

**Murphy Water System 2014
Drinking Water
Consumer Confidence
Report (CCR)**

Murphy Water System Water Quality Report - 2014

This report is a summary of last year's water quality for the Murphy Water System. Included are details about where your water comes from, what it contains, and how it compares to EPA and state standards. We are committed to providing you with information because informed citizens are our best allies.

Last year, as in year's past, your tap water met all EPA and state drinking water health standards. Murphy Water System carefully safeguards its water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or of any other water quality standard.

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2014 Consumer Confidence Report (CCR)

I. Water System Information

Water System Name: Murphy Water System	PWS ID #:3370014
Water System Operator: Dennis Rogers	
Address: 2381 State Hwy 78, Murphy, Idaho 83650 Tel #: 208-495-2817	
City, State, Zip Code: Murphy ID 83650	
Population Served: 75	Number of Connections: 40
Date of CCR Distribution: May 1, 2015	For Calendar Year: 2014
Regularly Scheduled Meeting(s): Call 495-2817 for meeting schedule	

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

II. Water Sources

Groundwater Sources (springs, wells, infiltration galleries):	
1) Source #: 10677	a) Sample Site Location (source name): Well # 1 BACKUP WELL
	b) Location Description: South well house Rabbit Creek Road
2) Source #: A0004214	a) Sample Site Location (source name): Well # 2 MAIN
	b) Location Description: North well house Rabbit Creek Road
Surface Water Sources (lakes, rivers, creeks):	
Source Water Assessment or Protection Plan Available? Yes	

III. Special Compliance Violations

a) Treatment Techniques (TT): N/A
b) Monitoring/Reporting:
c) Public Notification/Record Keeping:
d) Special Monitoring Requirements:
e) Administrative or Judicial Orders:
f) Consent Orders:
g) Notice of Violations (NOVs): No Violations Reported

IV. Definitions

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
Initial Distribution System Evaluation (IDSE): IDSE is an important part of the Stage 2 Disinfection By-Products Rule (DBPR). The IDSE is a one-time study conducted by some water systems, providing disinfection or chlorination, to identify distribution system locations with concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select monitoring locations for Stage 2 DBPR. Not all water systems were required to perform an IDSE.
Maximum Contamination Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contamination 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 Residual Disinfectant Level (MRDL): The highest level of 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 (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 contamination.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

V. Health Information

<p>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/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by <i>Cryptosporidium</i> and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791 or http://www.epa.gov/safewater/hotline/.</p>

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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or <http://www.epa.gov/safewater/hotline/>.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants that may be present in source water before we treat it 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, which 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 by-products 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.

Lead Informational Statement (Health effects and ways to reduce exposure)

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 utility named above* 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. 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>.

VII. Specific Contaminant Reporting Tables:

- Bacteria
- Turbidity
- Lead/Copper
- Beta Particles
- Gross Alpha Particles
- Fecal Indicator-Positive Ground Water
- Initial Distribution System Evaluation (IDSE) Monitoring for Total Trihalomethanes (TTHM) & Haloacetic Acids (HAA5)
- Treatment Techniques
- Chlorine

Bacteria. If you are reporting bacteria detections, use one of the tables below.

If your system collects **less than 40** total coliform samples per month: Use the table below to report any bacteria detections during the last calendar year. If your system detected either fecal or *E. coli* positive samples, you must report the highest **total # positive in a month** otherwise you may delete (or leave blank) the fecal/*E. coli* row from the table.

	MCL	MCLG	Highest # Positive In a Month	Violation (Y/N)	Possible Source of Contamination
Total Coliform	> 1	0		N	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> bacteria	*	0		N	Human and animal fecal waste

* Compliance with the Fecal Coliform/*E. coli* MCL is determined upon additional repeat testing.

If your system collects **40 or more** total coliform samples per month: Use the table below to report any bacteria detections during the last calendar year. If your system detected either fecal or *E. coli* positive samples, you must report the highest **total # positive in a month** otherwise you may delete (or leave blank) the fecal/*E. coli* row from the table.

	MCL	MCLG	Highest % Positive In a Month	Total # Positive	Violation (Y/N)	Possible Source of Contamination
Total Coliform	>5%	0		-----	N	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> bacteria	*	0			N	Human and animal fecal waste

* Compliance with the Fecal Coliform/*E. coli* MCL is determined upon additional repeat testing.

Turbidity. If you are reporting turbidity, use the table below.

When reporting turbidity, surface water systems that provide filtration must report the highest single measurement and the lowest monthly percentage of samples meeting the requirements specified for that technology. In this situation, systems may want to report the data in 2 rows in the table below.

To calculate turbidity levels: Include the maximum turbidity level for your filtration type in the MCL/TT “___ NTU” cell in the table below. (TT = Treatment Technique; NTU = nephelometric turbidity units.)

Maximum Turbidity Levels:

Slow Sand and Diatomaceous Earth Filtration = 5.0 NTU

Conventional and Direct Filtration = 1.0 NTU

Cartridge and Bag Filtration = 5.0 NTU

Report the highest maximum daily measurement in the Level Found column, and the date of the highest maximum daily measurement in the Sample Date column.

Include the 95% turbidity level for your filtration type in the “% of samples < ___ NTU” cell.

95% Turbidity Levels:

Slow Sand and Diatomaceous Earth Filtration = 1.0 NTU

Conventional and Direct Filtration = 0.3 NTU

Cartridge and Bag Filtration = 1.0 NTU

Report the lowest monthly percentage of samples in compliance with 95% turbidity levels in the Level Found column.

Turbidity/Units	MCL/TT	MCLG	Level Found	Range	Sample Date	Violation Y/N	Typical Source of Contamination
Turbidity (NTU)	TT = _____ NTU	0	_____ NTU	N/A		N	Soil runoff
	TT = percentage of samples < _____ NTU		_____ %	N/A	Daily	N	Soil runoff
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.							

☐ Lead/Copper. If you are reporting lead or copper detections, use the table below.

To calculate the 90th percentile: Report the 90th percentile value of the most recent round of sampling and the number of sites (homes) exceeding the Action Level. To calculate the 90th percentile, the results of all samples taken during the most recent monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sample result shall be assigned a number starting with the number 1 for the lowest value. The number of samples taken during the monitoring period shall be multiplied by 0.9. The contaminant concentration in the numbered sample yielded by this calculation is the 90th percentile value.

If the action level is exceeded, health effects language for the contaminant must be included. [Health effects language is referenced on page 23.](#)

Contaminant	Action Level	MCLG	Date(s) Collected	90th Percentile	#of sites above Action Level	Violation Y/N	Possible Source of Contamination
Lead (ppb)	0.015	0.015	8/5/2014	ND	0	N	Corrosion of household plumbing systems, erosion of natural deposits.
Copper (ppm)	1.3	1.3	8/5/2014	.18	0	N	Corrosion of household plumbing systems, erosion of natural deposits
Health Effects Language	Lead	Informational Statement: <i>“Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home’s water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is</i>					

		<i>available from the Safe Drinking Water Hotline (1-800-426-4791)."</i>
	Copper	Short term exposure: Gastrointestinal distress. Long term exposure: Liver or kidney damage. People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level

❑ Beta Particles. If you are reporting beta particles, see instructions and table below.

The MCL for beta particles is 4 mrem/year. EPA recognizes that labs often report these results in pCi/l, and that there is no simple conversion between the two units. Therefore, it is acceptable for systems to report the detected level for beta particles in pCi/l. So that consumers may have a standard against which to compare the detected level, systems should place 50 in the MCL column below (already inserted) and include a footnote explaining that EPA considers 50 pCi/l to be a level of concern for beta particles (already provided below).

Systems that detect beta particles at or above 50 pCi/l must determine the actual radioactive constituents present in the water to calculate the dose exposure level in mrem/yr, and must report both the detected level and the MCL as mrem/yr.

Contaminant	MCL	MCLG	Level Found	Range	Sample Date	Violation Y/N	Possible Source of Contamination
Beta Particles (pCi/L)	50*	0				N	Decay of natural and man-made deposits.
*The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/l to be the level of concern for beta particles.							

Note: mrem/year: millirems per year (a measure of radiation absorbed by the body);
pCi/l: picocuries per liter (a measure of radioactivity).

❑ Gross Alpha Particles. If you are reporting gross alpha particles, see instructions and table below.

A gross alpha particle activity measurement may be substituted for the required uranium measurement provided that the measured gross alpha particle activity does not exceed 15 pCi/L (picocuries per liter – which is a measure of radioactivity).

Contaminant	MCL	MCLG	Level Found	Range	Sample Date	Violation Y/N	Possible Source of Contamination
Alpha emitters (pCi/L)	15	0	*			N	Erosion of natural deposits

* If the results of this sample had been above 15 pCi/L, our system would have been required to do additional testing for uranium. Because the results were below 15 pCi/L, no testing for uranium was required.

- **Fecal Indicator-Positive Ground Water Sources.** (Complete if fecal-indicator detected.) The required special notice language for fecal indicator-positive samples must be provided in the CCR – see “Health Effects” below. TT= Treatment Technique.

Microbiological Contaminants	MCL	MCLG	Level Found	Range	Sample Year	Violation Y/N	Source
<i>E. coli</i> (in the distribution system) *	0	0				N	Human or animal fecal waste
<i>E. coli</i> (at the ground water source) *	0	0				N	Human or animal fecal waste
Enterococci (at the ground water source) **	TT	N/A				N	Human or animal fecal waste
Coliphage (at the ground water source) **	TT	N/A				N	Human or animal fecal waste

***Health Effects:** Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

****Health Effects:** Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

- **Initial Distribution System Evaluation (IDSE) Monitoring for Total Trihalomethanes (TTHM) & Haloacetic Acids (HAA5).** *Note: This section only applies to systems that were notified by DEQ that the system is required to complete an IDSE report.*

Initial Distribution System Evaluation (IDSE): Under the Stage 2 DBPR *some* systems, providing chlorination or disinfection, were required to conduct Initial Distribution System Evaluation (IDSE) monitoring for trihalomethanes (THM) and haloacetic acids (HAA5). In addition to the THM and HAA5 results you currently include in your CCR for the Stage 1 DBPR, you must now include the IDSE results. *Note:* Not all water systems were required to perform an IDSE.

Include the IDSE monitoring results in the “Range (highest/lowest detect) column” in the CCR. If IDSE samples were collected in more than one calendar year, only include detections from the 2010 CCR year. Also, the individual IDSE results are not required to be reported in the CCR, i.e., *you do not need to list the IDSE results in a separate table.* Report health effects language if there is an exceedance. For health effects, see pages 30 and 31.

Disinfection By-products	MCL	MCLG	Our System Range Average	Range	Sample Year	Violation Y/N	Typical Source
Total Trihalomethanes (TTHM) (ppb)	80	NA				N	By-product of drinking water disinfection
Haloacetic Acid (HAA5) (ppb)	60	NA				N	By-product of drinking water disinfection

- ❑ **Treatment Techniques (TT)**. The table below may be used for Total Organic Carbon (TOC).

TOC. If any of the following apply, you must report a treatment technique violation for enhanced coagulation or enhanced softening (if applicable):

- Alternate compliance criteria for enhanced coagulation or if enhanced softening cannot be met.
- Quarterly TOC monitoring does not demonstrate the percentage removal of TOC.
- A system does not obtain state approval for alternate minimum TOC removal (Step 2) requirements.

TT Violation	Explanation of the TT violation	Length of the Violation	Steps Taken to Correct the Violation	Health Effects Language
TOC				Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

- ❑ **Treatment Techniques (TT)**: Filtration and disinfection requirements contained in the SWTR (Surface Water Treatment Rule). If the violation was a failure to install adequate filtration or disinfection equipment or processes, or there was a failure of that equipment or process, include the following language:

“Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches”.

- ❑ **Chlorine**: If you are reporting chlorine detections, use the table below.

Maximum Residual Disinfectant Level Contaminant	Violation (Y/N)	MCL	MCLG	Highest Level Detected	Running Annual Average	Sample Date	Typical Contamination Source	Health Effects Language (include only if MCL is exceeded)
Chlorine	N	MRDL = 4	MRDLG = 4	.41	.19	Daily	Water additive used to control microbes	Eye/nose irritation; stomach discomfort

VIII. Special Notices for Systems Required to Comply with the Ground Water Rule. The GWR requires that you provide special notice in their CCRs for the following two situations:

□ Special Notice for Uncorrected Significant Deficiencies

If you are a ground water system that receives notice from the state of a significant deficiency, you must inform your customers of any significant deficiencies that are not corrected by December 31 of the year covered by your CCR. The CCR must include the following information:

- The nature of the significant deficiency and the date it was identified by the state.
- The state-approved plan and schedule for correction, including interim measures, progress to date, and any interim measures completed.

You must continue to inform your customers annually until the state determines the significant deficiency is corrected.

□ Special Notice for a Fecal Indicator-Positive Ground Water Source Sample

If you are a ground water system that receives notice from a laboratory of a fecal indicator-positive ground water source sample and the sample is not invalidated by the state, you must inform your customers in the next CCR. The CCR must include the following information for a fecal indicator-positive ground water source sample:

The source of the fecal contamination (if it is known) and the date(s) of the fecal indicator-positive source sample.

- If the fecal contamination has been addressed as prescribed by the requirements of the GWR and the date the contamination was addressed.
- For fecal contamination that has not been addressed, the state-approved plan and schedule for correction, including interim measures, progress to date, and any interim measures completed.
- The health effects language for fecal indicators. Refer to Appendix A to Subpart O of the Rule for health effects language (available on the EPA Web site at www.epa.gov/safewater/ccr/regulations.html or in Appendix F of this document).

Since fecal indicator-positive ground water source samples must be included in the detected contaminant table, this special notice language can be included below the table or elsewhere in the report. Appendix B of this guidance contains an example on how to present fecal indicator-positive ground water source samples and the special notice text in a CCR.

You must continue to inform customers annually until the fecal contamination in the ground water source is addressed as prescribed by the requirements of the GWR.

IX. Specific Contaminant Requirements

Unless otherwise noted, the data presented in this water quality table is from testing done between January 1, 2013 and December 31, 2013.

Cryptosporidium
a) Summary of Results:
b) Explanation of Significance of Results:
Radon
a) Summary of Results:
b) Explanation of Significance of Results:
Arsenic
Informational Statement: "
Nitrate
Informational Statement: "Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider. "
Lead
Informational Statement: "Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used

in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791). "

Trihalomethanes

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