GWIP Project Area: Florence Area, Ravalli County

Increasing population density in the Bitterroot Valley has raised concerns about water well and septic drain field concentration. As the valley population grows; the demand on the aquifer increases, and the possibility of induced contamination of drinking water by septic waste drainage has been raised, specifically in Florence and the Eightmile Creek Drainage. The possible hydrologic affects of increased pumping density on the water supply and the impacts of continued development have become an increasing concern.

This investigation will focus on determining the lithologic controls governing the availability of groundwater in the valley through drilling and coring. Aquifer tests and water chemistry sampling/analyses at shallow and intermediate depths at several will be used to determine the hydrogeologic framework and the aquifer vulnerability to over-taxation and contamination. The ground-water flow model would focus on the potential depletion effects on small streams as well as the possible impacts of groundwater movement caused by new development in the area.

For more information regarding this project, please contact:

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Montana Bureau of Mines and Geology Ground-Water Investigations Program

The 2007/2008 Water Policy Interim Committee (WPIC) recognized that competition for water resources and the lack of detailed information on groundwater/surface-water interaction has challenged water-resource management and development in Montana. The WPIC found that "continued and expanded study of ground-water resources is vital to shaping statewide policy as well as providing the data necessary for local decisions regarding water."

To that end, the **Ground-Water Investigations Program** (GWIP) was established to provide specific scientific information on important water resource issues, including:

- stream depletion from groundwater development by new withdrawals,
- cumulative effects of existing and proposed water development,
- groundwater/surface-water response to changes in irrigation practices,
- implementation of aquifer storage and recovery (ASR) in Montana, and
- evaluating potential mitigation/offset plans in closed basins.

A typical groundwater investigation will involve the compilation of existing data, drilling of test/monitoring wells, aquifer testing, water quality sampling, stream flow analyses, and extensive modeling of groundwater, surface water, and chemistry

Highlights of HB 52 (61st Legislature):

Directs the Ground-Water Assessment Steering Committee to prioritize sub-basin investigations based on anticipated growth in housing, agriculture, industry, and commercial activities.

- Directs the Montana Bureau of Mines and Geology to conduct 1 to 3-year focused investigations of groundwater and surface water in the prioritized areas.
- Funding for 5 to 7 investigations each biennium starting July 1, 2009. There are currently 37 potential sites identified (see map on reverse side).

Ground-Water Investigation Program Products:

Each sub-basin investigation product will include:

- A detailed report that describes the hydrogeologic system
- Models that simulate hydrogeologic features and processes
- A comprehensive set of hydrogeologic data available online

Each project will [illegible] focused investigation of groundwater and surface water in a sub-basin of sufficient size to construct models and a detailed report of the investigation. The models, reports, and supporting data will be technical in nature and used directly by scientists and engineers representing agencies, senior water-right holders, new applicants, and other stakeholders.

Ground-Water Assessment Steering Committee includes:

Four voting members from:

- Department of Agriculture
- Department of Natural Resources and Conservation
- Department of Environmental Quality
- State Library, Natural Resource Information System

Ex-officio members from numerous other interested agencies and interests.

For more information, visit the MBMG website:
http://www.mbmg.mtech.edu/gwip/gwip.asp

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