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**Counsel for the United States**

**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 )  
)  
Case No. 39576 ) Subcase Nos. 63-3618  
)  
) **AFFIDAVIT OF ROBERT J. SUTTER**  
\_\_\_\_\_ )  
  
STATE OF IDAHO )  
) ss.  
County of Ada )

I, ROBERT SUTTER, being duly sworn upon oath, state as follows:

1. I am a registered Professional Engineer in the state of Idaho. I was employed as a Water Resource Engineer in the Hydrology Section of the State of Idaho Department of Water Resources from 1969 to 1995. I served as Hydrology Section Manager for the State of Idaho Department of Water Resources from 1995 to 2002.

2. In 1986, I developed the Boise River Water Right Accounting computer program (hereafter called the “Accounting Program”) and the Boise River Storage Allocation computer program (hereafter called the “Allocations Program”) for the Boise River. These two programs have been used by the Idaho Department of Water Resources (Department) and the Boise River Watermaster (Watermaster) to account for natural flow and reservoir storage water each and every year since 1986. The Department runs both the Accounting Program and the Allocations Program. However, the Department and the Watermaster work closely with each other, exchanging information in an iterative manner while making all program runs. The Watermaster uses the results of these programs to correctly deliver natural flow and storage water throughout the year. I have reviewed both the Accounting and the Allocations programs that are currently being used by the Department and the Watermaster and have found both to be essentially the same as when I left the Department in 2002.

3. For water right accounting purposes, the Department uses an “irrigation year,” which begins on November 1 and ends on October 31. It includes the non-irrigation season period from November 1 to April 1 when reservoirs store water, as well as the period after April 1 when the irrigation season begins. In many years reservoirs continue to store water into the irrigation season, sometimes as late as July.

4. Typically the Accounting Program is first run sometime between February and April for the time period beginning November 1, the first day of the irrigation year. For each day after November 1, the Accounting Program calculates the amount of water that is credited to each of the Boise River Reservoirs, Arrowrock, Anderson Ranch and Lucky Peak, according to their respective storage rights. The accumulated amount of storage credited to each reservoir storage

right is often termed “paper fill,” as opposed to the measured contents of the reservoir, which is termed “physical fill.” The physical fill in a reservoir seldom equals the paper fill because:

- a) the system (Arrowrock, Anderson Ranch, And Lucky Peak reservoirs) storage fill and use is not reconciled until the end of the irrigation year; and b) the three Boise River reservoirs are operated as a system and therefore storage water credited “on paper” to one reservoir can physically be stored in a different reservoir. The Accounting Program only accounts for the fill of the reservoir storage right. The Accounting Program does not calculate the amount of storage water that accrues to individual space entitlements.

5. As natural flow recedes, reservoir storage rights (which are generally later in time than irrigation natural flow rights) go out of priority, and reservoirs stop accruing stored water. Reservoir storage rights go out of priority typically sometime between April 1 and July 31, depending on the magnitude of runoff. Once the reservoirs stop accruing storage, the Allocations Program is run to calculate stored water allocations for individual space entitlements. The United States Bureau of Reclamation provides a list of space entitlements in each reservoir to the Watermaster and the Department. The Allocations Program computes storage water allocations for these entitlements in Arrowrock, Anderson Ranch and Lucky Peak reservoirs simultaneously based on the paper fill of each reservoir.

6. There are two different situations for which the Allocations Program calculates the amount of water that has been stored in each space entitlement:

- a) In a year of low to moderate runoff, the paper fill in one or more of the Boise River reservoirs may not fill to 100 percent of its storage right (or total allocated space). In this type of year, the Allocations Program distributes the amount of the accumulated paper fill to all

space entitlements proportional to their entitlement. This is typically done sometime after April 1 when the reservoir rights cease to accumulate paper fill.

b) In a year of above average runoff, storage water may be physically released from the Boise River reservoirs early in the irrigation year to make space to store anticipated high natural flows to prevent flooding in the lower Boise River below Lucky Peak Reservoir. This flood control operation typically can occur anytime from January through May.

7. When storage is released for flood control, the paper fill of each reservoir in the Accounting Program is not affected, and continues to increase until each reservoir fills to 100 percent of its storage right. I have examined accounting results for all years since the inception of the use of the Accounting Program in 1986. As a result of this examination, I have found that for years when system flood control operations have occurred on the Boise River, the paper fill of all storage rights in Arrowrock, Anderson Ranch and Lucky Peak reservoirs has never failed to initially fill to 100 percent. It is logical that the system will fill completely in any year in which there is a system flood control operation because the criteria for flood releases are based on the presence of insufficient space in the system to capture the forecasted runoff.

8. As the flood control operation typically progresses, the reservoirs cease storage releases and begin to physically refill as the high runoff is then stored to prevent downstream flooding. The Accounting Program tracks the amount of natural flow stored during the refill phase of a flood operation as “unaccounted for” storage. When the accumulation of “unaccounted for” storage ends, the flood operation is completed. The end of flood operations typically occurs sometime from April through July. At the end of a flood operation, ideally the amount of “unaccounted for” storage will be equal to the amount of storage released for flood

control so that the amount of water stored physically in the reservoirs will be equal to the paper fill, which is 100 percent of the storage right (or allocated storage). If the “unaccounted for” storage is less than the storage released for flood control, this shortfall is termed the “failure to refill due to flood control.”

9. At the end of the flood control operation the Allocations Program is then run to calculate stored water allocations for individual space entitlements. Again, the Allocations Program computes allocations for all three Boise River reservoirs simultaneously using the paper fill of each reservoir. In this system flood control situation, the paper fill of Arrowrock Reservoir and Anderson Ranch Reservoir remains at 100 percent of their storage right (or allocated space). The Allocations Program therefore allocates a full supply of storage to all individual entitlements in Arrowrock and Anderson Ranch reservoirs. From 1986 through 2007, there have been ten years for which system flood control releases were made. I have examined these years and in all cases, Arrowrock and Anderson Ranch entitlements received 100 percent allocation. The same conclusion was reached by Mary Mellema in her Affidavit dated November 13, 2007.

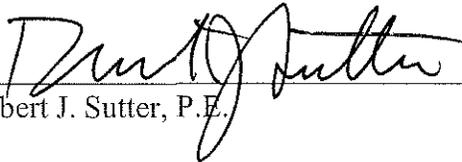
10. The paper fill of Lucky Peak Reservoir used by the Allocations Program is equal to its allocated space less any “failure to refill due to flood control.” This “shortfall” is subtracted from the Lucky Peak Reservoir paper fill because Lucky Peak Reservoir has the latest water right priority of the three Boise River reservoirs, and Lucky Peak Reservoir is the primary flood control facility. In the case where there is a “shortfall” in Lucky Peak Reservoir paper fill, the Allocations Program allocates the fill in Lucky Peak as follows: If the shortfall is 60,000 acre-feet or less, all entitlements in Lucky Peak Reservoir receive 100 percent of their allocation except for the Streamflow Maintenance entitlement in Lucky Peak Reservoir, which receives an

amount equal to its entitlement less the shortfall. Additionally, if the shortfall is greater than 60,000 acre-feet, the amount in excess of 60,000 acre-feet is taken proportionally from all entitlements in Lucky Peak, including the remainder of the Streamflow Maintenance entitlement.

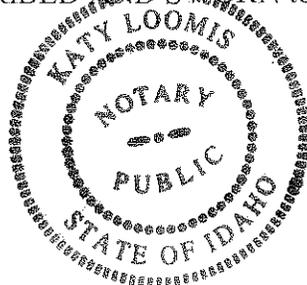
11. Storage in the Streamflow Maintenance entitlement has always been released beginning sometime in October after the end of the irrigation season in order to maintain a flow in the Boise River below Lucky Peak Reservoir. These Boise River storage releases continue throughout the non-irrigation season (November 1 to April 1) unless flood control releases preclude the need for such flow maintenance.

Further your affiant sayeth naught.

DATED this 12 Day of FEB 2008.

  
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Robert J. Sutter, P.E.

SUBSCRIBED AND SWORN to before me this 12<sup>th</sup> Day of February, 2008.



Notary Public for Idaho Katy Loomis  
Residing at: Boise, Ada County, Idaho  
My Commission Expires: 10/17/2009