

**SOURCE WATER ASSESSMENT
EXECUTIVE SUMMARY
FOR
McGee Mobile Home Park**

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PROJECT: 424-001

ASSESSMENT COMPLETED BY: TRIHYDRO CORPORATION

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SOURCE WATER ASSESSMENT SUMMARY FOR McGee Mobile Home Park

PWS Source Water Assessment Summary

The McGee Mobile Home Park is a community groundwater system located in Campbell County. The system serves 36 people through 12 connections year-round. The system is supplied by one well that draws water from the Wasatch Formation. Facilities include a pump and water storage building, a sodium hypochlorite injection unit for disinfection, two treated water storage tanks, and the interconnecting transmission system. The water source scored medium with respect to the combined integrity and aquifer sensitivity ratings. The mobile home park scored high with respect to land use susceptibility and low for point source susceptibility.

Delineation Methods

This water system is a community system that draws water from a porous sedimentary formation. Groundwater modeling methods were implemented to estimate the 2-year and 5-year time of travel capture zones for the groundwater flow system. The model was calculated using well information in the SEO database and aquifer parameters used in the calculation were similar to those reported by the Water Resources Research Institute Study of groundwater in the Powder River Basin.

U.S. EPA's Wellhead Analytic Element Model or WhAEM method was used for community water systems that derive their sources from alluvial or shallow bedrock aquifers. The WhAEM model uses well and limited hydrogeologic data to estimate time-of-travel capture zones in relatively simple hydrogeologic settings for either confined or unconfined aquifers. For the source water assessment, the WhAEM model was used to develop two year and five year groundwater capture zones. Due to this methodology, the delineated source water areas may be larger than the true capture zones for each well. However, use of this method typically results in source water protection areas that can be used to more reliably protect the water supply.

Groundwater Sources

The McGee Mobile Home Park draws water from the sandstone units within the Wasatch Formation. Recharge to this well occurs in the outcrops of the Wasatch Formation and flows through porous media under artesian conditions generally from south-southeast to north-northwest. Additional information on this well is included on the attached Well Information Sheet. As shown on the enclosed source water area delineation map, contaminant inventory zones 2 and 3 were delineated using WhAEM methods. Zones 2 and 3 represent 2-year and 5-year groundwater travel times, respectively. The capture zones extend southeast from the wellhead.

Integrity Summary

The McGee Mobile Home Park uses one well that is approximately 275 feet deep to supply water to the system. The well was constructed between 1983 and 1993 under moderately strict requirements. However, records show that the well may not be properly sealed to protect from surface infiltration of potential contaminants. As shown on the Integrity Summary Table, Sherard #1 received a score of 9 due primarily to the lack of the surface seal.

Water Source Sensitivity Summary

The McGee Mobile Home Park system draws water from the sedimentary units within the Wasatch Formation. As shown on the Source Sensitivity Summary Table, the well received a sensitivity score of 6. The well received a score of 1 for aquifer sensitivity because it draws water from a confined aquifer through porous media flow. The well received the 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. In general, the McGee Mobile Home Park scores high for land use susceptibility because much of the land surrounding the water sources is urban. The overall point source contaminant susceptibility rating is low due to the lack of contamination sources being present within the delineated zones.

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 McGee Mobile Home Park
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