

2008 Nitrate Priority Area Delineation and Ranking Process



Department of Environmental Quality

December 2008

TABLE OF CONTENTS

INTRODUCTION.....	4
PHASE I – DATA ACQUISITION, COMPILATION, AND ANALYSIS ...	4
PHASE 2 – DELINEATION OF NITRATE PRIORITY AREAS	5
PHASE 3 – NITRATE PRIORITY AREA RANKING	6
CRITERIA AND SCORING FORMAT	6
2008 RANKING RESULTS.....	9
APPENDIX #1 – TWIN FALLS.....	13
APPENDIX #2 – ADA CANYON.....	16
APPENDIX #3 - WEISER	19
APPENDIX #4 – FORT HALL	22
APPENDIX #5 – NORTH EAST STAR.....	25
APPENDIX #6 – MARSING	28
APPENDIX #7 – GRAND VIEW	31
APPENDIX #8 – HAGERMAN.....	34
APPENDIX #9 – CASSIA COUNTY.....	37
APPENDIX #10 - BRUNEAU.....	40
APPENDIX #11 – LOWER PAYETTE	43
APPENDIX #12 – MINIDOKA	46
APPENDIX #13 – ASHTON/DRUMMOND.....	49
APPENDIX #14 - MOUNTAIN HOME AFB.....	52
APPENDIX #15 – MOUNTAIN HOME	55

APPENDIX #16 – CLEARWATER PLATEAU 58
APPENDIX #17 – GLENNS FERRY 61
APPENDIX #18 – GRACE/SODA SPRINGS..... 64
APPENDIX #19 – PRESTON 67
APPENDIX #20 – BLACKFOOT 70
APPENDIX #21 – PURPLE SAGE..... 73
APPENDIX #22 – LINDSAY CREEK 76
APPENDIX #23 – MINK CREEK 79
APPENDIX #24 – LAPWAI CREEK 82
APPENDIX #25 – NOTUS 85
APPENDIX #26 – PARMA 88
APPENDIX #27 – ST. ANTHONY 91
APPENDIX #28 – MUD LAKE 94
APPENDIX #29 – EMMETT NORTH BENCH..... 97
APPENDIX #30 – NORTH POCA TELLO 100
APPENDIX #31 – BLISS 103
APPENDIX #32 – HOMEDALE 106

Introduction

Pursuant to guidance provided in the Department of Environmental Quality (DEQ) policy memorandum entitled “Policy for Addressing Degraded Ground Water Quality Areas” dated March 1, 2000, a statewide list of significantly degraded areas with nitrate was developed. In 2002, the DEQ, in cooperation with the Idaho Ground Water Monitoring Technical Committee (GWMTC) published a ranking of 25 Nitrate Priority Areas (NPAs). The NPAs are areas where elevated levels of nitrate have been found in ground water.

DEQ, in conjunction with the GWMTC revised the NPAs published in 2002. The revisions utilized data collected since the original NPAs were developed to evaluate ground water quality changes in existing NPAs and to identify new areas with nitrate degraded ground water. In the summer of 2006 the GWMTC began the process of revising the NPAs. Based on experience gained since 2002, which provided agencies with a better understanding of the resources necessary to address ground water degradation over large areas, it was decided to limit the effort to delineating only Priority 1 NPAs and not include Priority 2 NPAs.

The minimum criterion for a Priority 1 NPA is 25% of sampled wells have nitrate levels at or above 5 milligrams per liter (mg/L). The state and federal drinking water standard, as well as the Idaho Ground Water Quality Standard for nitrate is 10 mg/L. Within a Priority 2 NPA 50% of the sampled wells have nitrate levels at or above 2 mg/L. Almost all developed areas of the state meet this criterion.

Phase I – Data Acquisition, Compilation, and Analysis

In the fall of 2006, DEQ began collecting and compiling nitrate results and well location data from the numerous agencies monitoring ground water quality in Idaho. Well location information, sampling date, and nitrate concentration data were received and compiled by DEQ. Spatial information was reconciled and integrated into a Geographic Information System (GIS) coverage.

Sources of data included the DEQ public water system database, the Statewide Ambient Ground Water Quality Monitoring Network (Statewide Program), numerous U.S. Geological Survey (USGS) studies, DEQ regional and local monitoring projects, regional studies conducted by the Idaho State Department of Agriculture (ISDA), and dairy sampling by ISDA. Data from 1990 into 2007 were plotted with the corresponding nitrate value. The 2002 NPAs were based on data from 1974 to 2000. The use of more recent data resulted in a difference of sample numbers between the 2002 and 2008 NPA analysis within a few areas with roughly the same configuration, namely Fort Hall and Bruneau. For sites with multiple values the most recent value was used. Data from site-specific monitoring projects associated with known point sources of nitrate contamination were not included in the data set.

Ground water quality data from about 9,950 wells statewide were compiled and evaluated to develop the 2008 NPAs. The NPAs contain 3,600 of the 9,950 wells and encompass a combined area of 2,229,048 acres. Approximately 300,000 people are estimated to live within the boundaries of the NPAs.

Phase 2 – Delineation of Nitrate Priority Areas

Once the data was located spatially with the corresponding nitrate concentration, the NPAs were delineated. The GWMTTC reviewed a variety of approaches and discussed pros and cons of different methods to delineate NPAs. A single method, which would provide concise, objective, scientifically defensible boundaries, was the ultimate goal of the GWMTTC. The GWMTTC, after much discussion and multiple attempts to use a single method, determined that a triad of different methods provided the most objective NPA delineation. To decrease the reliance on the potential subjectivity of professional judgment, two geostatistical methods, indicator kriging and ordinary kriging, were incorporated in the process. Geostatistical software packages for indicator kriging and ordinary kriging, available for ESRI® ArcMap™, were applied to the data. The two geostatistical techniques and professional judgment factors are described in very simplified terms below.

- Indicator kriging considers if a value is above or below a specific concentration. It analyzes the data and shows the probability of exceeding a specific concentration. The method allows the user to use any combination of probability and concentration. For this process a 25% probability of exceeding 5 mg/L for nitrate was used.
- Ordinary kriging interpolates values between locations with data and contours the data. Areas located within the contour interval of 3.5 mg/L were used.
- The third component of the process included professional judgment. This component included the consideration of land use and knowledge of aquifers and hydrogeologic factors. For example, efforts were made to not extend NPA boundaries into undeveloped lands.

The utilization of geostatistical methods provided more objective and scientifically defensible boundaries. It should be noted that the NPA boundaries are considered estimations that identify general areas where nitrate levels are more likely to be elevated. NPAs may be considered analogous to climate zones or precipitation maps, which constantly change. Distinct NPA boundaries may not be appropriate because of the dynamic nature of ground water systems. Nitrate levels may fluctuate seasonally or annually for a number of reasons including flow direction or water level changes in response to irrigation practices or seasonal land use practices. Additionally, because nonpoint sources of contamination do not have distinct contamination plumes like point source releases, the boundaries of NPAs are not definite.

The delineation process yielded 32 Priority 1 NPAs. These NPAs are located throughout Idaho: stretching from Nez Perce County in northcentral Idaho to Franklin County in southeast Idaho and from Owyhee County in southwest Idaho to Fremont County in eastern Idaho. The spatial distribution of NPAs is very similar to the distribution in 2002. Figure 1 is a map showing a comparison between the 2002 and 2008 NPAs. Some of the increase in the number of NPAs is the result of splitting some of the larger NPAs in the Treasure Valley into smaller NPAs. For example the 2002 Homedale-Marsing NPA was separated into two NPAs: one Homedale and one Marsing. The separation was based on data showing an area with lower nitrate concentration located between the two NPAs.

New NPAs, not divided from larger areas, that were identified by more recent data include: the Lindsay Creek area near Lewiston; an area in Gem County; areas west of Middleton; Mountain Home Air Force Base; Hagerman; an area east of Blackfoot, and the Mink Creek drainage to the south of Pocatello.

Based on more recent sampling, two of the 2002 lower ranking NPAs were removed from the NPA list because the results did not meet the criterion of 25% of sampled wells at or above 5 mg/L. These areas include Genesee/Cow Creek located to the north of Lewiston, and Hibbard near Rexburg.

Phase 3 – Nitrate Priority Area Ranking

The process used to rank the NPAs in 2002 was also used to rank the 2008 NPAs. The GWMTTC supported the continued use of the ranking process to maintain consistency with previous efforts. Additionally, the ranking process used in 2002 went through a 60-day public comment and was revised based on comments received during that period.

The NPA Ranking Process (Ranking Process), developed by DEQ in consultation with the GWMTTC, provides the rationale for numerically ranking areas in Idaho with identified ground water degradation from nitrates. The statewide priority list created through this process will be used to prioritize the implementation of protective management strategies or corrective action measures within the NPAs.

The ranking process employed an approach intended to:

- minimize subjectivity,
- have statewide applicability,
- be transferable to other types of contaminants, such as pesticides, and
- use existing information.

The ranking process considers three weighted principal criteria: population, existing water quality, and water quality trends. A secondary criterion, impacts to beneficial uses other than potable water supply, is considered to a lesser extent because it is not directly related to public health. The secondary criterion is included to comply with the DEQ Policy Memorandum entitled "Policy for Addressing Degraded Ground Water Quality Areas."

Following a 30-day public comment period for the 2008 ranking, the GWMTTC reviewed the public comments, and based on the comments, decided to adjust point allocations in scoring the population category. The point allocations were revised with more refined categories for the number of wells at or above the maximum contaminant level, the number of source water protection areas or public water systems and the population within the degraded area.

Criteria and Scoring Format

The criteria and scoring format are described below.

Primary Criterion

1) **Population** - The population criterion considers the number of people living in an area that are potentially drinking nitrate-degraded water. This criterion consists of an assessment and point assignment of three elements.

a. Population within the priority area. This element is based upon census data. From 1 to 3 points may be accrued at this stage. One point is assigned to areas with populations less than 5,000; 2 points are assigned to areas with populations between 5,000 and 50,000; and 3 points are assigned to areas with populations of 50,000 or greater. *Example - Population = 5853 is between 5000 to 50,000 and would be assigned 2 points.*

b. Source Water Protection Areas or Public Water System Wells within the priority area. The DEQ Policy Memorandum "Addressing Degraded Ground Water Quality Areas" directs DEQ to consider source water assessment areas in ranking the priority areas. Source water protection areas (SWPAs), or "capture zones," represent the aerial extent of 3-, 6-, and 10-year travel times for ground water to reach the Public Water System (PWS) well or SWPA. The score is dependent on the number of source water assessment/protection areas or PWS wells within a NPA.

This stage provides 0, 1, 2, or 3 points. Areas without a PWS well do not receive points. Areas with 1 to 20 PWS wells or SWPAs receive 1 point; areas with 21 to 40 receive 2 points; and areas with more than 40 PWS wells or SWPAs receive 3 points. *Example - PWS wells or SWPAs in Priority Area=11 is between 1 and 20 and would be assigned 1 point.*

c) Number of Wells with Nitrate Concentrations above 10 mg/L. The GWMTTC determined the number of wells with nitrate exceeding 10 mg/L was an important ranking factor. Furthermore, the number of sampled wells with nitrate greater than or equal to 10 mg/L within the priority area is representative of the potential for the public to ingest contaminated ground water. This step is intended to equalize the scoring of large populations drinking water from uncontaminated sources with small populations drinking water from nitrate contaminated sources. Nitrate contamination greater than or equal to 10 mg/L is the only factor tallied.

Points are accumulated as follows: 0 wells = 0 points, 1 to 5 wells = 1 point, 6 to 20 wells = 2 points, 21 to 40 wells = 3 points; and greater than 40 wells = 4 points.

Example - Number of Wells with Nitrate greater than 10 mg/L = 29 wells is assigned 3 points.

At this stage the population scores are subtotaled. *Example - (2 + 1 + 3 = 6)*

- 2) **Water Quality** - This criterion considers the concentration of nitrate contamination with respect to drinking water standards. The criterion is based on the percent of sampled wells with ground water nitrate concentrations greater than or equal to 2 mg/L, 5 mg/L, and 10 mg/L respectively. These categories were selected to maintain consistency with existing data formats used by the GWMTC.
- a) Percentage of wells with ground water nitrate concentrations greater than or equal to 2 mg/L. This concentration threshold provides an indication of human-caused (anthropogenic) impacts. The upper limit for naturally occurring (background) concentrations of nitrate is considered to be about 2 mg/L. Points are accumulated by multiplying the percentage of sampled wells by 2. *Example - 88% of the wells sampled equaled or exceeded 2 mg/l. ($0.88 \times 2 = 1.76$).*
 - b) Percentage of wells with ground water nitrate concentrations greater than or equal to 5 mg/L. This nitrate concentration is considered evidence of significant degradation. This concentration represents one half the drinking water standard for nitrate of 10 mg/L. Public drinking water systems are required to increase monitoring frequency when this level is reached. Because these wells are a subset of the wells containing nitrate greater than or equal to 2 mg/L, this percentage is always less than or equal to the percentage of wells above 2 mg/L. Points are accumulated by multiplying the percentage of sampled wells by 5. *Example - 73% of the wells sampled equaled or exceeded 5 mg/l. ($0.73 \times 5 = 3.65$).*
 - c) Percentage of wells with ground water nitrate concentrations greater than or equal to 10 mg/L. State of Idaho and federal drinking water standard maximum contaminant level for nitrate is 10 mg/L. Nitrate concentrations above this level present health risks to certain individuals. Because these wells are a subset of the wells containing nitrate at or above 5 mg/L nitrate concentration, this percentage is always less than or equal to the percentage of wells greater than or equal to 5 mg/L. *Example - 45% of the wells sampled equaled or exceeded 10 mg/l. ($0.45 \times 10 = 4.50$).*

The sum of all three factors above gives the final water quality score.
Example - ($1.76 + 3.65 + 4.50 = 9.91$ points)

- 3) **Water Quality Trends** - This criterion considers water quality trends within each priority area. Determining water quality for a specific priority area is a complex process requiring a comprehensive analysis of water quality data. The Idaho Department of Water Resource (IDWR) evaluated the nitrate data using statistical methods to determine if statistically significant water quality trends are present in the areas. To minimize the potential for bias from data sets grouped due to intense investigation at nitrate contaminated sites, the GWMTC decided to use an average value from the site in the trend analysis. The concentrations of nitrate are classified as *increasing, no discernable trend, or decreasing*. Due to data limitations three NPAs (Bruneau, Hagerman, and Notus) are listed with a trend of insufficient data. These three (3) NPAs were assigned to the no discernable trend category. The trend analysis

results are summarized in the IDWR Water Information Bulletin Number 50, Part 7 entitled “*Trend Analysis for Idaho’s Nitrate Priority Areas, 1994 – 2007*”. The report is available on the IDWR website at the following URL.

http://www.idwr.idaho.gov/WaterInformation/Publications/wib/wib50p7_nitrate_trend_analyses.pdf

This criterion will be assigned a maximum value of 10 points. The scoring breakdown is listed below:

- a) Increasing = 10 points
- b) Static or no discernable trend = 5 points
- c) Decreasing = 0 points

Example – Increasing Nitrate Trend is assigned 10 points.

Secondary Criterion

- 4) **Other Beneficial Uses** - The "Other Beneficial Use" criterion is included in the process because DEQ policy states that this is to be a consideration in ranking the NPAs. However, this factor does not appear to be an issue in any of the existing NPAs with the exception of the Twin Falls and Hagerman areas of aquaculture. When other beneficial uses are impacted, one point will be added to the score. Aquaculture is an example of a beneficial use potentially impacted by elevated nitrates.

Example - no other beneficial uses = 0 points

Total Score

The scoring format is to total the scores from the three (3) primary criteria subtotals and from the one (1) secondary criterion. Total scores are the sums of the population, water quality, water quality trend, and other beneficial uses. Total Scores are used to rank the NPAs and are displayed in Table 1.

Example: Total Score - (6 + 9.91 + 10 + 0 = 25.91)

The final score remains to the hundredth decimal to distinguish between numerically close scores.

2008 Ranking Results

Figure 1 shows a comparison of 2002 and 2008 Nitrate Priority Area delineations. Table 1 summarizes numerical factors, trend, and score with the rank for each area. Figure 2 illustrates the 2008 Nitrate Priority Areas statewide with the ranked list. Appendices 1 through 32 contain a map and ranking score sheet for each NPA.

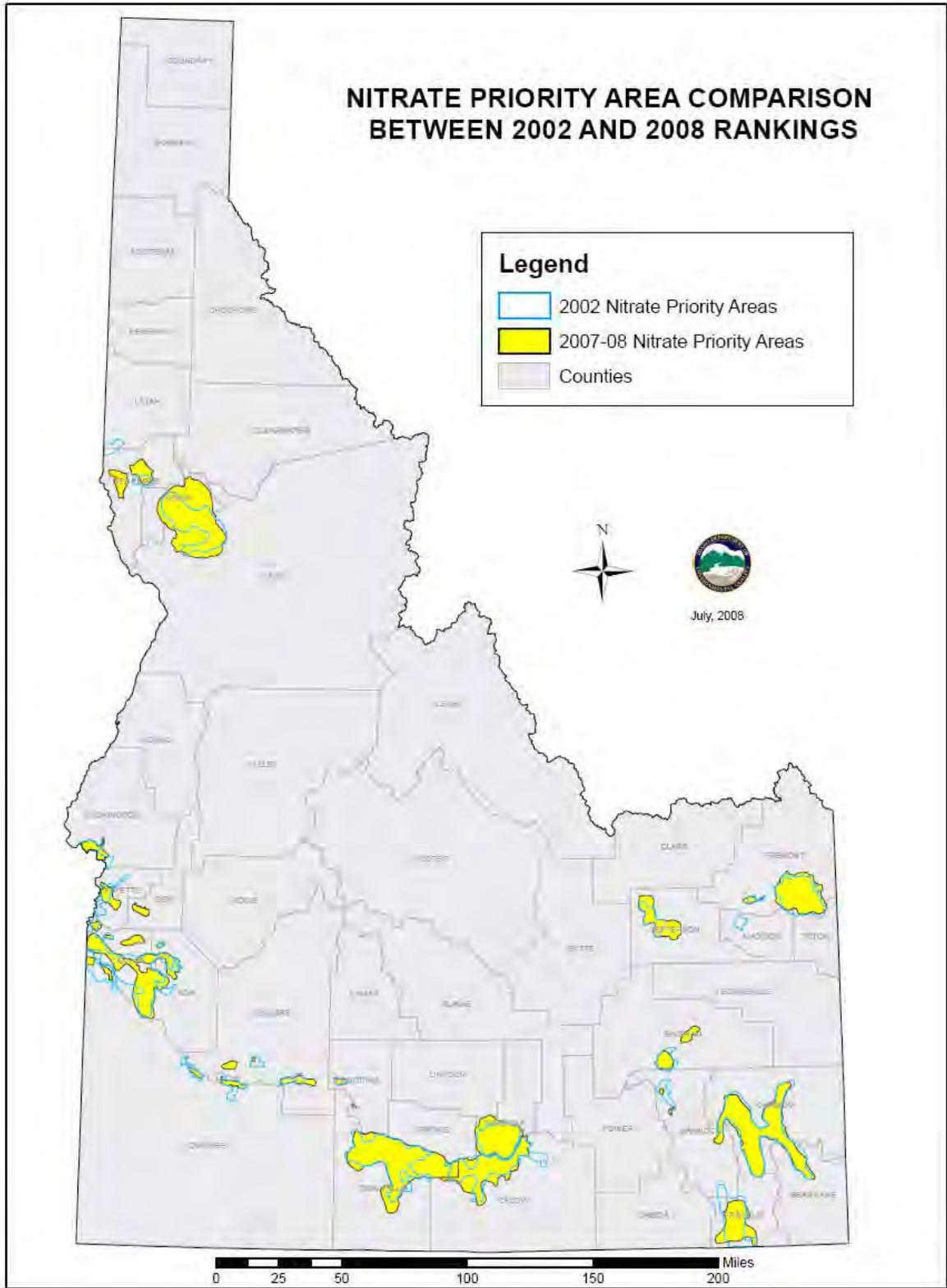


Figure 1. Comparison of 2002 and 2008 Nitrate Priority Area Delineations

2008 Nitrate Priority Areas

AREA NAME	DEQ Region	Acres	Square Miles	Population	Total Samples*	Max NO3	Mean NO3	Median	#>=2.0	%>=2.0	#>= 5.0	%>=5.0	#>=10.0	%>=10.0	#PWS/SWA	TREND	SCORE	RANK
TWIN FALLS	TFRO	379520	593	63354	605	41.0	5.20	4.90	536	89	288	48	34	6	88	Increase	24.78	1
ADA CANYON	BRO	211200	330	121063	933	55.9	5.27	4.10	701	75	383	41	108	12	213	Increase	24.75	2
WEISER	BRO	25600	40	7258	99	43.5	12.26	12.00	86	87	78	79	58	59	25	No Change	24.59	3
FORT HALL	PRO	23680	37	1763	8	24.1	14.79	14.80	8	100	7	88	7	88	7	No Change	24.20	4
NE STAR	BRO	2560	4	166	63	48.0	11.14	7.68	42	67	35	56	27	43	1	Increase	23.44	5
MARSING	BRO	576	11	521	33	37.0	9.57	7.90	21	64	19	56	13	39	12	Increase	21.98	6
GRAND VIEW	BRO	5760	9	510	22	121.0	15.33	9.60	22	100	20	91	11	50	2	No Change	20.55	7
HAGERMAN	TFRO	1280	2	877	8	19.6	9.92	11.00	8	100	5	63	5	63	4	Insufficient	20.45	8
CASSIA CO.	TFRO	193280	302	17525	384	40.0	6.34	5.74	331	86	224	58	65	17	48	No Change	20.32	9
BRUNEAU	BRO	11520	18	23	4	110.0	43.40	31.70	3	75	3	75	3	75	0	Insufficient	19.80	10
LOWER PAYETTE	BRO	26880	42	6718	119	28.0	6.05	4.74	83	70	57	48	22	19	25	No Change	17.70	11
MINIDOKA	TFRO	147200	230	18395	319	83.0	5.35	4.32	224	70	131	41	27	8	56	No Change	17.25	12
ASHTON/DRUMMOND	IFRO	162560	254	2484	179	48.0	7.03	6.00	159	89	124	69	28	16	18	No Change	16.83	13
MOUNTAIN HOME AFB	BRO	8960	14	8903	36	28.9	7.00	5.41	29	81	20	56	8	22	8	No Change	16.62	14
MOUNTAIN HOME	BRO	1280	2	100	35	40.0	9.96	5.80	29	83	19	54	10	29	4	No Change	16.26	15
CLEARWATER PLATEAU	LRO	359040	561	4236	183	77.1	6.79	3.70	119	65	68	37	39	21	22	No Change	16.25	16
GLENNS FERRY	BRO	20480	32	1868	11	32.2	9.07	5.72	9	82	8	73	3	27	4	No Change	15.99	17
GRACE/SODA SPRINGS	PRO	317440	496	8042	96	37.2	4.62	3.21	64	67	28	29	8	8	45	No Change	15.59	18
PRESTON	PRO	106880	167	8178	59	30.8	5.15	4.19	40	68	24	41	6	10	23	No Change	15.41	19
BLACKFOOT	PRO	15360	24	1100	15	16.0	6.98	5.64	15	100	9	60	3	20	13	No Change	15.00	20
PURPLE SAGE	BRO	14080	22	2835	87	22.7	5.26	4.61	66	76	38	44	9	10	25	No Change	14.72	21
LINDSAY CREEK	LRO	28160	44	1273	45	18.6	4.74	3.80	25	56	18	40	9	20	16	No Change	14.12	22
MINK CREEK	PRO	1920	3	1478	40	21.0	4.57	2.42	24	60	13	33	8	20	11	No Change	13.85	23
LAPWAI CREEK	LRO	33920	53	1026	16	18.7	5.63	5.19	13	81	9	56	2	13	8	No Change	13.72	24
NOTUS	BRO	2560	4	135	6	10.2	5.76	6.93	5	83	4	67	1	17	0	Insufficient	13.71	25
PARMA	BRO	7040	11	890	17	15.0	4.83	5.36	10	59	9	53	3	18	3	No Change	13.63	26
ST. ANTHONY	IFRO	7680	12	666	14	42.6	9.46	3.29	9	64	5	36	3	21	5	No Change	13.18	27
MUD LAKE	IFRO	81280	127	1309	52	20.0	3.90	2.89	33	63	14	27	4	8	11	No Change	12.41	28
EMMETT NORTH BENCH	BRO	10880	17	887	27	17.0	4.65	3.69	19	70	9	33	3	11	3	No Change	12.15	29
NORTH POCA TELLO	PRO	1920	3	4464	11	8.9	4.62	3.80	11	100	3	27	0	0	11	No Change	10.35	30
BLISS	TFRO	7040	11	76	24	8.6	3.19	3.11	16	67	7	29	0	0	0	No Change	8.79	31
HOMEDALE	BRO	5760	9	387	24	16.0	4.67	1.54	12	50	9	38	5	20	1	Decrease	7.90	32
TOTALS		2228480	3482	288510	3574				2772		1688		532		712			
*Number of sample sites within nitrate priority area																		
TABLE 1. 2008 Ranked Nitrate Priority Areas with Score Components																		

2008 NITRATE PRIORITY AREAS

25% OF SAMPLES ARE GREATER THAN OR EQUAL TO
ONE HALF THE DRINKING WATER STANDARD FOR NITRATE
Drinking Water Standard for Nitrate is 10 mg/L
mg/L = milligrams per liter

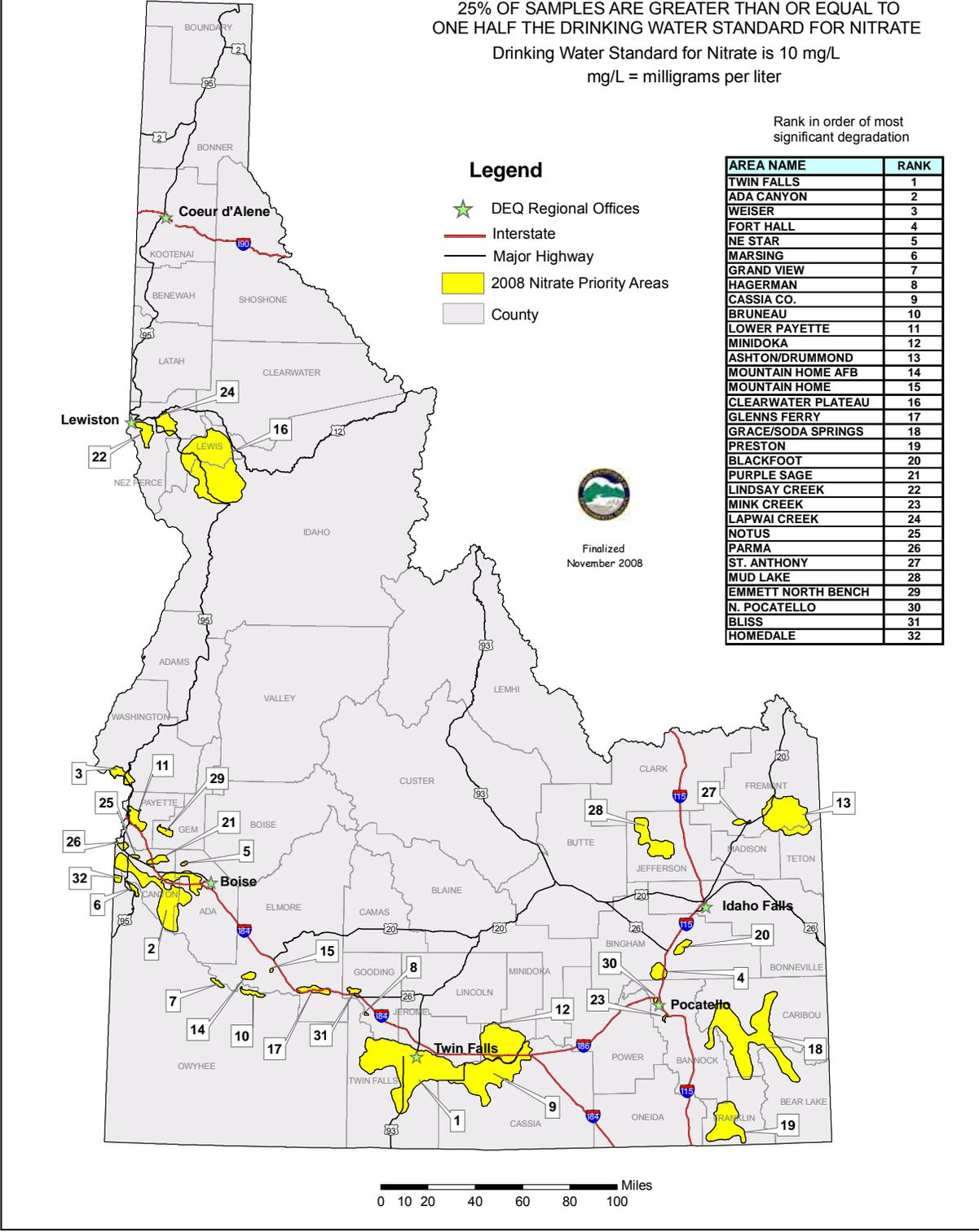
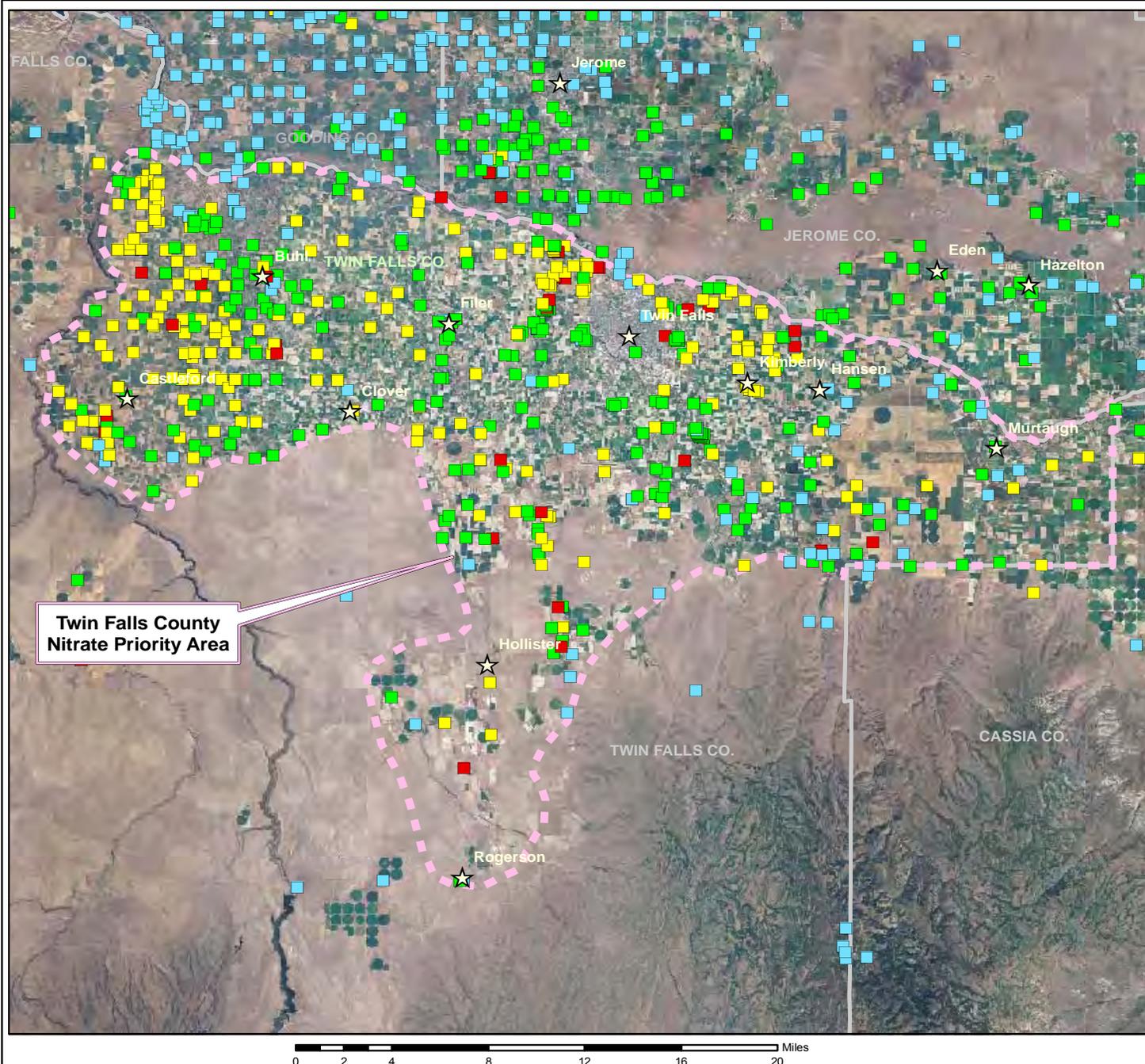


Figure 2. 2008 Nitrate Priority Areas statewide with the ranked list.

APPENDIX #1 – TWIN FALLS

**TWIN FALLS
NITRATE PRIORITY AREA #1
SCORE SHEET AND MAP**

Priority Area Number: 1		Priority Area Name: Twin Falls		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1			
5000 to 50,000	2			
>50,000	3	x	3	63,354
Subtotal			3	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1			
21 to 40	2			
>40	3	x	3	88
Subtotal			3	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2			
21 to 40	3	x	3	34
>40	4			
Subtotal			3	
Population Score			9	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	89%	2	1.78	
Percent of wells with NO ₃ >5 mg/l	48%	5	2.40	
Percent of wells with NO ₃ ≥ 10 mg/l	6%	10	0.60	
Water Quality Total			4.78	
3) WATER QUALITY TRENDS				
		Select One		
Increasing	10	x	10	89% Confidence Level
No Discernable Trend	5			
Decreasing trend	0			
Trend Score			10	
Max Possible Score = 10				
4) OTHER BENEFICIAL USES				
Other beneficial uses are impaired	1	Yes=1 No = 0	1	
Beneficial use score			1	
Max Possible Score = 1				
Total Score			24.78	



TWIN FALLS COUNTY NITRATE PRIORITY AREA FOR GROUND WATER

- Legend**
- Nitrate Concentrations
Milligrams per Liter (mg/L)**
- Non-detect - 1.99
 - 2 - 4.99
 - 5 - 9.99
 - >= 10
- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standard for Nitrate is 10 mg/L

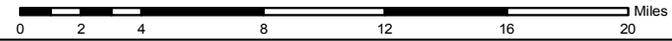


September, 2008

**Twin Falls County
Nitrate Priority Area**

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



APPENDIX #2 – ADA CANYON

**ADA CANYON
NITRATE PRIORITY AREA #2
SCORE SHEET AND MAP**

Priority Area Number: 2		Priority Area Name: ADA CANYON		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1			
5000 to 50,000	2			
>50,000	3	x	3	121,063
Subtotal			3	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1			
21 to 40	2			
>40	3	x	3	213
Subtotal			3	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2			
21 to 40	3			
>40	4	x	4	108
Subtotal			4	
Population Score			10	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	75%	2	1.50	
Percent of wells with NO ₃ >5 mg/l	41%	5	2.05	
Percent of wells with NO ₃ ≥ 10 mg/l	12%	10	1.20	
Water Quality Total			4.75	
3) WATER QUALITY TRENDS				
		Select One		
Increasing	10	x	10	89% Confidence Level
No Discernable Trend	5			
Decreasing trend	0			
Trend Score			10	
Max Possible Score = 10				
4) OTHER BENEFICIAL USES				
Other beneficial uses are impaired	1	Yes=1 No = 0	0	No
Beneficial use score			0	
Max Possible Score = 1				
Total Score			24.75	

ADA CANYON NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- >= 10
- 2008 Nitrate Priority Areas
- ☆ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards for nitrate (5 mg/L)

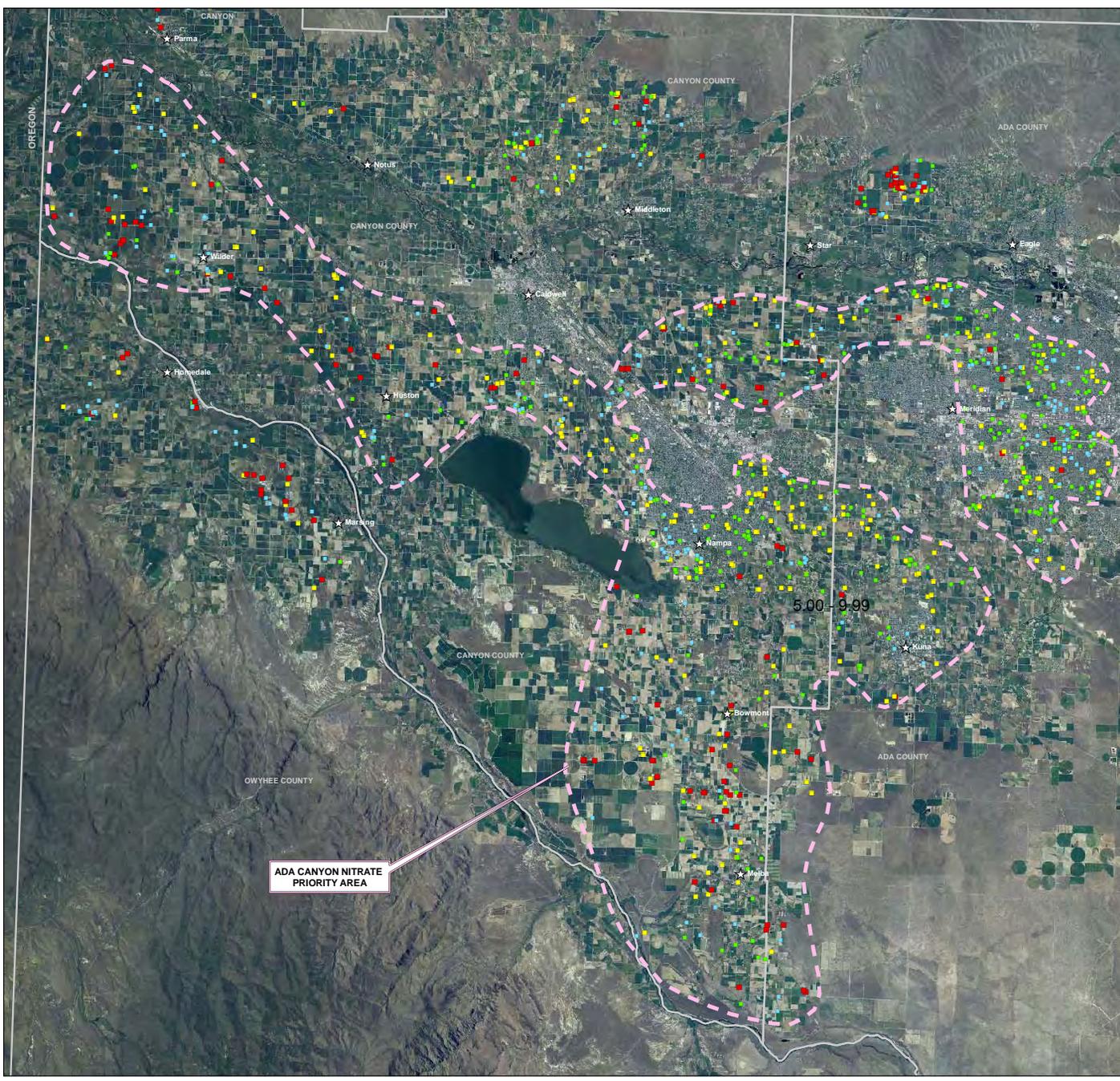
EPA Drinking Water Standard for Nitrate is 10 mg/L



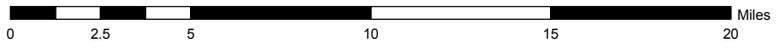
September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered statutory, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



ADA CANYON NITRATE PRIORITY AREA



APPENDIX #3 - WEISER

**WEISER
NITRATE PRIORITY #3 AREA
SCORE SHEET AND MAP**

Priority Area Number: 3		Priority Area Name: Weiser	
Ranking Criteria		Score	Comments
1) POPULATION			
	Points	Select One	
a) Within Degraded Area			
<5000	1		
5000 to 50,000	2	x	7258
>50,000	3		
		Subtotal	2
b) Source Water Protection Areas or Public Water System wells in Priority Area			
0	0		
1 to 20	1		
21 to 40	2	x	25
>40	3		
		Subtotal	2
c) Number of Wells with NO₃ > 10 mg/l			
0	0		
1 to 5	1		
6 to 20	2		
21 to 40	3		
>40	4	x	58
		Subtotal	4
		Population Score	8
		Max Possible Score = 10	
2) WATER QUALITY			
	% wells	Nitrate Concentration Criteria	
Percent of wells with NO ₃ >2 mg/l	87%	2	1.74
Percent of wells with NO ₃ >5 mg/l	79%	5	3.95
Percent of wells with NO ₃ ≥ 10 mg/l	59%	10	5.90
		Water Quality Total	11.59
3) WATER QUALITY TRENDS			
		Select One	
Increasing	10		
No Discernable Trend	5	x	5* Excluding Sunnyside
Decreasing trend	0		
		Trend Score	5
		Max Possible Score = 10	
4) OTHER BENEFICIAL USES			
Other beneficial uses are impaired	1	Yes=1 No = 0	0
		Beneficial use score	0
		Max Possible Score = 1	
		Total Score	24.59

*Including Sunnyside monitor wells introduces a bias with an increasing trend at an 87% confidence level.

WEISER NITRATE PRIORITY AREA FOR GROUND WATER

Legend Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- >= 10.00

Nitrate Priority Areas, 2008

★ Cities

County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

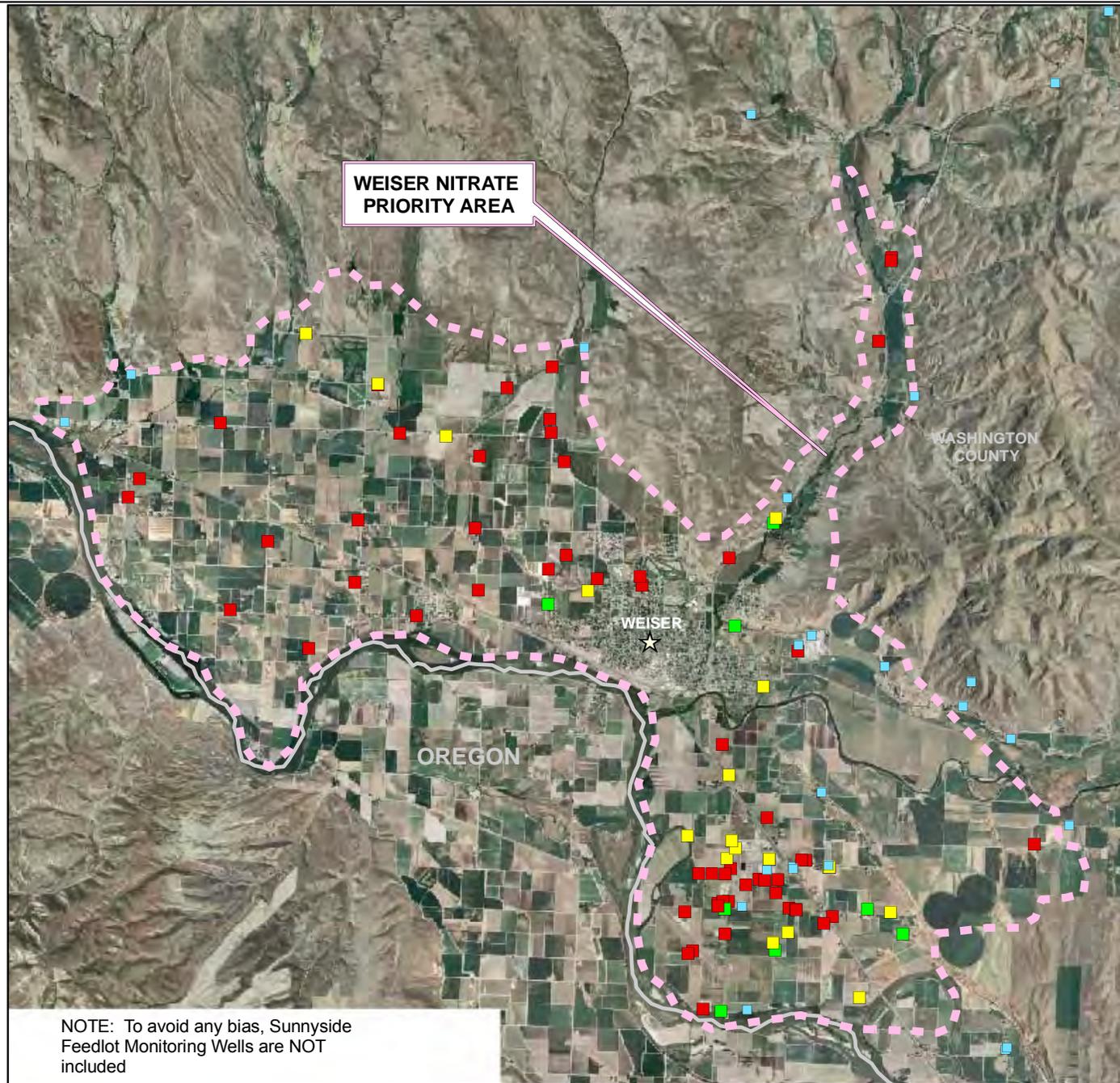
EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



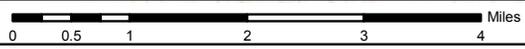
WEISER NITRATE PRIORITY AREA

WASHINGTON COUNTY

WEISER ★

OREGON

NOTE: To avoid any bias, Sunnyside Feedlot Monitoring Wells are NOT included



APPENDIX #4 – FORT HALL

**FORT HALL
NITRATE PRIORITY AREA #4
SCORE SHEET AND MAP**

Priority Area Number: 4		Priority Area Name: Fort Hall		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	1763
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	7
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	7
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			4	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	100%	2	2.00	
Percent of wells with NO ₃ >5 mg/l	88%	5	4.40	
Percent of wells with NO ₃ ≥ 10 mg/l	88%	10	8.80	
Water Quality Total			15.20	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			24.20	

FORT HALL NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

Nitrate Priority Areas, 2008

★ Cities

County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

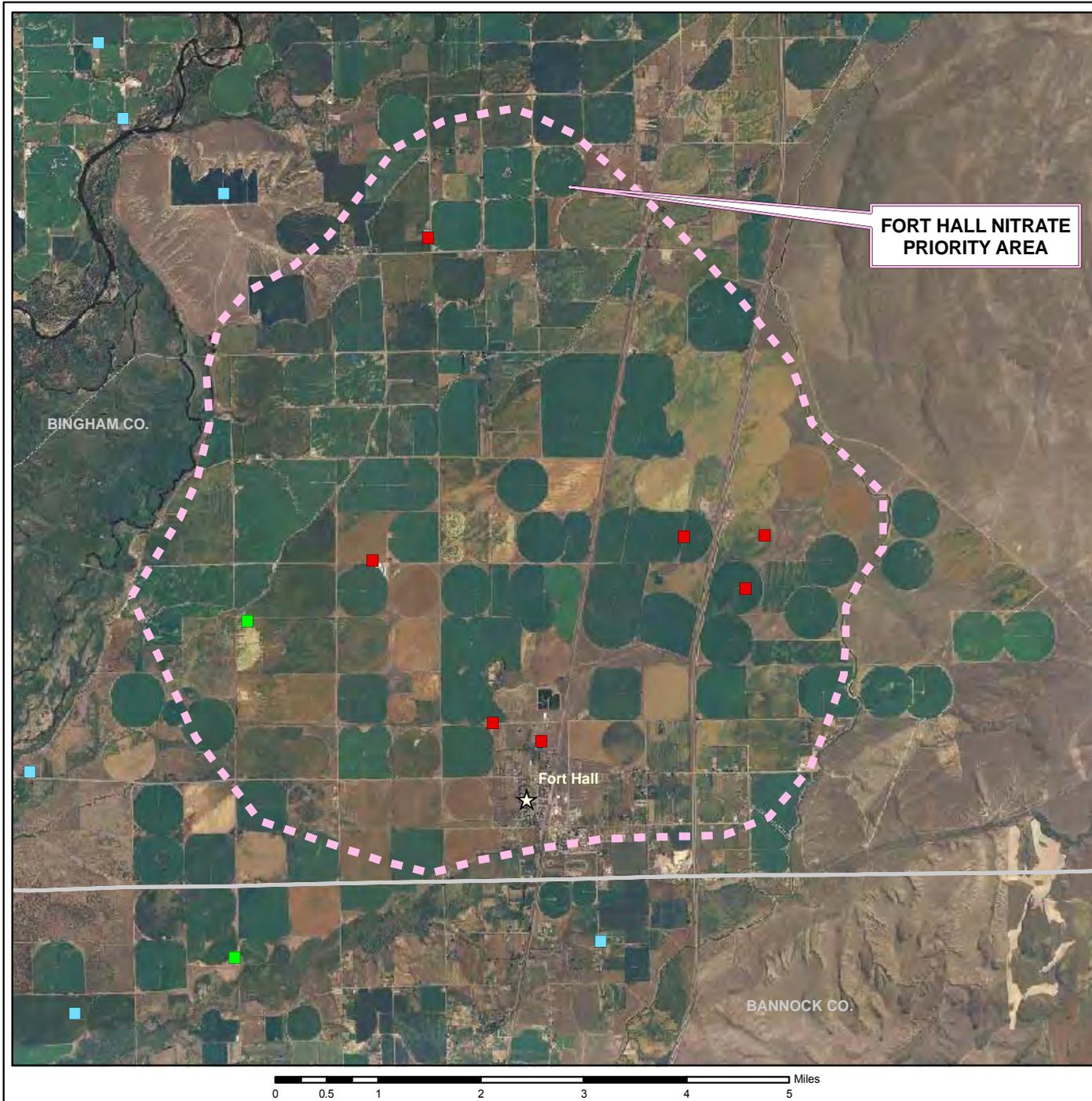
EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered statutory, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



FORT HALL NITRATE PRIORITY AREA

APPENDIX #5 – NORTHEAST STAR

**NORTHEAST STAR
NITRATE PRIORITY AREA #5
SCORE SHEET AND MAP**

Priority Area Number: 5		Priority Area Name: NE Star		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	166
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	X	1	1
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2			
21 to 40	3	x	3	27
>40	4			
Subtotal			3	
Population Score			5	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	67%	2	1.34	
Percent of wells with NO ₃ >5 mg/l	56%	5	2.80	
Percent of wells with NO ₃ ≥ 10 mg/l	43%	10	4.30	
Water Quality Total			8.44	
3) WATER QUALITY TRENDS				
		Select One		
Increasing	10	X	10	98% Confidence Level
No Discernable Trend	5			
Decreasing trend	0			
Trend Score			10	
Max Possible Score = 10				
4) OTHER BENEFICIAL USES				
Other beneficial uses are impaired	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			23.44	

NE STAR NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-Detect - 1.99
- 2 - 4.99
- 5 - 9.99
- >= 10

- Nitrate Priority Areas, 2008
- ☆ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

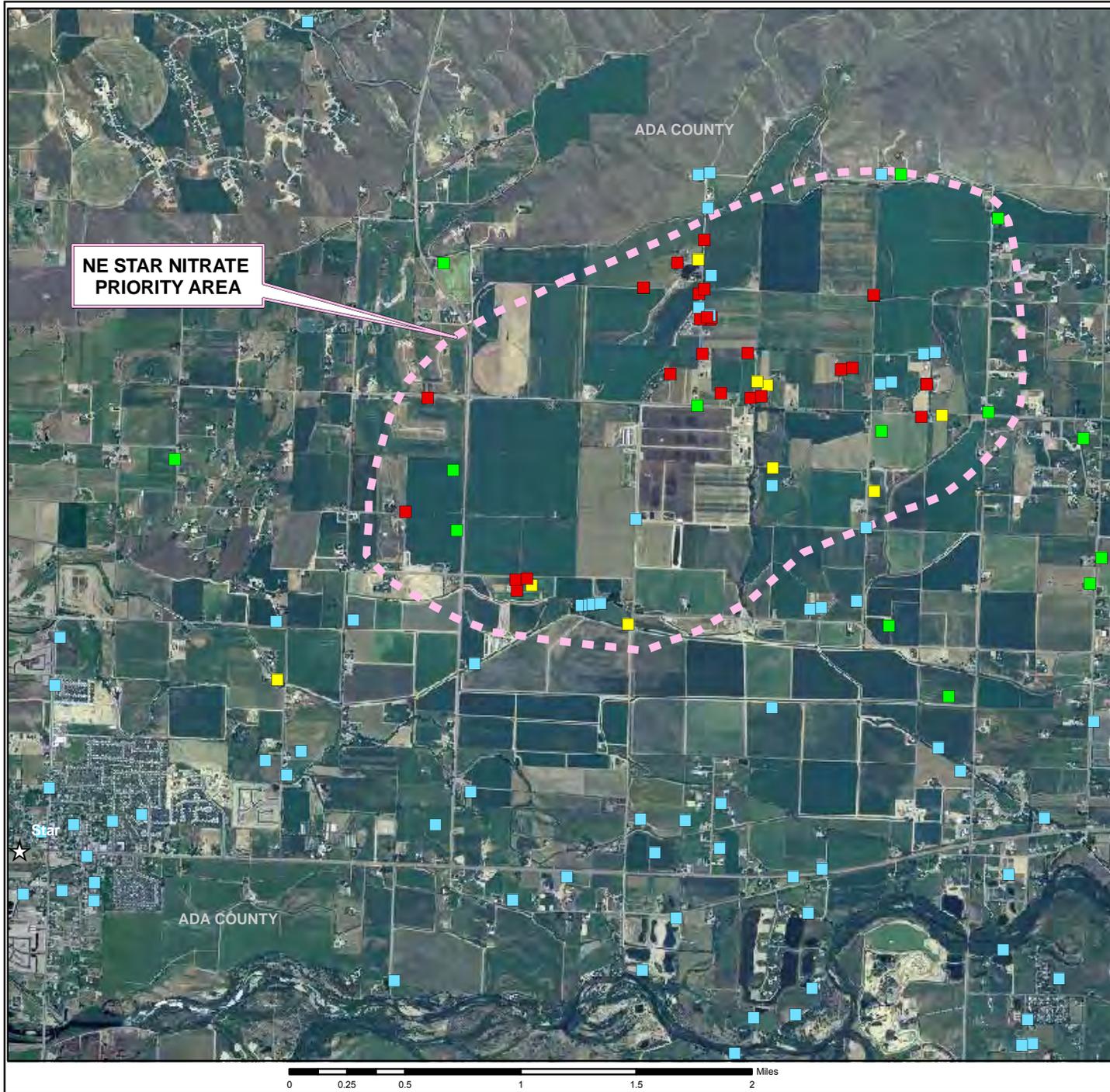
EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



APPENDIX #6 – MARSING

**MARSING
NITRATE PRIORITY AREA #6
SCORE SHEET AND MAP**

Priority Area Number: 6		Priority Area Name: Marsing		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	521
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	12
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	13
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			4	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration		
		Criteria		
Percent of wells with NO ₃ >2 mg/l	64%	2	1.28	
Percent of wells with NO ₃ >5 mg/l	56%	5	2.80	
Percent of wells with NO ₃ ≥ 10 mg/l	39%	10	3.90	
Water Quality Total			7.98	
3) WATER QUALITY TRENDS				
		Select One		
Increasing	10	x	10	90% Confidence Level
No Discernable Trend	5			
Decreasing trend	0			
Trend Score			10	
Max Possible Score = 10				
4) OTHER BENEFICIAL USES				
Other beneficial uses are impaired	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			21.98	

MARSING NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10
- Nitrate Priority Areas, 2008
- ☆ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

MARSING NITRATE PRIORITY AREA



APPENDIX #7 – GRAND VIEW

**GRAND VIEW
NITRATE PRIORITY AREA #7
SCORE SHEET AND MAP**

Priority Area Number: 7		Priority Area Name: Grand View		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	510
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	2
20 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	11
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			4	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	100%	2	2.00	
Percent of wells with NO ₃ >5 mg/l	91%	5	4.55	
Percent of wells with NO ₃ ≥ 10 mg/l	50%	10	5.00	
Water Quality Total			11.55	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			20.55	

GRAND VIEW NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-Detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10
- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

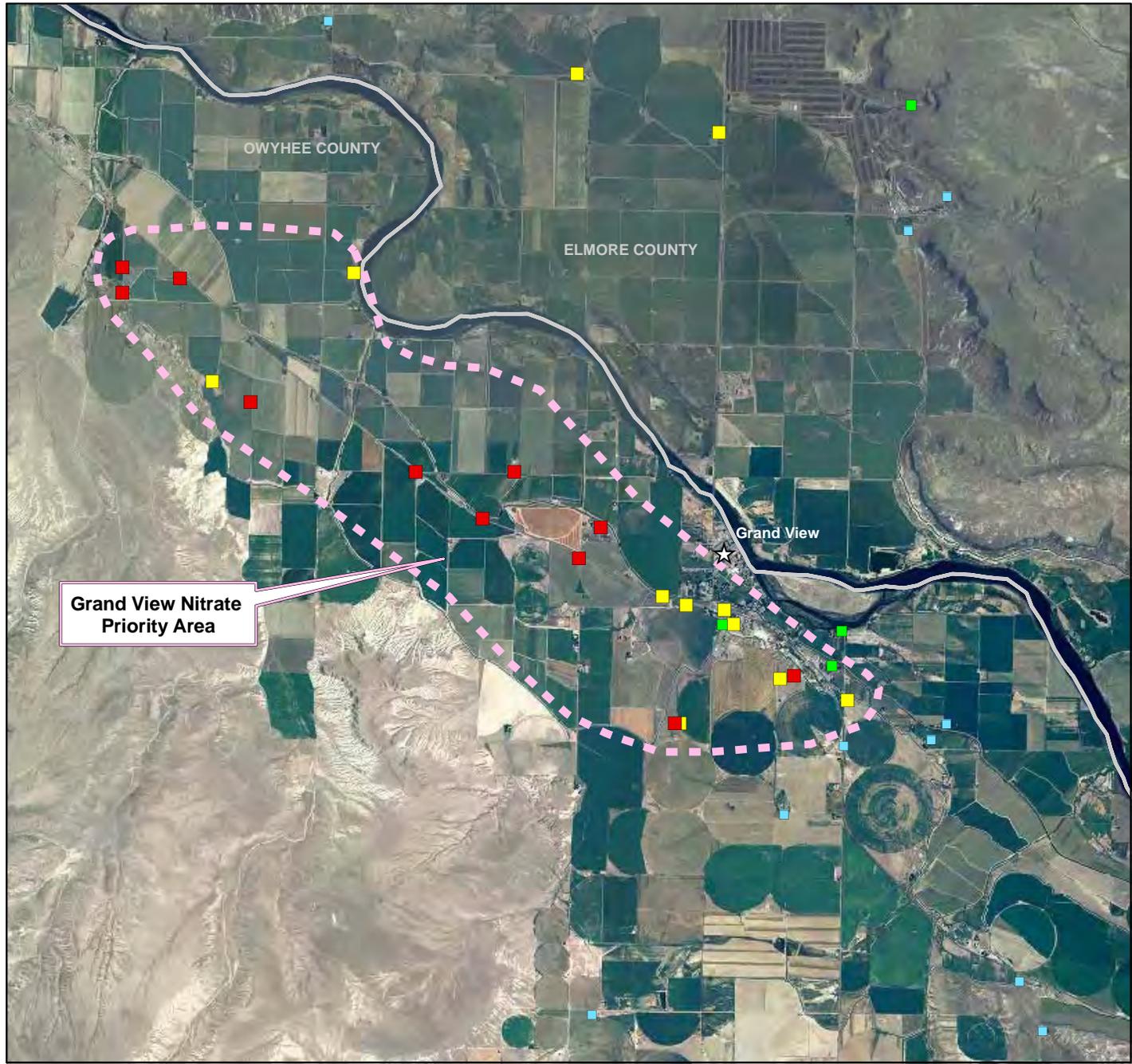
EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



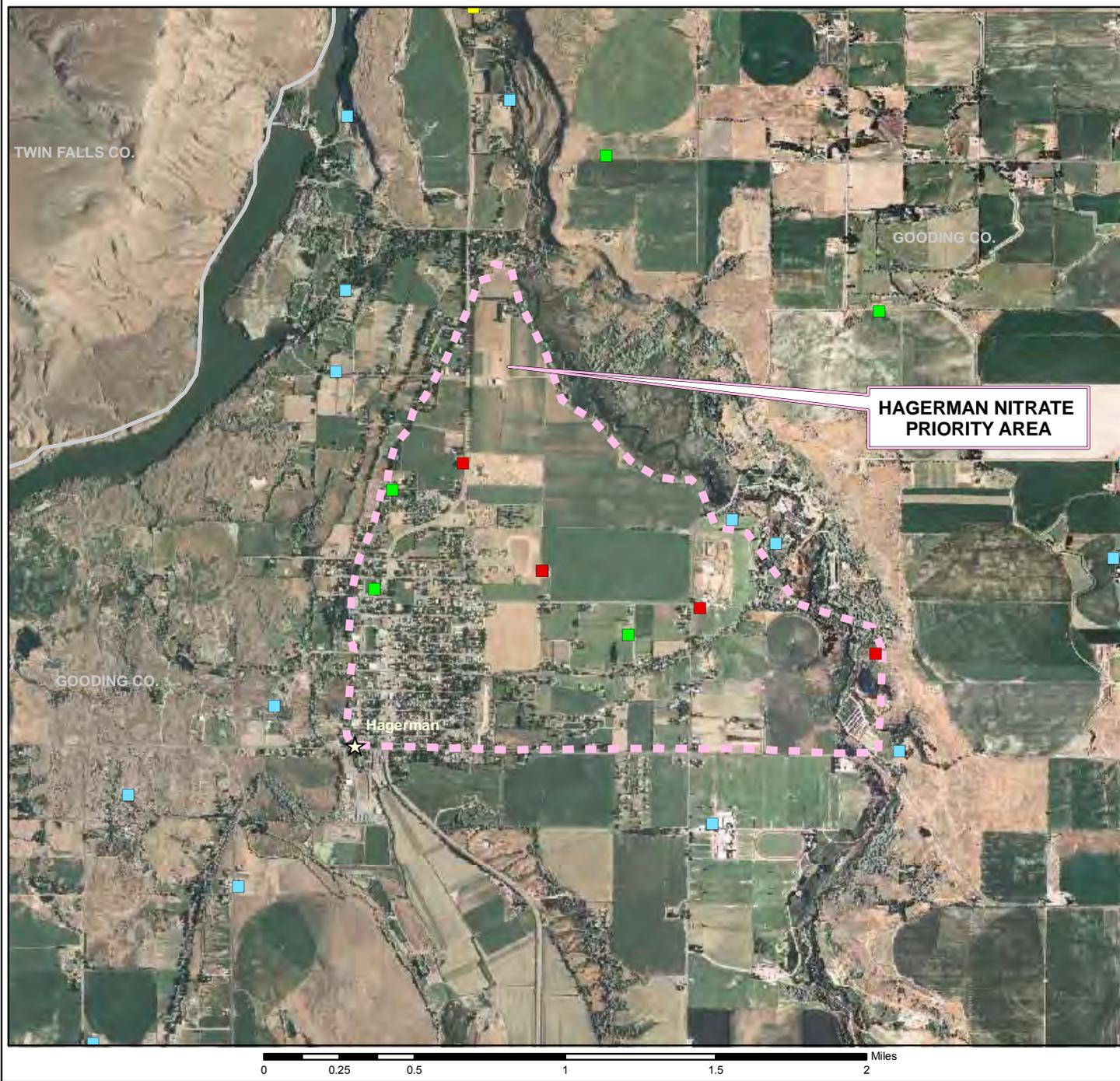
Grand View Nitrate Priority Area



APPENDIX #8 – HAGERMAN

HAGERMAN NITRATE PRIORITY AREA #8 SCORE SHEET AND MAP

Priority Area Number: 8		Priority Area Name: Hagerman		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	877
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	4
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1	x	1	5
6 to 20	2			
21 to 40	3			
>40	4			
Subtotal			1	
Population Score			3	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	100%	2	2.00	
Percent of wells with NO ₃ >5 mg/l	63%	5	3.15	
Percent of wells with NO ₃ ≥ 10 mg/l	63%	10	6.30	
Water Quality Total			11.45	
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	1	Yes=1 No = 0	1	
Beneficial use score			1	
Max Possible Score = 1				
Total Score			20.45	



HAGERMAN NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate – Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #9 – CASSIA COUNTY

**CASSIA COUNTY
NITRATE PRIORITY AREA #9
SCORE SHEET AND MAP**

Priority Area Number: 9		Priority Area Name: Cassia Co.	
Ranking Criteria		Score	Comments
1) POPULATION			
	Points	Select One	
a) Within Degraded Area			
<5000	1		
5000 to 50,000	2	x	17,525
>50,000	3		
		Subtotal	2
b) Source Water Protection Areas or Public Water System wells in Priority Area			
0	0		
1 to 20	1		
21 to 40	2		
>40	3	x	48
		Subtotal	3
c) Number of Wells with NO₃ > 10 mg/l			
0	0		
1 to 5	1		
6 to 20	2		
21 to 40	3		
>40	4	x	65
		Subtotal	4
		Population Score	9
		Max Possible Score = 10	
2) WATER QUALITY			
	% wells	Nitrate Concentration Criteria	
Percent of wells with NO ₃ >2 mg/l	86%	2	1.72
Percent of wells with NO ₃ >5 mg/l	58%	5	2.90
Percent of wells with NO ₃ ≥ 10 mg/l	17%	10	1.70
		Water Quality Total	6.32
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	1	Yes=1 No = 0	0
		Beneficial use score	0
		Max Possible Score = 1	
		Total Score	20.32

CASSIA COUNTY NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations

Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- - - Nitrate Priority Areas, 2008

★ Cities

County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

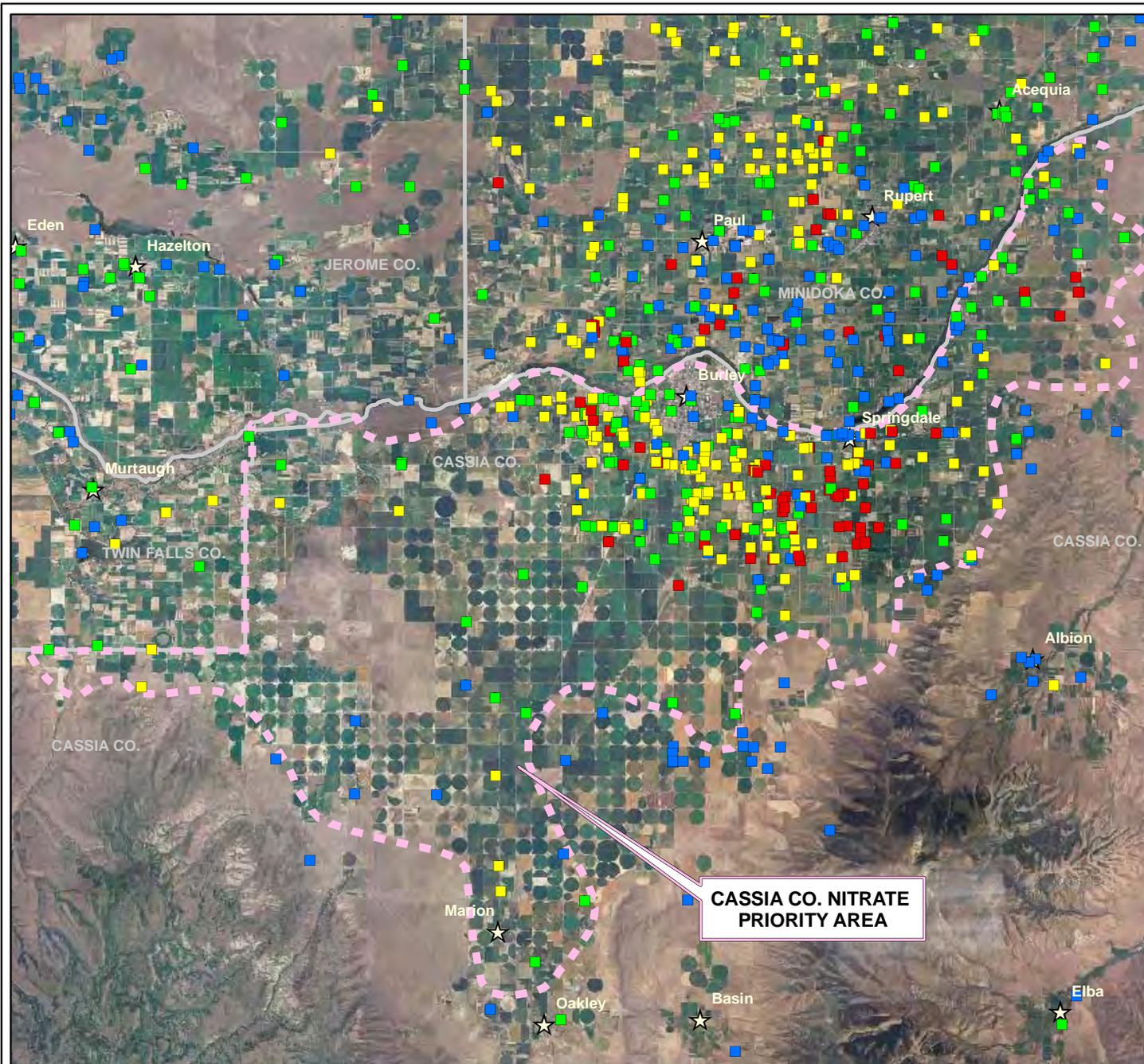
EPA Drinking Water Standard for Nitrate is 10 mg/L



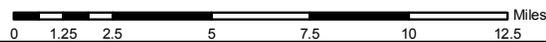
September, 2008

Designated Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are for informational purposes only. They are not intended to be used as a basis for any regulatory or enforcement actions. Nitrate Priority Areas are intended for regulatory purposes for prioritizing groundwater quality issues to develop and implement groundwater quality improvement strategies with local communities, per IDEQ Policy Memorandum M004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. No liability is provided for all omissions, and readers should be advised that the data provided is subject to the limitations of the data collection process. The data could include technical inaccuracies or typographical errors. The Idaho Department of Environmental Quality may update, modify or correct the data at any time, without notice.



**CASSIA CO. NITRATE
PRIORITY AREA**



APPENDIX #10 - BRUNEAU

**BRUNEAU
NITRATE PRIORITY AREA #10
SCORE SHEET AND MAP**

Priority Area Number: 10		Priority Area Name: Bruneau		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	23
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0	x	0	
1 to 20	1			
21 to 40	2			
>40	3			
Subtotal			0	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1	x	1	3
6 to 20	2			
21 to 40	3			
>40	4			
Subtotal			1	
Population Score			2	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	75%	2	1.50	
Percent of wells with NO ₃ >5 mg/l	75%	5	3.75	
Percent of wells with NO ₃ ≥ 10 mg/l	75%	10	7.50	
Water Quality Total			12.75	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			19.75	



BRUNEAU NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

Nitrate Priority Areas, 2008

★ Cities

County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards for nitrate (5 mg/L)

EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008



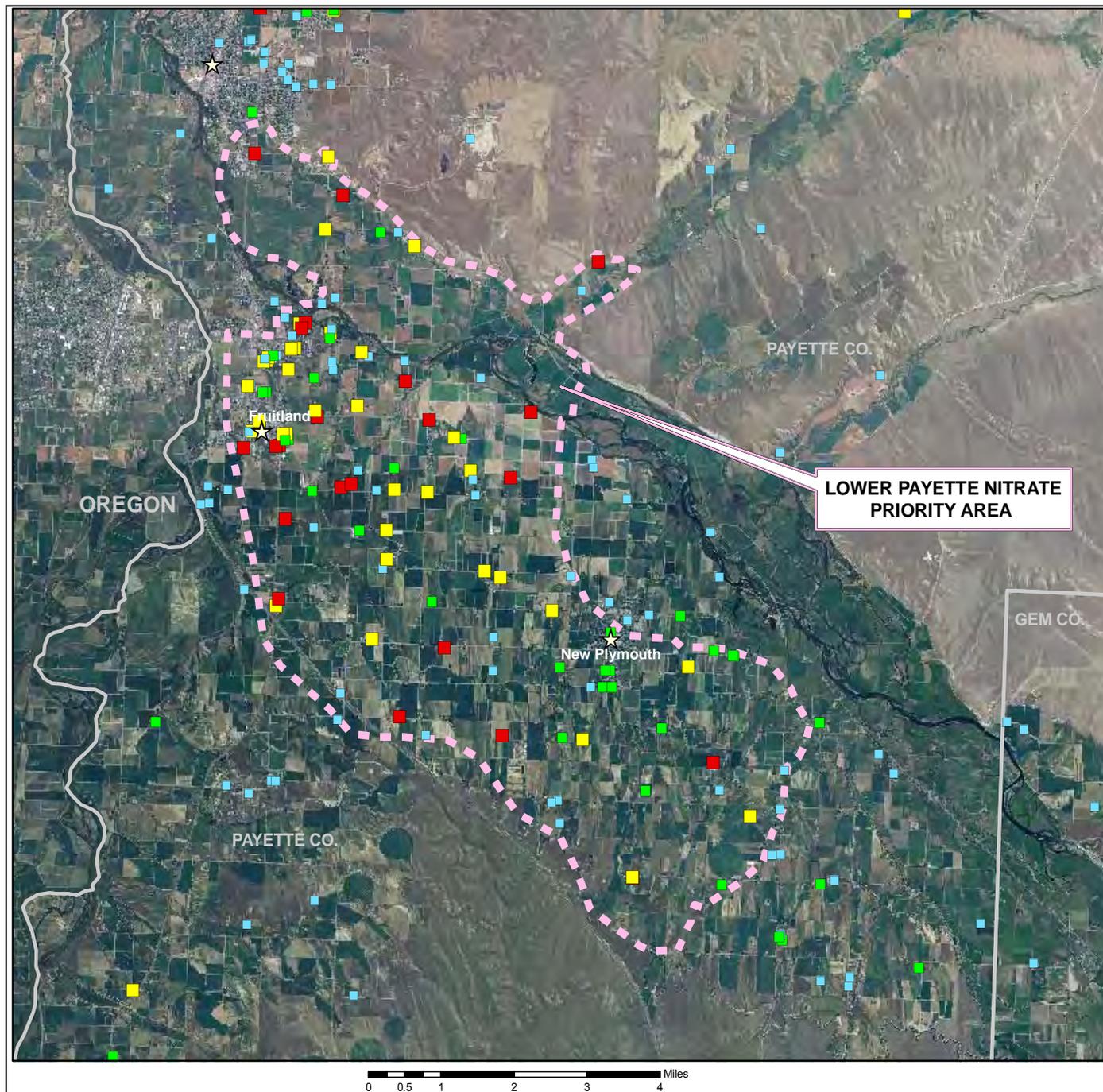
Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM 004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #11 – LOWER PAYETTE

**LOWER PAYETTE
NITRATE PRIORITY AREA #11
SCORE SHEET AND MAP**

Priority Area Number: 11		Priority Area Name: Lower Payette		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1			
5000 to 50,000	2	x	2	6718
>50,000	3			
Subtotal			2	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1			
21 to 40	2	X	2	25
>40	3			
Subtotal			2	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2			
21 to 40	3	x	3	22
>40	4			
Subtotal			3	
Population Score			7	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	70%	2	1.40	
Percent of wells with NO ₃ >5 mg/l	48%	5	2.40	
Percent of wells with NO ₃ ≥ 10 mg/l	19%	10	1.90	
Water Quality Total			5.70	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			17.70	



LOWER PAYETTE NITRATE PRIORITY AREA

Legend

Nitrate Concentration

Milligrams per Liter mg/L

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- >= 10

- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

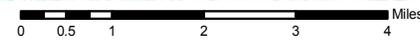
Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

LOWER PAYETTE NITRATE PRIORITY AREA



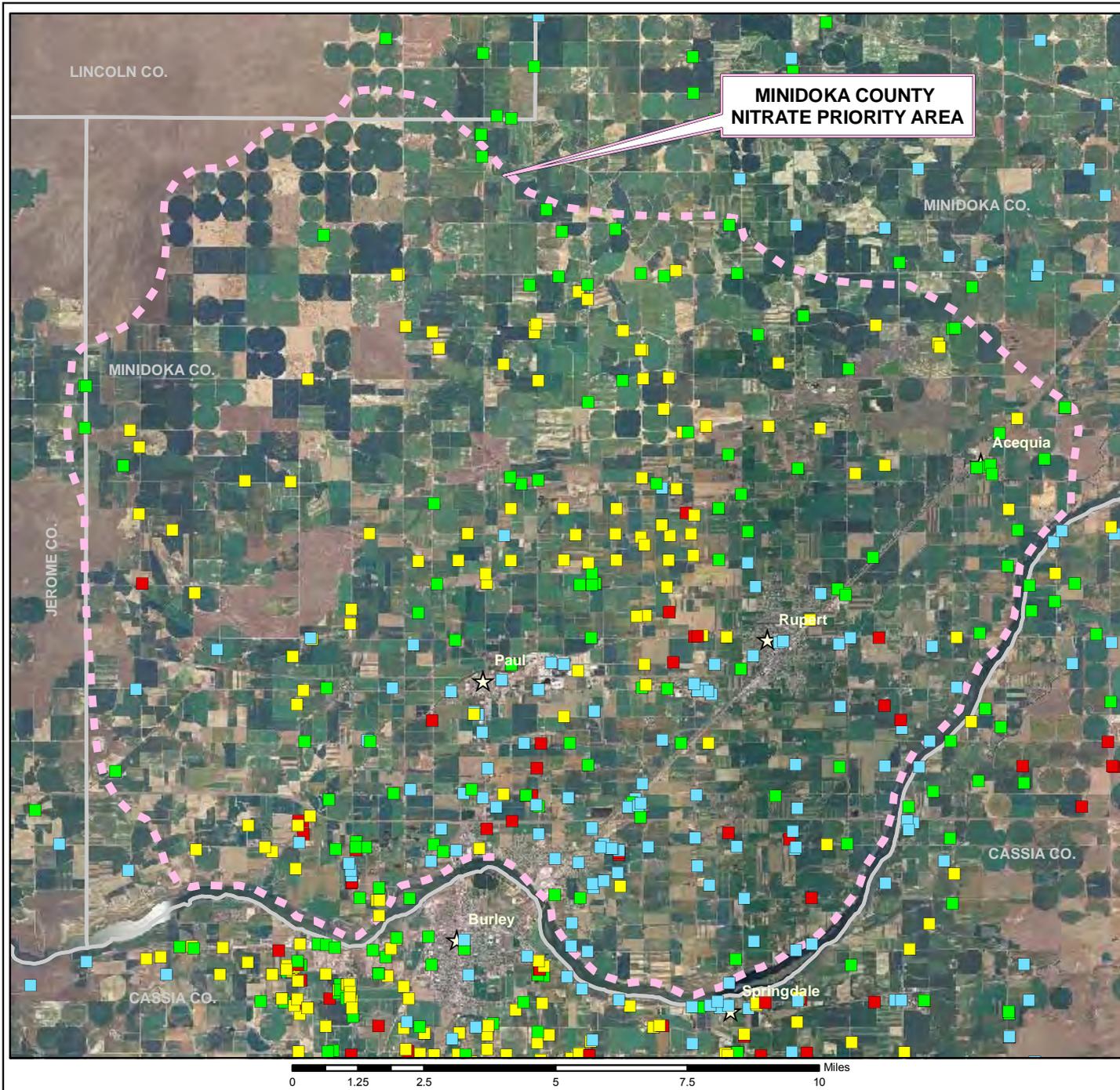
Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered permanent, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #12 – MINIDOKA

**MINIDOKA
NITRATE PRIORITY AREA #12
SCORE SHEET AND MAP**

Priority Area Number: 12		Priority Area Name: Minidoka	
Ranking Criteria		Score	Comments
1) POPULATION			
	Points	Select One	
a) Within Degraded Area			
<5000	1		
5000 to 50,000	2	x	18,395
>50,000	3		
		Subtotal	2
b) Source Water Protection Areas or Public Water System wells in Priority Area			
0	0		
1 to 20	1		
21 to 40	2		
>40	3	x	56
		Subtotal	3
c) Number of Wells with NO₃ > 10 mg/l			
0	0		
1 to 5	1		
6 to 20	2		
21 to 40	3	x	27
>40	4		
		Subtotal	3
		Population Score	8
		Max Possible Score = 10	
2) WATER QUALITY			
	% wells	Nitrate Concentration Criteria	
Percent of wells with NO ₃ >2 mg/l	70%	2	1.40
Percent of wells with NO ₃ >5 mg/l	41%	5	2.05
Percent of wells with NO ₃ ≥ 10 mg/l	8%	10	0.80
		Water Quality Total	4.25
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	1	Yes=1 No = 0	0
		Beneficial use score	0
		Max Possible Score = 1	
		Total Score	17.25



MINIDOKA COUNTY NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- >= 10

Nitrate Priority Areas, 2008

★ Cities

County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

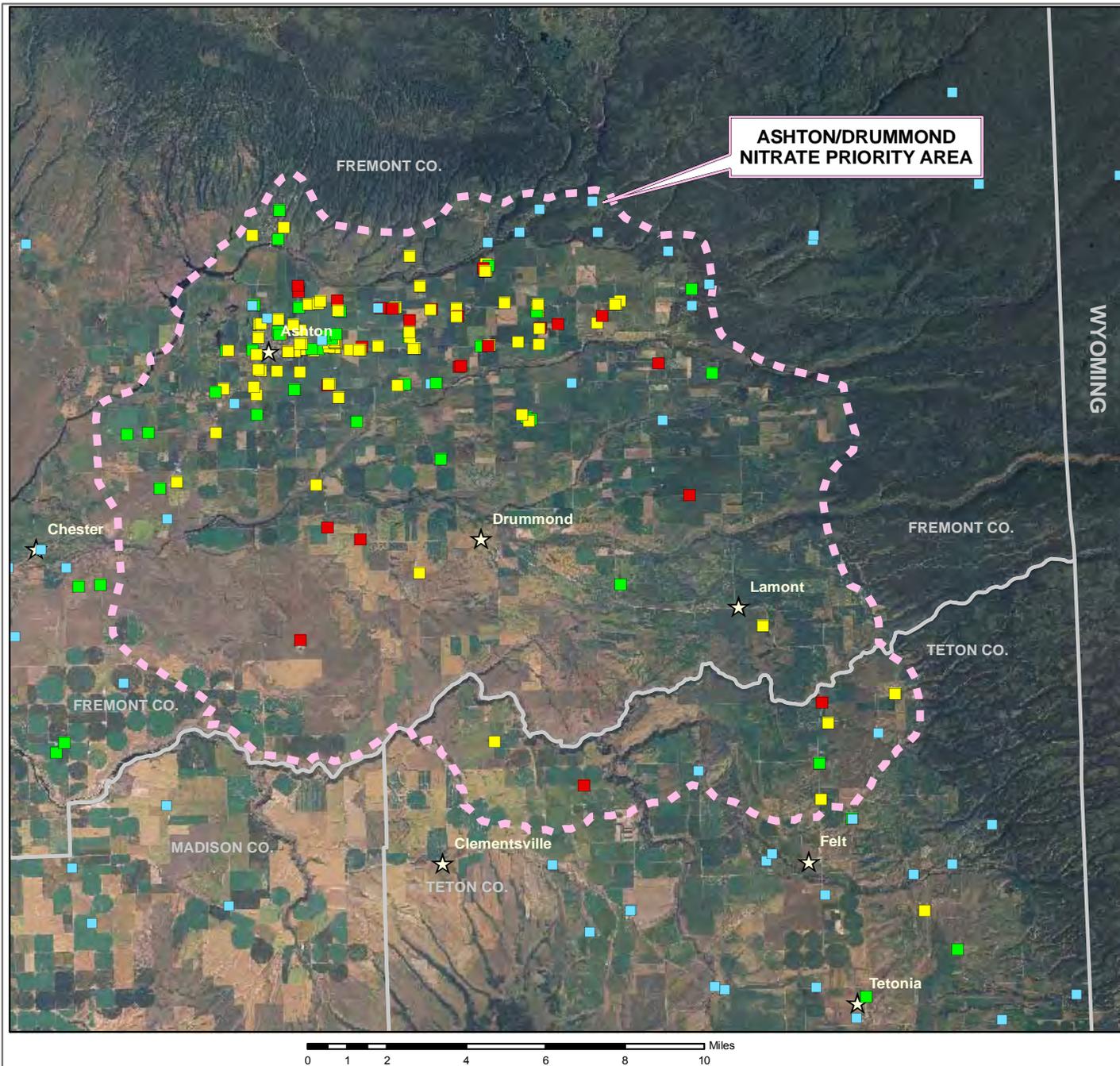
Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or sufficiency of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #13 – ASHTON/DRUMMOND

**ASHTON/DRUMMOND
NITRATE PRIORITY AREA #13
SCORE SHEET AND MAP**

Priority Area Number: 13		Priority Area Name: Ashton/Drummond		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	2484
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	18
21 to 40	2			
>41	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2			
21 to 40	3	x	3	28
>40	4			
Subtotal			3	
Population Score			5	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration		
Criteria				
Percent of wells with NO ₃ >2 mg/l	89%	2	1.78	
Percent of wells with NO ₃ >5 mg/l	69%	5	3.45	
Percent of wells with NO ₃ ≥ 10 mg/l	16%	10	1.60	
Water Quality Total			6.83	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			16.83	



ASHTON/DRUMMOND NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations

Milligrams per Liter (mg/L)

- Non-Detect - 1.99
- 2 - 4.99
- 5 - 9.99
- >= 10
- Nitrate Priority Areas, 2008
- ☆ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

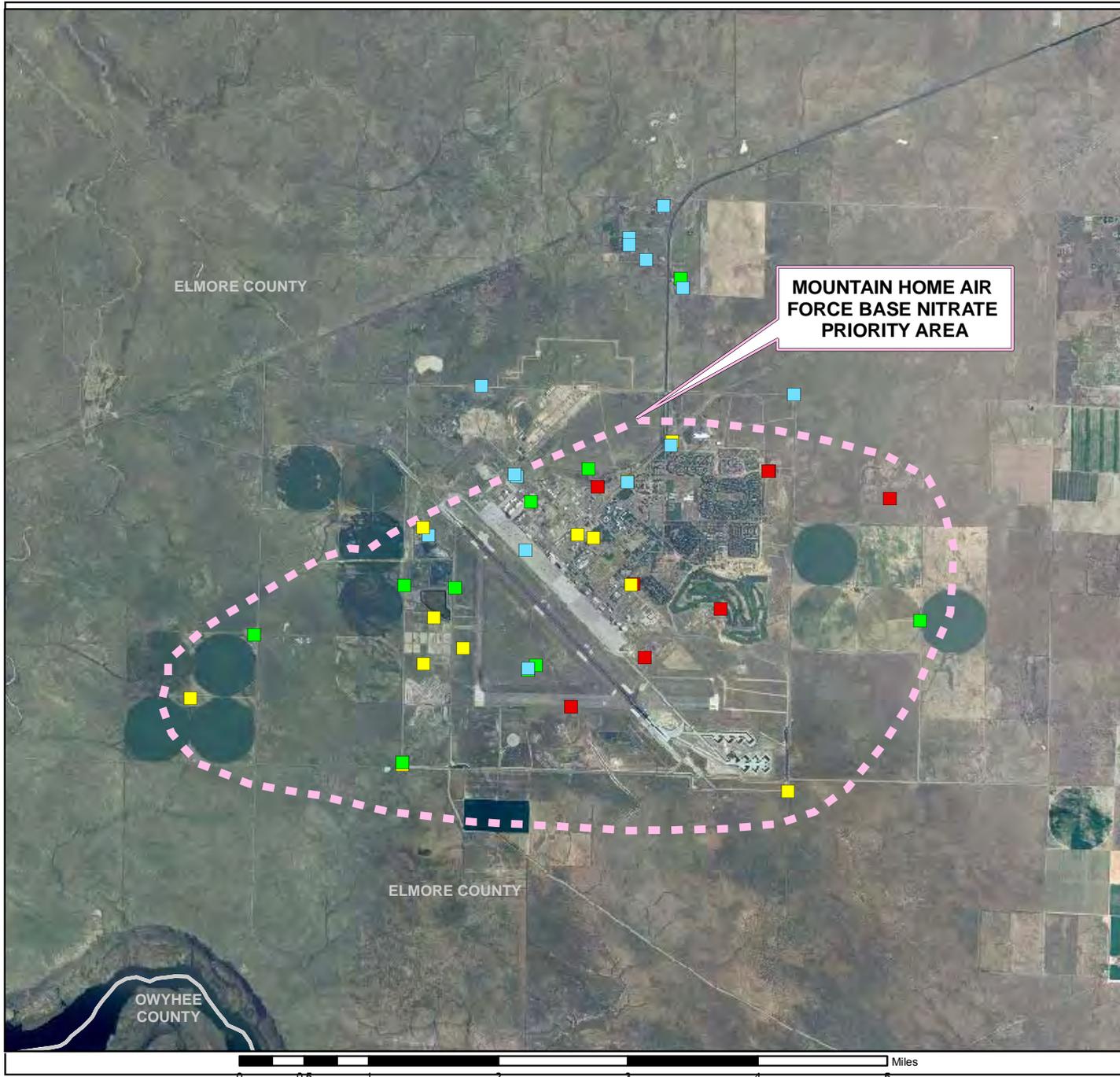
Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #14 - MOUNTAIN HOME AFB

**MOUNTAIN HOME AFB
NITRATE PRIORITY AREA #14
SCORE SHEET AND MAP**

Priority Area Number: 14		Priority Area Name: Mountain Home AFB		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1			
5000 to 50,000	2	x	2	8903
>50,000	3			
Subtotal			2	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	8
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	8
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			5	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	81%	2	1.62	
Percent of wells with NO ₃ >5 mg/l	56%	5	2.80	
Percent of wells with NO ₃ ≥ 10 mg/l	22%	10	2.20	
Water Quality Total			6.62	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			16.62	



MOUNTAIN HOME AFB NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations

Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- - - Nitrate Priority Areas, 2008

☆ Cities

▭ County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered statutory, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #15 – MOUNTAIN HOME

**MOUNTAIN HOME
NITRATE PRIORITY AREA #15
SCORE SHEET AND MAP**

Priority Area Number: 15		Priority Area Name: Mountain Home		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	100
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	4
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	10
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			4	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration		
		Criteria		
Percent of wells with NO ₃ >2 mg/l	83%	2	1.66	
Percent of wells with NO ₃ >5 mg/l	54%	5	2.70	
Percent of wells with NO ₃ ≥ 10 mg/l	29%	10	2.90	
Water Quality Total			7.26	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			16.26	

MOUNTAIN HOME NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations

Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September, 2008

Mountain Home
Nitrate Priority Area

ELMORE COUNTY



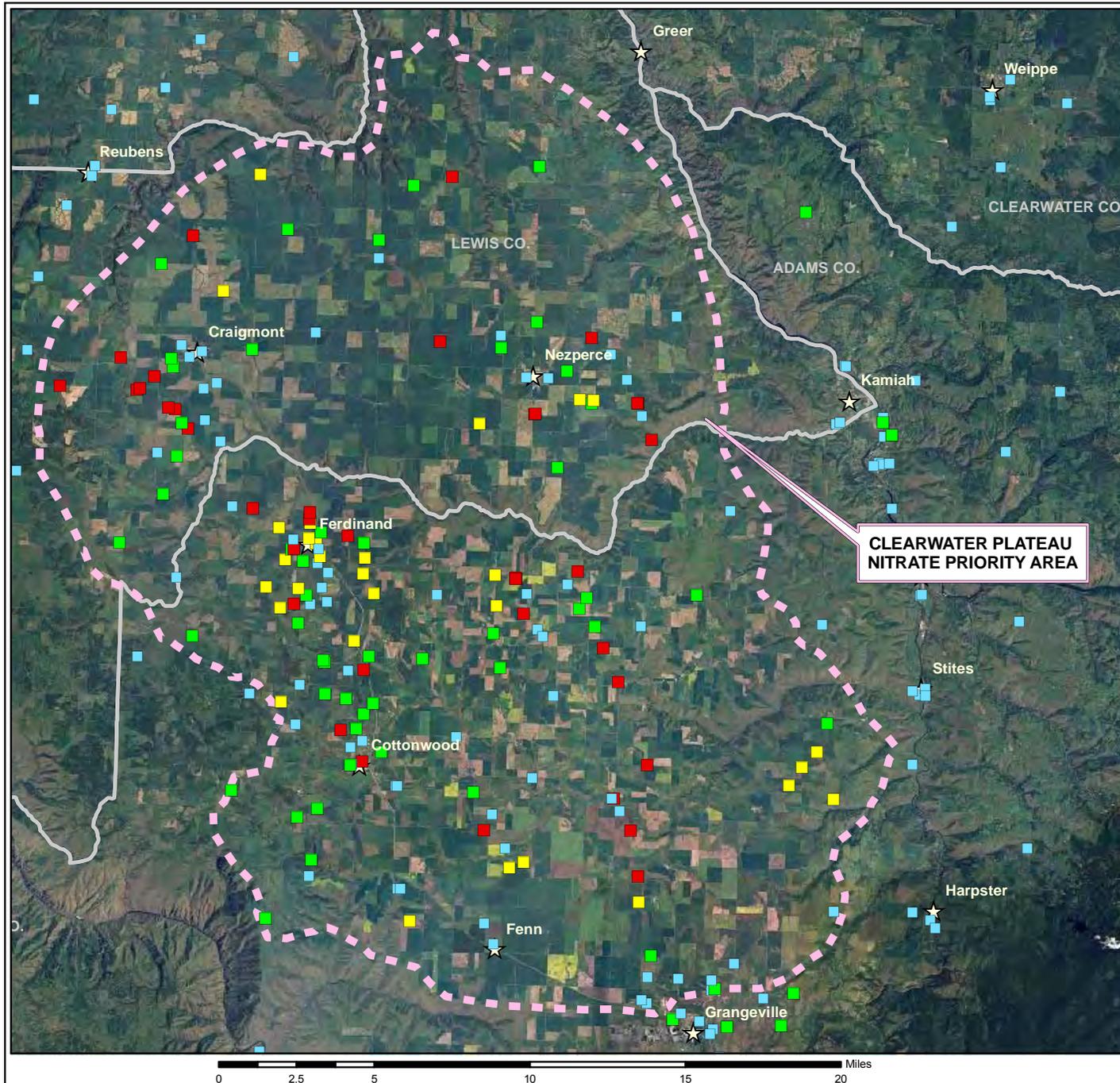
Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #16 – CLEARWATER PLATEAU

**CLEARWATER PLATEAU
NITRATE PRIORITY AREA #16
SCORE SHEET AND MAP**

Priority Area Number: 16		Priority Area Name: Clearwater Plateau		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	4236
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1			
21 to 40	2	x	2	22
>40	3			
Subtotal			2	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2			
21 to 40	3	x	3	39
>40	4			
Subtotal			3	
Population Score			6	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	65%	2	1.30	
Percent of wells with NO ₃ >5 mg/l	37%	5	1.85	
Percent of wells with NO ₃ ≥ 10 mg/l	21%	10	2.10	
Water Quality Total			5.25	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			16.25	



CLEARWATER PLATEAU NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- >= 10

- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standard for Nitrate is 10 mg/L

**CLEARWATER PLATEAU
NITRATE PRIORITY AREA**



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #17 – GLENNS FERRY

**GLENNS FERRY
NITRATE PRIORITY AREA #17
SCORE SHEET AND MAP**

Priority Area Number: 17		Priority Area Name: Glenns Ferry		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	1868
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	4
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1	x	1	3
6 to 20	2			
21 to 40	3			
>40	4			
Subtotal			1	
Population Score			3	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	82%	2	1.64	
Percent of wells with NO ₃ >5 mg/l	73%	5	3.65	
Percent of wells with NO ₃ ≥ 10 mg/l	27%	10	2.70	
Water Quality Total			7.99	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			15.99	

GLENN'S FERRY NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- - - Nitrate Priority Areas, 2008

★ Cities

County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards for nitrate (5 mg/L)

EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



APPENDIX #18 – GRACE/SODA SPRINGS

**GRACE/SODA SPRINGS
NITRATE PRIORITY AREA #18
SCORE SHEET AND MAP**

Priority Area Number: 18		Priority Area Name: Grace/Soda Springs		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1			
5000 to 50,000	2	x	2	8042
>50,000	3			
Subtotal			2	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1			
21 to 40	2			
>40	3	x	3	45
Subtotal			3	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	8
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			7	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	67%	2	1.34	
Percent of wells with NO ₃ >5 mg/l	29%	5	1.45	
Percent of wells with NO ₃ ≥ 10 mg/l	8%	10	0.80	
Water Quality Total			3.59	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			15.59	

GRACE SODA SPRINGS NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

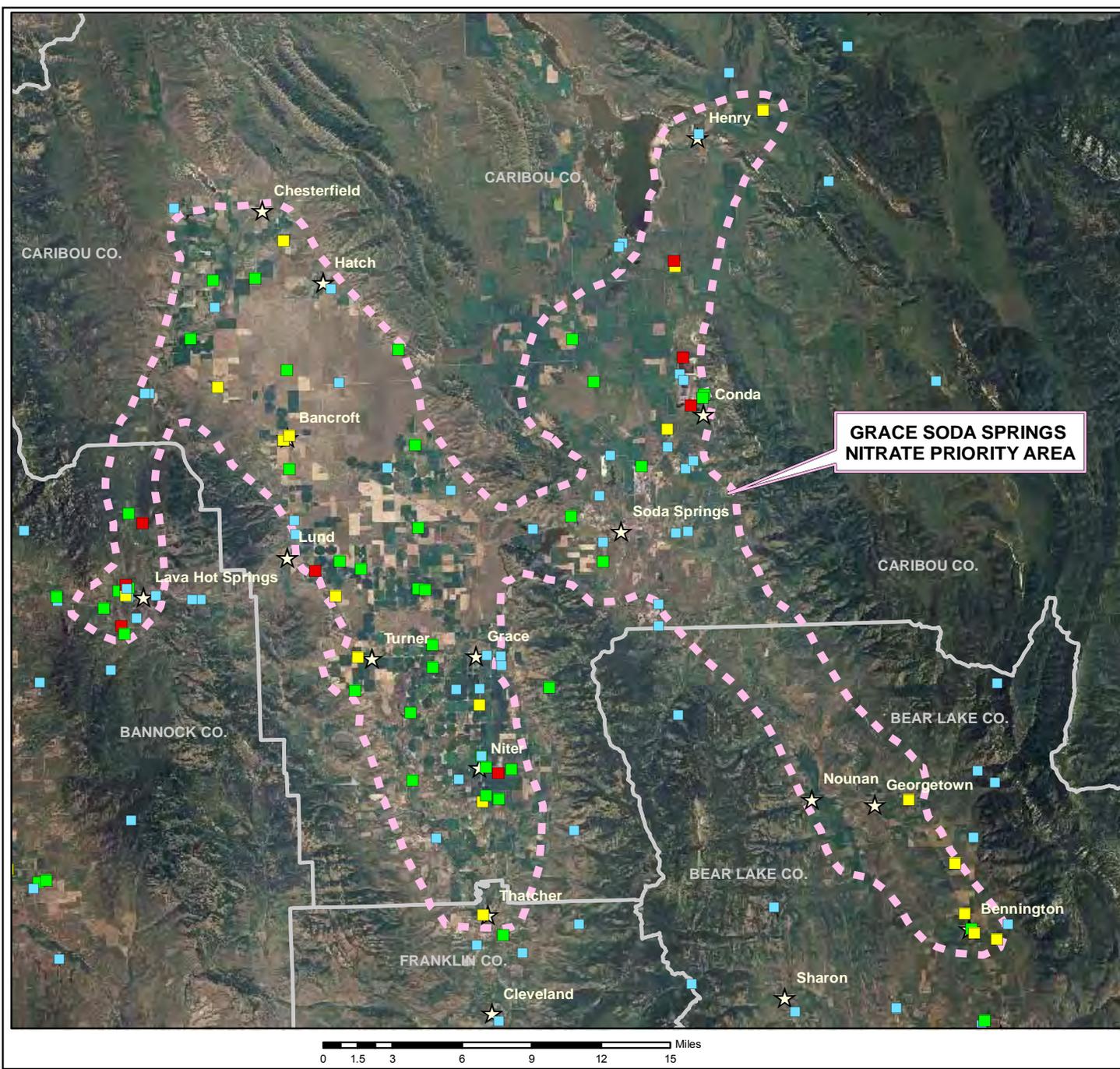
Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September, 2008

**GRACE SODA SPRINGS
NITRATE PRIORITY AREA**



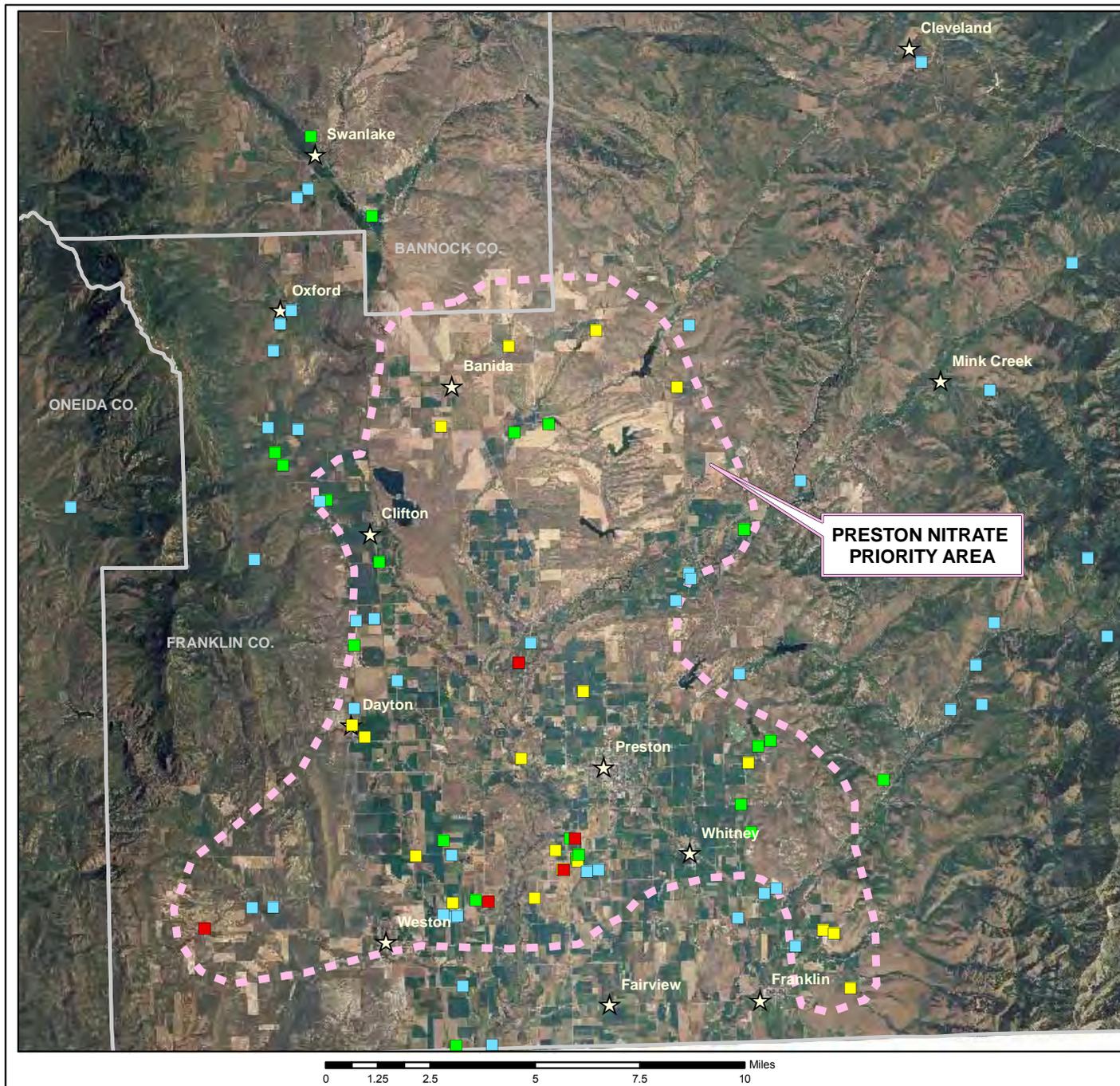
Degraded Ground Water Quality Area Designations for Nitrate – Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-008.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or topographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #19 – PRESTON

**PRESTON
NITRATE PRIORITY AREA #19
SCORE SHEET AND MAP**

Priority Area Number: 19		Priority Area Name: Preston	
Ranking Criteria		Score	Comments
1) POPULATION			
	Points	Select One	
a) Within Degraded Area			
<5000	1		
5000 to 50,000	2	x	8178
>50,000	3		
		Subtotal	2
b) Source Water Protection Areas or Public Water System wells in Priority Area			
0	0		
1 to 20	1		
21 to 40	2	x	23
>40	3		
		Subtotal	2
c) Number of Wells with NO₃ > 10 mg/l			
0	0		
1 to 5	1		
6 to 20	2	x	6
21 to 40	3		
>40	4		
		Subtotal	2
		Population Score	6
		Max Possible Score = 10	
2) WATER QUALITY			
	% wells	Nitrate Concentration Criteria	
Percent of wells with NO ₃ >2 mg/l	68%	2	1.36
Percent of wells with NO ₃ >5 mg/l	41%	5	2.05
Percent of wells with NO ₃ ≥ 10 mg/l	10%	10	1.00
		Water Quality Total	4.41
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	1	Yes=1 No = 0	0
		Beneficial use score	0
		Max Possible Score = 1	
		Total Score	15.41



PRESTON NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2.00 - 4.99
- 5.00 - 9.99
- ≥ 10.00

Nitrate Priority Areas, 2008

★ Cities

County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #20 – BLACKFOOT

**BLACKFOOT
NITRATE PRIORITY AREA #20
SCORE SHEET AND MAP**

Priority Area Number: 20		Priority Area Name: Blackfoot		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	1100
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	13
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1	x	1	3
6 to 20	2			
21 to 40	3			
>40	4			
Subtotal			1	
Population Score			3	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	100%	2	2.00	
Percent of wells with NO ₃ >5 mg/l	60%	5	3.00	
Percent of wells with NO ₃ ≥ 10 mg/l	20%	10	2.00	
Water Quality Total			7.00	
3) WATER QUALITY TRENDS				
		Select One		
Increasing	10			
No Discernable Trend	5		5	
Decreasing trend	0			
Trend Score			5	
Max Possible Score = 10				
4) OTHER BENEFICIAL USES				
Other beneficial uses are impaired	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			15.00	

BLACKFOOT NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- Nitrate Priority Areas, 2008
- ☆ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

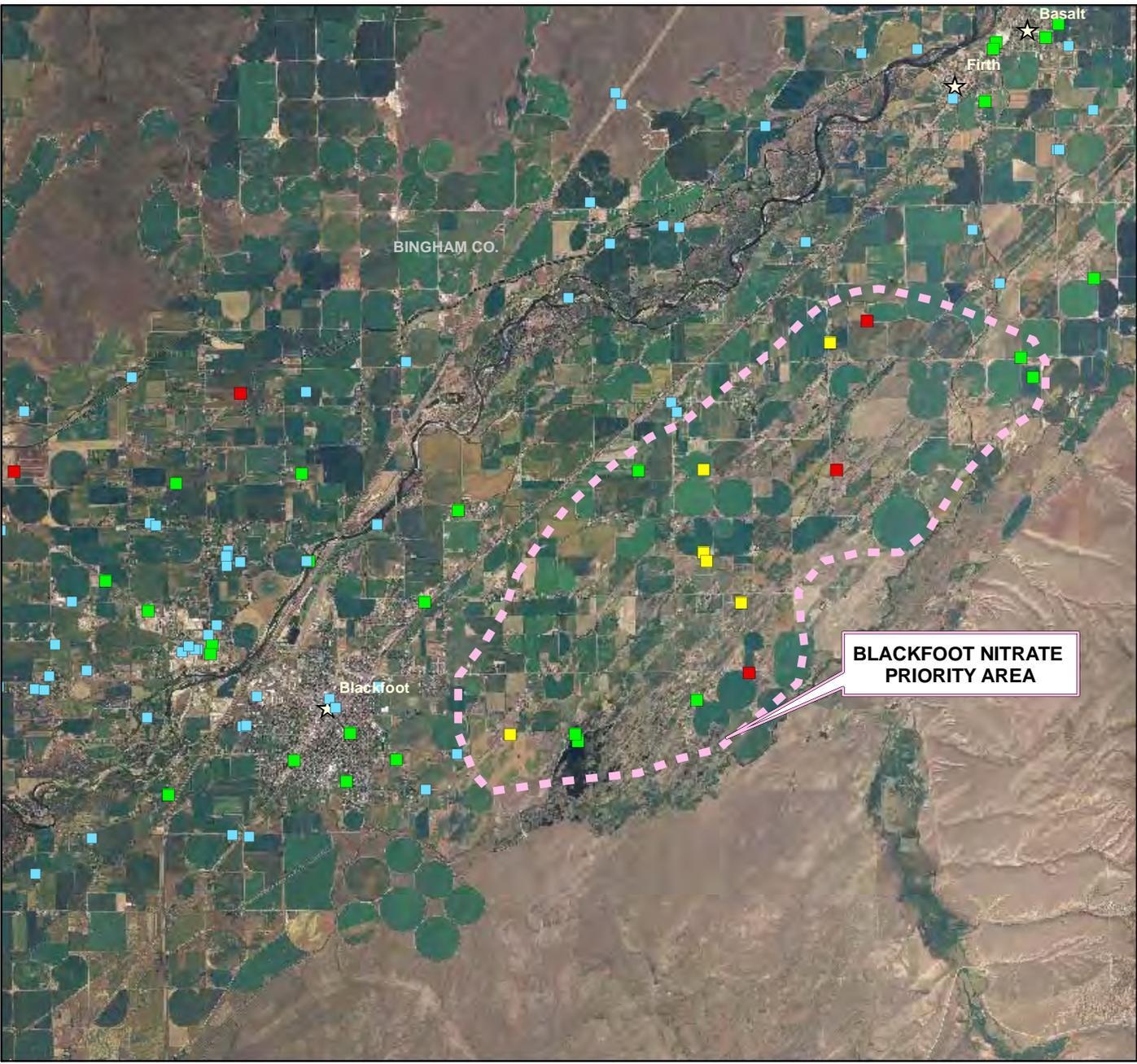
EPA Drinking Water Standard for Nitrate is 10 mg/L



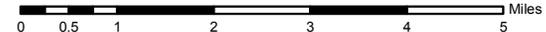
September, 2008

Degraded Ground Water Quality Area Designations for Nitrate – Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM 004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



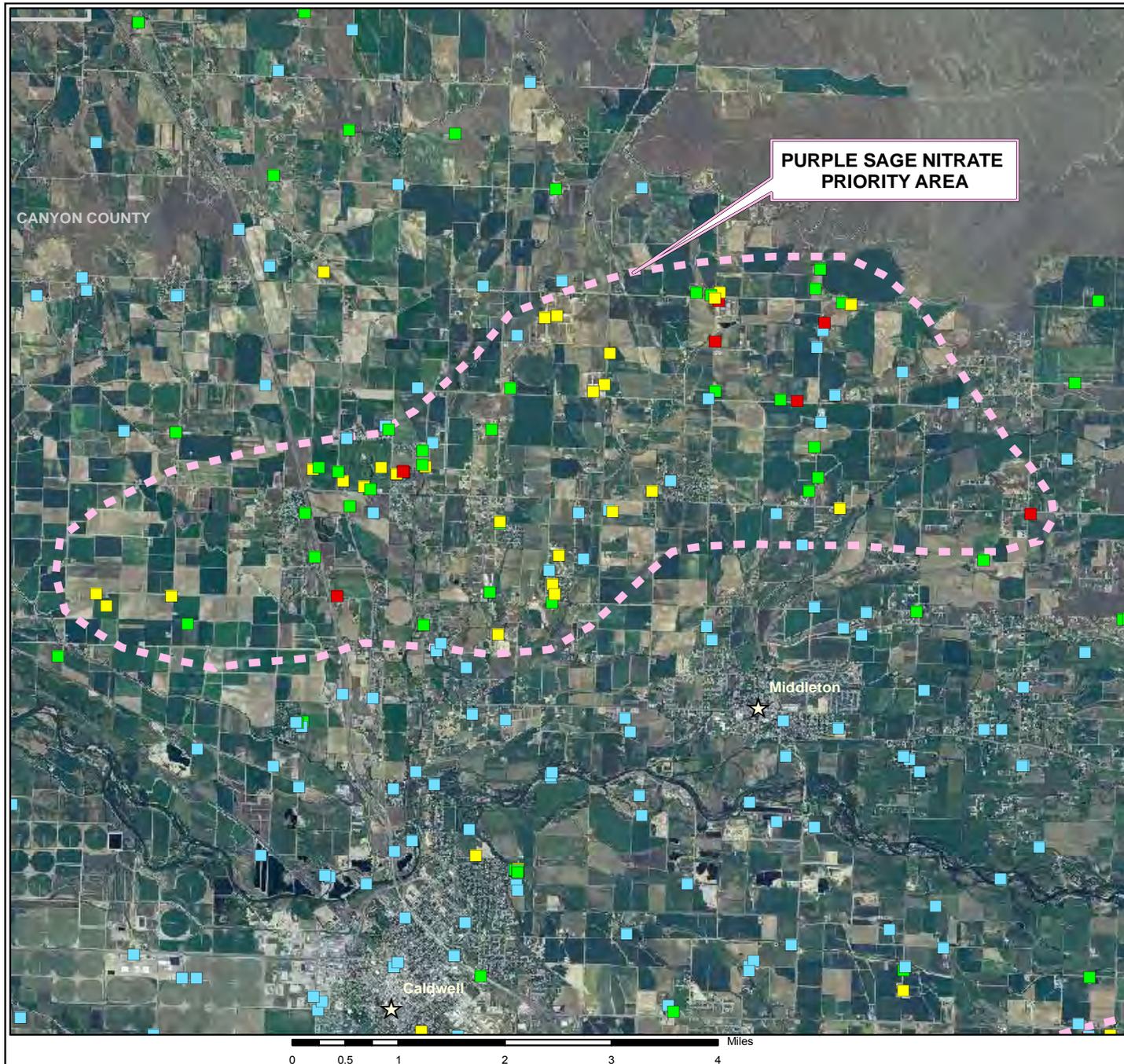
BLACKFOOT NITRATE PRIORITY AREA



APPENDIX #21 – PURPLE SAGE

**PURPLE SAGE
NITRATE PRIORITY AREA #21
SCORE SHEET AND MAP**

Priority Area Number: 21		Priority Area Name: Purple Sage		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	2835
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1			
21 to 40	2	x	2	25
>40	3			
Subtotal			2	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	9
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			5	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	76%	2	1.52	
Percent of wells with NO ₃ >5 mg/l	44%	5	2.20	
Percent of wells with NO ₃ ≥ 10 mg/l	10%	10	1.00	
Water Quality Total			4.72	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			14.72	



PURPLE SAGE NITRATE
PRIORITY AREA

PURPLE SAGE NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-Detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #22 – LINDSAY CREEK

**LINDSAY CREEK
NITRATE PRIORITY AREA #22
SCORE SHEET AND MAP**

Priority Area Number: 22		Priority Area Name: Lindsay Creek		
Ranking Criteria		Score	Comments	
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	1275
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	16
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	9
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			4	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	56%	2	1.12	
Percent of wells with NO ₃ >5 mg/l	40%	5	2.00	
Percent of wells with NO ₃ ≥ 10 mg/l	20%	10	2.00	
Water Quality Total			5.12	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			14.12	

LINDSAY CREEK NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- Nitrate Priority Areas, 2008
- ☆ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

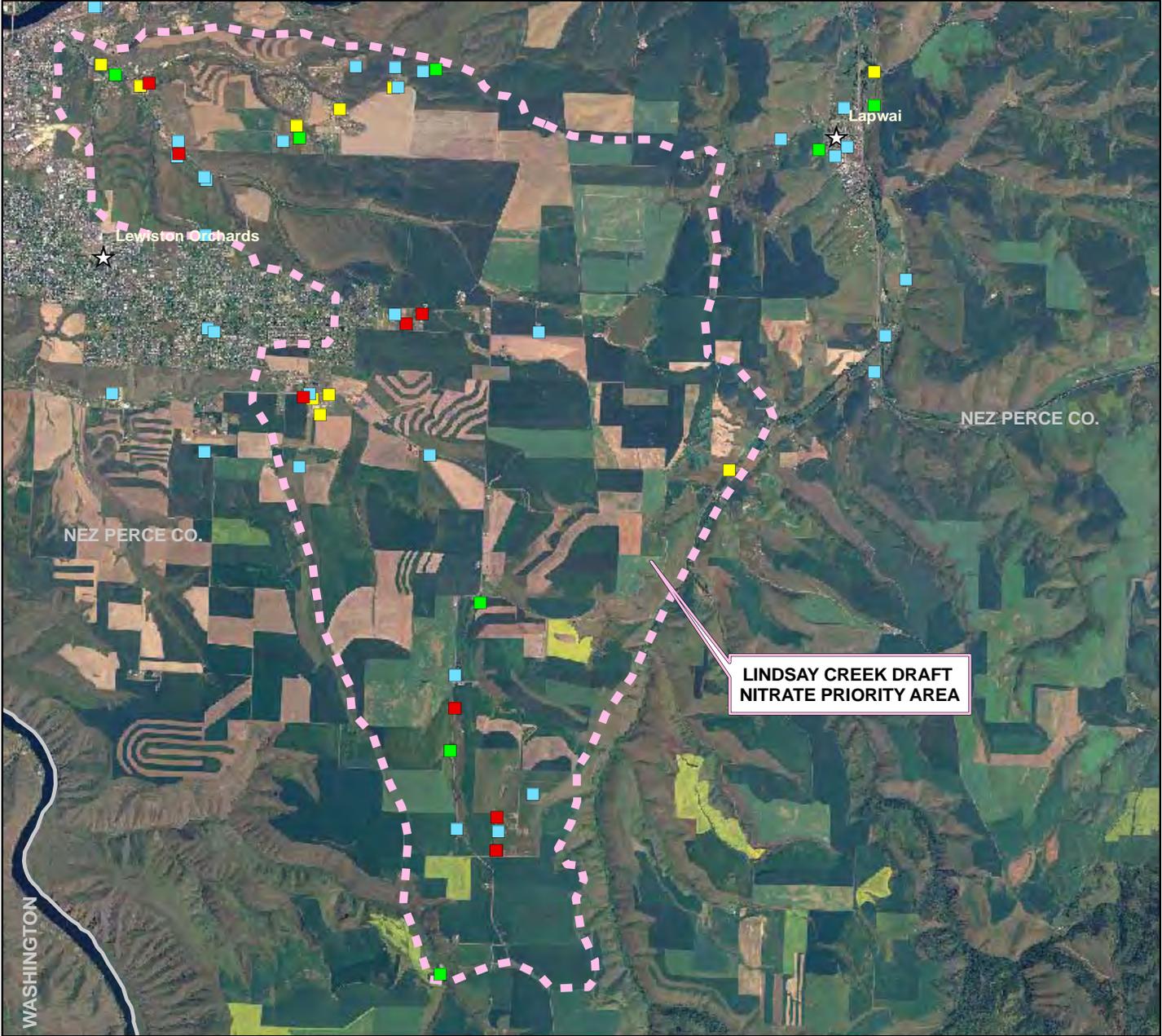
EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM004.

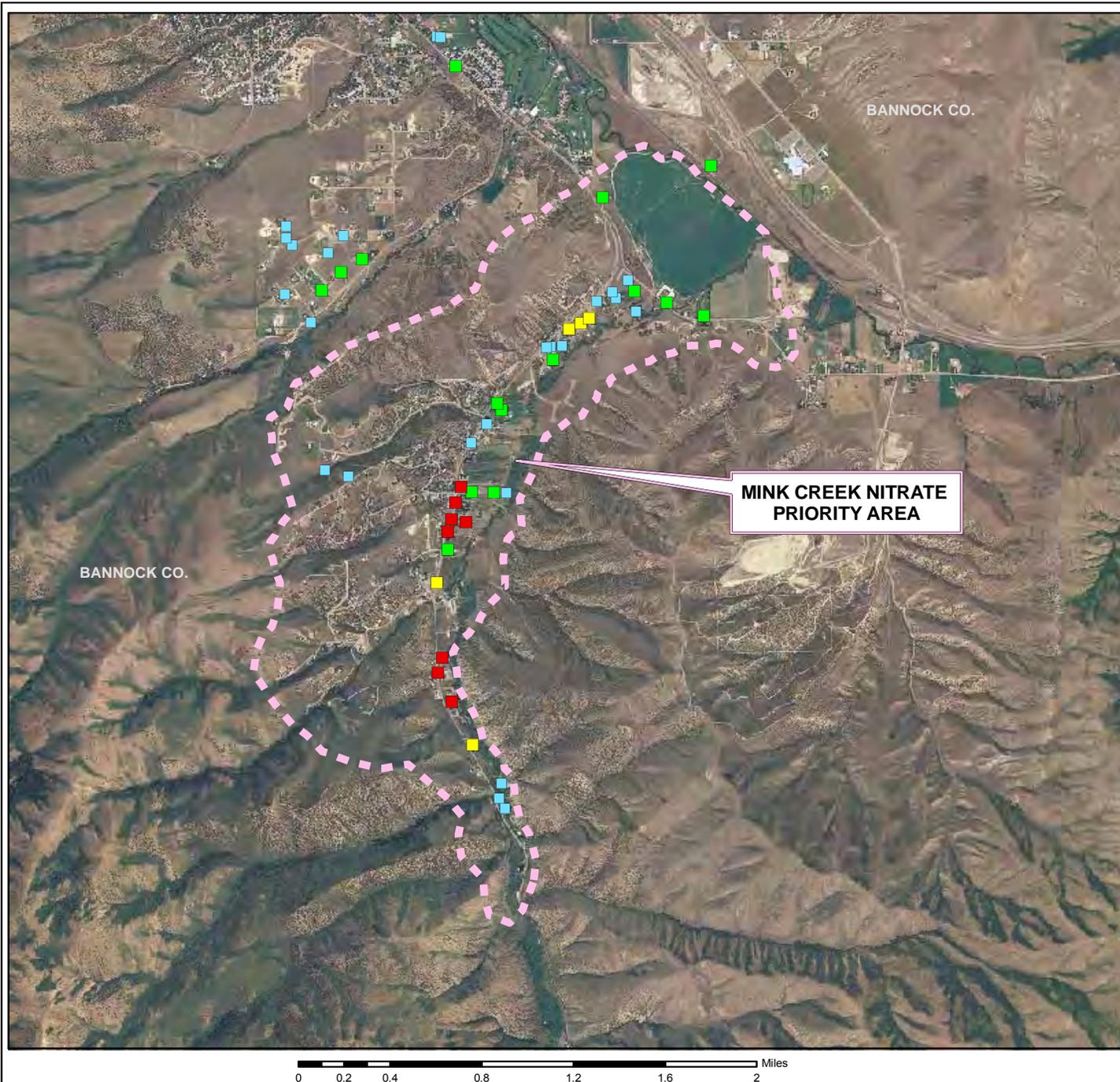
Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



APPENDIX #23 – MINK CREEK

**MINK CREEK
NITRATE PRIORITY AREA #23
SCORE SHEET AND MAP**

Priority Area Number: 23		Priority Area Name: Mink Creek		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	650
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	11
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	8
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			4	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	60%	2	1.20	
Percent of wells with NO ₃ >5 mg/l	33%	5	1.65	
Percent of wells with NO ₃ ≥ 10 mg/l	20%	10	2.00	
Water Quality Total			4.85	
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	1	Yes=1 No = 0		
Beneficial use score			0	
Max Possible Score = 1				
Total Score			13.85	



MINK CREEK NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

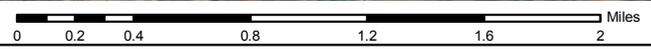
EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum P94-604.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



APPENDIX #24 – LAPWAI CREEK

**LAPWAI CREEK
NITRATE PRIORITY AREA #24
SCORE SHEET AND MAP**

Priority Area Number: 24		Priority Area Name: Lapwai Creek		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	1026
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	X	1	8
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1	x	1	2
6 to 20	2			
21 to 40	3			
>40	4			
Subtotal			1	
Population Score			3	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	81%	2	1.62	
Percent of wells with NO ₃ >5 mg/l	56%	5	2.80	
Percent of wells with NO ₃ ≥ 10 mg/l	13%	10	1.30	
Water Quality Total			5.72	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			13.72	

LAPWAI CREEK NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

⋯ Nitrate Priority Areas, 2008

★ Cities

County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

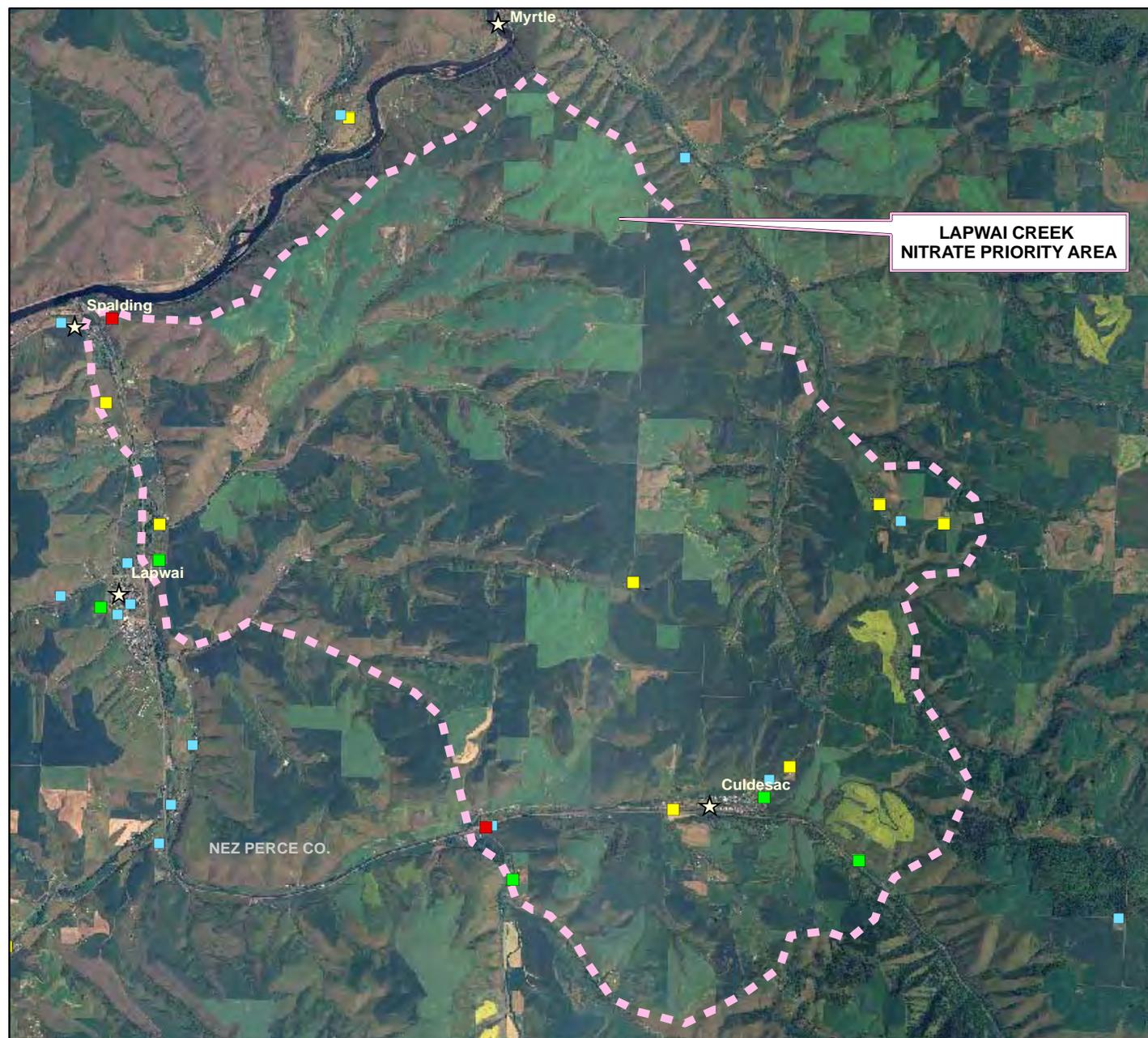
EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

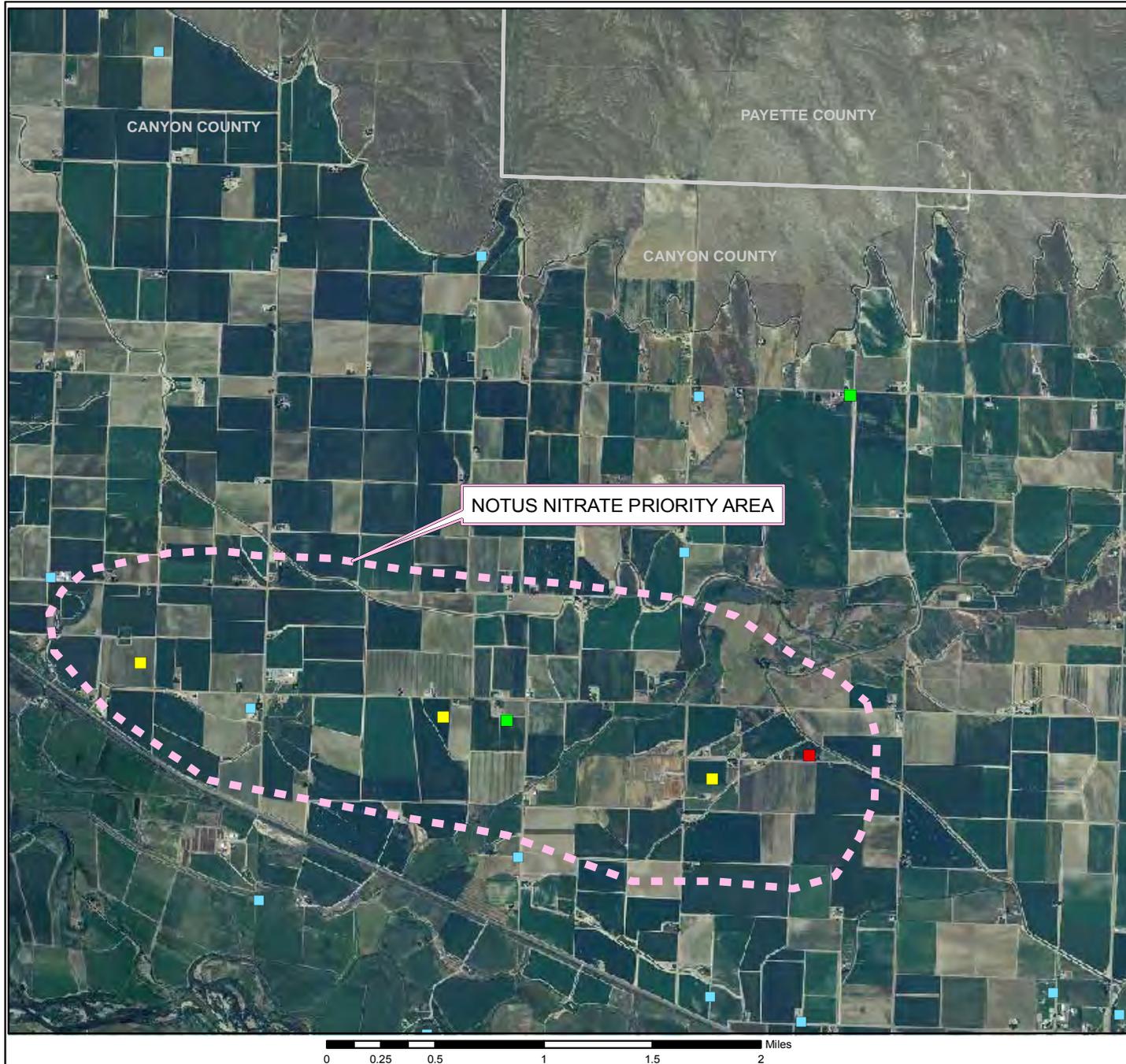
Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



APPENDIX #25 – NOTUS

**NOTUS
NITRATE PRIORITY AREA #25
SCORE SHEET AND MAP**

Priority Area Number: 25		Priority Area Name: Notus	
Ranking Criteria		Score	Comments
1) POPULATION			
	Points	Select One	
a) Within Degraded Area			
<5000	1	x	135
5000 to 50,000	2		
>50,000	3		
		Subtotal	1
b) Source Water Protection Areas or Public Water System wells in Priority Area			
0	0	x	0
1 to 20	1		
21 to 40	2		
>40	3		
		Subtotal	0
c) Number of Wells with NO₃ > 10 mg/l			
0	0		
1 to 5	1	x	1
6 to 20	2		
21 to 40	3		
>40	4		
		Subtotal	1
		Population Score	2
		Max Possible Score = 10	
2) WATER QUALITY			
	% wells	Nitrate Concentration Criteria	
Percent of wells with NO ₃ >2 mg/l	83%	2	1.66
Percent of wells with NO ₃ >5 mg/l	67%	5	3.35
Percent of wells with NO ₃ ≥ 10 mg/l	17%	10	1.70
		Water Quality Total	6.71
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	1	Yes=1 No = 0	0
		Beneficial use score	0
		Max Possible Score = 1	
		Total Score	13.71



NOTUS NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- \geq 10.00

Nitrate Priority Areas, 2008

☆ Cities

County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September, 2008



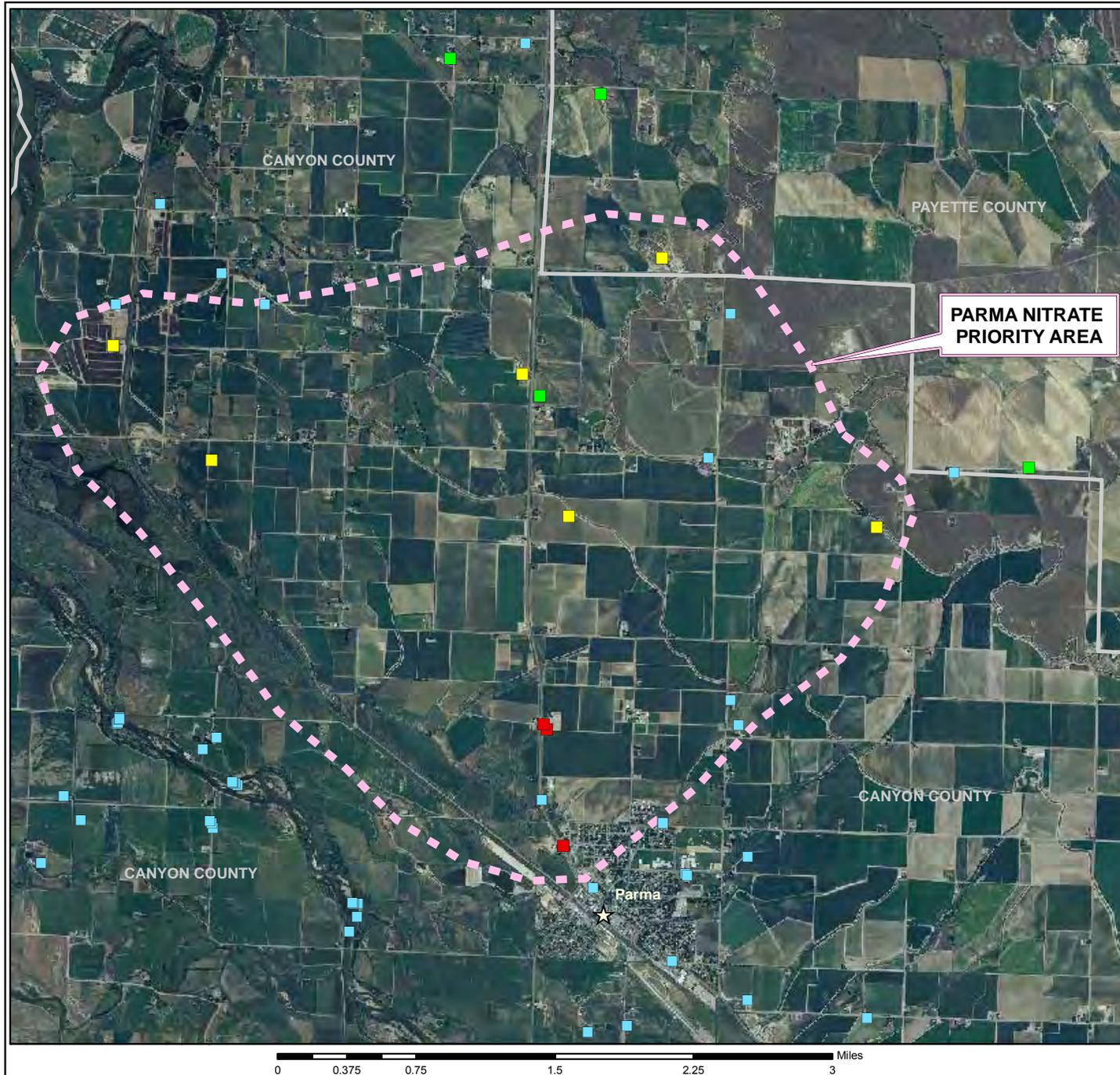
Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered statements, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #26 – PARMA

**PARMA
NITRATE PRIORITY AREA #26
SCORE SHEET AND MAP**

Priority Area Number: 26		Priority Area Name: Parma		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	890
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	3
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1	x	1	3
6 to 20	2			
21 to 40	3			
>40	4			
Subtotal			1	
Population Score			3	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	59%	2	1.18	
Percent of wells with NO ₃ >5 mg/l	53%	5	2.65	
Percent of wells with NO ₃ ≥ 10 mg/l	18%	10	1.80	
Water Quality Total			5.63	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			13.63	



PARMA NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-Detect - 1.99
- 2 - 4.99
- 5 - 9.99
- \geq 10.00
- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

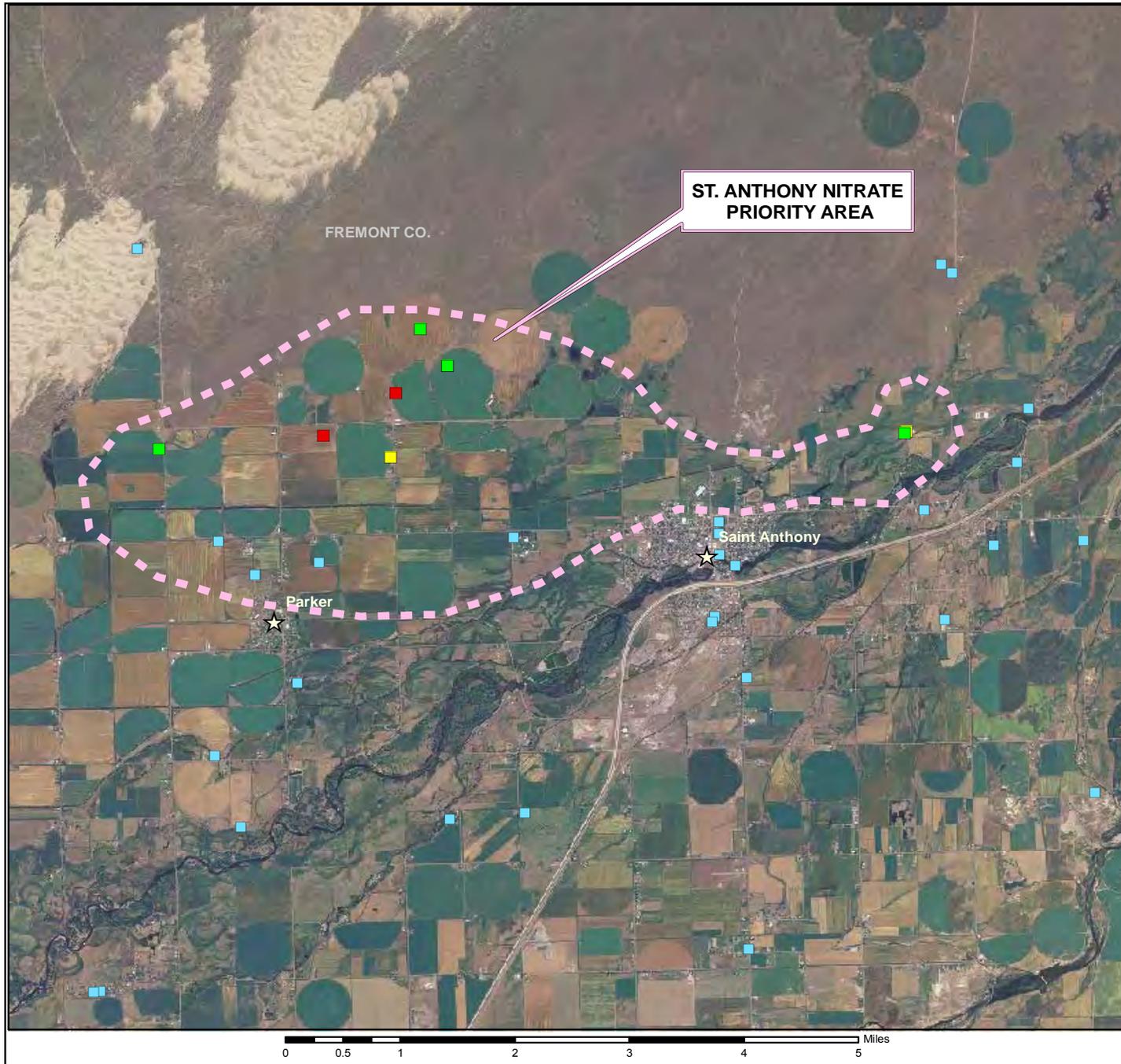
Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



APPENDIX #27 – ST. ANTHONY

**ST. ANTHONY
NITRATE PRIORITY AREA #27
SCORE SHEET AND MAP**

Priority Area Number: 27		Priority Area Name: St. Anthony	
Ranking Criteria		Score	Comments
1) POPULATION			
	Points	Select One	
a) Within Degraded Area			
<5000	1	x	1 666
5000 to 50,000	2		
>50,000	3		
		Subtotal	1
b) Source Water Protection Areas or Public Water System wells in Priority Area			
0	0		
1 to 20	1	x	1 5
21 to 40	2		
>40	3		
		Subtotal	1
c) Number of Wells with NO₃ > 10 mg/l			
0	0		
1 to 5	1	x	1 3
6 to 21	2		
21 to 40	3		
>40	4		
		Subtotal	1
		Population Score	3
		Max Possible Score = 10	
2) WATER QUALITY			
	% wells	Nitrate Concentration Criteria	
Percent of wells with NO ₃ >2 mg/l	64%	2	1.28
Percent of wells with NO ₃ >5 mg/l	36%	5	1.80
Percent of wells with NO ₃ ≥ 10 mg/l	21%	10	2.10
		Water Quality Total	5.18
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	1	Yes=1 No = 0	0
		Beneficial use score	0
		Max Possible Score = 1	
		Total Score	13.18



ST. ANTHONY NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations

Milligrams per Liter (mg/L)

■ Non-detect - 1.99

■ 2 - 4.99

■ 5 - 9.99

■ ≥ 10

▭ Nitrate Priority Areas, 2008

☆ Cities

▭ County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

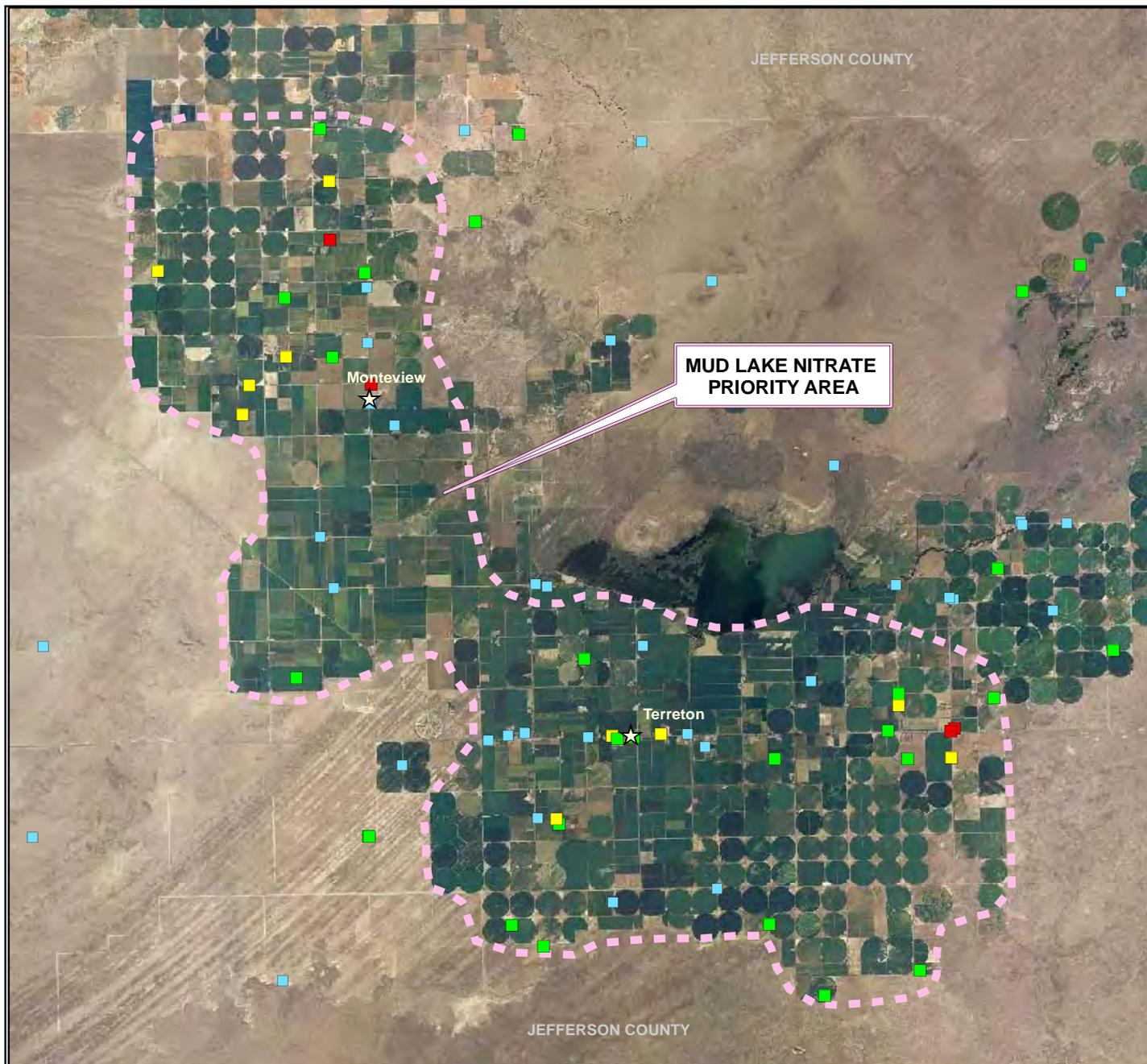
Depagated Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #28 – MUD LAKE

**MUD LAKE
NITRATE PRIORITY AREA #28
SCORE SHEET AND MAP**

Priority Area Number: 28		Priority Area Name: Mud Lake		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	1309
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	11
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1			
6 to 20	2	x	2	14
21 to 40	3			
>40	4			
Subtotal			2	
Population Score			4	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	63%	2	1.26	
Percent of wells with NO ₃ >5 mg/l	27%	5	1.35	
Percent of wells with NO ₃ ≥ 10 mg/l	8%	10	0.80	
Water Quality Total			3.41	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			12.41	



MUD LAKE NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10.00

- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008



Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM4004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #29 – EMMETT NORTH BENCH

**EMMETT NORTH BENCH
NITRATE PRIORITY AREA #29
SCORE SHEET AND MAP**

Priority Area Number: 29		Priority Area Name: Emmett North Bench		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	887
5000 to 50,000	2			
>50,000	3			
Subtotal			1	
b) Source Water Protection Areas or Public Water System wells in Priority Area				
0	0			
1 to 20	1	x	1	3
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0			
1 to 5	1	x	1	3
6 to 20	2			
21 to 40	3			
>40	4			
Subtotal			1	
Population Score				
Max Possible Score = 10			3	
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	70%	2	1.40	
Percent of wells with NO ₃ >5 mg/l	33%	5	1.65	
Percent of wells with NO ₃ ≥ 10 mg/l	11%	10	1.10	
Water Quality Total			4.15	
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	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			12.15	

EMMETT NORTH BENCH NITRATE PRIORITY AREA FOR GROUND WATER

Legend

- Nitrate Concentrations
Milligrams per Liter (mg/L)**
- Non-Detect - 1.99
 - 2 - 4.99
 - 5 - 9.99
 - >= 10
- Nitrate Priority Areas, 2008
- ☆ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards for nitrate (5 mg/L)

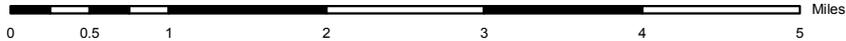
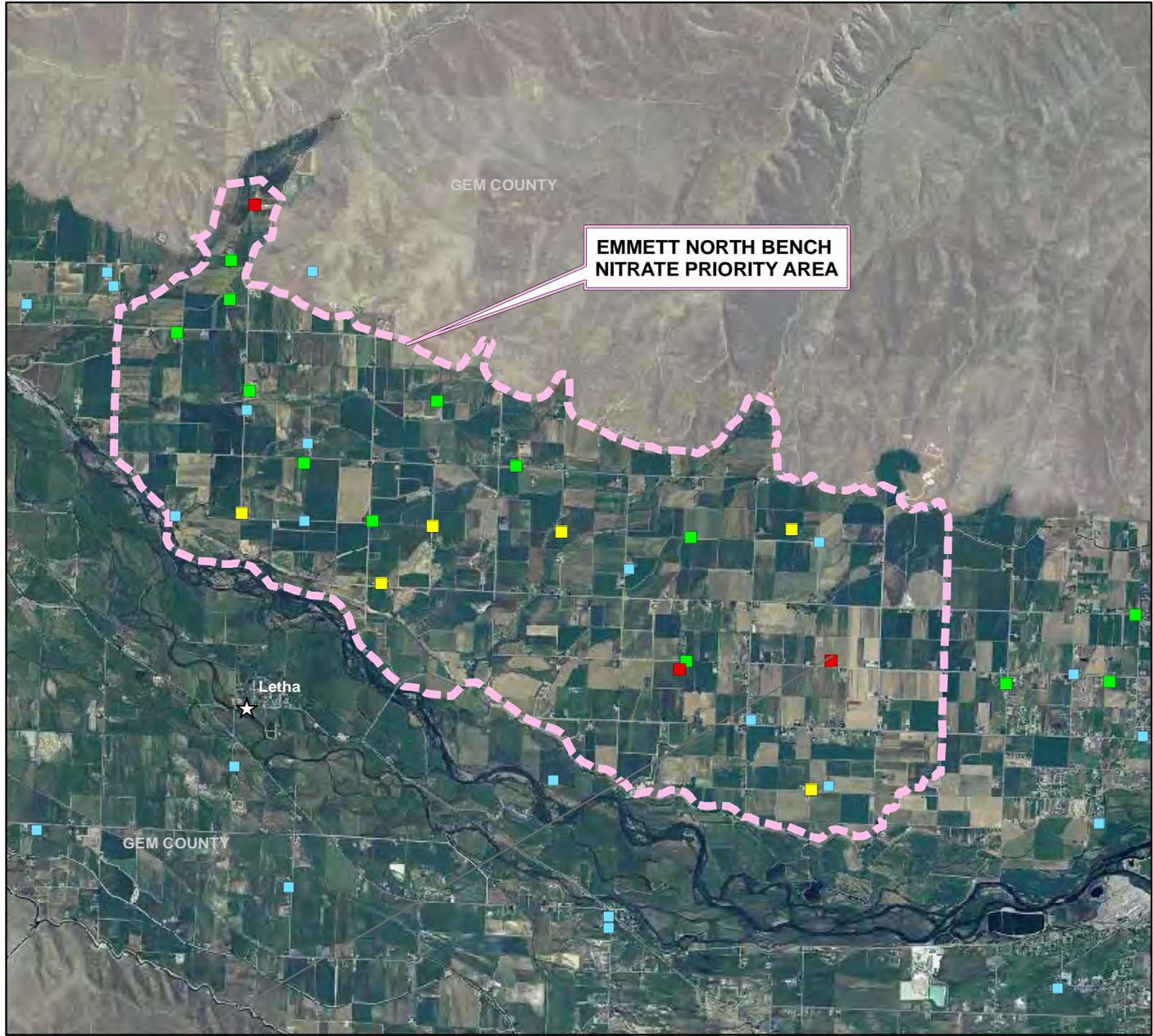
EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.



APPENDIX #30 – NORTH POCA TELLO

**NORTH POCA TELLO
NITRATE PRIORITY AREA #30
SCORE SHEET AND MAP**

Priority Area Number: 30		Priority Area Name: N. Pocatello		
Ranking Criteria			Score	Comments
1) POPULATION				
	Points	Select One		
a) Within Degraded Area				
<5000	1	x	1	4464
5000 to 50,000	2			
>50,000	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
21 to 40	2			
>40	3			
Subtotal			1	
c) Number of Wells with NO₃ > 10 mg/l				
0	0	x	0	0
1 to 5	1			
6 to 20	2			
21 to 40	3			
>40	4			
Subtotal			0	
Population Score			2	
Max Possible Score = 10				
2) WATER QUALITY				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO ₃ >2 mg/l	100%	2	2.00	
Percent of wells with NO ₃ >5 mg/l	27%	5	1.35	
Percent of wells with NO ₃ ≥ 10 mg/l	0%	10	0.00	
Water Quality Total			3.35	
3) WATER QUALITY TRENDS				
		Select One		
Increasing	10			
No Discernable Trend	5	X	5	
Decreasing trend	0			
Trend Score			5.00	
Max Possible Score = 10				
4) OTHER BENEFICIAL USES				
Other beneficial uses are impaired	1	Yes=1 No = 0	0	
Beneficial use score			0	
Max Possible Score = 1				
Total Score			10.35	



NORTH POCATELLO NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10
- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

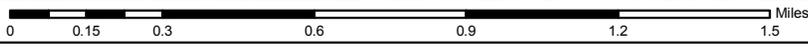
Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September, 2008

N. POCATELLO NITRATE PRIORITY AREA



Degraded Ground Water Quality Area Designations for Nitrate – Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #31 – BLISS

**BLISS
NITRATE PRIORITY AREA #31
SCORE SHEET AND MAP**

Priority Area Number: 31		Priority Area Name: Bliss	
Ranking Criteria		Score	Comments
1) POPULATION			
	Points	Select One	
a) Within Degraded Area			
<5000	1	x	1 76
5000 to 50,000	2		
>50,000	3		
		Subtotal	1
b) Source Water Protection Areas or Public Water System wells in Priority Area			
0	0	x	0
1 to 20	1		
21 to 40	2		
>41	3		
		Subtotal	0
c) Number of Wells with NO₃ > 10 mg/l			
0	0	x	0
1 to 5	1		
6 to 20	2		
21 to 40	3		
>40	4		
		Subtotal	0
		Population Score	1
		Max Possible Score = 10	
2) WATER QUALITY			
	% wells	Nitrate Concentration Criteria	
Percent of wells with NO ₃ >2 mg/l	67%	2	1.34
Percent of wells with NO ₃ >5 mg/l	29%	5	1.45
Percent of wells with NO ₃ ≥ 10 mg/l	0%	10	0
		Water Quality Total	2.79
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	1	Yes=1 No = 0	0
		Beneficial use score	0
		Max Possible Score = 1	
		Total Score	8.79

BLISS NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10

- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

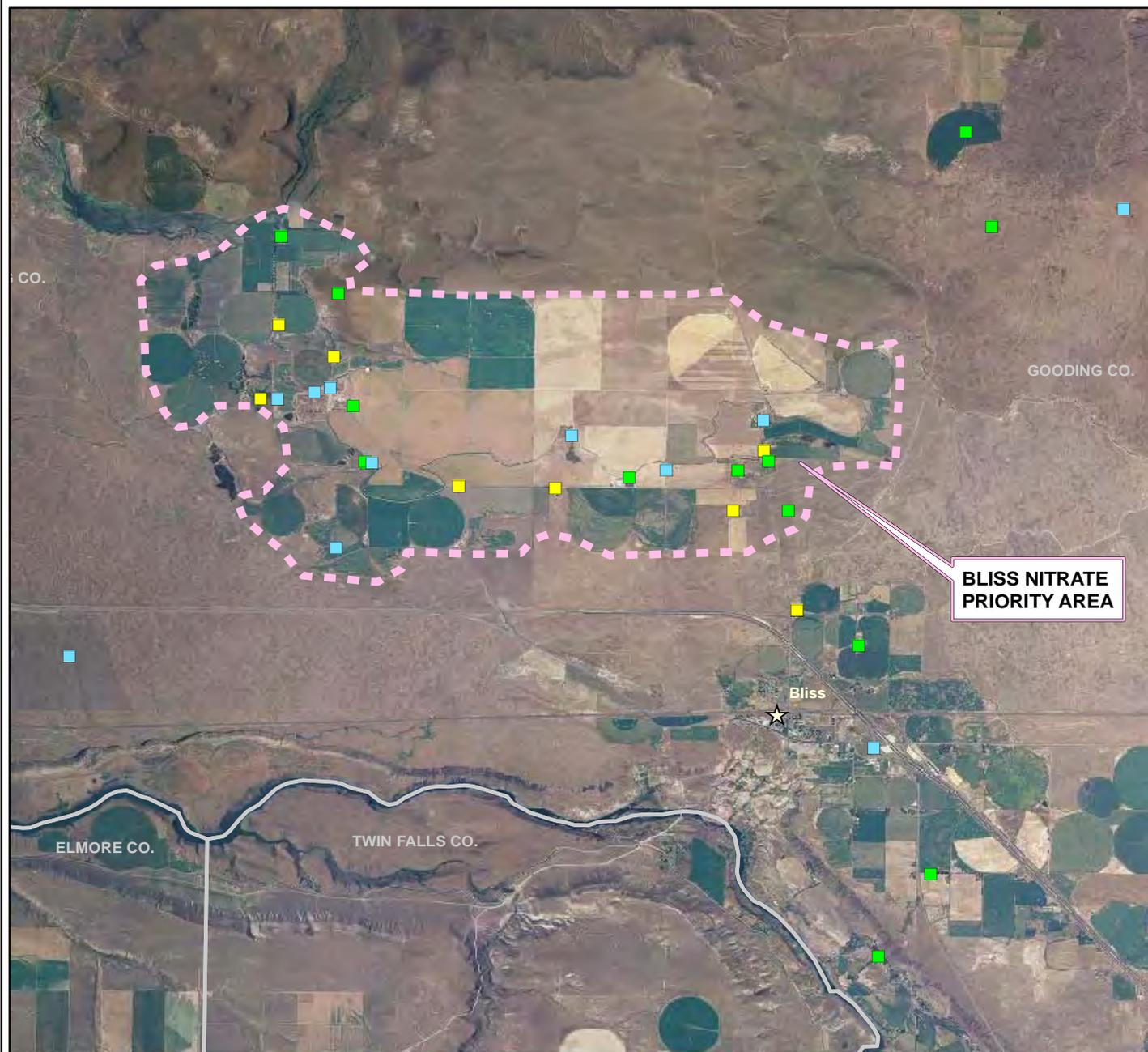
Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standards for Nitrate is 10 mg/L



September, 2008

BLISS NITRATE PRIORITY AREA



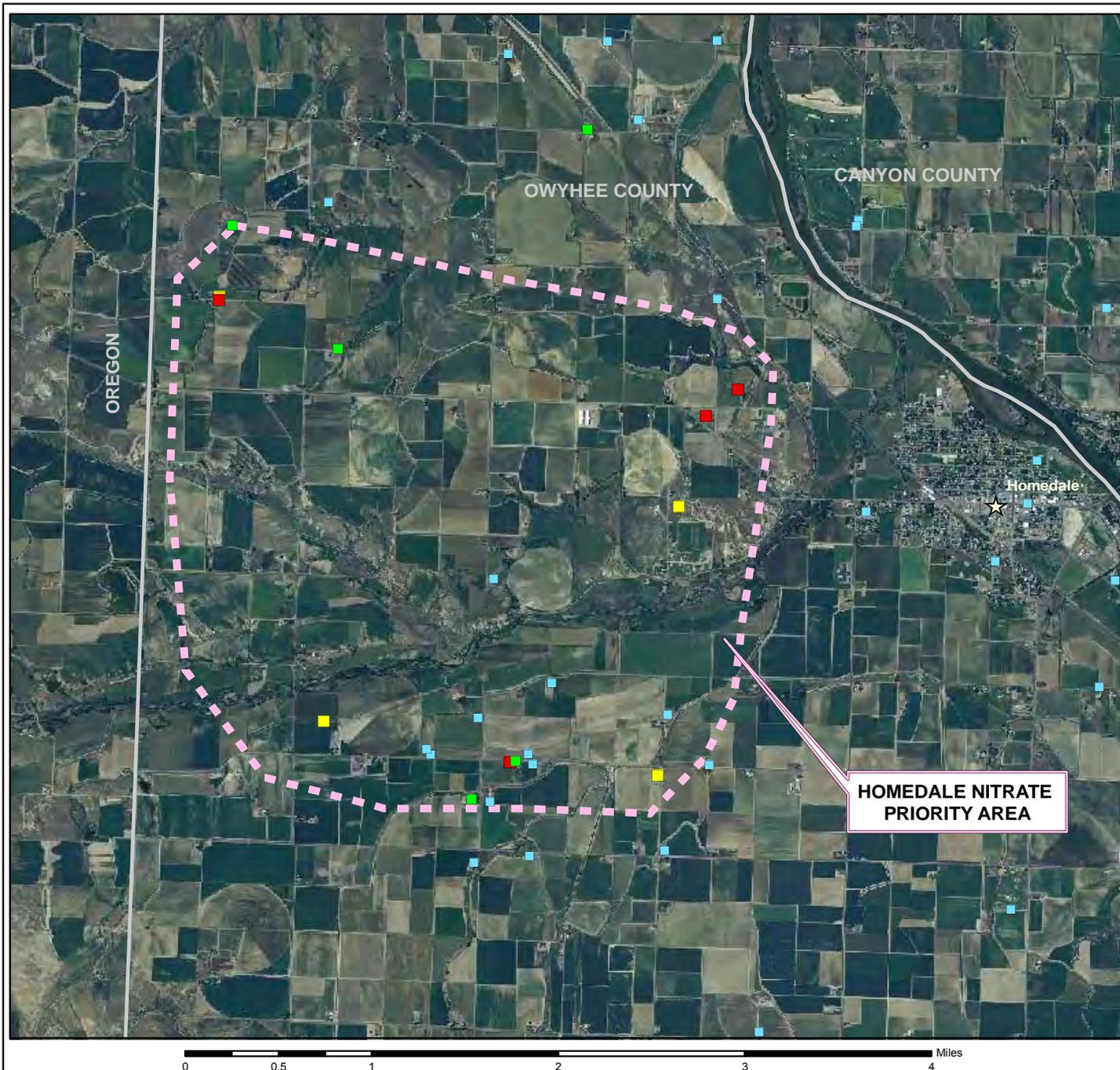
Degraded Ground Water Quality Area Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PSM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

APPENDIX #32 – HOMEDALE

**HOMEDALE
NITRATE PRIORITY AREA #32
SCORE SHEET AND MAP**

Priority Area Number: 32		Priority Area Name: Homedale	
Ranking Criteria		Score	Comments
1) POPULATION			
	Points	Select One	
a) Within Degraded Area			
<5000	1	x	387
5000 to 50,000	2		
>50,000	3		
		Subtotal	1
b) Source Water Protection Areas or Public Water System wells in Priority Area			
0	0		
1 to 20	1	x	1
21 to 40	2		
>40	3		
		Subtotal	1
c) Number of Wells with NO₃ > 10 mg/l			
0	0		
1 to 5	1	x	5
6 to 20	2		
21 to 40	3		
>40	4		
		Subtotal	1
		Population Score	3
		Max Possible Score = 10	
2) WATER QUALITY			
	% wells	Nitrate Concentration Criteria	
Percent of wells with NO ₃ >2 mg/l	50%	2	1.00
Percent of wells with NO ₃ >5 mg/l	38%	5	1.90
Percent of wells with NO ₃ ≥ 10 mg/l	20%	10	2.00
		Water Quality Total	4.90
3) WATER QUALITY TRENDS			
		Select One	
Increasing	10		
No Discernable Trend	5		
Decreasing trend	0	x	0 93% Confidence Level
		Trend Score	0
		Max Possible Score = 10	
4) OTHER BENEFICIAL USES			
Other beneficial uses are impaired	1	Yes=1 No = 0	0
		Beneficial use score	0
		Max Possible Score = 1	
		Total Score	7.90



HOMEDALE NITRATE PRIORITY AREA FOR GROUND WATER

Legend

Nitrate Concentrations Milligrams per Liter (mg/L)

- Non-Detect - 1.99
- 2 - 4.99
- 5 - 9.99
- ≥ 10
- Nitrate Priority Areas, 2008
- ★ Cities
- County Boundaries

Nitrate Priority Area - 25% of samples are greater than or equal to 1/2 drinking water standards or 5 mg/L

EPA Drinking Water Standard for Nitrate is 10 mg/L



September, 2008

HOMEDALE NITRATE PRIORITY AREA

Degraded Ground Water Quality Areas Designations for Nitrate - Nitrate Priority Areas: The boundaries of the Nitrate Priority Areas are not considered stationary, are subject to change upon receipt of additional water quality data, and are not intended to be used as regulatory designations. Nitrate Priority Areas are intended for agencies to use for prioritizing and focusing resources to develop and implement ground water quality improvement strategies with local communities, per DEQ Policy Memorandum PM-004.

Restriction of Liability: Neither the State of Idaho nor the Idaho Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.

