

November 18, 2008

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Don Glaser, Regional Director  
U.S. Bureau of Reclamation  
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**Re: 2009 Drought Water Bank**

Dear Directors Snow and Glaser:

The following signatories, representing thousands of their members in California, believe that the 2009 Drought Water Bank (DWB) proposal and its environmental documentation have significant flaws that threaten the health and viability of the northern Sacramento Valley. While water transfers may be an important management tool for present and future droughts, imprudent ground water extraction can devastate communities, deplete aquifers, and reduce or eliminate surface stream flows, wetlands and springs.

The 2009 DWB permits the extraction of 340,000 acre feet of ground water to substitute for surface water sales, which is larger than any in the state's history. It is a reckless proposition that compromises the sustainability of northern Sacramento Valley aquifers. The DWB would also authorize the Department of Water Resources (DWR) to operate the Bank and broker water transfers through the substitution of ground water in any year that water purveyors do not receive one hundred percent of their contract supplies (a common occurrence). The conditions given for the allowable operation of the DWB could authorize DWR to use this water management tool in *any* future water year, a significant departure from the intended use of "drought banks" as a response to serious drought conditions.

The Sacramento Valley is home to significant agricultural production, treasured ecosystems and a rich cultural history. Its watersheds and streams provide much of the water that fills California's aqueducts. Healthy aquifers are key components to the environmental and economic health of a region. A significant aquifer, molded from the Tuscan Formation, lies beneath Butte, Colusa, Glenn, and Tehama counties. Farms, fish, and faucets rely upon this invaluable resource. So far, it has maintained a measure of balance between natural recharge and well extractions.

**Science based planning vs. reckless exploitation**

Unfortunately, the Tuscan and other aquifers have not been systematically and impartially studied, characterized, adjudicated, or managed. Dr. Karin A. Hoover, an associate professor of hydrology and hydrogeology at CSU Chico, explains that, "there is currently insufficient information regarding the affected aquifers to adequately anticipate the consequences of withdrawing large amounts of water over a relatively short period of time, for a number of

reasons. These reasons include the lack of detailed hydrostratigraphy, the lack of pump-test data characterizing aquifer transmissivity and storativity, the dearth of knowledge concerning the hydraulic connectivity between successive layers, the lack of recharge data, and inadequate recharge estimations under changing climate conditions.”

Dr. Hoover’s cautionary recommendations are certainly applicable to the 2009 DWB proposal that allows the possible extraction of 340,000 acre feet of ground water in the Sacramento Valley. Dr. Hoover recommends that aggressive aquifer extractions be suspended until sufficient characterization data are gathered and analyzed. Without substantive environmental review that is supported by rigorous scientific research, the proposed ground water substitution element of the 2009 DWB is premature.

DWR and the Bureau of Reclamation (Bureau) should initiate an investigative process with available scientists and resources of north state universities and the United State Geological Survey (USGS). Qualified scientists are prepared to employ non-invasive, scientifically verified hydrologic models and research to define the sustainable levels of ground water extraction. Unbiased and un-compromised science combined with an expanded and improved monitoring system will generate the necessary data regarding the hydrology and geology of the aquifer. It is vital that independent research guide, gather, and analyze the data that delineate the relationships between terrestrial and aquatic systems in areas proposed for water transfers as well as the impacts to flora and fauna. Additional data must also be collected to understand the process and timing of recharge to maintain viable hydrologic systems.

### **Safeguarding investments in ecosystem restoration**

Butte Creek is located in the northern Sacramento Valley. This creek is one of several creeks in the region overlying the Tuscan formation that support wild-spawning Chinook salmon runs. Valiant restoration efforts on Butte Creek have resulted in a robust population of these irreplaceable fish, even as hatchery spawned salmon from the Sacramento River Watershed are crashing. Since 1992, the California Department of Fish and Game in coordination with other state and federal resource management agencies, water interests, and local stakeholders, has implemented major restoration efforts in the Butte Creek watershed. Aggressive pumping of the Tuscan aquifer formation has the potential to severely damage the Butte Creek salmon restoration program. Severe manipulation of ground water could easily destroy the remnant wild runs in this and other streams.

### **Co-equal regional valuation**

California must strenuously protect the ground water resources in the Sacramento Valley. The extraordinary agricultural, municipal and ecological attributes of the upper Sacramento Valley must be awarded co-equal value with the bay-delta, the San Joaquin Valley and the metropolitan regions of the state. Without first establishing a scientific baseline, the multi-year DWB, intended to begin in 2009, will place vital ground water resources on the open market, leaving the region vulnerable to potentially irreversible land subsidence and significant threats to communities, orchards, aquatic and terrestrial habitats, and special status species. As you are aware, the 1994 DWB resulted in damage to drinking water, farmland, and personal property in the Sacramento Valley, yet the 2009 DWB has the potential to utilize three times more ground water than the 1994 program.

The existing environmental documentation that DWR is relying on for the DWB (both the Final and Supplemental EIR) was prepared for the Environmental Water Account (EWA) and neither define the DWB nor the associated risks of the program. Here is a summary of the deficiencies:

- The EWA relies upon reactive monitoring of increased extraction for ground water substitution; it ignores proactive scientific investigation of the limits of sustainable use of the regions aquifers.
- The EWA relies upon local basin management objectives to monitor the sub-basins ground water levels: such basin management objectives lack adequate monitoring wells and infrastructure, have no operational history, and are not currently functional.
- The EWA's monitoring system evaluates impact of increased extraction in the immediate vicinity of extraction wells; it lacks the infrastructure and scientific foundation to evaluate increased exploitation of northern Sacramento Valley aquifers.
- The EWA's calls for a maximum ground water substitution totaling 170,000 acre feet drawn from the Redding, Butte and Glenn-Colusa sub-basins; the Supplemental EIS/EIR doubles that amount of ground water substitution to 340,000 acre feet.
- The EWA only monitors the impacts to streams and rivers within a two-mile radius of extraction wells; fails to consider impact of ground water extraction on east-slope streams and wells most vulnerable to aquifer depletion.
- The EWA focuses on long cycle recuperation of aquifer levels following a return to "normal" or "above normal" rain patterns; the DWB's demand for maximum extraction coincides with maximum declines in aquifer water levels associated with multi-year drought cycles.

### **Conclusion**

The Sacramento Valley is willing to share more of its water resources with other areas of the state if it will not harm the environment en route, if there are serious water conservation measures in receiving areas, and there is a commitment to protect the economy and the environment in areas of origin. In a demonstration of good will toward the people and environment of the northern Sacramento Valley, we propose that DWR and the Bureau undertake the following actions in concert with the 2009 DWB:

- Shorten the proposed 2009 DWB to a one-year drought response project.
- Remove the ground water substitution component from the 2009 DWB.
- Remove the provision that allows the DWB to operate in years that contractors receive less than 100 percent of their allocation.
- Initiate independent research by academics and the USGS in the northern Sacramento Valley.
- Award the Sacramento Valley co-equal value with the bay-delta, the San Joaquin Valley and the metropolitan regions of the state.
- Conduct project specific environmental review for the DWB under the California Environmental Quality Act and the National Environmental Protect Act.

We would like to meet with you at your earliest convenience. Butte Environmental Council has offered to coordinate scheduling such a meeting with you. In addition, will you please notify all signatories of any documents governed by the provisions of CEQA and NEPA?

Sincerely,

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