SOURCE WATER ASSESSMENT
EXECUTIVE SUMMARY
FOR
Maverick Station

June 30, 2004

PROJECT: 424-001

ASSESSMENT COMPLETED BY: TRIHYDRO CORPORATION

1252 Commerce Drive, Laramie, WY 82070

SOURCE WATER ASSESSMENT SUMMARY
FOR Maverick Station

PWS Source Water Assessment Summary

The Maverick Station is a non-community groundwater system located in Teton County. The system serves 750 people per day through one service connection year-round. Facilities include one well, one hydropneumatic 20 gallon tank for storage, and the interconnecting transmission system. Water is pumped on demand to the station without treatment, storage, or disinfection. The water source scored medium with respect to the combined integrity and aquifer sensitivity ratings. The station scored high with respect to land use susceptibility, point source susceptibility, and transportation susceptibility.

Delineation Methods

This water system is a non-community system that draws water from an assumed porous alluvium source. Calculated fixed radius (CFR) methods were implemented to estimate the 2-year and 5-year time of travel radii for the groundwater flow system. The CFR used assumed well information for similar well types, and aquifer parameters were based on similar type deposits.

Calculated fixed radius (CFR) is an appropriate method to use when groundwater flow to the well, spring or tunnel can be characterized as porous. This process was implemented for small communities that derive water from deeper, confined aquifers, or for non-community water systems. A factor of safety (FS) of 1.5 was applied to all systems where portions of the data were suspect. At the ground surface, the radius can be used to delineate an area around the well to be used for wellhead protection. The radius is the distance from the well to a point where groundwater (and contaminant) can reach the well over a specified time period. Input data requirements are limited, consisting of the pumping rate, open (screened) interval of the well, porosity of the aquifer, and the selected time of travel (2 years and 5 years).

Groundwater Sources

The Maverick Station draws water from the alluvium along the Gros Ventre River Valley. Recharge to this well occurs along porous alluvium and generally flows to the well from northeast to southwest. Additional information on this well is included on the attached Well Information Sheet. As shown on the enclosed source water delineation map, contaminant inventory zones 2 and 3 were delineated using CFR methods. Zone 2 has a calculated radius of 1,058 feet. Zone 3 has a calculated radius of 1,672 feet.

Integrity Summary

Maverick Station uses one well of unknown depth to supply its water. The well was constructed prior to 1983 when less stringent construction standards were required by the State of Wyoming. Records show that the well was properly sealed to protect against surface infiltration of potential contaminants and flooding around the wellhead. As shown on the Integrity Summary Table, the well received a score of 3 due to the well completion date.

Water Source Sensitivity Summary

As shown on the Source Sensitivity Summary Table, the well received a sensitivity score of 10. The well received this score for two reasons. First, the well received a score of 5 for aquifer sensitivity because it was completed in an unconfined alluvial aquifer. Second, the well received score of 5 for chemical sensitivity due to documented chemical detections in the groundwater.

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. The Maverick Station scores high for land use susceptibility because much of the land surrounding the well is urban. The overall point source contaminant susceptibility rating is high due to underground tanks, underground injection sites, and solid/hazardous waste sites within zones 2 and 3. The well was assigned a high transportation corridor susceptibility score because a state highway passes through zones 2 and 3. 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 Maverick Station

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
Underground Tank	N/A	3	6
Underground Injection	N/A	N/A	1
Sol/Haz Waste Site	N/A	2	2

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