

Supplemental Memo

Date: May 27, 2011

To: File 37-8205

From: Craig L. Saxton

RE: Supplemental information to May 17, 2011 review memo by Cherie Padilla

“Recreation” Overlap

37-4369 provides recreation storage water for 4 ponds from Deer Creek (cold water)

37-2446 provides recreation live flow for 4 ponds from Deer Creek (cold water)

Permit 37-8205 is meant to supply water for recreation (heating) of one of the 4 ponds supplied with surface water under the other rights. There is overlap in the place of use for 37-2446, 37-4369, and 37-8205, but each right is for a different purpose of use. Therefore there are no combine use limits between 37-2446, 37-4369, and 37-8205.

“Heating” Overlap

As stated in Cherie’s May 27, 2011 memo, she describes that the heating purpose of use for 37-22128 was identified on the parent statutory claim (37-4370) as being for 1 home, and 1 lodge & pools.

The heating use authorized under permit 37-8205 is for melting snow and ice on driveways and walkways, and for heating in 1 home and 1 bath house.

The Engineering Report for the Clarendon Hot Springs Geothermal Project, dated June 8, 2009, states on page 2 that, “Three dwellings currently exist...”

In relation to heating of the homes, together 37-22128 and permit 37-8205 authorize heating of 2 homes, 1 lodge and pools. Based on this information, there does not appear to be overlap in the heating purpose of use between 37-22128 and permit 37-8205. This supports the determination that no combine use limits are required between these two rights.

Licensed Diversion Rate and Diversion rate capacity:

The field examiner recommended a diversion rate of 1.76 cfs which is the measured initial capacity of wells 75-1, 11, and 3R operating together. The test shows that the measured 1.76 cfs was recorded at the commencement of the test. After approximately 1 hour, a 10 minute totalizer reading was taken and the average flow was found to be 663 GPM (1.48 cfs). The field examiner estimates that the length of the transient period before sustained capacity of 1.48 cfs is reached is likely to be longer than reflected in this test because, previous to the test, the wells had been run continuously for approximately 2 weeks.

It is more appropriate to describe the developed diversion rate as that of the steady state (1.48 cfs). As stated in the field examiners report, the operating procedure includes pumping the wells continuously for extended lengths of time (two weeks). The wells would only produce the dynamic or transient rates for a small fraction of the time.

Licensing a diversion rate for more than the steady state would be authorizing a continuous diversion rate that was not sustained and would not accurately describe the developed beneficial use.

No diversion rate combine use limit for shared wells #3R and #75-1

37-22128 authorizes diversion of 0.13 cfs for heating use from 5 points of diversion.

37-8205 authorizes diversion of 0.85 cfs for heating use from 2 points of diversion.

The two points of diversion shared by 37-22128 and 37-8205 have the capacity to divert 1.06 cfs and are identified as wells **#3R and #75-1**. 1.06 cfs is more than authorized by the two rights.

No need to try to add some combine diversion rate limit from specific wells.