

- **Board of Directors**
Engineering and Operations Committee

May 13, 2003 Board Meeting

8-10

Subject

Appropriate \$7.8137 million for three Capital Investment Plan program appropriations for sludge handling upgrades at the Skinner and Weymouth plants; and award contracts to Gantry Constructors, Inc., Kiewit Pacific Co., and Black & Veatch Corporation in the amounts of \$3.2595 million, \$3.83 million, and not to exceed \$3 million, respectively (Approps. 15365, 15369, 15363)

Description

The following projects are recommended to maintain compliance with drinking water and environmental regulations and ensure the reliability of filtration plant operations.

Appropriate \$1.7397 million and award a \$3.2595 million construction contract to Gantry Constructors, Inc., for the Skinner Sludge Handling Facilities Project

Solids processing and handling equipment at the Skinner plant is presently undersized and in need of rehabilitation. The 25-year-old traveling bridge sludge pumps for Modules 1 and 2 have deteriorated and are at the end of their expected useful lives. The 20-year-old sludge belt presses and conveyor system have also reached the end of their useful lives. The existing sludge thickeners are undersized to reliably process existing and projected sludge flows. In November 2001, Metropolitan's Board authorized \$3.96 million for the following upgrades at the Skinner filtration plant: (1) Replace 24 traveling bridge sludge pumps in Modules 1 and 2; (2) Replace belt press and conveyor system; (3) Conduct final design and construct one solids thickener; and (4) Study additional issues related to solids handling. The authority included funding for all work through project completion, including a delegation of authority to the Chief Executive Officer to award competitively bid construction contracts.

During final design, Metropolitan staff reevaluated the project requirements and design guidelines considering the use of higher than expected ferric chloride dosages to comply with Stage 1 of the Microbial/Disinfection By-Products Rule (M/DBP Rule), and in coordination with Phase 1 of the Water System Control Master Plan, which was approved by the Board in October 2002. Staff incorporated a second thickener and additional automation features into the project to meet the above requirements. These upgrades will enable Metropolitan to comply with the M/DBP Rule, while treating higher volumes of State project water (SPW), and allow automatic control of the sludge handling process.

Approval of the recommended action will appropriate \$1.7397 million for the second thickener and additional automation features, award the \$3.2595 million construction contract, and provide all construction management and inspection services for the Skinner Sludge Handling Facilities Project. This project was evaluated and recommended by the Capital Investment Plan (CIP) Evaluation Team, and funds for the original project scope are included in the fiscal year 2002/03 capital budget. The additional thickener was originally proposed as a project for the upcoming fiscal year 2003/04 CIP, but has been accelerated due to increased usage of SPW supplies. Funds are available within the project appropriation for construction associated with the original project scope. It is recommended that the appropriation be increased by \$1.7397 million to increase the solids handling capabilities and to support operation at higher coagulant level. Upon board approval, the fiscal year 2002/03 CIP expenditure plan will be adjusted.

Appropriate \$5.833 million and award a \$3.83 million construction contract to Kiewit Pacific Co. for the Weymouth Flocculation and Sedimentation Basins Nos. 3 and 4 Rehabilitation Project

Flocculation and Sedimentation Basins Nos. 3 and 4 at the Weymouth filtration plant were constructed in 1948. Due to the aged equipment, frequent maintenance and repair are required which has resulted in basin shutdowns. Specifically, the basins' flocculators and sludge collection systems have deteriorated over time. This project will rehabilitate the two basins with new flocculator systems, nonmetallic chain and flight sludge collection systems, fiberglass weirs, and appurtenances. Replacement of this equipment is now necessary because the plant is treating higher blends of SPW, which results in increased sludge production in the basins.

Final design of the Sedimentation Basins Nos. 3 and 4 work was authorized under the Weymouth Rehabilitation Program (Approp. 15345), while final design of the Flocculation Basins Nos. 3 and 4 work was authorized under the Weymouth Improvements Program (Approp. 15369). In order to maximize efficiency in project management and design activities, the final design efforts for both projects have been combined into a single set of plans and specifications.

These two projects were evaluated and recommended by the CIP Evaluation Team and funds have been included in the fiscal year 2002/03 capital budget. Approval of the recommended action will appropriate \$5.833 million, award the \$3.83 million construction contract, and provide construction management and inspection services for the Weymouth Basins Nos. 3 and 4 Rehabilitation Project. Staff also recommends that these two projects be consolidated into one project under a single appropriation to streamline project management and program reporting requirements. Under this approach, a portion of the total program budget estimate (\$4.4078 million) will be reallocated from Approp. 15345 to Approp. 15369.

Appropriate \$241,000 for Weymouth Solids Handling Facilities preliminary design activities and award an agreement not to exceed \$3.0 million to Black & Veatch Corporation for water treatment process engineering services

In November 2001, Metropolitan's Board authorized funding to study future on-site solids handling facilities and other issues related to elevated coagulation levels. Over the past 12 months, the Weymouth plant has been treating a higher percentage of SPW than was typical in the past. The high ferric chloride dosages required to comply with Stage 1 of the M/DBP result in increased residual solids production.

As a result of these process-driven changes, the existing two sludge thickeners are no longer able to reliably process the existing and projected solids load. Staff also recommends that a permanent belt press system be added to economically and reliably dewater the residual solids. This project will add two thickeners and a permanent solids dewatering facility consisting of three belt presses, a polymer feed system, and a concrete-lined solids holding area. This action will authorize preliminary design, preparation of environmental documentation, and award of a competitively selected professional services agreement to Black and Veatch Corporation for water treatment process engineering services in an amount not to exceed \$3 million.

The professional services agreement is planned to include the following scope of services under several capital programs: (1) Design services for Weymouth Solids Handling Facilities (Weymouth Improvements Program); (2) Design services for Diemer Solids Handling Facilities (Diemer Solids Handling and Water Reclamation Program); (3) Feasibility study for adding plate settlers to Skinner filtration plant Modules 1, 2 and 3 (Skinner Improvements Program); and (4) Studies to determine the appropriate level of treatment process standardization under the Treatment Plants Control and Equipment Upgrade Program. The current action provides funds for only the Weymouth Solids Handling Facilities preliminary design activities. Staff will return to the Board at a later date for additional authorization and funding for other work.

This project has been evaluated and recommended by the CIP Evaluation Team and was originally scheduled for implementation in the upcoming fiscal year 2003/04. This project is being accelerated due to increased usage of SPW supplies. Upon board approval, the fiscal year 2002/2003 CIP expenditure plan will be adjusted.

See [Attachment 1](#) for the detailed report, [Attachment 2](#) for the financial statements, and [Attachment 3](#) for the abstracts of bids.

Policy

Metropolitan Water District Administrative Code § 5108: Capital Project Appropriation

Metropolitan Water District Administrative Code § 8113: Construction Contract Award

California Environmental Quality Act (CEQA)

CEQA determinations for Option #1:

Skinner Sludge Handling Facilities

To comply with CEQA, Metropolitan as the Lead Agency determined that increasing solids handling reliability at the Skinner plant, including designing and constructing one solids thickener, was categorically exempt (Class 1, Section 15301 of the State CEQA Guidelines) and approved the overall project on November 20, 2001.

At that time, the Board also approved a study to address additional issues relating to solids handling and based that action on a categorical exemption (Class 6, Section 15306 of the State CEQA Guidelines). Since that time, it has been determined by staff that an additional solids thickener is necessary to meet the original project goals and objectives. Therefore, the current board action involves the funding and awarding of a contract to carry out the work with a minor modification (i.e., the design and construction of one additional solids thickener) to the originally approved project. Hence, the previously adopted exemptions comply with CEQA and the State CEQA Guidelines as related to the original project. As such, no further environmental documentation is necessary for the Board to act on with respect to the original project. With respect to the minor modification to the original project, that activity is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. In particular, the proposed modification consists of designing, funding, and awarding a construction contract to modify existing public facilities with negligible or no expansion of use beyond that existing at the time of the lead agency's determination. In addition, the proposed modification will not have a significant effect on the physical environment. As such, this proposed modification qualifies as a Class 1 Categorical Exemption (Section 15301 of the State CEQA Guidelines).

The CEQA determinations are: Determine that the proposed action for the original project has been previously addressed in the 2001 categorical exemptions and that no further environmental analysis or documentation is required. In addition, determine that pursuant to CEQA, the proposed modification qualifies under a Categorical Exemption (Class 1, Section 15301 of the State CEQA Guidelines).

Weymouth Rehabilitation Flocculation and Sedimentation Basins Nos. 3 and 4

To comply with CEQA, Metropolitan as the Lead Agency previously determined that implementing the two projects was categorically exempt. The formerly titled Basins 3 and 4 Sludge Rake Modification project was exempted under a Class 1, Section 15301 of the State CEQA Guidelines and was approved by the Board on September 15, 1998. The Basins 3 and 4 Flocculators Rehabilitation project was exempted under two categorical exemptions (Class 1, Section 15301 and Class 2, Section 15302 of the State CEQA Guidelines) and was approved by the Board on July 9, 2002. The current board action involves the funding and awarding of a contract to carry out the work with no major modifications to the two originally approved projects. Hence, the previously adopted exemptions comply with CEQA and the State CEQA Guidelines as related to the proposed actions.

As such, no further environmental documentation is necessary for the Board to act on with respect to the proposed actions.

The CEQA determination is: Determine that the proposed actions have been previously addressed in the adopted 1998 and 2002 categorical exemptions and that no further environmental analysis or documentation is required.

Weymouth Solids Handling Facilities

The proposed actions, i.e., to authorize preliminary design, preparation of environmental documentation, and the award of an engineering services agreement, are categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed actions consist of basic data collection and resource evaluation activities, which

do not result in a serious or major disturbance to an environmental resource. These activities may be strictly for information gathering purposes, or as part of a study leading to an action that a public agency has not yet approved, adopted, or funded. As such, the proposed actions qualify as a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed actions qualify under a Categorical Exemption (Class 6, Section 15306 of the State CEQA Guidelines).

CEQA determination for Option #2:

Skinner Sludge Handling Facilities

None required

Weymouth Rehabilitate Flocculation and Sedimentation Basins Nos. 3 and 4

None required

Weymouth Solids Handling Facilities

Same as Option #1 for Solids Handling Facilities

Board Options/Fiscal Impacts

Option #1

Adopt the CEQA determinations and

- a. Appropriate \$7.8137 million;
- b. Award a construction contract in the amount of \$3.2595 million to Gantry Constructors, Inc., to perform all work as described in Specifications No. 1467 for the Skinner Filtration Plant Sludge Handling Facilities Project;
- c. Award a construction contract in the amount of \$3.83 million to Kiewit Pacific Co. to perform all work as described in Specifications No. 1447 for the F. E. Weymouth Filtration Plant Basins Nos. 3 and 4 Rehabilitation Project;
- d. Authorize entering into a professional services agreement with Black & Veatch Corporation for water treatment process engineering services in an amount not to exceed \$3 million; and
- e. Reallocate total program budget estimate in the amount of \$4.4078 million from Approp. 15345 to Approp. 15369.

Fiscal Impact: \$5.833 million of budgeted and \$1.9807 million of non-budgeted CIP funds under the following appropriations:

- Approp. 15365 (Skinner) - \$1.7397 million non-budgeted
- Approp. 15369 (Weymouth) - \$5.833 million budgeted
- Approp. 15369 (Weymouth) - \$241,000 non-budgeted

Option #2

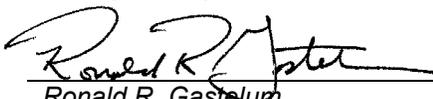
Adopt the CEQA determination and

- a. Appropriate \$241,000;
- b. Reject all bids for construction of the Skinner Filtration Plant Sludge Handling Facilities Project;
- c. Reject all bids for construction of the F.E. Weymouth Filtration Plant Basins Nos. 3 and 4 Rehabilitation Project; and
- d. Authorize entering into a professional services agreement with Black & Veatch Corporation for water treatment process engineering services in an amount not to exceed \$3 million.

Fiscal Impact: \$241,000 of non-budgeted CIP funds under Approp. 15369. Rebidding the construction packages would delay completion of the projects; increase administrative costs, and may or may not result in lower bids.

Staff Recommendation

Option #1

 Roy L. Wolfe Manager, Corporate Resources	4/24/2003 Date
 Ronald R. Gastelum Chief Executive Officer	4/28/2003 Date

Attachment 1 – Detailed Report

Attachment 2 – Financial Statements for the Skinner and Weymouth Filtration Plant Improvements Programs

Attachment 3 – Abstracts of Bids

BLA #1905

Detailed Report

The Robert A. Skinner Filtration Plant was placed into service in 1976 to supply treated water to Riverside and San Diego counties. Since its original construction, the plant has been expanded three times and now consists of six treatment modules that are operated as two distinct filtration plants (Plants 1 and 2). Plants 1 and 2 have capacities of 240 mgd and 280 mgd, respectively, for a total combined rated capacity of 520 mgd. The plant typically treats a blend of State project water (SPW) and Colorado River water (CRW). Plant 1 uses conventional water treatment processes including coagulation, flocculation, sedimentation, filtration, and disinfection, while Plant 2 is a direct filtration plant similar to Plant 1, but without the sedimentation process. Metropolitan's member agencies that receive water from the Skinner filtration plant include Eastern Municipal Water District, Western Municipal Water District of Riverside County, and San Diego County Water Authority.

The F. E. Weymouth Filtration Plant was placed into service in 1941 with an initial capacity of 100 mgd. The plant was expanded twice to its current capacity of 520 mgd. The plant typically treats a blend of SPW and CRW. The plant uses conventional water treatment processes including coagulation, flocculation, sedimentation, filtration, and disinfection. The plant delivers treated, chlorinated water to Metropolitan's Central Pool portion of the distribution system.

The filtration plants' improvements programs were established to implement multiple projects necessary to ensure plant reliability. These projects address the following objectives: achieve and/or maintain compliance with federal and state drinking water quality regulations, increase the efficiency of plant operations, and enhance the safety and reliability of plant operations.

Skinner Sludge Handling Facilities (\$1,739,700)

Background/Purpose

Over the last year, the Skinner plant has been treating a higher percentage of SPW than was typical in the past. Studies were undertaken in mid-2001 to assess the plant's ability to treat increased quantities of SPW supplies. The studies revealed that solids processing capacity is now fully utilized at the Skinner plant. Less than ideal operating conditions or failure of a key process component could trigger a reduction or curtailment of overall plant water production at the Skinner plant.

Presently, the aging solids processing equipment at the Skinner plant is becoming increasingly unreliable. In addition, the amount of sludge has increased as a result of compliance with Stage 1 of the Microbial/Disinfection By-Product Rule (M/DBP), which became effective January 1, 2002, and increased usage of SPW. Consequently, a series of upgrades were recommended in the sludge management study for implementation at the Skinner plant to rehabilitate the existing solids processing facilities. The following upgrades were recommended as Phase 1 modifications:

- a. Replace 24 traveling bridge pumps in Modules 1 and 2.
- b. Replace belt press and conveyor system.
- c. Construct one solids thickener.
- d. Study additional issues related to solids handling.

The traveling bridge pumps are used for lifting the sludge from Modules 1 and 2 sedimentation basins for subsequent processing. The 25-year-old pumps for Modules 1 and 2 have deteriorated significantly and are at the end of their expected useful life. Replacement parts for the pumps are no longer available from outside suppliers and must be obtained through special fabrication orders. Staff recommends replacing all 24 pumps.

The plant uses belt presses and a conveyor system to dewater and stockpile sludge prior to off-site disposal. This equipment is approximately 20 years old and, like the traveling bridge pumps, has reached the end of its useful life. Recent inspections revealed that the belt presses and the conveyor system are significantly deteriorated due

to the corrosive nature of their operating environment. Staff recommends replacing both the belt presses and solids conveyor with new equipment.

The plant's solids thickening system consists of two units that remove water and reduce solids bulk from the washwater return flow stream. The thickeners also provide a consistent feed material to the belt presses. Current operating conditions indicate that the capacity of the thickeners is inadequate to reliably process existing washwater flows.

The solids processing capacity will be further strained as increased coagulation treatment begins. Staff recommends constructing a third and a fourth thickener to provide the appropriate capacity and system redundancy.

The recommended upgrades for the Skinner plant will be implemented as part of the Skinner Filtration Plant Improvements Program.

Project Description

In November 2001, the Board authorized \$3.96 million for the following upgrades at the Skinner plant:

- a. Replace 24 traveling bridge pumps in Modules 1 and 2.
- b. Replace belt press and conveyor system.
- c. Construct one solids thickener.
- d. Study additional issues related to solids handling.

The authority included funding for all work through project completion, including a delegation of authority to the Chief Executive Officer to award competitively bid construction contracts.

The following developments occurred during the final design of the Skinner Sludge Handling Facilities Project:

- a. Projected usage of SWP supplies will be much higher than the original estimate. Increased SWP supplies will require increased coagulant usage to maintain water quality. Sludge production will be substantially increased from the greater coagulant usage.
- b. In October 2002, the Board authorized Phase 1 of the Water System Control Master Plan, which will incorporate more instrumentation, programming and automation into all treatment plant projects.

Due to these new developments, staff reevaluated the project scope considering the potential increased usage of SPW and increased system automation requirements. Staff incorporated a second thickener and additional automation into the original project to meet these requirements. Additional funds are required to cover project costs associated with the scope additions.

Construction inspection and support are planned to be performed by Metropolitan staff. The construction inspection as a percentage of the total construction cost is approximately 13 percent.

Bid Results and Business Outreach

As shown in Attachment 3, five bids were received and opened under Specifications No. 1467 for the Skinner Sludge Handling Facilities Project. The low bid from Gantry Constructors, Inc., in the amount of \$3.2595 million, complies with the requirements of the specifications and is \$243,742 less than the second low bid. The engineer's estimate was \$3.96 million. For this project, Metropolitan requires Small Business Enterprise (SBE) participation of at least 25 percent of the total construction bid. Gantry Constructors, Inc., has submitted all required SBE participation documentation showing that the company will meet 100 percent SBE participation for the project.

Project Milestones

- June 2003 – Issue Notice to Proceed to contractor

- June 2004 – Completion of construction

Weymouth Rehabilitate Flocculation and Sedimentation Basin Nos. 3 and 4 (\$5,833,000)

Background/Purpose

Flocculation and Sedimentation Basins Nos. 3 and 4 each provide 72 mgd of capacity and were placed into service in 1948, as part of Plant Expansion No. 1.

Equipment in these basins is over 50 years old and beyond its useful life. Both basins require frequent maintenance to keep them operational. Basin No. 4 has been out of service for several years because the flight boards are broken and the chains are heavily corroded and locked up. Staff recommends replacing existing steel chain with nonmetallic chain and fiberglass flight boards. Basin No. 3 is presently in working condition. However, the flocculator arms, paddleboards, bearings, and the chain and flight boards are in need of constant replacement. In addition, staff recommends replacing worn out drive units with variable frequency drives to reduce maintenance and energy costs, and maximize coagulation efficiency. To ensure plant reliability and to meet water quality regulations, it is important that both basins function properly.

Final designs to rehabilitate the sedimentation basins and to rehabilitate the flocculation basins were authorized in September 1998 (Weymouth Rehabilitation Program) and in July 2002 (Weymouth Improvements Program), respectively. During the final design phases, staff combined the specifications and design documents for the two projects so as to advertise the work as one construction contract. Funding for all future work for the sedimentation basins will be moved from the Rehabilitation Program to the Improvements Program. This approach will gain project efficiencies as work in either a flocculation basin or a sedimentation basin will require taking a basin out of service, as each is dependent on the other for normal treatment operation. While a basin is out of service, work will be performed concurrently in the flocculation and sedimentation basin to minimize the duration of basins' unavailability.

Project Description

The scope of the project for the flocculation basins includes removal and replacement of existing basin mechanical equipment and drive units, such as paddle arms, wood paddleboards, flocculator train stub shafts, bearings, and appurtenances, and replacement with new equipment.

The scope for rehabilitating the sedimentation basins is to remove existing basin mechanical equipment, prepare the basins for installation of new equipment, and install new chain and flight sludge collection systems.

Construction inspection and support will be performed by Metropolitan staff and consultants. Two consulting firms, one with expertise in non-metallic chain and flights and the other with expertise in confined-area demolition, will be retained to review design and installation details. The construction inspection as a percentage of the total construction cost is approximately nine percent.

Bid Results and Business Outreach

As shown in Attachment 3, a total of five bids were received and opened under Specifications No. 1447 for the F. E. Weymouth Filtration Plant Basins Nos. 3 and 4 Rehabilitation Project. The low bid from Kiewit Pacific Co. in the amount of \$3.83 million complies with the requirements of the specifications and is \$388,537 less than the second low bid. The engineer's estimate was \$6.6 million. For this project, Metropolitan requires Small Business Enterprise participation of at least 25 percent of the total construction bid. Kiewit Pacific Co. has committed to achieving this goal.

Project Milestones

June 2003 – Issue Notice to Proceed to contractor

July 2005 – Completion of construction

Weymouth Solids Handling Facilities (\$241,000)***Background/Purpose***

In November 2001, the Weymouth plant converted its primary coagulant from aluminum sulfate (alum) to ferric chloride to improve disinfection by-product precursor removal. This removal is required by Stage 1 of the M/DBP Rule, which became effective January 1, 2002. The precursors that form disinfection by-products differ widely in Metropolitan's two main sources of supply. SPW contains higher concentrations of disinfection by-product precursors (e.g., total organic carbon and bromide) than CRW, and forms more disinfection by-products when chlorinated.

Over the last year, the Weymouth plant has been treating a higher percentage of SPW. This has necessitated the use of higher than expected ferric chloride dosages to remove total organic carbon. Average coagulant dosages have increased over the past year from 3 mg/L to 8 mg/L of ferric chloride, while extended duration dosages have been higher. This trend is expected to continue. Until the Weymouth Oxidation Retrofit Program (ORP) is operational, the required extended duration dosage of ferric chloride is expected to range from 12.5 mg/L to 20 mg/L to treat higher volumes of SPW. Ozonation (or an alternative disinfection technology) is scheduled to be on-line at the Weymouth plant by either 2009 or 2012.

Prior to 2002, the residual solids collected from the thickeners were sent to the Los Angeles County Sanitation Districts' (LACSD) sewer system. With the implementation of Stage 1 of the M/DBP Rule, the ferric chloride coagulant dosage has increased significantly, resulting in increased sludge production, which limits Metropolitan's ability to discharge its sludge into the LACSD sewer system. Currently, the thickened sludge is pumped from the gravity thickeners to a leased belt press operation for dewatering and disposal off-site.

In November 2001, Metropolitan's Board authorized funding to study future on-site solids handling facilities and other issues related to elevated coagulation. This report evaluated alternate residual dewatering solutions needed for the interim operation with elevated coagulation and longer-term needs for operation with the Weymouth ORP in place. Staff concluded that two additional sludge thickeners are required to reliably treat blends with higher percentage SPW without limiting treatment plant capacity. Staff also recommends the use of a permanent belt press and conveyor system to economically dewater and stockpile sludge prior to disposal off-site. Addition of these facilities will allow Metropolitan to reliably treat higher percentages of SPW while complying with all water quality regulations and existing permit conditions.

Project Description

This project includes preliminary design and preparation of environmental documentation for two additional thickeners and a permanent solids dewatering facility. The permanent solids dewatering facility will consist of three belt presses, a polymer feed system, a conveyor, a concrete-lined solids holding area, and the interconnecting piping, electrical, and control systems necessary for a complete and reliable system. The belt presses and polymer feed system will be housed in a new dewatering building.

The preliminary design work and preparation of environmental documentation will be a combined effort by Metropolitan staff and specialized consultants. Utilizing an existing on-call agreement for professional services, an environmental specialist will assist Metropolitan with preparation of environmental documentation. A Request for Qualifications (RFQ 578) for water treatment process engineering services was issued in December 2002, which attracted statements of qualifications from thirteen firms. It is intended that several professional services agreements will result from this RFQ, for multiple CIP programs. At this time, staff recommends entering into an agreement with Black & Veatch Corporation to assist Metropolitan with preliminary design of the solids handling facilities at the Weymouth and Diemer plants. Metropolitan intends to utilize the same firm for final design of the solids handling facilities at the Weymouth and Diemer plants.

Using a professional services firm to perform this work at two filtration plants will promote standardization of facilities, is consistent with the Corporate Resources Group's staffing plan as incorporated in the fiscal year 2003/04 budget, and ensures that projects are implemented in accordance with their board-adopted schedules.

This action authorizes entering into a process engineering agreement in an amount not to exceed \$3 million and appropriates only the funds required for the firm to assist with preliminary design; staff plans to return to the Board in July 2003 for authority to perform final design and to appropriate additional funds for Diemer Solids Handling Facilities; and staff will return to the Board again at a later date for authority to perform the remainder of the work and to appropriate additional funds for Weymouth Solids Handling Facilities.

Project Milestones

- July 2003 – Board authorization of final design for the Diemer Solids Handling Facilities
- August 2003 – Board authorization of final design for the Weymouth plant and certification of environmental documentation
- May 2004 – Board award of construction contract for Solids Handling Facilities
- July 2005 – Completion of construction

Financial Statement for Skinner Filtration Plant Improvements Program

A breakdown of Board Action No. 6 for Appropriation No. 15365 for the Skinner Filtration Plant Improvements Program described in this board action is as follows:

	Previous Board Action No. 5 (Jan. 2003)	Current Board Action No. 6 (May 2003)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ 1,120,000	\$ 0	\$ 1,120,000
Design and Specifications	480,000	170,500	650,500
Owner Costs (Program Management, Control System Integration)	410,000	173,500	583,500
Construction Inspection and Support	605,000	90,600	695,600
Metropolitan Installation and Construction	180,000	54,300	234,300
Materials and Supplies	335,000	0	335,000
Incidental Expenses	56,000	0	56,000
Professional/Technical Services	1,150,000	0	1,150,000
Equipment Use	25,000	0	25,000
Contracts	3,805,000	989,500	4,794,500
Remaining Budget	1,210,000	261,300	1,471,300
Total	\$ 9,376,000	\$ 1,739,700	\$ 11,115,700

Funding Request

Program Name:	Skinner Filtration Plant – Improvements Program		
Source of Funds:	Construction Funds (General Obligation, Revenue Bonds, Pay-As-You-Go Fund)		
Appropriation No.:	15365	Board Action No.:	6
Requested Amount:	\$ 1,739,700	Capital Program No.:	15365-I
Total Appropriated Amount:	\$ 11,115,700	Capital Program Page No.:	E-62
Program Estimate:	\$ 122,000,000	Program Goal:	I-Infrastructure Reliability

Financial Statement for Weymouth Filtration Plant Improvements Program

A breakdown of Board Action No. 6 for Appropriation No. 15369 for the Weymouth Improvements Program described in this board action is as follows:

	Previous Board Action No. 5 (Mar. 2003)	Current Board Action No. 6 (May 2003)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ 749,000	\$ 97,000	\$ 846,000
Design and Specifications	389,000	0	389,000
Owner Costs (Program Management, Environmental Documentation)	443,000	259,000	702,000
Construction Inspection and Support	200,000	380,000	580,000
Metropolitan Installation and Construction	391,000	346,000	737,000
Materials and Supplies	573,000	119,000	692,000
Incidental Expenses	14,000	19,000	33,000
Professional/Technical Services	456,000	229,000	685,000
Contracts	1,267,000	3,830,000	5,097,000
Remaining Budget	670,000	795,000	1,465,000
Total	<u>\$5,152,000</u>	<u>\$6,074,000</u>	<u>\$11,226,000</u>

Funding Request

Program Name:	Weymouth Filtration Plant - Improvements Program		
Source of Funds:	Construction Funds (Pay-As-You-Go Fund)		
Appropriation No.:	15369	Board Action No.:	6
Requested Amount:	\$ 6,074,000	Capital Program No.:	15369-I
Total Appropriated Amount:	\$ 11,226,000	Capital Program Page No.:	E-76
Total Program Estimate:	\$ 50,837,000*	Program Goal:	I – Infrastructure Reliability

* Total Program Estimate reflects the reallocation of \$4,407,800 from Approp. 15345 to Approp. 15369.

The Metropolitan Water District of Southern California

Abstract of Bids Received on April 3, 2003 at 2:00 P.M.

Specifications No. 1467

**Robert A. Skinner Filtration Plant
Skinner Sludge Handling Facilities**

The contract consists of performing all necessary work to provide two thickeners, a belt filter press, a conveyor system, a process instrumentation and control system, sludge and polymer feed pumps, and ventilators; replacing an existing sludge belt filter press and 24 sludge pumps; adding and modifying yard pipes; retrofitting existing electrical equipment; and performing all necessary site work and other appurtenant work.

Engineer's Estimate: \$ \$3,960,000

Bidder and Location	Total	SBE \$	SBE %	Met SBR*
Gantry Constructors, Inc., Clarkdale, AZ	\$3,259,500	\$3,259,500	100%	Yes
Griffith Company, Santa Fe Springs, CA	\$3,503,242	N/A	N/A	N/A
Kiewit Pacific Co., Santa Fe Springs, CA	\$3,589,054	N/A	N/A	N/A
Orion Construction Corp., San Marcos, CA	\$3,833,000	N/A	N/A	N/A
SSC Construction, Inc., Corona, CA	\$3,935,925	N/A	N/A	N/A

* SBE (Small Business Enterprise) Participation set at 25 percent
N/A – Not Applicable

The Metropolitan Water District of Southern California
Abstract of Bids Received January 13, 2003, at 2:00 P.M.

Specifications No. 1447

F. E. Weymouth Filtration Plant Basins 3 and 4 Rehabilitation

The contract consists of replacing existing steel chains and wood flight boards with a new nonmetallic chain and flight sludge rake system, replacing existing flocculator systems, replacing existing steel weirs on the launders with new fiberglass weirs, and performing other appurtenant work.

Engineer's Estimate: \$ 6,600,000

Bidder and Location	Total	SBE \$	SBE %	Met SBR*
Kiewit Pacific Co., Santa Fe Springs, CA	\$ 3,830,000	\$ 1,401,258	37%	Yes
Spiess Construction Co. Inc., Santa Maria, CA	\$ 4,218,100	N/A	N/A	N/A
Pacific Mechanical Corporation, Concord CA	\$ 4,473,103	N/A	N/A	N/A
Merco Construction Engineers Inc. Camarillo, CA	\$ 4,617,000	N/A	N/A	N/A
Radich Construction Inc., Simi Valley, CA	\$ 4,930,400	N/A	N/A	N/A

* SBE (Small Business Enterprise) Participation set at 25 percent
N/A – Not Applicable