Permit No. _____

IDAHO DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT TO CONSTRUCT OR MODIFY A LOW-FLOW (<50 GPM) HEAT PUMP INJECTION WELL (5A7 ONLY)

IDAHO DEPARTMENT OF WATER RESOURCES
322 East Front St., PO Box 83720, Boise, ID 83720-0098
Under the Provisions of Title 42, Chapter 39 of the Idaho Code

I. GENERAL INFORMATION

A. Application Type:

☐ New Injection Well Operating Permit (A Drilling Permit is also required prior to construction)
☐ Permit to Modify an Existing Injection Well

B. Legal Owner:

Applicant Name _____
Organization Name _____
Mailing Address _____
City _____ State _____ Zip Code _____
Phone No. _____ Email _____

**If the property will change ownership soon, provide contact information for future owner:
_____

C. Well Location:

Facility Name _____
Street Address _____
City _____ State _____ Zip Code _____
County _____ Facility Phone No. _____

Provide one of the following two options:

1) GPS Location (Datum = WGS84):
Latitude _____ Longitude _____

(You can check the accuracy of your GPS data with the "Well Diller's Locator Tool" here: "https://maps.idwr.idaho.gov/apps/GPSLocatorToolForWellDrillers/")

2) A USGS Topographic Map or aerial photo with the well location marked **AND** Township, Range, Section information. (Free mapping tool: https://experience.arcgis.com/experience/8f35de01e3644dfb88317e9296d5e577)

Township	Range	Section	¼, ¼, ¼ Section	¼, ¼ Section	¼ Section

D. Well Operation:

Frequency of Injection: ☐ Continuous (24 hr/day, 7 day/wk) ☐ Intermittent

Maximum Injection Rate (< 50 gpm) _____ ☐ cfs ☐ gpm

E. Well Construction Information: (Attach well log, if available)

☐ As Built ☐ Expected Construction ☐ Well Modification

Total Well Depth: _____ (ft)

Well Casing: Diameter _____ (in) Depth _____ (ft)

Ht. above Ground Surface _____ (ft) Casing Type _____

Perforation: From _____ (ft) To _____ (ft)

Surface Seal: Depth _____ (ft) Seal Type _____

Construction Date (Indicate Actual, Approximate or Anticipated): _____

Driller's Name: _____

For well modifications describe purpose and intended changes:
_____
_____

F. Adjacent Features:

Depth to Groundwater _____ (ft) ☐ Estimate ☐ Measured Date Measured _____

Distance to Nearest Domestic Well _____ (ft) Direction _____

II. REQUIRED WATER USAGE INFORMATION

A. Attach documentation from your heat pump contractor that indicates how many gallons per day your heat pump will use during peak heating and cooling days.

B. What is the approximate square footage of the structure served by the heat pump? _____

C. Please check all of your domestic uses served by your groundwater well:

☐ Household ☐ Irrigation (≤ ½ acre) ☐ Livestock

☐ Heat Pump ☐ Other _____

What is your total domestic groundwater usage? _____ Gallons Per Day
(Guidance on page 5)

Are you connected to a city or community drinking water system? ☐ Yes ☐ No

Do you have a water right for the heat pump? ☐ Yes ☐ No Water Right # _____

Have you applied for a water right for the heat pump? ☐ Yes ☐ No Water Right Application # _____

III. CONDITIONS OF APPROVAL

1. This injection well is administered under IDAPA 37.03.03, Rules and Regulations for the Construction and Use of Injection Wells, and IDAPA 37.03.09, Well Construction Standards & Rules.

2. The facility owner and operator bear sole responsibility to mitigate for harm or degradation resulting from the injection activities authorized in this permit.

3. Violating the water quality standards stated in IDAPA 37.03.03.055.01, degrading the quality of the groundwater, or impacting a beneficial use of groundwater resources through the use of this injection well is prohibited and is cause for cancellation of this permit.

4. In the event that existing or future points of diversion for beneficial use are suspected by IDWR of being contaminated by injection activities at this well, IDWR will require that injection activities at this well cease immediately. Burden of proof that injection activities at this well are not contaminating existing or future points of diversion is the responsibility of the injection well owner.

5. Approval of this permit does not authorize diversion or beneficial use of water. This permit is not a Water Right nor does approval of this permit guarantee the approval of any Water Right being sought for this well.

6. The system must be closed to the surface to prevent contamination of the injectate. A protected air vent may be installed if needed, and a sampling port is required.

7. The injectate entering this well must be restricted to heat exchange unit return water. Prior approval from the IDWR UIC Program is required for the use of additives.

8. Discharge water from the heat exchange unit into the well is recommended to be delivered via a drop pipe that terminates below the static water level in the well. Seasonal fluctuations in groundwater levels should be considered when determining the depth of the drop pipe to insure that the outflow end is submerged at all times. A pitless adaptor should be used to create a watertight seal between the drop pipe and conductance pipe delivering water to the well to prevent contamination of the discharge water.

9. The temperature of injected water must be maintained below 85^{o} F. If the injectate temperature exceeds 85^{o} F, the Department of Water Resources must be notified within 48 hours of the increased injectate temperature.

10. If at any time use of this injection well is not desired, the owner/operator must contact the IDWR UIC Program to obtain approval prior to decommissioning activities commence.

11. A well log must be submitted to IDWR within thirty (30) days of the construction of new injection wells.

IV. SIGNATURE OF LEGAL OWNER

I certify under penalty of law that there are no discharges of hazardous substances or other fluids in amounts that may endanger an underground source of drinking water from the injection well(s) identified on this application form.

I have read and understand the Conditions of Approval for the operation of this injection well. Additionally, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the

system, or those persons directly responsible for gathering the information, the information is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

All sections of this form must be complete and accurate. Incomplete forms will be returned to applicant. The information submitted is subject to verification by IDWR or its agents.

_____	_____	_____
Date	Signature	Title

_____
Print Name

V. PROCESSING FEE

A $100.00 processing fee must be submitted for each permit application. A separate permit application and processing fee must be submitted for each injection well. Make checks payable to: Idaho Department of Water Resources.

All sections of this form must be complete and accurate. Incomplete forms will be returned to applicant. The information submitted is subject to verification by IDWR or its agents. Applications and fees can be submitted your nearest IDWR office:

IDWR Northern Region
7600 N Mineral Dr., Suite 100
Coeur d'Alene, ID 83815
Ph: (208) 762-2800

IDWR Southern Region
650 Addison Ave., Suite 500
Twin Falls, ID 83301
Ph: (208) 736-3033

IDWR Eastern Region
900 North Skyline
Idaho Falls, ID 83402
Ph: (208) 525-7161

IDWR Western Region
2735 Airport Way
Boise, ID 83705
Ph: (208) 334-2190

IDWR State Office
322 East Front St., PO Box 83720
Boise, ID 83720-0098
Ph: (208) 287-4800.

VI. IDWR APPROVAL (to be completed by IDWR personnel)

This permit will be administered in accordance with Idaho law and applicable rules of the Idaho Department of Water Resources.

Date this _____day of _____, 20_____

_____
UIC Program Coordinator

UIC Program Guidance
For
Calculating Total Domestic Water Use
For Permitting a Ground-Source Heat Pump

IDAHO DEPARTMENT OF WATER RESOURCES

Idaho Code (42-111 & 42-227) defines domestic water use and states that a water right is not required for domestic use, provided that the volume of water does not exceed 13,000 gallons per day. When permitting an injection well for a ground-source heat pump, the UIC Program must determine if the use of a heat pump will cause a homeowner to exceed the 13,000 gallon per day limit for a domestic water right exemption. If domestic water use is anticipated to exceed 13,000 gallons per day, the applicant must obtain a water right before the injection well permit can be issued by IDWR.

The following table should be completed to document your calculation of total domestic water use for Section II of your injection well application.

Use	**Gallons Per Day Per Person**		**Number of People**		**Total Gallons Used Per Day**
Single Family Residence	75	x		=	
Luxury Residence	150	x		=	
Use	**Gallons Per Day Per Animal**		**Number of Animals**		
Cattle	12	x		=	
Dairy Cattle	35	x		=	
Horses	12	x		=	
Mules	12	x		=	
Hogs	4	x		=	
Goats	2	x		=	
Sheep	2	x		=	
Other Livestock		x		=	
Use	**Gallons Per Day Per 100 Animals**		**Number of Animals**		
Chickens	10	x		=	
Turkeys	18	x		=	
Other Poultry		x		=	
Use	**Gallons Per Day Per 1 Acre at 9 gpm**		**Number of Acres**		
Irrigation	12,960	x		=	
Use	**Average Weekly Injection Rate (gpm)**		**Minutes Per Day**		
Heat Pump		x	1440	=	
Other Uses	**Gallons Per Day**				
				Total Gallons Per Day Used	