Manuel C.
Horizon Elementary
"Save Our Planet By Saving Water"

MURRAY CITY WATER

2020 WATER QUALITY REPORT

Dear Murray City Water Customer:

Murray City is pleased to distribute its annual Water Quality Report for calendar year 2020. The report contains information about Murray City's water quality and provides a way for the City to share ideas with our customers, such as the importance of water conservation. The City continues to evaluate new and efficient ways to help conserve water and protect our most precious natural resource, and I ask for your continued support of these efforts.

Murray City's water supplies remain safe, with the water department taking 40 investigative water samples every month at various locations throughout the water system, looking for any possible signs of contamination. Regular sampling is required by the Division of Drinking Water, and Murray City will continue with careful monitoring in the future.

As in prior years, you will notice as you review the report that we have included some remarkable pictures from the Murray School District's 4th grade classes. The featured drawings are from a recent art contest sponsored by the Murray City Water Division in conjunction with the National Energy Foundation. I invite you to take a few minutes to read through this report, admire the artwork, and hopefully, learn something new and interesting about our water quality and ways you can conserve. I also encourage you to visit the murray.utah.gov website, where you will find information about our rebate programs and the current Water Conservation Plan.

Sincerely,

D. Blair Camp
Murray City Mayor

Mayor

D. Blair Camp

Council Members

Kat Martinez
Dale M. Cox
Rosalba Dominguez
Diane Turner
Brett A. Hales

City council meetings are held the first and third Tuesday of each month

Murray City Public Works is Social!

Follow us on Social Media.

instagram.com/MurrayCityPublicWorks
facebook.com/MurrayCityPublicWorks
twitter.com/MurrayCityWater
https://www.murray.utah.gov

Murray City Water Department

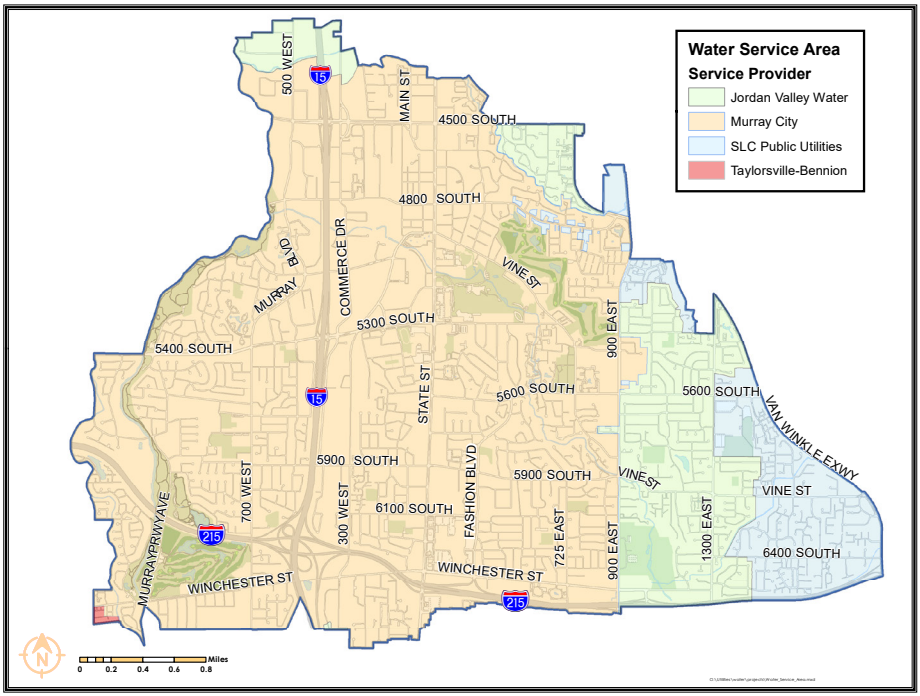
Interesting Facts

Murray water service area population		36,000
Water department employees		19
Water service connections		10,191
Employees per thousand connections		1.86
Number of water sources	Total	27
	Deep wells	19
	Springs	8
Total miles of waterline		194
Water storage capacity (gallons)		12,000,000
Fire hydrants	Total	1,962
	City owned	1,397
	Private owned	565
Total gallons pumped in 2019		3,408,878,000
Total gallons delivered in 2019		3,058,296,019
Average hardness of water supply		200 mg/L
		12 grains/gallon

Laynie L.
Longview Elementary

Jessica S.
McMillan Elementary

Murray City Water District Map



Important Phone Numbers

Murray City Public Works	
Water, Wastewater, Streets, Storm Water, Engineering	801-270-2440
After Hours/ Emergency	801-264-9669

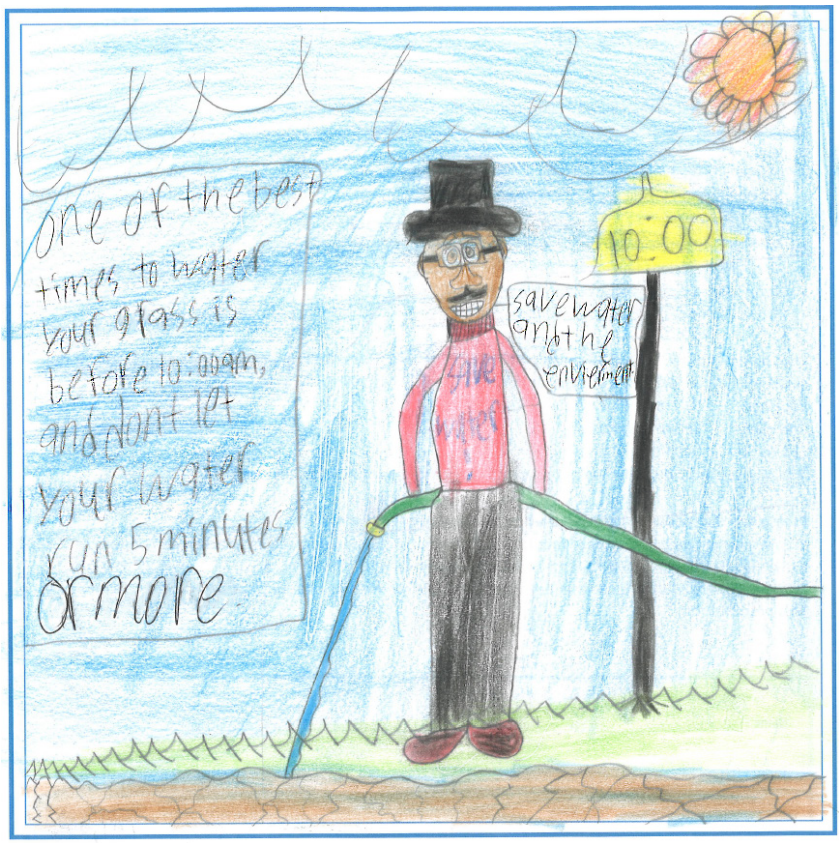
Other Water Districts in Murray	
Jordan Valley Water	801-565-4300
Salt Lake City Public Utilities	801-483-6700
Talorsville-Bennion	801-968-9081

Murray City Water Department

Water Conservation

Watering of lawns between the hours of 10:00 am to 6:00 pm is against city **Ordinance 13.08.120**. This was put in place in 2018 to be in line with state water management guidelines to help conserve water.

Utah weekly watering guide available at:
https://conservewater.utah.gov/guide.html



Bridger p.
Viewmont Elementary

Water Conservation

Sprinkler Spruce-Up!

The onset of warmer weather can lead to an increase in landscape irrigation. Before you ramp up your watering, be sure to spruce up your irrigation system. System maintenance can help save you a lot of money and water! Cracks in pipes can lead to costly leaks, and broken sprinkler heads can waste water and money. You could be losing up to 25,000 gallons of water and $280 over a six-month irrigation season!

- ***Inspect.*** Check your system for clogged, broken or missing sprinkler heads. Better yet, go with a pro—find an irrigation professional certified by a WaterSense labeled program to do the work for you.
- ***Connect.*** Examine points where the sprinkler heads connect to pipes/hoses. If water pools in your landscape or you have large soggy areas, you could have a leak in your system. A leak about as small as the tip of a ballpoint pen (or 1/32nd of an inch) can waste about 6,300 gallons of water per month.
- ***Direct.*** Are you watering the driveway, house, or sidewalk instead of your yard? Redirect sprinklers to apply water only to the landscape.
- ***Select.*** An improperly scheduled irrigation controller can waste a lot of water and money. Update your system's schedule with the seasons, or select a WaterSense labeled controller to take the guesswork out of scheduling.

For more water saving tips, please visit:
https://www.epa.gov/watersense/outdoors
https://slowtheflow.org

EPA WaterSense PARTNER

UTAH DNR WATER RESOURCES

SLOW THE FLOW SAVE H_2O

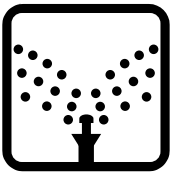
Murray City Water Department

WaterSense© Rebate Programs

Toilets

Toilets are by far the main source of water use in the home, accounting for nearly 30 percent of an average home's indoor water consumption. By replacing old, inefficient toilets (1.6 gallons per flush or more) with WaterSense labeled models (1.28 gallons or less), the average family can reduce water used for toilets by 20 to 60 percent—that's nearly 13,000 gallons of water savings for your home every year!

Smart Controllers



A clock-timer-controlled irrigation system that isn't properly programmed or maintained can waste as much as 25,000 gallons of water annually. Smart irrigation controllers can help save water by automatically adjusting watering schedules based on local weather and landscape needs.

For information on WaterSense toilet and smart controller rebates visit
https://utahwatersavers.com/

Utah Water Savers

Showerheads

Inefficient showerheads not only waste water, they waste energy used to heat that water. But every time you take a shower with a WaterSense labeled showerhead, you can save energy—equal to the amount of electricity it takes to light a 60-watt light bulb for 8 hours.

For information on WaterSense showerhead rebates visit
https://www.murray.utah.gov/234/Water

look for WaterSense Meets EPA Criteria

Products that have earned the WaterSense label have been indepently certified to use at least 20 percent less water and perform as well or better than standard models

Does Water Ever Flow Backwards?

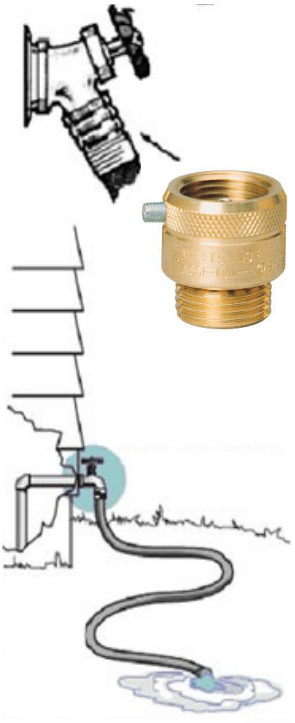
What is Backflow?

Water distribution systems are designed with the intention of the water flowing to the point of use, or from the City's main to the customer. However, hydraulic conditions within the system may deviate from "normal" conditions, causing water to flow in the opposite direction. This undesirable flow reversal of water is called backflow.

Backflow can cause the drinking water system to become polluted or contaminated.

Hose Bib (Hose Attached) Vacuum Breakers (HAVB)

Water users commonly use garden hoses for a variety of purposes, including:



- Watering lawns, flower beds and gardens.
- Washing cars and other items.
- Filling pools and hot tubs.
- Washing workshops, garages, food prep areas, etc.
- Applying liquid fertilizers and pesticides.

Any of these may involve attaching a chemical reservoir to the end of the hose (If at all possible avoid this practice!). In each of these cases, there is the potential to contaminate the water supply. Hose Bib Vacuum Breakers are simple, low-cost devices that should be used to help prevent backflow of water when engaging in the use of water hoses. They are easy to install and available at many plumbing supply stores.

American Backflow Prevention Association

Information provided by the American Backflow Prevention Association
http://www.nobackflow.com/abpaback.htm

Murray City Water Department

Water Testing

Murray Water Department takes more than 100 samples each month to make sure that your drinking water is safe. We monitor to make sure levels of chlorine and disinfectant bi-products are at safe levels and to check for other dangerous bacteria and viruses. We also monitor many natural contaminants including lead and copper.

Fluoridation

On October 1st 2003, Murray City began adding fluoride to the drinking water supply. This came about because of the passage of a ballot initiative in 2000. Murray voters passed the initiative by a 53% margin.

Fluoride is a naturally occuring mineral and, with a few exceptions, almost all water has some fluoride in it.

Murray City's water system has a natural fluoride level average of .25 ppm (parts per million). In accordance with Salt Lake Valley Health Department regulations, Murray Water Department adds enough fluoride to the water to bring the combined level between the mandated range of .6 to .9 ppm.

Non-fluoridated Water

Murray City offers two non-fluoridated water sources to those who would like to fill containers for drinking water. One site is located at 8 East 6100 South, the other is located at 630 East 5400 South.

Lead in Drinking Water

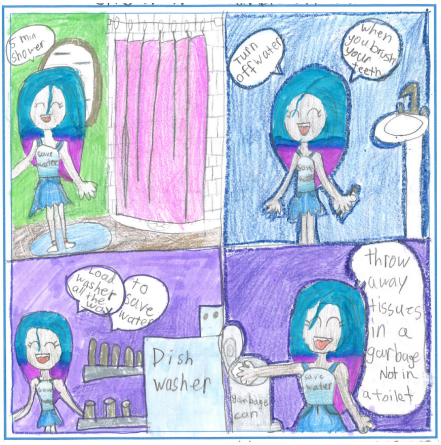
Lead is a naturally occurring element found in small amounts in the earth's crust. While it has many beneficial uses, it is known to be harmful to human health if inhaled or ingested in large amounts, especailly in young children and pregnant women.

Lead exposure can come from all parts of our environment - air, soil and dust, food, and water. Although Murray City water is well below the acceptable limits, lead can enter drinking water through the corrosion of plumbing materials inside the home.

The longer the water has been sitting in your home's pipes, the more potential lead has to leach from plumbing fixtures. You can minimize the potential for lead exposure by flushing your cold water tap until the water becomes cold before using water for drinking or cooking.

You can find more information on lead in drinking water at www.epa.gov/lead/learn-about-lead or from the Safe Drinking Water Hotline 1-800-426-4791

Sienna D.
Viewmont Elementary



Ardi R.
Parkside Elementary

Murray City Water Department

Consumer Confidence Report

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk.

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/ CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from:

Safe Drinking Water Hotline 1-800-426-4791.

Sophia S.
Grant Elementary

Lucy S.
Horizon Elementary

Consumer Confidence Report

We are pleased to present Murray City's 2020 Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. We are committed to continually making improvements to our water system to ensure that the quality of your water is safe, dependable and properly protected.

Murray City obtains its water from springs near Big Cottonwood Canyon along with underground water wells located throughout the Salt Lake Valley..

Murray City routinely monitors for contaminants in our drinking water in accordance with the Federal and State Drinking Water Rules. The following table shows the results of our monitoring for the calendar year of 2020, beginning January 1, 2020 through December 31, 2020.

Chloe H.
Longview Elementary

Daniel M.
McMillan Elementary

Murray City Water Department

Consumer Confidence Report

This chart lists the most recent test results for Murray City facilities and indicates the most likely source of contamination. The data is a range for all wells and springs with the lowest and highest levels.

Maximum Contamination Level (MCL) is the highest level of contaminant that is allowed in drinking water. Using the best available technology, MCL's are set as close to the goal as feasible. Maximum Contaminant Levels Goal (MCLG) is the level of a contaminant in drinking water below which there is no known or expected health risk. MCGL's allow for a margin of safety. In addition to the parameters listed in this report, Murray City monitors for many unregulated contaminants. The results are available at the Public Services office.

Substance	Units	MCL	MCLG	ND/Low-High	Most Likely Source of Contamination
PRIMARY INORGANICS-Monitoring required at least every 3 years for groundwater sources					
Arsenic	mg/L	.01	0	ND to .0039	Erosions of natural deposits
Barium	mg/L	2	2	.034 to .23	Erosions of natural deposits
Copper	mg/L	1.3	1.3	ND to .02	Erosions of natural deposits
Cyanide	mg/L	.2	.2	ND to .01	Erosions of natural deposits
Fluoride	mg/L	4	4	.1 to .4	Erosions of natural deposits
Lead	mg/L	.015	0	ND to .011	Erosions of natural deposits
Nitrate (as N)	mg/L	10	10	ND to 3.4	Excess Fertilization
Selenium	mg/L	.05	.05	ND to .0028	Erosions of natural deposits
Sodium	mg/L	NE	NE	9.6 to 133	Erosions of natural deposits
Sulfate	mg/L	500	500	18 to 141	Erosions of natural deposits
TDS	mg/L	2000	NE	124 to 908	Erosions of natural deposits
Turbidity	NTU	5	.03	.02 to 2	Suspended matrial from soil runoff
SECONDARY INORGANICS-aesthetic standards					
Chloride	mg/L	250	NE	10 to 210	Erosions of natural deposits
Color	CU	15	NE	0 to 10	Decaying, naturally-occuring organic material and suspended particles
Iron	mg/L	.3	NE	ND to .34	Erosions of natural deposits
Manganese	mg/L	.05	NE	.005 to .124	Erosions of natural deposits
pH		6.5 to 8.5	NE	7 to 8.1	Naturally occurring
Zinc	mg/L	5	NE	ND to .013	Erosions of natural deposits
LEAD & COPPER (tested at consumer's residence) tested every 3 years					
Copper	mg/L	1.3	1.3	.017 to .253	Corrosion of household plumbing systems
Lead	mg/L	.015	.015	ND to .0033	Corrosion of household plumbing systems
90th Percentile Compliance Numbers from 2019				Copper = 0.155 Lead = 0.0018	

Consumer Confidence Report

Key to Table

MCL: Maximum Contaminant Level
MCLG: Maximum Contaminant Level Goal
ND/Low High: Lowest to highest levels detected from all sources
mg/L: milligrams per liter (parts per million, one penny in $10,000)
ug/L: micrograms per litter (parts per billion, one penny in $10,000,000)
pci/L: picocuries per litter (a measure of the radioactivity in water)
NTU: Nephelometric Turbidity Unit (a measurement of the clarity of water, cloudiness)
CU: Color Unit
ND: Non-detected (less than the laboratory method can see)
NE: Not established
UR: unregulated (no EPA standard set)

Substance	Units	MCL	MCLG	ND/Low-High	Most Likely Source of Contamination
MICROBIOLOGICAL					
Total Coliform	% positive each month	5%	0%	5%	Human and animal fecal waste, naturally-occuring in the environment. MCL is for monthly compliance. Repeat samples were negative; no violations were issued
DISTRIBUTION SYSTEM CONTAMINANTS					
Chlorine Residual	mg/L	4	NE	ND to .21	Drinking water disinfectant
TTHM	ug/L	80	0	ND to 1.05	By-product of drinking water disinfection
Fluoride	mg/L	4	4	.41 to 1.05	Water additive that promotes strong teeth
RADIOLOGICAL					
Gross- Alpha	pCi/L	15	NE	-1 to 8.5	Decay of natural and man made deposits
Gross-Beta	pCi/L	50	NE	.5 to 13	Decay of natural and man made deposits
Combined Radium	pCi/L	5	NE	-3.5 to .58	Decay of natural and man made deposits
Uranium	mg/L	.03	NE	ND to .0148	Decay of natural and man made deposits
VOCs					
Chloroform	ug/L	UR	NE	ND to 3.2	By-product of drinking water disinfection
PESTICIDES					
None Detected					
UNREGULATED PARAMETERS- monotoring not required					
Calcium	mg/L	UR	NE	19.4 to 113	Erosion of naturally occuring deposits
Hardness, total	mg/L	UR	NE	81 to 463	Erosion of naturally occuring deposits
Hardness, grains	Grains per Gallon	UR	NE	4.73 to 27.05	Erosion of naturally occuring deposits
Magnesium	mg/L	UR	NE	7.8 to 43.8	Erosion of naturally occuring deposits
Potassium	mg/L	UR	NE	1.3 to 8.4	Erosion of naturally occuring deposits
Silica	mg/L	UR	NE	5.7 to 21.5	Erosion of naturally occuring deposits

Murray City Water Department

MURRAY
CITY WATER

Murray City Corporation
5025 South State Street
Murray, Utah
84107

Tap into Murray Quality
MURRAY CITY WATER

EPA WaterSense