



RIVERSIDE PUBLIC UTILITIES

Water Committee Memorandum

BOARD OF PUBLIC UTILITIES – WATER COMMITTEE

DATE: JULY 13, 2022

SUBJECT: CAPITAL IMPROVEMENT PROGRAM - WATER UTILITY BUDGET PROCESS

ISSUE:

Consider receiving a report on the Capital Improvement Program budget process for the Water Utility.

RECOMMENDATION:

That the Board of Public Utilities Water Committee receive a report on the Capital Improvement Program budget process for the Water Utility.

BACKGROUND:

The process of developing a Capital Improvement Program (CIP) budget begins with strategic planning which is critical to ensuring that the needs and expectations of the City of Riverside Public Utilities' (RPU)'s stakeholders are met. The development of a strategic plan establishes the groundwork for the development of an effective CIP that will communicate and reflect the vision, goals and objectives of RPU to its customers, employees, investors, and community. The strategic plan incorporates the Department's Mission, Vision and Core Values, assesses internal and external factors, sets goals and priorities, and develops strategic action plans for implementation based on these inputs. Much of this work takes place at the Executive Management level with engagement with the Board of Public Utilities (Board), City Council, and the RPU community. For the Water Utility, this started back in 2015 as part of the Utility 2.0 Initiative and resulted in the Water Utility five-year rate plan, which was approved by the Board and City Council in May 2018. The strategic plan provides the direction and framework for the development and implementation of capital improvement program infrastructure additions and replacements.

The Water Utility's budget consists of two parts, an operational component and a capital component. The Operating Budget includes annual operational expenses including personnel costs (employee salaries, benefits, leave time, etc.) and non-personnel costs (office expenditures, operating services, training, interdepartmental charges, etc.). The Capital Improvement Program Budget includes costs for capital project construction, which is the focus of this discussion.

RPU's department budget is prepared on a bi-annual basis (2-year budget cycle) as part of the overall City budget process. The biennial Fiscal Years 2022/23 and 2023/24 budgets were recently approved by City Council in June. This memorandum and presentation will focus on the

process by which the Water Utility identifies and budgets for its future capital needs, provide an overview of the main CIP accounts, and the anticipated challenges to future CIP budget planning.

DISCUSSION:

The process by which the Water Utility develops its CIP budget includes identifying future CIP projects to address needs, prioritization and phasing of CIP projects, and project implementation. The primary source of identifying system needs starts with the water master plan. The objective of the master plan is to evaluate the water system's ability to adequately and reliably provide and distribute water under existing and future conditions through an extended planning period (typically 20 years or more). The master plan incorporates findings from the City's General Plan, and RPU Departmental goals and objectives, anticipates long-term capital needs, and develops prioritization of capital projects utilizing RPU's desired level of service and design criteria. As part of Utility 2.0, the Water Utility utilized the 2015 Integrated Water Management Plan by Carollo as a basis of planning.

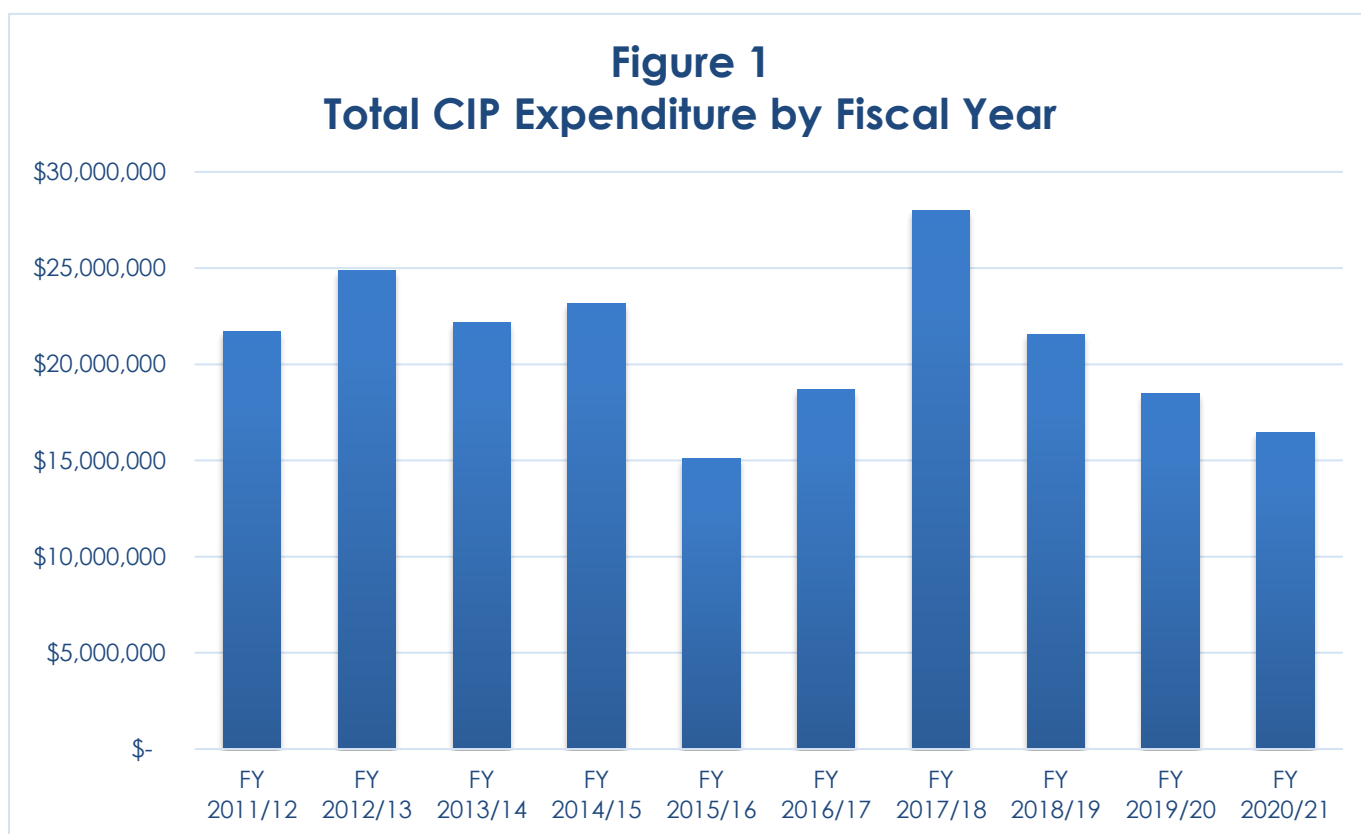
In addition to the master plan, CIP projects are also identified through several high-level asset management planning studies and reports which include the recently completed Focused Water Master Plan by Kennedy Jenks which identified future improvements to the Downtown Neighborhood; the Well Rehabilitation and Priority Ranking report by Geoscience which identified wells for RPU's well rehabilitation program; the RPU staff-prepared Jackson Street and Arlington Avenue Recycled Water Projects Planning Report which identified the preliminary pipeline alignments for implementation of recycled water service; the Bunker Hill Well Siting Evaluation and Water Quality Modeling report by Geoscience which prioritized future potable well constructions in the Bunker Hill Basin; the Reservoir Condition Assessment reports by Tetra Tech which evaluated the structural condition of several of RPU's older concrete storage reservoirs; the San Bernardino Water Supply Pipeline Condition Assessment Report by URS and RPU's internal Business Risk Exposure model which prioritizes distribution mains for replacement.

Aside from the CIP needs identified in the master planning process, CIP project identification also comes from Water Field staff and Water Operations feedback. Recurring leak repairs on a critical section of supply main not previously identified, for example, could be elevated to a CIP project. Other sources of CIP projects can occur at the City level – for example street improvement projects or railroad grade separation projects which require the relocation of water mains, or from CIP planning projects from other City Departments as identified within their master plans or planning reports. Lastly, regional needs also drive CIP projects, such as transportation projects by Caltrans, Riverside County Transportation Commission, or San Bernardino Transportation Authority which might require RPU water utility relocations. Where possible, RPU looks to utilize the City's prior rights to obtain as much outside agency funding as possible for such relocations, however for City Department-driven projects within public street right-of-way, RPU is typically responsible for bearing the cost of utility relocations.

Once the various CIP projects have been identified, the second step of developing the CIP budget involves prioritization and phasing of the projects based on a variety of factors which include Department goals and objectives, criticality, risk, and availability of CIP funds. Water Planning staff works with the RPU Administrative/Finance team to ensure that the highest priority projects can be programmed appropriately within the constraints of the annual CIP Budget affordability. If there is a need to fund a capital project that is not included in the budget, the Water Division has the option to request approval from the Board and City Council to move funding in the CIP budget. Where additional funding may be needed, adjustments are made to spending targets or project

scheduling; larger projects can be broken down into smaller phases to match CIP funding availability. CIP projects are then programmed into a 5-year and 2-year CIP budget for planning purposes. As part of the Utility 2.0 process, a ten-year pro forma was developed which served as the basis for much of RPU's CIP programming over the past four (4) years. However, as projects, priorities and overall City, Board and Council directives change over time, the CIP budget is flexible and adjusted to meet the CIP needs brought about with these changes.

The last step of the CIP budget planning process is implementation of the projects approved by Board and City Council in May 2018 with the Utility 2.0 Five-Year Rate Plan. Water Engineering staff prepares a planning report for the proposed projects or utilizes a consultant-prepared Preliminary Design Report to serve as the basis of design and to document the project need, project drivers, project scope, budget and schedule. This is then provided to the Design Team who prepares plans for City forces construction (as is the case for much of RPU's distribution main replacement projects), or a bid package if the project is to be constructed by a contractor (typically for transmission main, well, booster station, or reservoir projects). Upon bid award, RPU's Contract Administration Team will inspect and manage the construction contract. Main replacements by RPU City Forces are managed by the Water Field Supervisors and self-inspected. For larger projects, such as reservoir or treatment plant construction, outside consultant services may be utilized for the design, inspection and construction administration work. Project costs are managed by designated project managers for each phase (design and construction); and monthly CIP budget meetings are held with the Engineering Managers, Principal Engineers and key representatives from Water Field, Water Operations and RPU/Finance Teams to ensure that the CIP projects planned for the fiscal year are being executed as planned and to track expenditures. Figure 1 presents a 10-year history of past CIP expenditures by fiscal year. Table 1 shows the Water Utility's Fiscal Years 2022/23 and 2023/24 CIP budget which was approved by City Council this past June.



As shown in Table 1, Fiscal Years 2022/23 and 2023/24 have a total CIP budget of \$29.1 million and \$29.9 million, respectively. The budget is broken down into the following general categories: Well Projects, Transmission Pipelines, Distribution Pipelines, Distribution Facilities, Treatment Plants, Reservoir Projects and System Automation. A brief description of each of these categories is given below.

**Table 1 – Water – Proposed CIP FY 2023-2027
(In millions)**

	Proposed		-----Planning Purposes-----			Total
	22-23	23-24	24-25	25-26	26-27	
Well Projects	\$ 5.1	\$ 1.2	\$ 3.8	\$ 1.9	\$ 7.3	19.3
Transmission Pipelines	6.3	9.8	5.9	1.2	6.2	29.4
Distribution Pipelines	10.6	13.2	14.1	15.0	15.7	68.6
Distribution Facilities	1.5	1.3	1.6	1.6	1.6	7.6
Treatment Plants	-	0.4	-	0.4	-	0.8
Reservoir Projects	0.6	-	0.6	-	0.7	1.9
System Automation	5.0	4.0	3.6	4.7	3.2	20.5
Total	\$ 29.1	\$ 29.9	\$ 29.6	\$ 24.8	\$ 34.7	\$ 148.1

Well Projects – This account provides budget for well rehabilitation projects as well as the drilling and equipping of new wells. For FY2022/23, it is planned that two wells will be rehabilitated, and one new well be redrilled and equipped (Gage 29-2R Well).

Transmission Pipelines – This account funds both the replacement of existing Techite pipe within RPU's distribution system, as well as the replacement of any aged segments of non-Techite pipe and transmission valves. The effort to remove all of the Techite pipeline out of RPU's system was identified as part of the Utility 2.0 effort and to date, approximately 2.0 miles of Techite have been replaced, with approximately 2.4 miles remaining for replacement.

Distribution Pipelines – This account funds installation of new distribution pipeline, replacement of existing aged and leaking distribution mains, replacement of distribution appurtenances (valves and hydrants), the service lateral replacement program, purchase of outstanding shares of water stock (in mutual water agencies of which RPU partially owns); and funds installation of hydrant check valves at critical fire hydrant locations. Of the \$10.6 million budgeted for FY2022/23, \$5.9 million has been allocated for main replacements. Due to a lack of available funding for this program, and in addition to the increased cost of materials and labor over the years, the number of miles of pipeline replacement has dropped. Approximately 2.6 miles of distribution main was replaced in FY2021/22, which represents a longer than 300-hundred year replacement cycle for RPU's approximately 831 miles of distribution main.

Distribution Facilities – This account provides funding for the replacement of motors and pumps and miscellaneous mechanical equipment at RPU's wells, booster stations and pressure reducing stations; funds the purchase of meters as part of the meter replacement program; and funds pump

station replacements.

Treatment Plants – This account funds the construction of new treatment plants, the rehab of existing treatment plants, and the purchase of treatment plant filters at the John W. North Treatment Plant.

Reservoir Projects – This account funds the reservoir condition assessment program and the rehabilitation of existing reservoirs and their related appurtenances (vents, hatches, ladders, seismic valves, etc.).

System Automation – This account funds the operational technology projects identified as part of the Utility 2.0 effort, including cybersecurity; work, asset and inventory management system; mobile applications; supervisory control and data acquisition (SCADA) projects; Land Mobile Radio; advanced metering infrastructure (AMI); and the enterprise operations data management system (ODMS).

The current Board and City Council CIP plan for the Water Utility five-year rate plan, including the next five fiscal years, does not have funding for Water Supply projects, which include RPU's ongoing participation with San Bernardino Valley Water District on the regional Seven Oaks Dam Enhanced and Active Recharge program or for recycled water facilities. New funding for future water supply projects will be brought before the Board and City Council on a case-by-case basis. In addition to these unfunded projects, there are several other additional unfunded CIP projects, including a possible PFAS/PFOS and perchlorate Treatment Plant(s), reservoir replacements, and the Riverside Habitat Parks and Water Projects. Staff anticipates the need for additional funding for increased potable well rehabilitations and replacements, enhanced distribution main replacements, transmission main replacements, and the AMI program. In the shorter term, the biennial Fiscal Years 2022/23 and 2023/24 budget recently approved by City Council does not include construction of the needed water supply projects mentioned above, recycled water facilities, and booster station replacements. RPU Water and Finance staff are working and coordinating to consider and model all these infrastructure needs in the current water rate analysis for including these necessary projects in future budgets.

There have been several changes in recent years that have made CIP budget planning more challenging. On the environmental front, drought and the resulting declining water levels in the local groundwater basins have increased the need for well rehabilitation projects and the construction of new wells with lower pump settings. On the legislative and regulatory front, new reporting and action limits for existing and emerging contaminants will drive the need for new treatment plants; water use restrictions threaten revenue stability, which is necessary to adequately fund CIP project implementation. On the Citywide and regional front, increased development and replacement of older transportation infrastructure will drive the need for additional grade separation, and street and freeway widening projects; expanded mass transit (i.e., light rail) projects will facilitate the need for additional utility relocations. Lastly on the economic front, the increase in materials and labor costs, and especially in the past two years due to inflation, have eroded the ability to adequately replace RPU's aging infrastructure. While these challenges are great, they are not insurmountable and with the appropriate level of planning, coordination, and collaboration, the Water Utility can continue to maintain and execute a successful CIP Program that continues to meet the increasingly dynamic needs of RPU's customers, the City, and the region.

STRATEGIC PLAN ALIGNMENT:

This item contributes to **Strategic Priority No. 5 – High Performing Government** and **Goal 5.3:** Enhance communication and collaboration with community members to improve transparency, build public trust and encourage shared decision making; and **Strategic Priority No. 6 – Infrastructure, Mobility & Connectivity** and **Goal 6.2:** Maintain, protect and improve City assets and infrastructure to ensure reliability, enhance sustainability, and facilitate connectivity.

This item aligns with each of the five Cross-Cutting Threads as follows:

1. **Community Trust** – Discussion of RPU’s Water Utility CIP budget planning process provides a transparent view of Utility finances in a forum that accommodates community engagement and the involvement of the Water Committee.
2. **Equity** – The planning process is available to all members of the public via the city website and the presentation in a public forum accommodates community engagement from all members of the public.
3. **Fiscal Responsibility** – Discussion of the budget planning process demonstrates RPU’s commitment to responsible management of its financial resources.
4. **Innovation** – Planning for the future water needs of the community will help in meeting the City’s changing needs as a result of environmental, regulatory and aging infrastructure challenges.
5. **Sustainability & Resiliency** – Proper CIP planning demonstrates the RPU’s commitment to the long-term health of the Water Utility’s infrastructure and the preservations of the Utility’s current level of service.

FISCAL IMPACT:

There is no fiscal impact associated with this report.

Prepared by:	Michael L. Plinski, Engineering Manager/Water
Approved by:	Todd M. Corbin, Utilities General Manager
Approved by:	Kris Martinez, Assistant City Manager
Approved as to form:	Phaedra A. Norton, City Attorney

Certifies availability of funds:	Edward Enriquez, Interim Assistant City Manager/Chief Financial Officer/City Treasurer
----------------------------------	--

Attachment:	Presentation
-------------	--------------