

**CONSIDERATION OF A RESOLUTION AUTHORIZING THE DIRECTOR, OR
DESIGNEE, TO SIGN AN INTERAGENCY AGREEMENT WITH THE STATE
WATER RESOURCES CONTROL BOARD FOR VALIDATION OF STOCKTON
DEEP WATER SHIP CHANNEL MODELS AND TECHNICAL SUPPORT OF
DISSOLVED OXYGEN PROJECT**

Agenda Item: 10

Meeting Date: 8-14-03

Summary: This resolution would authorize the Director, or designee, to sign an interagency agreement with the State Board of Water Resources Control Board, relating to dissolved oxygen projects in the San Joaquin River. In particular, it will allow the Central Valley Regional Water Quality Control Board (RWQCB) to complete validations of Stockton Deep Water Ship Channel Models and provide funds for RWQCB technical assistance and staff participation in the dissolved oxygen project.

Recommended Action: Adopt Resolution 03-08-14.

Staff Recommendation: Staff recommends the Authority adopt the attached resolution, authorizing the proposed interagency agreement. This will allow Ecosystem Restoration Program (ERP) staff to proceed with the solicitation and funding for the pilot aeration project in the Stockton Deep Water Ship Channel and advance progress towards Central Valley Regional Water Quality Control Board (RWQCB) and the California Bay-Delta Authority milestones for long-term solutions.

Background: Dissolved oxygen concentrations in the San Joaquin River (SJR) routinely fall below the water quality objective between June and October and create a migratory block for adult Chinook salmon. A pilot aeration demonstration project has been proposed as interim measure to: 1) improve dissolved oxygen conditions in the SJR, 2) meet an interim water quality goal, and 3) provide performance information for long-term solutions to correct the problem. Two existing models (Delta Simulation-DSM2 and Systech) may be useful in the design process to determine the optimum locations for placement of pilot aeration devices.

Before the models can be used for this purpose, independent validation of the model performance is necessary. The RWQCB has qualified staff to perform the model validations. This contract will provide funds to the RWQCB for completion of two model validations and provide funds for RWQCB technical assistance and staff participation in the dissolved oxygen project.

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The CALFED Record of Decision (ROD) identifies three commitments for steps to correct the dissolved oxygen problem and assigns the ERP as the responsible program element for carrying out the dissolved oxygen program actions. Approval of the proposed interagency agreement and completion of the tasks will advance the progress on the pilot aeration demonstration project and assist ERP in meeting the ROD commitments and the RWQCB regulatory milestones for dissolved oxygen. The procurement process needed for this arrangement is an interagency agreement between the Authority and the RWQCB, through the State Water Resources Control Board. It is expected that FY 02/03 Proposition 13 funds will be used for this project; Proposition 13 funds are appropriated to DWR and the Authority's ERP has been assigned by DWR as the lead for this project.

Fiscal Information

Funding Source: Proposition 13 Funds

Term: July 1, 2003 to June 30, 2004

Total Amount: \$370,000.00

List of Attachments:

Proposed Scope of Work

Contact

Name: Dan Castleberry

Phone: (916) 445-0769

CALIFORNIA BAY-DELTA AUTHORITY
RESOLUTION NO. 03-08-14

CONSIDERATION OF A RESOLUTION AUTHORIZING THE DIRECTOR, OR DESIGNEE, TO SIGN AN INTERAGENCY AGREEMENT WITH THE STATE WATER RESOURCES CONTROL BOARD FOR VALIDATION OF STOCKTON DEEP WATER SHIP CHANNEL MODELS AND TECHNICAL SUPPORT OF DISSOLVED OXYGEN PROJECT

WHEREAS, validation of two water quality models by the Central Valley Regional Water Quality Control Board (RWQCB) is needed to evaluate optimum placement of proposed aeration devices in the San Joaquin River (SJR) to improve dissolved oxygen conditions; and

WHEREAS, completion of these tasks by the RWQCB, through an interagency agreement between the Authority and the State Water Resources Control Board, will assist the Ecosystem Restoration Program in meeting the CALFED ROD commitments and the RWQCB regulatory milestones for dissolved oxygen in the SJR.

NOW, THEREFORE, BE IT RESOLVED that the Authority authorizes the Director, or designee, to execute an interagency agreement with the State Water Resources Control Board for validation of Stockton Deep Water Ship Channel Models and Technical Support for the SJR Dissolved Oxygen Project, as generally described in the attached proposed scope of work, for an amount not to exceed \$370,000.00, subject to appropriation of adequate funds.

CERTIFICATION

The 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 California Bay-Delta Authority held on August 14, 2003.

Dated:

Heidi Rooks
Assistant to the California Bay-Delta Authority

Attachment 1
Validation of Deep Water Ship Channel Models and Technical Support for the
SJR Dissolved Oxygen Project
Proposed Scope of Work

I. PROJECT OFFICIALS

The California Bay-Delta Authority (Authority) Contract Manager shall be Barbara Marcotte. The Contract Manager shall be the day-to-day representative for administration of this agreement, and, except as otherwise specifically provided, shall have full authority to act on behalf of the Authority with respect to this agreement. The Authority's Manager or designee, may also perform any and all acts which could be performed by the Contract Manager under this agreement. Except as otherwise expressly provided, all communications relative to this agreement shall be submitted to the Contract Manager.

The Contractor's Project Director shall be Mark Gowdy of the Central Valley Regional Water Quality Control Board (RWQCB). The Project Director shall be the Contractor's representative for the technical conduct, administration, and performance for this agreement and shall have full authority to act on behalf of the Contractor. All communications submitted to the Project Director shall be as binding as if given to the Contractor.

The Project Representatives during the term of this agreement shall be:

California Bay-Delta Authority Ecosystem Restoration Program (ERP)	Contractor: SWRCB/Central Valley Regional Water Quality Control Board
Name: Barbara Marcotte, Contract Manager	Name: Mark Gowdy, Project Director
Address: 650 Capitol Mall, 5 th Floor Sacramento, CA 95814	Address: 3443 Routier Road Sacramento, CA 95827-3098
Phone: (916) 445-5196	Phone: (916) 255-6317
Fax: (916) 445-7297	Fax: (916) 255-0752
E-mail: marcotte@calwater.ca.gov	E-mail: gowdym@rb5s.swrcb.ca.gov

Direct all administrative inquiries to:

California Bay-Delta Authority	Contractor: SWRCB/Central Valley Regional Water Quality Control Board
Section/Unit: Contracts Section	Section/Unit: Division of Administrative Services
Attention: Rachel G. Russell, Contract Analyst	Attention: Sheree Bisher
Address: 650 Capitol Mall, 5 th Floor Sacramento, CA 95814	Address: 3443 Routier Road Sacramento, CA 95827-3098
Phone: (916) 445-5841	Phone: (916) 255-3020
Fax: (916) 445-7297	Fax: (916) 255-3015
E-mail: rrussell@calwater.ca.gov	E-mail: bishers@rb5s.swrcb.ca.gov

The parties may change their Project Representative upon providing ten (10) days written notice to the other party.

II. PURPOSE AND PROJECT OBJECTIVES

A. Background Information

Dissolved oxygen concentrations in the San Joaquin River (SJR) routinely fall below the water quality objective between June and October and create a migratory block for adult Chinook salmon. A pilot aeration demonstration project has been proposed as interim measure to:

- 1) Improve dissolved oxygen conditions in the SJR;
- 2) Meet an interim water quality goal;
- 3) Provide performance information for long-term solutions to correct the problem.

Two existing models (Delta Simulation-DSM2 and Systech) may be useful in the design process to determine the optimum locations for placement of pilot aeration devices. Before the models can be used for this purpose, independent validation of the model performance is necessary.

As part of the CALFED Record of Decision, the CALFED agencies planned to provide technical and financial support to the RWQCB for its development of the dissolved oxygen Total Maximum Daily Load (TMDL). The RWQCB has qualified staff to perform the model validations. This contract will provide funds to the RWQCB for completion of two model validations and provide funds for RWQCB technical assistance and staff participation in the dissolved oxygen project.

B. Purpose

The purpose of the project is to obtain an understanding of the reliability of the two available Deep Water Ship Channel (DWSC) water quality models in predicting actual water quality conditions in the DWSC. Additionally, the purpose is to provide resources for RWQCB technical assistance and staff participation in the dissolved oxygen project.

C. Project Objectives

The objectives of this work task are threefold. First, evaluate the performance of each model in predicting key water quality parameters, including dissolved oxygen, in the DWSC. Second, use one or both models to help design and evaluate the efficacy of various mitigation measures. Third, provide resources for RWQCB technical assistance and staff participation in the dissolved oxygen project.

III. PROJECT FUNDING SOURCE – PROPOSITION 13

Proposition 13 - Dissolved Oxygen funds in the amount of **Three Hundred Seventy Thousand Dollars and No Cents (\$370,000.00)** will be provided to fund the entire project.

IV. WORK TO BE PERFORMED

A. Scope of Work

Task 1 Project Management and Administration

The Contractor shall provide all technical and administrative services associated with performing and completing the work for this project.

The Contractor shall be responsible for the performance of the work as set forth in this agreement as well as for the preparation of products and a final report as specified in this Exhibit A. The Project Director shall promptly notify the Contract Manager of events or proposed changes that could affect the scope, budget, or schedule of work performed under this agreement (see Exhibit A – Attachment 3 – ERP Amendment Process Workshop Requirements).

The Contractor shall provide all quarterly progress reports, invoices, and scheduled deliverables as indicated under each task.

Subtask 1.1 Project Management

The Contractor shall provide all technical and administrative services associated with performing and completing the work for this project. Technical and administrative tasks shall include: project management, budgeting, scheduling, coordination, crew supervision, report preparation, contract management,

invoicing, equipment maintenance and data collection, storage and analysis, subcontract management, and all other tasks that may be necessary to complete the scope of work specified in this agreement.

The work performed in this subtask also includes the preparation and submission of quarterly progress reports to the Authority's Contract Manager; the planning and conducting of quarterly status meetings with all project investigators to review progress and issues from the previous quarter; the preparation and submission of the project final report; and the preparation and submission of deliverable products as specified. The final report must include a chapter summarizing and integrating the conclusions reached for each of the separate tasks performed for this project.

Subtask 1.2 Quarterly Progress Reports

Prepare and submit written quarterly progress reports (see Attachment 2 – Sample Quarterly Report Format) to the Authority's Contract Manager. The progress reports shall detail work accomplished, discuss any problems encountered, and recommend potential solutions to those problems; detail costs incurred during the subject quarter, and document delivery of any intermediate work products. A brief outline of upcoming work scheduled for the subsequent quarter should also be provided. Progress reports must be submitted by the 10th day of the month following each calendar quarter (April, July, October, January) throughout the duration of the project.

The description of activities and accomplishments of each task during the quarter shall be in sufficient detail to provide a basis for payment of invoices and shall be translated into percent of task completed for the purposes of calculating invoice amounts.

Subtask 1.3 Subcontractor Selection

Award subcontracts, as necessary, to qualified consultants or other agencies. The subcontractors shall be selected by a process that complies with applicable State and Federal regulations. Prepare a legally enforceable agreement between the contractor and the selected subcontractors. The agreement shall describe the scope of work and the products expected from the subcontractors. Submit a copy of executed contract documents to the Contract Manager. Document steps taken in soliciting and awarding the subcontract and submit to Contract Manager. In the quarterly progress report, document all subcontractor activities, deliverables completed, progress, issues, and proposed resolutions.

Subtask 1.4 Data Management

Prepare and submit all water quality-related data generated by the project to the Contract Manager for input into the Authority's data system. Data formats and

report guidance for the Authority's data system shall be provided by the Contract Manager. Data shall be submitted to the Contract Manager on computer diskettes or on forms provided by the Contract Manager. The Contractor shall be responsible for verifying the quality of the data.

Task Deliverable(s): Quarterly progress reports, invoices, and subcontract documentation if subcontractors are used.

Task 2 RWQCB Validation of Deep Water Ship Channel Models

A stand alone link-node water quality model created by Systech Engineering and the California Department of Water Resources (DWR) has developed its Delta Simulation Model (DSM2), both with the capability to evaluate dissolved oxygen concentrations in the DWSC. The objective of this work task is to provide independent scientific evaluation of the models created. Other objectives include: evaluate the performance of each model in predicting key water quality parameters, including dissolved oxygen, in the DWSC. Second, use of one or both models to help design and evaluate the efficacy of various mitigation measures.

This task will begin with acquiring the most recent water quality data in the DWSC and obtaining the Systech and DSM2 models and source code, including assistance as needed for RWQCB staff to learn setup and operation of the software. RWQCB staff will then perform independent comparisons of predicted and measured concentrations of selected water quality parameters, including dissolved oxygen. Once model performance has been evaluated, RWQCB staff will use one or both of the models to assist with evaluating alternative dissolved oxygen mitigation schemes in the DWSC.

As the model evaluation progresses three oral updates on progress will be provided for Authority staff and watershed stakeholders. Upon conclusion of the evaluations, a final report will be prepared discussing the results.

Task deliverable(s): Three oral updates on the progress of the model evaluation will be provided to Authority staff and watershed stakeholders. The first oral presentation will be provided six (6) months after the agreement is executed, the second oral presentation will be provided twelve (12) months after the agreement is executed, and the final oral presentation will be delivered sixteen (16) months after the agreement is executed. After the final oral presentation, approximately eighteen months after the agreement is executed a final report will be submitted to Authority's Contract Manager. The final report will include information on the results obtained from the evaluation of these models.

Task 3 RWQCB Participation in TMDL Related Studies

Through the California Bay-Delta Program, several agencies and stakeholders are in various stages of planning and executing studies to provide information required by the RWQCB for the dissolved oxygen TMDL. RWQCB staff and student participation in these various studies will be required.

Subtask 3.1: RWQCB Staff Participation

RWQCB staff will participate in the solicitation, selection, technical direction and review of TMDL related studies. This will include RWQCB staff participating in:

- a. Structuring the objectives and work tasks for new studies;
- b. Contributing to the review and selection of proposals;
- c. Providing technical direction and oversight of progress; and,
- d. Providing technical review of completed work.

Subtask 3.2: RWQCB Student Assistance

RWQCB's student assistants will participate in the execution of fieldwork associated with TMDL related studies. This includes providing occasional assistance to study proponents, independent oversight of QA/QC procedures, and supplemental study data collection and analysis to address ad-hoc questions or issues.

Task deliverable(s): RWQCB staff will provide technical direction, review comments and other input in written format within 60 days of participation. RWQCB students with support from staff will provide written reports on QA/QC or other supplemental studies collected and analysis performed.

Task 4 Draft and Final Report

Subtask 4.1 Prepare Draft Final Report/Plan for Project

Prepare a draft final report for all task deliverables. The draft final report shall include description of study activities, data obtained and analysis of results. Submit the draft report to the Authority's Contract Manager.

Subtask 4.2 Revise, Complete, and Distribute Final Report/Plan

Incorporate all relevant comments into the final report/plan. Submit six (6) sets of the final report to the Authority's Contract Manager.

Task Deliverable(s): Draft report, final report.

Task 5 Project Closure

Submit project closure requirements document to summarize project accomplishments. The format is attached to this Agreement as Attachment 4 - Project Close-out Summary Report

Submit final invoice for payment, with separate delineation of payout of 10 percent retention.

B. Performance Measures

This project is a basic technical study. Therefore, it is typical to evaluate the findings of the technical study through generally accepted scientific performance criteria. Such methods of evaluation may include: external scientific peer review, oral presentation, publication, and dissemination of interim and final reports through the website.

C. Data Handling and Storage

All data will be summarized in a spreadsheet format (e.g., Excel) in a manner acceptable for posting to the IEP web page. Where feasible, data will be stored in an ARCVIEW compatible database. Annual reports will be prepared for scientific peer review.

D. Scientific Review and Quality Assurance.

The Contractor and subcontractors will participate in an external Quality Assurance/ Quality Control (QA/QC) Program directed by the Authority for all dissolved oxygen TMDL research projects. The external QA/QC may require split samples to be sent to an independent reference laboratory and annual inter-calibrations. The funding to support external QA/QC analysis is not included in this contract. If external QA/QC is found to be necessary to the successful outcome of this project, funding for this activity will be added by amendment when the external QA/QC program is developed.

E. Work Schedule

The anticipated start date for this program is June 1, 2003. A final report will be submitted no later than March 30, 2005.

<u>Task</u>	<u>Deliverable</u>	<u>Estimated Completion Dates</u>
1	<u>Project Management and Administration</u> a) Quarterly Progress Reports b) Quarterly Invoices c) Subcontractor Documentation	a) Starting October, 2003 quarterly throughout the term of the contract b) Starting October, 2003 quarterly throughout the term of the contract c) Subcontract documentation upon execution of the agreement
2	<u>RWQCB Validation of Deep Water Ship Channel Models</u> a) First oral update/presentation to Authority staff and stakeholders b) Complete independent comparisons of predicted and measured concentrations of selected water quality parameters c) Second oral update/presentation to Authority staff and stakeholders d) Use one or both models to assist in designing the efficacy of various mitigation measures e) Third and final oral presentation to Authority staff and stakeholders f) Final summary report	a) February 2004 b) June 2004 c) July 2004 d) November 2004 e) December 2004 f) March 2005
3	<u>RWQCB Participation in TMDL Related Studies</u> a) Assist AUTHORITY staff in structuring objectives and work tasks for new studies b) Assist in proposal review and selection process c) Provide report on results of technical review of completed work	a) Beginning September 2003 continuous until March 2005 b) Beginning September 2003 continuous until March 2005 c) Beginning September 2003 continuous until March 2005
4	<u>Final Report</u> a) Draft final report integrating findings for all tasks b) Submit final report	a) January 2005 b) March 2005
5	<u>Project Closure</u> a) Submit project closure requirements document b) Submit final invoice	a) March 2005 b) March 2005

G. REPORTS

1. The first quarterly report shall be submitted to the Authority's Contract Manager no later than 10 days following the end of the first quarter and quarterly thereafter, for the term of this agreement. The Contractor shall provide a written report to the Authority's Contract Manager providing the following information on each quarterly report:

- List of activities and tasks performed and/or completed;
- List and record of milestones accomplished and/or completed;
- List of problems encountered while performing the task(s) and proposed solutions;
- List of proposed activities and tasks for the following quarter.

The Contractor shall submit quarterly reports within no more than 10 days after the end of each quarter. Each quarterly report shall include the information noted above. (See Exhibit A – Attachment 2 – ERP Sample Quarterly Report Format.)

2. The Contractor shall submit to the Contract Manager one (1) copy of each report describing the work performed pursuant to Section IV Subsection A – Scope of Work for review and comment.
3. The Contract Manager shall submit his/her final comments to the Contractor within four (4) weeks of receipt of the draft report.

The Contractor shall submit to the Contract Manager six (6) copies of the final report incorporating changes, revisions, comments previously provided by the Contract Manager. The Contractor shall submit the final report and project close-out summary report. The final report shall be submitted to the Contract Manager for final approval.

4. The report shall not be considered final until the Contract Manager approves and accepts the report as final.