

ontana Bureau of Mines and Geology

GROUND WATER INVESTIGATION PROGRAM

Montana Bureau of Mines and Geology

SUPPORTING SCIENCE-BASED WATER MANAGEMENT FOR MONTANA

The Ground Water Investigation Program (GWIP), established by the 2009 Legislature (HB 52), applies scientific research to answer the most urgent water issues in Montana.

Current topics of investigation include:

- Impacts to groundwater availability and surface-water baseflow from changing irrigation methods (i.e., converting from flood to pivot irrigation)
- Impact on stream flow of increasing groundwater withdrawals
- Aquifer and stream response to changing land use from irrigated agriculture to residential development
- Hydrogeologic viability of replacing surface-water diversion points with irrigation wells
- Groundwater sustainability in response to increasing demands
- Changes in water quality due to increasing subdivisions.
- Viability of buried river channel aquifers



To date, over 60 projects have been nominated and prioritized by the Ground Water Steering Committee. Results of GWIP projects have been used in water rights permit decisions, water resource development, and county planning.

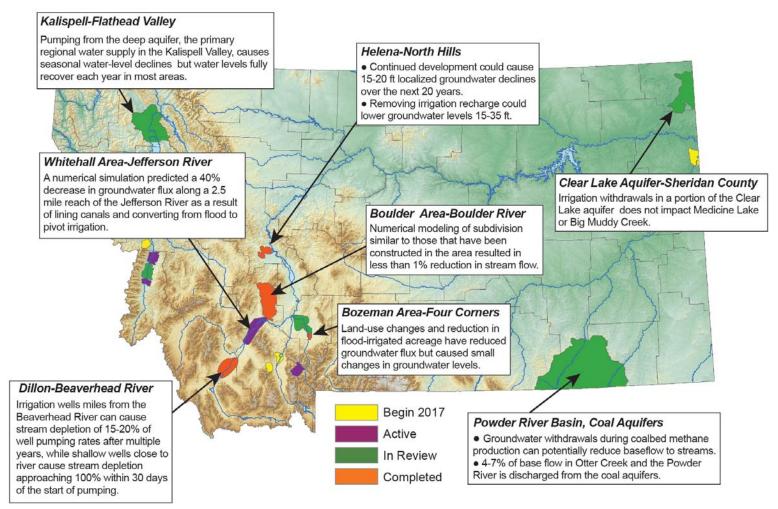
The next hot issues (yellow on map, reverse side):

- Lolo Creek, Bitterroot Valley-Determine impacts to Lolo Creek that result in a dry creek bed
- Virginia City, Madison County—Public water supply and groundwater availability
- Sidney, Eastern Montana—Groundwater availability for community and industrial growth
- Madison Valley, Ennis Area—Groundwater availability and quality to support residential growth

The public receives results in reports, presentations, and individual questions to the scientists:

- Detailed, peer-reviewed MBMG reports have been published, with more in review.
- Computer models of site-specific groundwater flow are available to the public for continued use.
- Scientists are available to the public for questions and presentations.
- Comprehensive set of hydrogeologic data for each site are permanently stored online.

Water Management Tools for Montana



Public Receives GWIP Results: Water-Related Education and Outreach



State hydrogeologists document connection between Bitterroot Valley Aquifer and River



Over 1,500 people have attended our public lectures in the past year.

Flathead River Commission



GWIP scientists explain local groundwater systems to the public in Kalispell





ENVIRONMENT SPOTLIGHT

BOZEMAN DAILY CHRONICLE

Groundwater model predicts less water in Gallatin River

LAURA LUNDQUIST, Chronicle Staff Writer Sep 14, 2014

Continued development could reduce the groundwater flowing beneath the Four Corners area and more importantly, reduce flows in area streams, i...