

2016 Consumer Confidence Report

Water System Name: Uriah Heeps Spring Water System Report Date: 06/7/2017

The Environmental Protection Agency (EPA) mandates that every water system serving at least 15 homes provide its consumers with an annual report on the quality of the water it serves. The purpose of the report is to alert consumers of potential health concerns and allow them to make informed choices regarding the water that they consume. The tables included in this report summarize results of drinking water testing performed between January 1, 2015 and December 31, 2015. Some of the results are from previous years because we are required to monitor for certain contaminants less than once per year.

Type of water source: Groundwater

Name & Location of sources: Uriah Heeps Springs

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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, which 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*, which 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, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (USEPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.

Tables 1, 2, and 3 list the drinking water contaminants that were detected during the most recent sampling for the constituent. We are pleased to inform you that no contaminants were above the Maximum Contaminant Levels (MCLs) set by the USEPA. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. We are required to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old. **Table 4 list the violations. We are working very hard to ensure no further violations occur due to our failure to monitor for contaminants.**

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (to be completed only if there was a detection of bacteria)	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	0 results showed detection	No Detects - 2013	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (to be completed only if there was a detection of lead or copper in the last sample set)	Year Sampled	90th percentile level detected	No. Sites exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead	2011	1.87 ppb	0	15 ppb	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper	2011	1.09 ppb	0	1.3 ppm	1,3ppm	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

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. White Rocks Water System personnel are 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. If you are concerned about lead in your drinking water, you may wish to have your water 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 or at <http://www.epa.gov/safewater/lead>.

***Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided in Table 4 below.**

TABLE 3 - REGULATED SUBSTANCES

Chemical or Constituent	Sample Year	Highest Level Detected	Range of Levels Detected	MCL	MCLG	Typical Source of Contaminant
Chlorine	2016	1	1 - 1	n/a	MRDL=4	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2015	6.5 ppb	4 - 6.5	60 ppb	No goal for total	Byproduct of drinking water disinfection.
TTHMs (Total Trihalomethanes)	2015	23.8 ppb	13.8 - 23.8	80 ppb	No goal for total	Byproduct of drinking water disinfection.
Chemical or Constituent	Sample Year	Highest Level Detected	Range of Levels Detected	MCL	MCLG	Typical Source of Contaminant
Asbestos	2015	0.2 MFL	0.2 - 0.2	7 MFL	7MFL	Decay of asbestos cement water mains; of natural deposits.
Barium	2014	0.13956	0.13956-0.13956	2 ppm	2 ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2014	0.2707 ppm	0.2707-0.2707	4 ppm	4 ppm	Water additive which promotes strong teeth. Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2016	0.224	0.224-0.224	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

TABLE 4 - VIOLATIONS

Ground Water Rule			
Consumer Confidence Rule			
The Consumer Confidence Rule community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
* CCR REPORT	07/01/2013	06/30/2016	We failed to provide to you, our drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water.
* CCR REPORT	07/01/2014	06/30/2016	We failed to provide to you, our drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water.
* CCR REPORT	07/01/2015	06/30/2016	We failed to provide to you, our drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water.

The Ground Water Rule specifies the appropriate use of disinfection while addressing other components of ground water systems to ensure public health protection.

Violation Type	Violation Begin	Violation End	Violation Explanation
FAILURE TO CONSULT, GWR	12/02/2013	2016	We failed to properly consult with our regulator about correcting a significant deficiency or positive source water sample in our water system.

Haloacetic Acids (HAA5)*

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (DBP), MAJOR	8/01/2015	7/31/2016	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Lead and Copper Rule*

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	1/01/2015	2016	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2016	2016	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Total Trihalomethanes (TTHM)*

Some people who drink water containing trihalomethanes in excess of the MCL over many years may have experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (DBP), MAJOR	8/01/2015	7/31/2016	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

The Environmental Protection Agency performs a sanitary survey at our water system every three years. A sanitary survey is defined as "an onsite inspection of the water source, facilities, equipment, operation, and maintenance of a public water system." In 2016, significant deficiencies were identified in our water

system. Significant deficiencies, include, but are not limited to, defects in the design, operation, or maintenance, or a failure or malfunction of the water sources, treatment, storage, or distribution system that EPA determines to be causing or have the potential for causing the introduction of contamination into the water delivered to consumers. The following deficiencies were identified

1. Source of possible contamination in immediate area of spring SPR01 which can impact water quality. During the current sanitary survey, livestock manure was observed in the vicinity of the Uriah Heeps spring SPR01 area and manholes; this can potentially impact the water quality. Also, following the 2013 sanitary survey, inspections of the Whiterocks and Uriah Heeps spring systems were conducted by Indian Health Service and Ute Tribe utility representatives in May of 2014. This was in response to the significant deficiency citing unknown integrity of the spring collection system. The Report from these inspections was sent to EPA via email from Indian Health Service (see enclosed report entitled "A Summary of Follow-Up Inspections of the Whiterocks Water System (PWSID 084990003) and Uriah Heeps Water System (PWSID 084990002)"). As stated in this document: "There was evidence of livestock within the springs area. Recommend more secure fencing and gate to insure livestock remains a minimum of 100' from the collection laterals". Secure fencing is needed around the Uriah Heeps spring SPR01 collection area to minimize livestock grazing from within at least 100 feet of the collection laterals and manholes.
2. No emergency response plan (ERP).
The Emergency Response Plan (ERP) must detail emergency operations procedures for possible foreseeable emergencies such as power outage, loss of water, equipment failure, development of unsafe conditions, and other emergency conditions. An emergency response plan for small Community Water Systems must be completed and a copy provided to the EPA.
3. The Integrity of the Bottle Hollow Blue #2 Tank (ST03) is at risk due to several large trees growing close to the tank. (see photo #19).
There is deep rooted vegetation along the foundation of the Bottle Hollow Tank ST03, creating the potential for damage to the foundation (cracking and crumbling cement), which could jeopardize the structural integrity of the tank foundation and allow contamination entry into the system. The deep-rooted vegetation must be removed.
4. Gravity Tank ID: ST01 - Gusher Tank not cleaned and inspected within the last 10 years.
The tank must be cleaned and inspected. Please see the enclosed Finished Water Storage Tank Inspection/Cleaning Checklist for a list of items that must be evaluated during the inspection. Tanks need to be periodically cleaned and inspected to prevent the growth of potentially harmful pathogens in the accumulated sediments and to address construction issues before they require major repairs. Inspections and cleaning may be done by a third-party professional or appropriately trained in-house staff. Please be aware that some tanks may be considered as confined spaces or hazardous environments; personnel working in or near the tanks should have all OSHA-required training, and proper safety equipment and procedures should be used at all times. After inspection and cleaning the tank must be disinfected according to AWWA standards (C652-92: Disinfection of Water Storage Facilities).
5. 1 MG Tank (Green) ST06- Air vent screening on finished water storage tank needs improvement. The vent must be fitted with a #24-mesh non-corrodible screen to prevent contamination (including contamination carried by insects, rodents, and birds) from entering the water system. The screen should preferably be installed within the vent at a location least susceptible to vandalism. Prior to installing the screen, the PWS should evaluate whether the tank needs a vacuum/pressure relief valve

or another mechanism to prevent damage to the tank. From the photo provided by the operator, the screen does not appear to be #24 mesh

6. 1 MG Tank (Green) ST06 - Air vent on finished water storage tank does not have a solid cover. For non-downturned vents the screen must have a solid cover down to the bottom of the vent screen to prevent rain and blown debris from entering the tank.

UNCORRECTED SIGNIFICANT DEFICIENCIES FROM PRIOR SANITARY SURVEY

The following items were cited as significant deficiencies during the sanitary survey conducted on June 19, 2013 and have not been corrected. Failure to correct these significant deficiencies is a violation of the National Primary Drinking Water Regulations at 40 CFR §141.404(a)(2); they must be corrected as soon as possible.

7. No certified operator at appropriate level.

Certified drinking water operators are essential to providing safe drinking water and protecting public health of tribal communities. Regulations promulgated under the Safe Drinking Water Act require that public water systems be operated by qualified personnel. EPA Region 8 requires all community water systems and non-transient non-community water systems to have, or agree to obtain, a certified operator. The Uriah Heeps Water System has been classified as a Water Treatment Class 1 and Water Distribution Class 2 system. No operator employed by the system holds a current Water Treatment or Distribution certificate at these levels. Operators can be certified under any EPA approved program, which includes the EPA National Tribal Drinking Water Operator Certification Program and State operator certification programs. More information about the EPA program can be found at <http://www2.epa.gov/region8waterops/training-and-certification-home>

To address this significant deficiency, submittal of an EPA-approved program's certificate or other documentation will be required to demonstrate that the operator has achieved the appropriate level of certification (Water Treatment 1 and Water Distribution 2). Alternatively, the system could employ a certified contract operator; documentation will be required to show the contractual agreement and the contract operator's certification level.

8. Gusher Tank (ST01) Integrity at risk due to several large trees growing close to the tank.

This semi-underground concrete tank has trees growing adjacent to the tank, creating the potential for damage to the structure and contamination entry into the system. The trees, and if necessary their root systems, must be addressed in a manner to protect tank integrity.

9. Gusher Tank (ST01) Hatch on Finished Water Storage Tank does not have a gasket that creates a water tight seal. The tank hatch must have a rubber gasket to seal the hatch lid to the frame tightly to prevent contamination (including contamination carried by insects, rodents, and birds) from entering the water system.

10. Gusher Tank (ST01) Hatch on Finished Water Storage Tank is not elevated to the required height. For Below Ground Tanks (buried or partially buried): The tank hatch must be elevated a minimum of 24 inches above the top of the tank surface or ground surface, whichever is higher.

10. Gusher Tank (ST01) Overflow on finished water storage tank discharges at improper height. Overflow must be piped to an elevation between 12 and 24 inches above the ground surface and discharge over a drainage inlet structure, splash plate, or engineered rip-rap and must discharge over a drainage inlet structure, splash plate, or engineered rip-rap.

The overflow is at ground level, and is constantly overflowing creating marshy conditions. This tank was overflowing during the 2013 sanitary survey as well. Overflow design must be corrected. Also evaluate how to prevent continual overflowing of this chemically treated water onto the land.

11. Bottle Hollow #1 (Brown Tank) (ST02) Unknown integrity of storage tank vent and tank access hatch
The sanitary surveyor was unable to evaluate the tank vent and tank access hatch, and the water system was not able to produce documentation of the condition of these components. Each item that could not be inspected during the sanitary survey must be inspected and the structure/condition must be compared to the enclosed Tech Tips for Finished Water Storage Facilities to determine if corrective action is needed. Tank inspectors can be third-party professionals or appropriately trained in-house staff. In order to correct this significant deficiency you must provide EPA with the following documentation:
 - A completed copy of the Unknown Integrity Checklist for Storage Tank Hatch and Vent.
 - A copy of the inspection report. The inspection report must describe the condition of each specified tank component and include photographs.
 - The date that any corrective actions needed to address deficiencies with the tank components will be completed. EPA will review the inspection report and may require additional corrective actions.

13. Bottle Hollow #1 (Brown Tank) (ST02) Overflow screening on finished water storage tank improvement needed.
Overflow must be fitted with a #24-mesh non corrodible screen, or properly sealed flapper or duckbill valve to prevent contamination (including contamination carried by insects, rodents, and birds) from entering the water system. The screen should preferably be installed within the pipe at a location least susceptible to vandalism. When a flapper valve is used, a screen must be placed inside the valve (EPA Region 8 recommends #24-mesh non-corrodible mesh be used). In cold climates, use of a flapper or duckbill valve should be considered to minimize air movement and hence ice formation in the tank. In cold climates, provisions should be considered to prevent the flapper or duckbill from freezing shut. The combined overflow/drain was closed shut by dirt when first observed. After excavation, it was shown to have poorly fitting flapper valve with no screen. In addition to fixing the design of the overflow, it should be properly maintained so that it can open as needed to protect tank integrity.

14. Bottle Hollow #1 (Brown Tank) (ST02) Overflow on finished water storage tank discharges at improper height. Overflow must be piped to an elevation between 12 and 24 inches above the ground surface and discharge over a drainage inlet structure, splash plate, or engineered rip-rap and must discharge over a drainage inlet structure, splash plate, or engineered rip-rap.

15. Gravity Tank ID: ST06 - 1 MG Tank (Green) Hatch on Finished Water Storage Tank does not have a gasket that creates a water tight seal. The tank hatch must have a rubber gasket to seal the hatch lid to the frame tightly to prevent contamination (including contamination carried by insects, rodents, and birds) from entering the water system.

16. Spring SPR01 Sedimentation Basin hatches improperly constructed.
The access hatches for the sedimentation basin must be fitted with solid watertight covers with rubber gaskets; the covers must overlap the framed openings and extend down around the frame at least two inches. The access hatches did not have adequate shoebox lids and rubber gaskets.

17. Spring collection manhole improvements are needed.

The previous significant deficiency of unknown integrity of the Uriah Heeps Spring collection laterals/access manholes was partially addressed by submittal of the Inspection Report documenting inspections of the Whiterocks and Uriah Heeps spring systems, conducted by Indian Health Service and Ute Tribe utility representatives in May of 2014. The Report from these inspections was sent to EPA via email from Indian Health Service (see enclosed report entitled "A Summary of Follow-Up Inspections of the Whiterocks Water System (PWSID 084990003) and Uriah Heeps Water System (PWSID 084990002)"). As documented in that report and evidenced during the current sanitary survey, the manhole covers and manholes are still in need of repair. Additional repair work was identified in that report but not completed as of the date of this survey.

Copies of this report were provided to the operators after the September 20-22, 2016 survey, but the corrections had not been made at the time of a return site visit on November 16, 2016. These corrections to the manholes, laterals, clearing of brush, fencing, etc. must be addressed.

18. Uriah Heeps Spring is potentially ground water under the direct influence of surface water (GWUDISW).

The Surface Water Treatment Rule requires that each ground water source be assessed to determine if it is influenced by surface water. Surface water can contain pathogens from fecal material, including *Cryptosporidium*, *Giardia*, bacteria, and viruses. If a ground water source is determined to be ground water under the direct influence of surface water (GWUDISW), in order to continue using the source for drinking water, the system must either provide filtration and disinfection, or disinfect and meet the filtration avoidance criteria (40 CFR Section 141.70).

Therefore, please complete any required structural improvements to the Uriah Heeps spring system to minimize surface water intrusion, as identified by the Significant Deficiencies above, then complete the new round of a minimum of two raw water microscopic particulate analyses (MPAs) at the spring. The purpose of the MPAs is to verify whether surface water bio-indicators are present. The MPAs must be collected during at least two "wet seasons" during the time when the spring is most susceptible to surface water influence (typically when a heavy rain or snow event occurs in spring or fall). A third MPA may be required if the previous two MPA results come back at moderate risk. EPA representatives will assist you in the sampling and analysis.

If the final results of the MPAs indicate the system is not GWUDISW, the system will not be required to meet the Surface Water Treatment Rule requirements; however, the negative determination will be revisited during the next sanitary survey and/or when any technical assistance is provided to the facility, as conditions may change. If the final results of the MPAs indicate the system is GWUDISW, the system will be required to meet the Surface Water Treatment Rule requirements within 18 months of designation.

Alternatively, public water systems may also choose to properly abandon the spring as a source of drinking water and identify an alternative source of water, which may be either a protected groundwater source or a connection to another water system.

Similar to the findings from the previous (2010 and 2013) sanitary surveys, we continue to have concerns that the Uriah Heeps spring source may be GWUDISW. We appreciate your cooperation in conducting the previous raw water microscopic particulate analyses (MPAs). The first set of recent MPAs was collected in April, 2015, and the MPA results showed low risk (during a dry period). The second MPA will be scheduled during wet weather in 2017.

TERMS USED IN THIS REPORT:

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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.

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 (USEPA).

Maximum residual disinfectant level or 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.

Maximum residual disinfectant level goal or MRDLG:
The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLs do not reflect the benefits of the use of disinfectants to control microbial contaminants

Primary Drinking Water Standards (PDWS): MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

pCi/L: picocuries per liter (a measure of radiation)

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.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided below.*

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

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from:

This notice is being sent to you by the Ute Tribe Water System. EPA Water System ID#: 084990002. Below is information where you can obtain further information included within this report. Please contact our office at 435-722-5176

More information about water quality may be found at EPAs hotline available on the following web site - EPA.gov