Amendment to Declaration of June A. Oberdorfer, July 2010 Antelope Valley Groundwater Cases, Phase 3: Status of Aquifer and Issue of Overdraft

<un June A. Oberdorfer, PhD, PG, CHG July 2010

I have reviewed the final version of the *Summary Expert Report* of Beeby et al. (2010) filed on July 15, 2010. There were certain changes to the final version that were not included in my review of the preliminary version.

The final version of Appendix C.3.2 of the *Summary Expert Report* concluded that the Natural Recharge for the Antelope Valley Area of Adjudication based on the chloride-mass approach was about 58,000 acre-feet per year (afy) or possibly less, not the 29,000 afy stated in my Declaration. I continue to be of the opinion that this approach is the least reliable of the four approaches to quantifying natural recharge because of the uncertainties in the chloride input data. The 58,000 afy value, however, is in very good agreement with the results of the other methods used to calculate natural recharge.

The natural recharge estimate from the groundwater basin water balance (final version of App. E) was about 56,000 afy, not about 58,000 afy as reported in my Declaration.

The estimate of natural recharge from the three most reliable methods (water balance in the mountain front, precipitation-yield method, and water balance in the groundwater basin) is about 56,000 afy, similar to the 57,000 afy in my Declaration.

The pumping during the time period 1985 – 1991 ranged from 85,000 to 144,000 afy (not 88,000 to 146,000 as in my Declaration) and averaged 114,000 afy (similar to the 115,000 in my Declaration and similar to the estimated current Total Sustainable Yield of 110,000 afy).

The values in the final version of the sensitivity analysis varied slightly from the values given in my Declaration, with the variation being 2,000 afy (instead of 2,100 afy) for the increase in water demand for alfalfa and 5,600 afy (instead of 6,000 afy) for the sewered versus sewered/non-sewered sensitivity analysis. These small differences do not affect the conclusions about the sensitivity analysis.

The conclusion of the report was that groundwater pumping had exceeded the Total Sustainable Yield by about 40,000 afy during the last decade, rather than the greater than 40,000 afy stated in my Declaration. I agree with that statement.

Reference

Beeby, R., Durbin, T., Leever, W., Leffler, P., Scalmanini, J.C., and Wildermuth,
M., 2010. Summary Expert Report, Phase 3 – Basin Yield and Overdraft, Antelope
Valley Area of Adjudication, July.