



University of California, Davis

2005 Drinking Water Quality Report

The University of California, Davis tests the campus drinking water supply for many constituents as required by State and Federal Regulations. This report summarizes the results of our monitoring for the period of January 1 - December 31, 2005. In accordance with state and federal requirements, this report is provided to inform the campus community about the monitoring and quality of the campus domestic water supply.

Where Does Our Water Come From?

UC Davis Facilities – Operation & Maintenance – Utilities Division operates, maintains and monitors the domestic water system for the campus. The campus water supply comes from six on-campus wells. The wells draw water from aquifers 800 to 1400 feet below the ground. The water is not treated, except for disinfection using chlorine (sodium hypochlorite). Chlorine levels are typically maintained at 0.5 ppm (parts per million).

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 and 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, USEPA and the state Department of Health Services (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, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected contain at least small amounts of some substances. The presence of contaminants does not necessarily indicate that water poses a health risk.

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, agricultural 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, which 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, 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 USEPA's Safe Drinking Water Hotline at (800) 426-4791.

What Does Our Water Contain?

Tables 1 through 5 list the drinking water contaminants that were detected during the most recent sampling. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department of Health Services requires water suppliers to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

In addition to the constituents listed in the tables below, our water was analyzed for numerous other substances that were below regulatory levels or not detectable. This information is available at the UC Davis Utilities website below: <http://utilities.ucdavis.edu/>

For more information, contact

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TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 1	0	If more than 5% of the routine samples collected a month are total coliform positive	0	Naturally present in the environment
Fecal Coliform or E. coli	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Regulations require sampling and levels to be measured at the consumers tap.

Lead and Copper	No. of samples collected	90 th percentile level detected	No. Sites exceeding Action Levels	Action Levels	PHG	Typical Source of Contaminant
Lead (ppb)	38	ND	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	38	0.098	0	1.3	0.17	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Avg. Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	3/2/2006	65	33 - 80	None	None (None)	Generally found in ground and surface water
Hardness (ppm)	3/2/2006	176	95 - 400	None	None (None)	Generally found in ground and surface water

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Avg. Level Detected	Range of Detections	MCL	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Aluminum (ppm)	3/2/2006	0.012	ND - 0.060	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	3/2/2006	4	2.2 - 5.4	50	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	3/2/2006	0.06	ND - 0.19	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	3/2/2006	17.9	6.3 - 41	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	3/2/2006	0.2	0.1 - 0.4	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

TABLE 4 (Continued) - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Avg. Level Detected	Range of Detections	MCL	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Lead (ppb)	3/2/2006	1.2	ND – 7.4	AL=15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Nitrate as NO₃ (ppm)	3/2/2006	8	0.74 - 39	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	3/2/2006	2.2	ND – 7.5	50	(50)	Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots

**TABLE 5 - DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS
FEDERAL RULE, CURRENTLY BEING IMPLEMENTED IN CALIFORNIA PER USEPA**

Chemical or Constituent (and reporting units)	Sample Date	Avg. Level Detected	Range of Detections	MCL	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
TTHMs (Total Trihalomethanes) (ppb)	Quarterly	.2	ND – 0.73	80	N/A	By-product of drinking water chlorination
Chlorine (ppm)	Weekly	0.5	0.04 – 1.3	[MRDL = 4.0 (as Cl ₂)]	[MRDLG] = 4 (as Cl ₂)	Drinking water disinfectant added for treatment

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

Chemical or Constituent (and reporting units)	Sample Date	Avg. Level Detected	Range of Detections	MCL	PHG ^(a) (MCLG) (a)	Typical Source of Contaminant
Aluminum (ppb)	3/2/2006	12	ND - 60	200	N/A	Erosion of natural deposits; residue from some surface water treatment processes
Color (Units)	3/2/2006	2	ND - 5	15	N/A	Naturally-occurring organic materials
Foaming Agents (MBAS) (ppb)	3/2/2006	10	ND – 60	500	N/A	Municipal and industrial waste discharges
Iron (ppb)	3/2/2006	60	ND – 260	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	3/2/2006	2	ND - 10	50	N/A	Leaching from natural deposits
Odor--Threshold (Units)	3/2/2006	1	1	3	N/A	Naturally-occurring organic materials
Turbidity (Units)	3/2/2006	0.4	ND – 1.6	5	N/A	Soil runoff
Total Dissolved Solids (TDS) (ppm)	3/2/2006	362	320 - 570	1000	N/A	Runoff/leaching from natural deposits

TABLE 6 (Continued) - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Avg. Level Detected	Range of Detections	MCL	PHG ^(a) (MCLG) (a)	Typical Source of Contaminant
Specific Conductance (micromhos)	3/2/2006	587	510 - 930	1600	N/A	Substances that form ions when in water; seawater influence
Chloride (ppm)	3/2/2006	19	14 - 24	500	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	3/2/2006	34	24 - 43	500	N/A	Runoff/leaching from natural deposits; industrial wastes

(a) There are no PHGs or MCLGs for constituents with secondary drinking water standards because these are set to protect the aesthetics of the water and PHG/MCLGs are based on health concern.

TABLE 7 - DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Avg. Level Detected	Range of Detections	Notification Level	Health Effects Language
Chromium VI (Hexavalent Chromium) (ppb)	5/12/2005	12	ND - 41	N/A	N/A

Note: There are no PHGs or MCLGs for constituents with secondary drinking water standards because these are not health-based levels, but set on the basis of aesthetics.

Drinking Water Source Assessment Information

A drinking water source assessment was completed in June 2003. The assessment identifies the vulnerability of the drinking water supply to contamination from typical human activities. The assessments are intended to facilitate and provide the basic information necessary for a local community to develop a program to protect the drinking water supply.

The sources are considered most vulnerable to the following activities and not associated with any detected contaminants: Animal activities, Sewer/septic collection & treatment systems, Pesticide/fertilizer/petroleum/chemical storage & transfer areas, Research laboratories. There have been no contaminants detected in the water supply attributable to these activities, however the source is still considered vulnerable to activities located near the drinking water sources.

For more information, contact the University of California, Davis Facilities – Operation & Maintenance – Utilities Division. Contact information is provided on page one. Additional information can be found on the Department of Health Services website at <http://www.dhs.ca.gov/ps/ddwem/dwsap/dwsapindex.htm>

You may also contact the local Department of Health Services Drinking Water Field Operations Branch district office at (<http://www.dhs.ca.gov/ps/ddwem/technical/dwp/districtofficesmap.pdf>).

Additional General Information on Drinking Water

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 the 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).

Special Health Concerns

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).

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.

While your drinking water meets the current standard for **arsenic**, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The California Department of Health Services 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.

TERMS USED IN THIS REPORT:

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 (USEPA).

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.

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

USEPA: The U.S. Environmental Protection Agency.

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

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (**ppm**)

ppb: parts per billion or micrograms per liter (**ppb**)

List of Translations for Water Quality Report

Pursuant to Section 64481(1), Chapter 15, Title 22, a utility's CCR is required to include the following sentence translated into Spanish and any language that is spoken by a non-English speaking group that exceeds 1,000 residents or 10% of the residents in a community.

"This report contains important information about your drinking water. Translate it, or speak with someone who understands it."

Spanish:

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

Hmong:

Daimntawv tshaj tawm no muaj lus tseemceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub txog nws.

Tagalog:

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Farsi:

این اطلاعیه شامل اطلاعات مهمی راجع به آب آشامیدنی است. اگر نمیتوانید این اطلاعات را بزبان انگلیسی بخوانید لطفاً از کسی که میتواند یاری بگیرد تا مطالب را برای شما به فارسی ترجمه کند.

French:

Ce rapport contient des informations importantes concernant votre eau potable. Veuillez traduire, ou parlez avec quelqu'un qui peut le comprendre.

Arabic:

”هذا التقرير يحتوي على معلومات مهمة تتعلق بمياه الشفة (أو الشرب).
ترجم التقرير, أو تكلم مع شخص يستطيع أن يفهم التقرير.“

Polish:

Ta broszura zawiera wazne informacje dotyczace jakosci wody do picia. Przetlumacz zawartosc tej broszury lub skontaktuj sie z osoba ktora pomoze ci w zrozumieniu zawartych informacji.

Russian:

Данный рапорт содержит важную информацию о вашей питьевой воде. Переведите его или проконсультируйтесь с тем, кто его понимает.

Hebrew:

הדו"ח הזה מכיל מידע חשוב לגבי מי השתייה שלך
תרגם את הדו"ח או דבר עם מישהו שמבין אותו

Chinese (Traditional):

此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

Chinese (Simplified)

此份有关你的食水报告,内有重要资料和讯息,请找他人为你翻译及解释清楚。

Punjabi

ਇਹ ਸੂਚਨਾ ਮਹੱਤਵਪੂਰਣ ਹੈ ।
ਕ੍ਰਿਪਾ ਕਰਕੇ ਕਿਸੀ ਤੋਂ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਉ ।

Vietnamese

Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.

Hindi

यह सूचना महत्वपूर्ण है ।
कृपा करके किसी से :सका अनुवाद करायें ।

Japanese

この情報は重要です。
翻訳を依頼してください。

Korean

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시오.

Greek

Η κατούμεν αναφορά παρουσιάζει
σπουδαιες πληροφορίες για το
ποσιμο νερο σας. Πρακακλω να
το μεταφρασετε η να το
σξολειασετε με καποιον που το
καταλαβαινη απολητως.

Laotian

ລາຍງານນີ້ມີຂໍ້ມູນສໍາຄັນກ່ຽວກັບນໍ້າປະປາຂອງທ່ານ . ຈົ່ງໃຫ້ຄົນອື່ນແປຄວາມໃຫ້ທ່ານ,
ຫລືໃຫ້ປຶກສາກັບຄົນໃດຄົນໜຶ່ງທີ່ເຂົ້າໃຈເລື້ອງ .

Khamer

របាយការណ៍នេះមានព័ត៌មានសំខាន់ៗ
នៃអំពីទឹកបរិភោគ ។ សូមបកប្រែ
ឬពិគ្រោះជាមួយអ្នកដែលមើលយល់
របាយការណ៍នេះ ។