

To Our Water Customers

This report was prepared in accordance with federal (Environmental Protection Agency) and California regulations under the Safe Drinking Water Act (SDWA) requiring water utilities to provide detailed water quality information to their customers annually. It is a snapshot of testing done in 2002 and includes information about where your water comes from, what it contains, and how it compares to state and federal standards.



The substance amounts reported in the table as “weighted average” are based on recent water quality results for each well with respect to how much water the well contributed to the system during the year. The weighted average may not be representative of water at a specific point in the system since there is a constant mixing of water in the system depending on which wells are operating. It is intended to be an indication of overall system water quality.

In addition to the 26 reported substances, 100 other substances were checked with no measurable amounts found.

Contact Us

For more information about this report or any questions related to your drinking water, please phone Davis Public Works at (530) 757-5686 or e-mail bschoech@ci.davis.ca.us.

The City periodically conducts public meetings and workshops concerning water issues. Call us if you would like to be added to our contact list. The City Council receives public comments at their regular meetings that are held several times a month.

Check the City’s web site at www.cityofdavis.org for the schedule of meetings or for more water information.

Where Does Our Water Come From?

Davis draws water from 20 wells located throughout the city. The wells tap into aquifers beneath the city at depths from 300 to 1,800 feet below ground. The water does not pass through a central treatment or distribution facility, but is filtered naturally by the sand and gravel it passes through in the aquifers.

The only treatment administered is the addition of chlorine (sodium hypochlorite) for disinfection. The 0.2 parts per million dosage is typical of water systems throughout the country. Precautions should be taken when using chlorinated water for medical uses such as dialysis machines or when adding water to fish tanks or ponds.

Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Centers for Disease Control and Prevention) 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 (800) 426-4791.



New Water Storage Tank

The city’s new four-million-gallon water storage tank located in northwest Davis became operational in July 2002. The new tank provides needed storage for firefighting purposes and helps to meet peak demands.



PWS ID#: CA5710001



2002 WATER QUALITY REPORT



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United We Stand



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

City of Davis, Public Works
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Davis, CA 95616



- Information on other ways that you can help conserve water can be found at www.epa.gov/safewater/publicoutreach/index.html
- Water the lawn and garden in the early morning or evening.
 - Adjust your automatic sprinkler controller to reflect seasonal requirements.
 - Use mulch around plants and shrubs.
 - Repair leaks in faucets and hoses.
 - Use water-saving nozzles.
 - Use water from a bucket to wash your car, and save the hose for rinsing.
- You can conserve outdoors as well:**
- Fix leaking faucets, pipes, toilets, etc.
 - Replace old fixtures; install water-saving devices in faucets, toilets, and appliances.
 - Wash only full loads of laundry.
 - Do not use the toilet for trash disposal.
 - Take shorter showers.
 - Do not let the water run while shaving or brushing teeth.
 - Soak dishes before washing.
 - Run the dishwasher only when full.

Conservation measures you can use inside your home include:

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. Here are a few suggestions:

Water Conservation Tips



What Does Our Water Contain?

For your information, we have compiled the tables below showing what substances were detected in our drinking water during 2002. The Maximum Contaminant Levels (MCLs) are set by the U.S. EPA and the California Department of Health Services. We feel that it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

PRIMARY DRINKING WATER STANDARD (Regulated in order to protect against possible adverse health effects)

| SUBSTANCE (UNITS) | YEAR SAMPLED | MCL | PHG (MCLG) | WEIGHTED AVERAGE | RANGE (LOW-HIGH) | VIOLATION | TYPICAL SOURCE |
|--|--------------|---------------------|------------|------------------|------------------|-----------|--|
| Arsenic (ppb) | 2002 | 50 | NA | 4.9 | 3-7 | No | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes |
| Barium (ppm) | 2002 | 1 | (2) | 0.107 | 0.09-0.9 | No | Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits |
| Chromium (ppb) ¹ | 2002 | 50 | (100) | 19 | 2-52 | No | Discharge from steel and pulp mills and chrome plating; erosion of natural deposits |
| Fluoride (ppm) | 2002 | 2 | 1 | 0.13 | ND-0.3 | No | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Gross Alpha Activity (pCi/L) | 2002 | 15 | NA | 0.39 | ND-7.08 | No | Erosion of natural deposits |
| Gross Beta Activity (pCi/L) | 2002 | 50 | NA | 0.41 | ND-4.15 | No | Decay of natural and man-made deposits |
| Nickel (ppb) | 2002 | 100 | 12 | 0.8 | ND-20 | No | Erosion of natural deposits; discharge from metal factories |
| Nitrate (as nitrate, NO ₃) (ppm) | 2002 | 45 | 45 | 12.1 | ND-39 | No | Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Selenium (ppb) | 2002 | 50 | (50) | 7.4 | ND-32 | No | Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive) |
| Total Coliforms (% positive samples) | 2002 | 5% positive samples | (0) | 3.9 | NA | No | Naturally present in the environment |
| Trichloroethylene [TCE] (ppb) | 2002 | 5 | 0.8 | 0.00 | ND-0.5 | No | Discharge from metal degreasing sites and other factories |

SECONDARY DRINKING WATER STANDARD (Regulated in order to protect the odor, taste and appearance of drinking water)

| SUBSTANCE (UNITS) | YEAR SAMPLED | MCL | PHG (MCLG) | WEIGHTED AVERAGE | RANGE (LOW-HIGH) | VIOLATION | TYPICAL SOURCE |
|------------------------------------|--------------|-------|------------|------------------|------------------|-----------|---|
| Aluminum (ppb) | 2002 | 200 | NS | 7.8 | ND-110 | No | Erosion of natural deposits; residual from some surface water treatment processes |
| Chloride (ppm) | 2002 | 500 | NS | 45 | 15-160 | No | Runoff/leaching from natural deposits; seawater influence |
| Iron (ppb) | 2002 | 300 | NS | 2.1 | ND-220 | No | Leaching from natural deposits; industrial wastes |
| Manganese (ppb) | 2002 | 50 | NS | 19.4 | ND-100 | No | Leaching from natural deposits |
| Specific Conductance (umhos/cm) | 2002 | 1,600 | NS | 837 | 500-1,500 | No | Substances that form ions when in water; seawater influence |
| Sulfate (ppm) | 2002 | 500 | NS | 61 | 24-310 | No | Runoff/leaching from natural deposits; industrial wastes |
| Total Dissolved Solids [TDS] (ppm) | 2002 | 1,000 | NS | 504 | 350-1,000 | No | Runoff/leaching from natural deposits |

UNREGULATED SUBSTANCES

| SUBSTANCE (UNITS) | YEAR SAMPLED | WEIGHTED AVERAGE | RANGE (LOW-HIGH) |
|--|--------------|------------------|------------------|
| Boron (ppb) | 2002 | 794 | 500-1100 |
| Calcium (ppm) | 2002 | 34 | 15-64 |
| Hardness (as CaCO ₃) (ppm) | 2002 | 313 | 70-650 |
| Magnesium (ppm) | 2002 | 55 | 8-120 |
| Potassium (ppm) | 2002 | 0.48 | 1-3 |
| Radon (pCi/L) | 1999 | 272 | 224-553 |
| Sodium (ppm) | 2002 | 85 | 57-110 |
| pH (Units) | 2002 | 7.8 | 7.6-8.1 |

¹Quarterly sampling is required on wells that exceed one-half of the MCL. These results are averaged with the results from the previous three quarters. Allergic dermatitis is a possible health effect for some people who use water containing chromium in excess of the MCL over many years.

Radon

Radon is a radioactive gas that occurs naturally in some groundwater. It may pose a health risk when the gas is released from water into air, as occurs during showering or bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Radon is released into homes and groundwater from soil. Samples taken from our water source during 1999 indicated an average radon concentration of 272 picocuries per liter (pCi/L). Inhalation of radon gas has been linked to lung cancer, however, the effects of radon ingested in drinking water are not yet clear. For additional information, call (800) SOS-RADON.

Table Definitions

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

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 (2nd MCL) are set to protect the odor, taste and appearance of drinking 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 are set by the U.S. EPA.

NA: Not applicable

ND: Not detected

NS: No standard

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

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 EPA.

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

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

umhos/cm (micromhos per centimeter): A measure of electrical conductance.

Substances Commonly Found 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.

To ensure that tap water is safe to drink, the U.S. EPA and the California Department of Health Services (CDHS) prescribe regulations that limit the amount of certain substances in water provided by public water systems. CDHS regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some substances. The presence of contaminants does not necessarily indicate that water poses a health risk.

Substances 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.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

