

# WYOMING WATER ASSESSMENT AND PROTECTION PROGRAM (SWAP)



## SOURCE WATER ASSESSMENT PROGRAM EXECUTIVE SUMMARY

Source Water Assessment Prepared For:  
Baggs

Assessment Completed By:  
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## **SOURCE WATER ASSESSMENT SUMMARY FOR Baggs**

### **PWS Source Water Assessment Summary**

The Town of Baggs maintains a community water system that is located on Wyoming Highway 789, about 50 miles south of the Baggs exit on I-80. The system provides water to a residential population of about 252 people through 212 service connections on a year round basis. The source water for the Town is obtained from the Little Snake River that runs near the treatment plant. Four, six inch diameter steel pipes that are set in the river at different elevations direct water by gravity flow to a wet well arrangement, where a booster pump is used to transmit it to the treatment plant. The treated water is collected in a 40,000 gallon, unbaffled, clearwell/contact chamber, and then pumped on demand to distribution and/or storage. The storage facility is a 280,000 gallon steel tank located at ground level above the town.

Results of the contaminant inventory and susceptibility analysis revealed there are several contaminant sources within Zones 1 and 2 that present a threat to the Town's drinking water supply. These included irrigated cropland land uses, pipelines, and a water treatment plant that are located within the source water area of the intake. The following report contains the source water delineation and susceptibility assessment for the Town of Baggs.

### **Delineation Methods**

The Town of Baggs water system is a community system that receives its entire supply from a surface water source. For that reason, Lidstone delineated the source water area for the Town using surface water methods.

### **Surface Water Sources**

Baggs obtains all of its municipal water from the Little Snake River intake which is located along the river northeast of the Town. While the Town of Baggs appears to have adequate water under three water rights on file with the Wyoming SEO, priority dates and calendar restrictions on these rights will result in water supply shortages for the Town. The current intake consists of four unscreened intake pipes that are set at different elevations in the stream to collect flows at different discharge levels. 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 Little Snake River drainage. Zone 2 extends 15 river miles upstream from the intake and includes a 1,000 foot buffer on both banks of the river and perennial tributaries. However, Zone 2 on the tributary Willow River stops at the Stateline in accordance with DEQ's SWAP guidance document. Zone 3 includes the remaining Little Snake River watershed upstream from the intake with the exception of that part of the drainage which lies in Colorado.

## **Integrity Summary**

The Town of Baggs uses surface water from the Little Snake River. The intake was constructed between 1983 and 1993, when more stringent construction standards were required by the State of Wyoming. Records also indicated that while the intake is inspected regularly, the area around the intake is unprotected and the intake is not screened. As shown on the Integrity Summary Table, Baggs' intake received an integrity score of 7. This value was due to the fact that the available data indicate the intake is not screened, that the intake was completed between 1983 and 1993, and that the area around the intake is unprotected.

## **Water Source Sensitivity Summary**

The Town of Baggs obtains its source water from the Little Snake River. As shown on the Source Sensitivity Summary Table, the Town's 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 Town within the last five years detected several contaminants that are listed on EPA's primary and secondary drinking water standards. These included fluoride, nitrate, and sulfate. 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, Baggs received high susceptibility ratings for land use, transportation corridor contaminants, and point source contaminants. The presence of irrigated cropland along the Little Snake River valley resulted in the high land use rating. Because Dixon's water treatment plant is located in Zone 2 upstream from Baggs, the point source contaminant rating was high. The Town should also be aware of the Ferris Haggarty Mine (64041) in Zone 3. This abandoned mine land site currently discharges up to 500 gallons per minute of 4 mg/l copper laced water to Haggarty Creek which eventually flows into the Little Snake River. The transportation corridor susceptibility rating was also high because of pipelines that run through Zones 1 and 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](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 Baggs  
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