

Agenda Item 8-7
Meeting Dates: December 8 and 9, 2004

ANNUAL JOINT MEETING WITH BAY-DELTA PUBLIC ADVISORY COMMITTEE

**CONSIDERATION OF A RESOLUTION RECOMMENDING TO
THE DEPARTMENT OF WATER RESOURCES THAT IT EXPEND PROPOSITION 13
FUNDS EARMARKED FOR THE CALFED SCIENCE PROGRAM,
TO THE EXTENT APPROPRIATE, TO SUPPORT
THE INTERAGENCY ECOLOGICAL PROGRAM'S FUNDING SHORTAGES
IN ONGOING DELTA HYDRODYNAMIC AND FISH STUDIES IN THE YEAR 2005**

Summary: This resolution would recommend to the Department of Water Resources that it expend Prop. 13 funds to cover for the Year 2005 funding shortages in ongoing Delta hydrodynamic and fish studies through the Interagency Ecological Program.

Recommended Action: Staff recommends that the California Bay-Delta Authority adopt attached Resolution 04-12-02 to help the Interagency Ecological Program fund its ongoing projects on Delta hydrodynamic and fish studies. These studies will provide important information and analyses and support balanced achievement of the goals and objectives as outlined in the program plans for both the CALFED Science Program and Interagency Ecological Program.

Background

Formed in the early 1970s, the Interagency Ecological Program (IEP) presently consists of nine member agencies, three State (Department of Water Resources (DWR), Department of Fish and Game (DFG), and the State Water Resources Control Board (SWRCB)), and six Federal (Fish and Wildlife Service (FWS), Bureau of Reclamation (USBR), Geological Survey (USGS), Army Corps of Engineers (COE), National Marine Fisheries Service (NMFS), and the Environmental Protection Agency (EPA)). These nine agencies work together as program partners to develop a better understanding of the San Francisco Estuary's ecology and the effects of the State Water Project (SWP) and Federal Central Valley Project (CVP) operations on the physical, chemical, and biological conditions of the Estuary.

The IEP was determined to be a Category A activity during development of the CALFED EIR/S. Category A includes programs and funding that should be consistent with CALFED Program goals, objectives, and priorities and will be submitted to the Authority

for review and recommendations. The IEP and the CALFED Science Program share many goals, and over time the programs have become more integrated.

IEP activities consist of monitoring and special studies. The long-term monitoring component provides data and information on the status and trends of estuarine physical, chemical and biological properties, including abundance indices for at-risk native fish species. These monitoring efforts have also been instrumental in providing early detection of non-native invasive species. The operations monitoring component includes the “real-time” fish monitoring that provides data to the Data Assessment Team, Water Operation Management Team and other interagency teams charged with day-to-day water project operation decision-making. Several of the monitoring elements are mandated by the SWRCB, FWS, and NMFS in the water right decision for the SWP and CVP and biological opinions assessing the effects of SWP and CVP operations.

Whereas the monitoring component examines what is happening in the San Francisco Estuary, the special studies are designed to address the “how” and “why” questions; i.e., to provide mechanistic understanding of physical, chemical and ecological processes. Special studies are funded for one to four years, although some become more expansive programs such as the studies to understand how Delta Cross Channel Gate operations affect the movement and distribution of young salmon emigrating from upstream areas. Special studies also include program element technical reviews, model development, post-doctorate data analyses efforts, and testing new technologies and methods. Many studies complement efforts of other researchers, including California Bay-Delta Authority’s CALFED Science Program, and collaboration is often involved.

Funding for IEP has been consistent over the years; however, in 2005 rising program costs and funding cutbacks left several studies unfunded. Rising program costs are due to increases in the costs for IEP agencies to conduct the fieldwork and analyses required for monitoring and special studies. The funding cutback is due to a reduction in the funds available from the USBR. Since many of the monitoring studies are mandated and IEP’s biggest contribution to the knowledge of the Estuary is its long-term data sets, funding priority was given to its monitoring studies. However, the special studies are also invaluable. These studies have been ongoing for several years and funding is needed to continue and complete existing work. Consequently, the CALFED Science Program has agreed to support IEP’s special studies program during 2005 through Prop. 13 funding provided by the Department of Water Resources that previously had been earmarked for CALFED science.

There are seven special studies that seek this funding:

- Two hydrodynamic studies, one analyzing collected data in the Delta and the other using 3-D modeling of the San Francisco Bay, will provide a more detailed understanding of flow regimes. These two efforts have matching Federal funds, but can only be implemented if non-Federal funding is also available. Funding recipient: USGS.

- The information from the above two studies can also be integrated with the “Learning from the Particle Tracking Model” study to provide knowledge on how water and particles (such as larval fish) move in the estuary. This can result in an extremely useful tool for understanding the factors affecting delta smelt especially as they relate to SWP and CVP operations. Funding recipients: DWR, San Francisco State University (SFSU), University of California at Davis.
- Two special studies will test existing theories on the role of predators in the Delta through modeling and verify these models with data collection. There is evidence that fish predation is an important source of mortality in some parts of the Delta affecting the conservation and recovery of at-risk native fish species. Funding recipients: USBR, DWR, SFSU.
- The last two special studies will be to complete the reports for analyses on existing data. One analysis will report the changes of salinity in the San Francisco Bay since 1990; the other examines CVP/SWP salvage data to detect if the timing of hatchery and wild steelhead in the Delta can be distinguished. Funding recipients: USGS, DFG, and FWS.

All these special studies fall under the work interests of the CALFED Program. Specifically, they provide insight into the “environmental processes in the Sacramento-San Joaquin Delta and their relationship to water and critical species management.” A more detailed description of each special study and the IEP budget are attached.

The requested funds will provide only a one-year fix for a larger systemic problem with IEP funding. IEP has existed on level funding over the past eight years. During this period, costs have increased, thus decreasing the amount of actual resources available to conduct planned work and pursue additional research given level funding. The funding situation for 2005 was further exacerbated by a one-year cut from the U.S. Bureau of Reclamation, but USBR anticipates funding to return to 2004 level in 2006. However, this will not make up the gap in funding that has been building over the years due to cost increases. This long-term funding situation has been brought before the directors of IEP agencies, and we have requested their direction and help in rectifying this funding gap. Concurrently, included in the CALFED Science Program 10-year financing plan is IEP’s funding needs for monitoring and special studies at a level similar to that in place during 2003-2004 with adjustments added for increased program costs and additional program reviews. This approach to include IEP as part of the overall funding being sought by the Authority for the ten-year period provides a proposal to close the gap between IEP’s funding needs and its traditional funding sources.

Starting in November 2004 and continuing through spring of 2005, IEP will undergo an overall program review that will be conducted by an independent panel organized by the CALFED Science Program. This review is expected to focus on the structure of IEP

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and how well it functions. The goal is to complete the review in time so that any recommendations from it can be used to develop the 2006 program.

Fiscal Information

Funding Source: Proposition 13
Term: July 1, 2004 to June 30, 2005
Total Amount: \$541,000

List of Attachments

Attachment 1 – Summary of Funding Needs IEP 2005
Resolution 04-12-02

Contact

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Summary of 2005 Draft IEP Funded Program Elements

| Program element title | Program Element Number | Total | IEP Funds | | Match funds | Other Funds | CBDA Science | CBDA Conveyance |
|---|------------------------|-----------------|----------------|----------------|----------------|--------------|--------------|-----------------|
| | | | USBR | DWR | | | | |
| Fall midwater trawl | 2005-003 | \$300 | \$71 | \$71 | \$97 | \$62 | | |
| Delta juvenile fish | 2005-053 | \$1,805 | \$903 | \$903 | | | | |
| Summer tounet survey | 2005-007 | \$217 | \$62 | \$62 | \$93 | | | |
| Spring kodiak trawl | 2005-088 | \$191 | \$96 | \$96 | | | | |
| 20mm delta smelt survey | 2005-033 | \$662 | \$331 | \$331 | | | | |
| CNFH late fall run tagging | 2005-059 | \$216 | \$30 | \$30 | | \$156 | | |
| IEP Management | | \$599 | \$434 | \$165 | | | | |
| Data management and utilization | 2005-016 | \$543 | \$277 | \$175 | | \$91 | | |
| North Bay Aqueduct Entrainment | 2005-096 | \$137 | | \$137 | | | | |
| Upper estuary zooplankton sampling | 2005-077 | \$196 | \$98 | \$98 | | | | |
| Mossdale spring trawl | 2005-071 | \$87 | \$22 | \$22 | | \$43 | | |
| D-1641 compliance monitoring (EMP) | 2005-072 | \$2,153 | \$850 | \$1,303 | | | | |
| Delta flow and database management | 2005-030 | \$855 | | \$479 | \$329 | \$47 | | |
| Chinook race identification (DNA) | 2005-004 | \$380 | | \$380 | | | | |
| Adult sturgeon tagging | 2005-005 | \$165 | | \$105 | \$60 | | | |
| 3-D flow modeling in the DCC | 2005-022 | \$110 | | | | | | \$110 |
| S.F. Bay salinity-temperature data analysis | 2005-041 | \$13 | | | \$6 | | \$7 | |
| S.F. Bay 3-D Hydrodynamics modeling | 2005-069 | \$206 | | | \$98 | | \$108 | |
| Estuarine and marine fish | 2005-011 | \$677 | \$247 | \$430 | | | | |
| Hydrodynamic studies in the delta | 2005-027 | \$384 | | | \$167 | | \$217 | |
| Adult striped bass population parameters | 2005-002 | \$490 | | \$213 | \$111 | \$166 | | |
| Bay shrimp and crab | 2005-012 | \$140 | | \$140 | | | | |
| Operation of thermograph stations | 2005-104 | \$33 | | \$33 | | | | |
| Science Advisory Group support | 2005-017 | \$0 | | | | | | |
| IEP support for DFG ocean salmon | 2005-009 | \$147 | | \$147 | | | | |
| Bay salinity monitoring | 2005-029 | \$189 | | \$146 | \$43 | | | |
| Hatchery and wild steelhead data analysis | 2005-045 | \$21 | | | | | \$21 | |
| Shallow water predator-prey dynamics | 2005-083 | \$45 | | | | | \$45 | |
| Delta smelt feeding success | 2005-035 | \$80 | | | | | | |
| Modeling impacts of predators in the Delta | 2005-023 | \$49 | | | | | \$49 | |
| Learning from particle tracking models | 2005-031 | \$94 | | | | | \$94 | |
| Overall Total | | \$11,185 | \$3,420 | \$5,465 | \$1,004 | \$565 | \$541 | \$110 |

Notes:

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**CALIFORNIA BAY-DELTA AUTHORITY
RESOLUTION 04-12-02**

**CONSIDERATION OF A RESOLUTION RECOMMENDING TO
THE DEPARTMENT OF WATER RESOURCES THAT IT EXPEND PROPOSITION 13
FUNDS EARMARKED FOR THE CALFED SCIENCE PROGRAM,
TO THE EXTENT APPROPRIATE, TO SUPPORT
THE INTERAGENCY ECOLOGICAL PROGRAM'S FUNDING SHORTAGES
IN ONGOING DELTA HYDRODYNAMIC AND FISH STUDIES IN THE YEAR 2005**

WHEREAS the Interagency Ecological Program (IEP) is comprised of nine State and Federal agencies that work together to develop a better understanding of the San Francisco Estuary's ecology and the effects of the State Water Project and the Federal Central Valley Project operations on the physical, chemical and biological conditions of the Estuary; and

WHEREAS, due to rising program costs and funding cutbacks, several special studies have been left unfunded in 2005, preventing completion of existing work; and

WHEREAS, these special studies fall under the work interests of the CALFED Program, as they provide insight into the "environmental processes in the Sacramento-San Joaquin Delta and their relationship to water and critical species management;" and

WHEREAS, the State Department of Water Resources has in its budget Proposition 13 funds earmarked for the CALFED Science Program;

WHEREAS, because of the important value of these studies, the CALFED Science Program staff recommends using these funds for seven of the special studies in the year 2005, as described in the attached staff report;

NOW, THEREFORE, BE IT RESOLVED that the California Bay-Delta Authority recommends to the Department of Water Resources that it expend Proposition 13 funds earmarked for the CALFED Science Program, to the extent appropriate, to support the Interagency Ecological Program's funding shortages in ongoing Delta hydrodynamic and fish studies in the year 2005.

CERTIFICATION

The undersigned Assistant to the California Bay-Delta Authority does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the Authority held on December 8 and 9, 2004.

Dated: _____

Heidi Rooks
Assistant to the California Bay-Delta Authority