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IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	Subcase Nos: See Attachment A
	)	
	)	
Case No. 39576	)	AFFIDAVIT OF JEFF PEPPERSACK
	)	REGARDING CONSUMPTIVE USE
	)	FOR IRRIGATION

STATE OF IDAHO)
) ss.
County of Ada)

Jeff Peppersack, being first duly sworn, deposes and states as follows:

1. **My name is Jeff Peppersack. I am above the age of eighteen and testify to the facts stated below based upon my personal knowledge and experience.**

2. **In my capacity as water resource engineer for the adjudication bureau of IDWR, I undertook to survey other prior appropriation doctrine states as to their purpose and**

methodology for determining annual volume of consumptive use for water rights. The information as to each state, and the person who provided the information, are listed below.

3. Utah: Lee Sim, Assistant State Engineer for the Utah Division of Water Rights, indicated the Utah State Engineer reports a consumptive use value for irrigation in their proposed recommendations in adjudications. The reported value is used when an application for change in use of the water right is filed, and the transfer is limited to the consumptive use portion of the right. Consumptive use is generally calculated using the Soil Conservation Service modified Blaney-Criddle method. Effective precipitation is subtracted from the total consumptive use value to determine the amount applied by irrigation. Average values for consumptive use and precipitation are used. The consumptive use values are based on alfalfa, rather than the crops historically grown. The Utah State Engineer's Office is considering using a modified Penman equation.

4. New Mexico: Linda Gordon, New Mexico State Engineer's Office, indicated that consumptive use for irrigation has been determined in adjudicated areas, and transfers may not exceed the consumptive use portion of the right. The basis for the determination depends on the time when the adjudication was completed. Generally the Blaney-Criddle method was used. Effective precipitation was deducted to determine the irrigation requirement. Consumptive use values were based on the cropping patterns at the time of the adjudication, and Ms. Gordon believes that the values were average values.

5. Colorado: According to Dave Fox, Colorado Department of Natural Resources, Colorado determines consumptive use for purposes of transfers, and limits transfers to the amount consumptively used. Since the transfer is determined by the water

court, the basis for the determination depends on the objectors and the evidence presented before the court. Generally, consumptive use is estimated using the Soil Conservation Service modified Blaney-Criddle method. Precipitation is deducted to determine the amount provided by irrigation. Average values and actual crops are generally used.

6. Wyoming: Allan Cunningham, Wyoming State Engineer's Office, indicated that Wyoming also determines consumptive use for purposes of transfers, and limits transfers to the amount consumptively used. An applicant for a transfer must submit a consumptive use study prepared by a professional engineer. Consumptive use studies for irrigation are based on a report prepared by the University of Wyoming. This report estimates consumptive use based on the FAO Blaney-Criddle method. Effective rainfall is deducted to determine the amount provided by the irrigation system. Average values for consumptive use and precipitation are used. The consumptive use is based on the actual historical crops grown.

7. Montana: Hal Peck, Montana Department of Natural Resources and Conservation, indicated that Montana determines consumptive use as part of transfer proceedings. An applicant for a transfer must submit consumptive use estimates with the application, using any method they prefer. The Montana DNRC uses SCS guidelines from SCS Technical Release #21 to verify the numbers submitted by the applicant. The SCS guidelines use the SCS modified Blaney-Criddle method. Effective precipitation is subtracted to determine the amount applied by irrigation. Average year values are normally used; an applicant might submit dry-year values and those would be considered but appropriate adjustments would be made. Consumptive use is determined based on the historical crops

grown.

8. Arizona: John Munderloh, Chief of the Adjudication Section for the Arizona Department of Water Resources, informed me that Arizona distinguishes between surface and ground water transfers, and as to surface water, distinguishes between decreed areas and non-decreed areas. As to surface water transfers, decreed areas are handled by the state or federal court. Surface water transfers in non-decreed areas are handled by ADWR, but there are not many of these. One example was a change in use from irrigation to stock ponds, in which the diversion volume for irrigation was the basis for the capacity of the ponds. Ground water transfers depend on the duty of water and the active management area within which they are located; total pumpage limits for the area are set by legislation.

9. Nevada: John Palm, Engineer for Nevada Division of Water Resources, indicated that they don't process many transfers, they rely primarily on injury identified through protests, and resolve them on a case-by-case basis. There is a federal decree for the Carson River that determined consumptive use amounts in acre-feet per acre, but Mr. Palm did not know the basis for these amounts. A transfer would be limited to the consumptive use portion of the right.

10. Nebraska: According to Kent Zimmerman, Nebraska Department of Water Resources, Nebraska also reviews injury from transfers on a case by case basis. Transfers on large streams are generally approved. Transfers on small streams have the potential to cause injury by reducing return flows to downstream users or by altering the effect of calls for water based on location. In these cases the transfer is not allowed or is conditioned to mitigate the effects of the transfer. Transfers from irrigation to municipal or industrial are

not allowed under the statutes.

Jeff Peppersack
Jeff Peppersack

Subscribed and sworn to before me this 17th day of September, 1996.

Darin M. Smith
Notary Public for Idaho
Residing at: Boise ID
My commission expires: 12/5/2000

CERTIFICATE OF SERVICE

I certify that the 17th day of September, 1996, I ^{Saved} hand-delivered copies of the foregoing document, including all attachments, to the following:

Patrick D. Brown
133 Shoshone St North
Twin Falls, ID 83303

Darin M. Smith
Person delivering documents

TO: I D W R

MAR-16-'88 FRI 21:55 : IDWR SOUTH

TEL NO:

#176 P05

ATTACHMENT A

36-00003A
36-00003C
36-00003E
36-00003F
36-00034B
36-00035J
36-00039C
36-00039E
36-00039J
36-00039N
36-00047
36-00061
36-00062
36-00063
36-00064B
36-00079
36-00085A
36-00086C
36-00092
36-00103F
36-00106
36-00108B
36-10283B
36-10409