



- Board of Directors
Engineering and Operations Committee

8/19/2014 Board Meeting

8-2

Subject

Appropriate \$13.6 million; and authorize: (1) design and permitting to address right-of-way and erosion issues throughout the distribution system; and (2) amendments to agreements with Carollo Engineers, Inc., CH2M Hill, Inc., Dudek, Inc., and Riggs and Riggs, Inc. (Approp. 15474)

Executive Summary

This action authorizes design and permitting activities to control erosion at Metropolitan's pipelines, support facilities, and patrol roads throughout the distribution system. In addition, this action authorizes initial right-of-way activities to address access and encroachment issues. This work will enhance delivery reliability by providing year-round access to facilities such as manholes, pump wells, blow-off structures, and valve installations, thereby enabling needed pipeline repairs and routine maintenance to move forward without delay.

Timing and Urgency

The Right-of-Way and Infrastructure Protection (RWIP) Program was initiated in 2012 to address access and right-of-way issues throughout the distribution system and protect facilities from erosion. Erosion-related damage needs to be addressed in a timely manner, since continued erosion over successive winter seasons may eventually expose or undermine a pipeline, which could lead to an unplanned shutdown to perform repairs. Deteriorated patrol roads hinder the inspection of facilities and make access by maintenance equipment difficult, especially during rainy seasons. Clear rights-of-way and easements are necessary to protect Metropolitan's rights and ensure that staff can reach Metropolitan property and facilities without restriction.

This program has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria and is categorized as an Infrastructure Reliability Program. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2014/15.

Details

Background

The RWIP Program was created to identify erosion, access, and security issues throughout Metropolitan's distribution system, and to carry out needed improvements. The backbone of Metropolitan's distribution system was constructed from the 1930s through the 1970s. This system includes 830 miles of pipelines and over 5,400 individual structures that require regular monitoring and maintenance. Over the past 50 years, land development throughout Southern California has gradually surrounded many of Metropolitan's rights-of-way, creating a number of operating challenges. For example, open fields have been developed and converted to paved surfaces in many areas, increasing storm runoff and undermining Metropolitan facilities such as blow-off structures, pump wells, and patrol roads. Development has also landlocked some portions of Metropolitan's rights-of-way, which limits access for patrol activities, needed maintenance, and staging of repairs. Further, increased levels of trespassing and vandalism have occurred as more housing is constructed near Metropolitan properties. These recurring development-related issues have led to increased maintenance and repairs for Metropolitan facilities and patrol roads due to erosion caused by storm events. Further, as a result of increasing

regulations over time, the number of environmental documents and permits required to perform maintenance and repairs has increased significantly.

The objectives of the RWIP Program are to address right-of-way issues; prepare environmental documentation and acquire permits to allow needed repairs and maintenance activities to proceed without delay; and execute the repairs. During the initial field investigation phase of the RWIP Program, staff identified approximately 924 areas requiring improvements and approximately 420 areas with right-of-way/access issues. Depending on the nature and magnitude of each deficiency, the repairs and right-of-way activities will be addressed as capital work under the RWIP Program, or will be handled as operations and maintenance (O&M) activities.

The conveyance and distribution system consists of a vast network of pipelines, canals, and support facilities that are operationally divided into five regions, as follows:

- **The Orange County operating region**, which comprises approximately 143 miles of pipelines and 1,270 structures. The majority of needed repairs under the RWIP Program are located in rural areas adjacent to recent development.
- **The Western San Bernardino County operating region**, which comprises approximately 77 miles of pipelines and 392 structures. The majority of needed repairs under the RWIP Program are located in rural areas around major drainage channels.
- **The Los Angeles County operating region**, which comprises approximately 379 miles of pipelines and 2,512 structures. The majority of needed repairs under the RWIP Program are located in urban areas with encroachment and trespassing-related issues.
- **The Riverside/San Diego County operating region**, which comprises approximately 254 miles of pipelines and 1,317 structures. The majority of the needed repairs under the RWIP Program are located in rural areas adjacent to recent developments and around major drainage channels.
- **The Colorado River Aqueduct operating region**, which includes all facilities from Intake Pumping Plant on the Colorado River to the west portal of the San Jacinto Tunnel. Due to the unique needs and right-of-way considerations for the Colorado River Aqueduct, improvements within this region will be executed under a future stand-alone capital program.

The RWIP Program will address the first four of the above operating regions. Planned improvements under the RWIP Program are being executed in five stages:

- **Stage 1** includes conducting field investigations to identify erosion, access, and security issues, and performing preliminary environmental and right-of-way reviews. The projects identified in these investigations are considered from a regional environmental perspective, in order to develop programmatic environmental impact reports (EIRs) and regional permits for each operating region.

Stage 1 activities are essentially complete for the Orange, Western San Bernardino, Los Angeles and Riverside/San Diego county operating regions. These investigations identified approximately 924 areas requiring physical improvements. Approximately 322 of these improvements will be addressed as capital work under the RWIP Program, while 602 areas will be handled as O&M activities.

- **Stage 2** includes developing conceptual solutions, layout drawings, and final design criteria of needed improvements; preparing preliminary construction cost estimates; conducting biological surveys and wetland delineations; preparing notices of preparation (NOPs) and programmatic EIRs; preparing pre-appraisal documentation for acquisition of easements and right-of-way; conducting field surveys and topographic mapping; ordering and reviewing title reports and supporting recorded documents; initiating consultations with permitting agencies for required permits; preparing legal descriptions, exhibit maps, and other exhibits as needed for acquisition planning, permits, and real estate negotiations; completing right-of-way mapping and preparing Record of Survey maps to be filed with the county of origin; setting monuments and witness posts; negotiating and obtaining entry permits necessary for engineering, environmental and appraisal purposes; and preparing and reviewing appraisals of needed real property.

Stage 2 activities have been completed for the Orange and Western San Bernardino County operating regions. The current action authorizes staff to proceed with Stage 2 activities for the Los Angeles and Riverside/San Diego County operating regions.

- **Stage 3** includes final design of planned improvements, including preparation of detailed drawings and specifications, and development of construction cost estimates.

The current action authorizes staff to proceed with Stage 3 activities for each of the four operating regions included in the RWIP Program.

- **Stage 4** will include certification of programmatic EIRs and acquisition of environmental permits. In addition, needed right-of-way and local agency permits will be acquired. Stage 4 activities are planned to commence in mid-2015.
- **Stage 5** will include construction of needed improvements, implementation of mitigation measures, and preparation of record drawings. Stage 5 activities are planned to commence in late 2015.

Adopting a comprehensive staged approach for the needed improvements will consolidate design and permitting efforts, and will enable programmatic EIRs and regional permit applications to be prepared. This approach will increase efficiency and produce significant cost savings versus Metropolitan's former approach of handling each project on an individual basis.

Staff anticipates that the Stage 5 activities for the four operating regions included in the RWIP Program will be completed in 4-5 years. At the conclusion of Stage 3, staff will return to the Board for certification of the programmatic EIRs and to authorize the regional environmental permitting efforts. Securing the regional environmental permits may require the future purchase of mitigation credits in advance of planned work. The permitting, environmental documentation, and mitigation credits developed through these efforts are expected to provide clearance for repair and maintenance activities throughout the distribution system for a period of 10-15 years.

Metropolitan's Board authorized initial activities under the RWIP Program in 2012 and 2013. Staff has completed the field investigations and initial assessments of needed repairs, and has identified the scope of work needed to acquire permits, resolve right-of-way issues, and perform repairs. This action authorizes staff to move forward with a comprehensive program to execute the work in an efficient, coordinated manner.

Pipeline Protection and Access Improvements Throughout the Distribution System – Design and Permitting (Stage 2 and 3 Activities) - (\$13,600,000)

The planned scope of work includes: all activities described above related to right-of-way and preparation of programmatic EIRs; preparation of drawings and specifications for approximately 12 construction packages; acquisition of local permits; and receipt of competitive bids to construct improvements at approximately 322 sites throughout the distribution system. The final number of construction contracts will be determined based on geography, proximity to other sites, staging areas, and environmental restrictions. In addition, staff will consider the estimated value of the construction contracts in order to maximize opportunities for participation by Small Business Enterprise (SBE) firms.

Design of the improvements is recommended to be performed by Carollo Engineers, Inc. and CH2M Hill, Inc. Preparation of environmental documentation and technical assistance with environmental permitting is recommended to be performed by Dudek, Inc. Real estate support services are recommended to be provided by Riggs and Riggs, Inc. Each of these agreements is discussed below.

Metropolitan staff will perform overall project management and provide technical oversight of consultant deliverables. In addition, staff will perform field surveys, mapping, preparation of legal descriptions and exhibits, negotiations for real property, consultations with resource agencies for environmental permits, acquisition of permits with local agencies, and bidding of construction contracts; and will hold public hearings.

This action appropriates \$13.6 million and authorizes preparation of California Environmental Quality Act (CEQA) documentation, environmental permitting, and right-of-way activities for infrastructure and access

improvements in the Los Angeles and Riverside/San Diego County operating regions. In addition, this action authorizes final design and permitting for planned improvements at 322 sites throughout the distribution system. The requested funds include \$4.23 million for preliminary and final design activities by the firms noted above; \$2,904,000 for preparation of two programmatic EIRs and for environmental permitting; \$2,366,000 for right-of-way planning activities, determination of surface rights, and resolution of property right issues; \$956,000 technical reviews by staff, bidding of 12 construction packages, and value engineering; \$1,671,000 for consultations with local, state, and federal resource agencies, and for project management; and \$1,473,000 for remaining budget.

The estimated cost for final design activities is \$3.32 million, which is approximately 11.6 percent of the total estimated construction cost. Engineering Services' goal for design of projects with construction cost greater than \$3 million is 9 to 12 percent. The estimated construction cost for the physical improvements at 322 sites is estimated to range from \$28.6 million to \$32.9 million.

Amendment to Agreement for Design Services – Carollo Engineers, Inc.

Carollo Engineers, Inc. is recommended to perform design of improvements within the Orange and Los Angeles County operating regions. Carollo Engineers, Inc. was prequalified through a competitive process via Request for Qualifications No. 927. Carollo Engineers, Inc. was selected to perform design based on its experience in the design of similar improvement projects and the expertise of its project team. Carollo Engineers, Inc. previously performed preliminary design of improvements within the Orange County region. For this agreement, Metropolitan has established an SBE participation level of 18 percent. Carollo Engineers, Inc. has committed to meet this level of participation. The estimated cost for these services is \$2.1 million.

The planned scope of work includes developing design drawings and specifications for improvements at 180 sites; conducting value engineering reviews; preparing permit applications for local agencies; conducting right-of-way assessments; developing construction cost estimates, and technical assistance during the bid period.

This action authorizes an increase of \$2.1 million to the existing agreement with Carollo Engineers, Inc., for a new not-to-exceed total of \$2.5 million, to perform design of improvements for erosion control in the Orange and Los Angeles County operating regions.

Amendment to Agreement for Design Services – CH2M Hill, Inc.

CH2M Hill, Inc. is recommended to perform design of improvements within the Western San Bernardino and Riverside/San Diego County operating regions. CH2M Hill, Inc. was prequalified through a competitive process via Request for Qualifications No. 927. CH2M Hill, Inc. was selected to perform design based on its experience in the design of similar improvement projects and the expertise of its project team. CH2M Hill, Inc. previously performed preliminary design of improvements within the Western San Bernardino County region. For this agreement, Metropolitan has established an SBE participation level of 18 percent. CH2M Hill, Inc. has committed to meet this level of participation. The estimated cost for these services is \$2.1 million.

The planned scope of work includes developing design drawings and specifications for improvements at 142 sites; conducting value engineering reviews; preparing permit applications for local agencies; conducting right-of-way assessments; and developing preliminary construction cost estimates.

This action authorizes an increase of \$2.1 million to the existing agreement with CH2M Hill, Inc., for a new not-to-exceed total of \$2.35 million, to perform design of improvements for erosion control in the Western San Bernardino and Riverside/San Diego County operating regions.

Amendment to Agreement for Environmental Documentation & Permitting – Dudek, Inc.

Dudek, Inc. is recommended to prepare environmental documentation and provide technical assistance with environmental permitting for the Los Angeles and Riverside/San Diego County operating regions. Dudek, Inc. was prequalified through a competitive process via Request for Qualifications No. 956. Dudek, Inc. was selected based on its extensive experience with programmatic CEQA compliance and with acquisition of environmental clearances. Dudek has completed biological surveys, wetland delineations, and Notices of

Preparation for environmental documentation for the Orange and Western San Bernardino County operating regions.

The planned scope of work includes preparing programmatic EIRs and performing technical studies which address issues such as air quality, traffic, and noise for all the repair projects within Los Angeles and Riverside/San Diego Counties; supporting Metropolitan staff at public hearings; preparing correspondence and related documentation in support of CEQA activities; preparing regional permit applications under Sections 404 and 401 of the Clean Water Act and Section 1602 of the California Fish and Game Code; providing support for Section 404 permit public notifications; initiating informal consultation with each resource agency (i.e., U.S. Army Corps of Engineers [USACE], Regional Water Quality Control Board, California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service [USFWS]); preparing wetland mitigation plans; and assisting in consultation for potential endangered species take under Section 7 of the Federal Endangered Species Act, including preparation of the Biological Assessment to be submitted by the USACE to the USFWS. The estimated cost for these services is \$2.4 million.

This action authorizes an increase of \$2.4 million to the existing agreement with Dudek, Inc., for a new not-to-exceed total of \$3,375,000, to prepare environmental documentation and provide permitting support. For this agreement, Metropolitan has established an SBE participation level of 18 percent. Dudek, Inc. has committed to meet this level of participation.

Amendment to Agreement for Real Estate Support Services – Riggs and Riggs, Inc.

Riggs and Riggs, Inc. is recommended to perform pre-acquisition planning and to prepare appraisals for locations with right-of-way issues within the Western San Bernardino, Los Angeles, and Riverside/San Diego County operating regions. Riggs and Riggs, Inc. was prequalified through a competitive process via Request for Qualifications No. 914. Riggs and Riggs previously performed pre-acquisition planning and prepared appraisals for the Orange County operating region. For this agreement, Metropolitan has established an SBE participation level of 18 percent. Riggs and Riggs, Inc. has committed to meet this level of participation. The estimated cost for these services is \$290,000.

This action authorizes an increase of \$290,000 to the existing agreement with Riggs and Riggs, Inc., for a new not-to-exceed total of \$390,000, to perform pre-acquisition planning and to prepare real estate appraisals within the Western San Bernardino, Los Angeles, and Riverside/San Diego County operating regions.

Summary

This action appropriates \$13.6 million; authorizes Stage 2 activities to improve access and protect pipelines in the Los Angeles and Riverside/San Diego County operating regions; authorizes Stage 3 activities for final design of site improvements throughout Metropolitan's distribution system; and authorizes amendments to four professional services agreements. Staff will return to the Board at a later date to certify the programmatic EIRs for each of the four operating regions. This work has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2014/15 capital expenditure plan. See [Attachment 1](#) for the Financial Statement and [Attachment 2](#) for the Location Map.

The total estimated cost to complete the RWIP Program across the four operating regions, including funds appropriated to date, current funds requested, and future costs, is anticipated to range from \$50.1 million to \$56.1 million. As noted previously, work within the Colorado River Aqueduct region will be addressed under a separate future capital program.

This work is included within capital Appropriation No. 15474, the RWIP Program, which was initiated in fiscal year 2011/12. With the present action, the total funding for Appropriation No. 15474 will increase from \$7.1 million to \$20.7 million.

Project Milestones

June 2015 – Completion of design of improvements within the Orange County and Western San Bernardino County operating regions

June 2016 – Completion of design of improvements within the Los Angeles County and Riverside/San Diego County operating regions

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

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). In addition, the fiscal aspects of amending existing agreements are not subject to CEQA because they involve government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) 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). In addition, the fiscal aspects of the proposed action are not subject to CEQA (Section 15378(b)(4) of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination that the proposed action is categorically exempt and is not subject to CEQA, and

- a. Appropriate \$13.6 million;
- b. Authorize design of pipeline and access improvements throughout Metropolitan's distribution system;
- c. Authorize permitting and right-of-way planning within the Los Angeles and Riverside/San Diego County operating regions;
- d. Authorize increase of \$2.1 million to the existing agreement with Carollo Engineers, Inc., for a new not-to-exceed total of \$2.5 million;
- e. Authorize increase of \$2.1 million to the existing agreement with CH2M Hill, Inc., for a new not-to-exceed total of \$2.35 million;
- f. Authorize increase of \$2.4 million to the existing agreement with Dudek, Inc., for a new not-to-exceed total of \$3,375,000; and
- g. Authorize increase of \$290,000 to the existing agreement with Riggs and Riggs, Inc., for a new not-to-exceed total of \$390,000.

Fiscal Impact: \$13.6 million in capital funds under Approp. 15474

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

Option #2

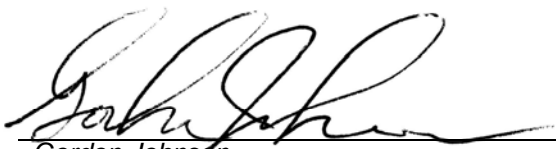

Do not authorize the design, permitting, and right-of-way planning activities at this time.

Fiscal Impact: None

Business Analysis: Under this option, staff would return to the Board for incremental appropriations when each stage has been completed. This option would forgo an opportunity to address needed improvements in a timely and comprehensive manner, and may result in more costly repair and maintenance activities.

Staff Recommendation

Option #1

	8/4/2014
Gordon Johnson Manager/Chief Engineer, Engineering Services	Date
	8/5/2014
Jeffrey Knightlinger General Manager	Date

Attachment 1 – Financial Statement

Attachment 2 – Location Map

Financial Statement for Right of Way and Infrastructure Protection Appropriation

A breakdown of Board Action No. 4 for Appropriation No. 15474 for design and permitting of access improvements and pipeline protection throughout the distribution system¹ is as follows:

	Previous Total Appropriated Amount (July 2013)	Current Board Action No. 4 (Aug. 2014)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 1,339,000	-	\$ 1,339,000
Final Design	-	-	-
Owner Costs (Program mgmt., permitting, envir. documentation)	676,000	3,076,000	3,752,000
Right-of-Way & Land	2,022,000	1,686,000	3,708,000
Materials & Supplies	-	5,000	5,000
Incidental Expenses (Permits & Title reports)	425,000	470,000	895,000
Professional/Technical Services	240,000	-	240,000
Carollo Engineers, Inc.	400,000	2,100,000	2,500,000
CH2M Hill, Inc.	250,000	2,100,000	2,350,000
Dudek, Inc.	975,000	2,400,000	3,375,000
Riggs and Riggs, Inc.	100,000	290,000	390,000
Equipment Use	-	-	-
Contracts	-	-	-
Remaining Budget	673,000	1,473,000	2,146,000
Total	\$ 7,100,000	\$ 13,600,000	\$ 20,700,000

Funding Request

Appropriation Name:	Right of Way and Infrastructure Protection Program		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15474	Board Action No.:	4
Requested Amount:	\$ 13,600,000	Budget Page No.:	161
Total Appropriated Amount:	\$ 7,100,000	Total Appropriation Estimate:	\$50,300,000

¹ The total amount expended to date on the Right of Way and Infrastructure Protection Program is approximately \$4,713,932. The total estimated cost to complete this work throughout the four operating regions of the distribution system, excluding the Colorado River Aqueduct, is anticipated to range from \$50.1 million to \$56.1 million.

