

MEMORANDUM

TO: File

FROM: Monica Van Bussum

SUBJECT: Licensing 67-7479

Also mentions: SRBA claims 67-475, 67-482, 67-487, 67-488B, 67-489, 67-4498 and 67-7479

DATE: November 24, 2009

This memo is to track the decisions I made when licensing permit 67-7479.

POU

67-7479 overlaps a number of water rights, namely, 67-475, 67-482, 67-487, 67-488B, 67-489, 67-4498 and 67-7420. 67-7479 entirely overlaps all of these water rights except 67-7420. 67-7479 only overlaps 67-7420 in Sec 9 NENE and NWNE.

I drew the POU for 67-7479 keeping these overlaps in mind and, using a combination of 1987 and 1992 aerial imagery, finalized the shape while trying to mirror the recommended shapes for the other water rights. I then determined which acres under 67-7479 overlap the other water rights to get an idea of which acres were currently without a water right and which acres were overlapped by other water rights.

There were 664.4 acres in the license shape, 276.4 of which had been recommended/licensed under other rights and 388 of which had not.

Since 67-7420 overlaps 67-7479 only in Section 9, but has recommended acres outside of the POU for 67-7479, it is important to highlight the calculation of overlap acres between the two. There are an additional 90 acres in the POU for 67-7420 wholly outside the POU for 67-7479 (39.5 acres in Section 4 and 50.5 acres in Section 9). Thus, there is a total of 90 acres recommended under 67-7420 not included in the POU for 67-7479. When calculating limiting conditions, it was important to include these acres. Thus, the overlapping rights are limited to 754.4 acres (664.4 of 67-7479 plus the additional 90 acres under 67-7420).

There is another important note to make here. During the SRBA, 67-7479 was recommended with a condition limiting it and 67-475, 67-482, 67-487, 67-488B, 67-489, and 67-4498 to a combined total of 742 acres. The 742 acres comes from adding the 725 acres found under the first field exam conducted by Quentin Nesbitt and 17 acres under 67-487 and 67-4498, which are outside of the permitted and licensed POU for 67-7479. That limiting condition now appears to be incorrect. The limiting condition for 67-475, 67-482, 67-488B, 67-489, 67-7420 and 67-7479 should be as mentioned in the previous paragraph (754.4 acres). The limiting condition for 67-487 and 67-4498 should be 17 acres, which also underscores the fact these two rights are separate from the other overlapping rights.

Quantity

Based on the overlapping acres I found, I was able to determine the duty of water (cfs/ac) on the water rights that had been previously recommended. This ranged from 0.0125 to 0.02 cfs/ac. I then subtracted these values from 0.02 cfs/ac (IDWR's standard duty of water) to determine the quantity of water needed on each acre. I took the resulting value and multiplied it by the number of acres needing that quantity of water. This gave me the total cfs needed to bring overlapping acres to 0.02 cfs.

For the acres where no rights overlapped, I simply multiplied the number of acres by 0.02 cfs/ ac to determine the total cfs needed to bring those acres to the standard duty of water.

I then added the results of the overlapping acres calculation and the non-overlapping acres calculation to determine the total cfs for this right – 8.78 cfs.

IDWR determines volume two different ways and issues the license for the lesser amount of the two. Volume calculations for this right were:

$$231 \text{ days} * 1.9835 * 8.78 \text{ cfs} = 4022.9 \text{ AFA}$$

$$664.4 \text{ ac} * 4 \frac{\text{AF}}{\text{yr}} \text{ per acre} = 2657.6 \text{ AFA}$$

In the first equation, 231 is the number of days in the irrigation season, 1.9835 is a conversion factor and 8.78 cfs is the previously-mentioned diversion rate I calculated for this right. In the second equation, 664.4 ac is the number of acres I found irrigated under this right and 4 AF per year per acre is the field headgate requirement. Thus, I recommended 2658 AFA be the annual volume limit for this right.

However, yet again it is important to remember 67-7420 does not wholly overlap 67-7479 and some additional calculations are needed. 67-7420 was recommended for 584 AFA on 146 acres, or the total of multiplying 146 acres by the field headgate requirement of 4 AF per year per acre. Under the POU section above, we established that 90 of these acres fall outside of the POU for 67-7479. 90 acres multiplied by the field headgate requirement of 4 is 360 AFA. The combined volume limit for these rights should be 2658 AFA added to 360 AFA, or 3018 AFA. The combined diversion rate should be calculated as the total number of combined acres, 754.4 (as noted in POU), multiplied by 0.02 cfs, or one miner's inch, per acre.

During the SRBA, 67-475, 67-482, 67-487, 67-488B, 67-489, 67-4498 and 67-7479 were recommended with a condition limiting them to a combined total of 14.84 cfs. As mentioned under POU, 67-7479 was recommended with a condition limiting it, with the above rights, to the irrigation of 742 acres. 742 acres at 0.02 cfs, or one miner's inch, to the acre is 14.84 cfs. My review found a different number of acres, so as with POU, I would recommend changing the conditions on the SRBA recommendations for quantity. The limiting condition for 67-475, 67-482, 67-488B, 67-489, 67-7420 and 67-7479 should be as mentioned in the previous paragraph (3018 AFA). The limiting condition for 67-487 and 67-4498 should be 0.34 cfs with no volume limit (in the SRBA, volume limits were not typically added to surface water rights), which also underscores the fact these two rights are separate from the other overlapping rights.

Ownership

The agent recommending the adjudication claim processed a change of ownership from Wilkerson Bros. to Russell Wilkerson, Gordon Wilkerson and LK Wilkerson. There is a memo from Craig Saxton to this effect in the file. Jeff Peppersack's memo of June 2007 the assignment of permit would be held pending adjudication processing and until licensing. Based on the findings of the adjudication ownership change processing and the assignment of permit, I changed the contact information on the license.