

2021 Consumer Confidence Report

Water System Information

Water System Name: **Cow Creek Water System**

Report Date: **June 21, 2022**

Type of Water Source(s) in Use: Ground Water

Name and General Location of Source(s):

The Cow Creek water supply is collected from the Nevares Spring's infiltration gallery which is located about two miles east of the Cow Creek housing area.

Drinking Water Source Assessment Information:

A source water assessment was conducted for the sources of the Death Valley National Park public water systems in May 2002. The Nevares Spring is not considered vulnerable to any potentially contaminating activities at this time. The detection of arsenic and fluoride is considered naturally occurring. Reverse osmosis treatment is provided for these. A copy of the complete assessment may be viewed at the Death Valley National Park office or requested from the State Water Resources Control Board, Division of Drinking Water at (909) 383-4328 or 464 West 4th Street, Suite 437, San Bernardino, CA 92401.

The raw water is considered moderately mineralized consisting of sodium, calcium and magnesium, salts and bicarbonate, sulfates, and chloride. The water is considered high silica water in which amorphous silica and magnesium deposits could create serious problems by fouling surfaces of water handling equipment. This type of silica scale is very tenacious and difficult to remove. The Reverse Osmosis Plant is effectively removing the minerals. Specific water quality data relating to system water supplies can be found below.

Time and place of regularly scheduled board meetings for public participation: Please call Bill Hagan for an appointment at (760)786-3261 or email william_hagan@nps.gov.

For More Information, contact: William Hagan at (760) 786-3261.

About This Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2021 and may include earlier monitoring data. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Cow Creek Water System a PO Box 579 Death Valley, CA 92328 para asistirlo en español.

Terms Used in This Report

Term	Definition
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Term	Definition
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 are set by the U.S. Environmental Protection Agency (U.S. EPA).
Primary Drinking Water Standards (PDWS)	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Public Health Goal (PHG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Secondary Drinking Water Standards (SDWS)	MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
ND	Not detectable at testing limit.
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter (µg/L)
pCi/L	picocuries per liter (a measure of radiation)

Sources of Drinking Water and Contaminants that May Be Present in Source Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that 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, that 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, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

About Your Drinking Water Quality

Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 6, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Table 1. Sampling Results Showing the Detection of Coliform Bacteria

Complete if bacteria are detected.

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (State Total Coliform Rule)	(In a month) 0	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (State Total Coliform Rule)	(In the year) 0	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive	None	Human and animal fecal waste
<i>E. coli</i> (Federal Revised Total Coliform Rule)	(In the year) 0	0	(b)	0	Human and animal fecal waste

(a) Two or more positive monthly samples is a violation of the MCL

(b) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Table 2. Sampling Results Showing the Detection of Lead and Copper

Complete if lead or copper is detected in the last sample set.

Lead and Copper	Sample Date	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	7/23/2019	5	3.35	0	15	0.2	None	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	7/23/2019	5	0.35	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Table 3. Sampling Results for Sodium and Hardness

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	7/23/2019	130	NA	None	None	Salt present in the water and is generally naturally occurring.
Hardness (ppm)	7/23/2019	180	NA	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring.

Table 4. Detection of Contaminants with a Primary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (source water)	7/23/2019	5.4 µg/L	NA	10 µg/L	0.004 µg/L	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (naturally occurring) (treated water)	1/5/2021	1.4 mg/L	1.1 - 1.4	2.0 mg/L	1 mg/L	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha (source water)	11/18/2020	14.6 pCi/L	NA	15 pCi/L	0	Erosion of natural deposits
Uranium (source water)	6/9/2020	0.75 pCi/L	NA	20 pCi/L	0.43 pCi/L	Erosion of natural deposits
Combined Radium (source water)	6/9/2020	3.96 pCi/L	NA	5 pCi/L	0	Erosion of natural deposits

Table 5. Detection of Contaminants with a Secondary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (source water)	7/23/2019	33 mg/L	NA	500 mg/L	NA	Runoff/leaching from natural deposits; seawater influence.
Odor (Source water)	11/18/2020	1 Unit	NA	3 Units	NA	Naturally-occurring organic materials.
Conductivity (source water)	7/23/2019	930 μ S/cm	NA	1,600 μ S/cm	NA	Substances that form ions when in water; seawater influence.
Sulfate (source water)	7/23/2019	180 mg/L	NA	500 mg/L	NA	Runoff/leaching from natural deposits; seawater influence.
Total Dissolved Solids (TDS) (drinking water)	2/20/2021	224 mg/L	83-224 mg/L	1,000 mg/L	NA	Runoff/leaching from natural deposits.

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
None					

Additional General Information on Drinking Water

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. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

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. U.S. EPA/Centers for Disease Control (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).

Lead-Specific Language: 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 Cow Creek Water System 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in Cow Creek Water System – 2021

drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800- 426-4791) or at <http://www.epa.gov/lead>.

Additional Special Language for Nitrate, Arsenic, Lead, Radon, and *Cryptosporidium*: While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
None				

For Water Systems Providing Groundwater as a Source of Drinking Water

Table 8. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	(In the year) 0		0	(0)	Human and animal fecal waste
Enterococci	(In the year) 0		TT	N/A	Human and animal fecal waste
Coliphage	(In the year) 0		TT	N/A	Human and animal fecal waste

Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT

Special Notice of Fecal Indicator-Positive Groundwater Source Sample: None Detected

Special Notice for Uncorrected Significant Deficiencies: None Detected

Table 9. Violation of Groundwater TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
None				