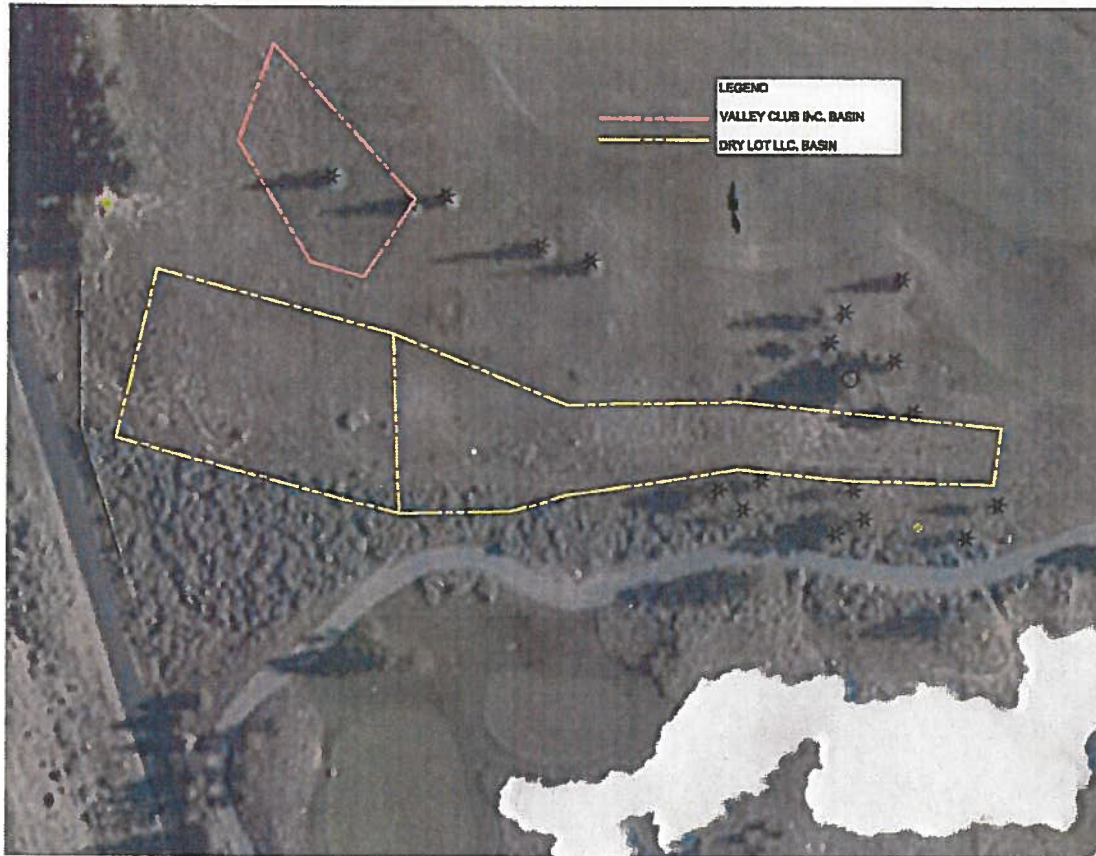


AQUIFER RECHARGE AND PUMPING DRY LOT LLC REPORT – 2016 JANUARY 2017



**AQUIFER RECHARGE AND PUMPING
DRY LOT LLC
REPORT- 2016
JANUARY 2017**

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Appendix B: Summary of Data of 1993 and 1994 Data Collection System

The data collection system was designed to collect and store data on the recharge of up to 100,000 gallons of water per day from the City of San Diego through the infiltration system. The system was designed to collect data on the recharge of up to 100,000 gallons of water per day from the City of San Diego through the infiltration system. The system was designed to collect data on the recharge of up to 100,000 gallons of water per day from the City of San Diego through the infiltration system.

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OVERVIEW

This report documents activities and performance for the reporting year of 2016 at the Dry Lot LLC aquifer recharge site located at the Valley Club north of Hailey, Idaho (Figure 1). This report is prepared to comply with condition number two of Dry Lot LLC water right license 37-22252 and condition number five of Dry Lot LLC water rights 37-22313, 37-22318, and 37-22323 issued by the Idaho Department of Water Resources (IDWR).

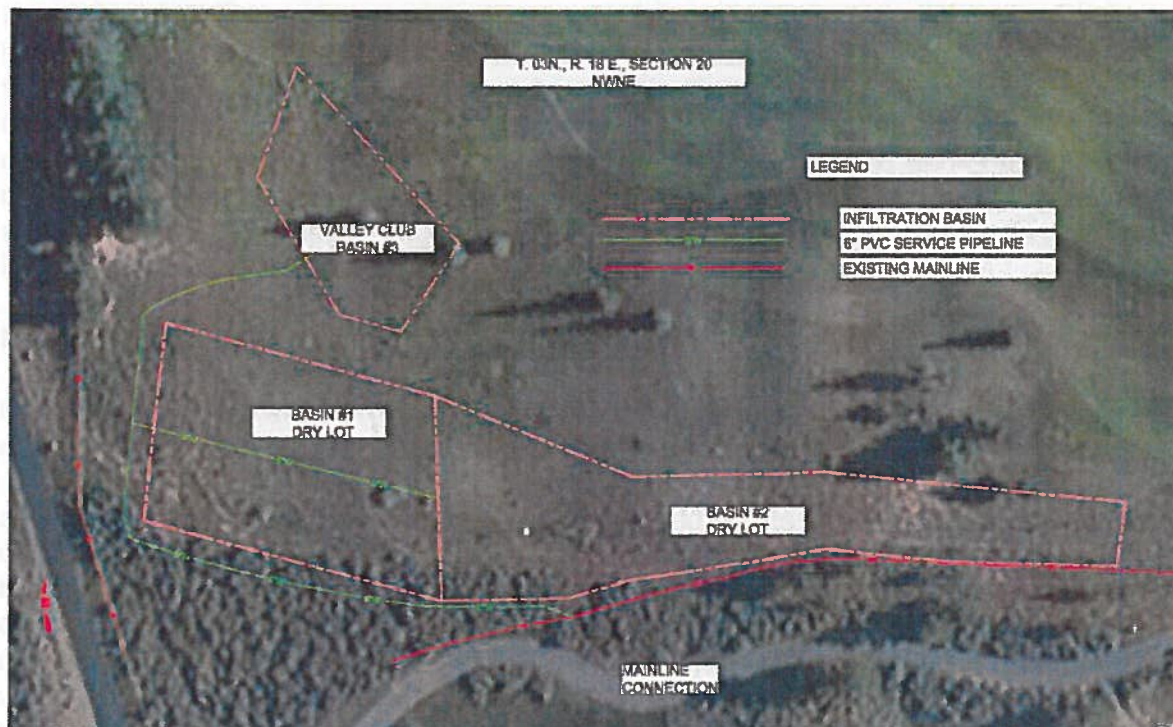


Figure 1: Locations of Dry Lot LLC and Valley Club Infiltration Basins.

Dry Lot LLC water right 37-22252 and other existing water rights authorize the recharge of up to a maximum of 75.4 acre-feet of water from the Big Wood River through the adjacent Hiawatha Canal and Valley Club golf course irrigation system, as well as the extraction of irrigation water from the existing Valley Club Home Owners Association's wells in T.03N R.18E SEC.20 SW $\frac{1}{4}$ NE $\frac{1}{4}$ and SE $\frac{1}{4}$ NW $\frac{1}{4}$ for the irrigation of up to 27.5 acres anywhere within ninety-nine currently platted subdivision lots.

IDWR Permit No. 37-22252 in the name of Dry Lot LLC was approved on August 8th, 2010 authorizing limits of 75.4 acre-feet to be recharged for 27.5 acres of irrigation. Planning and design of the infiltration system was coordinated with the Valley Club Inc. The design of the system was revised to add an additional recharge volume to

accommodate a proposed project by the Valley Club Inc. for enhanced golf course irrigation (see Figure 1). Proof of beneficial use of 37-22252 was filed with IDWR on June 11th 2015 and the water right permit was licensed as permitted on September 1st 2015 for the irrigation of 27.5 acres using 75.4 acre-feet of water.

This report has been drafted on behalf of Dry Lot LLC includes the following information: location of facilities, basin recharge, compliance summary and conclusions.

LOCATION OF FACILITIES

Facilities associated with the Dry Lot LLC and Valley Club Inc. infiltration basins are located in T.03N R.18E SEC.20 NWSE. Infiltration basin recharge water is diverted from the Valley Club Inc.'s irrigation system, flows through a 6" delivery line into an Orival OR-04-PE 100 micron mesh filter, and can enter either of the two Dry Lot LLC or one Valley Club Inc. infiltration basins. Basin layout was designed and constructed to meet the required area for infiltration, as well as to meet physical constraints such as accommodating for existing irrigation piping and golf course irrigation facilities. An infiltration basin facility overview is shown in Appendix A.

BASIN RECHARGE

Condition of approval #2 on Dry Lot LLC water right license 37-22252 requires submittal of an annual report by January 31, of each year to include the following:

- a) The volume of water diverted from the authorized points of diversion for each month of the prior calendar year,
- b) The number and location (by subdivision lot number) of the acres of land irrigated in connection with this right during the prior calendar year and
- c) The number and location (by subdivision lot number) of the homes served domestic water from the authorized points of diversion pursuant to other water rights during the prior calendar year.

Water right transfer no. 74449 is also conditioned such that the daily volume of water recharged is reported to IDWR. Daily infiltration volumes are attached to this report. Table 1 shows the flow meter readings and diversion volumes from the Valley Club HOA wells during 2016. Table 2 shows the subdivision lots that were served irrigation water from Valley Club Homeowners Association wells under water right 37-22252 during 2016. Table 3 shows the subdivision lots that were served domestic water from the Valley Club Homeowners Association wells under water rights 37-8613A and 37-8810 during 2016.

Table 2: Lots Served Irrigation Water in 2016 Under 37-22252 from the Valley Club Homeowners Association Wells

2016				
DATE:	East Well in Pump House PUMP #1 METER TOTALIZER (GAL):	East Well in Pump House Total Usage (AFA):	West Well Across Road PUMP #2 METER TOTALIZER (GAL):	West Well Across Road Total Usage (AFA):
1/5/2016	205,767,500		241,155,500	
1/26/2016	207,052,700	3.9	242,922,300	5.4
2/25/2016	208,843,100	9.4	245,434,300	13.1
3/29/2016	210,883,800	15.7	248,253,700	21.8
4/25/2016	212,835,200	21.7	250,646,800	29.1
5/27/2016	217,461,600	35.9	255,644,100	44.5
6/29/2016	223,538,200	54.5	264,528,400	71.7
7/25/2016	229,099,300	71.6	273,422,000	99.0
8/24/2016	236,566,600	94.5	283,791,300	130.8
9/26/2016	242,860,200	113.8	292,067,800	156.2
10/25/2016	244,615,300	119.2	293,913,700	161.9
11/29/2016	244,894,700	120.1	294,160,400	162.7
12/21/2016	245,059,100	120.6	294,321,000	163.2
12/22/2016	245,059,500	120.6	294,321,500	163.2
1/1/2017	245,184,900	121.0	294,446,400	163.5
TOTALS PER WELL:		121.0 Acre-Feet		163.5 Acre-Feet
TOTAL FOR BOTH WELLS:		284.5 Acre-Feet		

Table 1: Valley Club Homeowners Wells' Diversion Volumes for 2016.

2016	
Lot # Served Irrigation Water Under 37-22252 From Valley Club HOA Wells:	
6	57
16	58
22	61
34	65
36	68
43	78
46	85
48	92
49	95
51	96
53	97
54	99
56	
TOTAL:	25

Table 2: Lots Receiving Irrigation Water in 2016 Under 37-22252 from the Valley Club Homeowners Wells.

2016			
Lot # Served Domestic Water Under 37-8613A & 37-8810 Valley Club HOA Wells:			
5	34	53	80
6	35	54	83
7	36	57	85
9	37	58	88
10	41	61	92
13	43	64	95
15	44	65	96
16	46	66	97
17	48	67	98
22	49	68	99
26	50	70	
29	51	77	
32	52	78	
TOTAL:		49	

Table 3: Lots Receiving Domestic Water in 2016 under 37-8613A and 37-8810 from the Valley Club Homeowners Wells.

In 2016, 284.5 acre-feet (a decrease of 59.4 AF over 2015) of water was pumped from the Valley club HOA wells for domestic use in 49 residences and irrigation uses for 48 residences. The decrease in volume pumped when compared with 2015 is likely attributed to a leak that was fixed in the distribution system. 0.75 acres of irrigation occurred under 37-22252 on a lot owned by the Valley Club Inc. (Lot 97E) in 2016 (Figure 2); this lot is located directly east of Valley Club HOA Lot 97. Although this parcel is located outside of the current GIS shapefile in the IDWR database, this area can be added as discussed by Dry Lot's counsel Travis Thompson and Shelley Keen. See the attached IDWR Memo dated 9/25/2015 that was previously submitted in the 2015 annual report. Brockway Engineering has confirmed that less than 28 acres were irrigated within the NWSW of Section 28 during 2016.

On all lots described in Table 2 (except for Lot 56), irrigation of ½ acre per lot (12.0 acres on 24 lots) is authorized under 37-8613A. 1.0 acre of private irrigation is authorized under water right 37-4F appurtenant to lot 57. Additionally, 16.8 total acres were irrigated under 37-22252 on the twenty five lots described in Table 2 and on Lot 97E. 29.8 total acres of allowable irrigation occurred on the lots described in Table 2 under 37-22252, 37-8613A and 37-4F during 2016 (Figure 3).

Between April 22nd and May 13th 2016, 29.0 acre feet were recharged in Dry Lot LLC basins 1 and 2. Between June 1st and July 12th 2016, 48.7 acre feet were recharged in Dry Lot LLC basins 1 and 2 for a total of 77.6 acre feet recharged in 2016. Approved IDWR transfer no. 74449 is conditioned such that the recharge volume may not exceed 30 acre-feet before June 1st under 37-22313, 37-22318, and 37-22323, during 2016,

this condition was met. Additionally, a recharge volume of 75.4 acre-feet is authorized under 37-22252 when all of the 27.5 acres are irrigated under 37-22252. On the twenty six total lots, 16.8 acres was irrigated under 37-22252, requiring 46.2 acre-feet to be recharged. In 2016, an extra $77.6 - 46.2 = 31.5$ acre-feet were recharged under 37-22252 and that volume was not diverted under 37-22252.

Figure 2: Diagram of the 37-22252 and 37-22252

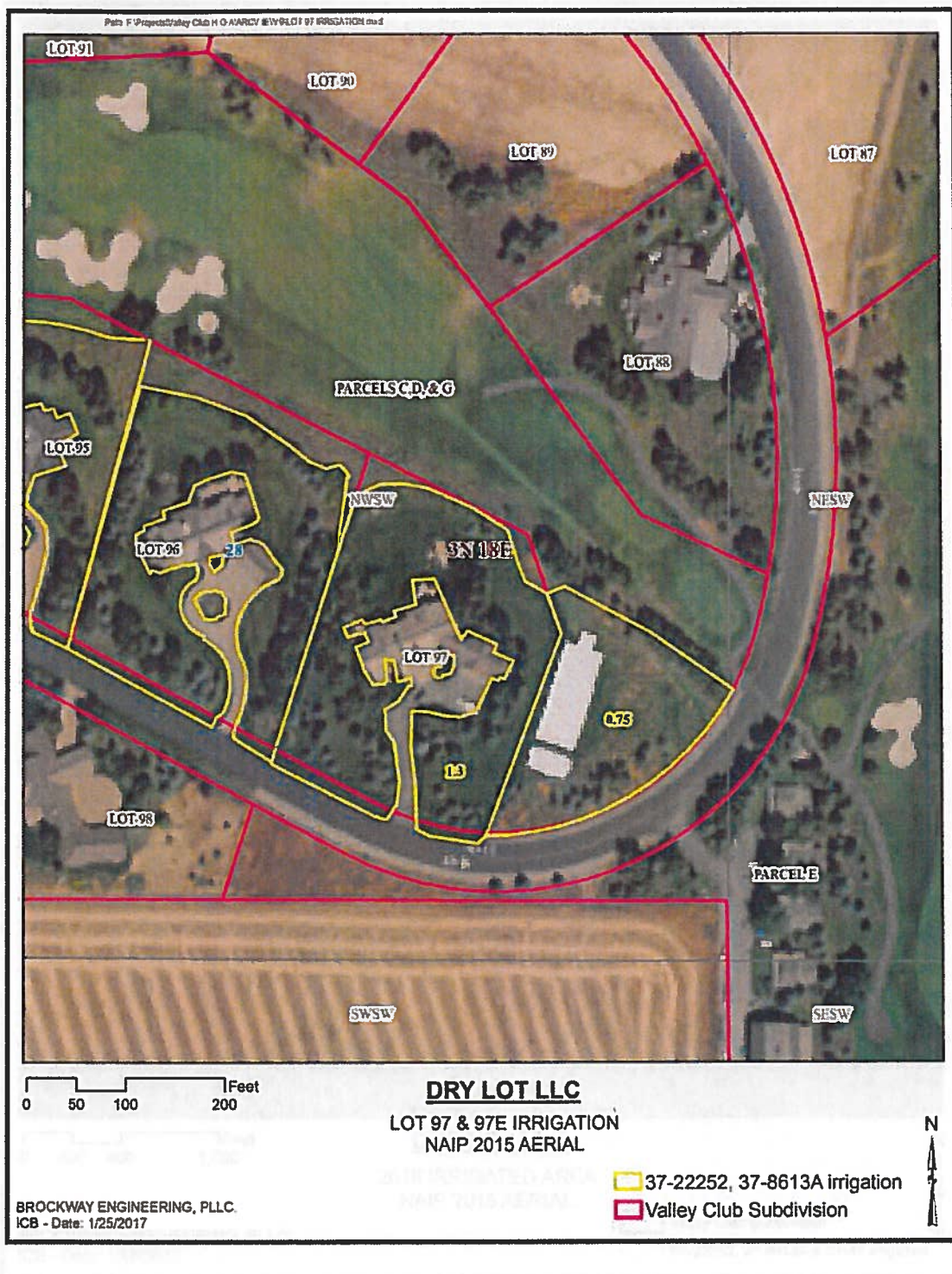


Figure 2: Irrigation on Lot 97E under 37-22252 and 37-8613A.



Figure 3: 2016 Irrigated Area under 37-4F, 37-8613A and 37-22252.

COMPLIANCE SUMMARY

In 2016 forty-nine residences were present within the Valley Club subdivision. 27.5 total acres are authorized to be irrigated under water right 37-22252 although only 16.8 acres were irrigated under this water right in 2016. Within the Valley Club subdivision, one half acre per lot are authorized under water right 37-8613A (in conjunction with a domestic use and residence), and 1.0 acre is authorized under private water right 37-4F appurtenant to Lot 57. 77.6 acre-feet of water was infiltrated into the Dry Lot LLC basins in 2016. Irrigation of 16.8 acres under 37-22252 in 2016 required 46.2 acre-feet to be infiltrated.

CONCLUSIONS

1. Construction on the infiltration basins for the project commenced in early December 2011 and was completed in mid-May 2012.
2. Water right 37-22252 was licensed on September 1st 2015.
3. On the lots described in Table 2 including Lot 97E, 16.8 total acres were irrigated under 37-22250, 12.0 acres under water right 37-8613A and 1.0 acre under 37-4F on private lot 57 during 2016.
4. The total volume associated with the irrigation on twenty six lots (irrigation not associated with a domestic or a private irrigation water right) under 37-22252 was 46.2 acre-feet. In 2016, 29.0 acre-feet were recharged before June 1st and 48.7 acre-feet of water was recharged through July 12th in the two Dry Lot Basins, leaving an excess of 29.2 acre-feet infiltrated.
5. The volume recharged in 2016 was adequate under existing Dry Lot LLC water rights 37-22313, 37-22318, and 37-22323 for the irrigation of 27.5 acres as authorized under 37-22252 although only 16.8 were irrigated.
6. In 2016, the total volume pumped from the Valley Club HOA wells for domestic and irrigation uses was 284.5 acre-feet.
7. Facilities are designed to accommodate Valley Club Inc.'s recharge volumes based on the approval of Valley Club Inc. water right transfer application no. 78255.

[illegible]

DRY LOT LLC- DAILY RECHARGE VOLUMES

2016 Daily Recharge Volumes Associated with IDWR WR Transfer:

74449, Condition #1.

*Values in **bold** indicate observed values.

1/23/2017

Date:	Time:	*Meter Readout (m3):	*Meter Readout (Acre-Feet):	Calculated Daily Volume Infiltrated (Acre-Feet):
22-Apr	9:30 AM	314,335.60	254.8	0.0
23-Apr		315,941.5	256.1	1.3
24-Apr		317,547.4	257.4	1.3
25-Apr		319,153.2	258.7	1.3
26-Apr		320,759.1	260.0	1.3
27-Apr	10:06 AM	322,365.0	261.3	1.3
28-Apr		324,092.0	262.7	1.4
29-Apr		325,819.0	264.1	1.4
30-Apr		327,546.0	265.5	1.4
1-May		329,273.0	266.9	1.4
2-May		331,000.1	268.3	1.4
3-May		332,727.1	269.7	1.4
4-May		334,454.1	271.1	1.4
5-May		336,181.1	272.5	1.4
6-May	12:29 PM	337,908.1	273.9	1.4
7-May		339,659.0	275.4	1.4
8-May		341,409.8	276.8	1.4
9-May		343,160.7	278.2	1.4
10-May		344,911.6	279.6	1.4
11-May		346,662.4	281.0	1.4
12-May	12:29 PM	348,413.3	282.5	1.4
13-May	1:04 PM	350,050.6	283.8	1.3
14-May		Off.	283.8	0.0
15-May		Off.	283.8	0.0
16-May		Off.	283.8	0.0
17-May		Off.	283.8	0.0
18-May		Off.	283.8	0.0
19-May		Off.	283.8	0.0
20-May		Off.	283.8	0.0
21-May		Off.	283.8	0.0
22-May		Off.	283.8	0.0
23-May		Off.	283.8	0.0
24-May		Off.	283.8	0.0
25-May		Off.	283.8	0.0
26-May		Off.	283.8	0.0
27-May		Off.	283.8	0.0
28-May		Off.	283.8	0.0
29-May		Off.	283.8	0.0
30-May		Off.	283.8	0.0
31-May		Off.	283.8	0.0
*PRE-JUNE TOTALS:		35,715.0	29.0 AFA	

Date:	Time:	*Meter Readout (m3):	*Meter Readout (Acre-Feet):	Calculated Daily Volume Infiltrated (Acre-Feet):
1-Jun	9:10 AM	350,050.6	283.8	0.0
2-Jun		351,807.1	285.2	1.4
3-Jun		353,563.7	286.6	1.4
4-Jun		355,320.2	288.1	1.4
5-Jun		357,076.7	289.5	1.4
6-Jun		358,833.3	290.9	1.4
7-Jun	2:55 PM	360,589.8	292.3	1.4
8-Jun		362,081.6	293.5	1.2
9-Jun	9:56 AM	363,573.3	294.8	1.2
10-Jun	10:17 AM	365,065.8	296.0	1.2
11-Jun		366,583.9	297.2	1.2
12-Jun		368,102.0	298.4	1.2
13-Jun		369,620.1	299.7	1.2
14-Jun		371,138.1	300.9	1.2
15-Jun		372,656.2	302.1	1.2
16-Jun		374,174.3	303.3	1.2
17-Jun	2:55 PM	375,692.4	304.6	1.2
18-Jun		377,327.3	305.9	1.3
19-Jun		378,962.1	307.2	1.3
20-Jun		380,597.0	308.6	1.3
21-Jun	11:15 AM	382,231.8	309.9	1.3
22-Jun	1:34 PM	384,454.4	311.7	1.8
23-Jun		385,747.6	312.7	1.0
24-Jun		387,040.8	313.8	1.0
25-Jun		388,334.0	314.8	1.0
26-Jun		389,627.2	315.9	1.0
27-Jun		390,920.4	316.9	1.0
28-Jun		392,213.6	318.0	1.0
29-Jun		393,506.8	319.0	1.0
30-Jun		394,800.0	320.1	1.0
*JUNE TOTALS:		39,479.8	36.3 AFA	

Date:	Time:	*Meter Readout (m3):	*Meter Readout (Acre-Feet):	Calculated Daily Volume Infiltrated (Acre-Feet):
1-Jul		396,093.2	321.1	1.0
2-Jul		397,386.4	322.2	1.0
3-Jul		398,679.6	323.2	1.0
4-Jul		399,972.8	324.3	1.0
5-Jul	2:37 PM	401,266.0	325.3	1.0
6-Jul		402,566.7	326.4	1.1
7-Jul		403,867.5	327.4	1.1
8-Jul	3:26 PM	405,168.2	328.5	1.1
9-Jul		406,393.0	329.5	1.0
10-Jul		407,617.9	330.5	1.0
11-Jul		408,842.7	331.5	1.0
12-Jul	11:15 AM	410,067.5	332.4	1.0
13-Jul	Basin Turned Off.		332.4	0.0
14-Jul		Off.	332.4	0.0
15-Jul		Off.	332.4	0.0
16-Jul		Off.	332.4	0.0
17-Jul		Off.	332.4	0.0
18-Jul		Off.	332.4	0.0
19-Jul		Off.	332.4	0.0
20-Jul		Off.	332.4	0.0
21-Jul		Off.	332.4	0.0
22-Jul		Off.	332.4	0.0
23-Jul		Off.	332.4	0.0
24-Jul		Off.	332.4	0.0
25-Jul		Off.	332.4	0.0
26-Jul		Off.	332.4	0.0
27-Jul		Off.	332.4	0.0
28-Jul		Off.	332.4	0.0
29-Jul		Off.	332.4	0.0
30-Jul		Off.	332.4	0.0
31-Jul		Off.	332.4	0.0
*JULY TOTALS:		10,368.2	12.4 AFA	
SEASON TOTALS:		95,731.90	77.6 AFA	

MEMORANDUM

DATE: September 25, 2015

TO: Water Right File 37-22252

FROM: Shelley W. Keen (SWK)

RE: Place of Use

This morning Travis Thompson, attorney for Dry Lot LLC, called to discuss the place of use description for Water Right 37-22252. The place of use includes 28 acres within the NW¼SW¼ of Section 28, Township 3 North, Range 18 East. The map attached to the license outlines the 28-acre area. Outside the area outlined on the map is a small, triangle-shaped parcel Dry Lot LLC may acquire from The Valley Club Inc. Travis wanted to know if the triangle-shaped parcel could be irrigated under Right 37-22252 as long as no more than 28 acres within the NW¼SW¼ of Section 28 is irrigated.

We reviewed Transfer Processing Memorandum No. 24, which states on page 6:

An application for transfer is not required if a change in the location of use within 40-acre legal subdivisions is proposed that would not result in an increase in the number of acres within any 40-acre legal subdivision nor use of water at a new 40-acre legal subdivision (except for a proposed change in location outside of prescribed boundaries such as those provided for irrigation use under Section 42-219, *Idaho Code* or by court decree, even when the change in location would be included within the same 40-acre legal subdivisions existing prior to the proposed change).

An application for transfer is not required for the situation described in the preceding paragraph, even when the place of use is described by a shapefile in the department's GIS database. The department will not initiate an enforcement action against the water right owner due to a discrepancy between the department's shape file and the physical location of use within the 40-acre legal subdivisions if the discrepancy is limited to the situation described in the preceding paragraph. The department *may* update the shapefile in its GIS database from its own information or information provided by the water right owner.

Based on the guidance quoted above, I told Travis that a transfer would not be required to bring the triangle-shaped parcel into the place of use, as long as no more than 28 acres are irrigated within the NW¼SW¼ of Section 28. I recommended that Dry Lot LLC notify IDWR when the change occurs by describing it in the annual report required in condition no. 2 of the license. When the change is reported, IDWR may adjust the place of use boundaries in its GIS records.