

WYOMING WATER ASSESSMENT AND PROTECTION PROGRAM (SWAP)



SOURCE WATER ASSESSMENT PROGRAM EXECUTIVE SUMMARY

Source Water Assessment Prepared For:
WYDOT Ft. Steele Rest Area

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SOURCE WATER ASSESSMENT SUMMARY FOR WYDOT Ft. Steele Rest Area

PWS Source Water Assessment Summary

The Wyoming Department of Transportation (WYDOT) Ft. Steele Rest Area water facility is non-community system located about 13 miles east of Rawlins on I-80 at Exit 228. It provides water to as many as 3,000 travelers per day during the summer peak use period through seven service connections.

Water for the facility is obtained from the North Platte River. Intakes set in the channel of the river collect raw river water by gravity flow. This water is piped to a wet well, and during periods of high turbidity, a coagulant (alum) is added. It is then pumped to a sedimentation pond where the flocculation and coagulation processes occur. Pre-treated water is then pumped to the filter plant, where it passes through a single media sand filter, a carbon filter, and on through a diatomaceous earth filter. Sodium hypochlorite is added as a pre-filtration and post-filtration disinfectant. Finished water is stored in an underground storage tank. Automated equipment continuously monitors turbidity levels and the chlorine residual to comply with Surface Water Treatment Rule requirements.

The WYDOT Ft. Steele Rest Area scores high for land use susceptibility in Zone 1 because the land surrounding the water source is forest. Zone 2 scores low for land use susceptibility. The WYDOT Ft. Steele Rest Area should be aware of several potential lines sources that lie inside the delineation zone.

Delineation Methods

The WYDOT Ft. Steele Rest Area water system is a non-community surface water system that receives its entire supply from a surface water source. For that reason, Lidstone delineated the source water area using surface water methods.

Surface Water Sources

The WYDOT Ft. Steele Rest Area obtains all of its water from its intake on the North Platte River. The diversion structure consists of two intakes: a "normal" flow intake and a low water intake. The intakes are protected with a screen. Additional information on this source is included on the enclosed Surface Water Information Sheet.

As shown on the enclosed delineation maps, the source water area includes the drainage basin of the North Platte River. Zone 2 extends 15 river miles upstream from the intake and includes a 1,000 foot buffer on both banks of the river and all perennial tributaries. Zone 3 includes the remaining watershed upstream from the intake, but terminates at the Stateline in accordance with the delineation procedures set forth in DEQ's SWAP guidance document.

Integrity Summary

The WYDOT Ft. Steele Rest Area obtains its source water from the North Platte River. The intake was constructed before 1983, when less stringent construction standards were required by the State of Wyoming. Records also indicated that access to the area around the intake is restricted, that the intake is screened to protect against the infiltration of potential contaminants, and that the intake is inspected regularly. As shown on the Integrity Summary Table, The rest area's intake received an integrity score of 3. This score was primarily due to the fact that the well was completed before 1983.

Water Source Sensitivity Summary

The WYDOT Ft. Steele Rest Area obtains its surface water from the North Platte River. As shown on the Source Sensitivity Summary Table, the intake received a sensitivity score of 10.

The intake received the maximum sensitivity score for two reasons. The first reason is because it obtains water from a surface water source. The second reason is that laboratory analysis of water samples from the system within the last five years detected several contaminants that are listed on EPA's primary and secondary drinking water standards. These include nitrate and nitrite. Despite detection, these contaminants were generally detected at concentrations below the EPA's maximum contaminant levels.

Water System Susceptibility Rating

Susceptibility is defined as the potential for a public water supply to draw water contaminated at concentrations that would pose a threat or concern to human health. The WYDOT Ft. Steele Rest Area scores high for land use susceptibility in Zone 1 because the land surrounding the water source is forest. Zone 2 scores low for land use susceptibility because some of the land surrounding the water source is irrigated cropland. A pipeline, railroad and several highways run through Zone 2. The intake was assigned a high susceptibility for the 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 WYDOT Ft. Steele Rest Area
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
Wastewater Discharge	N/A	N/A	1

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