

MEMORANDUM

DATE: December 4, 2001

TO: Cynthia Clark

FROM: Shelley W. Keen

RE: Licensing exams for 47-7964 and 47-7969

These two water rights present an interesting technical problem dealing with geothermal water. Right 47-7964 is for the heating of a school in Twin Falls. Right 47-7969 is for heating a swimming pool. Both rights are diverted from the same well. In his field reports Jim Stanton does a pretty good job of describing the diversion and distribution systems. Unfortunately, data is not available to tell us how much of the water that is diverted goes to the school, and how much is used in the pool. Jim recommended issuing the school district a license for half the rate and volume. I am concerned that at times the school may actually use more than half the flow diverted. I do not want to issue the school district a license for less rate and volume than is necessary to heat the school. Jim also recommended that all the volume diverted be credited to the pool. I am concerned that some of the water is shunted into the sewer without being beneficially used in the pool. For example, if the school needs water but the pool doesn't, the water discharged by the school probably isn't beneficially used in the pool.

I need your help to discern how much water is beneficially used at each location. Please see if some kind of data is available from a source Jim may have overlooked. For example, who designed the systems, and what flow and volume assumptions were incorporated into the design? If data is not available, is it possible to calculate what the school and the pool require for heating? Application processing memo #23 is probably a good starting place.

Thanks for your help.