THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

BOARD ACTION

- Board of Directors
  Engineering and Operations Committee

9/13/2011 Board Meeting

7-1

Subject

Appropriate $450,000; and authorize (1) environmental documentation for repairs to the Upper Newport Bay Blow-off Structure, and (2) professional services agreement with Dudek (Approp. No. 15377)

Description

This action authorizes preparation of environmental documentation to gain access to and rehabilitate a blow-off structure on the Orange County Feeder. The blow-off structure is located in an environmentally sensitive area adjacent to Upper Newport Bay. Based on California Environmental Quality Act (CEQA) regulations, an Environmental Impact Report (EIR) is required for this project. Staff recommends that preparation of the environmental documentation be initiated at this time, so that the findings can be fully integrated into the project's preliminary design activities. This action also authorizes a new professional services agreement for specialized technical support to assist Metropolitan staff in preparation of the EIR.

Timing and Urgency

Repairs are needed to a blow-off structure on the Orange County Feeder which is located adjacent to Upper Newport Bay. This blow-off structure was constructed during World War II and is situated in a harsh salt water environment. Due to the regular inspections and maintenance performed by Metropolitan staff, the blow-off structure has been maintained in full operating condition. However, after 60 years of operation in the salt water environment, the blow-off valves and piping have corroded and now require replacement. Modification of the structure's discharge outlet is also needed to eliminate a potential cross-connection. Further, due to ongoing storm drain runoff, the only road available to access the blow-off structure has been damaged. A majority of this road is located on property owned by the Orange County Flood Control District; Metropolitan does not presently have the authority to maintain or repair this road. Since vehicular access is needed to transport the large equipment used to maintain valves and appurtenant piping, an important element of this project involves the development of an all-weather access road, along with an agreement with Orange County Flood Control District that permits Metropolitan to maintain and make repairs to the road. In order to move forward with the road and with rehabilitation of the deteriorated blow-off structure, environmental documentation must be prepared and adopted by Metropolitan's Board.

This project has been reviewed with Metropolitan's updated Capital Investment Plan (CIP) prioritization criteria, and is categorized as an Infrastructure Rehabilitation project. This project is budgeted within Metropolitan's CIP for fiscal year 2011/12.

Background

The Orange County Feeder is a 41-mile-long steel pipeline that varies in diameter from 33 to 42 inches. Much of the Orange County Feeder was installed during World War II. At that time, the feeder was constructed with previously used pipe due to war-time restrictions which limited the availability of new steel pipe. The feeder conveys treated water from Metropolitan's Weymouth plant to the cities of Anaheim and Santa Ana, Three Valleys Municipal Water District, and the Municipal Water District of Orange County. The feeder has 15 blow-

off structures which are spaced intermittently at low spots on the pipeline. These structures enable the pipeline to be dewatered in the event of an emergency, and provide access points for routine maintenance or inspection.

One blow-off structure within the city of Newport Beach is directly adjacent to the Upper Newport Bay estuary. The estuary is an environmentally sensitive, protected area where fresh and salt waters comingle. The feeder is buried beneath the estuary, while the top of the blow-off structure and associated piping are positioned approximately 5 feet above the estuary's high water level. High tidal flows in Upper Newport Bay cause occasional seawater intrusion into the blow-off structure, which has increased the severity of corrosion of the valves and piping. The blow-off piping inside the vault consists of two parallel discharge pipelines with an isolation valve and relief valve arranged in series. These valves were installed during the feeder's original construction.

A comprehensive field inspection identified the need to rehabilitate the blow-off structure. The 60 years of operation in a harsh salt water environment has led to gradual deterioration of the equipment within the vault, including the valves that isolate flows and control discharges during dewatering activities. With regular inspections and maintenance, Metropolitan staff has been able to keep the blow-off structure in full operating condition since its original installation in World War II. However, the valves are nearing the end of their service life. An unplanned repair due to an inoperable isolation valve would require complete shutdown of an 8.5-mile section of the Orange County Feeder, which would impact ten service connections with combined delivery capacities of up to 65 million gallons per day.

The existing access road to the blow-off structure has become impassable due to erosion caused by storm runoff, tidal action, and vegetation growth. The 840-foot-long, 15-foot-wide dirt road, which is owned by the Orange County Flood Control District, was used regularly until the early 1990s. However, development in the surrounding area has increased storm runoff, encouraged vegetation growth, and eroded about 250 feet of the road. As a result, no vehicles can access the blow-off structure. Currently, all access to the structure is on foot, through dense vegetation. Vehicle access is needed to transport large equipment like blowers, generators, lights and cranes, which are necessary for repair of the structure. Without vehicular access, valves and appurtenant piping cannot be accessed or maintained and will continue to corrode.

Metropolitan currently has an easement which permits access to the blow-off structure via this existing dirt road. However, Metropolitan does not have the authority to maintain or improve the road. In order to resolve access limitations to the blow-off structure and enable maintenance and repairs over the long term, Metropolitan must obtain environmental permits and develop an agreement for road maintenance and repair with the Orange County Flood Control District.

Upper Newport Bay Blow-off Structure Rehabilitation Project – Environmental Documentation ($450,000)

Preliminary design phase activities to rehabilitate the blow-off structure are currently underway. Based on CEQA regulations and the need to identify impacts from the proposed repairs, staff has determined that due to the blow-off structure's setting, an EIR is required for the rehabilitation work to proceed. The Upper Newport Bay estuary forms the habitat of nearly 200 species of birds and numerous species of mammals, fish, and native plants. Completion of the EIR will provide environmental clearance for a project that will regrade the existing road and install reinforced road crossings where the road intersects drainage channels; strengthen the existing turnaround area adjacent to the blow-off structure to allow maintenance vehicles to set up for repair activities; install new valves and replace all corroded piping; and modify the discharge outlet to comply with current state Department of Public Health regulations to prevent potential cross connections. The EIR will also address periodic access and maintenance of the blow-off structure. Preparation of environmental documentation is recommended to be performed by a specialized consulting firm, as discussed below. Metropolitan staff will provide input to the EIR and coordinate the review activities with local, state, and federal resource agencies.

Preparation of an EIR is an involved process due to the substantial amount of information that needs to be compiled in order to identify significant environmental impacts of a project, to develop alternatives to avoid or minimize impacts, and to propose measures to mitigate and monitor unavoidable impacts. As part of the EIR process, studies will be conducted to identify impacts and to determine their significance on the basis of specific evaluation criteria for topography and soils; hydrology; biological resources; threatened, endangered and sensitive

species; cultural resources; paleontological resources; traffic; air quality; land use; and aesthetics. Numerous agencies at the federal, state, and local levels will have jurisdiction over various aspects of the project. For certification of the EIR, Metropolitan will serve as the lead agency. Staff anticipates that several other agencies, including the Orange County Flood Control District, would act as responsible agencies. Permitting agencies will include the California Department of Fish & Game (CDFG), U.S. Fish & Wildlife Service (USFWS), U.S. Army Corps of Engineers, Santa Ana Regional Water Quality Control Board, California Coastal Commission, Orange County Flood Control District, and the city of Newport Beach. Addressing the interests of multiple agencies will increase the complexity of acquiring the required permits. For example, the timing for acquisition of a permit from the California Coastal Commission commonly exceeds one year.

A series of right-of-way permitting activities is planned for the blow-off structure's deteriorated access road. These activities will include review of existing habitat conservation easements, utility easements, and title reports; field surveys; preparation of legal descriptions and exhibit maps in support of the environmental clearance and permits; and development of a long-term road maintenance and repair agreement with the Orange County Flood Control District.

This action appropriates $450,000 and authorizes preparation of environmental documentation to improve access to and to rehabilitate the Upper Newport Bay Blow-off Structure located in the city of Newport Beach. The scope of work for EIR preparation includes: performing biological and habitat surveys; identifying potential impacts to air quality and other environmental factors such as visual, traffic, and noise; developing mitigation and monitoring plans; preparation and issuance of the EIR document for public comment; and preparation of responses to comments received during the public review period. Requested funds include $285,000 for preparation of the environmental documentation by a specialized consultant, as discussed below; $84,000 for staff review and distribution for public review of the EIR; $22,000 for right-of-way activities; and $59,000 for project management and consultations with local, state, and federal resource agencies.

Completion of the preliminary design work will coincide with completion of the EIR. Staff will return to the Board at a later date for certification of the EIR and for authorization of final design and permit acquisition activities.

Agreement for Preparation of Environmental Documentation - Dudek

Preparation of environmental documentation and assistance with permitting is recommended to be performed by a specialized consulting firm, Dudek, under a new professional services agreement. Dudek was selected through a competitive process via Request for Qualifications No. 956. Dudek has extensive experience with projects in environmentally sensitive locations such as coastal areas. For this agreement, Metropolitan has established a Small Business Enterprise participation level of 18 percent. The planned scope of work includes preparing the EIR; performing technical studies which address issues such as air quality, traffic, noise and biological resources; supporting Metropolitan staff at public hearings; and preparing correspondence and related documentation in support of CEQA activities. This work is highly specialized and Metropolitan has insufficient technical staff in-house to conduct this work. The estimated cost to provide these services is $285,000.

This action authorizes an agreement with Dudek, in an amount not to exceed $285,000, to prepare environmental documentation for the Upper Newport Bay Blow-off Structure Rehabilitation project.

Summary

This action appropriates $450,000, authorizes preparation of environmental documentation for rehabilitation of the Upper Newport Bay Blow-off Structure and for access improvements, and authorizes an agreement with Dudek. This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds have been included in the fiscal year 2010/11 capital budget. See **Attachment 1** for the Financial Statement and **Attachment 2** for the Location Maps.

This project is included within capital Appropriation No. 15377, the Conveyance and Distribution System Rehabilitation Program, which was initiated in fiscal year 2001/02. Appropriation No. 15377 also includes projects such as the Box Springs Feeder Repairs and the West Valley Feeder Valve Structure Modifications.

With the present action, the total funding for Appropriation No. 15377 will increase from $66,285,700 to $66,735,700.

This project is consistent with Metropolitan's goals for sustainability by enhancing reliability of the existing conveyance and distribution system in order to maintain reliable water deliveries in the future.

Project Milestone

September 2012 – Completion of the EIR

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action consists of basic data collection and resource evaluation activities, which 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. Accordingly, the proposed action qualifies as a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

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

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

a. Appropriate $450,000;
b. Authorize preparation of environmental documentation for access and repairs to the Upper Newport Bay Blow-off Structure; and
c. Authorize agreement with Dudek, in an amount not to exceed $285,000, to provide specialized environmental support.

Fiscal Impact: $450,000 in budgeted funds under Approp. 15377

Business Analysis: This option will protect Metropolitan's assets, enhance delivery reliability to member agencies, and reduce the risk of costly emergency repairs.

Option #2

Do not proceed with the project at this time.

Fiscal Impact: None

Business Analysis: Under this option, Metropolitan would defer environmental documentation necessary for access and repairs to the Upper Newport Bay Blow-off Structure. Staff will continue to carry equipment on foot through dense vegetation and wet ground to perform routine maintenance. This option will delay compliance with California Department of Public Health water quality regulations for the prevention of cross connections. This option would forego an opportunity to initiate the needed repairs, which could result in unplanned disruption of water deliveries and increased costs for future repairs.

Staff Recommendation

Option #1

8/30/2011
Date

Gordon Johnson
Manager/Chief Engineer,
Engineering Services

8/31/2011
Date

Jeffrey Kightlinger
General Manager

Attachment 1 – Financial Statement

Attachment 2 – Location Maps

Ref# es12608963

Financial Statement for Conveyance and Distribution System Rehabilitation Program

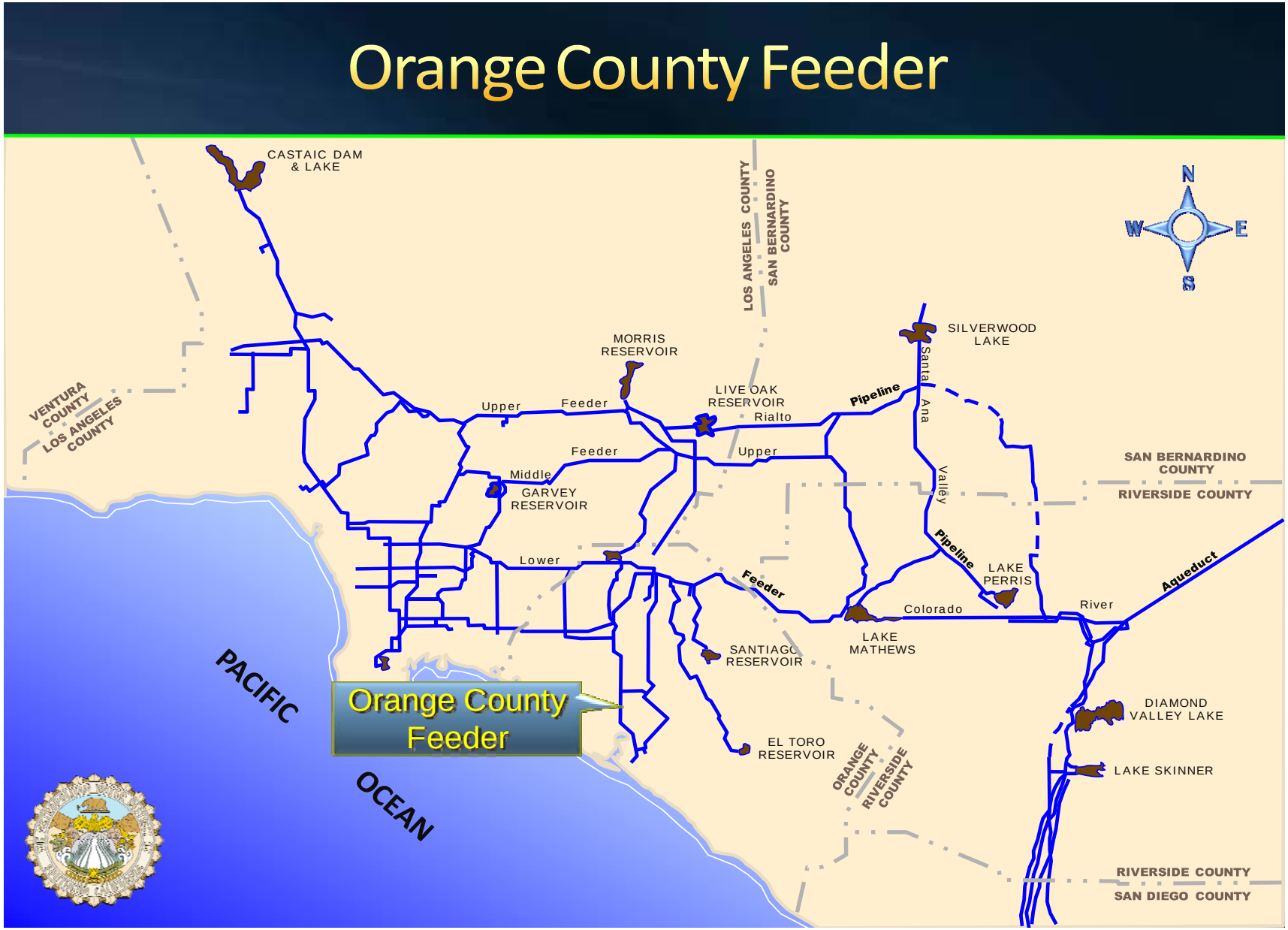
A breakdown of Board Action No. 34 for Appropriation No. 15377 for the Upper Newport Bay Blow-Off Structure Rehabilitation project[1] is as follows:

	Previous Total Appropriated Amount (Sept. 2010)	Current Board Action No. 34 (Sept. 2011)	New Total Appropriated Amount
Labor			
Studies & Investigations	$ 3,666,700	$ -	$ 3,666,700
Final Design	5,420,456 [2]	-	5,420,456
Owner Costs	5,686,050	153,000	5,839,050
Construction Inspection & Support	2,655,550	-	2,655,550
Metropolitan Force Construction	15,055,505 [3]	-	15,055,505
Materials and Supplies	5,921,075	-	5,921,075
Incidental Expenses	1,437,620	12,000	1,449,620
Professional/Technical Services (Dudek)	1,231,500	285,000	1,516,500
Equipment Use	957,350	-	957,350
Contracts	23,050,669 [3]	-	23,050,669
Remaining Budget	1,203,225 [2,3]	-	1,203,225
Total	**$ 66,285,700**	**$ 450,000**	**$ 66,735,700**

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.:**	34
Requested Amount:	**$** 450,000	**Capital Program No.:**	15377
Total Appropriated Amount:	**$** 66,735,700	**Capital Program Page No.:**	276
Total Program Estimate:	**$** 96,100,000	**Program Goal:**	I – Infrastructure Reliability

1. The total amount expended to date for the Upper Newport Bay Blow-Off Structure Rehabilitation project is approximately $120,000.
2. Reflects reallocation of $62,464 from Final Design to Remaining Budget to reflect projects completed under budget.
3. Reflects reallocation of $157,637 from Remaining Budget to Contracts for the Middle Feeder Cathodic Protection Project and the Lake Skinner East Bypass Project; and reallocation of $225,000 from Remaining Budget to Metropolitan Force Construction for the Lake Skinner Sodium Bisulfite System Project.


Orange County Feeder
CASTAIC DAM & LAKE
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
N
W
E
S
MORRIS RESERVOIR
SILVERWOOD LAKE
VENTURA COUNTY
LOS ANGELES COUNTY
Upper Feeder
LIVE OAK RESERVOIR
Rialto Pipeline
Santa Ana
Feeder
Upper
Middle
GARVEY RESERVOIR
Valley
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
Lower
Feeder
Pipeline
LAKE PERRIS
Aqueduct
Colorado River
LAKE MATHEWS
SANTIAGO RESERVOIR
PACIFIC OCEAN
Orange County Feeder
DIAMOND VALLEY LAKE
EL TORO RESERVOIR
ORANGE COUNTY
RIVERSIDE COUNTY
LAKE SKINNER
RIVERSIDE COUNTY
SAN DIEGO COUNTY


State Highway 73
Orange County Feeder
Upper Newport Bay
Blow- Off Structure
Jamboree Road
Upper Newport Bay