

MEMORANDUM

TO: File 65-13708

FROM: Daniel Nelson – Staff Hydrologist

DATE: August 4, 2016

SUBJECT: Licensing Review of Water Right 65-13708

This permit was field examined in 1999. There are only a couple of issues that appear to be in question regarding this permit.

The first issue regards the pond volume. The field examiner estimated the pond surface area at 1 acre with an average depth of 5 feet. I outlined this pond in Arcmap and discovered the current surface area is actually 1.7 acres. The surface area of the pond was actually reduced in size from 1987 to 1998. The pond surface area hasn't changed in size from 1998 to 2015. When I compiled the pond worksheet, I found that the capacity of the pond is actually 8.5 af. When taking into account the seepage and evaporation losses, a total volume of 16.2 af is required to adequately cover the storage use for this pond. Hill Creek irrigation rights 65-3803C and 65-3803D are diverted through the pond and the pond has been used in the past as an irrigation distribution pond. Therefore, some of the volume could be attributable to the irrigation right. 0.74 cfs can legally supply an additional 1.5 af of exempt storage. Unfortunately, even counting the amount of exempt storage onto the wildlife storage allowed by this permit, there still aren't enough water rights to cover the actual storage for this pond.

According to the USGS Quadangle map, the pond is on an unnamed stream. Aerial photography suggests that the pond is actually on a ditch that diverts Hill Creek water approximately 1 mile northeast of the pond. The ditch runs parallel to Hill Creek. I had various Department staff review the maps, and it has been agreed that the ditch from Hill Creek intercepts the unnamed stream and uses the unnamed stream channel to convey the Hill Creek water to water users in Faull Ranch. The permit states that the pond was used at one time as regulation pond for the Faull Ranch irrigation rights from Hill Creek. It has been decided that the pond is used as an irrigation regulation pond during the irrigation season, but water from unnamed stream is used to maintain the pond levels during the non-irrigation season. Therefore, the source for the permit would need to be the unnamed stream and not Hill Creek. Hill Creek water can only be diverted into the pond for irrigation use, and the unnamed stream is the only source that can be diverted into the pond on year round basis.

The field examiner did do a measurement of the pond through their weir, and found a diversion rate of 0.21 cfs being diverted to the pond. Water rights 65-3803C and 65-3803D divert a total of 0.74 cfs through this ditch and into the pond. This is an onstream storage water right, so no diversion rate is included on the license.

There is a second pond on this creek, and there were some questions as to which pond was described in this permit. However, I did an analysis of the aerial photos and the file and have determined that this permit belongs to the pond in Lot 10 now owned by a Mr. Keyes. Please see my July 21, 2016 letter for my analysis on this situation.

This permit should be licensed as on-stream pond with no diversion rate for a volume of 5 acre feet as approved by the permit provided all of the conditions of the permit are met.

The permit has a condition that requires a measurement device for the water entering the pond and exiting the pond. The field report describes a measurement device on the channel entering the pond, but states that there is no measurement device on the stream exiting the pond. While speaking with the former owner of the pond, Larry Szurgot, he stated that he never had a measurement device exiting the pond. A measurement device on the outlet of the pond is needed before this permit can be licensed.

If the owner provides necessary proof that the measurement conditions have been met, condition #1 should be changed to condition 185, which is now the standard condition. Condition #2 (18A) should be changed to condition 18C, which is the new standard. Condition 3 (R04) should be changed to R05, which is the new standard.