



2010 Water Quality Report

Governing Board

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Consumer Confidence Reporting is the result of the 1996 Safe Drinking Water Act. EPA is requiring community water systems to prepare and provide to their customers annual reports on the quality of water delivered by their systems.

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline at 1-800-426-4791.

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/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.

As always, MAGNA WATER DISTRICT will continue testing and working closely with the EPA, Federal and State agencies to ensure proper protection, management of our water sources and a continuing supply of safe drinking water to our consumers.

SOURCES OF SUPPLY
 Wells and Well Production

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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- *Pesticides and Herbicides*, which may come from a variety of sources such as agriculture and residential uses.
- *Radioactive contaminants*, which are naturally occurring.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can, also, come from gas stations, urban storm water runoff, and septic systems.

Your water comes from 10 wells located in two well fields. The oldest well field is the Haynes Well Field the other is Barton Well Field. MAGNA WATER DISTRICT owns the land around these wells and restricts any activity that could contaminate them.

Additional water is purchased through a perpetual yearly contract with Jordan Valley Water Conservancy District, which is injected directly in the District’s water system at the southeast end of the District.

2010 Production in Acre Feet (1 Acre Foot of Water = 325,828 Gallons)	
Jordan Valley Water Conservancy District	846.03
Water Treatment Facility	4,546.35
Total Production	5,392.38

Last year, as in years past, your tap water met all EPA and state drinking water health standards. The District vigilantly safeguards its water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or any other water quality requirements.

To help you better understand unfamiliar items and abbreviations used in this table, we have provided the following definitions:

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

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in 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 allow for a margin of safety.

ND: Non-Detect **NE:** None established **NR:** Not reported
UR: Unregulated at this time. **MFL:** Million fibers per liter

Nephelometric Turbidity Unit (NTU) – the measurement of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Parts per million (ppm) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Range: Values shown are a range of measured values in your area. Single values indicate one actual measured value.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

REGULATED CONTAMINANTS - Results from 2010 Sampling Data

Contaminants (units)	Traditional MCL	MCLG	Magna Water Result	Major Sources in Drinking Water.	Health Effects Language
Microbiological Contaminants					
Total Coliform Bacteria	MCL: presence of Coliform bacteria in >5% of monthly samples	0	0	Naturally present in the Environment.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria may be present.
Disinfection Byproducts					
TTHMs [Total trihalomethanes]	80 ug/L	n/a	23.85 ug/L	By-product of drinking water chlorination.	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 system, and may have an increased risk of getting cancer.
HAA5s(ug/L)	60 ug/L	n/a	12.35 ug/L		
Inorganics and Metals					
Arsenic	0.010	0	0.0078 ug/L	Erosion of naturally occurring deposits and runoff from orchards.	
*Fluoride	4.0	4.0	0.81 mg/L	Erosion of naturally occurring deposits and discharges from fertilizers. Fluoride added at source.	
Nitrate, Nitrogen	10 mg/L	10	4.10 mg/L	Runoff from fertilizer use; leaching 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.
Lead	0.015 mg/L	0.0 mg/l	0.0032 mg/L	Erosion of naturally occurring deposits.	Kidney Problems; high blood pressure; infants and children – delays in physical or mental development.
Copper	1.3 mg/L	0.0 mg/L	0.303 mg/L	Erosion of naturally occurring deposits.	Gastrointestinal/liver/kidney problems.
Sodium	NE	NE	182 mg/L	Erosion of naturally occurring deposits and runoff from road deicing.	High blood pressure.
Sulfate	1000 mg/L	NE	113 mg/L	Erosion of naturally occurring deposits.	Possible diarrhea.
TDS	2000 mg/L	NE	746 mg/L	Erosion of naturally occurring deposits.	
Turbidity	0.3/5.0 NTU	TT	0.050 NTU	MCL is 0.3 NTU 95%of the time for surface water and 5.0 for ground water. Suspended material from soil runoff.	None, Interferes with disinfection.
Barium	2 mg/L	2 mg/L	0.021 mg/L	Erosion of naturally occurring deposits.	Increase in blood pressure.
Selenium	0.05 mg/L	0.05 mg/L	0.0050 mg/L	Erosion of naturally occurring deposits.	Hair or fingernail loss; numbness of fingers or toes; circulatory problems.
Carbamates			ND		
Herbicides			ND		
Pesticides			ND		
Semi-volatile Compounds			ND		

*All water delivered to Magna Water customers is fluoridated. Questions regarding Fluoridation may be addressed by calling the Salt Lake Valley Health Department at (801) 313-6602.

JORDAN VALLEY WATER CONSERVANCY DISTRICT
Consumer Confidence Report Data
2010

Report: E

The table below lists all of the drinking water contaminants detected by Jordan Valley Water Conservancy District or its suppliers during the calendar year of this report. This table does not include many other tests we conducted, because those results were below detection limits. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of this report. For certain contaminants, EPA and/or the State requires monitoring at a frequency less than once per year because the concentrations of these contaminants do not change frequently.

Contaminant	Units	2010 Average	2010 Maximum	2010 Minimum	Monitoring Criteria			Last Sampled	Comments/Likely Source
					MCL	MCLG	Violation		
PRIMARY INORGANICS									
Antimony	ug/L	ND	ND	ND	6.00	6.00	No	2010	The high maximum result is not a violation but triggers quarterly monitoring. Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic	ug/L	1.6	7.3	ND	10.0	0.0	No	2010	Erosion of naturally occurring deposits and runoff from orchards.
Asbestos	MFL	ND	ND	ND	7.0	7.0	No	2009	Decay of asbestos cement in water mains; erosion of natural deposits.
Barium	ug/L	81	147	ND	2000	2000	No	2010	Erosion of naturally occurring deposits.
Beryllium	ug/L	ND	ND	ND	4	4	No	2010	Discharge from metal refineries and coal burning factories.
Cadmium	ug/L	0.01	0.12	ND	5.00	5.00	No	2010	Corrosion of galvanized pipes; erosion of natural deposits.
Copper	ug/L	0.2	1.3	ND	NE	NE	No	2010	Erosion of naturally occurring deposits.
Chromium	ug/L	0.3	4.0	ND	100.0	100.0	No	2010	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide, Free	ug/L	ND	ND	ND	200.0	200.0	No	2010	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
Fluoride	mg/L	0.9	1.3	0.2	4.0	4.0	No	2010	Erosion of naturally occurring deposits and discharges from fertilizers. Fluoride added at source.
Lead	ug/L	0.0	0.5	ND	NE	NE	No	2010	Erosion of naturally occurring deposits.
Mercury	ug/L	0.03	0.30	ND	2.00	2.00	No	2010	Erosion of naturally occurring deposits and runoff from landfills.
Nickel	ug/L	0.2	3.5	ND	NE	NE	No	2010	Erosion of naturally occurring deposits.
Nitrate	mg/L	1.7	3.7	0.1	10.0	10.0	No	2010	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Nitrite	mg/L	ND	ND	ND	1.0	1.0	No	2010	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Total Nitrate & Nitrite	mg/L	1.7	3.7	0.1	10.0	10.0	No	2010	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Selenium	ug/L	1.4	7.3	ND	50.0	50.0	No	2010	Erosion of naturally occurring deposits.
Sodium	mg/L	14.6	27.6	3.2	NE	NE	No	2010	Erosion of naturally occurring deposits and runoff from road deicing.
Sulfate	mg/L	34.4	103.5	3.0	1000	NE	No	2010	Erosion of naturally occurring deposits.
Thallium	ug/L	0.1	1.1	ND	2.0	0.5	No	2010	Leaching from ore-processing sites and discharges from electronics, glass and drug factories.
TDS	mg/L	231	390	10	2000	NE	No	2010	Erosion of naturally occurring deposits.
Turbidity (groundwater and surface water sources)	NTU	0.26	2.84	0.01	0.3/5.0	TT	No	2010	*MCL is 0.3 NTU 95% of the time for surface water and 5.0 for groundwater. Suspended material from soil runoff.
Lowest Monthly % Meeting TT	%	100% (Treatment Technique requirement applies only to treated surface water sources)							
SECONDARY INORGANICS - Aesthetic Standards									
Aluminum	ug/L	ND	ND	ND	SS = 50-200	NE	No	2010	Erosion of naturally occurring deposits and treatment residuals.
Chloride	mg/L	26	76	10	SS = 250	NE	No	2010	Erosion of naturally occurring deposits.
Color	CU	0	0	0	SS = 15	NE	No	2010	Decaying naturally occurring organic material and suspended particles.
Iron	ug/L	18	200	ND	SS = 300	NE	No	2010	Erosion of naturally occurring deposits.
Manganese	ug/L	ND	ND	ND	SS = 50	NE	No	2010	Erosion of naturally occurring deposits.
Odor	TON	0	0	0	SS = 3	NE	No	2010	Various sources.
pH		7.73	8.50	6.84	SS = 6.5-8.5	NE	No	2010	Naturally occurring.
Silver	ug/L	ND	ND	ND	SS = 100	NE	No	2010	Erosion of naturally occurring deposits.
Zinc	ug/L	ND	ND	ND	SS = 5000	NE	No	2010	Erosion of naturally occurring deposits.
UNREGULATED PARAMETERS - monitoring not required									
Alkalinity, Bicarbonate	mg/L	136	194	93	UR	NE	No	2010	Naturally occurring.
Alkalinity, Carbonate	mg/L	ND	ND	ND	UR	NE	No	2010	Naturally occurring.
Alkalinity, CO ₂	mg/L	100	144	71	UR	NE	No	2010	Naturally occurring.
Alkalinity, Hydroxide	mg/L	ND	ND	ND	UR	NE	No	2010	Naturally occurring.
Alkalinity, Total (CaCO ₃)	mg/L	118	161	15	UR	NE	No	2010	Naturally occurring.
Ammonia	mg/L	ND	ND	ND	UR	NE	No	2009	Runoff from fertilizer and naturally occurring.
Bromide	ug/L	0.0	11.9	ND	UR	NE	No	2010	Naturally occurring.
Boron	ug/L	ND	ND	ND	UR	NE	No	2009	Erosion of naturally occurring deposits.
Calcium	mg/L	59.4	186.0	5.5	UR	NE	No	2010	Erosion of naturally occurring deposits.
Conductance	umhos/cm	389	613	37	UR	NE	No	2010	Naturally occurring.
Cyanide, Total	ug/L	ND	ND	ND	UR	NE	No	2010	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
Dioxin	pg/L	ND	ND	ND	UR	NE	No	2009	Industrial discharge from factories.
Geosmin	ng/L	0.4	3.7	ND	UR	NE	No	2010	Naturally occurring organic compound associated with musty odor.
Hardness, Total	mg/L	158	259	20	UR	NE	No	2010	Erosion of naturally occurring deposits.
Magnesium	mg/L	10.8	22.3	1.0	UR	NE	No	2010	Erosion of naturally occurring deposits.
Molybdenum	ug/L	0.40	0.80	ND	UR	NE	No	2010	By-product of copper and tungsten mining.
Orthophosphates	mg/L	0.00	0.01	ND	UR	NE	No	2010	Erosion of naturally occurring deposits.
Potassium	mg/L	2.2	2.9	0.8	UR	NE	No	2010	Erosion of naturally occurring deposits.
Silica (Silicon Dioxide)	mg/L	11.5	11.7	11.2	UR	NE	No	2009	Erosion of naturally occurring deposits.
Surfactants	ug/L	40.0	80.0	ND	UR	NE	No	2010	Erosion of naturally occurring deposits.
TSS (Total Suspended Solids)	mg/L	0.44	4.00	ND	UR	NE	No	2010	Erosion of naturally occurring deposits.
VOCs									
None Detected	ug/L	None Detected			Various	Various	No	2010	Various sources.
PESTICIDES/PCBs/SOCs									
None Detected	ug/L	None Detected			Various	Various	No	2010	Various sources.

RADIOLOGICAL									
Radium 226	pCi/L	0.38	2.00	ND	NE	NE	No	2010	Decay of natural and man-made deposits.
Radium 228	pCi/L	0.38	1.29	-0.06	NE	NE	No	2010	Decay of natural and man-made deposits.
Radium 226 & 228	pCi/L	0.71	2.00	-0.05	5.00	NE	No	2010	Decay of natural and man-made deposits.
Gross-Alpha	pCi/L	5.5	20.2	ND	15.0	NE	No	2010	The high maximum result is not a violation but triggers quarterly monitoring. Decay of natural and man-made deposits.
Gross-Beta	pCi/L	7.0	47.6	ND	50.0	NE	No	2010	Decay of natural and man-made deposits.
Uranium	ug/L	4.5	14.7	0.0	30.0	NE	No	2010	Erosion of naturally occurring deposits.
Radon	pCi/L	-16.1	-13.8	-18.4	NE	NE	No	2008	Naturally occurring in soil.
DISINFECTANTS / DISINFECTION BY-PRODUCTS									
Chlorine	mg/L	0.5	1.4	0.0	4.0	NE	No	2010	Drinking water disinfectant.
TTHMs	ug/L	28.8	74.3	ND	80.0	NE	No	2010	By-product of drinking water disinfection.
HAA5s	ug/L	21.2	54.2	ND	60.0	NE	No	2010	By-product of drinking water disinfection.
Highest Annual System Wide Avg.	ug/L	TTHM = 30.4 ug/L, HAA5s = 23.7 ug/L							
Bromate	ug/L	ND	ND	ND	10.0	NE	No	2010	By-product of drinking water disinfection.
ORGANIC MATERIAL									
Total Organic Carbon	mg/L	1.9	2.4	ND	TT	NE	No	2010	Naturally occurring.
Dissolved Organic Carbon	mg/L	2.2	2.7	1.4	TT	NE	No	2010	Naturally occurring.
UV-254	1/cm	0.030	0.043	0.010	UR	NE	No	2010	This is a measure of the concentration of UV-absorbing organic compounds. Naturally occurring.
LEAD and COPPER (tested at the consumers tap) - monitoring required at least every 3 years. Last year tested 2010.									
Lead	ug/L	4	41	ND	AL = 15	NE	No	2010	Lead violation is determined by the 90th percentile result. Corrosion of household plumbing systems, erosion of naturally occurring deposits.
Copper	ug/L	130	534	9	AL = 1300	NE	No	2010	Corrosion of household plumbing systems, erosion of naturally occurring deposits.
90th Percentile		Lead = 4.5 ppb, Copper = 257 ppb							
# of sites above Action Level		Lead = 3, Copper = 0							
MICROBIOLOGICAL									
HPC	MPN/mL	11.5	73.8	ND	500.0	0.0	No	2010	
Total Coliform	% Positive per Month	0.09%	0.65%	0.00%	Not >5%	0.00	No	2010	MCL is for monthly compliance. All repeat samples were negative; no violations were issued. Human and animal fecal waste, naturally occurring in the environment.

mg/L: milligrams per liter
ug/L: micrograms per liter
pg/L: picograms per liter
ng/L: nanograms per liter
NTU: Nephelometric Turbidity Unit
CU: Color Unit
TON: Threshold Odor Unit
umhos/cm: micro ohms per centimeter
1/cm: One / centimeter
pCi/L: picocuries per liter
MFL: Millions of Fibers per Liter
MPN/mL: most probable number per millileter

MCL: Maximum Contaminant Level
MCLG: Maximum Contaminant Level Goal
TTHM: Total Trihalomethanes
HAA5s: Five Haloacetic Acids
HPC: Heterotrophic Plate Count
VOCs: Volatile Organic Compounds
PCBs: Polychlorinated Biphenyls
SOCs: Synthetic Organic Chemicals

ND: None Detected
NA: Not Applicable
NE: Not Established
UR: Unregulated
TT: Treatment Technique
AL: Action Level
SS: Secondary Standard

The most recent data collected is used. Data ranges indicate that multiple sources were tested at different times within the given range.