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*Non-Profit Law and Science for Global Resource Solutions*

September 22, 2008

Dear 20X2020 Agency Team:

The Natural Heritage Institute (NHI) wishes to submit these comments on the Governor's Statewide Water Conservation plan for a 20 percent reduction in per capita water use by 2020. NHI is a public interest law firm and conservation organization in San Francisco that is dedicated to protecting and restoring fresh water resources in California and around the world.

We applaud the Governor's call for this water conservation goal and we acknowledge the challenge that has been given to the 20x2020 Agency Team to develop an implementation strategy to achieve it. We appreciate the opportunity to comment on the 20x2020 plan.

The main thrust of the Governor's urban water conservation plan is to "provide water for Californians and protect and improve the Delta ecosystem." Protecting and restoring the Delta and its endangered species is an essential first step toward providing a more reliable water supply for Californians. Without Delta ecosystem restoration, endangered species will continue to constrain operation of the state water supply system. NHI is actively involved in efforts to protect the Delta through its participation on the Steering Committee for the Bay-Delta Conservation Plan.

To have any significant impact, the Governor's water conservation plan must also include agricultural water use efficiency improvements, but the 20x2020 program currently focuses on urban water conservation. Indeed, the 20x2020 Agency Team acknowledges the "potential for significant reductions in overall state water use from the agricultural sector," which accounts for approximately 85% of the developed water supply in California. Effective agricultural water conservation is especially important, particularly in dry years, because climate change will surely entail more severe periodic droughts than California has heretofore experienced, perhaps punctuated by more severe floods.

Economics drives water use efficiency, particularly in agriculture. Under current water prices, California agriculture is already about as water efficient as is cost-justified, due to the differential between the effective price and marginal value of irrigation water.

The state must change the economics in order to promote agricultural water conservation. In order to induce larger investments in water conservation, the State must either make waste more expensive (change water rates) or make water savings more profitable (change the market incentives). Increasing water rates would be administratively, politically, and legally difficult, but changing the profitability of efficiency investments is relatively easy.

Facilitating water transfers through conveyance improvements and a robust agricultural water market should be the cornerstone the states agricultural water conservation strategy. Water markets allow farmers to sell conserved water, providing farmers an economic incentive to invest in efficiency improvements. From the standpoint of the farmer, willingness to invest more in water conservation depends on the rate, speed, and certainty of the financial return. The problem with agricultural water markets from the standpoint of inducing conservation investments is that water moves almost entirely on the spot market. That means that the price, speed and certainty of a return on investment are all speculative. This would change dramatically if conserved water could be readily sold at predictable prices. That requires a buyer of last resort who will pay at invariable prices and who has the capability of storing the water for resale during times of scarcity at prices that will cover the cost of acquisition storage and deliver.

The State of California could play this role (no other entity can). It could create groundwater banks through arrangements with local groundwater management entities, connect them to the state and federal projects, issue a standing offer to buy water during wetter than average years at established prices, bank the water through *in lieu* storage recharge techniques, and issue a standing offer to sell water during drier than average years at either established prices or by auction. These markets would operate entirely voluntarily. No water district would feel pressured by the State to participate (and none would be foolish enough not to).

The Natural Heritage Institute supports the Governor's 20x2020 Statewide Conservation plan, but given the significant consumption of Delta water by agriculture, we encourage the 20x2020 Agency Team to push for a complementary agricultural conservation plan sooner rather than later so that the responsibility of water conservation will be put on all water users – municipal, industrial, and agricultural alike – in order to protect our valuable but limited resources for the benefit of all.

Thank you for reading and considering these comments. We hope they are helpful and we would welcome further opportunities to help shape this potentially important conservation plan. If we can illuminate these comments in any respect, please do not hesitate to contact me at: (415) 693-3000 Ext. 101 or [gat@n-h-i.org](mailto:gat@n-h-i.org).

Thank you again for your time and consideration.

Yours Sincerely,



Gregory A. Thomas  
President  
Natural Heritage Institute