

*John Andrew***Memorandum**

Date: June 19 2007

07-7-4**June 21-22, 2007**

To: Professor Robert Sawyer, Chair
California Air Resources Board
1001 I Street
Sacramento, California 95814

From: Department of Water Resources

Subject: Assembly Bill 32 Early Actions

This letter outlines efforts that the California Department of Water Resources (DWR) is undertaking to address climate change and respond to the directives of Assembly Bill 32 of the 2005-06 Legislative Session. AB 32 directs the California Air Resources Board (CARB) to take action to reduce statewide greenhouse gas (GHG) emissions to 1990 levels by 2020, including the identification of "early actions" by June 30, 2007. Although AB 32 does not require state agencies like DWR to submit to CARB regulations, the law does direct state agencies to consider and implement strategies to reduce their GHG emissions.

DWR's approach to fighting global climate change must necessarily be two-pronged: mitigation, meaning reduction in the GHG emissions that accelerate global warming and climate variability; and adaptation, referring to the ways in which our culture and infrastructure will have to change in order to successfully manage the extremes that global warming threatens.

With regard to mitigation, DWR is actively implementing strategies to reduce its own GHG emissions, including but not limited to energy procurement strategies involving combined cycle natural gas and renewable fuels for the State Water Project (SWP), as well as energy efficiency measures to reduce the need for energy. As part of this strategy, the SWP has decided not to renew its ownership interest in a coal-fired power plant in Nevada when its contract for that power expires in 2013. DWR has also recently joined the California Climate Action Registry, and is voluntarily developing a renewable portfolio standard for the SWP. Through these various measures, we anticipate achieving reductions in GHG emissions, for DWR itself, above and beyond the intent of the requirements of AB 32, and well in advance of the deadlines established by AB 32.

Moreover, as a member of the Governor's Climate Action Team, DWR has proposed increasing water use efficiency throughout the California water management community to help mitigate climate change. Quite simply, the less water we use, the less we need to pump, treat, heat, de-salt, or discharge water, all of which are energy-intensive processes. Further, each drop of water conserved has compounding benefits for water and energy throughout the water-use cycle. According to the California Energy Commission, conserving one acre foot of water (enough to serve two families of four for one year) reduces GHG emissions by approximately one metric ton. Therefore, DWR plans to accelerate investments in water use efficiency and also target those investments toward practices that achieve both water and energy efficiencies, thereby, reducing GHG emissions. DWR also plans to adopt guidelines for grants funded by recently approved water bonds that will require consideration of the water-energy nexus in local and regional water planning and management.

In addition to actively promoting GHG reduction strategies, DWR will also plan for and adapt to the inevitable uncertainty that climate change brings to California's water resources. Science tells us that even if GHG emissions were to cease tomorrow, the atmosphere will continue to warm for the greater part of this century. Impacts that we see or expect in California include: a reduction in snowpack; reductions in average annual runoff as well as shifts in seasonal timing; and more extensive or extreme weather events (deeper droughts and higher flood peaks). The Intergovernmental Panel on Climate Change (IPCC) recently noted that some of these impacts are dependent not so much on climate change itself but on the vulnerability (and adaptive capacity) of a system or region to that change. Therefore, along with mitigation, IPCC recommends that more adaptive action is needed, emphasizing a portfolio approach.

For water resources, a portfolio approach means developing diverse tools to provide a reliable supply, including water storage--both groundwater and surface--water recycling, desalination, and conservation. In fact, such a portfolio approach is already a fundamental part of the California Water Plan Update, as well as our Integrated Regional Water Management (IRWM) grant programs. As one of many water management tools, conservation is uniquely suited to address the concerns associated with climate variability because it can reduce GHGs, but also help us to adapt to reduced, or at best, more varied, water supplies. At the same time that our climate is changing, so, too, is California's population, which is expected to grow to 48 million people by 2030. This growth will increase demand for both water and energy. Thus, water conservation, while preparing California to adapt to impending water supply uncertainty, is also a major tool for coping with tremendous population growth.

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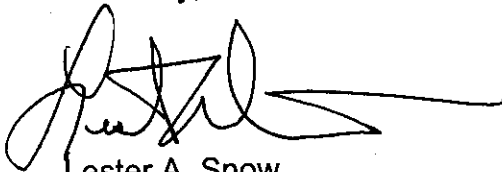
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In all, climate change underscores the importance of the IRWM planning approach in general, and the value of conservation programs specifically. Adaptation via water conservation can help us to meet future water needs, reduce GHG emissions and increase water supply reliability.

Adaptation to climate change is also reflected in DWR administration of flood management programs. Many of the levee systems and much of the other flood management infrastructure that protects California lives and property was designed and built nearly a century ago. We know that the timing and variability of runoff has changed since then, making our system less capable of protecting us from destructive flooding. We expect more extreme flood events in the future. In its grant programs, DWR is encouraging projects that would increase the capacity of the flood management system and make it more capable of handling higher expected flows. Projects must take advantage of any feasible opportunity to enhance channel capacity, and must set levees back from the river channel to improve flood protection unless it is clearly infeasible to do so.

DWR looks forward to working with your office and all interested stakeholders as it undertakes mitigation and adaptation measures to energy and water planning.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lester A. Snow', with a long horizontal flourish extending to the right.

Lester A. Snow
Director
(916) 653-7007

cc: Mike Chrisman
Secretary for Resources

Linda Adams
Secretary for Environmental Protection
Chair, Climate Action Team

Catherine Witherspoon
Executive Officer
California Air Resources Board

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