

# DRINK LOCAL TAP WATER!

## 2017 ANNUAL WATER QUALITY CONSUMER CONFIDENCE REPORT

PARK CITY



WATER  
QUALITY

Dear Park City Water Customer,

We are pleased to provide the 2017 Drinking Water Quality Consumer Confidence Report. Once again, Park City Water has provided the highest-quality drinking water and customer service for our residents, visitors and businesses. As with years past, all drinking water met or exceeded quality standards set by the Environmental Protection Agency and Utah Division of Drinking Water for all testing from January through December 2017.

### Setting the Standard for Excellence

Park City has one of the most complex municipal water systems in the country. Although we are classified as a “small water system,” by the U.S. Environmental

working hard to design and construct a complete, redundant water treatment system that will provide safe, plentiful drinking water for generations to come. Last year, we completed two capital projects to help shore up the entire system and meet increasingly stringent federal and state regulations: we significantly upgraded the Quinns Junction Water Treatment Plant (which treats water from the Weber River) and constructed a new treatment facility next to Creekside Park. You can read more about both projects elsewhere in this report.

### Future Capital Projects

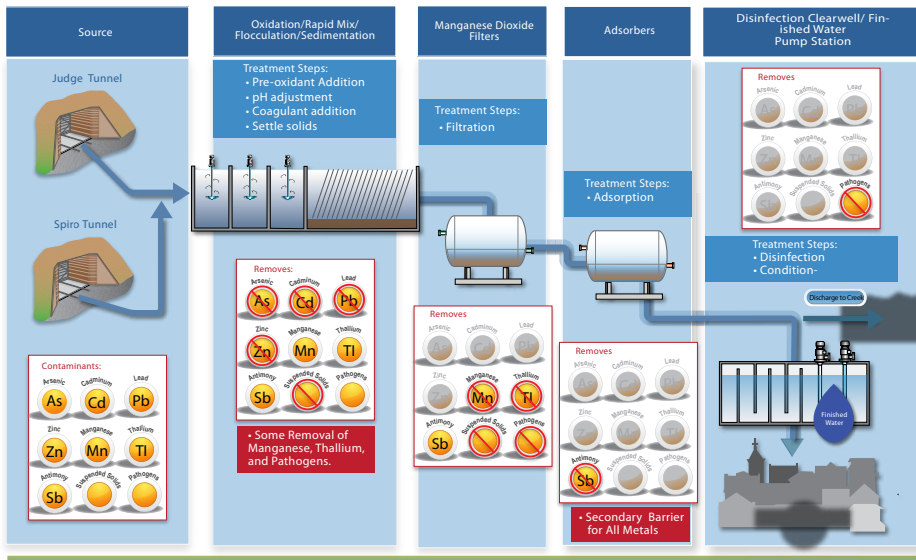
In addition to these projects, we are designing the 3Kings Water Treatment Plant to treat Judge and Spiro Tunnels. This state-of-the-art plant will help Park City

comply with the Clean Water Act stream standards and increase overall drinking water treatment system capacity. The facility is presently being designed to net-zero carbon emission standards and will help the City meet our highly ambitious climate goals. You can learn more about our energy and climate plan by going to [parkcity.org](http://parkcity.org) and searching for “environmental sustainability”. For information about the 3Kings Water Treatment Plant go to [3KingsWTP.parkcityutilities.org](http://3KingsWTP.parkcityutilities.org).

### The Bottom Line

Park City water continues to be of superior quality. You can drink Park City water with confidence and

3Kings Water Treatment Plant Schematic



Protection Agency, we have seven sources, quite a high number for a town of our size. We also continue to manage our town’s mining legacy. We meet these challenges through strict compliance with state and federal standards, as well as unyielding professionalism and dedication to excellence.

### Continued Investment in our Water Treatment Infrastructure

Park City’s municipal water system is an invaluable community asset, and we are

pride. If you ever have questions about your water quality don’t hesitate to give me a call.

Sincerely,

Michelle De Haan  
Water Quality and Treatment Manager  
435.615.5340

Park City is a proud member of the Utah Water Quality Alliance, continually striving to produce the best quality water.





## CREEKSIDE WATER TREATMENT PLANT

*The building was designed with the neighborhood in mind*

We are happy to announce the completion of the Creekside Water Treatment Plant, which sits adjacent to Creekside Park on Holiday Ranch Loop Road. This newly opened plant treats water from two wells: Divide Well and Park Meadows well. In 2006 (and again in 2012), the Park Meadows well was designated as being under the influence of surface water, which triggered more stringent regulations to protect public health and safety. The new facility treats the water with ultraviolet light, chlorine, and cartridge filtration.



On-site chlorine generation

### On-site Chlorine Generation

The plant was designed—first and foremost—with the safety of the surrounding neighborhood in mind: the chlorine used in the treatment process is actually generated on-site, rather than being trucked in. The only chemical delivered to the location is salt, a key component in chlorine. When electricity is applied to a water-salt mixture, chlorine is produced. In addition, the chlorine generated through this process is very low-strength (0.8 percent), as opposed to what had been shipped in (12 percent). This offers a much safer and more environmentally friendly alternative.



Chlorine-feed pumps

### Energy-efficient Design

We are also proud of the new building's advanced energy-efficiency features, including enhanced building envelope systems to reduce heating and cooling demands, heat recovery systems, and photovoltaic (solar) panels that provide enough power to meet the building's lighting and heating needs. Park City has the most ambitious climate goals in North America (we are on track to achieve net-zero municipal carbon emissions by 2022), and our water-treatment facilities are a key part of our energy-reduction strategies.

## SURFACE WATER TREATMENT

The Quinns Junction Water Treatment Plant is a state-of-the-art facility that treats water from the Weber River upstream of Rockport Reservoir with microfiltration, organic contaminant removal, taste and odor control, manganese removal, and chlorine disinfection.

### THREE WELL SOURCES

- Middle School Well
- Creekside Water Treatment Plant
- Divide Well
- Park Meadows Well – Treated by cartridge filtration and ultraviolet light due to classification by Utah DDW as a groundwater under the influence of surface water.

### ONE SPRING

Thiriot Spring

### ONE TUNNEL SOURCE

Spiro Tunnel – treated through a coagulation/filtration plant for

reduction of arsenic and thallium to meet the MCL and reduction of iron and manganese to below the aesthetic secondary MCL. Treated Spiro Water is blended with Thiriot Springs under a Utah DDW-approved plan to reduce antimony concentrations.

## WHOLESALE TREATED WATER

Jordanelle Special Service District

### SOURCE PROTECTION PLAN

Park City's Drinking Water Source Protection Plan was initially approved by the state in 1999 and was updated in 2011 and 2016. It contains information about source-protection zones, potential contamination sources and management-protection strategies. Potential contamination sources common in our protection areas are residential properties; roadways; infrastructure (i.e., sewer and storm drains); golf courses; mine tailings and related mine workings; and ski-resort operations.



# WATER QUALITY DATA TABLE

We routinely monitor for contaminants in your drinking water in accordance with the EPA and Utah DDW. The following table shows the results of our water-quality analysis from January 1, 2017 to December 31, 2017 – or the most recent testings completed in accordance with regulations. Every regulated contaminant detected in the water, even in the most minute traces, is listed in this table, along with the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of contamination, and a key to units of measurement. Park City also samples within the distribution system for many contaminants four times a year. Those results can be found at [parkcityutilities.org](http://parkcityutilities.org).

Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contaminant
Antimony	N	ND - 4.4	ppb	6	6	2016-2017	Substance that occurs naturally in drinking water.
Arsenic	N	ND-5.8	ppb	0	10	2016-2017	Erosion of natural deposits. Runoff from orchards. Runoff from glass and electronic production waste.
Barium	N	0.009-0.082	ppm	2	2	2016-2017	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
Copper a. 90th percentile b. # of homes that exceed the AL	N	a. 0.279 0 of 21	ppm	N/A	AL = 1.3	2016	Corrosion of household plumbing. Erosion of natural deposits.
Lead a. 90th percentile b. # of homes that exceed the AL	N	a. 0.0019 0 of 21	ppm	0	AL = 0.015	2016	Corrosion of household plumbing. Erosion of natural deposits.
Fluoride	N	ND-0.2	ppm	4	4	2016-2017	Erosion of natural deposits.
Nitrate	N	ND-2.1	ppm	10	10	2017	Runoff from fertilizer use. Leaching from septic tank sewage. Erosion of natural deposits.
Sodium	N/A	3.7-153	ppb	N/A	N/A	2016-2017	Erosion of natural deposits. Note: Utah DDW requires monitoring for sodium though no MCL has been established.
Selenium	N	0.7-2.9	ppb	50	50	2016-2017	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sulfate	N	12-217	ppm	N/A	1,000	2017	Occurs naturally in drinking water. Note: Utah DDW established an MCL. EPA SMCL MCL = 250 ppm
TDS (Total dissolved solids)	N	196-1180	ppm	N/A	2,000	2017	Erosion of natural deposits. >1,000 ppm requires evaluation of other available sources. EPA SMCL = 500 ppm
Turbidity at Quinns Junction WTP	N	Highest Avg. Monthly: 0.030 Highest: 0.088 100% ≤ 0.3	ntu	1	TT Requirement: < 95% of time < 0.3 ntu	2017	Soil Runoff
Turbidity at Park Meadows Well	N	Highest Avg. Monthly: 0.157 Highest: 0.277 100% ≤ 0.3	ntu	1	TT Requirement: < 95% of time < 0.3 ntu	2017	Soil Runoff
Chlorine Residual	N	Range: 0.3-2.1 Avg. 1.4	ppm	MRDLG =4	MRDL = 4	2017	Water additive used to control microbial growth.

## ORGANIC CONTAMINANTS

Bromodi-chloromethane	N	ND-0.7	ppb	0	80 (Sum of 4 TTHMs)	2016-2017	Byproduct of drinking water chlorination.
Chloroform	N	ND - 1.4	ppb	0	80 (Sum of 4 TTHMs)	2016-2017	Byproduct of drinking water chlorination.

## RADIOACTIVE CONTAMINANTS

Gross Alpha	N	ND - 4.4	pCi/l	0	15	2016	Decay of natural and man-made products.
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## DISINFECTION BY-PRODUCTS (RAA=RUNNING ANNUAL AVERAGE)

Total Trihalomethanes (TTHMs)	N	2.8-23.9	ppb	Highest LRAA 16.6	N/A	80	1st - 4th Qtr 2017	Byproduct of drinking water chlorination.
Total Haloacetic Acid (HAAs)	N	0-15.7	ppb	Highest LRAA 9.3	N/A	60	1st - 4th Qtr 2017	Byproduct of drinking water chlorination.

For water systems that have multiple sources, the Utah DDW has given systems the option of listing test results of contaminants in one table, instead of multiple tables. To accomplish this, the lowest and highest values detected in the multiple sources are recorded in the same space in the report table.

## HELP MAINTAIN YOUR DRINKING WATER PLUMBING

Park City's Water Department is dedicated to delivering high-quality drinking water, and it is important homeowners and businesses understand their responsibility beyond the meter. Past the meter, each customer is responsible for the quality of their water. The American Water Works Association has developed videos and brochures with tips on maintaining high-quality water in homes

and business, as well as information about home treatment systems. For details, please visit [DrinkTap.org](http://DrinkTap.org) and click [Water Info](#).

Certain times of the year Park City homes and businesses use very little water, especially hot water. It is important to conduct proper maintenance prior to bringing building plumbing back into service (e.g., flushing boilers/hot water heaters, unused faucets, etc.).



# QUINNS JUNCTION WATER TREATMENT PLANT

Recent upgrades will help ensure reliability while contributing to the City's energy-efficiency goals



Quinns Junction WTP microfilters



Fan reduces stratification of air



South-facing solar wall

The Quinns Junction Water Treatment Plant began operating in 2011 to treat a new source for the City: water from the Weber River upstream of Rockport (the first surface-water source in the City's portfolio). In heavy runoff years, however, the plant had to be shut down for two-to-three months because it could not process large volumes of poor quality water during warm-winter storms or spring runoff. Last year, the plant underwent a series of upgrades to address four issues:

**Year-round Capacity:** The City increased the plant's overall capacity to treat organic contaminants in the water year-round (because the Weber River is surface water, the primary contaminants are organics from farms or those naturally occurring in soils) with an additional granular activated carbon (GAC) vessel. The plant can now operate seven days a week, 365 days a year, at a rate of 4.2 million gallons per day.

**Manganese Filters:** The City installed new filter vessels to remove manganese, a heavy metal that occurs naturally in soils throughout the United States. Manganese does not have an MCL (the primary health standard), but turns the water a yellowish-brownish color when it comes into contact with chlorine.

**Backwash Basin:** A large basin was added behind the building to backwash the large filter vessels (backwashing cleans filter media by sending water backward through the vessels).

**Energy Upgrades:** The City installed a very large fan in the process area to reduce stratification of air (push the hot air down). This increases the effectiveness of the heating and cooling systems, greatly reducing costs. The City also installed a south-facing "solar wall," which uses passive solar heating to supplement the building's heating needs. (The facility needs to maintain a very consistent temperature for the various treatment processes.) Smaller finished water pumps were also installed to provide more efficient pumping during low-water demand time periods.

## IMPORTANT DEFINITIONS & ABBREVIATIONS

### ACTION LEVEL (AL):

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

### LOCATIONAL RUNNING ANNUAL AVERAGE (LRAA):

Samples collected for four consecutive quarters at one sample location, with results averaged over that period.

### 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.

### MAXIMUM CONTAMINANT LEVEL (MCL):

The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as possible, using optimal treatment technology.

### 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 contaminants.

### MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL):

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

### NOT APPLICABLE (NA):

The measurement does not apply.

### NON-DETECT (ND):

No contaminant level detected during testing.

### NEPHELOMETRIC TURBIDITY UNITS (NTU):

Measure of water clarity.

### PICOCURIES PER LITER (PCI/L):

Measure of the radioactivity in water.

### PARTS PER BILLION (PPB) OR MICROGRAMS PER LITER (MG/L):

Units describe the levels of detected substances. One ppb is approximately equal to one drop of water in a small backyard swimming pool (13,000 gallons).

### PARTS PER MILLION (PPM) OR MILLIGRAMS PER LITER (MG/L):

Units describe the levels of detected substances. One ppm is approximately equal to one drop of food coloring in 13 gallons of water.

### SECONDARY MAXIMUM CONTAMINANT LEVEL (SMCL):

USEPA does not enforce SMCLs. They are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor. These contaminants are not considered to present a risk to human health at the SMCL.

### TREATMENT TECHNIQUE (TT):

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

### VARIANCE:

Permission not to meet an MCL under certain conditions.

### WAIVERS:

Because some chemicals are not used or stored in areas around drinking water sources, some water systems have been given waivers that exempt them from having to take certain chemical samples, these waivers are also tied to Drinking Water Source Protection Plans.



Quinns Junction WTP manganese filters



Creekside WTP filters



Quinns Junction WTP

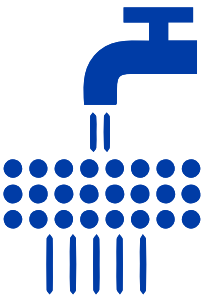
## EPA HEALTH INFORMATION

To ensure your tap water is safe to drink, the Environmental Protection Agency prescribes limits on the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. For more information about contaminants and potential health effects, call the [EPA's Safe Drinking Water Hotline, 800-426-4791](https://www.epa.gov/safewater/hotline).

The sources of drinking water (tap and bottled) include rivers, lakes, streams, ponds, springs and wells. As water travels over the surface of the land or through the ground, naturally occurring minerals and radioactive materials are dissolved. The water can also pick up

substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:



(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

(B) 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.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are byproducts of industrial processes and petroleum production; can also come from gas stations, urban storm water runoff and septic systems.

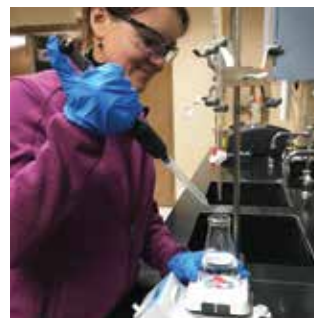
(E) Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

## ATTENTION IMMUNOCOMPROMISED PERSONS

Some people may be more susceptible to contaminants in drinking water than the general population. Immunocompromised persons undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, elderly people and infants can be particularly at risk for infections. If applicable, please seek advice from your healthcare provider. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available at the [Safe Drinking Water Hotline, 800-426-4791](https://www.epa.gov/safewater/hotline).

## ABOUT LEAD

Present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking



water quality testing

water is primarily from materials and components associated with service lines and home plumbing. The Park City Water Department 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-two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you might want to have it tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the safe [Drinking Water Hotline](https://www.epa.gov/safewater/hotline) or at [epa.gov](https://www.epa.gov). Despite concerns about drinking water, the EPA notes that "the greatest exposure to lead is swallowing or breathing in lead paint chips or dust."

# SMART WATER IRRIGATION

Install a Smart Irrigation Controller and receive a credit of up to \$300 on your account. Smart Irrigation Controllers can cut your outdoor water use by 15% or more. For more information, visit [parkcityutilities.org](http://parkcityutilities.org).

## RESOURCES

### GENERAL INQUIRIES

Park City Water Department  
M-F; 8 a.m.-5 p.m.  
435.615.5335

[parkcitywater.org](http://parkcitywater.org)

### SAFE DRINKING WATER HOTLINE

800.426.4791

### WATER EFFICIENCY TIPS

[parkcity.waterinsight.com](http://parkcity.waterinsight.com)

### MAINTAINING DRINKING WATER PLUMBING

[DrinkTap.org](http://DrinkTap.org), [click WaterInfo](#)

### LEAD IN DRINKING WATER

[epa.gov](http://epa.gov)

## EVEN-ODD LANDSCAPE WATERING

*Effective May 1–September 30, 2018* It's easy to remember when to plan your outside watering. If you live or work at an even-numbered address, water on even-numbered days. If your home or business is at an odd-numbered address, water on odd-numbered days. In either case, remember that outside watering is allowed only between the hours of 7:00 p.m. and 10:00 a.m. The Park City water manager may make exceptions for new landscaping.

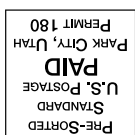
## WaterSmart

If you are a Park City Water customer, you have likely received a Home Water Report by mail or email, which provides valuable information on how to improve water efficiency for lower bills and long-term conservation practices. If you are not an account holder, you can access our WaterSmart customer portal at [parkcity.waterinsight.com](http://parkcity.waterinsight.com) for information on water conservation practices and watershed preservation.

Thank you for participating in Park City's WaterSmart program. By working together, we can make a vital contribution toward sustainability now and in the future.



Postal Patron



P.O. Box 1480  
Park City, Utah 84060

