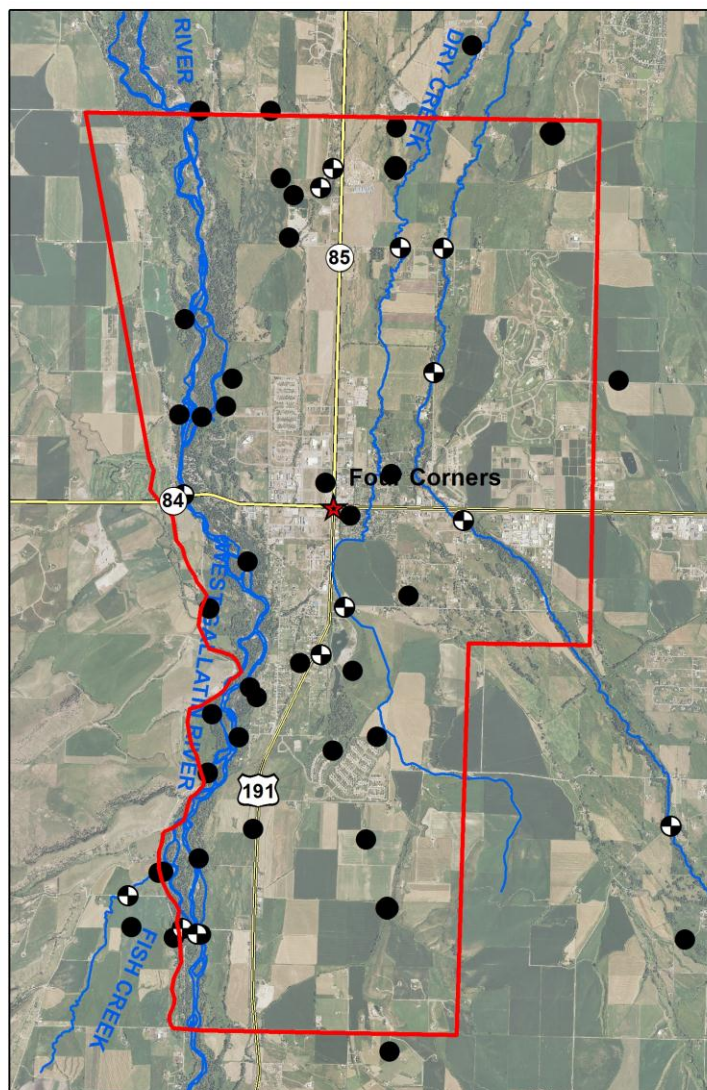


GWIP Project Area: Four Corners, Gallatin County



Four Corners Study Area

- Surface water locations
- Ground water locations
- Streams



The Montana Bureau of Mines and Geology (MBMG) Groundwater Investigations Program (GWIP) is conducting a groundwater study of the Four Corners area. The purpose of GWIP is to investigate specific local groundwater issues. More information on GWIP is available at <http://www.mbmq.mtech.edu/gwip/gwip.asp>.

Subdivisions, rural residential and commercial development are transforming agricultural land in the area of this busy community four miles west of Bozeman. Commercial water distribution and wastewater treatment systems are replacing irrigated land and traditional well and septic systems. The possible hydrologic effects of land use conversion from irrigated agriculture to high-density residential have raised questions concerning both water quality and water availability.

New neighborhoods, utilizing both on-site septic systems and community wastewater systems, are replacing agricultural land around Four Corners. To assist in the appropriate management of water resources in this area it is important to identify groundwater flow directions (including both horizontal and vertical gradients) and the hydrologic relationship between the aquifer and the river.

In order to provide more accurate descriptions of the geology, hydrologic properties of the aquifers, available water supplies and the effects of stresses on the groundwater and surface water in the Four Corners area, GWIP has monitored over 35 surface-water locations along the West Gallatin and major tributaries and 60 wells. Monitoring wells have been placed in multiple locations throughout the study area. These test sites will be used to conduct long-term aquifer tests to generate detailed data for use in computer models of the study area. A

numerical groundwater model will be constructed to simulate the observed hydrogeologic conditions and to evaluate the response of the groundwater system to specific stresses, such as new wells or municipal systems. We have, and will continue to collaborate with local agencies and water users. The final products will include a publicly available interpretive report and a 3D groundwater model.

We continue to seek cooperation from landowners in this area. If you're interested in participating or would like more information please contact:

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