



City of Rialto

Legislation Details (With Text)

File #: UC-20-0930 **Version:** 1 **Name:**
Type: Agenda Item **Status:** Agenda Ready
File created: 1/13/2021 **In control:** Utilities Commission
On agenda: 1/19/2021 **Final action:**
Title: Recommend the City Council/Rialto Utility Authority Approve the Completed Fiscal Year 2019/2020 Water and Wastewater Operating Repair and Replacement Projects and Approve the Anticipated Fiscal Year 2020/2021 Water and Wastewater Operating Repair and Replacement Projects and Expenditures.
(ACTION)

Sponsors:

Indexes:

Code sections:

Attachments:

Date	Ver.	Action By	Action	Result
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For Utilities Commission Meeting [January 19, 2021]

TO: Honorable Chairperson and Commission

APPROVAL: Thomas J. Crowley, P.E., Utilities Manager

Recommend the City Council/Rialto Utility Authority Approve the Completed Fiscal Year 2019/2020 Water and Wastewater Operating Repair and Replacement Projects and Approve the Anticipated Fiscal Year 2020/2021 Water and Wastewater Operating Repair and Replacement Projects and Expenditures.
(ACTION)

BACKGROUND

As defined by the Concession Agreement (CA), eligible costs for the Operating Repair and Replacement (OR&R) program are:

- i. Repair work or replacement projects that cost more than ten thousand dollars (\$10,000) but that are less than one hundred twenty five thousand dollars (\$125,000),
- ii. A Repair with respect to an Underground Asset, or
- iii. An Emergency Capital Repair costing less than \$125,000.

Last year, the City Council/Rialto Utility Authority (RUA) approved an augmentation of OR&R funds for eligible projects for fiscal year 2019/2020 in the amounts of \$593,585.13 and \$301,141.54 for Wastewater and Water respectively. These amounts were added to the previously approved and

available OR&R budget and are identified in the approved RUA budget.

ANALYSIS/DISCUSSION

Tables 1 and 2 below provide a summary of the originally planned Fiscal Year (FY) 2019/2020 OR&R projects vs. the actual OR&R projects completed for wastewater and water. The tables include a brief description of the project, project number, original amount budgeted, final expenditure and are listed in order by project number. It should be noted that several of the priority changes for projects shown in **Tables 1 and 2**, were a result of emergencies requiring other projects take precedence.

Table 1- FY 2019-2020 Wastewater OR&R Projects

WASTEWATER PROJECT DESCRIPTION:	Project #	Originally Planned	Final
Plant 5 Grit Removal System Overhaul Phase 1 of 3 *	WW1819-07	\$ 75,000.00	\$ 70,357.39
Mainline Sewer Repairs (Sewer Line, James St & Sycamore Ave Sag Repairs)	WW1920-02	\$ 120,000.00	\$ -
Urgent Mainline Segment Repairs Identified by CCTV	WW1920-03	\$ 50,000.00	\$ -
Overhaul of Gravity Belt #2	WW1920-04	\$ 123,999.00	\$ 106,093.00
Emergency Headworks channel cleaning for S-1 shutdown	WW1920-05	\$ 11,984.00	\$ 11,984.00
Carryover of corrected RRR from FY18/19 & FY19/20 to ORR	WW06-WW27	\$ 300,739.00	\$ 300,734.44
Belt Filter Press Discharge Conveyor Control Panel Rebuild **	WW1920-28	\$ -	\$ 22,700.00
Flare Refractory Replacement	WW1920-29	\$ -	\$ 66,316.30
Aeration Basin 2 Effluent Gate Repair	WW1920-30	\$ -	\$ 15,400.00
TOTAL FY 2019-2020 WASTEWATER OR&R PROJECTS		\$ 681,722.00	\$ 593,585.13
<i>* An additional \$3,180 was expended during 2018-19</i>			
<i>** A portion of this project (\$23,953) is deferred to 2020-21</i>			

Fiscal Year 2019-2020 Wastewater OR&R Table 1 Summary

Wastewater projects listed in **Table 1** were reviewed to ensure any work required to be performed under the listed projects were not duplicated or negatively impacted by the S-1 Wastewater Treatment Plant Improvement Project that was recently completed. Highlights of the wastewater projects listed in **Table 1** are described below:

- Project WW1819-07 consisted of structural rehabilitation of Plant 5 Grit Removal System, which included repair/replacement of gates, piping systems, and cleaning to allow for continued reliable processing of grit removal at Plant 5 Headworks and reliability within the plant’s operation. This project was successfully completed for \$70,357.39 which is \$4,642.61 below the original budgeted amount of \$75,000.
- WW1920-02 for the Mainline Sewer Repairs on James Street and Sycamore Avenue was placed on hold due to the sheer magnitude of repairs needed. This project will be removed from the OR&R program and is being developed as a capital project since the cost of these repairs exceeds \$125,000 maximum amount allowable for an OR&R project as defined by the CA.
- Due to limited funding, urgent mainline segment repairs identified by CCTV under project WW1920-03 were postponed.
- WW1920-04 consisted of rehabilitation of the Gravity Belt (South) as it had exceeded its expected service life. The work included new take-up and discharge roll, belt drive steering roll, drive motor, steering cylinders, and belt wash system. This unit is one of two and without an overhaul it would have had jeopardized plant operation and permit compliance. Project WW1920-04 was successfully planned, scheduled and completed for \$106,093. This amount

is nearly \$18,000 below the original budgeted amount of \$123,999.

- While there are no issues with the structure itself, there is a potential issue at the bottom of the tank in the bar-screen area. WW1920-05 consisted of draining the tank in order to determine why the bar-screen was jamming at the bottom. Sludge and debris cleaning reduced the probability of full blockage of incoming raw sewage at Plant 5 headworks. This project was completed for the budgeted amount of \$11,984 and eliminated the increased risk of permit non-compliance.
- Projects WW1920-06 through WW1920-27 are corrected Routine Repair & Replacement (RR&R) purchases that were over \$10,000 that needed to be re-classed to OR&R to comply with the CA. The work consisted of numerous replacement events that exceeded the \$10,000 threshold. This included replacement of blower motors, transfer pumps, scum pumps, multiple mixer pumps, five (5) lift station pumps, solids dewatering pump, digester mixing pump, multiple sump pumps, mixed liquor pump, pump station pumps, and replacement of SBS tank.

Each replacement event was associated with an asset that was in critical condition or failed, past its expected life span, and needed immediate replacement to ensure safe operations, avoid SSOs, and/or for permit compliance. These replacement events were completed for \$300,734.44, which is within the budgeted amount of \$300,739.

- WW1920-28 was an emergency project to replace the control panel for the belt filter press dewatering equipment. Without this work, the Plant would have significant operational issues and/or gone into non-compliance. This project wasn't originally planned as an OR&R project but was completed for \$22,700 from funds originally planned or re-prioritized away from other Wastewater OR&R projects.
- WW1920-29 was an emergency project to replace the insulation inside the Zink Flare that had failed. Without this work, the Plant would have significant operational issues and/or gone into non-compliance. This project wasn't originally planned as an OR&R project but was completed for \$66,316.30 from funds originally planned or re-prioritized away from other Wastewater OR&R projects.
- WW1920-30 was an emergency repair to the Plant 5 Aeration Basin #2. The slide gate at the is aeration basin was not sealing sufficiently to prevent flow from the active effluent channel to leak into the out-of-service basin. Without this work, the Plant would have significant operational issues and/or gone into non-compliance. This project wasn't originally planned as an OR&R project but was completed for \$15,400 from funds originally planned or re-prioritized away from other Wastewater OR&R projects.

Table 2- FY 2019-2020 Water OR&R Projects

WATER PROJECT DESCRIPTION:	Project #	Originally Planned	Final
Chlorine Systems Rehabilitation Chino 2	W1920-01	\$ 28,900.00	\$ 40,678.00
Valve Replacement Program: Randall w/o Willow Ave, Sycamore Ave	W1920-02	\$ 35,500.00	\$ 59,635.00
Cedar 2 Exterior Rehabilitation and Painting	W1920-03	\$ -	\$ -
Riverside and Randall 10" and 3" Cla-Valves	W1920-04	\$ 15,000.00	\$ -
Booster 3A-1 replace starter with VFD	W1920-05	\$ 29,000.00	\$ 33,904.00
NFPA 70E Upgrades, Starter Replacement, and Bucket Overhaul Chino #2	W1920-06	\$ 11,000.00	\$ 15,260.00
City 4a Chlorine Systems Rehabilitation	W1920-07	\$ 73,949.00	\$ 73,949.00
Remove abandon 10" leaking steel water line Cactus and Baseline	W1920-08	\$ 30,000.00	\$ 24,950.00
Repair/ Replace Booster 5	W1920-09	\$ -	\$ 25,200.54
Repair/ Replace Chino Well 2 motor	W1920-10	\$ -	\$ 27,565.00
TOTAL FY 2019-2020 WATER OR&R PROJECTS		\$ 223,349.00	\$ 301,141.54

Fiscal Year 2019-2020 Water OR&R Table 2 Summary

Water projects listed in **Table 2** were reviewed to ensure any work required to be performed under the listed projects were not duplicated. Highlights of the water projects listed in **Table 2** are described below:

- Project W1920-01 was created to rehabilitate Chino 2. A new CL2 system with sodium hypochlorite was installed and corrected the issues with unreliable equipment, increased chemical use and electrical consumption. The final costs exceeded the original estimate by \$11,778 as the project required a larger tank and increase to the size of concrete pad; however, this increase in tank size will assist with meeting future system demands.
- Project W1920-02 was the replacement of two valves, one 8" and one 6", on Randall Avenue, west of Willow Avenue enabling the isolation of water zones/regions in the case of an emergency. The original estimate only included the replacement of one valve. Upon replacing the one valve, it was determined that it was necessary to replace an additional valve and this increased the cost by \$24,135.
- W1920-03 was placed on hold due to the sheer magnitude of repairs needed. This is being developed as a capital project since the preliminary cost estimated of these repairs is believed to exceed the \$125,000 maximum amount allowable for an OR&R project as defined by the CA.
- The W1920-04 project was also placed on hold. This project was planned, and parts were purchased but the decision was made to place the project on hold since an entire apartment complex will need to be shut off for approximately 8 hours in order to complete the work. Since an 8-hour shut off will be necessary, this project is being postponed until after the pandemic to reduce the effects to residents who are observing the stay at home orders or quarantining. Postponing the work will also help protect staff since completing the necessary work would not allow for proper social distancing.
- Project W1920-05 consisted of installing a variable frequency drive (VFD to allow the booster to match flows from the well. Booster 3A -1 is valuable in delivering constant water flow into the distribution system. A VFD generally reduces cost in operation by reducing electrical consumption. The NFPA 70E will ensure the assets are electrically reliable which is critical to prolonged asset life and preservation. This project was successfully planned, scheduled and

completed for \$4,904 above the original estimated amount.

- The pump starter and buckets at Chino 2 required an overhaul and needed to be brought into NFPA 70E compliance. Project W1920-06 consisted of electrical rehabilitation of Chino 2, which is a critical site for water distribution. The electrical starter was replaced as well as other electrical work that will allow for NFPA 70E compliance. This project was successfully planned, scheduled and completed for \$4,260 above the original estimated amount.
- Chlorination systems installed at the treatment plant are no longer reliable; requiring an increase in manual interventions, chemical usage, and monitoring. Project W1920-07 replaced the tablet chlorination systems with new analyzers and controls that are integrated in the new chlorine injection systems. This project was successfully planned, scheduled and completed at the original estimated amount of \$73,949.
- W1920-08 consisted of disconnecting and abandoning a 10" water line on Baseline as the line is not in use and further leaks could result in much more costly repairs. This repair will prevent future water loss and catastrophic paving damages in a high traffic area. This project was successfully planned, scheduled and completed \$5,050 below the original estimated amounts.
- Project W1920-09 was an urgent, unplanned project to replace motor at the Cactus Reservoir that needed to be completed due to a winding failure. The damaged motor was removed and replaced with the same specified kind. Booster 5 is critical to the City's distribution network and ensures adequate water supply is met for fire protection, system pressure and water quality. This project wasn't originally planned as an OR&R project but was completed for \$25,200.54 from funds originally planned or re-prioritized away from other Water OR&R projects.
- Project W1920-10 was another urgent, unplanned project to replace a motor at Chino Well 2 that needed to be completed due to failure. Replacement will allow for increased network distribution capabilities in normal operations as well as redundancy during an emergency. This project wasn't originally planned as an OR&R project but was completed for \$27,565 from funds originally planned or re-prioritized away from other Water OR&R projects.

The following Wastewater and Water projects shown in **Tables 3 & 4** below are planned for Fiscal Year 2020/2021; however, it is anticipated that some of the listed projects will need to be moved to Fiscal Year 2021/2022 due to being limited to budgets of \$300,000 and \$350,000 (in addition to the carryover) for Water and Wastewater respectively.

Table 3- FY 2020-2021 Wastewater OR&R Projects

WASTEWATER PROJECT DESCRIPTION:	Project #	Revised Estimate/Cost
Plant 5 Basin #1 Diffuser Replacement Phase I	WW1819-08	\$124,999.00
Belt Filter Press Discharge Conveyor Control Panel Rebuild	WW1920-28	\$23,953.00
Mainline Sewer Repairs / Urgent Mainline Segment Repairs Identified by CCTV	WW2021-01	\$83,500.00
Rebuild of Pump Station Electrical Control Panel	WW2021-02	\$40,000.00
Plant 5 Uninterruptable Power Supply (UPS) Unit Replacement (Plant 5 Equipment)	WW2021-03	\$22,500.00
Plant 5 (existing) Primary Clarifier Cleaning	WW2021-04	\$30,000.00
Replacement of Aeration Basin Mixer	WW2021-05	\$15,000.00
Waste Activated Sludge (WAS) Variable Frequency Drive (VFD) Replacement (2 Units)	WW2021-06	\$30,000.00
Belt Press 2 Control Panel Replacement	WW2021-07	\$75,000.00
Anaerobic Digester Heating Boiler #1 Replacement	WW2021-08	\$50,000.00
Replacement of Plant 5 Primary Clarifier Sludge Pump #1	WW2021-09	\$30,000.00
TOTAL FY 2020-2021 WASTEWATER OR&R PROJECTS		\$524,952.00

Fiscal Year 2020-2021 Wastewater OR&R Table 3 Summary

Highlights of the wastewater projects listed in **Table 3** are described below:

- WW1819-08 represents half of the diffuser purchase price of \$124,999 for the S1 Wastewater Treatment Plant Improvement Project, which was not paid in FY 18/19 as it missed the cutoff and could not be paid in FY 19/20 as Phase II was paid in FY 19/20. As directed by the City, the diffuser is being paid out of OR&R funds and should be divided between fiscal years.
- A small portion of costs in the amount of \$23,953 for WW1920-28 (see above) is deferred to FY 20/21 as materials were received in FY 19/20, but work will be done in FY 20/21.
- WW2021-01 is a recurring project budgeted at \$83,500 in every OR&R plan to account for mainline sewer repairs and urgent mainline segment repairs identified by CCTV. WW2021-02 is also a placeholder budgeted at \$40,000 as the control panels at the pump stations have been in service for many years and have begun to fail. Component outages are unpredictable and this project is a placeholder project for replacement of one station control panel when it fails beyond the ability to perform simple repairs. These projects have not commenced and will be completed by or before June 30, 2021, unless unplanned projects must be prioritized above these.
- WW2021-03 and WW2021-04, estimated at \$22,500 and \$30,000 respectively, are related to Plant 5 as the existing uninterruptable power supply unit is no longer capable of providing the required service and must be replaced. Control systems remaining in operation is critical especially with power interruptions. Further, with the new clarifier coming online this will provide an opportunity to drain and clean the existing Primary Clarifier which will increase clarifier solids removal reliability. These projects have not commenced and will be completed by or before June 30, 2021, unless unplanned projects must be prioritized above these.
- WW2021-05 through WW2021-09, estimated at \$15,000, \$30,000, \$75,000, \$50,000 and \$30,000, respectively, are all projects that require replacement of parts due to age, critical condition, and the likelihood of imminent failure. This includes replacement of the aeration basin mixer, two waste activated sludge variable frequency drives (VFD), belt filter press

control panel, digester heating boiler, and Plant 5 primary clarifier sludge pump. These projects have not commenced and will be completed by or before June 30, 2021, unless unplanned projects must be prioritized above these.

Table 4- FY 2020-2021 Water OR&R Projects

WATER PROJECT DESCRIPTION:	Project #	Revised Estimate/Cost
Mainline Valve Replacement	W2021-02	\$45,000.00
City Well 3 MCC & Pump Test	W2021-03	\$75,000.00
City Well 3 Well Refurbish	W2021-04	\$100,000.00
Highland Reservoir	W2021-05	\$18,000.00
NFPA 70E Study City 2, Chino 2 Booster 6-10 and Rialto 5 Arc Flash and Electrical Upgrades for NFPA70E Compliance	W2021-08	\$25,000.00
SCADA Program Updates	W2021-10	\$20,000.00
TOTAL FY 2020-2021 WATER OR&R PROJECTS		\$ 283,000.00

FY 2020/2021 Water OR&R Table 4 Summary

After being notified that the budget for Water is \$300,000 for FY 20/21, projects W2021-02 through W2021-05, W2021-08 and W2021-10 have been deemed a priority that need to be completed in said fiscal year. Highlights of the water projects listed in **Table 4** are described below.

- W2021-02 is a recurring project in OR&R budgeted at \$45,000 to replace large valves as needed to allow for isolation of regions in the distribution network to resume functionality. At this time, no mainline valve replacements have taken place but this project will be completed by or before June 30, 2021.
- W2021-03 - this project entails the rehab of the well and replacement of missing and out of date electrical components, a pump test needs to occur to ensure the water is of good quality and supply, and to allow for redundancy in the distribution system. This project was budgeted for \$75,000 and has not commenced, but will be completed by or before May 30, 2021.
- W2021-04 - City Well 3 has been inoperable since 2014. Upon the successful pump test included in project W2021-03, the well will be refurbished. This includes replacing the old pump, column piping, potentially motor replacement, and whatever assets are needed to produce water from this well site. This project is budgeted at \$100,000 will commence after W2021-03 is completed.
- W2021-05 - Clean and inspect reservoirs as required by the State Water Resources Control Board Division of Drinking Water (DDW) every five (5) years. This project was budgeted at \$18,000 and has not begun, but will be completed by or before June 30, 2021.
- The W2021-08 project is the rehabilitation of electrical buckets at multiple well sites to bring sites into NFPA 70E compliance. The project is budgeted at \$25,000.
- W2021-10 - currently adding assets into Supervisory Control and Data Acquisition (SCADA)

system and creating additional worksheets. This will allow data to be provided to regulatory agencies utilizing the SCADA software. This project has already been completed and did not exceed the estimated amount of \$20,000.

FINANCIAL IMPACT:

Operating Budget Impact

Table 5 below illustrates the resulting OR&R financial impact for FY 19/20 and the projected financial impact for Fiscal Year 20/21. For FY 2020-2021, the request in total for the OR&R budget will be in the amount of \$350,000 for wastewater and \$300,000 for water, shown as the “Annual Contributions” and “Additional Contributions” in the **Table 5** below. These amounts are identified in the approved RUA budget.

TABLE 5 - OR&R ACCOUNT SUMMARY		
WASTEWATER	2019-2020	2020-2021
Beginning balance	\$ 1,625,146	\$ 1,407,957
Annual contributions	420,000	350,000
Transfer of excess funding to Unrestricted Constuction fund	(43,604)	-
Expenditures:		
Scheduled for 2018-2019	(70,357)	
Scheduled for 2019-2020	(523,228)	(23,953)
Scheduled for 2020-2021		(500,999)
Ending balance - projected	\$ 1,407,957	\$ 1,233,005
OR&R account floor requiring immediate funding (CA 9.5) ¹	\$ 836,053	\$ 836,053
Required OR&R Balance (CA 9.4((c)) ²	\$ 1,194,362	\$ 1,194,362
Is increase in monthly contribution required?	No	No
Amount of additional contribution required (cumulative)	\$ -	\$ -
WATER		
	2019-2020	2019-20
Beginning balance	\$ 1,083,326	\$ 1,177,601
Annual contributions - basic	395,417	300,000
Expenditures:		
Scheduled for 2019-2020	(301,142)	-
Scheduled for 2020-2021	-	(283,000)
Ending balance - projected	\$ 1,177,601	\$ 1,194,601
OR&R account floor requiring immediate funding (CA 15.5) ¹	\$ 836,053	\$ 836,053
Required OR&R Balance (CA 15.4((c)) ²	\$ 1,194,362	\$ 1,194,362
Is increase in monthly contribution required?	Yes	No
Amount of additional contribution required (cumulative)	\$ 16,761	\$ -

¹Concession Agreement requires that if the OR&R account balances fall below \$700,000 (as adjusted by the specified annual escalation factor), such balances must be immediately restored to the balances required under Section 9.5 and 15.5

²Concession Agreement requires that the OR&R accounts are maintained at \$1 million as adjusted by the specified annual escalation factor and that the subsequent year annual contributions are to be increased to restore the required balance.

RWS has confirmed that the completed FY 19/20 OR&R Wastewater and Water projects and the projected Fiscal Year 20/21 OR&R Wastewater and Water project cost estimates are within scope and there are adequate and RUA funds are available to compensate Veolia for said work.

Capital Improvement Budget Impact

The proposed action will not impact the Capital Improvement budget. For the projects originally identified as an OR&R project but have been determined to be more appropriate for the CIP program,

staff will present them for approval at a later date and as a separate item or as part of the CIP program.

RECOMMENDATION

Staff requests that the Utilities Commission recommend the City Council/Rialto Utility Authority (RUA) authorize the final payout for the completed Fiscal Year 2019-2020 Water and Wastewater Operating Repair and Replacement projects using available RUA funds and approve the anticipated Fiscal Year 2020-2021 Water and Wastewater Operating Repair and Replacement projects and expenditures.