

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

January 14, 2003 Board Meeting

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8-1

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**Subject**

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Authorize \$760,000 for four Capital Investment Plan projects as part of the Jensen, Skinner and Weymouth filtration plants Improvements Programs (Approps. 15371, 15365 and 15369)

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**Description**

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Four projects are recommended to maintain compliance with drinking water quality and environmental regulations, increase the efficiency of plant operations, and enhance the safety and reliability of plant operations.

**Jensen Tank Farm Chemical Containment System Upgrade (\$50,000):** The caustic soda chemical tank farm at the Joseph Jensen Filtration Plant includes bulk storage tanks, piping, chemical feed pumps, and a chemical containment system. The chemical containment system includes an aboveground containment area created by the asphalt flooring and perimeter block walls, plus an underground volume provided by a spill containment tank located below grade. As a result of cumulative damage from years of seismic activity and weathering, the asphalt flooring and block walls have suffered some cracking. The flooring and walls of the aboveground containment area must be upgraded to ensure full compliance with spill control and secondary containment requirements. This action will authorize studies and investigations of the necessary upgrades to provide leak-tight containment.

**Skinner Flocculators and Tube Settlers Replacement (\$20,000):** The Washwater Reclamation Plant No. 2 (WWRP 2) at the Robert A. Skinner Filtration Plant was built in 1991 to process used filter backwash water. The WWRP 2 horizontal flocculators require excessive maintenance, and the submerged bearings with exposure to grit and anthracite coal must be replaced. The plastic tube settlers have deteriorated due to sun exposure. This project will replace the horizontal flocculators with vertical-shaft hydrofoil flocculators with non-submerged bearings and will replace the tube settlers. This action will authorize studies and investigations of the replacements.

**Skinner Water Quality Monitoring Vaults Expansion (\$40,000):** Skinner Plant 1 has six water quality monitoring vaults that were built in 1976 (Modules 1 and 2) and 1979 (Module 3). The buried vaults were constructed to house pumps to transport filtered water samples to the Administration Building laboratory for analysis. As water quality instrumentation improved over time, on-line turbidimeters were eventually installed inside the vaults. More rigorous water quality monitoring reporting regulations has since been promulgated. The existing vaults are now too small to house the required instruments for individual filter effluent monitoring. In addition, the interior elevation of the buried vaults is too high to provide the needed pressure for proper operation of the turbidimeters and particle counters. Under this project, existing vaults will be modified and six larger water quality monitoring vaults will be constructed adjacent to the existing vaults to accommodate the required water quality monitoring instrumentation. This action will authorize studies and investigations of the water quality monitoring vaults expansion project.

**Weymouth Structural Integrity Upgrade (\$650,000):** The F. E. Weymouth Filtration Plant, originally constructed in 1939 and expanded in 1948 and 1960, was built in compliance with the building codes in place at the time. The construction methods of that time do not reflect the current understanding of the potential seismic forces the buildings may encounter. A structural review conducted by Metropolitan staff has found that the Filter Buildings, Administration Building and Headhouse require reinforcement to withstand a major seismic event to ensure reliable operations. This action will fund study, preliminary design, and CEQA documentation for the required upgrades.

The structural review also detected deterioration of the concrete decks at the filter beds and basins. This action will authorize preliminary design of the necessary concrete repairs.

These four projects were evaluated and recommended by the Capital Investment Plan Evaluation Team (CIP) as part of the three plants' Improvements Programs, and are included in the fiscal year 2002/03 CIP budget. See [Attachment 1](#) for the detailed report and [Attachment 2](#) for the financial statement.

## **Policy**

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Metropolitan Water District Administrative Code § 5108: Capital Project Appropriation  
Metropolitan Water District Administrative Code § 9100(b): Risk Management

## **California Environmental Quality Act (CEQA)**

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CEQA determination for Staff Recommendation:

### **Jensen Tank Farm Chemical Containment System Upgrade**

To comply with CEQA, Metropolitan as the Lead Agency prepared a Mitigated Negative Declaration (MND) entitled "Joseph Jensen Filtration Plant Oxidation Retrofit Program MND" (State Clearinghouse No. 1994061002). The MND was distributed for a 30-day public review period that began on May 31, 1994, and ended on June 29, 1994. Board adoption of the MND and the mitigation monitoring and reporting program (MMRP), along with approval of the Jensen ORP, occurred on August 19, 1994. Based on the Board's previous approval of that environmental documentation, the proposed action contained in this current board letter fully complies with CEQA and the State CEQA Guidelines. As such, no further environmental documentation is necessary for the Board to act on with respect to the proposed action.

The CEQA determination is: Determine that the proposed action relating to the Jensen Tank Farm Chemical Containment System Upgrade has been previously addressed in the adopted 1994 MND and its MMRP, and that no further environmental analysis or documentation is required.

### **Skinner Flocculators and Tube Settlers Replacement**

The proposed action is categorically exempt under the provisions of CEQA. The overall activities involve the funding, final design, and carrying out minor alterations to existing public facilities; replacing or reconstructing existing equipment; and installing new, small equipment with no expansion of use and no possibility of significantly impacting the physical environment. As such, this proposed action qualifies under Class 1, Class 2, and Class 3 Categorical Exemptions (Sections 15301, 15302, and 15303 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action relating to the Skinner Flocculators and Tube Settlers Replacement qualifies under three Categorical Exemptions (Class 1, Section 15301; Class 2, Section 15302; and Class 3, Section 15303 of the State CEQA Guidelines).

### **Skinner Water Quality Monitoring Vaults Expansion**

The proposed action is categorically exempt under the provisions of CEQA. The overall activities involve the funding, final design, carrying out minor alterations, and installing new equipment within existing public facilities with no expansion of use and no possibility of significantly impacting the physical environment. As such, the proposed action qualifies under Class 1 and Class 3 Categorical Exemptions (Sections 15301 and 15303 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action relating to the Skinner Water Quality Monitoring Vaults Expansion qualifies under two Categorical Exemptions (Class 1, Section 15301; and Class 3, Section 15303 of the State CEQA Guidelines).

### **Weymouth Structural Integrity Upgrade**

The proposed action is categorically exempt under the provisions of CEQA. The overall activities involve the funding, studying, carrying out preliminary design, and preparing and processing environmental documentation for the proposed Weymouth seismic upgrades. These activities will consist of basic data collection and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action, which a public agency has not yet approved, adopted, or funded. In addition, the activities may involve a check for performance of an

operation, or quality, health, or safety of a project. As such, the proposed action qualifies for both Class 6 and Class 9 Categorical Exemptions (Sections 15306 and 15309 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action relating to the Weymouth Structural Integrity Upgrade qualifies under two Categorical Exemptions (Class 6, Section 15306; and Class 9, Section 15309 of the State CEQA Guidelines).

**Staff Recommendation**

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Adopt the CEQA determination for the projects described herein and

- a. Appropriate \$760,000 in budgeted CIP funds,
- b. Authorize studies and investigations to be performed for the Jensen Tank Farm Chemical Containment System Upgrade, Skinner Flocculators and Tube Settlers Replacement, and Skinner Water Quality Monitoring Vaults Expansion projects; and
- c. Authorize the Chief Executive Officer to have studies, investigations, preliminary design and preparation of environmental documentation to be performed for structural upgrade and repairs of the Weymouth plant’s filter buildings, basin decks, Administration Building and Headhouse, and authorize an agreement increase, from \$500,000 to \$850,000, of the not-to-exceed amount for the Weymouth Oxidation Retrofit Program architectural consultant agreement to include this work.

**Fiscal Impact:** \$760,000 of budgeted CIP funds under the following appropriations:

- Appropriation 15371 (Jensen): \$50,000 budgeted
- Appropriation 15365 (Skinner): \$60,000 budgeted
- Appropriation 15369 (Weymouth): \$650,000 budgeted

	12/16/2002
Roy L. Wolfe Manager, Corporate Resources	Date

	12/20/2002
Ronald R. Gastelum Chief Executive Officer	Date

**Attachment 1 – Detailed Report**

**Attachment 2 – Financial Statements for Jensen Filtration Plant Improvements Program, Skinner Filtration Plant Improvements Program and Weymouth Filtration Plant Improvements Program**

## Detailed Report

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The Joseph Jensen Filtration Plant was placed into service in 1972 with an initial capacity of 350 million gallons per day (mgd). The plant was expanded in the early 1990s to its current capacity of 750 mgd. The plant exclusively treats California State project water supplies and delivers treated water to Metropolitan's Central Pool portion of the distribution system.

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. 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 delivers treated water to Metropolitan's Central Pool portion of the distribution system.

The Jensen, Skinner, and Weymouth 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.

### **Jensen Tank Farm Chemical Containment System Upgrade (\$50,000)**

#### ***Background/Purpose***

The 30,000-square-foot caustic soda chemical tank farm at the Jensen plant was placed into service in 1972, following the original construction of the Jensen plant. Caustic soda is used for filtered water pH adjustment and will be used for post-ozonation pH adjustment after Jensen Oxidation Retrofit Project completion. This tank farm includes bulk storage tanks, piping, chemical feed pumps, and a chemical containment system. The chemical containment system consists of an aboveground containment volume created by the asphalt flooring and perimeter block walls, plus an underground containment volume provided by a spill containment tank located below grade. Article 80 Hazardous Materials of the Uniform Fire Code requires the chemical containment system to be liquid-tight. Since its original construction in 1972, the asphalt flooring and block walls have suffered some cracking as a result of seismic activity and weathering. Consequently, the containment area is in need of repair to prevent potential leakage in the event of a chemical spill.

#### ***Project Description***

The project consists of the following components: Remove asphalt flooring and replace with poured concrete flooring sloped to a sump; replace existing block walls with higher concrete walls bonded to the new concrete flooring; and apply chemical-resistant seal coating to both walls and floor area within the containment area to assure a liquid-tight system; expand the caustic soda rail car unloading area to provide facilities to unload four rail cars simultaneously while providing spill containment; and provide new caustic soda railcar unloading platforms.

#### ***Project Milestones***

- January 2003 – Initial board authorization for studies and investigations
- July 2003 – Return to board for authorization of final design
- January 2005 – Board award of construction contract
- September 2005 – Completion of construction

***Cost Estimate***

Attachment 2 shows the breakdown of the total estimated costs for studies and investigations on this project. Consistent with Metropolitan's approach of managing projects in the most cost-effective manner, staff will perform initial studies and investigations as well as the project management.

**Skinner Flocculators and Tube Settlers Replacement (\$20,000)*****Background/Purpose***

Used filter backwash water from the Skinner filtration plant is processed by the 43.5-mgd Washwater Reclamation Plant No. 2 (WWRP 2). WWRP 2 is typically operated round-the-clock. WWRP 2 has three treatment trains, each with a flocculation basin and a sedimentation basin with tube settlers. The horizontal flocculators and the tube settlers were installed during the original construction of WWRP 2 in 1991.

Each WWRP 2 flocculation basin train has nine horizontal flocculators. This equipment is continually subjected to harsh operating conditions. Solids in the used filter backwash water are both corrosive and abrasive to moving flocculator parts, such as submerged bearings and interlocking shafts, and eventually cause failure of the moving parts within the basin. Bearing failure of the WWRP 2 flocculators is a recurring maintenance issue. Repair of the WWRP 2 basin mechanical equipment requires treatment train dewatering so that mechanics can access the components. Approximately \$110,000 per year is spent on WWRP 2 flocculator equipment maintenance.

The WWRP 2 sedimentation basins use tube settlers and a chain-and-flight system to collect the settled sludge. The tube settlers consist of small, inclined plastic tubes placed at a 60-degree angle to minimize hydraulic short-circuiting, provide increased area for efficient settling, and improve the removal of used filter backwash water solids by gravity. The tube settlers take advantage of increased surface area and low flow through the tubes to reduce scouring. As flocculated water rises through the tube, solids settle to the inclined surface, where they gain mass and weight and eventually slide down the incline to the floor of the basin. The expected service life of tube settlers is approximately eight to ten years, depending on the application. The WWRP 2 tube settlers have been in service for eleven years. The plastic tube settlers have deteriorated due to sun exposure and are bent in many locations, resulting in inefficient solids collection. If the tube settlers were removed without replacement or allowed to further deteriorate, solids that would typically settle out in WWRP 2 would instead be returned to the main filtration plant and adversely impact filtration rates and water production.

***Project Description***

Replace the existing horizontal paddle wheel flocculators with vertical hydrofoil units (with non-submerged bearings) in the three WWRP 2 flocculation basins; provide access platforms and supports for the new flocculators; and replace the tube settlers in the three WWRP 2 sedimentation basins.

***Project Milestones***

- January 2003 – Initial board authorization and funding for studies and investigations
- July 2003 – Return to board for final design for tube settlers and flocculator replacement
- March 2004 – Board award of construction contract for flocculator and tube settler replacement
- January 2005 – Completion of all construction

***Cost Estimate***

Attachment 2 shows the breakdown of the total estimated costs for studies and investigations on this project. Consistent with Metropolitan's approach of managing projects in the most cost-effective manner, staff will perform initial studies and investigations as well as the project management.

**Skinner Water Quality Monitoring Vaults Expansion (\$40,000)*****Background/Purpose***

The six existing water quality-monitoring vaults at Skinner Plant 1 were built in 1976 (Modules 1 and 2) and 1979 (Module 3). These buried vaults are located on the east and west sides of each of the three water filtration modules. The vaults were constructed to house pumps to transport filtered water samples to the Administration Building laboratory for analysis. The original design of the vaults in Skinner Plant 1 did not include provisions for the multitude of on-line water quality monitoring equipment that is currently required to comply with water quality reporting regulations. The increasing reliance on on-line instrumentation requires additional space. In addition, the interior elevation of the buried vaults is too high to provide the needed pressure for the proper operation of turbidimeter and particle counter instrumentation. Such instrumentation provides early warning of filter breakthrough.

Over the years, as water quality requirements have become more stringent, the frequency of employees entering the vaults has increased significantly. The six vaults at Skinner Plant 1 serve 54 filters. Ingress and egress from the vaults is via ladders, making it difficult to carry equipment into the vaults to perform instrument calibration and maintenance. The existing vaults have also been subject to flooding which has damaged monitoring equipment in the past.

In contrast, Skinner Plant 2 has large water quality monitoring galleries with sufficient room for future instrumentation and easy stairway access for personnel performing calibration and maintenance. Stairs to ingress and egress the Skinner Plant 1 water quality monitoring vaults would make it safer for employees to access the structures, especially at night or during inclement weather.

***Project Description***

Modify the six existing water quality monitoring vaults to provide stairways and construct six larger and deeper water quality monitoring vaults adjacent to the existing vaults to accommodate relocated and additional water quality monitoring instrumentation.

***Project Milestones***

- January 2003 – Initial board authorization and funding for studies and investigations
- July 2003 – Return to board for authorization of final design
- March 2004 – Board award of construction contract
- January 2005 – Completion of construction

***Cost Estimate***

Attachment 2 shows the breakdown of the total estimated costs for studies and investigations on this project. Consistent with Metropolitan's approach of managing projects in the most cost-effective manner, staff will perform initial studies and investigations as well as the project management.

**Weymouth Structural Integrity Upgrade (\$650,000)*****Background/Purpose***

The F. E. Weymouth Filtration Plant was originally constructed in the late 1930s and began operation in 1941 in what has become the city of La Verne. At that time, the plant facilities were composed of Basins 1 & 2, the west half of Filter Building No. 1, the Administration Building, and the Headhouse. Since then, the plant has undergone two major expansions:

- Expansion No. 1 in 1948, which constructed the east half of Filter Building No. 1 and added Basins 3 and 4; and
- Expansion No. 2 in 1960, which constructed Filter Building No. 2 and added Basins 5 through 8.

These structures, while built to high standards, were designed based on the building codes that were in use decades ago. Current building codes have been substantially upgraded since the building codes of that time. In revising building codes, code officials have based the changes on knowledge gained from the performance of structures during actual seismic events and on a modern understanding of seismic science. The concrete structures have also experienced 30 to 60 years of continual operation.

As part of the Weymouth Rehabilitation Program (Approp. 15345), Metropolitan staff performed a structural and seismic review of the Weymouth filtration plant process structures. This structural review included an investigation phase and a seismic evaluation phase. During the investigation phase of this project, representative samples of most treatment-related structures and buildings were inspected for evidence of damage or other adverse effects that could affect their structural integrity.

The staff's structural investigation detected damaged concrete and rusting reinforcing steel on the operating decks above the filters. Concrete spalling has also been observed on the flocculation and sedimentation basins' operating decks. These process structures are essential to the continued operation of the Weymouth filtration plant.

The seismic evaluation phase of the structural review assessed the seismic capability of key treatment-related structures at the Weymouth plant with respect to up-to-date building codes and design standards. A thorough structural analysis showed that the 108-Inch Bypass Valve Structure, Junction Structure, and Basins were structurally adequate, while the Filter Building Nos. 1 & 2, Administration Building, and Headhouse needed to be further examined.

This seismic evaluation determined that the Filter Buildings, Administration Building, and Headhouse were not designed to withstand seismic events that are now predicted for the La Verne area. While these facilities have withstood minor local earthquakes and remote major ones, the anticipated ground acceleration levels using current design criteria are more than two times greater than the levels for which the structures were designed in the late 1930s. Since the safe and reliable operation of the Weymouth plant depends on the structural integrity of its Filter Buildings, Administration Building, and Headhouse, further analysis, ultimately leading to reinforcement and/or repair of these facilities is recommended.

### ***Project Description***

The proposed project has two components. The first component addresses repair of structural damage to the filter decks and basin operating decks. The second component addresses structural upgrade of the Filter Buildings, Administration Building, and Headhouse.

The repair of the structural damage to the filter decks and basin operating decks will include the following:

- Study of the concrete damage to the filter bed and basin operating decks,
- Inventory the needed repairs and identify the scope of the design effort, and
- Prepare a final report with recommendations and a definitive cost estimate for future board action to repair the facilities.

The seismic integrity portion of the project will identify, develop and evaluate cost-effective potential solutions for reinforcing the identified structures. The plant's two influent and one effluent conduits pass through the bottom of the Headhouse structure in the north-south direction. These conduits range in cross section from 8-foot by 12-foot (the smaller influent conduit) to 10-foot by 12-foot (effluent conduit). This increases the cost and complexity of seismic reinforcement of the Headhouse. A possible relocation of the influent and effluent conduits must be coordinated with the hydraulic and process requirements of the Weymouth Oxidation Retrofit Program (ORP). A consultant with expertise in seismic retrofit of buildings will be retained to identify cost efficient repair alternatives that maintain the distinctive character of this landmark facility. Utilizing the Weymouth ORP architectural consultant teamed with a seismic retrofit expert for this work will ensure continuity of the architectural theme and appropriate coordination with the ORP effort. Value engineering will be conducted to

choose the most cost-effective solution without sacrificing the architectural significance or the functionality of these structures. Preliminary design and a definitive cost estimate of the seismic retrofits will be developed for further consideration.

This board action authorizes study of seismic retrofit alternatives, preliminary designs, and preparation of environmental documentation.

***Project Milestones***

- January 2003 – Initial board authorization and funding
- November 2003 – Completion of preliminary designs
- January 2004 – Return to board for authorization of final design

***Cost Estimate***

Attachment 2 shows the breakdown of the total estimated cost of \$650,000 for the study, preliminary designs, and CEQA documentation for the required improvements. Consistent with Metropolitan's approach of managing projects in the most cost-effective manner, staff will perform project management and design activities for repair of the filter and basin operating decks and use qualified consultants to identify cost effective solutions, estimate the costs, prepare preliminary designs and CEQA documentation, and perform value engineering for the seismic upgrade of the Filter Buildings, Administration Building and Headhouse.



**Financial Statement for Jensen Filtration Plant Improvements Program**

A breakdown of Board Action No. 3 for Appropriation No. 15371 for final design to upgrade the Tank Farm Chemical Containment System is as follows:

	<b>Previous Board Action No. 2 (Nov. 2001)</b>	<b>Current Board Action No. 3 (Jan. 2003)</b>	<b>New Total Appropriated Amount</b>
Labor			
Conceptual Design	\$ 170,000	\$ 0	\$ 170,000
Studies and Investigations	225,000	25,000	250,000
Design and Specifications	875,000	0	875,000
Owner Costs (Program Management, Water Quality, Environmental Docs.)	300,000	25,000	325,000
Construction Inspection and Support	450,000	0	450,000
Metropolitan Installation and Construction	865,000	0	865,000
Materials and Supplies	1,310,000	0	1,310,000
Incidental Expenses	70,000	0	70,000
Professional/Technical Services	100,000	0	100,000
Equipment Use	80,000	0	80,000
Contracts	3,100,000	0	3,100,000
Remaining Budget	1,130,000	0	1,130,000
<b>Total</b>	<b>\$ 8,675,000</b>	<b>\$ 50,000</b>	<b>\$ 8,725,000</b>

**Funding Request**

<b>Program Name:</b>	Jensen Filtration Plant – Improvements Program		
<b>Source of Funds:</b>	Construction Funds (General Obligation, Revenue Bonds, Pay-As-You-Go Fund)		
<b>Appropriation No.:</b>	15371	<b>Board Action No.:</b>	3
<b>Requested Amount:</b>	\$ 50,000	<b>Capital Program No.:</b>	15371-I
<b>Total Appropriated Amount:</b>	\$ 8,725,000	<b>Capital Program Page No.:</b>	E-44
<b>Total Program Estimate:</b>	\$ 14,196,000	<b>Program Goal:</b>	I – Infrastructure Reliability

\* Total Program Estimate includes budgets for four new projects recommended by the FY2002/03 CIP Evaluation Committee.

**Financial Statement for Skinner Filtration Plant Improvements Program**

A breakdown of Board Action No. 5 for Appropriation No. 15365 for the Skinner Filtration Plant Improvements Program described in this board action is as follows:

	<b>Previous Board Action No. 4 (July 2002)</b>	<b>Current Board Action No. 4 (Jan 2003)</b>	<b>New Total Appropriated Amount</b>
Labor			
Studies and Investigations	\$ 1,085,000	\$ 35,000	\$ 1,120,000
Design and Specifications	480,000	0	480,000
Owner Costs (Program Management)	385,000	25,000	410,000
Construction Inspection and Support	605,000	0	605,000
Metropolitan Installation and Construction	180,000	0	180,000
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	0	3,805,000
Remaining Budget	1,210,000	0	1,210,000
<b>Total</b>	<b>\$ 9,316,000</b>	<b>\$ 60,000</b>	<b>\$ 9,376,000</b>

**Funding Request**

<b>Program Name:</b>	Skinner Filtration Plant – Improvements Program		
<b>Source of Funds:</b>	Construction Funds (General Obligation, Revenue Bonds, Pay-As-You-Go Fund)		
<b>Appropriation No.:</b>	15365	<b>Board Action No.:</b>	5
<b>Requested Amount:</b>	\$ 60,000	<b>Capital Program No.:</b>	15365-I
<b>Total Appropriated Amount:</b>	\$ 9,376,000	<b>Capital Program Page No.:</b>	E-62
<b>Program Estimate:</b>	\$ 122,000,000	<b>Program Goal:</b>	I-Infrastructure Reliability

**Financial Statement for Weymouth Filtration Plant Improvements Program**

A breakdown of Board Action No. 4 for Approp. No. 15369 for the Weymouth Filtration Plant Improvements Program is as follows:

	<b>Previous Board Action No. 3 (Jul. 2002)</b>	<b>Current Board Action No. 4 (Jan. 2003)</b>	<b>New Total Appropriated Amount</b>
Labor			
Studies and Investigations	\$ 585,000	\$ 97,000	\$ 682,000
Design and Specifications	304,000	0	304,000
Owner Costs (Program Management, Environmental Docs., Water Quality)	210,000	122,000	332,000
Construction Inspection and Support	198,000	0	198,000
Metropolitan Installation and Construction	219,000	0	219,000
Materials and Supplies	205,000	0	205,000
Incidental Expenses	10,000	2,000	12,000
Professional/Technical Services	106,000	350,000	456,000
Contracts	1,122,000	0	1,122,000
Remaining Budget	448,000	79,000	527,000
<b>Total</b>	<b>\$ 3,407,000</b>	<b>\$650,000</b>	<b>\$ 4,057,000</b>

**Funding Request**

<b>Program Name:</b>	Weymouth Filtration Plant – Improvements Program		
<b>Source of Funds:</b>	Construction Funds (possibly General Obligation, Revenue Bonds, Pay-As-You-Go)		
<b>Appropriation No.:</b>	15369	<b>Board Action No.:</b>	4
<b>Requested Amount:</b>	\$ 650,000	<b>Capital Program No.:</b>	15369-I
<b>Total Appropriated Amount:</b>	\$ 4,057,000	<b>Capital Program Page No.:</b>	E-76
<b>Total Program Estimate:</b>	\$ 33,290,000	<b>Program Goal:</b>	I – Infrastructure Reliability