IEUA's Ten-Year Capital Improvement Plan

Inland Empire Utilities Agency A MUNICIPAL WATER DISTRICT

Contents

ABBREVIATIONS
SECTION 1: BACKGROUND
Inland Empire Utilities Agency Overview3
Formation & Purpose
Governance
Contracting Agencies
Member Agencies 5
SECTION 2: TEN-YEAR CAPITAL IMPROVEMENT PLAN INTRODUCTION
Ten-Year Capital Improvement Plan Purpose6
Definition of a Capital Project
SECTION 3: PROGRAM FUNDS7
Program Fund Summary7
Administrative Services (GG) Fund7
Non-Reclaimable Wastewater (NC) Fund8
Regional Wastewater Capital Improvement (RC) Fund9
Regional Wastewater Operation and Maintenance (RO) Fund9
Recharge Water Fund (RW) Fund10
Recycled Water (WC) Fund11
Water Resources (WW) Fund12
SECTION 4: TEN YEAR CAPITAL IMPROVEMENT PROJECT LIST
Ten Year Capital Improvement Project List Summary13
APPENDIX A: Ten-Year Capital Improvement Project List14
APPENDIX B: Grant Dependent Capital Projects
APPENDIX C: Ten-Year Operations & Maintenance Project List
APPENDIX D: Ten-Year Forecast

ABBREVIATIONS

AF: Acre Feet CVWD: Cucamonga Valley Water District EWL: Etiwanda Wastewater Line FWC: Fontana Water Company FY: Fiscal Year GG Fund: Administrative Services Fund IEUA: Inland Empire Utilities Agency IEBL: Inland Empire Brine Line MVWD: Monte Vista Water District MWD: Metropolitan Water District of Southern California NC Fund: Non-Reclaimable Wastewater Fund **NRWS: Non-Reclaimable Wastewater System O&M: Operation and Maintenance RC Fund: Regional Wastewater Capital Improvement Fund RO Fund: Regional Wastewater Operations and Maintenance Improvement Fund RRWDS: Regional Recycled Water Distribution System RW Fund: Groundwater Recharge Fund TYCIP: Ten Year Capital Improvement Plan Regional Contract: Chino Basin Regional Sewage Service Contract RP: Regional Water Recycling Plant** WC Fund: Recycled Water Fund WW Fund: Water Administration Fund

SECTION 1: BACKGROUND

Inland Empire Utilities Agency Overview

The Inland Empire Utilities Agency (IEUA) is a regional wastewater treatment agency and wholesale distributor of imported water. IEUA is responsible for serving approximately 875,000 people over 242 square miles in western San Bernardino County. IEUA is focused on providing three key services: (1) treating wastewater, developing recycled water, local water resources, and conservation programs to reduce dependence on imported water supplies and provide local supply resiliency to the region; (2) converting biosolids and waste products into a high-quality compost made from recycled materials; and (3) generating electrical energy from renewable sources.

Formation & Purpose

IEUA was originally formed as the Chino Basin Municipal Water District on June 6, 1950, as a municipal corporation with the mission to supply supplemental imported water purchased from the Metropolitan Water District of Southern California (MWD) to municipalities in the Chino Basin. Since then, IEUA has expanded its mission from a supplemental water supplier to include regional wastewater treatment with both domestic and industrial disposal systems along with energy production facilities. In addition, IEUA has become a major provider of recycled water, a supplier of biosolids/compost materials, and continues its leading role in water quality management and environmental protection in the Inland Empire.

Governance

IEUA is a special district governed by five publicly elected Board of Directors. Each director is assigned to one of the five divisions which generally serve the following regions: Division 1- Upland/Montclair; Division 2- Ontario; Division 3- Chino/Chino Hills; Division 4- Fontana; and Division 5- Rancho Cucamonga. Monthly meetings are also held with the Regional Technical and Policy Committees comprised of representatives from each of IEUA's Regional Sewer Service Contracting Agencies. These Committees discuss and provide recommendations on various technical and policy issues affecting IEUA.

Contracting Agencies

As a regional wastewater treatment agency, IEUA provides sewage utility services to seven contracting agencies under the Chino Basin Regional Sewage Service Contract (Regional Contract): the cities of Chino, Chino Hills, Fontana, Montclair, Ontario, and Upland along with Cucamonga Valley Water District. Figure 1 depicts each Contracting Agency's sphere of influence within IEUA's service area.



Figure 1 – IEUA Contracting Agencies

Member Agencies

As a member of MWD and the regions wholesale imported water provided, IEUA serves seven retail water agencies: the cities of Chino, Chino Hills, Ontario, Upland, Cucamonga Valley Water District (CVWD) in the City of Rancho Cucamonga, Fontana Water Company (FWC) in the city of Fontana, and the Monte Vista Water District (MVWD). Figure 2 depicts each Member Agency's sphere of influence within IEUA's service area.



Figure 2 – IEUA Member Agencies

SECTION 2: TEN-YEAR CAPITAL IMPROVEMENT PLAN INTRODUCTION

Ten-Year Capital Improvement Plan Purpose

The Ten-Year Capital Improvement Plan (TYCIP) is a report that outlines IEUA's capital priorities through a list of ongoing and future projects. The TYCIP proposes a schedule for the implementation of projects agency wide based on necessity. In contrast, the Ten-Year Forecast, published by IEUA and attached to this report as Appendix D, solely identifies wastewater capital projects as required in the Regional Sewage Service Contract. While wastewater capital projects are found on both the Ten-Year Forecast and TYCIP, the TYCIP includes capital projects beyond those required for the wastewater system. The timing of projects on the TYCIP may be further refined through the Capital Budget process, based on the availability of financial resources.

The IEUA Board of Directors adopts and publishes the TYCIP in order to provide transparency into the ongoing and future projects the agency requires over the next ten years. Projects identified in the TYCIP are necessary for IEUA to ensure reliability and safety while meeting all regulatory requirements. Some of the factors that may lead to the need for a capital project include the physical conditions of assets and the forecasted regional projections for water and wastewater needs. This TYCIP identifies capital projects for the Fiscal Year (FY) 2022/2023 through FY 2031/2032 timeframe.

Definition of a Capital Project

The TYCIP is composed of a list of capital projects, which are projects that involve the purchase, improvement, or construction of major fixed assets and equipment, such as the expansion of treatment plants, the construction of pipeline and pump stations, and the replacement of equipment. Capital projects do not include funds spent on standard operation and maintenance (O&M). However, O&M projects are listed as an appendix to this TYCIP, see Appendix C.

SECTION 3: PROGRAM FUNDS

Program Fund Summary

Projects listed on the TYCIP are categorized by fund. Over the next ten years, IEUA is planning approximately \$1,190,606,459 in capital improvement projects, of which 46% is expected to be in the Regional Wastewater Capital Improvement fund. Agency-wide, capital project expenses in the first year of the TYCIP are estimated to be approximately \$200,825,466. Table 1 below outlines the timing of the projected capital spending by fund.

Table	1: FY 2022/23 1	FYCIP Total by F	und (\$ in millio	ons)				
Fund	Year One FY 2022/23	Year One Year Two Years 3-10 FY 2022/23 FY 2023/24 FY 2024/31						
Administrative Services (GG)	\$4.66	\$2.41	\$22.88	\$29.95				
Non-Reclaimable Wastewater (NC)	\$9.35	12.93	\$13.24	\$35.52				
Regional Wastewater Capital Improvement (RC)	\$134.18	\$135.90	\$274.33	\$544.40				
Regional Wastewater Operations & Maintenance (RO)	\$22.67	\$34.63	\$150.67	\$207.97				
Recharge Water (RW)	\$11.17	\$3.32	\$4.00	\$18.49				
Recycled Water (WC)	\$13.75	\$22.50	\$312.98	\$349.23				
Water Resources (WW)	\$5.04	\$0.00	\$0.00	\$5.04				
TOTAL	\$200.83	\$211.69	\$778.10	\$1,190.61				

*Numbers are based on the TYCIP Project List (Appendix A). All values rounded.

Administrative Services (GG) Fund

The GG Fund serves as IEUA's general fund and capital expenses include agency supplies such as computers, printers, copiers, pooled vehicles, and other purchases. Major projects included in the TYCIP include Enterprise Resource Planning (ERP) implementation, agency-wide roofing, and central plant cooling tower replacement. Total spending over the ten-year window is projected to be \$29,952,040.

Non-Reclaimable Wastewater (NC) Fund

Projects funded through the NC Fund are associated with IEUA's Non-Reclaimable Wastewater System (NRWS), which is a collections system physically separated from the agency's wastewater sewage system. The NRWS includes pipelines and pump stations that serve to export high-salinity industrial wastewater generated in IEUA's service area for treatment and eventual discharge to the Pacific Ocean. The wastewater discharged to the NRWS is primarily comprised of industrial and groundwater treatment brine. The NRWS is operated by IEUA and is comprised of three independent collections systems, the North non-reclaimable wastewater system, the Etiwanda Wastewater Line (EWL), and the Inland Empire Brine Line (IEBL) also known as the South NRWS. Figure 3 is a map that outlines the NRWS system.

Capital projects in the NC Fund may include the acquisition, construction, expansion, or replacement of NRWS sewer lines, interceptors, and supporting facilities. Major projects included in the TYCIP include Philadelphia Lift Station force main improvements, Philadelphia Lift Station pump improvements, NRWS odor mitigation, and NRWS manhole upgrades. Total spending over the ten-year window is projected to be \$35,522,000.



Figure 3 – IEUA Non-Reclaimable Wastewater System

Regional Wastewater Capital Improvement (RC) Fund

In accordance with the Regional Contract, the regional funding for the wastewater system is split into capital improvement and operations and maintenance funds. The RC Fund covers capital project costs associated with IEUA's regional wastewater system. Expenses charged to the RC Fund include capital projects that are required to meet regional growth in the forms of flow, loading, capacity or other factors. Major projects in the RC fund included in the TYCIP include the expansion of Regional Plant-5, capacity recovery at Regional Plant-1, and thickening building and acid phase digester at Regional Plant-1. Total spending over the tenyear window is projected to be \$544,403,853. A detailed review of RC fund projects over the next ten years can be found in IEUA's Ten-Year Forecast (TYF), which is attached to this report as Appendix D. Figure 4 below outlines the regional wastewater system.

Regional Wastewater Operation and Maintenance (RO) Fund

The RO Fund covers the operations and maintenance costs associated with IEUA's regional wastewater system. Operations and maintenance costs can have capital components included in the TYCIP including the cost to rehabilitate fixed assets. Major projects in the RO fund included in the TYCIP include the construction of an advanced water purification facility, updates to the Enterprise System, and Regional Plant-1 influent pump station electrical improvements. Total spending over the ten-year window is projected to be \$207,966,600.



Figure 4 – IEUA Regional Wastewater System

Recharge Water Fund (RW) Fund

In conjunction with Chino Basin Water Master, Chino Basin Water Conservation District, and San Bernardino County Flood Control District, IEUA implements and operates the Recycled Water Groundwater Recharge Program within Chino Basin to replenish and maintain the Chino Groundwater Basin. Infrastructure associated with the RW Fund includes a network of pipelines that directs captured stormwater, recycled water, and imported water to recharge sites. The groundwater recharge projects are a means to diversify the water supply for the region and maximize the beneficial reuse of recycled water and the yield of the Chino Basin. Recycled water recharge is a key component of the region's water supply portfolio. The more recycled water that is recharged into the Chino Groundwater Basin, the more resilient the region becomes. Figure 5 is a map of the recharge basins used in groundwater recharge.

Major projects in the RW Fund included in the TYCIP include the completion of Recharge Master Plan Update projects and safety work for basin gate actuator access. Total spending over the ten-year window is projected to be \$18,488,700.



Figure 5 - Chino Basin Groundwater Recharge Locations

Recycled Water (WC) Fund

IEUA and its member agencies have invested in the construction of a Regional Recycled Water Distribution System (RRWDS). The RRWDS consists of a network of pipelines, storage tanks, and pump stations that serve customers with Title 22 treated water from IEUA's water recycling facilities. The use of recycled water provides a high-quality alternative water source for the region that can be used directly by customers or recharged into the groundwater as a way to improve regional resiliency. Figure 6 is a map of the RRWDS infrastructure.

Capital projects in the WC fund are associated with the expansion and improvement of the RRWDS infrastructure. Major projects included in the TYCIP include 6 thousand AF per year of advanced water treatment capacity and injection wells, a recycled water interconnection to the City of Rialto, and a recycled water connection to the Jurupa Community Service District. Total spending over the ten-year window is projected to be \$349,230,000.



Figure 6 - Regional Recycled Water Distribution System

Water Resources (WW) Fund

Projects in the WW Fund are associated with the management and distribution of imported water supplies, development and implementation of regional water use efficiency initiatives, water resources planning efforts, and support for regional water supply programs including recycled water, groundwater recharge, and stormwater management. The majority of projects in the WW fund are 0&M by nature, which can be found listed in Appendix C. The only capital project included in the TYCIP is associated with the Chino Basin Program evaluation. Total spending over the ten-year window is projected to be \$5,043,266.

SECTION 4: TEN YEAR CAPITAL IMPROVEMENT PROJECT LIST

Ten Year Capital Improvement Project List Summary

The TYCIP contains capital projects which were identified by IEUA staff and include expansion projects to provide additional treatment capacity to meet future growth. Drivers used to determine the timeframe and necessity of projects include regulatory and permitting requirements, wastewater flow projections, asset age, performance, efficiency, and grant or funding availability. Over the next ten years IEUA is planning \$1,190.61 million in capital improvement projects. This is a 41% increase from the FY 2021/22 TYCIP total of \$841.61 million. The change in spending can be partially attributed towards the inclusion of the construction of an advanced water purification facility and the expansion of the recycled water program via injection wells and new interconnections. Table 2 below provides a comparison between IEUA's FY 2020/21 TYCIP projection and the current FY 2022/23 projection by fund. The list will be updated regularly as facility needs are reprioritized. An estimated ten-year budget for capital project by fund is summarized in Table 2.

Table 2: TYCIF	2021/22 and 2022/23 Com	parison*
Fund	FY 2021/22 (\$ in Millions)	FY 2022/23 (\$ in Millions)
Administrative Services Fund (GG)	\$11.45	\$29.95
Non-Reclaimable Wastewater Fund (NC)	\$31.45	\$35.52
Regional Capital Improvement Fund (RC)	\$610.51	\$544.40
Regional Operations and Maintenance (RO)	\$92.36	\$207.97
Recharge Water Fund (RW)	\$24.97	\$18.49
Recycled Water Fund (WC)	\$60.78	\$349.23
Water Resources Fund (WW)	\$10.09	\$5.04
TOTAL	\$841.61	\$1,190.61

*FY 2021/22 capital spending is from IEUA's adopted budget. FY 2022/23 capital spending is based on the projected TYCIP Project List (Appendix A). All dollars have been rounded.

APPENDIX A: Ten-Year Capital Improvement Project List

Fund Name	Project Number	Project Name	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	FY 30/31	FY 31/ 32	Total TYCIP FY 2023-2032
GG - Administrative Services	IS25XX2	ERP Implementation			\$ 1,000,000	\$ 5,000,000	\$ 4,000,000						\$ 10,000,000
GG - Administrative Services	EN22010	GG Asset Management Project	\$ 50,000	\$ 50,000	\$ 50,000	\$ 1,000,000	\$ 1,000,000 \$	1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 7,150,000
GG - Administrative Services	FM21005	Agency Wide Roofing	\$ 1,733,500	\$ 250,000	\$ 1,050,000	\$ 250,000	\$ 1,050,000 \$	-	\$-	\$-	\$-	\$-	\$ 4,333,500
GG - Administrative Services	ENxxxx3	Central Plant Cooling Tower Replacement	\$ 500,000	\$ 1,200,000	\$ 700,000								\$ 2,400,000
GG - Administrative Services	EP21004	Agency Wide Vehicle Replacement	\$ 60,000	\$ 60,000	\$ 60,000	\$ 160,000	\$ 179,108 \$	184,481	\$ 190,015	\$ 195,715	\$ 201,587	\$ 207,634	\$ 1,498,540
GG - Administrative Services	ENXXXX2	RP-1 New Parking Lot	\$ 100,000			\$ 500,000	\$ 600,000						\$ 1,200,000
GG - Administrative Services	ENxxx34	Agency Wide EV Charging Stations	\$ 500,000	\$ 600,000									\$ 1,100,000
GG - Administrative Services	IS22004	IT Infrastructure Assets Replacement	\$ 390,000										\$ 390,000
GG - Administrative Services	EN21020	Primavera Enhancement	\$ 200,000	\$ 75,000	\$ 50,000								\$ 325,000
GG - Administrative Services	IS22006	SCADA Network Infrastructure Replacement	\$ 300,000										\$ 300,000
GG - Administrative Services	ENxxy32	HQ Electric Cart Canopy Project				\$ 100,000	\$ 150,000						\$ 250,000
GG - Administrative Services	ENxxy39	Lab Rooms Temperature Variation	\$ 240,000										\$ 240,000
GG - Administrative Services	IS22002	Wide Area Microwave Radio Updates	\$ 220,000										\$ 220,000
GG - Administrative Services	FM20005	Agency Wide HVAC Replacements	\$ 100,000	\$ 100,000									\$ 200,000
GG - Administrative Services	ENxxy99	CIPO Enhancements	\$ 75,000	\$ 75,000									\$ 150,000
GG - Administrative Services	LBXXX01	Oil and Grease Extractor	\$ 100,000										\$ 100,000
GG - Administrative Services	IS22003	IT Infrastructure Assets New	\$ 80,000										\$ 80,000
GG - Administrative Services	EN20040	HQ Driveway Improvements	\$ 15,000	\$-	\$-	\$-	\$ - \$	-	\$-	s -	\$ -	\$ -	\$ 15,000
Total			\$ 4,663,500	\$ 2,410,000	\$ 2,910,000	\$ 7,010,000	\$ 6,979,108 \$	1,184,481	\$ 1,190,015	\$ 1,195,715	\$ 1,201,587	\$ 1,207,634	\$ 29,952,040
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NC - Non-Reclaimable Wastewater	EN23002	Philadelphia Lift Station Force Main Improvements	\$ 7,163,000	\$ 11,350,000	\$ 1,000,000	\$-	\$ - \$	-	\$-	\$-	\$-	\$-	\$ 19,513,000
NC - Non-Reclaimable Wastewater	EN22020	Philadelphia Lift Station Pump Upgrades	\$ 329,000	\$ 400,000	\$ 4,000,000	\$ 2,000,000	\$ - \$	-	\$-				\$ 6,729,000
NC - Non-Reclaimable Wastewater	EN22007	NRW Asset Managment Projects	\$-	\$ 200,000	\$ 500,000	\$ 500,000	\$ 500,000 \$	500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 4,200,000
NC - Non-Reclaimable Wastewater	EN20064	NSNT Odor Complaints Mitigation	\$ 1,500,000	\$ 700,000	\$-	\$-	\$ - \$	-	\$-	s -	\$-	s -	\$ 2,200,000
NC - Non-Reclaimable Wastewater	EN23014	NRWS Manhole Upgrades - 22/23	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000 \$	180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 1,800,000
NC - Non-Reclaimable Wastewater	ENxxy86	New NRW Projects PDR's FY 22/23	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000 \$	100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 1,000,000
NC - Non-Reclaimable Wastewater	EN22048	Generator Retrofit - PLS	\$ 80,000										\$ 80,000
Total			\$ 9,352,000	\$ 12,930,000	\$ 5,780,000	\$ 2,780,000	\$ 780,000 \$	780,000	\$ 780,000	\$ 780,000	\$ 780,000	\$ 780,000	\$ 35,522,000
							I				1	1	
RC - Regional Wastewater Capital Improvement	EN19001	RP-5 Expansion to 30 mgd	\$ 40,000,000	\$ 50,000,000	\$ 20,000,000	\$ 13,000,000							\$ 123,000,000
RC - Regional Wastewater Capital Improvement	EN22044	RP-1 Thickening Building & Acid Phase Digester	\$ 4,500,000	\$ 27,100,000	\$ 47,340,000	\$ 42,140,000	\$-						\$ 121,080,000
RC - Regional Wastewater Capital Improvement	EN19006	RP-5 Bio Solids Handling Facility	\$ 67,000,000	\$ 30,000,000	\$ 15,000,000	\$-							\$ 112,000,000
RC - Regional Wastewater Capital Improvement	EN22006	RC Asset Management	\$ 250,000	\$ 250,000	\$ 2,400,000	\$ 8,000,000	\$ 8,000,000 \$	8,000,000	\$ 8,000,000	\$ 8,000,000	\$ 8,000,000	\$ 8,000,000	\$ 58,900,000
RC - Regional Wastewater Capital Improvement	EN24001	RP-1 Liquid Treatment Capacity Recovery	\$-	\$-	\$-	\$-	\$ - \$	-	\$ 2,000,000	\$ 13,000,000	\$ 13,000,000	\$ 13,000,000	\$ 41,000,000
RC - Regional Wastewater Capital Improvement	EN17006	CCWRF Asset Management and Improvements	\$ 9,000,000	\$ 16,000,000	\$ 699,853	\$-	\$ - \$	-	\$-	\$-	\$-	\$ -	\$ 25,699,853
RC - Regional Wastewater Capital Improvement	EN24002	RP-1 Solids Treatment Expansion	\$-	\$-	\$ 4,000,000	\$ 8,000,000	\$ 8,000,000 \$	-	\$-	\$-	\$-	\$-	\$ 20,000,000
RC - Regional Wastewater Capital Improvement	EN11039	RP-1 Disinfection Improvements	\$ 8,270,000	\$ 1,190,000	\$-	\$-	\$ - \$	-	\$-	s -	\$-	s -	\$ 9,460,000
RC - Regional Wastewater Capital Improvement	EN21045	Montclair Force Main Improvements	\$ 1,040,000	\$ 4,800,000	\$ 2,600,000								\$ 8,440,000
RC - Regional Wastewater Capital Improvement	EN23015	Collection System Upgrades 22/23	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000 \$	500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 5,000,000
RC - Regional Wastewater Capital Improvement	ENxxy85	New Regional Project PDR's FY22/23	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000 \$	500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 5,000,000
RC - Regional Wastewater Capital Improvement	EN22022	RP-1 Air Compressor Upgrades	\$ 390,000	\$ 3,600,000									\$ 3,990,000
RC - Regional Wastewater Capital Improvement	PL19001	Purchase Existing Solar Installation					\$	3,500,000					\$ 3,500,000
RC - Regional Wastewater Capital Improvement	EN22041	RP-1 Aeration Basins UW System Improvements	\$ 1,500,000	\$ 500,000	\$-	\$-	\$ - \$	-	\$-	s -	\$-	\$ -	\$ 2,000,000
RC - Regional Wastewater Capital Improvement	PL17002	HQ Solar Photovoltaic Power Plants Ph. 2					\$ 300,000 \$	1,100,000					\$ 1,400,000
RC - Regional Wastewater Capital Improvement	ENxxx17	RP-1 Motor Control Center 9M Upgrades	\$ 150,000	\$ 900,000									\$ 1,050,000
RC - Regional Wastewater Capital Improvement	EN18036	CCWRF Asset Mgmt and Improvement Pkg. III	\$ -	\$-	\$-	\$ 200,000	\$ 500,000 \$	300,000					\$ 1,000,000
RC - Regional Wastewater Capital Improvement	ENxxy20	IEUA SCADA Master Plan	\$-	\$ 500,000					\$ 250,000				\$ 750,000
RC - Regional Wastewater Capital Improvement	EN19025	Montclair and San Bernardino Lift Station Force Main Clean Out Vaults	\$ 704,500	\$-	\$-	\$-	\$ - \$	-	\$-	\$-	\$-	\$-	\$ 704,500
RC - Regional Wastewater Capital Improvement	EN18006	RP-1 Flare Improvements	\$ 240,000										\$ 240,000
RC - Regional Wastewater Capital Improvement	ENxxxx5	CCWRF Filter Effluent Sodium Hypochlorite Modificaion	\$ 50,000	\$ 55,000									\$ 105,000
RC - Regional Wastewater Capital Improvement	EN22040	NFPA 70E required labels	\$ 75,000										\$ 75,000
RC - Regional Wastewater Capital Improvement	EN22042	RP-4 Ammonia Analyzers and Support System	\$ 9,500	\$-	\$-	\$-	\$ - \$	-	\$-	\$-	\$-	\$-	\$ 9,500
Total			\$ 134,179,000	\$ 135,895,000	\$ 93,039,853	\$ 72,340,000	\$ 17,800,000 \$1	3,900,000	\$11,250,000	\$ 22,000,000	\$ 22,000,000	\$ 22,000,000	\$ 544,403,853

Fund Name	Project Number	Project Name	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	FY 30/31	FY 31/ 32	Total TYCIP FY 2023-2032
RO - Regional Wastewater Operations and Maintenance	PL26001	Advanced Water Purification Facility	\$ 4,500,000	\$ 4,500,000	\$ 31,000,000	\$ 37,000,000	\$ 31,000,000	\$ 5,000,000	\$-	\$-	\$-	\$	\$ 113,000,000
RO - Regional Wastewater Operations and Maintenance	EN13016	SCADA Enterprise System	\$ 5,000,000 \$	\$ 6,200,000	\$ 1,000,000								\$ 12,200,000
RO - Regional Wastewater Operations and Maintenance	EN22031	RP-1 Influent Pump Station Electrical Im	\$ 750,000 \$	\$ 750,000	\$ 7,500,000	\$-	\$-						\$ 9,000,000
RO - Regional Wastewater Operations and Maintenance	EN18025	RP-1 Secondary System Rehabilitation	\$ - \$	\$- \$	\$-	\$ 500,000	\$ 6,700,000	\$ 1,000,000	\$ -	\$-	\$-	\$-	\$ 8,200,000
RO - Regional Wastewater Operations and Maintenance	EN20057	RP-4 Process Improvements Phase II	\$ 500,000 \$	\$ 4,000,000	\$ 3,500,000	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ 8,000,000
RO - Regional Wastewater Operations and Maintenance	EN22005	RO Asset Management (Facilities/Collections)	\$ 250,000 \$	\$ 250,000	\$ 300,000	\$ 600,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 7,400,000
RO - Regional Wastewater Operations and Maintenance	EP23002	North Major Facilities Repair/Replacemnt	\$ 600,000 \$	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 6,000,000
RO - Regional Wastewater Operations and Maintenance	EP23003	South Major Facilities Repair/Replacemen	\$ 400,000 \$	\$ 400,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 5,300,000
RO - Regional Wastewater Operations and Maintenance	ENXXXXX	RP-1 DeviceNet Replacement	\$ 1,000,000 \$	\$ 2,100,000	\$ 1,000,000								\$ 4,100,000
RO - Regional Wastewater Operations and Maintenance	ENxxy11	RP-1 Headworks Bar Screens Improvements	\$ 300,000 \$	\$ 3,600,000									\$ 3,900,000
RO - Regional Wastewater Operations and Maintenance	EN17042	Digester 6 and 7 Roof Repairs	\$ 2,300,000 \$	\$ 1,150,000									\$ 3,450,000
RO - Regional Wastewater Operations and Maintenance	EN22027	RP-1 Repurpose Lab	\$ 755,000 \$	\$ 1,800,000	\$-	\$-	\$-	\$-	\$-				\$ 2,555,000
RO - Regional Wastewater Operations and Maintenance	EN21053	RP-1 Old Effluent Structure Rehabilitation	\$ 500,000 \$	\$ 1,800,000									\$ 2,300,000
RO - Regional Wastewater Operations and Maintenance	EN20051	RP-1 MCB and Old Lab Building Rehab	\$ 800,000 \$	\$ 1,400,000	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ 2,200,000
RO - Regional Wastewater Operations and Maintenance	EN22025	RP-1 Dump Station	\$-			\$ 64,000	\$ 95,400	\$ 1,855,600	\$ 106,100	\$-	\$-	\$-	\$ 2,121,100
RO - Regional Wastewater Operations and Maintenance	ENxxx36	San Bernardino Ave Lift Station Reliability Improvements	\$ 500,000 \$	\$ 1,200,000	\$ 300,000								\$ 2,000,000
RO - Regional Wastewater Operations and Maintenance	ENxxy16	RP-1 Solids Electrical Panel Upgrades	\$ 275,000 \$	\$ 1,200,000	\$ 400,000								\$ 1,875,000
RO - Regional Wastewater Operations and Maintenance	ENxxx4	CCWRF Aeration Basins 1-6 Drain Valve Replacements	\$ 300,000			\$ 250,000	\$ 600,000	\$ 350,000					\$ 1,500,000
RO - Regional Wastewater Operations and Maintenance	ENxxx33	Annular Seals	\$ - \$	\$ 380,000			\$ 1,000,000						\$ 1,380,000
RO - Regional Wastewater Operations and Maintenance	AM23XX1	Old VFD Replacement (Wastewater)	\$ 250,000 \$	\$ 250,000	\$ 250,000	\$ 600,000							\$ 1,350,000
RO - Regional Wastewater Operations and Maintenance	FM23XX1	Heavy Equipment Replacement	\$ 670,000 \$	\$ 670,000									\$ 1,340,000
RO - Regional Wastewater Operations and Maintenance	EN23024	RP-1 TP-1 Stormwater Drainage Upgrades	\$ 250,000 \$	\$ 1,000,000	\$ 50,000	\$-	\$-	\$-	s -	s -	\$-	\$-	\$ 1,300,000
RO - Regional Wastewater Operations and Maintenance	EN21056	RP-1 Evaporative Cooling for Aeration BI	\$ 220,000 \$	\$ 795,000									\$ 1,015,000
RO - Regional Wastewater Operations and Maintenance	EN24020	RP-1 Dewatering Centrate Pumps	\$ - \$	\$ 200,000	\$ 500,000	\$ 120,000							\$ 820,000
RO - Regional Wastewater Operations and Maintenance	FM23XX2	GapVax Replacement	\$ 750,000										\$ 750,000
RO - Regional Wastewater Operations and Maintenance	EN25020	RP-1 Digester Cleaning Lagoon (DCL) Line		:	\$-	\$ 100,000	\$ 600,000	\$-	\$-	\$-	\$-	\$-	\$ 700,000
RO - Regional Wastewater Operations and Maintenance	EN20044	RP-1 Plant 3 Primary Cover Replacement		:	\$ 200,000	\$ 400,000	\$-	\$-	\$-	\$-	\$-	\$-	\$ 600,000
RO - Regional Wastewater Operations and Maintenance	ENXXXY74	CCWRF Influent Box Rehab at the Primary Clarifiers	\$ 400,000 \$	\$ 200,000									\$ 600,000
RO - Regional Wastewater Operations and Maintenance	EN21042	RP-1 East Influent Gate Replacement	\$ 520,000										\$ 520,000
RO - Regional Wastewater Operations and Maintenance	EN26021	Regional Conveyance AMP	\$ - \$	s - :	\$-	\$ 500,000	\$-	\$-	\$-	\$-	\$-	\$-	\$ 500,000
RO - Regional Wastewater Operations and Maintenance	EN20045	RP-1 Level Sensor Replacement				\$ 485,000							\$ 485,000
RO - Regional Wastewater Operations and Maintenance	EN27001	RP-1 Equalization Basin #1 Access Ramp	\$ - \$	s - s	ŝ -	\$-	\$ 35,000	\$ 106,500	\$ 300,000	s -	\$-	\$-	\$ 441,500
RO - Regional Wastewater Operations and Maintenance	ENxxxY35	CCWRF RAS Header Replacement	\$ 100,000 \$	\$ 185,000									\$ 285,000
RO - Regional Wastewater Operations and Maintenance	EN22034	RP-1 Generator Control Panel Retrofit/Modernization	\$ 180,000										\$ 180,000
RO - Regional Wastewater Operations and Maintenance	ENxxy15	RP-4 Headworks Utility Water Addition	\$ 175,000 \$	\$-									\$ 175,000
RO - Regional Wastewater Operations and Maintenance	ENXXXy76	RP-1 Centrate Line Improvements	\$ 160,000 \$	\$ - !	\$-								\$ 160,000
RO - Regional Wastewater Operations and Maintenance	EN19009	RP-1 Energy Recovery	\$ 105,000										\$ 105,000
RO - Regional Wastewater Operations and Maintenance	ENxxy14	RP-1 Instrumentation and Control Enhancement	\$ 100,000										\$ 100,000
RO - Regional Wastewater Operations and Maintenance	ENxxy38	CWRF HVAC System Ugrade	\$ 50,000										\$ 50,000
RO - Regional Wastewater Operations and Maintenance	EN20056	RSS Haven Ave Repair/Replace from Airport	\$ 9,000 \$	\$ - \$	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ 9,000
Total			\$ 22,669,000 \$	\$ 34,630,000	\$ 47,100,000	\$ 41,719,000	\$ 42,130,400	\$ 10,512,100	\$ 2,606,100	\$ 2,200,000	\$ 2,200,000	\$ 2,200,000	\$ 207,966,600
			1	1									
RW - Groundwater Recharge	RW15003	Recharge Master Plan Update Projects	\$ 10,040,000 \$	\$ 2,200,000	\$-	\$-	\$-	\$-		\$-	\$-	\$-	\$ 12,240,000
RW - Groundwater Recharge	EN22008	GWR Asset Managment Project	\$ 100,000 \$	\$ 100,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 4,200,000
RW - Groundwater Recharge	ENxxy13	RW/GRW Safety Work Improvements for Basin Gate Actuator Access	\$ 200,000 \$	\$ 820,000									\$ 1,020,000
RW - Groundwater Recharge	EN22050	GWR Basin PLC Upgrades	\$ 300,000 \$	\$ 200,000	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ 500,000
RW - Groundwater Recharge	EN22051	Jurupa Basin VFD Upgrades	\$ 300,000										\$ 300,000
RW - Groundwater Recharge	EN21057	Recharge Basin Clean-up of Illegally Dumped Materials	\$ 150,000			\$-							\$ 150,000
RW - Groundwater Recharge	IS22005	RW / GWR SCADA Infrastructure Replacement	\$ 60,000										\$ 60,000
RW - Groundwater Recharge	EN22049	GWR-RW OIT Upgrades	\$ 18,700										\$ 18,700
Total			\$ 11,168,700 \$	\$ 3,320,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 18,488,700

Fund Name	Project Number	Project Name	FY 22/23	FY 2	23/24	FY 24/25	FY 2	25/26	FY 26/27	FY 27/28	FY 2	28/29	FY 29/30	F	Y 30/31	FY	r 31/ 32	To FY 2	tal TYCIP 2023-2032
WC - Recycled Water	WR23X01	6 TAFY AWPF & Injection Facilities	\$ 7,000,000	\$ 7,0	000,000	\$ 53,000,000	\$ 61,0	000,000	\$ 52,000,000	\$ 8,000,000)\$	-	\$-	\$	-	\$	-	\$	188,000,000
WC - Recycled Water	EN22009	WC Asset Management Project	\$ 100,000	\$ 1	100,000	\$ 3,000,000	\$ 5,0	000,000	\$ 7,000,000	\$ 8,900,000	\$ 8,90	00,000	\$ 8,900,000	\$	8,900,000	\$ 1	8,900,000	\$	59,700,000
WC - Recycled Water	WR23X02	RW Interconnection to the City of Rialto	\$ 2,000,000	\$ 2,0	000,000	\$ 24,500,000	\$ 24,5	500,000			\$	-	\$-	\$	-	\$	-	\$	53,000,000
WC - Recycled Water	EN16065	RW Connections to JCSD	\$ 1,000,000	\$ 1,0	000,000	\$ 12,000,000	\$ 12,0	000,000			\$	-	\$-	\$	-	\$	-	\$	26,000,000
WC - Recycled Water	ENxxy19	RW SCADA Migration	\$ 800,000	\$ 3,0	000,000	\$ 830,000	1											\$	4,630,000
WC - Recycled Water	EN21041	RP-4 Contact Basin Cover Repair & RW Wet Well Passive Overflow Improvements	\$ 700,000	\$ 2,5	500,000	\$ 1,400,000												\$	4,600,000
WC - Recycled Water	ENxxy37	Etiwanda Interceptor Grade-Breadk RW Relocation	\$ 300,000	\$ 3,0	000,000	\$ 1,000,000												\$	4,300,000
WC - Recycled Water	ENxxy21	1299 Reservoir Paint/Coating Repairs and Upgrades	\$ 100,000	\$ 1,9	900,000												-	\$	2,000,000
WC - Recycled Water	ENxxy23	RP-4 Outfall Valve Replacement and Blow off Upgrades	\$ 250,000	\$ 1,4	150,000												-	\$	1,700,000
WC - Recycled Water	EN24005	1630 West Reservoir Paint/Coating Repair	\$ -	\$		ş -	\$	-	\$-	\$ 50,000	\$ 1,50	00,000	\$ -	\$	-	\$	-	\$	1,550,000
WC - Recycled Water	AM23XX2	Old VFD Replacement (Recycled Water)	\$ 250,000	\$ 2	250,000	\$ 250,000	\$ 6	600,000									-	\$	1,350,000
WC - Recycled Water	ENxxy87	New Recycled Water Project PDR's FY 22/23	\$ 100,000	\$ 1	100,000	\$ 100,000	\$ 1	00,000	\$ 100,000	\$ 100,000) \$ 10	00,000	\$ 100,000	\$	100,000	\$	100,000	\$	1,000,000
WC - Recycled Water	ENxxy24	1630 East Pump Station VFD Installation	\$ 550,000	\$ 2	200,000												-	\$	750,000
WC - Recycled Water	ENXXX19	Hickory Basin Replacement Monitoring Well	\$ 300,000														-	\$	300,000
WC - Recycled Water	EN15002	1158 Reservoir Site Cleanup	\$ 300,000														-	\$	300,000
WC - Recycled Water	EN24006	930 Reservoir Paint/Coating Repairs and	\$ -	\$	- 3	ş -	\$	-	\$-	\$ 50,000	\$	-	\$-	\$	-	\$	-	\$	50,000
Total			\$ 13,750,000	\$ 22,5	500,000	\$ 96,080,000	\$ 103,2	200,000	\$ 59,100,000	\$ 17,100,000	\$ 10,50	00,000	\$ 9,000,000	\$	9,000,000	\$ 9	9,000,000	\$:	349,230,000
WW - Water Administration	PL19005	CBP - Chino Basin Program	\$ 5,043,266								\$	-	\$-	\$	-	\$	-	\$	5,043,266
Total			\$ 5,043,266	\$	- 3	\$-	\$		\$-	\$-	\$	-	\$-	\$		\$	-	\$	5,043,266

APPENDIX B: Grant Dependent Capital Projects

Fund Name	Project Number	Project Name	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/3	30	FY 30/31	FY 3	31/ 32	Total TYCIP FY 2023-2032
WW - Water Administration	WR23X03	CBP - Extraction Facilities	\$ 10,000,000	\$ 10,000,000	\$72,000,000	\$84,000,000	\$72,000,000	\$ 12,000,000	\$-	\$	-	\$-	\$	-	\$ 260,000,000
WW - Water Administration	WR26X01	CBP - RW Interconnection to the MWD-Rialto Pipeline				\$ 1,000,000	\$ 9,000,000		\$-	\$	-	\$-	\$		\$ 10,000,000
Total			\$ 10,000,000	\$10,000,000	\$72,000,000	\$85,000,000	\$ 81,000,000	\$ 12,000,000	\$ -	\$	-	\$-	\$		\$ 270,000,000

*Grant-dependent projects are not included in the TYCIP totals as required agreements & funding have not been finalized to ensure project continuation.

APPENDIX C: Ten-Year Operations & Maintenance Project List

GG - Administrative Services FM2001 HD Interior Replacements \$. \$ \$. \$
GG - Administrative Services FM21003 Agency Wide Facilities Rehab & Repairs \$ 54,636 \$ 57,964 \$ 59,703 \$ 61,494 \$ 63,399 \$ 65,239 \$ 67,197 \$ 69,213 \$ 71,299 \$ 62,239 \$ 71,299 \$ 62,239 \$ 71,299 \$ 69,213 \$ 71,299 \$ 62,239 \$ 67,197 \$ 69,213 \$ 71,299 \$ 62,239 \$ 61,494 \$ 63,339 \$ 65,239 \$ 67,197 \$ 69,213 \$ 71,299 \$ 62,239 \$ 71,299 \$ 62,239 \$ 71,299 \$ 69,213 \$ 71,299 \$ 62,239 \$ 61,494 \$ 61,257 \$ 61,600 <t< td=""></t<>
GG - Administrative Services ENXXY79 GG Assessment Projects \$ 50,000
GG - Administrative Services FM23XX3 Prado Dechlorination Station Reroofing \$ 120,00 .
GG - Administrative Services IS23XX Virtual Phone System Transition \$ 45,000 <
GG - Administrative Services EN20008 EN20008 HQ Parking Lot FY19/20 \$ 15,000 \$ - <
Total \$ 284,636 \$ 106,275 \$ 107,964 \$ 209,703 \$ 861,494 \$ 1,895,339 \$ 117,197 \$ 119,213 \$ 121,290 \$ 3,938,356 NC - Non-Reclaimable Wastewater EN18021 Prado Basin AMP Annual Monitoring \$ 110,000 \$ 112,500 \$ 117,500 \$ 122,500 \$ 122,500 \$ 127,500 \$ 50,000 \$ 50,000 \$ 10
NC - Non-Reclaimable Wastewater EN18021 Prado Basin AMP Annual Monitoring \$ 110,000 \$ 112,500 \$ 112,500 \$ 122,500 \$ 127,500 \$ 127,500 \$ 50,000 \$ 10,000 \$ 10,000 \$ 100,000 </td
NC - Non-Reclaimable Wastewater EN18021 Prado Basin AMP Annual Monitoring \$ 110,000 \$ 112,500 \$ 122,500 \$ 122,500 \$ 122,500 \$ 127,500 \$ 100,000
NC - Non-Reclaimable Wastewater EN23016 NRWS Emergency O&M Projects FY 22/23 \$ 100,000 \$ 100
NC - Non-Reclaimable Wastewater ENXXY75 NRWS On Call 0&M Projects FY22/23 \$ 100,000 \$ 100,00
NC - Non-Reclaimable Wastewater WR16001 Water Softener Removal Rebate Program \$ 75,000 \$ 75,000 \$ 75,000 \$ 75,000 \$ 50,000 \$ 25,000
NC - Non-Reclaimable Wastewater ENXXY77 NRW Assessment Projects \$ 50,000 </td
NC - Non-Reclaimable Wastewater PL18002 Basin Plan Amendment \$ 125,000 \$ 20,000 \$ 20,000 \$ 20,000 \$ 145,000
NC - Non-Reclaimable Wastewater EN19028 NRW Man Hole and Pipeline Condition Assessment \$ 70,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Total \$ 630,000 \$ 457,500 \$ 440,000 \$ 442,500 \$ 445,000 \$ 422,500 \$ 400,000 \$ 402,500 \$ 325,000
RO - Regional Wastewater Operations and Maintenance EN22024 RP-1 Digester Cleaning Service Contract \$ - \$ 1,000,000 \$ 1,000,000 \$ 2,000,000 \$ 1,000,000 \$ 3,000,000 \$ 3,000,000 \$ 3,000,000 \$ 3,000,000 \$ 3,000,000 \$ 1,000,000 \$ 1,000,000 \$ 1,000,000 \$ 1,000,000 \$ 1,000,000 \$ 1,000,000 \$ 3,000,000 \$ 3,000,000 \$ 3,000,000 \$ 1,000,000 \$
RO - Regional Wastewater Operations and Maintenance EN26025 RP2-Prelimanary Design Report for Decomm \$ - \$ - \$ - \$ - \$ - \$ - \$ 5 - \$ - \$ 5
RO - Regional Wastewater Operations and Maintenance EN23019 RO Emergency O&M Projects FY 22/23 \$ 500,000 \$
RO - Regional Wastewater Operations and Maintenance ENxxy88 RO On-Call/Small Projects FY 22/23 \$ 500,000 \$
RO - Regional Wastewater Operations and Maintenance ENxxy89 RO Safety On-Call/Small Projects FY 22/23 \$ 500,000 \$ 50
RO - Regional Wastewater Operations and Maintenance PA22003 Agency Wide Paving \$ 602,500 \$ 400,0
RO - Regional Wastewater Operations and Maintenance EN16021 TCE Plume Cleanup \$ 1,950,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
R0 - Regional Wastewater Operations and Maintenance PA21002 Agency Wide Coatings \$ 50,000 \$ 150,000 \$ 388,810 \$ 445,975 \$ 353,354 \$ 260,955 \$ 1,649,094
RO - Regional Wastewater Operations and Maintenance ENXXYXX RO Assessment Projects (Facilities/Collections) \$ 150,000 \$ 150,00
RO - Regional Wastewater Operations and Maintenance EN23021 Agency Wide Infiltration and Inflow Study \$ 300,000 \$ - \$ - \$ - \$ - \$ - \$ 600,000
R0 - Regional Wastewater Operations and Maintenance PL23XX4 Wastewater Flow & Loading Study \$ 500,000 \$ 100,000 \$ 600,000
RO - Regional Wastewater Operations and Maintenance EN20034 RO On-Call/Small Projects FY 19/20 (SHF) \$ 500,000
RO - Regional Wastewater Operations and Maintenance Enxx066 Preserve Lift Station Improvements \$ 455,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Ro - Regional Wastewater Operations and Maintenance EN19023 Asset Management Planning Document \$ 400,000
Ro - Regional Wastewater Operations and Maintenance EN21058 Regional Sewer-Hydraulic Modeling \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$ 40,000 \$
RO - Regional Wastewater Operations and Maintenance EN22037 Prado De-Chlor S - S - S - S - S - S - S - S - S - S
RO - Regional Wastewater Operations and Maintenance PL21001 Flow & Loading Supplemental Study \$ 150,000 \$ 150,000 \$ 150,000
Ro - Regional Wastewater Operations and Maintenance PL23XX1 PFAS Investigation \$ 250,000 \$ 250,000 \$ 250,000
Ro - Regional Wastewater Operations and Maintenance PA17006 Agency-Wide Aeration \$ 181,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Ro - Regional Wastewater Operations and Maintenance PL23007 RO Planning Documents \$ 150,000
Bo - Regional Wastewater Operations and Maintenance EN26027 RP-1 & RP-4 Bird Deterrent Systems \$\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
RO - Regional Wastewater Operations and Maintenance EN19024 Collection System Asset Management (Assessment Only) \$ 60,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Ro - Regional Wastewater Operations and Maintenance PL23XX2 PTSC Linko Database Upgrade \$ 25,000
Total \$ 7.566.500 \$ 3.790.000 \$ 3.478.810 \$ 3.635.975 \$ 4.443.354 \$ 3.950.955 \$ 5.190.000 \$ 6.590.000
Learn A sheater
RW - Groundwater Recharge ENXXY78 [GWR Assessment Projects \$ 50,000 \$ 50,0
Total \$ 50,000 \$ 50,0

Fund Name	Project Number	Project Name	FY 22/23		FY 23/24	FY 24/	25	FY 25/	26	FY 26/27	FY 27/28	FY 28/29	FY 29/30		FY 30/31	F	Y 31/ 32	Total TYCIP FY 2023-2032
WC - Recycled Water	WR21029	Implement. of Upper SAR HCP - Wtr Benefi	\$ 250,000	\$	250,000	\$ 250	,000	\$ 250,	000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$	250,000	\$	250,000	\$ 2,500,000
WC - Recycled Water	EN23017	WC Emergency O&M Projects FY 22/23	\$ 150,000	\$	150,000	\$ 150	,000	\$ 150,	000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$	150,000	\$	150,000	\$ 1,500,000
WC - Recycled Water	ENxxy90	WC On-Call/Small Projects FY 22/23	\$ 150,000	\$	150,000	\$ 150	,000	\$ 150,	000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$	150,000	\$	150,000	\$ 1,500,000
WC - Recycled Water	EN19030	WC Asset Management (Assessment Only)	\$ 75,000	\$	100,000	\$ 100	,000	\$ 100,	000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$	100,000	\$	100,000	\$ 975,000
WC - Recycled Water	EN22028	Philly RW Gravity Line Abandonment	\$ -	\$	250,000	\$ 250	,000	\$	-	\$ -	\$-	\$-	\$-	\$	-	\$	-	\$ 500,000
WC - Recycled Water	EN19051	RW Hydraulic Modeling	\$ 40,000	\$	40,000	\$ 40	,000	\$ 40,	000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$	40,000	\$	40,000	\$ 400,000
WC - Recycled Water	EN21051	Ely Monitoring Well	\$ 400,000													1		\$ 400,000
WC - Recycled Water	EN25031	Recycled Water Program Strategy 2025				\$ 250	,000									1		\$ 250,000
WC - Recycled Water	PL23XX6	WC Planning Documents	\$ 250,000													1		\$ 250,000
WC - Recycled Water	EN20050	Reservoir Maintenance	\$ 20,000					\$ 20,	000			\$ 20,000				1		\$ 60,000
Total			\$ 1,335,000	\$	940,000	\$ 1,190	,000	\$ 710,	000	\$ 690,000	\$ 690,000	\$ 710,000	\$ 690,000	\$	690,000	\$	690,000	\$ 8,335,000
WW - Water Administration	WU23012	Residential Small Site Controller Upgrade Program	\$ 500,000	\$	500,000	\$ 500	,000	\$ 500,	000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$	500,000	\$	500,000	\$ 5,000,000
WW - Water Administration	WU23018	Landscape Irrigation Tune-Ups	\$ 500,000	\$	500,000	\$ 500	,000	\$ 500,	000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$	500,000	\$	500,000	\$ 5,000,000
WW - Water Administration	WU23004	Large Landscape Retrofit Program	\$ 400,000	\$	400,000	\$ 400	,000	\$ 400,	000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$	400,000	\$	400,000	\$ 4,000,000
WW - Water Administration	WR21028	Implement. of Upper SAR HCP - Wtr Benefi	\$ 250,000	\$	250,000	\$ 250	,000	\$ 250,	000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$	250,000	\$	250,000	\$ 2,500,000
WW - Water Administration	WU23006	CII Device Rebates	\$ 180,000	\$	180,000	\$ 180	,000	\$ 180,	000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$	180,000	\$	180,000	\$ 1,800,000
WW - Water Administration	WU23019	CII Turf Replacement Rebates	\$ 180,000	\$	180,000	\$ 180	,000	\$ 180,	000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$	180,000	\$	180,000	\$ 1,800,000
WW - Water Administration	WU23005	Residential Device Rebates	\$ 178,884	\$	178,884	\$ 178	,884	\$ 178,	884	\$ 178,884	\$ 178,884	\$ 178,884	\$ 178,884	\$	178,884	\$	178,884	\$ 1,788,838
WW - Water Administration	WU23020	Residential Turf Replacement Rebates	\$ 160,000	\$	160,000	\$ 160	,000	\$ 160,	000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$	160,000	\$	160,000	\$ 1,600,000
WW - Water Administration	WU23011	Member Agency Administered Project	\$ 139,379	\$	139,379	\$ 139	,379	\$ 139,	379	\$ 139,379	\$ 139,379	\$ 139,379	\$ 139,379	\$	139,379	\$	139,379	\$ 1,393,788
WW - Water Administration	WU23010	Residential Pressure Regulation Program	\$ 100,000	\$	100,000	\$ 100	,000	\$ 100,	000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$	100,000	\$	100,000	\$ 1,000,000
WW - Water Administration	WU23007	National Theater For Children	\$ 80,000	\$	80,000	\$ 80	,000	\$ 80,	000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$	80,000	\$	80,000	\$ 800,000
WW - Water Administration	WR23X04	Discover the Environment and Water (DEW): An Education Program and Facility	\$ 250,000	\$	115,356	\$ 115	,356	\$ 115,	356	\$ 115,356						1		\$ 711,425
WW - Water Administration	WU23008	Sponsorships & Public Outreach Activities	\$ 43,000	\$	43,000	\$ 43	,000	\$ 43,	000	\$ 43,000	\$ 43,000	\$ 43,000	\$ 43,000	\$	43,000	\$	43,000	\$ 430,000
WW - Water Administration	WU23002	CBWCD LEAP	\$ 30,000	\$	30,000	\$ 30	,000	\$ 30,	000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$	30,000	\$	30,000	\$ 300,000
WW - Water Administration	WU23015	Landscape Design Services	\$ 30,000	\$	30,000	\$ 30	,000	\$ 30,	000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$	30,000	\$	30,000	\$ 300,000
WW - Water Administration	PL23XX3	Regional Water Resiliency Planning	\$ 120,000	\$	150,000	\$ 30	,000									1		\$ 300,000
WW - Water Administration	PL23XX5	WW Planning Documents	\$ 250,000	1												1		\$ 250,000
WW - Water Administration	WU23009	Landscape Training Classes	\$ 20,000	\$	20,000	\$ 20	,000	\$ 20,	000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$	20,000	\$	20,000	\$ 200,000
WW - Water Administration	PL18001	Calif. Data Collab. WUE Data Analytics	\$ 5,000	\$	2,500									1		1		\$ 7,500
Total			\$ 3,416,263	\$	3,059,119	\$ 2,936	619	\$ 2,906,	619	\$ 2,906,619	\$ 2,791,263	\$2,791,263	\$ 2,791,263	\$	2,791,263	\$ 2	2,791,263	\$ 29,181,551

APPENDIX D: Ten-Year Forecast

Inland Empire Utilities Agency a municipal water district

IEUA's Ten-Year Forecast C

Contents

ABBREVIATIONS	. 2
SECTION 1: BACKGROUND	. 3
Inland Empire Utilities Agency Overview	. 3
Formation & Purpose	. 3
Governance	. 3
Contracting Agencies	. 3
SECTION 2: INTRODUCTION TO THE TEN-YEAR FORECAST	. 5
Ten-Year Forecast Purpose	. 5
Definition of a Capital Project	. 5
Regional Sewage Service Contract Requirements and Plan Adoption	. 5
SECTION 3: REGIONAL WATER RECYCLING INFRASTRUCTURE	. 6
Regional Wastewater Recycling Plants	. 6
Regional Wastewater System	. 6
Carbon Canyon Water Reclamation Facility	. 7
Regional Water Recycling Plant No. 1	. 7
Regional Water Recycling Plant No. 2	. 8
Regional Water Recycling Plant No. 4	. 8
Regional Water Recycling Plant No. 5	. 8
Regional Wastewater Recycling Plant Capacity	. 9
Capacity Expansion	. 9
System Loading	10
SECTION 4: EQUIVALENT DWELLING UNITS	12
Historical EDU Activity	12
Projected EDU Activity	13
Capital Capacity Reimbursement Accounts	14
SECTION 5: WASTEWATER CAPITAL IMPROVEMENT PROJECTS	15
Regional Wastewater Capital Improvement Fund	15
Ten-Year Forecast Project List	15
APPENDIX A: TEN-YEAR FORECAST PROJECT LIST	16
APPENDIX B: REGIONAL WASTEWATER CAPITAL IMPROVEMENT FUND BALAN	CE
	18

ABBREVIATIONS

AF: Acre Feet

CCRA: Capital Capacity Reimbursement Account

CCWRF: Carbon Canyon Water Reclamation Facility

CVWD: Cucamonga Valley Water District

EDU: Equivalent Dwelling Unit

FY: Fiscal Year

IEUA: Inland Empire Utilities Agency

IERCF: Inland Empire Regional Composting Facility

MGD: Million Gallons per Day

MWD: Metropolitan Water District of Southern California

O&M: Operation and Maintenance

RC: Regional Wastewater Capital Improvement Fund

TYF: Ten-Year Forecast

RCAs: Regional Contracting Agencies

RP-1: Regional Water Recycling Plant 1

RP-2: Regional Water Recycling Plant 2

RP-4: Regional Water Recycling Plant 4

RP-4: Regional Water Recycling Plant 5

WWFMPU: 2015 Wastewater Facilities Master Plan Update

SECTION 1: BACKGROUND

Inland Empire Utilities Agency Overview

The Inland Empire Utilities Agency (IEUA) is a regional wastewater treatment agency and wholesale distributor of imported water. IEUA is responsible for serving approximately 875,000 people over 242 square miles in western San Bernardino County. IEUA is focused on providing three key services: (1) treating wastewater, developing recycled water, local water resources, and conservation programs to reduce dependence on imported water supplies and provide local supply resiliency to the region; (2) converting biosolids and waste products into a high-quality compost made from recycled materials; and (3) generating electrical energy from renewable sources.

Formation & Purpose

IEUA was originally formed as the Chino Basin Municipal Water District on June 6, 1950, as a municipal corporation with the mission to supply supplemental imported water purchased from the Metropolitan Water District of Southern California (MWD) to municipalities in the Chino Basin. Since then, IEUA has expanded its mission from a supplemental water supplier to include regional wastewater treatment with both domestic and industrial disposal systems along with energy production facilities. In addition, IEUA has become a major provider of recycled water, a supplier of biosolids/compost materials, and continues its leading role in water quality management and environmental protection in the Inland Empire.

Governance

IEUA is a special district governed by five publicly elected Board of Directors. Each director is assigned to one of the five divisions which generally serve the following regions: Division 1- Upland/Montclair; Division 2- Ontario; Division 3- Chino/Chino Hills; Division 4- Fontana; and Division 5- Rancho Cucamonga. Monthly meetings are also held with the Regional Technical and Policy Committees comprised of representatives from each of IEUA's Regional Sewer Service Contracting Agencies. These Committees discuss and provide recommendations on various technical and policy issues affecting IEUA.

Contracting Agencies

As a regional wastewater treatment agency, IEUA provides wastewater utility services to seven contracting agencies under the Chino Basin Regional Sewage Service Contract (Regional Contract): the cities of Chino, Chino Hills, Fontana, Montclair, Ontario, and Upland along with Cucamonga Valley Water District (CVWD). Figure 1 depicts each Contracting Agency's sphere of influence within IEUA's service area.



Figure 1 – IEUA Contracting Agencies

SECTION 2: INTRODUCTION TO THE TEN-YEAR FORECAST

Ten-Year Forecast Purpose

The Board of Directors of the Inland Empire Utilities Agency adopts a Ten-Year Forecast (TYF) based on the growth and regulatory requirements, existing asset management needs, and recommendations from the Regional Technical and Policy Committees, pursuant to the terms of the Regional Sewage Service Contract. The purpose of the TYF is to catalog and schedule capital improvement projects necessary to enable the regional wastewater system to meet forecasted demands for all the Contracting Agencies over a multi-year period. Pursuant to Section 9 of the Regional Contract, IEUA submits a TYF of capacity demands and capital projects to the Regional Technical and Policy Committees. This TYF identifies projects for the Fiscal Year (FY) 2022/2023 through FY 2031/2032.

Projects identified in the TYF are important to ensure regional reliability and safety while meeting all regulatory requirements based on the physical conditions of assets and the forecasted regional projection of wastewater needs. According to these projections, the TYF proposes a schedule for implementing projects based on necessity. The timing of the projects identified in the TYF are further refined during the Capital Budget process, based on the availability of financial resources.

Definition of a Capital Project

The TYF is composed of a list of capital projects, which are projects that involve the purchase, improvement, or construction of major fixed assets and equipment, such as the expansion of treatment plants, the construction of pipeline and pump stations, and the replacement of equipment. Capital projects do not include funds spent on standard operation and maintenance (O&M).

Regional Sewage Service Contract Requirements and Plan Adoption

The Regional Sewage Service Contract is the guiding document that defines the terms of the services and facilities in IEUA's regional wastewater system. The Regional Contract was originally signed in January 1973, amended in 1984 and 1994, and is due for renewal in January 2023, 50 years after it was originally executed.

As required by the Regional Contract, the TYF includes wastewater flow forecasts, a description of planned capital projects, capital project expenditures, plant capacities, and available funding of the Regional Wastewater Capital Improvement (RC) fund. After detailed review, comments, and recommendations from the Regional Technical and Policy Committees and the Agency's Board of Directors, the TYF is adopted.

SECTION 3: REGIONAL WATER RECYCLING INFRASTRUCTURE

Regional Wastewater Recycling Plants

The Agency has four regional water recycling plants which produce recycled water from treated wastewater. Recycled water from all four plants meets Title 22 standards and it is used for agriculture, landscaping, industrial processing and groundwater recharge. The four regional facilities are: Regional Water Recycling Plant No.1 (RP-1), Regional Water Recycling Plant No.4 (RP-4), Regional Water Recycling Plant No.5 (RP-5), and Carbon Canyon Wastewater Recycling Facility (CCWRF). All the plants have primary, secondary, and tertiary treatment and recycled water pumping facilities that are interconnected in a regional network. Agency staff use wastewater bypass and diversion facilities, such as the San Bernardino Lift Station, Montclair Diversion Structure, Etiwanda Trunk Line, and Carbon Canyon bypass, to optimize IEUA's flows and capacity utilization. In general, flows are routed between regional plants in order to maximize recycled water deliveries while minimizing overall pumping and treatment costs. IEUA also has three facilities where the biosolids from the water recycling plants are handled: RP-1 Solids Handling Facility, Regional Water Recycling Plant No.2 (RP-2) Solids Handling Facility, and the Inland Empire Regional Composting Facility (IERCF).

Regional Wastewater System

The regional pipeline system that connects the plants can be used to send sewer flow from one water recycling plant to another to balance and optimize the use of treatment capacity. Currently, the regional interceptors can send partially treated flows from RP-4 to RP-1 and RP-2 to RP-5 and raw influent from CCWRF to RP-5. In addition, primary effluent can be sent from the RP-1 equalization basins to RP-5.

IEUA also has four regional wastewater lift stations. These are used to shift flows that would naturally flow from one portion of the service area to a different treatment plant. This balancing of flows keeps water in the northern portion of the service area, maximizing potential recycled water use. The lift stations are:

- Montclair Lift Station pumps wastewater from portions of Montclair, Upland, and Chino to RP-1 and CCWRF.
- Preserve Lift Station pumps wastewater from the Prado Regional Park and The Preserve community in the City of Chino to RP-5.
- RP-2 Lift Station pumps wastewater from the southeastern portions of the cities of Chino and Chino Hills and the solids treatment side streams from RP-2 to RP-5.
- San Bernardino Avenue Pump Station pumps a portion of the flow from the City of Fontana to RP-4.

Figure 2 illustrates the regional wastewater network that connects the treatment plants.



Figure 2 – IEUA Regional Wastewater System

Carbon Canyon Water Reclamation Facility

CCWRF is located in the City of Chino and has been in operation since May 1992. The CCWRF works in tandem with RP-2 and RP-5 to serve the areas of Chino, Chino Hills, Montclair, and Upland. Wastewater is treated at CCWRF while the biosolids removed from the wastewater flow are pumped to RP-2 for processing. The CCWRF is designed to treat an annual average flow of 12 MGD and treats approximately 8.0 MGD.

Regional Water Recycling Plant No. 1

RP-1 is located in the City of Ontario near the intersection of Highway 60 and Archibald Avenue. This facility was originally commissioned in 1948 and has undergone several expansions to increase the design wastewater treatment capacity to approximately 44 MGD, based on the wastewater characteristics at the time of the expansions. Although the projected wastewater flows do not show a significant increase from current to build-out, they do reflect higher loading characteristics that require treatment process modifications to meet effluent discharge regulations. RP-1 serves the areas of Ontario, Upland, Fontana, Chino, Montclair, and Rancho Cucamonga, and currently treats approximately 25.5 MGD.

Regional Water Recycling Plant No. 2

RP-2 in the City of Chino has been in operation since 1960. RP-2 was both a liquids and solids treatment facility until 2004, when RP-5 was constructed to handle the liquids portion. Since then, RP-2 treats only the solids from CCWRF and RP-5. RP-2 treatment processes include gravity thickening and DAF thickening, anaerobic digestion for stabilization, and dewatering by either belt press or centrifuge.

Once the solids are dewatered, they are transported to the IERCF. RP-2 is located on land leased from the US Army Corps of Engineers and the lease is due to expire in 2035. RP-2 is also located within the recently redefined flood zone behind Prado Dam. Orange County Flood Control District and the Army Corps have plans to raise the maximum operational water level behind the dam to allow greater water storage and conservation. Since RP-2 does not have physical flood protection, IEUA will relocate the solids handling from RP-2 to RP-5. The relocation of solids handling is expected to start in 2023.

Regional Water Recycling Plant No. 4

RP-4 is located in Rancho Cucamonga and has been in operation treating wastewater and producing recycled water since 1997. The RP-4 facility capacity was doubled in 2009 from 7 MGD to 14 MGD.

Waste sludge generated at RP-4 is discharged back to the sewer and flows by gravity to RP-1. RP-4 serves areas of Fontana and Rancho Cucamonga, treating approximately 8.8MGD.

Regional Water Recycling Plant No. 5

RP-5 is located immediately east of the Agency's Administrative Headquarters campus in the City of Chino and began operation in March 2004. It has a capacity rating of 16.3 MGD, which includes capacity for approximately 15 MGD of raw wastewater and 1.3 MGD of solids processing return or recycled flows from RP-2. Waste sludge produced at RP-5 is pumped to the RP-2 solids handling facility, which will be relocated to RP-5 around 2023. RP-5 serves areas of Chino, Chino Hills, and Ontario, treating approximately 8.3 MGD.

The RP-5 Solids Handling Facility was operated by IEUA from 2001 to 2009 as a regional facility accepting dairy manure for recycling and generating biogas. In 2010, IEUA entered into a lease agreement with Environ Strategies (now Inland BioEnergy) and in 2012, they began utilizing the facility for digestion of primarily food wastes with minor amounts of dairy manure. RP-5 SHF can process 705 wet tons/day of food and dairy waste through an anaerobic digestion process and can generate electricity from the biogas produced. As of August 2017, Inland BioEnergy stopped regular Operations of the facility. Due to the regional benefits of such a waste handling facility and the reduced energy costs, the Agency plans to keep RP-5 SHF available for the processing of food and dairy waste.

Regional Wastewater Recycling Plant Capacity

	Table 1	- Regional Plant Capacity U	tilization (MGD)	
Regional Plant	Total Capacity	Average FY 20/21 Used Capacity	Capacity Remaining	Scheduled Expansions
CCWRF	12.0	8.0	4.0	N/A
RP-1	32.0*	24.7	7.3	+8.0
RP-2**	N/A	N/A	N/A	N/A
RP-4	14.0	8.9	5.1	N/A
RP-5	16.3	8.7	7.6	+6.2
Total Influent	74.3	50.3	24.0	+14.2

The regional wastewater recycling plants utilized capacity is calculated based on a 12-month average of influent flows measured in million gallons per day (MGD) as seen in Table 1.

*RP-1 total hydraulic capacity without loading treatment limitations is 44 MGD **RP-2 liquid treatment facilities have been relocated to RP-5



Figure 3 - Historical Regional Influent Flows

Capacity Expansion

Wastewater flow forecasts are conducted annually and are based on four main components: (1) historical wastewater flow trends; (2) per dwelling unit wastewater generation factors, based on the 2015 Wastewater Facilities Master Plan Update (WWFMPU) projections; (3) actual influent flows measured at the treatment plants; and (4) expected future growth numbers provided by the RCAs. These projections are used to determine future demands on

the Agency's facilities and help anticipate the need for modifications to treatment plants and solids handling facilities.

The WWFMPU identified the projected flows to the treatment plants in 2035 through 2060. The WWFMPU estimates that there will be a regional flow of 73.5 MGD by 2035 and an ultimate/build-out flow of 80 MGD by 2060. Capacity projects to address increasing demands within the 10-year window include expansions at RP-5, the relocation of RP-2 solids handling to RP-5, and the beginning of the RP-1 liquid capacity recovery and solids treatment expansion.

The expansion at RP-5 set for completion in 2025 will increase the plant capacity to 22.5 MGD, up 6.2 MGD from its current capacity of 16.3 MGD.

The RP-1 liquid capacity recovery project is set to recover 8 MGD of capacity lost due to system loading. While RP-1 has a hydraulic capacity of 44 MGD, only 32 MGD of capacity is usable due to loading treatment constraints. After the recovery project is completed, the total usable capacity will be increased to 40 MGD, still 4 MGD below the plant's hydraulic capacity.

System Loading

Over the past decade the IEUA service area has experienced an increase in indoor water use efficiency as a direct result of drought, shifting public policy, more efficient building and plumbing codes, and effective conservation program campaigns. This increased efficiency has decreased the total influent volume of wastewater flows received by IEUA treatment plants by approximately 10% since 2010. While the flows have decreased, the regional population has continued to grow. The combination of an increased population but reduced wastewater flow has resulted in an increase in the strength of the wastewater coming into IEUA's treatment facilities. This trend of increased wastewater strength is expected to continue as both the population and regional water efficiency continue to increase. Current and future wastewater treatment plant expansions are largely driven by the increased strength of wastewater flows to the facilities.



Figure 4 – Monthly Concentrations: April 2000 – June 2021

SECTION 4: EQUIVALENT DWELLING UNITS

One equivalent dwelling unit (EDU) is an approximate measure of the daily wastewater flow in quantity and strength of an average single-family household as determined in Exhibit "J" of the Regional Contract. This unit of measurement enables IEUA and the RCAs to uniformly track past and projected connections to the regional wastewater system.

Historical EDU Activity

EDU activity has increased from FY 19/20 to FY 20/21 with the addition of 5,281 EDUs to the region compared to the addition of only 3,435 EDUs the previous fiscal year. The additional EDUs added in FY 20/21 are 3,732 EDUs lower than the RCAs projections of 9,013 EDUs and 1,281 EDUs more than the IEUA Budgeted Projections of 4,000 EDUs. Two sets of projections exist in order to allow for conservative estimates. The RCAs' projections are required under the Regional Contract and serve as a planning tool for plant treatment capacity and loading. Under the Regional Contract, RCAs who report EDU projections that are lower than what the regional experiences may have building moratoriums imposed. For this reason, the RCAs may make projections conservatively high. Budgeted projections are used by IEUA to project future wastewater treatment needs and fund availability. To ensure adequate fund availability, budgeted projections are conservative, ensuring IEUA treatment plants can safely and effectively treat the additional wastewater while also ensuring the agency does not over-project fund availability. Table 2 outlines the building activity in the region along with both sets of EDU projections.

Table 2 - Building Activity for Last Five Fiscal Years (FY 15/16 through FY 20/21)													
Year	Building Activity (EDUs)	Budgeted Projections (EDUs)	RCAs Projections (EDUs)										
FY 15/16	4,787	4,330	5,849										
FY 16/17	5,189	3,000	5,277										
FY17/18	5,223	4,000	5,442										
FY 18/19	3,459	4,000	6,149										
FY 19/20	3,435	4,000	6,390										
FY 20/21	5,281	4,000	9,013										

Projected EDU Activity

In accordance with the Regional Contract, the RCAs completed a survey of their 10-year capacity demand forecast. The results of the 10-year capacity demand forecast survey are summarized in Table 3. For FY 2021/22, the forecasted activity was 9,144 additional EDUs. Over the next ten years, activity was projected to total 67,927 EDUs added region wide. Approximately 72% of this projected activity is a result of new development in the service areas of Ontario and Fontana. Over the next ten years, building activity is projected to be approximately 80% residential and 20% commercial/industrial. Figure 5 highlights the breakdown between residential and commercial/industrial projected EDUs.

	Table 3 – 10 Year Projected RCAs EDU Activity														
Fiscal Year	Chino EDUs	Chino Hills EDUs	CVWD EDUs	Fontana EDUs	Montclair* EDUs	Ontario EDUs	Upland EDUs	Total EDUs							
FY 21/22	434	138	2,050	1,792	474	3,780	476	9,144							
FY 22/23	396	361	2,050	1,863	106	3,382	456	8,614							
FY 23/24	396	570	1,650	1,935	26	3,382	351	8,310							
FY 24/25	396	391	1,250	2,011	26	3,382	271	7,727							
FY 25/26	396	200	890	2,089	26	2,660	176	6,437							
FY 26/27	395	276	490	2,171	26	2,520	100	5,978							
FY 27/28	285	231	490	2,171	26	2,410	55	5,668							
FY 28/29	285	1	490	2,171	26	2,410	0	5,383							
FY 29/30	235	1	490	2,171	26	2,410	0	5,333							
FY 30/31	235	1	490	2,171	26	2,410	0	5,333							
TOTAL	3,453	2,170	10,340	20,545	788	28,746	1,885	67,927							

*The City of Montclair's forecasts have been extended from last Fiscal Year as a completed 2021 10year capacity demand forecast was not completed.



Figure 5 - FY 21/22 10-Year Growth Forecast

Estimated CCRA account contributions in 2022 dollars are calculated by taking the RCAs EDU projections and multiplying them by the current adopted EDU rate of \$7,379. Projected CCRA contributions are estimated at roughly \$67 million at the start of the tenyear period and steadily dropping year after year to around \$39 million.

Capital Capacity Reimbursement Accounts

IEUA levies a fee on all new connections to its regional wastewater system. Connection fees are restricted to finance capital acquisition, construction, equipment, and process improvement costs for the IEUA's regional wastewater system. Pursuant to the Regional Contract, new EDU connection fees are collected by each of IEUA's RCAs and held in trust in a Capital Capacity Reimbursement Account (CCRA) until requested, or "called", by IEUA. Capital calls, or connection fee payments of CCRA funds, are based on the identified and projected capital needs of IEUA over the ensuing nine months, as calculated and reported by IEUA each quarter. Connection fees rates were evaluated as part of IEUA's FY 2019/2020 Rate Study. Capital calls are calculated based on the proportionate share of each Contracting Agency's CCRA account balance relative to the aggregate amount. The current balance of the CCRA accounts can be found in Table 4 below.

Table 4 – Contracting Agencies CCRA Balance as of June30th, 2021											
Regional Contracting Agency	CCRA Balance										
City of Chino	\$	12,540,350.96									
City of Chino Hills	\$	4,892,678.48									
Cucamonga Valley Water District	\$	11,578,029.93									
City of Fontana	\$	20,217,463.28									
City of Montclair	\$	2,770,381.23									
City of Ontario	\$	33,764,260.28									
City of Upland	\$	5,748,458.49									
Total	\$	91,511,622.65									

SECTION 5: WASTEWATER CAPITAL IMPROVEMENT PROJECTS

Regional Wastewater Capital Improvement Fund

The TYF evaluates capital improvement projects necessary to meet wastewater forecasted demands. IEUA categorizes these projects into the RC Fund. Expenses charged to the RC Fund include capital projects that are required to meet regional growth in the forms of flow, loading, capacity or other factors. The RC Fund's primary sources of revenue include new EDU connection fees and property taxes but also include debt proceeds, loans, and grants. An estimated breakdown of the RC Fund balance over the next 10-years can be found in Appendix B.

Ten-Year Forecast Project List

The TYF contains projects which were identified by IEUA staff and include expansion projects to provide additional treatment capacity to meet future growth. Drivers used to determine the timeframe and necessity of projects include regulatory and permitting requirements, wastewater flow projections, asset age, performance, efficiency, and grant or funding availability. Total wastewater capital spending over the next ten-years is projected to be \$544,403,853. The TYF project list represents IEUA's capital projects forecast based on existing planning documents and anticipated funding sources. The full list of TYF projects can be found in Appendix A.

APPENDIX A: TEN-YEAR FORECAST PROJECT LIST

Fund Name	Project Number	Project Name	F	Y 22/23		FY 23/24	FY 24/25		FY 25/26	FY 26	127	FY 27/28	FY 28	/29	FY 29/30	F	Y 30/31	FY	r 31/ 32	Total TYCIP FY 2023-2032
RC - Regional Wastewater Capital Improvement	EN19001	RP-5 Expansion to 30 mgd	\$ 4	0,000,00	\$ 00	50,000,000	\$ 20,000,000) \$	13,000,000											\$ 123,000,000
RC - Regional Wastewater Capital Improvement	EN22044	RP-1 Thickening Building & Acid Phase Digester	\$	4,500,00)0 \$	27,100,000	\$ 47,340,000)\$	42,140,000	\$	-									\$ 121,080,000
RC - Regional Wastewater Capital Improvement	EN19006	RP-5 Bio Solids Handling Facility	\$6	67,000,00	\$ 00	30,000,000	\$ 15,000,000) \$	-											\$ 112,000,000
RC - Regional Wastewater Capital Improvement	EN22006	RC Asset Management	\$	250,00	\$ 00	250,000	\$ 2,400,000	\$	8,000,000	\$ 8,00	0,000	\$ 8,000,000	\$ 8,000	,000	\$ 8,000,000	\$ 8	8,000,000	\$8	,000,000	\$ 58,900,000
RC - Regional Wastewater Capital Improvement	EN24001	RP-1 Liquid Treatment Capacity Recovery	\$	-	\$	-	\$-	\$	-	\$	-	\$-	\$ 2,000	,000	\$13,000,000	\$13	8,000,000	\$13	,000,000	\$ 41,000,000
RC - Regional Wastewater Capital Improvement	EN17006	CCWRF Asset Management and Improvements	\$	9,000,00	\$ 00	6 16,000,000	\$ 699,853	\$	-	\$	-	\$-	\$	-	\$-	\$	-	\$	-	\$ 25,699,853
RC - Regional Wastewater Capital Improvement	EN24002	RP-1 Solids Treatment Expansion	\$	-	\$	-	\$ 4,000,000	\$	8,000,000	\$ 8,000	0,000	\$-	\$	-	\$-	\$	-	\$	-	\$ 20,000,000
RC - Regional Wastewater Capital Improvement	EN11039	RP-1 Disinfection Improvements	\$	8,270,00	\$ 00	1,190,000	\$-	\$	-	\$	-	\$-	\$	-	\$-	\$	-	\$	-	\$ 9,460,000
RC - Regional Wastewater Capital Improvement	EN21045	Montclair Force Main Improvements	\$	1,040,00	\$ 00	4,800,000	\$ 2,600,000)												\$ 8,440,000
RC - Regional Wastewater Capital Improvement	EN23015	Collection System Upgrades 22/23	\$	500,00	0 \$	500,000	\$ 500,000)\$	500,000	\$ 50	0,000	\$ 500,000	\$ 500	0,000	\$ 500,000	\$	500,000	\$	500,000	\$ 5,000,000
RC - Regional Wastewater Capital Improvement	ENxxy85	New Regional Project PDR's FY22/23	\$	500,00	\$ 00	500,000	\$ 500,000) \$	500,000	\$ 50	0,000	\$ 500,000	\$ 500	0,000	\$ 500,000	\$	500,000	\$	500,000	\$ 5,000,000
RC - Regional Wastewater Capital Improvement	EN22022	RP-1 Air Compressor Upgrades	\$	390,00	0 \$	3,600,000														\$ 3,990,000
RC - Regional Wastewater Capital Improvement	PL19001	Purchase Existing Solar Installation										\$ 3,500,000								\$ 3,500,000
RC - Regional Wastewater Capital Improvement	EN22041	RP-1 Aeration Basins UW System Improvements	\$	1,500,00	\$ 00	500,000	\$-	\$	-	\$	-	\$-	\$	-	\$-	\$	-	\$	-	\$ 2,000,000
RC - Regional Wastewater Capital Improvement	PL17002	HQ Solar Photovoltaic Power Plants Ph. 2								\$ 30	0,000	\$ 1,100,000								\$ 1,400,000
RC - Regional Wastewater Capital Improvement	ENxxx17	RP-1 Motor Control Center 9M Upgrades	\$	150,00	JO \$	900,000														\$ 1,050,000
RC - Regional Wastewater Capital Improvement	EN18036	CCWRF Asset Mgmt and Improvement Pkg. III	\$	-	\$; -	\$-	\$	200,000	\$ 50	0,000	\$ 300,000								\$ 1,000,000
RC - Regional Wastewater Capital Improvement	ENxxy20	IEUA SCADA Master Plan	\$	-	\$	500,000							\$ 250	0,000						\$ 750,000
RC - Regional Wastewater Capital Improvement	EN19025	Montclair and San Bernardino Lift Station Force Main Clean Out Vaults	\$	704,50	JO \$; -	\$-	\$	-	\$	-	\$-	\$	-	\$-	\$	-	\$	-	\$ 704,500
RC - Regional Wastewater Capital Improvement	EN18006	RP-1 Flare Improvements	\$	240,00	00															\$ 240,000
RC - Regional Wastewater Capital Improvement	ENxxxx5	CCWRF Filter Effluent Sodium Hypochlorite Modificaion	\$	50,00	JO \$	55,000														\$ 105,000
RC - Regional Wastewater Capital Improvement	EN22040	NFPA 70E required labels	\$	75,00	00															\$ 75,000
RC - Regional Wastewater Capital Improvement	EN22042	RP-4 Ammonia Analyzers and Support System	\$	9,50	\$ 00	-	\$-	\$	-	\$	-	\$-	\$	-	\$-	\$	-	\$	-	\$ 9,500
Total			\$13	84,179,00)0 \$	135,895,000	\$ 93,039,853	\$	72,340,000	\$ 17,80	0,000	\$13,900,000	\$ 11,250	,000	\$ 22,000,000	\$ 22	2,000,000	\$ 22	.,000,000	\$ 544,403,853

APPENDIX B: REGIONAL WASTEWATER CAPITAL IMPROVEMENT FUND BALANCE

	Table 5 - Regional Wastewater Capital Improvement Fund (RC) Yearly Balance													
	FY 2019/2020	FY 2020/2021	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31		
	Actual	Projected Actual	Proposed Budget	Proposed Budget	Forecast									
REVENUES AND OTHER FINANCING SOURCES														
Interest Revenue	835,858	826,462	591,557	699,533	838,285	721,458	435,810	322,803	295,367	295,367	295,367	295,368		
TOTAL REVENUES	\$835,858	\$826,462	\$591,557	\$699,533	\$838,285	\$721,458	\$435,810	\$322,803	\$295,367	\$295,367	\$295,367	\$295,368		
OTHER FINANCING SOURCES														
Property Tax - Debt and Capital	\$36,148,496	\$36,751,700	\$37,366,000	\$37,991,000	\$38,628,000	\$39,275,000	\$39,935,000	\$40,607,000	\$41,291,000	\$41,987,000	\$42,696,000	\$43,417,000		
Regional System Connection Fees	24,259,070	25,038,000	29,514,238	30,399,665	31,311,655	32,251,005	33,218,535	34,215,091	30,836,351	31,761,441	32,714,284	33,695,713		
Debt Proceeds	196,436,445	0	761,460	13,807,300	33,045,840	31,000,000	198,508,043	0	0	0	0	0		
State Loans	0	0	0	30,905,870	108,987,515	23,750,000	4,776,407	0	0	0	0	0		
Grants	122,690	0	0	0	0	0	0	0	0	0	0	0		
Capital Reimbursement	0	0	0	0	0	0	0	0	0	0	0	0		
Other Revenues	1,051,715	4,430	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
Loan Transfer from Internal Fund	0	0	0	2,000,000	6,000,000	5,500,000	0	0	0	0	0	0		
TOTAL OTHER FINANCING SOURCES	\$258,018,416	\$61,794,130	\$67,642,698	\$115,104,835	\$217,974,010	\$131,777,005	\$276,438,985	\$74,823,091	\$72,128,351	\$73,749,441	\$75,411,284	\$77,113,713		