

Our Petition to the Idaho Board of Environmental Quality

Thanks to expertise and dedication of the Idaho Department of Water Resources, the scientific facts about North Idaho's updated SVRP Aquifer boundary are now clear and available to all.

Idaho Code is concise in its admonition that all agencies are obligated to protect Idaho ground water.

The Idaho Ground Water Quality Rule, with its appeal process, is a far-sighted gift that grants citizens the right and the generous flexibility to determine their own safe future and good health.

Therefore:

1. We ask the Idaho Board of Environmental Quality, authorized by the Idaho Legislature, to **take immediate notice of our grievances**, since time is of the essence due to pending approval of a commercial project which gravely endangers Greenferry drinking water quality.
2. We ask the Board to recognize that the State of Idaho is absolutely authorized by the **Idaho Comprehensive State Water Plan** and the **Rathdrum Prairie Comprehensive Aquifer Management Plan** and by numerous statutes, including the **Environmental Protection and Health Act Title 39** and the **Ground Water Quality Rule 58.01.11**, to take whatever steps necessary to ensure crucial protection of ground water within Idaho state boundaries.
3. We ask the Board to consider IDWR's authority over both the **Idaho Comprehensive State Water Plan** and the **Rathdrum Prairie Comprehensive Aquifer Management Plan (CAMP)** and to uphold IDWR's latest hydrogeological data and its SVRP boundary updates which confirm that the shallow **Greenferry Water and Sewer District wells are completed within the SVRP Aquifer**.
4. We ask the Board to recognize **how preposterous and unreasonable** are the assertions by DEQ North and Panhandle Health District that they cannot deviate from enforcing irrelevant and outdated 1978 aquifer boundary lines while **the Idaho Department of Water Resources and the Water Resource Board have been using updated USGS boundary data for at least a decade** in order to implement numerous quality initiatives, including the **Idaho Comprehensive State Water Plan** and the **Rathdrum Prairie Comprehensive Aquifer Management Plan (CAMP)**.
5. We ask the Board to recognize that the **Greenferry Water and Sewer District wells qualify for the same aquifer water protection as that enjoyed by all other SVRP communities**. We ask

the Board to bring together for the common welfare all clean water statutes and legislative mandates that empower Idaho State to **grant the Greenferry community the highest levels of protection under Idaho State law.**

6. Because IDWR's latest SVRP Aquifer boundary data for the Idaho Panhandle is awaiting the sequences of peer review and publishing, we ask the Board to step in now to preemptively rescue and protect our community and our sole-source drinking water by **recategorizing the area encompassing our Greenferry Water and Sewer District wells as part of the Spokane Valley-Rathdrum Prairie sensitive resource Aquifer pursuant to IDAPA 58.01.11, and specifically pursuant to IDAPA 58.01.23, as implemented by various legislative statutes, including Administrative Code Section 39.**

7. We ask the Board to recognize the fact that the Idaho Ground Water Quality Rule does not require a recategorization of the Greenferry Water District area south of the Spokane River to be approved by the Environmental Protection Agency, nor does the Rule allow that such recategorization should in any way be hindered by the old EPA boundary map of 1978 (which may never be officially updated by federal officials in our lifetimes.)

8. We ask the Board to take notice of IDAPA 41, Title 01, Chapter 01.000.01, which states:

“Nothing in this Code shall be deemed to conflict with the enactment of any city or county in the District of any ordinance or rule placing additional restrictions or limitations which contribute to the enhancement of water, air, land or health quality.”

We believe that this rule clearly takes precedence over the **RPA administrative boundary as identified in the definition section of IDAPA 41.01.01**, being used by DEQ and Panhandle Health to endanger Greenferry District water. IDAPA 41, Title 01, Chapter 01 specifically grants local entities, including the Kootenai County Board of Commissioners, the right and obligation to adopt adaptive water protection rules within their jurisdictions when the public health is at stake.

9. We ask the Board to insist that the DEQ North, Panhandle Health District 1 and Kootenai County Community Development capitulate to 21st Century hydrogeological advancements and recognize state and federally-funded IDWR data as critically relevant to the protection of Idaho ground water. **Idaho Code Title 39-126 states that all state and local agencies shall cooperate with the Department of Water Resources in the collection and dissemination of data needed to prevent and remedy contamination of ground water.** The Greenferry well water controversy underscores the immediate need for DEQ and Panhandle Health to harmonize their antiquated regulatory dogma with current scientific data. The fact that the Greenferry Water community is compelled to come before the Board to beg for mercy proves that it's time for

these foot-dragging agencies to offer more than lip service to the **Idaho Comprehensive State Water Plan** and the **Rathdrum Prairie Comprehensive Aquifer Management Plan (CAMP)**.

Greensferry Stakeholders believe that we are the first community to ask for recategorization of a sensitive water source under the Idaho Ground Water Quality Rule. Let us also be the first to demonstrate how the recategorization machinery of Idaho can actually work to safeguard environment and quality of life for a group of vulnerable citizens caught in a discriminatory political vice grip.

Please grant us a **speedy decision** so that we may follow proscribed procedures to obtain further assistance from our legislative representatives and from our governor, also empowered to ensure that that future development in the Greenferry Water District area will be conducted under proper constraints, which Idaho Code requires for adequate public health and safety. Surely our governor, who tells us to wear protective masks and wash our hands, would not be pleased should Greenferry Water and Sewer District customers be **deprived of the five-acre rule** and consequently **be forced to cope with ten times the untreated septic effluent** as that legally imposed upon all other SVRP communities in North Idaho.

Idaho Code that supports our petition for recategorization

Under Title 39 of Idaho Code, the rules that most specifically pertain to the Greenferry water situation are:

Section 39-105 Powers and Duties of the Director

The Board may adopt rules with the force of the law which may be necessary and feasible for enforcing the provisions for the prevention, control or abatement of environmental pollution. All of the rules adopted by the Board hereunder shall apply to all state institutions. The Board may enforce rules relating to public water supplies and ensure that public drinking water systems have the capability to comply with the national drinking water regulations. The Board may establish liaison with other governmental departments, agencies and boards in order to effectively assist with the planning for the control of or abatement of environmental pollution. The Board can enforce all rules relating to the discharge of effluent into the waters of Idaho. The Board can supervise administrative units whose responsibility is to encourage counties, cities, other governmental units, and industries in the control of and/or abatement of environmental pollution. **39-105.01.02**

Section 39-107 Environmental Quality

Any person adversely affected by a final determination of the Board, may secure judicial review by filing a petition for review as prescribed under the provisions of Chapter 52, title 67, Idaho Code. The petition for review shall be served upon the chairman of the board, the director of the department, and upon the attorney general of the state of Idaho. The Board, by the affirmative vote of four (4) of its members, may adopt, amend or repeal the rules, codes, and standards of the department, that are necessary and feasible in order to carry out the purposes and provisions of this act and to enforce the laws of this state. The rules and orders so adopted and established shall have the force and effect of law and may deal with any matters deemed necessary and feasible for protecting the environment of the state.

Section 39-126 Duties of States and Local Units of Governments

Idaho Code, Title 39, Chapter 1, Section 126, subsection 1: Cities, counties and other political subdivisions of the state shall incorporate the ground water quality protection plan in their programs and are also authorized and encouraged to implement ground water quality protection policies within their prospective jurisdictions, provided that the implementation is consistent with and not preempted by the laws of the state, the ground water quality protection plan and any rules promulgated thereunder.

Sections of the Ground Water Quality Rule 58.01.11 which support our critical need for immediate aquifer recategorization:

Policies, page 2

01. Ground Water Quality Protection It is the policy of the State of Idaho to maintain and protect the existing high quality of the State's ground water

02. Existing and Projected Future Uses The policy of the State of Idaho is that existing and projected future beneficial uses of ground water shall be maintained and protected, and degradation that would impair existing and projected future beneficial uses of ground water and inter-connected surface water shall not be allowed.

03. Categorization of Ground Water The policy of the State of Idaho is to provide differential protection for the state's ground water resources. A ground water categorization system should be established for aquifers and portions of aquifers. The categorization system should be based on vulnerability of ground water, existing and projected future beneficial uses of the ground water, existing quality of ground water and social and economic considerations.

Implementation page 6

02. Aquifer Categorization All aquifers where there are activities with the potential to degrade ground water quality are categorized in Section 300....

b. Categorization should be considered when an activity with the potential to degrade ground water quality is proposed over an aquifer or portion of an aquifer which presently has no such activities and, based on the criteria in Section 350, the aquifer may be most appropriately categorized as Sensitive Resource or Other Resource.

c. Recategorization should be considered when information on vulnerability of the ground water, existing and projected future beneficial uses of the ground water, existing quality of the ground water, and social and economic considerations, in conjunction with one or more of the criteria in Section 350, demonstrates that the aquifer or portion of an aquifer may be more appropriate in another category.(3-20-20)T03.

03. Ground Water-Surface Water Interconnection The beneficial uses of interconnected surface water shall be recognized when evaluating ground water quality protection. The implementation of water quality programs shall ensure that the quality of ground water that discharges to surface water does not impair the identified beneficial uses of the surface water and that surface water infiltration does not impair beneficial uses of ground water.

04. Interagency Coordination The Department will coordinate with other federal, state, and local agencies to pursue interagency agreements when necessary to ensure implementation of this rule for activities which have the potential to degrade ground water quality.

Also germane to the Greenferry Water case is Section 301

Note: Because the latest hydrogeological data gathered by the Idaho Department of Water Resources (IDWR) shows that our Greenferry Water District and Sewer wells are completed within the Spokane Valley-Rathdrum Prairie Aquifer, the following provisions under these Sensitive Resource Aquifer rules absolutely apply to our petition for recategorization:

Management of Activities with the Potential to Degrade Aquifers, page 12

01. Criteria for Aquifer Categories. The following criteria **shall be considered** when a petition to categorize or recategorize aquifers or portions of aquifers is submitted to the Board.

a. For Sensitive Resource aquifers:

- i. The ground water in an aquifer or portion of an aquifer is of a better quality than the ground water quality standards in Section 200 and maintenance of this quality is needed to protect an identified beneficial use(s);
- ii. The ground water in an aquifer or portion of an aquifer is considered highly vulnerable;
- iii. The ground water in an aquifer or portion of an aquifer represents an irreplaceable source for the identified beneficial use(s);
- v. The ground water within an aquifer or portion of an aquifer is shown to be hydrologically interconnected with surface water and additional protection is needed to maintain the quality of either surface or ground water. Hydrologic interconnections can include either natural or induced ground water recharge or discharge areas;
- vi. The ground water within an aquifer or portion of an aquifer demonstrates other criteria which justify the need for additional protection;

Note: Because the Idaho Department of Environmental Quality North and Panhandle Health District 1 currently relegate our vulnerable Greenferry well area to the reduced value of a general resource aquifer, the following criteria is also mandated for consideration of our recategorization petition:

b. For General Resource aquifers:

- i. An activity with the potential to degrade ground water quality is initiated over an aquifer or portion of an aquifer which presently has no such activities;
- ii. The ground water in an aquifer or portion of an aquifer is currently being used for drinking water or another beneficial use which requires similar protection;
- iii. The ground water in an aquifer or portion of an aquifer has a projected future beneficial use of drinking water or another beneficial use which requires similar protection;

Additional statutes, codes, documents and agency declarations that support our petition for recategorization:

- 1. Title 39-102: STATE POLICY ON ENVIRONMENTAL PROTECTION (1)** It is hereby recognized by the legislature that **the protection of the environment and the promotion of personal health are vital concerns and are therefore of great importance to the future welfare of this state. It is therefore declared to be the policy of the state to provide for the protection of the**

environment and the promotion of personal health and to thereby protect and promote the health, safety and general welfare of the people of this state.

(2) The goal of the legislature in enacting the ground water quality protection act of 1989 shall be to maintain the existing high quality of the state's ground water and to satisfy existing and projected future beneficial uses including drinking water, agricultural, industrial and aquacultural water supplies. **All ground water shall be protected as a valuable public resource against unreasonable contamination or deterioration.** The quality of degraded ground water shall be restored where feasible and appropriate to support identified beneficial uses.

(3) In enacting this law, the legislature intends to prevent contamination of ground water from point and nonpoint sources of contamination to the maximum extent practical.

2. Idaho Department of Environmental Quality website: "Our mission is to protect human health and the quality of Idaho's air, land and water."

Also: "Hazardous waste is dangerous or potentially harmful to human health and the environment and can harm drinking water, surface water, and ground water. Idaho's Ground Water Quality Rule (Section 400.01) prohibits causing or allowing the release, spilling, leaking, emission, discharge, escape, leaching, or disposal of a contaminant into the environment in a manner that:

- **Causes a ground water quality standard to be exceeded**
- **Injures a beneficial use of ground water or**
- **Is not in accordance with a permit, consent order or applicable best management practice, best available method or best practical method "**

3. Panhandle Health District 1 website:

"Water is the most important natural resource on earth. Protecting water used for human consumption, such as for drinking, cooking, and hand washing is of utmost importance to Panhandle Health District. Our highly-trained Environmental Health Specialists inspect and manage critical materials, drinking water, non-domestic wastewater, shallow injection wells and water from the Rathdrum-Prairie Aquifer."

Also: "The Spokane Valley-Rathdrum Prairie Aquifer supplies drinking water to over half a million people in Spokane and Kootenai counties. The SVRPA was the first aquifer in Idaho and the second in the nation to receive the sole source designation from the EPA. Sole source aquifers receive special protection because they are the sole source of drinking water for an area. The SVRPA is an unconfined aquifer, meaning there are no natural barriers to block the flow of water into the aquifer from the surface. Panhandle Health District has many programs that work to protect the aquifer and the drinking water for the people of North Idaho. Our Environmental Health Specialists work to contain and inventory hazardous chemicals, test

soils and ensure proper sewage disposal systems, and evaluate public water systems to help them meet state and federal standards.”

4. Idaho Code, Title 67, Chapter 25, Local Land Use Planning: “When considering amending, repealing or adopting a comprehensive plan, the local governing board shall consider the effect the proposed amendment, repeal or adoption of the comprehensive plan would have on the source, quantity and quality of ground water in the area.”

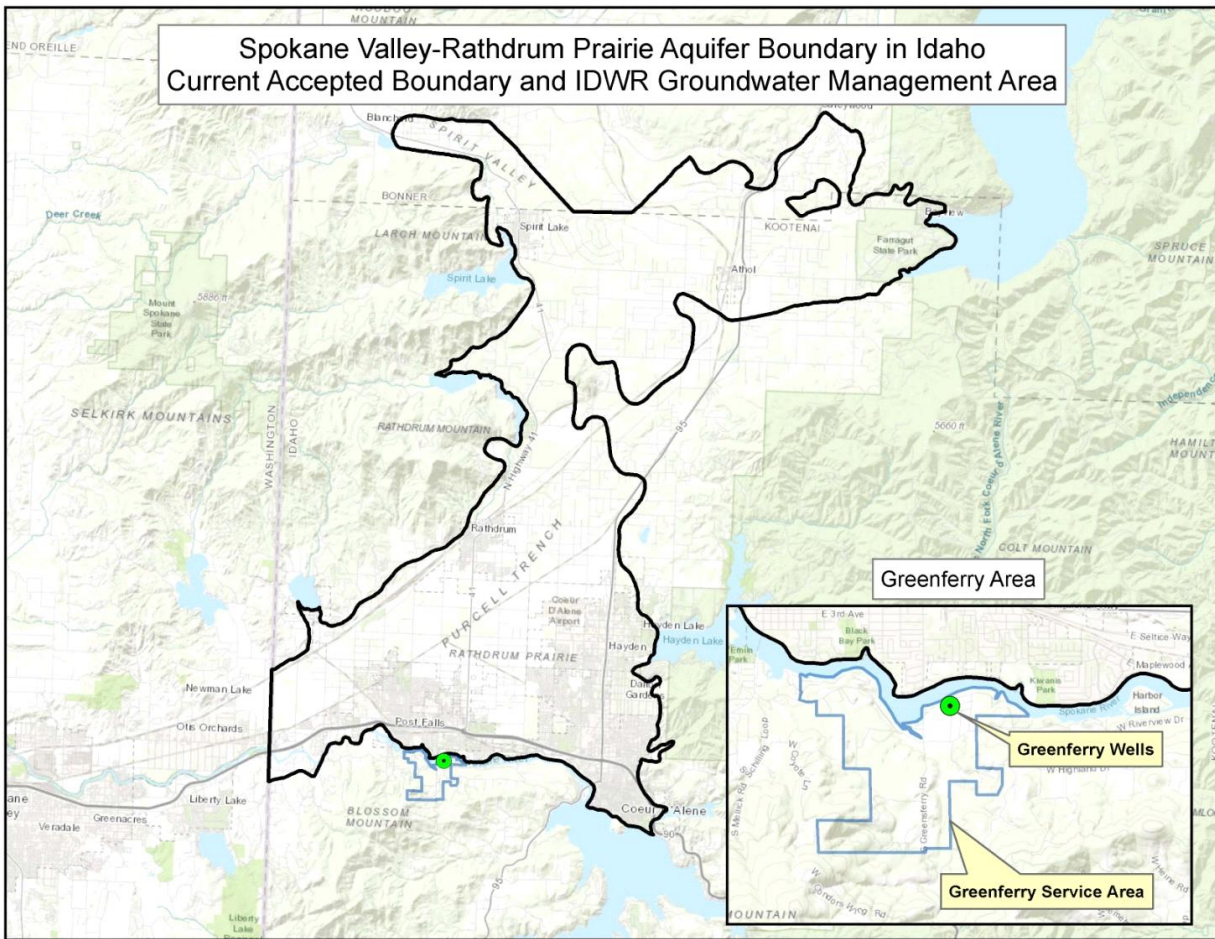
5. The Rathdrum Prairie Aquifer Comprehensive Management Plan, Objective Number Three: “The Rathdrum Prairie Aquifer... is vulnerable to water contamination and the region must be vigilant in protecting this valuable resource. There are many threats to the quality of the aquifer and a number of agencies and authorities exist to protect and improve the water quality.....The health of the aquifer is of paramount importance to the region.”

6. Spokane County Department of Environmental Services website, October 2020: “Several water quality studies have been conducted over the last 25 years. Results of these studies prove conclusively that there was degradation of the Spokane area's drinking water in unsewered areas. The major source of this pollution came from the daily disposal of several million gallons of wastewater directly into the aquifer from on-site sewage disposal systems, i.e. septic systems, cesspools and treatment plants.”

Official SVRP Aquifer Boundary Maps that Support Our Petition

The SVRP (SVRP) Aquifer boundary officially came into being when the EPA published its Determination Notice, (Federal Register, Volume 43, February 9, 1978). The Notice declares that the Spokane Valley-Rathdrum Prairie Aquifer, a principal drinking water source for a large population, requires special care since contamination could create a significant hazard to public health. The Determination Notice advises that the SVRP Aquifer is vulnerable to degradation through its recharge zones because of highly permeable glaciated soils and it cites evidence of aquifer contamination from industrial sources and from septic tanks.

1. The 1978 Determination Notice was published with the original SVRP Aquifer boundary maps and other documents showing the recharge zone and the stream flow source zone. The Determination Notice confirmed that these documents were created using background research prepared by the U.S. Geological Survey (USGS), the primary mapping agency of the federal government. Today we know that those first old maps were prepared with limited hydrogeological data, **which has been repeatedly updated by the USGS over the last 40+ years.** This map, provided by IDWR, shows the old 1978 map boundary north of the Spokane River, as enforced by DEQ and Panhandle Health District 1 in relation to Greenferry District water wells.



2. Between 1978 and 1992, the SVRP Aquifer boundary map was tweaked by various entities in both Washington State and Idaho. For example, in 1992 both the Department of Environmental Quality, Coeur d' Alene Region, and Panhandle Health District 1 cooperated with the Spokane County Water Management Program to produce an informational flyer showing that **the Greenferry Water District area south of the Spokane River is included inside the SVRP aquifer boundary.** These agencies used EPA funding to produce and circulate this 1992 flyer. Note: Since it is not available online, an enlarged copy of this flyer has been mailed to the Board of Environmental Quality for the record.

3. IDWR says: **"In 2005, the U.S. Geological Survey completed a detailed hydrogeological investigation of the SVRP Aquifer which included an update to the aquifer boundary. The 2005 USGS investigation extended the aquifer boundary to include areas south of the Spokane River, including the Greenferry wells."** Note: This information was sent by e-mail to a Greensferry Stakeholder from Daniel Sturgis, hydrogeologist with the Idaho Department of Water Resources, October 2020. Sturgis has also confirmed that the Idaho Department of Environmental Quality was actually working with the USGS in those days to approve the 2005-2011 mapping updates.

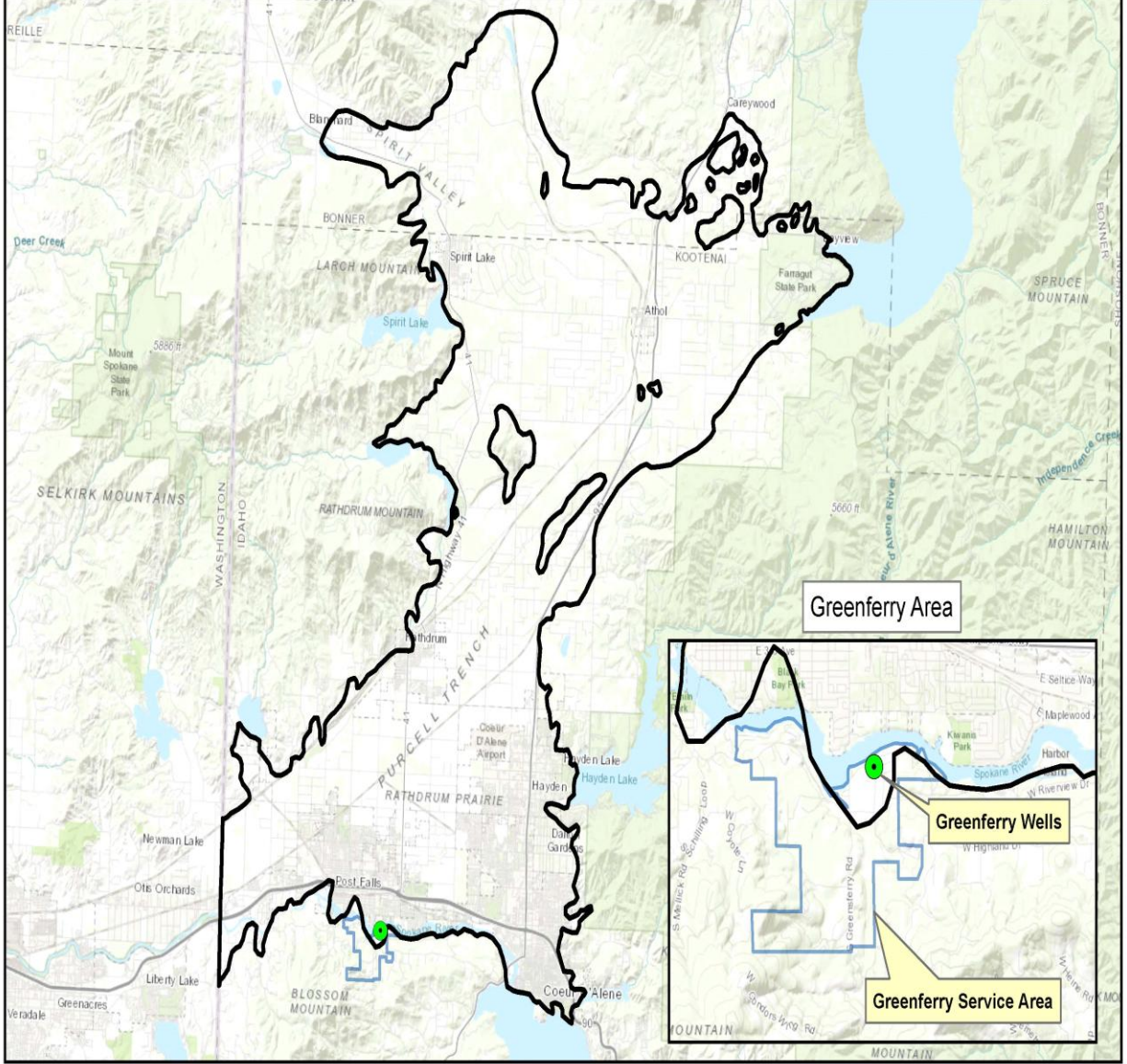
Additional aquifer boundary geometry work was also completed by the USGS in 2007 and again in 2011. These updated maps are published by the USGS in: *Scientific Investigations Report 2007-5041: Hydrogeologic Framework and Groundwater Budget of the Spokane Valley-Rathdrum Prairie Aquifer, Spokane County, Washington and Bonner and Kootenai Counties, Idaho.*

4. In 2009, IDWR adopted a well construction rule for the Rathdrum Prairie Aquifer which **uses the 2005 USGS Aquifer Boundary showing the Greenferry wells inside of the SVRP boundary.** In addition, Idaho's Comprehensive Aquifer Management Plan, a component of the Comprehensive State Water Plan, also uses the updated aquifer boundary developed by the USGS in 2005. **These facts illustrate why DEQ's ferocious attachment to the old outdated USGS map of 1978 is unnecessary, confusing and dangerous,** especially for the Greenferry water community. The map below, provided by IDWR, shows the updated 2005 and 2011 USGS map data in relation to the Greenferry District water wells.

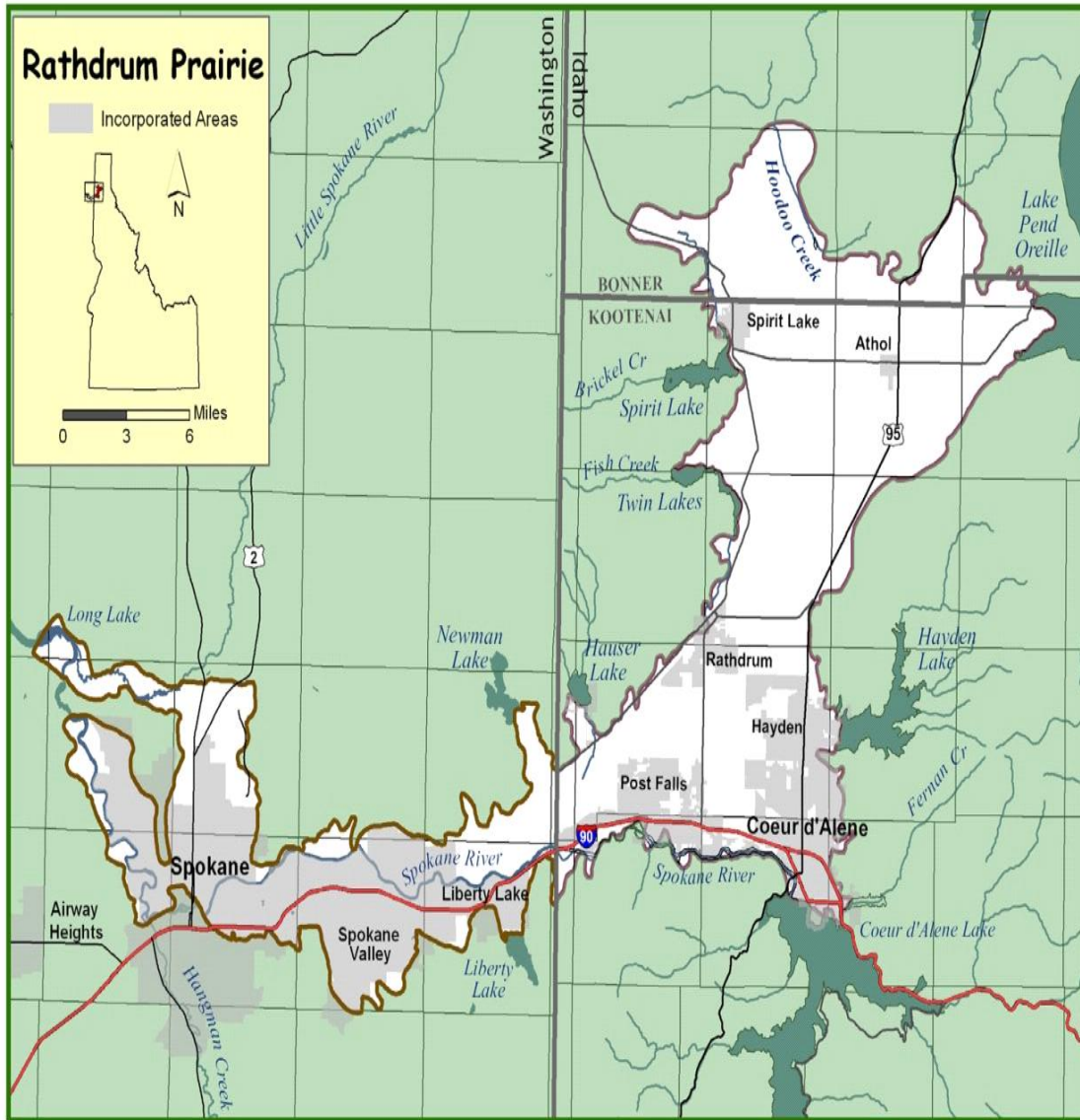
So now we get to reality !



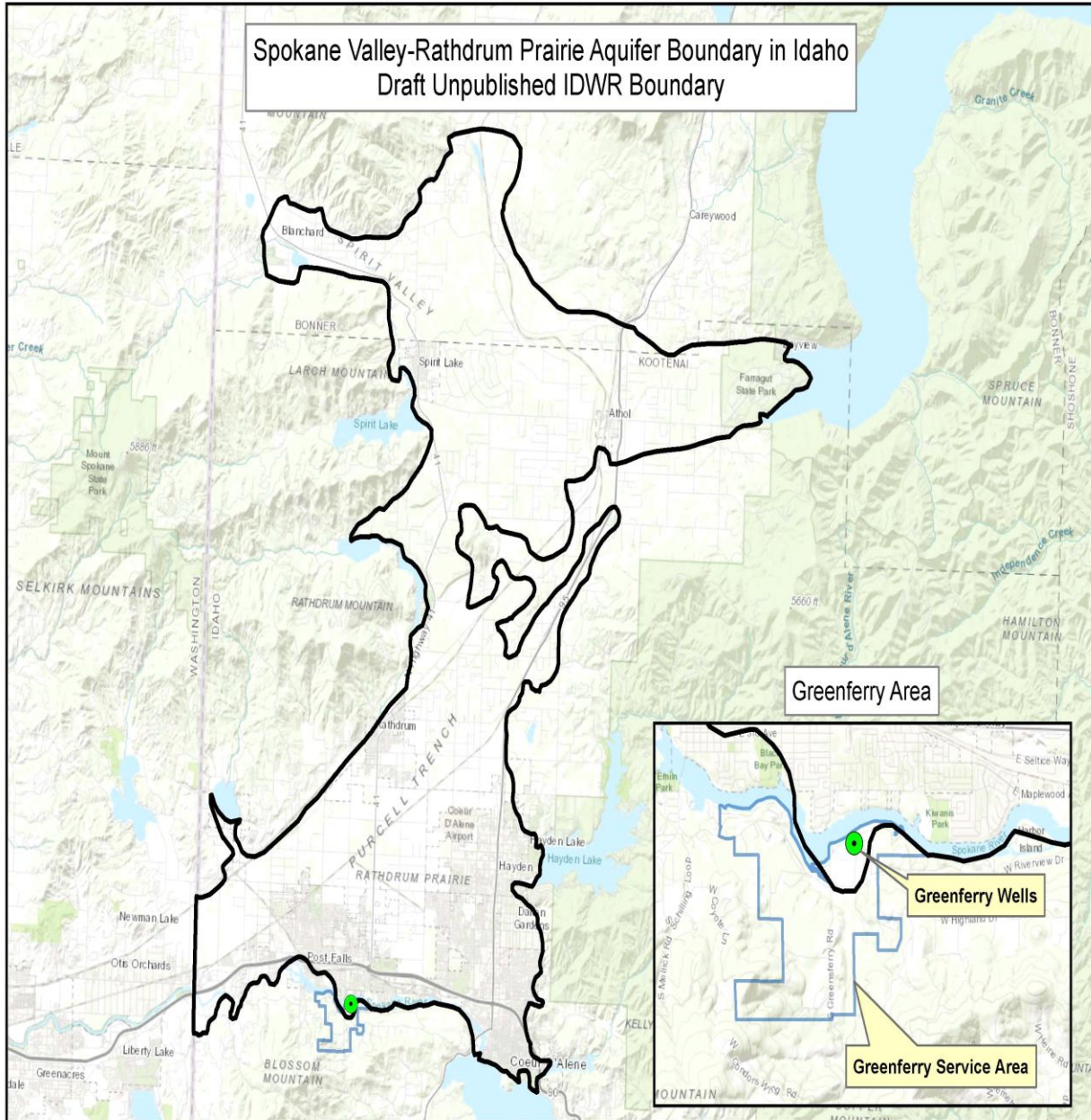
Spokane Valley-Rathdrum Prairie Aquifer Boundary in Idaho
USGS 2005 Boundary and 2011 Comprehensive Aquifer Management Plan Aquifer Boundary



5. A Document titled: *Rathdrum Prairie Aquifer: Comprehensive Aquifer Management Plan*, published by the Idaho Water Resources Board in July 2011, contains a map on page 16 showing that the Greenferry well area south of the Spokane River is included within the SVRP Aquifer boundary. The Greenferry area is the little white inner-boundary pucker dipping below the river to the southeast of Post Falls and to the west of Highway 41.



6. From its most up-to-date aquifer boundary studies begun in 2017, the IDWR has produced the SVRP boundary map below which corroborates the USGS maps of 2005 and 2011 and which definitively shows the Greenferry water wells and surrounding acreage south of the Spokane River as located within the SVRP boundary. This map will be peer-reviewed and published as soon as IDWR completes the last of its northern boundary investigations.



Requested Greenferry Water and Sewer District Information

1. 2019 Annual Drinking water Quality Report, Greenferry Water District, P.O. Box 2788 Hayden, ID. 83835. This document titled 2019 Consumer Confidence Report notes: **“The Greenferry Water District is within the Rathdrum Prairie Aquifer Wellhead Protection Area which is protected from certain constituents by the State of Idaho.”**
2. Depth of ground water in the well drilled in 1989 is 125 feet and the well drilled in 2002 is 150 feet deep.
3. The thickness of the water bearing section is 125 feet for the 1989 well and 90 feet for the 2002 well.
4. The direction and flow of the water reaching Greenferry wells is reported by IDWR to be moving to the north and northwest.
5. IDWR reports that the recharge sources for Greenferry wells include rainfall, the Spokane River, septic fluids from older neighborhoods in the area and Cedar Creek which drains from the hills to the south.
6. IDWR currently reports that the geology of the area is the same as the sandy gravel and pebbles exactly like other SVRP areas north of the Spokane River.
7. Numbers calculated by a Greenferry Water Board member indicate that the amount of wastewater to be discharged from 57 new septic tanks in the well area would total an estimated 41 million gallons annually. This wastewater would become part of the recharge drainage for Greensferry wells.
8. Greenferry well water quality is annually reported by the District as generally compliant with public water safety standards, although many people with service connections report intermittent episodes of a very high level of chlorine taste in the water.

Note: Hydrogeologist Daniel Sturgis with the Idaho Department of Water Resources is an invaluable source of information on technical Greenferry well information. He can be reached at (208) 762-2806.

Find Greenferry Water and Sewer District well logs below



RECEIVED
NOV 14 2001
IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Location Corrected by IDWR To:
T50N R05W Sec. 12 NENW
By: mciscell 2013-05-24

1. WELL TAG NO. D0017929
Drilling Permit No: _____
Other IDWR No. _____

2. OWNER GREEN FERRY WATER & SEWER **Well Number:** 330
Address PO BOX 1105
City POST FALLS State ID Zip 83854

3. LOCATION OF WELL by legal description
sketch map location must agree with written location

X			

Twp. 50N North or South
Rge. 5W East or West
E Sec. 12 SW 1/4 NW 1/4 1/4
Gov't Lot _____ County KOOTENAI
Lat: : : Long: : :
Address of Well Site _____
City POST FALLS

(Give at least name of road + Distance to Road or Landmark)
Lt. _____ Blk. _____ Sub. Name _____

4. USE:
 Domestic Municipal Monitor Irrigation
 Thermal Injection Other _____

5. TYPE OF WORK check all that apply (Replacement, etc.)
 New Well Modify Abandonment Other _____

6. DRILL METHOD
 Air Rotary Cable Mud Rotary Other _____

7. SEALING PROCEDURES

Material	SEAL/FILTER PACK		AMOUNT Sacks or Pounds	METHOD
	From	To		
BENTONITE	0	20	150 GALS	OVERBORE

Was drive shoe used? Y N Shoe Depth(s) 185
Was drive shoe seal tested? Y N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12	+1	185	.280	STEEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe 5 Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations Method TELESCOPING
 Screens Screen Type STAINLESS STEEL

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
185	205	40	20	12	SS	<input type="checkbox"/>	<input type="checkbox"/>
205	245	60	20	12	SS	<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
150 ft. below ground Artesian pressure _____ lb.
Depth flow encountered 200 ft. Describe access port or control devices: _____

11. WELL TESTS:
 Pump Bailer Air Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
800+			1 HR

Water Temp. COLD Bottom Hole Temp COLD
Water Quality test or comments: CLEAR
Depth first Water encountered 200

12. LITHOLOGIC LOG:(Describe repairs or abandonment)

Bore Diam	From	To	Remarks: Lithology, Water Quality, Temperature	Water	
				Y	N
16	0	32	Soil w/Cobble & Gravel	<input type="checkbox"/>	<input type="checkbox"/>
12	32	78	Sand & Gravel	<input type="checkbox"/>	<input type="checkbox"/>
12	78	103	Sand & Gravel w/ Cobble	<input type="checkbox"/>	<input type="checkbox"/>
12	103	245	Sand Course w/small Gravel 3/8 minus	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Completed Depth 245 (Measurable)
Date: Started 10/15/01 Completed 10/28/01

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name H2O Well Service, Inc. Firm No. 448
Firm Official [Signature] Date 11-07-01
and
Supervisor or Operator [Signature] Date 11-6-01
(Sign Only if Firm Official and Operator)
Louie Hanner

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Location Corrected by IDWR To:
T50N R05W Sec. 12 NENW
By: mciscell 2013-05-24

State law requires that this report be filed with the Director, Department of Water Resources, within 30 days after the completion or abandonment of the well.

1. WELL OWNER
Name GREEN FERRY WATER + SEWER DIST
Address P.O. Box 1105 Post Falls ID. 83854
Owner's Permit No. 95-89-N-52

7. WATER LEVEL
Static water level 124' 10" feet below land surface.
Flowing? Yes No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: Valve Cap Plug
Temperature 48 °F. Quality GOOD
Describe artesian or temperature zones below.

2. NATURE OF WORK
 New well Deepened Replacement
 Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

8. WELL TEST DATA
 Pump Bailor Air Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
400	125' 6"	1
500	125' 10"	1
600	125' 11"	2.8
800	126' 5"	1
1100	127' 3"	0.3

3. PROPOSED USE
 Domestic Irrigation Test Municipal
 Industrial Stock Waste Disposal or Injection
 Other _____ (specify type)

9. LITHOLOGIC LOG

Bore Diam.	Depth		Material	Water	
	From	To		Yes	No
12	0	20	GRAVEL + SAND 2" MINUS		X
12	20	86	GRAVEL + SAND 2" MINUS		X
12	86	124	SAND MED TO FINE		X
12	124	163	SAND FINE + BRN CLAY		X
12	163	165	GRAVEL + SAND 2" MINUS	X	
12	165	171	SAND FINE + BRN CLAY		X
12	171	199	GRAVEL + SAND 6" MINUS	X	
12	199	208	GRAVEL + SAND 1" MINUS	X	
12	208	211	FINE SAND + BRN CLAY	X	
12	211	223	COURSE SAND	X	
12	223	240	GRAVEL + SAND 1" MINUS	X	
12	240	245	GRAVEL + SAND 1/2" MINUS	X	
12	245	250	SAND MED TO FINE	X	

4. METHOD DRILLED
 Rotary Air Hydraulic Reverse rotary
 Cable Dug Other _____

5. WELL CONSTRUCTION
Casing schedule: Steel Concrete Other _____
Thickness .375 inches Diameter 12 inches + From 2 feet To 182 feet
.365 inches 10 inches 208 feet 225 feet
_____ inches _____ inches _____ feet _____ feet
_____ inches _____ inches _____ feet _____ feet
Was casing drive shoe used? Yes No
Was a packer or seal used? Yes No
Perforated? Yes No
How perforated? Factory Knife Torch
Size of perforation _____ inches by _____ inches
Number _____ From _____ To _____
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feet
Well screen installed? Yes No
Manufacturer's name JOHNSON
Type STAINLESS STEEL Model No. PS
Diameter 12 Slot size 100 Set from 180 feet to 208 feet
Diameter 12 Slot size 100 Set from 208 feet to 245 feet
Gravel packed? Yes No Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 20 FT Material used in seal: Cement grout
 Bentonite Puddling clay _____
Sealing procedure used: Slurry pit Temp. surface casing
 Overbore to seal depth
Method of joining casing: Threaded Welded Solvent
Weld _____
 Cemented between strata
Describe access port 2" TUBE THRU SIDE OF CASING

12" HOLE BACKFILLED WITH GRAVEL FROM 245' TO 250' PRIOR TO SETTING SCREEN

RECEIVED

JAN 02 1990

NORTHERN REGION
IDWR

6. LOCATION OF WELL
Sketch map location must agree with written
Subdivision Name _____
N
W X E
AUG 13 1990

10. Work started OCT 17-89 finished DEC 8-89

11. DRILLERS CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name HELMAN DRILLING CORP Firm No. 108
Address E3410 9th AVE Date DEC 26-89

MICROFILMED
AUG 13 1990

