


**C O N F I D E N T I A L  
I N T E R O F F I C E M E M O R A N D U M**

February 12, 1998

TO: Board of Directors

FROM: Robert R. Campbell,  Executive Assistant to the General Manager

RE: Due Diligence on Proposed Water Conservation and Transfer Agreement with Imperial Irrigation District (IID)

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This memorandum is to update the Board on previous and ongoing due diligence undertaken by staff regarding key assumptions and analyses used to derive certain terms and conditions of the proposed water transfer agreement.

Prior to and during negotiations with IID, staff engaged several consultants to assist in the negotiations related to conservation methods and cost, pricing, and California and Colorado River Basin hydrology. Each consultant has participated in the development of our negotiating strategy and evaluation of potential risks and benefits.

Conservation Methods and Costs

In 1996, IID released a Water Requirements and Availability Study which concluded that, if adequate funds were made available by users outside of Imperial Valley, a variety of water conservation opportunities existed. The report provided the basis from which IID's Board of Directors determined how much water could be transferred and what type of projects might be necessary for a water conservation and transfer program.

In 1996, staff entered into a consulting contract with a registered agricultural engineer, Peter Canessa, to independently verify IID's study and identify the most likely conservation methods and costs associated with conserving up to 200,000 acre-feet annually for transfer. Mr. Canessa is a specialist in irrigation and drainage engineering and consults for a variety of agricultural water and energy management clients.

Mr. Canessa produced a variety of technical reports and analyses which were used by staff in negotiating the initial pricing phase which is indexed to the MWD rate. This pricing phase takes into account projected direct costs associated with Imperial Valley's on-farm and district level conservation projects such as tailwater return systems and lateral interceptors, IID operation and administrative costs, and environmental and

other "third-party" effects. In deriving his recommendations to staff, Mr. Canessa considered a variety of factors which could influence conservation yields and costs such as farm sizes, crop patterns and flexibility, evaporation and seepage, soil types and percolation rates, farm management practices, and weather. Mr. Canessa's work also took into account a variety of previous reports and information contained in past conservation and cost studies done by the Bureau of Reclamation, Parsons Engineering, CH2M Hill, and MWD's 1988 Conservation Agreement with IID. Subsequently, Mr. Canessa's analyses and recommendations were taken into account in developing the pricing terms in the Summary of Draft Terms released in July 1996 and the initial pricing phase of the proposed agreement released in December 1997.

Mr. Canessa will continue to be retained by staff to provide advice pertaining to conservation verification and State Water Resource Control Board approval matters.

### Pricing

The term of the water transfer agreement may extend up to 75 years. Because of the unusual length of the agreement, both parties desired that it include some measure of price flexibility. The goal of this flexibility was to reflect the situation in California's water market as it evolves over time. Presently, water markets in California are believed to be undeveloped and "thin," with few buyers and sellers, and limited information.

*Jan '97*  
To assist staff in its negotiations with IID on the terms of the price-redetermination phase, the Authority contracted with Foster and Associates. The firm was asked to develop a market pricing mechanism for the IID transfer. The project leader, Wendy Illingworth, is an economist with experience in California water issues most recently analyzing water transfer issues associated with the Bay/Delta proceedings. She is also familiar with electric pricing and restructuring issues.

*Mar '97*  
Foster and Associates provided staff with research on various water trades from 1988 through 1994, recommendations for indexing the transfer in the initial years, and constructed a price adjustment mechanism which helped serve as the basis for negotiating the price redetermination terms and conditions in the agreement.

During the price redetermination negotiations, staff retained a professor in business and statistics from San Diego State University, Jim Lackritz, to review and validate the appropriateness of the proposed statistical formula in the redetermination process. His work was completed and he validated the formulas in the agreement.

As part of staff's due diligence analysis, Foster and Associates is validating how the price redetermination mechanism negotiated by staff though it functions under different hypothetical scenarios. The consultant is reviewing data on existing and



potential transfer transactions that could be used in a price redetermination calculation. Based on the data compiled, the consultant will present a range of scenarios to use in conducting a sensitivity analyses on the application of the redetermination formula. The consultant will also provide a computer model for price redeterminations in the future.

### Hydrology

Staff contracted with Stetson Engineer, Inc. to assist in negotiations of the terms and conditions pertaining to pro-rata shortage sharing requirements and risks in IID's third priority Colorado River allocation, as well as premium payments during certain hydrologic shortage conditions. Mr. Ali Shahroody, a civil and agricultural engineer, is the firm's principal representative. To help derive the premium payment "triggers" and reliability premium payments outlined in the agreement, Mr. Shahroody examined the probability of potential shortages for the Lower Colorado River Basin under various operating scenarios, and frequency of risk of shortages on the State Water Project. This work was essential for staff to assess the economic impacts of the terms negotiated in the agreement.

Mr. Shahroody is presently completing verification of his analysis and examining shortage mitigation strategies. He will also assist in the process of obtaining Bureau of Reclamation approval for the agreement.

### Cash Flow Analysis and MWD Rate Forecasts

Mr. John Sheldon, the Authority's financial advisor, has conducted extensive rate modeling to analyze the cash flow and rate impacts of the water transfer based on the comprehensive terms and conditions of the agreement. The analysis was performed using a modified version of the rate model used to estimate rate impacts for the base Capital Improvement Program. Four alternative scenarios were analyzed including: 1) purchasing all water from MWD, assuming they do the IID transfer 2) CWA does the transfer 3) CWA does the transfer with the cost of price redetermined water being 25 percent above the MWD full rate 4) CWA does the transfer with the cost of price redetermined water being 25 percent below the MWD full rate. An additional model was created that estimated the rate effects on MWD associated with CWA doing the transfer as well as if MWD were to do the transfer. The results of this analysis were incorporated into the four rate runs that are detailed above.

Mr. Sheldon, in conjunction with staff, will be conducting a briefing with those Board members who wish obtain a detailed understanding of how the modeling was conducted.

**Declaration of Vernice Rae Hartman**

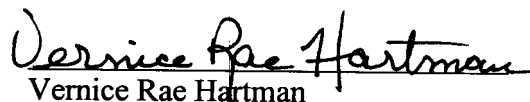
I, Vernice Rae Hartman, declare that:

1. I am the Clerk of the Board for the San Diego County Water Authority, in San Diego, California. I hereby make this declaration in my official capacity on behalf of the San Diego County Water Authority.

2. I declare that the attached exhibit dated February 12, 1998, "Confidential Interoffice Memorandum to SDCWA Board of Directors re: Due Diligence on Proposed Water Conservation and Transfer Agreement with Imperial Irrigation District (IID)" is a true and accurate copy which is retained in the files of the San Diego County Water Authority, in San Diego, California.

I certify under penalty of perjury under the laws of the State of California that the above statements are true.

Dated: This 22 day of May, 2002.

  
Vernice Rae Hartman