

Amended APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1Name of applicant: **De Ruyter Dairy, Nicolaas J. De Ruyter**Phone: **(208) 896-5402**Post Office address: **P.O. Box 580, Marsing ID 83639-0580****A. PURPOSE OF TRANSFER**

1. ☐ Change point of diversion Add diversion point(s) ☒ Change place of use
☒ Change nature of use ☒ Change period of use ☐ Other

2. Describe the reason for the proposed changes: Applicant wishes to adjust water rights to reflect changes in his operation which have occurred since construction in 1996, and to correct errors in the Irrigation POU posited in transfer 5007. An additional 40 acres have been dried up, and the original proposed site was moved north and east.

B. DESCRIPTION OF RIGHT(S) OR PORTION THEREOF, AFTER THE REQUESTED CHANGE

1. Right Number	Priority	Amount (cfs/ac-ft)	Nature of Use	Period of Use		
57-2335	01/25/1961	3.34/ 34	Irrigation	03/15	to	11/15
		.53/ 118	Stock water	01/01	to	12/31
57-7047	03/01/1971	.50 / 240.4	Irrigation	03/15	to	11/15
		.06/28.8	Stock water	01/01	to	12/31
57-2292	04/14/1996	.89/58	Commercial	01/01	to	12/31
		.89/ 211.5	Stockwater	01/01	to	12/31

2. Total amount of water being transferred 5.32 cubic feet per second and/or _____ acre-feet per annum.

3. Source of water Ground water tributary to

4. Point(s) of Diversion:

Lot	1/4	1/4	1/4	Sec.	Twp	Rge.	County	Local Name for diversion
		SW	SE	19	03N	04W	Owyhee	
		NE	NE	30	03N	04W	Owyhee	
		SW	NE	30	03N	04W	Owyhee	
		NE	N W	30	03N	04W	Owyhee	
		NW	SE	30	03N	04W	Owyhee	

5. Lands Irrigated or place of use:

TWP.	RGE.	SEC.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
03N	04W	19											1716	2517			1311		43
											S,C	S,C	S,C	S,C		S,C	S,C	S,C	
		30		2730	3485	1712	38	510		1214					3439	2037	34		218
			S,C	S,C	S,C	S,C	S,C		S,C	S,C	S,C					S,C			
																			26

4/10/08

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. _____

PART 1

6. General Information:

- a. Description of diversion system: Wells with pressure tanks and piping to provide stockwater and process water. Cooling water recycled to stockwater tanks. Irrigation wells pressurize sprinkler irrigation lines.
- b. Are the lands from which you propose to transfer the water right subject to any liens, deeds of trust, mortgages, or contracts? ☒ Yes* No. If yes, provide a notarized statement from the holder of the lien, deed of trust, mortgage or contract agreeing to the proposed changes. (*Transfer reflects changes the lienholder is financing and permission is implied, also, all rights will continue to be used on the same farm)
- c. Describe the affect on the land now irrigated if the place of use is changed pursuant to this transfer: The land formerly irrigated has been used for corrals, structures and buildings associated with the dairy operation.
- d. Remarks: See Attached Documents:

Attachments:

- B. Daily fresh water requirement for Dairy**
C. Crop history and calculation of historic consumptive use and annual diversion
D. Flow, Volume, and Allocation Calculations

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

This is to certify that I have examined Application for Transfer of Water Rights No. _____
And said application is hereby _____, subject to the following limitations and conditions:

Witness my hand this _____ day of _____, 19 _____.

IDAHO DEPARTMENT OF WATER RESOURCES
APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2

Current Water Right No. 57-2335

Priority Date: 01/25/1961

Origin: Water Right

Basis: Decreed

Status: Active

Source: GROUND WATER

Tributary to:

<u>Beneficial Use</u>	<u>From</u> <u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>	<u>Subuse Code</u>
IRRIGATION	03/15 11/15	3.87 CFS	1,314.0 AFA	
Total Diversion		3.87 CFS	1,314.0 AFA	

Source and Point(s) of Diversion:

GROUND WATER	NWSE	03N 04W	30	OWYHEE
GROUND WATER	NENE	03N 04W	30	OWYHEE
GROUND WATER	NENW	03N 04W	30	OWYHEE
GROUND WATER	SWSE	03N 04W	19	OWYHEE
GROUND WATER	SWNE	03N 04W	30	OWYHEE

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 04W 19											15.0	26.0			27.0	16.0	84.0
03N 04W 30			40.0	39.0	19.0	13.0	7.0	23.0					39.0	37.0			217.0

Total Acres: 301

Conditions/Remarks:

- RIGHT INCLUDES ACCOMPLISHED CHANGE IN PLACE OF USE PURSUANT TO SECTION 42-1425, IDAHO CODE.
- RIGHT 57-2335 SHALL NOT EXCEED THE IRRIGATION OF 292 ACRES IN THE PLACE OF USE DESCRIBED ABOVE IN A SINGLE IRRIGATION SEASON.

**IDAHO DEPARTMENT OF WATER RESOURCES
APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2**

Current Water Right No. 57-2335

3. 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.
4. THE TOTAL INSTANTANEOUS DIVERSION OF WATER FROM ALL POINTS OF DIVERSION UNDER TRANSFER 5007 SHALL NOT EXCEED 5.32 CFS, NOR A TOTAL COMBINED ANNUAL VOLUME OF 1632.0 AF.
5. THE USE OF WATER FOR IRRIGATION UNDER THIS RIGHT MAY BEGIN AS EARLY AS MARCH 1 AND MAY CONTINUE TO AS LATE AS NOVEMBER 15, PROVIDED OTHER ELEMENTS OF THE RIGHT ARE NOT EXCEEDED. THE USE OF WATER BEFORE APRIL 1 AND AFTER OCTOBER 31 UNDER THIS REMARK IS SUBORDINATE TO ALL WATER RIGHTS HAVING NO SUBORDINATED EARLY OR LATE IRRIGATION USE AND A PRIORITY DATE EARLIER THAN THE DATE A PARTIAL DECREE IS ENTERED FOR THIS RIGHT.
6. USE OF THIS RIGHT IS COMBINED WITH WATER FROM GEM IRRIGATION DISTRICT.
7. RIGHTS 57-2335 AND 57-7047 SHALL NOT EXCEED A TOTAL COMBINED DIVERSION RATE OF 4.43 CFS, A TOTAL COMBINED ANNUAL DIVERSION VOLUME OF 1362.5 AF, AND THE IRRIGATION OF 301 ACRES.

Describe any other rights used for the same purpose as described above: 57-7047, Gem Irrigation District

10. To your knowledge, has any portion of this water right undergone a period of five or more consecutive years of non use? No ☐ If yes, describe: ☐

B. DESCRIPTION OF PORTION OF RIGHT BEING TRANSFERRED 57-2335
(If the entire right is to be changed by the applicant, omit part B and C.)

1.

Amount (cfs/ac-ft)						
.53 / 180	for	Irrigation	purposes from	03/15	to	11/15
	for		purposes from		to	
	for		purposes from		to	
	for		purposes from		to	

2. Point(s) of Diversion:

[illegible]

3. Lands irrigated or place of use:

[illegible]

C. Description of unchanged portion of right

1.

Amount (cfs/ac-ft)						
3.34 /1134	for	Irrigation	purposes from	3/15	to	11/15
	for		purposes from		to	
	for		purposes from		to	
	for		purposes from		to	

2. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp	Rge.	County	Local Name for diversion
No change in POD's								

3. Lands irrigated or place of use:

[illegible]

IDAHO DEPARTMENT OF WATER RESOURCES
APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2

Current Water Right No. 57-7047

Priority Date: 03/01/1971

Origin: Water Right

Basis: Decreed

Status: Active

Source: GROUND WATER

Tributary to:

<u>Beneficial Use</u>	<u>From To</u>	<u>Diversion Rate</u>	<u>Volume</u>	<u>Subuse Code</u>
STOCKWATER	01/01 12/31	0.14 CFS	8.0 AFA	
IRRIGATION	03/15 11/15	0.56 CFS	272.1 AFA	
Total Diversion		0.56 CFS	280.1 AFA	

Source and Point(s) of Diversion:

GROUND WATER	NENW	03N 04W	30	OWYHEE
GROUND WATER	NENE	03N 04W	30	OWYHEE
GROUND WATER	SWNE	03N 04W	30	OWYHEE
GROUND WATER	NWSE	03N 04W	30	OWYHEE
GROUND WATER	SWSE	03N 04W	19	OWYHEE

PLACE OF USE: STOCKWATER

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 04W 30	X	X			X			X									

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 04W 19											15.0	26.0			27.0	16.0	84.0
03N 04W 30			40.0	39.0	19.0	13.0	7.0	23.0					39.0	37.0			217.0

Total Acres: 301

Conditions/Remarks:

**IDAHO DEPARTMENT OF WATER RESOURCES
APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2**

Current Water Right No. 57-7047

1. THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT FOR STOCKWATER USE IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.
2. USE OF THIS RIGHT IS COMBINED WITH WATER FROM GEM IRRIGATION DISTRICT.
3. THE TOTAL INSTANTANEOUS DIVERSION OF WATER FROM ALL POINTS OF DIVERSION UNDER TRANSFER 5007 SHALL NOT EXCEED 5.32 CFS, NOR A TOTAL COMBINED ANNUAL VOLUME OF 1632.0 AF.
4. STOCKWATER, 600 RANGE CATTLE.
5. THE USE OF WATER FOR IRRIGATION UNDER THIS RIGHT MAY BEGIN AS EARLY AS MARCH 1 AND MAY CONTINUE TO AS LATE AS NOVEMBER 30, PROVIDED OTHER ELEMENTS OF THE RIGHT ARE NOT EXCEEDED. THE USE OF WATER BEFORE MARCH 15 UNDER THIS REMARK IS SUBORDINATE TO ALL WATER RIGHTS HAVING NO SUBORDINATED EARLY OR LATE IRRIGATION USE AND A PRIORITY DATE EARLIER THAN THE DATE A PARTIAL DECREE IS ENTERED FOR THIS RIGHT.
6. 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.
7. THE QUANTITY OF WATER UNDER THIS RIGHT FOR STOCKWATER USE SHALL NOT EXCEED 13,000 GALLONS PER DAY.
8. RIGHTS 57-2335 AND 57-7047 SHALL NOT EXCEED A TOTAL COMBINED DIVERSION RATE OF 4.43 CFS, A TOTAL COMBINED ANNUAL DIVERSION VOLUME OF 1362.5 AF, AND THE IRRIGATION OF 301 ACRES.
9. RIGHT INCLUDES ACCOMPLISHED CHANGE IN PLACE OF USE PURSUANT TO SECTION 42-1425, IDAHO CODE.

Describe any other rights used for the same purpose as described above: 57-7047, 57-2292 (stockwater), Gem Irrigation District

10. To your knowledge, has any portion of this water right undergone a period of five or more consecutive years of non use? No ☐ If yes, describe: ☐

B. DESCRIPTION OF PORTION OF RIGHT BEING TRANSFERRED 57-7047
(If the entire right is to be changed by the applicant, omit part B and C.)

1.

Amount (cfs/ac-ft)						
.06 / 28.8	for	Irrigation	purposes from	03/15	to	11/15
	for		purposes from		to	
	for		purposes from		to	
	for		purposes from		to	

3. **Point(s) of Diversion:**

[illegible]

4. Lands irrigated or place of use:

[illegible]

D. Description of unchanged portion of right

1.

Amount (cfs/ac-ft)						
.50 / 240.4	for	Irrigation	purposes from	3/15	to	11/15
	for		purposes from		to	
	for		purposes from		to	
	for		purposes from		to	

3. **Point(s) of Diversion:**

[illegible]

4. Lands irrigated or place of use:

[illegible]

IDAHO DEPARTMENT OF WATER RESOURCES
APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2

Current Water Right No. 57-2292

Priority Date: 04/14/1966

Origin: Water Right

Basis: Decreed

Status: Active

Source: GROUND WATER

Tributary to:

<u>Beneficial Use</u>	<u>From To</u>	<u>Diversion Rate</u>	<u>Volume</u>	<u>Subuse Code</u>
STOCKWATER	01/01 12/31	0.89 CFS	117.6 AFA	Dairy
COMMERCIAL	01/01 12/31	0.89 CFS	151.9 AFA	Dairy
Total Diversion		0.89 CFS	269.5 AFA	

Source and Point(s) of Diversion:

GROUND WATER	SWSE	03N 04W	19	OWYHEE
GROUND WATER	NENE	03N 04W	30	OWYHEE
GROUND WATER	SWNE	03N 04W	30	OWYHEE
GROUND WATER	NENW	03N 04W	30	OWYHEE
GROUND WATER	NWSE	03N 04W	30	OWYHEE

PLACE OF USE: STOCKWATER

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 04W 30	X	X			X			X									

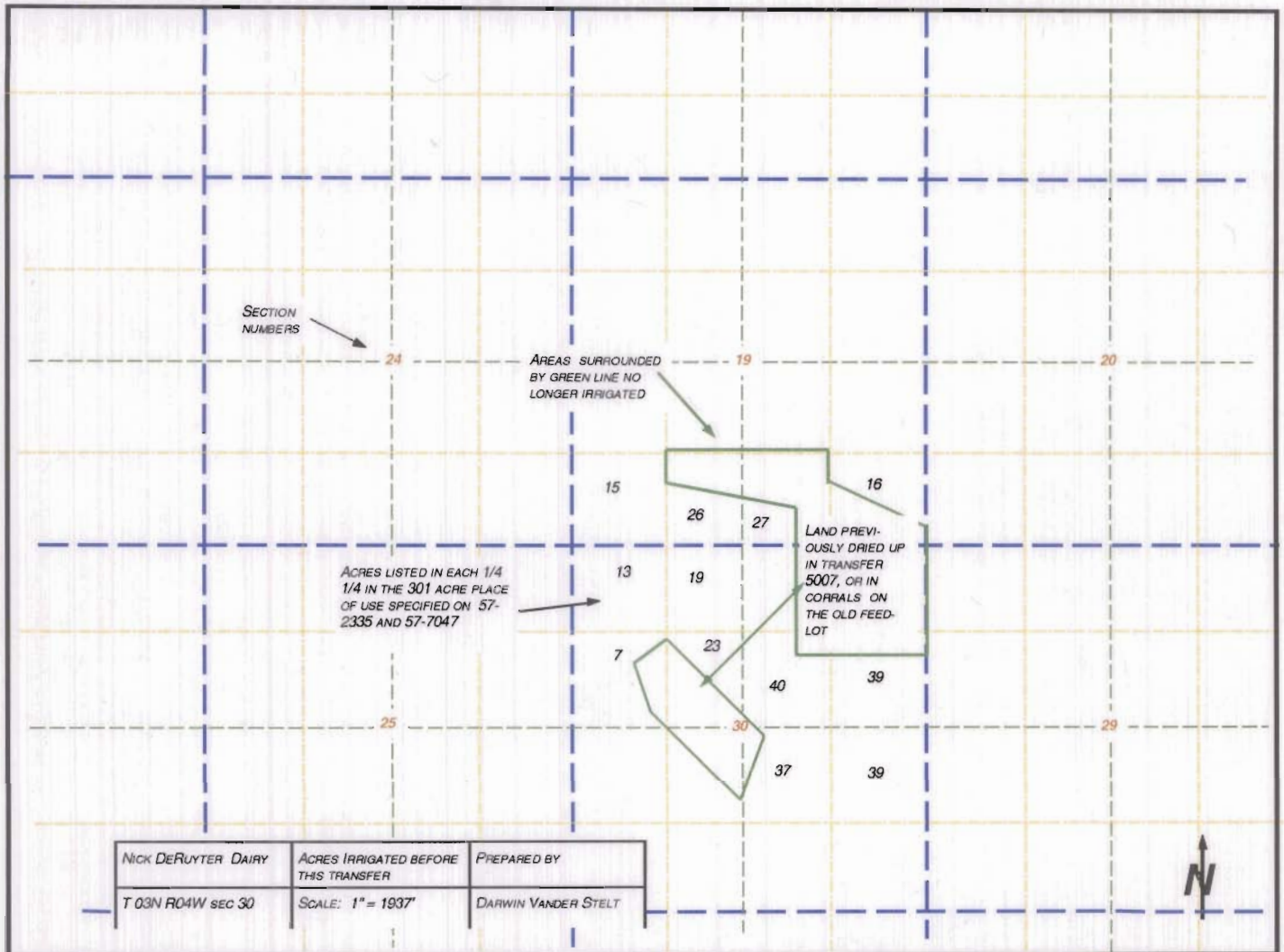
Conditions/Remarks:

1. 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. RIGHT 57-2292 SHALL NOT EXCEED A DIVERSION RATE OF .89 CFS AND AN ANNUAL DIVERSION VOLUME OF 269.5 AF FOR STOCKWATER AND COMMERCIAL USES AS A DAIRY.
3. The total instantaneous diversion of water from all points of diversion under Transfer 5007 shall not exceed 5.32 cfs, nor total combined annual volume of 1632.0 af.

Describe any other rights used for the same purposes as described above: 57-7047 (stockwater)

[illegible]

DEPARTMENT OF WATER RESOURCES





0.4 0 0.4 0.8 Miles

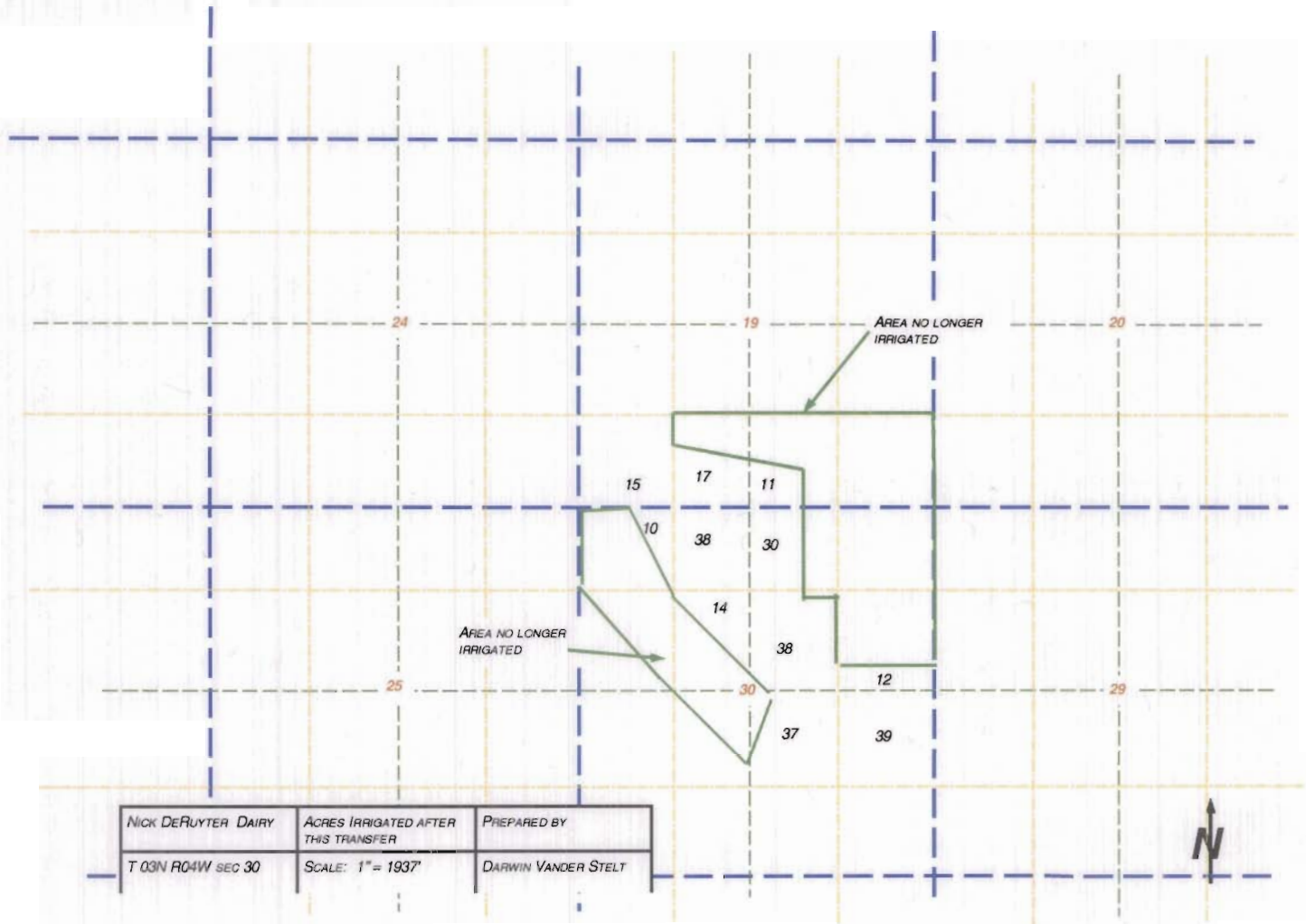


4/10/08



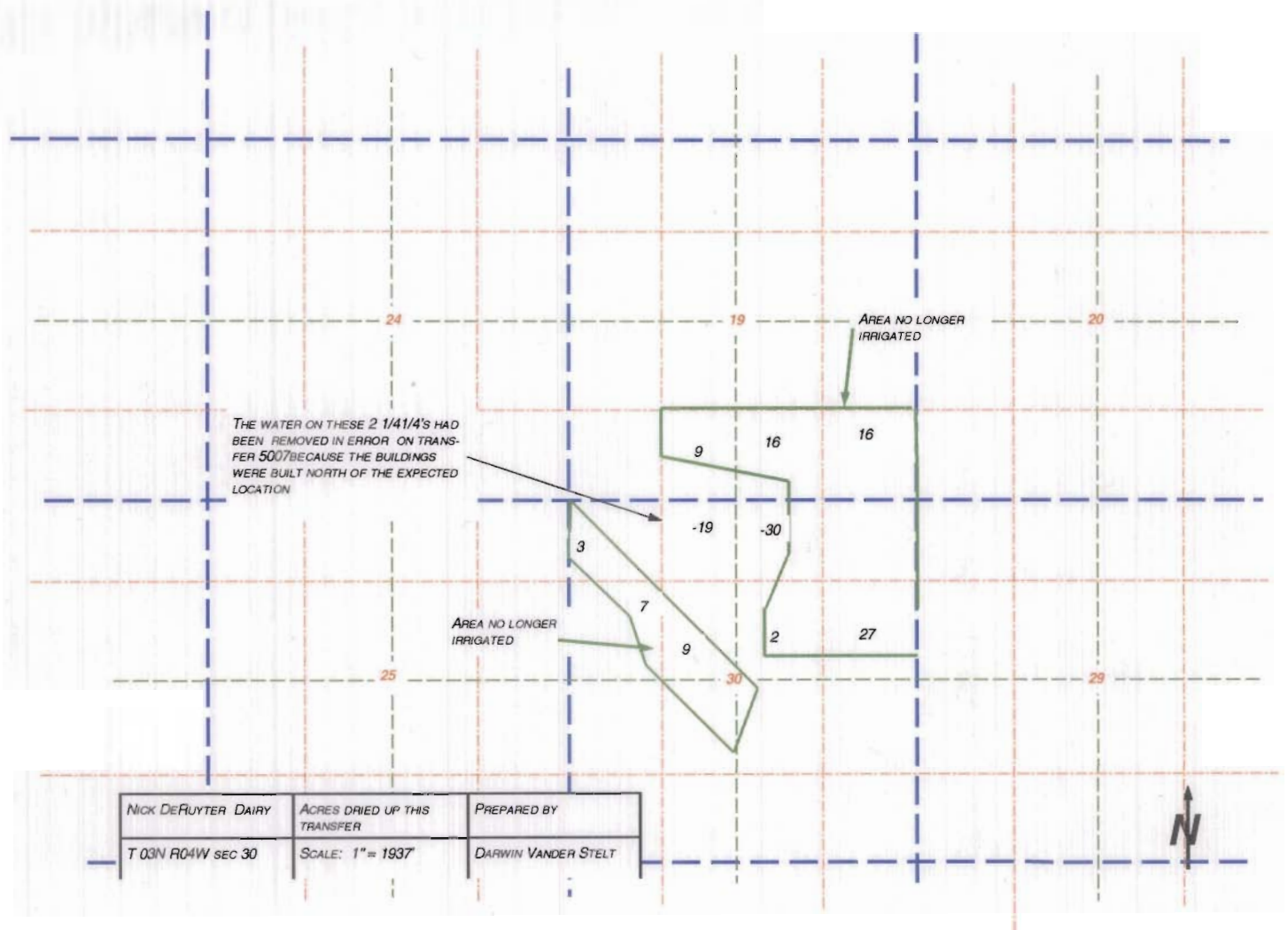
- ☐ De ruyter Dairy
☐ Deruyter Acres per Dan Nelson
☐ Sections
☐ GCDBQuarter Quarter sections.

DEPARTMENT OF WATER RESOURCES



NICK DERUYTER DAIRY	ACRES IRRIGATED AFTER THIS TRANSFER	PREPARED BY
T 03N R04W SEC 30	SCALE: 1" = 1937'	DARWIN VANDER STELT

DEPARTMENT OF WATER RESOURCES



STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. _____

PART 3

B. CHANGES IN NATURE OF USE

1. New Nature of use	Amount (cfs/ac-ft)	Hours/days/year	Period of Use		
Stockwater	.53 / 118	365	01/01	to	12/31
Stockwater	.89 / 93.92	365	01/01	to	12/31

2. Quantity and quality of return flows and location of discharge: Process water will be collected and stored in a lagoon and land applied on the total irrigation PPU. Wastewater will be applied to growing crops.

3. Describe effects on other water uses resulting from the proposed change: No effect on other users.

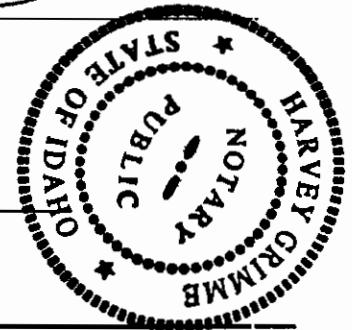
I hereby assert that no one will be injured by such change and that the change does not constitute an enlargement in use of the original right. The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in voiding its approval

(Signature of Applicant)

Subscribed and sworn to before me this 11 day of March, 2008

Harvey Grimme
(Notary Public)

My commission expires 10-17-2008



FOR DEPARTMENT USE ONLY

Transfer contains _____ pages and _____ attachments

Received by DB Date 1/13/06 Protest filed by _____

Prelim. check by _____ Fee \$290

Received by DB W033748 Date 1/13/06

Published in _____ Copies of protest forwarded by _____

Pub. Dates _____ Hearing held by _____ Date _____

Watermaster recommendation requested on _____ Recommended for ☐ approval ☐ denial

_____ rec'd _____ by _____

Copy of transfer sent to lien holder _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. _____

PART 3

B. CHANGES IN NATURE OF USE

1. New Nature of use	Amount (cfs/ac-ft)	Hours/days/year	Period of Use		
Stockwater	.53 / 118	365	01/01	to	12/31
Stockwater	.89 / 93.92	365	01/01	to	12/31

2. Quantity and quality of return flows and location of discharge: Process water will be collected and stored in a lagoon and land applied on the total irrigation PPU. Wastewater will be applied to growing crops.

3. Describe effects on other water uses resulting from the proposed change: No effect on other users.

I hereby assert that no one will be injured by such change and that the change does not constitute an enlargement in use of the original right. 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 voiding its approval

(Signature of Applicant)

Subscribed and sworn to before me this _____ day of _____, 19____

(Notary Public)

My commission expires _____

FOR DEPARTMENT USE ONLY

Transfer contains _____ pages and _____ attachments

Received by DB Date 1/13/06 Protest filed by _____

Prelim. check by _____ Fee \$290

Receipted by DB W033748 Date 1/13/06

Published in _____ Copies of protest forwarded by _____

Pub. Dates _____ Hearing held by _____ Date _____

Watermaster recommendation requested on _____ Recommended for approval _____ denial _____

_____ rec'd _____ by _____

Copy of transfer sent to lien holder _____

TO: IDWR

FROM: Darwin Vander Stelt for Nick DeRuyter

RE: Memorandum to satisfy the requirements of Section 42-222:

Section 42-222 of the Idaho Code requires that the IDWR consider 4 issues in connection with changes in the nature and place of use:

- 1) Will the proposed change injure other water rights?
- 2) Will the proposed transfer constitute an enlargement of the original right?
- 3) Is the proposed transfer in the local public interest as defined in 42-203A(5)(e)?
- 4) Is the proposed use contrary to conservation of water resources within the state of Idaho?

This memorandum, along with attached exhibits, will attempt to provide a response to these concerns.

1.) Injury to other water users.

The proposed change in the nature of use will not injure any other water user because there will be a net decrease in water consumption as a result of this request. Land has been removed from irrigation to compensate for the water used by the dairy. The change in time of use from seasonal to year around will also be beneficial to other water users because it will reduce demand on the aquifer during the heavy irrigation season.

The dairy facility operating on this site is required by the Idaho Department of Agriculture rules to prevent ground water or surface water contamination. All runoff from the dairy site must be contained in lagoons or containment basins. No runoff from farm and is allowed until manure is incorporated into the soil, and manure must be applied at agronomic rates. As a condition of the Grade A permit, the proposed dairy is required to prepare and adhere to a nutrient management plan which will limit the quantities of manure which may be applied. Soil samples will be taken by the department of Agriculture soil sampler and repeated every three years to ensure that nutrient concentrations remain within environmentally sound levels.

2. Enlargement of the original right.

The application is for a change in the nature and place of use, not for a change in the amount of water licensed. Calculations attached to the application demonstrate that there is in fact a reduction in total diversion and the example below documents that there will also be a reduction in total consumptive use.

The nutrient management plan will require (by IDA Rules) that the lagoon water be applied to growing crops. Wastewater must be applied with appropriate concern for hydraulic balance and the available water capacity of the soil. The convention of classifying all the process water as consumptive is a fiction because **this water will**

Attachment A

replace irrigation water, gallon for gallon. This request results in a substantial reduction in the right, and also, a substantial reduction in the actual amounts of groundwater water pumped. Consider this:

The current water rights grant the right to apply a maximum of 1354.5 afa to 301 acres. Of this, a maximum of 1053.5 afa may be used consumptively. Presumably, the other 300 afa will recharge the aquifer.

In actual fact, the dairy irrigates the entire acreage with sprinkler systems, which typically apply 2.95 afa. The transfer will reduce the number of acres irrigated to 261 acres, and will increase the quantity of stockwater and commercial use by 118 afa. On this dairy, the ratio of stockwater, which is consumed, and commercial water, which is re-used for irrigation, is 58/395 or about 15% commercial use. Fifteen percent of 118 afa = 17.7 afa. For the combination of 261 acres irrigated and additional herd size, this transfer reduces the total consumptive use by 17.7 afa.

3. Local public interest.

The Idaho Code defines the local public interest as "the affairs of the people in the area directly affected by the proposed use."

The DeRuyter Dairy has an annual budget of approximately \$20,000,000, of which nearly half is spent locally for feed and supplies. Local farmers benefit by having an improved market for hay, corn silage and grain, and this has already produced a local increase in hay prices. An additional 30% of the operating budget is spent locally on equipment, employee wages, repairs, local property taxes, and professional fees. If we use a modest multiplier of 2.5, the impact for the local area approaches \$50,000,000 annually.

A conditional use permit is required from Owyhee County for this expansion. A site evaluation committee will be formed, consisting of representatives from the Department of Agriculture, the Department of Water Resources, and the Department of Environmental quality. The committee will be given access to the expansion plans and to a variety of hydrologic and environmental evaluations prepared for their use. The Department of Agriculture will also license the expansion.

4. Consistent with conservation of water

The reduction of consumptive use demonstrated on the attached page is conservation of water. Irrigation water not pumped because it is replaced by effluent is as surely conserved as any other means of conservation.

If any other information is required, the applicant will respond in timely fashion.

Thank You,

Darwin Vander Stelt, preparer.

Attachment B

Daily Fresh Water Requirement For Dairy Facility Worksheet

For: **Nick DeRuyter**

Drinking Water Estimates (see Table 1 & 2):

Holstein weight 1400
Jersey 1000

			Size	Adjustment	Use/day	Total	Total	Acre-feet/
		Number	Use/day	100%		Gal/Day	Gals/Yr.	(AF/a)
Milking Cows		6000	37	37.0	222000	222000		
Dry Cows		1200	14	14.0	16800	16800		
Total Cows		7200			0	238800	87,162,000	267.49
Heifers:	Age	% of Herd	Number	Use/day	100%	Total		
	16-24 mo.	0.38	2736	12	12.0	32832.0		
	13-15 mo.	0.12	864	9	9.0	7776.0		
	9-12 mo.	0.17	1224	7.4	7.4	9057.6		
	5-8 mo	0.17	1224	6.5	6.5	7956.0		
	3-4 mo	0.08	576	5.5	5.5	3168.0		
	0-2 mo	0.08	576	3	3.0	1728.0		
Total Heifers		7200				62517.6	22,818,924	70.03

Total Herd Drinking Water 337.52

Covered by 57-2292 117.60

Covered by 57-7047 8.00

Stockwater needed 211.92

Wash Pen Estimate:

GPM discharge/nozzle

Number of Nozzles

Minutes run/day:

groups

mins/group

x/day

days per year 0

Total Wash Pen Water Used: 0 - 0.00

Milk House and Parlor Estimate (see Table 4)

Item	Gals/Op	x's/day	Gals/day	
Bulk Tank	600	5	3000	
Pipeline	1000	4	4000	
Backflush	0	0	0	
Cleanup 30gpm x 348 mins/ milki	10440	4	41760	Hoses only
Cow Prep	0.25	2	3000	
Plate Cooler(ignore if recycled)				
Total Milk House and Parlor Water Used:			51760	18,892,400 57.98

Commercial needs covered by 57-2292 151.90

Stock water needed 211.92 afa

Commercial water needed -93.92 afa

New stockwater needed/ to be obtained by drying up ground 118.00 afa

Stockwater obtained by changing nature of use for
excess Commercial to stockwater on 57-2292

93.92
211.92

historic Consumptive Use 2.95 afa

Approx. no. of acres to dry up: 40.01 (volume needed/consumptive use/acre)

Rounded to 40 acres

Prepared by
Darwin Vander Sten Amount transferred to stockwater

118.00 afa

Attachment C

Source: Owner Estimates

Crop History Evaluation for estimation of Diversion Volume and Consumptive Use

Transfer No. Nick DeRuyter Transfer

Date: 08/15/06

Allen and Brockway report site: Caldwell

Typical Crop Mix

Year	Crop	Acres	Method	App. Eff. %**	IR for Crop mm/season	Crop Div Vol AF/Ann	Crop CU AF/Ann
	Alfalfa Hay	183.00	sprinkler	70%	936	802.81	561.97
	Silage corn	183.00	sprinkler	70%	678	581.52	407.07
	Triticale planted on 50% of corn ground	91.00	sprinkler	70%	370	157.81	110.47
Totals		366				1542	1079.50

Summary for 2 year period:

Average Acres Irrigated	366	Acres	Average Diversion Vol/acre	4.21
Total Diversion	1542	AF/ann	Average Consumptive Use/acre	2.95
Total Consumptive Use	1080	AF/ann		

I used the Allen & Brockway Ave IR for field peas (370), and assumed that triticale would be similar since it is harvested for silage about the same time. Triticale would be irrigated at least once in the fall and often more to get it up and growing, then as needed until harvest in mid to late May.

Attachment D Flow, Volume, and Allocation Calculations

Amount of water (afa) to be transferred **118.0** (From Dairy worksheet, Attachment B)

	%	Volume	
Stockwater	100%	118.0	afa

Historic consumptive use per acre **2.95** (From Attachment C. Crop history etc)
Acres to dry up in Section 31 **40** (From Dairy worksheet, Attachment B)

To determine acres irrigated and flow under each license:

Total flow from notation on right: **11.36** (flow is divided among 3 rights)

Total Flow for each license:

Priority	Acres	Flow (cfs)	Flow/acre (cfs)	
1/25/1961 57-2335	292	3.87	0.013	earliest priority date license limited to 3.87 cfs
3/1/1971 57-7047	301	0.56	0.002	next priority date license and is limited to .56 cfs
4/14/1966 57-2292	0	0.89		is stockwater/commercial
	301	5.32		

Allocation of flow under license	57-2335	after transfer:
Total licensed flow	3.87	cfs
Acres irrigable	292	
acres irrigable (after transfer)	252	(292-40 acres dried up)
flow for irrigation	3.34	(acres irrigable X's licensed flow/acre)
acres out for stockwater	40.0	(from dairy worksheet)
flow for stock water	0.53	(acres out X's licensed flow/acre)
acres out for Commercial	0.0	(from dairy worksheet)
flow for Commercial	0.00	(acres out X's licensed flow/acre)
total flow after transfer	3.87	cfs (total of the three flows)

Allocation of Volume after transfer:

Total Diversion:

57-2335	1314	ac-ft	(from license)
deduct	180.0	40 dried up x's 4.5	
Tot. diversion/irrigation	1134.0	acre-ft/annum	
Tot. diversion/ commercial	0	(from dairy worksheet)	
Tot. diversion/ stockwater	118.0	(acres dried up x's historic consumptive use)	
Total allowable diversion after transfer	1252.0		

Note that in the same way that 57-2335 covers all the volume needed on 292 acres, it also covers all the volume of stockwater needed by drying up 40 acres.

The explanation for the division of 57-7047 is contained on the next page, which was worked out in the state office.

Propose to remove 40 acres of irrigation under overlapping SRBA Decreed Rights 57-2335 and 57-7047 for Stockwater use with 57-2292.

BEFORE TRANSFER

1) 57-2335(1961)	3.87 cfs (0.01325 cfs/acre)	Irr 292 acres	1314.0 af (4.5 af/acre)
2) 57-7047(1971)	0.56 cfs (0.00186 " / ")	Irr 301 acres	272.1 af (0.9 " / ")
	0.14 " (limited 13,000 gpd)	Stockwater	8.0 "
	0.56 cfs	Stock & Irr	280.1 af

Combined Rt Limits	4.43 cfs	Stock & Irr 301 acres	1362.5 af = (4.5 x 301) + 8
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1) 3.87 cfs on these 292 acres.

2) 0.43 cfs & 231.6 af on these 292 acres.

Remove 40 acres IRR

#1) 0.53 cfs & 180.0 af vol. limited to 118.0 af c.u. vol.

#2) 0.06 cfs & 31.7 af vol. limited to 20.8 af c.u. vol.

0.59 cfs & 180.0 af vol. limited to 118.0 af c.u. vol.

2) 0.13 cfs & 40.5 af on these 9 acres, and 0.14 cfs & 8.0 af Stockwater

$$.56 + 3.87/301 = .0147 \times 9 = .13$$

$$9 \times 4.5 = 40.5$$

2) 57-7047 adds additional rate & vol. for 292 acres (0.43 cfs & 231.6 af Irr), and 9 additional acres (0.13 cfs & 40.5 af for Irr, and 0.14 cfs (non-additive) & 8.0 af Stock.

Proposed Change/Irrigation to Stockwater

40 acres out x 2.95 af (c.u. vol.) = 118 af needed for stockwater.

Combined Rts Limit = 0.59 cfs & 118 af c.u. vol. associated with 40 acres.

$$4.43/301$$

40 Acres from each Rt (Full Overlapping Acres for 40 from Sr Rt)

1) 57-2335	3.34 cfs	Irr 252.0 Acres	1134.0 af (4.5 af/acre)
	0.53 "	Stock (40 Acres Out)	118.0 " (2.95 af/acre)
	3.87 cfs	Stock & Irr 252.0 acres	1252.0 af

2) 57-7047 0.50 cfs Irr 261 acres 240.4 af (0.9 af/acre)

0.06 " Stock (40 acres Out) 20.8 af (31.7 af assoc. with 40.0 acres) *

** 0.14 cfs (limited to 13,000gpd) Stock (existing) 8.0 af (decreed)

0.06 cfs **Stock (all)** **28.8 af**

0.56 cfs **Stock & Irr 261 acres** **269.2 af**

Combined Rt Limits	4.43 cfs (3.34 + .5) (.53 + .06)	(118 + 8)	1300.5 af = (4.5 x 261) + 8 + 118
	(4.5 - 2.95 x 40 acres = 62 af less, reduction from Div. Vol. To C.U. Vol.)		

**Reducing the rate of the existing non-additive stockwater to the rate associated with the 40 acres changed use listed on 57-7047 removes the 13,000 gpd limit & allows the existing decreed volume to be combined with the changed irrigation portion of stockwater use.

$$* 272.1 - 40.5/292 = 79 \times 40 = 317$$

$$2.95/45 = 6555 \times 0.7 = 2108$$