PUBLIC NOTICE !!!

GRAND VIEW WATER and SEWER ASSOCIATION, INC.

WATER SYSTEM WATER QUALITY REPORT - 2008

IS NOW AVAILABLE AT GRAND VIEW CITY HALL

This report is a summary of last year's (2008) water quality for the Grand View Water and Sewer Association, Inc. Included are details about where your water comes from, what it contains, and how it compares to EPA and State standards. We are committed to providing you with information, because informed Citizens are our best allies.

Last year, we conducted more than 18 tests for over 4 contaminants. We detected one (1) of those contaminants, and it was Arsenic at a level higher than EPA allows. No nitrate water sample was taken, of which, put us in violation. Note!!! On June 4, 2009 a nitrate water sample was taken with the level of 13.2 mg/L and June 25, 2009 a second nitrate water sample was taken with the level of 11.3 mg/L. These levels are higher than EPA allows. We have posted a "Drinking water warning" in Grand View, enclosed with the June water bills and posted on the web site: <u>www.grandviewidaho.us</u>. Our water standards temporarily exceeded drinking water standards. For more information, see Section VI, Level of Detected Contaminants, for Arsenic and Nitrates of this report.

Consumer Confidence Report (CCR) will <u>not</u> be mailed to each subscriber due to systems with mailing waivers for 500 or fewer people. However, the public may come to City Hall during regular business hours to examine this CCR, request a copy of this report at a fee per page per Ordinance 2007-1, or you may go to our web site <u>www.grandviewidaho.us</u> and view this report.

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.

Thank you,

Grand View Water and Sewer Association, Inc. Helana (Lani) Race – Secretary / Treasurer 6 - 29 - 09

This institution is an equal opportunity provider.

COVER SHEET

GRAND VIEW WATER and SEWER ASSOCIATION, INC.

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2008 Consumer Confidence Report (CCR)

I. Water System Information

Water System Name: Grand View Water & Sewer Association, Inc. PWS ID #: 3370010								
Water System Operator: Robert L. Servis – Public Works Supervisor Daniel S. Whitted – Public Works Maintenance – in Training								
Address: PO Box 69 / 425 Boise Ave. Tel #: (208) 834 - 2700 or (208) 834 2571								
City, State, Zip Code: Grand View, Idaho 83624-0069								
Population Served: 470	Number of Connections: 186							
Date of CCR Distribution: June 29, 2009 For Calendar Year: 2008								
Regularly Scheduled Meeting(s): Public participation is welcome on the second Wednesday of each month at 7:00 pm at Grand View City Hall located at 425 Boise Ave., Grand View, ID 83624								

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

II. Water Sources

Groundwater Sources (springs, wells, infiltration galleries):							
1) Source #: Well # 1	a) Sample Site Location (source name): A0004212						
	b) Location Description: : Lat 42° 58'53.05 Long 116° 05'41.00						
2) Source #: Well # 2	a) Sample Site Location (source name): A0004213						
	b) Location Description: Lat 42° 58'52.12 Long 116° 05' 45.11						
Surface Water Sources (lakes,	rivers, creeks):						
1) Source #:	a) Sample Site Location (source name):						
	b) Location Description:						
Groundwater/Surface Water Co	ontamination Sources (if known):						
Source Water Assessment or Pr	cotection Plan Available? Cross Connection						

III. Special Compliance Violations

Treatment techniques: "Not Applicable"

Monitoring/Reporting:

Public notification/Record keeping:

Special monitoring requirements:

Administrative or judicial orders:

Consent orders:

Notice of Violations (NOV): **DEQ data indicates that we had a MCL – Single Sample for Arsenic for Well** # 1 & Well #2 Manifold Begin date 1-1-06 and End Date 3-31-06. Also, DEQ data indicates that we had a Monitoring, Routine Major of Nitrate (asN) for Well #1 & Well #2 Manifold Begin Date 1-1-06 to 12-31-06

IV. Definitions

Maximum Contamination Level (MCL): 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 Contamination Level Goal (MCLG): 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.

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

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

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

V. Health Information

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. EPA/Centers for Disease Control and Prevention (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 at 1-800-426-4791 or http://www.epa.gov/safewater/hotline/.

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 at 1-800-426-4791 or http://www.epa.gov/safewater/hotline/.

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants that may be present in source water before we treat it 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 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Lead Informational Statement (Health effects and ways to reduce exposure)

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. *The utility named above* is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available form the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

VI. Level of Detected Chemical and Radiological Contaminants and Associated Health Effects Language Unless otherwise noted, the data presented in this water quality table is from testing done between January 1, 2008 - December 31, 2008.

Contaminant	Violation (Y/N)	MCL	MCLG	Lowest Level Detected:	Highest Level Detected:	Date Tested (mm/yy):	Typical Source of Contamination	Health Effects Language
Chemical and Radiologica	l Contaminan	its						
Arsenic	Y				.015	1-2008	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics pro- duction wastes.	Some people who drink water-containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Arsenic	Y				.020	4-2008	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics pro- duction wastes.	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Arsenic	Y				.021	7-2008	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics pro- duction wastes.	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Arsenic	Y				.021	10-2008	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics pro- duction wastes.	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Nitrate	Y					Sample not taken in violation		"Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia."

VII. Level of Detected Contaminants and Associated Health Effects Language for Systems that must comply with the Disinfection/Disinfection by Products Rule, Surface Water Treatment Rule, and the Long Term 1 Enhanced Surface Water

Treatment Rule.

Unless otherwise noted, the data presented in this water quality table is from testing done between January 1, 2008 - December 31, 2008.

Contaminant	Violation (Y/N)	MCL	MCLG	Highest Level Detected	Running Annual Average*	Range*	Typical Source of Contamination	Health Effects Language (include only if system exceeds MCL)	
Disinfection By Products (applies to all systems practicing chlorination) * running annual average and range apply only to systems collecting disinfection by products on a quarterly basis. Systems that collect DBPs on an annual or less frequent basis should report detections in the highest level detected column and omit running annual averages and range data.									
Total Trihalomethanes		80	n/a				By product of drinking water chlorination		
Haloacetic Acid Group 5		60	n/a				By product of drinking water chlorination		
Contaminant	Violation (Y/N)	MCL	MCLG	Average Percentage Removal	Range of Percentage Removal	Sample Date	Typical Source of Contamination	Health Effects Language (include only if system has TT violation)	
Total Organic Carbon	(TOC) Precu	irsors Ren	noval Ratios	(applies to sur	face water syste	ms practicing c	onventional filtration only)		
ТОС		TT	n/a			Quarterly or Monthly	Naturally present in the environment		
Contaminant	Violation (Y/N)	MCL	MCLG	Highest Level Detected	Running Annual Average	Sample Date	Typical Source of Contamination	Health Effects Language(include only if system exceeds MCL)	
Maximum Residual Di	isinfectant Le	vel							
Chlorine		MRDL=	n/a			Quarterly	Water additive used to control microbes		

VIII. Reporting Bacteria, Turbidity, Lead/Copper, Beta Particles

Bacteria. If you are reporting bacteria detections, use one of the tables below.

If your system <u>collects less than 40 total coliform samples per month</u>: Use the table below to report any bacteria detections during the last calendar year. If your system detected either fecal or E. coli positive samples, you must report the highest <u>total # positive in a month</u> otherwise you may delete (or leave blank) the fecal/E. coli row from the table.

	Highest # Positive	MCL	MCLG	Violation	Possible Source of Contamination
	In a Month			(Y/N)	
Total Coliform		> 1	0		Naturally present in the environment
Fecal Coliform or E. coli		*	0		Human and animal fecal waste

* Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.

If your system <u>collects 40 or more total coliform samples per month</u>: Use the table below to report any bacteria detections during the last calendar year. If your system detected either fecal or E. coli positive samples, you must report the highest <u>total # positive in a month</u> otherwise you may delete (or leave blank) the fecal/E. coli row from the table.

	Highest % Positive In a Month	Total # Positive	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Total Coliform			>5%	0		Naturally present in the environment
Fecal Coliform or E. coli			*	0		Human and animal fecal waste

* Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.

<u>Turbidity</u>. If you are reporting turbidity, use the table below.

When reporting turbidity, surface water system must report the highest single measurement and the lowest monthly percentage of samples meeting the requirements specified for that technology. In this situation, systems may want to report the data in 2 rows in the table below.

To calculate turbidity levels: Include the maximum turbidity level for your filtration type in the MCL/TT " NTU" cell in the table below.

<u>Maximum Turbidity Levels:</u> Slow Sand and Diatomaceous Earth Filtration = 5.0 NTU Conventional and Direct Filtration = 1.0 NTU Cartridge and Bag Filtration = 5.0 NTU Report the highest maximum daily measurement in the Level Found column, and the date of the highest maximum daily measurement in the Sample Date column.

Include the 95% turbidity level for your filtration type in the "% of samples < ____NTU" cell. <u>95% Turbidity Levels:</u> Slow Sand and Diatomaceous Earth Filtration = 1.0 NTU Conventional and Direct Filtration = 0.3 NTU Cartridge and Bag Filtration = 1.0 NTU

Report the lowest monthly percentage of samples in compliance with 95% turbidity levels in the Level Found column.

Turbidity/Units	MCL/TT	MCLG	Level Found	Range	Sample Date	Violation Y/N	Typical Source of Contamination		
	NTU			n/a			Soil runoff		
Turbidity (NTU)	% of samples <ntu< td=""><td>0</td><td></td><td>n/a</td><td>Daily</td><td></td><td>Soil runoff</td></ntu<>	0		n/a	Daily		Soil runoff		
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.									

<u>Lead/Copper</u>. If you are reporting lead or copper detections, use the table below.

To calculate the 90th percentile: Report the 90th percentile value of the most recent round of sampling and the number of sites (homes) exceeding the Action Level. To calculate the 90th percentile, the results of all samples taken during the most recent monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sample result shall be assigned a number starting with the number 1 for the lowest value. The number of samples taken during the monitoring period shall be multiplied by 0.9. The contaminant concentration in the numbered sample yielded by this calculation is the 90th percentile value.

If the action level is exceeded, health effects language for the contaminant must be included. Health effects language is referenced on page 23.

Contaminant	Date(s) Collected	90th Percentile	Action Level	MCLG	#of sites above Action Level	Violation Y/N	Possible Source of Contamination
Lead (ppb)			15	0			Corrosion of household plumbing systems: Erosion of natural deposits.
Copper (ppm)			1.3	1.3			Corrosion of household plumbing systems: Erosion of natural deposits.
Health Effects	Lead						
Language	Copper						

Beta Particles. If you are reporting beta particles, see instructions and table below.

The MCL for beta particles is 4 mrem/year. EPA recognizes that labs often report these results in pCi/l, and that there is no simple conversion between the two units. Therefore, it is acceptable for systems to report the detected level for beta particles in pCi/l. So that consumers may have a standard

against which to compare the detected level, systems should place 50 in the MCL column below (already inserted) and include a footnote explaining that EPA considers 50 pCi/l to be a level of concern for beta particles (already provided below).

Systems that detect beta particles at or above 50 pCi/l must determine the actual radioactive constituents present in the water to calculate the dose exposure level in mrem/yr, and must report both the detected level and the MCL as mrem/yr.

Contaminant	MCL	MCLG	Level Found	Range	Sample Date	Violation Y/N	Possible Source of Contamination		
Beta Particles (pCi/L)	50*	0					Decay of natural and man-made deposits.		
*The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/l to be the level of concern for beta particles.									

Note: mrem/year: millirems per year (a measure of radiation absorbed by the body); pCi/l: picocuries per liter (a measure of radioactivity).

IX. Specific Contaminant Requirements Unless otherwise noted, the data presented in this water quality table is from testing done between January 1, 2008 – December 31, 2008

Cryptosporidium
a) Summary of Results:
b) Explanation of Significance of Results:
Radon
a) Summary of Results:
b) Explanation of Significance of Results:
Arsenic
Informational Statement: "Some people who drink water containing arsenic in excess of the MCL over many years could
experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer."
Nitrate
Informational Statement: "Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL
could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing
chlorine dioxide in excess of the MRDL. Some people may experience anemia."
Lead
Informational Statement:

Consumer Confidence Report Certification Form (Required)

Community Water System Name: Grand View Water & Sewer Association, Inc. Public Water System (PWS) #: 3370010

I confirm that the Consumer Confidence Report has been distributed to customers (or appropriate notices of availability have been given) and that the information is correct and consistent with the compliance monitoring data previously submitted to the primacy agency.

- Complete the portion below that corresponds to the population of your PWS -

Systems Serving a Population Greater than 100,000

Posted the CCR on the Internet

_____ Mailed the report to all customers

Systems Serving Between 500 and 99,999 People

_____ Mailed the report to all customers

Systems with Mailing Waivers Serving Between 500 and 9,999 People

Published the CCR in the local newspaper(s) - (as required due to mailing waiver).

_____ Informed customers that the CCR will not be mailed (as required due to mailing waiver).

_____ Developed procedures to make reports available on request.

Systems with Mailing Waivers Serving 500 or Fewer People

X Informed customers that the CCR will not be mailed (as required due to mailing waiver).

X Developed procedures to make reports available on request.

Applies to all systems: A "good faith" effort was made to reach non-bill-paying consumers by (check appropriate blanks):

- <u>X</u> Posting report on the Internet.
 - _____ Mailing the report to all postal patrons in the system area.
 - X Advertising the availability of the report.
- X Posting the report in public places.

Certified by:	Name:	Helana (Lani) Race		
	Title:	Secretary / Treasurer		
	Phone #:	(208) 834 - 2700	Date:	June 29, 2009

APPENDIX A - REGULATED CONTAMINANTS: MCLS, MCLGS, POTENTIAL SOURCES, AND REQUIRED HEALTH EFFECTS LANGUAGE

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Microbiological Contaminants						
Total Coliform Bacteria	MCL: (syster samples/mo samples are po less than 40 s m	ns that collect 40 onth) 5% of the r sitive; (systems samples/month) onthly sample.) or more nonthly that collect l positive	0	Naturally present in the environ- ment.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal coliform and <i>E. coli</i>	0		0	0	Human and animal fecal waste.	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely- compromised immune systems.
Total organic carbon (ppm)	TT		TT	N/A	Naturally present in the environment.	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.
Turbidity (NTU)	TT		TT	N/A	Soil runoff.	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
Radioactive Contaminants						

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Beta/photon emitters (mrem/yr)	4 mrem/yr	-	4	N/A	Decay of natural and man-made deposits.	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Alpha emitters (pCi/l)	15 pCi/l	-	15	N/A	Erosion of natural deposits.	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined radium (pCi/l)	5 pCi/l	-	5	N/A	Erosion of natural deposits.	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (µg/L)	30 µg/L	-	30	0	Erosion of natural deposits.	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Inorganic Contaminants						
Antimony (ppb)	.006	1000	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
Arsenic (ppb)	0.010*	1000	10*	0*	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics pro- duction wastes.	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Asbestos (MFL)	7 MFL	-	7	7	Decay of asbestos cement water mains; Erosion of natural deposits.	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Barium (ppm)	2	-	2	2	Discharge of drilling wastes; Dis- charge from metal refineries; Erosion of natural deposits.	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

*These arsenic values became effective January 23, 2008.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Beryllium (ppb)	.004	1000	4	4	Discharge from metal refineries and coal burning factories; Discharge from electrical, aerospace, and defense industries.	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.
Bromate (ppb)	.010	1000	10	0	By-product of drinking water disinfection.	Some people who drink water containing bromate in excess of the MCL over many years have an increased risk of getting cancer.
Cadmium (ppb)	.005	1000	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Dis- charge from metal refineries; Runoff from waste batteries and paints.	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
Chloramines (ppm)	MRDL=4	-	MRDL= 4	MRDLG=	Water additive used to control microbes.	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
Chlorine (ppm)	MRDL=4	-	MRDL= 4	MRDLG= 4	Water additive used to control microbes.	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Chlorine dioxide (ppb)	MRDL= .8	1000	MRDL= 800	MRDLG= 800	Water additive used to control microbes.	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.
Chlorite (ppm)	1	-	1	0.8	By-product of drinking water disinfection.	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Chromium (ppb)	.1	1000	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
Copper (ppm)	AL=1.3	-	AL=1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits.	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Cyanide (ppb)	.2	1000	200	200	Discharge from steel/metal facto- ries; Discharge from plastic and fertilizer factories.	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
Fluoride (ppm)	4	-	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Lead (ppb)	AL=. 015	1000	AL=15	0	Corrosion of household plumbing systems; Erosion of natural deposits.	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Mercury [inorganic] (ppb)	.002	1000	2	2	Erosion of natural deposits; Dis- charge from refineries and facto- ries; Runoff from landfills; Runoff from cropland.	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Nitrate (ppm)	10	-	10	10	Runoff from fertilizer use; Leach- ing from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Nitrite (ppm)	1	-	1	1	Runoff from fertilizer use; Leach- ing from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Selenium (ppb)	.05	1000	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
Thallium (ppb)	.002	1000	2	0.5	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories.	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
Synthetic Organic Contaminants including	Pesticides and	Herbicides				
2,4-D (ppb)	.07	1000	70	70	Runoff from herbicide used on row crops.	Some people who drink water containing the weed killer 2,4- D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
2,4,5-TP [Silvex](ppb)	.05	1000	50	50	Residue of banned herbicide.	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
Acrylamide	TT	_	TT	0	Added to water during sewage/ wastewater treatment.	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Alachlor (ppb)	.002	1000	2	0	Runoff from herbicide used on row crops.	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
Atrazine (ppb)	.003	1000	3	3	Runoff from herbicide used on row crops.	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
Benzo(a)pyrene [PAH] (nanograms/l)	.0002	1,000,000	200	0	Leaching from linings of water storage tanks and distribution lines.	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Carbofuran (ppb)	.04	1000	40	40	Leaching of soil fumigant used on rice and alfalfa.	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.
Chlordane (ppb)	.002	1000	2	0	Residue of banned termiticide.	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.
Dalapon (ppb)	.2	1000	200	200	Runoff from herbicide used on rights of way.	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
Di(2-ethylhexyl) adipate (ppb)	.4	1000	400	400	Discharge from chemical facto- ries.	Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience toxic effects such as weight loss, liver enlargement, or possible reproductive difficulties.
Di(2-ethylhexyl) phthalate (ppb)	.006	1000	6	0	Discharge from rubber and chem- ical factories.	Some people who drink water containing di (2-ethylhexyl) phthalate well in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.
Dibromochloropropane (ppt)	.0002	1,000,000	200	0	Runoff/leaching from soil fumi- gant used on soybeans, cotton, pineapples, and orchards.	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive problems and may have an increased risk of getting cancer.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Dinoseb (ppb)	.007	1000	7	7	Runoff from herbicide used on soybeans and vegetables.	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.
Diquat (ppb)	.02	1000	20	20	Runoff from herbicide use.	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
Dioxin [2,3,7,8-TCDD] (ppq)	.00000003	1,000,000,000	30	0	Emissions from waste incineration and other combustion; Discharge from chemical factories.	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Endothall (ppb)	.1	1000	100	100	Runoff from herbicide use.	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
Endrin (ppb)	.002	1000	2	2	Residue of banned insecticide.	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
Epichlorohydrin	TT	-	TT	0	Discharge from industrial chemi- cal factories; An impurity of some water treatment chemicals.	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.
Ethylene dibromide (ppt)	.00005	1,000,000	50	0	Discharge from petroleum refineries.	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.
Glyphosate (ppb)	.7	1000	700	700	Runoff from herbicide use.	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.
Heptachlor (ppt)	.0004	1,000,000	400	0	Residue of banned pesticide.	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide (ppt)	.0002	1,000,000	200	0	Breakdown of heptachlor.	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Hexachlorobenzene (ppb)	.001	1000	1	0	Discharge from metal refineries and agricultural chemical facto- ries.	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.
Hexachlorocyclopentadiene (ppb)	.05	1000	50	50	Discharge from chemical facto- ries.	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.
Lindane (ppt)	.0002	1,000,000	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens.	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
Methoxychlor (ppb)	.04	1000	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.
Oxamyl [Vydate] (ppb)	.2	1000	200	200	Runoff/leaching from insecticide used on apples, potatoes, and to- matoes.	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.
PCBs [Polychlorinated biphenyls] (ppt)	.0005	1,000,000	500	0	Runoff from landfills; Discharge of waste chemicals.	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive, or nervous system difficulties, and may have an increased risk of getting cancer.
Pentachlorophenol (ppb)	.001	1000	1	0	Discharge from wood preserving factories.	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.
Picloram (ppb)	.5	1000	500	500	Herbicide runoff.	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
Simazine (ppb)	.004	1000	4	4	Herbicide runoff.	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Toxaphene (ppb)	.003	1000	3	0	Runoff/leaching from insecticide used on cotton and cattle.	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.
Volatile Organic Contaminants						
Benzene (ppb)	.005	1000	5	0	Discharge from factories; leaching from gas storage tanks and landfills.	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
Carbon tetrachloride (ppb)	.005	1000	5	0	Discharge from chemical plants and other industrial activities.	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
Chlorobenzene (ppb)	.1	1000	100	100	Discharge from chemical and agricultural chemical factories.	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
o-Dichlorobenzene (ppb)	.6	1000	600	600	Discharge from industrial chemi- cal factories.	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.
p-Dichlorobenzene (ppb)	.075	1000	75	75	Discharge from industrial chemi- cal factories.	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
1,2-Dichloroethane (ppb)	.005	1000	5	0	Discharge from industrial chemi- cal factories.	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
1,1-Dichloroethylene (ppb)	.007	1000	7	7	Discharge from industrial chemi- cal factories.	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
cis-1,2-Dichloroethylene (ppb)	.07	1000	70	70	Discharge from industrial chemi- cal factories.	Some people who drink water containing cis-1,2- dichloroethylene in excess of the MCL over many years could experience problems with their liver.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
trans-1,2-Dichloroethylene (ppb)	.1	1000	100	100	Discharge from industrial chemi- cal factories.	Some people who drink water containing trans-1,2- dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
Dichloromethane (ppb)	.005	1000	5	0	Discharge from pharmaceutical and chemical factories.	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
1,2-Dichloropropane (ppb)	.005	1000	5	0	Discharge from industrial chemi- cal factories.	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene (ppb)	.7	1000	700	700	Discharge from petroleum refineries.	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
Haloacetic Acids (HAA) (ppb)	.060	1000	60	N/A	By-product of drinking water disinfection.	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Styrene (ppb)	.1	1000	100	100	Discharge from rubber and plastic factories; Leaching from landfills.	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.
Tetrachloroethylene (ppb)	.005	1000	5	0	Discharge from factories and dry cleaners.	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
1,2,4-Trichlorobenzene (ppb)	.07	1000	70	70	Discharge from textile-finishing factories.	Some people who drink water containing 1,2,4- trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
1,1,1-Trichloroethane (ppb)	.2	1000	200	200	Discharge from metal degreasing sites and other factories.	Some people who drink water containing 1,1,1- trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
1,1,2-Trichloroethane (ppb)	.005	1000	5	3	Discharge from industrial chemi- cal factories.	Some people who drink water containing 1,1,2- trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major Sources in Drinking Water	Health Effects Language (To be included if a violation occurs)
Trichloroethylene (ppb)	.005	1000	5	0	Discharge from metal degreasing sites and other factories.	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
TTHMs [Total trihalomethanes] (ppb)	0.10/.080	1000	100/80	N/A	By-product of drinking water disinfection.	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Toluene (ppm)	1	-	1	1	Discharge from petroleum facto- ries.	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
Vinyl Chloride (ppb)	.002	1000	2	0	Leaching from PVC piping; Dis- charge from plastics factories.	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
Xylenes (ppm)	10	-	10	10	Discharge from petroleum facto- ries; Discharge from chemical factories.	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

Key to Abbreviations

AL	Action Level	NTU	Nephelometric Turbidity Units (a measure of water clarity)
MCL	Maximum Contaminant Level	pCi/l	picocuries per liter (a measure of radioactivity)
MCLG	Maximum Contaminant Level Goal	ppm	parts per million, or milligrams per liter (mg/l)
MFL	million fibers per liter	ppb	parts per billion, or micrograms per liter (µg/l)
MRDL	Maximum Residual Disinfection Level	ppt	parts per trillion, or nanograms per liter
MRDLG	Maximum Residual Disinfection Level Goal	ppq	parts per quadrillion, or picograms per liter
N/A	Not Applicable	TT	Treatment Technique
mrem/year	millirems per year (a measure of radiation absorbed		
	by the body)		

2008 GRAND VIEW WATER SAMPLE TESTING SITES

FOR NITRATE – MARCH, JUNE, SEPTEMBER & DECEMBER

#	Test #	NAME	MONTH	ADDRESS
1	205	AGRI- LINE IRRIGATION CO.	JANUARY	360 RIVERSIDE AVE.
2	206	WAR EAGLE # 8	FEBRUARY	608 ROOSEVELT AVE. # 8
3	207	PENNINGTON, JON	MARCH	1030 RIVERSIDE AVE.
4	208	GRAND VIEW CITY HALL	APRIL	425 BOISE AVE.
5	209	AGRI- LINE IRRIGATION CO.	MAY	360 RIVERSIDE AVE.
6	210	KINCAID, DEE	JUNE	635 HIGHWAY 78
7	211	AGRI- LINE IRRIGATION CO.	JULY	360 RIVERSIDE AVE.
8	212	PENNINGTON, JON	AUGUST	1030 RIVERSIDE AVE.
9	213	WAR EAGLE # 8	SEPTEMBER	608 ROOSEVELT AVE. # 8
10	214	GRAND VIEW CITY HALL	OCTOBER	425 BOISE AVE.
11	215	KINCAID, DEE	NOVEMBER	635 HIGHWAY 78
12	216	AGRI- LINE IRRIGATION CO.	DECEMBER	360 RIVERSIDE AVE.