

ISSUE RESPONSE SUMMARY SEPTEMBER 24, 2008
OVERSIGHT COMMITTEE MEETING

1. Laura Grignano from ADWR stated that ADWR doesn't yet have a projected overdraft figure based on the updated 1985-2006 water budget numbers presented. However, the projected 2025 overdraft in the Third Management Plan was listed at 50,400 AF. A question was asked regarding how much of that 50,400 of overdraft was due to industrial.

RESPONSE: *In the Third Management Plan (Table 11-12, page 11-24), total 2025 projected demand by all sectors is 396,400 AF; projected Industrial demand is 75,400; Industrial demand is 19% of projected total demand in 2025. This includes all sources of water (groundwater, CAP, effluent).*

Another perspective from same table: Total 2025 projected groundwater use is 188,800; projected Industrial groundwater use is 70,700; projected Industrial GW use is 37% of total projected GW use in 2025.

2. **Can you provide a graph of water level declines?**

RESPONSE: *This graph is provided in the Tucson Water 6/25/2008 presentation which is posted online at: http://www.tucsonpimawaterstudy.com/Meeting_Archives.html*

3. **Can you provide the math for calculating net natural recharge? .**

RESPONSE: *Net natural recharge is calculated by adding components of mountain front recharge, stream channel recharge, and underflow into the basin, minus underflow leaving the basin. The numbers are derived from groundwater models; the average figures used are Mountain Front Recharge: 38,900 AF; Stream channel recharge: 37,700; underflow into basin: 24,100 AF; and underflow out of basin: 39,900 AF. Total $MF + SC + UF_{in} - UF_{out} = 60,800$ AF.*

4. **What happens when dams silt up? (That are part of our storage needs)**

RESPONSE: *According to the Bureau of Reclamation, in 1928, the Secretary of the Interior appointed a board of engineers to 'examine and report upon' the dam proposed for construction under the Boulder Canyon Project Act (Hoover Dam). The Board, chaired by William I. Sibert, was called the 'Sibert Board.'*

Regarding silting of the reservoir behind the proposed dam, the Board stated, in a November 24, 1928, report: "The best determinations available indicate that silt deposition in the proposed reservoir would be at the rate of approximately 137,000 acre-feet per year. ... Ultimately, if there is no additional upstream reservoir

*development resulting in reduction of the rate of silt delivery .. all of the .. reservoir would .. be filled with the accumulating silt. To reach such an end would probably take **about 190 years.**" (emphasis added).*

As additional reservoirs have been constructed upstream of Lake Mead, sediment deposition in the reservoir has been reduced drastically. Most of the silt that used to reach the reservoir is now captured by Glen Canyon and other upstream dams.

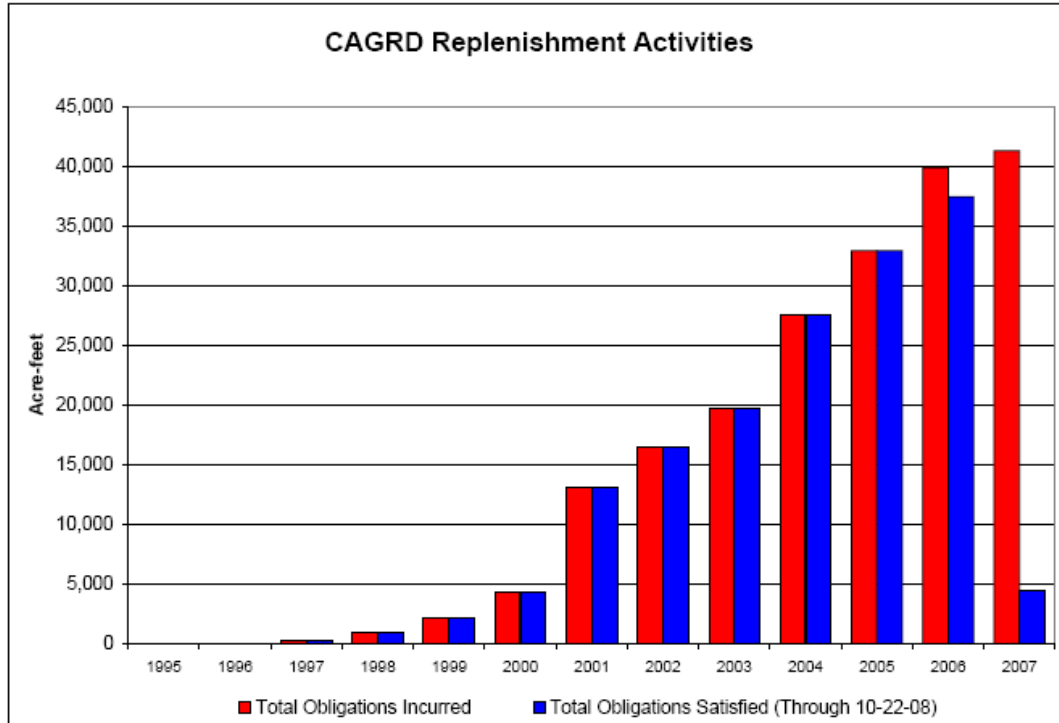
Some sediment still enters the reservoir, obviously, contributed either by releases from Glen Canyon Dam or from inflow of intervening streams between Glen Canyon Dam and the upper reaches of Lake Mead.

Given the reduction in the expected rate of siltation that is occurring in Lake Mead today, there is little likelihood that the water supply provided by Lake Mead and the reservoirs downstream of it (Lake Mohave and Lake Havasu) will be affected before some time in the next century.

Note that the response applies only to Lake Mead, Mohave and Havasu; does not include Lake Pleasant.

5. The CAGR has three years to replenish excess groundwater for entities that are member lands or member service areas. Considering this lag time, would it be possible to see (in graph form) how the actual replenishment looks compared with what's obligated to be replenished?

RESPONSE: See graph below



6. Include statutory changes that can help meet safe yield in Inventory.

RESPONSE: *Through the Tucson AMA Fourth Management Plan process, issues may be identified that detract from the Tucson AMA from reaching safe yield. Possible solutions may also be identified, and may include potential statutory changes that would need to be made. The Governor's Water Management Commission final report, issued December 2001, identified and made recommendations on a number of such statutory changes. The report is available on ADWR's website at: <http://www.azwater.gov/dwr/Content/Publications/files/FinalReport.pdf>.*