



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

5/10/2016 Board Meeting

Revised 8-3

Subject

Appropriate \$2.12 million; award \$708,000 contract to Pacific Winds Building, Inc. for electrical upgrades at the East Dam area of Diamond Valley Lake; and authorize: (1) \$540,000 agreement with Southern California Edison (SCE); (2) granting of permanent easements to SCE; and (3) construction of a sanitation facility at the East Marina (Approps. 15334 and 15480)

Executive Summary

This action authorizes construction to extend permanent electrical service to the East Dam area at Diamond Valley Lake (DVL), and construction of a permanent sanitation facility at DVL's East Marina.

Timing and Urgency

When DVL was constructed in the late 1990s, permanent electrical service was extended to the dam monitoring systems at the Owen (West) Dam and the Saddle Dam. At the East Dam, a temporary electrical system originally installed for construction purposes was left in place when the reservoir began filling. This temporary system remains in service today. Due to its continuing deterioration, electrical repairs and power outages at the East Dam have increased over time. Permanent utility power from Southern California Edison (SCE) is needed to ensure reliable operation of the dam monitoring system and to enhance security and public safety within the East Marina area.

Since its public opening in October 2003, temporary restroom facilities have been provided for the DVL East Marina area. The present portable rental units lack proper sanitation features such as wash basins, ventilation, and Americans with Disabilities Act (ADA) compliant features. A permanent restroom facility is needed to provide adequate sanitation for visitors to the East Marina.

These two projects have been reviewed with Metropolitan's updated Capital Investment Plan (CIP) prioritization criteria and are included in the Distribution System Reliability Program and the Cost Efficiency/ Productivity Program, respectively. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2015/16.

Details

Background

DVL is Southern California's largest surface water reservoir, with a maximum storage capacity of 810,000 acre-feet. DVL was completed in 2000 and is located south of the city of Hemet in Riverside County.

During construction of the three dams at DVL, an extensive dam monitoring system was installed in order to provide early warning signs of dam distress and to monitor real-time performance of the embankments and foundations. Seepage weirs and turbidimeters were installed in manholes along the downstream toe of each of the dams. The weirs measure seepage flow rates, while the turbidimeters measure seepage water turbidity. Changes in these characteristics are indicators of potential problems in dam performance. This information is collected to prepare mandatory reports on the dams' performance for submission to the state Division of Safety of Dams (DSOD).

During the original construction of DVL, a permanent electrical system was installed to power the dam monitoring equipment at Owen Dam and the Saddle Dam. However, only a temporary system was installed to serve the monitoring system at the East Dam. At that time, it was envisioned that a full electrical system for the entire eastern portion of Metropolitan's DVL properties would be installed during large-scale development of the area. Over the years, the temporary electrical system has deteriorated. Both the power lines and the temporary timber poles have been replaced, with some on multiple occasions. As a result, power outages have repeatedly occurred that produce gaps in the data recorded by the dam monitoring system. This system should operate continuously.

In addition to the dam monitoring equipment, Metropolitan's Wide Area Network (WAN) microwave tower at the DVL East Marina relies on a temporary electrical system. The telephone, data, and video communication between the East Marina and other Metropolitan facilities, along with the security surveillance system and East Marina recreation amenities, are dependent on two loud, continuously operating diesel generators. Permanent improvements are needed for the electrical system at the East Marina and East Dam area to reliably support the dam monitoring equipment, the WAN system, and security throughout the area. Metropolitan's Board authorized design of the East Dam electrical upgrades in January 2015. Design is now complete, and staff recommends proceeding with construction.

Project No. 1 – DVL East Dam Electrical Upgrades – Construction (\$2,120,000)

The installation of a new permanent electrical service to the East Dam area requires construction by both SCE and Metropolitan's contractor. SCE will install 12 kilovolt (kV) overhead power lines, transformers, and meters to extend electrical service to the East Dam and East Marina areas. Metropolitan's contractor will install a new substation and permanent electrical service to five seepage monitoring structures along the East Dam, and to the microwave communication tower at the East Marina area.

Specifications No. 1844 for the DVL East Dam Electrical Upgrades was advertised for bids on February 9, 2016. As shown in [Attachment 2](#), ten bids were received and opened on March 22, 2016. The low bid from Pacific Winds Building, Inc., in the amount of \$708,000, complies with the requirements of the specifications. The nine higher bids ranged from \$817,000 to \$1,965,600. The engineer's estimate was \$900,000. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 25 percent of the bid amount. Pacific Winds Building, Inc. is an SBE firm, and thus achieves 100 percent participation. The subcontractors for this contract are listed in [Attachment 3](#).

This action appropriates \$2.12 million, awards a \$708,000 contract to Pacific Winds Building, Inc., and authorizes a \$540,000 agreement with SCE, as described below. In addition to the amounts of these contracts, the requested funds include \$195,000 for the Metropolitan force construction activities, which include site preparation, electrical switchovers, and equipment start-up and testing; \$200,000 for construction inspection; \$98,000 for submittal reviews and record drawings; \$40,000 for biological surveys by Wagner Biological Consulting, as described below; \$90,000 for technical support during construction by the design firm, Kennedy/Jenks Consultants, as described below; \$49,000 for right-of-way activities including preparation of easements and entry permits; \$152,000 for consultations with the Reserve Management Committee of the Southwestern Riverside County Multi-Species Habitat Conservation Plan, and for project management and permitting; and \$48,000 for remaining budget.

Metropolitan staff will perform inspection of the construction. For this project, the anticipated cost of inspection is approximately 14 percent of the total construction cost. Engineering Services' goal for inspection of projects with construction cost less than \$3 million is 9 to 15 percent. The total estimated cost of construction for this project is \$1,443,000, which includes the amount of the contract (\$708,000), SCE agreement (\$540,000), and Metropolitan force activities (\$195,000).

The total estimated cost to complete the DVL East Dam Electrical Upgrades, including the amount appropriated to date and current funds requested, is approximately \$2.8 million. This project is included within capital Appropriation No. 15480, the Conveyance and Distribution System Rehabilitation Appropriation – FY 2012/13 Through FY 2017/18, which was initiated in fiscal year 2012/13. With the present action, the total funding for Appropriation No. 15480 will increase from \$36.59 million to \$38.71 million.

Agreement with Southern California Edison for East Dam Incoming Electrical Service

SCE will design all transmission facilities, construct approximately 13,000 feet of 12 kV transmission line, and energize the service. The cost for SCE to deliver utility power to the DVL East Dam area is \$540,000.

SCE will own and operate the transmission system that extends utility power to the East Dam area. As a result, Metropolitan must grant permanent easements to SCE on Metropolitan-owned property for installation of the overhead power lines. Staff has determined that the easements will not interfere with Metropolitan's operational activities. These easements are not subject to Metropolitan's paramount rights and are not terminable if SCE discontinues use of the property. However, design and construction plans for the planned improvements within the easements are subject to Metropolitan's prior review and approval. Board authorization of the permanent easements is required because the term of the real property interest to be conveyed exceeds five years and does not contain Metropolitan's standard conditions for easements.

This action authorizes the General Manager to execute an installation service agreement with SCE and to grant permanent easements to SCE to extend electrical service to the East Dam area at DVL. The requested easements accommodate Metropolitan's project to improve power reliability at the DVL East Dam area by providing SCE with easement rights to access and maintain its electrical equipment.

Technical Support During Construction

Kennedy/Jenks Consultants performed design of the DVL East Dam Electrical Upgrades under an existing board-authorized agreement for engineering services. As the Engineer of Record, Kennedy/Jenks Consultants is recommended to provide technical support during construction. Planned activities include review of submittals, responding to requests for information from the contractor, advising staff on technical issues that may arise, and preparing record drawings. The estimated cost for these services is \$90,000.

No amendment is needed to the existing agreement with Kennedy/Jenks Consultants to perform this work. For this agreement, Metropolitan established an SBE participation level of 18 percent. Kennedy/Jenks Consultants has agreed to meet this level of participation. The subconsultants under this agreement are listed in [Attachment 4](#).

Wagner Biological Consulting will perform preconstruction environmental clearance, biological resource field coordination, and construction monitoring for the DVL East Dam Electrical Upgrades under an existing professional services agreement. Planned activities include monitoring of construction activities for compliance with environmental requirements contained in the project's construction specifications; providing technical expertise on biology; and preparing field reports. This work is specialized and Metropolitan has insufficient technical staff in-house to perform these activities. The estimated cost for Wagner Biological Consulting to provide these services is \$40,000.

No amendment is needed to the existing agreement with Wagner Biological Consulting for this work. Wagner Biological Consulting is an SBE firm, and thus achieves 100 percent SBE participation. The subconsultants under this agreement are listed in [Attachment 4](#).

Project No. 2 – DVL East Marina Sanitation Facility – Construction (No funds requested)

The DVL East Marina offers recreational opportunities for a variety of outdoor enthusiasts including anglers, boaters, hikers, bicyclists, picnickers, and special event participants. Since its opening in 2003, the East Marina has averaged over 56,000 visitors per year. The DVL Master Plan (2004) identified the need for future installation of permanent restroom facilities for the marina. No municipal sewer system is available at this location.

A temporary trailer-mounted restroom unit with ten toilets was placed at the marina prior to its public opening in 2003. This unit deteriorated through use and was removed in 2013. Since that time, six single portable units have been used. These rental units lack sanitation features such as wash basins and ventilation. In order to provide adequate sanitation facilities and to meet future visitor demands at the marina, a permanent restroom structure is recommended to be installed.

The planned work includes construction of a prefabricated concrete restroom facility and a below-grade wastewater holding tank. The contractor will furnish and install the prefabricated building, while the site grading, installation of the building foundation and wastewater holding tank, and extension of nearby utilities will be performed by Metropolitan forces.

The sanitation facility and wastewater holding tank will be compatible with future permanent water and sewer utility extensions to the East Marina area. Staff will assess the options and costs for installation and operation of these utilities, and will report back to the Board on the findings at a later date.

Specifications No. 1876 to furnish and install a prefabricated concrete restroom building was advertised for bids on March 17, 2016. As shown in [Attachment 2](#), two bids were received and opened on April 7, 2016. The low bid from Gilman Builders, Inc. in the amount of \$204,000 complies with the requirements of the specifications. The second bid was \$222,450. The engineer's estimate was \$300,000, which was based on a survey of prospective building manufacturers. Staff investigated the difference between the low bid and the engineer's estimate, and attributes the difference to the "performance" type of specification used, which minimized the need for customization by the manufacturer, and to the current competitive bidding environment. This contract is planned to be awarded under the General Manager's Administrative Code authority to award contracts of \$250,000 or less. Due to the specialized nature of the building furnished under this contract and the limited opportunity for subcontracting, no SBE participation level was established for this contract.

This action authorizes construction of a permanent restroom facility at the DVL East Marina. The total estimated cost to construct the facility is \$404,000, which includes \$204,000 for the prefabricated building and \$200,000 for construction by Metropolitan forces.

This project is included within capital Appropriation No. 15334, DVL Recreation, which was initiated in fiscal year 1999/2000. The DVL East Marina Sanitation Facility was initiated under Appropriation No. 15489, Capital Projects Costing Less than \$250,000 for Fiscal Year 2015/16. Expenditures to date on this project will be transferred into Appropriation No. 15334.

The total estimated cost to complete the sanitation facility is \$524,000. This amount includes all costs for construction, permitting, bidding, design, inspection, and project management. No funds are required to be appropriated in this action, as sufficient funds were previously appropriated and are available within Appropriation No. 15334.

Summary

This action appropriates \$2.12 million; awards a \$708,000 contract to Pacific Winds Building, Inc. for electrical upgrades at the DVL East Dam area; authorizes a \$540,000 agreement with SCE; authorizes the General Manager to grant permanent easements to SCE; and authorizes construction of a restroom facility at the DVL East Marina. These projects have been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2015/16 capital expenditure plan. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstracts of Bids, [Attachment 3](#) for the listing of Subcontractors for Low Bidder, [Attachment 4](#) for the listing of Subconsultants for Kennedy/Jenks Consultants and Wagner Biological Consulting, and [Attachment 5](#) for the Location Map.

Project Milestones

August 2017 – Completion of the DVL East Dam electrical upgrades

September 2016 – Completion of the sanitation facility at the DVL East Marina

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 8122: General Manager's Contracting Authority in Specified Circumstances

Metropolitan Water District Administrative Code Section 8230: Grants of Real Property Interests

California Environmental Quality Act (CEQA)

DVL East Dam Electrical Upgrades

CEQA determination for Options #1 and #2:

The project was previously determined by the Board to be categorically exempt under Classes 1, 3, 4, and 6 (Sections 15301, 15303, 15304, and 15306 of the State CEQA Guidelines) on January 13, 2015. Since that time, the statute of limitations on the project has ended. With the current action, there is no substantial change proposed since the original project was first approved in 2015. 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 on with regards to the proposed action.

The CEQA determination is: Determine that the proposed action has been previously addressed in the 2015 categorical exemptions (Classes 1, 3, 4, and 6, Sections 15301, 15303, 15304, and 15306 of the State CEQA Guidelines) and that no further environmental analysis or documentation is required.

CEQA determination for Option #3:

None required

DVL East Marina Sanitation Facility

CEQA determination for Option #1:

To comply with CEQA and the State CEQA Guidelines, Metropolitan as the Lead Agency prepared a Mitigated Negative Declaration (MND) for Phases I and II of the Diamond Valley East Marina Project. The MND was distributed for a 30-day public review period that began on December 24, 2002. The Board later adopted the MND and the Mitigation Monitoring and Reporting Program (MMRP) on February 11, 2003. The current action is solely based on procurement and construction, and not on any changes to the approved project itself. Hence, the previously adopted environmental documentation in conjunction with the current action fully complies with CEQA and the State CEQA Guidelines. Accordingly, 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 has been previously addressed in the adopted 2003 MND and MMRP, and that no further environmental analysis or documentation is required.

CEQA determination for Options #2 and #3:

None required

Board Options

Option #1

Adopt the CEQA determinations that the proposed actions have been previously addressed and that no further environmental analysis or documentation is required, and

- a. Appropriate \$2.12 million;
- b. Award \$708,000 contract to Pacific Winds Building, Inc. for electrical upgrades at the DVL East Dam area;
- c. Authorize \$540,000 agreement with Southern California Edison to extend electrical service to the East Dam area;
- d. Authorize the General Manager to grant permanent easements to Southern California Edison; and
- e. Authorize construction of a sanitation facility at the DVL East Marina.

Fiscal Impact: \$2.12 million in capital funds under Approp. 15480 and \$524,000 in previously appropriated capital funds under Approp. 15334

Business Analysis: The East Dam electrical upgrades will enhance reliability for the collection of dam monitoring data that must be submitted to DSOD under DVL’s operating permit, reduce the risk of unplanned electrical outages at the East Dam area, and enhance public safety. The permanent sanitation facility will provide enhanced sanitation at the East Marina.

Option #2

Adopt the CEQA determination that the proposed actions have been previously addressed and that no further environmental analysis or documentation is required, and

- a. Appropriate \$2.12 million;
- b. Award \$708,000 contract to Pacific Winds Building, Inc. for electrical upgrades at the DVL East Dam area;
- c. Authorize \$540,000 agreement with Southern California Edison to extend electrical service to the East Dam area;
- d. Authorize the General Manager to grant permanent easements to Southern California Edison; and
- e. Do not proceed with the East Marina sanitation facility at this time.

Fiscal Impact: \$2.12 million in capital funds under Approp. 15480

Business Analysis: This option would proceed with the electrical upgrades to reduce the risk of unplanned electrical outages at the East Dam area and enhance reliability of data collection for submittal to DSOD, but would defer the sanitation facility. This option would forgo an opportunity to enhance sanitation at the East Marina.

Option #3

Do not proceed with the two projects at this time.

Fiscal Impact: None

Business Analysis: This option would forgo an opportunity to enhance electrical reliability and sanitation at the DVL East Dam area.

Staff Recommendation

Option #1


 _____ 5/3/2016
 Gordon Johnson Date
 Manager/Chief Engineer
 Engineering Services


 _____ 5/4/2016
 Jeffrey Kightlinger Date
 General Manager

- [Attachment 1 – Financial Statement](#)
- [Attachment 2 – Abstracts of Bids](#)
- [Attachment 3 – Subcontractors for Low Bidder](#)
- [Attachment 4 – Subconsultants for Agreement](#)
- [Attachment 5 – Location Map](#)

Financial Statement for Conveyance and Distribution System Rehabilitation Appropriation – FY 2012/13 Through FY 2017/18

A breakdown of Board Action No. 20 for Appropriation No. 15480 for the DVL East Dam Electrical Upgrades¹ is as follows:

	Previous Total Appropriated Amount (May 2016)	Current Board Action No. 20 (May 2016)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 1,646,000	\$ -	\$ 1,646,000
Final Design	6,510,000	-	6,510,000
Owner Costs (Program mgmt., permitting, envir. monitoring)	2,964,779	152,000	3,116,779
Submittals Review & Record Drwgs	634,000	98,000	732,000
Right-of-Way	-	49,000	49,000
Construction Inspection & Support	2,186,000	200,000	2,386,000
Metropolitan Force Construction	3,015,000	150,000	3,165,000
Materials & Supplies	1,513,000	30,000	1,543,000
Incidental Expenses	107,000	15,000	122,000
Professional/Technical Services	2,143,000		2,143,000
Kennedy/Jenks Consultants	-	90,000	90,000
Wagner Biological Consulting	-	40,000	40,000
Right-of-Way	257,000	-	257,000
Equipment Use	5,000	-	5,000
Contracts	12,612,155	-	12,612,155
Pacific Winds Building, Inc.	-	708,000	708,000
Southern California Edison	-	540,000	540,000
Remaining Budget	2,997,066	48,000	3,045,066
Total	\$ 36,590,000	\$ 2,120,000	\$ 38,710,000

Funding Request

Appropriation Name:	Conveyance and Distribution System Rehabilitation Appropriation – FY 2012/13 Through FY 2017/18		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15480	Board Action No.:	20
Requested Amount:	\$ 2,120,000	Budget Page No.:	274
Total Appropriated Amount:	\$ 38,710,000	Total Appropriation Estimate:	\$ 255,000,000

¹The total amount expended to date on the DVL East Dam Electrical Upgrades is approximately \$684,000. The total estimated cost to complete this project, including the amount appropriated to date and current funds requested, is approximately \$2.8 million.

The Metropolitan Water District of Southern California

Abstract of Bids Received on March 22, 2016 at 2:00 P.M.

**Specifications No. 1844
DVL East Dam Electrical Upgrades**

The work consists of installing a new substation and permanent electrical service to the seepage monitoring structures for the East Dam at Diamond Valley Lake, and to the microwave communication tower at the East Marina area.

Engineer's Estimate: \$900,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE¹
Pacific Winds Building, Inc. Irvine, CA	\$708,000	\$708,000	100%	Yes
Kaveh Engineering & Construction, Inc. Yorba Linda, CA	\$817,000	-	-	-
Best Electric Gardena, CA	\$933,400	-	-	-
AToM Engineering Construction, Inc. Hemet, CA	\$998,398	-	-	-
Synergy Electric Santee, CA	\$1,033,620	-	-	-
Vellutini Corp dba Royal Electric Company Sacramento, CA	\$1,065,500	-	-	-
Ryan Electric, Inc. Ontario, CA	\$1,084,900	-	-	-
Veterans Communications Services, Inc. Chino, CA	\$1,152,604	-	-	-
Irwin Industries, Inc. Long Beach, CA	\$1,175,075	-	-	-
My Electrician, Inc. Temecula, CA	\$1,965,600	-	-	-

¹ Small Business Enterprise (SBE) participation level was established at 25 percent for this contract.

The Metropolitan Water District of Southern California**Abstract of Bids Received on April 7, 2016 at 2:00 P.M.****Specifications No. 1876
DVL East Marina Sanitation Facility**

The work consists of furnishing and installing a prefabricated concrete restroom facility.

Engineer's Estimate: \$300,000

Bidder and Location	Total¹
Gilman Builders, Inc. Irvine, CA	\$204,000
O'Connell Engineering & Construction, Inc. Winchester, CA	\$222,450

¹ Due to the specialized nature of the building furnished under this contract and the limited opportunity for subcontracting, no Small Business Enterprise (SBE) participation level was established.

The Metropolitan Water District of Southern California

Subcontractors for Low Bidder

**Specifications No. 1844
DVL East Dam Electrical Upgrades**

Low Bidder: Pacific Winds Building, Inc.

Subcontractor and Location
AON Engineering, Jamul, CA
Blicks Fencing, Falcon, CO
Farwest Paving Co., Inc., Placentia, CA

The Metropolitan Water District of Southern California

**Subconsultants for Agreement with Kennedy/Jenks Consultants
Agreement No. 145994**

Technical Support During Construction of the DVL East Dam Electrical Upgrades

Subconsultant and Location
CPM Construction, Walnut, CA
Staheli Trenchless Consultants, Bothell, WA
Flow Science Incorporated, Pasadena, CA
GeoPentech, Santa Ana, CA
Hilts Consulting Group, Chino Hills, CA
NtwoS, LP, Irvine, CA
Michael Willis Architects, San Francisco, CA
Kazarian Associates, Glendale, CA
Degenkolb Engineers, Los Angeles, CA
Project Line Technical Services, Corona Del Mar, CA
TJC & Associates, Rancho Cordova, CA
Todd Engineers, Alameda, CA
BRADY, San Diego, CA
Nuvis, Costa Mesa, CA
FJS Cable Engineering, Westminster, CA
AG Baggett and PJ Weber, Inc., El Portal, CA
Vector Delta Design Group, La Canada Flintridge, CA
John Robinson Consulting, Inc., Pasadena, CA

The Metropolitan Water District of Southern California

**Subconsultants for Agreement with Wagner Biological Consulting
Agreement No. 142365**

Technical Support During Construction of the DVL East Dam Electrical Upgrades

Subconsultant and Location
David E. Bramlet, Consulting Biologist and Botanist/Wetland, Newport Beach, CA
Peter H. Bloom, Wildlife Biologist and Raptor Biologist, Santa Ana, CA
Edward L. LaRue Jr., Desert Ecologist, Wrightwood, CA
Stephen J. Montgomery, Wildlife Biologist and Mammalogist, Flagstaff, AZ
Kenneth H. Osborne, Consulting Biologist and Entomologist, Riverside, CA

Distribution System

