

NEW MEXICO STATE UNIVERSITY



OFFICE OF FACILITIES & SERVICES

DOMESTIC WATER SUPPLY SYSTEM CONSUMER CONFIDENCE REPORT

JULY 1, 2004

In 1999, the U.S. Environmental Protection Agency promulgated a new rule that required water system operators to publish annually, a report for the public it serves on the quality of water delivered to the community. New Mexico State University, through the Office of Facilities & Services, owns and operates a domestic water system which provides water for the main campus. This report describes the testing and treatment we conduct to insure a safe water supply for this community. It includes results of that testing which show that the drinking water supplied to the campus during the past year has not exceeded any contaminant levels established by the United States Environmental Protection Agency's "Safe Drinking Water Standards".

This report covers the period from January 1 through December 31, 2003. It is distributed annually to all campus departments. In addition, it is posted to New Mexico State University's general electronic mail distribution.

CONSUMER CONFIDENCE REPORT - WHAT IS IT?

The following report describes the water system operated by New Mexico State University, as required by the United States Environmental Protection Agency under Safe Drinking Water regulations. Those regulations mandate each community water system provide its customers with a report on the quality of its drinking water. These reports must contain information on the quality of water and characterize any risks associated with exposure to any water contaminants.

NEW MEXICO STATE UNIVERSITY PROVIDES GOOD SAFE DRINKING WATER

New Mexico State University provides a very good quality drinking water that is safe and has not exceeded any contaminant levels established by the United States Environmental Protection Agency's "Safe Drinking Water Standards" during the past year.

In order to ensure the quality of our water, the Office of Facilities & Services at New Mexico State University routinely samples the water supply and tests for over 125 contaminants. These contaminants include 10 heavy metals, 50 semi-volatile organic compounds (SOC), 58 volatile organic compounds (VOC), pH, hardness, iron, nitrates, fluoride, lead, copper, sulfates, total tri-halo methanes, halo-acetic acids and alkalinity. The table located at the bottom of the following page is a listing of contaminants which were detected over the past year. None of these contaminants exceeded "Safe Drinking Water Standards."

STATE AND FEDERAL AGENCIES MONITOR WATER QUALITY

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (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 for infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800-426-4791).

To protect public health, the EPA and New Mexico Environment Department set maximum contaminant levels, maximum contaminant level goals and action levels for contaminants. Drinking water regulations may also require water treatment techniques.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

- *Non-Detects (ND)* - laboratory analysis indicates that the contaminant is not present.
- *Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- *Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- *Parts per trillion (ppt) or Nanograms per liter (nanograms/l)* - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- *Parts per quadrillion (ppq) or Picograms per liter (picograms/l)* - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- *Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.
- *Millirems per year (mrem/yr)* - measure of radiation absorbed by the body.
- *Million Fibers per Liter (MFL)* - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- *Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- *Variances & Exemptions (V&E)* - State or EPA permission not to meet an MCL or a treatment technique under certain conditions
- *Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- *Treatment Technique (TT)* - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- *Maximum Contaminant Level* - (mandatory language) The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- *Maximum Contaminant Level Goal* - (mandatory language) The "Goal"(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

TEST RESULTS

Contaminant (Unit Measurement)	Violation Y/N	Level Detected	Date Tested	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria	NONE	Absent	180 samples per year	Absent	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
2. Fecal coliform and <i>E.coli</i>	NONE	Absent	0 samples per year	Absent	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste
3. Turbidity	NO	N/A		NTU n/a	TT	Soil runoff
Radioactive Contaminants						
4. Beta/photon emitters (pCi/l)	NO	8.03	10/08/03	0	50	Decay of natural and man-made deposits
5. Alpha emitters (pCi/l)	NO	7.6	10/08//03	0	15	Erosion of natural deposits
6. Combined radium (pCi/l)	NO	N/A	10/08/03	0	5	Erosion of natural deposits
Inorganic Contaminants						
7. Antimony (ppb)	NO	Not Detected	01/13/03	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
8. Arsenic (ppb)	NO	.0024	01/13/03	0 ¹	10 ¹	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
* * * * * 1. These arsenic values are effective January 23, 2006. Until then, the MCL is 0.05 mg/L and there is no MCLG.						
9. Asbestos (MFL)	NO	N/A		7	7	Decay of asbestos cement water mains; erosion of natural deposits
10. Barium (ppm)	NO	.052	01/13/03	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
11. Beryllium (ppb)	NO	Not Detected	01/13/03	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
12. Cadmium (ppb)	NO	Not Detected	01/13/03	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
13. Chromium (ppb)	NO	.0043	01/13/03	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper (ppm)	NO	.2458	12/31/03	1.3	AL=1..3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide (ppb)	NO	Not Detected	01/13/03	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride (ppm)	NO	.49	01/13/03	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

17. Lead (ppb)	YES	.0729	12/31/03	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
18. Mercury (inorganic) (ppb)	NO	Not Detected	01/13/03	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
19. Nitrate (as Nitrogen) (ppm)	NO	Not Detected	01/13/03	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
20. Nitrite (as Nitrogen) (ppm)	NO	Not Detected	01/13/03	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
21. Selenium (ppb)	NO	Not Detected	01/13/03	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
22. Thallium (ppb)	NO	Not Detected	01/13/03	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
23 Total Trihalomethanes	NO	.011	07/14/03	<0.040	.080	Disinfection byproduct
24 Total Haloacetic Acid	NO	.0007	11/05/03	<0.030	.060	Disinfection byproduct

Synthetic Organic Contaminants: No Detects

Volatile Organic Contaminants: No Detects

What does this mean?

As you can see by the table, the 90th percent for lead was exceeded. The New Mexico State University is currently working on an action plan to solve this problem.

Hardness**	250 ppm	250 ppm	210 ppm	Occurs Naturally
Sulfate**	250 ppm	250 ppm	79.8 ppm	Occurs Naturally

1. pH is a measure of acidity/alkalinity in water. pH = 7.0 is neutral. pH < 7.0 is acidic. pH > 7.0 is alkaline. Drinking water should be between 6.0 and 8.5.

2. Highest value of 3 tests.

*Primary drinking water standards

**Secondary drinking water standards

***Some people who drink water containing inorganic Mercury well in excess of the MCL over many years could experience kidney damage.

WHAT IS NEW FOR THE FUTURE?

New Mexico State University obtains all of its water from an underground aquifer. This water is currently produced from three wells (#10, #14, and #17). These wells are capable of producing from 1600 gallons per minute (GPM) (Well #10) to 2000 GPM (Wells #14 and #17). Prior to the water entering the main distribution system, chlorine is added to disinfect and destroy any bacteria or viruses. Supplemental chlorine is added at the 4.0 million gallon storage tank.

In December 2003, NMSU retained a consulting engineering firm to design a new 6.0-7.0 million gallon water storage tank. Construction of the new tank is anticipated to begin in September 2004 and be completed by May 2005.

Due to the unfortunate events of September 11, NMSU has taken several steps to enhance security at its water supply and storage systems. These steps are following the "Public Health Security and Bio-terrorism Preparedness Response Act of 2002" as enacted by Congress on June 12, 2002. NMSU has completed the mandated "vulnerability assessment" for its water system. Based on the results of this assessment, OFS is implementing efforts to minimize any vulnerabilities to ensure the continued safety and security of the water system.

The New Mexico State University Water Distribution System is well maintained and operated, and sources of drinking water are generally protected from potential sources of contamination based on construction, hydrogeologic settings, and system operations and management. The susceptibility rank of the entire water system is high.

SOURCE SUSCEPTIBILITY RANKING

SOURCE NAME	Sensitivity Rank	Vulnerability Rank	Susceptibility Rank	Operational Exceptions	Final Rank
WELL #10	Moderately Low	High	Moderately High	Land Use	High
WELL #14	Moderately Low	High	Moderately High	Land Use	High
WELL #17	Moderately Low	High	Moderately High	Land Use <3 PSOCs	High

Copies may be requested by e-mailing the Drinking Water Bureau at SWAPP@nmenv.state.nm.us or by calling (505)827-7536 (toll free 1-877-654-8720). Please include your name, address, telephone number, and e-mail address, and the name of the water utility and water system number. *NMED-DWB prefers to e-mail copies of the report, and may charge a nominal fee for paper copies.*

POINT OF CONTACT

For further information on this report or any aspect of our water supply system, please contact David Bollschweiler at (505) 646-7844.

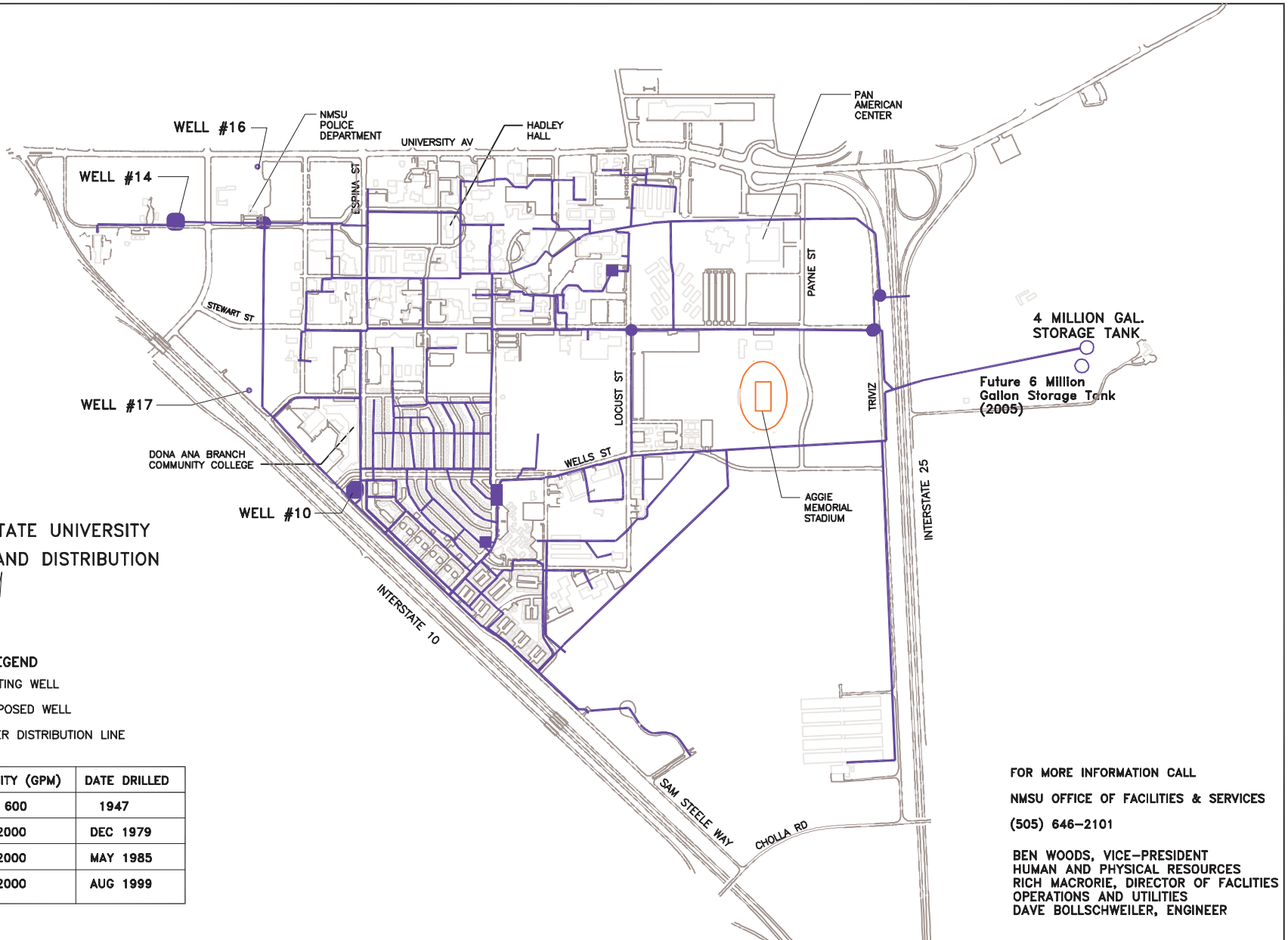
NEW MEXICO STATE UNIVERSITY WATER SUPPLY AND DISTRIBUTION



LEGEND

- EXISTING WELL
- PROPOSED WELL
- WATER DISTRIBUTION LINE

WELL	DEPTH (FT)	CAPACITY (GPM)	DATE DRILLED
1	500	600	1947
10	766	2000	DEC 1979
14	710	2000	MAY 1985
17	730	2000	AUG 1999



FOR MORE INFORMATION CALL
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