
News Release

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USGS Study Shows Declining Water Levels in Idaho's Wood River Valley

As south-central Idaho's Wood River Valley continues to grow in population, residents and authorities are concerned about the long-term sustainability of the area's water resources. A study released by the U.S. Geological Survey (USGS) shows that ground water levels and streamflows in some parts of the valley are indeed declining beyond what might be expected from typical, short-term fluctuations. It remains unclear if the declines are due to drought conditions, increased water use, or a combination of both factors. However, the study findings do provide a base on which future measurements can build, allowing the valley's decision makers to document water resource trends with greater confidence.

USGS scientists analyzed ground-water and streamflow trends and compared water resource conditions in the period 1952 to 1986 with data they collected in October 2006.

In the trend analysis, USGS scientists examined data for three wells and three streamflow gages for which long-term data were available. The data for all three wells show statistically significant downward trends in water levels and streamflow at one of the gages has declined. Two of the three gages are located on spring-fed streams and are therefore useful indicators of ground-water conditions. Data for those two gages show decreasing flows during December, January, and February. Decreasing flows also are evident at one of the gages during July through November and in April. Data for all three streamflow gages show declining low-flow trends. Low flow at these gages is fed primarily by ground-water discharge.

In October 2006, USGS scientists measured water levels in 98 wells and streamflow at 13 sites throughout the Wood River Valley. They used these measurements to construct a ground-water contour map of the valley's aquifers. Using the available data for the period 1952-1986, the scientists constructed a second ground-water contour map. They were then able to compare the two maps to determine changes in water levels. Those changes are represented on ground-water change maps that are included in the study report.

The study was funded through a cooperative agreement between the USGS and Blaine County; the Cities of Bellevue, Hailey, Ketchum, and Sun Valley; The Nature Conservancy Silver Creek Preserve; Sun Valley Water and Sewer District; Blaine Soil Conservation District; and Citizens for Smart Growth. The USGS is now working with valley authorities to develop a water budget for the area. Water budgets enable an accounting of water as it moves through Earth's atmosphere, land surface, and subsurface.

The report, *Water-Resource Trends and Comparisons Between Partial Development and October 2006 Hydrologic Conditions, Wood River Valley, South-Central Idaho*, is available online at

<http://pubs.usgs.gov/sir/2007/5258/>. To learn more about USGS investigations in the Wood River Valley, visit http://id.water.usgs.gov/projects/wood_river_valley/.

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