

Goleta Water District

Record of Comments

Public Workshop on Groundwater Management Plan for Goleta Groundwater Basin

April 7, 2010, 7 PM

1. Has the District considered the sale of surplus water? *Answer: No. It is premature to do so unless further analysis of all water supplies (currently being done) indicate that there is surplus water through potential future droughts.*
2. The assumptions for implementation of the Wright Judgment and Safe Ordinance are a concern. *Answer: The implementation and interaction of these management constraints were considered carefully, with input from attorneys originally involved in the adjudication and in the passage of the SAFE Ordinance. The method for determining the 1972 groundwater elevation is not defined by the SAFE ordinance. The District has adopted an informative and accurate methodology to meet the requirements of the ordinance and to make it easy and cost-effective to determine these levels in the future when original 1972 wells may no longer be functioning.*
3. Method for determination of 1972 basin water levels is a concern. *Answer: See previous comment.*
4. Goleta Central Subbasin is a semi-adjudicated basin. *Answer: The water rights of the largest pumpers in the basin have been adjudicated, so for purposes of basin management it can be considered to be an adjudicated basin. Not all private pumpers have been included in the adjudication, which is not atypical for adjudicated basins in California. The amount of private pumping is small compared to the pumping that has been adjudicated (see Figure 3-21 of Plan).*
5. Why is the West Sub-basin not addressed in the Groundwater Management Plan? *Answer: The groundwater elevations and water quality for the West Sub-basin are discussed in the Plan. However, since pumping is relatively small and the major pumpers do not pump from the subbasin, management under the Plan is minimal (except for cleanup of contaminated groundwater, which is under the authority of the Regional Water Quality Control Board). The exception to this is the discussion in the Plan of potentially pumping wells near the western end of the Central Sub-basin to lower the high groundwater elevations in the West Sub-basin.*
6. How are private pumpers within the basin accounted for in the Plan? *Answer: As discussed in question #4, private pumpers do a small amount of the pumping in the basin. Since these pumpers are primarily overlying users, the amount of pumping cannot exceed what they need for their crops, landscaping, or homes. Thus, private pumpers are not part of the active management in the basin, although they benefit*

greatly from the actions of the District and LCMWC who are part of the active management of the basin. (The primary benefit private pumpers receive is that water levels within the groundwater basin are carefully monitored, and maintained at high levels to ensure water is available in the event of a drought.)

7. Artesian water flow has recently occurred near Santa Barbara Airport. *[General comment. No response given.]*
8. How does the Wright Judgment address future development? *Answer: The Wright Judgment does not address future development. It assigned groundwater rights to Goleta Water District and La Cumbre Mutual Water Company.*
9. What about restoration of creeks for Steelhead Trout? *Answer: This is outside the jurisdiction of the Goleta Water District. A response was provided by a City Councilman from the City of Goleta regarding the City's work on drainage improvements for a few local creeks.*
10. Are copies of the Plan available at the Goleta Public Library? *Answer: A copy will be provided to the Goleta Library.*
11. Is recycled water getting into the aquifer from uses on the surface? *Answer: This could occur only if recycled water is applied in areas where the aquifer is unconfined (along the foothills in the Central and North Sub-basin and in the West Sub-basin). Only the portion of water applied that is in excess of evaporation and the water that plants need could potentially percolate to the aquifers. (Refer also to item 21 below.)*
12. Does the use of recycled water at Glen Annie Golf Course pose a risk to the groundwater basin? *Answer: This was not evaluated specifically in the Plan. However, the Glen Annie Golf Course is outside the boundaries of the Central Sub-basin.*
13. Is the District considering the use of recycled water for groundwater injection for drinking water? *Answer: No, the District is not.*
14. Is the drought buffer in the groundwater basin a backup supply if the Cachuma supply is cut? *Answer: Yes it is.*
15. Is there a concern about pesticide spraying near wells in the basin? *Answer: Wells are required to be constructed so that the upper portion of the well is sealed from potential contamination from surface sources (runoff from rain, spilled or applied chemicals, fertilizer, animal feces, etc.). This surface seal is designed to prevent surface contamination from reaching the aquifer.*
16. Would entitlement of Cachuma water for fish reduce District supplies? *Answer: A certain amount of Cachuma water is already reserved for flows in the Santa Ynez River for the benefit of steelhead trout, an endangered species. Should state or federal agencies choose to increase the allocation for fish passage, that could reduce the allocation of water to the District.*

17. What would an earthquake do to the groundwater basin? *Answer: When an earthquake occurs on a fault that cuts through or adjacent to a groundwater basin, groundwater elevations may be raised or lowered on opposite sides of the fault (this occurred following the Loma Prieta earthquake in the Bay Area). This effect is usually not permanent. Ground motion resulting from earthquakes can also sever wells locally. Generally, however, groundwater basins are not affected permanently by earthquakes.*
18. Is there a concern about antibiotic resistant organisms in the recycled water? *Answer: This is outside the scope of the Groundwater Management Plan because recycled water is not proposed to be used for recharge of the aquifers.*
19. During a spill event, when Cachuma is full and our groundwater basin is also full, can the District store water elsewhere? *Answer: There is really no other place to store spill water in any quantity. Local reservoirs on the South Coast are used primarily to ensure an adequate supply during dry days and for fire suppression, but are small in comparison to the thousands of acre-feet of water that spill from the dam following a large storm event. One of the purposes of the Plan is to manage the aquifer so that room is available in the basin to store water from spill events.*
20. Is 42,530 AF stored in the groundwater basin equal to about 3 years of water supply for Goleta customers? *Answer: Yes it is. However, the District's existing wells have limited pumping capacity and are unable to meet the District's normal annual demands.*
21. Can you explain further about the clay confinement layer? *Answer: There is a section in the Plan that discusses the clay confining layer (section 2.3 of Plan). A main production aquifer is said to be confined when it is overlain by a clay layer that separates the aquifer from recharge percolating into the ground from above the clay layer. When this clay layer is present above the producing aquifer, then recharge to the aquifer must largely come from other areas where the clay layer is missing. In the Goleta Basin, there is a clay layer (and, thus, confining conditions) in most areas of the Central Sub-basin south of Cathedral Oaks Road. (The clay layer is as much as 150 feet thick in some areas.) North of this area, rainfall and streamflow can percolate directly into the aquifer. This recharge makes its way slowly through the aquifer southward into the area where confining conditions occur.*
22. During a past drought, a pipe laid above ground brought water from Lake Casitas to Carpinteria and Santa Barbara County. That pipe was removed after the drought ended. *[General comment. No response given.]*
23. What about organic contamination in Lake Cachuma? *Answer: Following erosion of soil and debris from the Zaca fire in the backcountry, there were higher concentrations of organic material in water delivered from Lake Cachuma. Some of this organic material reacts with chlorine (used to disinfect the water that GWD delivers) to form a potential carcinogen called Tri-Halomethane, or THM. THM concentrations are regulated for drinking water by the California Department of*

Public Health, and are regularly tested for in GWD's water supply. To accommodate the increased organic material in Cachuma water, GWD adjusted its treatment method and pumped groundwater to blend with the Cachuma supply, keeping District water quality results well within drinking water standards.

24. Is injection water treated, and how? Answer: *It is treated to drinking water standards prior to injection into the basin using the District's standard treatment facilities. The water is then retreated after extraction and prior to discharge to the District's distribution system.*
25. What are Regional Board requirements on injecting high THM water? Answer: *As noted in the previous question, injected water is first treated to drinking water standards, which include a standard for THMs. Injection water must meet drinking water standards, so high-THM water is not injected into the aquifer.*
26. How low would water levels be after 7-8 years of pumping in the basin during a drought? Answer: *If the extra groundwater pumping from the aquifer during the drought was similar to the last drought of 1986-1991 (about 2,500 acre-feet per year above GWD's water right), groundwater elevations would be similar to the basin lows experienced at the end of the last drought (Section 2.4 of the Plan discusses this drop in elevations during the last drought).*
27. Can the basin recover to its previous level after extended pumping? Answer: *Yes it can and has in the past.*
28. What about the possibility of bio-solids from the surface entering the aquifer? Answer: *Bio-solids were not discussed in the Plan because they are not used extensively in the Goleta area, and as mentioned previously, the Central Sub-basin is protected in most areas from surface contamination by the clay confinement layer.*
29. Is the clay layer thin in some areas? Answer: *The clay layer can be thin or missing in portions of the aquifer. This generally occurs in the northern portion of the basin where unconfined conditions occur.*