

WATER QUALITY REPORT

2007

Once Again, Your Water Meets All State & Federal Drinking Water Regulations



CONSUMER CONFIDENCE

Responsibilities To Our Customers

- QUICK RESPONSE TO EMERGENCIES
- AN ADEQUATE SUPPLY OF WATER FOR FIRE PROTECTION
- CONTINUAL MAINTENANCE AND UPGRADING OF OUR WATER SYSTEMS
- CONSISTENT WATER PRESSURE
- 24-HOUR CUSTOMER SERVICE
- PARTICIPATION IN COMMUNITY EVENTS
- WATER EDUCATION PROGRAMS
- FOR 24 HOUR EMERGENCY SERVICE CALL: 634-5835
- FOR WATER DEPARTMENT CALL 627-4800

What's New

The Environmental Protection Agency (E.P.A.) prescribes limits on the amount of each constituent



allowed in public water systems. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents. The presence of constituents does not necessarily indicate that water poses a health risk. More information about constituents and

potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Take Note

Some people may be more vulnerable to constituents 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/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial constituents are available from the Safe Drinking Water Hotline at (1-800-426-4791).



The public is invited to attend the Water & Energy Services Board Meetings which are generally held on the 2nd Wednesday of every month in the City Offices Conference Room. For more information call 674-4213.



This report contains important information about your drinking water.

Have someone translate it for you, or speak to someone who understands the information.



Commitment To Our Customers

Since the early 1900's, the City of St. George Water Department has been dedicated to producing safe water for all its customers. The City currently owns and operates 22 culinary wells, 11 located near Gunlock Reservoir, 5 in Snow Canyon, 3 near Winchester Hills/Ledges, 1 north of the Industrial Park, and 2 north of Washington City.

The City also receives water from numerous springs located on the south and west sides of Pine Valley Mountain. In 2007 the City transferred ownership of the Quail Creek Drinking Water Plant over to the Washington County Water Conservancy District.

The water plant still provides approximately 40 to 60 percent of the drinking water for St. George City.



On-Going Quality

To ensure the on-going quality of water, City personnel routinely monitor for constituents in our drinking water in accordance with State and Federal laws. During 2007, over 2,500 tests were taken on chemical, physical and microbiological properties of the City's water. Testing is done at all stages, from the water source all the way to your tap.

The information inside this brochure shows some of the results of our monitoring for the period of January 1st to December 31st, 2007.



Quail Creek Reservoir

Over the past couple of years St. George City and the Washington County Water Conservancy District have formed a team of in-house Biologists and Engineers to study the changing ecosystem within the Quail Creek Reservoir. Over time all lakes and reservoirs harvest more nutrients with increasing plant life and microorganisms. Some types of plants, mainly certain strains of blue green algae can form populations in the lake and cause problems in the water treatment process. In 2006, St. George City received a high number of phone calls from residents, complaining their drinking water tasted musty and unpalatable.

Efforts to identify and manage these taste and odor events have led our team to focus on the source of the problem, blue green algae populations at the bottom of the reservoir in random locations. With permission from the Department of Environmental Quality and hours of research, our taste and odor team was able to treat Quail Creek Reservoir at the areas of concern with a product called Copper Sulfate. The product was dispersed from a helicopter using an agricultural spreader. Copper Sulfate has long been used as an algicide in surface water reservoirs across the nation to destroy populations of blue green algae and has no harmful effects to the lake or fish populations when used under EPA guidelines, the copper precipitates into an inorganic form within 24 hours and does not reach the water plant or remain in the treated drinking water. Quail Lake underwent two treatments of Copper Sulfate during 2007 and ongoing monitoring has indicated the treatments were successful. If you have further questions about our taste and odor lake monitoring efforts, contact the Quail Creek Water Treatment Plant: 435-879-2361.



Arsenic Statement

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health affects against the costs of removing arsenic from drinking water.

EPA continues to research the health affects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health affects such as skin damage and circulatory problems.

EPA established a new standard of 10 ppb effective January 2006. St. George City has been granted an extension until 2009. You can read how St. George City is complying to the new rule by visiting our website at www.sgcity.org/arsenic.



Source Protection

The St. George City Water Department is committed to protecting the watersheds, or the land around our water sources from pollution and contamination. We ensure water quality and safety by protecting the lakes and streams that are our water sources. We closely monitor any activity around watersheds, watching for potential erosion, runoff, or anything that could put our water sources in danger.



Water Hardness

Our watershed policy provides guidance to developers who want to build without disturbing the streams and rivers. Our watershed and source protection programs are available to the public Monday through Friday, 8:00 a.m. to 5:00 p.m. at 811 E. Red Hills Parkway. For more information, call 627-4850.

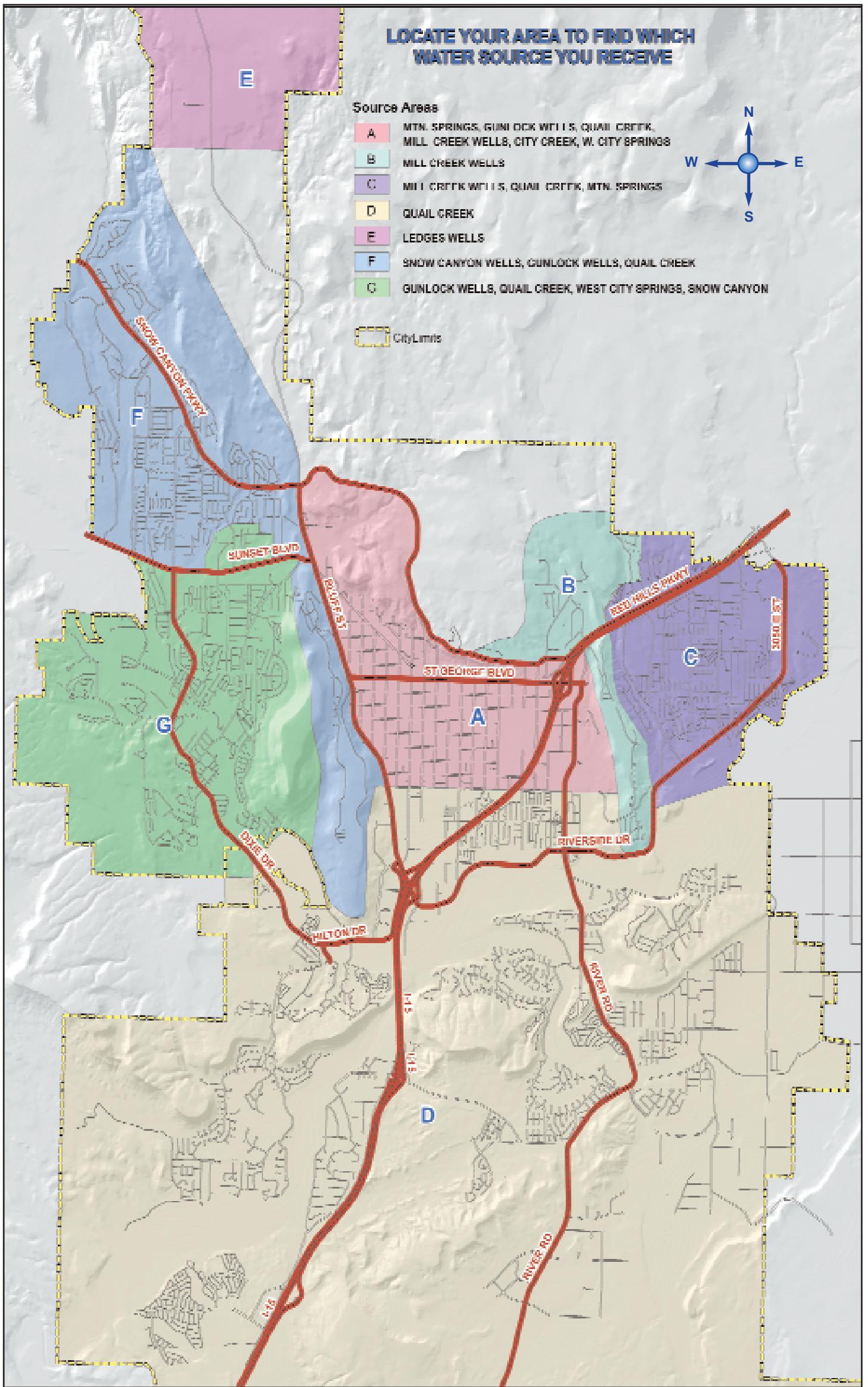
Your water contains minerals (calcium and magnesium) that are commonly referred to as "hardness". When setting your water softeners, it is important to know the hardness of your water so your water softener will operate efficiently. To determine the hardness of your water refer to the map inside this brochure. Locate your area on the map and refer to the chart to find the hardness in mg/l.

MG/L DIVIDED BY 17.1 GIVES YOU GRAINS OF HARDNESS.

For most residents in St. George, setting your water softener to 18 grains will enable it work properly.



Dispensing copper into Quail Creek Reservoir



How Do I Read This Chart?

Locate your area on the map to see which distribution zone it's in. The corresponding color chart shows from which source/sources you receive water. Each source has its own unique water quality characteristics. Refer to each individual column in the chart for the latest water analysis. The column labeled "M.C.L." provides you with the Maximum Contaminant Level as established by the United States Environmental Protection Agency for each compound. These are the standards with which all drinking water supplies must comply. In the first column, all of the compounds and test results are listed. The results are from the most recent water quality analysis performed.

WATER QUALITY MONITORING RESULTS

Microbiological contaminants													
Contaminant (units)	MCLG	MCL	Gunlock Wells	Snow Canyon Wells	Quail Creek WTP	Millcreek Wells	Tollman Wells	City Creek Wells	Mountain Springs	West City Springs	Violation	Typical Source	
Total Coliform (# of monthly positive samples)	2	2	0	0	0	0	0	0	0	0	N	Naturally present in the environment	
Turbidity (ground water, NTU)	N/A	5	0.24	<.02	N/A	0.04	4.3	0.5	0.26	0.02	N	Ground water acids	
Turbidity (surface water, NTU)	0.3 in at least 95% of the samples & must never exceed 1.0		N/A	N/A	0.08	N/A	N/A	N/A	N/A	N/A	N	Soil runoff	
Date Tested	N/A	N/A	3/31/2005	5/8/2006	12/19/2007	12/9/2003	12/29/2005	7/31/2002	01/01/2001	2/08/2005	N/A		
Radioactive Contaminants													
Contaminant (ppm)	MCLG	MCL	Gunlock Wells	Snow Canyon Wells	Quail Creek WTP	Millcreek Wells	Tollman Wells	City Creek Wells	Mountain Springs	West City Springs	Violation	Typical Source	
Alpha Emitters (pCi/L)	0	15	3.7	ND	5.9	8.4	ND	2	7	ND	N	Erosion of natural deposits	
Beta/Photon emitters (pCi/L)	0	50	ND	9	4.5	9.1	17	18	ND	8	N	Erosion of natural deposits	
Date Tested	N/A	N/A	5/9/2007	5/9/2005	8/22/2007	5/10/2007	12/29/2005	5/5/2005	5/5/2005	4/11/2003	N/A		
Inorganic Contaminants													
Contaminant (ppm)	MCLG	MCL	Gunlock Wells	Snow Canyon Wells	Quail Creek WTP	Millcreek Wells	Tollman Wells	City Creek Wells	Mountain Springs	West City Springs	Violation	Typical Source	
Arsenic (ppm) ^{*(variance)}	0	0.01	0.009	0.003	0.0012	0.0052	0.009	0.015	0.0011	0.011	N	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes	
Barium (ppm)	2	2	0.1	0.083	0.087	0.042	0.025	0.016	0.005	0.013	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
Fluoride (ppm)	4	4	0.2	0.2	0.2	0.2	0.3	2.4	0.2	0.6	N	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer & aluminum	
Nitrate (ppm)	10	10	0.3	0.3	ND	0.3	0.5	0.2	0.2	0.7	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Selenium (ppm)	0.05	0.05	0.0015	0.0038	0.0028	0.0013	0.0005	0.0008	ND	0.0009	N	Discharge from petroleum & metal refineries; erosion of natural deposits; discharge from mines	
Sodium (ppm)	N/A	N/A	16	42	53.6	6.5	142	160	4.3	140	N	Erosion of natural deposits; discharge from refineries & factories; runoff from landfills	
Sulfate (ppm)	N/A	N/A	23	198	260	88	380	410	2	290	N	Erosion of natural deposits; discharge from refineries & factories; runoff from landfills & croplands	
TDS (ppm)	500	1000	298	484	675	272	776	840	44	828	N	Erosion of natural deposits	
Non-Regulated Contaminants													
Hardness (ppm)	N/A	N/A	280	85 to 300	350	160	272	200	98	242	N		
Magnesium (ppm)	N/A	N/A	14	7.4 to 20	29.4	15	16.4	17.7	4.76	18.7	N		
Potassium (ppm)	N/A	N/A	18	1.5 to 2.0	3.9	1.8	15.5	15.8	ND	9.4	N		
Calcium (ppm)	N/A	N/A	91	22 to 40	84	49	76.7	129	18	66.2	N		
Zinc (ppm)	N/A	N/A	0.01	0.1	0.01	ND	0.01	0.019	0.014	ND	N		
Date Tested	N/A	N/A	3/31/2005	5/8/2006	12/19/2007	12/9/2003	12/29/2005	7/31/2002	7/31/2001	2/08/2005	N/A		
Contaminant (units)	MCLG	MCL	Distribution System Monitoring									Typical Source	
Lead (ppm)	0	AL = 0.015	0.003 (90th percentile result)									Corrosion of household plumbing systems; erosion of natural deposits	
Copper (ppm)	1.3	AL = 1.3	0.136 (90th percentile result)									Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Date Tested	July 2005												
	MCLG	MCL	Trihalomethanes										
HAA (Haloacetic Acids)ppm	0	0.06	Yearly Average				0.003						By-product of drinking water chlorination
THM (Total Trihalomethanes)ppm	0	0.08	Yearly Average				0.011						By-product of drinking water chlorination

TABLE DEFINITIONS

The state allows us to monitor for some constituents less than once per year because the concentrations of these constituents do not change frequently.

“EPA requires monitoring of over 80 drinking water constituents. Those constituents listed in the table above are the only constituents detected in your drinking water.”

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions. St. George currently has an arsenic extension until 2009.

Turbidity: Turbidity is a measure of the cloudiness of the water. Turbidity is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

Lead & Copper: To protect against adverse health effects EPA requires that 90% of tap water samples have lead concentrations below .015 ppm and copper below 1.3 ppm. This is known as the Action Level (AL).



Photo of Sand Hollow Reservoir by Doug Wilson

Parts per million (ppm) or Milligrams per liter (mg/l) One part per million is equivalent to one penny in \$10,000.

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

MG - Million Gallons

MGD - Million Gallons Per Day

ND - Not Detected

N/A - Not Applicable