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DEPARTMENT OF
WATER RESOURCES

Permit No: 11-7017

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 11-7017
Exam Date: 01/04/2008

1. Current Owner: BEAR LAKE WEST INC
155 HWY 89
BOX 94
FISH HAVEN ID 83287
(208)945-1070
2. Accompanied by: Tom Ruppenthal
Phone No: (208)945-1070
Address: PO BOX 94, Fish Haven, Id 83287
Relationship to Permit Holder: Water Systems Supervisor

3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 11-7027, 11-7035, and 11-7142
2. Other water rights with the same point of diversion: 11-7027, 11-7035, and 11-7142

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER	SW1/4SE1/4	Sec. 27,	Twp 16S,	Rge 43E, B.M.
BEAR LAKE County				
GROUND WATER	SW1/4SW1/4	Sec. 27,	Twp 16S,	Rge 43E, B.M.
BEAR LAKE County				
GROUND WATER	SW1/4SE1/4	Sec. 22,	Twp 16S,	Rge 43E, B.M.
BEAR LAKE County				
GROUNDWATER	NE1/4SE1/4	Sec 28,	Twp 16S,	Rge 43E, B.M.
BEAR LAKE County				

Method of Determination: GPS, and map provided by applicant with transfer 73265

2.

PLACE OF USE: MUNICIPAL

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
16S 43E 22									X	X	X	X			X	X	L 3
16S 43E 27									X	X	X	X		X	X	X	L 4
16S 43E 28			X					X	X			X	X	X	X	X	L 4
												L 2			L 3		

Method of Determination: TAX LOT DATA AND PLAT MAPS SUBMITTED WITH TRANSFER 73265

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
Well 1		5			
Well 2		20			
Well 4		5			

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>

2. Measurements: none

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method:

WELL 1 0.09 CFS

WELL 2 0.41 CFS

WELL 4 0.12 CFS

0.62 CFS total capacity

Rights 11-7027, 11-7035, and 11-7142 combine for a total of 0.35 cfs. This permit authorizes an additional 0.27 cfs for a combined total of 0.62. Well 3 is in place but did not have a pump on it at the time of exam.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses: 1.2 AFA * 300 HOMES = 360 AFA: Limited to 150 AFA by proof of beneficial use submitted

G. NARRATIVE/REMARKS/COMMENTS

Well 1 connects to a storage tank 1 which is 50000 gal. This tank is further connected to well 2. Well 3 is currently in need of a pump, a 25 hp pump is planned for this well pumping into 160 PSI system. All three wells are connected to 5 storage tanks, tank 2 is for 50000 gallons, tank 4 is for 125000 gallons and located adjacent to tank 2. Tank 3 is for 50000 and tank 5 is for 175000, tank 3 is adjacent to tank 5. The two subdivisions are connected by a mainline.

The system is divided into 6 pressure zones, 3 pressure zones in the northern subdivision, and 3 pressure zones in the southern subdivisions. At the time of exam 650 units were stubbed in ready for delivery. The total number of authorized domestic units is 337. Three units under 11-7027, 25 units under 11-7035, and 9 units under 11-7142. This permit authorized 300 additional units. The result of transfer 73265 will change the nature of use of these rights to municipal.

Have conditions of permit approval been met? x Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
MUNICIPAL	01/01 to 12/31	0.270 CFS	150.00 AF
	<u>Totals:</u>	0.270 CFS	150.00 AF

2. Recommended Amendments

 X Change P.D. as reflected above X Add P.D. as reflected above None

 X Change P.U. as reflected above X Add P.U. as reflected above X Other

Change the nature of use to Municipal

I. AUTHENTICATION

Field Examiner's Name Nate Arave Date 1/4/08

Reviewer Nate Arave Date 1/25/08

Theoretical Pump Flow Calculation	
$Q = [(Hp) * (8.814) * (eff)] / [Lift + (psi * 2.308)]$	
Permit No. 11-7017 Well 1	
Hp = horsepower =	5
Eff = efficiency =	0.7
Lift =	115
PSI = Pressure =	100
Q =	0.09

Lift = Static water level + assumed draw down
or
Measured dynamic water level

Theoretical Pump Flow Calculation	
$Q = [(Hp) * (8.814) * (eff)] / [Lift + (psi * 2.308)]$	
Permit No. 11-7017 Well 2	
Hp = horsepower =	20
Eff = efficiency =	0.7
Lift =	120
PSI = Pressure =	80
Q =	0.41

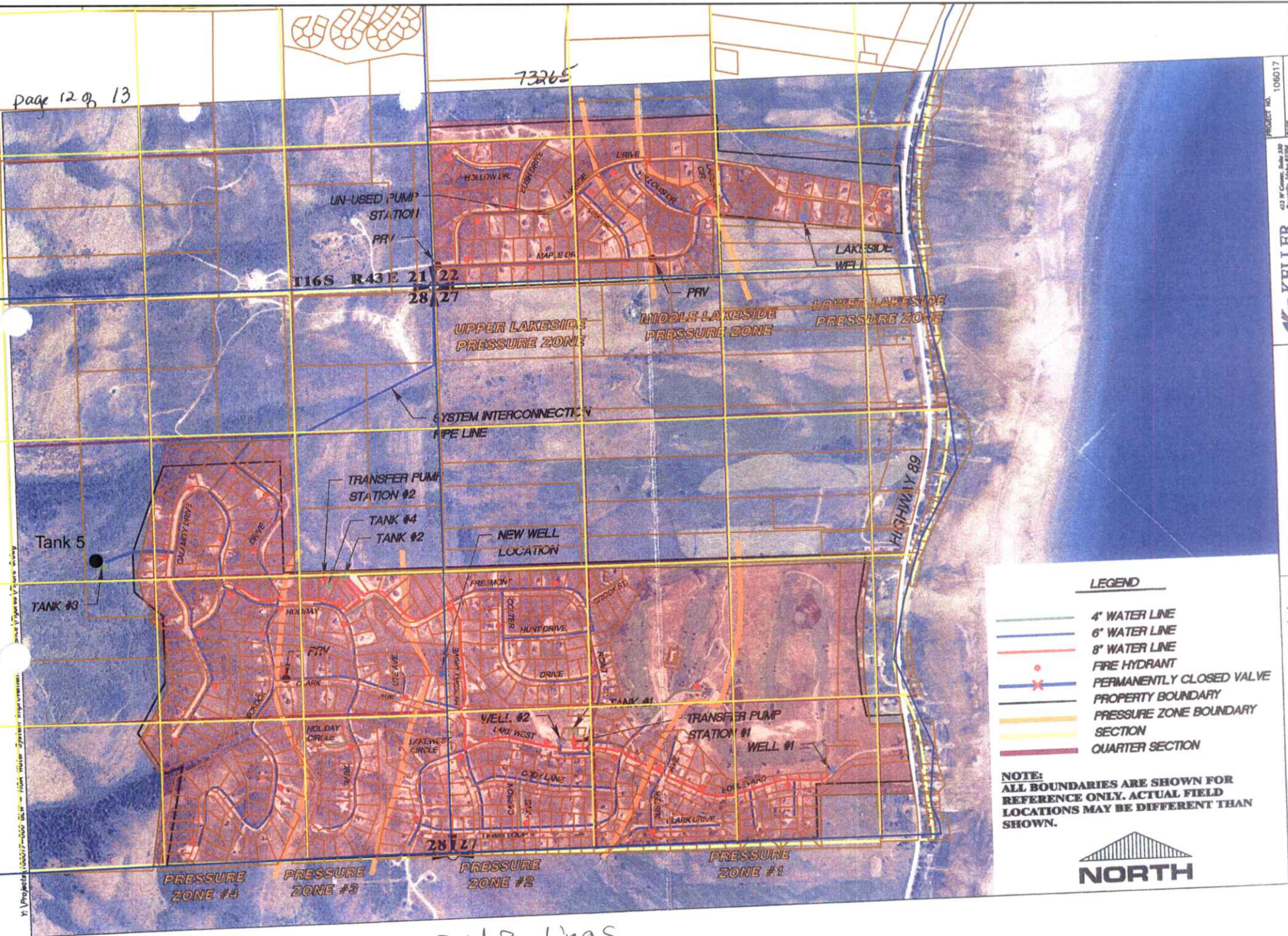
Lift = Static water level + assumed draw down
or
Measured dynamic water level

Theoretical Pump Flow Calculation	
$Q = [(Hp) * (8.814) * (eff)] / [Lift + (psi * 2.308)]$	
Permit No. 11-7017 Well 4	
Hp = horsepower =	5
Eff = efficiency =	0.7
Lift =	80
PSI = Pressure =	80
Q =	0.12

Lift = Static water level + assumed draw down
or
Measured dynamic water level

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- LEGEND**
- 4" WATER LINE
 - 6" WATER LINE
 - 8" WATER LINE
 - FIRE HYDRANT
 - X — PERMANENTLY CLOSED VALVE
 - PROPERTY BOUNDARY
 - PRESSURE ZONE BOUNDARY
 - SECTION
 - QUARTER SECTION

NOTE:
ALL BOUNDARIES ARE SHOWN FOR
REFERENCE ONLY. ACTUAL FIELD
LOCATIONS MAY BE DIFFERENT THAN
SHOWN.



530
Meters

Modified 1/7/08 to reflect field findings
submitted with transfer 73265



Well 1



well 2

W2113







Storage
tanks