



## Demonstration of Return Water Fallacy

Originally, in 2012, Cal Am proposed to draw its water via slant wells from beneath the ocean floor. The watermelon on the left represents this water, which consists of 10 scoopsful of seeds, equivalent to 3.5 percent total dissolved solids (including salt) in the water. The remaining 96.5 percent of ocean water (the seed-free part of the melon) is fresh water (pure H<sub>2</sub>O).

The reason Cal Am made this proposal is that it has no water rights in the Salinas Valley to draw groundwater and that the state Agency Act prohibits the exportation of groundwater from the valley.

Four years later, in March of this year, Cal Am changed its plans. Now it proposes to draw its water via slant wells from the Salinas River Groundwater Basin. The watermelon on the right represents this water, which consists of 9 scoopsful of seeds, equivalent to 3.2 percent total dissolved solids (including salt) in the water. The remaining 96.8 percent of groundwater at the site where the water is to be drawn is fresh water (pure H<sub>2</sub>O).

Cal Am's rationale for the change is that drawing groundwater would be equivalent to drawing ocean water if the company returned the fresh-water difference between ocean and groundwater. This difference is 0.3 percent, which Cal Am incorrectly determined to be about 9 percent (0.09), which is the difference in the percentage of total dissolved solids in the two sources of water:  $0.09 = (3.5 - 3.2)/3.5$ , approximately.

In other words, Cal Am proposes to extract and export a whole watermelon of groundwater from the Salinas Valley and return only a scoopful of it (to Castroville) to satisfy the Agency Act, which prohibits the exportation of the entire melon from the valley.

If Judge Weatherford permits Cal Am to get away with that it would be no different from my stealing a whole watermelon from Commissioner Sandoval and Judge Weatherford's telling me not to worry about it—no crime, no time—if I just returned a scoopful of it.

That was my message on September 1<sup>st</sup> at the CPUC workshop at Sunset center.