



IDAHO
DEPARTMENT OF
ENVIRONMENTAL
QUALITY

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Idaho Nitrate Priority Areas

Nitrate in Idaho's Ground Water

Ground water is a vital and valuable resource in Idaho that provides over 95% of Idaho's drinking water. Some types of land use generate contaminants at the surface that can infiltrate through soil and eventually reach ground water, reducing ground water quality.

Nitrate is the most common and widespread contaminant in Idaho's ground water and can cause health problems. The principal health concern is that infants less than 6 months old may become seriously ill if they drink water with nitrate concentrations greater than 10 milligrams per liter (mg/L) (drinking water standards). This contaminant can cause methemoglobinemia, which has symptoms including shortness of breath and bluish skin, and if left untreated can cause death.

Nitrate comes from fertilizers, septic systems, livestock operations, and industries including food processing.

Why Do We Need Nitrate Priority Areas?

Improving ground water quality requires resources. The available resources need to be dedicated first to the top priority areas. The Idaho Department of Environmental Quality (DEQ) has a procedure for identifying and prioritizing areas where nitrate is impairing or degrading ground water quality. Improvements are made by first deciding on improvement strategies and then implementing those strategies.

How Does DEQ Establish Nitrate Priority Areas?

DEQ uses results of nitrate monitoring—the findings from laboratory analysis of ground water samples—from throughout the state. Nitrate monitoring data are used to define areas with high nitrate concentrations. Geostatistical methods are applied that use criteria based on drinking water standards.

An area is considered a nitrate priority area if 25% of the wells sampled in the area have at least 5 mg/L, which is one-half the drinking water standard of 10 mg/L. The nitrate priority areas are ranked (prioritized) in order of severity (one is the most impacted), based on factors such as the population and number of public water systems in the area, water quality trends, and beneficial uses in addition to drinking water. In 2002, 25 nitrate priority areas were defined; in 2008, 32 areas were defined; and in 2014, 34 areas were defined.

What Is Being Done About Nitrate Contamination?

DEQ provides assistance to communities that are developing management strategies related to the land uses in these areas. Public education is a main component of the strategies. The strategies, which are focused on improving ground water quality, are compiled in a ground water quality improvement plan. DEQ also coordinates with other agencies to implement management strategies. DEQ reevaluates the areas every 5 years to determine if the strategies are effectively improving ground water quality. Parts of the state that are not within an established nitrate priority area still must be protected to prevent contamination.

What Can You Do?

Educating yourself, your family, and your friends and neighbors is a first—and extremely important—step in preventing nitrate contamination and improving ground water quality. Learn how to apply fertilizer properly and irrigate effectively. You will save money and avoid overapplying fertilizer. If you have a septic system, understand its limitations and the maintenance required to prevent failure.

Contact your local DEQ regional office to find out whether nitrate priority areas in your region have ground water quality improvement plans developed or scheduled to be developed. Find out how you can be involved with implementing plans to improve and protect Idaho's precious resource at www.deq.idaho.gov/nitrate.

2014 IDAHO NITRATE PRIORITY AREAS

25% of sites sampled are greater than or equal to 5 mg/L Nitrate, which is 1/2 the maximum contaminant level for drinking water

PRIORITY RANKING

RANK	NAME
1	MARSH CREEK
2	WEISER
3	LINDSAY CREEK
4	ADA CANYON
5	FORT HALL
6	BLACKFOOT
7	GRAND VIEW
8	BRUNEAU
9	NE STAR
10	BLACK CLIFFS
11	MOUNTAIN HOME
12	MOUNTAIN HOME AFB
13	PRESTON
14	CLEARWATER PLATEAU
15	MUD LAKE
16	N. POCATELLO
17	ASHTON/DRUMMOND
18	MARSING
19	GLENN'S FERRY
20	MINK CREEK
21	TWIN FALLS
22	PARMA
23	NOTUS
24	MALAD
25	MINIDOKA
26	SOUTH FREMONT CO.
27	LAPWAI CREEK
28	HOMEDALE
29	GEORGETOWN/BENNINGTON
30	GRACE
31	LOWER PAYETTE
32	BLISS
33	EMMETT NORTH BENCH
34	PURPLE SAGE

Legend

★ DEQ Regional Office

Major Roads

— Interstate

— Highway

■ 2014 NPAs

□ County

