing disease. Ingestion of Cryptosporidium may cause afebrile, non-bloody diarrhea and cramps but can also lead to severe gastrointestinal illness.

**Population with low resistance**

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, and some elderly and some infants can be particularly at risk to 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 USEPA Safe Drinking Water Hotline at 800-426-4791 or www.epa.gov/safewater.

**REPORT A WATER QUALITY CONCERN**

Do you have a question or concern about your water quality? If so call 866-401-2683. EBMUD inspectors respond to calls within one day regarding water which appears dirty, colored, or has foreign particles or unusual taste or odor.

**Lead in drinking water**

If present, elevated levels of lead can cause serious health problems. Pregnant women, infants and young children are typically more vulnerable to lead in drinking water than the general population.

Lead in drinking water is primarily from materials and components associated with lead service lines and home plumbing. EBMUD has replaced all lead water lines in its service area, but you may have lead in your home plumbing. 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. If your water has been sitting for several hours, you can minimize the potential for lead exposure by running your faucet for 30 seconds to 2 minutes before using water for drinking or cooking. Capture and reuse this water for other uses such as watering ornamental plants.

Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the U.S. Environmental Protection Agency Safe Drinking Water Hotline at 800-426-4791 or online at www.epa.gov/safewater/lead.

**Fluoride and infant formula**

Water fluoridation is a widely accepted practice and mandated by state law. It is proven to be safe and effective for preventing and controlling tooth decay. According to the American Dental Association and Centers for Disease Control and Prevention (CDC), it is safe to use optimally fluoridated water for preparing infant formula. If an infant is primarily fed infant formula prepared with fluoridated water, there may be an increased chance for mild enamel fluorosis, but enamel fluorosis does not affect the health of the infant or the health of the infant’s teeth. To lessen this chance, deionized, purified, distilled or demineralized bottled water can be used some of the time to prepare infant formula.

If you have additional questions about fluoride, contact your health provider. Additional information can be found at the State Board www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml or the CDC www.cdc.gov/fluoridation websites.

**Chromium**

Chromium is found naturally in the environment, in two forms: trivalent and hexavalent chromium. Both forms of chromium find their way into bodies of water through mineral deposits. Hexavalent chromium is also a byproduct of industrial manufacturing. Trivalent chromium is an essential human dietary element. When ingested, hexavalent chromium is a suspected carcinogen. Currently, trivalent and hexavalent chromium are regulated together by the federal and state agencies. As of July 1, 2014, there is also a California maximum contaminant level (MCL) for hexavalent chromium of 10 parts per billion. EBMUD monitors for total chromium at our five treatment plants. Beginning in October 2013, EBMUD began collecting samples for hexavalent chromium. EBMUD is in compliance with the California MCL and will continue to meet all regulatory requirements.

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**Water parameters of interest to customers**

<table>
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<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Walnut Creek</th>
<th>Lafayette</th>
<th>Suisun City</th>
<th>Upper San Leandro</th>
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<tbody>
<tr>
<td>Alkalinity, bicarbonate as CaCO₃</td>
<td>ppm</td>
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<td>17</td>
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<td>Calcium</td>
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<td>5 – 15</td>
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<td>Hardness°</td>
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<td>pH</td>
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<td>9.0 – 9.8</td>
<td>8.8 – 9.6</td>
<td>8.2 – 9.4</td>
<td>8.2 – 9.6</td>
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<tr>
<td>Sodium</td>
<td>ppm</td>
<td>6 – 6</td>
<td>6 – 7</td>
<td>5 – 17</td>
<td>22 – 27</td>
</tr>
</tbody>
</table>

* ppm = parts per million, gpg = grains per gallon level.
HOW TO CONTACT US

For more information about water quality or to report a water quality concern, call 866-403-2683 or visit www.ebmud.com.

If you would like this report mailed to you, call 510-986-7555 or email custsvc@ebmud.com. View this report online at www.ebmud.com/wqr.

EBMUD encourages public participation in decisions affecting drinking water quality and other matters at its Board of Directors meeting held the second and fourth Tuesdays of each month at 1:15 pm, 375 Eleventh Street, 2nd Floor, Oakland.

Board of Directors
John A. Coleman • Andy Katz • Doug Linney • Lesa R. McIntosh • Frank Mellon • William B. Patterson • Marguerite Young

General Manager
Alexander R. Coate

FOR MORE WATER QUALITY INFORMATION

State Water Resources Control Board
Division of Drinking Water • 510-620-3463

U.S. Environmental Protection Agency
Safe Drinking Water Hotline • 800-426-4791

Alameda County
Public Health Department • 510-267-8000

Contra Costa
Public Health Division • 925-313-6712

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