

Priority Area Number: 22		Priority Area Name: Preston/Cache Valley		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<1000	1	X	1	Population = 620
1000 to 10,000	2			
10,000 to 100,000	3			
		Subtotal	1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	X	1	10 PWS; 6 Wells,
>20	2			4 Springs
		Subtotal	1	
c) Number of Wells with Nitrate (NO₃) ≥ 10 mg/l				
0	0			
1 to 2	1			
3 to 5	2	X	2	3 Wells
6 to 9	3			
10 to 15	4			
>15	5			
		Subtotal	2	
		Population Score	4	
		Max Possible Score = 10		
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with Nitrate (NO ₃) ≥ 2 mg/l	54%	2	1.08	
Percent of wells with Nitrate (NO ₃) ≥ 5 mg/l	23%	5	1.15	
Percent of wells with Nitrate (NO ₃) ≥ 10 mg/l	5%	10	0.50	
		Water Quality Total	2.73	
3) WATER QUALITY TRENDS				
		Select One		
Increasing	10			
No Discernable Trend	5	X	5	
Decreasing trend	0			
		Trend Score	5	
		Max Possible Score = 10		
4) OTHER BENEFICIAL USES				
Other beneficial uses are impaired	2	Yes=2 No = 0	No	
		Beneficial use score	0	
		Max Possible Score = 2		
Total Score			11.73	

**NITRATE PRIORITY AREA # 22
PRESTON/CACHE VALLEY**

Nitrate Concentrations: (mg/l)

Minimum Value	0
Maximum Value	18.7
Average Value	3.2
No. Samples \geq 10	3
No. Samples 5 – 9.99	11
No. Samples 2 – 4.99	19
No. Samples < 2	28
No. Samples \geq 2	33
No. Samples \geq 5	14
No. Samples \geq 10	3
% Samples \geq 2	54%
% Samples \geq 5	23%
% Samples \geq 10	5%
Total Samples	61
No. PWS Samples	10
No. SMN Samples	11
No. IDAG Samples	40
No. REG/LOC Samples	0

PWS = Public Water Systems

SMN = State Wide Monitoring Network

IDAG = Idaho Dept. of Agriculture Studies

REG/LOC = Regional/Local Monitoring DEQ and DEQ/IDAG Projects

This Priority Area, Preston/Cache Valley, does not meet criteria for a Group 1 in this ranking period, where 25% samples \geq 5mg/l. The Preston/Cache Valley Area has only 23% samples \geq 5 mg/l. It was postulated that incorporation of the four spring sources may be cause for dilution; however, recalculation without the springs actually lowered the criteria to 21% samples \geq 5 mg/l. Group 2 criteria is when 50% samples are \geq 2 mg/l. This ranking period for this area has 54% samples \geq 2 mg/l.

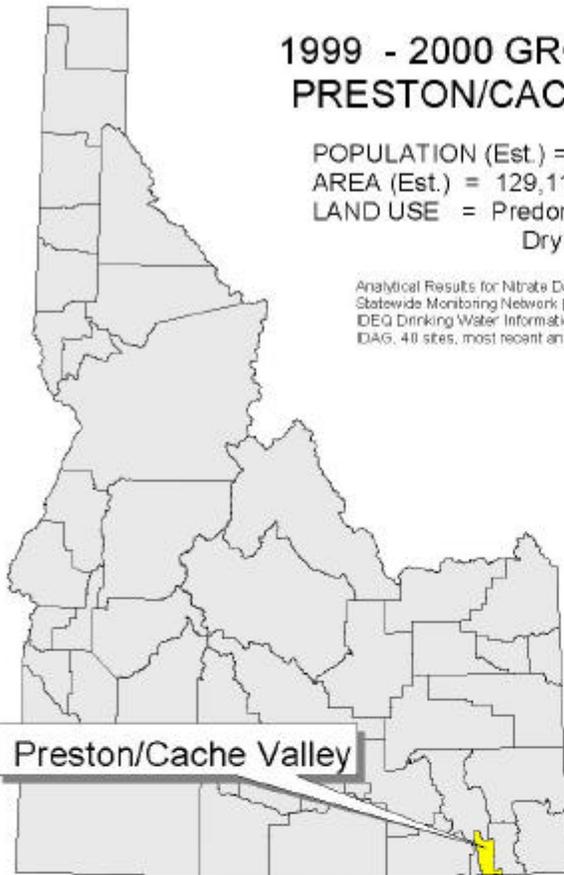
The 1998 ranking of this area had 6 SMN wells and 8 PWS wells for a total of 14 wells sampled. Of those, 9 wells (75%) are \geq 2 mg/l and 5 wells (42%) are \geq 5 mg/l. No wells exceeded 10 mg/l.

For the 1999-2000 ranking period, 2 PWS wells, 5 SMN, and 40 IDAG wells were added since the 1998 ranking period. DEQ will maintain the priority status for this area at the present time, with re-evaluation in the 2001 ranking period. Procedures to remove areas from priority status with a continual decline in nitrate contamination below minimum criteria are to be developed with the Ground Water Monitoring Technical Committee.

1999 - 2000 GROUP 1 NITRATE PRIORITIZATION PRESTON/CACHE VALLEY AREA 22* (RANKED)

POPULATION (Est.) = 620
 AREA (Est.) = 129,115 Acres
 LAND USE = Predominantly Irrigated Agriculture, Smaller Amount of
 Dry Agriculture, Minor Amounts of Riparian and Urban

Analytical Results for Nitrate Data Sources:
 Statewide Monitoring Network (USGS/IDWR), 11 sites, most recent analysis used
 IDEQ Drinking Water Information System (DWIMS), 10 PWS; 6 wells and 4 springs, 1999-2000 data, highest value used
 IDAG, 40 sites, most recent analysis used



Nitrate Values (mg/l)	Number of Sites
>=10	3
5 - 9.99	11
2 - 4.99	19
< 2	28

MAXIMUM VALUE = 18.7
 MINIMUM VALUE = 0.0
 MEDIAN = 2.1
 AVERAGE = 3.2

TOTAL NUMBER OF SAMPLING SITES = 61
 TOTAL NUMBER OF PWS SITES = 10

No. Sites Nitrate >= 2 mg/l = 33
 No. Sites Nitrate >= 5 mg/l = 14
 No. Sites Nitrate >=10 mg/l = 3

*Previously referred to as Area 20 for trend analysis

Nitrate Analytical Results -
 Statewide, PWS, IDAG

- ▲ >= 10 mg/l
- 5 - 9.99 mg/l
- 2 - 4.99 mg/l
- ◆ <2 mg/l

□ Nitrate Priority Area 22
 Preston/Cache Valley

USGS = United States Geological Survey
 IDWR = Idaho Department of Water Resources
 IDAG = Idaho Department of Agriculture
 IDEQ = Idaho Department of Environmental Quality
 PWS = Public Water System
 mg/l = milligrams per liter

