



Photograph of the Upper Gallatin River Corridor Study Area – November 2019

The Upper Gallatin River is a valuable recreational and economic resource for the Big Sky community. High rates of population growth in the Big Sky area are expected to place increasing demands and stressors on the quantity and quality of water resources in the Big Sky area. The Upper Gallatin River Corridor project focuses on the portion of Big Sky locally referred to as “the Canyon”.

The Groundwater Investigation Program of the Montana Bureau of Mines and Geology (MBMG) will conduct a study of the hydrologic system within the study area over the next two years to assess the cumulative effects of existing and future residential and commercial development on water quality and quantity.

Objectives include:

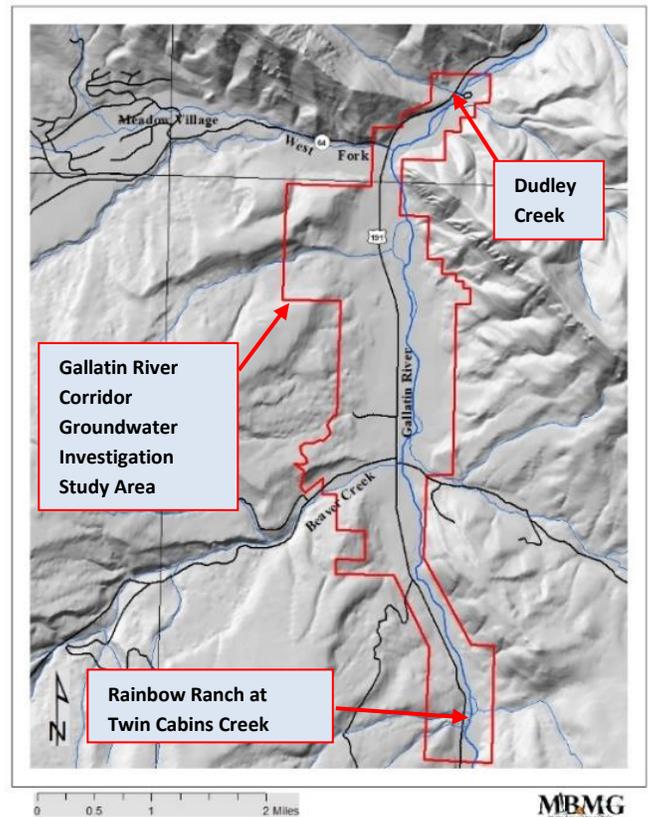
- Development of a hydrogeologic framework and water budget. A water budget is an accounting of all water that flows into and out of the study area.
- Evaluate potential septic system loading to surface water through groundwater flows, and
- Construct a numerical groundwater model to simulate hydrologic conditions and predict future changes to water quality and quantity.

To meet these project goals, GWIP personnel will:

- Collect groundwater level data
- Measure surface-water flow in the Gallatin River and tributaries
- Sample groundwater and surface-water chemistry
- Install monitoring wells and perform aquifer testing

Residents and/or property owners in the study area may be contacted during the study to obtain permission to access their water well or property to aid in the data collection effort.

Project results will be published in a report that includes interpretation of the hydrogeologic system, water quantity available to sustain growth, and predicted effects of increased development on groundwater and surface-water quality. A separate modeling report will provide details on the numerical groundwater model development and construction.



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