

WYOMING WATER ASSESSMENT AND PROTECTION PROGRAM (SWAP)



SOURCE WATER ASSESSMENT PROGRAM EXECUTIVE SUMMARY

Source Water Assessment Prepared For:
Green River

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SOURCE WATER ASSESSMENT SUMMARY FOR Green River

PWS Source Water Assessment Summary

The Green River Water Facility is classified as a community consecutive surface water supply. Purchased water is provided to Green River by the Rock Springs/Green River - Joint Powers Board's (RS/GR-JPB) treatment plant, PWS #5600050. Water is pumped through a master flow meter and is then piped into the Green River's leased distribution system and storage tanks. The purchased water is provided to a resident population of 12,711 through 4,200 service connections year round. The source water for this consecutive system, which is purchased from the RS/GR-JPB treatment plant, is the Green River. Water is treated and pumped to two 1.5 million gallon, finished water, storage tanks. From the tanks, the finished water is distributed to both cities by gravity flow. Storage tank levels are monitored and under computer control by the treatment plant. Both cities also monitor system levels using the same computer-system network.

In general, the Green River water system scores high for land use, point source, and transportation corridor contaminant susceptibility. Green River's water source received high susceptibility scores for land use because much of the land 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

Purchased water is provided to Green River by the RS/GR-JPB's treatment plant, PWS 5600050. Because Green River purchases water for its community water system from a surface water source, Lidstone used the surface water delineation that has been completed for the RS/GR-JPB's diversion.

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

Green River is classified as a consecutive community surface water supply that obtains its source water from the RS/GR-JPB. 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 Town of Green River obtains its 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, Green River's water source received high susceptibility scores for land use because much of the land within Zone 2 is forested. The water source is also highly susceptible to contaminants associated with various point sources in Zone 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 Green River
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