

MEMO

TO: File 78-7328

FROM: CPadilla

DATE: June 13, 2011

RE: Licensing Review Memo

Timeline:

Application Received: April 3, 1992

Permit Issued: July 21, 1992

Proof of Beneficial Use: October 14, 1992

Field Examination: November 10, 1992

Point of Diversion: The PD is from Elk Creek. According to the field examiner's map, the right holder diverts directly from Elk Creek. The field examiner noted that there may be some overlaps with the PD and I, with Craig Saxton, was able to eliminate those overlaps as follows:

78-7006: Is for McMorris' property which is across the street. The claim file indicates that the diversion is from a 200' ditch. Elk Creek does not run through their property. It does not appear that the ditch crosses the road.

78-7301: Is for the Townsends and the POU is on the other side of the road upstream of the McMorris'. Elk Creek goes through their property. Their PD appears to be on their property.

78-7304: Different source (springs)

78-7329: Permit has been withdrawn

POU: I had a hard time deciphering the POU since McNulty's no longer own the lot associated with this right. I plotted the deed located in the application for 78-7304 and found that the two lots shown below used to be one piece. According to taxlot data, the smaller lot had a home since 1973 and the larger lot had a home built in 1996. From this, I can conclude that the smaller lot is the POU for this right since the exam was conducted in 1992, which pre-dates the larger lot's home.

Overlap Analysis of POU: 78-7301 does not overlap this right's POU, the POU for 78-7301 is upstream from the POU for this right. Right 78-7304 does share the same POU. Right 78-7304 is for domestic use only and does not include irrigation. This right will cover domestic in combination with 78-7304 and the irrigation of ½ acre under the irrigation component as recommended by the field examiner.

Volume and Diversion Rate: No measurement was taken during the field exam but the system can accommodate up to 0.02 cfs based on the attached pipe diameter/cfs spreadsheet. The field examiner recommended 0.05 cfs based on a hp equation calculation; however, the overall system capacity is the limiting factor or the size of the pipe in this case.

The diversion rate for domestic will be 0.02 based on the system's capacity and the irrigation will be 0.02 based on the standard of 0.03 cfs/acre x 0.5 acre = ~0.02 cfs. And the volume is consistent with the field examiners recommendation.

Ownership: The current owner as listed in the 2009 taxlot data is
Mary Kohnke
1717 N 17th
Boise ID 83702
A copy of the license will be cc'd to her with an ownership change form.

Amendment?: NO.

PIPE FLOWS -- PUMPING SYSTEMS

[properly designed @ 5 ft. / sec.]

$$Q = 5 \pi r^2 (r \text{ in ft.})$$

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$$R = (\text{diameter} / 12) / 2 \left(\frac{\text{dia}}{12} \right) \div 2$$

$$\pi = 3.1416$$

<u>PIPE DIAMETER(")</u>	<u>CFS (1/100)</u>	^(1/10) <u>MINER INCH</u>	^(1/10) <u>GALLONS/ MINUTE</u>
1	.03	1.5	13.5
2	.11	5.5	49.4
3	.25	12.5	112.2
4	.44	22.0	197.5
6	.98	49.0	439.8
8	1.74	87.0	780.9
10	2.73	136.5	1225.2
12	3.93	196.5	1763.8
14	5.34	267.0	2396.6
16	6.98	349.0	3132.6
18	8.83	441.5	3962.9
20	10.90	545.0	4891.9
22	13.19	659.5	5919.7
24	15.70	785.0	7046.2

THEORETICAL PSI's

Internal domestic	- 20 psi
Internal/external domestic	- 30 psi
Domestic w/ 5-10 acres	- 40 psi
Medium systems (up to 50 acres)	- 40 psi
Large pivots	- 60 psi

or for 3/4" pipe

$$R = \left[(0.75" / 12) / 2 \right]^2$$

$$Q = 5 \pi 0.03^2$$

$$Q = 0.015 \text{ or } 0.02 \text{ cfs}$$