

RECEIVED

FORM 202 Rev. 07/16

AUG 28 2016

81154

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

Ident. No. 95-17198

APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

IDWR / NORTH

1. Name of applicant(s) Cedar Mountain Farm and/or Hatch Family Heritage LLC Phone 208-683-2663
 Mailing address 25249 N Hatch Rd. Athol, ID 83801 Email info@cedarmountainfarm.c
 Name connector (check one) ☐ and ☐ or ☐ and/or
2. Name of representative, if any HMH Engineering Phone 208-635-5825
 Mailing address 1302 W Hayden Ave Hayden, ID 83835 Email dlarson@hmh-llc.com
- a. ☐ Send all correspondence for this application to the representative and not to the applicant OR
☒ Send original correspondence to the applicant and copies to the representative.
- b. ☒ The representative may submit information for the applicant but is not authorized to sign for the applicant OR
☐ The representative is authorized to sign for the applicant. Attach a Power of Attorney or other documentation providing authority to sign for the applicant.
3. Source of water supply GROUNDWATER which is a tributary of _____
4. Location of point(s) of diversion:

Twp	Rge	Sec	Govt Lot	1/4	1/4	1/4	County	Source	Local name or tag #
53N	03W	35			SW	NE	KOOTENAI	GROUNDWATER	D0010876

5. Water will be used for the following purposes:
- Amount 0.13 CFS for COMMERCIAL purposes from 1/1 to 12/31 (both dates inclusive)
 (cfs or acre-feet per year)
- Amount 0.02 CFS for STOCKWATER purposes from 1/1 to 12/31 (both dates inclusive)
 (cfs or acre-feet per year)
- Amount 0.15 CFS for IRRIGATION purposes from 4/1 to 10/31 (both dates inclusive)
 (cfs or acre-feet per year)
- Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
 (cfs or acre-feet per year)
6. Total quantity to be appropriated is (a) 0.30 cubic feet per second (cfs) and/or (b) 0.20 acre-feet per year (af).
0.30 0.20 DUL 8/24/16
7. Proposed diverting works:
- a. Describe type and size of devices used to divert water from the source. 3/5 HP PUMP IN WELL
- b. Height of storage dam _____ feet; active reservoir capacity _____ acre-feet; total reservoir capacity _____ acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 11. For dams 10 feet or more in height AND having a storage capacity of 50 acre-feet or more, submit a separate Application for Construction or Enlargement of a New or Existing Dam. Application required? ☐ Yes ☐ No
- c. Proposed well diameter is _____ inches; proposed depth of well is _____ feet.
- d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☐ No
- e. If well is already drilled, when? NOV 19, 1999; drilling firm HESTER WELL DRILLING;
 well was drilled for (well owner) AL AND DARYL KYLE; Drilling Permit No. 96-99-N-271

Received by [Signature] Date 8/4/16 Time _____ Preliminary check by _____
 Fee \$ 100.00 Receipted by [Signature] Receipt No. NO32087 Date 8/4/16

8. Description of proposed uses (if irrigation only, go to item 8):

- a. Hydropower; show total feet of head and proposed capacity in kW. _____
- b. Stockwatering; list number and kind of livestock. 10 HORSES
- c. Municipal; must complete and attach the Municipal Water Right Application Checklist.
- d. Domestic; show number of households 8
- e. Other; describe fully. 6 GUEST CABINS, 1 BED AND BREAKFAST, 1 CARETAKERS HOUSE

9. Description of place of use:

- a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
- b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RGE	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
53N	03W	35		1	4														5
53N	03W	35		C,S	C,S	S													

Total number of acres to be irrigated: 5

10. Describe any other water rights used for the same purposes as described above. Include water delivered by a municipality, canal company, or irrigation district. If this application is for domestic purposes, do you intend to use this water, water from another source, or both, to irrigate your lawn, garden, and/or landscaping? 95-15418, 95-9673

11. a. Who owns the property at the point of diversion? APPLICANT

b. Who owns the land to be irrigated or place of use? APPLICANT

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing: _____

12. Describe your proposal in narrative form, and provide additional explanation for any of the items above. Attach additional pages if necessary. APPLICATION IS FOR BED AND BREAKFAST, CARE TAKERS HOME, AND 6 GUEST CABINS, ALONG WITH 5 ACRES OF IRRIGATION AND STOCKWATER.

13. Time required for completion of works and application of water to proposed beneficial use is 5 years (minimum 1 year).

14. **MAP OF PROPOSED PROJECT REQUIRED** - Attach an 8½" x 11" map or maps clearly identifying the proposed point of diversion, place of use, section #, township & range. The map scale shall not be less than two (2) inches equal to one (1) mile.

The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in rejection of the application or cancellation of an approval.

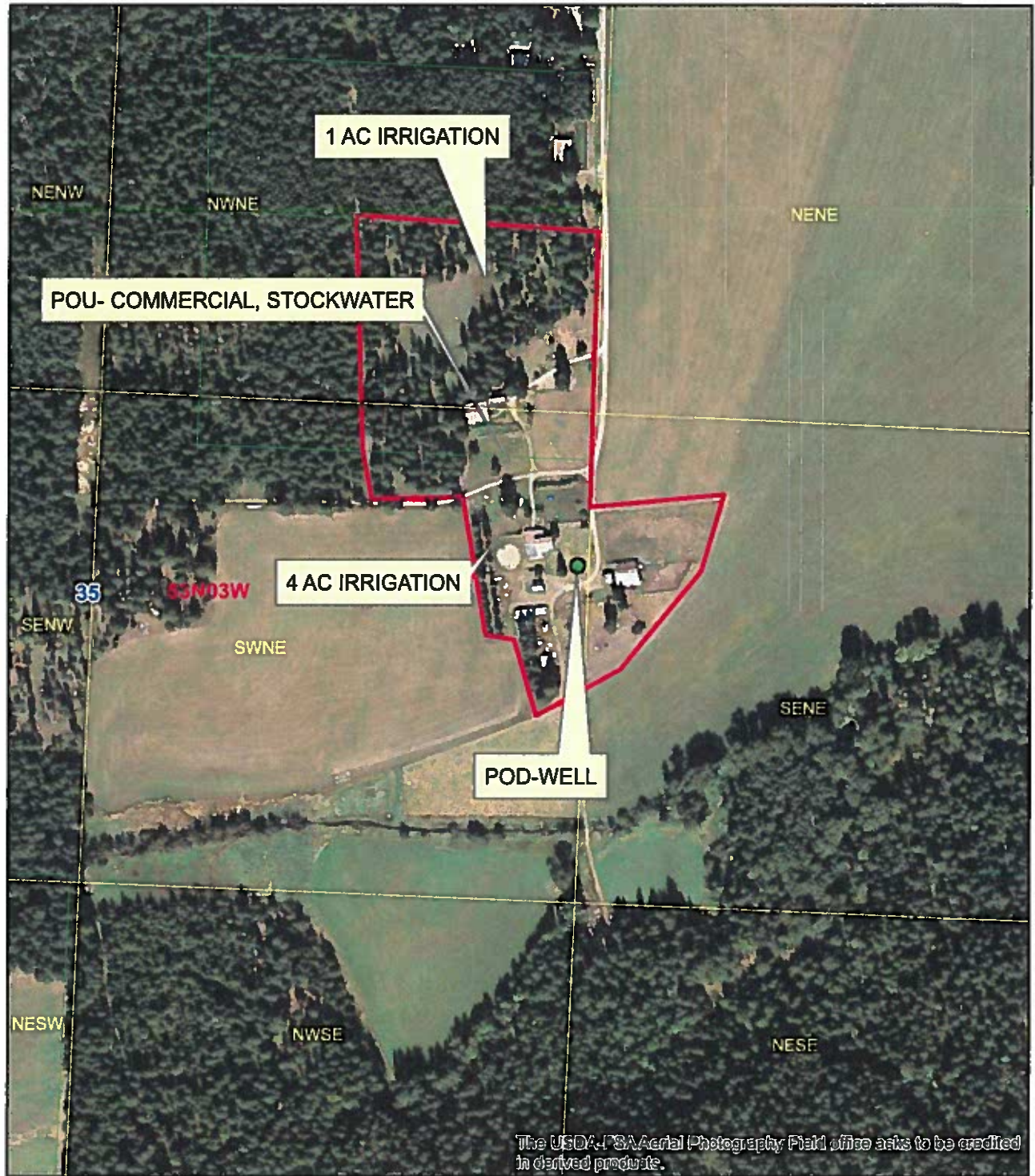
Signature of Applicant

ALLAN D. KYLE
Print Name (and title, if applicable)

Signature of Applicant

Daryl Ann Kyle
Print Name (and title, if applicable)

CEDAR MOUNTAIN APPLICATION MAP



Legend

- Taxlots
- Township/Range
- Sections
- QQ

0 0.0425 0.085 0.17 Miles





CERTIFICATE OF ORGANIZATION LIMITED LIABILITY COMPANY

(Instructions on back of application)

10 JUL -9 AM 8:22

SECRETARY OF STATE
STATE OF IDAHO

1. The name of the limited liability company is:

HATCH FAMILY HERITAGE, LLC

2. The complete street and mailing addresses of the initial designated/principal office:

25249 N. Hatch Road, Athol ID 83801

(Street Address)

(Mailing Address, if different than street address)

3. The name and complete street address of the registered agent:

Allan Douglas Kyle

25249 N. Hatch Road, Athol, ID 83801

(Name)

(Street Address)

4. The name and address of at least one member or manager of the limited liability company:

Name

Address

Allan Douglas Kyle

25249 N. Hatch Road, Athol, ID 83801

Daryl Ann Kyle

25249 N. Hatch Road, Athol, ID 83801

5. Mailing address for future correspondence (annual report notices):

25249 N. Hatch Road, Athol, ID 83801

6. Future effective date of filing (optional): _____

Signature of organizer(s). (An organizer is a member, or is acting in behalf of a member or members).

Signature _____

Typed Name: _____

Allan Douglas Kyle

Signature _____

Typed Name: _____

Daryl Ann Kyle

Secretary of State use only

g:\corp\forms\LLC form\scart_0710_01.doc
Revised 07/2006

IDAHO SECRETARY OF STATE
07/09/2010 05:00
CK: 1005 CT: 142265 BH: 1230005
1 @ 100.00 = 100.00 ORGAN LLC #

W94742

CERTIFICATE OF ASSUMED BUSINESS NAME

(Please type or print legibly)

To the SECRETARY OF STATE, STATE OF IDAHO

Pursuant to Section 53-504, Idaho Code, the undersigned gives notice of adoption of an Assumed Business Name.

01 FEB 14



SECRETARY OF STATE
STATE OF IDAHO

1. The assumed business name which the undersigned use(s) in the transaction of business is:

CEDAR MOUNTAIN FARM

2. The true name(s) and business address(es) of the entity or individual(s) doing business under the assumed business name is/are:

Name	Complete Address
<u>ALLAN D. KYLE</u>	<u>25249 N. HATCH RD ATHOL ID 83801</u>
<u>DARYL ANN KYLE</u>	<u>"</u>

3. The general type of business transacted under the assumed business name is:
(mark only those that apply)

☐ Retail Trade	☐ Manufacturing	☐ Transportation and Public Utilities
☐ Wholesale Trade	☐ Agriculture	☐ Finance, Insurance, and Real Estate
☒ Services	☐ Construction	☐ Mining

4. The name and address to which future correspondence should be addressed:

ALLAN D. KYLE
25249 N. HATCH RD
ATHOL ID 83801

5. Name and address for this acknowledgment copy is (if other than # 4 above):
- _____

Submit Certificate of Assumed Business Name and \$20.00 fee to:

Secretary of State
700 West Jefferson
Basement West
PO Box 83720
Boise ID 83720-0080
208 334-2301

Signature: _____

Printed Name: _____

Capacity: _____

(see instruction # 8 on back of form)

Secretary of State use only

IDAHO SECRETARY OF STATE

02/14/2001 09:00
CX: NO CX # CT: 142265 BN: 379825

1 @ 20.00 = 20.00 ASSUM NAME # 2

D 412667

FILED/EFFECTIVE

PRELIMINARY ENGINEERING REPORT
Cedar Mountain Farm
Kootenai County Conditional Use Permit CUP10-0002
Transient Noncommunity Public Water System



This report has been prepared to address the installation of a transient noncommunity public water system utilizing an existing private well source to serve a proposed five visitor cabins and an existing Bed & Breakfast facility at 25249 and 25125 North Hatch Road, Athol, Idaho 83801. This report addresses specific purpose and scope, design requirements, alternative solutions, costs, operation and maintenance requirements, and other requirements as described in Section 503 of IDAPA 58.01.08 - **IDAHO RULES FOR PUBLIC DRINKING WATER SYSTEMS**. The items addressed in this report are required by 58.01.08, Section 503.03 *Preliminary Engineering Report Content*. In addition, items specifically required in Sections 500 through 552 have been addressed in detail.

a. EXISTING SYSTEM

The existing water system is comprised of an 8-inch private well (tag ID 10876) drilled to a depth of 275 feet. The 0.250-inch thick well casing extends to a granite layer at a depth of 47 feet. The well has a bentonite seal down to 20-feet. Beginning at 10-feet, a 4-inch PVC liner has been installed. Water is pumped by a 3HP Grundfos well pump through a 1.5-inch discharge line to a 3000 gallon cistern. A second 2HP A.Y. McDonald pump within the cistern pumps to a 1.5-inch ductile iron pipe manifold within the well house located underground. The system is kept at pressure by one 86 gallon pressure tank and two 119 gallon pressure tanks. The manifold distributes water to the existing house (a Bed and Breakfast facility), out-buildings, and irrigation bibs.

b. LOCATION

The site is commonly known as 25249 North Hatch Road, Athol, Idaho 83801. The well is within the Northeast $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 35 and was formerly known as address East 9105 Bunco Road, Athol, Idaho 83801. The site consists of two parcels on approximately 440 acres. The parcel numbers are 53N03W-35-2000 (Serial No. 102317) and 53N3W-35-1150 (Serial No. 143150). The parcels are described as NE $\frac{1}{4}$ excluding tax numbers, NW $\frac{1}{4}$ excluding tax numbers, the SE $\frac{1}{4}$, and Tax Number 18325 in the W $\frac{1}{2}$ of the NE, all in Section 35 of Township 53 North, Range 3 West, Kootenai County, Boise Meridian.

c. SIZE

This proposal is for a Transient noncommunity water system to serve five guest cabins, a Bed and Breakfast facility, and a caretaker's facility. The cumulative project demand on this water system is estimated per the Idaho State Plumbing Code, Table A-2.

d. WATER QUANTITY

The following assumptions and methods describe the calculation of the estimated Peak Hour, Maximum Day, and Average Day demands upon this water system. No Industrial uses are proposed or calculated.

Fire protection water is not proposed but the guidelines of the *Idaho Wildland – Urban Interface* will be followed to protect the proposed structures.

Peak Hour Demand Calculations:

Domestic water use Peak Demand is based on the current edition of the Idaho Plumbing Code, Chapter 6 and Appendix A, Table A-1:

Total Water System Peak Hour Demand			
Appliances, Appurtenance, or Fixtures	Water Supply Fixture Units (WSFU)	Number on System	Loading (WSFU)
Bathtub or Bath/Shower	4.0	11	44
Clothes Washer	4.0	1	4
Dishwasher, domestic	1.5	1	1.5
Hose Bibb	2.5	1	2.5
Hose Bibb, each Additional	1.0	10	10
Lavatory	1.0	11	11
Bar Sink	2.0	5	10
Kitchen, domestic sink	1.5	2	3
Laundry sink	1.5	2	3
Shower (per head)	2.0	2	4
Water Closet, 1.6 GPF Gravity Tank	2.5	11	27.5
3/4" Hose Bibb for Livestock	10.0	3	30
Total Water Supply Fixture Units			150.5

The Peak Hour Demand of the system based upon the fixture units tallied above and Chart A-3 of the Idaho Plumbing Code is estimated to be **55gpm**. The resulting estimated Headloss in a 1-1/2" pipe is 10psi per 100-feet during peak demands. All water is served through the initial 250 LF of 1.5" ductile iron pipe from the pressure tanks. This would then result in an estimated pressure loss of **25psi** to the distribution manifold, leaving 15psi minimum in the system during peak flows. Serving the guests cabins 500ft +/- from the B&B using the same pressure service pipe as the B&B is therefore not recommended without the installation of a second cistern system for the guest cabins. This is not the preferred option and a second design consideration follows.

A service manifold to serve the guest cabins should be added in parallel to the existing water lines from the pump house, providing peak flows to the cabins separate from the Bend and Breakfast and/or other farm uses - calculated as follows:

Guest Cabins - Peak Hour Demand			
Appliances, Appurtenance, or Fixtures	Water Supply Fixture Units (WSFU)	Number on System	Loading (WSFU)
Bathtub or Bath/Shower	4.0	5	20
Lavatory	1.0	5	5
Bar Sink	2.0	5	10
Water Closet, 1.6 GPF Gravity Tank	2.5	5	12.5
Total Water Supply Fixture Units			47.5

The Peak Hour Demand of the system based upon the fixture units tallied above for just the guest cabins using Chart A-3 of the Idaho Plumbing Code is estimated to be **27.5gpm**. The resulting estimated Headloss in a 1-1/2" pipe is 3psi per 100-feet during peak demands, a loss of **15psi** over the estimated 500 LF of piping required to reach the cabins, leaving **25psi** at the worst point in the system.

Maximum Day Demand Calculation:

The maximum Day Demand is going to occur on a busy summer day when Cedar Mountain Farm is filled to capacity, the landscaping requires irrigation, and the horses are being ridden:

Livestock:

Per the Idaho Department of Water Resources, the following demands on the water system can be estimated:

Horses: 12 gpd/horse – total of 5 horses = **60gpd**

Irrigation:

Assuming up to 3 Acres divided into 9 zones:

Assumed off-peak watering, 3 times/week, 1" of water per week:

$1" * 1\text{ft}/12" * 130,680\text{sf} = 10,890\text{cf} * (1/3\text{day}) * (7.48052\text{gal}/\text{cf}) = \mathbf{27,154\text{gpd}}$. This is beyond the existing well capacity as tested and we recommend that Irrigation during the summer be reduced to no more than 1 acre of irrigated lawn and garden.

For 1 Acre divided into 2 zones, summer only (3 months):

Assumed off-peak watering, 3 times/week, 1" of water per week:

$1" * 1\text{ft}/12" * 43560\text{sf} = 3630\text{cf} * (1/3\text{day}) * (7.48052\text{gal}/\text{cf}) = \mathbf{9,051\text{gpd}}$

Domestic:

Assume at full occupancy an average of 200gpd per EDU with a peak of 400gpd/EDU on a Peak Day over the 7 dwellings:

$400\text{gpd} * 7 = \mathbf{2,800\text{gpd}}$ Domestic demand

Total Maximum Day Demand: 11,911 Gallons (8gpm maximum day demand).

Average Day Demand Calculation:

Assumed, an Average Day use of 200gpd/EDU. The seasonal usage of the cabins equates to about 120 days in the summer months.

Average Summer Day Demand (120 days):

Dwellings: 200gpd/EDU x 7EDU = 1,400gpd

Livestock: 60gpd

Irrigation: 9051gpd

Total Summer Average Day Demand:

1400+60+9051=10,511gpd=7gpm

Average Winter Day Demand (245 days):

Dwellings: 200gpd/EDU x 2EDU = 400gpd

Livestock: 60gpd

Irrigation: 0gpd

Total Winter Average Day Demand:

460gpd = 0.32gpm

Total Average Demand on Aquifer: (7gpm x 120 days + 0.32gpm x 245 days) / 365 days = **2.52gpm**

Tested Well Production Capacity = 3gpm (see Pump Test Memo by Monks Hydro-Geoscience.

e. STORAGE

To estimate equalization volume required in a system where pumping matches demand (average daily in this case), we can calculate Es based on Peak Hour demand (*Water System Design Manual* (WSDSHS 2009)).

$$Es=(Q_{pkhr}-Q_s)(150\text{minutes})$$

$$Es=(55\text{gpm}-3\text{gpm})(150)= 7,800 \text{ gal}$$

Storage is required for this well at these calculated flow rates and will be provided by adding a 5000 gallon cistern work in unison with the 3000 gallon existing cistern. This Equalization Storage volume can supply water for a calculated 150 minutes (2.5 hours) at the Peak Hour Demand rate calculated above. Any fire suppression systems proposed in the future should consider providing additional storage and pressure pumps.

f. OPERATING PRESSURE

Per the current Idaho Plumbing Code, the available pressure at the highest fixture should be a minimum of 20psi and a maximum of 100psi.

With only 15 feet maximum elevation gain to the upper-most cabin, there is a maximum of 6psi loss in elevation. Total peak demand headloss is then expected to be no more than **41psi**. The system cut-on pressures should be set to a minimum of **61psi** and cutoff at **81psi** with pressure tanks at **59psi**. At these settings, the highest cabins should have a minimum of **20psi** at peak hour cut-in and 40psi average.

Under no circumstance should the pressure tank and switch be set above 100psi – preferably never above 85psi.

See Hydraulic Analysis below.

g. HYDRAULIC ANALYSIS

The worst case operating pressure at Peak Hour demand is the line serving the guest cabins with the following assumptions:

500 LF of 1-1/2" D.I.P. water line

2 - 90° bends (14.8')

1 - check valve (15')

1 – gate valve (1.2')

Total Distribution Line Equivalent Length = 531'

11ft elevation difference = 4.8psi drop

Total Estimated Headloss @ 27.5gpm: 21.5psi + 4.8psi = 26psi

@ 3.0 gpm/wsfu, the following headloss for interior plumbing can be estimated:

100 LF of 3/4" cold water line (4.7')

3 - 90° bends (13.2')

3 – tees branch flow (15.9')

Total Plumbing Loss = 33.8' (15psi)

Total Pressure Loss to upper-most cabin fixture at Peak Hour Flow = 41psi

At 94 equivalent feet of Head, the existing service pump within the Operating Storage reservoir (the cisterns) is capable of providing 33gpm according to the manufacturers Specifications.

h. SOURCES OF WATER

A 24-hour test was done on the existing well to determine more precisely what the aquifer in which it resides was capable of sustainably producing. The well log and memo from Monks Hydro are attached. Water quality and quantities observed in the existing well is adequate for the needs of the proposed facility and uses.

That said, it has been decided to increase the depth of the annular seal by re-drilling the well to 8" and sealing around a 4" steel liner. This Preliminary Engineering Report, Plans, Details and Specifications may be used to get a well site plan approval so the driller can pull a permit. Once the well is completed, another 24-hour pump test will be performed and this report will be updated to a Final version.

i. SEWAGE

Sewage disposal is by means of septic tanks and drainfields. The water lines serving the residences and guest cabins will be located outside of the drainfield areas. The attached Site Plans show that no drainfield is within 100-feet of the existing well head. All septic tanks will be in excess of 100' from the well. It is expected that sewer and water lines will be separated by more than 20'.

j. TREATMENT WASTES

No water treatment is proposed.

k. MONITORING RESULTS

This is an existing groundwater source proposed to be utilized for a noncommunity transient public water system. Monitoring is required by the Groundwater Rule, *40 CFR 141.3(a).(3)(i)* Quarterly. The following table lists the sample requirements and limits.

Public Water Sampling Requirements		
Sample Analyte	Maximum Contamination Level	Contamination Levels Detected
Arsenic	0.05 mg/L	0.0064 mg/L
Nitrate	10mg/L	ND
Turbidity	1 TU	ND
Coliform	0.0	Absent

Should a sample test over the limits outlined above and/or contain Coliform, a second sample is required to be submitted within 24-hours of contamination notification.

l. POTENTIAL CONTAMINATION

Sources of potential contamination include stormwater runoff and sanitary sewage flow. The well and cistern will be protected by a 100' radius buffer. No sewer or stormwater facilities are proposed within 100' of the well or storage cistern. In addition, a double-check valve backflow preventer will be installed as well as an atmospheric vacuum breaker. In addition, check valves are to be located in the distribution line and well column to prevent accidental backflow.

m. FLOODING

The well is located on a slight rise on the property and drainage will be directed away from the well casing by additional grading of the site.

n. ADDITIONAL INFORMATION – SURFACE WATER

The proposed groundwater source is not influenced by surface waters.

o. ADDITIONAL INFORMATION - GROUND WATER.

The following additional information is attached to this Report:

- i. **SITE EVALUATION REPORT** – the Site is existing and shown in the attached Plans.
- ii. **DIMENSIONS OF THE WELL LOT AND LOCATION OF SOURCE** are shown in the attached Site Plan, including geographical coordinates of the source location.

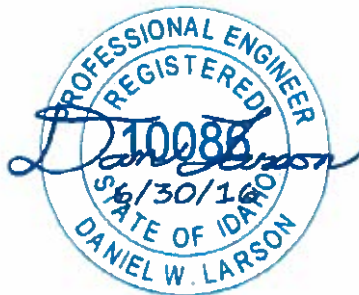
- iii. **UNDERGROUND GEOLOGICAL DATA AND EXISTING WELL LOG** are attached.
- iv. **WATER TREATMENT IS NOT PROPOSED.**
- v. **A COPY OF THE APPLICATION FROM THE IDAHO DEPARTMENT OF WATER RESOURCES** for a Water Right up to 0.04cfs (18gpm) was granted 11/27/1999 (Water Right No. 95-15418). See copy of Water Right as printed from the IDWR website (attached).
- vi. **EVALUATION OF SURFACE WATER INFLUENCE.** No surface water influence is apparent or suspected (see Memo submitted by Monks Hydro-Geoscience).

p. SOILS AND GROUND WATER LEVELS

Generally, the soils consist of 18" of organic material and gravel over 39 feet of gravels. Below the gravel layers is granite as far as was drilled. Groundwater was measured at approximately 205 feet below the surface.

Potential building foundation problems may arise if footing excavations are not deep enough to reach below the topsoil and clayey soils. Such soils heave in the spring as frost begins to melt and could damage the building.

Water lines are to be installed at a depth of 5 feet or more in the gravel stratum with a blue conductive tracer wire buried 1-foot above the pipe (or as required by the Idaho Plumbing Code and Inspector).



ATTACHMENT



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

2110 Ironwood Parkway, Coeur d'Alene, ID 83814 (208) 769-1422

C. L. "Butch" Otter, Governor
John H. Tippetts, Director

March 7, 2016

Allan and Daryl Kyle
Cedar Mountain Farms Bed & Breakfast, LLC
25249 N Hatch Rd
Athol, ID 83801
info@cedarmountainfarm.com

Subject: Well Site Evaluation, Cedar Mountain Farm

Dear Mr. and Mrs. Kyle:

On February 26, 2015, we met at Cedar Mountain Farm to conduct a well site evaluation. The location of the well being converted from private to public appears to meet all setback requirements as identified in IDAPA 58.01.08.900.01 Table 1 – Minimum Distances from a Public Water System Well.

This letter is to confirm that the Department of Environmental Quality has reviewed and has approved the well site at approximately 47°53'57" N 116°39'41" W in accordance with Section 510.01 of the Idaho Rules for Public Drinking Water Systems (Rules).

The following requirements must be met for the well site to be approved for a public drinking water source:

Design & Construction

Construction plans and specifications for the over-bore that will be required to extend the annular seal down to the required depth in accordance with the Rules must be approved by our office. Sections 510.03, 511, and 513 of the Rules are specific to well construction. Plans must be prepared by an Idaho licensed Professional Engineer. Well drilling must be completed in accordance with the approved plans and specifications. In addition, there may be other applicable rules and laws administered by the Idaho Department of Water Resources.

Setbacks

Please observe the following setbacks and restrictions, as per Section 510.02 of the Rules, the well must be located in excess of:

- * 1,000 feet from biosolids land application sites
- * Required distance for reclamation and reuse of municipal and industrial wastewater sites as per IDAPA58.01.17
- * 500 feet from municipal or industrial wastewater plant
- * 100 feet from all septic tanks
- * 100 feet from all individual home disposal fields
- * 100 feet from all individual home seepage pits
- * 100 feet from all privies
- * 100 feet from all pressure sewer lines
- * 100 feet from all standard subsurface disposal drainfields
- * 150-300 feet from all large soil absorption systems
- * 50 feet from all gravity wastewater/sewer lines
- * 50 feet from all livestock

- * 50 feet from canals, streams, rivers, ditches, lakes, and ponds
- * 50 feet from storm water facilities disposing storm water originating off well lot
- * 50 feet from all tanks used to store non-potable substances
- * 50 feet from all potential sources of contamination

Control of Site

Public drinking water wells must be sited on a well lot owned or controlled by the water system. If the well lot is not owned in fee simple, the property must be controlled by a lease or easement. The well lot must extend a minimum of 50 feet in all directions from the well. Those and other requirements for well lots are noted in Section 512 of the Rules.

Completion of the Well

Upon completion of the well drilling, additional information must be submitted to DEQ for review prior to utilizing the source. That information includes record drawings, initial source monitoring, and test pumping data. Information submitted must meet the requirements of Sections 510.05 & 510.06 of the Rules and Idaho Code 39-118. Record drawings must be prepared by an Idaho licensed Professional Engineer and submitted to our office within thirty (30) days of completion of construction. For additional information and guidance on test pumping, please refer to the *Guidance for New Source Water Testing Procedures for Public Drinking Water Systems*. That guidance is available online at:

http://www.deq.idaho.gov/media/515237-source_water_testing_procedures_guidance.pdf

As the project is proposed for a transient non-community system, the following monitoring results will need to be provided upon completion of the wells:

Total coliform	Iron
Nitrate	Manganese
Nitrite	Corrosivity (as alkalinity)

If you have any questions or comments on this matter, please contact me at (208) 666-4634.

Sincerely,



Colin Naake
Associate Engineer
Colin.naake@deq.idaho.gov

c: Matthew Plaisted, Regional Engineering Manager matthew.plaisted@deq.idaho.gov
Anna Mood, Drinking Water Supervisor anna.moody@deq.idaho.gov
Jamie Barton, Panhandle Health District jbarton@phd1.idaho.gov
Dan Larson, HMH Engineering DLarson@hmh-llc.com
Eric Olson, HMH Engineering EOlson@hmh-llc.com

ATTACHMENT

Accurate Testing Labs, LLC

7950 Meadowlark Way
Coeur d'Alene, ID 83815
Phone (208) 762 8378 Fax (208) 762 9082

STATE OF IDAHO Drinking Water Coliform Bacteria Analysis Report

Order No.: 2016030335 1

Report Date: 03/24/16

AI Kyle

25249 N. Hatch Rd
Athol, ID 83801

Water System: AI Kyle
Location: Well Head
County: Kootenai
Collected by: Allan D. Kyle
Sample Type: RS-Routine Sample

Date Collected: 03/22/2016
Time Collected: 13:30

Date Received: 03/22/2016
Time Received: 14:45

Method	Analyte	Result	Analysis Date	Analyst
9223B-PA	E. Coli	Absent	03/23/16	MT
9223B-PA	Total Coliform	Absent	03/23/16	MT

Notes:

IF YOUR RESULT IS "ABSENT": The absence of coliform bacteria indicates that your water is not contaminated with coliform bacteria.

IF YOUR RESULT IS "PRESENT": The presents of coliform bacteria means that your water is contaminated, and may contain disease causing organisms. Contaminated water should not be used for drinking water.

If coliform bacteria are present, an additional test has been run for Escherichia coli bacteria. The result for this test is also reported as being present or absent.

Accurate Testing Labs, LLC

7950 Meadowlark Way
Coeur d'Alene, ID 83815
Phone (208) 762 8378 Fax (208) 762 9082
www.accuratetesting.com
info@accuratetesting.com

Certificate of Analysis

Order No.:

2016030335

Page: 1 of 2

Al Kyle
25249 N. Hatch Rd
Athol, ID 83801

Project: Al Kyle

Date Received: 03/22/2016 14:45

Sample: 2
Location: Well Head
Sample Type: Plant Tap

Matrix: Drinking Water
D/T Collected: 03/22/2016 13:30
Collected by: Allan D. Kyle

Analyte	Result	Unit	Method	PQL	Analysis Date	Analyst
Alkalinity (CaCO3)	117	mg/L	EPA 310.1	0.05	03/23/16	AC
Arsenic	0.0064	mg/L	EPA 200.5	0.0014	03/25/16	WM
Barium	0.0043	mg/L	EPA 200.5	0.002	03/25/16	WM
Beryllium	ND	mg/L	EPA 200.5	0.0003	03/25/16	WM
Calcium	54.3	mg/L	EPA 200.7	0.17	03/24/16	WM
Cadmium	ND	mg/L	EPA 200.5	0.001	03/25/16	WM
Chromium	ND	mg/L	EPA 200.5	0.007	03/25/16	WM
Nickel	ND	mg/L	EPA 200.5	0.005	03/25/16	WM
Mercury	ND	mg/L	EPA 245.1	0.0002	04/04/16	WM
Sodium	6.58	mg/L	EPA 200.7	0.3	03/25/16	WM
Fluoride	ND	mg/L	EPA 300.0	0.2	03/23/16	WM
Iron	0.033	mg/L	EPA 200.7	0.015	03/24/16	WM
Manganese	ND	mg/L	EPA 200.7	0.01	03/24/16	WM
Nitrite-N	ND	mg/L	EPA 300.0	0.1	03/23/16	WM
Langelier Index	-0.181		Misc.		03/25/16	WM
Antimony	ND	mg/L	EPA 200.5	0.003	03/25/16	WM
Selenium	ND	mg/L	EPA 200.5	0.002	03/25/16	WM
Thallium	ND	mg/L	EPA 200.9	0.001	03/25/16	WM
Sulfate	46.2	mg/L	EPA 300.0	1.5	03/23/16	WM
Nitrate-N	3.51	mg/L	EPA 300.0	0.5	03/23/16	WM
Total Nitrate/ Nitrite	3.51	mg/L	EPA 300.0	0.5	03/24/16	WM
pH	7.80	pH Units	EPA 150.1		03/22/16	AC
Total Dissolved Solids	223	mg/L	EPA 160.1	1	03/23/16	MT

Comments:

EPA Maximum Contamination Level (MCL) for Arsenic is 0.010 Mg/L, Barium 2.0, Nitrate 10.0, TDS 500



Laboratory Supervisor, Digitally signed by: Walter Mueller Date: 04/05/16

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Certificate of Analysis

Order No.:

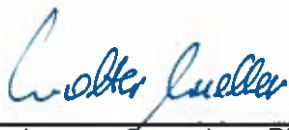
2016030335

Page: 2 of 2

If the RESULT is 'ND' (Not Detected) or 'Absent', that means the concentration is less than the PQL (Practical Quantitation Limit for this method).

Comments:

EPA Maximum Contamination Level (MCL) for Arsenic is 0.010 Mg/L, Barium 2.0, Nitrate 10.0, TDS 500



Laboratory Supervisor, Digitally signed by: Walter Mueller Date: 04/05/16

Memo



To: Dan Larson, P.E.
From: John Monks, P.G.
CC: Alan and Daryl Ann Kyle
Date: 12/9/2015
Re: Cedar Mountain Farms B&B pumping test

Dear Mr. Larson:

This memo reports the results of test pumping the Kyle's well at Cedar Mountain Farms, B&B. The Cedar Mountain Farms B&B well is located in the NE1/4 of Section 35, T53N, R3W, in Kootenai County, Idaho (see attached Well Driller's Report). The well was drilled in October 1999 to a depth of 275 feet. Fractured rock was reported at 70 – 72, 192 – 193, 227 – 252, and 295 – 297 feet below ground surface. An airlift well test conducted after the well was completed produced 60 gpm for 4 hours.

The first attempt at test pumping the well occurred on September 29, 2015. RC Worst pulled the pump and attached a 300' roll of 1" OD black PVC pipe to the pipe string to run the pressure transducer and e-tape in, but we were not able to get the pump and pipe string back inside the 4" PVC liner and down the well. Worst re-hung the pump while we came up with a new plan. Water level was measured at 205' below casing top while the pump was out of the well.

The second attempt began on October 19, 2015. RC Worst pulled the pump again, and reinstalled it with the pressure transducer taped to the pipe string right above the pump. The e-tape was also loosely taped to the pipe string about 2 feet above the transducer to assure that it would make it down the hole to the water level. The e-tape was freed after the pump was set, but was left at depth to provide an indication of when drawdown in the well began to approach the pump. The pump was reinstalled with the pump intake at 267 feet below casing top. During the time that the pump was being pulled and reinstalled, water was flowing from the cistern back into the well. Once the pump was set for testing, the pitless adapter was put back into place to stop the flow. The water level in the well was measured at 173.6' below casing top as the pump was being reinstalled.

Pumping began at 12:09 PM on the 19th, with the control valve wide-open and the pump discharging at full capacity. The well discharged at approximately 19 gpm and 30 – 32 psi for two hours. The pump was then shut down for less than a minute to attach a hose so that the discharge could be directed further away from the well head. With the hose attached, discharge was reduced to about 16.5 gpm and the pressure increased to 77 psi. The well was pumped overnight with pressure and discharge decreasing slowly over time as the well was drawn down. When I conducted the 7:00 AM check on the 20th the water level had gone below the tape. At 7:07 AM the pressure dropped off indicating that the pump was breaking suction. I reduced flow with the valve but the well continued to surge so the pump was shut off.

The well was then allowed to recover until the water level reached the e-tape, about 2 hours after shutoff. I measured the recovery rate for about an hour, and then resumed pumping at 10:07 AM with

reduced flow. I measured depth to water and discharge, and kept reducing discharge to try to get the water level to stabilize. The water level more-or-less stabilized at about 263.9' below casing top at a discharge of 5.11 gpm. The water level continued to slowly go down until it went below the level of the e-tape at 264.38' bct. I was unable to get the tape to go any lower than that. I reduced discharge again to 4.1 gpm, but the water level did not rise back to the e-tape. Discharge slowly declined over night to about 3.7 gpm by 8:21 AM on Wednesday the 21st. The pump then broke suction again and I reduced flow at the valve to 3 gpm. Discharge stabilized at approximately 3 gpm at 9:12 AM on the 20th and the well was pumped continuously for 24 hours at 3 gpm until it was shut off at 9:12 AM on the 21st.

The transducer/datalogger recorded recovery data until it ran out of memory on Friday afternoon (Oct. 23rd). Additional recovery measurements were made Saturday morning the 24th prior to the pump being turned on for 80 minutes to refill the cistern, and again on the 26th when RC Worst pulled the pump to recover the pressure transducer/datalogger. We attempted to reinstall the pressure transducer/datalogger on a pipe-string after the pump was reinstalled, but were unable to get it deeper than about 150'. We were unable to get it back out, and it is currently stuck in the well, probably above the water table.

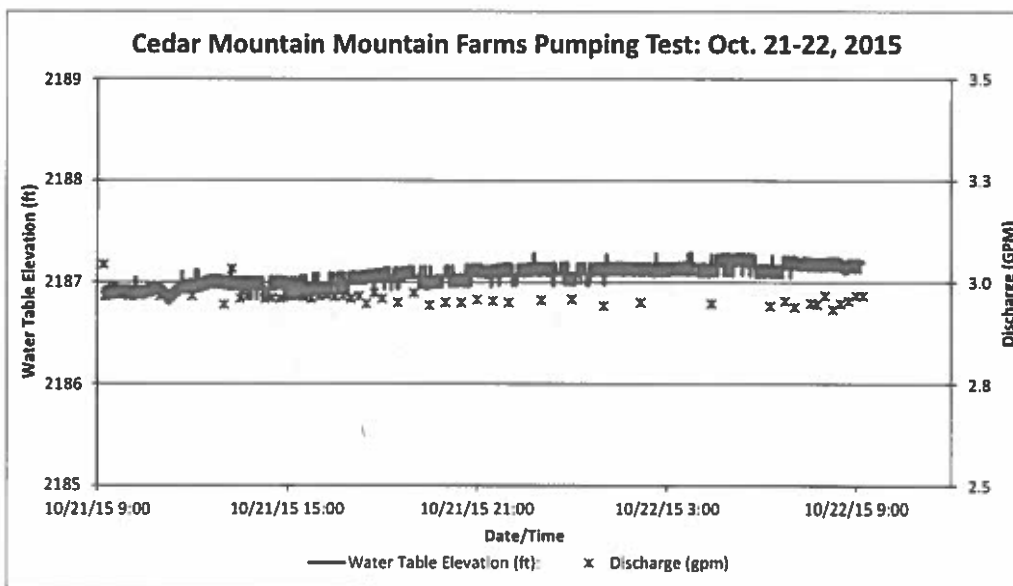
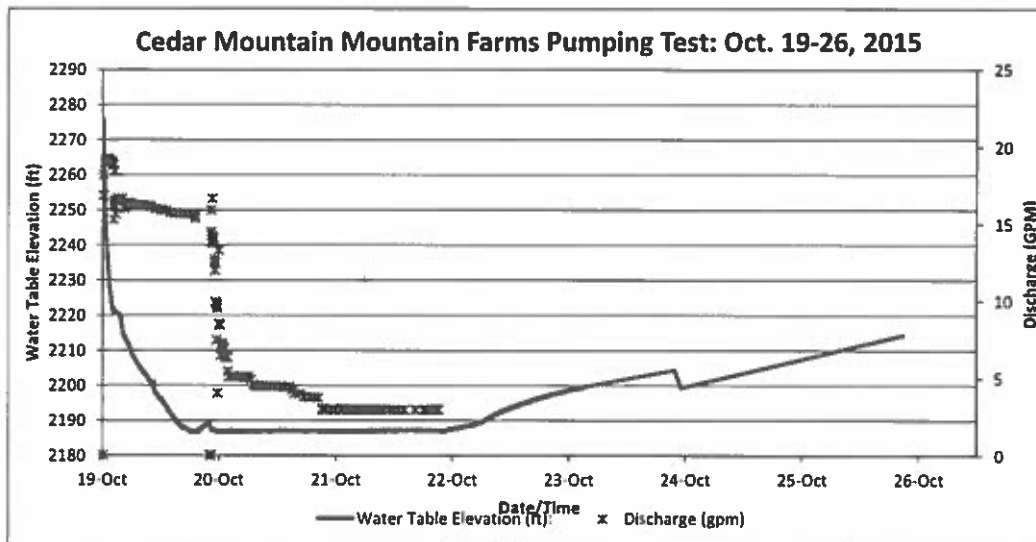
The well passed the 24-hour, constant rate, stable drawdown test at 3 gpm with the water table stable at approximately 263' below casing top. We were unable to measure recovery because the well had to be put back into service before water levels had recovered. We also do not have a good measurement of static water level in the well. The measurements we have made were affected by water flowing into the well from the cistern while the pitless adapter was open. When we pulled the pump in September, the approximate water level was visible on the discharge pipe at about 65 – 70 feet above the pump, which would be approximately 200 feet below the casing top, at an elevation of approximately 2250'.

Sincerely,



John Monks, P.G.





Date/time:	Transducer Pressure (ft H2O):	Temp (C):	Depth to water (ft):	Q (gpm):	Comments:
10/21/15 9:12	1.08	10.44	263.06	3.04	broke suction @0832, reduced flow & pressured back up
10/21/15 9:15	1.08	10.42	263.06	2.967	
10/21/15 9:30	1.09	10.42	263.05	2.987	3 gpm on stopwatch
10/21/15 10:00	1.09	10.5	263.05	2.967	
10/21/15 11:00	1.12	10.45	263.02	2.967	
10/21/15 12:00	1.05	10.47	263.09	2.967	
10/21/15 13:00	1.09	10.55	263.05	2.945	
10/21/15 13:15	1.08	10.49	263.06	3.033	
10/21/15 13:30	1.08	10.5	263.06	2.960	
10/21/15 13:45	1.07	10.5	263.07	2.967	
10/21/15 14:17	1.08	10.49	263.06	2.959	
10/21/15 14:30	1.09	10.53	263.05	2.962	
10/21/15 14:45	1.09	10.53	263.05	2.960	
10/21/15 15:00	1.09	10.49	263.05	2.967	
10/21/15 15:30	1.09	10.51	263.05	2.963	
10/21/15 15:45	1.12	10.52	263.02	2.960	
10/21/15 16:00	1.12	10.49	263.02	2.967	
10/21/15 16:16	1.12	10.45	263.02	2.969	
10/21/15 16:30	1.13	10.45	263.01	2.964	
10/21/15 16:45	1.13	10.44	263.01	2.967	
10/21/15 17:00	1.14	10.43	263.00	2.960	
10/21/15 17:15	1.13	10.44	263.01	2.967	
10/21/15 17:30	1.24	10.44	262.90	2.947	
10/21/15 17:45	1.15	10.45	262.99	2.973	
10/21/15 18:00	1.16	10.45	262.98	2.960	
10/21/15 18:30	1.08	10.43	263.06	2.950	
10/21/15 19:00	1.18	10.47	262.96	2.973	
10/21/15 19:30	1.18	10.45	262.96	2.943	
10/21/15 20:00	1.19	10.45	262.95	2.950	
10/21/15 20:30	1.11	10.47	263.03	2.950	
10/21/15 21:00	1.21	10.45	262.93	2.957	
10/21/15 21:30	1.19	10.45	262.95	2.953	
10/21/15 22:00	1.21	10.45	262.93	2.950	
10/21/15 23:02	1.22	10.48	262.92	2.955	
10/22/15 0:00	1.12	10.47	263.02	2.957	
10/22/15 1:00	1.22	10.48	262.92	2.942	
10/22/15 2:10	1.22	10.49	262.92	2.950	
10/22/15 4:25	1.31	10.51	262.83	2.948	
10/22/15 6:17	1.3	10.47	262.84	2.942	
10/22/15 6:45	1.29	10.48	262.85	2.954	
10/22/15 7:03	1.39	10.47	262.75	2.939	
10/22/15 7:34	1.27	10.49	262.87	2.948	
10/22/15 7:45	1.27	10.49	262.87	2.945	
10/22/15 8:00	1.27	10.49	262.87	2.967	
10/22/15 8:15	1.27	10.5	262.87	2.933	
10/22/15 8:30	1.35	10.49	262.79	2.947	
10/22/15 8:45	1.35	10.5	262.79	2.953	
10/22/15 9:00	1.35	10.49	262.79	2.967	
10/22/15 9:12	1.34	10.52	262.80	2.967	pump off @0912

ATTACHMENT

Form 230-7
11/97

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

RECEIVED

77146

Office Use Only			
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat	Long		

1. WELL TAG NO. D 10876
DRILLING PERMIT NO. NOV 19 1999
Other IDWR No. 96-99-N-271

2. OWNER: AI and Darryl Kyle IDWR/North
Name E. 9105 Bunco Rd.
Address Athol State ID Zip 83801

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N W E S	Twp	<u>53</u>	North ☒ or South ☐	
		Rge	<u>3</u>	East ☐ or West ☒
		Sec	<u>35</u>	NE 1/4 <u>SW</u> 1/4 <u>NE</u> 1/4
		Gov't Lot		County <u>Kootenai</u>
Lat		Long		

Address of Well Site 9105 E BUNCO

City Athol

(Draw at least name of road - Distance to Road or Landmark)

Li. 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

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Quantity	
Bentonite	0	20	5	Overbored

Was drive shoe used? ☒ N ☐ S Size Depth(s) 47"

Was drive shoe seal tested? ☒ N ☐ How? AIR Pressure

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Inner	Welded	Threaded
4"	1	47	250	Steel	☒	☐	☒	☐
4"	10	275	100	PVC	☐	☒	☐	☐

Length of Headpipe Length of Tailpipe

9. PERFORATIONS/SCREENS

Perforations Method SAW CUT
Screens Screen Type

From	To	Slot Size	Number	Diameter	Material	Casing	Inner
275	190	1/8x6	40	4	PVC	☐	☒

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

70 ft. below ground Artesian pressure lb.

Depth flow encountered ft. Describe access port or control devices:

11. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Pumping Level	Time
60			4 Hours

Water Temp. Bottom hole temp.

Water Quality test or comments:

Depth first Water Encounter 70

12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Base Dia	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
10	0	8	Soil and GRAVEL		
10	8	39	Loose GRAVEL		
10	39	45	Decomposed GRANITE		
10	45	47	Weathered GRANITE		
6	47	70	GRANITE		
6	70	72	Fractured GRANITE		
6	72	192	GRANITE		
6	192	193	Fractured GRANITE		
6	193	227	GRANITE		
6	227	252	Fractured GRANITE		
6	252	275	with Fractured Quartz	35	
6	275	295	GRANITE		
6	295	341	Fractured GRANITE	25	
6	341	375	GRANITE		

Completed Depth 275 (Measurable)
Date: Started 10-25-99 Completed 10-27-99

13. DRILLER'S CERTIFICATION

We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Hester Well Drilling Permit No. 528

Firm Official [Signature] Date 11-16-99

and [Signature]
Driller or Operator C. Mark Hester Date 11-2-99
(Sign once if Perforated & Operator)

53 N 3 W 35 FORWARD WHITE COPY TO WATER RESOURCES

ATTACHMENT

Close

IDAHO DEPARTMENT OF WATER RESOURCES Adjudication Recommended Right Report

12/10/2015

WATER RIGHT NO. 95-15418

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	ALLAN D KYLE 25249 N HATCH RD ATHOL, ID 83801-8683 (208) 683-2663

Priority Date: 11/27/1999
Basis: Beneficial Use
Status: Active

<u>Source</u>	<u>Tributary</u>
GROUND WATER	

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
STOCKWATER	01/01	12/31	0.02 CFS	
DOMESTIC	01/01	12/31	0.04 CFS	
Total Diversion			0.04 CFS	

Location of Point(s) of Diversion:

GROUND WATER|SWNE|Sec. 35|Township 53N|Range 03W|KOOTENAI County

DOMESTIC Use:
Number of homes: 2

Place(s) of use:

Place of Use Legal Description: STOCKWATER KOOTENAI County

<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>
53N	03W	35		NWNE			SWNE							

Place of Use Legal Description: DOMESTIC KOOTENAI County

<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>
53N	03W	35		NWNE			SWNE							

Conditions of Approval:

1. C18 This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
2. N11 The quantity of water decreed for this water right is not a determination of historical beneficial use.
3. N13 The quantity of water under this right shall not exceed 13,000 gallons per day.
4. POINT OF DIVERSION PIN 53N03W-35-2000. PLACE OF USE PIN 53N03W-35-2000 AND 53N03W-35-1150.

Dates:

Other Information:

State or Federal:

Owner Name Connector: AND/OR

Water District Number:

Generic Max Rate per Acre:

Generic Max Volume per Acre:

Swan Falls Trust or Nontrust:

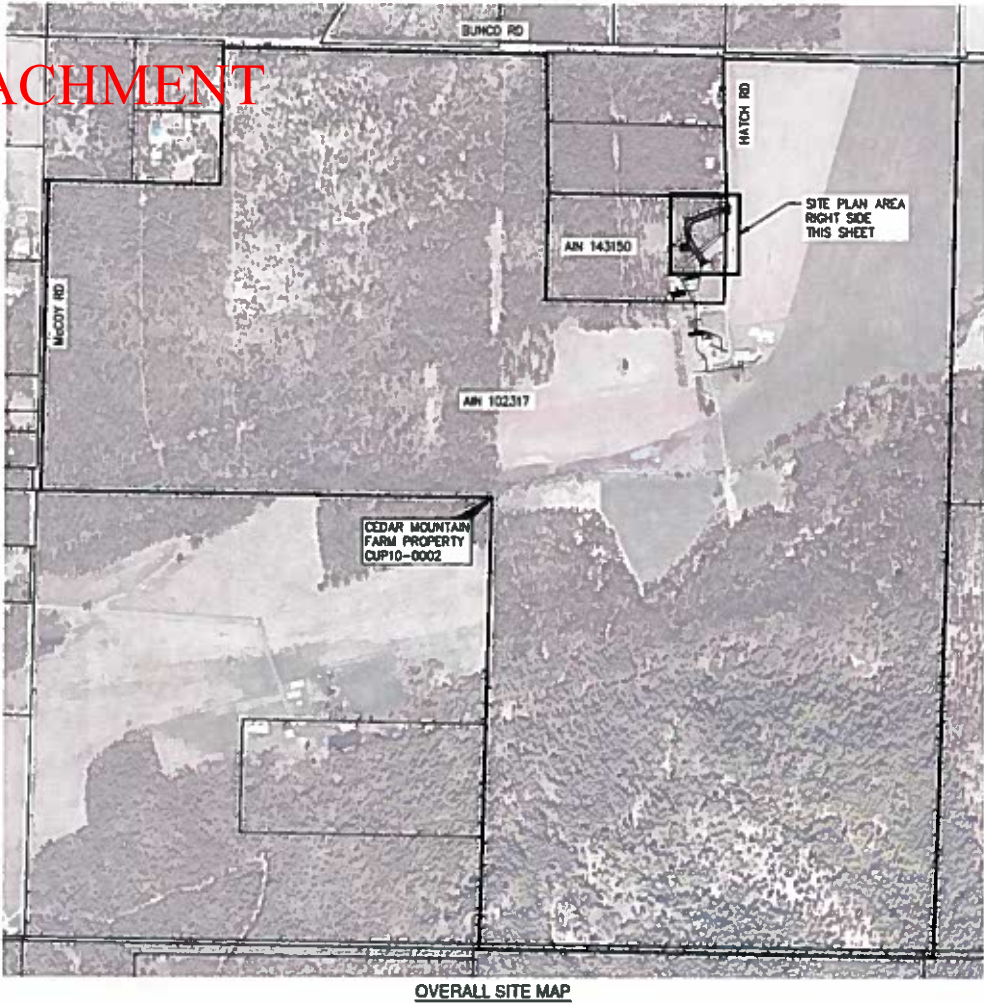
Swan Falls Dismissed:

DLE Act Number:

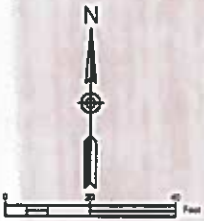
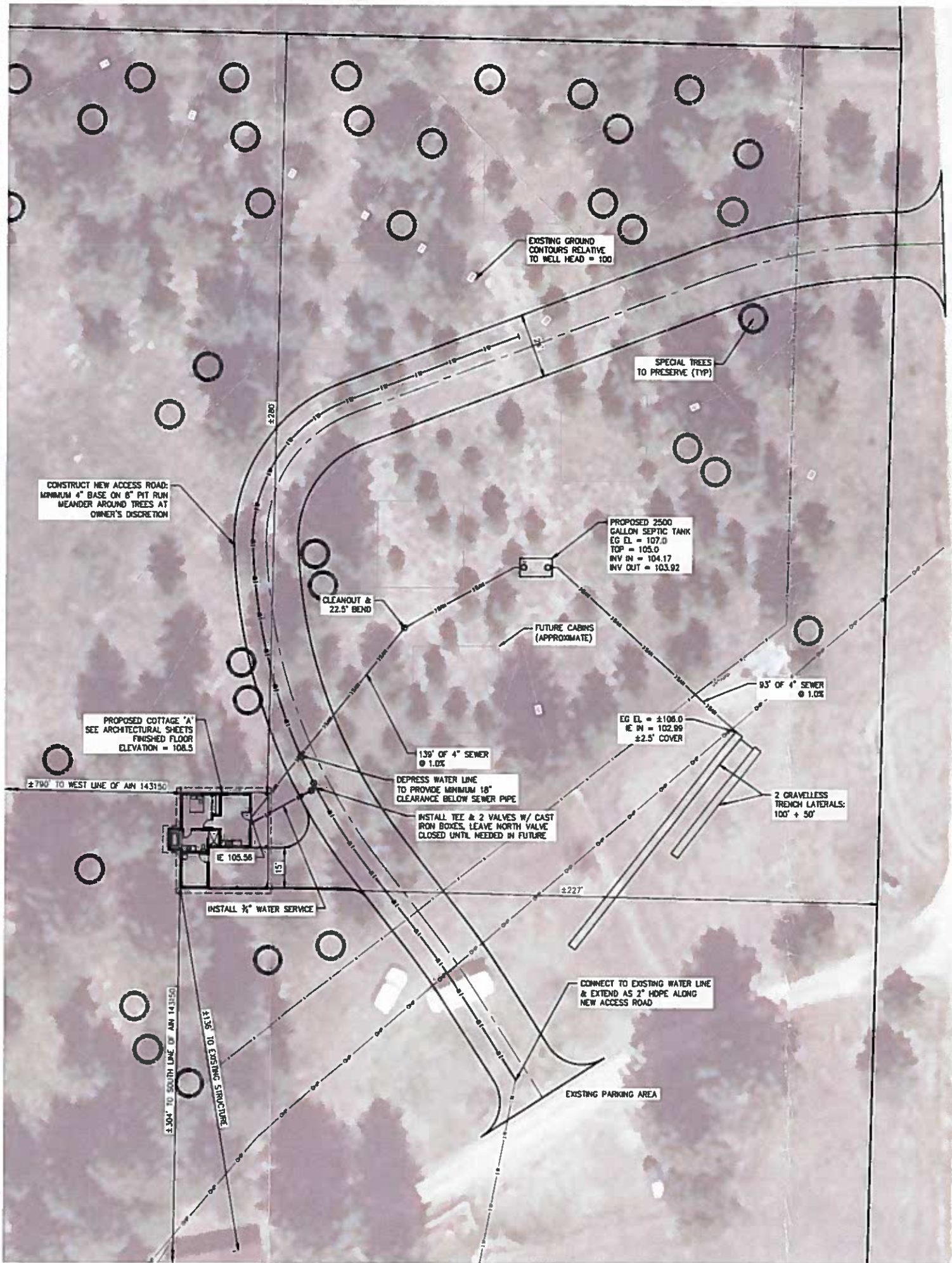
Cary Act Number:

Mitigation Plan: False

Close



GENERAL NOTES:
1. ALL WATER AND SEWER PIPING SHALL BE CONSTRUCTED PER THE IDAHO PLUMBING CODE.



Cedar Mountain Farms Cottage A
25249 N. Hatch Road
Athol, Idaho

REV #	
REV #	
REV #	
REV #1: Drainfield Lats	
JOB #:	1514
DATE:	4/13/2016

SITE PLAN

C1.0

CEDAR MOUNTAIN FARM

TRANSIENT NONCOMMUNITY PUBLIC WATER SYSTEM

NOTES & SPECIFICATIONS

UNLESS OTHERWISE NOTED, ALL CONSTRUCTION SHALL BE TO THE CURRENT EDITION OF THE IDAHO STANDARDS FOR PUBLIC WORKS (ISPC).

ADMINISTRATIVE REQUIREMENTS

- 1. OWNER HAS WATER RIGHT NO. 95-15418
- 2. WELL WAS DRILLED UNDER PERMIT NO. D10876
- 3. A 24-HOUR PUMP TEST WAS PERFORMED.

MATERIALS AND EQUIPMENT

- 1. ALL APPURTENANCES MUST BE N.S.F. 61 APPROVED

GEOLOGICAL SAMPLING

- 1. SAMPLES WERE TAKEN AND RECORDED BY THE WELL DRILLER AS SHOWN ON THE WELL LOG.

CASING

- 1. 0.250" THICK 8" STEEL WELL CASING WAS USED (0.280" THICKNESS TYPICALLY REQ'D)
- 2. A 4-INCH STEEL LINER TO BE INSERTED INTO THE STEEL CASING
- 3. PLUMBNESS AND ALIGNMENT TO BE IN ACCORDANCE WITH AWWA STANDARDS.

SEALS

- 1. DEPTH, METHOD OF PLACEMENT, AND TYPE OF WELL SEAL ARE AS FOLLOWS
 - 1.1. BENTONITE SEAL TO BE PLACED FROM 105 FT UP TO 47 FT MINIMUM
 - 1.2. 12-15 SACKS OF BENTONITE ARE ESTIMATED TO BE USED
 - 1.3. TOP OF WELL IS SEALED ON 8-INCH CASING TO 20-FT
 - 1.4. VENT IS 1-1/2" DIAMETER WITH 24 MESH CORROSION RESISTANT SCREEN AND TERMINATES IN A DOWNWARD POSITION.

SCREENS AND PERFORATED CASINGS

- 1. CASING PERFORATIONS WERE SAWCUT AS NOTED ON THE WELL LOG.
- 2. NO SCREEN WAS USED BASED ON ANALYSIS

WELL DEVELOPMENT

- 1. WELL CAPACITY WAS DETERMINED BY PERFORMANCE OF A 24-HOUR PUMP TEST BY MONKS HYDRO-GEOSCIENCE.
- 2. ALL FITTINGS AND APPURTANENCES TO BE N.S.F. 61 APPROVED.
- 3. EACH VALVE SHALL BE FULLWAY TYPE WITH WORKING PARTS OF NONCORROSIVE MATERIALS AND SHALL BE SNF61 COMPLIANT (BRASS OR STAINLESS STEEL).
- 4. SAMPLE TAP SHALL BE OF THE SMOOTH-NOSED TYPE WITHOUT THREADS, SHALL NOT BE OF THE MIXING OR PETCOCK TYPE, AND SHALL NOT HAVE A SCREEN, AERATOR, OR OTHER SUCH APPURTENANCE.
- 5. EXHAUST/RELIEF PIPING SHALL TERMINATE IN A DOWN-TURNED POSITION AT LEAST 18-INCHES ABOVE GRADE AND SHALL BE COVERED WITH A 24-MESH CORROSION RESISTANT SCREEN.
- 6. MECHANICAL ROOM SHOWN IS EXISTING.
- 7. MANHOLE SHOWN SHALL BE CONSTRUCTED AFTER APPROVAL OF THESE PLANS AND SPECIFICATIONS, PRIOR TO OCCUPANCY PERMIT OF NEW BUILDINGS FOR PUBLIC USE.
- 8. FITTINGS AND ORIENTATIONS SHOWN (TEES, ELBOWS, REDUCERS, VALVES, ETC.) DO NOT CONSTITUTE ALL FITTINGS REQUIRED TO CONSTRUCT THE ASSEMBLIES SPECIFIED. ALTERNATE CONFIGURATIONS ARE ALLOWED AND WILL BE AS-BUILT - BUT SHOULD FOLLOW THE GENERAL PRINCIPLES OUTLINED IN THESE PLANS AND SPECIFICATIONS.

WATER SAMPLING

- 1. WATER SYSTEM WAS PUMPED AT 100% OF YIELD FOR 24 HOURS AFTER DRAWDOWN WAS STABILIZED. WATER QUANTITY IS 3 GPM.
- 2. A FULL BATTERY OF WATER QUALITY TESTS HAS BEEN PERFORMED ON A DRAWN WATER SAMPLE AS REQUIRED.
- 3. MEASUREMENT OF SAND CONTENT MUST BE TAKEN AND SHALL BE BELOW 5 ppm.

SITE CONTROL

- 1. STORMWATER RUNOFF SHALL NOT CONTAIN SEDIMENT UNLESS EROSION CONTROL MEASURES (AS PROVIDED BY THE BMP) MANUAL ARE IN PLACE.
- 2. WATER LEAVING THE SITE SHALL NO CONTAIN CHEMICALS OR TURBIDITY.
- 3. CONSTRUCTION WASTE AND DEBRIS SHALL BE DISPOSED AT A SANITARY LANDFILL OR OTHER APPROVED SITE.
- 4. HOLES, PITS, TRENCHES, EQUIPMENT, AND CHEMICALS SHALL BE SAFELY STORED, COVERED, OR FENCED PER OSHA STANDARDS.

PROJECT COMPLETION

- 1. ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE AFTER CONSTRUCTION

NORTH HATCH ROAD
ATHOL, IDAHO

CEDAR MOUNTAIN FARM BED & BREAKFAST,LLC

AL & DARYL KYLE
25249 North Hatch Road
Athol, Idaho 83801
208-683-0572



VICINITY MAP

SHEET INDEX:

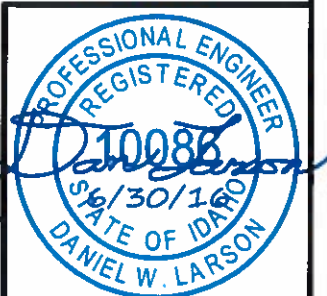
- 1. TITLE SHEET
- 2. SITE PLAN

LEGEND OF EXISTING FEATURES:

- I W — EXISTING WATER LINES
- OHP — EXISTING OVERHEAD POWER



Know what's below.
Call before you dig.



z:\documents\projects\2015\d15008 cedar mountain farm\dwg\d15008 - water.dwg

ISSUE:	#	DATE	DESCRIPTION

PROJECT NO: D15008
DRAWN BY: D. LARSON
CHECKED BY: D. LARSON
SCALE: NONE (11"x17" ONLY)



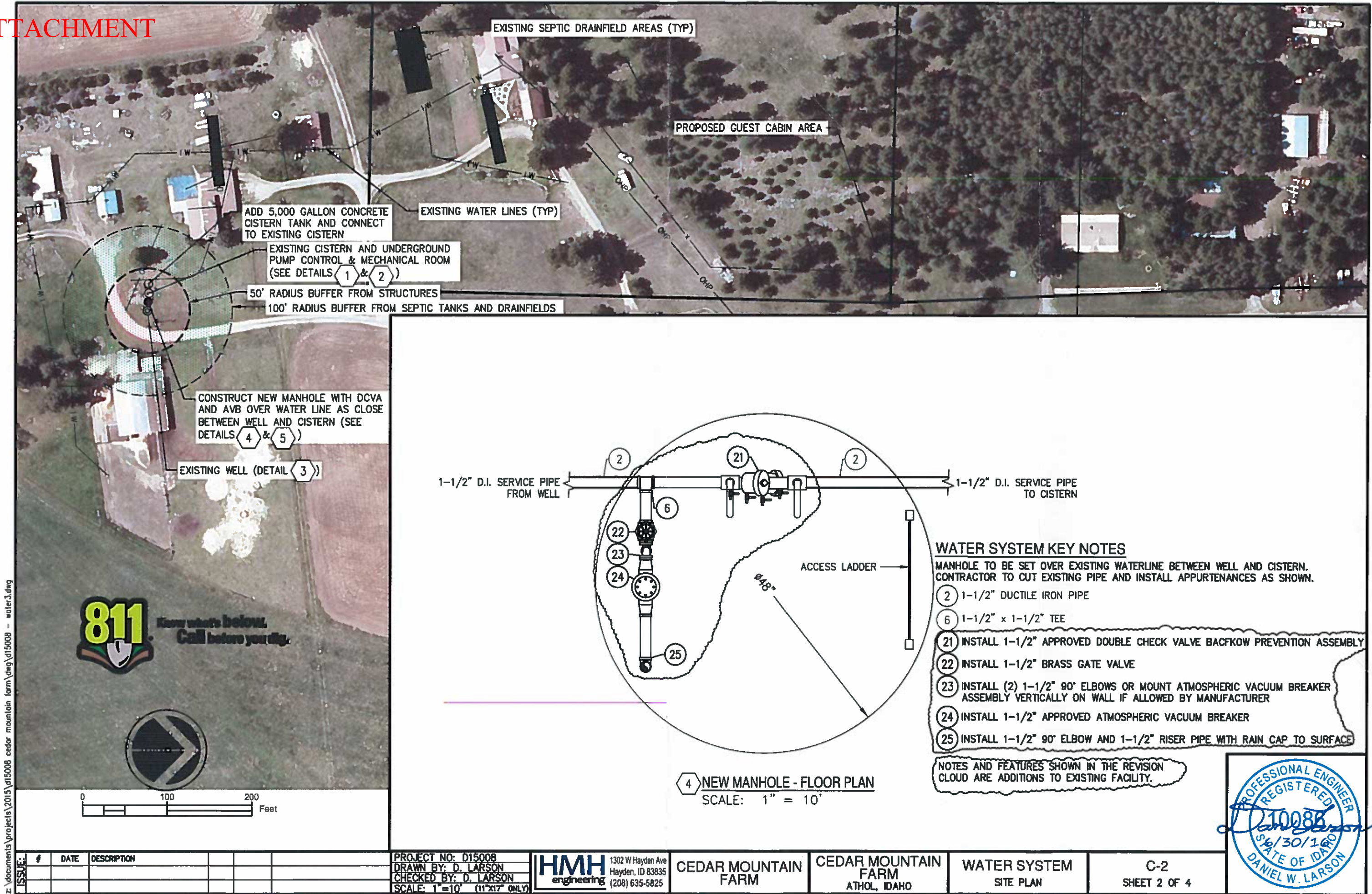
1302 W Hayden Ave
Hayden, ID 83835
(208) 635-5825

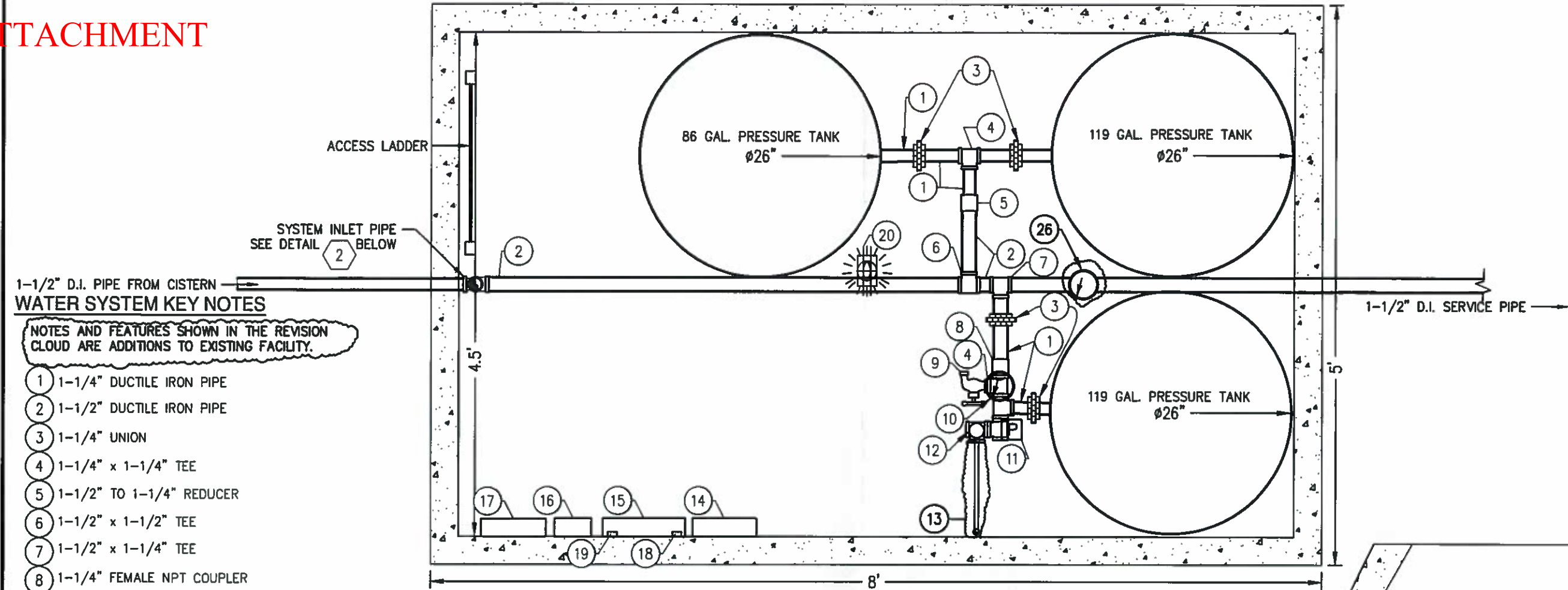
CEDAR MOUNTAIN
FARM

CEDAR MOUNTAIN
FARM
ATHOL, IDAHO

WATER SYSTEM
TITLE SHEET

C-1
SHEET 1 OF 4





WATER SYSTEM KEY NOTES

NOTES AND FEATURES SHOWN IN THE REVISION CLOUD ARE ADDITIONS TO EXISTING FACILITY.

- 1 1-1/4" DUCTILE IRON PIPE
- 2 1-1/2" DUCTILE IRON PIPE
- 3 1-1/4" UNION
- 4 1-1/4" x 1-1/4" TEE
- 5 1-1/2" TO 1-1/4" REDUCER
- 6 1-1/2" x 1-1/2" TEE
- 7 1-1/2" x 1-1/4" TEE
- 8 1-1/4" FEMALE NPT COUPLER
- 9 SAMPLE TAP
- 10 PRESSURE GAUGE
- 11 PRESSURE SWITCH
- 12 PRESSURE RELIEF VALVE
- 13 INSTALL PRESSURE RELIEF VALVE VENT PIPE TO OUTSIDE
- 14 CISTERN PUMP CONTROL PANEL
- 15 50 AMP CIRCUIT BREAKER PANEL
- 16 "COYOTE" PUMP PROTECTOR
- 17 WELL PUMP CONTROL PANEL
- 18 GFCI OUTLET
- 19 LIGHT SWITCH
- 20 OVERHEAD LIGHT
- 26 INSTALL 1-1/2" DIGITAL FLOWMETER

1 MECHANICAL ROOM FLOOR PLAN
SCALE: 1" = 10'

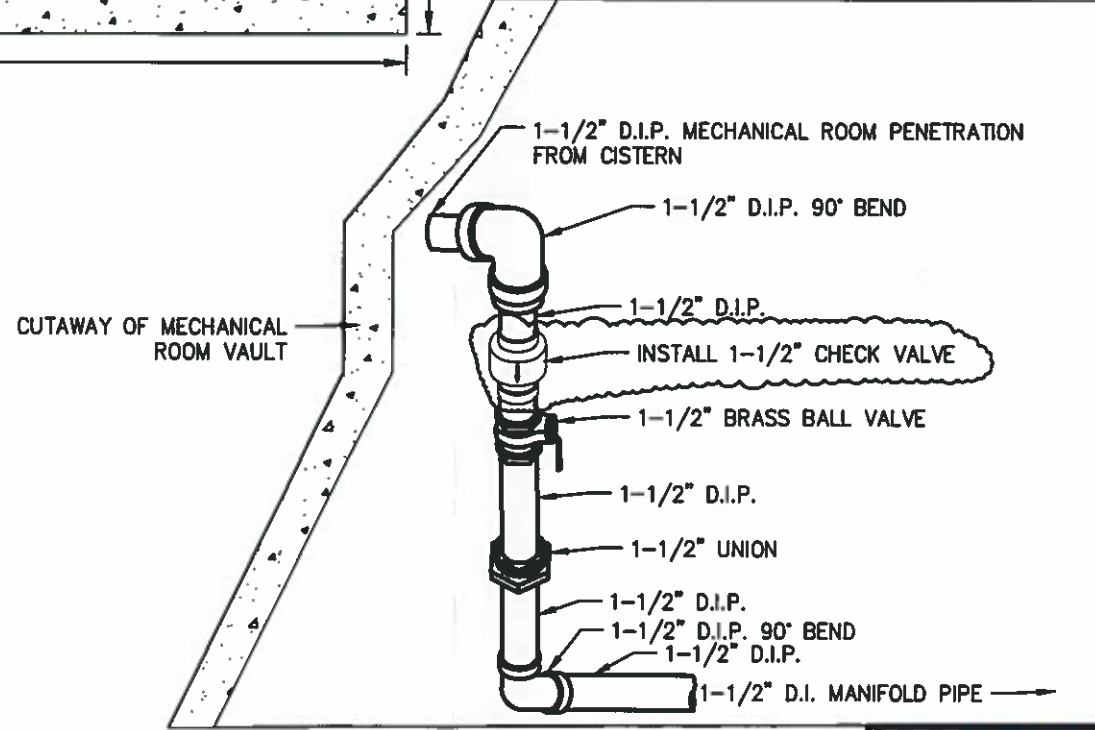
PUMP ROOM CONSTRUCTION NOTES
ALL ELECTRICAL INSTALLATION SHALL CONFORM TO THE IDAHO ELECTRICAL CODE REQUIREMENTS.
ALL ELECTRICAL EQUIPMENT SHALL BE U.L. RATED.

CONSTRUCTION INSPECTION - INSPECTION OF WATER SYSTEM COMPONENTS SHALL BE SCHEDULED WITH THE ENGINEER. ALL COMPONENTS OF THE WATER SYSTEM SHALL BE APPROVED BY THE ENGINEER OR HIS REPRESENTATIVE.

WATER SYSTEM COMPONENTS AND CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE IDAHO PLUMBING CODE (IPC), STATE OF IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS (DEQ), AND THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPMC). ALL MATERIALS SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE AMERICAN WATER WORKS ASSOCIATION STANDARDS (AWWA).

WATER SYSTEM DESIGN INCLUDES THE FOLLOWING:
NUMBER OF RESIDENCES SERVED: 7
NORMAL OPERATING PRESSURE RANGE: 60 - 80 psi
WELL PRODUCTION CAPACITY: 3 gpm
MAXIMUM INSTANTANEOUS DEMAND (M.I.D.) FLOWRATE FROM PUMPS: 33 gpm
AVERAGE WATER USE DEMAND: 2.52 gpm
NO. OF PRESSURE TANKS: 3
PRESSURE RANGE AT PUMP HOUSE: 60 - 80 psi
PRESSURE TANK SIZE: 1 - 88 gal AND 2 - 119 gal
PEAK HOURLY DEMAND: 55 gpm

PIPE - WATER PIPE SHALL CONFORM TO ANSI/AWWA AND ISPMC SPECIFICATIONS. PIPE MATERIALS SHALL BE APPROVED FOR USE WITH POTABLE WATER SYSTEMS BY THE IDAHO DIVISION OF ENVIRONMENTAL QUALITY.



2 SYSTEM INLET PIPE DETAIL
NOT TO SCALE

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SCALE: 1"=10' (11"x17" ONLY)

HMH

engineering

1302 W Hayden Ave
Hayden, ID 83835
(208) 635-5825

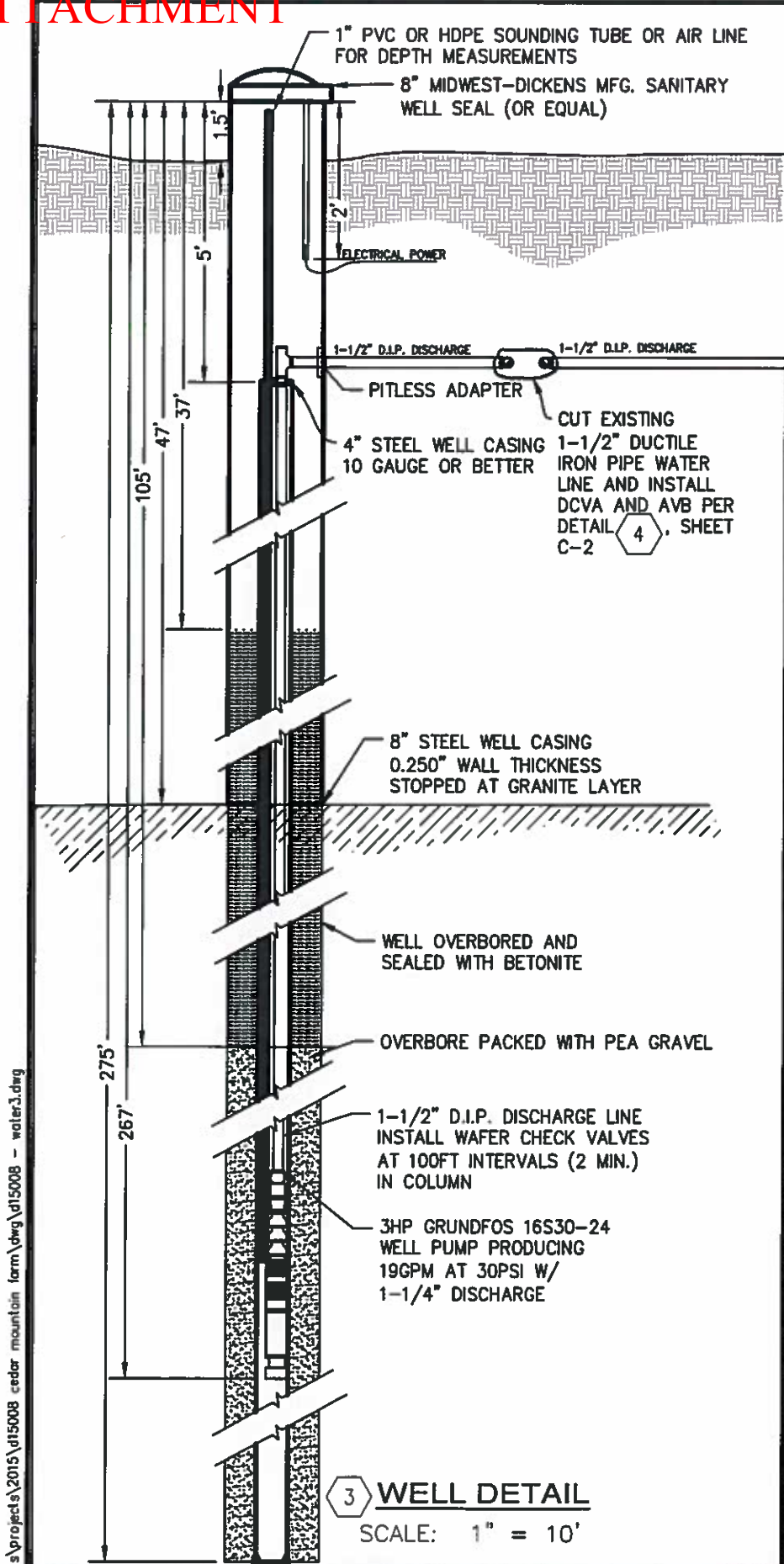
CEDAR MOUNTAIN FARM

CEDAR MOUNTAIN FARM
ATHOL, IDAHO

WATER SYSTEM
MECHANICAL ROOM DETAILS

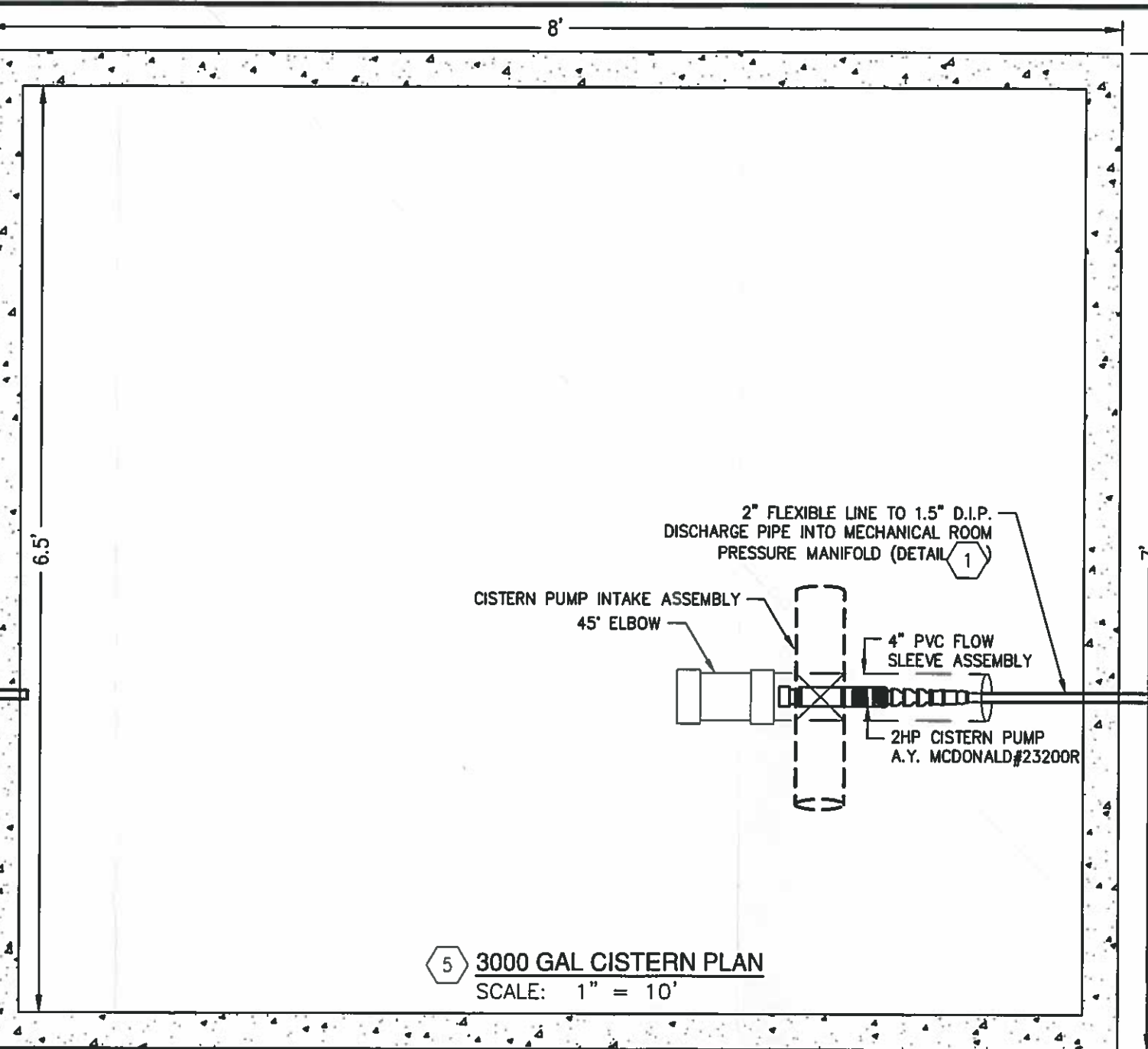
C-3
SHEET 3 OF 4

PROFESSIONAL ENGINEER
REGISTERED
5/30/16
STATE OF IDAHO
DANIEL W. LARSON



SEPARATION REQUIREMENTS
WATER AND SEWER LINES SHALL BE SEPARATED BY NO LESS THAN TEN (10) FEET HORIZONTAL DISTANCE, IN ACCORDANCE WITH THE ISPMC

NORMAL VERTICAL SEPARATION BETWEEN THE WATER AND NON-POTABLE WATER LINES SHALL BE EIGHTEEN (18) INCHES WITH POTABLE WATER OVER NON-POTABLE WATER LINES. IF VERTICAL SEPARATION IS LESS THAN EIGHTEEN (18) INCHES OR WHEN IT IS NECESSARY FOR THE WATER LINE TO CROSS UNDER A SEWER LINE, THE REQUIREMENTS OF THE ISPMC MUST BE FOLLOWED.



PUMP ROOM CONSTRUCTION NOTES (CONTINUED)

PIPE (CONTINUED) - ALL PIPING SHOWN AND PROPOSED TO BE GALVANIZED SCHEDULE 40 STEEL WITH NPT FITTINGS. PIPING CONFIGURATION SHALL BE SUBSTANTIALLY AS SHOWN. ALL PIPING THROUGH PENETRATIONS SHALL BE PROTECTED FROM STRESSES AND STRAINS DUE TO EXPANSION, CONTRACTION, AND STRUCTURAL SETTLING.

VALVES SHALL BE BRASS OR STAINLESS STEEL. GATE VALVES SHALL HAVE HANDWHEEL OPERATORS AND BALL VALVES SHALL HAVE LEVER OPERATORS. ALL PLUMBING SHALL CONFORM TO THE CURRENT EDITION OF THE IDAHO PLUMBING CODE.

PIPE TRENCHING SHALL CONFORM TO THE TYPICAL SECTIONS SHOWN IN THE CURRENT EDITION OF THE ISPMC. MINIMUM PIPE BURIAL DEPTH SHALL BE 5- FEET BELOW GRADE.

BACKFILL AND COMPACTION SHALL COMPLY WITH THE ISPMC. COMPACT ALL BACKFILL TO TOP OF TRENCH TO 85% MODIFIED DENSITY IN OPEN GROUND, 95% MODIFIED DENSITY IN ROADWAYS, IN ACCORDANCE WITH ASTM D1557 (MODIFIED PROCTOR) IN MAXIMUM 12-INCH LOOSE LIFTS.

PIPE BEDDING SHALL COMPLY WITH ISPMC. NO MATERIAL OR ROCKS LARGER THAN 3/4" SHALL BE LAID WITHIN SIX INCHES OF THE PIPELINE.

TRENCH PROTECTION SHALL CONFORM TO ISPMC AND OSHA

PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, THE IDAHO PLUMBING CODE, AND THE ISPMC. ALL PIPE SHALL BE LAID ON A STRAIGHT GRADE WITH NO LOCAL HIGH POINTS OR SAGS.

PRESSURE TEST - AFTER COMPLETE INSTALLATION OF NEW COMPONENTS, LEAVE ANY CONNECTIONS OR FITTINGS EXPOSED, PRESSURIZE SYSTEM WITH WATER AND CHECK FOR LEAKS.

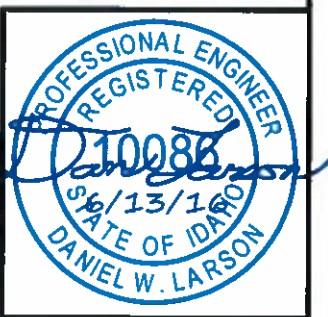
DISINFECTION - AFTER COMPLETE SYSTEM INSTALLATION, FLUSH WATER LINES AND DISINFECT SYSTEM BY ADDITION OF SODIUM HYPOCHLORITE OR CALCIUM HYPOCHLORITE OF 50 ppm IN THE CISTERN. FILL LINES AND HOLD WATER IN LINES FOR 24 HOURS. THE WATER SHALL THEN BE FLUSHED FROM LINES AND CISTERN UNTIL WATER IN CISTERN IS FULLY REPLACED BY WELL WATER.

ISSUE:	#	DATE	DESCRIPTION

PROJECT NO: D15008
DRAWN BY: D. LARSON
CHECKED BY: D. LARSON
SCALE: 1"=10' (11"x17" ONLY)

HMH engineering
1302 W Hayden Ave
Hayden, ID 83835
(208) 635-5825

CEDAR MOUNTAIN FARM	CEDAR MOUNTAIN FARM ATHOL, IDAHO	WATER SYSTEM WELL SERVICE DETAILS	C-4 SHEET 4 OF 4
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Ball, Dianne

From: Ball, Dianne
Sent: Thursday, September 08, 2016 9:54 AM
To: 'Fredericks, Holly'
Cc: Frederick, Adam; Case, Morgan
Subject: Application for Permit No. 95-17190, 95-17195, 95-17198
Attachments: LegalNotice 09-08-16 CdA e-mail 95-17190, 17195, 17198.doc

Good morning, Holly,

Please publish the enclosed legal notice on the dates indicated, September 15 and 22, 2016, (once a week for two consecutive weekly issues). If you cannot publish the notice on the proposed dates, please contact us immediately.

This should be very close to press ready – for 2-column, 8pt, Century Old Style font. It might even be close enough to just copy and paste, with very little modification required.

Please note the area(s) under **USE** containing dates and water amounts that are offset and lined up. Our legal should appear in this format.

Please also send a proof/preview copy for my review before this actually goes to press.

If you have any questions, please contact me as early as possible.

An affidavit of publication must be submitted to the Department along with the publication bill. Please send the affidavit and bill to this office before 10/3/2016. Your cooperation is appreciated.

A special thanks, Holly, for all you do to see that our legals look so great. It's a pleasure to work with you.

Dianne Ball

Administrative Assistant
Idaho Department of Water Resources
7600 N Mineral Dr., Ste. 100
Coeur d'Alene, ID 83815
208-762-2800 Fax 208-762-2819

The following application(s) have been filed to appropriate the public waters of the State of Idaho:

95-17190

POWDERHORN BAY WATER ASSN
C/O BRUCE MCEACHRAN
5110 S DEARBORN RD
SPOKANE, WA 99223
Point of Diversion L2(NWNW) S23 T48N R04W KOOTENAI CO
Source GROUND WATER
Use: DOMESTIC 01/01 to 12/31 0.06 CFS
Total Diversion: 0.06 CFS
Date Filed: 8/10/2016
Place of Use: DOMESTIC T48N R04W S14 SWSW
T48N R04W S22 NENE
T48N R04W S23 NWNW
Domestic use is for 2 homes.

95-17195

LONE MOUNTAIN WATER ASSN INC
10063 NAVION DR
HAYDEN, ID 83835
Point of Diversion SESE S2 T52N R04W KOOTENAI CO
Source GROUND WATER
Use: DOMESTIC 01/01 to 12/31 0.16 CFS
Total Diversion: 0.16 CFS
Date Filed: 8/17/2016
Place of Use: DOMESTIC T52N R04W S1 SWNW SENW NESW
NWSW SWSW
T52N R04W S2 SENE NESE NWSE SWSE SESE
Domestic use is for 11 homes with irrigation of up to 1/2 acre per home.

95-17198

CEDAR MOUNTAIN FARM
25249 N HATCH RD
ATHOL, ID 83801
HATCH FAMILY HERITAGE LLC
25249 N HATCH RD
ATHOL, ID 83801
Point of Diversion SWNE S35 T53N R03W KOOTENAI CO
Source GROUND WATER
Use: COMMERCIAL 01/01 to 12/31 0.13 CFS
Use: IRRIGATION 04/01 to 10/31 0.15 CFS
Use: STOCKWATER 01/01 to 12/31 0.02 CFS
Total Diversion: 0.2 CFS
Date Filed: 8/28/2016
Place of Use: COMMERCIAL T53N R03W S35 NWNE SWNE
Place of Use: IRRIGATION T53N R03W S35 NWNE SWNE
Place of Use: STOCKWATER T53N R03W S35 NWNE SWNE
SENE
Total Acres: 5
Commercial use is for 6 guest cabins, 1 Bed and Breakfast, and 1 caretakers house
Stockwater use is for 10 horses.
Permits will be subject to all prior water rights. For additional information concerning the property location, contact Northern Region office at (208) 762-2800; or for a full description of the right(s), please see:
<http://www.idwr.idaho.gov/apps/ExtSearch/WRApplicationResults/>
Protests may be submitted based on the criteria of Idaho Code § 42-203A. Any protest against the approval of this application must be filed with the Director, Dept. of Water Resources, Northern Region, 7600 Mineral Drive, Suite 100, Coeur D' Alene ID 83815 together with a protest fee of \$25.00 for each application on or before 10/3/2016. The protestant must also send a copy of the protest to the applicant.
GARY SPACKMAN, Director
Published on 9/15/2016 and 9/22/2016



State of Idaho

DEPARTMENT OF WATER RESOURCES

Northern Region, 7600 Mineral Drive, Suite 100, Coeur d'Alene, Idaho 83815

Phone: (208) 762-2800 FAX: (208) 762-2819 www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

September 8, 2016

CEDAR MOUNTAIN FARM
HATCH FAMILY HERITAGE LLC
25249 N HATCH RD
ATHOL, ID 83801

Application For Permit No. 95-17198

Dear Applicant(s):

The Department of Water Resources has received your water right application. Please refer to the number referenced above in all future correspondence regarding this application.

A legal notice of the application has been prepared and is scheduled for publication in the COEUR D ALENE PRESS on 9/15/2016 and 9/22/2016. Protests to this application may be submitted for a period ending ten (10) days after the second publication.

If the application is protested, you will be sent a copy of each protest. All protests must be resolved before the application can be considered for approval. If the protest(s) cannot be resolved voluntarily, the Department will conduct a conference and/or hearing on the matter.

If the application is not protested, the Department will process your application and notify you of any action taken on the application. If your application is approved, the Department will send you a copy of the permit.

Please contact this office if you have any questions regarding the application.

Sincerely,

Adam Frederick
Adam Frederick
Senior Water Resource Agent

CC: HMM ENGINEERING
1302 W HAYDEN AVE
HAYDEN, ID 83835

Incomplete

FORM 202 RECEIVED

AUG 04 2016

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Ident. No. _____

APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

IDWR / NORTH

1. Name of applicant(s) Cedar Mountain Farm and/or Hatch Family Heritage LLC Phone 208-683-2663
Name connector (check one): ☐ and ☐ or ☒ and/or
Mailing address 25249 N. Hatch Rd. Athol, ID 83801 Email info@cedarmountainfarm.c
2. Name of representative, if any HMH Engineering Phone 208-635-5825
Mailing address 1302 W. Hayden Ave. Hayden, ID 83835 Email dlarson@hmh-llc.com
- a. ☐ Send all correspondence for this application to the representative and not to the applicant OR
☒ Send original correspondence to the applicant and copies to the representative.
- b. ☒ The representative may submit information for the applicant but is not authorized to sign for the applicant OR
☐ The representative is authorized to sign for the applicant. Attach a Power of Attorney or other documentation providing authority to sign for the applicant.
3. Source of water supply Groundwater which is a tributary of N/A
4. Location of point(s) of diversion:

Twp	Rge	Sec	Govt Lot	1/4	1/4	1/4	County	Source	Local name or tag #
53N	03W	35		NE	SW	NE	Kootenai	Groundwater	D10876

5. Water will be used for the following purposes:
- Amount 0.04 cfs for Domestic Water - 8 Homes purposes from 01/01 to 12/31 (both dates inclusive)
(cfs or acre-feet per year)
- Amount 0.02 cfs for Stockwater purposes from 01/01 to 12/31 (both dates inclusive)
(cfs or acre-feet per year)
- Amount 5 acre-feet/year for Irrigation purposes from 06/01 to 11/30 (both dates inclusive)
(cfs or acre-feet per year)
- Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year)
6. Total quantity to be appropriated is (a) 0.06 cubic feet per second (cfs) and/or (b) 5 acre-feet per year (af).
7. Proposed diverting works:
- a. Describe type and size of devices used to divert water from the source. Water well to public water standards, 5hp submersible well pump, 2" water distribution line, 8000 gal cistern
- b. Height of storage dam _____ feet; active reservoir capacity _____ acre-feet; total reservoir capacity _____ acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 11. For dams 10 feet or more in height AND having a storage capacity of 50 acre-feet or more, submit a separate Application for Construction or Enlargement of a New or Existing Dam. Application required? ☐ Yes ☐ No
- c. Proposed well diameter is 4 inches; proposed depth of well is 275 feet.
- d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☒ No
- e. If well is already drilled, when? Nov 19, 1999; drilling firm Hester Well Drilling;
well was drilled for (well owner) Al and Daryl Kyle; Drilling Permit No. 96-99-N-271

For Department Use

Received by db Date 8/4/16 Time _____ Preliminary check by _____
Fee \$ 100.00 Received by db Receipt No. N032087 Date 8/4/16

8. Description of proposed uses (if irrigation only, go to item 9):
- Hydropower; show total feet of head and proposed capacity in kW. _____
 - Stockwatering; list number and kind of livestock. 5 to 10 Horses
 - Municipal; must complete and attach the Municipal Water Right Application Checklist.
 - Domestic; show number of households 8
 - Other; describe fully. 6 guest cabins, 1 caretakers house, 1 Bed & Breakfast house, 5 acres of landscape & garden irrigation
9. Description of place of use:
- If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
 - If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RGE	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
53N	03W	35			5														5

Total number of acres to be irrigated: 5

10. Describe any other water rights used for the same purposes as described above. Include water delivered by a municipality, canal company, or irrigation district. If this application is for domestic purposes, do you intend to use this water, water from another source, or both, to irrigate your lawn, garden, and/or landscaping? Existing Domestic water Right 95-15418
11. a. Who owns the property at the point of diversion? Hatch Family Heritage LLC
b. Who owns the land to be irrigated or place of use? Hatch Family Heritage LLC
c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing: The applicant is held by the same members as the corporation holding the land
12. Describe your proposal in narrative form, and provide additional explanation for any of the items above. Attach additional pages if necessary. Develop the existing well into a non-community transient public water system for use by the existing residents, Bed & Breakfast (commercial) use, livestock, guest cabins, garden and landscape irrigation.
13. Time required for completion of works and application of water to proposed beneficial use is 10 years (minimum 1 year).
14. **MAP OF PROPOSED PROJECT REQUIRED** - Attach an 8½" x 11" map or maps clearly identifying the proposed point of diversion, place of use, section #, township & range. The map scale shall not be less than two (2) inches equal to one (1) mile.

The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in rejection of the application or cancellation of an approval.


Signature of Applicant
Alan D. Kyle OWNER
Print Name (and title, if applicable)


Signature of Applicant
Daryl Ann Kyle owner
Print Name (and title, if applicable)