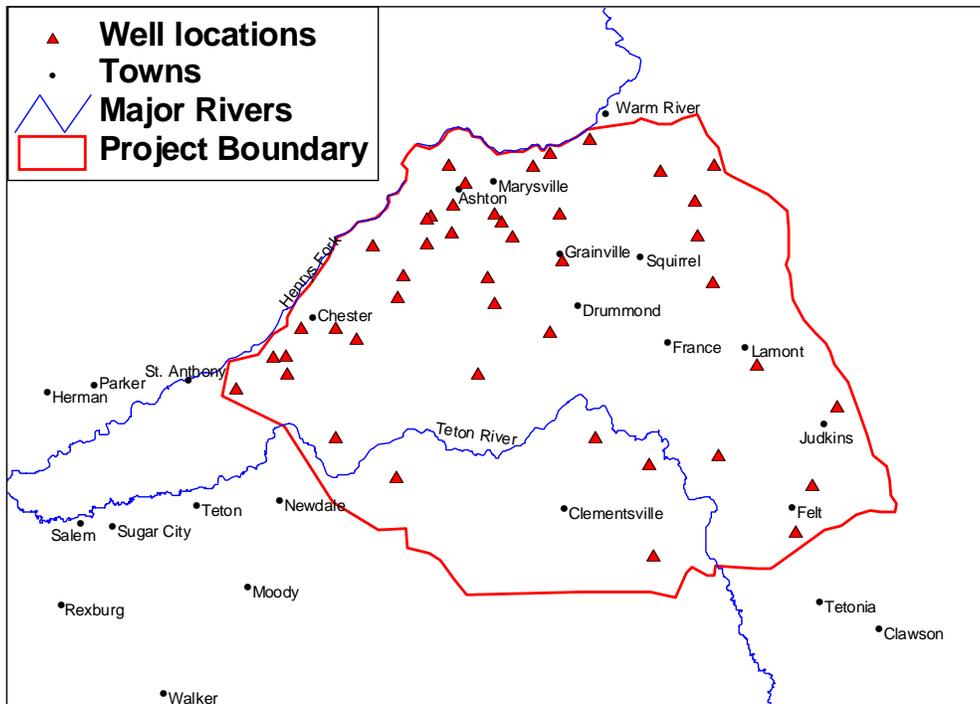
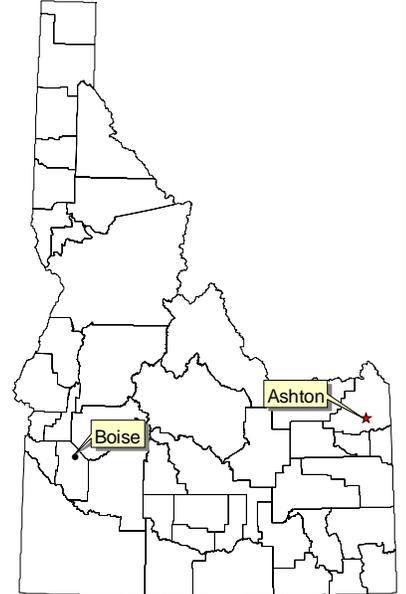


# Middle Henrys Fork Basin Pesticide Detections and Idaho's Pesticide Management Plan

Jessica Fox

This fact sheet summarizes pesticide detections in the ground water found by the Idaho State Department of Agriculture (ISDA) in the Middle Henrys Fork Basin. The monitoring project is located in Fremont County near Ashton, Idaho (refer to map on right). ISDA began sampling this project in 2002.

The study area is located on the eastern edge of the Snake River Plain. The geology consists of silicic volcanic rocks (i.e. welded tuff) overlain by the Snake River Group basalt (Jorgensen Engineering and Land Surveying, P.C., 1999; IDEQ, 2001). In some areas, the basalt is exposed at the surface (IDEQ, 2001). In other areas, the basalt is overlain by alluvium, which varies in thickness from a few feet to several tens of feet (Jorgensen Engineering and Land Surveying, P.C., 1999). The aquifer is moderately to highly vulnerable to contamination due to the alluvium being conducive to the leaching of contaminants, including pesticides. The general ground water flow direction is to the west-southwest (Parlman, 2000).



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The map above shows the Middle Henrys Fork Basin project area and the wells sampled by ISDA.

The Idaho State Department of Agriculture (ISDA) is the lead agency in developing the *Idaho Pesticide Management Plan (PMP) for Ground Water Protection*. ISDA has the authority to implement pesticide programs through a cooperative working agreement with the Environmental Protection Agency (EPA), Idaho state laws and department rules. The Idaho PMP outlines processes to protect ground water from pesticides and defines pesticide detections based on the concentration of the detection compared to a reference point. The Reference Point refers to health based concentrations. Idaho has adopted the Environmental Protection Agency's Maximum Contaminant Levels (MCLs) in the Idaho Ground Water Quality Rule (1997). Where no MCL exists, the ISDA will use EPA Health Advisories Levels (HAL) first if they exist, and then an EPA Reference Dose (RfD) number.



# Middle Henrys Fork Basin Pesticide Detections and Idaho's Pesticide Management Plan

The PMP categorizes detection levels into the following levels:

- Level 1:** Detection above the detection limit to less than 20% of Reference Point.
- Level 2:** Detection at 20% to less than 50% of Reference Point.
- Level 3:** Detection at 50% to less than 100% of Reference Point.
- Level 4:** Detection greater than 100% of Reference Point.

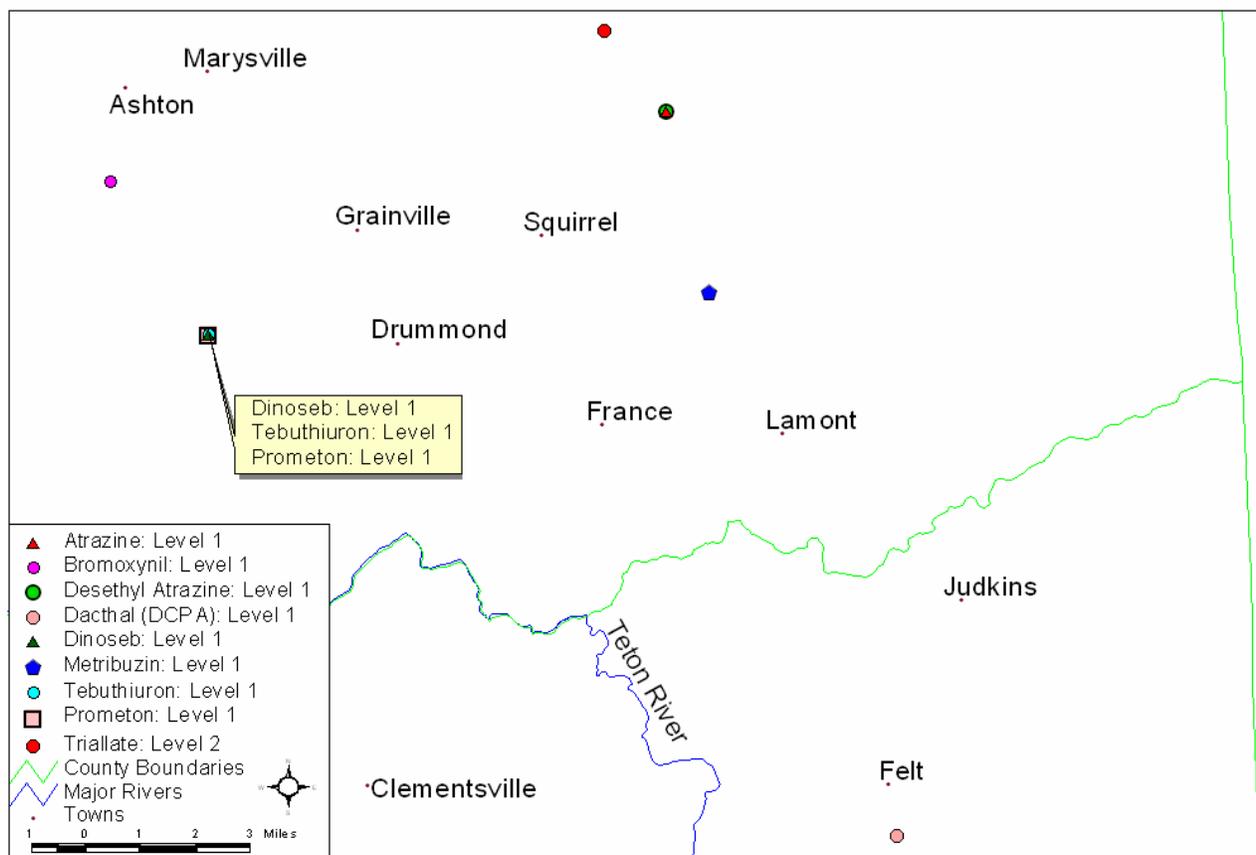
## 2003 ISDA Pesticide Detections

The map below shows pesticide detections for the ISDA 2003 sampling. All detections were below any health standards set by the EPA or the state of Idaho. All detections, except the triallate detection north of Squirrel, fall into the level 1 category established by the Idaho PMP, which is a detection that is less than 20% of the reference point. ISDA will notify and educate well owners, assess historical data, and educate pesticide applicators for level 1 detections.

The triallate detection fell into the level 2 category, which is a detection that is greater than 20% to less than 50% of the reference point. For level 2 detections ISDA will consider establishing an area of pesticide concern through rule making. ISDA will also develop a monitoring plan and determine likely sources; encourage voluntary best management practices (BMPs); potentially develop a chemical specific PMP through rule making; and conduct chemical use inspections.

The well with the triallate detection east of Ashton has been sampled six times since 1998. The triallate concentrations in the well exceeded the health limit set by the EPA Food Quality Protection Act of 0.45 µg/L twice, once in 1998 (1.2 µg/L) and in 2001 (0.58 µg/L).

It is important for applicators to follow the pesticide label and for ISDA to continue to work with applicators to protect ground water.



### References

Idaho Department of Environmental Quality Technical Service Division, 2001. Groundwater quality investigation and wellhead protection study city of Ashton, Idaho, Ground water technical report no. 15, 30 p.

Jorgensen Engineering and Land Surveying, P.C., 1999. City of Ashton—water supply system nitrate mitigation study, Jackson, Wyoming, 42 p.

Parlman, D.J., 2000. Nitrate concentrations in ground water in the Henry's Fork Basin, eastern Idaho, US Geological Survey Fact Sheet FS-029-00, 5 p.