STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 37-8439
Exam Date: Nov. 15, 2005

1. Current Owner: STARWEATHER SUBDIVISION PROPERTY OWNERS
C/O JAMES P SPECK
PO BOX 987
KETCHUM ID 83340-0987
(208)726-4421

2. Accompanied by: Robin Newcomb
Phone No: 208-622-1030
Relationship to Permit Holder: Subdivision Association Member:

3. **SOURCE** **TRIBUTARY**
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Adj. Claims 37-12027, 12029 withdrawn
2. Other water rights with the same point of diversion: none

C. DIVERSION AND DELIVERY SYSTEM

A distribution system diagram was not available however Mark Koffer (Walker Water Systems) and Robin Newcomb (subdivision association) said the main distribution line generally follows the roadways in the subdivision. Fire hydrants and homes throughout the subdivision were evidence that the system was developed as described (Figure 2). The outflow from both pumps join together into and 8 inch pipe which then leaves the pumps house to distribution system. The system also has 3-23 gallon and 14-33 gallon pressure storage tanks located in the pump house after merging point of the pump outflows (Figure 1).

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NW1/4NW1/4 Sec. 20, Twp 03N, Rge 18E, B.M.
BLAINE County

Method of Determination: Garmin GPS

2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N 18E 17										3.6	5.4						9.0
03N 18E 18													1.6			3.7	5.3
03N 18E 19																1.6	1.6
03N 18E 20					1.0	8.0	1.1	4.0									14.1

Total Acres: 30

DOMESTIC same as IRRIGATION

Method of Determination:

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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
_____	_____	40	_____	Berkeley 8T40	500 gpm_____
_____	_____	40	_____	Berkeley 8T40	500 gpm_____
_____	_____	____	_____	_____	_____
_____	_____	____	_____	_____	_____

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Installed Meter	Propeller	McCrometer		81-8-2083	8 inch	---------

2. Measurements:

Standard-Measured with Fuji Ultrasonic Flow Meter
5 minute run volume both pumps running = 4593 gallons Standard Meter Flow Rate = 919 gpm

Installed meter
5 minute run volume both pumps running = 5300 gallons Installed Meter Flow Rate = 1060 gpm

Comments on Measurement:
The installed meter and standard meter were run for the same duration of time. The two pumps in series were running during the measurement. However, generally only one pump is in operation (a fire hydrant had to be turned on to get both pumps to run simultaneously).

E. FLOW CALCULATIONS _____Additional Computation Sheets Attached

Irrigation
Residential Lots = 55

Total Acres Irrigated = 30 acres
Flow = 30 acres*(0.02 cfs per acre) = 0.60 cfs

Domestic
55 Residential lots = 0.34 cfs (from Chart)

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.}$ = (Acres Irrigated) x (Irrigation Requirement) =30 acres * 3.5 af/acre = 105 af/year

$V_{D.R.}$ = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 0.60 cfs *199 days * 1.9835 = 236 af/year

V = Smaller of $V_{I.R.}$ and $V_{D.R.}$ = 105 af/year

2. Volume Calculations for Other Uses:

Domestic

0.6 afa per household*55 households = 33 af/year

G. NARRATIVE/REMARKS/COMMENTS

The subdivision has 64 total taxlots. Only 55 of those lots are residential lots and 37 of those lots have homes built on them (Phone Conversation w/ Becky Clause subdivision secretary Nov. 14, 2005 (726-4565)). One non-residential lot (lot 53) was irrigated (a small portion (~0.06 acres) of a berm).

Attached is a map and a list the lots in the subdivision. Lots 1 to 52, 59, 60A-1, and 60B are designated as residential lots. Lots 53 and 54 are identified as common pasture. These lots are located at the entrance of the subdivision.

Lots 55-58 are identified as common park or common recreation and are not irrigated.

The permit appropriated 16.7 acres to 21 lots developed and irrigated prior to November 1987. The permit appropriated 13.3 acres to the lots to be developed. The post 1987 lots were limited to ½ acre irrigation per lot. A list of acreages irrigated by each of the 21 pre-1987 developed lots was sent in a letter (June 17, 1996) to IDWR from Hogue, Speck, and Aanested who represented the subdivision. The sum of these acreages was 15.9 acres, however in the letter there total showed 16.7 acres, which was incorrect. Thus, 15.9 acres were appropriated to the 21 pre-1987 lots and 14.1 acres to the remaining 35 lots (34 residential and 1 non-residential (lot 53)). I created the POU based on the acreages listed by lot for the pre-1987 lots and then dividing the remaining 14.1 acres evenly among the rest of the lots.

Have conditions of permit approval been met? _____Yes _____No

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE	ANNUAL VOLUME
IRRIGATION	04/15 to 10/31	0.600 CFS	
DOMESTIC	01/01 to 12/31	0.340 CFS	
	Totals:	0.940 CFS	138.00 AF

2. Recommended Amendments

___Change P.D. as reflected above ___Add P.D. as reflected above ___None

___Change P.U. as reflected above ___Add P.U. as reflected above ___Other

I. AUTHENTICATION

Field Examiner's Name_Troy Winward_____ Date Feb. 6, 2006

Reviewer_____ Date_____

WMP2 7-23-02

IDAHO DEPARTMENT OF WATER RESOURCES
Water Measurement Program

WATER MEASURING DEVICE CERTIFICATION

(Revised 7/2002)

District _____

Diversion Name _____

Inventory Date _____
Inventory Examiner _____
PCC o.k.? ☐ Yes ☐ No

Test Date Nov. 15, 2005
Person performing test Troy Winward
Exam complete? ☐ Yes ☐ No

Name: _____
Water Right No.: _____
Legal Description: T_____ R_____ Sec._____ ___¼ ___¼ ___¼
Site Tag No.: _____
Diversion Name: _____

Current Owner

Name STAR WEATHER Subdivision Phone _____
Address _____ Cell _____
City _____ St _____ Zip _____ E-mail _____

Operator *(if leased or operated by person other than owner)*

Name Walker Water Systems - Mark Reffer Phone (208) 733-4744
Address _____ Cell _____
City _____ St _____ Zip _____ E-mail _____

SECTION 1 – Well Site Identification

Global Positioning System Data:

Data Collection Filename _____ Offset _____
IDWR Site Tag Identification No. _____
Site Tag Location description: _____
PLS/USGS LOCATOR _____

For Department/District Use Only

Received by _____ Date _____
Reviewed by _____ Date _____
Data Entry By _____ Date _____

SECTION II – Installed Meter Information

METER AND MOUNTING PIPE INFORMATION			
Motor HP	2-40hp	Volume units	Acre-Feet Gallons Other (specify) _____
Meter Install Date		Volume multiplier	
Manufacturer		Installation location	☐ Excel ☐ Fair ☐ Good ☐ Poor
Meter Type	MICROMETER ~~SMITH~~	Pipe material	CARBON STEEL
Meter Model		Outside diameter	8.65
Serial Number	81-8-2083	Wall thickness	.34
Size (nominal)		Inside diameter	
Measure Flow Rate?	☑ Yes ☐ No	Amount of straight pipe upstream from meter	~~Approx~~ 16Ft Inches _____ Pipe Lengths
Measurement Units	☐ CFS ☑ GPM Other (specify)_____	Amount of straight pipe downstream from meter	~~Approx~~. 34ft Inches _____ Pipe Lengths
Flow Rate Multiplier		Standard Meter Type	☐Sonic ☐Pyg ☐Collins ☐Hall ☐Anub ☐Dye/chem ☐Other Fuji
Measure Cumulative Volume?	☑ Yes ☐ No	Standard Meter Confidence	☑ Excellent 2% ☐ Good 5% ☐ Fair 10% ☐ Poor > 10%

Multiple Flowmeters

Are multiple flowmeters used to measure diversions from this well? ☐ Yes ☐ No

If yes, how many? _____
(Attach separate form for each meter checked and/or calibrated.)

Multiple Wells

If this meter measures diversions from multiple wells, list names and locations of other wells:

SPEED OF SOUND 4773 4763

VELOCITY 6 PRESSURE 40 PSI

	FLOW METER	X100	FUJI	
5 MIN START 10 MIN	559288	1000 GPM	4691	970 GPM
	559341	1000 GPM	9284	960 GPM — TOTALIZER STOPPED AT 8 MIN ?

SECTION III – Certification for Calibration of a Water Measurement Meter

Measurement No. 1 (M_1) is the measured rate of flow from the permanently installed flow meter.

Measurement No. 2 (M_2) is the measured rate of flow from the measuring device being used to check the flow for the calibration. This method or device must be accurate to within ± 5% error. Describe below the method and equipment used to perform this measurement.

Percent Difference = $(M_1 - M_2) \div M_2 \times 100 = \pm$ % (Acceptable is within ± 10%) (equation 1)

Calibration Multiplier = $M_2 \div M_1$ (equation 2)

Is flowmeter installed according to manufacturer's specifications? ☑ Yes ☐ No ☐ Unsure

Describe any apparent problems with installation or operation _____

_____

_____

Flowmeter accuracy prior to any adjustments: _____ Totalizer reading _____

Flowmeter accuracy after final adjustment: _____ Totalizer reading _____

Flowmeter calibration multiplier: _____

FLOWMETER ACCURACY CALIBRATION TABLE

Installed meter (totalizer reading)	Time	Total Gallons	Average Flow Rate GPM (M_1)	Standard total gallons	Average Flow Rate GPM (M_2)	% diff. (±)	Comments and adjustments
559288	5:00	5300	1060	4593	919	15%	
				9284 (10 mins)	928.4		

Notes – Comments – Calculations: Installed Meter was not working, it began working part way through the measurement so performed a five minute run comparison on the installed meter.

WATER LEVEL DATA	
Does the well have access to measure water levels? ~ Yes ~ No (*check one*)	
Is this well part of USGS, IDWR, or another network of water level monitoring wells? ~ Yes ~ No (*check one*)	
Static Water Level _____ ft Date _____	Pumping Water Level _____ ft (at condition _____) Date _____

Sketch and/or photograph of installation:

I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature _____ Date Mar 15, 2005

(person performing measurements)

Starweather Subdivision

LOT #	Lot Acres	Type	Permit Acres Allotted	
1 LOT 1	1.21@ SEC 20 3N 18E	Residential	1.00 *	
2 LOT 2	1.51@ SEC 20 3N 18E	Residential		
3 LOT 3	1.37@ SEC 20 3N 18E	Residential		
4 LOT 4	1.06@ SEC 20 3N 18E	Residential		
5 LOT 5	1.00@ SEC 20 3N 18E	Residential		
6 LOT 6	1.00@ SEC 20 3N 18E	Residential	0.50 *	
7 LOT 7	1.02@ SEC 20 3N 18E	Residential		
8 LOT 8A	2.52 SEC 20 3N 18E	Residential		
9 LOT 9	1.41@ SEC 20 3N 18E	Residential	0.75 *	
10 LOT 10	1.55@ SEC 20 3N 18E	Residential		
11 LOT 11	2.88@ SEC 20 3N 18E	Residential	2.00 *	
12 LOT 12	1.37 SEC 20 3N 18E	Residential	1.37 *	
13 LOT 13	1.05@ SEC 20 3N 18E	Residential		
14 LOT 14	1.04@ SEC 20 3N 18E	Residential		
15 LOT 15	1.11@ SEC 20 3N 18E	Residential		
16 LOT 16	1.63@ SEC 20 3N 18E	Residential		
17 LOT 17	1.24@ SEC 20 3N 18E	Residential	0.50 *	
18 LOT 18	1.12@ SEC 20 3N 18E	Residential		
19 LOT 19	1.07@ SEC 17	Residential	0.00 *	
20 LOT 20	1.08@ SEC 17	Residential	0.50 *	
21 LOT 21	1.12@ SEC 17	Residential		
22 LOT 22	1.00@ SEC 17	Residential	0.50 *	
23 LOT 23	1.25@ SEC 17	Residential		
24 LOT 24	1.11@ SEC 17	Residential		
25 LOT 25	1.01@ SEC 17	Residential	1.00 *	
26 LOT 26	1.25@ SEC 18	Residential		
27 LOT 27	1.00@ SEC 17	Residential	0.50 *	
28 LOT 28	1.04@ SEC 18	Residential	0.75 *	
29 LOT 29	1.07 @ SEC 18	Residential		
30 LOT 30	1.10@ SEC 17	Residential		
31 LOT 31	1.26@ SEC 17	Residential		
32 LOT 32	1.65@ SEC 17	Residential	0.50 *	
33 LOT 33	1.32@ SEC 17	Residential	0.50 *	
34 LOT 34	1.38@ SEC 17	Residential	1.30 *	
35 LOT 35	1.19@ SEC 18	Residential	0.50 *	
36 LOT 36	1.92@ SEC 18	Residential		
37 LOT 37	1.39@ SEC 18	Residential		
38 LOT 38	1.99@ SEC 18	Residential		
39 LOT 39	2.40@ SEC 18	Residential		
40 LOT 40	2.48@ SEC 18	Residential	0.50 *	
41 LOT 41	2.46@ SEC 18	Residential	1.00 *	
42 LOT 42	3.14@SEC 18	Residential		
43 LOT 43	3.36@ SEC 17	Residential		
44 AMENDED LOT 44A	3.60@ SEC 17&18&19&20 3N 18E	Residential		
45 LOT 45	2.66@ SEC 19&20 3N 18E	Residential	0.75 *	
46 LOT 46	2.43@ SEC 19&20 3N 18E	Residential		
47 LOT 47	2.31@ SEC 19&20 3N 18E	Residential	1.00 *	
48 LOT 48	2.13@ SEC 19&20 3N 18E	Residential		
49 LOT 49	2.59@ SEC 20 3N 18E	Residential	0.50 *	
50 LOT 50	2.65@ SEC 20 3N 18E	Residential		
51 AMENDED LOT 51A	2.67@ SEC 20 3N 18E	Residential		
52 AMENDED LOT 52A		Residential		
53 LOT 53	13.96@ SEC 20 3N 18E	Common Pasture		Part of Berm Irrigated
54 LOT 54	15.6@ SEC 20 3N 18E	Common Pasture	ion within taxlot	
55 LOT 55 COMMON PARK	75.65@ SEC 20 3N 18E	Commmon Park	no irrigation	
56 Lot 56 COMMON REC	7.15@ SEC 20 3N 18E	Common REC	no irrigation	
57 LOT 57	9.58@ SEC 19 3N 18E	Commmon Park	no irrigation	
58 LOT 58	24.13@ SEC 18&19 3N 18E	Commmon Park	no irrigation	
59 LOT 59	1.86@ SEC 17	Replatted to Residential		
60 AM LOT 60A-1	3.99 SEC 20 3N 18E	Residential		
61 LOT 60B	3.63 SEC 20 3N 18E	Residential		
		Pre 1987 total	15.9 acres	

*The original 21 lots developed prior to 1987 that were given 16.7 acres total irrigation.

These are the acreages from a letter on June 17, 1996 sent to IDWR from Attorneys for Starweather Subdivision.

The acreages from the letter only add up to 15.92 acres not 16.7 acres


LOT 19
LOT 20
AMENDED LOT 44A
LOT 45
LOT 18
LOT 17
LOT 46
LOT 15
LOT 16
LOT 47
LOT 13
LOT 53
LOT 14
LOT 48
LOT 57
LOT 49
LOT 12
LOT 11
Berm
LOT 50
AMENDED LOT 51A
LOT 10
AMENDED LOT 52A
LOT 8A
LOT 7
LOT 9
LOT 6
COMMON REC
LOT 5
AM LOT 60A-1
LOT 60B
LOT 4
LOT 3
LOT 2
LOT 1
LOT 54
LOT 55 COMMON PARK


LOT 36
LOT 35
LOT 34
LOT 59
LOT 33
LOT 37
LOT 82
LOT 29
LOT 38
LOT 27
LOT 58 (SEE FILE)
LOT 28
LOT 31
LOT 39
LOT 25
LOT 26
LOT 30
LOT 40
LOT 23
LOT 24
LOT 41
LOT 42
3.14@
LOT 21
LOTS 61, 62, 63 & 64
LOT 22
LOT 43
LOT 19
LOT 20
AMENDED LOT 44A
LOT 45
LOT 18
LOT 17
LOT 46
LOT 15
LOT 16
LOT 47
LOT 13
LOT 53
LOT 14
LOT 48
LOT 57
LOT 49
LOT 12
LOT 11
LOT 50
AMENDED LOT 51A
LOT 10
AMENDED LOT 52A
LOT 8A
LOT 7
LOT 9
LOT 6
COMMON REC
LOT 5
AM LOT 60A-1
LOT 60B
LOT 4
LOT



Figure 1. Storage tanks and flow meter in the pump house.



Figure 2. Fire hydrant along roadway.

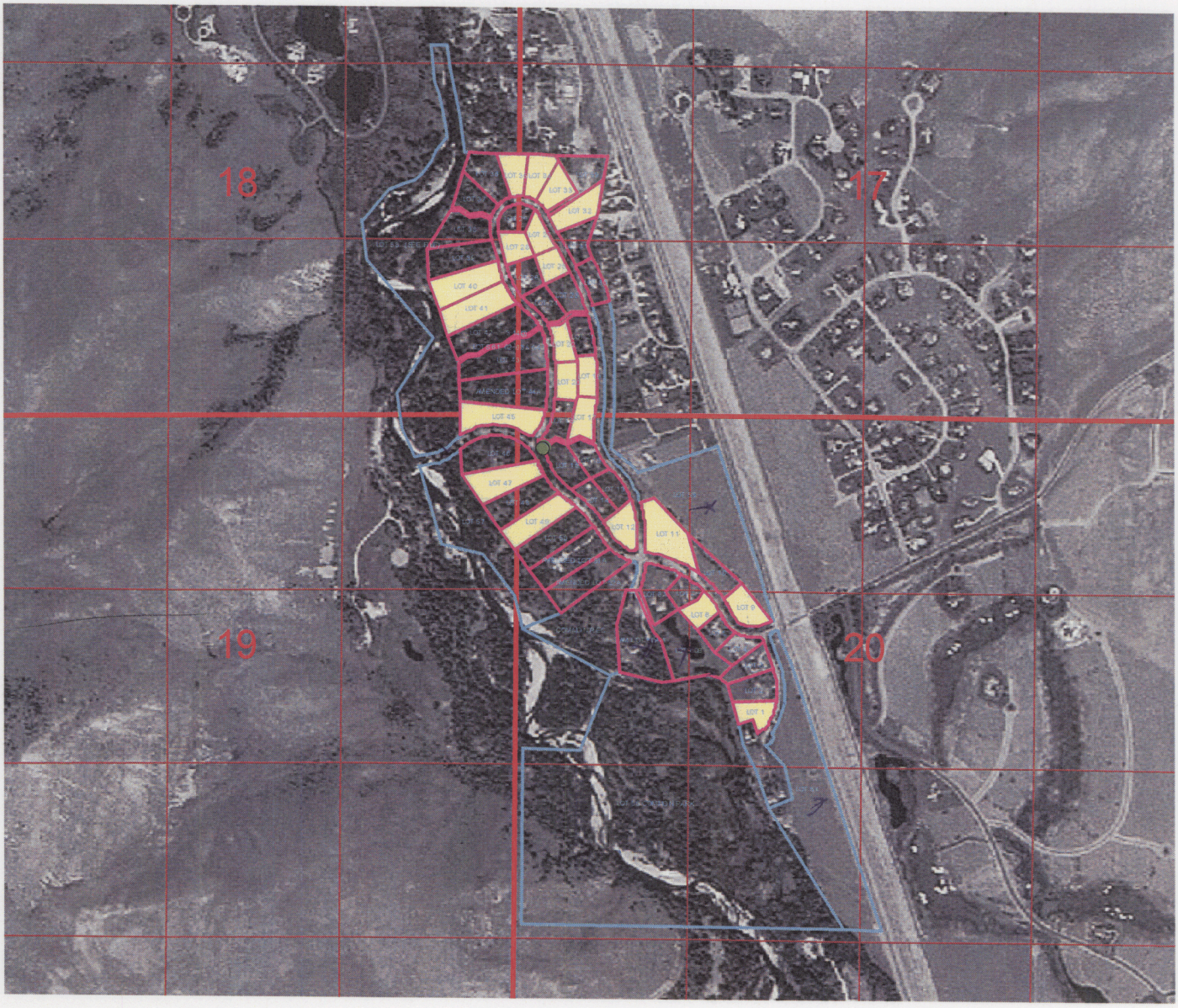


Figure 3. Submersible pump head in the well house.

Idaho Department of Water Resources

Field Exam Water Permit Number: *37-8439*

T03N R18E



0 0.5 1 1.5 Miles

N

- POD
- Starweather Sub. Tax Lots (Residential)
- Starweather Sub. Tax Lots (all)
- Original 21 lots developed prior to 1987
- Sections
- QQ

Prepared by T. Winward
On Thursday, December 1, 2005
Spot Imagery 8/10/2003

37-08439 Field Exam (Starweather Subdivision)

Nov. 15, 2005

Troy Winward, IDWR

Nathan Erickson, IDWR

Mark Coffer, Walker Water

Robin Newcomb, Subdivision Association 622-1030

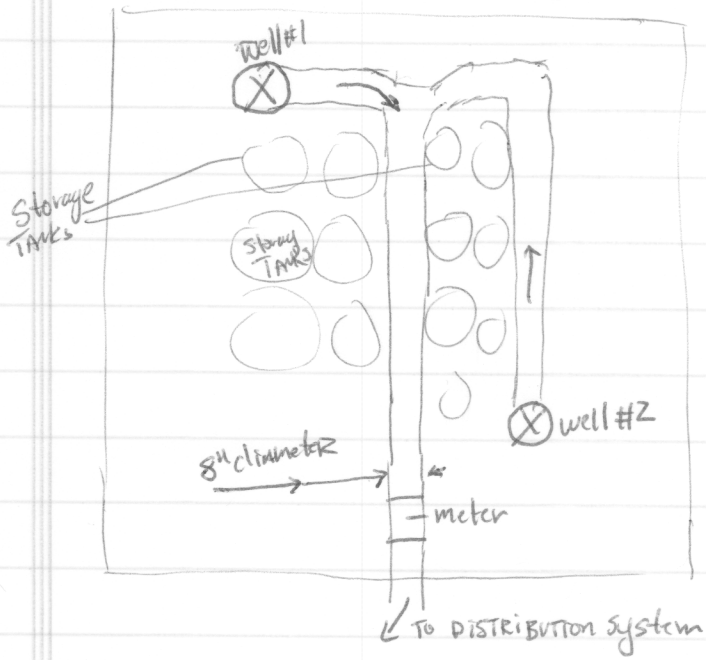
Pump house

2-40 hp submerssible pumps

Berkley Model 8T40 - 500gpm

3 - 23 gallon pressurized Storage tanks

14 - 33 gallon pressurized Storag tanks



Mark Coffer - said distribution follows Roadway and T's at each lot with a PVC pipe marking location of connection. Several of these PVC MARKERS were observed

Well # 1 and # 2 were measured simultaneously - a fire hydrant had to be turned on to get both wells to turn on, the second well is probably a backup well

10 minute Average with Fuji ultrasonic = 919 gpm

5 minut Average with installed flow meter = 1060 gpm

Nov. 14, TW

Phone Conversation with Becky Clausen - Subdivision Association

Total # of lots = 64

Built on lots = 37

GBS-READING @ pumphouse 2472121

1376051

