



Regional Sewerage Program Policy Committee Meeting

AGENDA

Thursday, February 3, 2022

3:30 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_NWU1NzA2NDktM2VjMC00NDU1LTkxMmUtMjYyMjA2YWM3YWU4%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: 552 973 583#

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. Alternatively, you may email your public comments to the Recording Secretary Sally Lee at shlee@ieua.org no later than 24 hours prior to the scheduled meeting time. Your comments will then be read into the record during the meeting.

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 November 4, 2021 Policy Committee Meeting Minutes
- 3. Informational Items**
 - A. Regional Contract Negotiation Update (*Oral*)
 - B. Rialto Water Principles Agreement
 - C. Recycled Water Cost of Service Study
 - D. Engineering Quarterly Update
 - E. Groundwater Recharge Update
 - F. Operations Division Quarterly Update
- 4. Receive and File**
 - A. Building Activity Report
 - B. Recycled Water Distribution – Operations Summary
 - C. Revised Annual FY 2020-21 Reports
- 5. Policy Committee Items Distributed**

None
- 6. Other Business**
 - A. IEUA General Manager's Update
 - B. Committee Member Requested Agenda Items for Next Meeting
 - C. Committee Member Comments
 - D. Next Meeting – March 3, 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.

ACTION ITEM

2A



Regional Sewerage Program Policy Committee Meeting

MINUTES OF NOVEMBER 4, 2021 MEETING

CALL TO ORDER

A meeting of the Inland Empire Utilities Agency (IEUA)/Regional Sewerage Program Policy Committee was held via teleconference on Thursday, November 4, 2021. Chair Bill Velto/City of Upland, called the meeting to order at 3:30 p.m.

PLEDGE OF ALLEGIANCE

Committee Member Jasmin A. Hall/IEUA led the Pledge of Allegiance. Recording Secretary Laura Mantilla took roll call and established a quorum was present.

ATTENDANCE via Teleconference

Committee Members:

Jesse Sandoval	City of Fontana
John Dutrey	City of Montclair
Randall Reed	Cucamonga Valley Water District (CVWD)
Art Bennett	City of Chino Hills
Eunice Ulloa	City of Chino
Debra Dorst-Porada	City of Ontario
Bill Velto	City of Upland
Jasmin A. Hall	IEUA

Others Present:

Dave Crosley	City of Chino
Mark Wiley	City of Chino Hills
Courtney Jones	City of Ontario
Christopher Quah	City of Ontario
Nicole deMoet	City of Upland
Luis Cetina	CVWD
Eduardo Espinoza	CVWD
Terra Alpaugh	Kearns & West
Steve Nix	TKE Engineering
Jeff Mosher	Santa Ana Watershed Project Authority
Shivaji Deshmukh	IEUA

Others Present (continued)

Christiana Daisy	IEUA
Kathy Besser	IEUA
Joshua Aguilar	IEUA
Jerry Burke	IEUA
Javier Chagoyen-Lazaro	IEUA
Lucia Diaz	IEUA
Denise Garzaro	IEUA
Elizabeth Hurst	IEUA
Sylvie Lee	IEUA
Laura Mantilla	IEUA
Liza Muñoz	IEUA
Kanes Pantayatiwong	IEUA
Jesse Pompa	IEUA
Jeanina Romero	IEUA
Ken Tam	IEUA
Teresa Velarde	IEUA
Jeff Ziegenbein	IERCA

PUBLIC COMMENTS

There were no public comments.

ADDITIONS/CHANGES TO THE AGENDA

There were no additions or changes to the agenda.

1. TECHNICAL COMMITTEE REPORT

Nicole deMoet/City of Upland stated that the only action item presented at the October 28 Technical Committee meeting was the approval of the September 30, 2021 Technical Committee meeting minutes. IEUA presented four information items: Grants Semi-Annual Update, Operations Division Quarterly Update, Return to Sewer Study Update, and the Operations and Compliance Update. Ms. DeMoet shared that she will be presenting the Regional Contract Negotiations under information item 3B.

2. ACTION ITEM**A. APPROVAL OF THE OCTOBER 7, 2021 POLICY COMMITTEE MINUTES**

Motion: By Eunice Ulloa/City of Chino and seconded by Randall Reed/Cucamonga Valley Water District (CVWD) to approve the meeting minutes of the October 7, 2021 Regional Policy Committee meeting by the following vote:

Ayes: Ulloa, Reed, Sandoval, Dutrey, Dorst-Porada, Velto

Noes: None

Absent: None

Abstain: Bennett

The motion passed by a vote of 6 ayes, 0 noes, 1 abstain, and 0 absent.

3. INFORMATIONAL ITEMS**A. SANTA ANA WATERSHED PROJECT AUTHORITY (SAWPA) UPDATE**

SAWPA's General Manager Jeff Mosher provided an overview of SAWPA's vision, mission and priorities. He gave an update on the Brine Line, One Water One Watershed, the Basin Monitoring Program Task Force, grant programs, Santa Ana River Conservation and Conjunctive Use Program, SAWPA's Weather Modification Project: Cloud Seeding, and SAWPA's Strategic Plan.

B. REGIONAL CONTRACT NEGOTIATION UPDATE

Ms. deMoet reported that the Regional Sewer Contract Draft No. 7 was provided to IEUA. She stated that the contracting agencies continue to hold discussions and further developing portions of the contract while IEUA reviews Draft No. 7. She further commented that Kearns & West was brought back to facilitate the remaining discussions. Once the contracting agencies hear back from IEUA on the anticipated time to review Draft No. 7, the contracting agencies group will submit those remaining sections to IEUA for their review and will modify the milestone schedule and distribute to the Policy Committee.

Committee Member Debra Dorst-Porada/City of Ontario asked when IEUA will respond to the contracting agencies. General Manager Shivaji Deshmukh stated that IEUA will provide a response following the IEUA Board meeting on November 17.

C. GRANTS SEMI-ANNUAL UPDATE

Jesse Pompa/IEUA gave an overview of the grant and loan funding agreements. He highlighted the projects that received funding and the funding sources for the RP-5 Expansion, Philadelphia Force Main Improvements, Wineville/Jurupa/RP-3 Basin Improvements, and South Archibald Plume Remediation. Mr. Pompa explained the multi-benefit drought relief funding opportunity provided by the Department of Water Resources (DWR). Mr. Pompa offered IEUA's assistance to entities who would like to apply for the funding.

D. OPERATIONS DIVISION QUARTERLY UPDATE

Kanes Pantayatiwong/IEUA provided the Operations Division Quarterly Update. He reviewed IEUA's safety report trends, technology initiatives such as Laserfiche forms and dashboard reports.

Lucia Diaz/IEUA informed the Committee of the sewage spill incident that occurred at the Hyperion Water Reclamation Plant and provided an overview of IEUA's Collection System. Ms. Diaz also provided an update on the Haven Avenue manhole covers, SCE public safety power shutoff and IEUA's service area electrical hardening grid.

4. RECEIVE AND FILE**A. BUILDING ACTIVITY REPORT****B. RECYCLED WATER DISTRIBUTION – OPERATIONS SUMMARY FOR SEPTEMBER 2021**

Item 4A and item 4B were received and filed by the Committee.

5. POLICY COMMITTEE ITEMS DISTRIBUTED

There were none.

6. OTHER BUSINESS**A. IEUA GENERAL MANAGER'S UPDATE**

General Manager Deshmukh wished everyone a happy Diwali day.

B. COMMITTEE MEMBER REQUESTED AGENDA ITEMS FOR NEXT MEETING

There were none.

C. COMMITTEE MEMBER COMMENTS

Committee Member Dorst-Porada stated that the Mayor of Redondo Beach and others are developing language for an initiative to repeal SB 9. She stated that if anyone would like to help in that effort to let her know. She invited everyone to the Inland Empire League of Cities Meeting on November 18.

Committee Member John Dutrey/City of Montclair asked if IEUA will be providing an update on the Chino Basin Program activities and alternatives. General Manager Deshmukh responded that regular updates will be provided to the Committee and stakeholders.

Committee Member Jesse Sandoval/City of Fontana asked the Committee to thank all their staff who are veterans in acknowledgement of Veteran's Day. He also wished everyone a Happy Thanksgiving.

D. NEXT MEETING – DECEMBER 2, 2021**7. ADJOURNMENT**

Co-Chair Reed adjourned the meeting at 4:47 p.m.

Prepared by:

Laura Mantilla, Recording Secretary

**INFORMATION
ITEM**

3B



Date: February 3, 2022

To: Regional Policy Committee

From: Inland Empire Utilities Agency

Subject: City of Rialto Principles of Agreement

RECOMMENDATION

This is an information item.

BACKGROUND

To meet Chino Basin water quality objectives and wastewater permit compliance requirements, Inland Empire Utilities Agency (IEUA) is planning an advanced water purification facility (AWPF) located at Regional Plant No. 4 (RP-4) which requires a constant monthly recycled water supply for its operation. Due to the seasonality of IEUA's recycled water, the AWPF needs augmented recycled water supplies when the demands are higher than the available supplies during the six months between May and October. The City of Rialto (Rialto) is interested in monetizing its recycled water to achieve ecosystem benefits and financial security and is amenable to engage in a partnership with IEUA to develop terms for their recycled water supplies. The removal of effluent flows generated from Rialto's treatment plant from the Santa Ana River will reduce the adverse impacts to native species and a portion of these flows would serve as part of the RP-4 AWPF supply.

The principles of agreement were drafted to consolidate the needs of both IEUA and Rialto. The proposed terms include the design and construction of the recycled water facilities, the diversion of 3,500 acre-feet per year (afy) between May and October into the IEUA recycled water system at a rate of \$275 per acre-foot for a period of 50 years, and the first right of purchase for any amount above the 3,500 afy or the remaining six months.

IEUA will present this item to the Board of Directors as an action item in February 2022. Rialto will present it to their City Council for approval in February 2022.

**IEUA, RIALTO, SAN BERNARDINO VALLEY WATER DISTRICT WATER RESEOURCES PARTNERSHIP
PRINCIPLES OF AGREEMENT**

Water Resource Partnership Objectives

- City of Rialto is interested in monetizing its recycled water asset for the benefit of city by diversifying its water resources and financial security.
- IEUA is interested in securing additional reliable local water supplies to bolster its water resources portfolio to serve its community today, into the future, and under uncertain climate conditions.
- City of Rialto currently has 6.23 MGD of recycled water produced at its wastewater treatment plant that is discharged to the Santa Ana River. As the City grows, it anticipates receiving additional flows up to its maximum treatment plant capacity of 11.7 MGD. City of Rialto currently has a requirement to provide 7 cfs or 3.8 MGD for the benefit of the habitat in the Rialto Channel/ Santa Ana River.
- Valley District is leading the development of the Upper Santa Ana River Multi-Species Habitat Conservation Plan (SAR MSHCP); for the protection of the habitat in the Santa Ana River, the HCP identified that it is desirable to remove flows from the Rialto WWTP during the summer months, when the temperature of the water has an adverse impact on native species; the intent is to provide cold water to the Rialto channel during optimal times of the year to support the habitat.
- IEUA has a desire to augment its recycled water system in the summer months when its recycled water demands are higher than the available supplies and would benefit from such flows from Rialto. IEUA intends to fund the design and construction of an advanced water purification facility and injection facilities to beneficially use the water from Rialto, along with its own supplies to meet water quality objectives of the Chino Basin and its NPDES Permit limitations.
- The City of Rialto and IEUA can mutually agree the interconnection capacity may be upsized to provide additional capacity for future supply from growth within Rialto's service area. Should existing capacity be used to convey flows from other agencies, the City of Rialto and IEUA would be proportionally compensated.
- The value of the proposed project is beyond the above articulated components of water supply and habitat; the partnership could develop broader benefits such as meeting water quality objectives, and salt/nutrient management objectives, and from future use of interconnection capacity by parties other than the Partners.

**IEUA, RIALTO, SAN BERNARDINO VALLEY WATER DISTRICT WATER RESEOURCES PARTNERSHIP
PRINCIPLES OF AGREEMENT**

Proposed Principles of Agreement

- IEUA will fund the design, construction and operation of a pipeline, pump station and interconnection between City of Rialto WWTP and IEUA recycled water distribution system, at an estimated cost of \$45 million (2019 cost estimate) to facilitate the exchange of water from Rialto to IEUA. The current contemplated capacity of the facilities is 11.7 MGD, to match Rialto WWTP's ultimate treatment plant capacity.
- IEUA will fund a maximum of \$1 million (2019 cost estimate) the construction of one groundwater well adjacent to the Santa Ana River or the construction of a gravity pipeline from the bottom of the future Lake Rialto, with a preferred location within the City's property; the purpose of the project is to provide cold water for the benefit of the native species while the Rialto water is diverted to the IEUA recycled water distribution system.
- Rialto and Valley District will fund, design, permit, acquire the necessary property, and construct the well or pipeline as needed for the SAR MSHCP. Rialto and Valley will also fund the permitting, operation and maintenance of the well or pipeline. Rialto and Valley District will work together to identify funding opportunities in the future to design, permit and construct Lake Rialto to provide ecosystem benefits.
- Rialto and Valley District will provide water for environmental/ecosystem benefits in accord with the SAR MSHCP.
- Rialto will secure any needed water diversion permits from the State Water Resources Control Board prior to the start of construction, currently contemplated to be consistent with the Upper Santa Ana River Habitat Conservation Plan.

Proposed Terms of the Agreement

- In exchange for the capital investment and operation of the facilities to secure supplies from Rialto, IEUA will have exclusive rights to divert a constant flow of 7 MGD of Rialto's recycled water into the IEUA system at a rate of \$275 per acre-foot for the summer months commencing May 1 through October 31 of each calendar year, following execution of the agreement and construction of the facilities for a period of 50 years. The rate will be annually adjusted at 2 percent or the CPI index, whichever is higher.
- In consideration of the partnership, IEUA and its agencies shall have first right of purchase of recycled water during the remainder of the six months and/or any future expanded flows over the 6.23 MGD for a period of 50 years, commensurate with the start of the agreement at a rate of \$375-400 per acre-foot, with annual adjustments to the rate (2 percent, CPI index or based on other water index, (such as Metropolitan Water District rates).

**IEUA, RIALTO, SAN BERNARDINO VALLEY WATER DISTRICT WATER RESEOURCES PARTNERSHIP
PRINCIPLES OF AGREEMENT**

-
- If any of the Facilities Capacity, beyond the current contemplated 6.23 MGD, is used to provide benefits beyond this Partnership, such use of capacity shall be mutually agreed upon by both parties.
 - Any future participants which results in added value will be shared equitably as the opportunities arise.



City of Rialto Water Resources Partnership Principles of Agreement

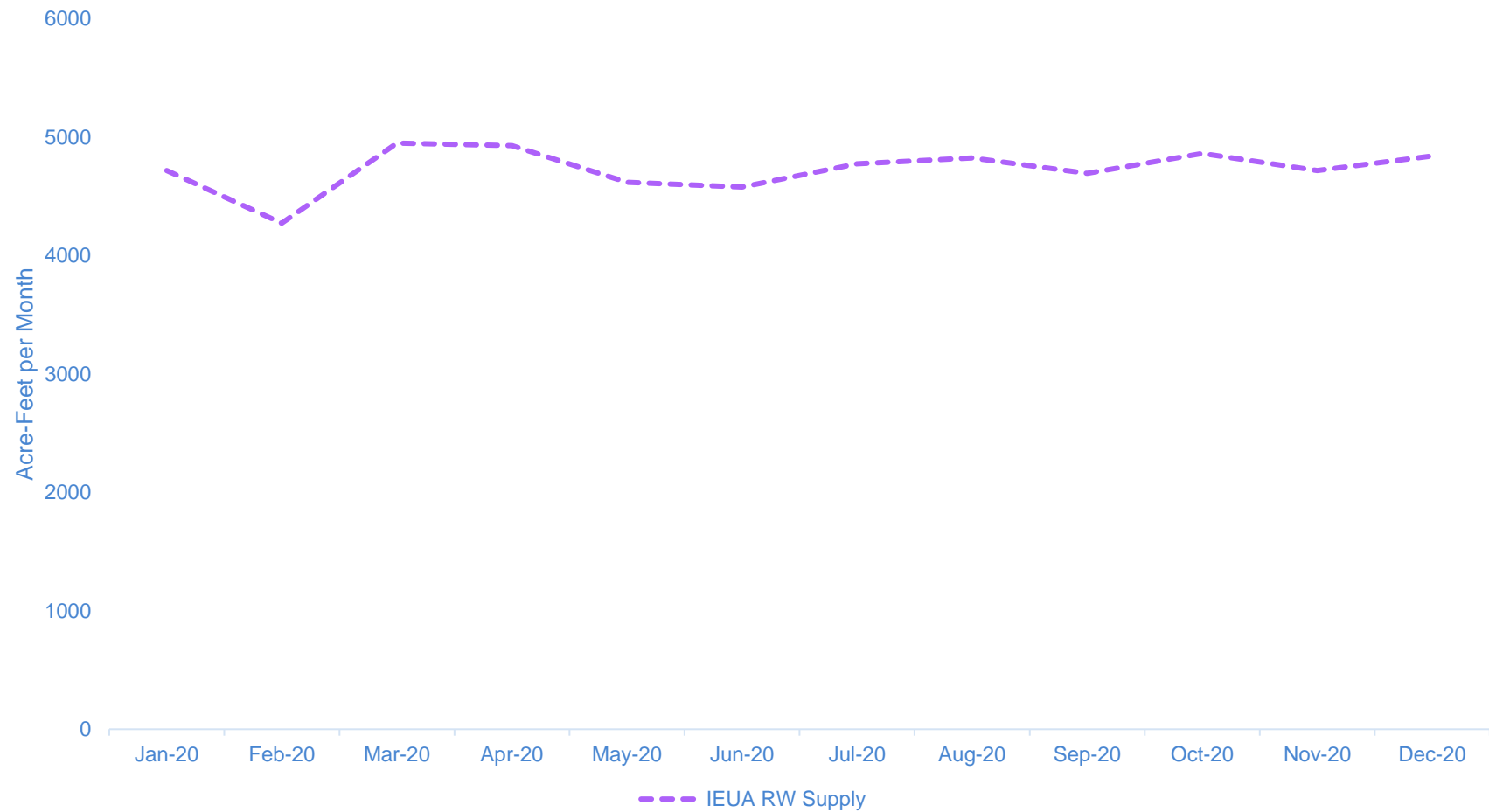
Elizabeth Hurst
Chino Basin Program Manager
February 3, 2022

Background

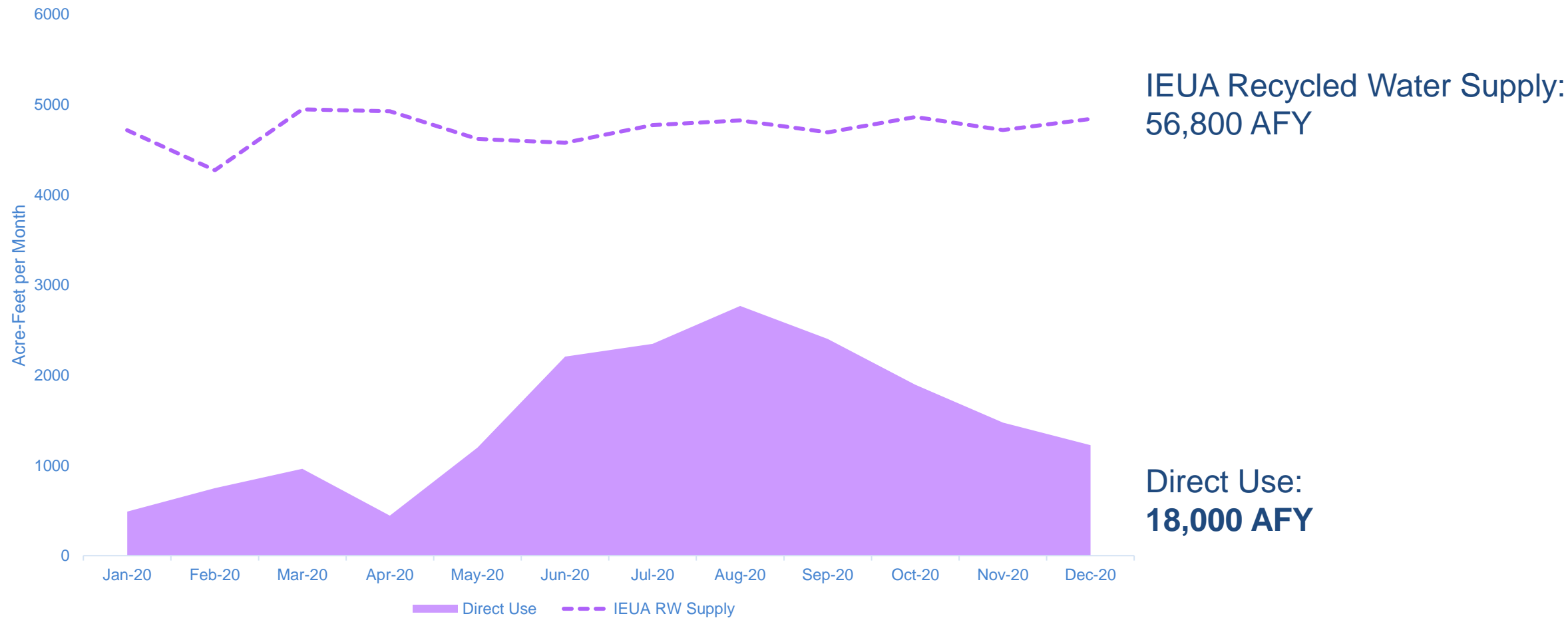
- The Santa Ana River Multi Species Habitat Conservation Plan (SAR HCP) identified the benefit of removing flows from the City of Rialto wastewater treatment plant during the summer months due to the adverse impact to native species.
- City of Rialto is interested in monetizing its recycled water as an annual revenue source.
- Due to seasonality of recycled water supplies, IEUA needs to augment its recycled water supply during peak demand months between May and October.
- IEUA and City of Rialto initiated water resources partnership discussions in 2019.



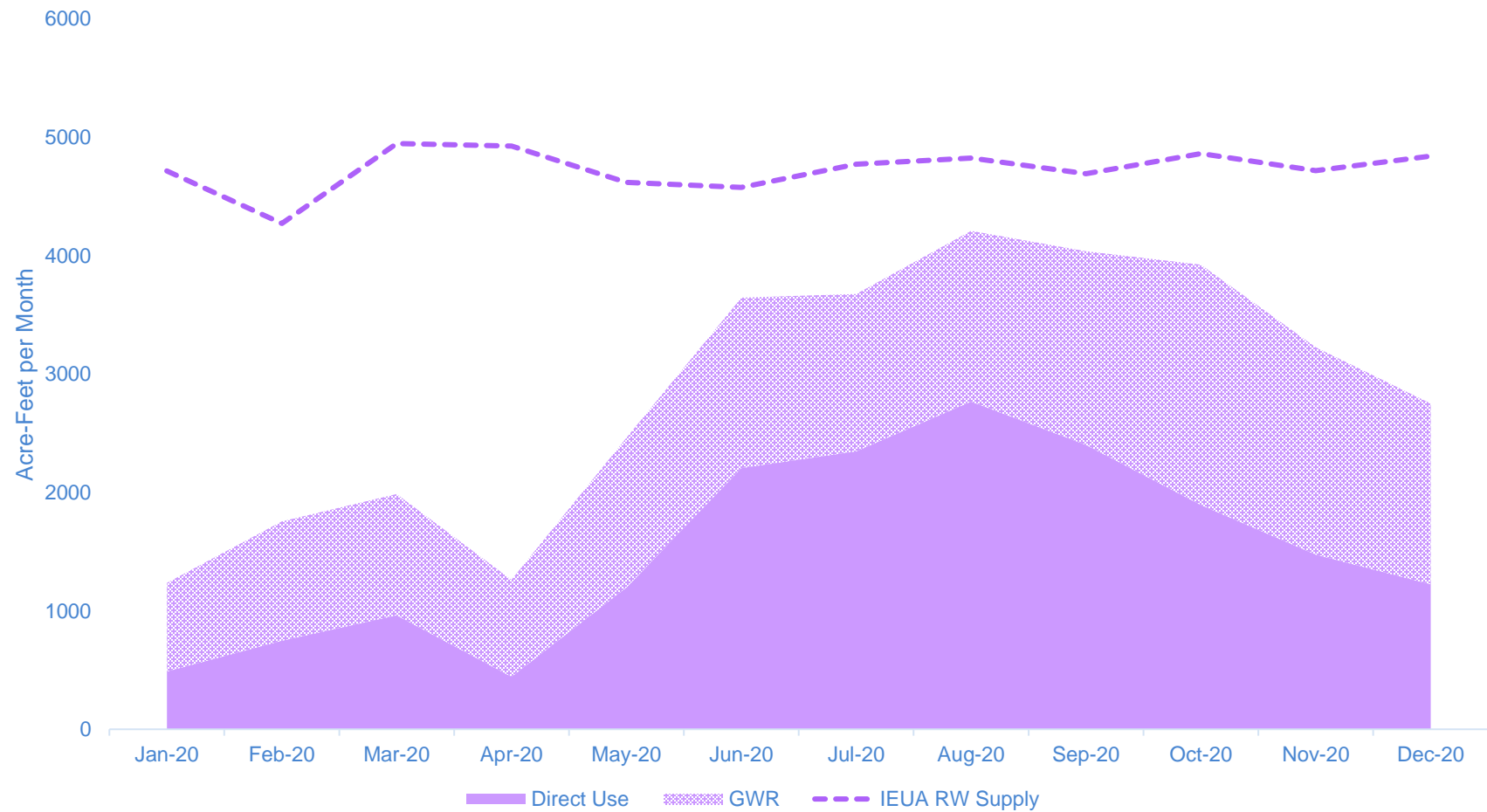
Recycled Water Supplies vs Demands



Recycled Water Supplies vs Demands



Recycled Water Supplies vs Demands

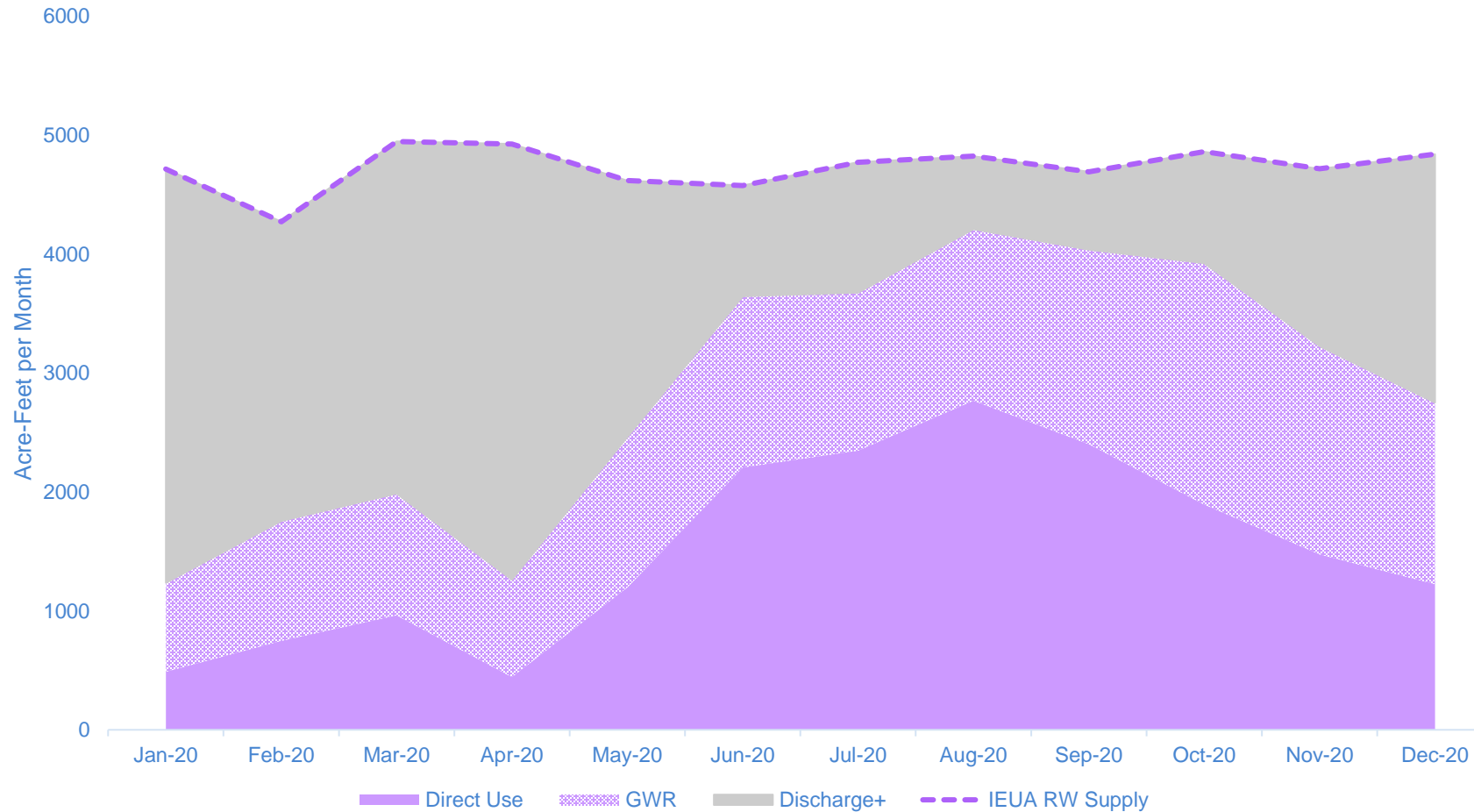


IEUA Recycled Water Supply:
56,800 AFY

Groundwater Recharge:
16,000 AFY

Direct Use:
18,000 AFY

Recycled Water Supplies vs Demands



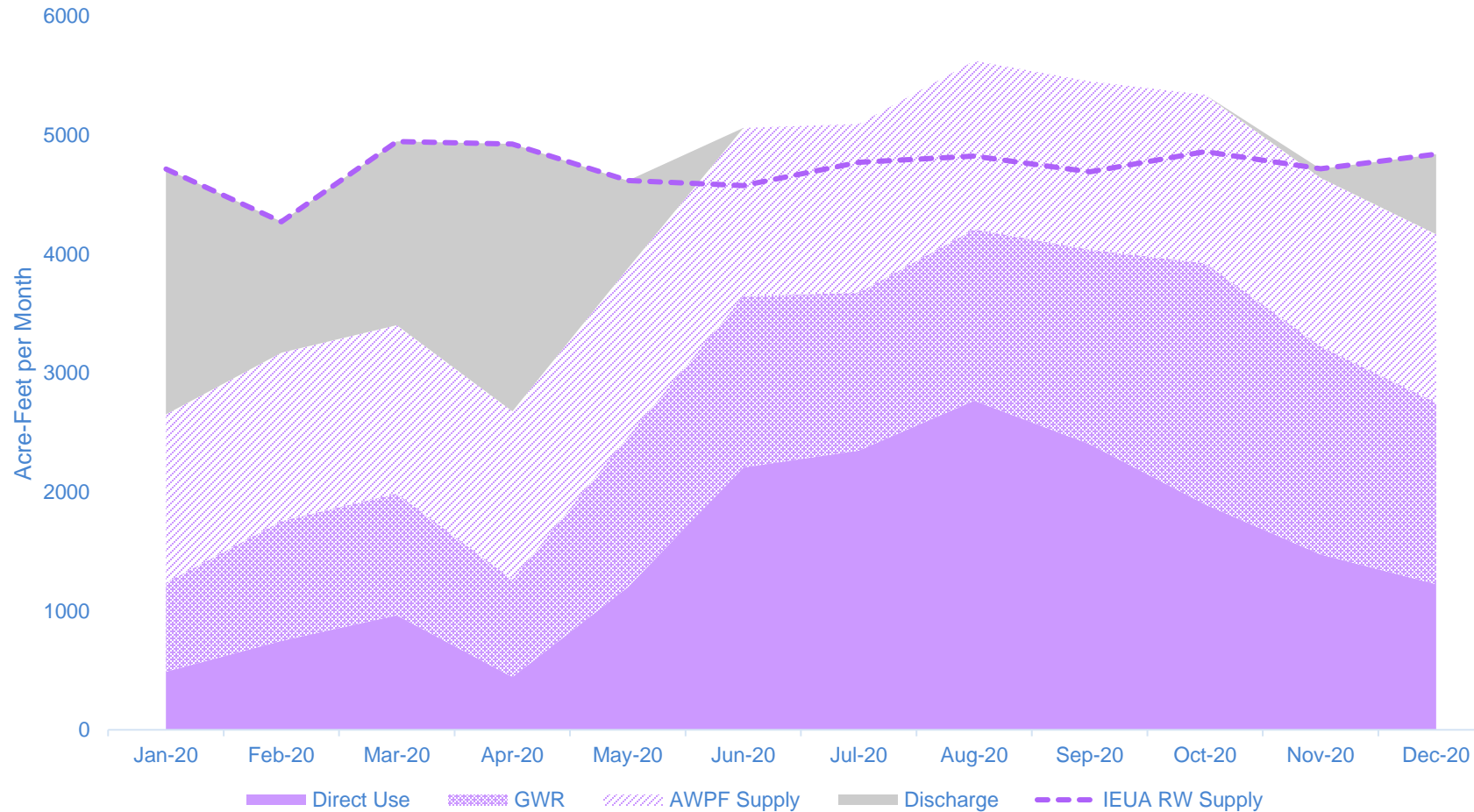
IEUA Recycled Water Supply:
56,800 AFY

Discharge:
22,800 AFY

Groundwater Recharge:
16,000 AFY

Direct Use:
18,000 AFY

Recycled Water Supplies vs Demands



IEUA Recycled Water Supply:
56,800 AFY

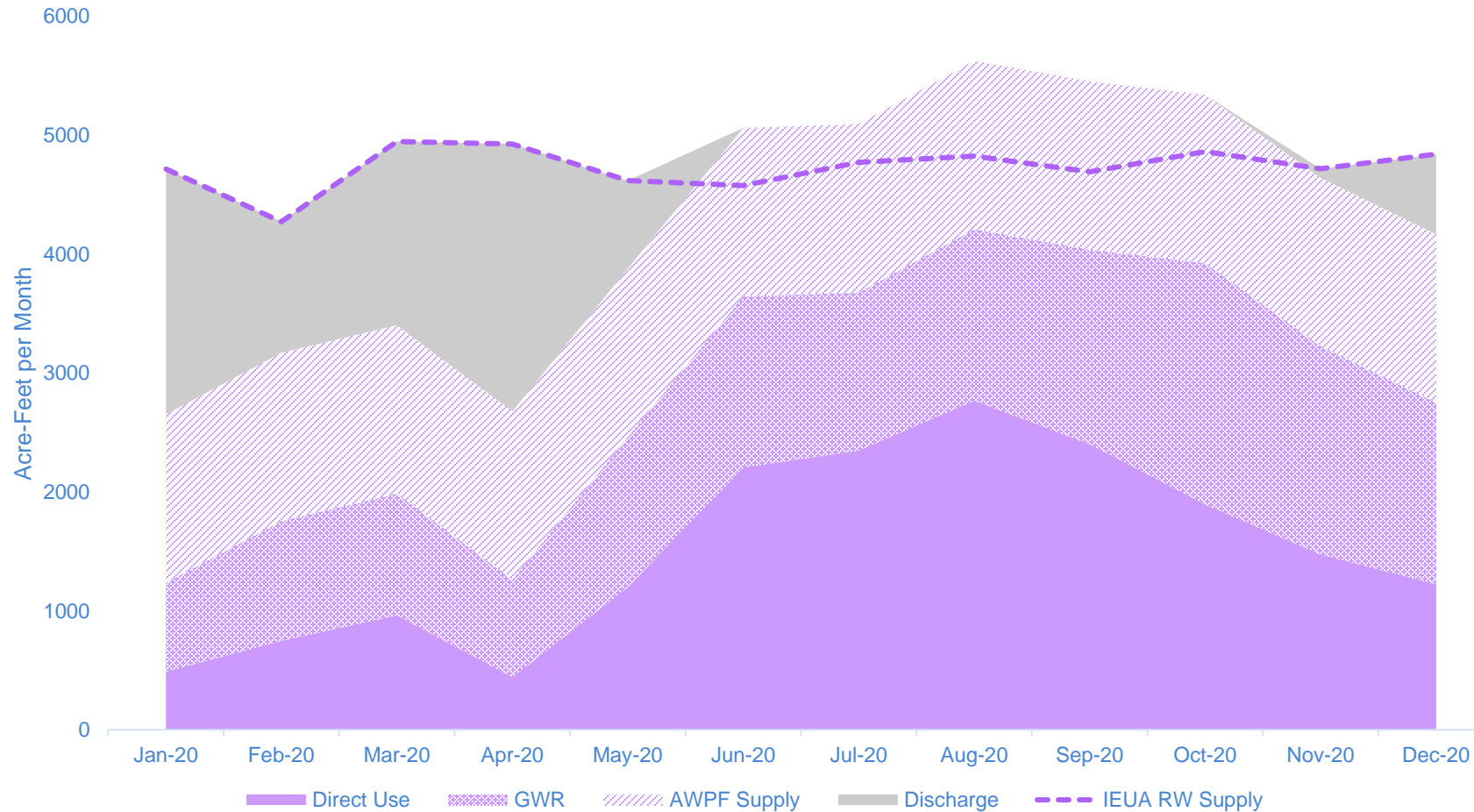
AWPF:
17,000 AFY

Discharge:

Groundwater Recharge:
16,000 AFY

Direct Use:
18,000 AFY

Recycled Water Supplies vs Demands



IEUA Recycled Water Supply:
56,800 AFY

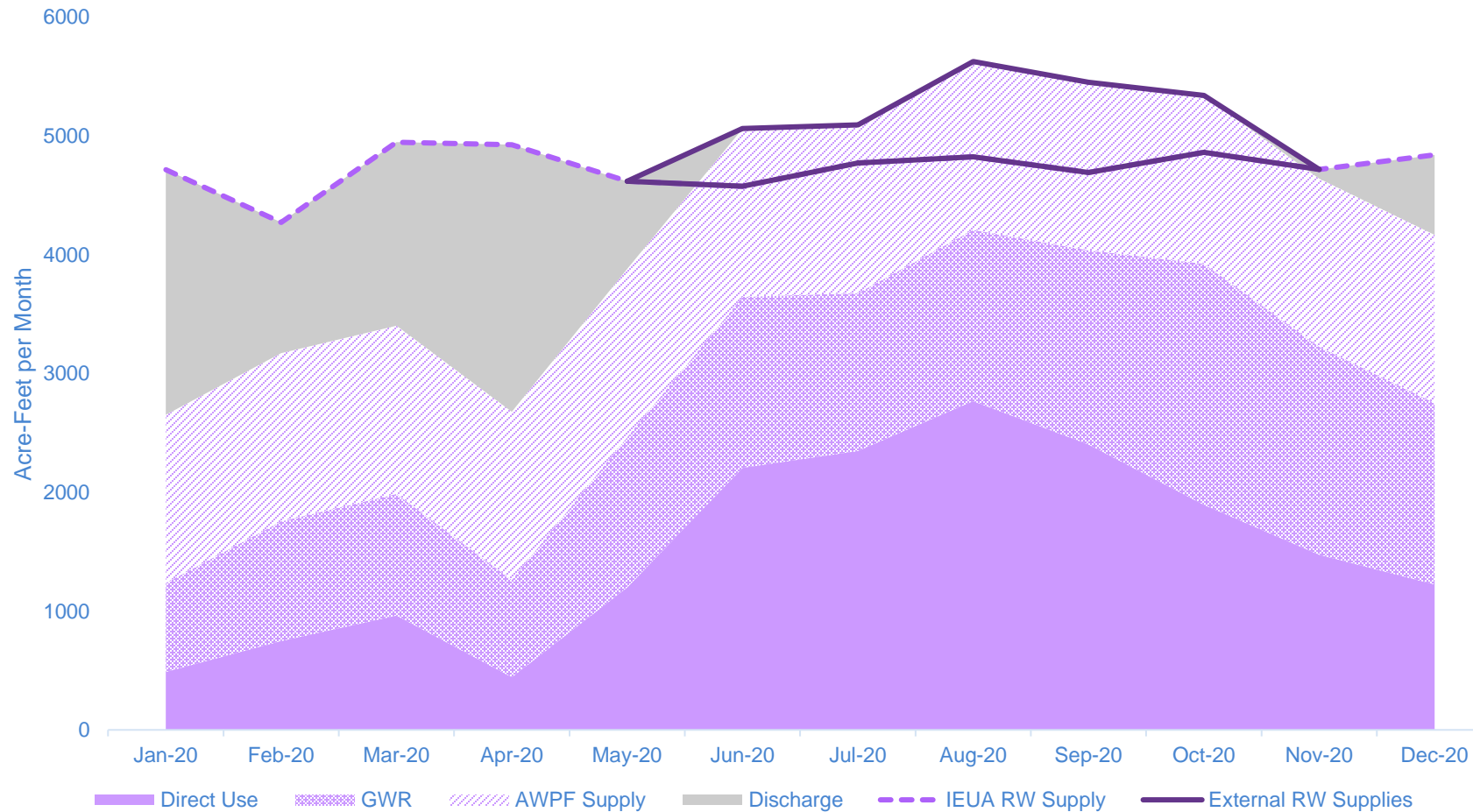
AWPF:
17,000 AFY

Discharge:
~~22,800~~ **11,800 AFY**

Groundwater Recharge:
16,000 AFY

Direct Use:
18,000 AFY

Recycled Water Supplies vs Demands



External Recycled Water Supplies:
6,000 AFY

IEUA Recycled Water Supply:
56,800 AFY

AWPf:
17,000 AFY

Discharge:
11,800 AFY

Groundwater Recharge:
16,000 AFY

Direct Use:
18,000 AFY

Principles of Agreement

- IEUA to design, construct, and operate recycled water facilities with 7,000-acre-foot capacity (i.e., pipeline, pump station, interconnection).
- IEUA to have exclusive rights to divert 3,500 acre-feet of Rialto's recycled water into IEUA system.
- IEUA to purchase this amount at a rate of \$275 per acre-feet annually between May and October for a period of 50 years. The annual rate to be adjusted at 2 percent or the CPI index, whichever is higher.
- IEUA and its agencies have first right of purchase for the remaining six months or future expanded flows over the facilities' capacity at a rate of \$375-\$400 per acre-feet.

**INFORMATION
ITEM**

3C



Recycled Water Cost of Service Study

Eddie Lin
Strategic Planning and Resources
January-February 2022

Recycled Water Rate Study Goals

- Financial Resilience
 - Promote the resiliency and sustainability of the recycled water and recharge program
- Proportionality
 - Appropriately recover costs based on the services provided, equity, and affordability
- Collaboration
 - Employ an open, collaborative, and transparent public process
- Compliance with California Law
 - Ensure that rates adhere to State legal requirements.

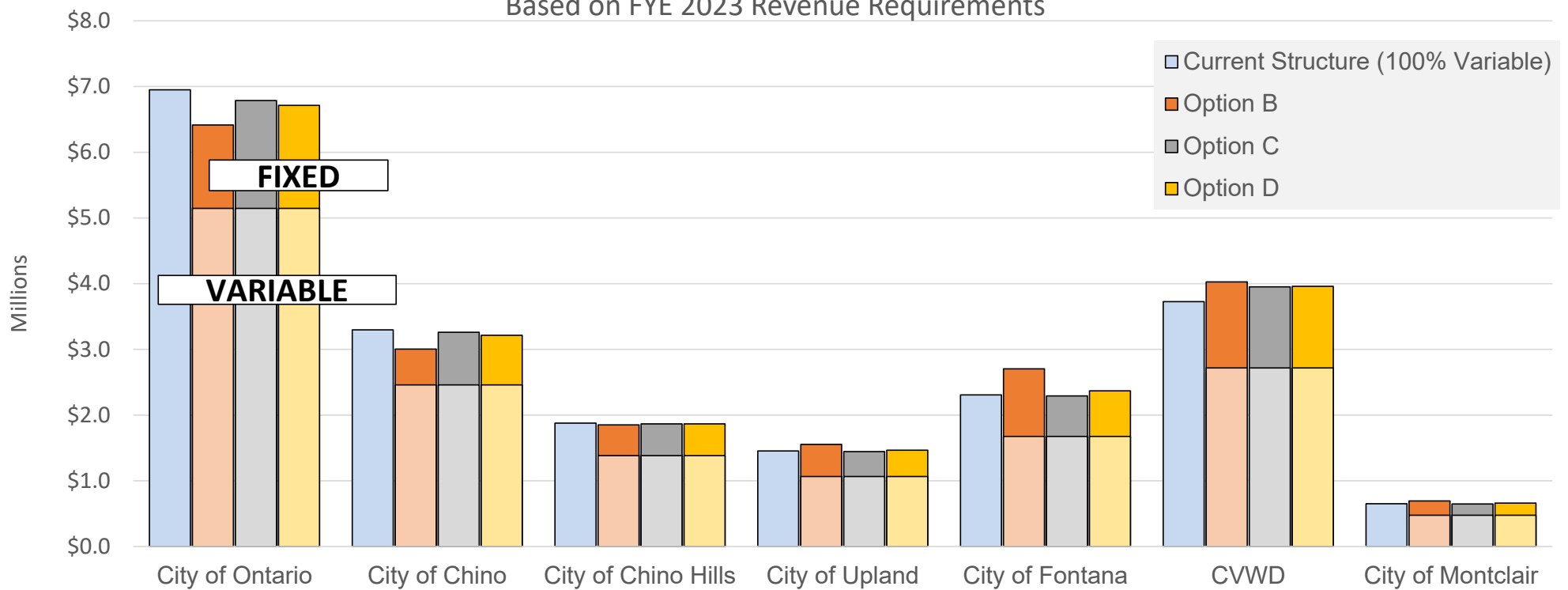
Recycled Water Rate Study

Fixed Cost Recovery

- Developing fixed cost recovery structure
 - Projected recycled water supply:
 - 56,000 acre-ft per year
 - Projected demand assumptions:
 - Direct use = 18,000 acre-ft per year
 - Recharge = 16,000 acre-ft per year
- Seven rate structures considered, narrowed down to three
 - Option B: Fixed charge based on Equivalent Dwelling Units (EDUs)
 - Option C: Fixed charge based on 3-year rolling average demands
 - Option D: Fixed charge based on 3-year rolling average (direct) and EDUs (recharge)

Recycled Water Rate Study Structure Options

Recycled Water Revenues by Agency
Based on FYE 2023 Revenue Requirements



Recycled Water Rate Study Milestones



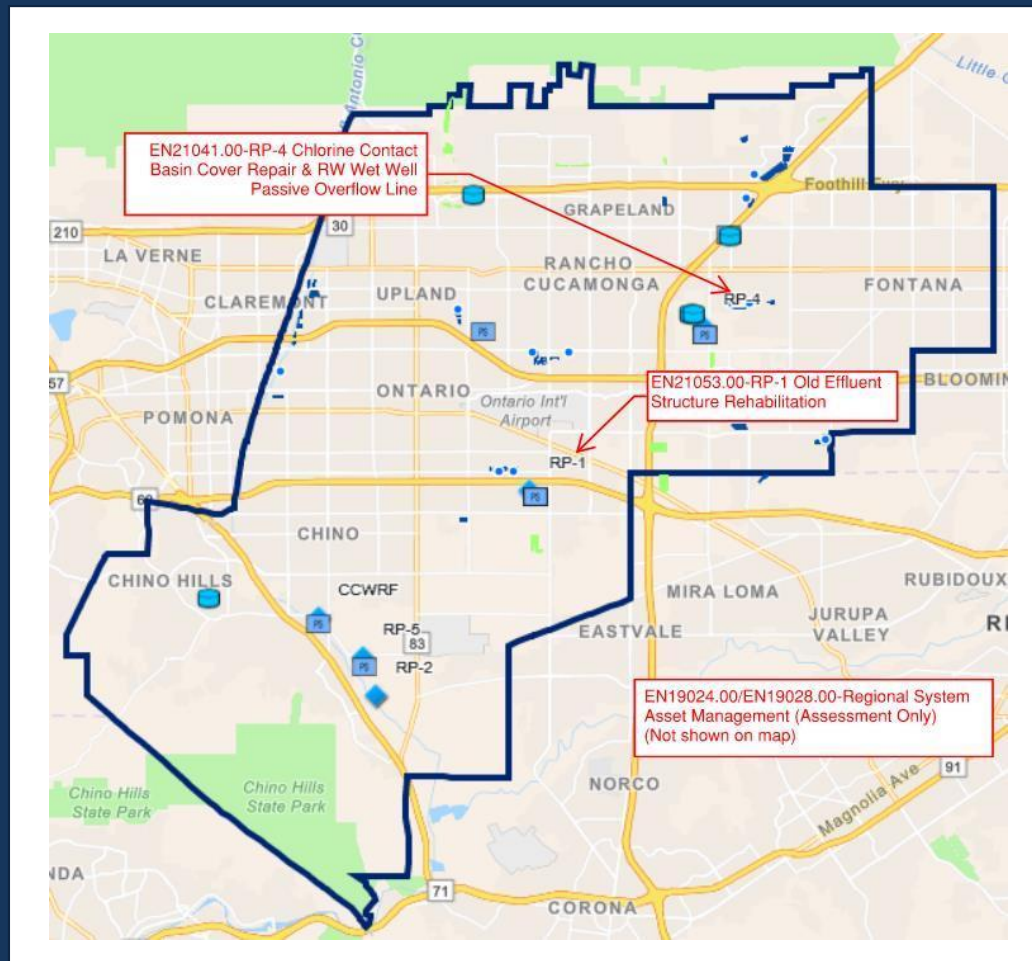
**INFORMATION
ITEM**

3D



Engineering and Construction Management Quarterly Project Updates Regional Tech/Policy Committees

Jason Marseilles, P.E.
Manager of Engineering
January/February 2022



Project Location Map

Collection System Asset Management

Project Goal: Maintain Existing Assets



Remote CCTV Entering MH for Inspection

Total Project Budget: \$3.7 M

Project Completion: September 2022

Condition Assessment Percent Complete: 25%

Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders
Condition Assessment	CDM Smith	\$2.9 M	2%
Project Management Team			
Project Manager:		Ignacio, Joel	
Assistant/Associate Engineer:		Ward, Ryan	
Administrative Assistant:		GK & Associates	
Inspector:		GK & Associates	

RP-1 Old Effluent Structure Rehabilitation

Project Goal: Rehabilitate/Repair Existing Assets

Total Project Budget: \$1.5M
Project Completion: March 2024
Design Percent Complete: 30%

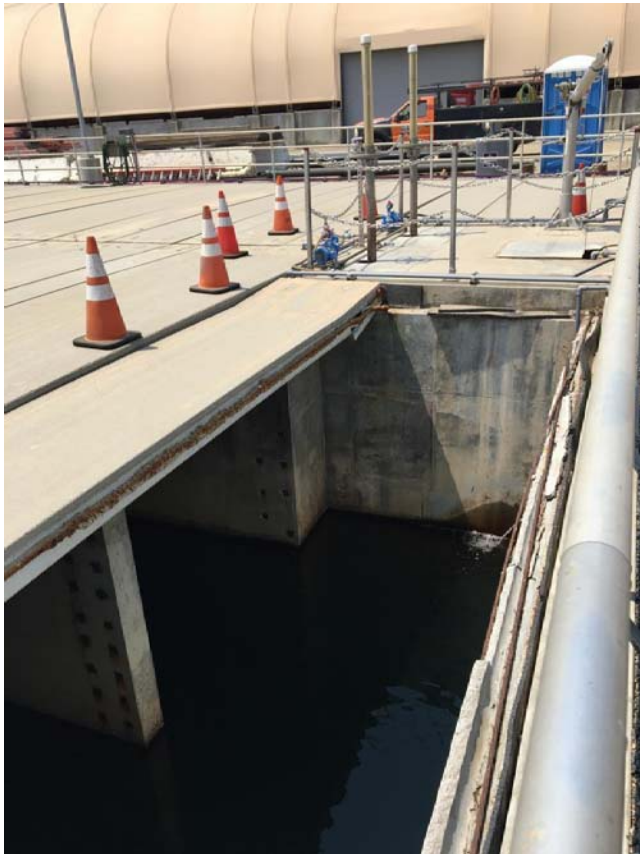
Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders
Pre-Design (Current)	GHD	\$56k	0%
Construction	TBD	\$0	0%
Project Management Team			
Project Manager:		Zughbi, Jamal	
Assistant/Associate Engineer:		Ferrer, Karen	
Administrative Assistant:		Wood & Associates	
Inspector:		TBD	



Unsecured Wood Plank Covers

RP-4 Chlorine Contact Basin Cover Repair & RW Wet Well Passive Overflow Line

Project Goal: Rehabilitate/Repair Existing Assets and Improve Safety



RP-4 Chlorine Contact Basin 2

Total Project Budget: \$4.3M
Project Completion: September 2023
Design Percent Complete: 10%

Phase	Consultant/ Contractor	Current Contract	Amendments/ Change Orders
Pre-Design (Current)	GHD	\$144k	0%
Construction	TBD	\$0	0%
Project Management Team			
Project Manager:		Zughbi, Jamal	
Assistant/Associate Engineer:		Tao, Justin	
Administrative Assistant:		Wood & Associates	
Inspector:		TBD	

**INFORMATION
ITEM**

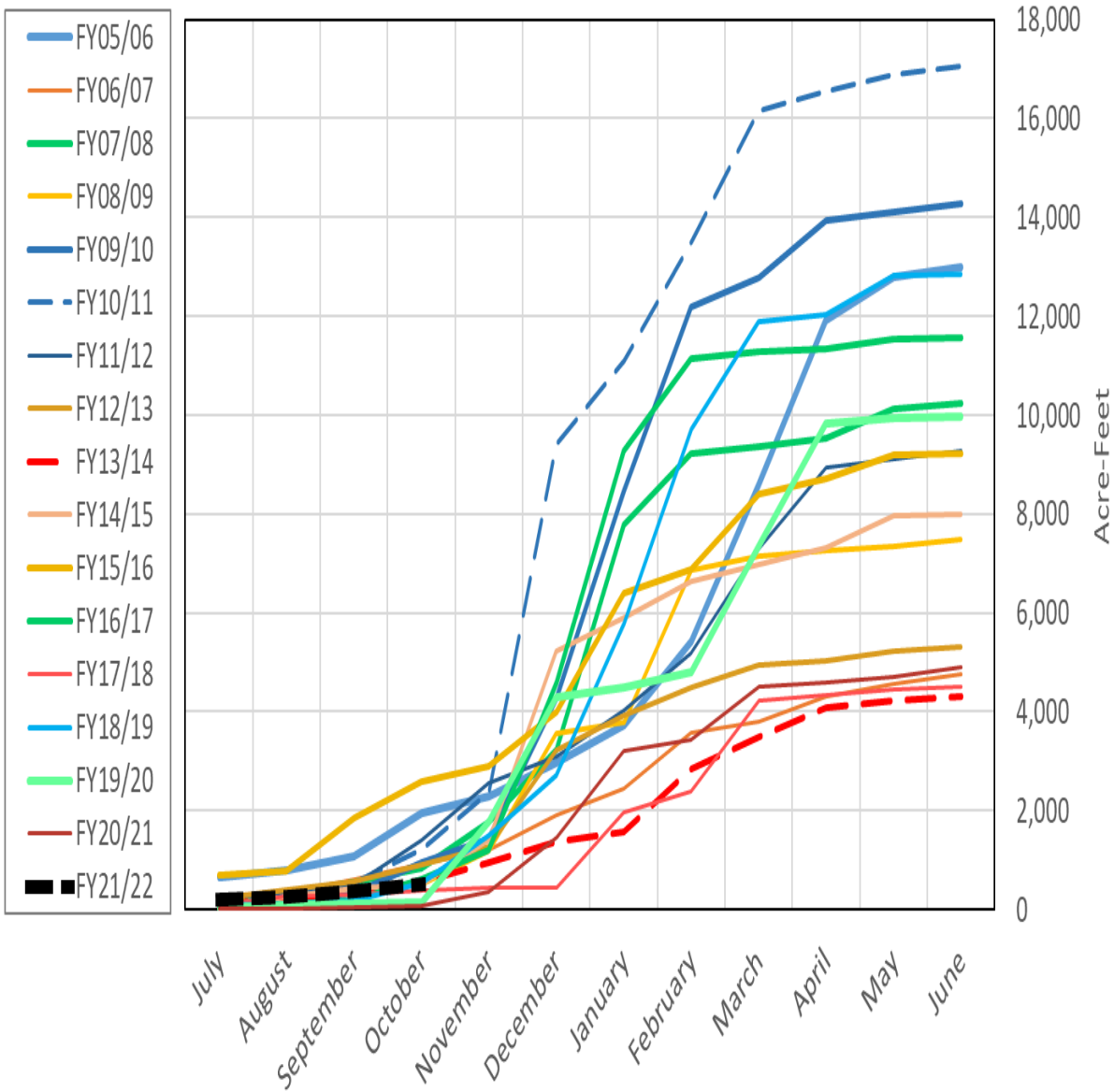
3E

Recycled Water Groundwater Recharge Update

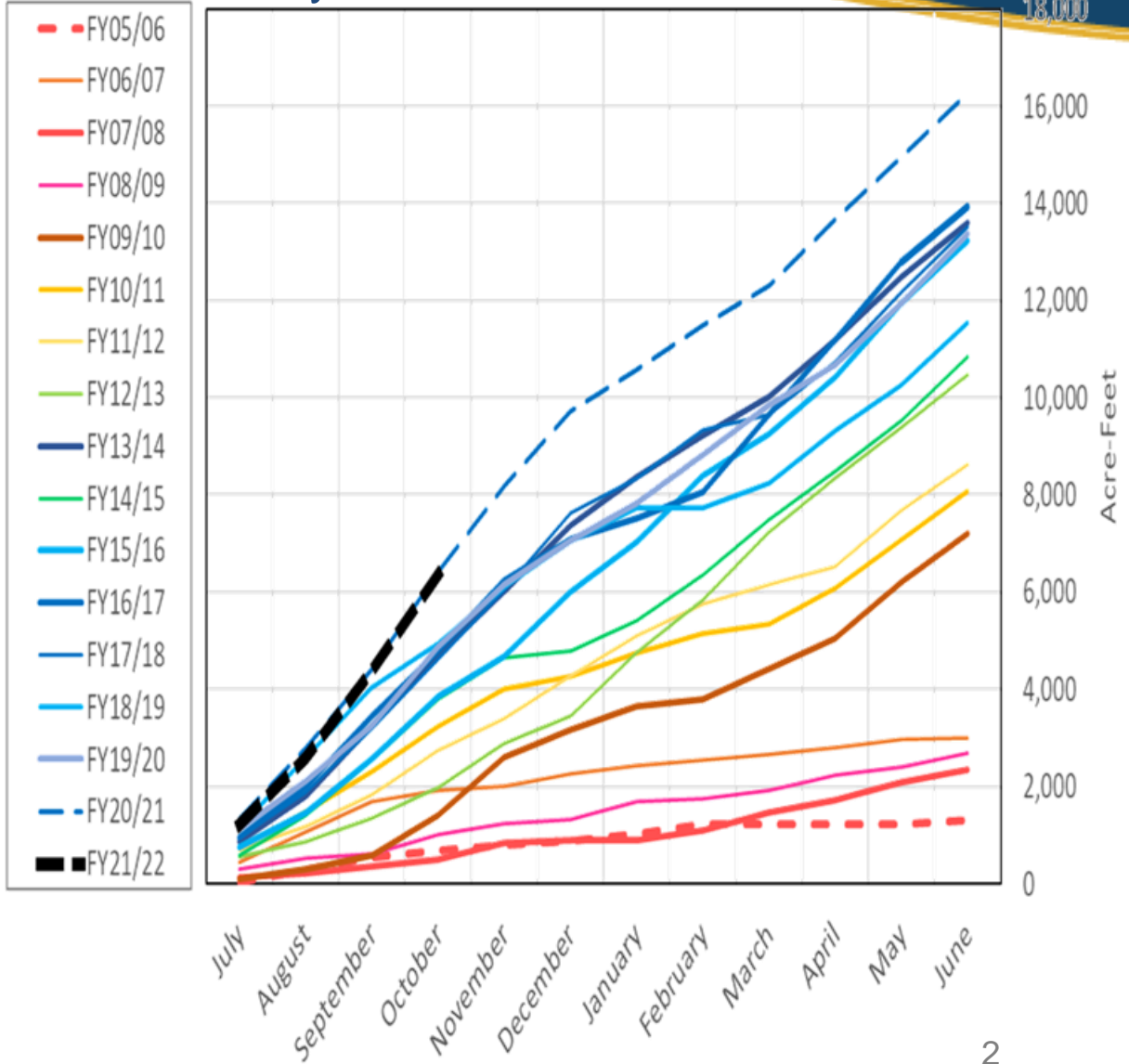
Andy Campbell, PG, CHG
GWR Coordinator/Hydrogeologist
January and February 2022

Accumulated Monthly Recharge By Source

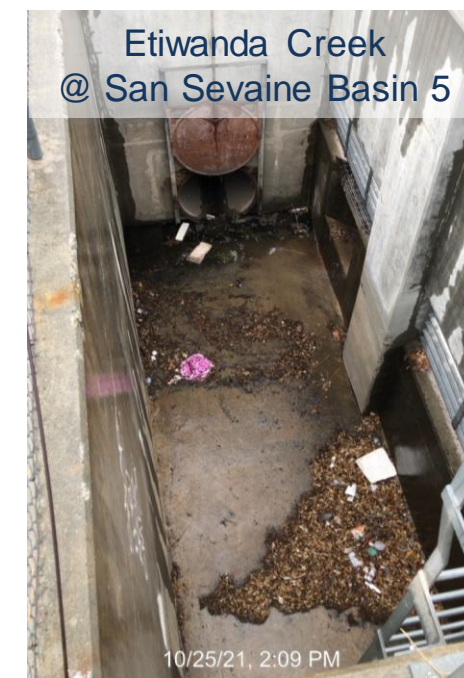
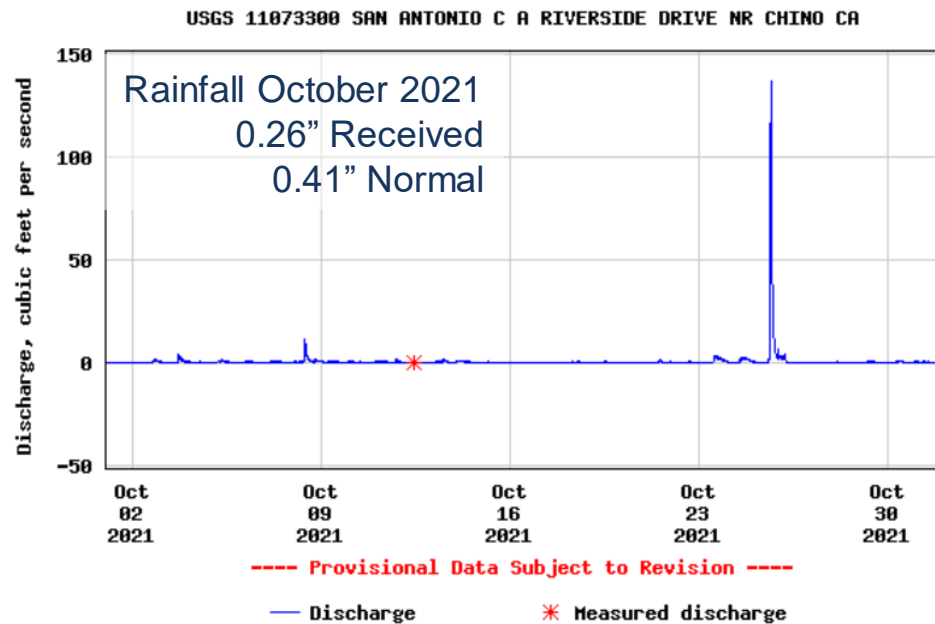
Stormwater



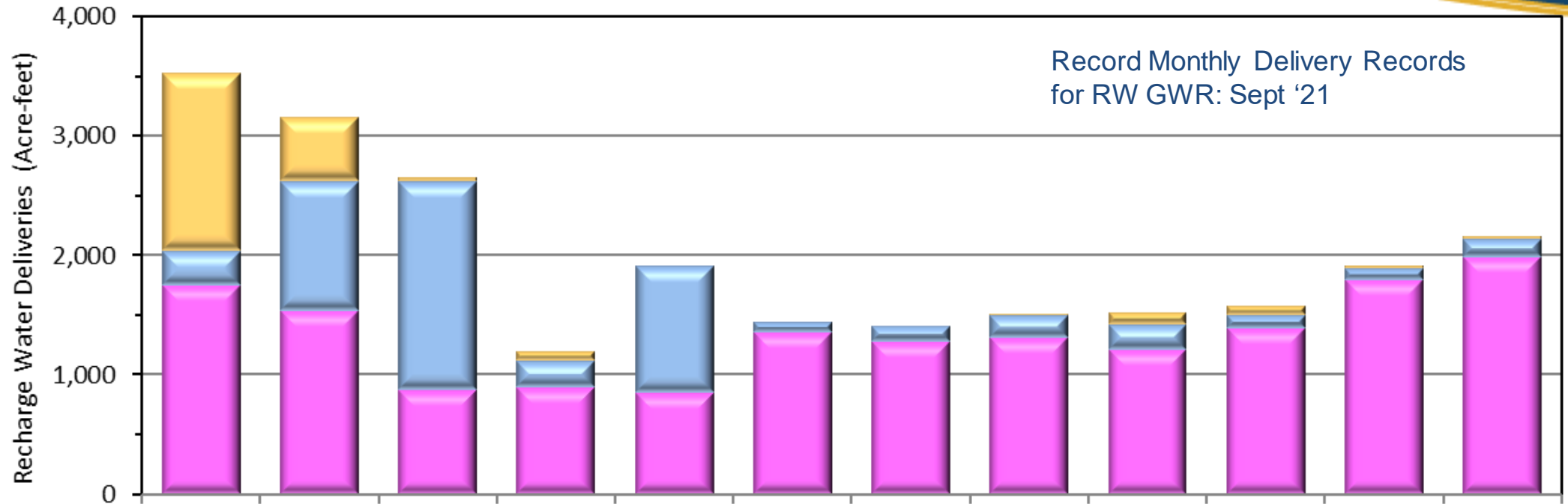
Recycled Water



October Rainfall – Light Rain-First Flush

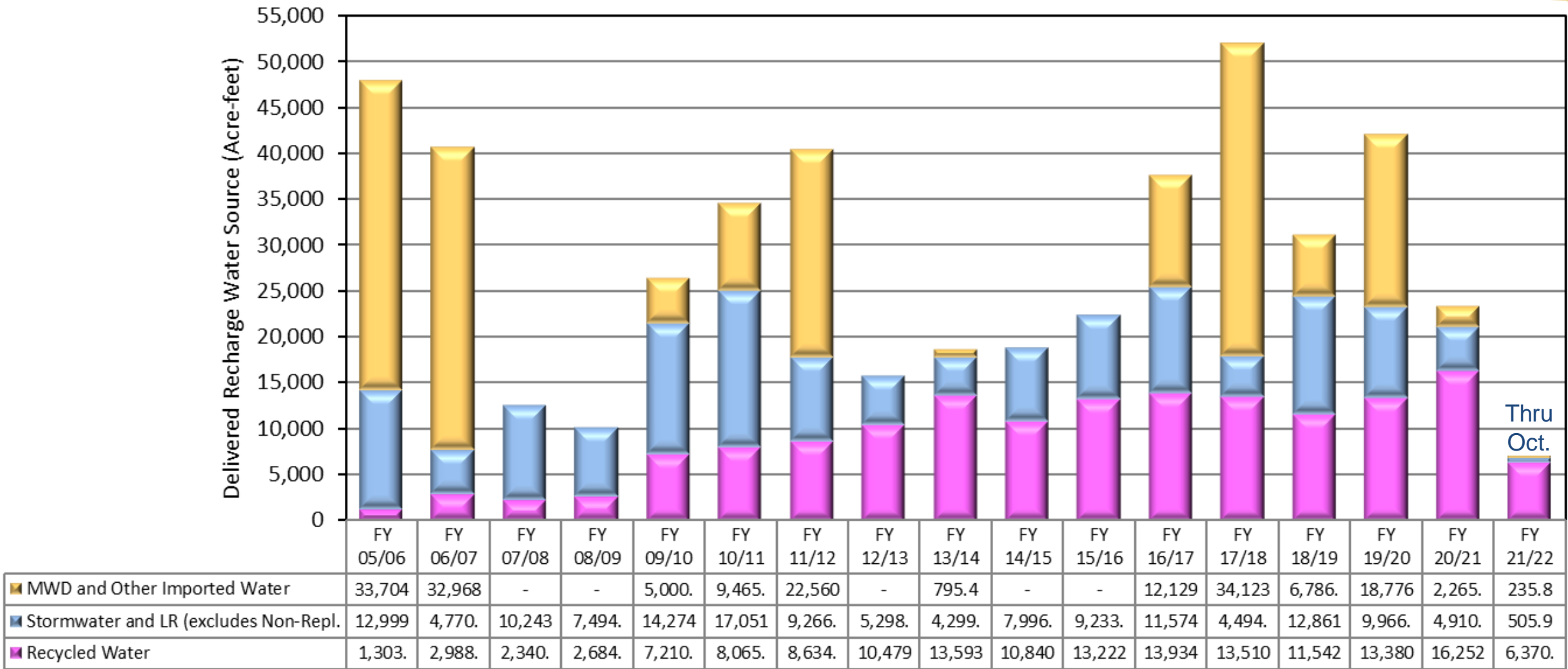


Groundwater Recharge Deliveries Past 12 Months



	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021
■ MWD and other Imported Water	1,498	542	25	76	0	0	0	2	108	69	33	26
■ Stormwater and LR (excluded Non-Replenishment)	290	1,090	1,758	227	1,063	93	134	185	209	118	96	162
■ Recycled Water	1,749	1,528	868	891	849	1,350	1,274	1,311	1,209	1,387	1,791	1,979

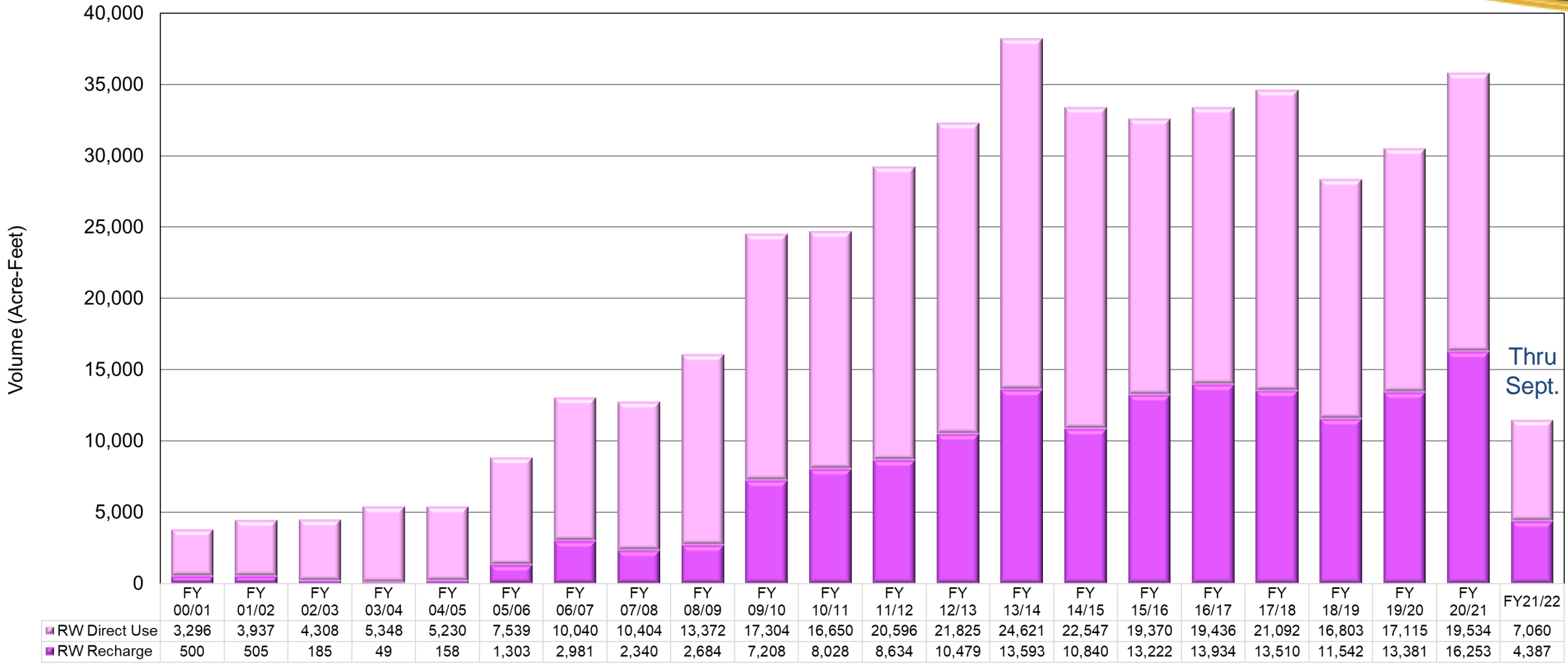
Groundwater Recharge Annual History



Upcoming Recharge Activities

- November, December - Watermaster Replenishment Obligation 2,077 AF
- November – Etiwanda Debris Basin Burrowing Owl Weephole Exclusion
- December – Etiwanda Debris Basin Infiltration Restoration
- January – RP3 and Lower Day RMPU Project Operation
- Spring Infiltration Restoration Sites – Lower Day
- Spring Basin Fill Removal – Magnolia Channel Basin

Recycled Water (RW) Demand History



**INFORMATION
ITEM**

3F

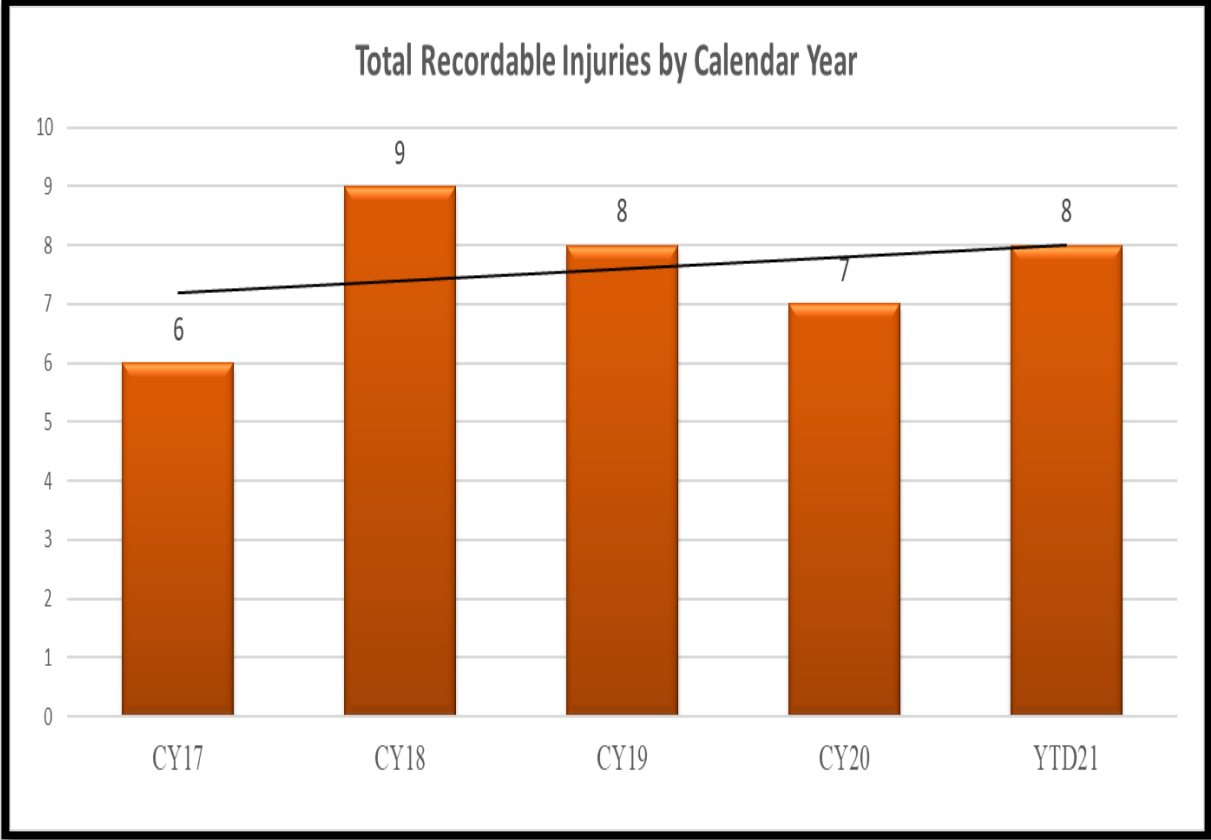
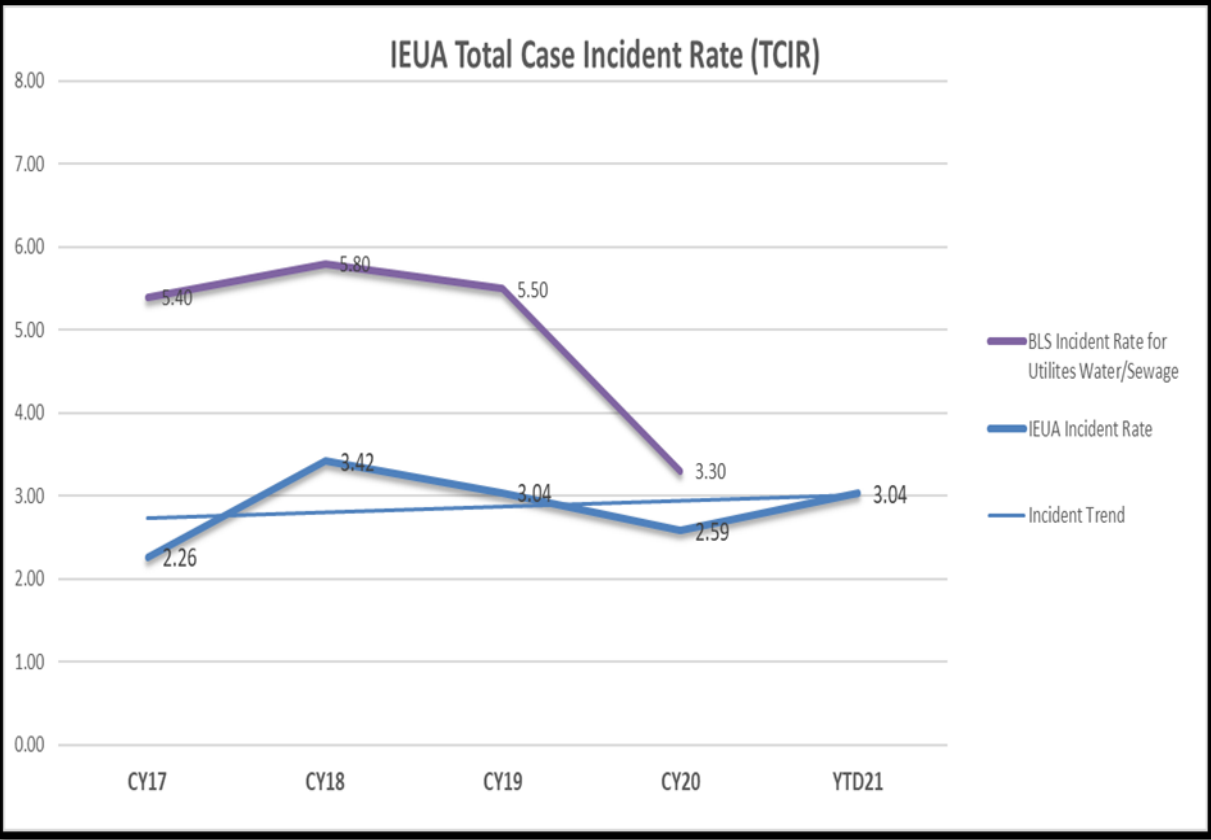
Operations Division Quarterly Update

Don Hamlett

Acting Deputy Manager of Integrated Systems Services

January and February 2022

IEUA Incident Rates vs. Industry & Total Recordable Injuries



* Estimated incident rate based on past December hours worked

Beginning October 2021, Monthly Cybersecurity training courses were assigned to all staff. Each approximately 15 minutes in length, user security awareness concepts including social engineering, web safety, and technology tips are introduced and reinforced.

Staff Engagement

Your training completion rate ⓘ ↗ ⋮

Your completion rate

62.47%

Industry average completion rate **65.11%**

Your average learner training time

Average time per learner (minutes)

15.05

Recommended annual learner training time (minu... **60**

Your on time completion

On-time completion

77.57%

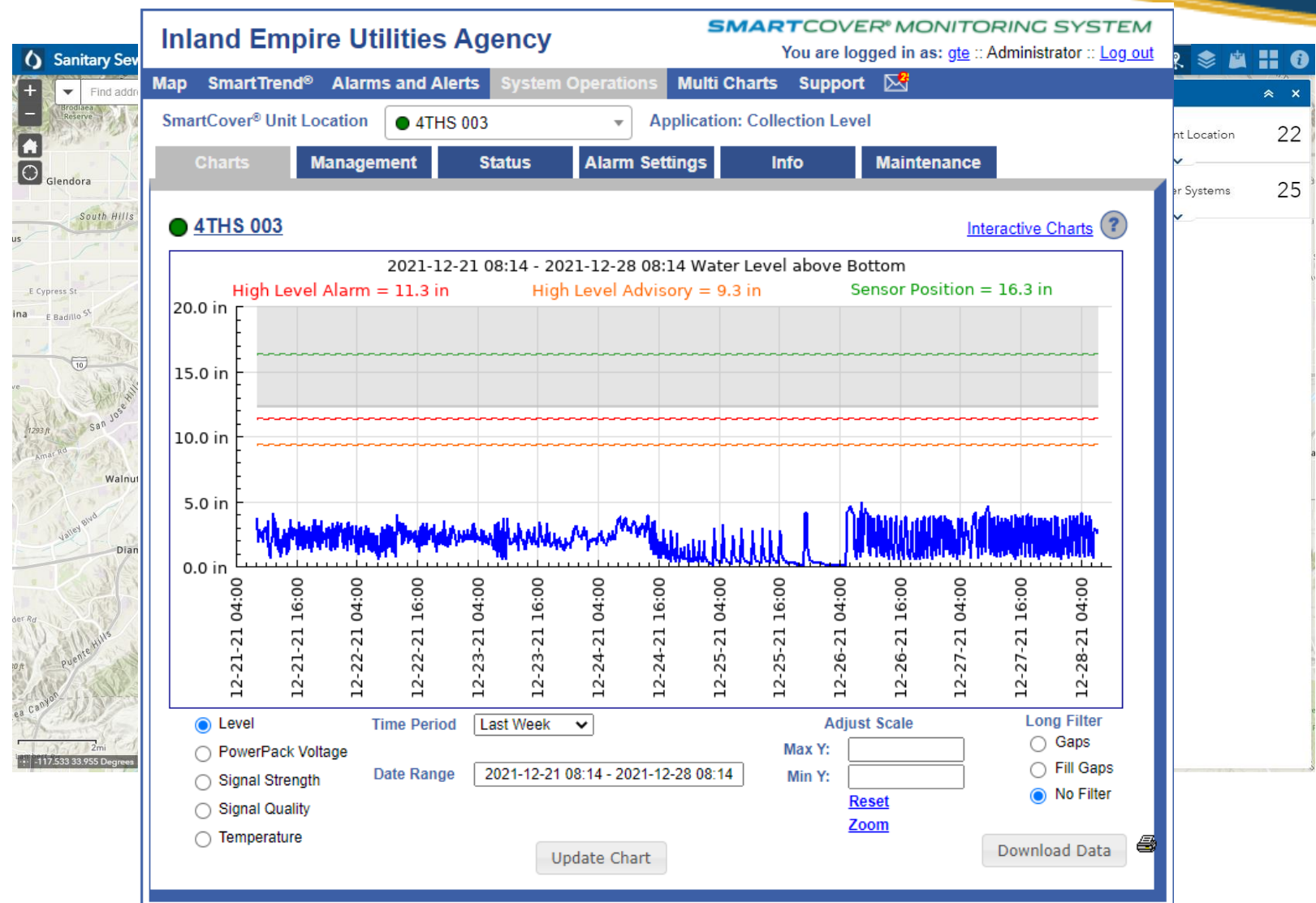
Late completion **22.43%**

Q3 Goals

- **HQA Firewall Upgrade**
 - Increased capacity
 - Improved security
- **Cloud Migration SAP Non-Production**
 - Increased Flexibility
 - Secure Access for development team
 - Rapid deployment
 - Proof of concept
- **Contract Incident Response Retainer**
 - Cybersecurity program review
 - Risk modeling
 - Dedicated Rapid Response

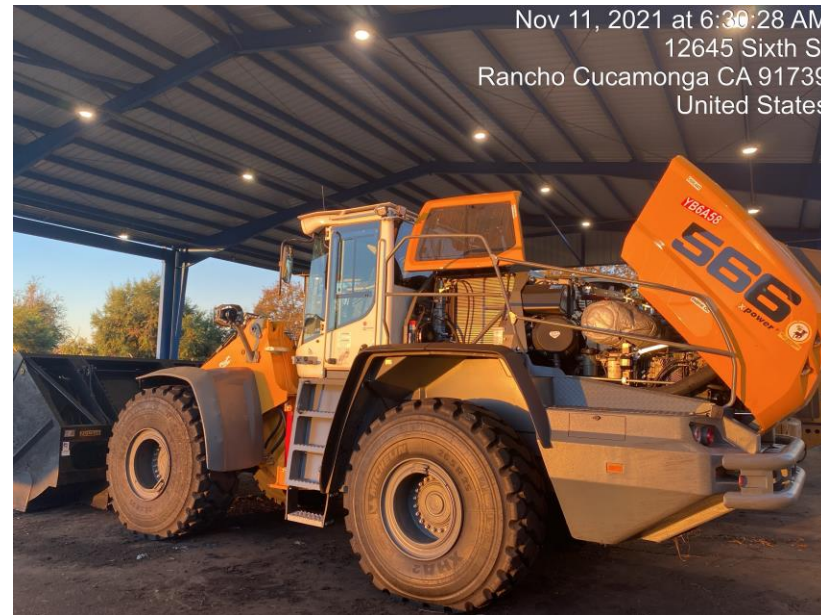


SmartCover Technology Update



IERCF Reliability Update

- Using laser to digitally align pulleys and bearings
- Procured loaders engineered specifically for the waste sector
 - Corrosion resistant
 - Sealed cabs
 - Center-mounted radiator
 - Heavy-duty pins
 - Increased visibility



Industrial wheel loaders



Laser alignment tool

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BAR Note:

Ontario data does not include
November values. Ontario CCRA
balance and October data is
currently pending review

Building Activity Report - YTD Fiscal Year 2021/22



Legend

Service Area

Unincorporated

Residential

- <=1.0
- 1.0 - 10.0
- >10.0

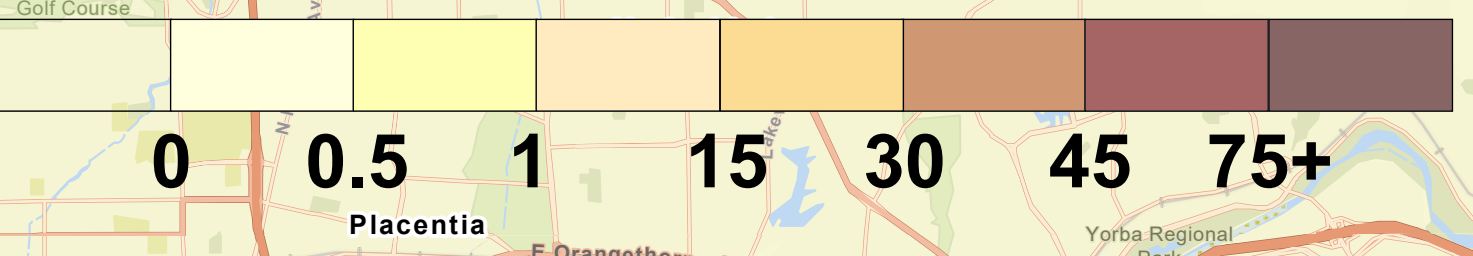
Commercial

- <=1.0
- 1.0 - 10.0
- >10.0

Industrial

- <=1.0
- 1.0 - 10.0
- >10.0

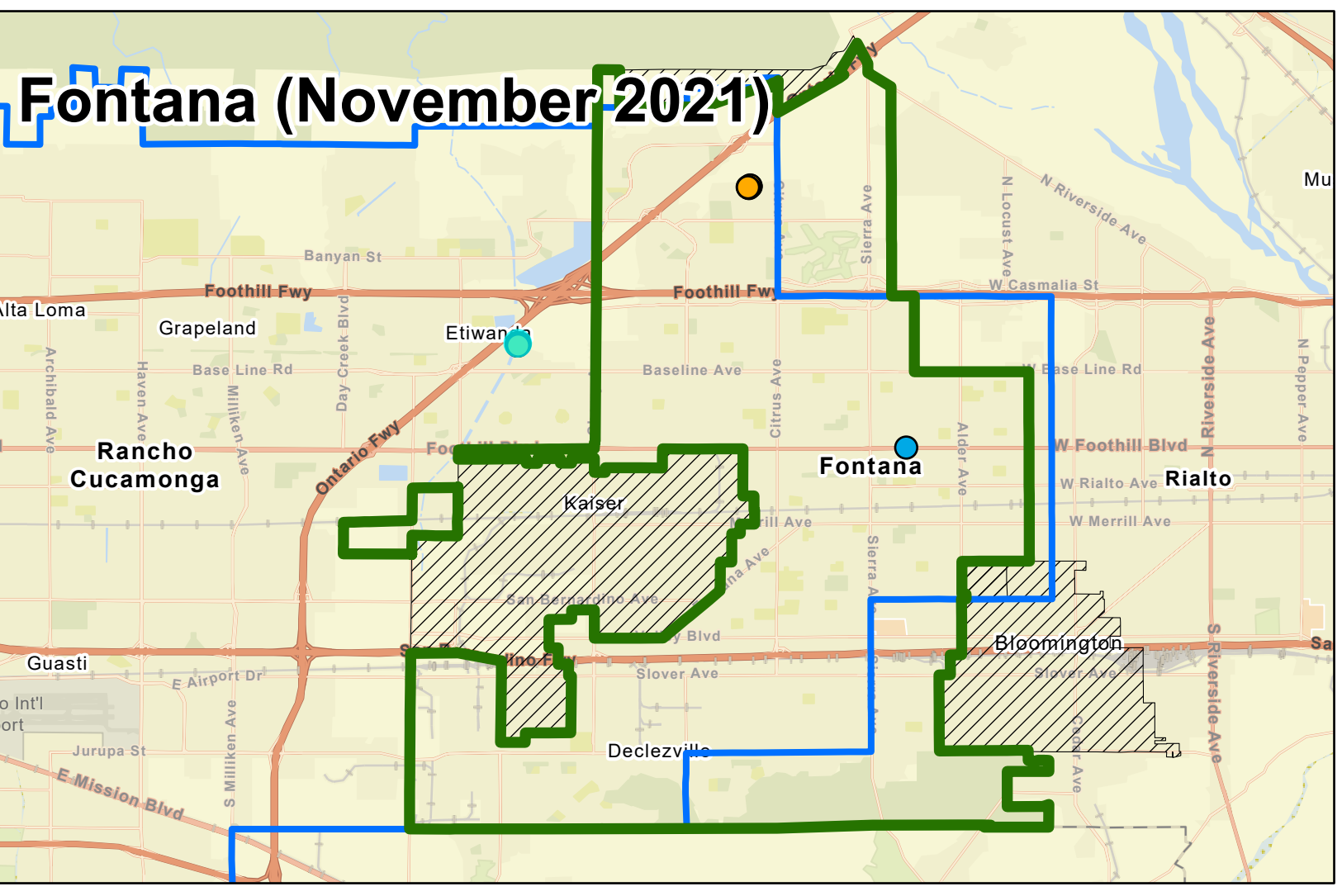
HALF MILE GRID: TOTAL EDU's (YTD)



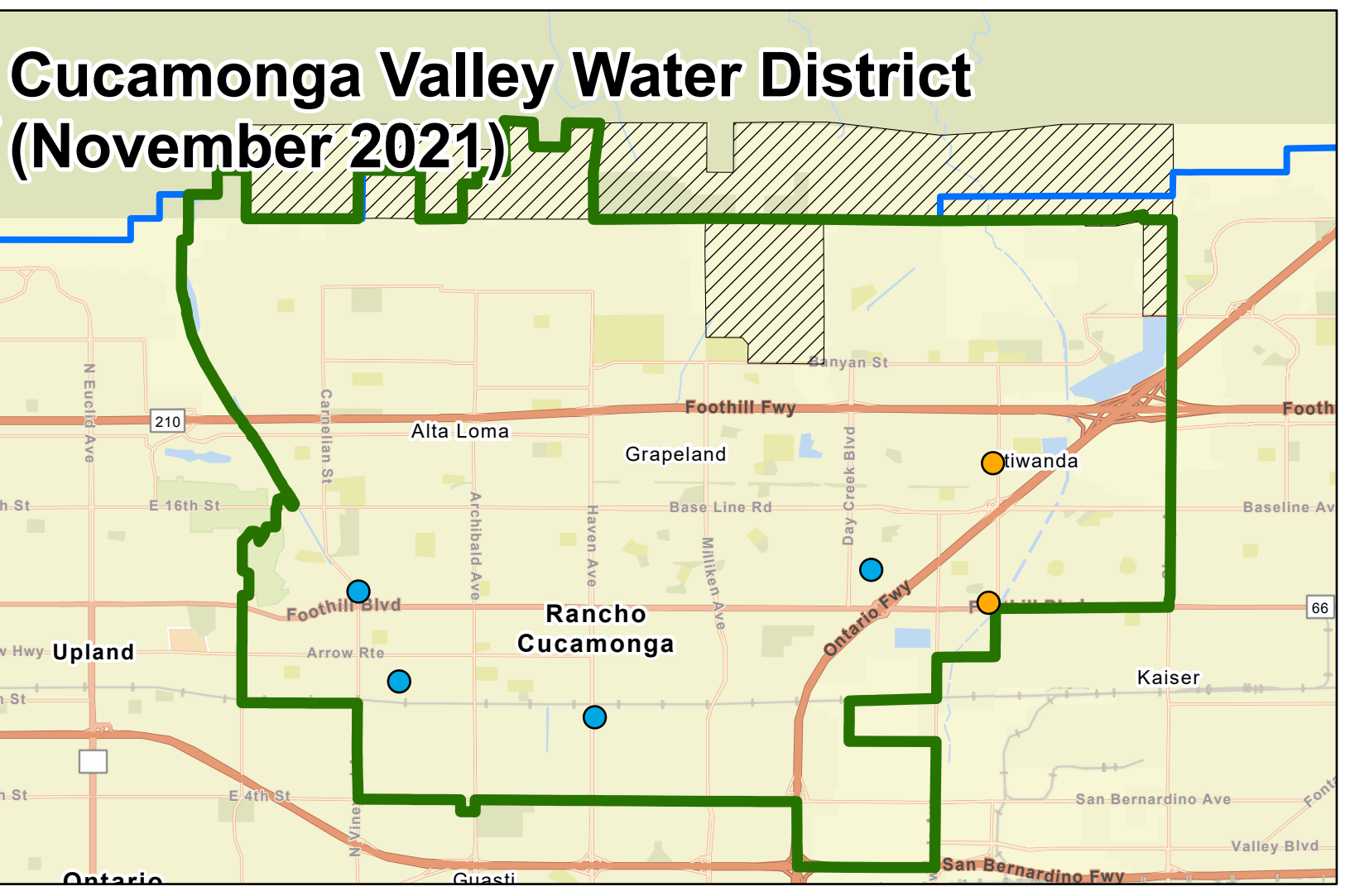
TOTAL EDU BY WASTEWATER CONNECTION TYPE (YTD)

Contracting Agency	YTD Actual				Projected
	Commercial (EDUs)	Industrial (EDUs)	Residential (EDUs)	Total (EDUs)	
Chino	62	0	205	267	434
Chino Hills	45	0	18	63	276
CVWD	43	218	194	455	2050
Fontana	34	0	261	295	1792
Montclair	9	0	0	9	474
Ontario	90	0	368	459	7560
Upland	6	0	27	33	952
Total	289	219	1073	1581	13538

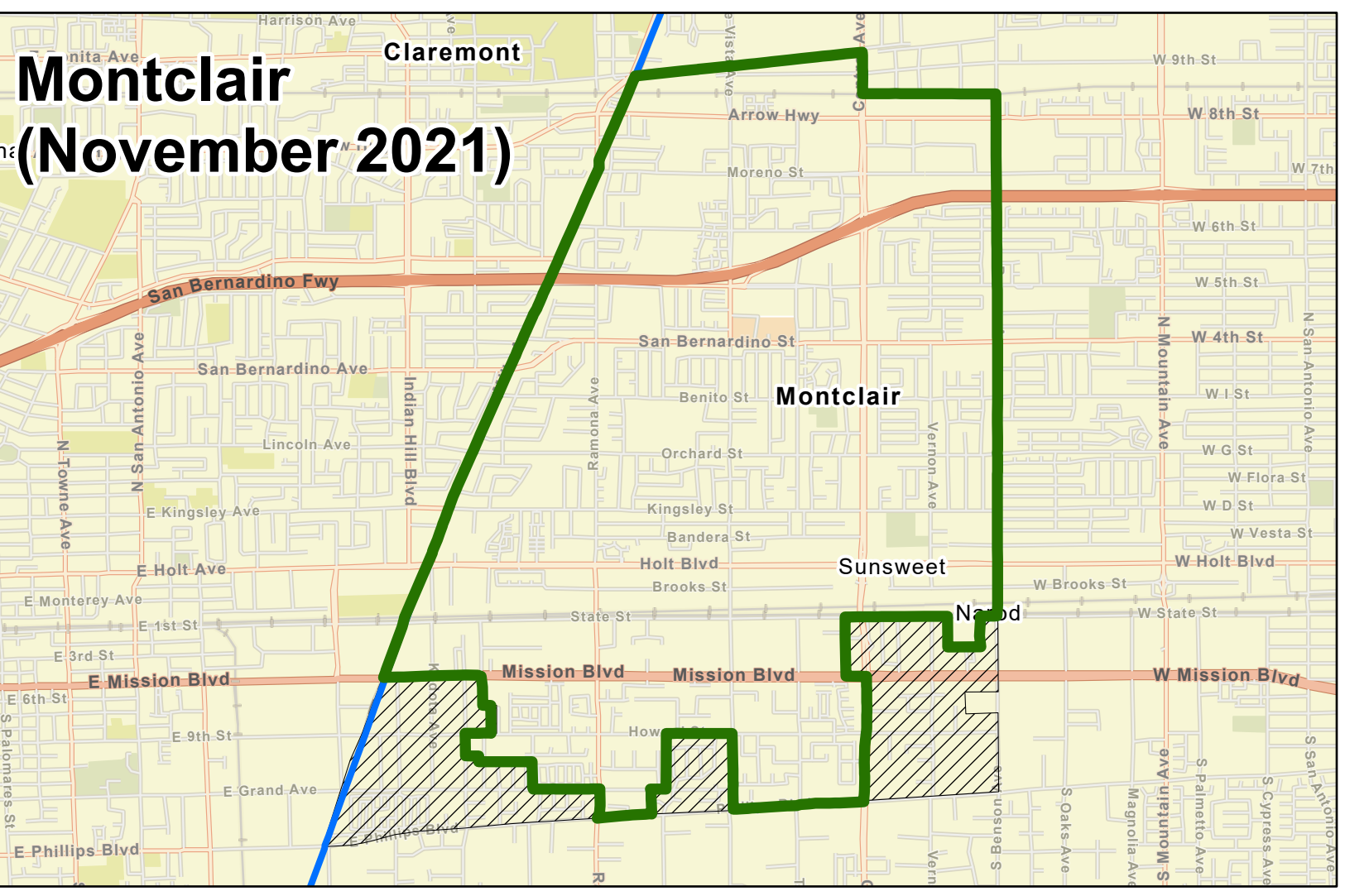
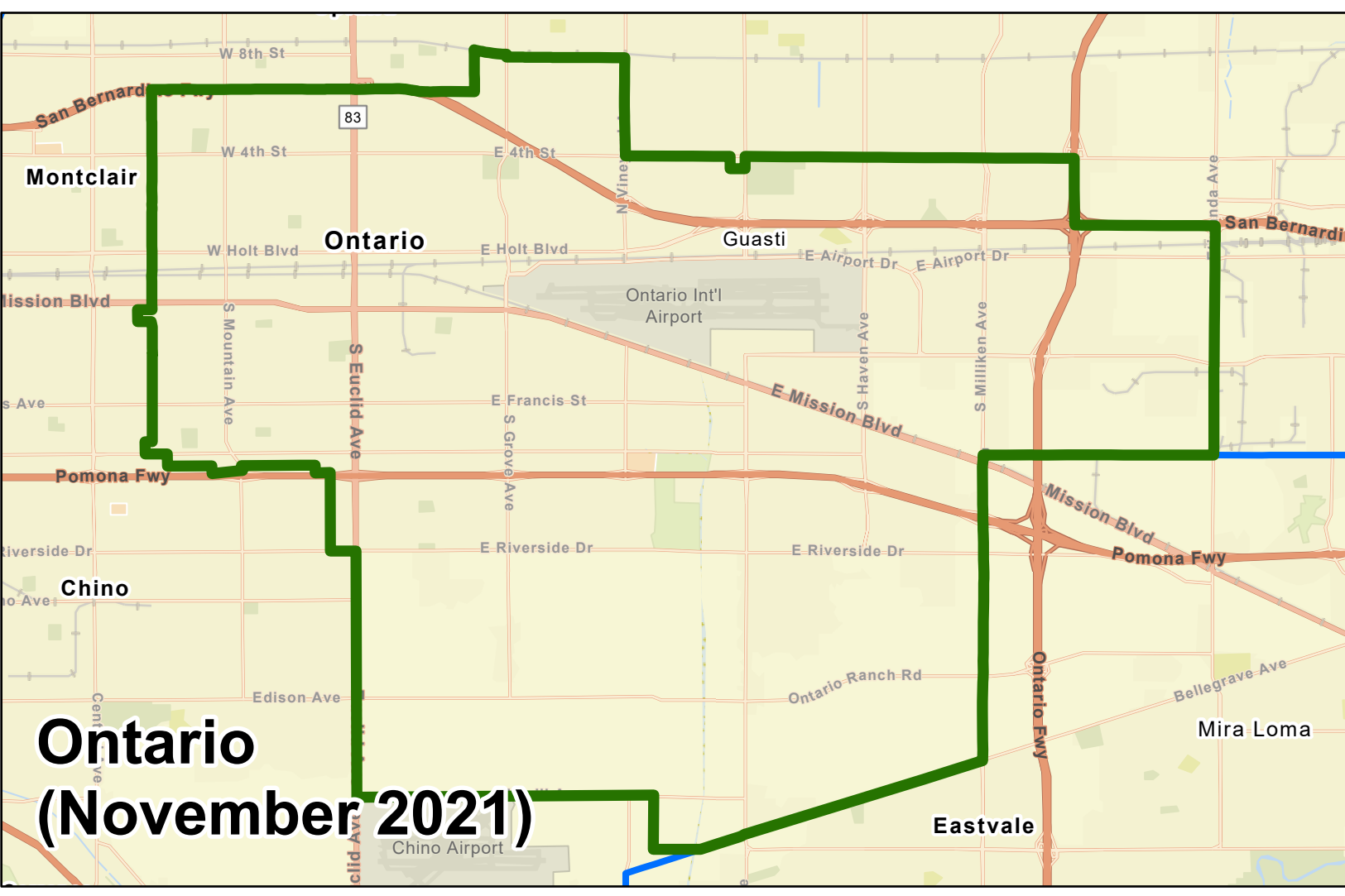
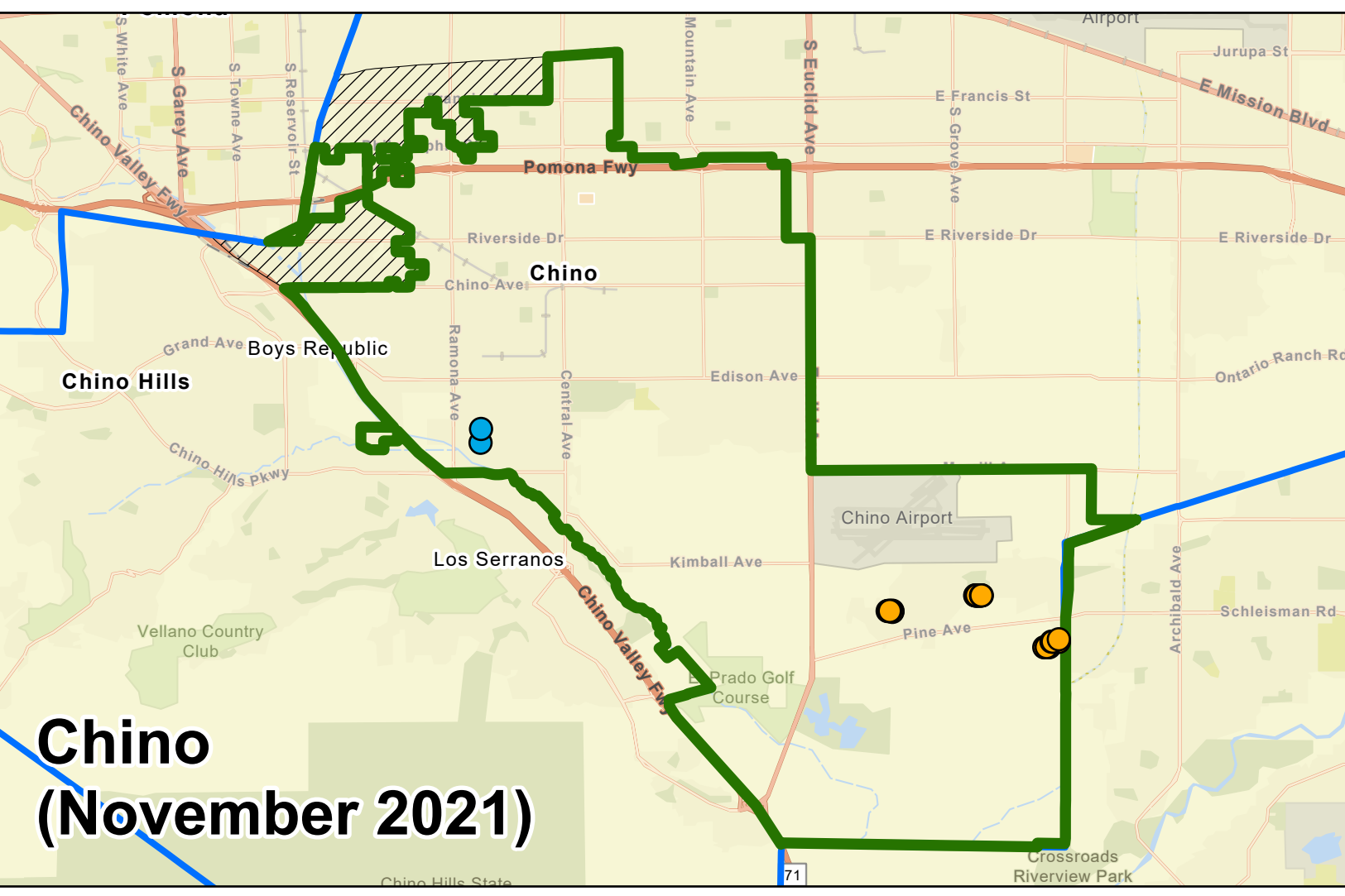
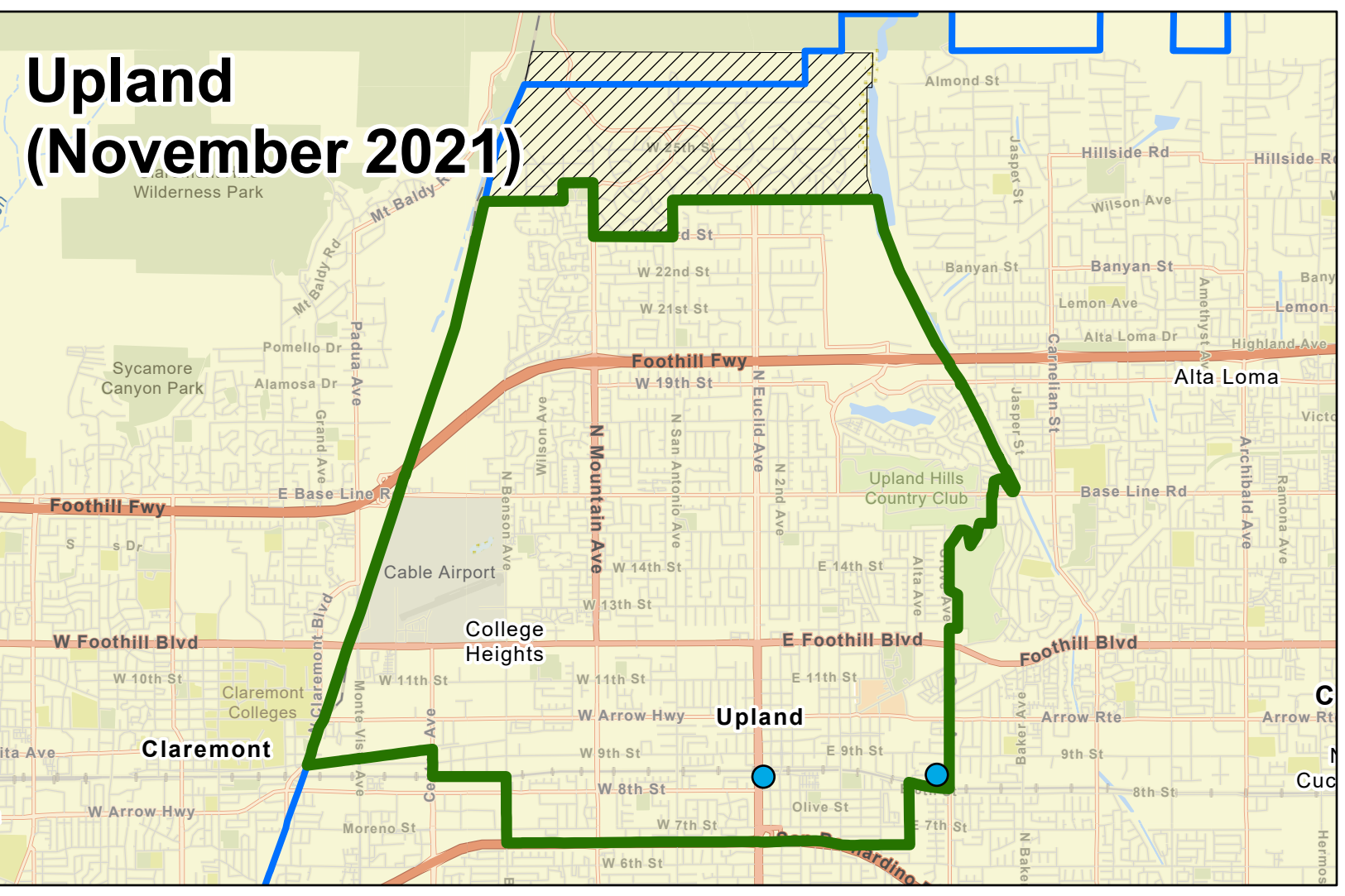
Fontana (November 2021)



Cucamonga Valley Water District (November 2021)



Upland (November 2021)



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IEUA RECYCLED WATER DISTRIBUTION – DECEMBER 2021

TOTAL ALL PLANTS

Influent: 53.7 MGD

Delivered: 17.6 MGD

Percent Delivered: 33%

Preliminary Deliveries

RW GWR: 7.2 MGD

RW Direct Use: 10.4 MGD

RP-4

Delivered: 6.8 MGD

RP-1

Delivered: 5.9 MGD

CCWRF

Delivered: 3.0 MGD

RP-5

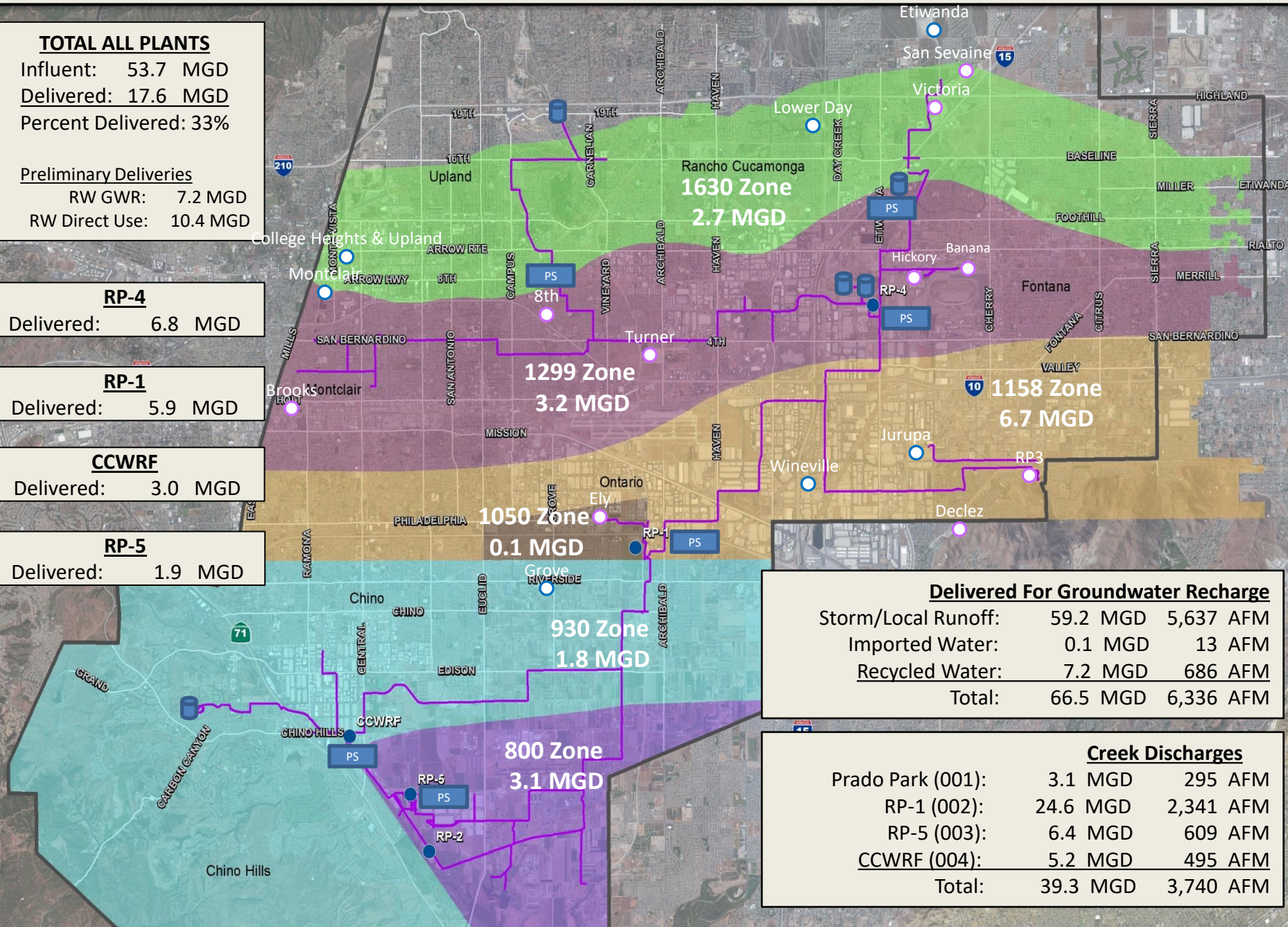
Delivered: 1.9 MGD

Delivered For Groundwater Recharge

Storm/Local Runoff:	59.2 MGD	5,637 AFM
Imported Water:	0.1 MGD	13 AFM
Recycled Water:	7.2 MGD	686 AFM
Total:	66.5 MGD	6,336 AFM

Creek Discharges

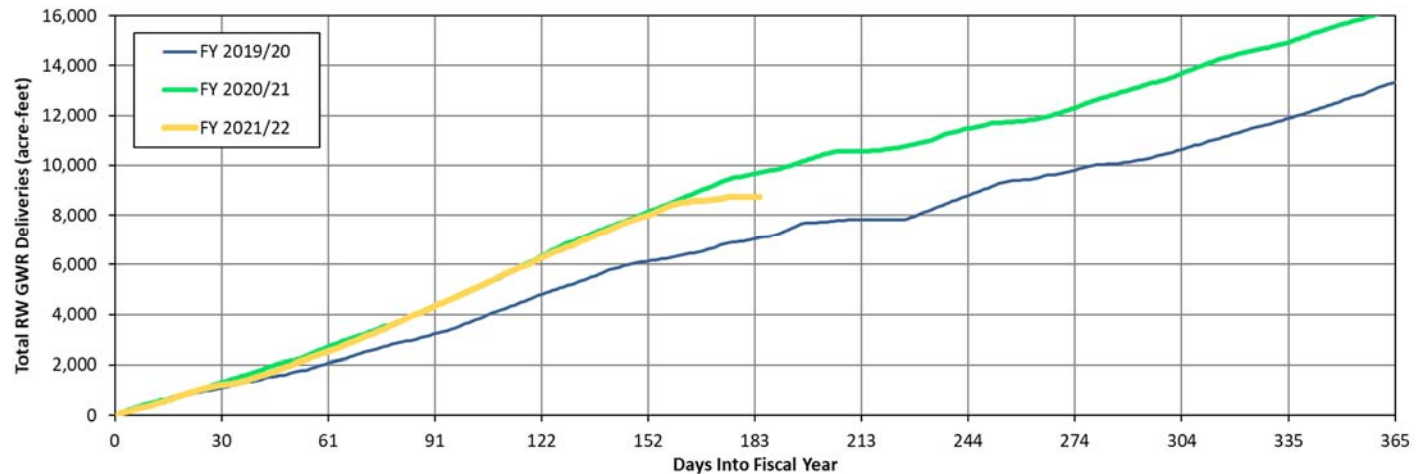
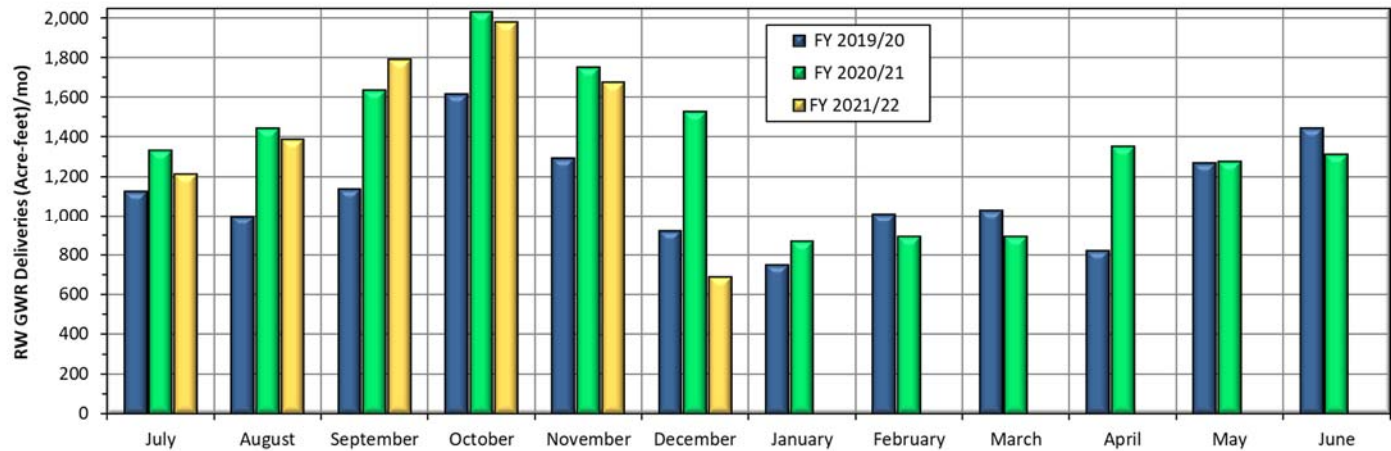
Prado Park (001):	3.1 MGD	295 AFM
RP-1 (002):	24.6 MGD	2,341 AFM
RP-5 (003):	6.4 MGD	609 AFM
CCWRF (004):	5.2 MGD	495 AFM
Total:	39.3 MGD	3,740 AFM



Recycled Water Recharge Deliveries - December 2021 (Acre-Feet)

Basin	12/1-12/4	12/5-12/11	12/12-12/18	12/19-12/25	12/26-12/31	Month Actual	FY To Date Actual	Deliveries are draft until reported as final and do not included evaporative losses.
Ely	0.0	0.0	0.0	0.0	0.0	0.0	355	Lost RW due to Storm Flow: 221.2 AF
Banana	0.0	1.9	0.0	0.0	0.0	1.9	367	Lost RW due to Storm Flow: 16.6 AF
Hickory	5.2	2.6	0.0	0.0	0.0	7.8	611	Lost RW due to Storm Flow: 37.6 AF
Turner 1 & 2	0.0	0.0	0.0	0.0	0.0	0.0	401	Lost RW due to Storm Flow: 0.0 AF
Turner 3 & 4	23.1	10.0	0.0	0.0	0.0	33.1		Lost RW due to Storm Flow: 0.0 AF
8th Street	52.1	50.8	0.0	0.0	0.0	102.9	1102	Lost RW due to Storm Flow: 15.2 AF
Brooks	20.6	6.4	0.0	0.0	0.0	27.0	479	Lost RW due to Storm Flow: 0.0 AF
RP3	84.9	111.1	46.0	41.2	0.0	283.2	2946	Lost RW due to Storm Flow: 0.0 AF
Declez	0.3	0.0	0.0	0.0	0.0	0.3	487	Lost RW due to Storm Flow: 53.9 AF
Victoria	28.1	26.2	19.7	22.3	0.0	96.3	477	Lost RW due to Storm Flow: 0.0 AF
San Sevaïne	34.5	56.7	8.1	30.4	3.4	133.1	1501	Lost RW due to Storm Flow: 0.0 AF
Total	248.8	265.7	73.8	93.9	3.4	685.6	0	9,711 AF previous FY to day actual

Total RW lost due to Dec. storms: 344.0 AF



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IEUA

Energy Report



FISCAL YEAR 2020/21

Strategic Planning and Resources

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IEUA Energy Portfolio

Executive Summary

The 2020/21 Energy Report tracks IEUA's energy consumption and portfolio, renewable generation performance and savings, and energy efficiency projects for the fiscal year. The report includes a brief description of upcoming projects and initiatives that will be implemented over the next few years.

IEUA's energy portfolio included:

- Imported Electricity
- Solar Energy
- Wind Power
- Battery Storage
- Biogas
- Natural gas

2020/21 IEUA's energy use

- Total Electricity consumption: 81,119 MWh of electricity
- Renewable Energy: 8,096 MWh (10% of total electricity)
- Annual energy expenses: \$9.7 million [imported electricity, renewable energy, natural gas, and energy management services]
- Renewable energy savings since 2008: \$1,143,000.

Did you know?

*In 2019 a typical U.S. household used 11,880 kWh**

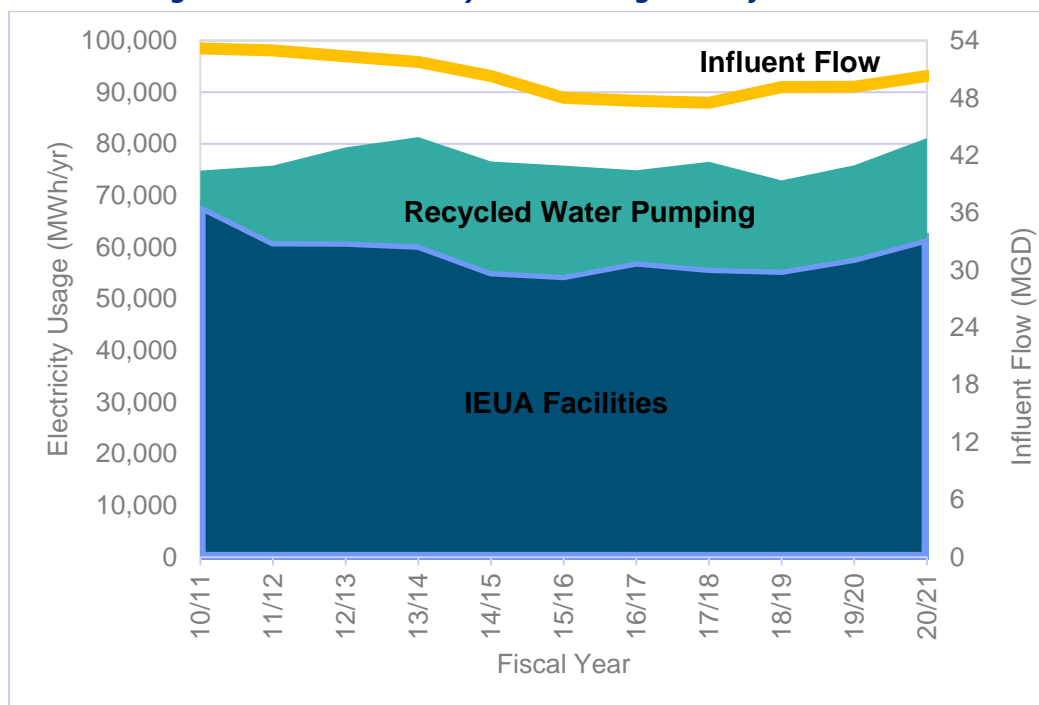
The renewable energy generated by IEUA would be able to provide electricity to at least 682 homes.

Source: U.S. Energy Information Administration

Flow and Energy Consumption

- In 2020/21, the annual average influent flow to the regional water recycling plants was 50.3 MGD which was an increase of 2.3% as compared to the previous fiscal year of 49.2 MGD (Figure 1).
- In 2020/21, IEUA facilities, which include the regional water recycling plants, composting facility, and recycled water pumping, used approximately 81,119 MWh of electricity (Figure 1). The electricity consumption for 2020/21 increased by 7.2% as compared to the previous fiscal year of 75,703 MWh. This was due to the increased recycled water pumping and groundwater recharge activity.

Figure 1: IEUA Electricity Use and Regional Influent Flows



Expenditure

- The cost of electricity remains the highest non-labor operations and maintenance (O&M) expenditure for IEUA. In 2020/21, the annual cost for energy related utilities and energy management was \$9.7 million compared to the previous fiscal year of \$7.6 million due to more power consumption, Southern California Edison (SCE) rates increase, and rising energy costs in California. IEUA has a diversified energy procurement approach, that includes on-site generation Power Purchase Agreements (PPA), energy demand management, electricity purchase from Southern California Edison, and direct access contract with Shell Energy North America, that continues to provide rate stabilization and cost effectiveness.

Renewable Energy Production and Storage

- IEUA's diverse renewable portfolio consists of 5.0 MW solar, 1.0 MW of wind, 3.0 MW of engines, and 4.0 MW battery (Figure 2). The battery storage optimizes energy management by charging from the grid during off-peak periods and discharging during on-peak periods, therefore it is not considered as onsite generation. In order to increase onsite renewable generation, IEUA plans to complete the installation of the necessary emissions control required by South Coast Air Quality Management District to have the Renewable Energy Efficiency Project (REEP) engines operating as part of the RP-5 Expansion project.

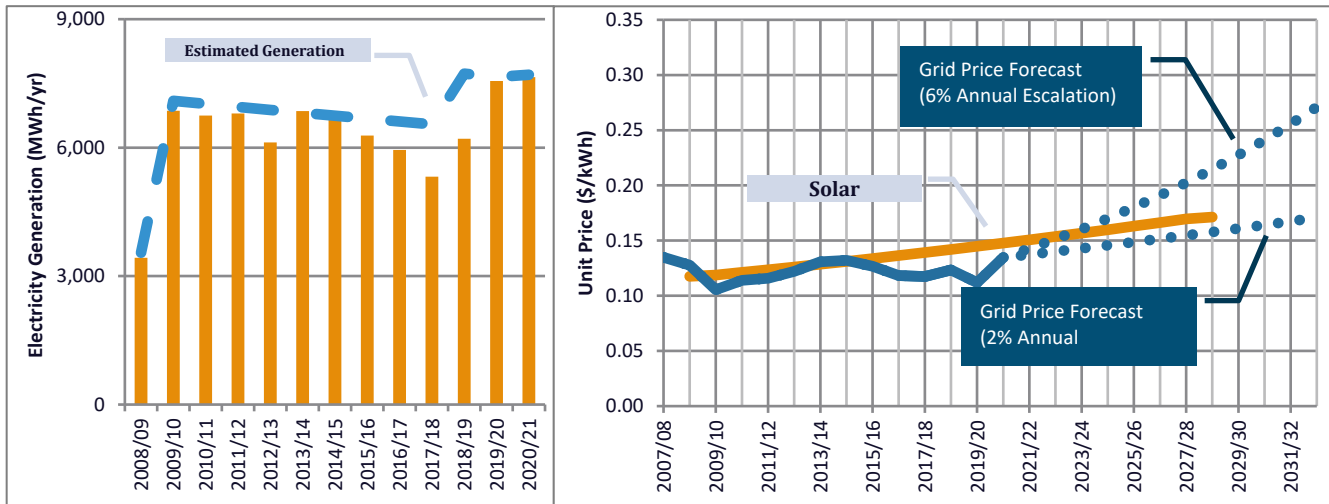
Figure 2: IEUA's Diverse Renewable Portfolio



- In 2020/21, 8,096 MWh of electricity was generated onsite, 2.9% more than 2019/20. The increase is due to the 70 kw of rooftop solar on the RP-5 lab operating for a full year and increase in the wind turbine energy production.
- IEUA's renewable portfolio generated 10% of the electricity used in 2020/21. Of the electricity consumed by IEUA;
 - 7,645 MWh was produced by the solar across IEUA facilities; and
 - 451 MWh was produced by the wind turbine at RP-4.

-
- Despite PPA average rates being typically higher than the average grid price in 2020/21, renewable energy projects provided overall \$99,000 in savings, as a result of lower standby charges compared to the facility demand charge rate.
 - Generated solar electricity varies throughout the year due to the different number of sunlight hours, solar generation is usually higher in the summer and lower in the winter.
 - The REEP engine has been offline since August 2017, operation is expected to restart the engine subsequent to the completion of the RP-5 Biosolids Facility project and the installation of the emission control equipment, which is anticipated in 2025.
 - In 2015, IEUA partnered with Advanced Microgrid Solutions (AMS) through an energy management services (EMS) agreement to install 4 MW of battery storage and 1.5 MW of solar to optimize energy management and achieve cost savings through strategic procurement. The RP-1, RP-5, and CCWRF battery storage systems started commercial operation in November 2018, and the RP-4 and IERCF battery storage and solar system began commercial operation in March 2019. All facilities have completed their second year of operation. As of April 2020, the battery systems are now being operated and maintained by Enel X.

Solar across IEUA facilities generated 7,645 MWh of renewable energy, **1.2% more than 2019/20**. The slight increase in output was due to the IEUA-owned 70 kw of rooftop solar on the RP-5 lab operating for a full year.



For 2020/21, the SunPower PPA rate or the solar was higher than the average grid price. However, the solar projects provided approximately \$82,000 in savings, as a result of lower standby charges compared to the facility demand charge rate. The current SunPower PPA will expire in 2029. Staff will negotiate with the provider to extend the contract or purchase the solar, if cost-effective for the Agency.

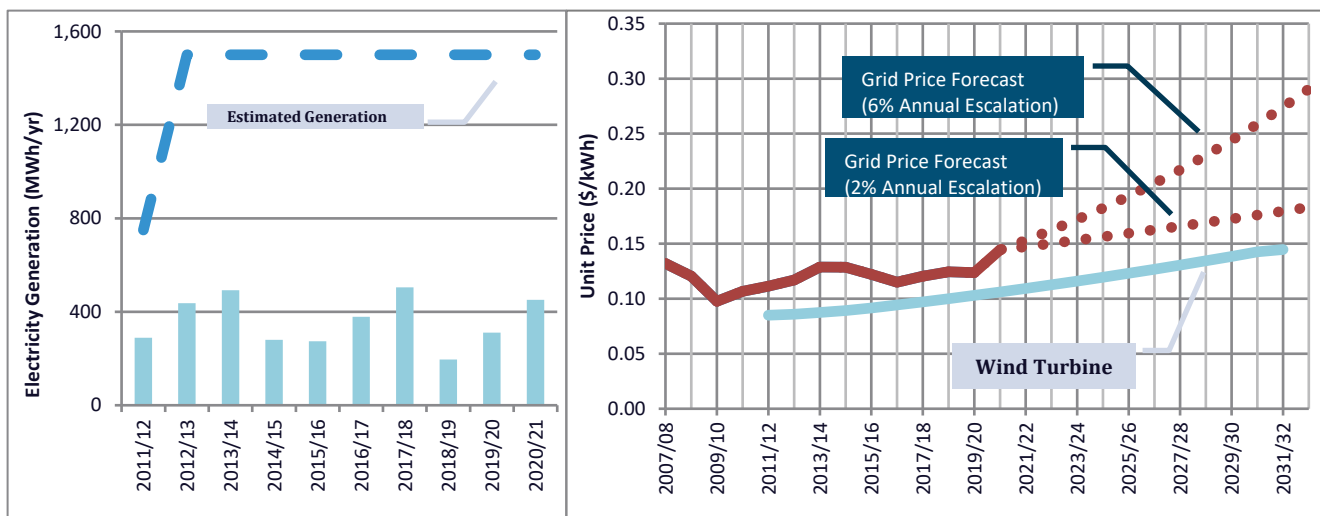
Solar generated an overall savings of \$332,000 from 2008/09 to 2020/21

Table 1: Savings from Solar Power PPA

Savings FY 08/09 – FY 20/21	\$332,000
Range of Savings PPA Term (FY 08/09 – FY 28/29)	\$721,000 (2% Esc) \$1,815,000 (6% Esc)



Wind turbine at RP-4 generated 451 MWh of renewable energy, **45% higher than 2019/20** due to the system being online during the entire fiscal year. For 2020/21, the PPA rate for the wind turbine was 20% lower than the average grid price. The wind turbine provided approximately \$17,000 in savings.



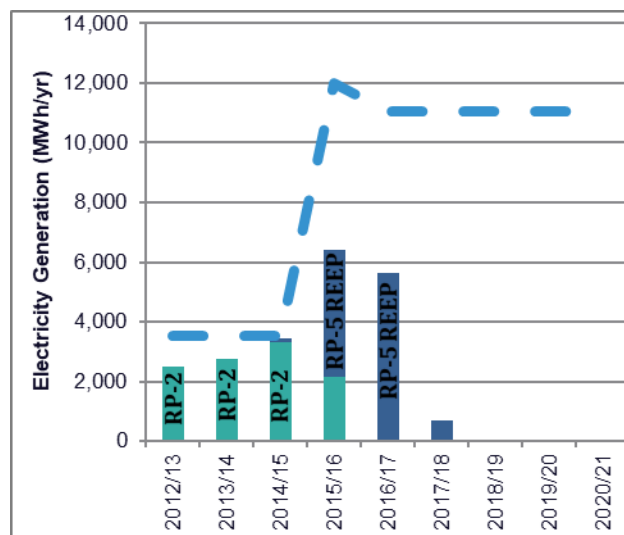
Wind generated \$101,000 in savings from 2011/12 to 2020/21.

Table 2: Savings from Wind Power

Savings FY 11/12 – FY 20/21	\$101,000
Range of Savings PPA Term (FY 11/12 – FY 31/32)	\$243,000 (2% Esc) \$422,000 (6% Esc)



Renewable energy was not generated by the REEP engines since the RP-5 Solids Handling Facility was not operational the entire fiscal year. The REEP engines at RP-5 were put offline in August 2017. **The engines are expected to go back online in 2025 after the completion of the RP-5 Biosolids Facility project**, and the installation of the SCAQMD required emission controls.





Battery Storage + Solar Performance

The AMS battery storage at RP-1, RP-5 and CCWRF (2.5 MW combined) started commercial operation in November 2018, and the 1.5 MW battery storage at RP-4 and 1.5 MW of solar at IERCF started commercial operation on March 2019. In the second year of commercial operation, **RP-1, RP-5, and CCWRF experienced a combined average**

demand reduction of 509 kW during on-peak hours with a total bill savings of \$99,000.

While the system at **IERCF and RP-4 achieved an average demand reduction of 483 kW during on-peak hours and solar generation of 2,165 MWh** with a total bill savings of \$255,000 in the second term year. Since the minimum guaranteed savings per the contracts were not met, the battery system owners reconciled the remainder of the expected savings to the Agency.



The battery storage systems incurred an \$354,000 in savings during year 2 of operation.

Energy Efficiency Projects

- IEUA continues to work with Southern California Edison and Southern California Regional Energy Network (SoCalREN) to conduct comprehensive energy audits and to implement projects to reduce electricity consumption and demand throughout its facilities and operations. In FY 20/21, the following process optimization project was completed:
 - RP-1 1158 Recycled Water Pump Station Upgrade
 - Completed: September 2020
 - Expected annual savings: 927,000 kWh and \$116,000
 - Incentive: \$86,000
 - Avoided power usage: 81 kW
- Since the start of the partnership in 2015, the Agency's implementation of energy efficiency projects has accumulated:
 - Expected annual savings: 5,236,000 kWh and \$615,000
 - Incentive: \$491,000
 - Avoided power usage: 474 kW

Other Projects

RP-1 SCE Primary Metering Cabinet Replacement

- In April 2021, SCE with the support of IEUA staff replaced the primary metering cabinet at RP-1 to improve safety and reliability.

RP-5 Solids Handling Facility (SHF) Feasibility Study

- IEUA conducted a business case study to evaluate future uses of the RP-5 SHF, developing the following project alternatives:
 - Status quo – Idle assets and land
 - Lease for organics processing
 - Sell for organics processing
 - Lease as logistics hub
 - Sell as logistics hub
- The study concluded that the preferred alternative at this time is the Status Quo because of the benefits of using the facility as a construction staging site and contractor parking area for the RP-5 Expansion Project, and the costs associated with moving the RP-5 expansion contractor elsewhere.

Upcoming Projects

Aeration Blower Replacement

- These projects will replace the existing aeration blowers with energy efficient blowers at RP-4 and CCWRF, which are expected to be completed in February 2022 and November 2023, respectively. In total, both projects are expected to save the Agency an estimated 1,900 MWh/year or \$232,000/year.

CCWRF Odor Control Equipment Replacement

- The CCWRF Improvements project will replace the existing odor control system with biotrickling filters by November 2023. In addition to continuing to address plant odor, the measure will also provide energy savings of about 247 MWh/year or \$31,000/year.

Process Optimization

- Automated ammonia controls will be installed at RP-4 and CCWRF by June 2022 and November 2023, respectively. The ammonia controls will optimize operation and reduce power consumption of the aeration blowers. These projects would result in an estimated savings of 570 MWh/year or \$71,000/year.

SCE Charge Ready 2 Program

- Through the Charge Ready 2 program, SCE will design, construct, and install electric vehicle (EV) charging infrastructure. The customer is only required to purchase and install the EV chargers. IEUA has submitted applications for charging infrastructure across 4 facilities.

Beneficial Use of Biogas

- IEUA evaluated opportunities to beneficially use the biogas generated at RP-1 in addition to onsite use for digesters heating. Staff plans on updating the study to consider new technologies, and incorporate recent changes in funding, capital and energy costs.

Other Energy Related Activities

Isle Energy Management & Optimization Partnership

- IEUA has partnered with Isle Utilities along with several agencies nationwide to discuss the challenges and successes of implementing energy optimization projects. Isle will invite vendors who will propose successful technologies and practices to reduce and optimize energy usage and onsite renewable generation.

Statewide Grid Emergency

- In August and September 2020, the State of California experienced extreme heat waves resulting in investor-owned utilities requesting their customers to reduce their load during peak hours to avoid rotating power outages. IEUA responded by shifting 2 MW of load and the battery storage discharged 1 MW to lessen the strain on the grid. Due to the likelihood of future extreme heat events occurring, the California Public Utilities Commission (CPUC) created the Enhanced Statewide Emergency Load Reduction Program, which is a demand response program that compensates customers for reducing loads during these events. IEUA explored the viability of participating in the program. Since IEUA is currently enrolled in other demand response programs with the battery storage systems, the Agency is not eligible for dual participation.

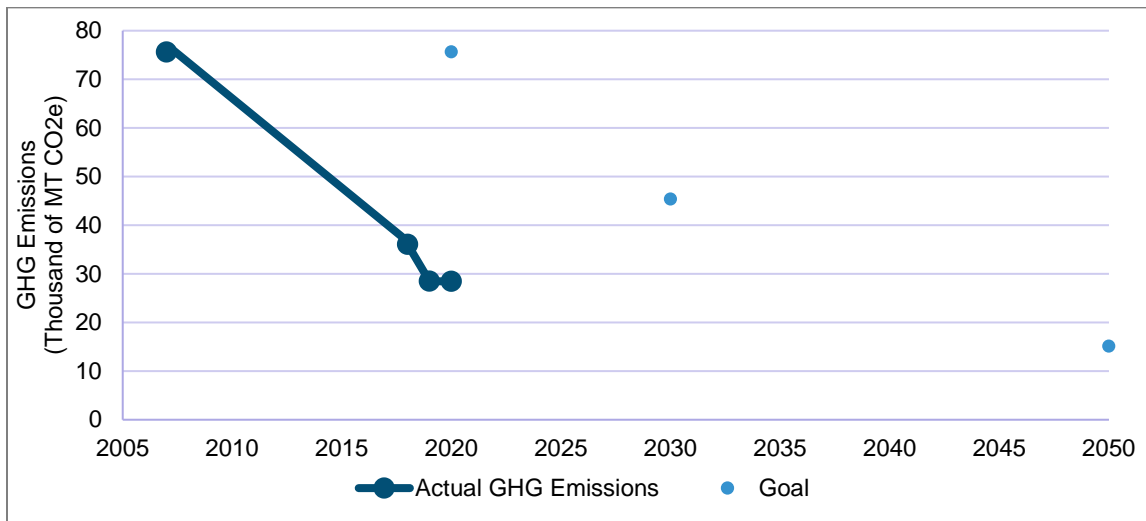
SCE Rate Increases

- During the FY 2020/21, SCE increased their rates by an estimated 20% based on facility billing. In mid-August 2021, the California Public Utilities Commission approved an additional 8% increase in rates that is expected to be implemented in Fall 2021. Staff is working with SCE to validate the billing accuracy and will continue to collaborate with the utility to enroll in the most cost-effective available rate.

Climate Change Action Plan

- In 2018, IEUA staff developed a Climate Change Action Plan that described the vision and direction needed to bolster IEUA's water management system and minimize its carbon footprint. IEUA is following AB 32 standards using the oldest emission baseline data available to reduce GHG levels to 2007 levels by 2020, 40 percent below 2007 levels by 2030, and 80 percent below 2007 levels by 2050. 2020 greenhouse gas emissions (GHG) were similar to 2019, which is 62% below the 2007 baseline levels.

Figure 3: Greenhouse Gas Emissions Actuals and Goals



- IEUA is planning to implement capital projects and will continue to optimize operations and maintenance activities to allow the Agency to continue to prepare its system for the effects of climate change by focusing on increasing the use of zero-carbon energy sources and reducing energy consumption. The majority of the projects being explored fall into four categories, solar, hydropower, biogas (renewable methane), and energy efficiency. The current list of projects being explored by IEUA, are in varying degrees of planning and review with some being feasible for pre-design as soon as 2022 while others are 10 or more years out.
- Potential projects
 - Solar: favorable outlook for the carport solar because of the forecasted SCE rate increase and higher facility load.
 - Hydropower: a feasibility study conducted in FY 19/20 at two proposed locations deemed the project to be not feasible. Staff will re-evaluate in the future.
 - Biogas: staff will update the RP-1 Beneficial Use of Biogas Feasibility Study to evaluate cost effective alternative consistent with the Agency's Business Goals.
 - Energy efficiency: multiple ongoing expected to be completed by 2023, RP-4 blowers and ammonia controls expected to be online in 2022.



Planning Annual Report

Fiscal Year 2020/2021



Revised for November 2021

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*Ten Year Projected EDU Activity located on page 19 revised October 26, 2021

INTRODUCTION

The Inland Empire Utilities Agency (IEUA) is located in Western San Bernardino County and serves approximately 900,000 residents in a 242-square mile service area. As a regional wastewater treatment agency, IEUA provides wastewater utility services to seven regional contracting agencies (RCAs) under the Chino Basin Regional Sewage Service Contract: cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Upland, and Cucamonga Valley Water District (CVWD) in the city of Rancho Cucamonga. In addition to the RCAs, the Agency provides wholesale imported water from the Metropolitan Water District of Southern California (MWD) to seven retail agencies: the cities of Chino, Chino Hills, Ontario, Upland, CVWD in the city of Rancho Cucamonga, Fontana Water Company in the city of Fontana, and the Monte Vista Water District in the city of Montclair.

In addition to providing these key services, IEUA also produces and distributes high quality recycled water, implements the Chino Basin stormwater/groundwater recharge program, and provides regional water resources planning to ensure reliable, cost-effective environmentally responsible water supplies for current and future customers. The purpose of the Strategic Planning Annual Report (SPAR) is to provide annually updated information about the IEUA service area's potable water, recycled water, groundwater, and wastewater. This report also provides a holistic summary of historic trends, usage patterns, current programs, and future forecasts.

SECTION 1: ANNUAL IEUA SERVICE AREA WATER USE

IEUA monitors and compiles water use data from each of its retail agencies to track overall water demands and sources of supply. Annual water use is split between potable water usage and the direct use of recycled water. IEUA's regional water usage in FY 20/21 was 202,776 AF (183,242 AF potable usage and 19,534 AF recycled direct usage). Recycled water used for groundwater recharge is not included in this total but can be found in Section 2 of the SPAR.

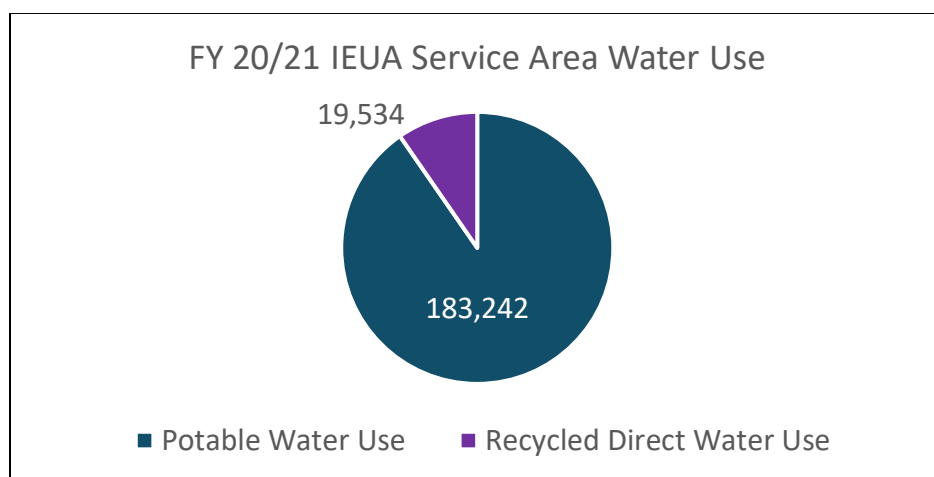


Figure 1 – FY 20/21 IEUA Service Area Water Use

Current Potable Water Use

Total potable water consumption within IEUA's service area for FY 20/21 was 183,242 AF. This is approximately a 4% increase (7,413 AF) from FY 2019/20 potable consumption of 175,829 AF. The region is now using approximately 11% less potable water than before the recent drought in FY 13/14 when potable consumption was at 205,381 AF. MWD Tier 1 imported water use in the region slightly increased from 66,438 AF in FY 19/20 to 71,444 AF in FY 20/21. Both FY 19/20 and FY 20/21 MWD usage includes Dry Year Yield (DYY) water supplies. For more information on DYY, see "Dry Year Yield" in section 2 of the SPAR. A breakdown of the IEUA regional usage can be found in Table 2, while a breakdown of the retail water agencies' FY 20/21 water usage can be found in Appendix B.

Projected Imported Water Use

Demands for MWD Tier 1 imported water brought into the region through IEUA were projected to 2045 as part of the 2020 Urban Water Management Plan (2020 UWMP). The 2020 UWMP imported water demand projections were supplied by the retail agencies to IEUA. IEUA expects imported demand to increase over the next 25 years based on the 2020 UWMP projections.

Table 1 – Projected Imported Water Use Demands by Retail Agency (AF)

Retail Agency	2025	2030	2035	2040	2045
Chino	5,353	5,353	5,353	5,353	5,353
Chino Hills	7,153	7,367	7,711	7,758	7,802
CVWD	28,369	28,369	28,369	28,369	28,369
FWC	15,000	15,000	15,000	15,000	15,000
MVWD	5,000	5,000	5,000	5,000	5,000
Ontario	11,000	13,000	15,000	17,000	17,000
Upland	5,541	5,541	5,541	5,541	5,541
Total	77,416	79,630	81,974	84,021	84,065

Table 2 – Fiscal Year 2020/2021 Regional Potable Monthly Water Use

		IEUA Service Area Potable Water Use FY20/21 (AF)												
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Purchases from IEUA	Imported MWD	5,020	5,593	5,107	4,141	3,324	2,604	3,177	2,705	3,454	3,497	4,598	5,224	48,444
	DYY Take	3,533	3,333	3,333	2,500	1,500	2,000	-	-	-	2,000	2,600	2,200	23,000
Subtotal		8,553	8,927	8,440	6,641	4,824	4,604	3,177	2,705	3,454	5,497	7,198	7,424	71,444
Production	Chino Groundwater	5,256	5,490	4,736	5,540	4,276	4,390	3,961	3,977	4,284	5,085	5,254	6,437	58,687
	Other Groundwater	2,732	3,042	2,682	2,442	2,070	1,724	1,769	1,568	1,608	1,895	2,054	2,070	25,654
	Local Surface Water	1,795	1,339	1,099	1,074	1,097	827	973	979	870	805	661	462	11,981
Subtotal		9,784	9,871	8,517	9,056	7,443	6,941	6,703	6,524	6,762	7,785	7,968	8,970	96,322
Purchases	CDA	1,315	1,333	1,276	1,607	1,450	1,553	1,519	1,166	1,347	1,252	1,324	1,451	16,593
	CVWD	-	-	-	-	-	-	-	-	-	-	-	-	-
	MVWD	700	803	798	548	335	177	239	342	311	325	536	508	5,621
	SAWCo	1,365	1,142	906	789	755	417	579	489	554	788	885	884	9,552
	West End	203	226	190	183	146	205	139	145	127	160	120	183	2,027
Subtotal		3,583	3,503	3,169	3,127	2,686	2,352	2,476	2,142	2,339	2,525	2,866	3,025	33,794
Sales	Chino Hills	(947)	(1,037)	(1,015)	(833)	(543)	(524)	(317)	(353)	(408)	(634)	(819)	(719)	(8,150)
	Ontario	(47)	(46)	(45)	(45)	(44)	(28)	(44)	(41)	(44)	(42)	(34)	(40)	(500)
	MVWD	(53)	(52)	(51)	(51)	(104)	(87)	(86)	(46)	(50)	(47)	(38)	(45)	(709)
	Upland	(1,318)	(1,149)	(861)	(743)	(657)	(334)	(499)	(449)	(509)	(746)	(851)	(844)	(8,959)
Subtotal		(2,365)	(2,283)	(1,971)	(1,673)	(1,347)	(973)	(946)	(889)	(1,012)	(1,469)	(1,742)	(1,648)	(18,318)
Total		19,555	20,018	18,155	17,151	13,605	12,923	11,411	10,482	11,543	14,338	16,291	17,771	183,242

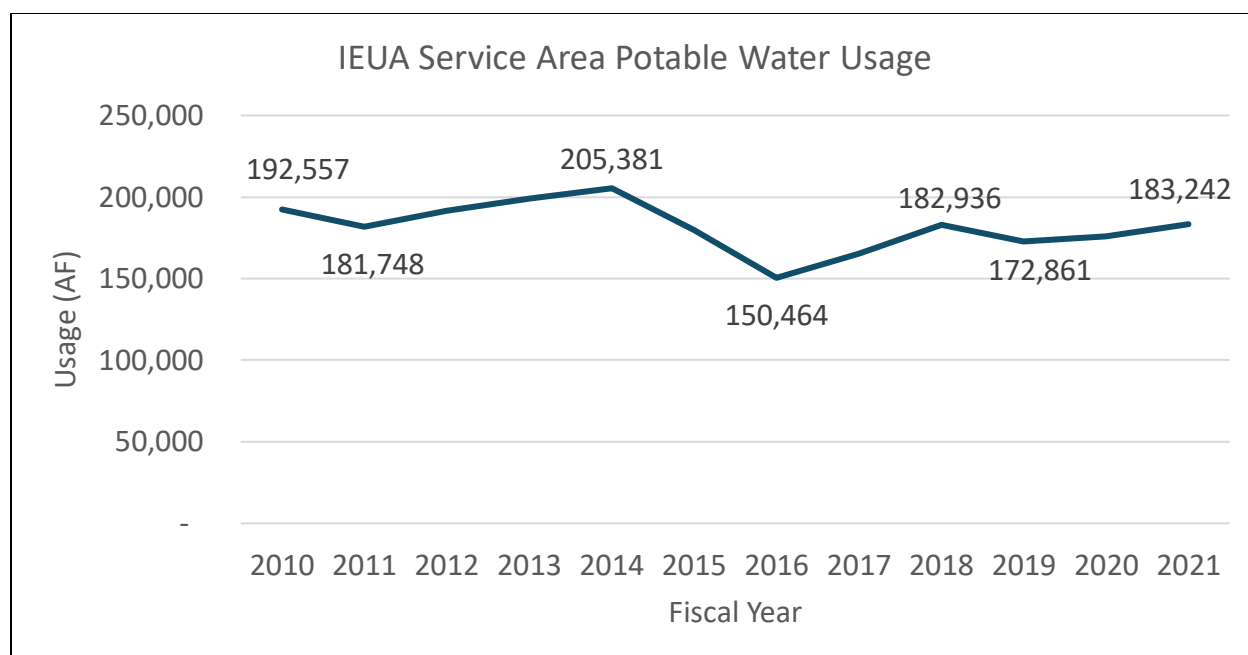


Figure 2 – IEUA Service Area Potable Water Use

Current Recycled Water Use

IEUA is the wholesale recycled water provider to the RCAs which work as or with retail agencies to directly serve their customers. IEUA contracting/retail water agencies which served recycled water in 2020/21 include:

- City of Chino
- City of Chino Hills
- Cucamonga Valley Water District (CVWD)
- City of Fontana (through FWC)
- City of Montclair (through MVWD)
- City of Ontario
- City of Upland

Fontana Water Company (FWC) and Monte Vista Water District (MVWD) are the water retailers in the Cities of Fontana and Montclair, respectively, but are not IEUA regional contracting agencies. FWC and MVWD retail recycled water obtained from their overlying cities, which are IEUA regional contracting agencies. San Bernardino County is currently a direct use customer of IEUA based on long standing historical contracts. Total recycled water direct use within the region was 19,534 AF in FY 20/21.

Table 3 – Recycled Water Demand by Agency for FY 20/21

Retail Agency	Direct Use (AF)	Percent of Direct Demand
Chino	5,643	29%
Chino Hills	1,668	9%
CVWD	1,222	6%
Fontana/FWC	425	2%
Montclair/MVWD	343	2%
Ontario	8,556	44%
Upland	772	4%
IEUA	628	3%
San Bernardino County	277	1%
Total	19,534	100%

Projected Recycled Water Use

Direct recycled water use in the IEUA service area has been projected out to 2040 in both the 2020 UWMP and as part of the Recycled Water Demand Forecast Technical Memorandum (Demand Forecast). The 2020 UWMP recycled water projections were supplied by the retail agencies to IEUA as part of the 2020 UWMP. The Demand Forecast recycled water projections utilized land use-based demand modeling completed by IEUA in conjunction with the retail agencies in 2015 and were subsequently updated in 2021.

Table 4 – Projected Recycled Water Direct Use Demand by Retail Agency (AF)

Retail Agency	Projection Source	2025	2030	2035	2040
Chino	2020 UWMP	4,500	4,500	4,000	3,800
	Demand Forecast	5,498	5,780	5,961	6,178
Chino Hills	2020 UWMP	1,609	1,609	1,609	1,609
	Demand Forecast	1,858	2,047	2,047	2,626
CVWD	2020 UWMP	1,800	2,000	2,000	2,000
	Demand Forecast	2,032	2,288	2,513	2,674
FWC	2020 UWMP	1,000	1,500	2,000	2,500
	Demand Forecast	994	1,392	1,911	2,000
MVWD	2020 UWMP	1,100	1,100	1,100	1,100
	Demand Forecast	359	363	396	398
Ontario	2020 UWMP	12,168	13,465	14,330	16,059
	Demand Forecast	9,188	10,383	10,814	12,820
Upland	2020 UWMP	703	703	703	703
	Demand Forecast	940	1,022	1,062	1,158
Total	2020 UWMP	22,880	24,877	25,742	27,771
	Demand Forecast	20,869	23,275	24,704	27,854

Projected Regional Water Use

Projected water use was calculated as part of the development of the 2020 UWMP. IEUA collected each retail agencies' projected water use from their respective UWMP and totaled the use to obtain a regional water use projection. Regional water use projections include both potable and recycled water direct use.

Table 5 – 2020 UWMP Projected Water Demand by Retail Agency (AF)

Retail Agency	2025	20302	2035	2040	2045
Chino	20,843	22,310	23,087	23,963	25,108
Chino Hills	17,120	17,334	17,678	17,725	17,769
CVWD	53,369	58,092	59,650	60,949	60,949
FWC	45,593	46,909	47,665	50,442	51,943
MVWD	14,232	14,564	15,175	15,437	15,706
Ontario	52,550	58,513	63,406	73,668	73,668
Upland	25,328	25,328	25,328	25,328	25,328
Total	229,035	243,050	251,989	267,512	270,471

Projected water use was also calculated as part of the 2015 Integrated Resources Plan (2015 IRP), which developed a range of demand possibilities to accommodate for future uncertainty caused by the various demand factors including climate change. This analysis came from demand modeling conducted as part of the 2015 IRP and 2015 Urban Water Management Plan (2015 UWMP), which found that new developments in the region are more water efficient due to changes in the plumbing code, higher density developments with less landscaping, and compliance landscape ordinance requirements set forth in AB1881.

Table 6 – 2015 IRP Demand Forecast (AF)

Urban M&I Forecast	2015	2020	2040
High Forecast	225,000	230,000	267,000
Medium Forecast	225,000	220,100	238,600
Low Forecast	225,000	212,000	217,400

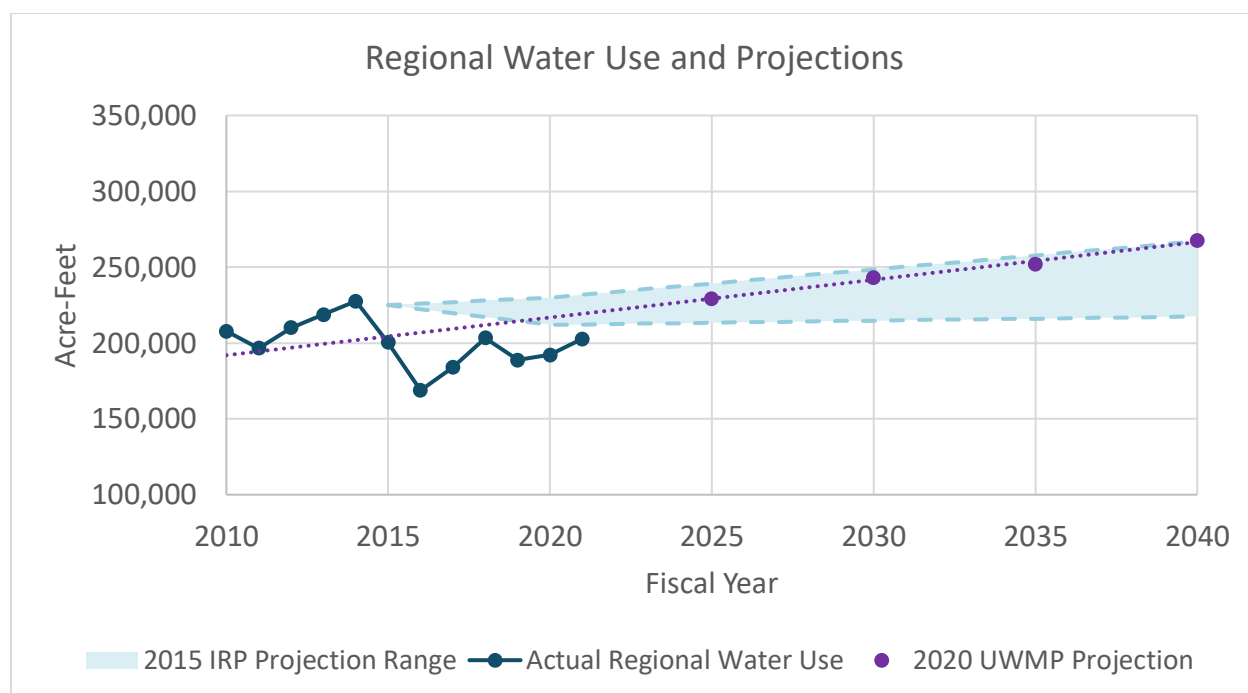


Figure 3 – IEUA Regional Water Use and Projections

The 2020 UWMP and 2015 IRP both reach approximately 267,000 AF in the year 2040. However, IEUA's actual FY 20/21 regional water use of 202,776 AF (183,242 AF potable use and 19,534 AF recycled direct use) is below the 2020 low demand forecast of 212,000 AF outlined in IEUA's 2015 IRP. A continuous focus on water use efficiency and per capita reductions, as required in SB X7-7, AB 1668, and SB 606 is anticipated to reduce per capita water use and demands. IEUA anticipates a slight increase in FY21/22 water use due to the continually growing population in the region and the general climate change trend of projected temperature increases. However, long-term demands are not expected to exceed the peak 10-year demand reached during FY 13/14.

In addition to the increase in projected water use, an increase to the number of Meter Equivalent Units (MEUs) in the region is also anticipated. For FY 21/22 it is projected that the region will contain 413,826 MEUs, an increase of 4,937 MEUs from FY 20/21's actual MEUs count of 408,889.

Table 7 – Projected MEUs

Retail Agency	FY 20/21 Actual MEUs	FY 21/22 Projected MEUs
Chino	39,264	40,238
Chino Hills	39,499	38,924
CVWD	105,805	106,006
FWC	90,162	91,413
MVWD	21,901	21,979
Ontario	76,459	78,166
Upland	32,779	33,966
WVWD*	3,020	3,134
Total	408,889	413,826

**IEUA and WVWD have a shared service area for emergency supply*

SECTION 2: GROUNDWATER RECHARGE DELIVERIES

Historical Groundwater Recharge Deliveries

The Chino Basin is one of the largest groundwater basins in Southern California containing approximately 5,000,000 AF of water with an un-used storage capacity of approximately 1,000,000 AF. Groundwater from the Chino Basin accounts for approximately 29% of FY 20/21, regional water supplies. The Chino Basin is an adjudicated basin and has been overseen by the Chino Basin Watermaster (CBWM) since 1978. The basin is dependent on rainfall and supplemental sources for recharge.

IEUA, in coordination with CBWM, the Chino Basin Water Conservation District (CBWCD), San Bernardino County Flood Control District (SBCFCD), the Chino Desalter Authority (CDA), and local agencies capture water for replenishment. Sources include recycled water from IEUA's regional water recycling plants, stormwater and dry weather flow capture, and imported water recharge.

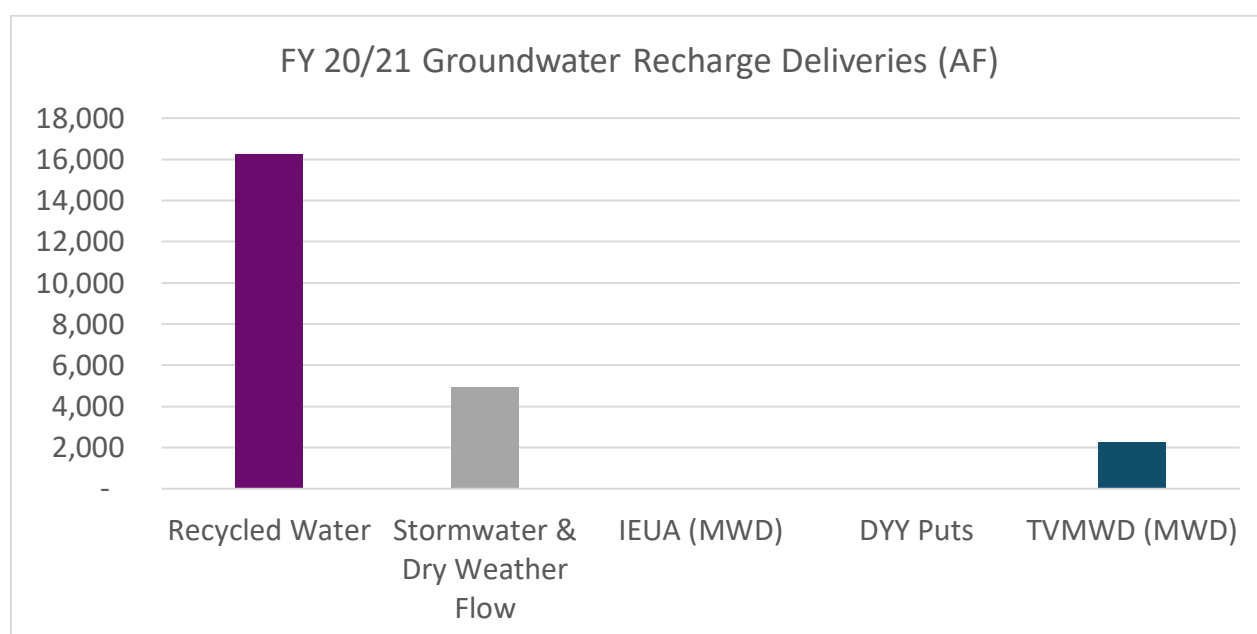
Recharged imported water is either purchased by a local agency, requested by the Chino Basin Watermaster to maintain safe operating yield of the basin, used to blend down recharged recycled water TDS levels, or as part of the Chino Basin Dry-Year Yield (DYY) Program. Total groundwater recharge delivered to the Chino Basin in FY 20/21 was 23,430 AF. Groundwater recharge deliveries is water delivered to recharge facilities and does not take into consideration evaporative or other losses that may occur prior to recharge.

Table 8 – FY 20/21 Groundwater Recharge Purchases

Groundwater Recharge Source	Recharge (AF)
Recycled Water	16,253
Stormwater & Dry Weather Flow	4,911
Imported Water	2,266
IEUA (MWD)	0
DYY Puts*	0
TVMWD (MWD)**	2,266
Total	23,430

*DYY Puts Exclude aquifer storage and recovery

** Three Valleys Municipal Water District (TVMWD) purchases water directly from MWD.

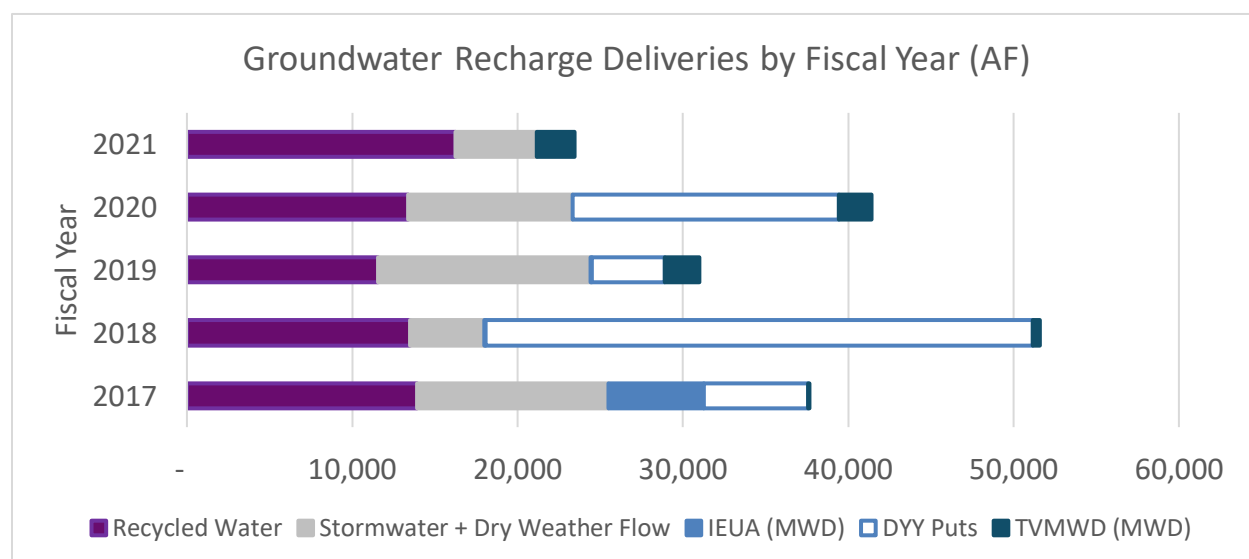
**Figure 4 – FY 20/21 Groundwater Recharge Deliveries**

Recycled water groundwater recharge use was 16,253 AFY in FY 20/21, up 21% from FY 19/20's recycled water ground water recharge of 13,381 AF. Recycled water is recharged by IEUA on behalf of its RCAs and retail water agencies.

Table 9 – FY 20/21 Recycled Groundwater Recharge Deliveries by Agency

Retail Agency	Recharge (AF)
Chino	-
Chino Hills	1,463
CVWD	9,336
Fontana/FWC	3,185
Montclair/MVWD	737
Ontario	-
Upland	1,531
Subtotal	16,253

FY 20/21 was a 5 year low for groundwater recharge totals but was also the highest recycled water recharge recorded to date at over 16,000 AF. The overall decrease to recharged is due in part to low precipitation rates reducing stormwater availability and MWD not requesting the storage of any water for the DYY program in FY 20/21.

**Figure 5 – Historical Groundwater Recharge Deliveries**

Projected Groundwater Recharge Deliveries

It is projected that future groundwater recharge delivery projections will remain at an estimated 16,420 AFY of recycled water as outlined in the 2018 Recharge Master Plan Update. Due to the unpredictability of storm events and variability of imported water for groundwater recharge in the IEUA region, the five-year average was taken to determine the projected recharge of stormwater and dry weather flows and imported water. It is estimated that future groundwater

recharge will contain 8,761 AF of stormwater and dry weather flows and 2,549 AF of imported water. Imported groundwater projections do not include DYY values as continued storage of DYY water is not expected to continue past FY 20/21.

Table 10 – Projected Groundwater Recharge Deliveries by Source

Groundwater Recharge Source	Projected Groundwater Recharge (AFY)
Recycled Water	16,420
Stormwater & Dry Weather Flow	8,761
Imported Water (No DYY)	2,549
Total	27,730

Dry Year Yield

The DYY program provides for the storage of up to 100,000 AF of water in a MWD Storage Account in the Chino Basin pursuant to the Groundwater Storage Program Funding Agreement dated June 2003 and as subsequently amended. Signatories to the Phase I Agreement are:

- Metropolitan Water District of Southern California,
- Inland Empire Utilities Agency
- Three Valleys Municipal Water District
- Chino Basin Watermaster

The DYY Agreement provides for storage of up to 25,000 AF per year unless Chino Basin Watermaster allows for more, and extraction, at MWD's call during dry years, of up to 33,000 AF per year not to exceed the amount of water in the Metropolitan Storage Account (DYY Account). In February 2019, the signatories expanded the extraction provisions so that water could be voluntarily extracted from the DYY Account outside of call years, with approval from the signatories.

From June 2017 through June 2021 a total of 64,830 AF were stored in the DYY Account; 59,894 AF by groundwater recharge and 4,936 AF by Aquifer Storage and Recovery (ASR) injected water. From July 2019 through June 2021 Cucamonga Valley Water District and Fontana Water Company have voluntarily extracted 40,395 AF, leaving the account with a balance of 24,435 AF.

Table 11 – DYY Account Balance

DYY Account Balance (June 2017-June 2021)	
“PUTS”	
Recharged Water	59,894
ASR Injection	4,936
“TAKES”	
CVWD	37,895
FWC	2,500
Total	24,435

The voluntary production projection for FY 21/22 is shown in Table 11. Signatories have agreed for Cucamonga Valley Water District and Fontana Water Company to extract the remaining DYY Account balance by June 2022.

Table 12 – DYY Voluntary Production Projections

Agency	Baseline	July-December 2021 Production	Jan-June 2022 Production	Total DYY Voluntary Production
CVWD	5,536	13,000	5,000	18,000
FWC	863	4,000	1,000	5,000

SECTION 3: SANTA ANA REGIONAL BASEFLOW OBLIGATION

Santa Ana River Regional Baseflow Obligation

The Santa Ana River has a regional baseflow obligation established by past judgment. The baseflow obligation is a joint obligation between IEUA and Western Municipal Water District to ensure an average of 42,000 AF at Prado Dam. The minimum baseflow obligation was reduced to 34,000 AF after 1986 as long as no cumulative baseflow debt exists. In Water Year 2019/2020, baseflow at Prado Dam was 74,465 AF. More information about the Santa Ana River baseflow obligation can be found in the Santa Ana River Watermaster Annual Report (<https://www.wmwd.com/292/Santa-Ana-Watermaster-Reports>).

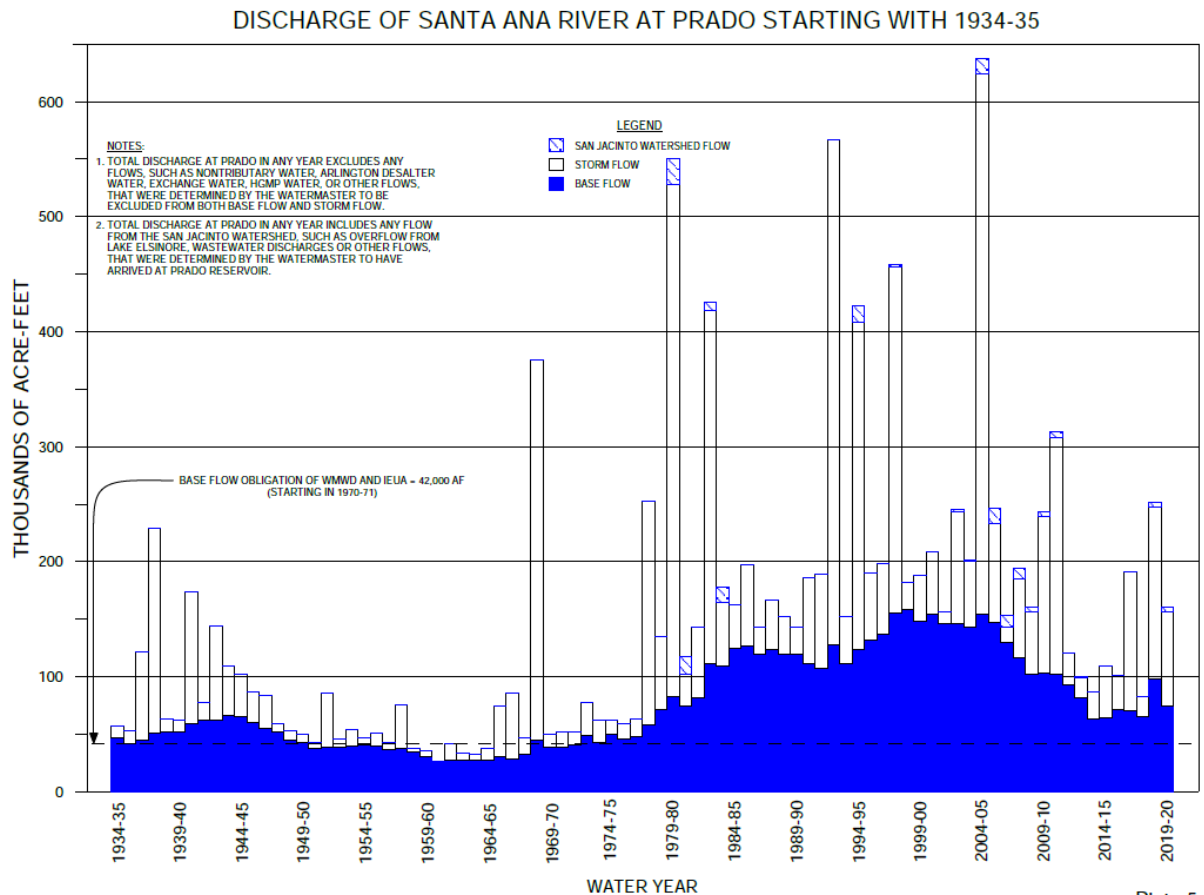


Figure 6 – Discharge of Santa Ana River at Prado
Source: Santa Ana River Watermaster Annual Report 2019-2020

SECTION 4: WASTEWATER

Wastewater Actuals

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 volume of wastewater flows received by IEUA treatment plants by approximately 10% since 2010. While the flows have continued to decrease, 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 driven by the increased strength of wastewater flows to the facilities, rather than the volume of flows to the facilities.

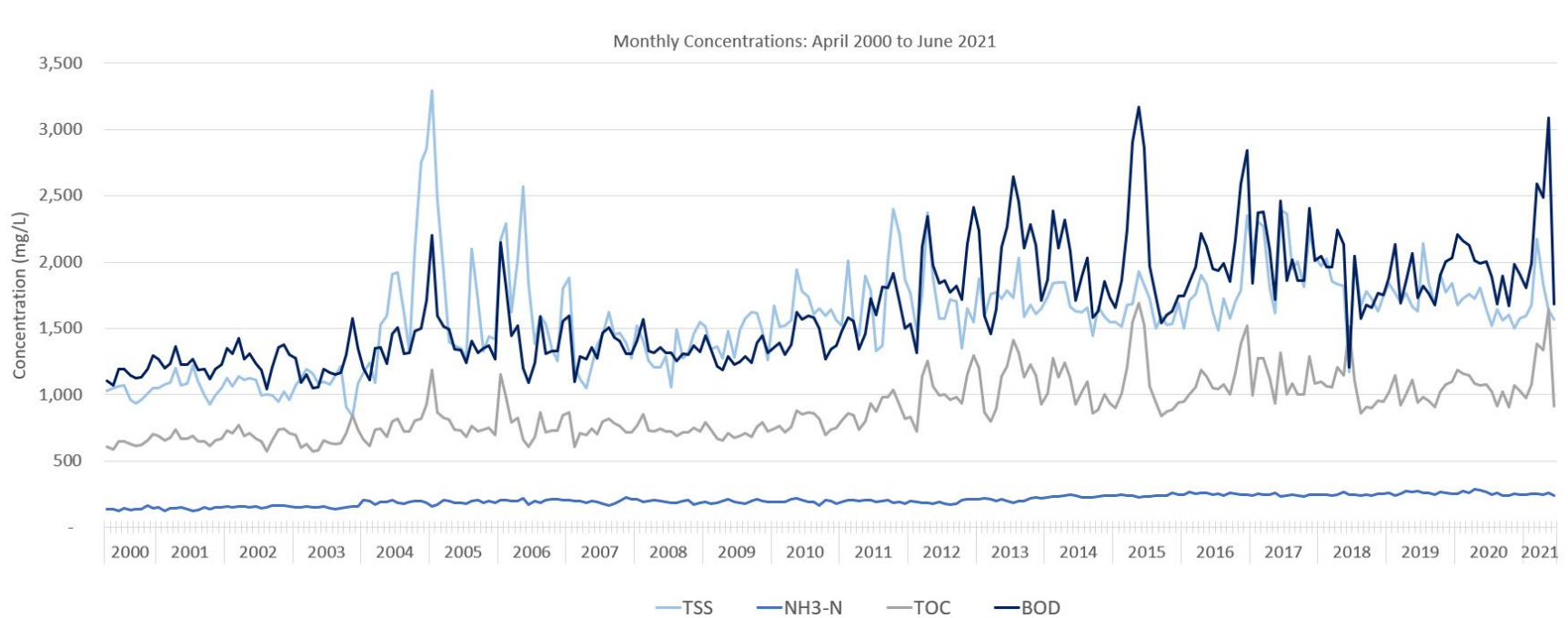


Figure 7 – Monthly Concentrations: April 2000 – June 2021

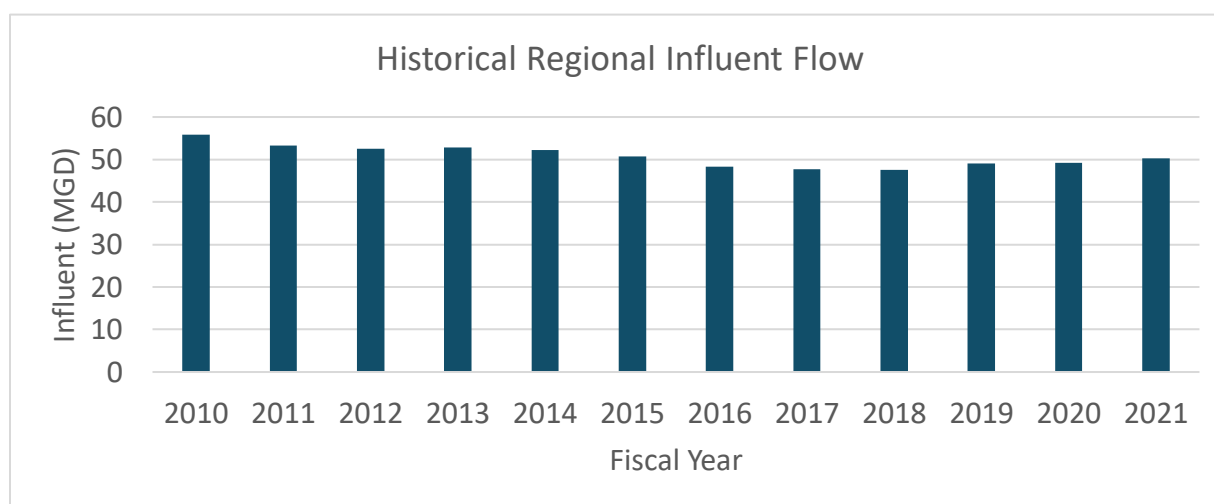


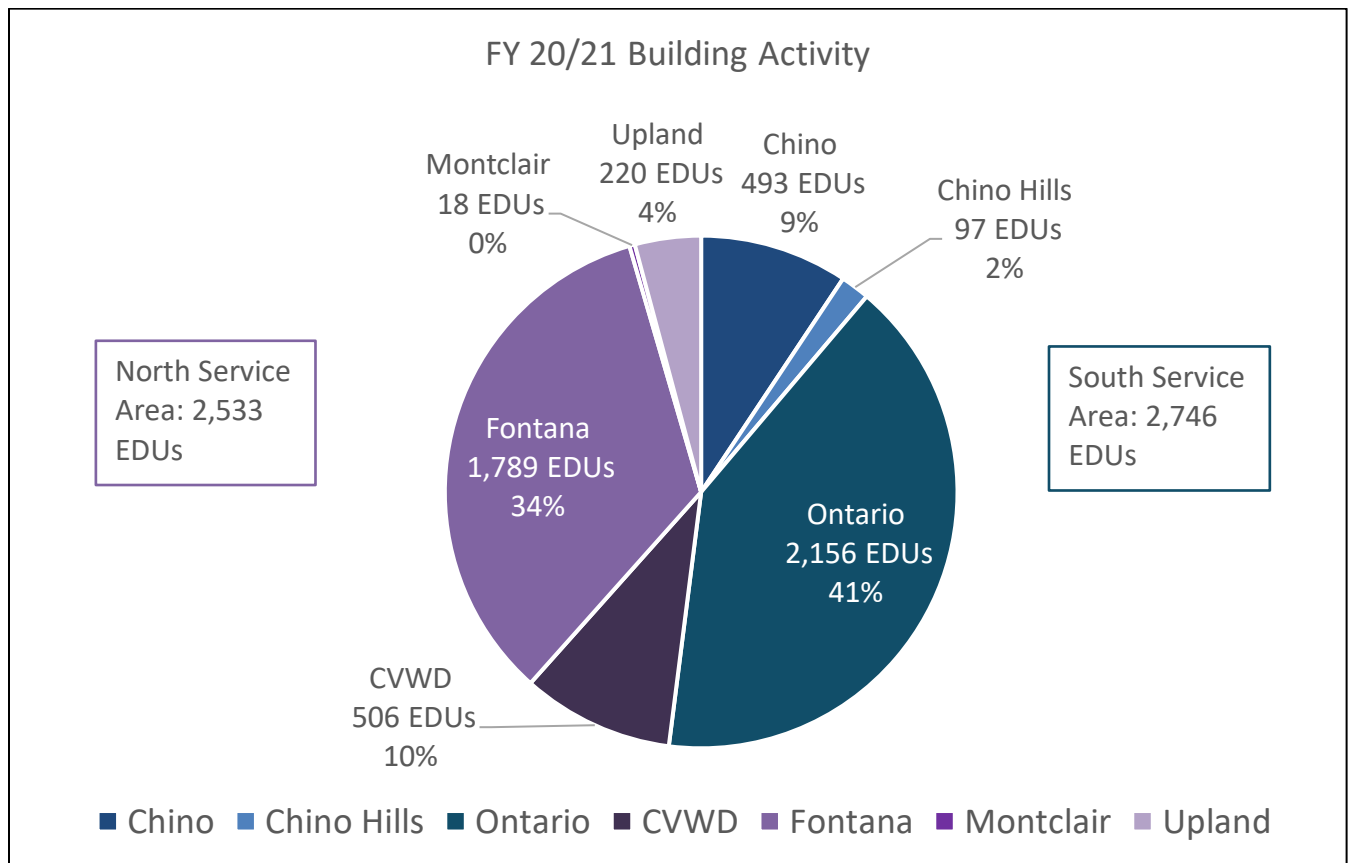
Figure 8 – Historical Regional Influent Flows

While wastewater flows have decreased from FY 09/10, recycled water use has increased. This increase in recycled water utilization can be attributed to the San Bernardino Avenue Lift Station and the Montclair Lift Station. The Montclair Lift Station pumps wastewater from portions of Montclair, Upland, and Chino to IEUA's RP-1 and CCWRF treatment plants. The San Bernardino Ave Pump Station pumps a portion of the flow from the City of Fontana to IEUA's RP-4 treatment plant. Together, these lift stations help shift flows that would naturally flow from one portion of the service area to a different treatment plant to balance flows and keep water in the northern portion of the service area. This shift in flows allows IEUA to maximize the potential for recycled water use. These lift stations also increase regional system flexibility and allow the treatment plants to operate as an interconnected system.

Equivalent Dwelling Unit (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 to allow for conservative estimates on both the flow and financial aspects of EDUs. The RCAs projections are required under the Regional Sewage Service Contract and serve as a planning tool for plant treatment capacity. Under the Regional Sewage Service 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 on the other hand are used by IEUA to project future needs. To ensure 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 handle the added load while also ensuring the agency does not over project fund availability.

Table 13 – Historical EDU Activity

Building Activity for Last Five Fiscal Years (FY 15/16 through FY 19/20)			
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

**Figure 9 – FY 20/21 Building Activity**

Wastewater Projections

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. The increase in flows implies that there will be facility expansions over the next 20 years.

In 2021, 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 12. For FY 2021/22, the forecasted activity was 13,538 EDUs. Over the next ten years, activity was projected to total 100,857 EDUs region wide. Approximately 77% 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.

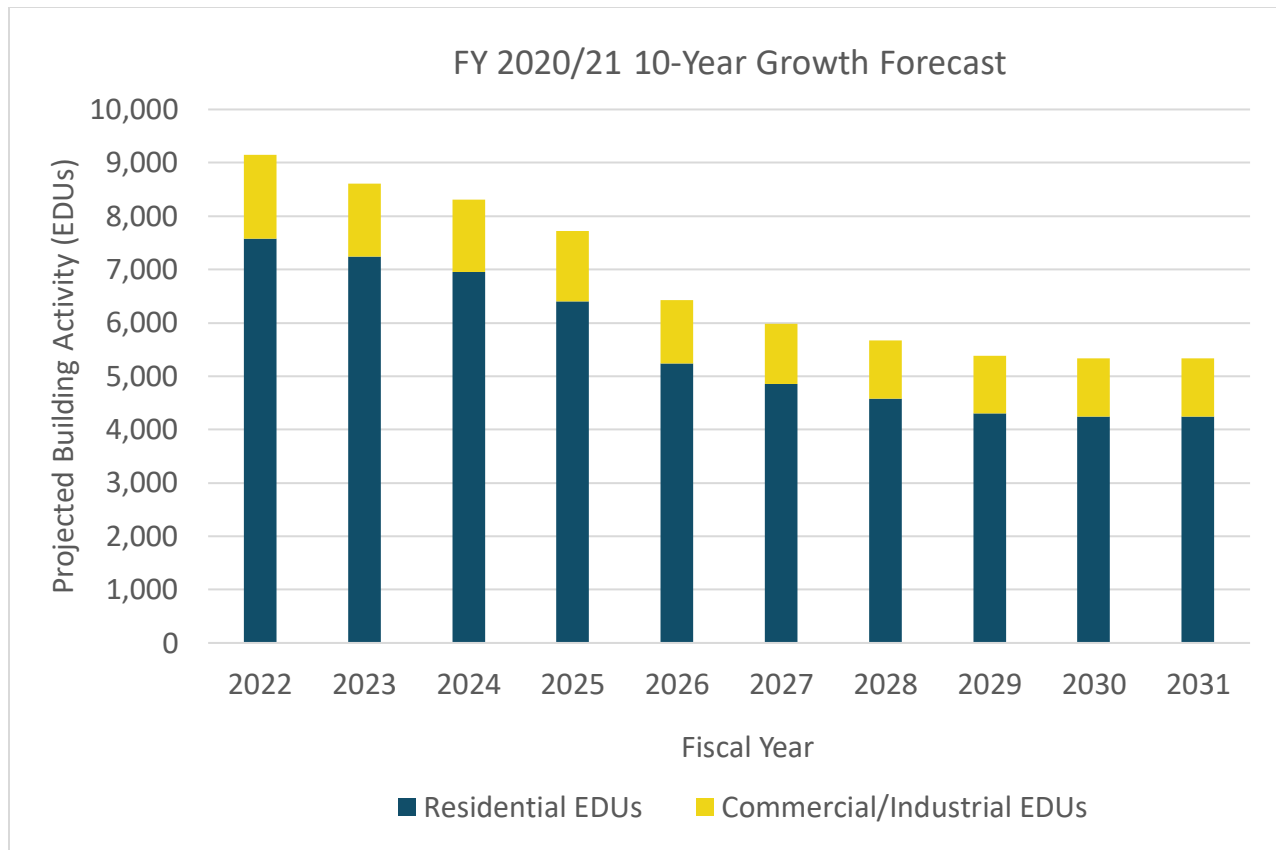


Figure 10 – FY 20/21 10-Year Growth Forecast

Table 14 – 10 Year Projected EDU Activity**

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

**The City of Montclair's forecasts have been extended from last Fiscal Year as a completed 2021 10-year capacity demand forecast was not completed. **EDU values revised October 26, 2021.*

APPENDIX A: ACRONYMS

AF: Acre Feet

AFY: Acre Feet per Year

ASR: Aquifer Storage and Recovery

CBWCD: Chino Basin Water Conservation District

CBWM: Chino Basin Water Master

CDA: California Desalter Authority

CVWD: Cucamonga Valley Water District

DYY: Dry Year Yield Program

EDU: Equivalent Dwelling Unit

FWC: Fontana Water Company

IEUA: Inland Empire Utilities Agency

IRP: 2015 Integrated Resource Plan

MEUs: Meter Equivalent Units

MGD: Million Gallons per Day

MVWD: Monte Vista Water District

MWD: Metropolitan Water District of Southern California

SPAR: Strategic Planning Annual Report

RCAs: Regional Contracting Agencies

SAR: Santa Ana River

SBCFCD: San Bernardino County Flood Control District

UWMP: Urban Water Management Plan

WVMWD: West Valley Municipal Water District

WWFMPU: 2015 Wastewater Facilities Master Plan Update

APPENDIX B: RETAIL AGENCY WATER USE CHARTS

