

**SOURCE WATER ASSESSMENT  
EXECUTIVE SUMMARY  
FOR  
Buffalo**

---

**June 30, 2004**

**PROJECT: 424-001**

---

**ASSESSMENT COMPLETED BY: TRIHYDRO CORPORATION**

1252 Commerce Drive, Laramie, WY 82070

---



**ENGINEERING SOLUTIONS. ADVANCING BUSINESS.**

**Home Office** | 1252 Commerce Drive | Laramie, WY 82070 | phone 307/745.7474 | fax 307/745.7729 | [www.trihydro.com](http://www.trihydro.com)

## **SOURCE WATER ASSESSMENT SUMMARY FOR Buffalo**

### **PWS Source Water Assessment Summary**

The City of Buffalo is a community surface water system that serves approximately 3,625 residents through 1,600 service connections. Facilities include: four surface water intakes that draw water from Clear Creek, two raw water settling ponds, two treated water storage tanks, one water treatment plant, and the interconnecting distribution systems. The water sources scored medium with respect to the combined integrity and aquifer sensitivity ratings. The city scored high with respect to land use, and transportation corridor susceptibility and low with respect to point source susceptibility.

### **Delineation Methods**

This water system is a community system that draws water from a surface water source. Surface water mapping methods were used to determine contaminant inventory zones 2 and 3.

The surface water source area was delineated using surface topographic techniques. Zone 2 included an area 1,000 feet on either side of Clear Creek and its perennial streams that extended upstream of the intake for a distance of 15 miles. Zone 3 for the intake includes the entire stream drainage basin from Zone 2 to the basin headwaters.

### **Surface Water Sources**

Buffalo draws water from Clear Creek and its tributaries. Additional information on these intakes is included on the attached Surface Water Information Sheet. As shown on the enclosed source water area delineation map, contaminant inventory zones 2 and 3 were delineated using surface water mapping methods. Zone 2 consists of a 1000 foot buffer zone area along Clear Creek and its tributaries. Zone 2 extends from Clear Creek #2 upstream 15 miles. Zone 3 encompasses the entire Clear Creek drainage basin upstream from the intake.

### **Integrity Summary**

As shown on the Integrity Summary Table, Intake #1 received an integrity score of 6 while the other three intakes received integrity scores of 4. Intake #1 received a higher integrity score because records indicate that the area around Intake #1 is unrestricted. All four intakes were constructed before 1983, when less stringent construction standards were required by the State of Wyoming. The four intakes also have a conveyance structure length greater than one mile.

### **Water Source Sensitivity Summary**

The City of Buffalo draws water from four surface water intakes. As shown on the Source Sensitivity Summary Table, the intakes each received a sensitivity score of 10. The intakes received the score for two reasons. The first reason is that surface water intakes are more

vulnerable to contamination. The second reason is that there are documented chemical detections in the water supply.

### **Water System Susceptibility Rating**

Susceptibility is defined as the potential for a public water supply to draw contaminated water at concentrations that would pose a threat or concern to human health. In general, the Town of Buffalo scores high for land use susceptibility because much of the land surrounding the water sources is forested. Forested areas were included to evaluate the potential risks of increased runoff and water quality problems following forest fires. The overall point source contaminant susceptibility rating is low due to the lack of contamination sources being present within the delineated zones. The water sources were assigned a high transportation corridor susceptibility score because their source water zones are in proximity to state highways.

A review of your PWS's routine water analysis results revealed that one or more chemicals that are considered contaminants in drinking water were detected at some time within the last five years. Chemical detections have a large impact on your PWS's sensitivity score because it may indicate that there is a pathway for contaminants to reach the water supply. However, it is likely that these chemicals are present only in small amounts and are not a danger to your health. Some of these chemicals may also occur naturally in water.

For more information about which chemicals were detected, please contact the PWS for a copy of the most recent Consumer Confidence Report or water analysis results. Chemical detections at levels that are a concern to human health are reported on the EPA's website: [http://www.epa.gov/enviro/html/sdwis/sdwis\\_query.html](http://www.epa.gov/enviro/html/sdwis/sdwis_query.html). To see if your PWS has exceeded the federal primary or secondary drinking water standards, just click on the State of Wyoming and then type in the name of your PWS. Consumer Confidence Reports are prepared by the PWS on a yearly basis. The reports should include information about any chemicals found in the water, even those found at very low levels. Please contact Kim Parker at DEQ, 307-777-7781, or WARWS for assistance. You may also contact EPA to find out what contaminants were detected. You may have to fill out a Freedom of Information Act request to obtain the water test results for your PWS. Please call EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**POINT SUSCEPTIBILITY SUMMARY TABLE  
FOR Buffalo  
Point Source Susceptibility Summary**

It may appear from the results of this point source susceptibility summary table that your system has too many PSOCs influencing the final ratings. In some cases, a specific PSOC falls within a specific contaminant inventory zone shared by multiple wells or intakes. When this is the case, that PSOC will be scored for each intake. For example, an underground storage tank may appear within a contaminant inventory zone shared by four different wells. This would cause that single storage tank to be entered into the table four times, or once for each well or intake.

Point Source Type	Low	Medium	High
None Identified	N/A	N/A	N/A

- \* Illustrates the number of PSOCs in a particular rating class for all water sources
- \* N/A - Not Applicable