Memo

To: File

From: Nathan Erickson NE

Date: 4/9/2007

Re: Recommendation for licensing of water rights 47-7606 and 47-7478

In 1978 the College of Southern Idaho began to develop the use of geothermal water from groundwater wells as a source for heating the campus and for the development of a fish propagation facility. The development included the submittal of two applications for these uses, water rights 47-7478 and 47-7606. The proof of beneficial use for the first water right (47-7478) was submitted in 1983, the field exam for this right was conducted in 1985. At which time an assessment was made of the facility and a recommendation for the license was submitted to the State office for approval. However, the State office identified several issues that needed to be addressed prior to completing the licensing of the water right. In 1993 the proof of beneficial use was submitted for the second water right (47-7606).

In 2007 a renewed effort to license the two rights was undertaken. The original issues for water right 47-7478 were addressed and the combined maximum rate and volume for the two rights was identified. The combined rate was limited to 6 cfs based on a 1989 ground water use agreement. The volume was limited to the maximum-recorded volume during the permitting period, which was 734 af in 1990. It was also found that use of the fish propagation was no longer used when the second right was developed, for this reason it was taken off of water right 47-7606. The following is a table showing the recommended amounts for the two water rights:

WR	Rate (cfs)	Heating Volume (af)	Fish propagation volume (af)
47-7478	1.38	289	58
47-7660	4.62	445	0
Total	**6.0**	**734**	**58**

The recommendation for water right 47-7478 has changed from what was originally recommended. As an addendum to the 1985 beneficial use field exam, additional documents are in the file to provide the calculation of the annual diversion volume. The diversion rate is also different than what was originally recommended. In attachment #2 of the 1985 field exam a distinction was made between the design flow capacity and the measured flow capacity. The lower value of the two for each building was used to calculate the total. It is proposed that total measured flow should be used as the capacity of the system.

The beneficial use field exam was completed for water right 47-7606. The contact for the College of Southern Idaho was Mike Mason. Mr. Mason provided historical and system information for the college. A review of the field exam for water right 47-7478 was also used to determine the recommended rate and volume.