

Review Memorandum

Date: October 6, 2011

To: File 37-7033

From: Craig L. Saxton

Re: Licensing Review – Overlap

Overlap review:

37-7033 was developed as a direct overlap to 37-2647.

The field exam for 37-2647 was conducted in September of 1968 and licensed 140 acres of irrigation in July of 1969.

Proof of beneficial use for 37-7033 was due on November 1, 1973. In order to determine development as of 1973, we have, at our access, a 1967 ASCS map, 1987 ASCS map, and 1987 NAPP photography.

- The 1967 ASCS , map indicates that there is 192 acres of irrigated ground. This begs the question as to why 192 acres was not licensed under 37-2647. Perhaps the date on the 1967 ASCS is wrong or that acre calculation is wrong but since proof was not due until 1973, it is not appropriate to rely only on the 1967 ASCS map to determine development as of 1973.
- The 1987 ASCS map shows 186.2 acres of irrigated ground. The field examiner uses the 1987 ASCS in determining the acreage to recommend for licensing 37-7033.
- The 1987 NAPP photography shows 211 acres of irrigation. 211 acres is the boundary of the POU decreed in the SRBA for 37-2647. I will make the assumption that the GIS measurements from the 1987 NAPP photography is a more accurate calculation of total irrigated acres in 1987.

Since the POD and POU are the same for 37-2647 and 37-7033, it was determined that a 211 acre PPU was developed under 37-2647 and 37-7033.

On May 23, 2011, TR 75603 removed 9 acres, 0.13 cfs, and 30.6 acre feet. Water right 37-2647 was split and the remaining portion of 37-2647 was numbered 37-22574. However, to determine the extent of beneficial use developed under 37-7033, we have to review the overlap pre-transfer. Below are the elements of water right 37-2647 pre-transfer:

WR #		Priority Date	Diversion Rate	Acre Limit	Duty	PPU Acres	Volume	Source List	Water Use List
37	2647	1/12/1961	2.06	140.0	0.015	211.0	560.0	GROUND WATER	IRRIGATION

Because 37-2647 was not licensed at one inch per acre, 37-7033 will increase the overall diversion rate and add irrigatable acres within the 211 PPU.

The field examiner for 37-7033 found the capacity of the shared well to be 3.58 cfs and therefore the max diversion rate that can be licensed under 37-7033 is 1.52 cfs (3.58 cfs – 2.06 cfs of pre-transferred right 37-2647).

Of the original 211 acre PPU, 140 acres were licensed under 37-2647 leaving 71 new (non overlapping) acres which can be recommended at one inch per acre: $71 * 0.02 = 1.42$ cfs. This leaves 0.10 cfs to apply to the 89¹ overlapping acres that were licensed at 0.015 cfs per acres which will slightly increase the duty of water on those 89 overlapping acres, but will not bring the duty of water above one inch per acre:

$$[0.10 + ((2.06/140)*89)]/89 = 0.016 \text{ cfs per acre for 89 acres}$$

The overlapping rights and acre limits before approval of TR 75603 are:

WR #		Priority Date	Diversion Rate	Acre Limit	Duty	PPU Acres	Volume	Source List	Water Use List
37	2647	1/12/1961	2.06	140.0	0.015	211.0	560.0	GROUND WATER	IRRIGATION
37	7033	7/5/1988	1.52	160.0	0.010	211.0	284.0	GROUND WATER	IRRIGATION
Total =			3.58	211.0	0.017	211.0	844.0		

The overlapping rights and acre limits after approval of TR 75603 are:

WR #		Priority Date	Diversion Rate	Acre Limit	Duty	Total Acres	Volume	Source List	Water Use List
37	22574	1/12/1961	1.93	131.0	0.015	202.0	529.4	GROUND WATER	IRRIGATION
37	7033	7/5/1988	1.52	160.0	0.010	202.0	284.0	GROUND WATER	IRRIGATION
Total =			3.45	202.0	0.017	202.0	813.4		

Needs Amendment:

Change in POU requires amendment.

POU:

Licensed place of use reflects the place of use during the authorized development period which is not reflective of the actual use today. Now they have pivots and really need to file a transfer.

¹ 160 acre limit for 37-7033 – 71 acres that don't overlap with any of 37-2647 = 89 acres overlapping with 37-2647 and a duty of water of = $(0.10 + [(2.06/140)*89])/89 = 0.016$ cfs per acre for 89 acres