BETORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF)
WATER TO VARIOUS WATER RIGHTS )
HELD BY OR FOR THE BENEFIT OF )
A&B IRRIGATION DISTRICT, )
AMERICAN FALLS RESERVOIR )
DISTRICT #2, BURLEY IRRIGATION )
DISTRICT, MILNER IRRIGATION )
DISTRICT, MINIDOKA IRRIGATION )
DISTRICT, NORTH SIDE CANAL )
COMPANY, AND TWIN FALLS )
CANAL COMPANY )

STATE OF IDAHO )
 ) ss.
County of Twin Falls )

AFFIDAVIT OF CHARLES E. BROCKWAY
CHARLES E. BROCKWAY, being first duly sworn on oath, deposes and hereby states as follows:

1. I have been involved in research on the Eastern Snake Plain Aquifer and ground water models of that aquifer for over 30 years and have served on the Eastern Snake Plain Aquifer modeling committee during development of the current aquifer ground water model.

2. The ground water model Version 1.0 was utilized by the Idaho Water Resources Research Institute (IWRRI) to develop various planning scenarios including scenarios to evaluate the effects of curtailment of ground water pumping for irrigation.

3. The Version 1.0 model was utilized by the Idaho Department of Water Resources (IDWR) in evaluating the mitigating benefits to Snake River reach-gains resulting from ground water curtailment in development of orders in response to water calls by the Surface Water Coalition and others.

4. Recent developments in the use of the model by the Idaho Water Resources Research Institute revealed several errors in data input for the calibration of the Version 1.0 model. An explanation of the errors was presented at the Eastern Snake Plain Modeling Committee meeting on September 1, 2005. As a result, the ground water model was re-calibrated using corrected input data which resulted in Version 1.1.

5. It was reported by IDWR and IWRRI that the differences in output or results using the Version 1.1 model compared to the Version 1.0 model were not
significant', however, no comparative results were provided to confirm the significance or non-significance of the differences.

6. Brockway Engineering PLLC, utilizing steady state output files from the Version 1.0 and Version 1.1 models as provided by Alan Wylie of the Idaho Department of Water Resources on the IDWR ftp site, compared the responses to ground water pumping using the two versions of the model and prepared aerial response maps for various gains and losses in various reaches of the Snake River.

7. Results of these comparisons indicate that, at some model nodes, the differences in simulated steady-state reach-gain response between the two model versions are as much as 24% in the near Blackfoot to Neeley reach and even greater in the Neeley to Minidoka reach. Differences in the simulated response of spring flow in some of the Thousand Springs reaches are as much of 17% from some model nodes.

8. These differences in simulated responses from ground water pumping using the two versions of the model bring into question the validity of previous simulations using the Version 1.0 model and, in particular, any IDWR orders which relied on those simulations for development of mitigation requirements for junior priority ground water users.

9. The magnitude of the differences in simulated responses is not insignificant and, at best, imparts uncertainty in the use of output data from the model for planning and regulatory purposes.
Further your affiant sayeth naught.

DATED this 5th day of October, 2005.

[Signature]

Charles E. Brockway

SUBSCRIBED AND SWORN to before me on this 5th day of October, 2005.

[Seal]

Notary Public for Idaho
Residing at Twin Falls
My commission expires: November 18, 2010
CERTIFICATE OF SERVICE

I hereby certify that on the \( 6 \) day of October, 2005, I served a true and correct copy of the foregoing document(s) on the person(s) listed below, in the manner indicated:

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