



Regional Sewerage Program Technical Committee Meeting

AGENDA

Thursday, March 31, 2022

2:00 p.m.

Teleconference Call

In an effort to prevent the spread of COVID-19, the Regional Sewerage Program Technical Committee Meeting will be held remotely by teleconference.

Teams Conference Link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_NmRmY2FmMDYtNTBmMS00MjA5LTk3ODgtZDkyY2U3MTRmZGYz%40thread.v2/0?context=%7b%22Tid%22%3a%224c0c1e57-30f3-4048-9bd2-cd58917dcf07%22%2c%22Oid%22%3a%22329ec40e-eb94-4218-9621-6bfa0baa9697%22%7d

Teleconference: (415) 856-9169/Conference ID: 715 477 121#

This meeting is being conducted virtually by video and audio conferencing. There will be no public location available to attend the meeting; however, the public may participate and provide public comment during the meeting by calling the number provided above. Comments may also be submitted by email to the Recording Secretary Sally Lee at shlee@ieua.org prior to the completion of the Public Comment section of the meeting. Comments will be distributed to the Committee Members.

Call to Order

Roll Call

Public Comment

Members of the public may address the Committee on any item that is within the jurisdiction of the Committee; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Comments will be limited to three minutes per speaker.

(Continued)

Additions to the Agenda

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

1. Action Items

- A. Approval of February 24, 2022 Technical Committee Meeting Minutes
- B. RP-1 Disinfection Improvements Construction Contract Award

2. Informational Items

- A. Recycled Water Groundwater Recharge Update
- B. RP-5 Expansion Project Update
- C. Grants Semi Annual Update
- D. FY 2022/23-FY 2031/32 Ten-Year Capital Improvement Plan and Ten-Year Forecast
- E. Recycled Water Cost of Service Study Update
- F. Return to Sewer Study (*Oral*)
- G. Operations & Compliance Updates (*Oral*)

3. Receive and File

- A. Draft Regional Sewerage Program Policy Committee Special Meeting Agenda
- B. Building Activity Report
- C. Recycled Water Distribution - Operations Summary

4. Other Business

- A. Committee Member Requested Agenda Items for Next Meeting
- B. Committee Member Comments
- C. Next Regular Meeting – April 28, 2022

Adjournment

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Recording Secretary (909) 993-1926, 48 hours prior to the scheduled meeting so that the Agency can make reasonable arrangements.

DECLARATION OF POSTING

I, Sally Lee, Executive Assistant of the Inland Empire Utilities Agency*, a Municipal Water District, hereby certify that, per Government Code Section 54954.2, a copy of this agenda has been posted at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA and on the Agency's website at www.ieua.org at least seventy-two (72) hours prior to the meeting date and time above.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Sally Lee at (909) 993-1926 or shlee@ieua.org 48 hours prior to the scheduled meeting so that IEUA can make reasonable arrangements to ensure accessibility.

**ACTION
ITEM**

1A



Regional Sewerage Program Technical Committee Meeting MINUTES OF FEBRUARY 24, 2022

CALL TO ORDER

A regular meeting of the IEUA/Regional Sewerage Program – Technical Committee was held via teleconference on Thursday, February 24, 2022. Committee Chair Nicole deMoet/City of Upland called the meeting to order at 2:05 p.m. Recording Secretary Sally Lee took roll call and established a quorum was present.

ATTENDANCE via Teleconference

COMMITTEE MEMBERS PRESENT:

Dave Crosley	City of Chino
Ron Craig	City of Chino Hills
Amanda Coker	Cucamonga Valley Water District (CVWD)
Armando Martinez	City of Fontana
Monica Heredia	City of Montclair
Christopher Quach	City of Ontario
Nicole deMoet	City of Upland
Ken Tam	Inland Empire Utilities Agency (IEUA)

OTHERS PRESENT:

Mark Wiley	City of Chino Hills
Steve Nix	City of Fontana
Braden Yu	City of Upland
John Grace	Unknown
Sergio Sultanero	Unknown
Joshua Aguilar	IEUA
Randy Lee	IEUA
Jerry Burke	IEUA
Pietro Cambiaso	IEUA
Javier Chagoyen-Lazaro	IEUA
Sally Lee	IEUA
Scott Lening	IEUA
Eddie Lin	IEUA
Bonnie Marseilles	IEUA
Jason Marseilles	IEUA
Liza Munoz	IEUA
Cathleen Pieroni	IEUA

OTHERS PRESENT (continued):

Jesse Pompa	IEUA
Jeanina Romero	IEUA
Steven Smith	IEUA
Teresa Velarde	IEUA

PUBLIC COMMENTS

There were no public comments.

ADDITIONS/CHANGES TO THE AGENDA

There were no additions/changes to the agenda.

1. ACTION ITEMS**A. APPROVAL OF JANUARY 27, 2022 TECHNICAL COMMITTEE MEETING MINUTES**

Motion: By Christopher Quach/City of Ontario and seconded by Dave Crosley/City of Chino to approve the meeting minutes of the January 27, 2022, Regional Technical Committee meeting by the following vote:

Ayes: Quach, Crosley, Coker, Craig, Martinez, Tam, deMoet

Noes: None

Absent: None

Abstain: Heredia

The motion passed by a vote of 7 ayes, 0 noes, 1 abstain, and 0 absent.

B. REQUEST BY THE CUCAMONGA VALLEY WATER DISTRICT (CVWD) FOR A REGIONAL CONNECTION POINT TO THE ETIWANDA TRUNK SEWER CONNECTION #CW-22 (PROJECT NO. EN0000000112)

Jason Marseilles/IEUA gave a brief overview of the request from the CVWD for a Regional Connection Point to the Etiwanda Trunk Sewer Connection.

Motion: By Dave Crosley/City of Chino and seconded by Christopher Quach/City of Ontario to conditionally approve the request by the CVWD for one new connection point to the Etiwanda Trunk Sewer (CVWD Regional Sewer Connection #CW-22) contingent upon CVWD providing the Local Agency Formation Commission an approved resolution ratifying the Irrevocable Agreement to Annex the noted area for sewer service.

Ayes: Crosley, Quach, Coker, Craig, Heredia, Martinez, Tam, deMoet

Noes: None

Absent: None

Abstain: None

The motion passed by a vote of 8 ayes, 0 noes, 0 abstain, and 0 absent.

2. INFORMATIONAL ITEMS**A. RETURN TO SEWER STUDY**

Eddie Lin/IEUA reported that study consultant, California Data Collaborative, provided an update at the technical subgroup meeting the previous week. They shared some preliminary results from the

single-family residential analysis and reviewed data that was analyzed from the City of Chino, City of Ontario, and CVWD. They also shared the next steps including refining the single-family residential data, completing the evaluation of the multifamily categories, and continuing work in the commercial and industrial categories. California Data Collaborative also provided an update on the project schedule with the projected completion date of late May/early June.

B. OPERATIONS & COMPLIANCE UPDATES

Mr. Lin reported that there were no compliance issues to report this past month. There was a foaming incident that took place earlier in the week at the Carbon Canyon Water Recycling Facility. Since the last foaming incident in November, IEUA and City of Chino's pretreatment source control staff has continued periodic surveillance monitoring downstream of two industries that have been identified as potential dischargers. Unfortunately, there was no monitoring equipment in place at the time of this last incident. The teams performed inspections at the two industrial facilities shortly after the foaming incident, but no evidence of illicit discharge was found. Mr. Lin stated that additional monitoring downstream of the two facilities was performed again the previous day and staff is currently awaiting lab results. City of Chino and IEUA staff will continue investigating the source of the foaming incident and keep the Committee updated. He thanked the City of Chino's staff for their timely assistance in the field.

3. RECEIVE AND FILE

A. DRAFT REGIONAL SEWERAGE PROGRAM POLICY COMMITTEE MEETING AGENDA

B. BUILDING ACTIVITY REPORT

C. RECYCLED WATER DISTRIBUTION – OPERATIONS SUMMARY

Items 3A through 3C were received and filed by the Committee.

4. OTHER BUSINESS

A. COMMITTEE MEMBER REQUESTED AGENDA ITEMS FOR NEXT MEETING

There were no requested agenda items.

B. COMMITTEE MEMBER COMMENTS

There were no Committee Member comments.

C. NEXT MEETING – MARCH 31, 2022

ADJOURNMENT – Chair deMoet adjourned the meeting at 2:17 p.m.

Prepared by:

Sally Lee, Recording Secretary

**ACTION
ITEM**

1B

Date: March 2022/April 2022

To: Regional Committees

From: Inland Empire Utilities Agency

Subject: RP-1 Disinfection Improvements Construction Contract Award

RECOMMENDATION

It is requested that the Regional Committees recommend the Inland Empire Utilities Agency (IEUA) Board of Directors to award the construction contract for the Regional Water Recycling Plant No. 1 (RP-1) Disinfection Improvements, Project No. EN11039, to the lowest, responsive and responsible bidder in the amount of \$8,575,000.

BACKGROUND

The tertiary treatment plant (TP-1) at RP-1 has the critical function of treating secondary effluent to meet recycled water standards through filtration and disinfection with sodium hypochlorite (bleach). The RP-1 Disinfection Project was placed on hold in 2018 due to budgetary constraints. In 2019, the chemical disinfection system failed, and a temporary piping system was installed under an emergency project to return the system to operation. The success of the temporary chemical distribution system allowed IEUA additional time to secure funding and reinstate the project. In April 2021, after receipt of a State Revolving Fund (SRF) loan, the original design engineer consultant, Carollo Engineers, Inc., was contracted to complete the design, which was updated to account for changes in plant conditions, design standards, and SRF Loan requirements.

This project will construct new bleach storage tanks, injection, and mixing system, as well as provide improvements to other electrical and mechanical components of the disinfection system. The improvements include a new open-pit flash mix pump station and associated piping at the Filter Effluent Structures, concrete and coating repairs to the existing sedimentation basins, and overall asphalt improvements, including a newly paved parking lot. This project, partially funded by an SRF loan, will reduce chemical usage and associated delivery truck traffic, improve operational flexibility and redundancy, and enhance the overall recycled water quality.

On January 13, 2022, IEUA issued an invitation for bids to seven prequalified contractors. On March 3, 2022, IEUA received three construction bids. Innovative Construction Solutions (ICS) was the lowest responsive, responsible bidder with a bid price of \$8,575,000. The engineer's estimate was \$8,225,238.

The following table presents the anticipated project cost:

Description	Estimated Cost
<i>Design Services</i>	<i>\$1,406,093</i>
Design Consultant Contract	\$658,699
IEUA Design Services (actuals)	\$747,394
<i>Construction Services</i>	<i>\$1,455,911</i>
Engineering Services During Construction	\$598,411
IEUA Construction Services (~10%)	\$857,500
<i>Construction</i>	<i>\$9,861,250</i>
Construction Contract	\$8,575,000
Contingency (~15%)	\$1,286,250
Total Project Cost	\$12,723,254
Total Project Budget:	\$8,547,043
Budget Increase:	\$4,450,000
Revised Total Project Budget:	\$12,997,043

The following is the project schedule:

Project Milestone	Date
Construction Contract Award	April 2022
Construction Completion	October 2023

The RP-1 Disinfection Improvements Project is consistent with IEUA's **business goal of Wastewater Management**, specifically the Asset Management objective that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainability managed, and can accommodate changes in regional water use.



RP-1 Disinfection Improvements Project

Construction Contract Award

Project EN11039

Jason Marseilles, PE
Manager of Engineering
March/April 2022

Project Location: Regional Plant No. 1



The Project

- Demo existing storage tanks and pumps
- New bleach facility
- Construct flash mix pump station
- Rehabilitation and mechanical upgrades
- Pavement restoration
- SCADA integration



Existing Bleach Storage Tanks

Existing Sedimentation Basin



Contractor Selection

Three (3) bids were received on March 3, 2022:

Bidder's Name	Final Bid Amount
Innovative Construction Services	\$8,575,000
W.A. Rasic Contracting	\$9,722,088
J.F. Shea Construction, Inc.	\$13,422,000
Engineer's Estimate	\$8,225,238

Project Budget and Schedule

Description	Estimated Cost
Design Services	\$1,406,093
Design Consultant Contract	\$658,699
IEUA Design Services (actuals)	\$747,394
Construction Services	\$1,455,911
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IEUA Construction Services (~10%)	\$857,500
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Total Project Cost	\$12,723,254
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Revised Total Project Budget:	\$12,997,043

Project Milestone	Date
Construction	
Construction Contract Award	April 2022
Construction Completion	October 2023

Recommendation

- It is requested that the Regional Committees recommend the IEUA Board of Directors to award the construction contract for the RP-1 Disinfection Improvements, Project No. EN11039, to the lowest, responsive bidder in the amount of \$8,575,000;

The RP-1 Disinfection Improvements Project is consistent with **IEUA's Business Goal of Wastewater Management**, specifically the Asset Management objective that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainability managed, and can accommodate changes in regional water use.

**INFORMATION
ITEM**

2A

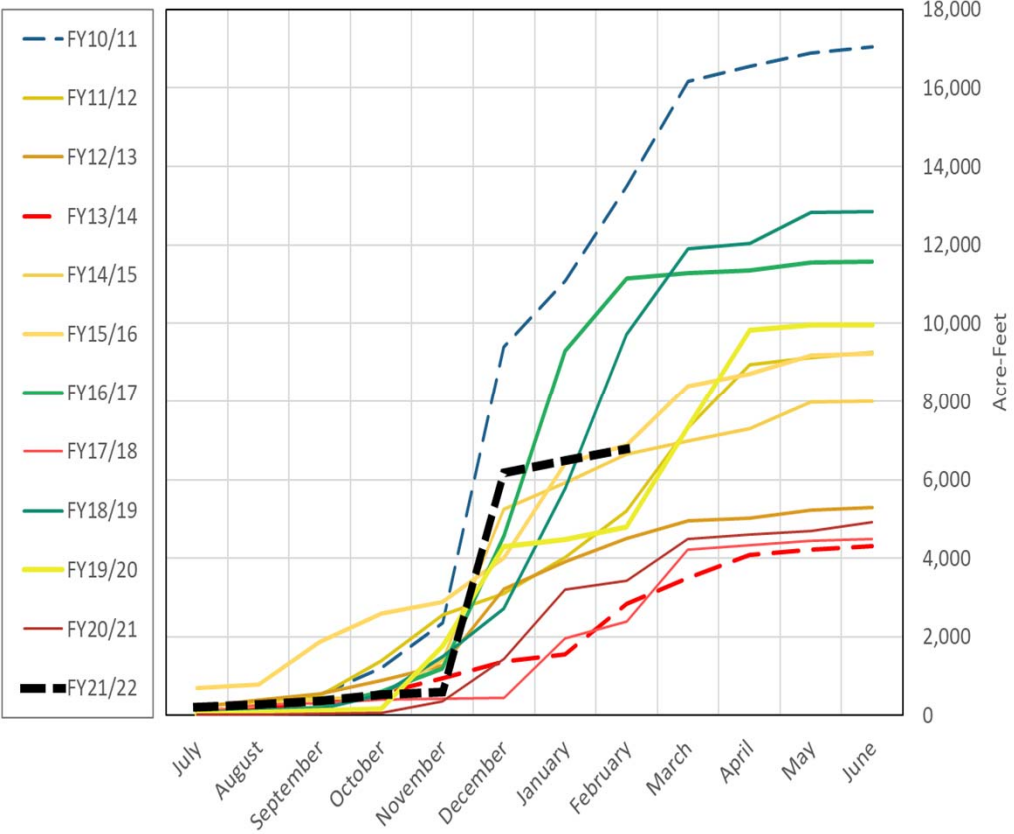


Recycled Water Groundwater Recharge Update

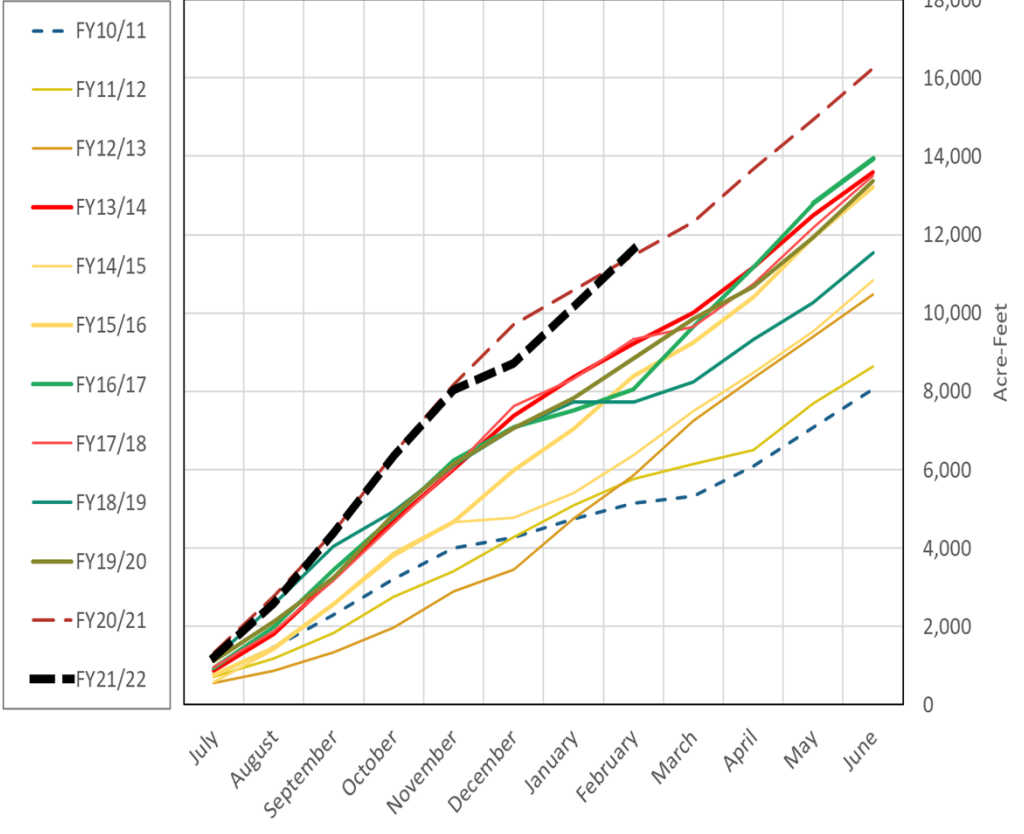
Andy Campbell, PG, CHG
Groundwater Recharge Supervisor
March/April 2022

Annual Recharge Monthly Accumulation

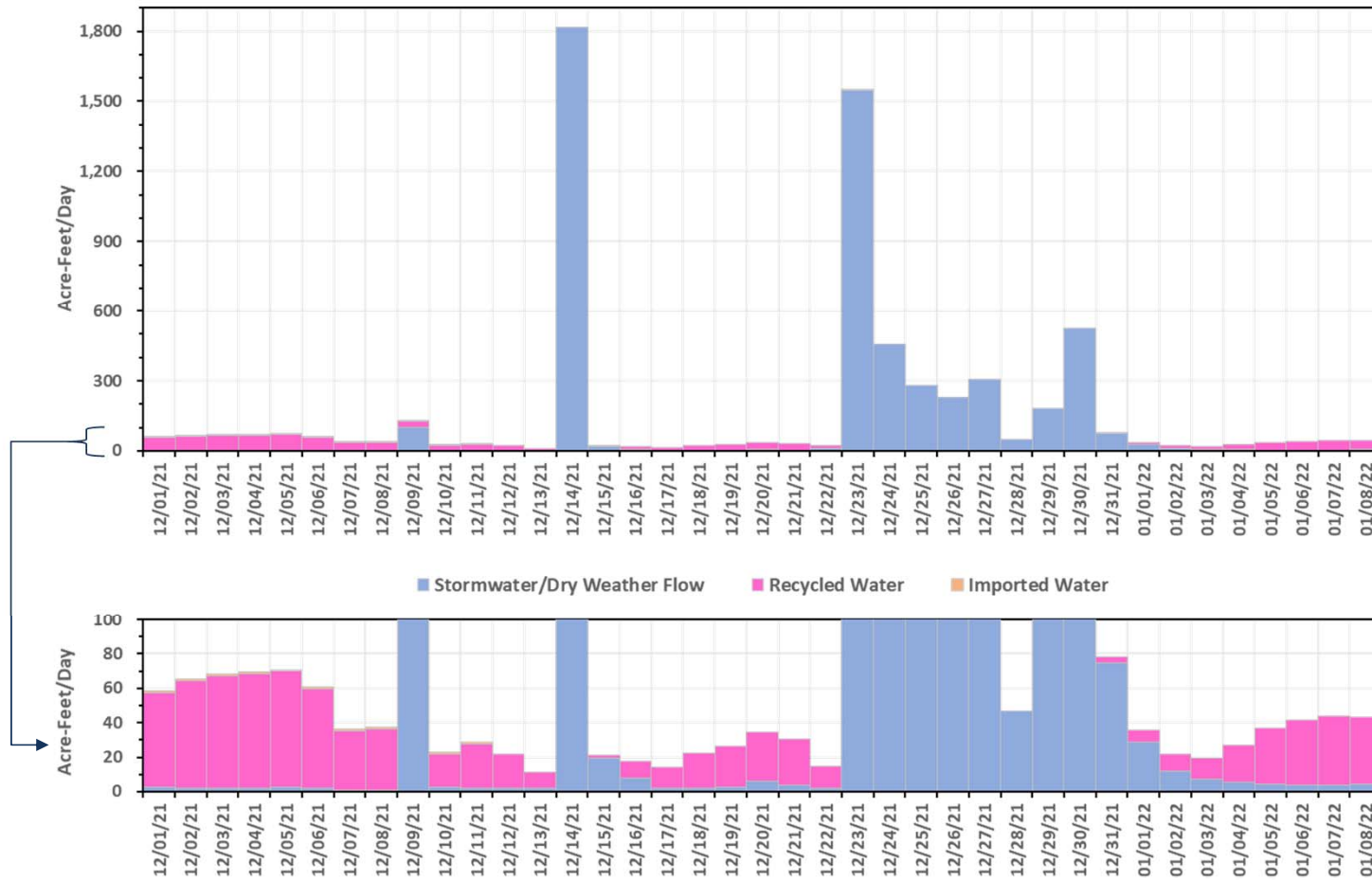
Stormwater Monthly Accumulation



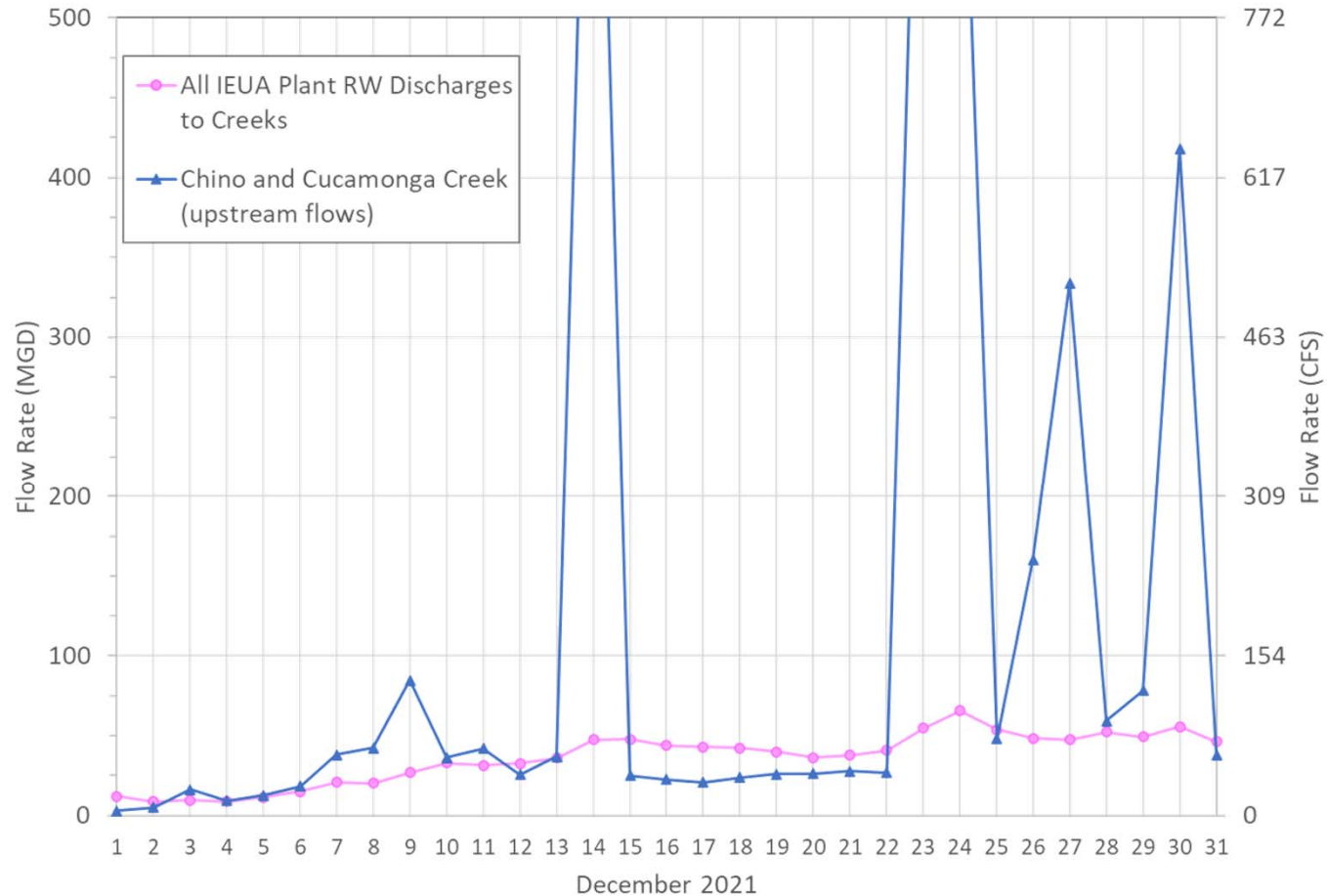
Recycled Water Monthly Accumulation



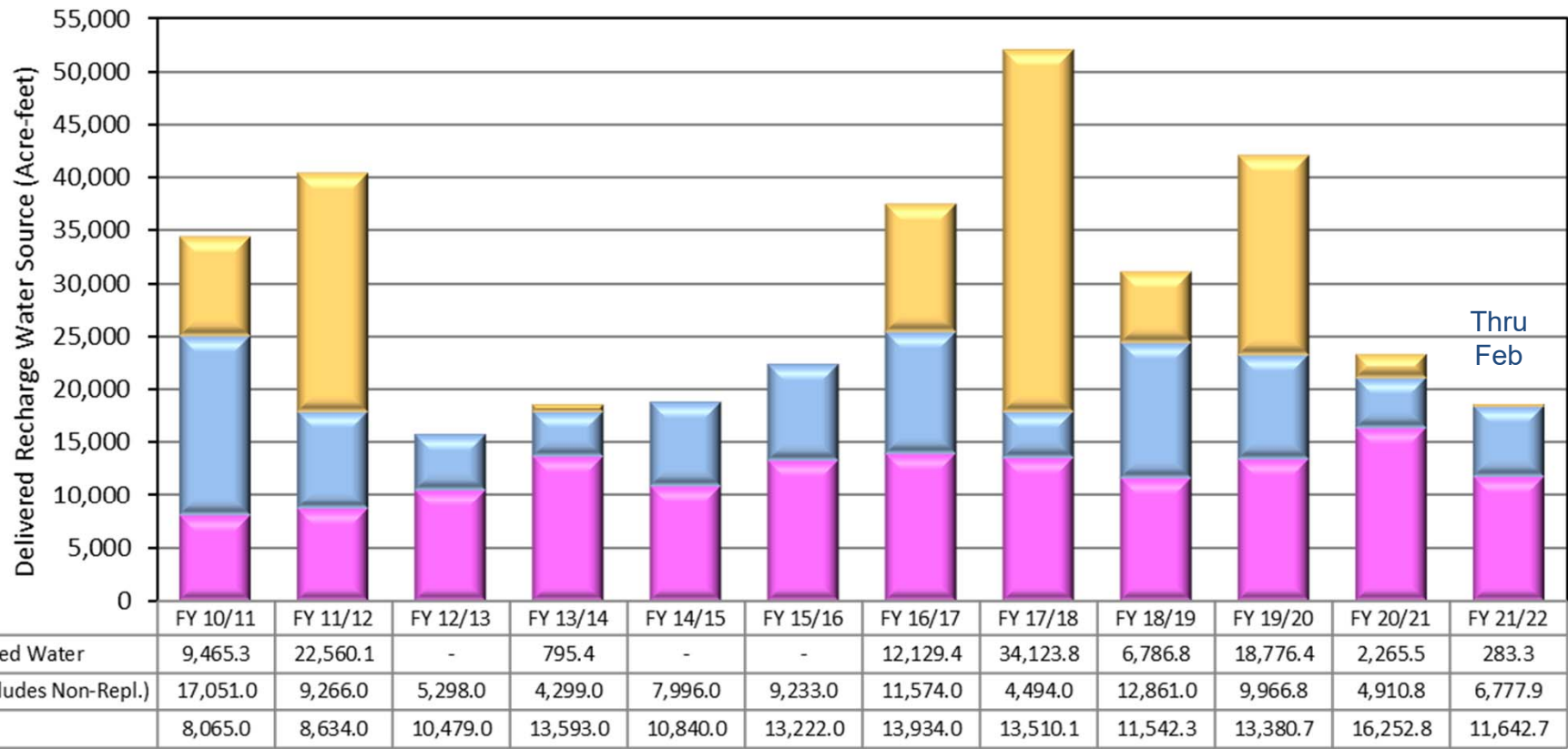
Daily December Recharge Capture



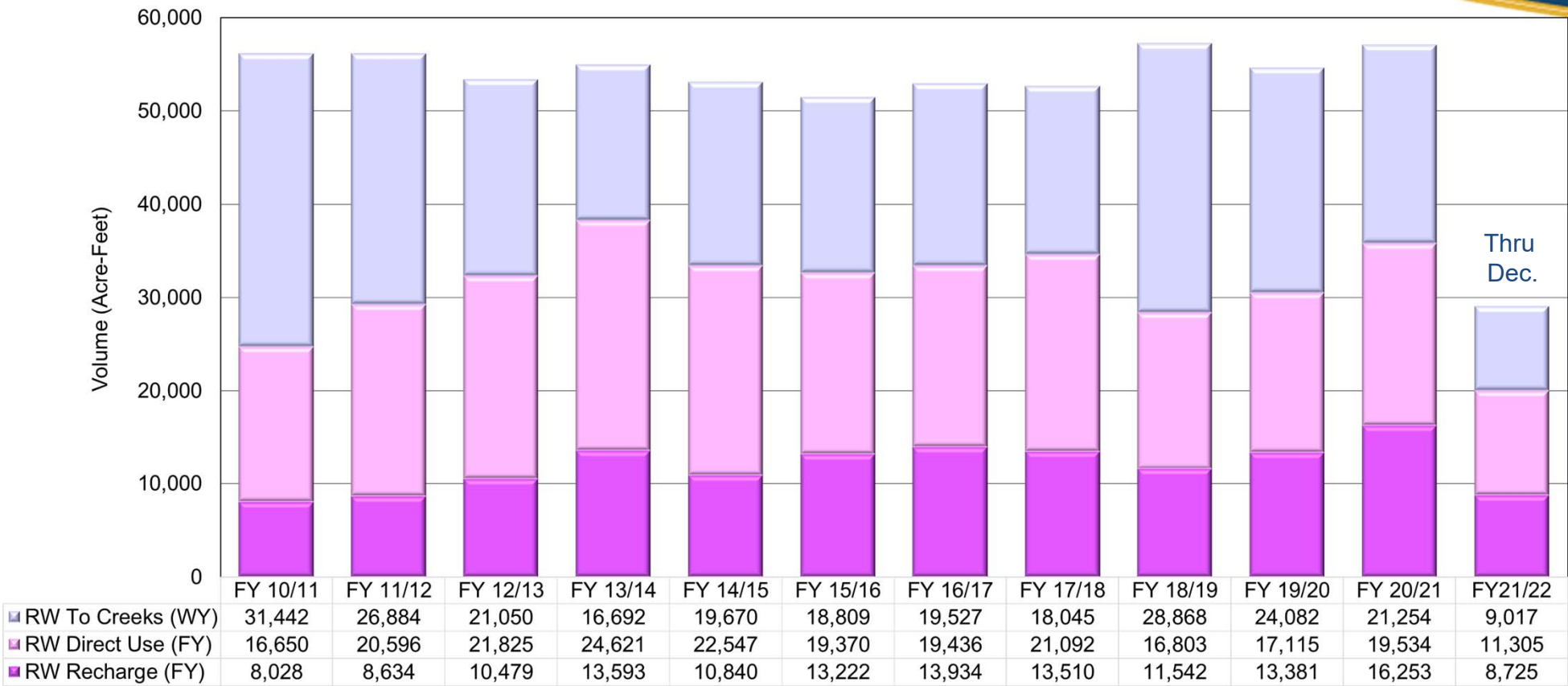
All IEUA Creek Discharge vs Chino & Cucamonga Creek Flows



Groundwater Recharge Annual History



Recycled Water (RW) Deliveries



Upcoming Recharge Activities

- 2022 - Watermaster Replenishment Obligation 2,077 AF
- March - San Sevaine 3 Vegetation Cleaning
- Spring - RMPU Project Operation - RP3 and Lower Day Basins
- Spring - Infiltration Restoration - RP3, Brooks, and Banana Basins
- Spring - Non-GWR Basin Fill Removal - Magnolia Channel Basin



**INFORMATION
ITEM**

2B

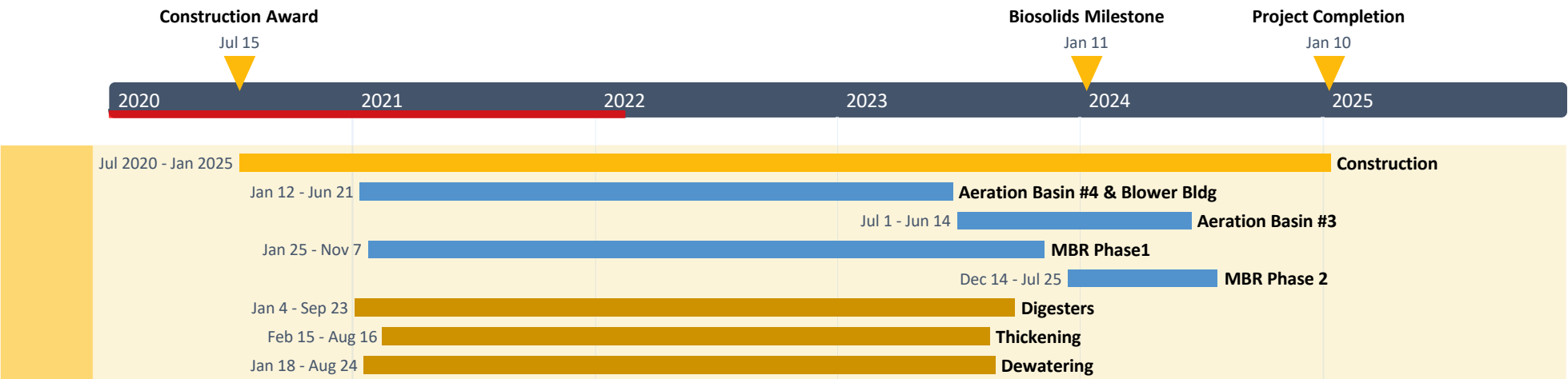
RP-5 Expansion Project Update

Project Nos. EN19001 and EN19006

Jason Marseilles, P.E.
Manager of Engineering
March/April 2022

RP-5: Project Status

Day 593 of 1640 = 36%



Role	Firm	Contract	This Month's Payment	Total Paid	% Complete
Contractor	WM Lyles	\$331,193,622	\$6,8790,186	\$117,378,258	36%
Designer	Parsons	\$33,670,711	\$331,870	\$29,590,812	88%
Construction Management	Arcadis	\$21,125,523	\$381,138	\$6,550,868	31%

Data date: 2/28/2022

RP-5: Major Activity Areas

- Construction Staff**
- WML Craft: 193
 - WML Project: 34
 - IEUA & CM: 15
 - Total: 242

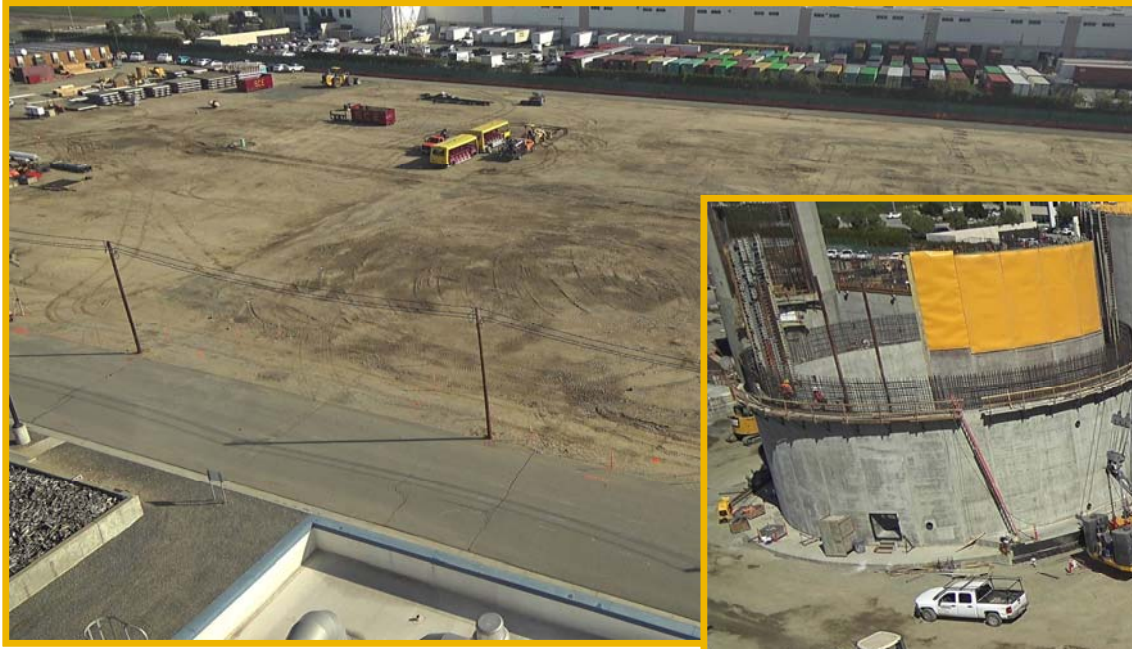


RP-5: Year 1 Review



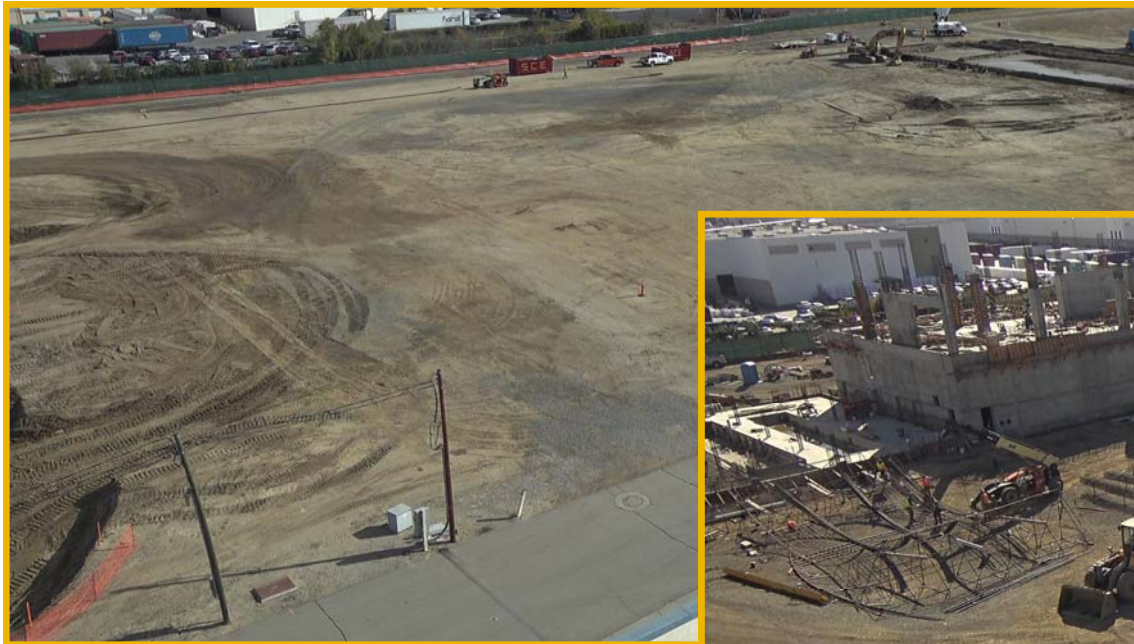
Liquids North – January 2021 & March 2022

RP-5: Year 1 Review



Solids North – January 2021 & March 2022

RP-5: 2021 - Year 1 Review



Solids South – January 2021 & March 2022

RP-5: 2021 - Year 1 Review



Liquids South – January 2021 & March 2022

RP-5: Major Activities



RP-5: March Flyover



RP-5 Archeological Findings





Questions?

**INFORMATION
ITEM**

2C

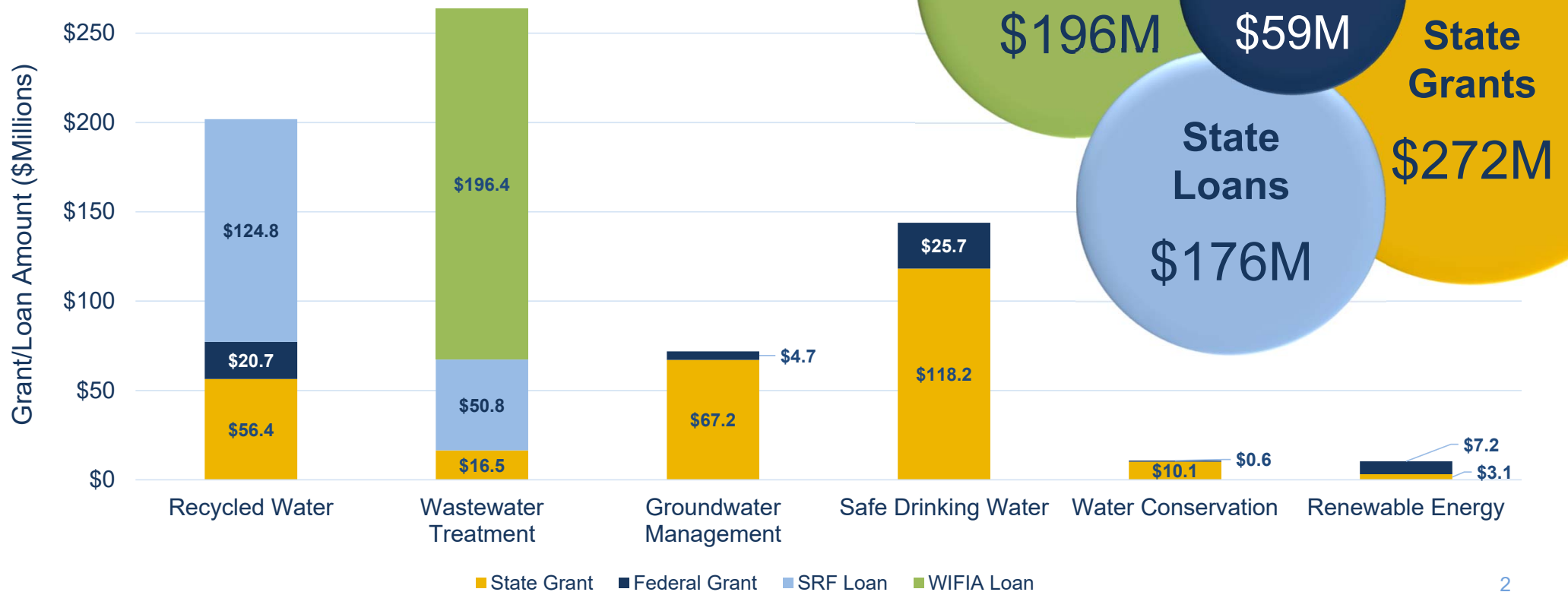


Tech and Policy Grants Semi-Annual Update

Jesse Pompa
Manager of Grants
March/April 2022

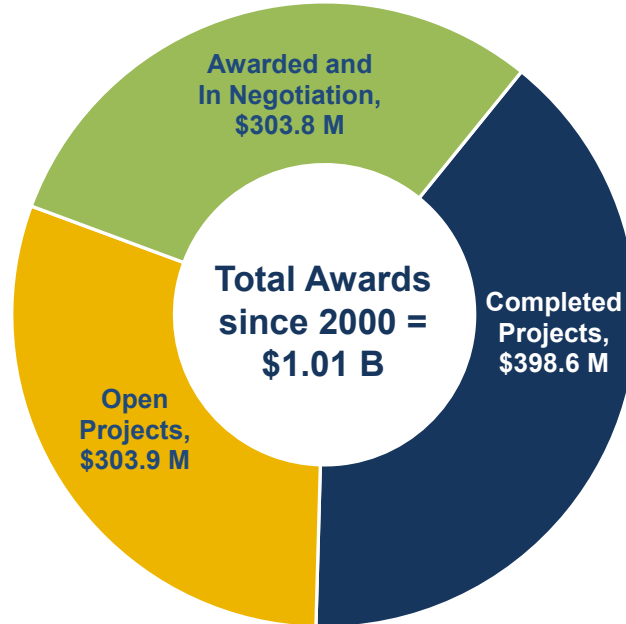
Grant & Loan Funding Overview

Executed Grants + Loans = \$703M



Grant & Loan Funding Overview

IEUA Grant/Loan Awards since 2000



**Does not include WSIP funding
FEMA, CWC, DPR*

Funding Agencies for IEUA's Current Agreements and Applications



Funding Priorities

- Collaborate with Strategic Planning and Resources to pursue potential Chino Basin Program (CBP) Funding
 - Separate project components into phases that are individually eligible for funding opportunities
 - Identify which components meet compliance, regional planning objectives and CBP requirements
 - Investigate funding opportunities that align with scope and schedule
- Continue to evaluate impact of Buy America, Build America (BABA) provisions
 - Included in the Infrastructure Investment and Jobs Act (IIJA) in November 2021
 - Will replace American Iron and Steel (AIS) provisions that are currently required for projects funded through State Revolving Fund (SRF) and Water Infrastructure Finance and Innovation Act (WIFIA) loan programs
 - BABA provisions expected to be more cost-intensive than AIS requirements
 - Effective date anticipated to be May 15, 2022

Funding Priorities

- Execute low-interest loan agreements

Funding Program	Project	Anticipated Execution Date	Anticipated Interest Rate	Funding Amount
SRF	Lower Day Basin Improvements	March 2022	0.55%	\$2,883,000
SRF	Wineville/Jurupa/RP-3 Basin Improvements	April 2022	0.55%	\$11,742,550
SRF	Montclair Basin Improvements	April 2022	0.55%	\$1,788,100
SRF	RP-5 Expansion Project	April 2022	0.80%	\$101,500,000
WIFIA	Regional Wastewater System Improvements	March 2022	~2.1%	\$120,000,000
Total				\$237,913,650

USBR WaterSMART Program Upcoming Funding Opportunities



Funding Program	Project Types	Max Funding Amount	Match Share Requirement	Expected Announcement Date
Small-Scale Water Efficiency Projects	Small water efficiency improvements identified through previous planning efforts	\$100,000	50% of project costs	Currently out; Due 4/28/22
Drought Resiliency Projects	On-the-ground projects, modeling tools that improve water reliability and management	\$500,000/ \$2,000,000/ \$5,000,000*	50% of project costs	March 2022
Water and Energy Efficiency Grants	On-the-ground water management improvement projects that conserve water and address water supply reliability		50% of project costs	Mid-April 2022
Environmental Water Resources Projects	Water conservation and efficiency projects with quantifiable and sustained water savings and ecological benefits; water management or infrastructure improvements to mitigate drought-related impacts to ecological values	\$2,000,000/ \$5,000,000	25 – 50% of project costs	Mid-May 2022

**Funding available up to \$500,000 for projects to be completed within two years; up to \$2,000,000 for projects to be completed within three years; or up to \$5,000,000 for large projects to be completed within three years.*

**INFORMATION
ITEM**

2D



Date: March 2022/April 2022

To: Regional Committees

From: Inland Empire Utilities Agency

Subject: Fiscal Year 2022/23 - 2031/32 Ten-Year Capital Improvement Plan & Ten-Year Forecast

RECOMMENDATION

This is an information item.

BACKGROUND

The Ten-Year Capital Improvement Plan (TYCIP) is a planning tool used to outline 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 the necessity to ensure reliability and safety while meeting all regulatory requirements. This TYCIP identifies capital projects for the Fiscal Year (FY) 2022/2023 through FY 2031/2032 time frame. 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.

IEUA staff prepares the TYCIP and shares the information with the Regional Technical and Policy Committees before adoption by the Board of Directors. This year, IEUA is also submitting a Ten-Year Forecast (TYF), as a subset of the TYCIP, to the Regional Technical Committee for review and Regional Policy Committee for approval based on the schedule set forth by the Regional Sewage Service Contract. The TYF includes wastewater flow forecasts, a description of planned wastewater capital projects, project expenditures, plant capacities, and available funding of the Regional Wastewater Capital Improvement Fund. The Regional Policy Committee's approval authority applies to capital wastewater projects that address future demands. Pursuant to the Regional Sewage Service Contract, this posting will serve as delivery of the TYF to the Regional Technical and Policy Committees.

ATTACHMENTS

Attachment 1 - Ten-Year Capital Improvement Plan
Attachment 2 - Ten-Year Forecast
Attachment 3 - PowerPoint Presentation

Attachment 1
Ten-Year Capital Improvement Plan

IEUA's Ten-Year Capital Improvement Plan

2022



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Contents

ABBREVIATIONS.....	2
SECTION 1: BACKGROUND.....	3
Inland Empire Utilities Agency Overview	3
Formation & Purpose	3
Governance.....	3
Contracting Agencies	4
Member Agencies	5
SECTION 2: TEN-YEAR CAPITAL IMPROVEMENT PLAN INTRODUCTION	6
Ten-Year Capital Improvement Plan Purpose.....	6
Definition of a Capital Project	6
SECTION 3: PROGRAM FUNDS.....	7
Program Fund Summary	7
Administrative Services (GG) Fund	7
Non-Reclaimable Wastewater (NC) Fund	8
Regional Wastewater Capital Improvement (RC) Fund.....	9
Regional Wastewater Operation and Maintenance (RO) Fund.....	9
Recharge Water Fund (RW) Fund	10
Recycled Water (WC) Fund	11
Water Resources (WW) Fund.....	12
SECTION 4: TEN YEAR CAPITAL IMPROVEMENT PROJECT LIST	13
Ten Year Capital Improvement Project List Summary.....	13
APPENDIX A: Ten-Year Capital Improvement Project List.....	14
APPENDIX B: Grant Dependent Capital Projects	18
APPENDIX C: Ten-Year Operations & Maintenance Project List	20
APPENDIX D: Ten-Year Forecast.....	23

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.

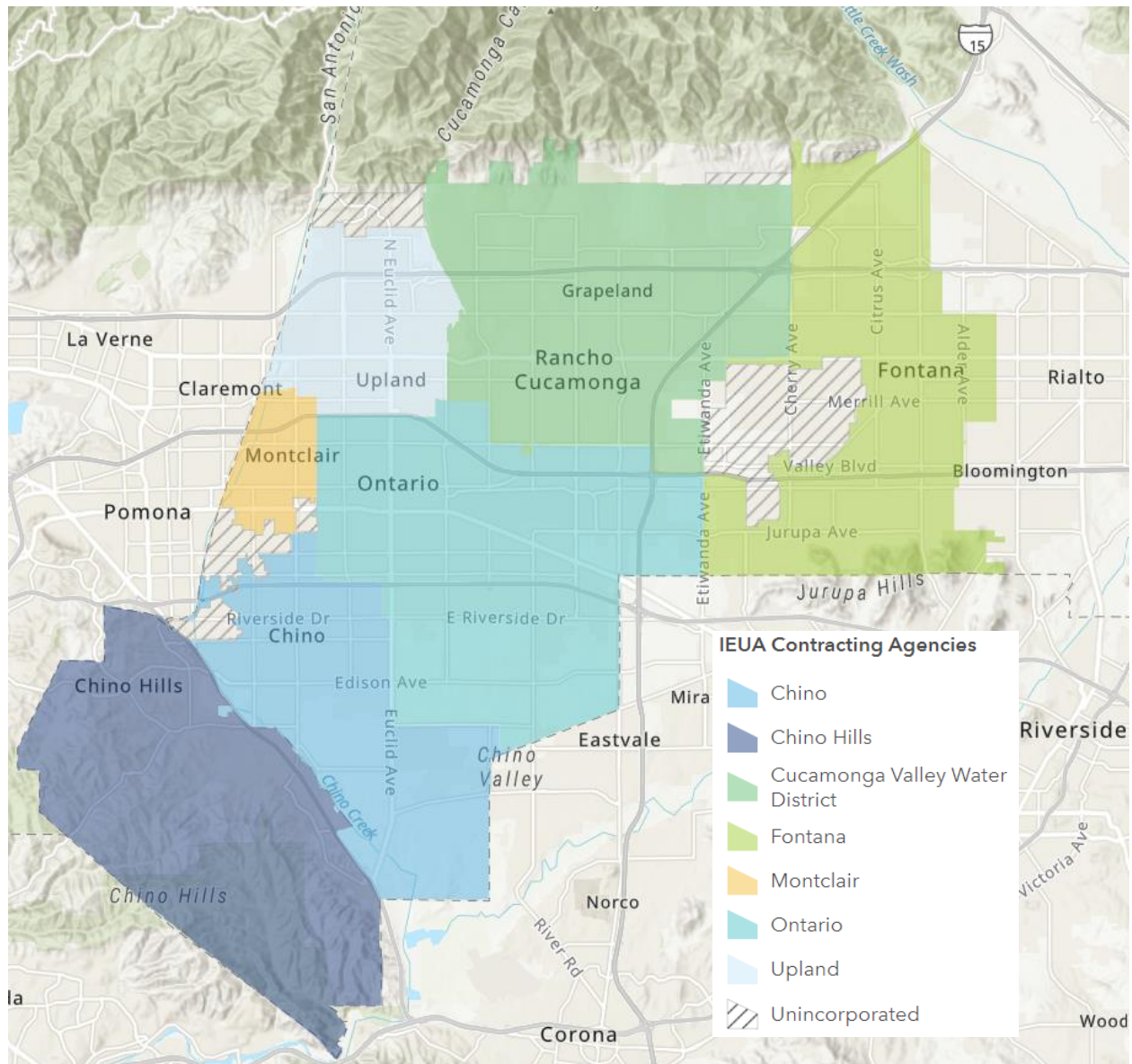


Figure 1 – IEUA Contracting Agencies

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.

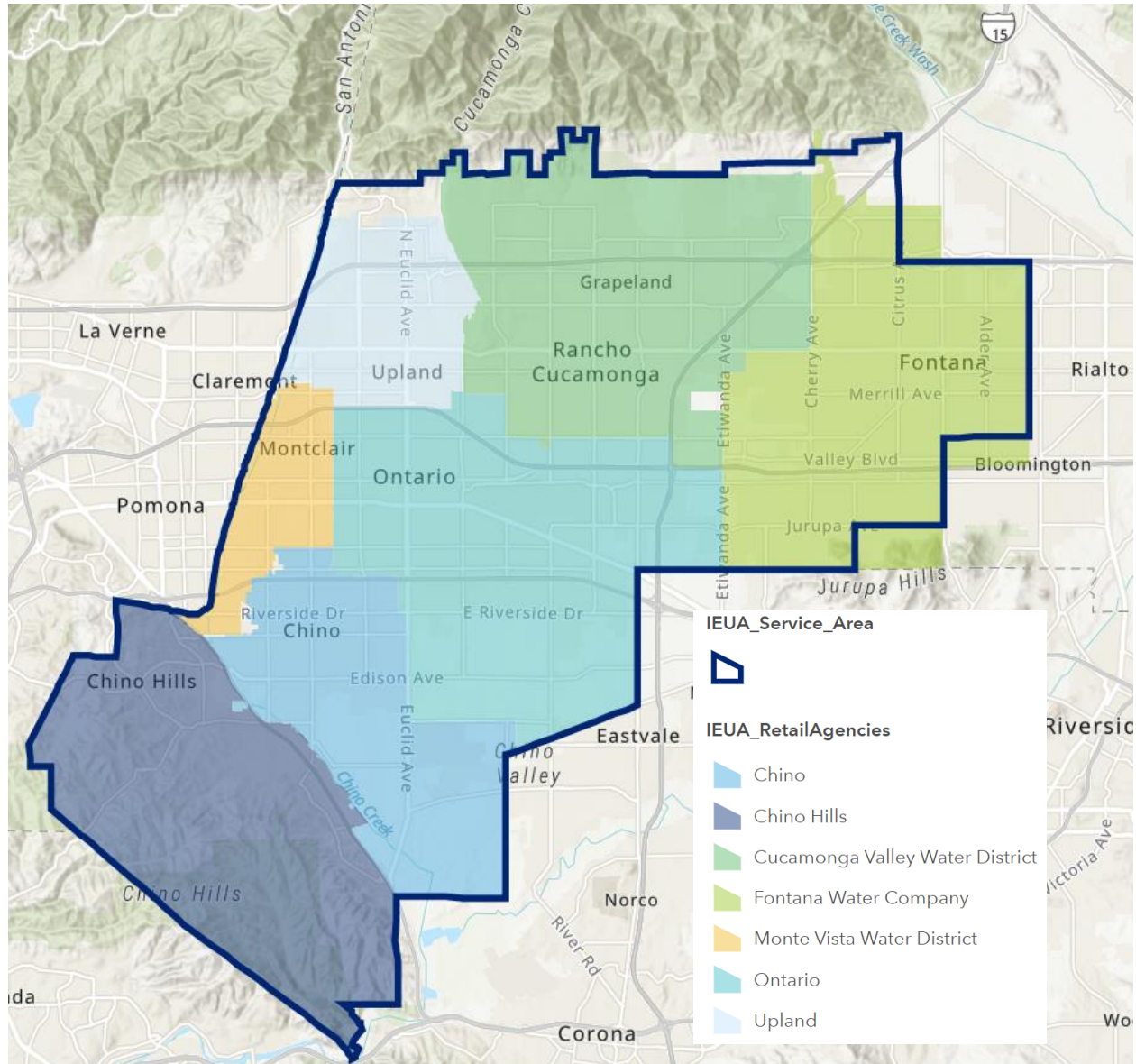


Figure 2 – IEUA Member Agencies

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 TYCIP Total by Fund (\$ in millions)				
Fund	Year One FY 2022/23	Year Two FY 2023/24	Years 3-10 FY 2024/31	Ten Year Total FY 2022-2031
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.

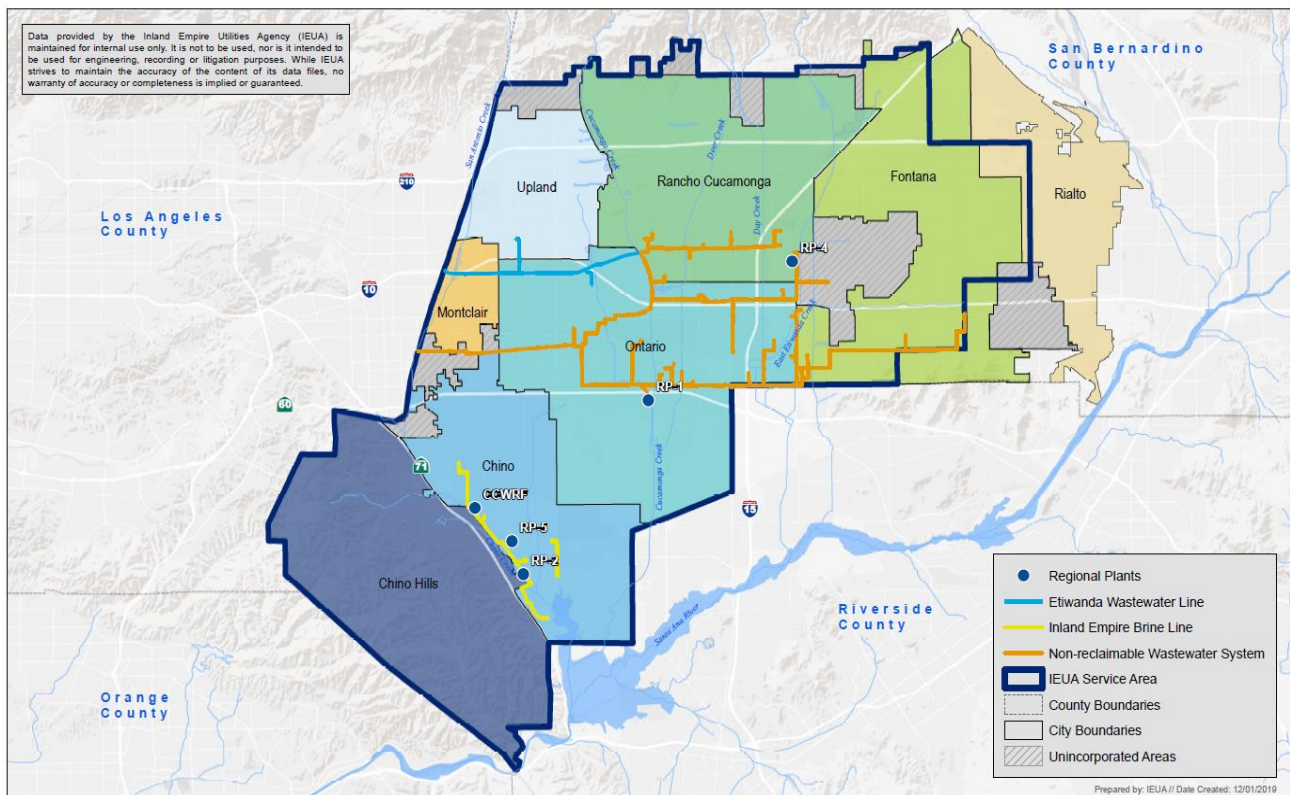


Figure 3 – IEUA Non-Reclaimable Wastewater System

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 ten-year 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.

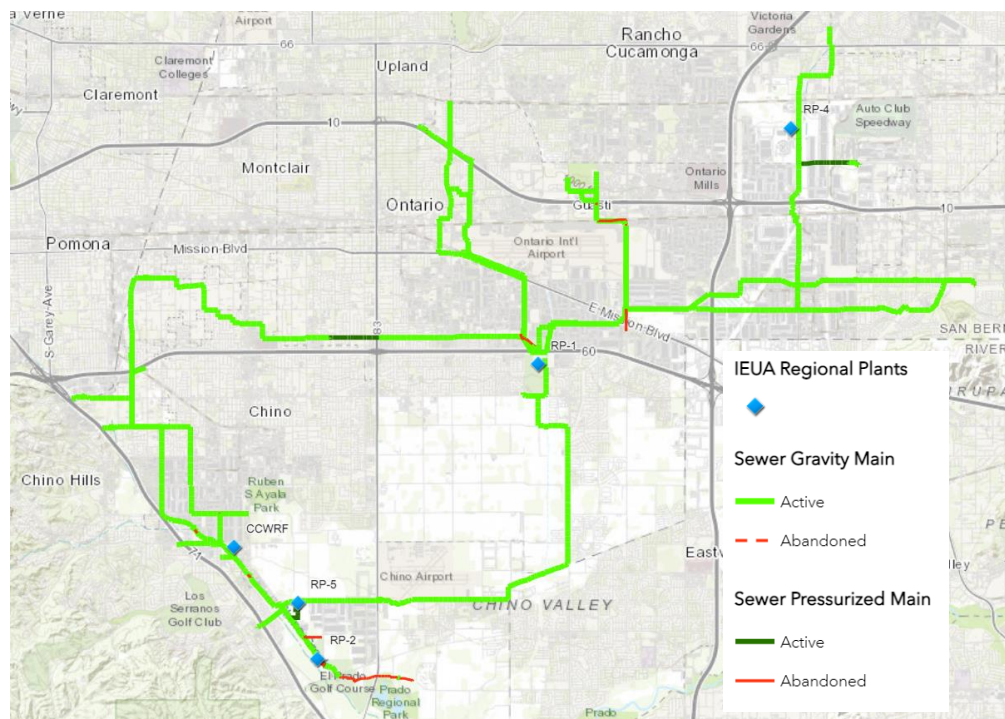


Figure 4 – IEUA Regional Wastewater System

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.

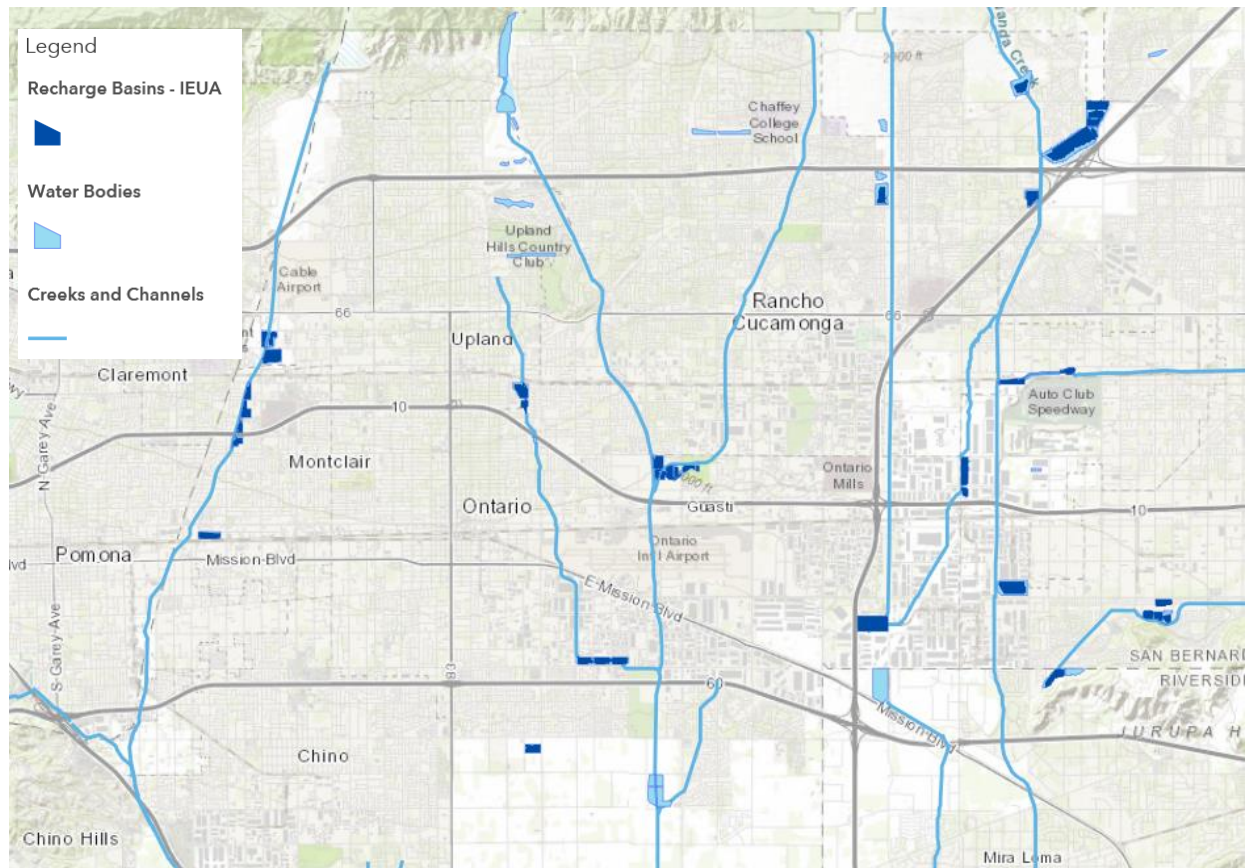


Figure 5 – Chino Basin Groundwater Recharge Locations

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.

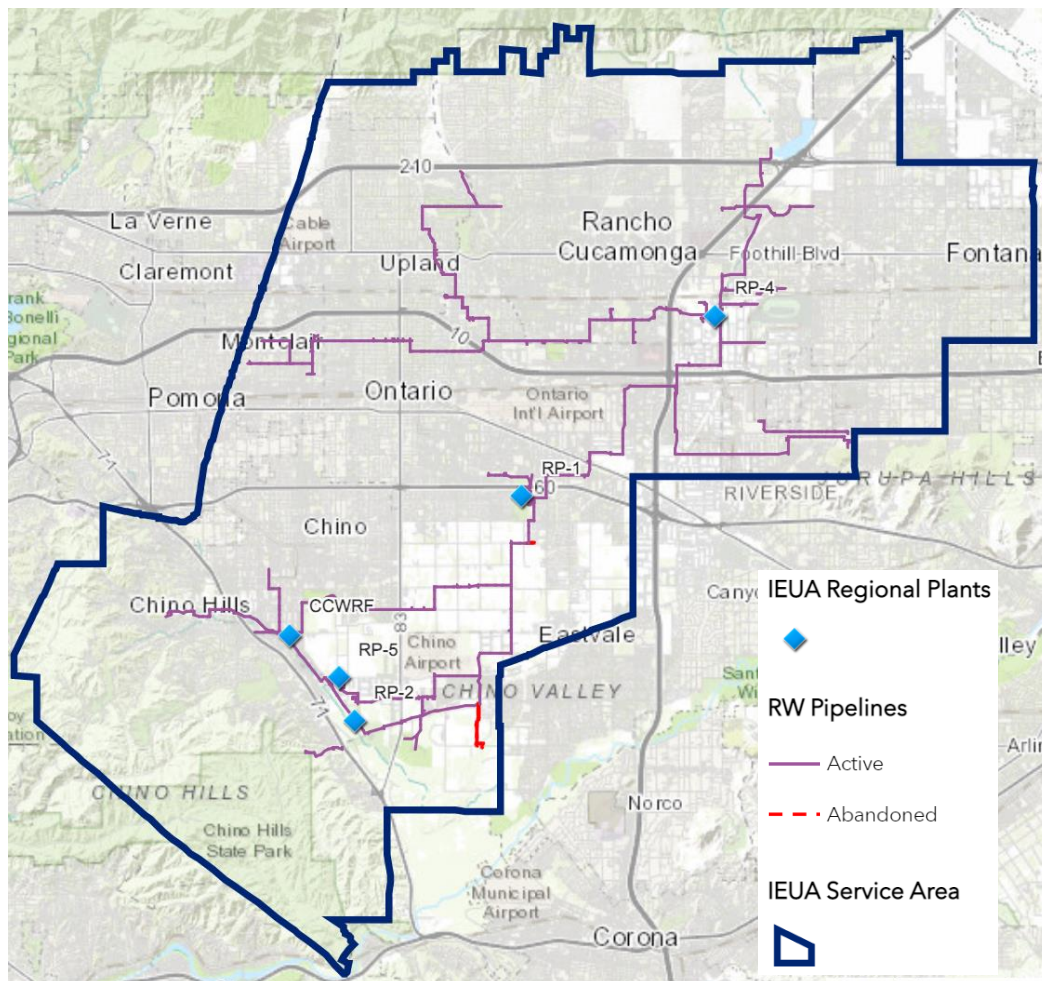


Figure 6 – Regional Recycled Water Distribution System

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 O&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: TYCIP 2021/22 and 2022/23 Comparison*		
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 TVCIP 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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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
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 Management 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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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
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 SHF - RO	\$ 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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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	\$ 13,900,000	\$ 11,250,000	\$ 22,000,000	\$ 22,000,000	\$ 22,000,000	\$ 544,403,853

[illegible]

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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 29/30	FY 30/31	FY 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

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	FM20001	HQ Interior Replacements	\$ -	\$ -	\$ -	\$ 100,000	\$ 750,000	\$ 1,782,000	\$ -	\$ -	\$ -	\$ -	\$ 2,632,000
GG - Administrative Services	FM21003	Agency Wide Facilities Rehab & Repairs	\$ 54,636	\$ 56,275	\$ 57,964	\$ 59,703	\$ 61,494	\$ 63,339	\$ 65,239	\$ 67,197	\$ 69,213	\$ 71,290	\$ 626,350
GG - Administrative Services	ENXXY79	GG Assessment Projects	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 500,000
GG - Administrative Services	FM23XX3	Prado Dechlorination Station Reroofing	\$ 120,000										\$ 120,000
GG - Administrative Services	IS23XX1	Virtual Phone System Transition	\$ 45,000										\$ 45,000
GG - Administrative Services	EN20008	EN20008 HQ Parking Lot FY19/20	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,000
Total			\$ 284,636	\$ 106,275	\$ 107,964	\$ 209,703	\$ 861,494	\$ 1,895,339	\$ 115,239	\$ 117,197	\$ 119,213	\$ 121,290	\$ 3,938,350

NC - Non-Reclaimable Wastewater	EN18021	Prado Basin AMP Annual Monitoring	\$ 110,000	\$ 112,500	\$ 115,000	\$ 117,500	\$ 120,000	\$ 122,500	\$ 125,000	\$ 127,500	\$ 50,000	\$ 50,000	\$ 1,050,000
NC - Non-Reclaimable Wastewater	EN23016	NRWS Emergency O&M Projects 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	ENXXY75	NRWS On Call O&M Projects FY22/23	\$ 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	WR16001	Water Softener Removal Rebate Program	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 50,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 525,000
NC - Non-Reclaimable Wastewater	ENXXY77	NRW Assessment Projects	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 500,000
NC - Non-Reclaimable Wastewater	PL18002	Basin Plan Amendment	\$ 125,000	\$ 20,000									\$ 145,000
NC - Non-Reclaimable Wastewater	EN19028	NRW Man Hole and Pipeline Condition Assessment	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 70,000
Total			\$ 630,000	\$ 457,500	\$ 440,000	\$ 442,500	\$ 445,000	\$ 422,500	\$ 400,000	\$ 402,500	\$ 325,000	\$ 325,000	\$ 4,290,000

RO - Regional Wastewater Operations and Maintenance	EN22024	RP-1 Digester Cleaning Service Contract	\$ -	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 2,000,000	\$ 1,000,000	\$2,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 17,000,000
RO - Regional Wastewater Operations and Maintenance	EN26025	RP2-Preliminary Design Report for Decomm	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 600,000	\$1,100,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 6,200,000
RO - Regional Wastewater Operations and Maintenance	EN23019	RO Emergency O&M Projects FY 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
RO - Regional Wastewater Operations and Maintenance	ENxxY88	RO On-Call/Small Projects FY 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
RO - Regional Wastewater Operations and Maintenance	ENxxY89	RO Safety On-Call/Small Projects FY 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
RO - Regional Wastewater Operations and Maintenance	PA22003	Agency Wide Paving	\$ 602,500	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 4,202,500
RO - Regional Wastewater Operations and Maintenance	EN16021	TCE Plume Cleanup	\$ 1,950,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,950,000
RO - 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	ENXXYYX	RO Assessment Projects (Facilities/Collections)	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 1,500,000
RO - Regional Wastewater Operations and Maintenance	EN23021	Agency Wide Infiltration and Inflow Study	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 600,000
RO - 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										\$ 500,000
RO - Regional Wastewater Operations and Maintenance	Enxx066	Preserve Lift Station Improvements	\$ 455,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 455,000
RO - Regional Wastewater Operations and Maintenance	EN19023	Asset Management Planning Document	\$ 400,000										\$ 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	\$ 400,000
RO - Regional Wastewater Operations and Maintenance	EN22037	Prado De-Chlor	\$ 303,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 303,000
RO - Regional Wastewater Operations and Maintenance	PL21001	Flow & Loading Supplemental Study	\$ 150,000	\$ 150,000									\$ 300,000
RO - Regional Wastewater Operations and Maintenance	PL23XX1	PFAS Investigation	\$ 250,000										\$ 250,000
RO - Regional Wastewater Operations and Maintenance	PA17006	Agency-Wide Aeration	\$ 181,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 181,000
RO - Regional Wastewater Operations and Maintenance	PL23007	RO Planning Documents	\$ 150,000										\$ 150,000
RO - Regional Wastewater Operations and Maintenance	EN26027	RP-1 & RP-4 Bird Deterrent Systems	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
RO - Regional Wastewater Operations and Maintenance	EN19024	Collection System Asset Management (Assessment Only)	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,000
RO - Regional Wastewater Operations and Maintenance	PL23XX2	PTSC Linko Database Upgrade	\$ 25,000										\$ 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	\$ 6,590,000	\$ 6,590,000	\$ 51,825,594

[illegible]

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
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	ENxy90	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										\$ 400,000
WC - Recycled Water	EN25031	Recycled Water Program Strategy 2025			\$ 250,000								\$ 250,000
WC - Recycled Water	PL23XX6	WC Planning Documents	\$ 250,000										\$ 250,000
WC - Recycled Water	EN20050	Reservoir Maintenance	\$ 20,000			\$ 20,000			\$ 20,000				\$ 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						\$ 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								\$ 300,000
WW - Water Administration	PL23XX5	WW Planning Documents	\$ 250,000										\$ 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									\$ 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	\$ 2,791,263	\$ 29,181,551

APPENDIX D: Ten-Year Forecast



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

2022

IEUA's Ten-Year Forecast

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 BALANCE	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.

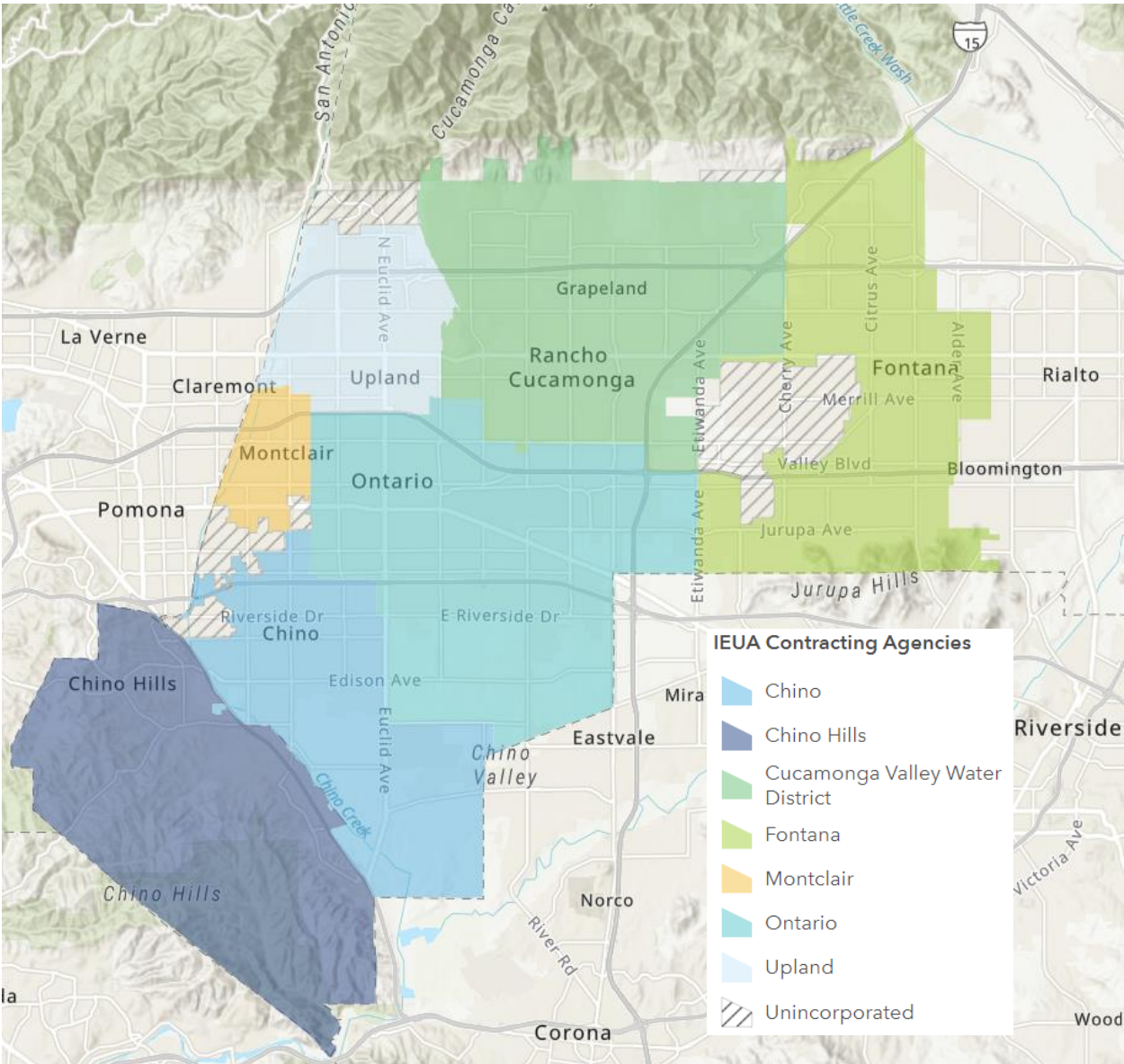


Figure 1 – IEUA Contracting Agencies

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.

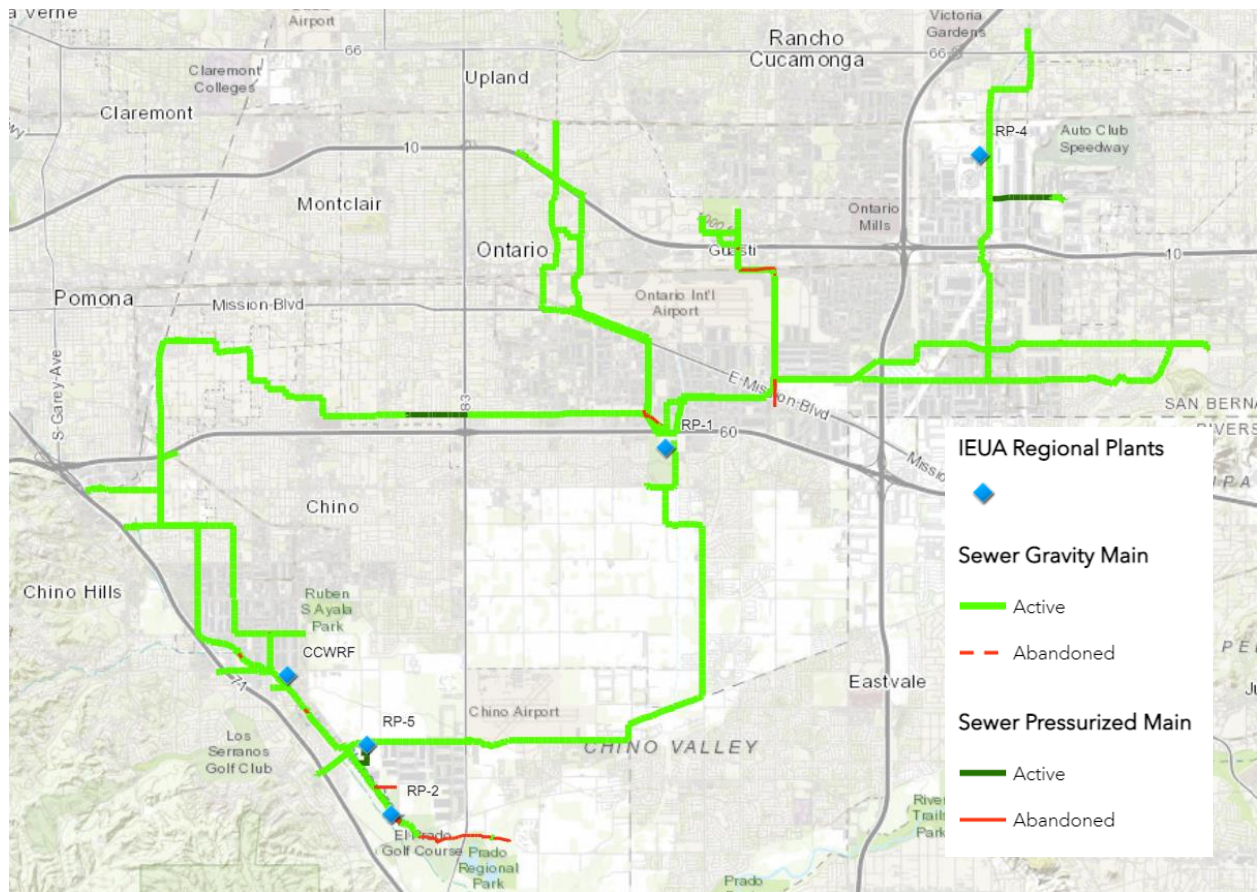


Figure 2 – IEUA Regional Wastewater System

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

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.

Table 1 - Regional Plant Capacity Utilization (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

*RP-1 total hydraulic capacity without loading treatment limitations is 44 MGD

**RP-2 liquid treatment facilities have been relocated to RP-5

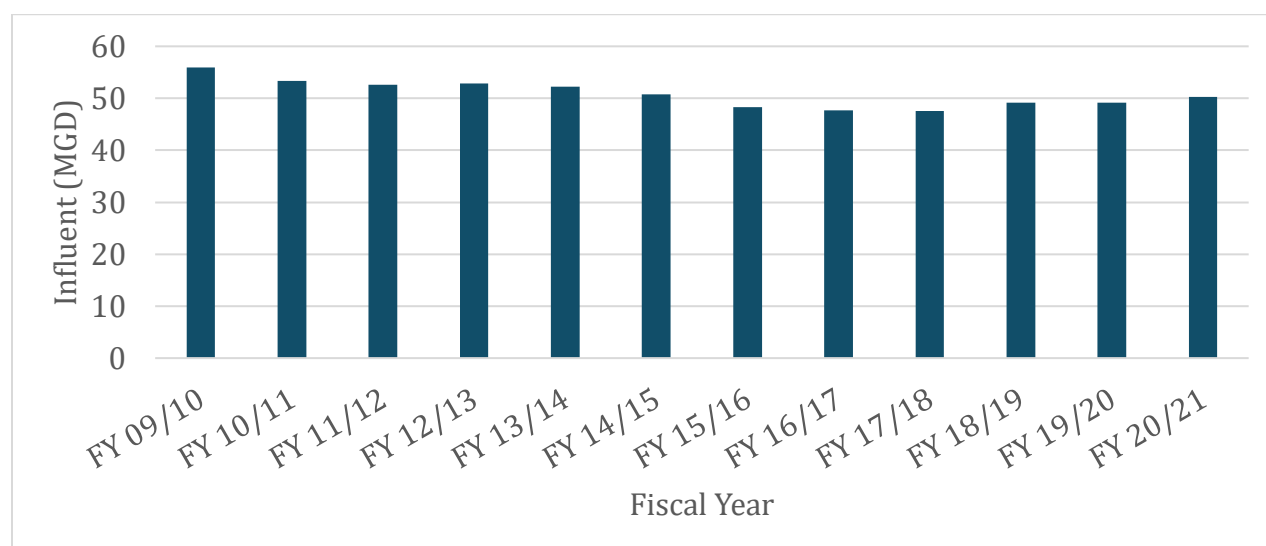


Figure 3 – Historical Regional Influent Flows

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, rather than the volume of flows to the facilities.

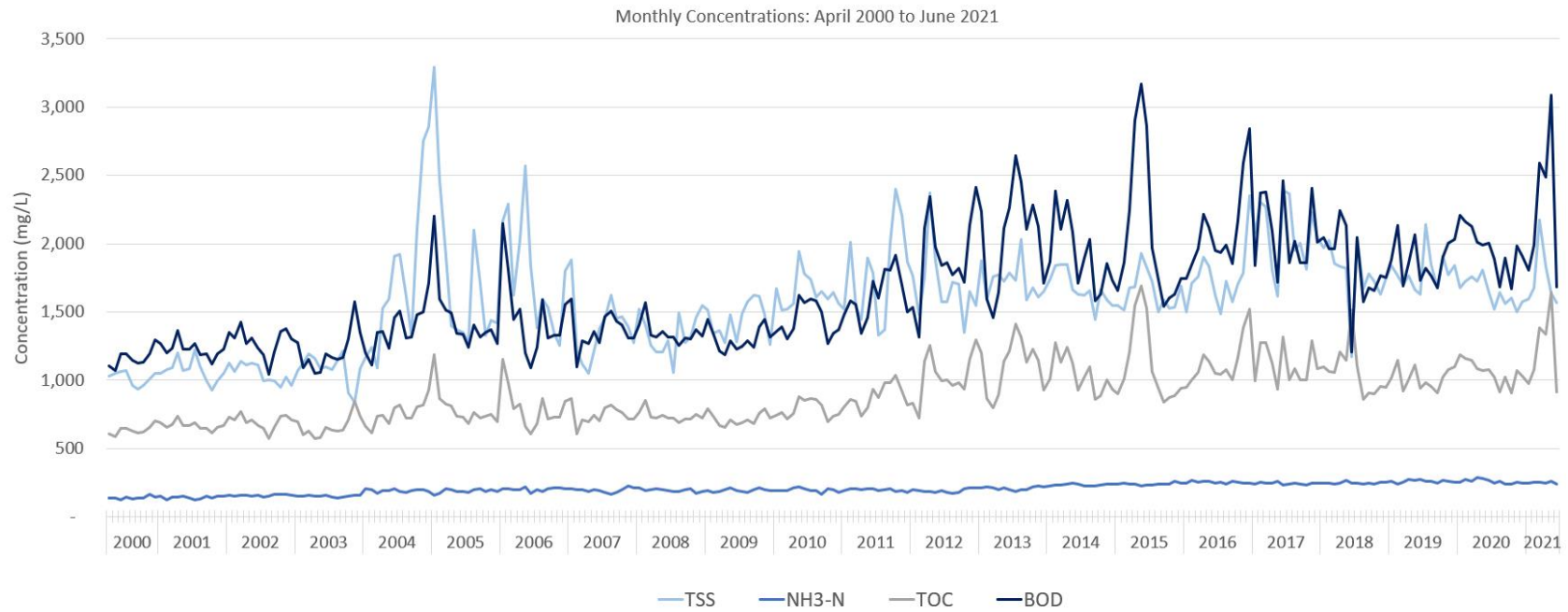


Figure 4 – Monthly Concentrations: April 2000 – June 2021

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 conservatively low. The result of both sets of projections is the assumption that 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.

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 10-year capacity demand forecast was not completed.*

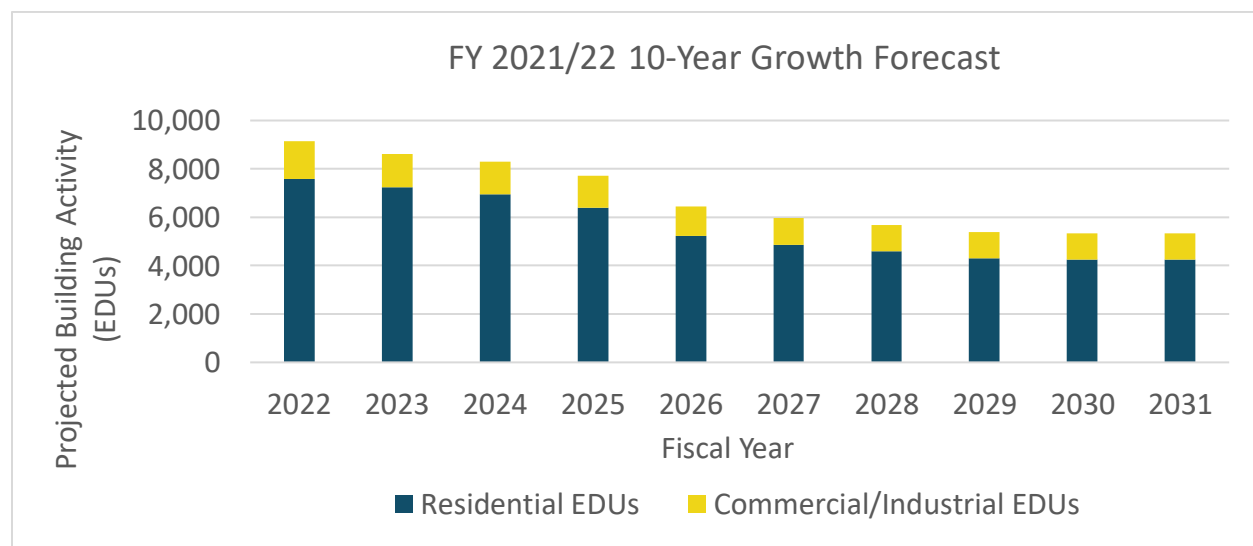


Figure 5 – FY 21/22 10-Year Growth Forecast

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 ten-year 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 June 30th, 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	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
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 SHF	\$ 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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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 U/W System Improvements	\$ 1,500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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	\$ 13,900,000	\$ 11,250,000	\$ 22,000,000	\$ 22,000,000	\$ 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

Attachment 2
Ten-Year Forecast



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

2022

IEUA's Ten-Year Forecast

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 BALANCE	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.

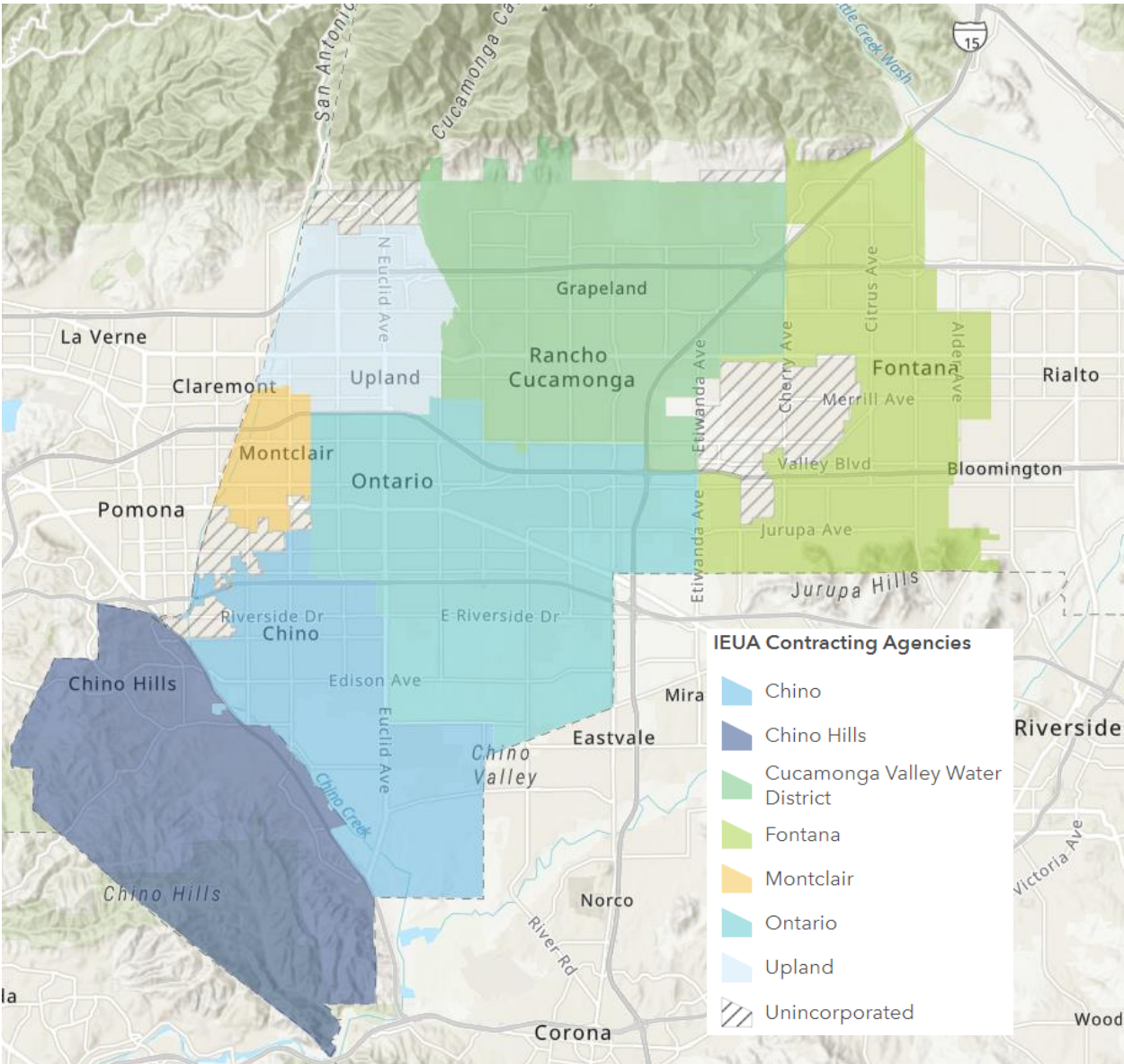


Figure 1 – IEUA Contracting Agencies

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.

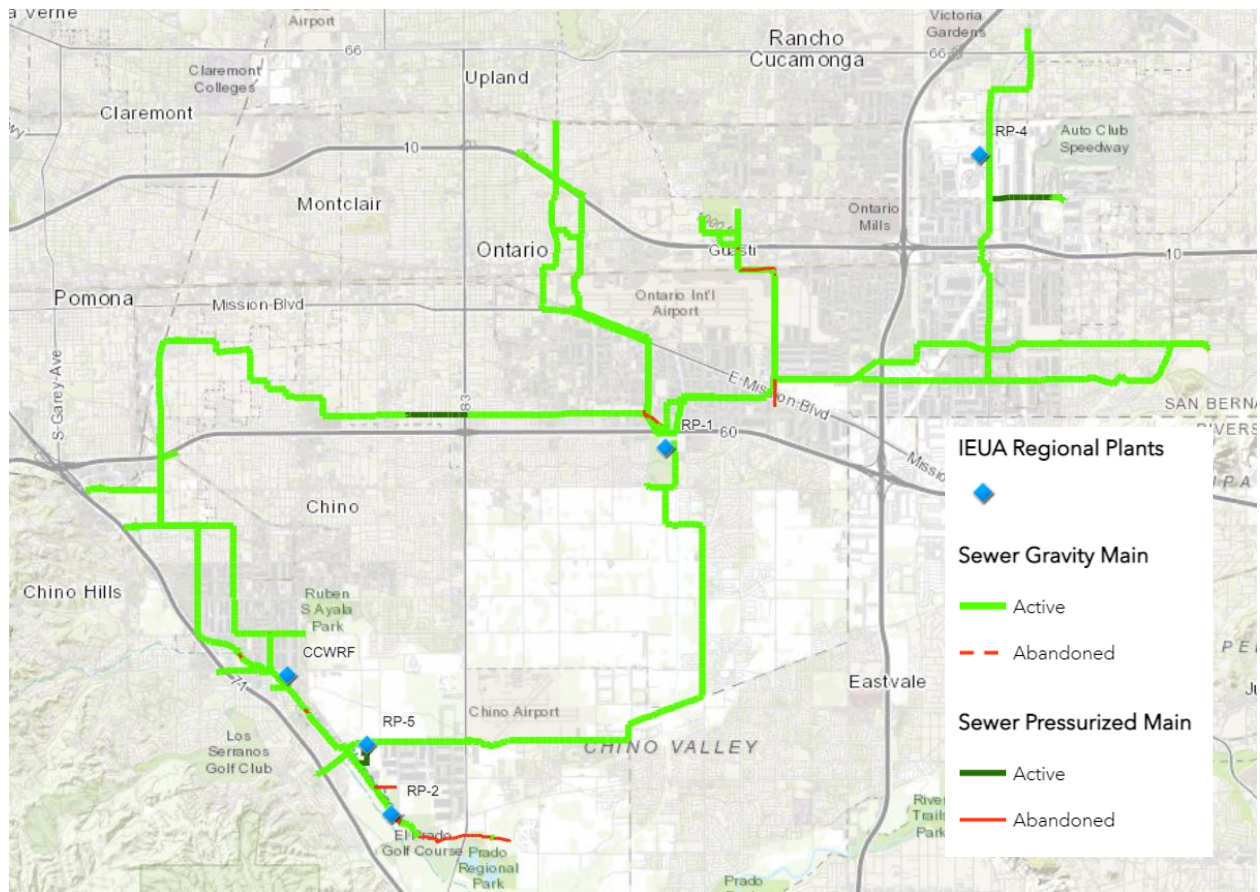


Figure 2 – IEUA Regional Wastewater System

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

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.

Table 1 - Regional Plant Capacity Utilization (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

*RP-1 total hydraulic capacity without loading treatment limitations is 44 MGD

**RP-2 liquid treatment facilities have been relocated to RP-5

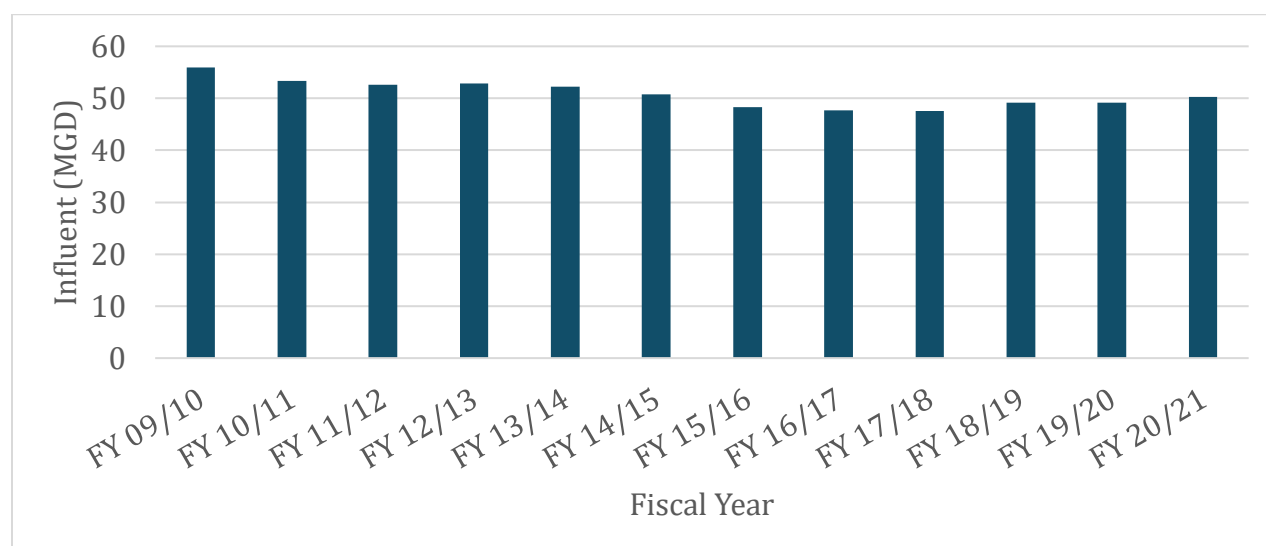


Figure 3 – Historical Regional Influent Flows

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, rather than the volume of flows to the facilities.

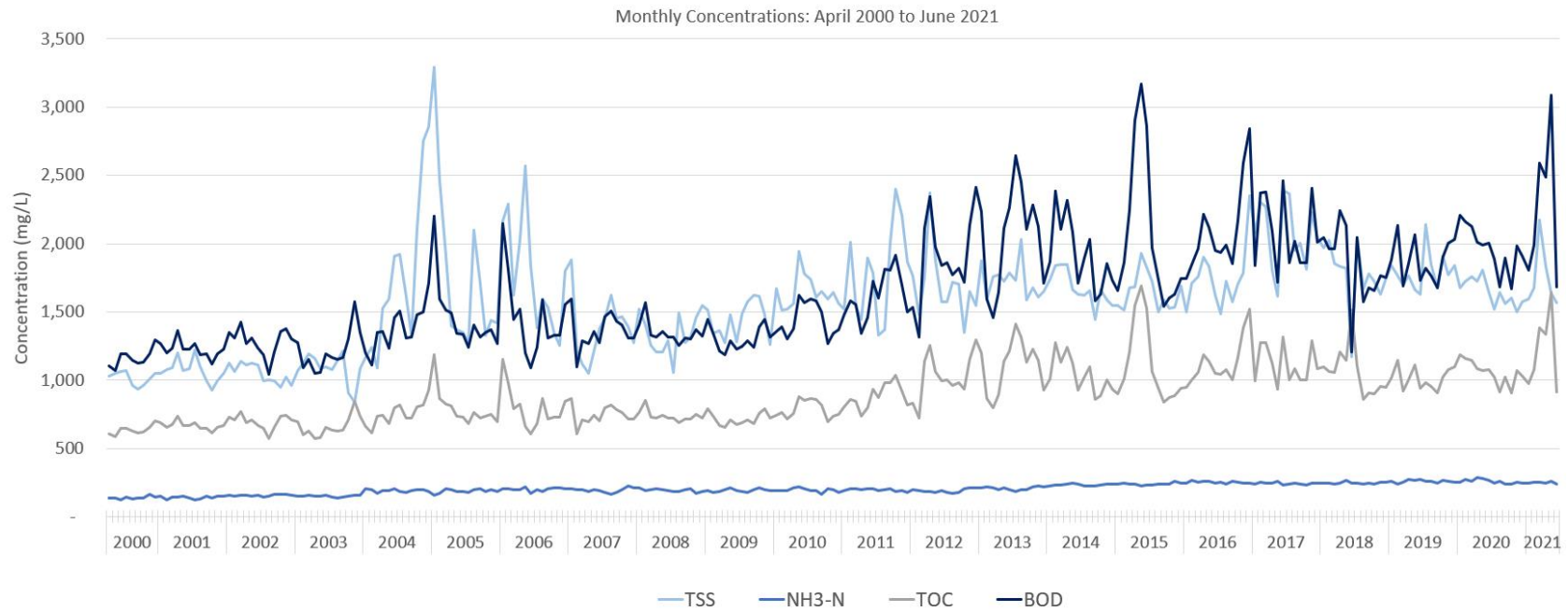


Figure 4 – Monthly Concentrations: April 2000 – June 2021

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 conservatively low. The result of both sets of projections is the assumption that 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.

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 10-year capacity demand forecast was not completed.*

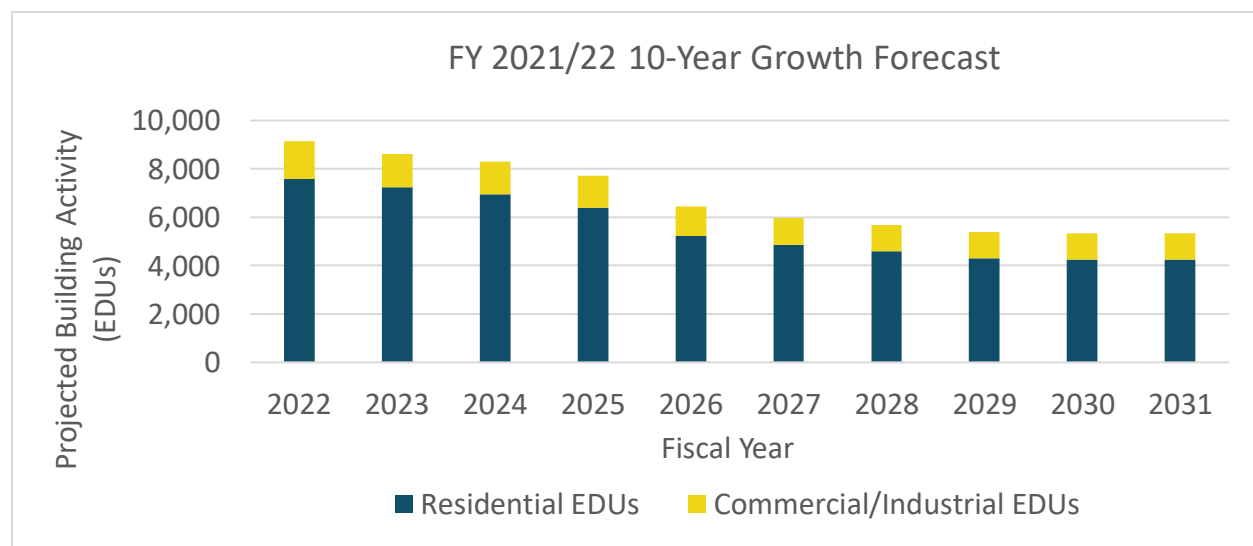


Figure 5 – FY 21/22 10-Year Growth Forecast

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 ten-year 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 June 30th, 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	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
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 SHF	\$ 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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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 U/W System Improvements	\$ 1,500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 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	\$ 13,900,000	\$ 11,250,000	\$ 22,000,000	\$ 22,000,000	\$ 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

Attachment 3
PowerPoint Presentation

Ten-Year Capital Improvement Plan Ten-Year Forecast FY 22/23 - FY 31/32

William McDonnell

Environmental Resources Planner I

March/April 2022

Ten-Year Capital Improvement Plan (TYCIP)

- Comprehensive planning document that lists capital projects planned over the next 10-years
 - Administrative Services
 - Non-Reclaimable Wastewater
 - **Regional Wastewater Capital Improvement**
 - Regional Wastewater Operations and Maintenance
 - Groundwater Recharge
 - Recycled Water
 - Water Administration
- Promotes transparency into agency activities



Ten-Year Forecast (TYF)

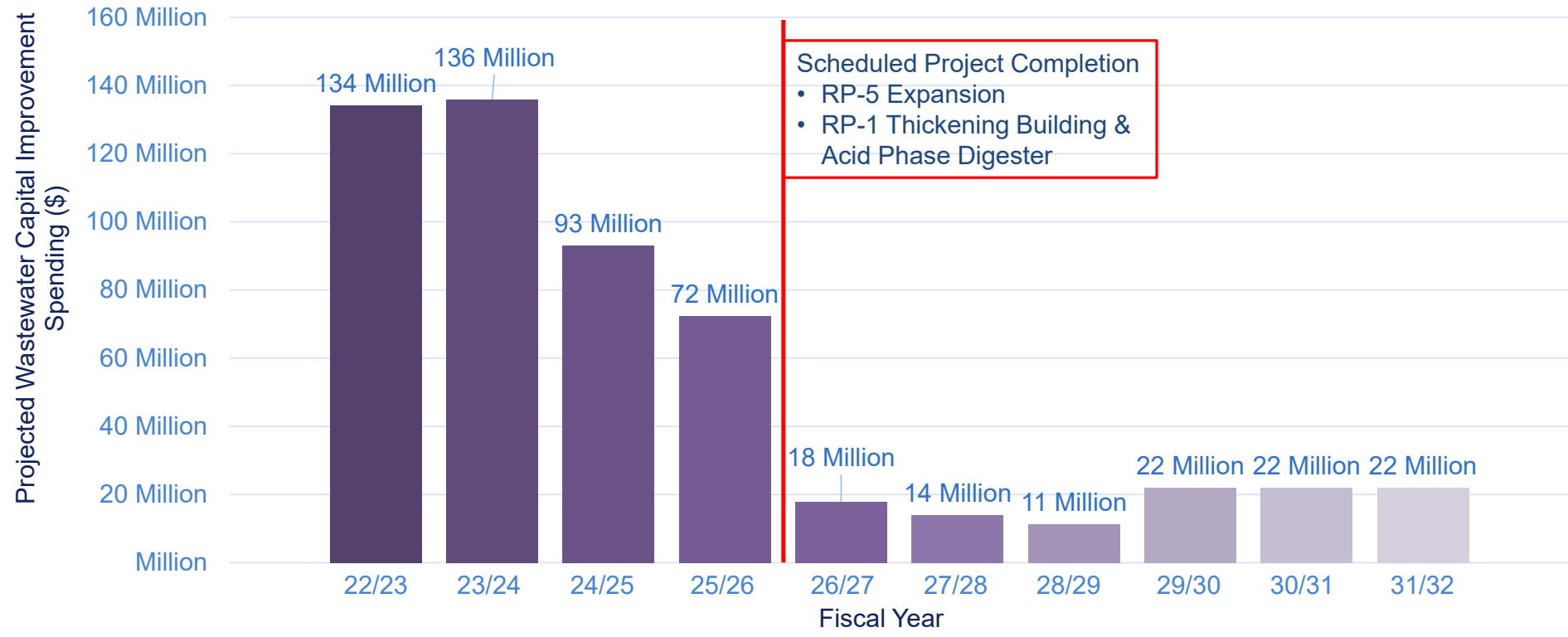
- Ensures compliance with Regional Contract
- Planning document that lists wastewater capital improvement projects planned over the next 10-years
 - Projects are a subset of the Ten-Year Capital Improvement Plan
- Includes supplemental wastewater information
 - Plant capacities
 - EDU growth forecasts
 - Account balances



Ten-Year Forecast Annual Spending



FY 2022/2023 - FY 2031/2032 TYF



**All values rounded to nearest million (\$)*

Major Wastewater Capital Improvement Projects over \$5million

- List of major wastewater capital improvement projects
 - 9 out of 23 total projects
 - Over \$5million in ten-year spending

Ten-Year Forecast Projected Spending (\$ in Millions)											
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
RP-5 Expansion to 30 mgd	\$ 40.0	\$ 50.0	\$ 20.0	\$ 13.0							\$ 123.0
RP-1 Thickening Building & Acid Phase Digester	\$ 4.5	\$ 27.1	\$ 47.3	\$ 42.1							\$ 121.1
RP-5 Solids Treatment Facility	\$ 67.0	\$ 30.0	\$ 15.0								\$ 112.0
RC Asset Management	\$ 0.3	\$ 0.3	\$ 2.4	\$ 8.0	\$ 8.0	\$ 8.0	\$ 8.0	\$ 8.0	\$ 8.0	\$ 8.0	\$ 58.9
RP-1 Liquid Treatment Capacity Recovery							\$ 2.0	\$ 13.0	\$ 13.0	\$ 13.0	\$ 41.0
CCWRF Asset Management and Improvements	\$ 9.0	\$ 16.0	\$ 0.7								\$ 25.7
RP-1 Solids Treatment Expansion			\$ 4.0	\$ 8.0	\$ 8.0						\$ 20.0
RP-1 Disinfection Improvements	\$ 8.3	\$ 1.2									\$ 9.5
Montclair Force Main Improvements	\$ 1.0	\$ 4.8	\$ 2.6								\$ 8.4

Wastewater Capital Spending Comparison

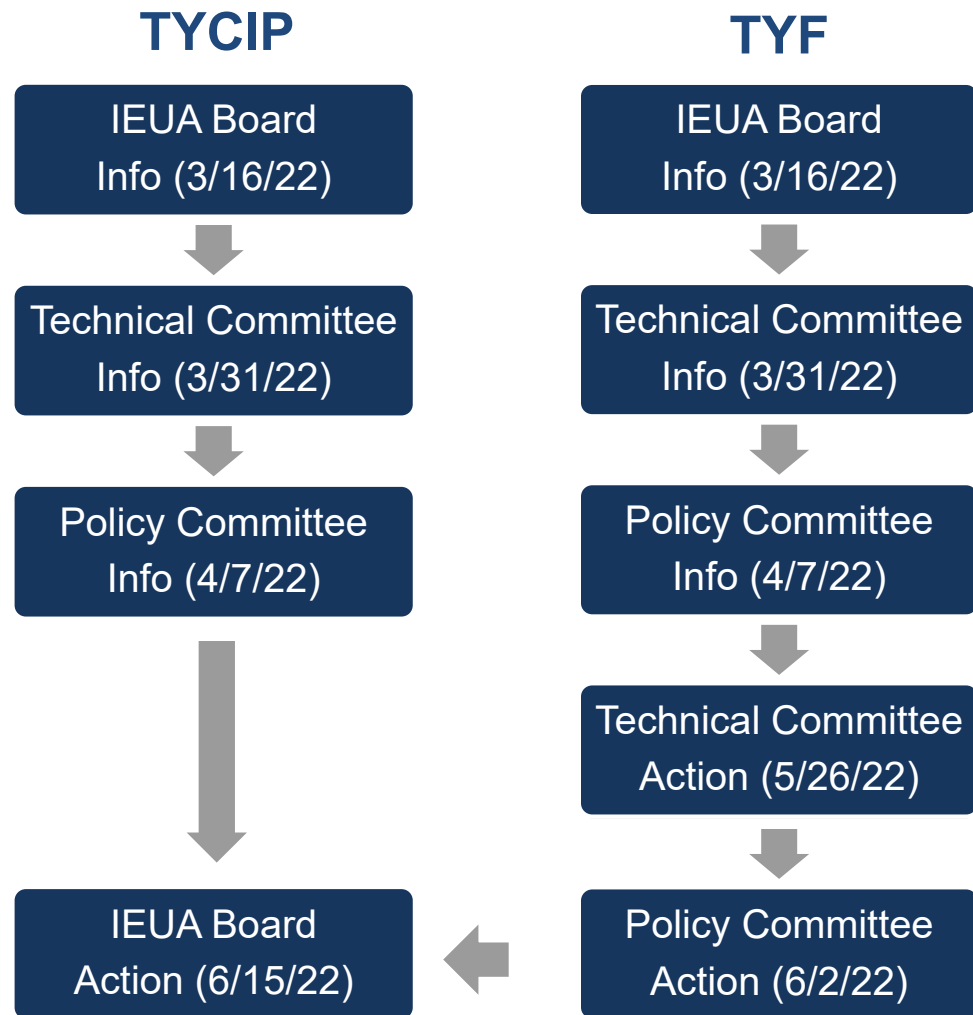
- Approved FY 2021/22* Ten-Year Regional Wastewater Capital Spending **\$611 Million**
- Projected FY 2022/23 Ten-Year Regional Wastewater Capital Spending **\$544 Million**



RP-5 Expansion (Picture from February 2022)

**FY 2021/22 wastewater capital spending is from the adopted IEUA budget*

Schedule



**INFORMATION
ITEM**

2E

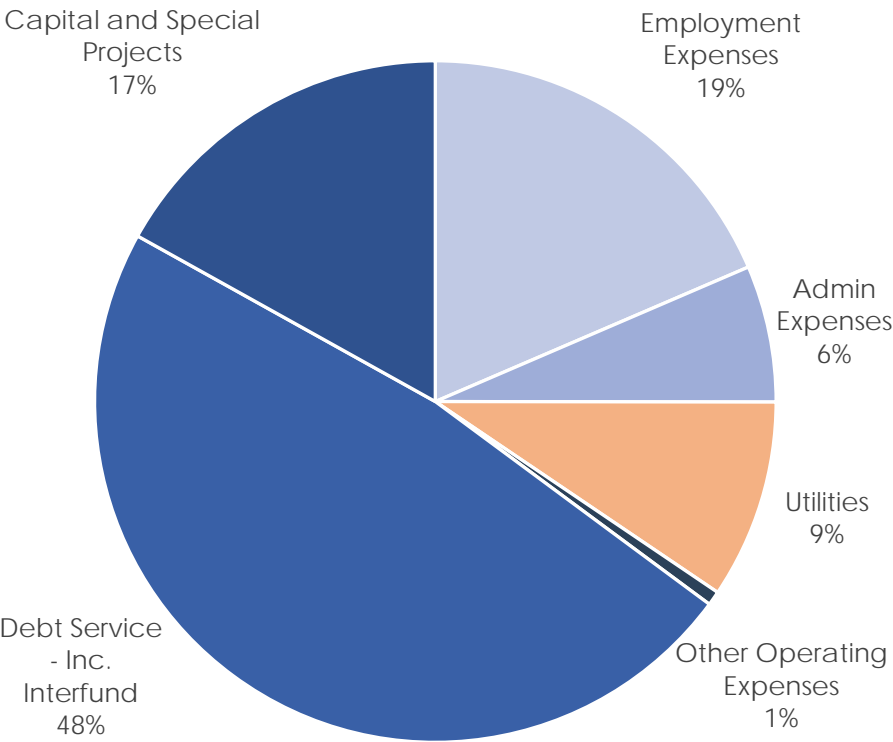


Recycled Water Cost of Service Study Update

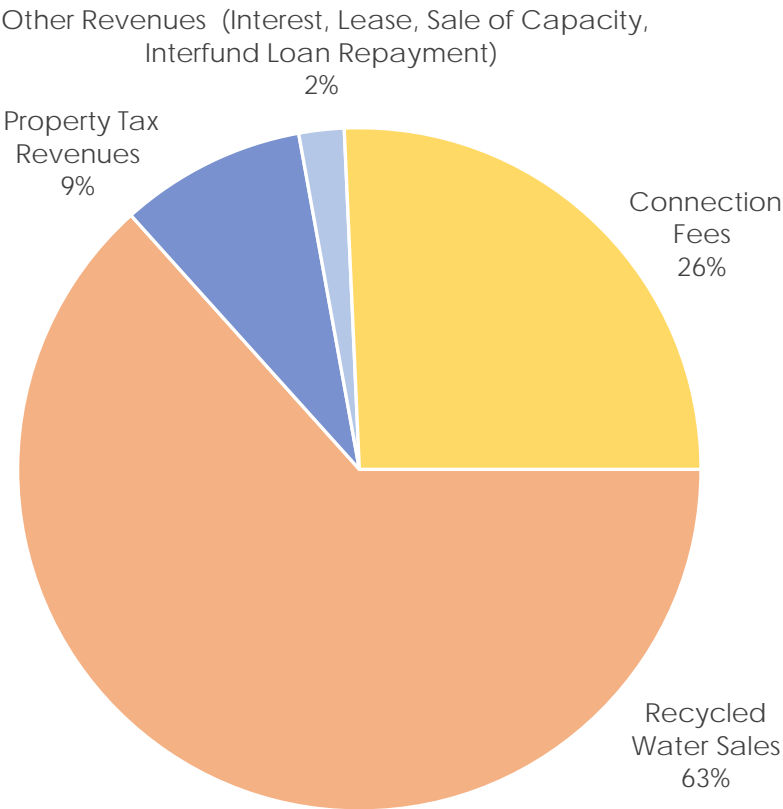
Eddie Lin
Environmental Services
March/April 2022

Recycled Water Expenses

Average Expenses



Recent Revenues



Projected Rates

5-Yr Rates Without Fixed Charges	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027
Direct Use Rate (\$/AF)	\$549	\$579	\$611	\$645	\$680
<i>Recharge Surcharge (\$/AF)</i>	<i>\$100</i>	<i>\$150</i>	<i>\$200</i>	<i>\$206</i>	<i>\$212</i>
Total GWR Rate (\$/AF)	\$649	\$729	\$811	\$851	\$892

5-Yr Rates With Fixed Charges	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027
Fixed Revenue (\$ Millions)	\$4.42M	\$4.73M	\$4.96M	\$5.40M	\$5.41M
Direct Use Rate (\$/AF)	\$418	\$440	\$465	\$486	\$521
<i>Recharge Surcharge (\$/AF)</i>	<i>\$100</i>	<i>\$150</i>	<i>\$200</i>	<i>\$206</i>	<i>\$212</i>
Total GWR Rate (\$/AF)	\$518	\$590	\$665	\$692	\$733

3-Yr Rates With Fixed Charges (<i>Phase-in</i>)	FYE 2023	FYE 2024	FYE 2025
Fixed Revenue (\$ Millions)	\$1.11M	\$2.36M	\$4.96M
Direct Use Rate (\$/AF)	\$516	\$510	\$465
<i>Recharge Surcharge (\$/AF)</i>	<i>\$100</i>	<i>\$150</i>	<i>\$200</i>
Total GWR Rate (\$/AF)	\$616	\$660	\$665

Assumed Demands:

- 18,000 AF/year Direct Use
- 16,000 AF/year Recharge

Projected Rates and Revenues

5-Yr Rates Without Fixed Charges	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027
Direct Use Rate (\$/AF)	\$549	\$579	\$611	\$645	\$680
<i>Recharge Surcharge (\$/AF)</i>	<i>\$100</i>	<i>\$150</i>	<i>\$200</i>	<i>\$206</i>	<i>\$212</i>
Total GWR Rate (\$/AF)	\$649	\$729	\$811	\$851	\$892
Total Revenue Collected (\$ Millions)	\$20.3M	\$22.1M	\$24.0M	\$25.2M	\$26.5M

5-Yr Rates With Fixed Charges	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027
Fixed Revenue (\$ Millions)	\$4.42M	\$4.73M	\$4.96M	\$5.40M	\$5.41M
Direct Use Rate (\$/AF)	\$418	\$440	\$465	\$486	\$521
<i>Recharge Surcharge (\$/AF)</i>	<i>\$100</i>	<i>\$150</i>	<i>\$200</i>	<i>\$206</i>	<i>\$212</i>
Total GWR Rate (\$/AF)	\$518	\$590	\$665	\$692	\$733
Total Revenue Collected (\$ Millions)	\$20.3M	\$22.1M	\$24.0M	\$25.2M	\$26.5M

3-Yr Rates With Fixed Charges (<i>Phase-in</i>)	FYE 2023	FYE 2024	FYE 2025
Fixed Revenue (\$ Millions)	\$1.11M	\$2.36M	\$4.96M
Direct Use Rate (\$/AF)	\$516	\$510	\$465
<i>Recharge Surcharge (\$/AF)</i>	<i>\$100</i>	<i>\$150</i>	<i>\$200</i>
Total GWR Rate (\$/AF)	\$616	\$660	\$665
Total Revenue Collected (\$ Millions)	\$20.3M	\$22.1M	\$24.0M

Assumed Demands:

- 18,000 AF/year Direct Use
- 16,000 AF/year Recharge

Actual/Assumed Demands Comparison

5-Yr Rates Without Fixed Charges	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027
Direct Use Rate (\$/AF)	\$549	\$579	\$611	\$645	\$680
<i>Recharge Surcharge (\$/AF)</i>	<i>\$100</i>	<i>\$150</i>	<i>\$200</i>	<i>\$206</i>	<i>\$212</i>
Total GWR Rate (\$/AF)	\$649	\$729	\$811	\$851	\$892
Comparison Revenue (\$ Millions)	-\$2.2M	-\$2.4M	-\$2.7M	-\$2.8M	-\$3.0M

5-Yr Rates With Fixed Charges	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027
Fixed Revenue (\$ Millions)	\$4.42M	\$4.73M	\$4.96M	\$5.40M	\$5.41M
Direct Use Rate (\$/AF)	\$418	\$440	\$465	\$486	\$521
<i>Recharge Surcharge (\$/AF)</i>	<i>\$100</i>	<i>\$150</i>	<i>\$200</i>	<i>\$206</i>	<i>\$212</i>
Total GWR Rate (\$/AF)	\$518	\$590	\$665	\$692	\$733
Comparison Revenue (\$ Millions)	-\$1.7M	-\$1.9M	-\$2.2M	-\$2.2M	-\$2.4M

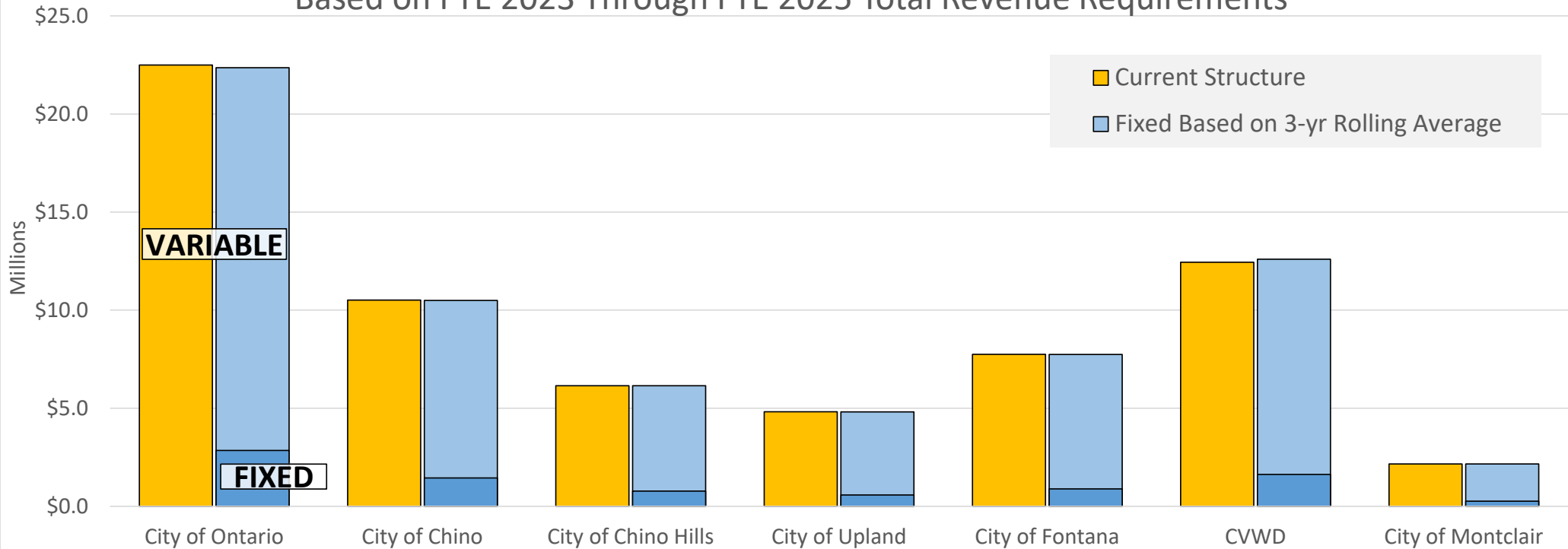
3-Yr Rates With Fixed Charges (Phase-in)	FYE 2023	FYE 2024	FYE 2025
Fixed Revenue (\$ Millions)	\$1.11M	\$2.36M	\$4.96M
Direct Use Rate (\$/AF)	\$516	\$510	\$465
<i>Recharge Surcharge (\$/AF)</i>	<i>\$100</i>	<i>\$150</i>	<i>\$200</i>
Total GWR Rate (\$/AF)	\$616	\$660	\$665
Comparison Revenue (\$ Millions)	-\$2.1M	-\$2.2M	-\$2.2M

Actual FY2020 Demands:

- 17,115 AF/year Direct Use
- 13,380 AF/year Recharge

Estimated Cost Impacts by Agency

Recycled Water Revenues by Agency
Based on FYE 2023 Through FYE 2025 Total Revenue Requirements



Next Steps

- Continue one-on-one discussions with Contracting Agencies
- Present rate structure proposal to IEUA Board in April
- Finalize technical recommendation based on feedback
- Present recommendation for adoption to IEUA Board in May/June
- If approved, new rates effective July 1, 2022

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FILE

3A



AGENDA SPECIAL MEETING OF THE REGIONAL SEWERAGE PROGRAM POLICY COMMITTEE

**Tuesday, April 5, 2022
4:00 p.m.
Teleconference Call**

In an effort to prevent the spread of COVID-19, the Regional Sewerage Program Policy Committee Meeting will be held remotely by teleconference.

Teams Conference Link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_N2NjOTczNzUtMjg5Mi00OTk5LTk5YmMtYTlkOWRiODgyMzVi%40thread.v2/0?context=%7b%22Tid%22%3a%224c0c1e57-30f3-4048-9bd2-cd58917dcf07%22%2c%22Oid%22%3a%22329ec40e-eb94-4218-9621-6bfa0baa9697%22%7d

Teleconference: 1-415-856-9169/Conference ID: 893 863 357#

This meeting is being conducted virtually by video and audio conferencing. There will be no public location available to attend the meeting; however, the public may participate and provide public comment during the meeting by calling the number provided above. Comments may also be submitted by email to the Recording Secretary Sally Lee at shlee@ieua.org prior to the completion of the Public Comment section of the meeting. Comments will be distributed to the Committee Members.

Call to Order/Flag Salute

Roll Call

Public Comment

Members of the public may address the Committee on any item that is within the jurisdiction of the Committee; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Comments will be limited to three minutes per speaker.

(Continued)

Additions to the Agenda

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

1. Technical Committee Report *(Oral)*

2. Action Item

- A. Approval of March 3, 2022 Policy Committee Meeting Minutes
- B. RP-1 Disinfection Improvements Construction Contract Award

3. Informational Items

- A. Regional Contract Negotiation Update *(Oral)*
- B. RP-5 Expansion Project Update
- C. Grants Semi Annual Update
- D. FY 2022/23-FY 2031/32 Ten-Year Capital Improvement Plan and Ten-Year Forecast
- E. Recycled Water Cost of Service Study Update

4. Receive and File

- A. Recycled Water Groundwater Recharge Update
- B. Building Activity Report
- C. Recycled Water Distribution – Operations Summary

5. Other Business

- A. IEUA General Manager's Update
- B. Committee Member Requested Agenda Items for Next Meeting
- C. Committee Member Comments
- D. Next Meeting – May 5, 2022

Adjourn

DECLARATION OF POSTING

I, Sally Lee, Executive Assistant of the Inland Empire Utilities Agency*, a Municipal Water District, hereby certify that, per Government Code Section 54954.2, a copy of this agenda has been posted at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA and on the Agency's website at www.ieua.org at least seventy-two (72) hours prior to the meeting date and time above.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Sally Lee at (909) 993-1926 or shlee@ieua.org 48 hours prior to the scheduled meeting so that IEUA can make reasonable arrangements to ensure accessibility.

RECEIVE AND
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3B

Building Activity Report - YTD Fiscal Year 2021/22



Legend

- Service Area
- Unincorporated

Residential

- <=1.0
- 1.0 - 10.0
- >10.0

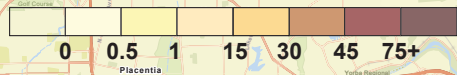
Commercial

- <=1.0
- 1.0 - 10.0
- >10.0

Industrial

- <=1.0
- 1.0 - 10.0
- >10.0

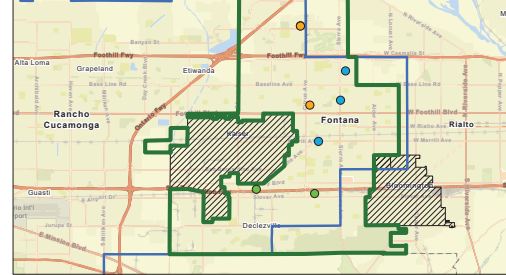
HALF MILE GRID: TOTAL EDU's (YTD)



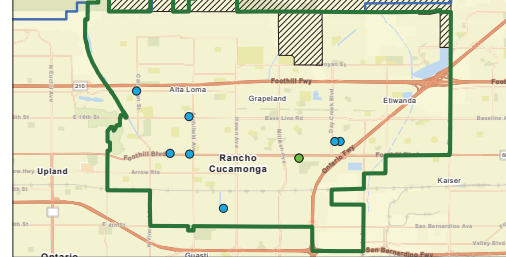
TOTAL EDU BY WASTEWATER CONNECTION-TYPE (YTD)

Contracting Agency	YTD Actual			Total (EDUs)	Projected
	Commercial (EDUs)	Industrial (EDUs)	Residential (EDUs)		
Chino	62	0	246	308	434
Chino Hills	45	0	19	64	276
CVWD	90	306	195	591	2050
Fontana	45	3	358	406	1792
Montclair	10	0	0	10	474
Ontario	185	11	613	812	7560
Upland	11	0	28	39	952
Total	448	322	1459	2229	13538

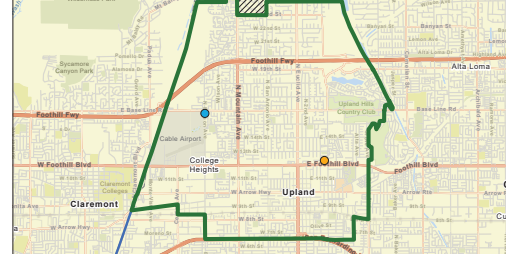
Fontana (January 2022)



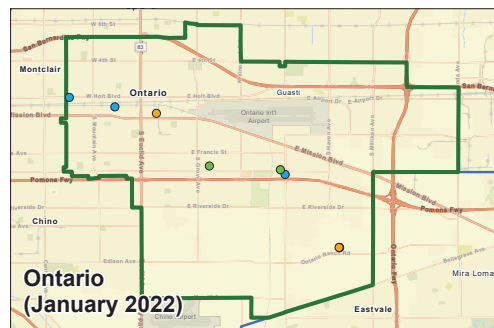
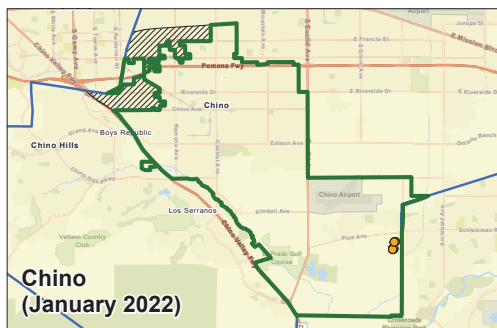
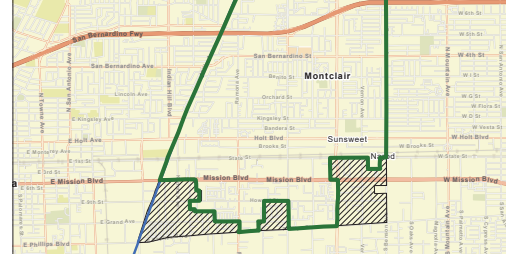
Cucamonga Valley Water District (January 2022)



Upland (January 2022)



Montclair (January 2022)



RECEIVE AND
FILE

3C

IEUA RECYCLED WATER DISTRIBUTION – FEBRUARY 2022

TOTAL ALL PLANTS

Influent: 50.4 MGD

Delivered: 30.5 MGD

Percent Delivered: 61%

Preliminary Deliveries

RW GWR: 17.4 MGD

RW Direct Use: 13.1 MGD

RP-4

Delivered: 8.9 MGD

RP-1

Delivered: 13.6 MGD

CCWRF

Delivered: 4.5 MGD

RP-5

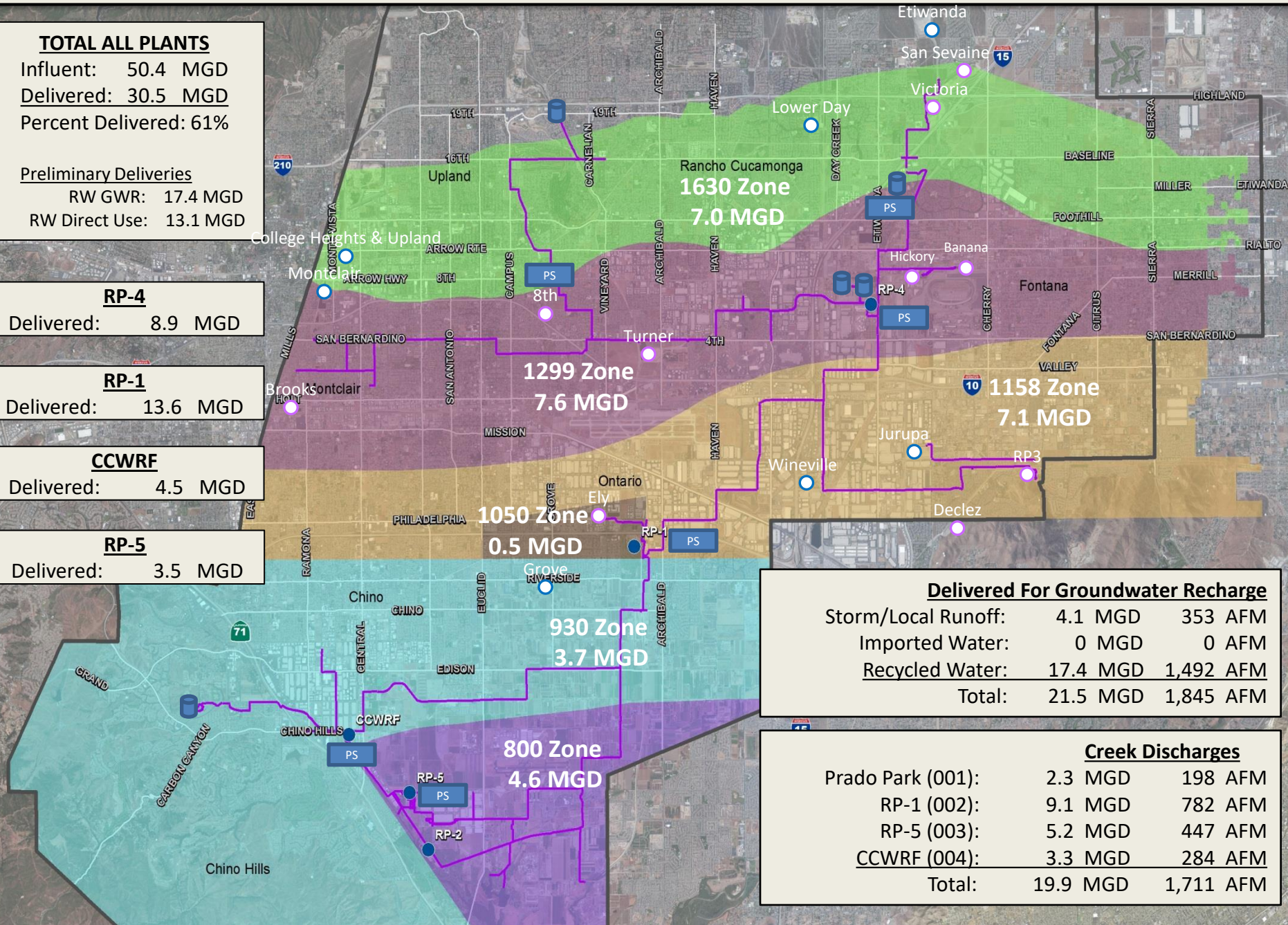
Delivered: 3.5 MGD

Delivered For Groundwater Recharge

Storm/Local Runoff:	4.1 MGD	353 AFM
Imported Water:	0 MGD	0 AFM
Recycled Water:	17.4 MGD	1,492 AFM
Total:	21.5 MGD	1,845 AFM

Creek Discharges

Prado Park (001):	2.3 MGD	198 AFM
RP-1 (002):	9.1 MGD	782 AFM
RP-5 (003):	5.2 MGD	447 AFM
CCWRF (004):	3.3 MGD	284 AFM
Total:	19.9 MGD	1,711 AFM



Recycled Water Recharge Deliveries - February 2022 (Acre-Feet)

Basin	2/1-2/5	2/6-2/12	2/13-2/19	2/20-2/28	Month Actual	FY To Date Actual	Deliveries are draft until reported as final and do not included evaporative losses.	
Ely	23.1	3.8	25.1	43.8	95.8	497		
Banana	3.6	0.0	11.4	28.1	43.1	435		
Hickory	13.8	32.3	24.2	8.9	79.2	713		
Turner 1 & 2	0.0	0.0	0.0	0.0	0.0	505		
Turner 3 & 4	5.4	11.8	21.4	0.0	38.6			
8th Street	68.8	101.9	35.8	67.9	274.4	1654		
Brooks	26.2	27.2	14.9	0.0	68.3	550		
RP3	47.5	88.8	97.3	71.9	305.5	3644		
Declez	0.0	9.0	15.1	29.5	53.6	545		
Victoria	50.5	76.0	62.5	70.5	259.5	911		
San Sevaine	63.5	80.1	54.9	75.2	273.7	2189		
Total	302.4	430.9	362.6	395.8	1,491.7	11,643	11,470	AF previous FY to day actual

