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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

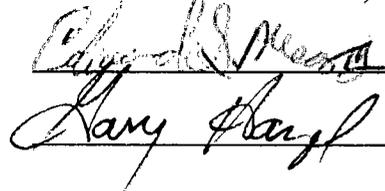
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February 18, 1997

To: Board of Directors (Engineering and Operations Committee--Action)
(Budget and Finance Committee--Action)

From: General Manager

Submitted by: Gary M. Snyder
Chief Engineer



Subject: Appropriate \$1,337,000 to Finance Estimated Cost for Construction of the
San Jacinto Diversion Structure Protective Roof, Award a Construction
Contract and Amend an Agreement

Reference: Appropriation No. 15160 / Authorization No. 2

RECOMMENDATIONS

It is recommended that a construction contract in the amount of \$739,826 be awarded to Advanco Constructors, Division of Zurn Constructors, Inc., for the construction of a protective roof over the San Jacinto Diversion Structure, in accordance with Specification No. 1318, and that, conditioned upon execution of the contract, all other bids be rejected.

It is recommended that the General Manager be authorized to amend Agreement No. 4654 with Myers, Nelson & Houghton Inc., to increase the maximum amount payable from \$190,000 to \$305,000 for their construction support.

It is recommended that funding for Appropriation No. 15160 be increased by \$1,337,000 to a total of \$1,967,000, from the Pay-As-You-Go Fund, to finance all budgeted costs associated with the construction of a protective roof over the San Jacinto Diversion Structure.

EXECUTIVE SUMMARY

It is proposed to construct a reinforced concrete roof over the San Jacinto Diversion Structure to protect the facility from a potential adjacent landslide that may result from a major seismic event. Without the protective roof structure, debris could collapse the existing facility roof and block the Colorado River Aqueduct resulting in reduced or interrupted flow. The total estimated cost of this program is \$1,967,000.

DETAILED REPORT

In 1939, Metropolitan built the San Jacinto Tunnel West Portal Diversion Structure in a seismically active area at the base of the San Jacinto Mountains. The structure is essential to the operation of the Colorado River Aqueduct (CRA) because it directs the flow of CRA water from the aqueduct tunnel into the first and second barrels of the Casa Loma Siphons, the San Jacinto Pipeline, and a service connection to the Eastern Municipal Water District.

A slope stability analysis concluded that the existing structure could suffer major damage from an adjacent landslide in the event of a maximum probable earthquake on the San Jacinto Fault. The existing reinforced concrete walls and roof slab, and a portion of the manifold pipeline would be over-stressed by the landslide overburden. Potential cracking and collapse of these components could lead to a complete shut-down of the facility. The proposed protective roof will be able to withstand earth loads from any probable landslides without imposing any additional loads to the existing structure. The structural design incorporates data obtained from extensive site investigations, historical records research, conceptual studies and detailed engineering analyses.

In June 1994, your Board approved Appropriation No. 15160 (formerly Appropriation No. 597) in the amount of \$630,000 to finance all estimated costs including studies, design and geotechnical investigations in advance of constructing a protective roof structure. Exercising his authority to enter into agreements in amounts under \$250,000, the General Manger entered into Agreement No. 4654 with Myers, Nelson & Houghton Inc., (MNH) with a maximum amount payable of \$190,000 to perform the final design of the protective roof. The consultant was selected from three respondents to Request for Proposal No. 101.

Design has been completed and six bids were received and opened under Specification No. 1318, to construct the protective roof structure. These bids are shown in the Abstract of Bids on Attachment B. The low bid of Advanco Constructors, Division of Zurn Constructors, Inc., in the amount of \$739,826 complies with the requirements of the specification, is \$129,924 below the next lowest bid, and is \$39,826 above the Engineer's Estimate.

In addition, because of MNH's responsibility for project design, it is proposed to amend their agreement to provide post-design support services including checking shop drawings and ensuring that all the design requirements in the specifications are met during construction.

A \$1,337,000 increase in Appropriation No. 15160 from the Pay-As-You-Go Fund is required to finance all remaining costs for the construction of a protective roof, reinforced concrete caissons, walls, floor slabs, access ramp, a new drainage apron, and other

appurtenances to be built around the existing structure. A breakdown of all estimated costs under Appropriation 15160 is shown on the Financial Statement on Attachment A.

CONSTRUCTION CONTRACT

Contract Type <input checked="" type="checkbox"/> New <input type="checkbox"/> Amended Contract Form <input type="checkbox"/> Lease <input type="checkbox"/> Professional Services <input checked="" type="checkbox"/> Construction	Funding <input checked="" type="checkbox"/> Capital-Appropriation No. 15160 <input type="checkbox"/> O & M Budget Status <input checked="" type="checkbox"/> FY 96/97 Amount \$1,543,000 <input checked="" type="checkbox"/> Out-Year Amount \$2,450,000 <input type="checkbox"/> Non-Budget Amount _____	Type of Competition <input checked="" type="checkbox"/> Competitive Bidding Specification No. 1318 <input type="checkbox"/> Negotiated Contract <input type="checkbox"/> Sole Source Contract Type <input checked="" type="checkbox"/> Fixed Price <input type="checkbox"/> Cost Plus <input type="checkbox"/> Time and Materials
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AMENDED AGREEMENT

Contract Type <input type="checkbox"/> New <input checked="" type="checkbox"/> Amended Contract Form <input type="checkbox"/> Lease <input checked="" type="checkbox"/> Professional Services <input type="checkbox"/> Construction	Funding <input checked="" type="checkbox"/> Capital-Appropriation No. 15160 <input type="checkbox"/> O & M Budget Status <input checked="" type="checkbox"/> FY 96/97 Amount \$1,543,000 <input checked="" type="checkbox"/> Out-Year Amount \$2,450,000 <input type="checkbox"/> Non-Budget Amount _____	Type of Competition <input checked="" type="checkbox"/> Per RFP No. 101 <input type="checkbox"/> Negotiated Contract <input type="checkbox"/> Sole Source Contract Type <input type="checkbox"/> Fixed Price <input type="checkbox"/> Cost Plus <input checked="" type="checkbox"/> Time and Materials (Not-to-Exceed)
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ACTIONS AND MILESTONES

Preparation of final design and specification by consultant, and reviews by Metropolitan for a protective roof were completed in December 1996. The Notice Inviting Bids was advertised under Specification No. 1318 on December 17, 1996, and bids were received and opened on February 6, 1997. Construction is anticipated to start in April 1997 and is scheduled to be complete by December 1997.

MBE/WBE - CONSTRUCTION CONTRACT

The construction specification requires the successful bidder to subcontract a minimum of 16 percent to qualified subcontractors. The anticipated levels of participation for Minority-owned Business Enterprise (MBE) and Women-owned Business Enterprise (WBE)

were established at 8 percent and 3 percent, respectively. Advanco Constructors, is the low bidder and has committed to achieve 12.87 percent MBE and 0 percent WBE. The contractor's good-faith effort was reviewed by the Business Outreach Office and deemed acceptable in meeting the criteria set forth in the specifications. The contractor's subcontractors are shown on Attachment C.

MBE/WBE - CONSULTANT AGREEMENT AMENDMENT

RFP No. 101 for final design and construction services established Minority-owned Business Enterprise (MBE) and Women-owned Business Enterprise (WBE) subcontracting participating goals of 12 percent MBE and 3 percent WBE. MNH achieved 14 percent certified MBE participation and 3 percent WBE participation under the original Scope of Work for the contract. MBE and WBE participation will remain the same under the amendment. MNH's subconsultants are shown on Attachment D.

CEQA COMPLIANCE/ENVIRONMENTAL DOCUMENTATION

The proposed project qualifies for Class I categorical exemption under the California Environmental Quality Act (CEQA) in that it consists of the minor alteration of an existing public facility involving no expansion of use beyond that previously existing (Section 15301, CEQA Guidelines).

CONSTRUCTION CONTRACT

<p>Plan and Bid Statistics <u>19</u> Contractors Requested Plans <u>6</u> Bids Submitted</p>	<p>Evaluation Criteria Low bid that meets the requirements of the specifications. Bidders qualifications and MBE/WBE participation are also considered.</p> <p>Contractual Details <input checked="" type="checkbox"/> Anticipated Duration 120 working days <input type="checkbox"/> Hourly Rates <input checked="" type="checkbox"/> Prevailing Wage Rates Will Apply</p>
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FINANCIAL STATEMENT

(FY 1996/97 Capital Program No. 5-5970-11)

The total estimated cost breakdown for Authorizations No. 1 and No. 2 to
Appropriation No. 15160 is as follows:

	<u>Authorization No. 1</u>	<u>Authorization No. 2</u>
Construction Contract: Specifications No. 1318		\$ 739,826
Labor:		
Engineering		
Study & Preliminary Design	\$ 20,000	\$ 20,000
Final Design	41,600	41,600
Post Design		
Contract Administration		20,900
Survey, Geotechnical & Materials Testing		33,000
Field Inspection		95,600
Construction Support		12,000
As-Built Drawings		16,000
Project Management	29,400	50,400
Operations		12,000
Environmental		<u>4,000</u>
Total Labor	<u>\$ 91,000</u>	<u>\$ 305,500</u>
Materials and Supplies	\$ 2,000	\$ 18,000
Incidental Expenses	2,000	8,000
Professional/Technical Services	400,000	515,000
Equipment Use/Rental	0	16,000
Administrative Overhead	50,200	168,600
Contingency	<u>84,800</u>	<u>196,074</u>
Total	<u>\$630,000</u>	<u>\$1,967,000</u>

Source of Funds: Pay-As-You-Go Fund

Capital Program for FY 1996/97 (Program No. 5-5970-11)

Projected Expenditure of Funds

Through Fiscal Year 1996/97	\$ 720,000
Fiscal Year 1997/98	1,051,000
Contingency	<u>196,000</u>

Total	<u>\$1,967,000</u>
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Category: A--Project directly related to the delivery of water which, if delayed, could adversely impact reliability of services.

The Metropolitan Water District of Southern California
ABSTRACT OF BIDS RECEIVED FEBRUARY 6, 1997 AT 2:00 PM
Specifications No. 1381, as Amended

Protective Roof Structure for San Jacinto Diversion Structure

This project consists of the construction of a protective roof, reinforced concrete caissons, walls, floor slabs, access ramp, and other appurtenances built over the existing San Jacinto Diversion Structure in Riverside County.

Engineer's Estimate: \$700,000

Bidder & Location	Item 1 Mobilization	Item 2 Construction	Total 1 and 2
Advanco Constructors, Div. of Zurn Contractors, Inc. Upland, California	\$30,000	\$709,826	\$739,826
Edick & Watt, Inc. * El Cajon, California	\$30,000	\$790,000	\$820,000
Fleming Engineering, Inc. Cerritos, California	\$30,000	\$839,750	\$869,750
J. W. Contracting Corporation Corona, California	\$30,000	\$939,000	\$969,000
Caliagua, Inc. Chino, California	\$30,000	\$966,910	\$996,910
Pascal & Ludwig Engineers Ontario, California	\$30,000	\$978,000	\$1,008,000

*Bidder No. 2, Edick & Watt, Inc., was deemed non-responsive due to failure to list subcontractor amounts on Document 430, Subcontractor List.

MBE/WBE PARTICIPATION
Specifications No. 1318, as Amended

NAME OF BIDDER: Advanco Constructors, Division of Zurn Constructors, Inc.
ANTICIPATED PARTICIPATION LEVELS: 8 Percent MBE and 3 Percent WBE

Name of Certified MBE/WBE Subcontractor/Supplier	Work to Be Performed or Materials To Be Supplied	Participation	
		MBE%	WBE%
<i>Regional Steel Claremont, California</i>	<i>Rebar</i>	<i>12.23</i>	
<i>R. C. Cement Anaheim, California</i>	<i>Site Concrete</i>	<i>.64</i>	
Total Committed Participation		12.87%	0.00%

MBE/WBE PARTICIPATION
RFP No. 101, as Amended

NAME OF BIDDER: Meyers, Nelson & Houghton, Inc.

ANTICIPATED PARTICIPATION LEVELS: 12 Percent MBE and 3 Percent WBE

Name of Certified MBE/WBE Subcontractor/Supplier	Work to Be Performed or Materials To Be Supplied	Participation	
		MBE%	WBE%
<i>Rubicon Engineering Woodland Hills, California</i>	<i>Structural</i>		<i>3%</i>
<i>D'Leon Consultants Cerritos, California</i>	<i>Civil</i>	<i>8%</i>	
<i>Yang & Associates Burbank, California</i>	<i>Mechanical/Electrical</i>	<i>3%</i>	
<i>Iskander Associates Orange, California</i>	<i>Cost</i>	<i>3%</i>	
Total Committed Participation		14%	3%

