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Delta Independent Science Board

March 8, 2012

DRAFT

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To: Members of the California State Senate and Assembly

From: Richard B. Norgaard, Chair, Delta Independent Science Board

Re: The Delta Science Program Requires Stable Funding

The 2009 Delta Reform Act mandates that agencies use the best available science to guide planning and decision-making to achieve the coequal goals of water supply reliability and ecosystem health of the Delta. The Act also establishes the Delta Science Program (DSP), to play a critical role in determining and providing best available science. The DSP is held in high regard by a broad spectrum of stakeholders. We are concerned, however, that this essential component of Delta governance lacks a reliable funding mechanism to ensure capacity, stability and continuity.

As stipulated in the Act, the Delta Independent Science Board (DISB) will conduct comprehensive, periodic reviews of agencies and programs that provide science for Delta management. On December 1st and 2nd, we held hearings where invited stakeholder groups, water-user groups, agency representatives, and legislative staff discussed the status of Delta science and how it might be improved to meet the coequal goals. These discussions were frank and wide-ranging and are proving to be a useful guide as the DISB moves forward with its reviews.

Although there was a range of opinions about Delta science programs, there was broad agreement on the value of one program in particular: the DSP. The DSP undertakes several activities that all parties considered essential. These include syntheses of important scientific issues, independent scientific review of agency products, communication of science to the public and decision-makers, coordination of scientific activities among agencies, conducting peer review of research, supporting an on-line science journal, and administration of a grants program (see text box following). Perhaps most importantly, the program is seen as fair, transparent and unbiased, which are critical attributes in the polarized environment of the Delta.

A key issue was identified that should be considered by the legislature in the near future. The DSP relies on general obligation bond funding for its activities, and this funding will run out soon. The DISB believes that bonds are an inappropriate way to fund an essential operation of this kind. To maintain its vital role in helping solve problems in the Delta, the DSP must have stability in its funding sources. The boom and bust cycle of funding typically associated with bonds is damaging to programs of this type, makes it difficult to build long-term staff capacity, and ultimately undermines credibility and trust. *The DISB strongly*

recommends that the legislature, in collaboration with the Delta Stewardship Council, develop a stable funding mechanism for this essential program.

We are well aware of the budgetary constraints facing the State. We are also aware of the critical importance of bringing the best available science to bear on the multiple issues that must be addressed in crafting a sustainable future for the Delta ecosystem, its human inhabitants, and (of course) its water. The DSP plays a critical role in meeting this need. A stable, well-funded Delta Science Program is fundamental to meeting the coequal goals for the Delta.

We thank the legislature for taking the time to consider this issue.

Recent Accomplishments of the Delta Science Program

The Delta Science Program (DSP) was established by the Delta Reform Act as successor to the CALFED Science Program with the mission to provide the best possible unbiased scientific information to inform water and environmental decision making in the Delta. This is accomplished by funding research, synthesizing and communicating scientific information to policymakers and decision makers, facilitating independent scientific peer review and coordinating with Delta agencies to promote science-based adaptive management.

DSP is guided and managed by a Lead Scientist who works with DSP staff, the Delta Independent Science Board (DISB), natural resource agencies and the scientific community at large to promote and coordinate the use of peer-reviewed science in decision-making. The following is a brief summation of some of DSP's recent accomplishments:

- **Supporting Critical Research** – Funding for scientific research is a necessary component in establishing unbiased and authoritative knowledge directly relevant to Delta management actions. DSP supports postdoctoral and predoctoral fellows who carry out high priority research in the Delta. Since 2004 DSP has also awarded more than \$23 million in research grants. Recent significant research includes the impact of ammonia on food web productivity in Suisun Marsh, toxicity caused by pyrethroid pesticides in urban runoff and a project called CASCaDE that assesses how climate change will affect both the Bay-Delta ecosystem and water supply and provides lessons to guide development of climate change adaptation strategies.
- **Hosting workshops for summarizing and communicating available scientific information** – Recent workshops were organized on the potential use of artificial propagation for raising delta smelt in hatcheries with the hope of reintroducing them to habitats from which they have disappeared, and on salmon life cycle models—learning how existing models can best be integrated into a decision-making framework for adapting water operations and prescribed actions for sensitive species.
- **Communication of Science to the Public and Decision-Makers** –
 - Since 2000, DSP has organized the biennial Bay-Delta Science Conference, the largest regional science conference held on the U.S. West Coast with 1,000-1,200 attendees. The 2012 Conference—Ecosystem Reconciliation: Realities Facing the San Francisco Estuary—is being planned for October 16-18, 2012 at the Sacramento Convention Center.
 - DSP's Lead Scientist speaks regularly with the Delta Stewardship Council and other policy-and-decision makers to interpret and communicate scientific information.
 - Since 2003, DSP has supported publication of the *San Francisco Estuary and Watershed Science* open access online journal. This academic journal increases the reach and visibility of peer-reviewed research about the science and resource management of San Francisco Bay, Sacramento-San Joaquin Delta, and upstream watersheds.
 - Since 2007, DSP has been producing the bimonthly electronic newsletter, *Science News*, which highlights significant science issues and events relevant to the Bay-Delta community.

- DSP also organizes seminars on a wide range of scientific topics relevant to the Bay-Delta, including climate change and predicting outcomes of restoration actions.
- ***The State of Bay-Delta Science 2008*** – This landmark publication was the first comprehensive effort to synthesize and communicate the current scientific understanding of the San Francisco Bay Estuary and Sacramento-San Joaquin Delta systems. This report provides scientific insights to help make important policy choices about the Delta.
- ***Coordination of Scientific Activities Among Agencies*** – DSP staff reach across agencies and organizations to promote collection and use of unbiased science for programs and plans including the Interagency Ecological Program, the Bay Delta Conservation Plan and the State Water Resources Control Board updates of its Bay Delta Water Quality Plan.
- ***Conducting Peer Reviews*** – DSP organizes reviews to provide independent, scientific review of the latest management-relevant processes, plans, programs and products. Recent independent scientific peer reviews include:
 - Delta Protection Commission Economic Sustainability Plan
 - Draft Bay Delta Conservation Plan (BDCP) Effects Analysis
 - Draft Plan for Adaptive Management of Fall Outflow for Delta Smelt Protection and Water Supply Reliability.