



# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

**BOARD OF PUBLIC UTILITIES**

**DATE:** FEBRUARY 26, 2018

**ITEM NO:** 12

**SUBJECT:** **MAGNOLIA AVENUE TECHITE PIPE AND PRESSURE REDUCING STATION REPLACEMENT PROJECT – SUPPLEMENTAL APPROPRIATION IN THE AMOUNT OF \$5,216,000**

**ISSUES:**

Recommend that the City Council approve a supplemental appropriation for the design and construction of the Magnolia Avenue Techite Pipe and Pressure Reducing Station Replacement Project in the amount of \$5,216,000.

**RECOMMENDATIONS:**

That the Board of Public Utilities recommend that the City Council:

1. Authorize a supplemental appropriation in the amount of \$5,216,000 from the Water Fund Balance to fund the design and construction of the Magnolia Avenue Techite Pipe and Pressure Reducing Station Replacement Project; and
2. Appropriate expenditures in the amount of \$4,646,000 to the Public Utilities' Transmission Mains Account No. 6230000-470735 for pipeline construction, and in the amount of \$570,000 to the Public Utilities' Facility Rehabilitation Account No. 6230000-470803 for the design and construction of the pressure reducing station.

**BACKGROUND:**

Techite pipe consists of a composite material made of fiberglass, polyester resin and sand which has a tendency to become extremely fragile during operation, resulting in an increased frequency of breaks and leaks. The City of Riverside Public Utilities Department's (RPU's) Water Operations staff has experienced breakage problems associated with Techite pipeline in the past. Many water agencies in California and elsewhere have also experienced catastrophic failures of Techite pipes that have led to the interruption of water supply and wastewater conveyance. Due to the poor performance of this product, RPU has begun replacing segments of Techite pipe with steel cement mortar-lined and coated (CML&C) pipeline. Currently there remains approximately 4.4 miles of Techite pipeline within RPU's water system.

The Public Works Department (PW) is scheduled to construct a street improvement project along Magnolia Avenue between Buchanan Street and Tyler Street which will entail modifications to the center medians to accommodate a third traffic lane in each direction; installation of new curb, gutter, sidewalk and asphalt pavement at various places; and modifications to the traffic signals and existing storm drain facilities.

In advance of and in coordination with the street improvement project, RPU will replace approximately 5,500 linear feet of 27-inch and 36-inch Techite pipeline currently in use along Magnolia Avenue between Park Sierra Drive and Hole Avenue with 36-inch and/or 42-inch diameter cement mortar lined and coated steel pipe. RPU will also replace approximately 2,000 linear feet of old 6-inch diameter cast Iron pipe with 12-inch ductile iron pipe. In addition, the existing Polk and Magnolia pressure reducing stations (PRS) will be replaced with a single PRS facility. By constructing the transmission main prior to the street widening, portions of the pipeline can be installed in the existing medians that will eventually become new traffic lanes, thereby reducing RPU's construction costs.

On January 8, 2018, RPU Board awarded a contract for the design and construction of the exploratory pothole work and approved the capital expenditure of \$484,000 for Work Order No. 1612632 which included upfront costs for the pipeline design by RPU staff for the Magnolia Avenue Techite Pipe Replacement Project.

### **DISCUSSION:**

Funding for this project is currently included in the proposed fiscal year 2018-2019 budget as part of RPU's Utility 2.0 – Modified Option 1 Capital Improvement Program (CIP). However in order to meet Public Works' schedule for their street construction work and perform RPU's pipeline system connections during the lower water demand period from November through March, it is necessary to begin pipeline construction this current fiscal year instead.

The overall project cost for the pipeline and PRS replacement is estimated at \$5,700,000, of which \$484,000 was authorized at the January 8, 2018 RPU Board Meeting as noted above. Upon completion of the competitive bid process, a detailed breakdown of the project costs along with a recommendation to award the overall construction contract will be brought before the Board in the April 2018 timeframe.

A supplemental appropriation of \$5,216,000 is needed to fully fund the project and will provide for the complete design of the pipeline and pressure reducing station, so that the project can be advertised, bid and awarded in time to allow for construction to begin in early summer 2018.

### **FISCAL IMPACT:**

The projected costs for this project of \$5,216,000 are currently included as part of RPU's proposed CIP Budget for fiscal year 2018/2019. The requested supplemental appropriation would move funding up to the current fiscal year 2017/2018. Adequate cash reserves are available in the Unrestricted, Designated Property Reserve Account 0000520-101084 to fund this supplemental appropriation from fund balance account 0000520-298000.

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Attachment: Presentation

