



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: JANUARY 13, 2020

ITEM NO: 5

SUBJECT: WORK ORDER NO. 2016734 IN THE AMOUNT OF \$750,000 FOR THE FY2019/2020 WATER SERVICE LATERAL REPLACEMENT PROGRAM

ISSUE:

Approve the capital expenditure for Work Order No. 2016734 in the amount of \$750,000 for the FY2019/20 Water Service Lateral Replacement Program.

RECOMMENDATION:

That the Board of Public Utilities approve the capital expenditure for Work Order No. 2016734 in the amount of \$750,000 for the FY2019/20 Water Service Lateral Replacement Program.

BACKGROUND:

Water service laterals are water lines that deliver water from the water distribution system to each customer. When water service laterals begin to fail, they usually do at weak points in the pipe material. Repairing these leaks consists of locating the leak and replacing the broken portion of the water line. This approach was changed when it was found that repairing the broken portion of the water pipe resulted in repeat failures at different locations along the same service lateral. In 2012, staff adopted the practice of replacing the entire service lateral which has saved time, money, and reduced repeat outages on the same service lateral.

Although staff has significantly reduced the repeat service lateral failure rate an overall increase in service lateral leaks has been observed in recent years. The increase in service lateral leaks can be associated with the age of the pipe, pipe materials, and improper service lateral or meter size. The attached graph (Attachment 1) depicts the trend of water service lateral repair and replacement since 2005.

DISCUSSION:

Staff has put together a proactive water service lateral replacement program that will target neighborhoods that are prone to leaks. The program will take advantage of a planned approach to repairing and replacing service laterals which will save time and money by reducing the number of emergency repairs. The work will be completed by City field forces which can replace five service laterals under a planned event compared to one service lateral replacement under an emergency event. By using a planned targeted approach all "at risk" service laterals are expected to be replaced in four years. The criteria established for service line replacement are as follows:

1. The neighborhood has experienced a high frequency of service lateral failures;

2. Improper meter to service lateral sizing has been identified;
3. The service lateral is between 30 and 40 years old.

In May 2019, the Riverside City Council appropriated \$750,000 for the Water Service Lateral Replacement Program for FY2019/20 as part of the mid-cycle amendment to FY2019/20. The program will be funded in subsequent years as part of the normal budgeting process.

FISCAL IMPACT:

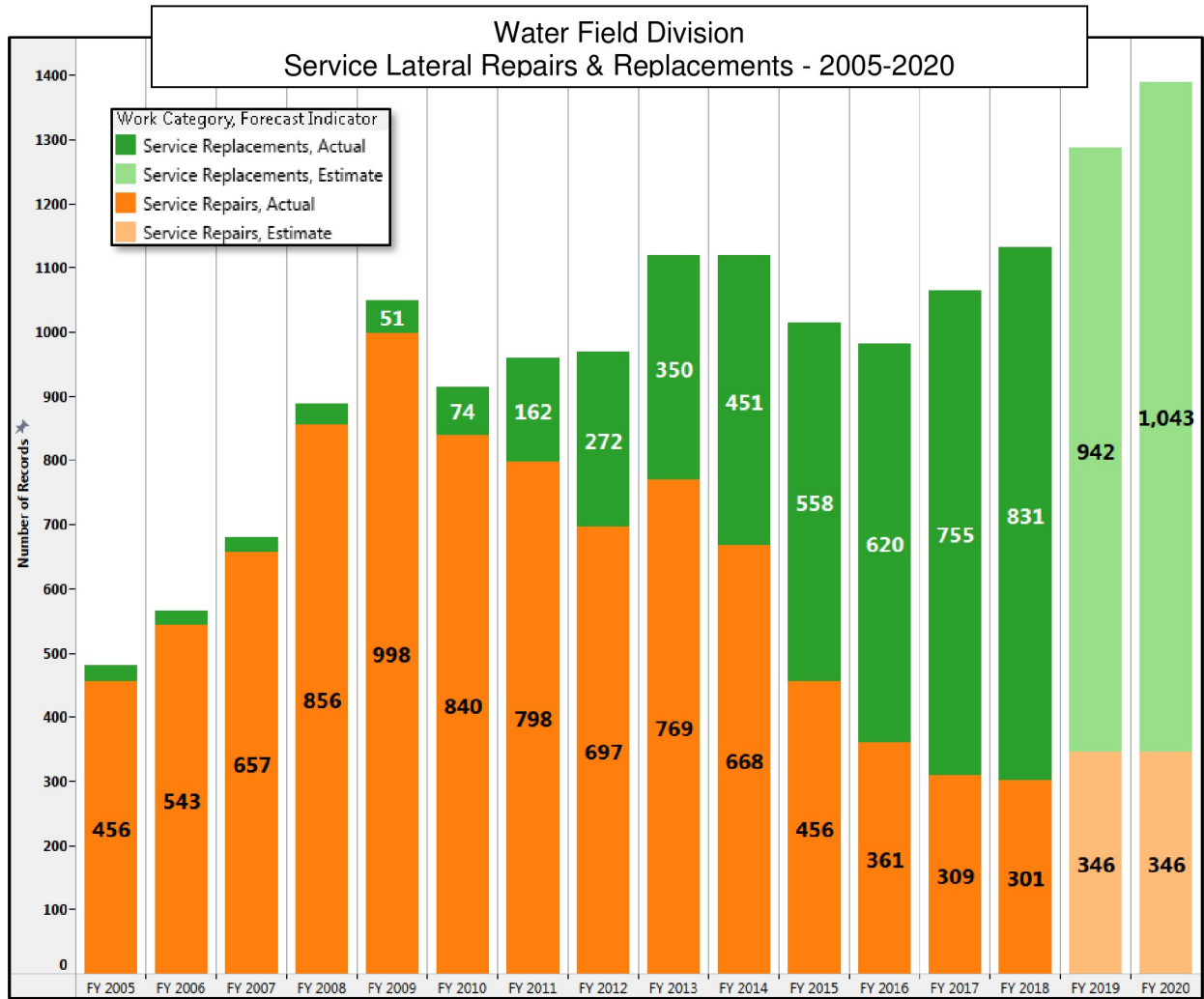
Total fiscal impact is \$3,000,000, which will be budgeted at \$750,000 per year for the next four fiscal years, 2019/20 to 2022/23. Sufficient funds of \$750,000 are available in the Distribution System Facilities Replacement Account No. 6230000-470706 for FY 2019/20. Funding for future years of this program will be included as part of the biennial budget process.

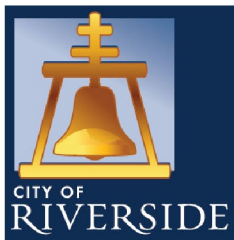
Prepared by:	Todd L. Jorgenson, Utilities Assistant General Manager/Water
Approved by:	Todd M. Corbin, Utilities General Manager
Approved by:	Al Zelinka, FAICP, City Manager
Approved as to form:	Gary G. Geuss, City Attorney

Certifies availability of funds:	Brian Seinturier, Utilities Fiscal Manager
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Attachments:	1. Figure: Service Lateral Repairs & Replacement 2. Presentation
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Attachment 1





WATER SERVICE LATERAL REPLACEMENT PROGRAM

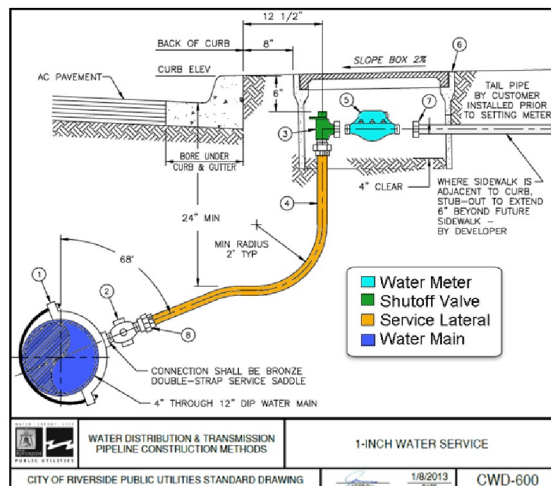
Riverside Public Utilities – Water Division

Board of Public Utilities
January 13, 2020

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BACKGROUND

1. Water is delivered to customers via a service lateral
2. The majority of service laterals are made of copper and range in size from $\frac{3}{4}$ to 2 inches
3. The average length of a service lateral is ~10 ft.



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BACKGROUND



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BACKGROUND

1. Service laterals fail due to age, quality of material, and corrosion
2. Life expectancy is approximately 30-40 years
3. The same service lateral may fail at multiple locations and at different times.



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BACKGROUND

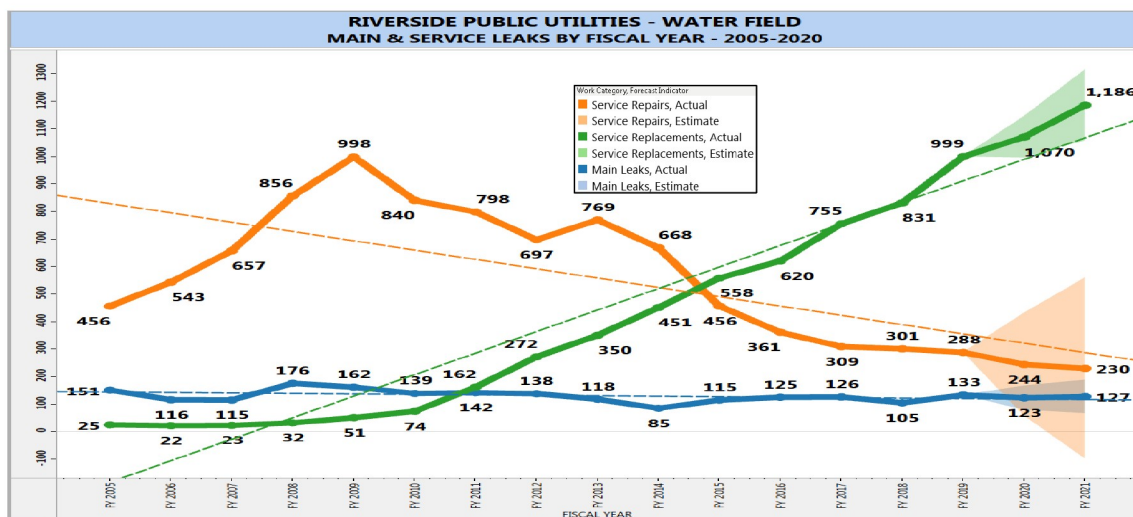
1. Service Lateral repairs/replacement have been increasing and are forecasted to continue that trend
2. In 2012, an operational decision was made to replace the entire service lateral
3. Saved time and money by reducing the probability of returning to make additional repairs
4. Reduced inconvenience to customers
5. Cost to replace an entire service lateral is nominal



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BACKGROUND



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DISCUSSION

Data shows that service lateral failures typically happen under the following scenarios

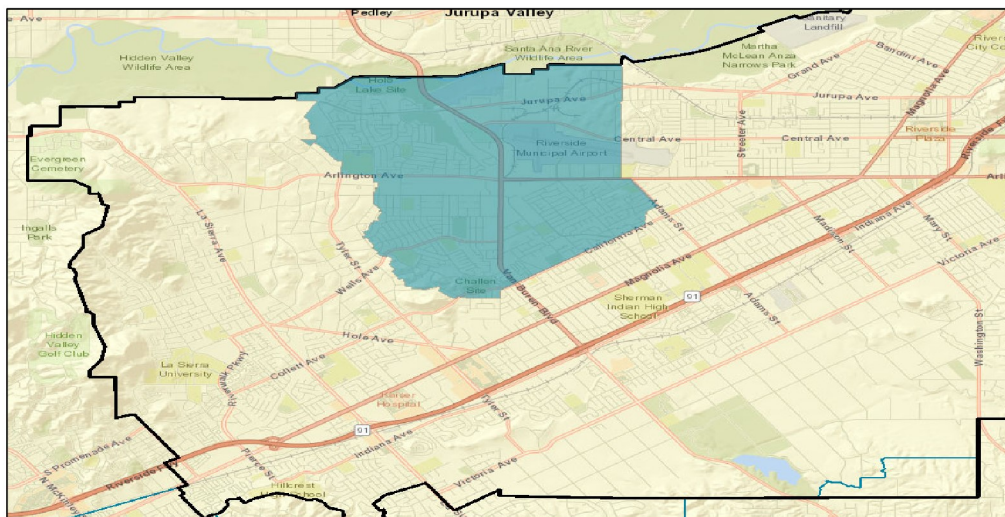
1. Improper meter to service lateral (SL) sizing;
 - A. Improper sizing accelerates wear on pipe materials
 - B. Average lifespan with 3/4" SL to 5/8" meter – 21.3 years
 - C. Average lifespan with 3/4" SL to 3/4" meter – 8.9 years
2. Service lateral is between 30 and 40 years old
3. The neighborhood is experiencing a high frequency of service lateral failures.



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DISCUSSION



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DISCUSSION

Staff has developed a proactive approach to address the increasing number of service leaks and to reduce costs

1. Target neighborhoods prone to service lateral leaks
2. Replace service laterals on a planned basis
3. City field forces can replace 5 service laterals when planned compared to 1 in an emergency
4. Reducing emergency repairs will reduce overtime costs



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RECOMMENDATION

That the Board of Public Utilities approve the capital expenditure for Work Order No. 2016734 in the amount of \$750,000 for the FY2019/20 Water Service Lateral Replacement Program.



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