

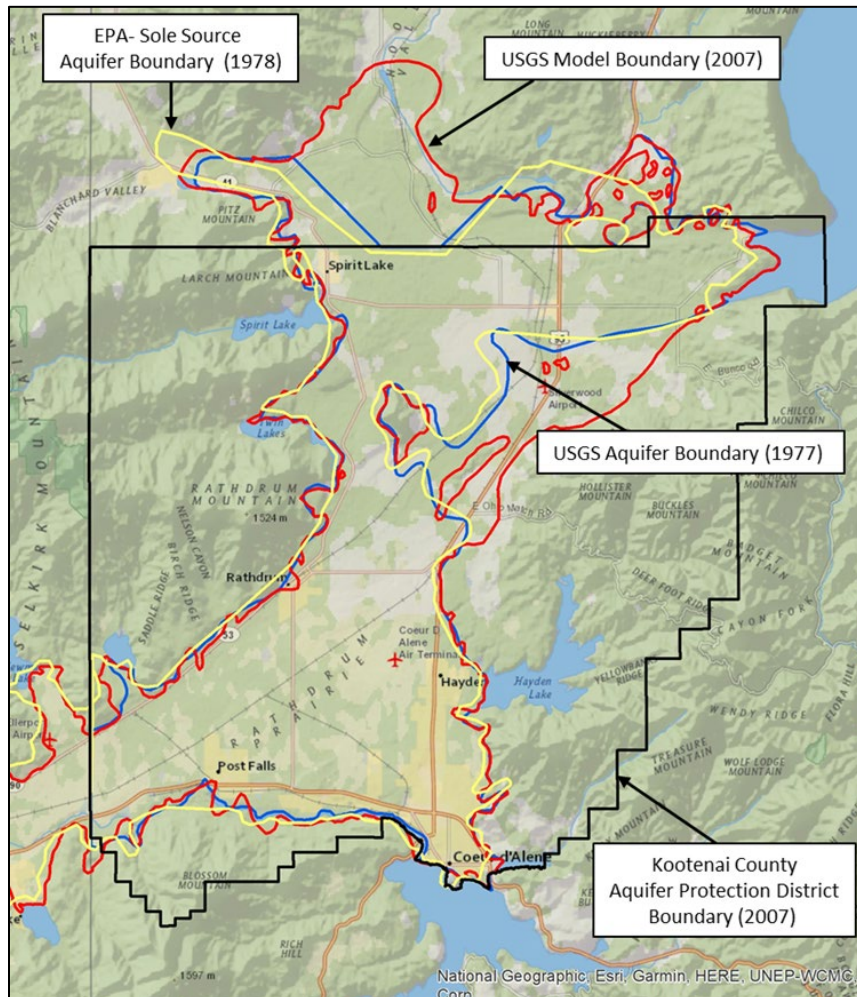


# Rathdrum Prairie Aquifer Boundary

## 1977 and 1978 Boundaries

In 1977, a petition request was submitted to the United States Environmental Protection Agency (EPA) to designate the Spokane Valley-Rathdrum Prairie aquifer as a sole source aquifer. On February 9, 1978, EPA granted the request (Federal Register Vol. 43, No. 28, Thursday, February, 9, 1978). EPA defines a sole-source aquifer as one that (1) supplies at least 50% of the drinking water in the area overlying the aquifer and (2) has no alternative drinking water source(s) that could physically, legally, and economically supply all those who depend on the aquifer for drinking water.

Before EPA designated the aquifer as sole source in 1978, the United States Geological Survey (USGS) defined the boundary of the aquifer in 1977. In the map below, the USGS boundary is indicated in blue, and the EPA boundary is indicated in yellow.



The Panhandle Health District (PHD) recognizes the USGS 1977 aquifer boundary (blue line in the map) and adopted rules in 1993 to protect aquifer water quality by limiting septic drainfield density and inspecting the storage of large quantities of hazardous materials used by businesses.

The Idaho Department of Environmental Quality (DEQ) classified the Rathdrum Prairie aquifer as a sensitive resource aquifer (IDAPA 58.01.11.300.01.a) in 1997, following the USGS 1977 aquifer boundary (blue line in the map). Because of this classification, all activities that could impact the water quality of the Rathdrum Prairie aquifer must be carried out so they maintain or improve existing quality of the ground water (IDAPA 58.01.11.301.01.a).

The Idaho Department of Water Resources (IDWR) in 2002 designated the Rathdrum Prairie aquifer as a Ground Water Management Area (GWMA). The GWMA designation protects aquifer water rights, prevents the aquifer from becoming a critical ground water area, and allows development of a ground water management plan to be adopted by the IDWR director. The GWMA uses the same boundary as both PHD and DEQ.

A map of the EPA aquifer boundary used by DEQ, PHD, and IDWR is also found at [Rathdrum Prairie Aquifer Reports and Publications](#).

## **2007 Boundaries**

The red line on the map shows where the USGS defined the aquifer boundary as part of a hydrogeological study conducted between 2005 and 2007 in Idaho and Washington to determine the quantity of water that flows and is used between the two states. The USGS boundary in Idaho, which is based on geologic mapping conducted by the Idaho Geological Survey and USGS, is located largely based on geological mapping where the glacial flood deposits are adjacent to surrounding bedrock and the location of ground water divides (location where ground water flows in opposite direction) The boundaries and hydrogeological information were used to construct a numerical model that was completed to determine a regional bistate water budget.

In January 2007, Kootenai County established the Rathdrum Prairie Aquifer Protection District. The aquifer protection district boundaries (black line) correspond to the areas over the Rathdrum Prairie aquifer and adjacent upland areas that contribute water to the aquifer. The upland areas are also known as critical aquifer recharge areas. Creation of the aquifer protection district allows Kootenai County to charge an annual fee to residences and businesses with the boundary. The money is used to fund aquifer protection programs and activities.