

Annual Drinking Water Quality Report



We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. Superior Metro District's water treatment facility obtains its water supply from surface water from the upper Colorado River Basin.

Public Water System Id C00107725



Esta es informacion importante es bueno tomar-agua. Si no la pueden leyer, necesitan que alguin se la traducean.

Water Quality Report

Superior Metro District has contracted with Eco Resources to routinely monitor for contaminants in your drinking water according to Federal and State laws. The following tables show the results of our monitoring for the period of **January 1st to December 31st, 2003**. All drinking

water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants.

It's important to remember that the presence of these contaminants does not necessarily pose a health risk. Further

information on this subject can be obtained by calling the **EPA Safe Drinking Water Hotline at 1-800-426-4791** or at **www.epa.gov/safewater** on the Internet.

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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which provides the same

protection for public health. The State allows some substances to be monitored less than once per year because the concentrations of these contaminants do not change frequently; therefore some of the data is from previous years.



Table Terms & Definitions

In the following tables 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.

Not Tested (NT) – analysis was not done for this contaminant.

P/A – presence or absence of coliform bacteria.

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.

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.

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

The state requires us 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, or the system is not considered vulnerable to this type of contamination. Some of our data (e.g., for organic contaminants), though representative, is more than one year old.

Contaminant	Sample Date	Violation (Y/N)	Level Detected	Unit Meas.	MCLG	MCL	Likely Source of Contamination
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Microbiological Contaminants

Total Coliform Bacteria	Ten/month	N	Absent	P/A	0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal Coliform and E.coli	Ten/month	N	Absent	P/A	0	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E.coli positive	Human and animal fecal waste
Turbidity*	1/03 -12/04	N	0.09 Hi 0.03 Lo	NTU	N/A	TT 95% of samples below 0.5 NTU	Soil runoff

*Percent of readings above MCL 1% in April, 2% in September, 0% all other months.

Contaminant	Sample Date	Violation (Y/N)	Level Detected	Unit Meas.	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants							
Beta/photon emitters	4/18/01	N	ND	pCi/l	0.9	50	Decay of natural and man-made deposits
Alpha emitters	4/18/01	N	ND	pCi/l	0	15	Erosion of natural deposits
Combined radium	NT	N	NT	pCi/l	0	5	Erosion of natural deposits
Inorganic Contaminants							
Antimony	2/19/01	N	ND	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	3/27/03	N	ND	ppb	N/A	50	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Asbestos	NT	N	NT	MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits
Barium	2/19/03	N	0.070	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	2/19/03	N	ND	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	2/19/03	N	ND	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	2/19/03	N	ND	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper**	1/99-12/99	N	0.350	ppm	1.3	AL=1.3	Household plumbing system corrosion; erosion of natural deposits; leaching from wood preservatives
Cyanide	NT	N	NT	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	2/19/03	N	0.45	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

***90th Percentile 0% exceeding Action Level out of ten homes sampled. Copper and lead samples are supposed to be taken from homes built between 1982 and 1988.*

Contaminant	Sample Date	Violation (Y/N)	Level Detected	Unit Meas.	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants (continued)							
Lead**	1/99-12/99	N	5.0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	2/19/03	N	ND	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate/Nitrite (as Nitrogen)	2/19/03	N	0.45	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	NT	N	NT	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2/19/03	N	ND	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	2/19/03	N	ND	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Contaminant	Sample Date	Violation (Y/N)	Level Detected	Unit Meas.	MCLG	MCL	Likely Source of Contamination
Synthetic Organic Contaminants including Pesticides and Herbicides							
2,4-D	9/29/03	N	ND	ppb	70	70	Runoff from herbicide used on row crops
2,4,5-TP (Silvex)	9/29/03	N	ND	ppb	50	50	Residue of banned herbicide
Acrylamide	9/29/03	N	ND	N/A	0	TT	Added to water during sewage/wastewater treatment
Alachlor	9/29/03	N	ND	ppb	0	2	Runoff from herbicide used on row crops
Atrazine	9/29/03	N	ND	ppb	3	3	Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH)	9/29/03	N	ND	N/l	0	200	Leaching from linings of water storage tanks and distribution lines
Carbofuran	9/29/03	N	ND	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa
Chlordane	9/9/03	N	ND	ppb	0	2	Residue of banned termiticide
Dalapon	9/29/03	N	ND	ppb	200	200	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate	9/29/03	N	ND	ppb	400	400	Discharge from chemical factories

Contaminant	Sample Date	Violation (Y/N)	Level Detected	Unit Meas.	MCLG	MCL	Likely Source of Contamination
Synthetic Organic Contaminants including Pesticides and Herbicides (continued)							
Di (2-ethylhexyl) phthalate	9/29/03	N	ND	ppb	0	6	Discharge from rubber and chemical factories
Dibromo-chloropropane	9/29/03	N	ND	N/l	0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pine apples, and orchards
Dinoseb	9/29/03	N	ND	ppb	7	7	Runoff from herbicide used on soybeans and vegetables
Diquat	9/29/03	N	ND	ppb	20	20	Runoff from herbicide use
Dioxin [2,3,7,8-TCDD]	NT	N	NT	P/l	0	30	Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall	9/29/03	N	ND	ppb	100	100	Runoff from herbicide use
Endrin	9/29/03	N	ND	ppb	2	2	Residue of banned insecticide
Epichlorohydrin	NT	N	ND	N/A	0	TT	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide	9/29/03	N	ND	N/l	0	50	Discharge from petroleum refineries
Glyphosate	NT	N	NT	ppb	700	700	Runoff from herbicide use
Heptachlor	9/29/03	N	ND	N/l	0	400	Residue of banned termiticide
Heptachlor epoxide	9/29/03	N	ND	N/l	0	200	Breakdown of heptachlor
Hexachlor-obenzene	9/29/03	N	ND	ppb	0	1	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclo-pentadiene	9/29/03	N	ND	ppb	50	50	Discharge from chemical factories
Lindane	9/29/03	N	ND	N/l	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	9/29/03	N	ND	ppb	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	9/29/03	N	ND	ppb	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes

(continued from page 6)

PCBs [Polychlorinated biphenyls]	9/29/03	N	ND	N/l	0	500	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol	9/29/03	N	ND	ppb	0	1	Discharge from wood preserving factories
Picloram	9/22/03	N	ND	ppb	500	500	Herbicide runoff
Simazine	9/29/03	N	ND	ppb	4	4	Herbicide runoff
Toxaphene	9/29/03	N	ND	ppb	0	3	Runoff/leaching from insecticide used on cotton and cattle

Unregulated Inorganic Data:

Sample Date	Lead	Nickel	Sodium	Sulfate
2/19/03	NT	ND	31 ppm	NT

Unregulated Contaminants Tested For But Not Detected: 3-Hydroxycarbofuran, Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Aldrin, Butachlor, Carbaryl, Dicamba, Dieldrin, Methomyl, Metolachlor, Metribuzin, Propachlor, 1,1-Dichloroethane, 1,1-Dichloropropene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trimethylbenzene, 1,3-Dichloropropane, 1,3-Dichloropropene, 1,3,5-Trimethylbenzene, 2,2-Dichloropropane, Bromobenzene, Bromochloromethane, Bromomethane, Chloroethane, Chloromethane, Dibromomethane, Dichlorodifluoromethane, Trichlorofluoromethane, Hexachlorobutadiene, Isopropyl benzene, 1,3-Dichlorobenzene, Naphthalene, n-Butylbenzene, n-Propylbenzene, 2-Chlorotoluene, 4-Chlorotoluene, p-Isopropyltoluene, sec-Butylbenzene, and tert-Butylbenzene; sample taken 9/29/03.

Regulated Contaminants Not Tested For:

Radioactive Contaminants: (6) Combined Radium 226/228. Under State law radium-226 only needs to be tested for if the gross alpha activity is greater than 10 pCi/l, if the radium-226 concentration is greater than 3 pCi/l, then radium-228 needs to be tested. Therefore, a combined value only takes place when the first two events occur.

Inorganic Contaminants: (9) Asbestos. Superior Metro District has a waiver from the State for asbestos, because it historically has not been present.; (15) Cyanide. Superior Metro District a waiver from the State for cyanide, because it historically has not been present.; (20) Nitrite (as nitrogen). Superior Metro District has a waiver from the State for nitrite, because the combined Nitrite/ Nitrate (as nitrogen) value is less than 0.5 ppm.

Synthetic Organic Contaminants: (37) Dioxin. Superior Metro District has a waiver from the State for dioxin, because it historically has not been present.; (42) Glyphosate. Superior Metro District City has a waiver from the State for glyphosate, because it historically has not been present.

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

N/l = Nanograms/l

P/l = Picograms/l

Drinking Water Standards

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. 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 **Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.**



The EPA is reviewing the drinking water standard for arsenic because of special concerns that it may not be stringent enough. Arsenic is a naturally occurring mineral known to cause cancer in humans at high concentrations. Arsenic levels above 25 ppb warrant public concern.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you

should ask advice from your health care provider.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general public. 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 of infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and microbiological contaminants are available from the Safe drinking Water Hotline at 1-800-426-4791. Please call our office if you have questions.

If you have any questions about this report or concerning your water utility, please contact Roger Migchelbrink at 303-307-3230. We want our valued customers to be informed about their water utility. If you want to learn more, please call the above contact about the utility or any scheduled public meetings.