

**SOURCE WATER ASSESSMENT
EXECUTIVE SUMMARY
FOR
YNP Old Faithful**

June 30, 2004

PROJECT: 424-001

ASSESSMENT COMPLETED BY: TRIHYDRO CORPORATION

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SOURCE WATER ASSESSMENT SUMMARY FOR YNP Old Faithful

PWS Source Water Assessment Summary

The Yellowstone National Park Old Faithful water system is classified as a community groundwater supply. It is located 39 miles North and West of the South entrance on US 89. The facility provides potable water to a population of 150 yearly people, and 1,000+ people in the summer. The facility has 33 service connections, a treatment plant, and a treated water storage tank. The water source scored high with respect to the combined integrity and sensitivity ratings. The system scored high with respect to land use susceptibility and for transportation corridor susceptibility and low for point source susceptibility.

Delineation Methods

This water system draws water from surface water. 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 for included an area 1,000 feet on either side of the Firehole River and its perennial streams that extended upstream of the intake for a distance of 15 miles, or the distance from the intake to the headwaters of the drainage. Zone 3 for the intake includes the entire stream drainage basin from Zone 2 to the basin headwaters.

Surface Water Sources

The intake obtains water from the Firehole River and its tributaries. Additional information on this intake 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 the Firehole River and its tributaries. Zone 2 extends from the surface water intake upstream to the perennial reaches of Firehole River. Zone 3 encompasses the entire Firehole River drainage basin upstream from the intake.

Integrity Summary

Yellowstone National Park Old Faithful uses surface water from the Firehole River. The intake was constructed before 1983, when less stringent construction standards were required by the State of Wyoming. Records also indicated that the area around the intake is unrestricted, and that the intake is not screened to protect against the infiltration of potential contaminants. As shown on the Integrity Summary Table, the intake received an integrity score of 9. This value directly reflects the early construction date of the facility, lack of screen, and unrestricted access.

Water Source Sensitivity Summary

As shown on the Source Sensitivity Summary Table, the surface water intake received a sensitivity score of 10. The intake received the score for two reasons. The first reason is that surface water intakes are more vulnerable to contamination. The second reason is there are documented chemical detections in the surface water.

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, Yellowstone National Park Old Faithful 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 surface water intake was assigned a high susceptibility for Zone 2 state highway types of transportation corridor contaminants. Susceptibility ratings for each type of potential contaminant source are summarized on the attached susceptibility tables.

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. 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 YNP Old Faithful
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