

**Agenda Item: Item 5**  
**Meeting Date: December 14, 2006**

## **CALIFORNIA BAY-DELTA AUTHORITY**

### **Lead Scientist Report**

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#### **Lead Scientist Position Update**

Resources Secretary Mike Chrisman appointed Dr. Michael Healey to the position of CALFED Lead Scientist following the recommendation of the California Bay-Delta Authority adopted at its October 12, 2006 meeting. Secretary Chrisman announced the appointment during his plenary talk at the CALFED Science Conference October 23, 2006. Dr. Healey will be assuming the position of Lead Scientist in January 2007 for a one-year period.

#### **Science Program Recent Activities**

##### **2006 Environmental Water Account Review**

The Science Program, in collaboration with implementing agency scientists, organized a comprehensive review of the Environmental Water Account (EWA). This event was held in the CALFED Bay Delta Program offices in Sacramento on November 28 - 30, 2006. Focus of the 2006 review was on the contribution of the EWA and other environmental water programs to protecting and restoring at-risk native fish species in the San Francisco estuary and watershed, developing plans for science needs and water allocation priorities for EWA Year 7, and identifying science components and water allocation strategies for a possible future environmental water program. The review panel report will be available by January 31, 2007. For more information on EWA and the review, see the EWA Workshop's website:

<http://science.calwater.ca.gov/workshop/ewa.shtml>.

##### **CALFED Science Conference 2006**

The 4<sup>th</sup> Biennial CALFED Science Conference was held October 23 - 25, 2006 at the Sacramento Convention Center. The conference, centered around the theme "Making Sense of Complexity: Science in a Changing Environment", was a great success with 1,200 attendees involved with three days of oral presentations and over 180 poster presentations. High-priority issues addressed were pelagic organism decline (POD), mercury, invasive species, climate change, and wetland restoration. Brief three- to five-bullet summaries of the main issues and lessons learned from each presentation, "Presentations at a Glance," will be posted on the Science Conference website in January 2007.

### 2006 Science Program Focused Proposal Solicitation Package

The 2006 Focused Proposal Solicitation Package (PSP) closed at the end of August 2006. The Science Program received proposals for 35 research projects requesting \$24 million on the following topics:

- Environmental water – 8 proposals
- Aquatic invasive (exotic) species – 7 proposals
- Trends and patterns of populations and system response to a changing environment – 9 proposals
- Habitat availability and response to change – 11 proposals

The Technical Selection Panel met November 14 - 15, 2006 and developed recommendations for \$6 million in funding (Attachment 2 of Agenda Item 7A). Comments received during the public comment period will be provided to the Authority when they consider recommending approval of the Technical Selection Panel's funding recommendations to the Secretary for Resources under Agenda Item 7. Work on grant agreements for successful proposals will begin following Resources Agency approval. Additional information, including applicants and executive summaries, can be found at: [http://science.calwater.ca.gov/psp/psp\\_package\\_2006.shtml](http://science.calwater.ca.gov/psp/psp_package_2006.shtml)

### CALFED Science Fellows Program

The Science Program has selected two pre-doctoral and eight post-doctoral fellows projects from the 2006 CALFED Science Fellows Program solicitation. The solicitation requested applications for projects addressing the priority topics identified in the 2006 Science Program PSP as well as agency-identified questions for EWA, drinking water quality, and POD. Additional information on 2006 Science Fellows and projects can be found in Attachment 1. For additional information on the CALFED Science Fellows Program visit: <http://www.csgc.ucsd.edu/EDUCATION/CALFED/CALFEDIndx.html>

### Delta Risk Management Study (DRMS) Independent Review

The Science Program, as recommended by the Independent Science Board (ISB), has accepted the task of coordinating the independent review of the Phase 1 (Risk Analysis) and Phase 2 (Risk Reduction) products resulting from the Delta Risk Management Strategy (DRMS). The purpose of the review is to assist the DRMS authors in making their report as accurate and effective as possible by providing a publicly available unbiased evaluation of DRMS technical methods, analyses, findings and conclusions. The Science Program has worked closely with DRMS staff and ISB members to identify potential panelists and develop a Scope of Work for the panel, including a clear and focused charge and schedule. The DRMS Independent Review Panel will meet three times in 2007 and should complete all reviews no later than October 2007, in time to feed into the Delta Visioning process. Potential panel members are currently being contacted by Science Program staff. Additional information on the draft plan for the DRMS review panel is available at: [http://science.calwater.ca.gov/pdf/isb/ISB\\_independent\\_review\\_panel\\_SOW\\_110606.pdf](http://science.calwater.ca.gov/pdf/isb/ISB_independent_review_panel_SOW_110606.pdf)

State Of Science for the Bay-Delta System (SOSBDS)

The Science Program is responsible for issuing periodic State of Science for the Bay-Delta System reports that provide a broad interdisciplinary context and describe relevant scientific information for the Bay-Delta system to inform decision-making and future Delta management. The Science Program presented an expanded outline for the first State of Science for the Bay-Delta System report to the ISB at its November 2006 meeting. This outline contains an approach and theme for the report and selects topics for expanded consideration. The ISB is advising the Science Program on SOSBDS development and content. The full report will be prepared for release by December 2007. To view the outline presented to the ISB, go to:

[http://science.calwater.ca.gov/pdf/isb/ISB\\_SOSBDS\\_outline\\_Attchmt\\_01\\_111006.pdf](http://science.calwater.ca.gov/pdf/isb/ISB_SOSBDS_outline_Attchmt_01_111006.pdf)

**Contact:**

Ron Ott  
Deputy Director for Science  
CALFED Bay-Delta Program

Phone: (916) 445-2168

## 2006 CALFED Science Fellows

### Pre-Doctoral Fellows Projects

Perry, Russell

Title: Estimating route-specific survival and distribution of juvenile salmonids migrating through the Sacramento -San Joaquin river delta

Research Mentor: Skalski

Community Mentor: Burau

Clemento, Anthony

Title: Validation of a new method for population assessment of pacific salmonids using genetic markers

Research Mentor: Garza

### Post- Doctoral Fellows Projects

Sullivan, Lindsay

Title: Prey selection of larval and juvenile planktivorous fish in the San Francisco Estuary

Research Mentor: Kimmerer

Community Mentor: Sommer

Whitcraft, Christine

Title: Role of exotics as ecosystem engineers affecting estuarine food webs in suisun marsh

Research Mentor: Talley

Community Mentor: Wallace

Woodley, Christa

Title: The impacts of global climate change on delta fishes: predicting fish abundance, distribution and community changes

Research Mentor: Moyle

Community Mentor: Cech

Parker, Alexander

Title: Heterotrophic bacteria and the foodweb of the low salinity zone and salt marsh habitats of the San Francisco estuary

Research Mentor: Dugdale

Community Mentor: Mueller-Solger

Luengen, Allison

Title: Mercury interactions with algae: effects on mercury bioavailability in the San Francisco bay delta

Research Mentor: Hernes

Community Mentor: Bergamaschi

Seavy, Nathaniel

Title: Measuring and predicting the success of riparian restoration for wildlife populations: accommodating uncertainty and complexity

Research Mentor: Quinn

Community Mentor: Howell

Sardella, Brian

Title: Temperature and salinity effect on the physiology of white sturgeon

Research Mentor: Kultz

Community Mentor: Gingras

Schroeter, Robert

Title: Temporal and spatial patterns in abundance and production of pelagic organisms in the low salinity zone (Suisun Marsh, Bay and Delta) of the San Francisco Estuary with insight into trophic position and impacts of alien invasive species.

Research Mentor: Moyle

Community Mentor: Mueller-Solger