Wrac Paso Robles RCS comments, John Snyder 11/3/10

I see that the RCS uses the word "overdraft". I spent a lot of time helping purveyors understand a sub area is not a basin and the need for a models to converge. So I hope we can all assume the work is based on real basins and modeling that properly converges.

In the Santa Maria groundwater basin the converging error by purveyor experts overshadowed several other important issues of supply vs demand and overdraft.

I want to be sure it is clear what the time frames for the supply and demand numbers.

In the Santa Maria groundwater ligation there were several definitions of "Overdraft" or supply vs demand proposed by parties which I would summarize as follows:

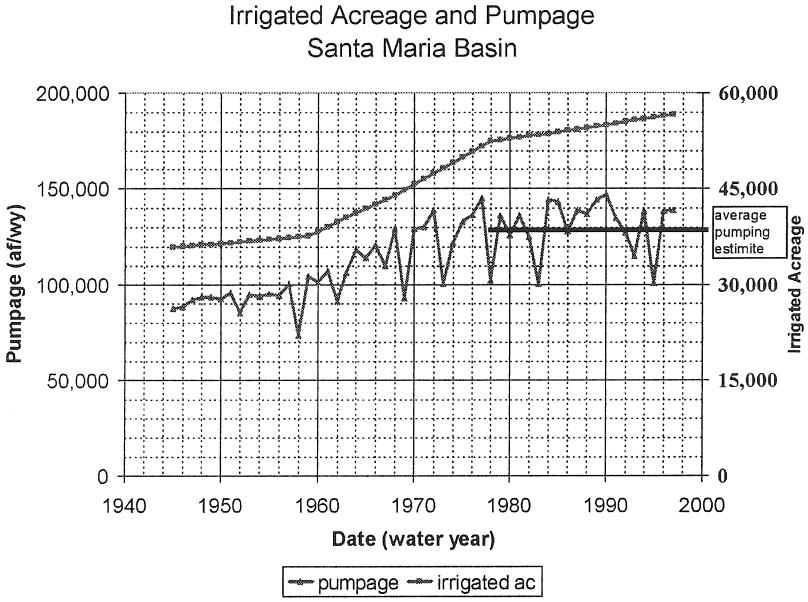
Average yearly supply vs average yearly demand
SMVWCD and Landowner Expert's, Scalmanini in Phase 3, selected by the experts for the lawyers

Average supply vs actual yearly demand
Purveyor's experts, Foreman in Phase 3, selected by the lawyers for the experts

Actual yearly supply vs actual yearly demand
Purveyor argument in Phase 4 and 5 that lead to prescription

As back ground information Ag water use is the opposite of rain fall, wet year = low pumping, dry year – high pumping.

For example Exhibit 1-42 showing below average pumping on only wet years



I see in the text that the RCS on Page 7 states "Agricultural pumping was estimated using acreage and water demands of different types of crops."

Are those "water demands" numbers the average amount of water needed each year for a given crop?

Such that say a 100 acre crop of broccoli with a "water demand" of 2 AF per Acre would need a gross pumping of 200 AF per year on average but in a dry year would need more then average pumping, like 250 AF per year and on a wet year would need less then average pumping, like 150 AF.

The choice of selecting average supply vs average demand results in a higher allowable pumping for the same average supply then selecting average supply vs yearly demand.

Is the county staff selecting the average supply vs average demand by choice or accident?

Does the county under stand that it did not select the average supply vs average yearly demand as being the legal limit in the Santa Maria Groundwater litigation?

I think the selection of average supply vs average demand should be clearly indicated in the RCS report with a reason why it was selected.

The report should also note that the other two time frames result in lower useable demands, with the Yearly supply vs yearly demand being considerably lower.

Other Questions

On Page 6 Table 1 why is the word "Net" in the label "Net Agriculture" ? It is confusing because water use is often considered as Gross or Net, where Gross is the amount of water pumped and Net is the amount of water used (evaporated or Gross water pumped minus the return flow).

Other differences in experts in the Santa Maria basin covered the following:

On page 5 the report uses a fix number for supply of "approximately 97,700 afy". One significant part of supply is return flow from pumped water use. Any change in pumping has to result in a change in supply. The RCS does not consider the actual supply because it does not consider the change in supply with changed pumping under different Scenarios. To have any accuracy it should.

The RCS does not consider the dynamic relation between river/stream/subsurface flow and recharge and water level and the dynamic relation between river/stream/subsurface flow and discharge and water level. A model should have a "Dynamic Range" that covers more then the limited years of study if it's to be used to predict the future. With a fix supply number the model can not have converged and matched 50 years before and after the study period. The RCS should be changed to have a more dynamic number for supply.