

WYOMING WATER ASSESSMENT AND PROTECTION PROGRAM (SWAP)



SOURCE WATER ASSESSMENT PROGRAM EXECUTIVE SUMMARY

Source Water Assessment Prepared For:
Rock Springs/Green River JP

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SOURCE WATER ASSESSMENT SUMMARY FOR Rock Springs/Green River JP

PWS Source Water Assessment Summary

The Rock Springs/Green River Joint Powers Board (RS/GR-JPB) water treatment plant serves a wide area and is classified as a community surface water supply. The facility supplies treated water to two cities, Rock Springs and Green River, and approximately 20 other consecutive systems. The facility provides water to the area residential population of 32,000 through two major metered service connections. The other consecutive systems are either master metered from a main line or through a city metered connection. The source water for this facility is the Green River and the intake is located near the water treatment plant in the City of Green River.

In general, the water system scores high for land use, point source, and transportation corridor contaminant susceptibility. RS/GR-JPB's water source received high susceptibility scores for land use because much of the land along the Green River upstream from the intake is forested. The water source is also highly susceptible to contaminants associated with various point sources. These include an area of contaminated soil and numerous underground storage tanks. The intake was also assigned a high susceptibility rating for transportation corridor contaminants due to the presence of a railroad, interstate highway, and pipeline that cross the source water area.

Delineation Methods

Because the RS/GR-JPB obtains water for its community water system from a surface water source, Lidstone completed a surface water delineation of the intake. These two communities have obtained their municipal supply from the Green River for over 100 years and presently serve approximately 20 other consecutive water systems in the area.

Surface Water Sources

The RS/GR-JPB obtains all of its municipal water from the Green River intake which is located along the west bank of the river in the City of Green River. In 1993 Lidstone, along with Forsgren and Associates, completed an assessment of the previous intake which the communities had been using since 1947 and prepared recommendations for a new intake which the communities have since been using. The current intake consists of an in-channel diversion structure, infiltration gallery, and a pumping station capable of moving 4,000 gpm to the water treatment plant. 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 most of the Green River basin. Zone 2 extends 15 river miles upstream from the intake and includes a 1,000 foot buffer on both banks of the Green River. Zone 3 includes the remaining Green River watershed upstream from the diversion structure.

Integrity Summary

The RS/GR-JPB water treatment plant serves a wide area and is classified as a community surface water supply. The intake was constructed after 1993, when stringent construction standards were required by the State of Wyoming. While available records indicate the intake is screened and inspected regularly, access to the area around the intake is reportedly unrestricted. As shown on the Integrity Summary Table, the intake received an integrity score of 3. This value directly reflects the fact that the intake was constructed after 1993, and that the area around the intake is unprotected.

Water Source Sensitivity Summary

The RS/GR-JPB water treatment plant obtains source water from the Green 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 included antimony, barium, haloacetic acids, total trihalomethanes, and sulfate among others. 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. In general, RS/GR-JPB's water source received high susceptibility scores for land use because much of the land along the Green River within Zone 2 is forested. The water source is also highly susceptible to contaminants associated with various point sources in Zones 1 and 2. These include an area of contaminated soil and numerous underground storage tanks that are located near the intake. The intake was also assigned a high susceptibility rating for transportation corridor contaminants due to the presence of a railroad, interstate highway, and pipeline that all cross through Zone 2. 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 Rock Springs/Green River JP
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	2
Underground Tank	N/A	N/A	24
Underground Injection	N/A	N/A	1
Sol/Haz Waste Site	N/A	N/A	1
Misc. Site	N/A	N/A	1

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