

- **Board of Directors**
Engineering and Capital Programs Committee

August 19, 2008 Board Meeting

8-2

Subject

Appropriate \$6.5 million; and award (1) \$4,591,500 contract to Gantry Constructors, Inc. for the Lake Skinner East Bypass Screening Structure Rehabilitation; and (2) \$503,100 contract to Grand Pacific Contractors, Inc. for the St. Johns Canyon Channel Repairs (Approp. 15377)

Description

This action awards construction contracts to rehabilitate the existing screening structure on the Lake Skinner East Bypass Pipeline and to repair damaged portions of St. Johns Canyon Channel, which is located east of Diamond Valley Lake. This action appropriates funds only for the screening structure project as funds for the St. Johns Canyon Channel project were previously appropriated. These projects are categorized as Infrastructure Rehabilitation and Replacement projects and are budgeted within Metropolitan's Capital Investment Plan (CIP) for fiscal year 2008/09.

Lake Skinner East Bypass Screening Structure Rehabilitation – Construction (\$6,500,000)

The Lake Skinner East Bypass Screening Structure is located at the terminus of the San Diego Canal, which is the starting point for water which bypasses Lake Skinner to downstream users. The bypass screening structure is fitted with an electrically powered revolving screen which extends across the channel, dipping into the water to intercept and collect algae mats and other floating debris. The collected material is then discharged to a concrete pad, where it is allowed to dry. This system prevents algae mats and other debris from entering the treatment plant or member agency water systems via the bypass pipelines.

The screening equipment was installed in the 1960s and has reached the end of its useful life. The screens' rotating components are currently inoperable, so they function as stationary screens. Debris collects on the screens until they are manually cleaned. If the screens clog, deliveries to downstream users are reduced. The flow rates may be increased by removing the screens, but algae mats and other debris would then enter the pipelines.

Due to the limited discharge capacity of the Lake Skinner outlet tower, the bypass pipelines will be used more frequently in the future to meet increasing water demands in San Diego and Riverside Counties. In September 2007, Metropolitan's Board authorized final design of a project to rehabilitate the screening system to protect downstream facilities and to convey full design flows through the Lake Skinner bypass pipelines.

Specifications No. 1616 for the Lake Skinner East Bypass Screening Structure Rehabilitation was advertised for bids on June 4, 2008. The work involves removing the old screens and emergency generator; installing three new rotating screens and one bypass slide gate; installing a new emergency generator, fuel tank, and new fuel unloading pad; refurbishing the existing algae removal facilities; and upgrading all electrical systems. As shown in [Attachment 2](#), seven bids were received on July 15, 2008. The low bid from Gantry Constructors, Inc., in the amount of \$4,591,500, complies with the requirements of the specifications. The six higher bids ranged from \$4,595,000 to \$6,250,000. The engineer's estimate was \$5.8 million. For this contract, Metropolitan has established a Small Business Enterprise (SBE) participation level of at least 23 percent of the bid amount. Gantry Constructors, Inc. is an SBE firm and thus achieves 100 percent participation.

This action appropriates \$6.5 million in budgeted funds and awards a \$4,591,500 contract to Gantry Constructors, Inc. to rehabilitate the Lake Skinner East Bypass Screening Structure. In addition to the amount of the contract, the appropriated funds include \$21,000 for construction support by Metropolitan forces, \$569,000 for

construction inspection, \$504,500 for all other support, and \$814,000 for remaining budget. The other support includes project management, hazardous material testing and environmental monitoring, technical engineering support, preparation of operating manuals, and start-up activities. Engineering support during construction includes review of contractor submittals, responses to requests for information, advice to inspection staff on technical issues as they may arise, and preparation of as-built drawings.

Inspection of the construction work will be performed by Metropolitan staff. The anticipated cost of inspection as a percentage of the total construction cost is approximately 12 percent. Engineering Services' goal for inspection of contracts with construction cost more than \$3 million is 9 to 12 percent.

Action and Milestone

October 2009 – Completion of construction

St. Johns Canyon Channel Repair and Modifications – Construction (No funds required)

The St. Johns Canyon Channel repair and modifications are needed to protect Metropolitan facilities from stormwater crossflows outside of the channel. St. Johns Canyon Channel was constructed in 1999 as part of a series of flood control facilities designed to eliminate local flooding and to convey storm runoff east of Diamond Valley Lake into the Salt Creek Channel.

St. Johns Canyon Channel is a 3,000-foot-long concrete-lined and rock-lined channel, which varies in width from 51 to 63 feet and in depth from 9 to 16 feet. The channel has adequate capacity to carry design flows from the St. Johns Canyon watershed. However, due to grading and land use changes outside of Metropolitan's properties, to the east and south of the Diamond Valley Lake East Dam, storm runoff flows have become concentrated. These runoff flows have created deep erosion gullies as they enter the channel, causing concrete lining cracks, displacement of the rock liner, and voids in the sub-grade beneath both the concrete and rock liners.

In January 2008, Metropolitan's Board authorized construction of repairs by Metropolitan forces. The repairs were planned to be completed in summer 2008, prior to the upcoming rainy season. Since January, the workload for Metropolitan's construction forces has increased, and to complete repairs to the most damaged areas prior to the upcoming rainy season, as well as take advantage of the current favorable construction bidding environment, the work was advertised for competitive bidding by contractors.

Specifications No. 1590 for the St. Johns Canyon Channel Repair and Modifications was advertised for bids on March 20, 2008. The project consists of demolition, removal, and replacement of portions of the existing concrete and rock channel lining; grading of an earthen access road; construction of concrete slope lining and cutoff walls, and reinforced concrete-lined ditches. As shown in [Attachment 2](#), six bids were received on May 20, 2008. The low bid from Grand Pacific Contractors, Inc., in the amount of \$503,100, complies with the requirements of the specifications. The five higher bids ranged from \$612,879 to \$943,500. The engineer's estimate was \$760,000. For this contract, Metropolitan has established a Small Business Enterprise (SBE) participation level of at least 20 percent of the bid amount. Grand Pacific Contractors, Inc. is an SBE firm.

This action awards a \$503,100 contract to Grand Pacific Contractors, Inc. to repair and modify St. Johns Canyon Channel. Funds for construction were previously appropriated in January 2008, and no additional funds are required in this action. The total estimated cost to complete construction of this project is \$615,000. In addition to the construction contract, this amount includes \$71,900 for construction inspection and \$40,000 for technical engineering support by the design consultant, RBF Consulting (RBF), as discussed below.

Inspection of the contract will be performed by Metropolitan staff. The anticipated cost of inspection as a percentage of the total construction cost is approximately 14 percent. Engineering Services' goal for inspection of contracts with construction cost less than \$3 million is 9 to 15 percent.

Technical support during construction is recommended to be provided by RBF under an existing board-authorized agreement. RBF was selected through a competitive process via Request for Qualifications No. 575. As the engineer of record, RBF will review submittals, respond to requests for information, advise inspection staff on technical issues as they may arise, and prepare as-built drawings. For this agreement, Metropolitan has

established an SBE participation level of 20 percent. No amendment to the existing RBF agreement is required for this work.

Action and Milestone

April 2009 – Completion of construction

These projects are consistent with Metropolitan's goals for sustainability by improving the reliability of the existing conveyance and distribution system in order to maintain reliable water supplies in the future. These projects have been evaluated by Metropolitan's CIP Evaluation Team and funds have been included within the fiscal year 2008/09 capital budget. See [Attachment 1](#) for the Financial Statement and [Attachment 3](#) for the Location Maps.

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8113: Construction Contract Award

California Environmental Quality Act (CEQA)

CEQA determinations for Option #1:

Lake Skinner East Bypass Screening Structure Rehabilitation -- Construction

The environmental effects of the funding, design, procurement of equipment, construction, and operation of the Skinner Oxidation Retrofit Program (Program) were evaluated in the Robert A. Skinner Filtration Plant Reliability and Quality Program Final Program Environmental Impact Report (Final PEIR). The Final PEIR was certified by the Board on July 8, 2003. The Board also approved the Findings of Fact (findings), the Statement of Overriding Considerations (SOC), the Mitigation Monitoring and Reporting Program (MMRP), and the Program itself. The present proposed board action is solely based on the funding, construction, and operation of the Lake Skinner East Bypass Screening Structure Rehabilitation project and not on any other substantial changes to the original Program. Hence, the previous environmental documentation taken by the Board in conjunction with the proposed action fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further environmental documentation is necessary for the Board to act on the proposed action.

The CEQA determination is: Determine that the proposed action has been previously addressed in the certified 2003 Final PEIR and related documentation (i.e., adopted findings, SOC, and MMRP) and that no further environmental analysis or documentation is required.

St Johns Canyon Channel Repair and Modifications – Construction

The project was previously determined to be categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The St. Johns Canyon Channel Repair and Modifications project was found to be exempt under Class 1, Section 15301; Class 2, Section 15302; and Class 4, Section 15304 of the State CEQA Guidelines on January 8, 2008. With the current board action, there is no substantial change proposed to the project since the original notice of exemption (NOE) was filed. Hence, the previous environmental documentation in conjunction with the project fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act with regard to the proposed action.

The CEQA determination is: Determine that the proposed action has been previously addressed in the 2008 NOE (Class 1, Section 15301; Class 2, Section 15302; and Class 4, Section 15304 of the State CEQA Guidelines) and that no further environmental analysis or documentation is required.

CEQA determinations for Option #2:

Lake Skinner East Bypass Screening Structure Rehabilitation -- Construction

Same as Option #1

St Johns Canyon Channel Repair and Modifications – Construction

None required

CEQA determination for Option #3:

None required

Board Options

Option #1

Adopt the CEQA determinations and

- a. Appropriate \$6.5 million in budgeted funds;
- b. Award a \$4,591,500 contract to Gantry Constructors, Inc. for the Lake Skinner East Bypass Screening Structure; and
- c. Award a \$503,100 contract to Grand Pacific Contractors, Inc. for the St. Johns Canyon Channel Repair and Modifications.

Fiscal Impact: \$6.5 million of budgeted funds under Approp. 15377

Business Analysis: These projects will protect Metropolitan's assets, increase service reliability to member agencies, and reduce the risk of costly emergency repairs.

Option #2

Adopt the CEQA determinations and

- a. Appropriate \$6.5 million in budgeted funds;
- b. Award a \$4,591,500 contract to Gantry Constructors, Inc. for the Lake Skinner East Bypass Screening Structure Rehabilitation; and
- c. Do not award the contract for the St. Johns Canyon Channel Repair and Modifications.

Fiscal Impact: \$6.5 million of budgeted funds under Approp. 15377

Business Analysis: Under this option, the Lake Skinner East Bypass project is recommended to proceed because it results in an immediate improvement in water delivery reliability. For repair of St. Johns Canyon Channel, construction will be deferred until Metropolitan forces are available to perform the work. This option may result in increased maintenance and repair costs due to further degradation of the channel.

Option #3

Do not award the two construction contracts and re-advertise in an attempt to receive more favorable bids.

Fiscal Impact: Unknown

Business Analysis: This option may or may not result in lower bid prices, and would delay completion of the rehabilitation projects.

Staff Recommendation

Option #1


Roy J. Wolfe
Manager, Corporate Resources

7/29/2008

Date


Jeffrey Kightlinger
General Manager

8/4/2008

Date

Attachment 1 – Financial Statement

Attachment 2 – Abstracts of Bids

Attachment 3 – Location Maps

BLA #6198

Financial Statement for Conveyance and Distribution System Rehabilitation Program

A breakdown of Board Action No. 26 for Appropriation No. 15377 for the Lake Skinner East Bypass Screening Structure Rehabilitation is as follow:

	Previous Total Appropriated Amount (Aug. 2008)	Current Board Action No. 26 (Aug. 2008)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 3,204,700	\$ -	\$ 3,204,700
Final Design	4,282,920	-	4,282,920
Owner Costs (Program mgmt, envir. monitoring)	4,045,550	424,500	4,470,050
Construction Inspection & Support	1,540,050	569,000	2,109,050
Metropolitan Force Construction	12,083,505	21,000	12,104,505
Materials and Supplies	4,935,075	-	4,935,075
Incidental Expenses	1,259,620	-	1,259,620
Professional/Technical Services	836,500	-	836,500
Hazardous Materials Testing		80,000	80,000
Equipment Use	772,350	-	772,350
Contracts	15,072,955	4,591,500	19,664,455
Remaining Budget	992,475	814,000	1,806,475
Total	\$ 49,025,700	\$ 6,500,000	\$ 55,525,700

Funding Request

Program Name:	Conveyance and Distribution System Rehabilitation Program		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15377	Board Action No.:	26
Requested Amount:	\$ 6,500,000	Capital Program No.:	15377-I
Total Appropriated Amount:	\$ 55,525,700	Capital Program Page No.:	E-14
Total Program Estimate:	\$ 63,790,000	Program Goal:	R-Reliability

The Metropolitan Water District of Southern California

Abstract of Bids Received on May 20, 2008 at 2:00 P.M.

Specifications No. 1590

**Conveyance and Distribution System
St. Johns Canyon Channel Repair and Modifications**

The project will repair damage to St. Johns Canyon Channel. The work includes demolition and replacement of damaged concrete and rock channel lining; grading of an earthen access road, and construction of slope lining, cutoff walls, reinforced concrete-lined ditches, and reinforced concrete access road.

Engineer's Estimate: \$760,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE*
Grand Pacific Contractors Corona, CA	\$ 503,100	\$ 503,100	100%	Yes
Dependable Grading Hemet, CA	\$ 612,879	-	-	-
Sukut Construction Oceanside, CA	\$ 645,000	-	-	-
Pacific Coast Infrastructure Yorba Linda, CA	\$ 670,750	-	-	-
Superior Gunite Lake View Terrace, CA	\$ 764,860	-	-	-
Lonerock Laguna Hills, CA	\$ 943,500	-	-	-

*SBE (Small Business Enterprise) participation set at 20 percent

The Metropolitan Water District of Southern California

Abstract of Bids Received on July 15, 2008 at 2:00 P.M.

Specifications No. 1616

**Conveyance and Distribution System
Lake Skinner East Bypass Screening Structure Rehabilitation**

The project will replace the existing screens and emergency generator. The work includes installing four new trash racks, three new rotating screens and one bypass slide gate; adding a new emergency generator, fuel tank and fuel unloading pad; refurbishing the existing algae removal facilities; and upgrading all electrical wiring and electronic control systems.

Engineer's Estimate: \$5,800,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE*
Gantry Constructors Clarksdale, AZ	\$ 4,591,500	\$ 4,591,500	100%	Yes
J. R. Filanc Construction Company Escondido, CA	\$ 4,595,000	-	-	-
J. F. Shea Construction Walnut, CA	\$ 4,655,870	-	-	-
Kiewit /Mass, A Joint Venture Santa Fe Springs, CA	\$ 4,767,000	-	-	-
Brutoco Engineering & Construction Fontana, CA	\$ 5,169,000	-	-	-
Shimmick Construction Company/ Obayashi Corporation, A Joint Venture Oakland, CA	\$ 5,850,000	-	-	-
Griffith Company Santa Fe Springs, CA	\$ 6,250,000	-	-	-

*SBE (Small Business Enterprise) participation set at 23 percent





