Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Regional Sewerage Program Technical Committee Meeting

AGENDA
Thursday, October 27, 2016
3:30 p.m.

Location
Inland Empire Utilities Agency
6075 Kimball Avenue
Chino, CA 91708

Call to Order and Roll Call

Additions/Changes to Agenda

1. **Action Items**
   A. Approval of the September 29, 2016 Meeting Minutes
   B. RP-4 Disinfection Construction Contract Award
   C. City of Chino Regional Connection Request C-37

2. **Informational Items**
   A. Ten-Year Growth Forecast and Building Activity Report
   B. RP-1/RP-5 Pre-Design Report Update
   C. Regional Contract Update/Renewal *(Oral)*
   D. IEUA Business Goals Update
   E. Sewer and Recycled Water Service to Unincorporated County Area

3. **Receive and File**
   A. Draft Regional Policy Committee Agenda
   B. Building Activity Report
   C. Recycled Water Distribution - Operations Summary
   D. Annual Water Use Report
   E. Annual Water Use Efficiency Report
   F. Response to Technical Questions from September 29, 2016
      1. IEUA IDC Tax Documents
      2. Regional Contract Renewal Presentation
      3. Regional Contract Renewal Milestones Response to the Technical Advisory Committee

4. **Other Business**
   A. IEUA General Manager's Update
   B. Committee Member Requested Agenda Items for Next Meeting
   C. Committee Member Comments
   D. Next Meeting – December 29, 2016

5. Adjournment

DECLARATION OF POSTING

I, Laura Mantilla, Executive Assistant of the Inland Empire Utilities Agency, A Municipal Water District, hereby certify that a copy of this agenda has been posted by 5:30 p.m. in the foyer at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA on Monday, October 24, 2016.

Laura Mantilla

ACTION
ITEM

1A

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Regional Sewerage Program
Technical Committee Meeting
MINUTES OF SEPTEMBER 29, 2016 MEETING

CALL TO ORDER

A regular meeting of the IEUA/Regional Sewerage Program – Technical Committee was held on Thursday, September 29, 2016, at the Inland Empire Utilities Agency located at 6075 Kimball Avenue, Chino, California. Committee Chairman Hays called the meeting to order at 3:40 p.m.

ATTENDANCE

Committee Members:

Chuck Hays	City of Fontana
Nicole deMoet	City of Montclair
Rosemary Hoerning	City of Upland
Braden Yu	Cucamonga Valley Water District
Mark Wiley	City of Chino Hills
Jesus Plasencia	City of Chino
Katie Gienger	City of Ontario
P. Joseph Grindstaff	Inland Empire Utilities Agency

Others Present:

Tony Mata	City of Fontana
Dan Chadwick	City of Fontana
Nadeem Majaj	City of Chino Hills
Dave Crosley	City of Chino
Chris Berch	Inland Empire Utilities Agency
Christina Valencia	Inland Empire Utilities Agency
Randy Lee	Inland Empire Utilities Agency
Sylvie Lee	Inland Empire Utilities Agency
Javier Chagoyen-Lazaro	Inland Empire Utilities Agency
Tina Cheng	Inland Empire Utilities Agency
Laura Mantilla	Inland Empire Utilities Agency

1. **ACTION ITEMS**

   A. **Approval of the Meeting Minutes of September 29, 2016**

> **Motion:** By Braden Yu/Cucamonga Valley Water District (CVWD) and seconded by Rosemary Hoerning/City of Upland to approve the minutes of the September 29, 2016 Technical Committee meeting.
>
> **Motion carried: Unanimously.**

2. **INFORMATIONAL ITEMS**

   A. **Fiscal Year 2015/16 Budget Variance**

Javier Chagoyen-Lazaro/IEUA reviewed the fiscal year 2015/16 budget variance for the fourth quarter ending June 30, 2016 for the Regional Wastewater and Recycled Water Programs. Mr. Chagoyen stated that in March 2015, the IEUA Board approved the 5-year rates for the monthly EDU and in May 2015, they approved 5-year rates for the Recycled Water Program and wastewater connection fees. Mr. Chagoyen reported that connection fees for wastewater and water connection fees totaled $25.8 million, or 110.8% of the amended budget. Property tax receipts totaled $45.6 million, or 110.9% of the amended budget, primarily due to a one-time tax receipt of $2.7 million from the city of Ontario. A total of $39 million is allocated to the Regional Program, or nearly 86% of the property taxes received.

Mr. Chagoyen reported that IEUA had an unfavorable variance for recycled water sales, ending at $11.4 million compared to budget of $11.9 million. Grants and loans were $14.1 million, or 66.4% of the amended budget. Employment expenses totaled $38 million, or 93.7% of the amended budget, due to higher than anticipated vacancy rate of 9% compared to budgeted vacancy of 4%. Utilities expenses totaled $8.8 million, or 82.1% of the amended budget, resulting in a positive variance. The debt service totaled $20.5 million, or 87.3%. Interest rates last year were lower than anticipated under 20 basis points compared to 1% of budget on 2008B Variable Rate Debt bonds. Capital projects expenditures were $24.5 million, or 47.7%, compared to amended budget of $51.4 million, due to delays in construction. Some projects were carried forward to FY 2016/17.

Operating revenues were 98% of amended budget at $68 million. Operating expenses were lower than budget at 73%, or 63.1 million, resulting in a net increase of almost $5 million. Non-operating revenues were in line with amended budget at $83.9 million, or 102%. Non-operating expenditures had a very strong variance of 74%, or $49.2 million, resulting in a net non-operating income of almost $35 million. Overall, reserves for the regional wastewater and recycled water programs were close to $150 million for fiscal year ending June 30, 2016. Mr. Chagoyen then provided an update on the cost of service and the fund balance results compared to the assumptions used to set the 5-year rates. The favorable results in FY 2015/16 were in line with the projections and key objective to build reserves to support future capital expenditures. Ms. Valencia stated that rates were set conservatively to fully support cost of service at the end of the 5 years and allow for the set aside of property taxes to pay for the relocation of RP-2 solids and refurbishment of RP-1.

Mr. Hays stated that in 2014, IEUA provided a spreadsheet to the Technical Committee on RO and RC fund and what will be spent. He asked if IEUA could provide that spreadsheet with actuals for total project expenditures to do a comparison. Ms. Valencia stated she would send the spreadsheet to the Committee. Mr. Chagoyen stated that some of the projects received funding that was not anticipated such as the additional SRF loan for the SCADA project. He explained that it reduced the cost today for that portion and that when the loan will be repaid the cost will be incorporated into the rate cost of service.

Mr. Chagoyen reviewed the fund balance on the regional wastewater operations, maintenance reserve balance, and the regional capital fund reserve. Ms. Valencia stated that the funds reserves are building as planned and are estimated at $100 million, the more that is built the less of an impact on the rates in the future. Ms. Valencia stated IEUA will review the cost of service every year and if the proposed rate of $20 is not needed at the end of the fifth year, it will be adjusted accordingly. Mr. Chagoyen reviewed the recycled water sales and stated that the cost of service for recycled water is still above the current rates.

B. **Regional Contract Update Renewal**

Mr. Hays stated that the member agencies met on September 14 and September 21, and developed the Regional Contract renewal milestones (handout #1 attached). He stated that by completing these milestones, it would determine if a facilitator is necessary. Mr. Hays stated a term sheet reflecting items of importance to member agencies, needs to be included when contract discussions begin. He further stated that some milestone requires action and assistance from IEUA to keep the process moving forward. Mr. Hays continued to say that there are additional milestones, were not included on the list: Obtain from IEUA optimum term of contract; what it will take to alleviate IEUA financial concerns; and what are the impacts if the contract is not renewed by next year.

Mr. Hays requested that member agencies provide information to Carollo on water usage (handout #2 attached). Mr. Hays also requested information on property taxes from IEUA and formation documents for property tax. Ms. Valencia will send the IDC tax document to the Committee. Mr. Hays indicated at the last Technical Committee meeting, the Committee asked about flows from each agency. Chris Berch stated that IEUA spent time trying to understand how the contract has changed over time. IEUA has committed to develop a matrix that identifies contract versus practice and wants to make agencies have enough information to propose thoughtful options and move toward a new contract.

Mr. Berch went through the Regional Contract milestones and asked if the Committee wants to start the request for proposal (RFP) for a facilitator in January rather than in March. Mr. Hays said that the determination would be made in March. Mr. Berch stated that the process will lose several months if it is delayed. Mr. Hays stated that the plan is to get a facilitator or attorney ready in April. Mr. Berch communicated concern that IEUA believes that a facilitator will be necessary to complete this process in an efficient and timely manner.

C. **Water Connection Fees – Recycled Water**

Sylvie Lee/IEUA stated that the water connection fees for recycled water was requested at the September 29, Technical Committee meeting. Ms. Lee gave a presentation on two scenarios. She explained that the water connection fee has been in effect since the beginning of January 2016. It is for all new connections to the water distribution system within the IEUA service area. For example, if there is a recycled water retrofit, an existing 2" potable water meter and a recycled water meter of similar size is installed and there is no downsize to the potable meter, it is a new connection, new capacity and the customer is charged for the 2" meter.

Ms. Lee explained in the second example, if a customer has an existing 2" potable water meter and wants to install a 2" recycled water meter and chooses to reduce to 1" potable water meter, there is a reduction in the system capacity, IEUA provides a credit for the downsizing of the 2" potable water meter to 1" potable meter. The customer would pay for the 2" recycled water meter. If the customer has a 1" potable water meter and installs a 2" recycled water meter, it is an increase and not a downsize of potable water meter. Ms. Lee stated that the credits are given when there is a reduction in capacity from the system. Mr. Berch said this is an illustration of how to get credit. He continued to state that when IEUA adds new capacity or new demand within the region it would not pay that incremental cost.

Mr. Yu/CVWD asked how IEUA is keeping track of credits when customers downsize. Mr. Berch stated that the best way to do it is close it out and IEUA shows it as a negative in the database just as IEUA does with building activity now. Mr. Berch stated IEUA needs to work on this some more and will bring some information back to the Committee. Ms. Gienger/Ontario stated that they are trying to bring new infrastructure to customers and the City of Ontario has concerns about customers who want to retrofit and may not be able to because this cost was not anticipated. Mr. Berch stated that IEUA provided significant notice prior to implementing the new fee and had an influx of meter connections paid prior to January 2016. IEUA is making sure that fees are collected for beyond what is adding to demand within the region. Ms. Lee said that she had discussed the Metropolitan Water District rebate pilot program with the agencies to get $5,000 per acre-foot. She informed them that the rebate program ends in June 2017. Ms. Lee encouraged agencies to apply for the rebate. Mr. Berch suggested member agencies come up with a list of their customers and develop a strategy plan.

3. **RECEIVE AND FILE**

A. **Building Activity Update**

The Building Activity Update Report was received and filed by the Committee.

B. **Recycled Water Distribution Summary**

The Recycled Water Distribution Summary was received and filed by the Committee.

4. **OTHER BUSINESS**

A. **IEUA General Manager's Update**

Mr. Berch gave the following updates on behalf of Joe Grindstaff.

- The Governor signed senate Bill SB-970 on organics legislation. The bill provides opportunities to get funding for organics recycling and keeping organics out of landfills.
- IEUA had a couple of workshops on RP-5 and RP-2 Pre-design Report. Mr. Berch stated that the liquid side is done and will be moving into the predesign report on the handling side. An IEUA Board Workshop is scheduled for October 5 on solids handling, biogas, and essentially replacement of RP-2 site. There will be one more workshop in January, will finalize the Pre-Design Report by March and then move into design. Construction will start in 2019.
- IEUA has been working with the State Water Resources Control Board (SWRCB) on getting some Proposition-1 funding for Archibald Plume Cleanup project. The Regional Board approved the Cleanup and Abatement Order between Ontario, Upland, IEUA and other parties. Mr. Berch stated that the SWRCB informed IEUA will be receiving about $10 million in grants from Proposition-1 for the project. Some of the other money will go to the desalter parties.
- Ms. Valencia gave an update on the refinancing of the 2008A Bonds. She stated that IEUA has about $125 million outstanding in bonds and have only been paying interest at 5 percent. Ms. Valencia stated that IEUA has started the process and have been calling some of those funds and setting that money aside in a special account. IEUA is asking the underwriter for options and to look at the numbers to see what is beneficial. IEUA will continue to call that money incrementally as needed. IEUA may be looking at a cash defeasance of $50 to $70 million. Ms. Valencia will continue to update the Committee.

B. **Committee Member Requested Agenda Items for Next Meeting**
Mr. Hays asked for an update on the sewer and recycled water service to the unincorporated county area and the water rates piece.

C. **Committee Member Comments**
Ms. Hoerning thanked IEUA staff for sending the invoices electronically.

D. **Next Meeting – October 27, 2016**

5. **ADJOURNMENT – Meeting adjourned at 4:40 p.m.**

Transcribed
by:

_____
Laura Mantilla, Executive Assistant

Handout #1
9/29/2016 Tech Mtg
Agenda 2B.

Regional Contract Renewal
Milestones

September

- Present milestones at TAC Meeting (September 29)

October

- Begin contract review.
- IEUA creates matrix showing contract language versus current practices and history behind any discrepancies.
- Complete tolling agreements (to suspend until Regional Contract is renewed).

January

- IEUA distributes Carollo draft report to member agencies.

February

- Review and respond to Carollo draft report (independent consultant review may be initiated by TAC).

March

- Generate draft term sheet.
- Provide potential financing solution to IEUA.

Handout #2
9/29/2016 Tech Mtg
Agenda 2B

Sylvie Lee

From: Craig Proctor
Sent: Thursday, September 22, 2016 11:28 AM
To: 'John Bosler' (JohnB@cvwdwater.com); 'Braden Yu' (BradenY@cvwdwater.com); dcrosley@cityofchino.org; Gil Aldaco (galdaco@cityofchino.org); mwiley@chinohills.org; Dan Chadwick (dchadwic@fontana.org); 'KGienger@ontarioca.gov'; 'Michael Hudson' (mhudson@cityofmontclair.org); rhoerning@ci.upland.ca.us
Cc: Scott Burton (sburton@ci.ontario.ca.us); Chuck Hayes; Nadeem Majaj (nmajaj@chinohills.org) (nmajaj@chinohills.org); Jesus Plasencia (jplasencia@cityofchino.org); Tony Mata; 'Nicole deMoet'; 'CarrieC@cvwdwater.com'; 'ohart@cityofchino.org'; Sylvie Lee; Kenneth Tam; Robert S. Grantham (RGrantham@carollo.com); Toby Weissert
Subject: Member Agency Data Request for EDU Evaluation

All,

Thank you for meeting with us briefly yesterday regarding the member agency data request for the sewer use fee evaluation project with Carollo. After a conference call today with Carollo, their staff will be reaching out to you regarding the specific data they will need to complete their evaluation of the EDU equation. One of the crucial data sets they are looking for is the water use information from your customers for the last 5 years (if available). Carollo has noted to IEUA staff that they are prepared to sign any confidentiality agreements should any of the customer information be deemed confidential. Thank you in advance for your assistance in gathering the data to support this project. If you have any concerns or additional questions, please feel free to contact me. Thank you, Craig

ACTION
ITEM

1B

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date: October 27, 2016/November 3, 2016

To: Regional Committees

From: Inland Empire Utilities Agency

Subject: RP-4 Improvements Construction Contract Award

RECOMMENDATION

It is recommended that the Regional Committees authorize the Agency to award the construction contract for the RP-4 Disinfection Facility Improvements, Project No. EN14018, to the lowest responsive and responsible bidder, GSE Construction Company Inc.

BACKGROUND

The Regional Water Recycling Plant No. 4 (RP-4) began operation in 1997 with an average daily liquid treatment capacity of seven million gallons per day (MGD). In 2009, the plant's treatment capacity expanded to 14 MGD. Since the expansion, the tertiary chemical systems have been in need of process improvements due to a change in the operational strategy and general deterioration.

The existing chemical disinfection facility is located in a building in the southeast corner of the treatment plant. The concrete tank pads, metal supports, and containment walls in the chemical area are all showing signs of corrosion. In addition to the corrosion, there is limited tank capacity that does not allow for a full delivery of chemicals, which causes additional costs from multiple chemical deliveries. This project will relocate the chemical disinfection facility to a new centralized location within the plant and provide adequately-sized chemical tanks, chemical pumps, and related controls. Reliable chemical storage and dosing systems are critical for regulatory compliance and distribution of high quality recycled water.

After the removal and relocation of the existing chemical disinfection facility, the final component of the project will be to rehab the maintenance building. One maintenance bay will be utilized as a storage facility and the second bay will be utilized as an office area with a breakroom, shower, locker rooms, and two restrooms.

On July 28, 2016, a request for bids was advertised to the prequalified contractors on the under $2,000,000 list. Four contractors participated in the job walk held on August 16, 2016. On September 7th, 2016, the following three bids were received:

Bidder's Name	Total Price
GSE Construction Company Inc.	$2,619,600
W.A. Rasic Construction Company	$3,027,500
J.F. Shea Construction, Inc.	$3,084,000
Engineer's Estimate	**$2,000,000**

The bids received were higher than the Engineer's estimate due to the current less competitive bidding environment within the region (due to many available biddable projects), as well as, escalated material prices for the rehab of the maintenance building.

GSE Construction Company Inc., was the lowest prequalified, responsive, and responsible bidder with a bid price of $2,619,600. GSE Construction's contractor licenses were checked and found to be current and in good standing. They have performed several successful projects for the Agency and have shown good workmanship and responsiveness.

The following table is the estimated project cost:

Description	Estimated Cost
Design	$410,000
Construction	$2,619,600
Construction Service (~15%)	$392,940
Contingency (~10%)	$261,960
Total Project Cost	**$3,684,500**

The following table is the project schedule:

Project Milestone	Date
Construction Contract Award	November 2016
Construction Completion	November 2017

The RP-4 Chlorination Facility Improvements Project is consistent with the *Agency's Business Goal of Wastewater Management* that systems will be master planned, managed and constructed to ensure that when expansion planning is triggered, designs/construction can be completed to meet regulatory/growth needs in an expeditious, environmentally responsible and cost effective manner.

RP-4 Disinfection Facility Improvements
Construction Contract Award
Project No. EN14018
November 2016




Shaun J Stone, P.E.
Manager of Engineering

Adham Almasri, P.E., PMP
Project Manager

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Project Location

1) Rehab. Chlorine Building, Re-use as Storage and Office Area
2) Chlorine Piping: Disk, Trident Filters & RAS P.S.
3) New Chlorine Piping to Chlorine Basins
4) Relocate Content of Chemical Building, Install two new 10,000 gallon tanks and seven new chemical pumps

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Project Background

- Deterioration of disinfection equipment and multiple chemical pipeline failures
- Corroded floor, outside doors and walls due to bleach leakage
- No back-up chlorine injection piping to contact basins
- No chlorine injection to the aqua disk filters and the RAS pump station

Corrosion from bleach leakage

Existing Diaphragm Pump

Aqua Disk Algae Growth

Project Scope

- Install nine (9) automated chemical metering pumps
- Install seven 1.5" PVC new chemical injection pipes inside tubing
- Construct new disinfection facility next to contact basin 1A
- Repurpose part of the existing building to employee space
  - Three office cubicles
  - modify existing shower and break rooms
- Perform additional instrumentation and control programming

Proposed Disinfection Facility Location

Existing Diaphragm Pump

Existing RTU-2 Panel

Bid Results

- On July 28th, a request for bids was advertised to the prequalified contractors.
- On September 7th, the following construction bids were received:

Bidder's Name	Total Price
GSE Construction Company Inc.	$2,619,600
W.A. Rasic Construction Company	$3,027,500
J.F. Shea Construction, Inc.	$3,084,000
Engineer's Estimate	**$2,000,000**

Project Cost/Schedule

Description	Estimated Cost
Design	$410,000
Construction	$2,619,600
Construction Services (~15%)	$392,940
Construction Contingency (~10%)	$261,960
Total Project Cost	**$3,684,500**

Project Milestone	Date
Construction Contract Award	November 2016
Construction Completion	November 2017

Recommendation

It is recommended that the Regional Committees authorize the Agency to award the construction contract for the RP-4 Disinfection Facility Improvements, Project No. EN14018, to the lowest responsive and responsible bidder, GSE Construction Company Inc.

The RP-4 Disinfection Facility Improvements project is consistent with the ***Agency's Business Goal of Wastewater Management*** that systems will be master planned, managed and constructed to ensure that when expansion planning is triggered, designs/construction can be completed to meet regulatory/growth needs in an expeditious, environmentally responsible and cost effective manner.

ACTION
ITEM

1C

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date: October 27, 2016

To: Regional Technical Committee

From: Inland Empire Utilities Agency

Subject: City of Chino Request for One Regional Connection Point to the Kimball Interceptor Sewer (Chino Regional Sewer Connection #C-37, Project No. CW17003.04)

RECOMMENDATION

This is a Notice of Intent for a new connection.

Inland Empire Utilities Agency (IEUA) hereby gives notice of its intent to approve the request by the City of Chino for one regional connection, wherein Regional Connection No. C-37 is to the Kimball Interceptor Sewer Extension in future Hellman Avenue north of Kimball Avenue.

Pursuant to Section 13 of the Regional Sewer Service Contract, the request is being placed before the Regional Technical Committee for their review. Upon receipt of a favorable report and recommendation from the Committee, or upon failure of the Committee to report within 60 days, IEUA may authorize the City of Chino for using the new delivery point.

BACKGROUND

On September 7, 2016, IEUA received a request from the City of Chino (Attachment "A") for the approval of a connection to the Kimball Interceptor Sewer. The purpose of the connection is to discharge flows from a proposed industrial development by the Watson Land Company bounded by Hellman Avenue, Merrill Avenue, Carpenter Avenue, and Remington Avenue. The connection is required due to a lack of a City of Chino sewer located in close proximity. The connection will be made to a stub-out on an existing regional manhole that will discharge domestic sewer flow to the 48-inch Kimball Interceptor Sewer Extension, which is located north of the intersection of Kimball Avenue and Hellman Avenue (Attachment "B").

SUMMARY OF FLOW RATE

Peak Flow Rate	0.038 MGD	or	0.059 cfs

The 48-inch Kimball Interceptor Sewer Extension is designed to deliver a maximum flow rate of 38 MGD to the Regional Water Recycling Plant No. 5. The proposed additional flow rate of 0.038 MGD is within the capacity of this sewer.

ATTACHMENT "A"

CITY of CHINO

September 7, 2016

Ms. Liza Munoz
Senior Engineer
Inland Empire Utility Agency
6075 Kimball Avenue
Chino, CA 91710

Dear Ms. Munoz:

Subject: Request for Sewer Connection to the Existing IEUA 12-inch sewer stub located in Hellman Avenue.

The City of Chino is hereby requesting a new point of connection to an existing Inland Empire Utility Agency (IEUA) sewer. The point of connection is to the existing 12-inch VCP sewer located on Hellman Avenue north of Kimball Avenue. It is located at station 10+05.14 per City Drawing No. BA 2099-2108 located on Sheet 3. The existing 12-inch VCP stub is connected to an existing Regional Connection #C-36 manhole per IEUA drawing #D4639-007, RP-1 Bypass Sewer Project No. PL02012 Segment 1 at station 62+09.14 and ultimately connected to an existing 48" IEUA trunk sewer. This proposed connection will serve a 3,872,000 square foot industrial park, consisting of eight industrial buildings generally located on the south side of Merrill Avenue, west of Carpenter Avenue, and east of Baker Avenue.

If you should need any further information, please contact me at (909) 334-3402.

Sincerely,

Michael Bhatanawin

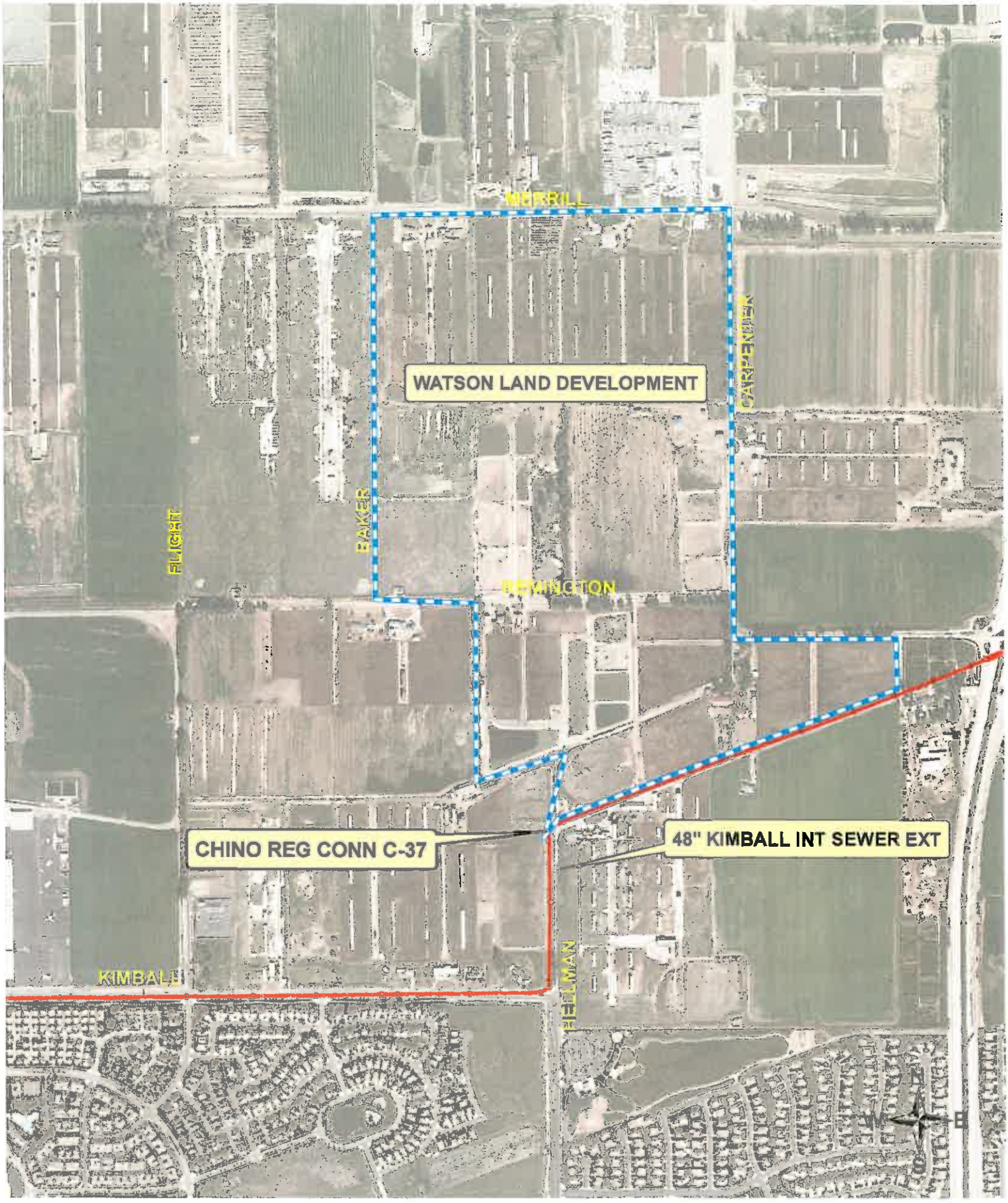
Michael Bhatanawin, P.E.
Associate Civil Engineer

MB:sz

cc: Matt Kunkle, David Evans and Associates.

13220 Central Avenue, Chino, California 91710
Mailing Address: P.O. Box 667, Chino, California 91708-0667
(909) 334-3250 • (909) 334-3720 Fax
Web Site: www.cityofchino.org

ATTACHMENT "B"
CITY OF CHINO REGIONAL CONNECTION NO. C-37



INFORMATION
ITEM
2A

FY15/16 Building Activity Summary
Ten-Year Growth Survey

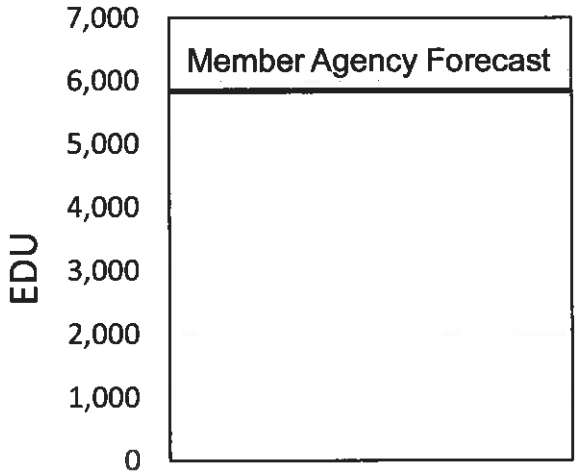
Pietro Cambiaso

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Regional Committees
October/November 2016

Summary: FY15/16 Building Activity

- **IEUA Member Agency Forecast = 5,849 EDUs**
- IEUA Budgeted Forecast = 4,330 EDUs
- Fiscal Year Building Activity = 4,787 EDUs
- EDU = Equivalent Dwelling Unit or Single Family



Summary: FY15/16 Building Activity

- IEUA Member Agency Forecast = 5,849 EDUs
- **IEUA Budgeted Forecast = 4,330 EDUs**
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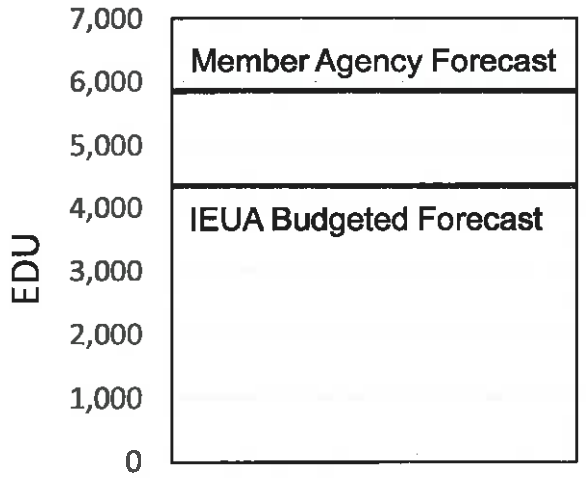
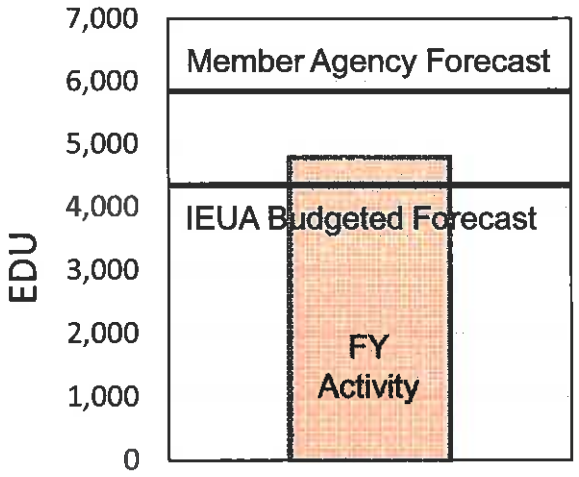


Summary: FY15/16 Building Activity

- IEUA Member Agency Forecast = 5,849 EDUs
- IEUA Budgeted Forecast = 4,330 EDUs
- **Fiscal Year Building Activity = 4,787 EDUs**
- EDU = Equivalent Dwelling Unit or Single Family



Inland Empire Utilities Agency
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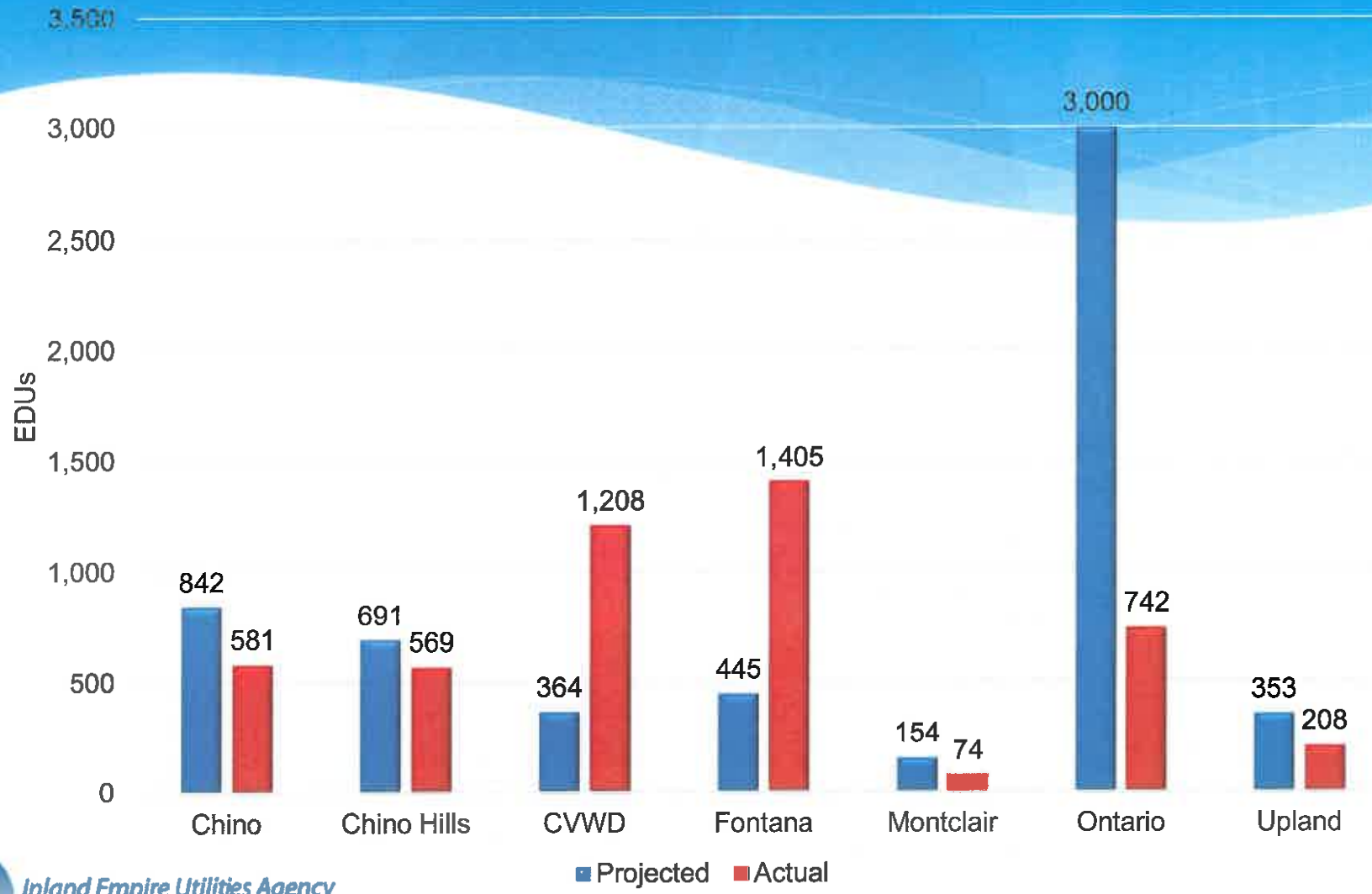
FY15/16 Distribution of Growth

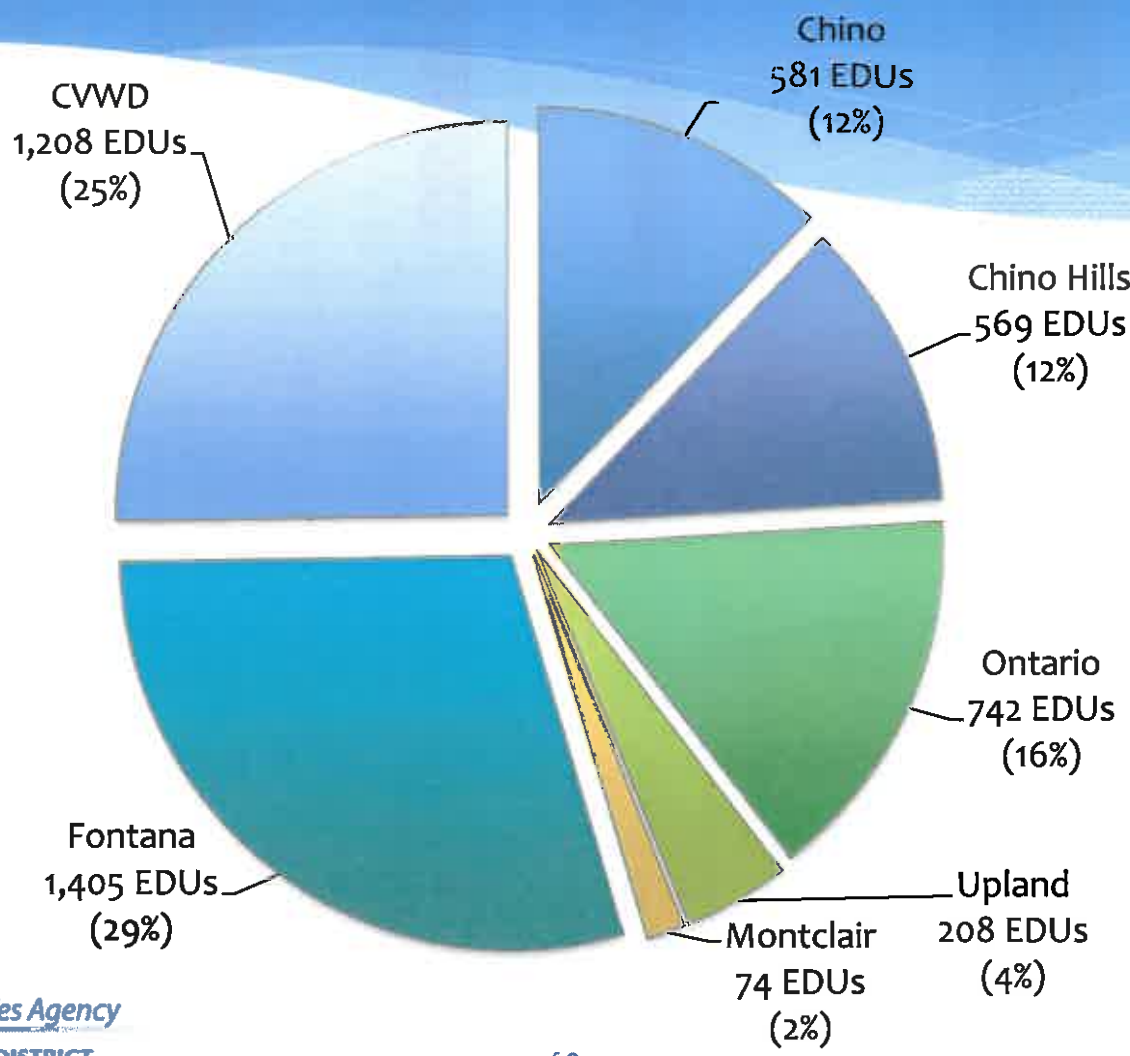


Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Partial EDU rounded to the nearest whole number.

FY15/16 Building Activity

4,787 EDUs Resulted in $21.8M in CCRA Funding

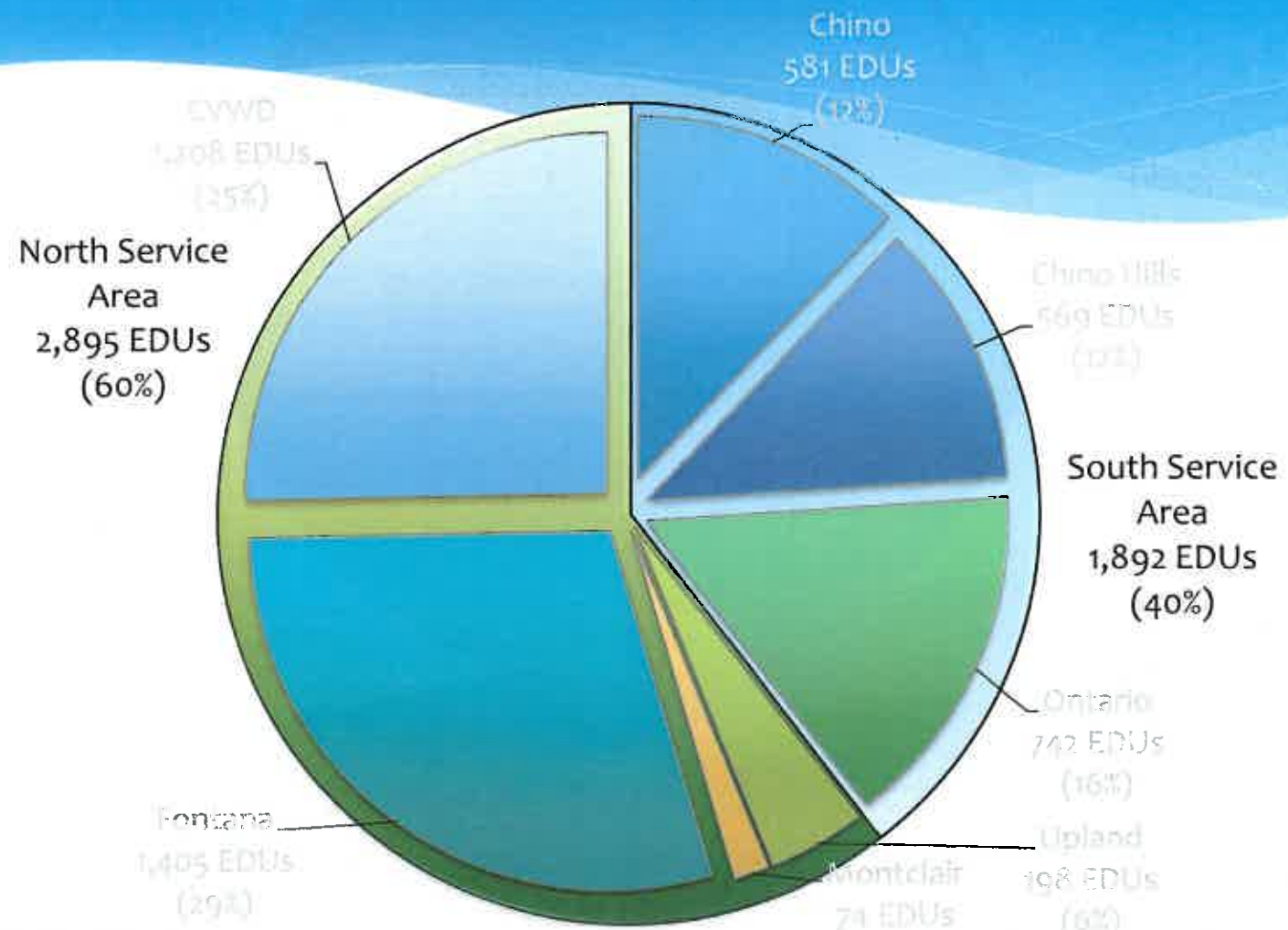


Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Partial EDU rounded to the nearest whole number.

FY15/16 Building Activity

4,787 EDUs Resulted in $21.8M in CCRA Funding

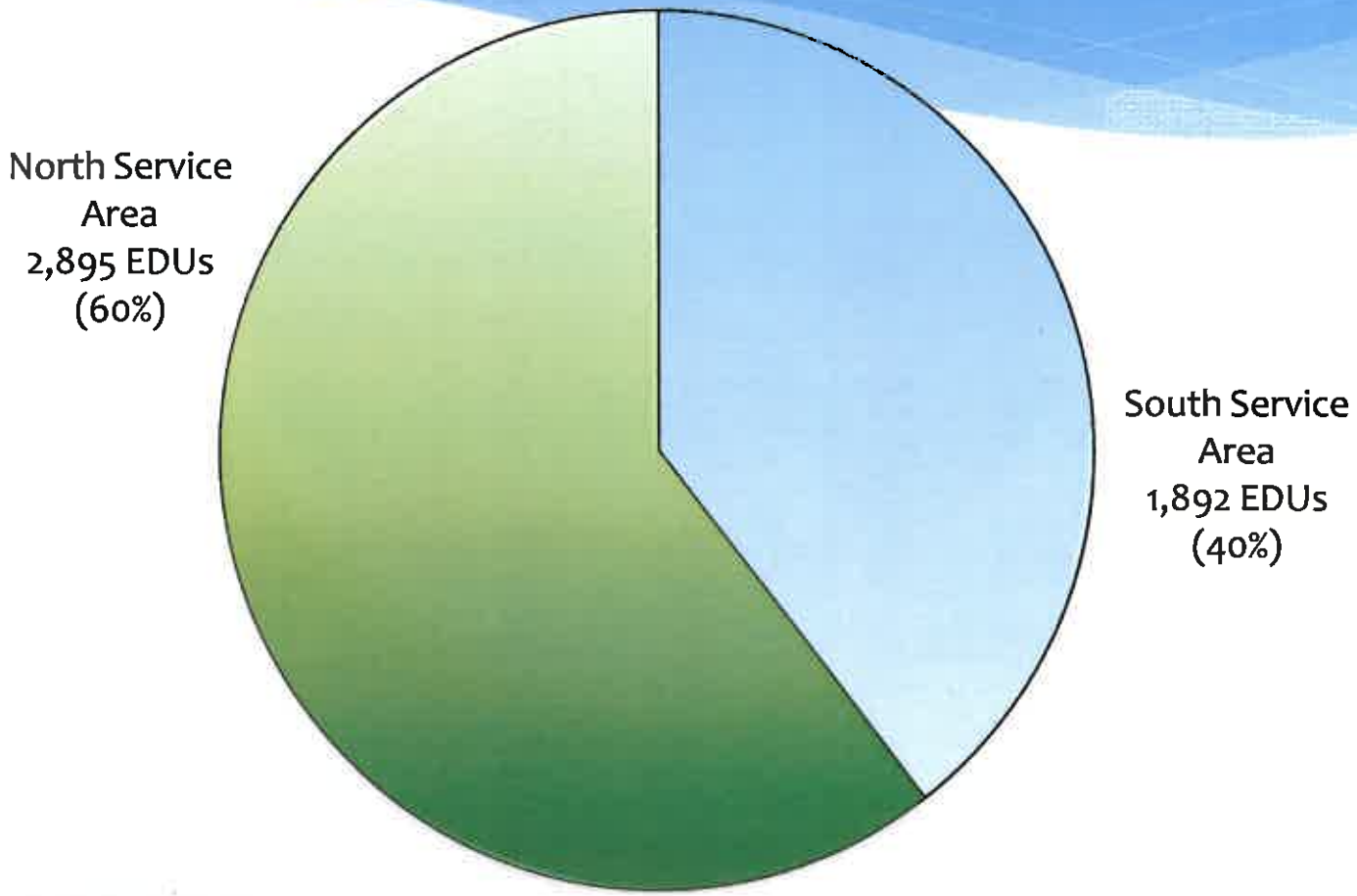


Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Partial EDU rounded to the nearest whole number.

FY15/16 Building Activity

4,787 EDUs Resulted in $21.8M in CCRA Funding



Inland Empire Utilities Agency
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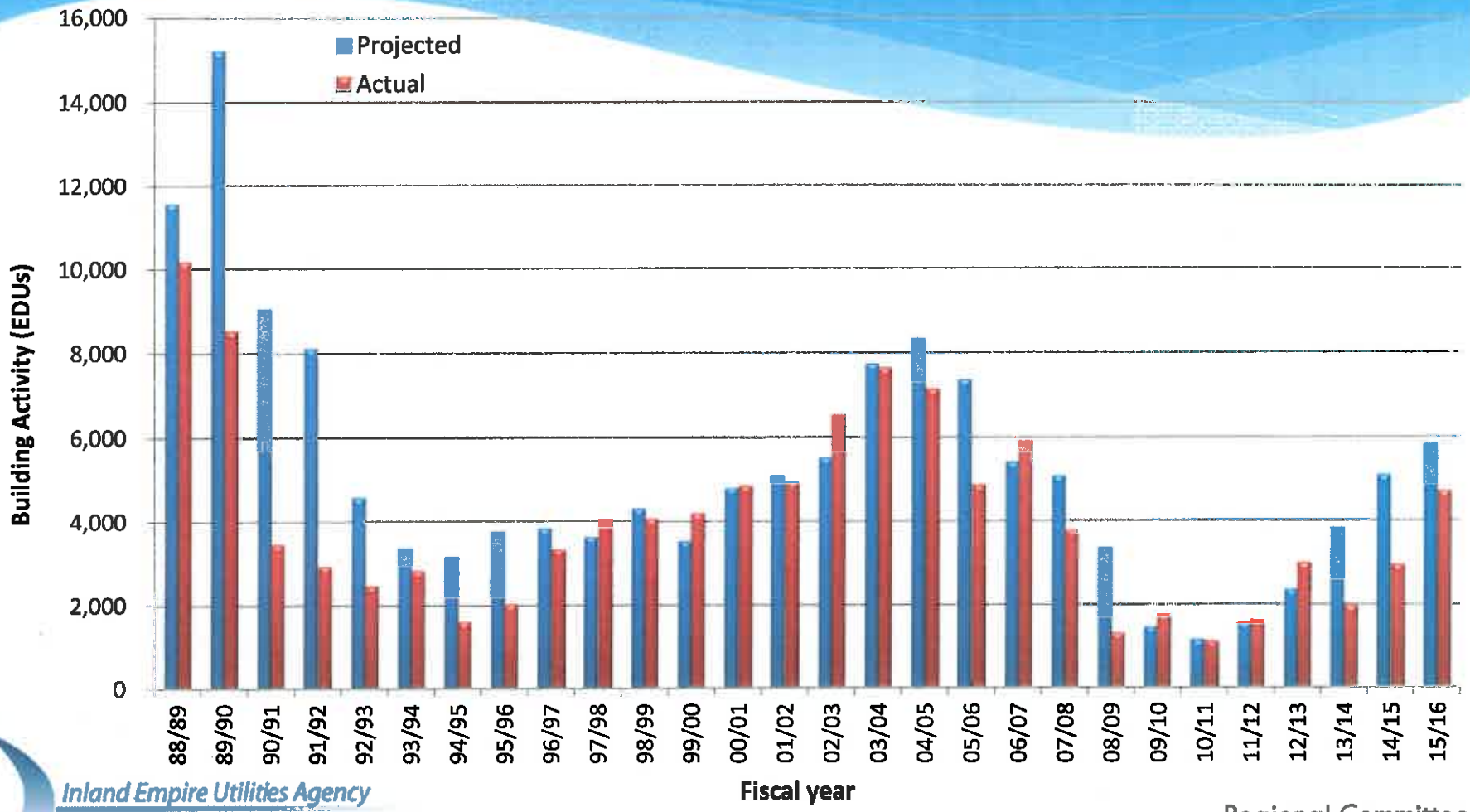
Partial EDU rounded to the nearest whole number.

Building Activity

Projected vs. Actual



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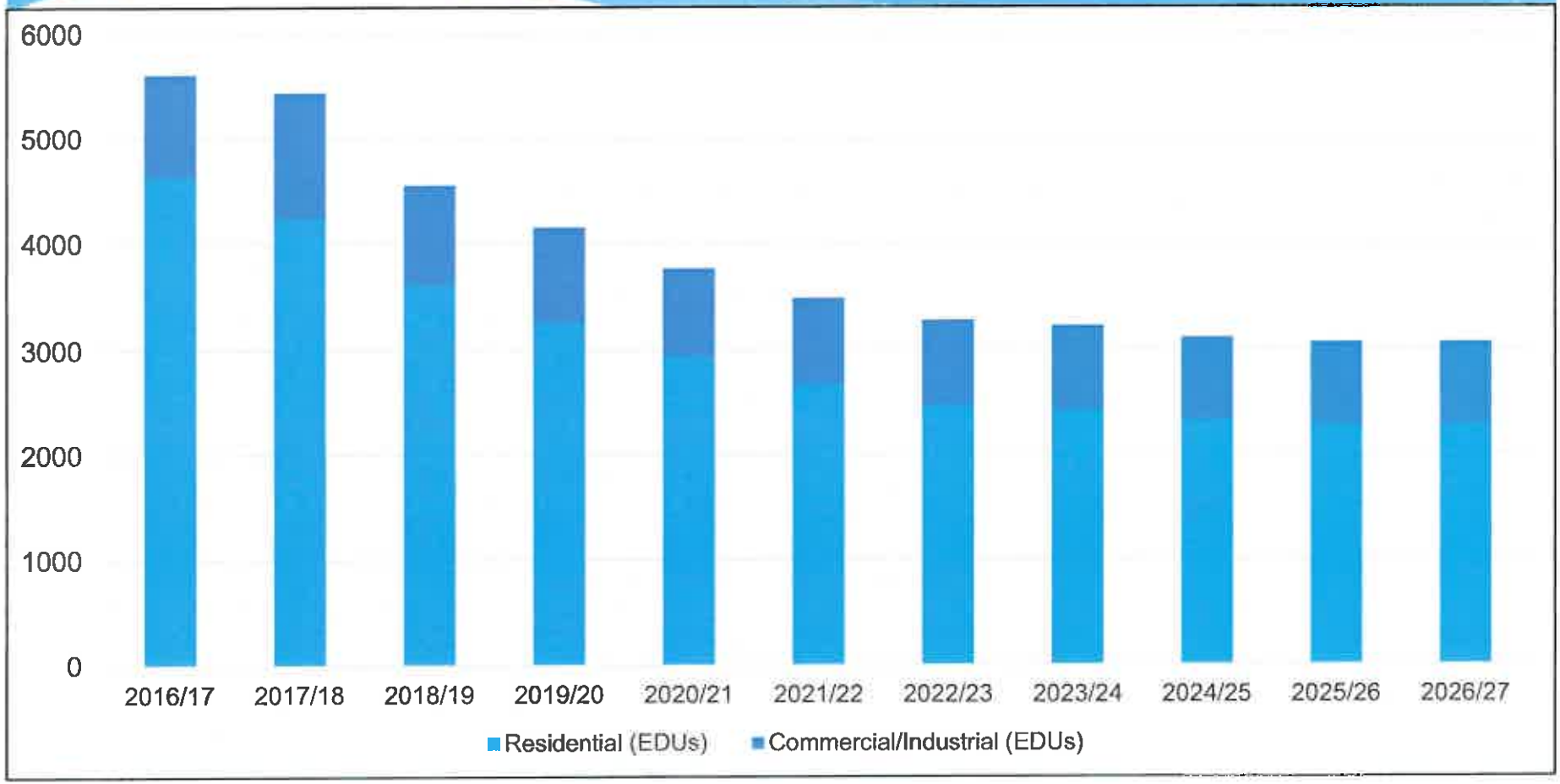
FY16/17 EDU Projection

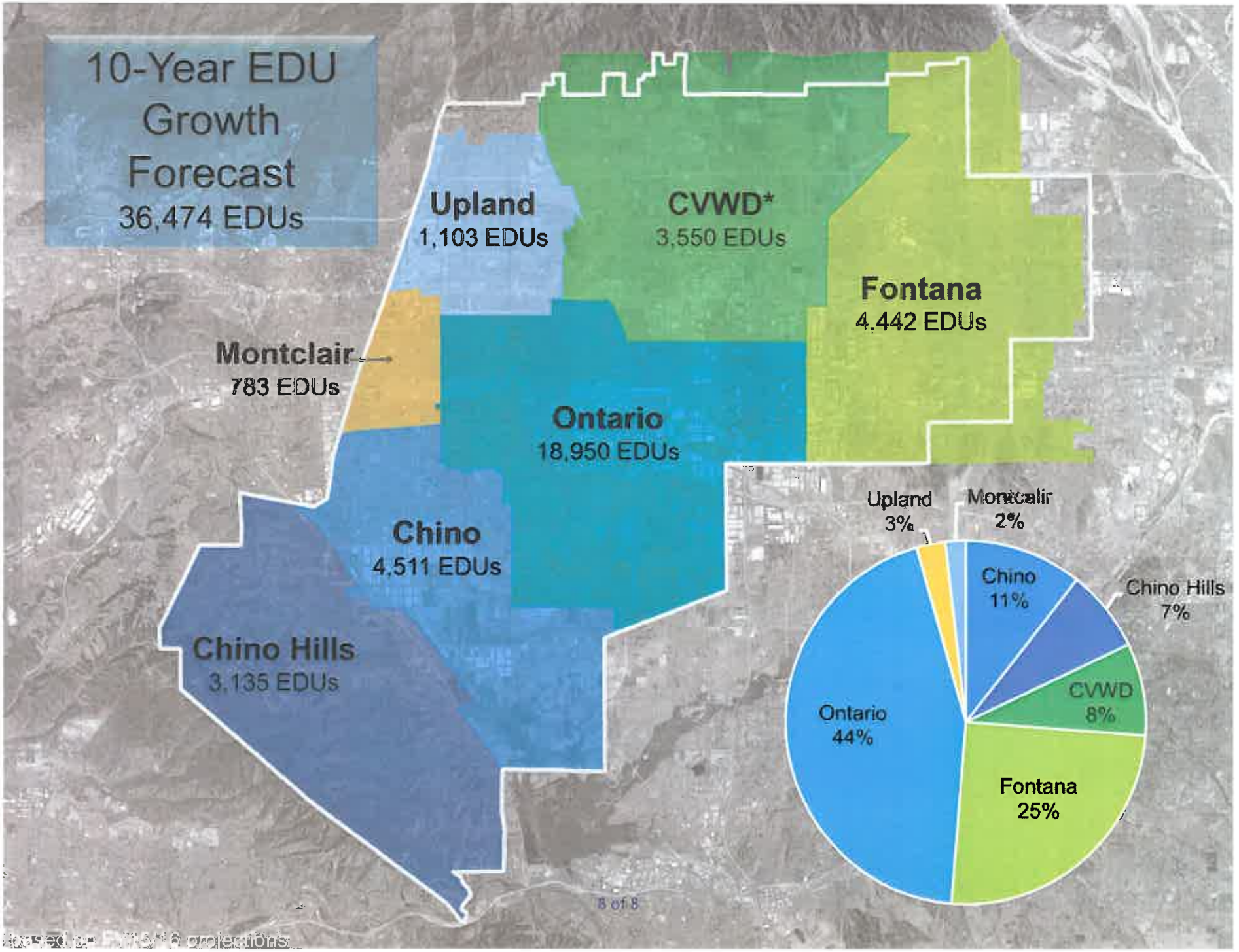
Contracting Agency	Residential (EDUs)	Commercial Industrial (EDUs)	Total (EDUs)
Chino	550	60	**610**
Chino Hills	1166	70	**1236**
CVWD	250	114	**364**
Fontana	770	156	**926**
Montclair	165	24	**189**
Ontario	1500	550	**2050**
Upland	226	11	**237**
Projected Totals	4627	985	5612

Projections based on FY15/16 projections

EDU Growth Forecast



Projections based on FY15/16 projections


10-Year EDU Growth Forecast
36,474 EDUs
Upland
1,103 EDUs
CVWD*
3,550 EDUs
Fontana
4,442 EDUs
Montclair
783 EDUs
Ontario
18,950 EDUs
Chino
4,511 EDUs
Chino Hills
3,135 EDUs
Upland 3%
Montclair 2%
Chino 11%
Chino Hills 7%
CVWD 8%
Ontario 44%
Fontana 25%
8 of 8

INFORMATION
ITEM

2B

RP-1 & RP-5 Expansion
Preliminary Design Report Update
October/November 2016



Inland Empire Utilities Agency
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Shaun Stone, P.E.
Manager of Engineering

Jason Marseilles, P.E.
Senior Engineer

AGENDA

- RP-5 Liquids Site Plan
- RP-5 Solids Site Plan
- Organics Diversion

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RP-5 Liquids Site Plan

- Influent Pump Station Expansion
- Headworks & Fine Screening
- Primary Treatment
- Existing Aeration System Upgrades
- Membrane Bio-Reactor System
- UV Disinfection
- Odor Control

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RP-5 Liquids Project Cost

San Luis Obispo Water Resource Recovery Facility Headworks Screening System

Major Systems	Cost
Influent Pump Station	$8.3M
Headworks, Grit, & Fine Screening	$11.7M
Primary Clarifiers	$9.6M
Existing Secondary Upgrades	$7.5M
Membrane Bio-Reactor	$54.6M
UV Disinfection	$16.1M
Odor Control	$9.9M
Off-Spec Flow & Emergency Storage	$5.3M
Estimated Construction Cost[1]	**$123.0M**
Design & Project Management (30%)[2]	**$37.0M**
Estimated Project Cost	**$160.0M**

[1] Includes direct cost, general conditions, overhead & profit, sales tax, and 30% contingency

[2] Includes design, project management, construction management, inspection, environmental services, and legal

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RP-5 Solids Site Plan
(Phase I Biosolids Treatment)

- Solids Thickening
- Phased Digestion
- Digested Sludge Storage
- Dewatering & Biosolids Storage
- Gas Storage, Conditioning, & Flaring

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RP-5 Solids Project Cost
Phase I vs Ultimate Biosolids Treatment

Component	Phase I System Size	Phase I Cost	Additional Equipment for Ultimate Capacity	Incremental Cost	Ultimate Cost
Thickening	5 Thickeners	$8.7M	1 Thickener	$0.7M	$9.4M
Digestion	2 Acid & 4 Methane	$44.9M	1 Acid & 1 Methane	$9.0M	$53.9M
Sludge Storage	1 Digester	$7.4M	---	---	$7.4M
Dewatering & Biosolids Storage	4 Centrifuges 2 Storage Silos	$44.1M	1 Centrifuge	$4.5M	$48.6M
Odor Control	Pipeline to Liquids	$1.9M	---	---	$1.9M
Centrate Treatment	EQ Tanks & Pumps	$1.4M	---	---	$1.4M
Gas Storage, Conditioning, & Flare	H2S/Siloxane Treatment & Waste Gas Flares	$5.1M	---	---	$5.1M
	Estimated Construction Cost*	$113.5M		$14.2M	$127.7M
	Design & Project Management (30%)	$34.1M		$4.2	$38.3M
	Estimated Project Cost	$147.6M		$18.4M	$166.0M

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Organics Diversion Requires a Regional Solution

INFORMATION ITEM

2D

IEUA Business Goals Update 2016

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Business Goals Background

2011

- Levels of Service (LOS) development and approval
  - Included IEUA Board of Directors and staff

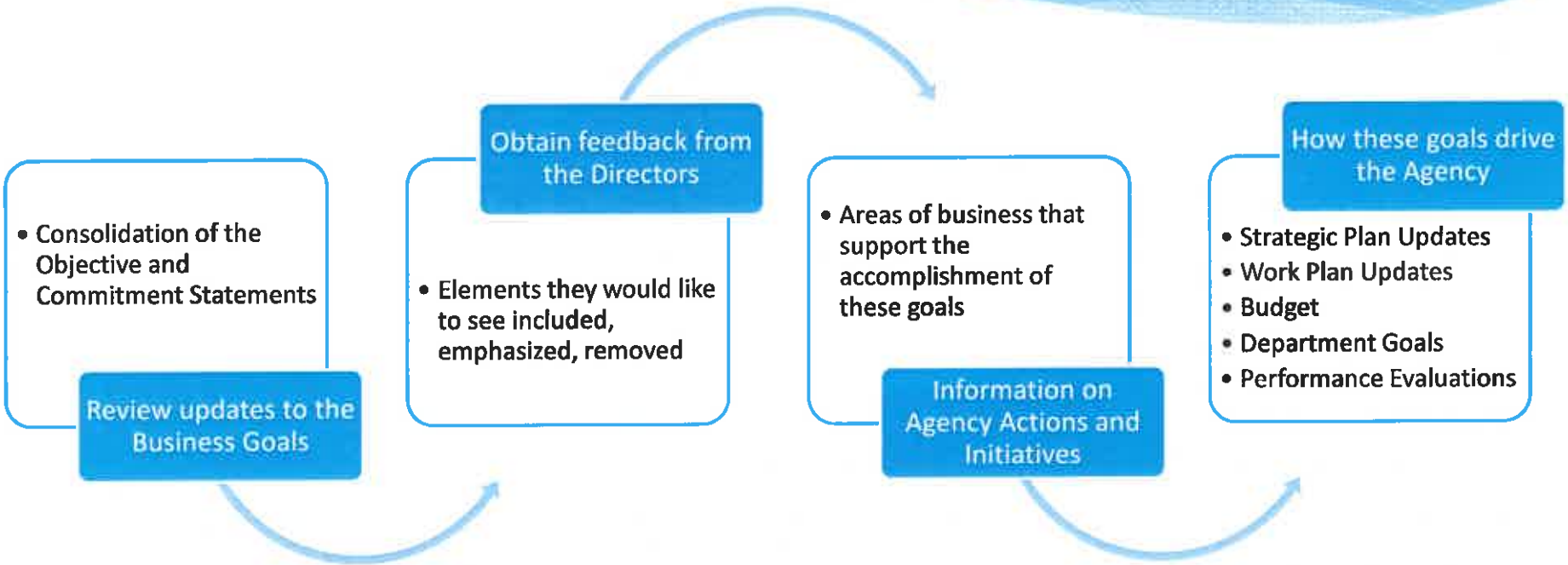
2013

- LOS expansion into broader business goals to include additional areas beyond operational function; areas included water reliability, fiscal accountability and employee well-being
- IEUA Business Goals development and approval
- In collaboration with IEUA Board of Directors, Technical and Policy Committee, Water Managers, and staff

2016

- IEUA Management Workshops
- IEUA Board Workshops
  - Review and discussion of proposed changes
  - Business Goal Focus

Business Goals



Business Goal Focus

Fiscal Responsibility

Goal: IEUA is committed to safeguarding the Agency's fiscal health to effectively support short term and long term needs, while providing the best value for our customers.

OBJECTIVES

- **FUNDING & APPROPRIATIONS**

IEUA will fund operations and capital investments by maintaining reasonable service rates and fees that fully support the costs of service.

- **BUDGET PLANNING**

IEUA will plan for multi-year budgets and rate requirements in support of maintaining fiscal stability for IEUA and the member agencies.

- **RESERVES**

IEUA will maintain fund reserves, which can withstand significant changes to the economy and funding sources.

- **CREDIT WORTHINESS**

IEUA will improve its credit rating, with the goal of reinstating the AAA rating, to reduce IEUA's future borrowing costs.

Fiscal Responsibility

IEUA is committed to safeguarding the Agency's fiscal health to effectively support short term and long term needs, while providing the best value for our customers

Funding & Appropriations

- Adopt multi-year rates to meet cost of service
- Leverage low interest SRF loans
- Secure grants for IEUA and on behalf of local partners
- Leverage Public/Private Partnerships

Budget Planning

- Adopt Biennial O&M budgets
- Annually update and adopt a Ten Year Capital Improvement Plan
- Apply a 10 year rolling average for trends and analysis
- Adhere to competitive purchasing-solicitation practices

Reserves

- Fiscal Ordinance provides a system for financial administration and budgetary control
- Reserve Policy establishes minimum and target levels for each reserve category
- Debt Management Policy guides the use of debt financing and refunding/defeasance of outstanding debt

Credit Worthiness

- Debt Coverage Ratio (DCR) – maintain at a level that supports high quality credit rating
- Comply with debt covenants and regulatory requirements
- Funding of employee retirement and other long term obligations
- Commitment to long term strategic planning

Work Environment

Goal: IEUA is committed to providing a dynamic work environment with a highly skilled and dedicated workforce.

OBJECTIVES

- **MISSION, VISION & VALUES**

IEUA will adopt Business Goals and Objectives that support and advance the Agency's Mission, Vision and Values, ensuring the highest standard of conduct throughout the Agency by promoting values of leadership, integrity, collaboration, open communication, accountability, and respect for each other.

- **AGENCY CULTURE**

IEUA will foster a collaborative work environment that values communication, innovation and work-life balance, adheres to the Agency's policies and procedures, and respects all aspects of diversity.

- **TRAINING**

IEUA will maintain a highly skilled workforce to meet current and anticipated Agency and industry needs by facilitating and providing opportunities for staff to further their professional development.

- **STAFF SAFETY**

IEUA will promote and ensure a safe and healthy work environment, exceeding industry best practices in support of achieving the CalOSHA Star Voluntary Protection Program (CAL/VPP) certification.

Work Environment

Goal: IEUA is committed to providing a dynamic work environment with a highly skilled and dedicated workforce.

Mission, Vision, Values

- Uphold the Agency's Mission, Vision and Values
- Demonstrate the highest standard of leadership by the Board and management
- Adhere to Agency-wide policies and procedures
- Implement MOUs with bargaining units
- Promote cross department/division collaboration and Board workshops
- Implement strategic planning principles

Agency Culture

- Build teamwork and collaboration
- Support STAR Employee Award program
- Promote employee appreciation events
- Implement flexible schedules

Training

- Support certification programs
- Promote use of Employee Tuition Reimbursement Program
- Provide leadership development training and workshops
- Support Agency-wide training programs

Staff Safety

- Promote a Safety Award Program
- Maintain an Injury Illness Prevention Plan (IIPP)
- Conduct routine facility safety inspections
- Facilitate numerous safety and training programs, such as:
  - Lock-Out/Tag-Out, Global Harmonization, Heat Injury/Illness, Confined Space Entry & Rescue, etc.

Business Practices

Goal: IEUA will be ethical, cost-effective, and apply environmentally sustainable regional planning principles in all aspects of business and public service.

OBJECTIVES

- **EFFICIENCY & EFFECTIVENESS**

IEUA will apply best industry practices in all processes to maintain or improve the quality and value of the services we provide to our member agencies and the public.

- **CUSTOMER SERVICE**

IEUA will provide outstanding service that supports our member agencies and region in a cost effective, efficient and reliable manner.

- **EXTERNAL AFFAIRS & GOVERNMENT RELATIONS**

IEUA will support effective public outreach and education, and advocate for the development of policies, legislation and regulations that benefit the region.

Business Practices

Goal: IEUA will be ethical, cost-effective, and apply environmentally sustainable regional planning principles in all aspects of business and public service.

Efficiency & Effectiveness

- Leverage us of a integrated financial and operation systems
- Apply LEAN management principles and cost containments strategies
- Use of Public/Private Partnerships
- Advance use of GIS technology
- Support Mutual Aid agreements

Customer Service

- Maximize Agency education programs
- Maximize Agency outreach programs
- Ensure-recycled water supply reliability
- Identify and secure grants for member agencies
- Implement best industry business practices

External Affairs and Government Relations

- Provide legislative and regulatory outreach
- Promote public education and outreach:
  - Garden in Every School Program®
  - Earth Day Events
  - Chino Creek Wetlands & Educational Park Tours

Water Reliability

Goal: IEUA is committed to providing a reliable and cost-effective water supply; and promoting sustainable water use throughout the region.

OBJECTIVES

- **WATER USE EFFICIENCY**

IEUA will promote water conservation, education and incentive programs to assist the region.

- **WATER SUPPLIES**

IEUA will support the region with the development of reliable, resilient and sustainable water supplies from diverse sources.

- **RECYCLED WATER**

IEUA will maximize the use of recycled water to enhance regional water reliability.

- **GROUNDWATER RECHARGE**

IEUA will maximize groundwater recharge projects in the region through strategic, cost-effective partnerships and development.

Water Reliability

Goal: IEUA is committed to providing a reliable and cost-effective water supply; and promoting sustainable water use throughout the region.

Water Use Efficiency

- Promote Water Use Efficiency Plan (WUEP)
- Urban Water Management Plan (UWMP)
- Landscape Retrofit Program
- Water conservation programs
- Support sustainable water rates within the service area

Water Supplies

- Integrated Water Resources Plan (IRP)
- New storage programs
- Secure additional water supply sources
- Santa Ana River Conservation & Conjunctive Use Project (SARCCUP)
- Regional salt management

Recycled Water

- Recycled Water Program Strategy (RWPS)
- Expansion and interconnection of external recycled water sources
- Maximize recharge of recycled water

Groundwater Recharge

- Recharge Master Plan Update (RMPU) implementation
- Continued operation and leadership of Groundwater Recharge Program
- Support and enhance partnerships within the region on groundwater recharge
- Four party agreement

Wastewater Management

Goal: IEUA is committed to meeting regional demands in an environmentally responsible and cost effective manner.

OBJECTIVES

- **WATER QUALITY**

IEUA will ensure that Agency systems are planned, constructed and managed to protect public health, the environment, and meet anticipated regulatory requirements.

- **ASSET MANAGEMENT**

IEUA will ensure the regional sewer system and treatment facilities are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use.

- **ORGANICS MANAGEMENT**

IEUA will manage organics to meet regulatory compliance standards in a fiscally prudent and environmentally sustainable manner.

- **ENERGY MANAGEMENT**

IEUA will effectively manage energy resources including renewable energy initiatives and programs to achieve statewide environmental and renewable energy goals, and stabilize future costs.

Wastewater Management

Goal: IEUA is committed to meeting regional demands in an environmentally responsible and cost effective manner.

Water Quality	Asset Mgmt.	Organics Mgmt.	Energy Mgmt.
• Wastewater (NPDES) and Recycled Water (Title-22) Compliance requirements • Water softener removal programs • Salinity management programs • Nitrogen/total dissolved solids groundwater and Santa Ana River objectives • Emerging constituents of concern	• Asset Management Plan • Robust centralized maintenance management system • Predictive/preventive vs. corrective maintenance • Condition-based monitoring • Planned rehabilitation and replacement capital program	• Nation's largest indoor composting facility (IERCA) • Public/Private Partnerships • Support local agency landfill diversion objectives • Support State landfill diversion and greenhouse gas reduction goals	• Energy Management Plan • Public/Private Partnerships • Power Purchase Agreements • Maximize beneficial use of Biogas

Environmental Stewardship

Goal: IEUA is committed to enhancing and promoting environmental sustainability and the preservation of the region's heritage.

OBJECTIVES

- **REGULATORY COMPLIANCE**

IEUA will comply with all federal, state, local and environmental laws and regulations.

- **GOOD NEIGHBOR POLICY**

IEUA will foster positive relationships within the region, and develop and implement projects that minimize impacts to the community and environment.

- **ENVIRONMENTAL RESPONSIBILITY**

IEUA will provide regional leadership to implement environmentally sustainable business practices and promote the preservation of the region's cultural and ecological heritage.

- **REGIONAL HABITAT MANAGEMENT**

IEUA will promote the preservation of regional habitat and implement the development and use of appropriate mitigation measures on all projects.

Environmental Stewardship

Goal: IEUA is committed to enhancing and promoting environmental sustainability and the preservation of the region's heritage.

Regulatory Compliance	Good Neighbor Policy	Environmental Responsibility	Regional Habitat Mgmt.
• Regional Water Quality Control Board permits • AQMD permits • Compliance with various Resource Agency permitting • Robust and proactive laboratory analysis	• Maintain an odor monitoring program • Midge Fly management study • Ensure capital improvements designed to meet "No Nuisance" standards • Early capital project coordination to minimize community impacts	• SARCCUP • Implement California Green Building Standards and LEED Standards in new buildings construction and O&M • Conduct regular proactive energy audits • Integration of legacy culture and habitat into planning and capital programs	• California Environmental Quality Act (CEQA) • Upper Santa Ana River Habitat Conservation Plan • Prado habitat protection • Cooperative coordination with local resource agencies • Environmental Impact Reports (EIR)

Next Steps – Feedback and Adoption

October 2016

Regional Technical Committee – Written feedback by 11/2 for consideration to Policy Committee

November 2016

Regional Policy Committee – 11/3

December 2016

IEUA Board Meeting – 12/21 Recommendation for adoption

INFORMATION ITEM

2E

Sewer and Recycled Water Service to Unincorporated Area of San Bernardino County



Inland Empire Utilities Agency
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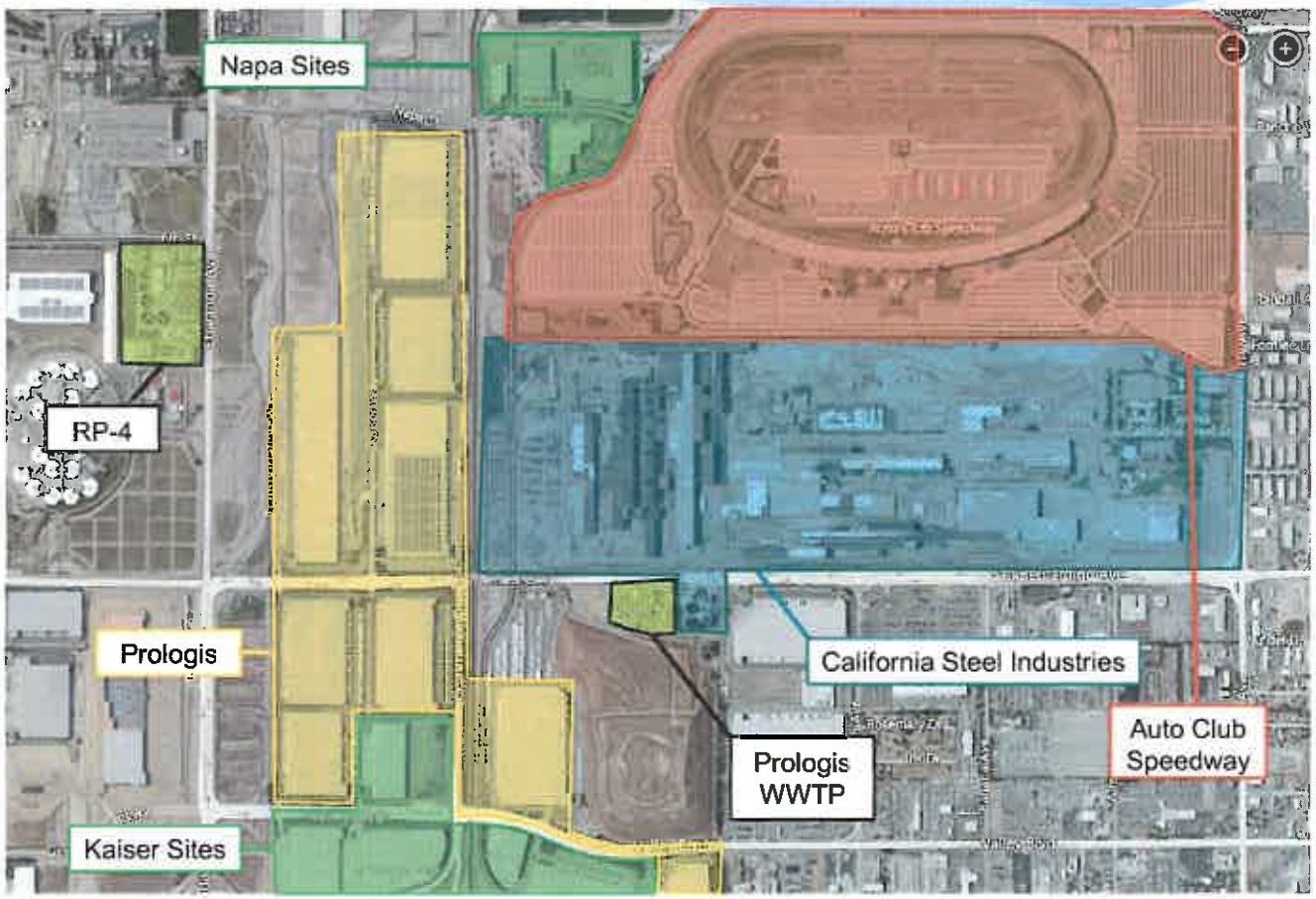
Regional Committees
October/November 2016

Project Area

Location



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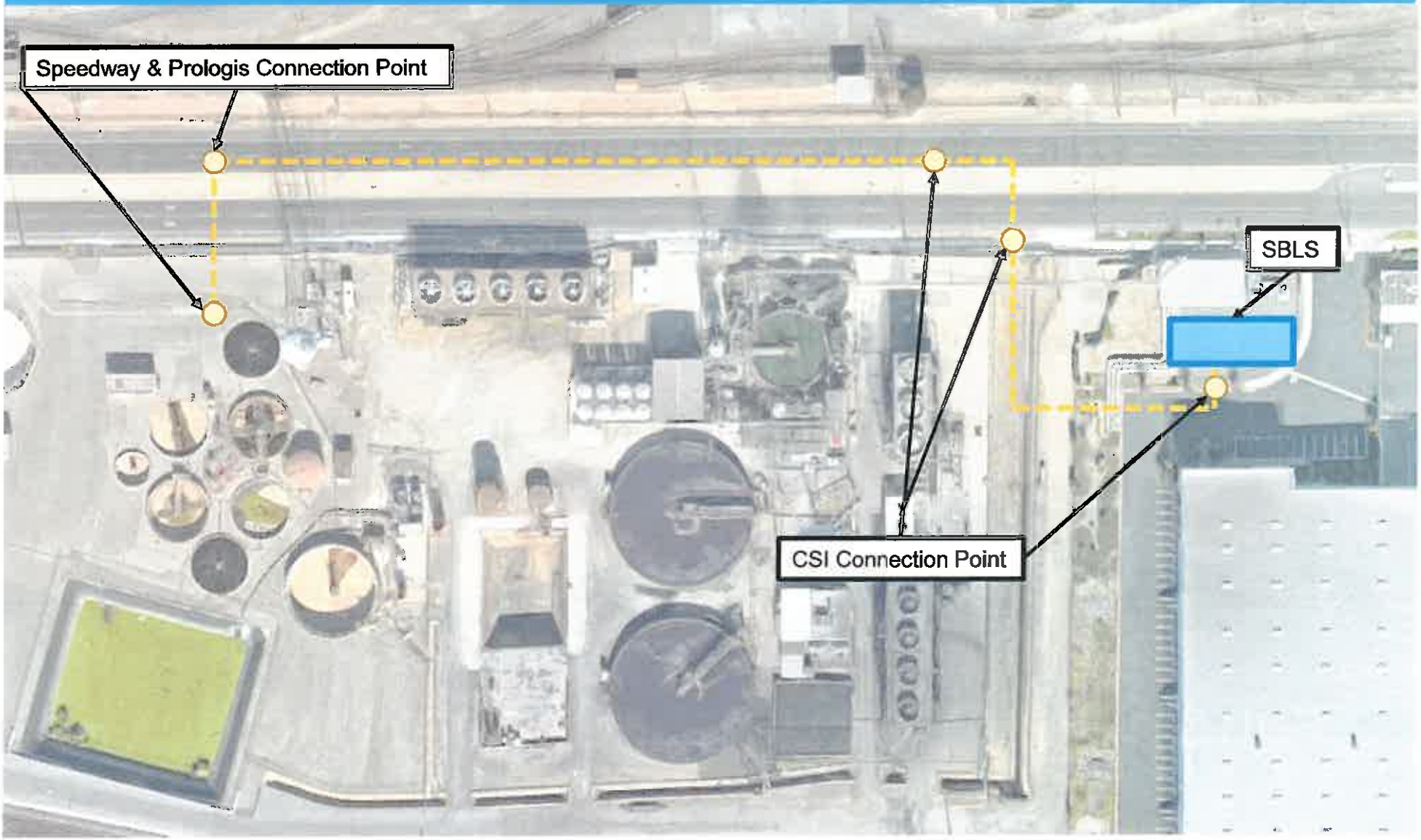
Project Goals and Regional Benefits

- Address Legacy Sewer/RW Issues in Unincorporated Area by Connecting CSI, Speedway, Prologis, Napa, Kaiser to:
  - IEUA Sewerage System
    - Reliable, Cost Effective Wastewater Service
  - IEUA Recycled Water System
    - Increase RW Sale
    - Reduced Groundwater Pumping (Enhance MZ-3)
    - Potential Groundwater Recharge

Temporary Wastewater Service

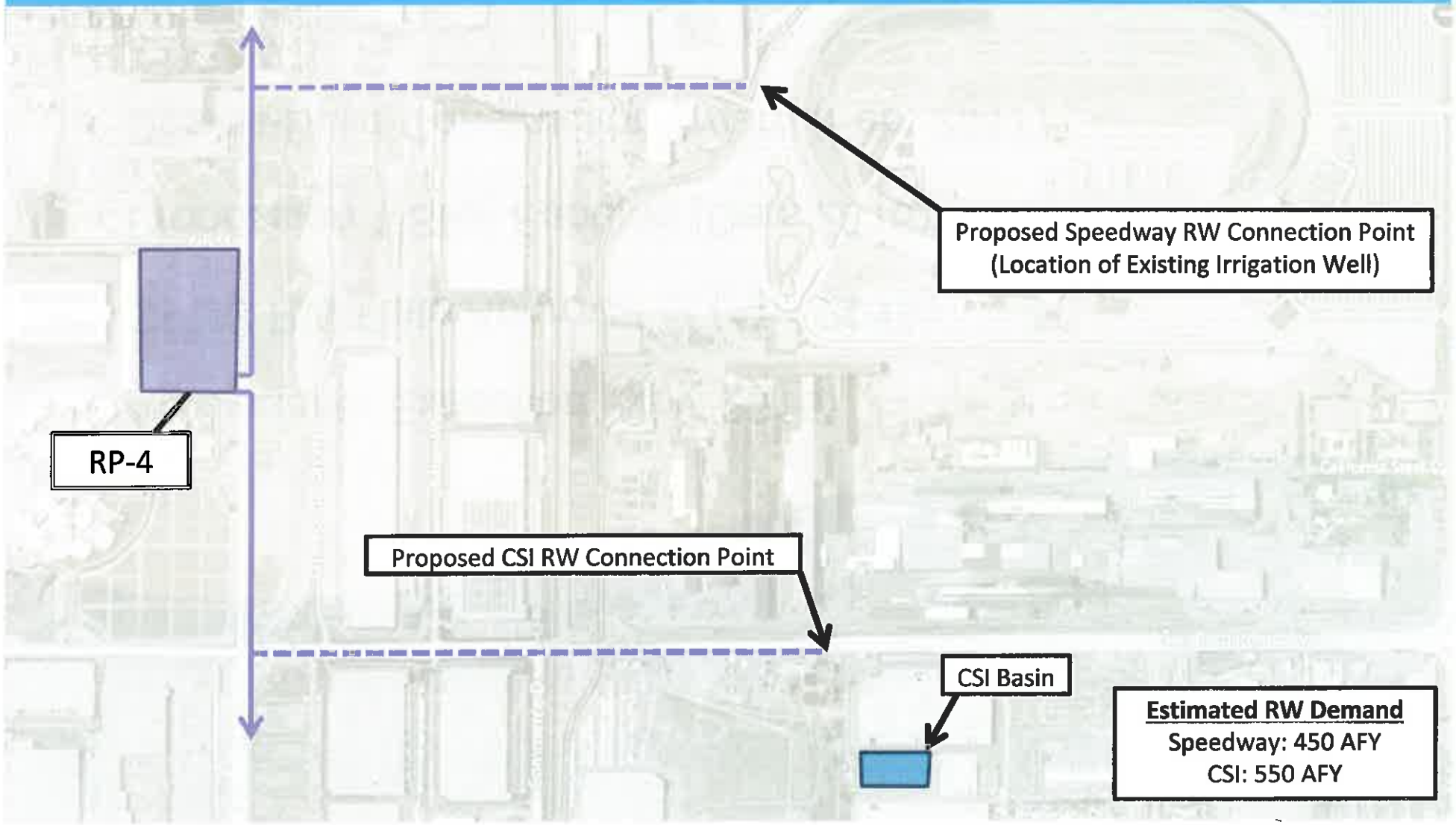
Proposed Wastewater Service



Wastewater Service Project Milestones

- Agreements Execution (Nov. 2015)
- Temporary Sewer System Connection (Jan. 2016)
- Complete Sewer System Design (Jul. 2016)
- Complete Sewer System Construction (Feb. 2017)

Proposed Recycled Water Service



Recycled Water Project Milestones

- Agreements Execution (Nov. 2015)
- CPUC RW Rate Approval of (Apr. 2016)
- Proposition 1 SRF Funding (Dec. 2016)
- Design-Build Construction Award (Feb. 2017)

Recycled Water Project Terms

- IEUA
  - RW/Sewer system design and construction
  - RW/Sewer system ownership, operation and maintenance
  - Potential use of CSI basin for groundwater recharge
- CSI/Speedway
  - Capital costs and connection fees
  - RW system ownership, operation and maintenance (on private property)
- Fontana Water Company
  - CPUC approval
  - Retail RW service provider
- City of Fontana
  - Cooperate in support of the project (sewer and recycled water)
  - Retail sewer service provider (billing)

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3A

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Regional Sewerage Program Policy Committee Meeting

AGENDA
Thursday, November 3, 2016
4:30 p.m.

Location
Inland Empire Utilities Agency
6075 Kimball Avenue
Chino, CA 91710

Call to Order and Roll Call

Pledge of Allegiance

Public Comment

Additions to the Agenda

1. **Technical Committee Report** *(Oral)*

2. **Action Item**
   A. Approval of the September 1, 2016 Meeting Minutes
   B. RP-4 Disinfection Construction Contract Award

3. **Informational Items**
   A. Ten-Year Growth Forecast and Building Activity Report
   B. RP-1/RP-5 Pre-Design Report Update
   C. Regional Contract Update/Renewal
   D. IEUA Business Goals Update

4. **Receive and File**
   A. Building Activity Update
   B. Recycled Water Distribution – Operations Summary
   C. Annual Water Use Report
   D. Fiscal Year 2015/16 Budget Variance

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 – December 1, 2016

6. Adjournment

DECLARATION OF POSTING

I, Laura Mantilla, Executive Assistant of the Inland Empire Utilities Agency, A Municipal Water District, hereby certify that a copy of this agenda has been posted by 5:30 p.m. in the foyer at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA on Monday, November 3, 2016.

_____
Laura Mantilla

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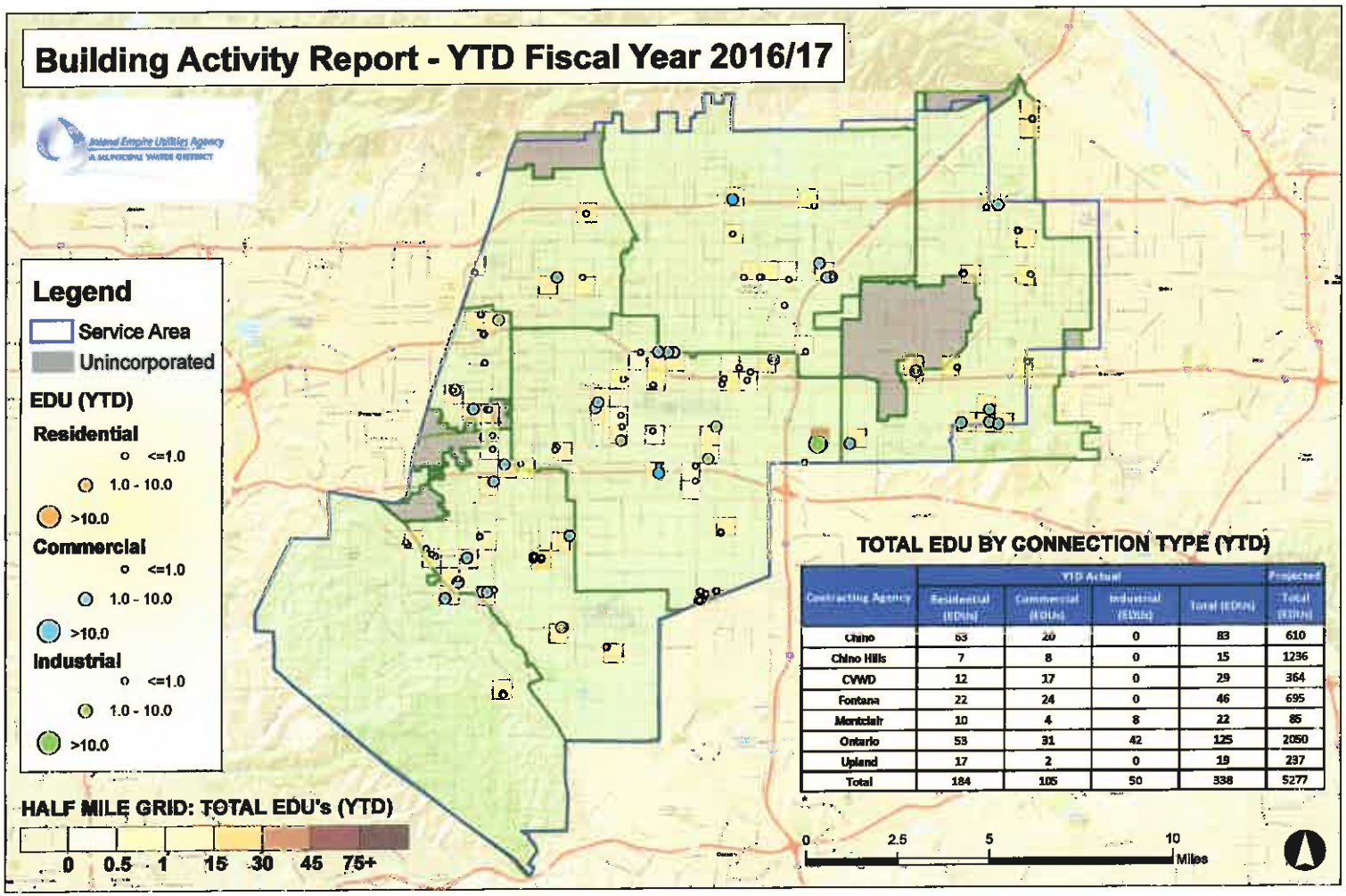
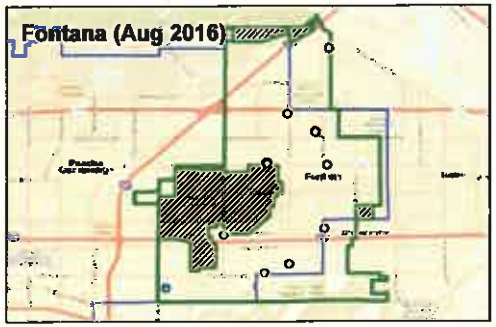
3B

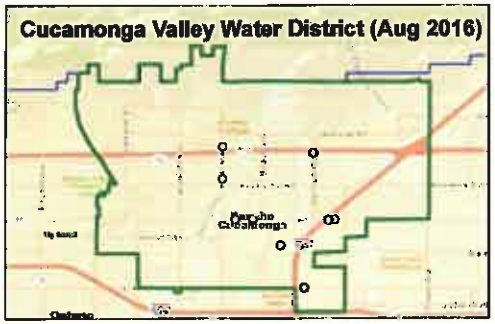
Building Activity Report - YTD Fiscal Year 2016/17

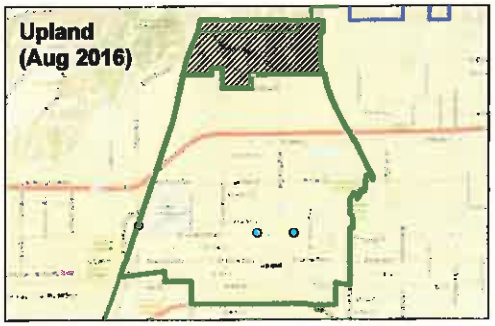


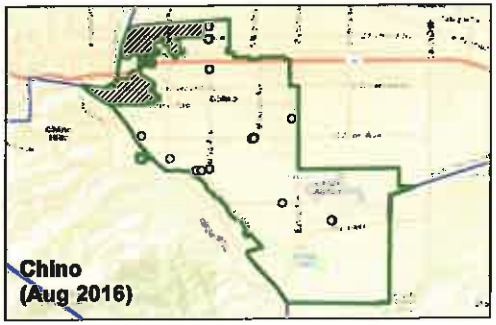
TOTAL EDU BY CONNECTION TYPE (YTD)

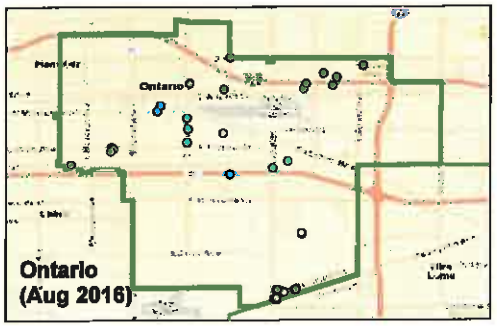
Contracting Agency	YTD Actual				Projected
	Residential (EDUs)	Commercial (EDUs)	Industrial (EDUs)	Total (EDUs)	Total (EDUs)
Chino	63	20	0	83	610
Chino Hills	7	8	0	15	1236
CVWD	12	17	0	29	364
Fontana	22	24	0	46	695
Montclair	10	4	8	22	85
Ontario	53	31	42	125	2050
Upland	17	2	0	19	237
Total	184	105	50	338	5277

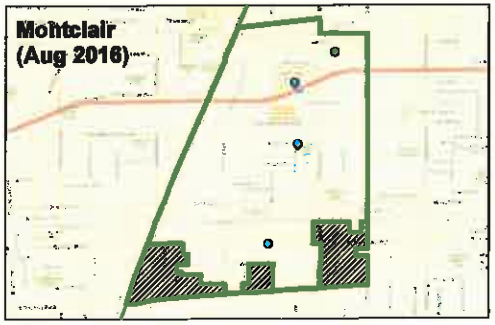












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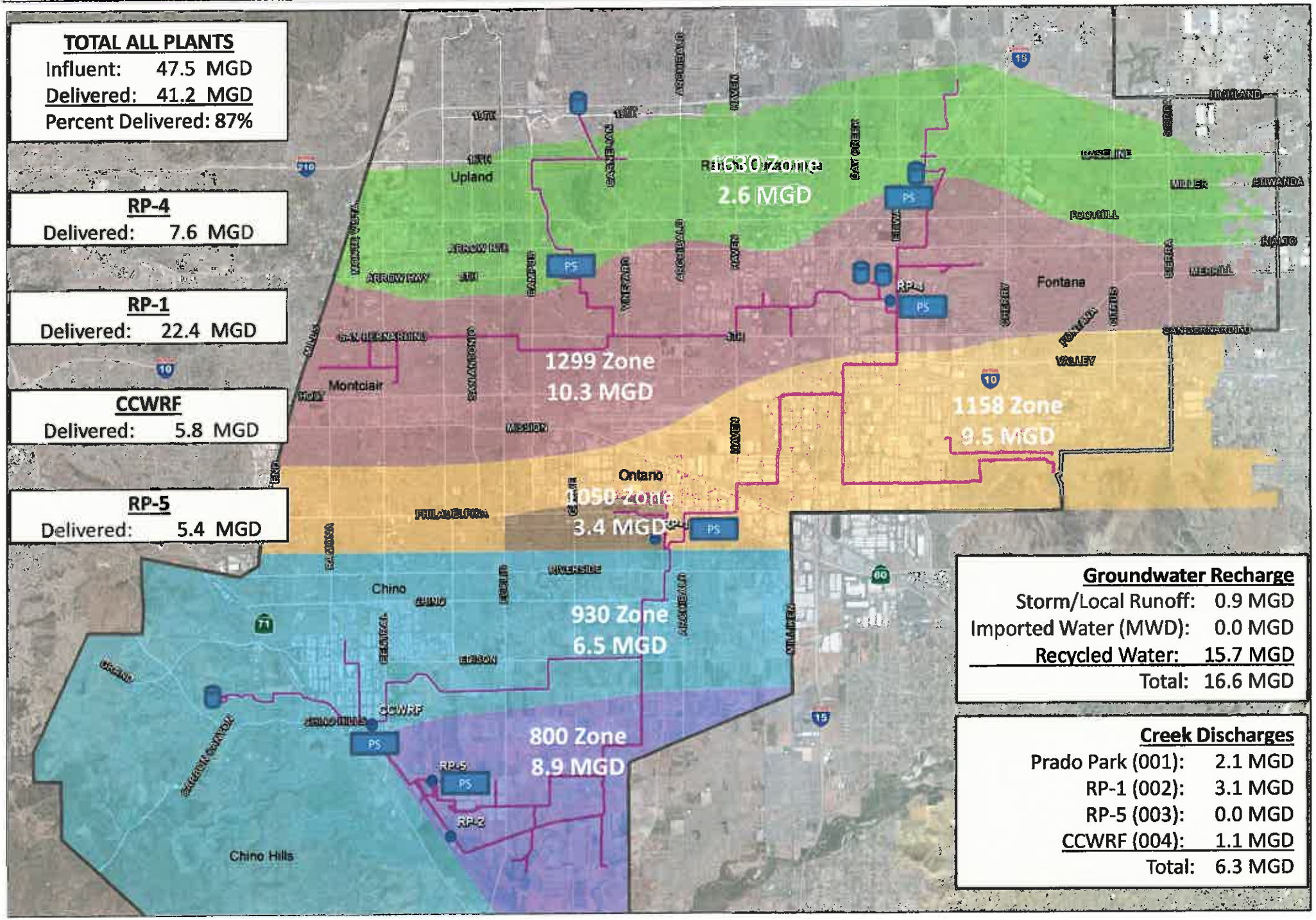
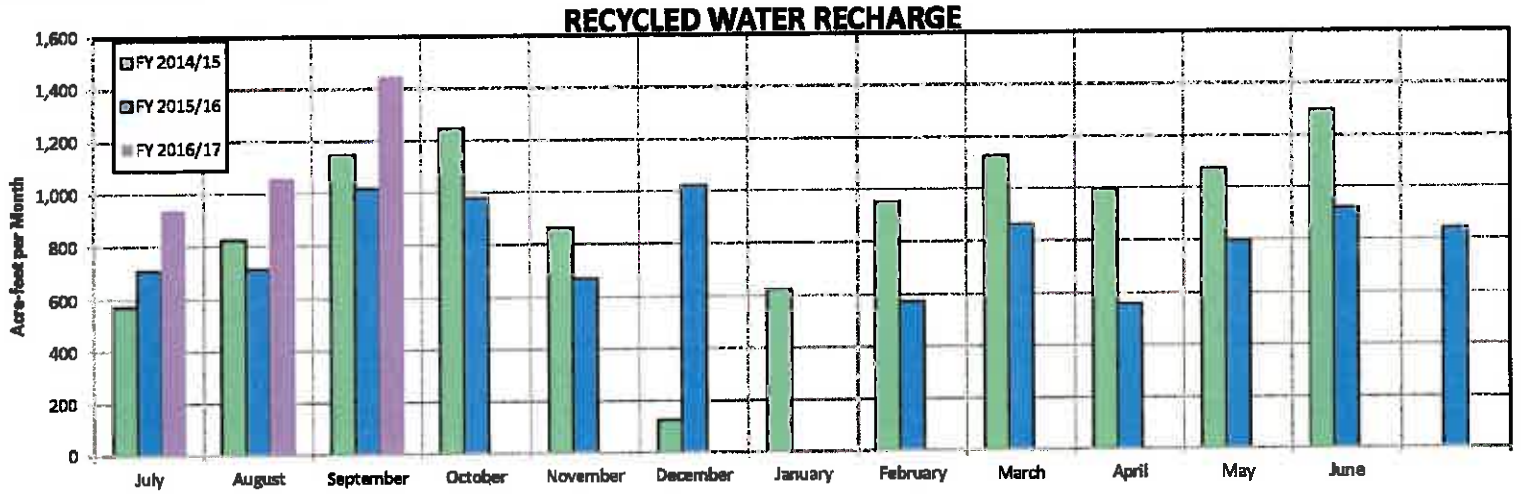
IEUA RECYCLED WATER DISTRIBUTION – SEPTEMBER 2016

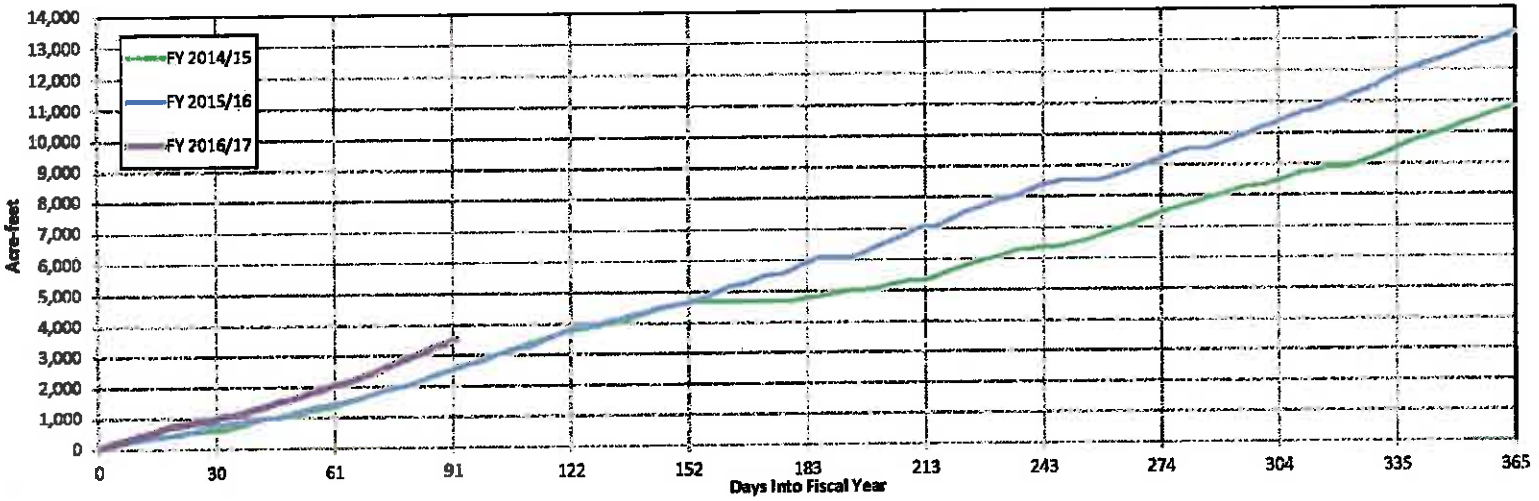


Recycled Water Recharge Actuals / Plan - September 2016 (Acre-Feet)

Deliveries are draft until reported as final.

Basin	9/1-9/9	9/10-9/16	9/17-9/23	9/24-9/30	Month Actual	Month Plan	FY To Date Actual		
Ely	27.4	51.2	60.7	92.2	231.5	150	434		
Banana	49.3	34.6	8.5	4.9	97.4	100	329		
Hickory	9.4	0.0	1.9	18.0	29.4	150	78		
Turner 1 & 2	30.1	9.8	0.0	0.0	39.9	150	177		
Turner 3 & 4	0.0	0.0	0.0	0.0	0.0	0			
8th Street	65.5	44.9	72.6	64.8	247.9	0	775		
Brooks	3.3	41.6	45.7	54.3	144.9	200	145		
RP3	148.7	167.7	144.9	89.3	550.6	250	939		
Declez	51.6	0.0	0.0	0.0	51.6	0	514		
Victoria	0.0	5.3	26.8	21.0	53.1	100	53		
San Sevaine	0.0	0.0	0.0	0.0	0.0	0	0		
Total	385.4	355.2	361.2	344.7	1,446.3	1100	3,444	2,580	AF, Previous FY End of Month Actual





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Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date:	October 27, 2016
To:	Regional Technical Committee
From:	Inland Empire Utilities Agency
Subject:	Annual Water Use Report

RECOMMENDATION

This is an information item for the Regional Committees to review.

BACKGROUND

The item will be presented as an informational item at the IEUA Board of Directors meeting on November 16, 2016, and will go through the Public, Legislative Affairs, and Water Resources Committee on November 9, 2016.

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date:	November 16, 2016
To:	The Honorable Board of Directors
From:	P. Joseph Grindstaff General Manager
	Chris Berch Executive Manager of Engineering/Assistant General Manager
Submitted by:	Sylvie Lee Manager of Planning & Environmental Resources
Subject:	Annual Water Use Report

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Each year the Inland Empire Utilities Agency (IEUA) compiles water use data from each of its retail agencies to track overall water demands and sources of supply in the Annual Water Use Report. Data includes monthly water use (by member agency and by source of supply), a five-year history of water use, and retail agency water usage as a percentage of the total water used in the service area. Total regional usage for FY15/16 was 168,799 AFY, which is a 25% decrease from FY13/14 usage, consistent with Governor Brown's mandatory use restrictions and is the lowest water use for the region since 1995. IEUA anticipates a continuing trend of declining usage in response to the continuing drought in California, long-term state efficiency goals, and more efficient development patterns as a result of changes in the plumbing code, higher density developments with less landscaping, and compliance with the existing model landscape ordinance requirements set forth in AB1881.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None.

FY 15/16 Annual Water Use

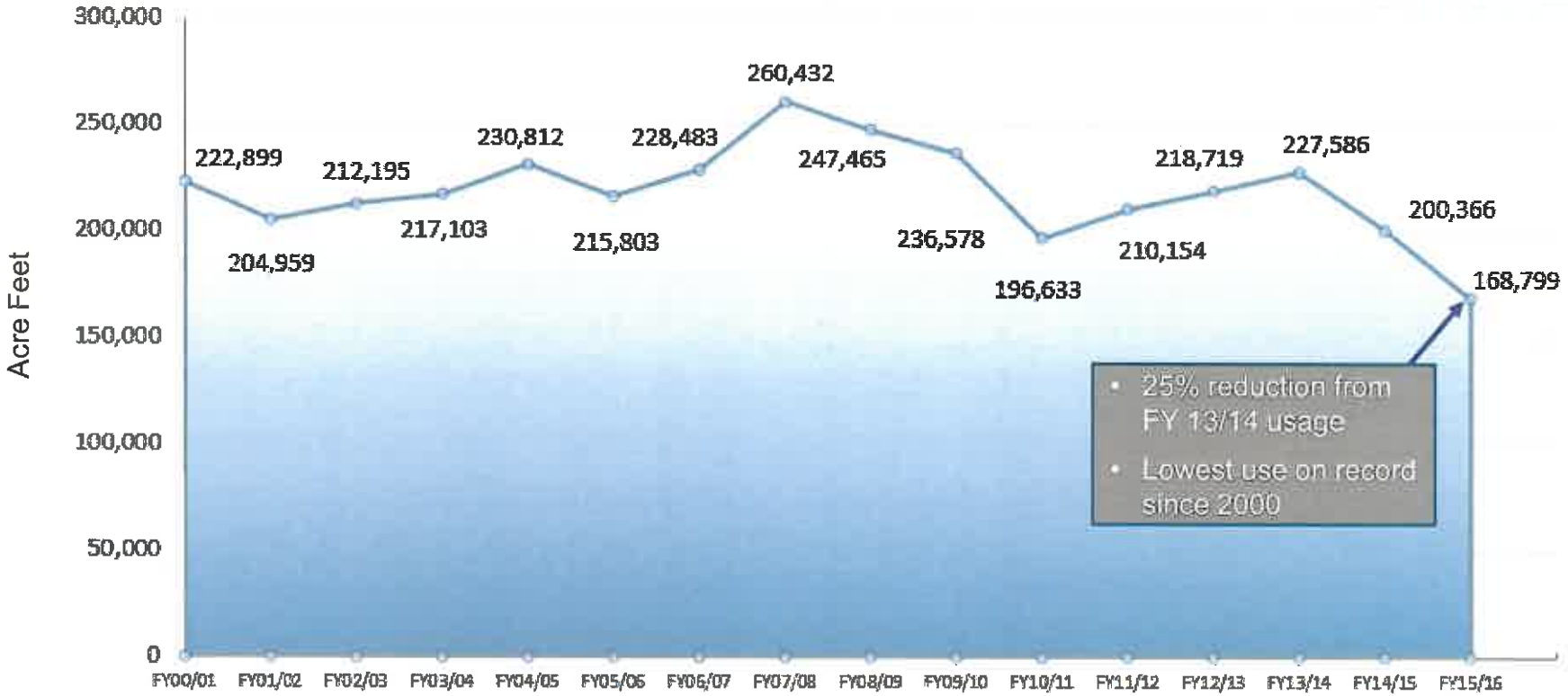
October 2016

Elizabeth Hurst

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

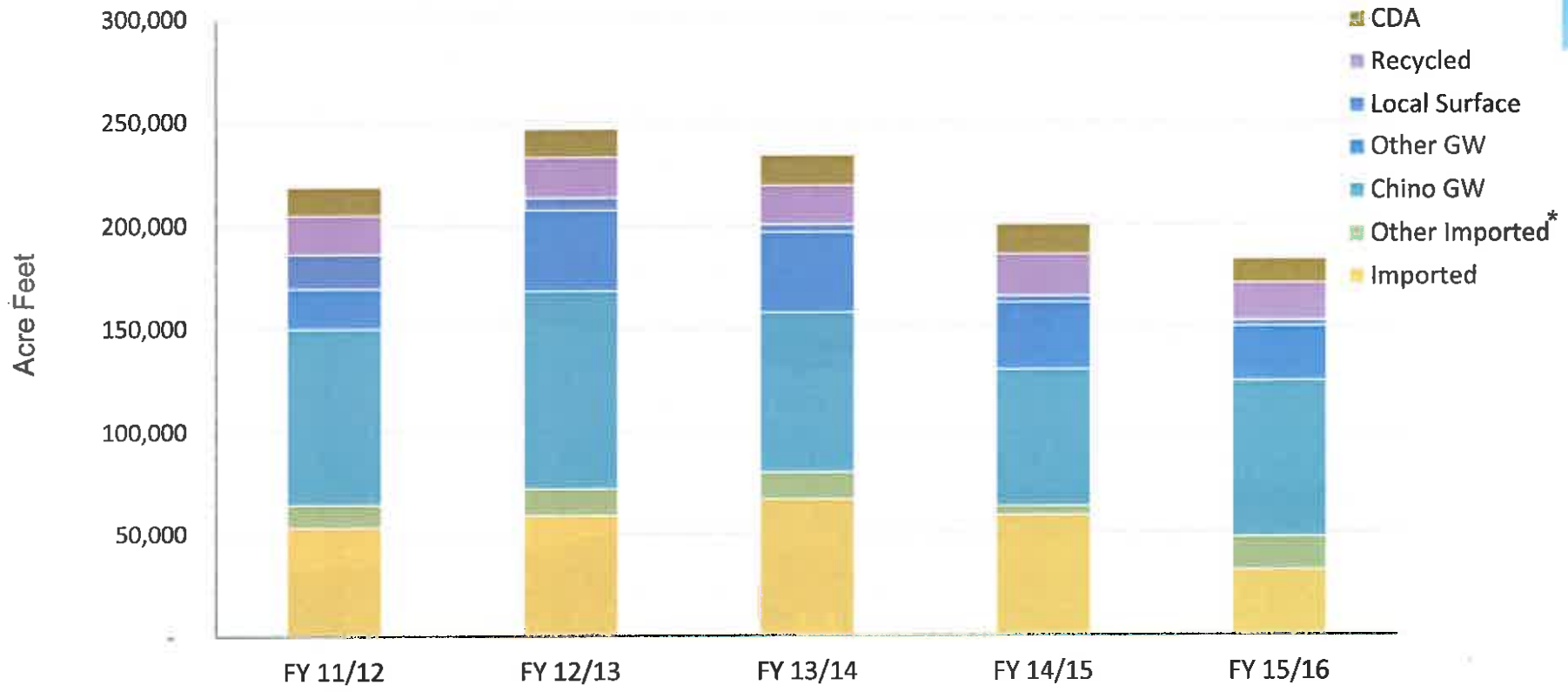
Regional Committees
October/November 2016

Regional Water Use Trend



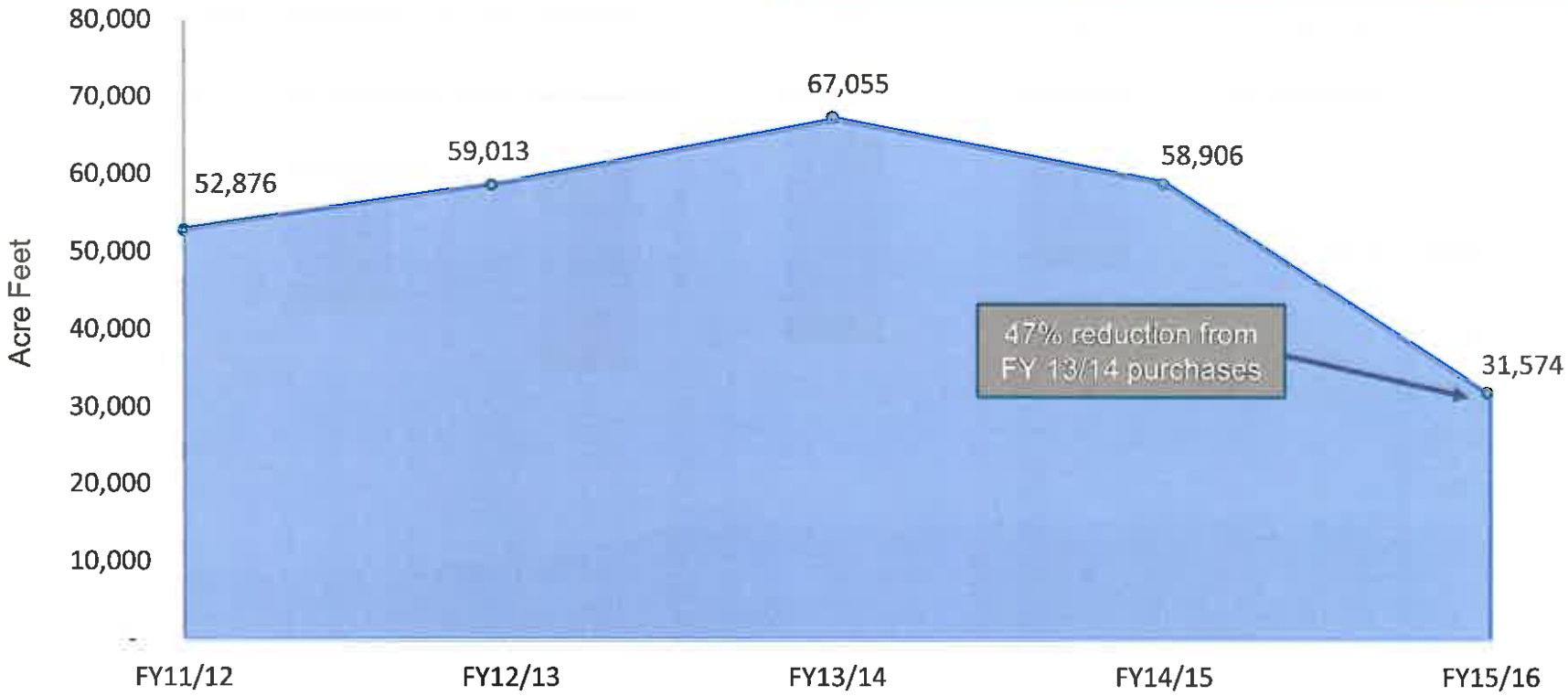
Note: Total Water Use Data includes imported water, surface water, groundwater, recycled and desalter production. Excludes IEUA groundwater recharge.

Regional Water Use Trend By Source

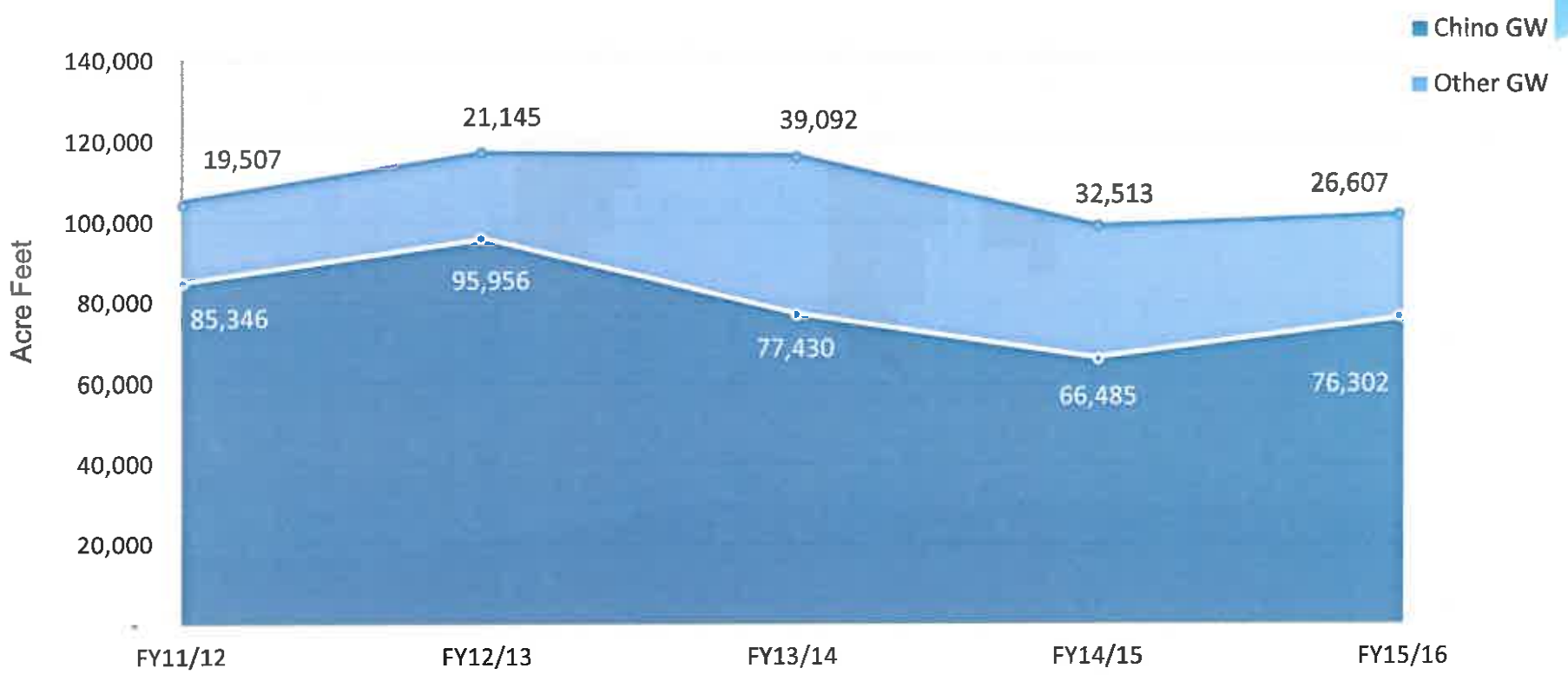


*Water purchased from other companies (such as SAWCo or WECWC) that do not get their water from MWD.

Regional MWD Imported Water Use Trend

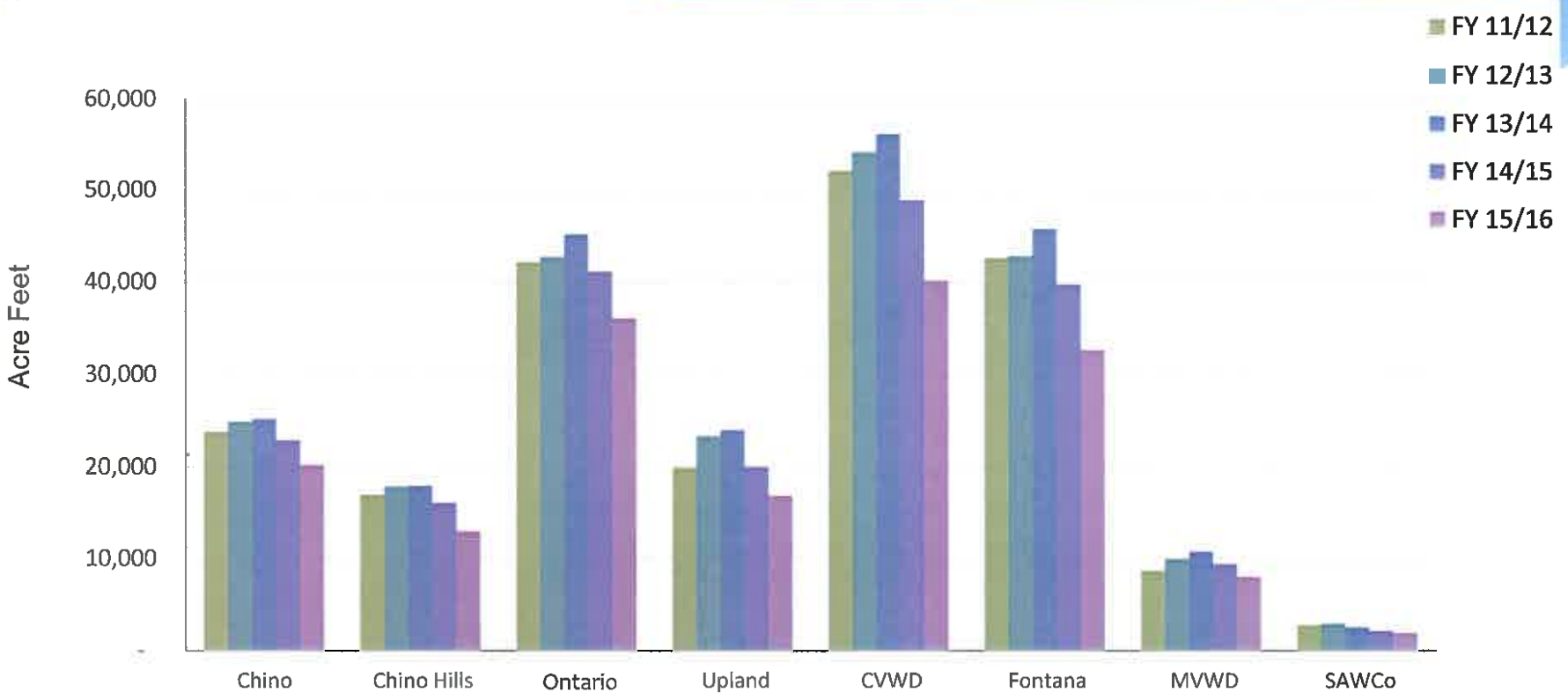


Regional Chino Basin Groundwater Use Trend



*Note: Other GW includes Cucamonga Basin and 6 Basin as reported from Member Agencies.

Regional 5-Year Historical Water Use



*MVWD wholesale deliveries included in Chino Hills data
**historically, SAWCo wholesale deliveries included in Upland data

2016

IEUA FY 2015-2016 Annual Water Use Report:

Retail Agency Water Use and Five Year History

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

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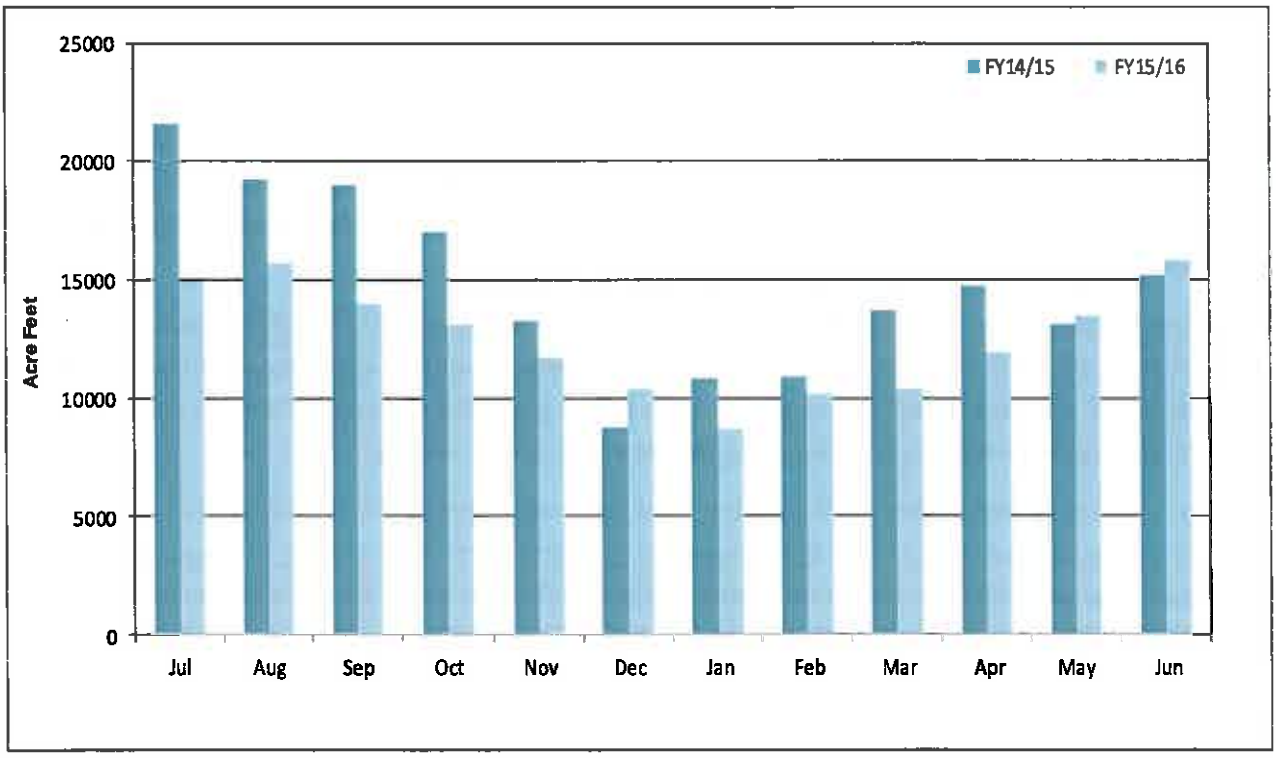
Preface

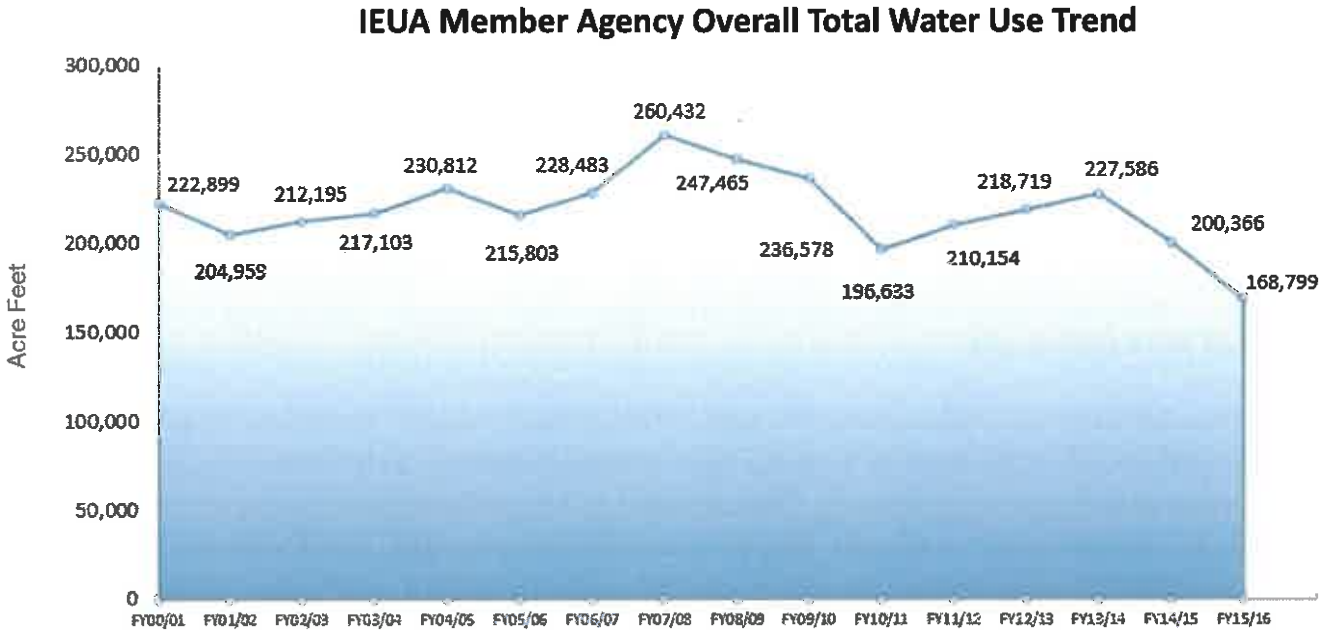
FY 2015-16 Water Use Summary Report

Inland Empire Utilities Agency (IEUA) monitors and compiles water use data from each of its retail agencies to track overall water demands and sources of supply. Each year, this data is compiled into an Annual Water Use Report. Data includes monthly water use (by member agency and by source of supply), a five-year history of water use, and retail agency water usage as a percentage of the total water used in the service area.

Although Southern California remains in a state of "exceptional drought", conditions improved enough in the northern half of the state for Governor Brown to end mandatory water restrictions in May 2016, and return authority to local agencies. Three hundred and forty-three water agencies (or 84% of the largest 411 agencies in the state) gave themselves a conservation target of zero for the rest of the year. Also in May, Governor Brown released an executive order that calls for long-term improvements to local drought preparation across the state and directs the State Water Resources Control Board to develop emergency water restrictions should the drought continue. The list includes permanent monthly water use reporting, new urban water use targets, reducing system leaks, eliminating wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management plans. IEUA is monitoring State meetings on implementation of the executive order, and has developed a brief PowerPoint for the State Water Board and Department of Water Resources discussions which walk through implications and options (See Appendix D).

Regional Monthly Total Water Usage FY 15/16 Comparison to FY14/15





Note: Total Water Use Data includes imported water, surface water, groundwater, recycled and desalter production. Excludes IEUA groundwater recharge

The regional water use for FY 15/16 was 168,799 AFY, the lowest water use for the region since 1995.

Overall water consumption within the IEUA's service area decreased 15.8% (31,566 AF) from FY 2014/15. Chino Desalter Authority (CDA) production decreased by 2,603 AF and direct use recycled water decreased by 2,177 AF.

IEUA anticipates a trend of declining usage as a response to the drought in California. Although development is anticipated to continue and growth may rebound at the end of the drought, long-term demands are not expected to greatly increase. This analysis came from demand modeling conducted as part of IEUA's 2015 Integrated Resources Plan (IRP) which found that new developments in the region tend to be more water efficient due to changes in the plumbing code, higher density developments with less landscaping, and compliance with the existing model landscape ordinance requirements set forth in AB1881.

In addition, aggressive efforts are being made to diversify and maximize local resource development, expand water use efficiency programs, and assist interested member agencies with the development of budget based rate structures. These efforts have better prepared the service area to cope with future dry years and increase regional resiliency in the face of climate change.

Below is a summary and update on the region's major water supply efforts and programs:

- IEUA and its member agencies have finalized the 2015 IRP. The plan is available on the IEUA website. The IRP outlines an overall strategy for developing water supplies and meeting projected demands within the IEUA service area in a cost-effective manner. The plan developed an updated demand model based on new regional development trends of high density, efficient indoor devic-

es, and low water use outdoor plants per state legislation. Conceptual projects from the IRP will be incorporated into the IEUA Regional Programmatic Environmental Impact Report to ensure that projects are grant eligible. Project details and an implementation schedule will be developed as part of the IRP Phase II, which will begin in fall 2016.

- In June, IEUA's Board of Directors adopted the 2015 Urban Water Management Plan.
- The 2015 Water Use Efficiency Business report will be presented to the IEUA Board in October.
- IEUA completed the 2015 Recycled Water Program Strategy, which will further implement the Recycled Water Business Plan to expand its connected demand and maximize recycled water deliveries for both direct use and groundwater recharge. In FY 2015/16 member agency direct recycled water use was 18,335 AF.
- IEUA launched a Pilot Home Pressure Regulation Program in June which will reach out to 500 residential sites and correct high pressure problems by either making adjustments or installing a new regulator.
- IEUA is working with the Agricultural Pool to identify appropriate farm sites for water efficiency upgrades. This will help maintain a sustainable Chino Basin groundwater supply.
- IEUA and its member agencies are working towards completing the Phase III expansion of the Chino Desalters, which will increase capacity from 24,600 AFY to 40,000 AFY. In FY 2015/16, IEUA agency's share of the production was 11,883 AF.
- IEUA and its member agencies continue to implement the water use efficiency programs outlined in the long term Regional Water Use Efficiency Business Plan completed in September 2010. This document serves as the blueprint for the Agency's existing regional programs while providing the guidance for developing new cost-effective initiatives. The plan is also being updated as part of the IRP process. Future conservation targets are anticipated to be much more aggressive as a result of the IRP. In FY 2015/16, the regional water use efficiency programs increased savings by approximately 80% from FY14/15 reaching a record high of approximately 1,858 AF, and an estimated lifetime savings of 21,470 AF.

IEUA would like to thank its member agencies for their assistance in compiling the data contained in this report.

SECTION 1

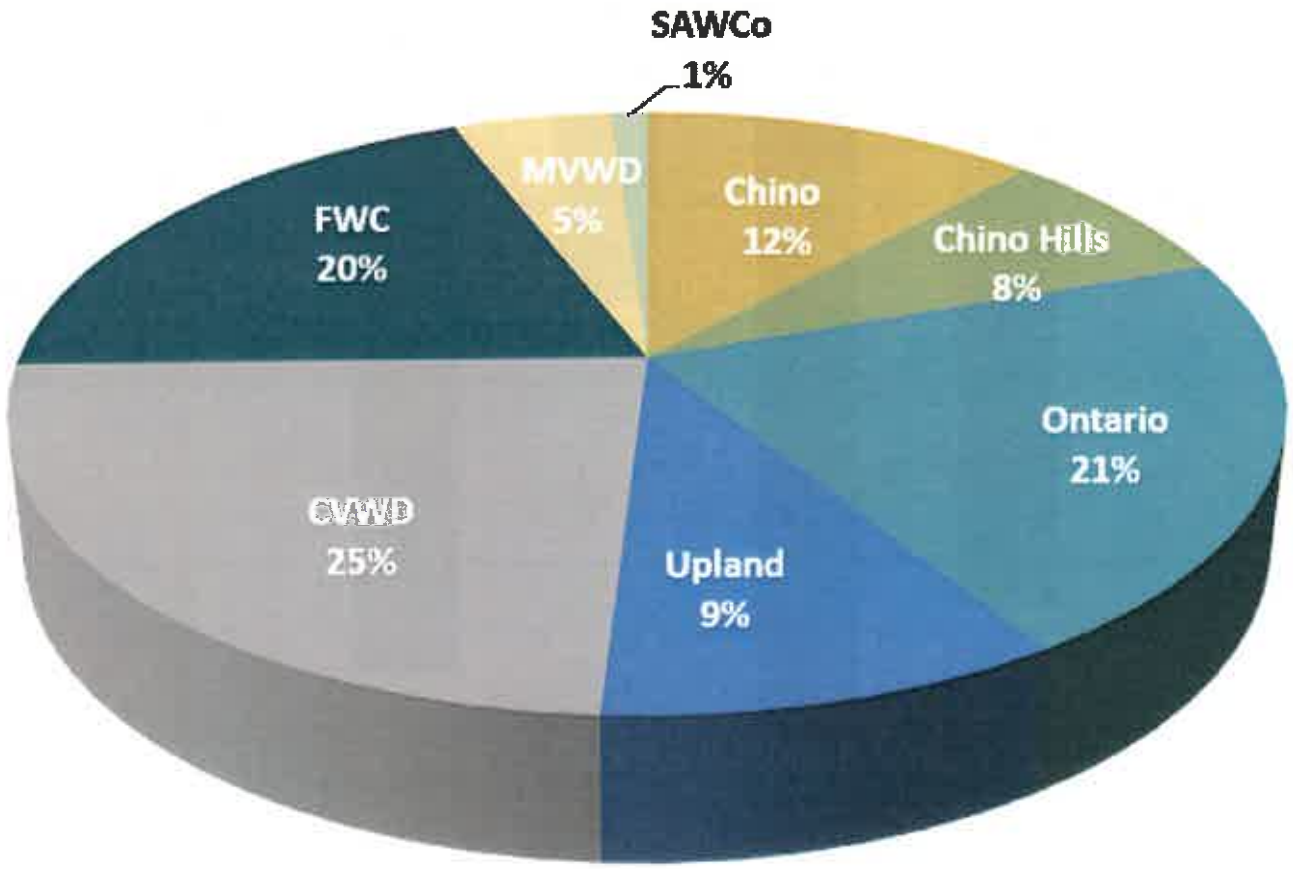
Total Water Resources Data from FY 15/16

Total IEUA Service Area Water Use For FY 15/16

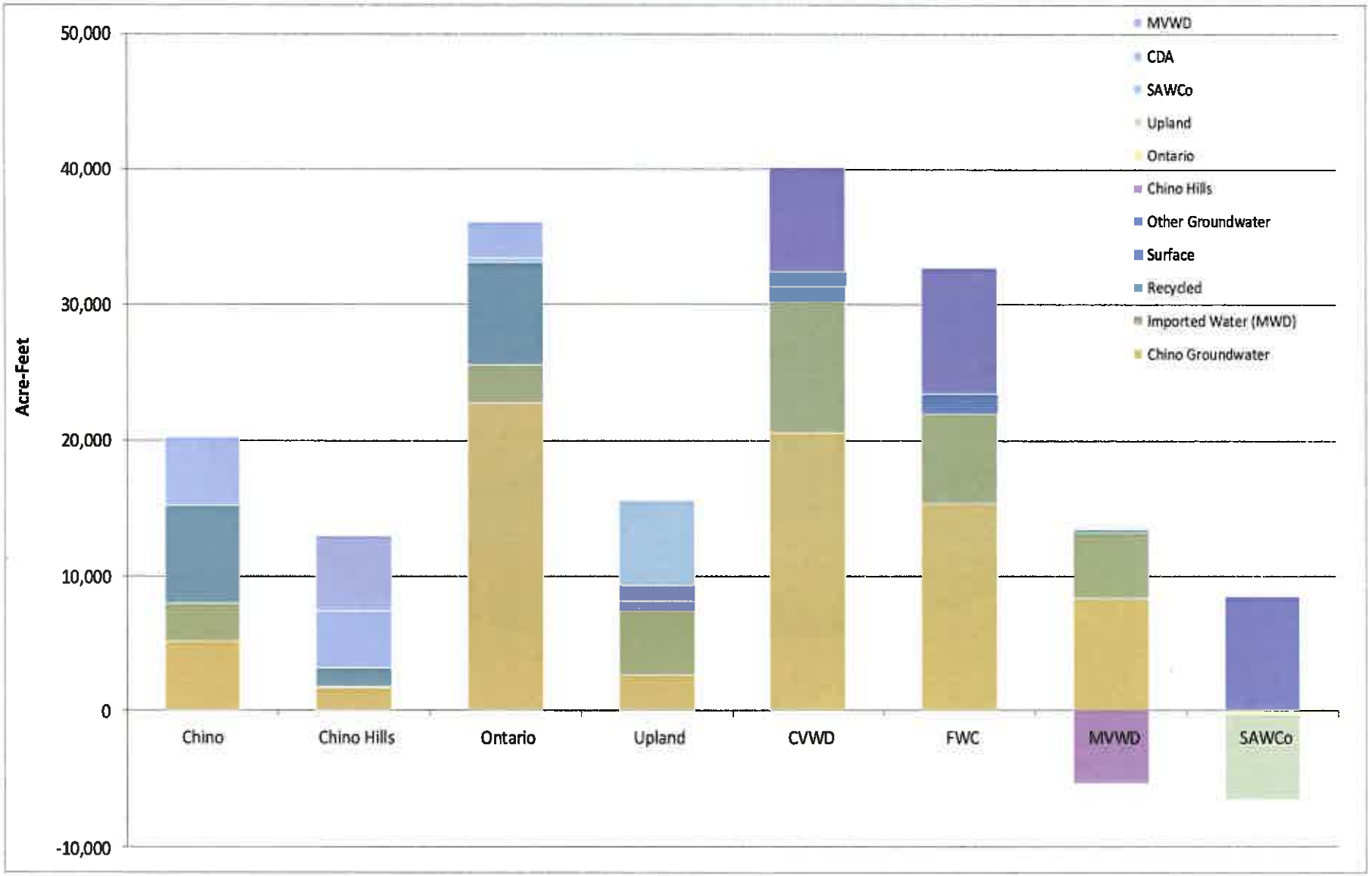
		Total IEUA Service Area Water Use by Retail Agency for FY 15-16 (AFY)								
		CHINO	CHINO HILLS	ONTARIO	UPLAND	CVWD	FWC	MVWD	SAWCo	TOTAL
Purchases from IEUA	Imported Water (MWD)	2,843	110	2,755	4,890	9,712	6,613	4,799	0	31,722
	Recycled (Direct Use)	7,217	1,410	7,566	719	1,146	0	278	0	18,336
Subtotal		**10,060**	**1,520**	**10,321**	**5,609**	**10,857**	**6,613**	**5,078**	**0**	**50,058**
Production	Chino Groundwater	5,104	1,630	22,755	2,601	20,524	15,317	8,371	0	76,302
	Other Groundwater	0	0	0	1,054	7,783	9,253	0	8,517	26,607
	Local Surface Water	0	0	0	0	1,002	1,497	0	0	2,499
Subtotal		**5,104**	**1,630**	**22,755**	**3,655**	**29,309**	**26,067**	**8,371**	**8,517**	**105,408**
Purchases from Other Agencies	CDA	5,000	4,201	2,682	0	0	0	0	0	11,883
	MVWD	0	5,642	0	0	0	0	0	0	5,642
	SAWCo Water	0	0	338	6,297	0	0	0	0	6,635
	West End	0	0	0	1,246	0	0	0	0	1,246
Subtotal		**5,000**	**9,843**	**3,020**	**7,543**	**0**	**0**	**0**	**0**	**25,406**
Sales to Other Agencies	Chino Hills	0	0	0	0	0	0	-5,437	0	-5,437
	Ontario	0	0	0	0	0	0	0	-338	-338
	Upland	0	0	0	0	0	0	0	-6,297	-6,297
Subtotal		**0**	**0**	**0**	**0**	**0**	**0**	**-5,437**	**-6,635**	**-12,072**
	Total	**20,163**	**12,993**	**36,096**	**16,807**	**40,166**	**32,681**	**8,012**	**1,882**	**168,799**

Note: an additional 541 AF of RW was used for IEUA purposes, an additional 13,222 AF of RW was used for recharge, and additional 536 AF of RW was sold to San Bernardino County. All RW numbers in this report based off IEUA operations data.

Total IEUA Service Area Water Use For FY 15/16



Total IEUA Service Area Water Use For FY 15/16

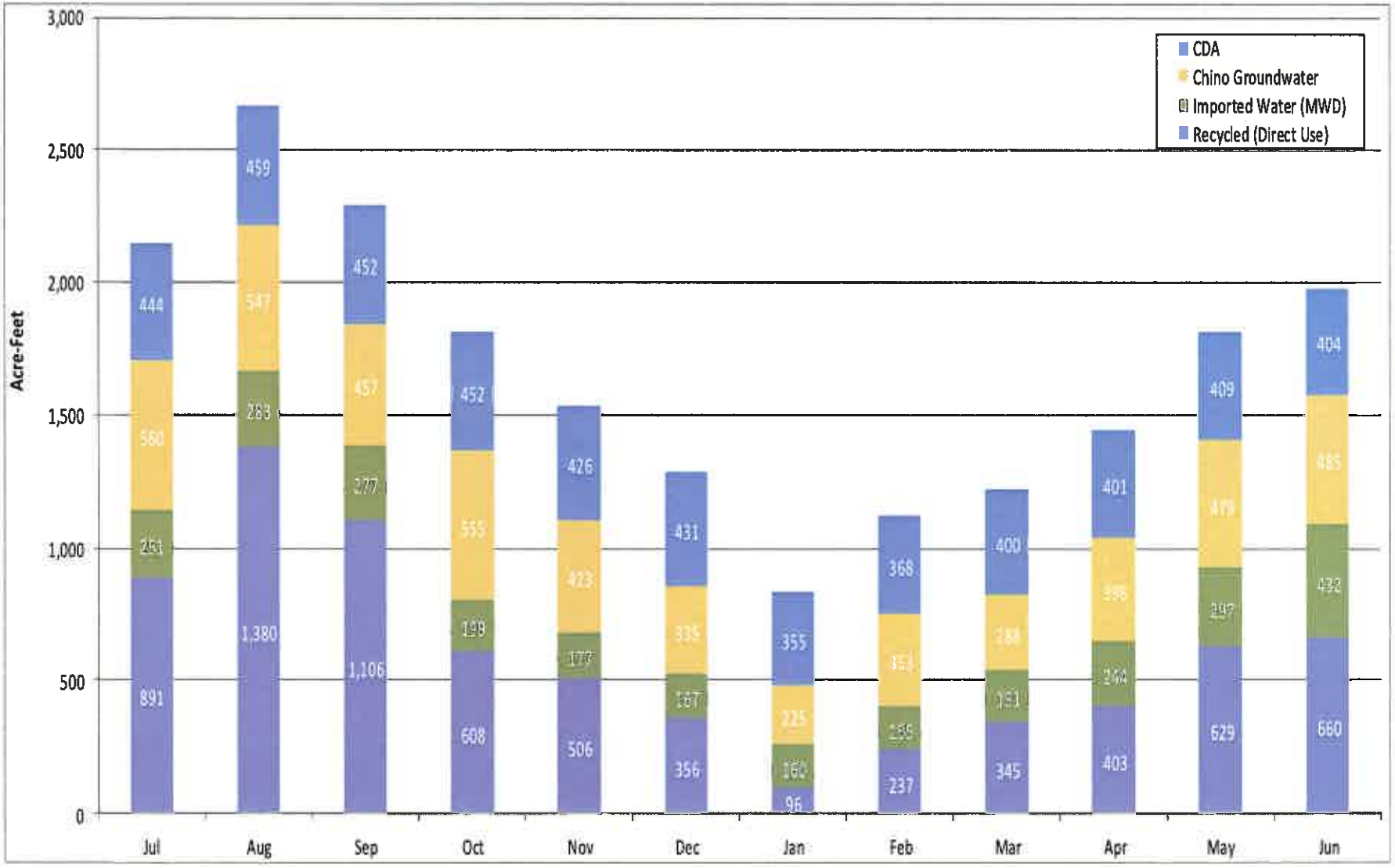


SECTION 2

Retail Water Use Data from FY 15/16 by Agency

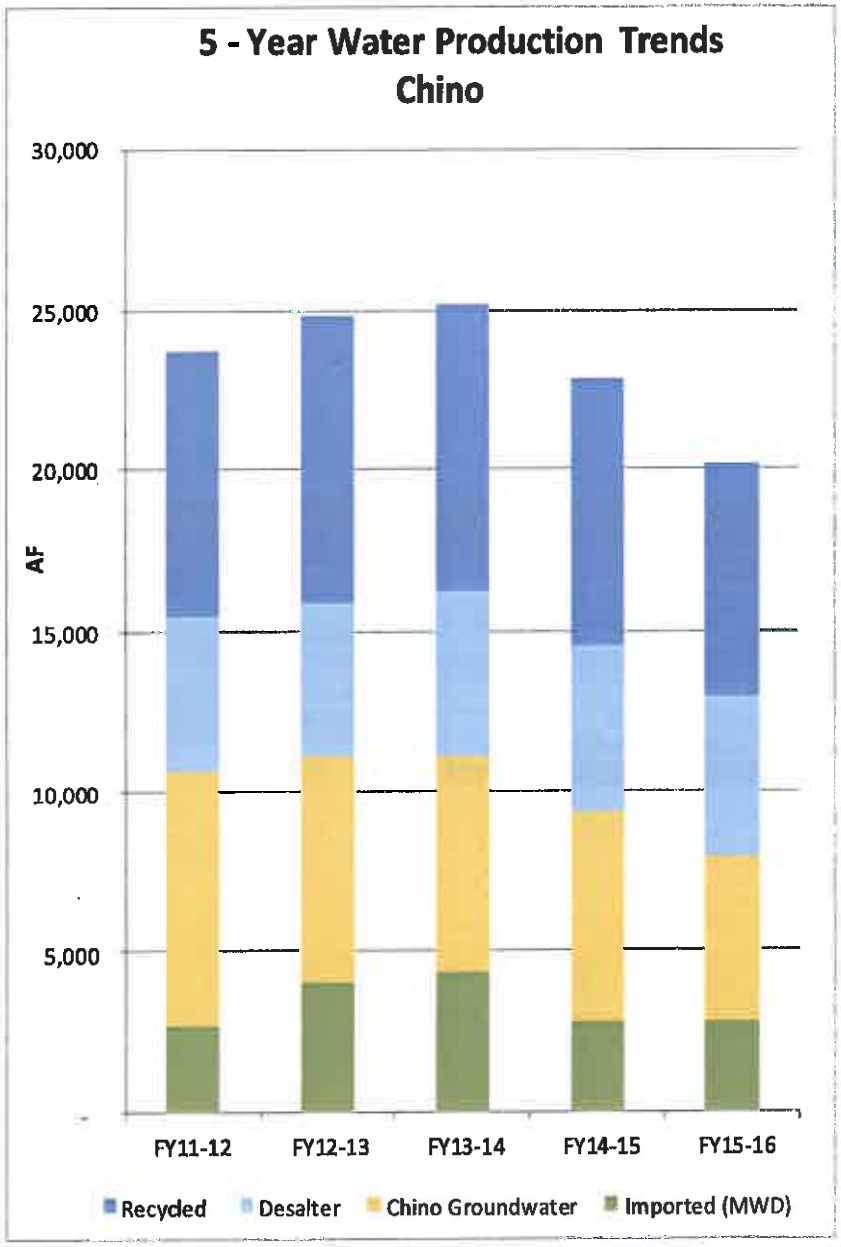
City of Chino

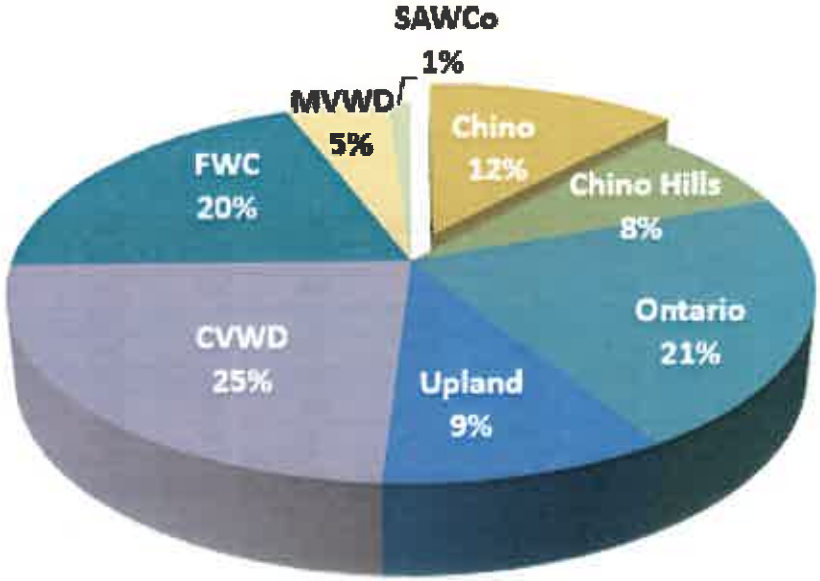
FY 2015/16 Monthly Water Usage



City of Chino

FY 2015/16 Water Use Report





In FY 2015/16, The City of Chino used 12% (20,163 AF) of 168,799 AF used in the IEUA service area.

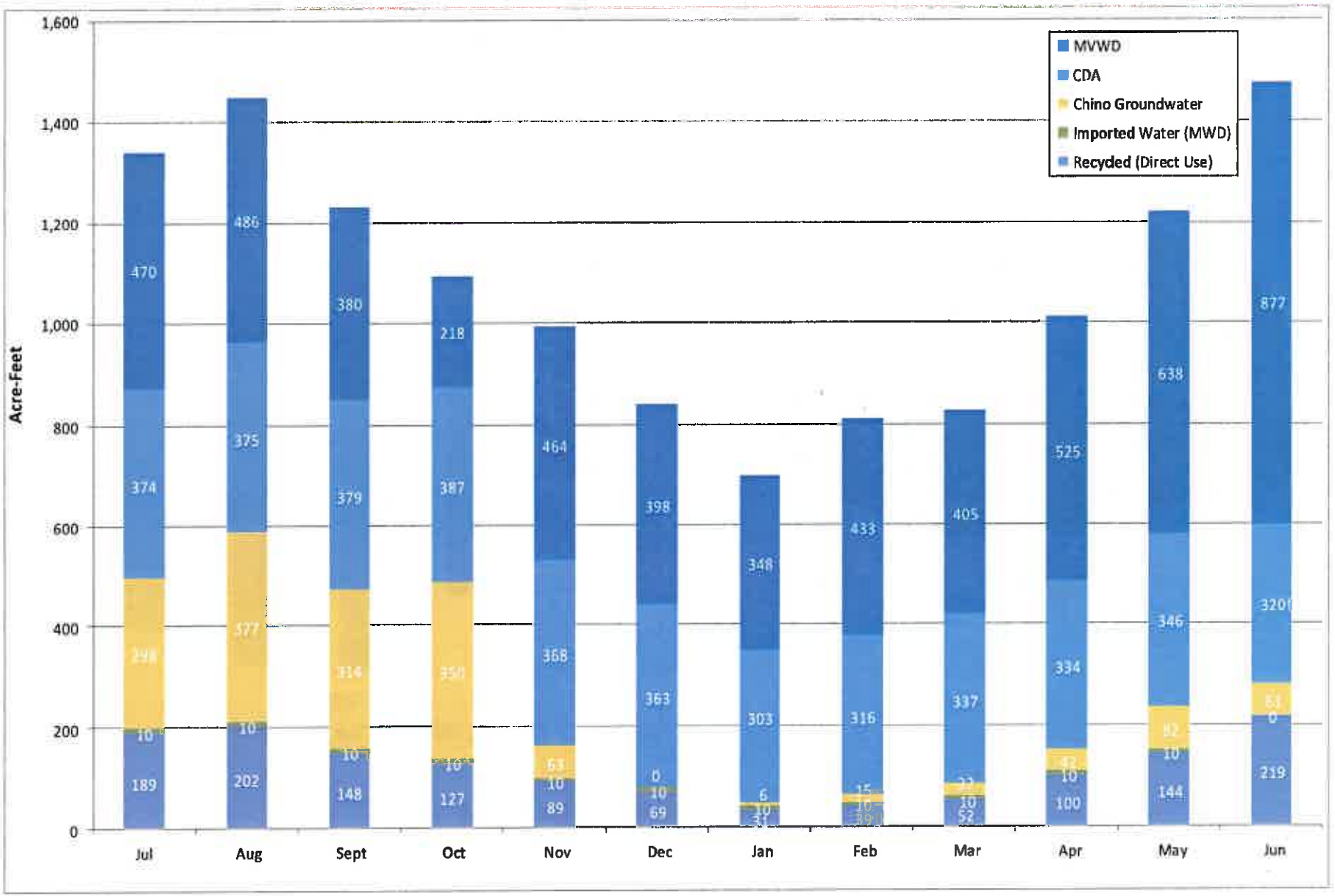
City of Chino

FY 2015/16 Monthly Water Usage

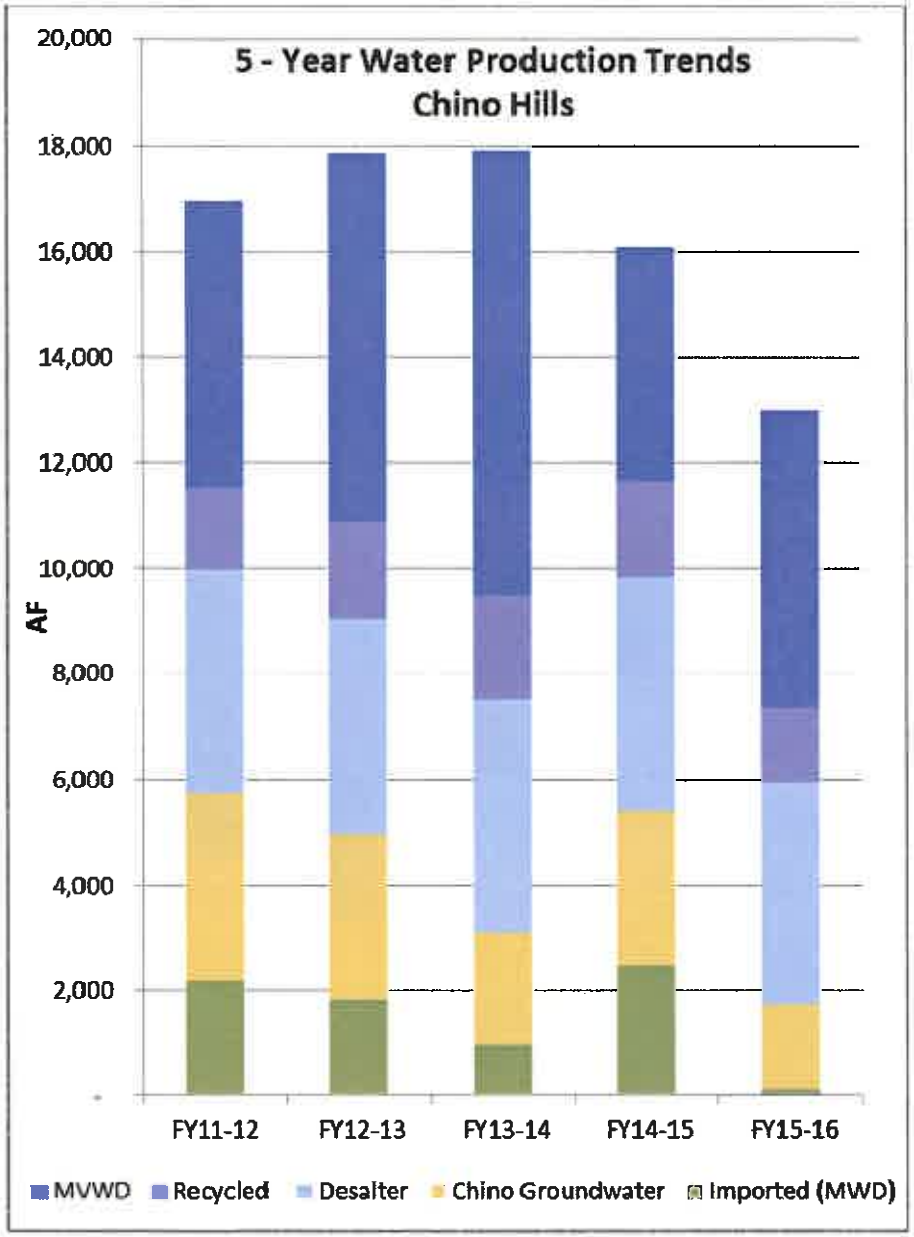
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Purchases from IEUA	Recycled (Direct use)	891	1,380	1,106	608	506	356	98	237	345	403	629	660	7,217
	Imported Water (MWD)	251	283	277	199	177	167	160	165	191	244	297	432	2,843
Subtotal		1,142	1,663	1,383	807	684	523	256	402	536	647	926	1,092	10,060
Production	Chino Groundwater	560	547	457	555	423	335	225	353	288	396	479	485	5,104
Subtotal		560	547	457	555	423	335	225	353	288	396	479	485	5,104
Agencies	CDA	444	459	452	452	426	431	355	368	400	401	409	404	5,000
Subtotal		444	459	452	452	426	431	355	368	400	401	409	404	5,000
	Total	2,146	2,669	2,293	1,814	1,532	1,290	836	1,123	1,224	1,443	1,813	1,980	20,163

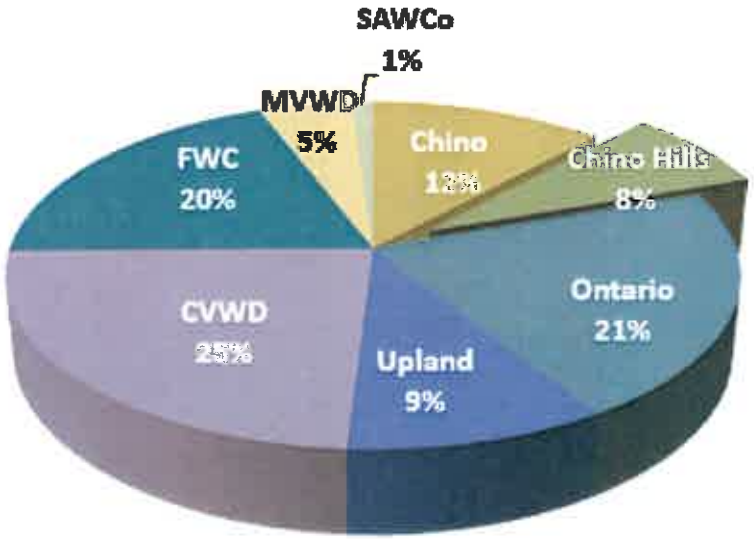
City of Chino Hills

FY 2015/16 Monthly Water Usage



City of Chino Hills
FY 2015/16 Water Use Report





In FY 2015/16, The City of Chino Hills used 8% (12,993 AF) of 168,799 AF used in the IEUA service area.

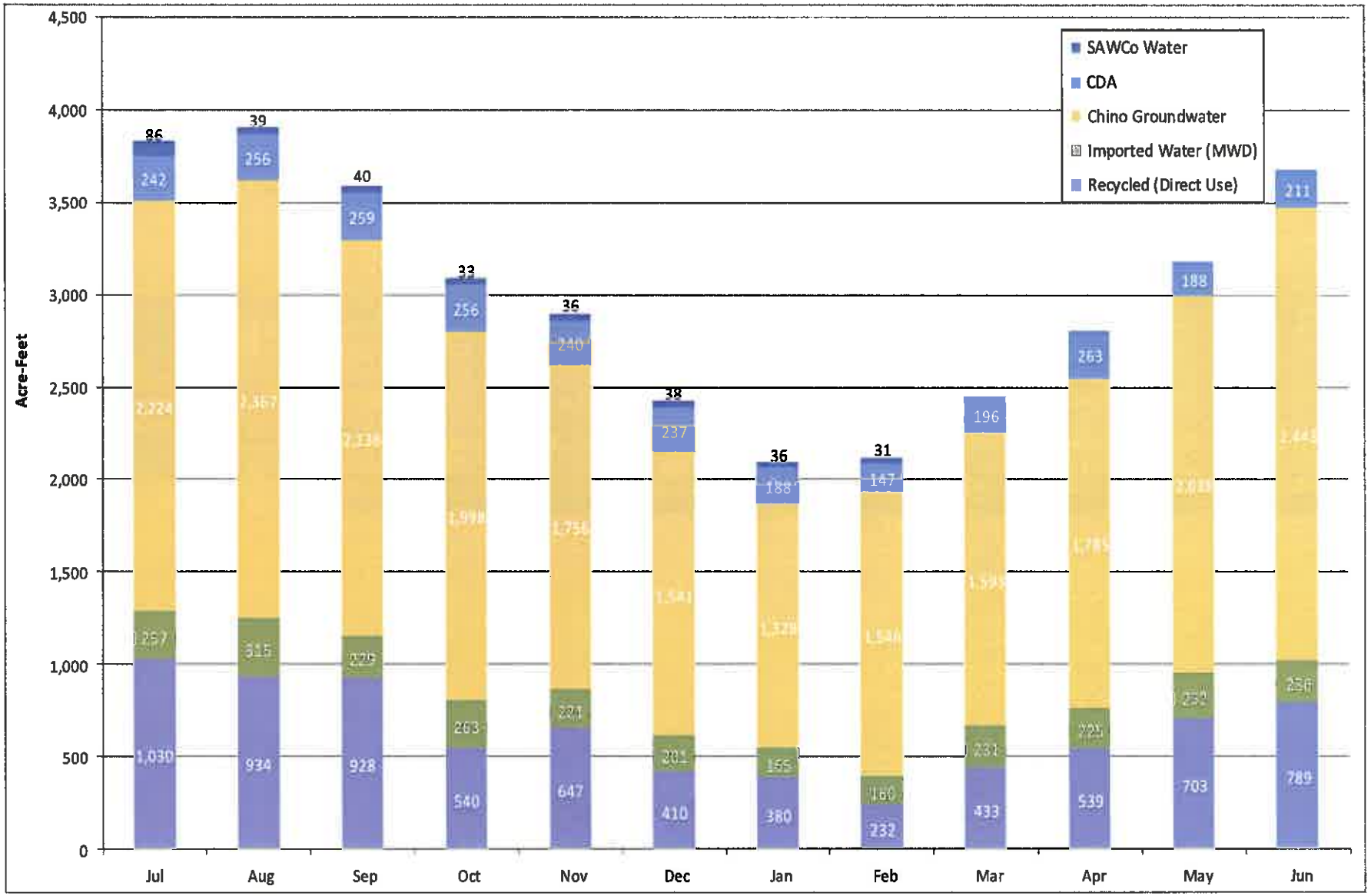
City of Chino Hills

FY 2015/16 Monthly Water Usage

		Table 1. Total IEUA Service Area Water Use by Agency for FY15-16 (AF) - Chino Hills												
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Purchases from IEUA	Recycled (Direct use)	189	202	148	127	89	69	31	39	52	100	144	219	1,410
	Imported Water (MWD)	10	10	10	10	10	10	10	10	10	10	10	0	110
Subtotal		199	212	158	137	99	79	41	49	62	110	154	219	1,520
Production	Chino Groundwater	298	377	314	350	63	0	6	15	22	42	82	61	1,630
Subtotal		298	377	314	350	63	0	6	15	22	42	82	61	1,630
Purchase from other agencies	CDA	374	375	379	387	368	363	303	316	337	334	346	320	4,201
	MWD	470	486	380	218	464	398	348	433	405	525	638	877	5,642
Subtotal		844	860	759	605	832	761	652	749	742	859	984	1,197	9,843
Total		1,341	1,449	1,231	1,093	994	840	699	812	826	1,011	1,220	1,477	12,993

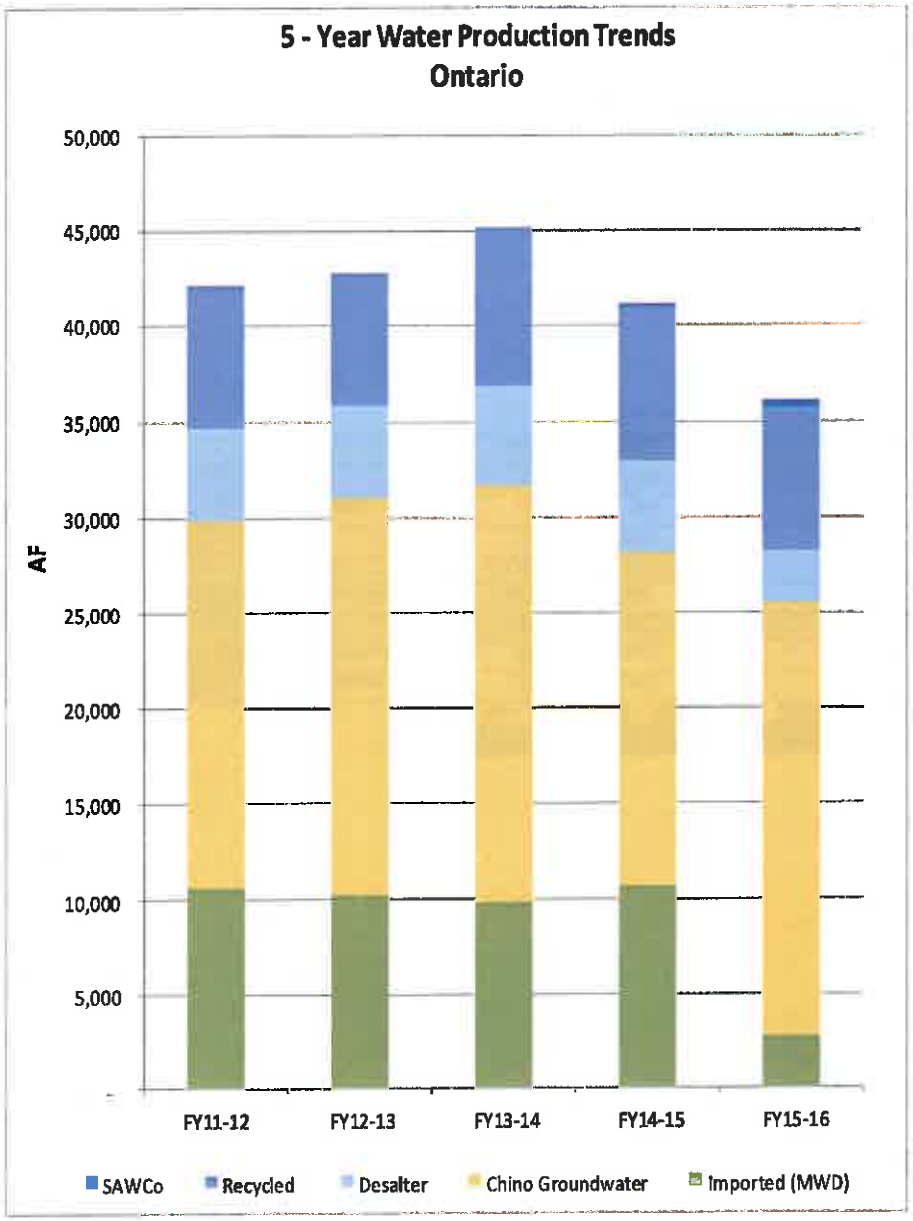
City of Ontario

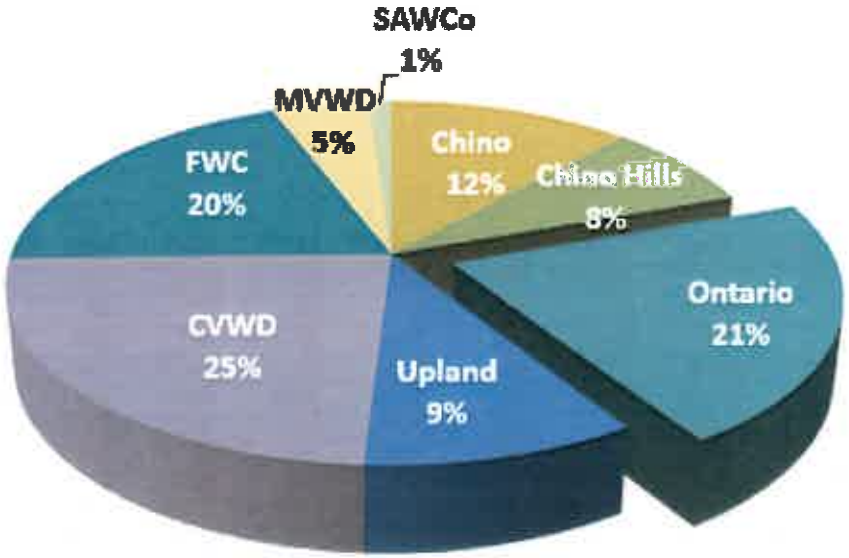
FY 2015/16 Monthly Water Usage



City of Ontario

FY 2015/16 Water Use Report



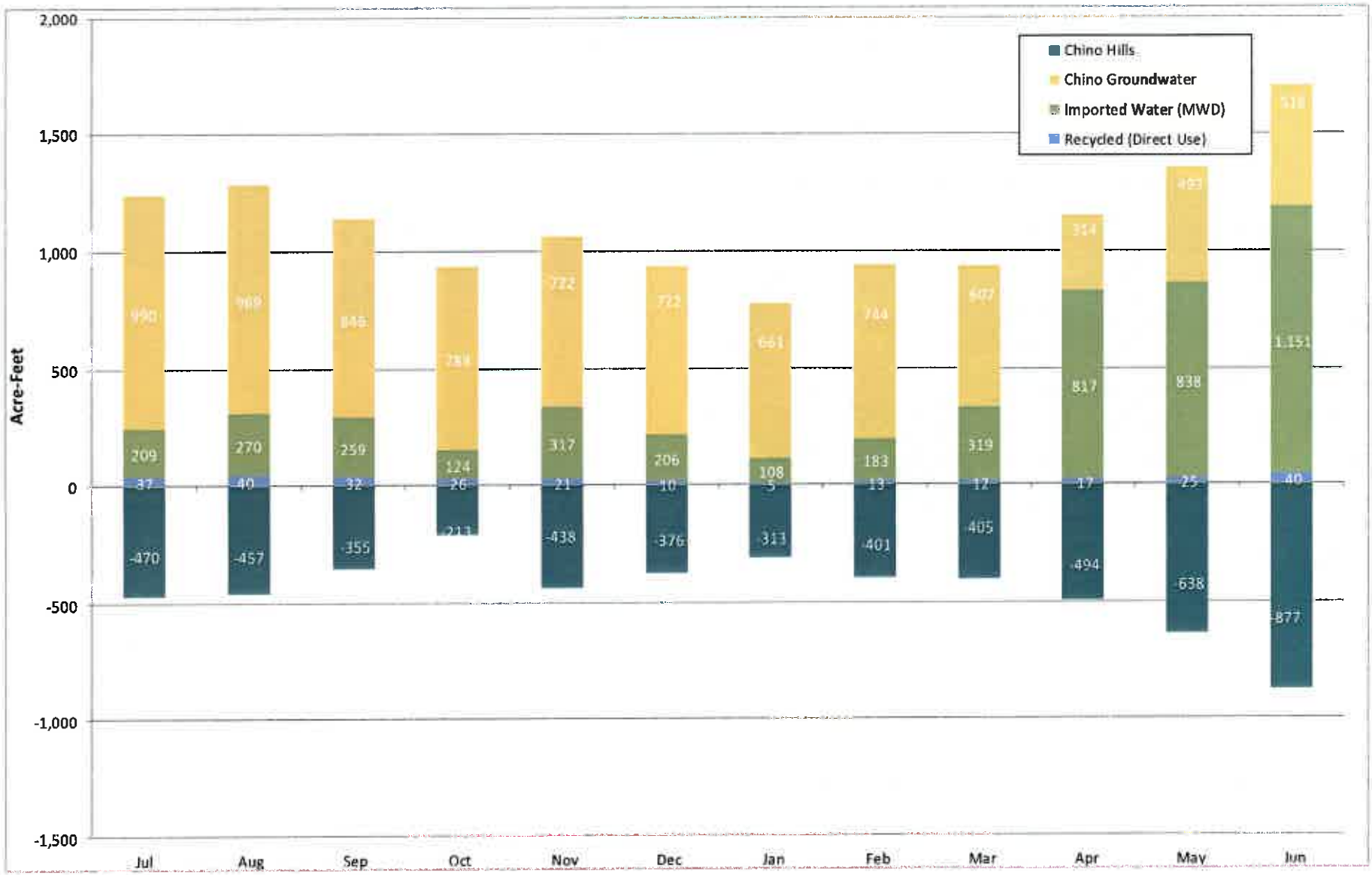


In FY 2015/16, The City of Ontario used 21% (36,096 AF) of 168,799 AF used in the IEUA service area.

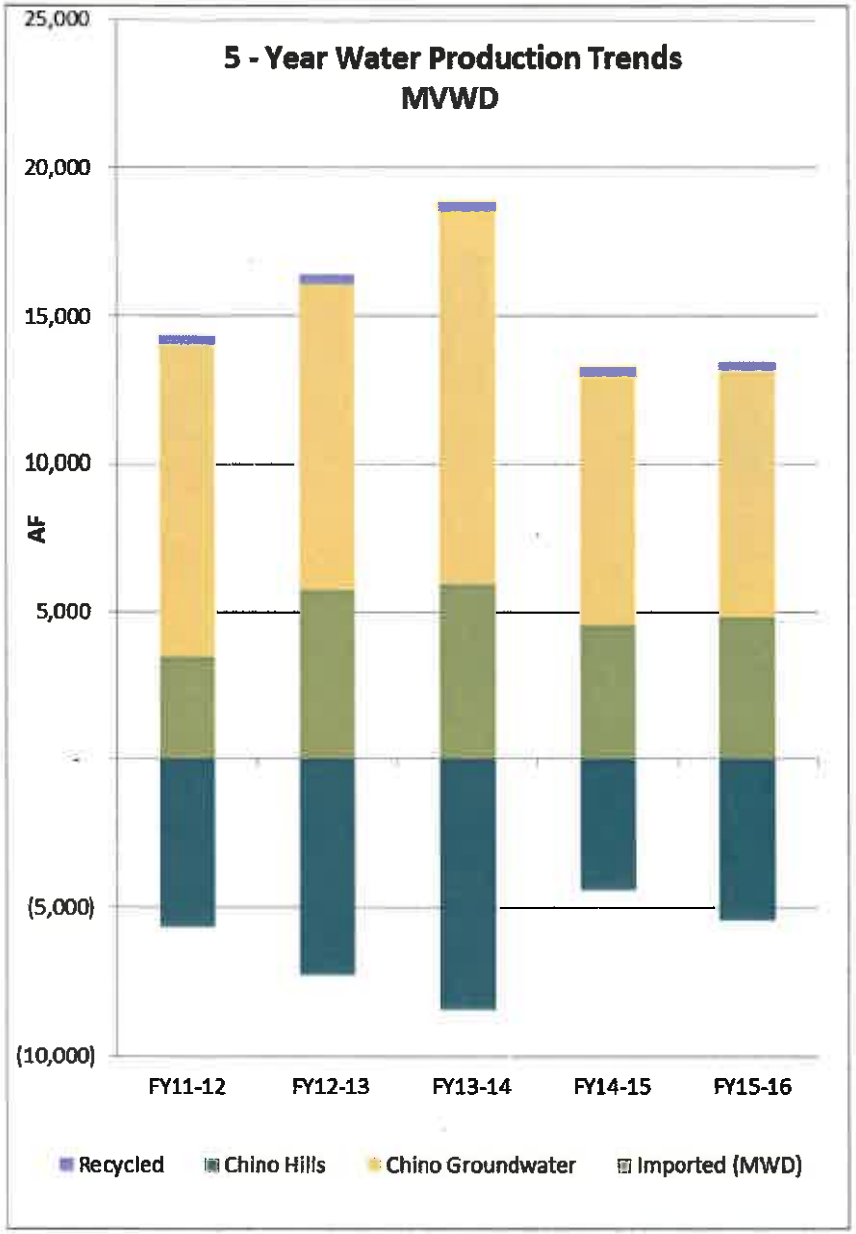
City of Ontario
FY 2015/16 Monthly Water Usage

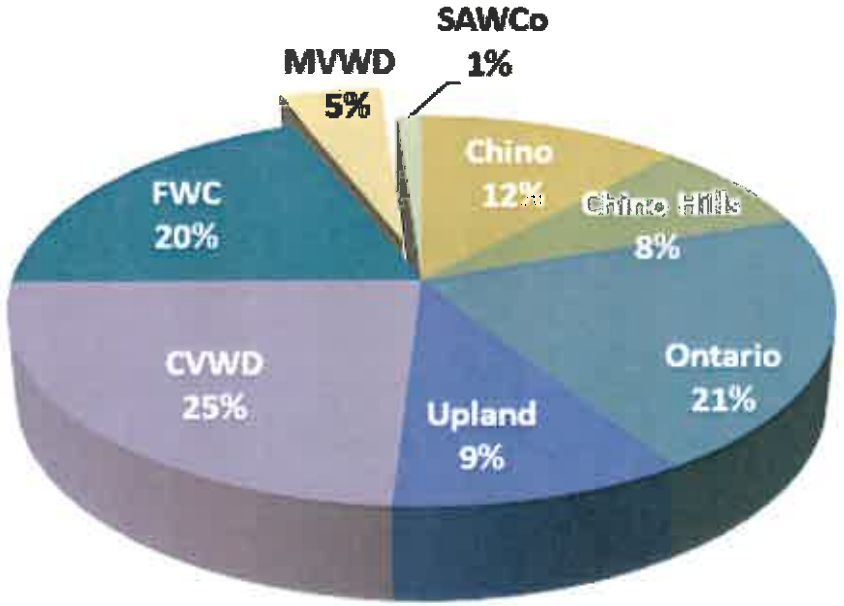
		Table 1. IEUA Service Area Water Use by Agency for FY15-16 (AF) - Ontario												
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Purchases from IEUA	Recycled (Direct use)	1,030	934	928	540	647	410	380	232	433	539	703	789	7,566
	Imported Water (MWD)	257	315	229	263	221	201	165	160	231	225	252	236	2,755
Subtotal		1,287	1,250	1,157	803	867	611	546	392	664	764	955	1,025	10,321
Production	Chino Groundwater	2,224	2,367	2,136	1,998	1,756	1,541	1,328	1,546	1,593	1,785	2,038	2,443	22,755
Subtotal		2,224	2,367	2,136	1,998	1,756	1,541	1,328	1,546	1,593	1,785	2,038	2,443	22,755
Purchase from other agencies	CDA	242	256	259	256	240	237	188	147	196	263	188	211	2,682
	SAWCo Water	86	39	40	33	36	38	36	31	0	0	0	0	338
Subtotal		328	295	299	289	276	275	224	178	196	263	188	211	3,021
Total		3,839	3,911	3,592	3,090	2,899	2,427	2,098	2,116	2,453	2,812	3,181	3,678	36,097

Monte Vista Water District
FY 2015/16 Monthly Water Usage



Monte Vista Water District
FY 2015/16 Water Use Report





In FY 2015/16, Monte Vista Water District used 5% (8,012 AF) of 168,799 AF used in the IEUA service area.

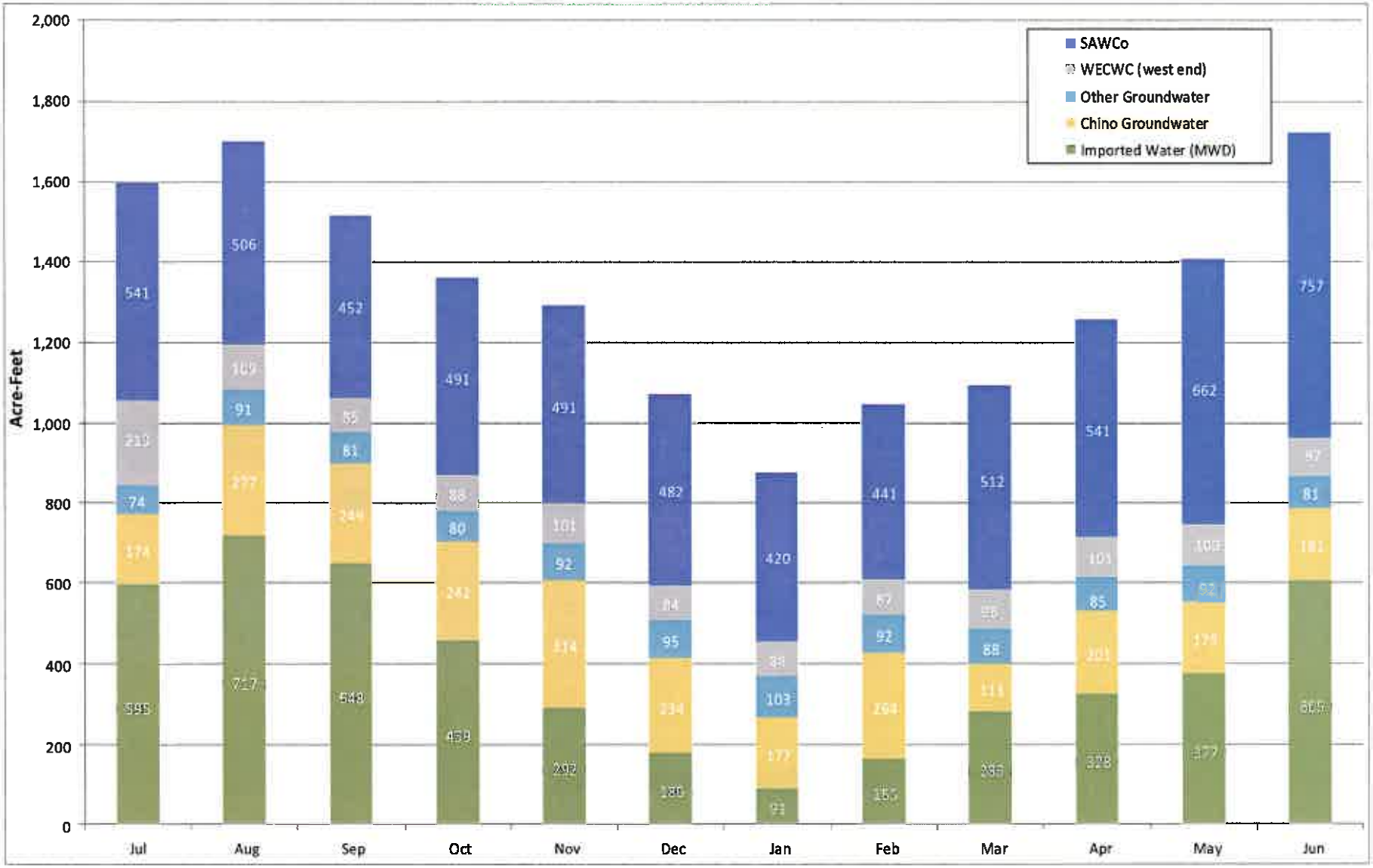
Monte Vista Water District

FY 2015/16 Monthly Water Usage

		Table 1. IEUA Service Area Water Use by Agency for FY 15-16 (AF) - MVWD												
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Purchases from IEUA	Recycled (Direct use)	37	40	32	26	21	10	5	13	12	17	25	40	278
	Imported Water (MWD)	209	270	259	124	317	206	108	183	319	817	838	1,151	4,799
Subtotal		246	310	291	150	338	216	113	196	331	834	862	1,191	5,078
Production	Chino Groundwater	990	989	846	788	722	722	661	744	607	314	493	516	8,371
Subtotal		990	989	846	788	722	722	661	744	607	314	493	516	8,371
Sales to other agencies	Chino Hills	-470	-457	-355	-213	-438	-376	-313	-401	-405	-494	-638	-877	-5,437
Subtotal		-470	-457	-355	-213	-438	-376	-313	-401	-405	-494	-638	-877	-5,437
Total		766	822	781	725	622	563	462	539	533	654	717	829	8,012

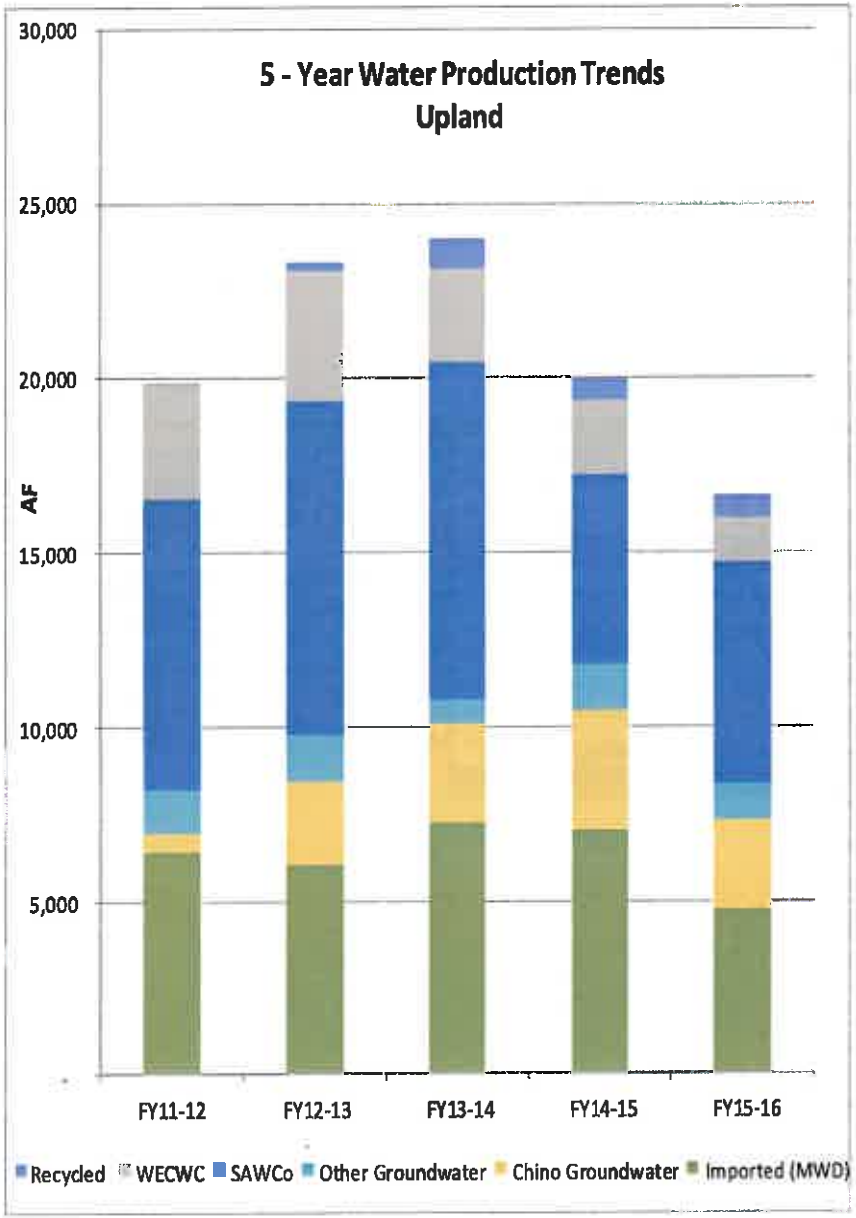
City of Upland

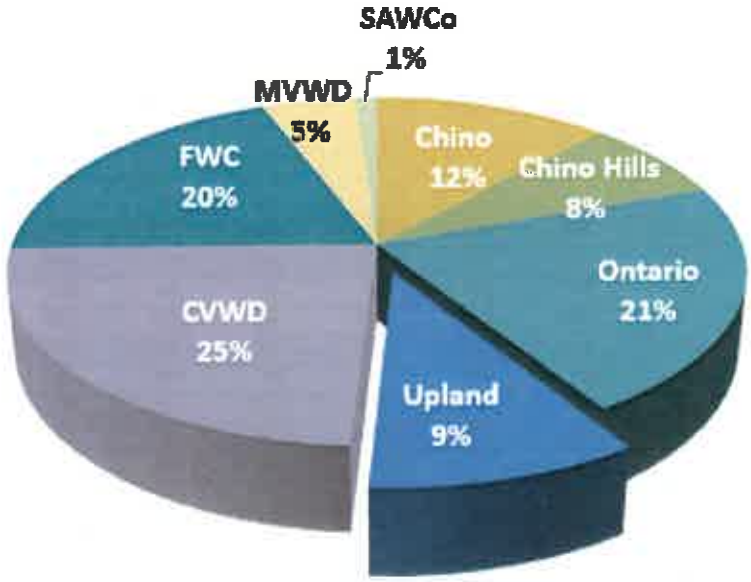
FY 2015/16 Monthly Water Usage



City of Upland

FY 2015/16 Water Use Report





In FY 2015/16, The City of Upland used 9% (16,806 AF) of 168,799 AF used in the IEUA service area.

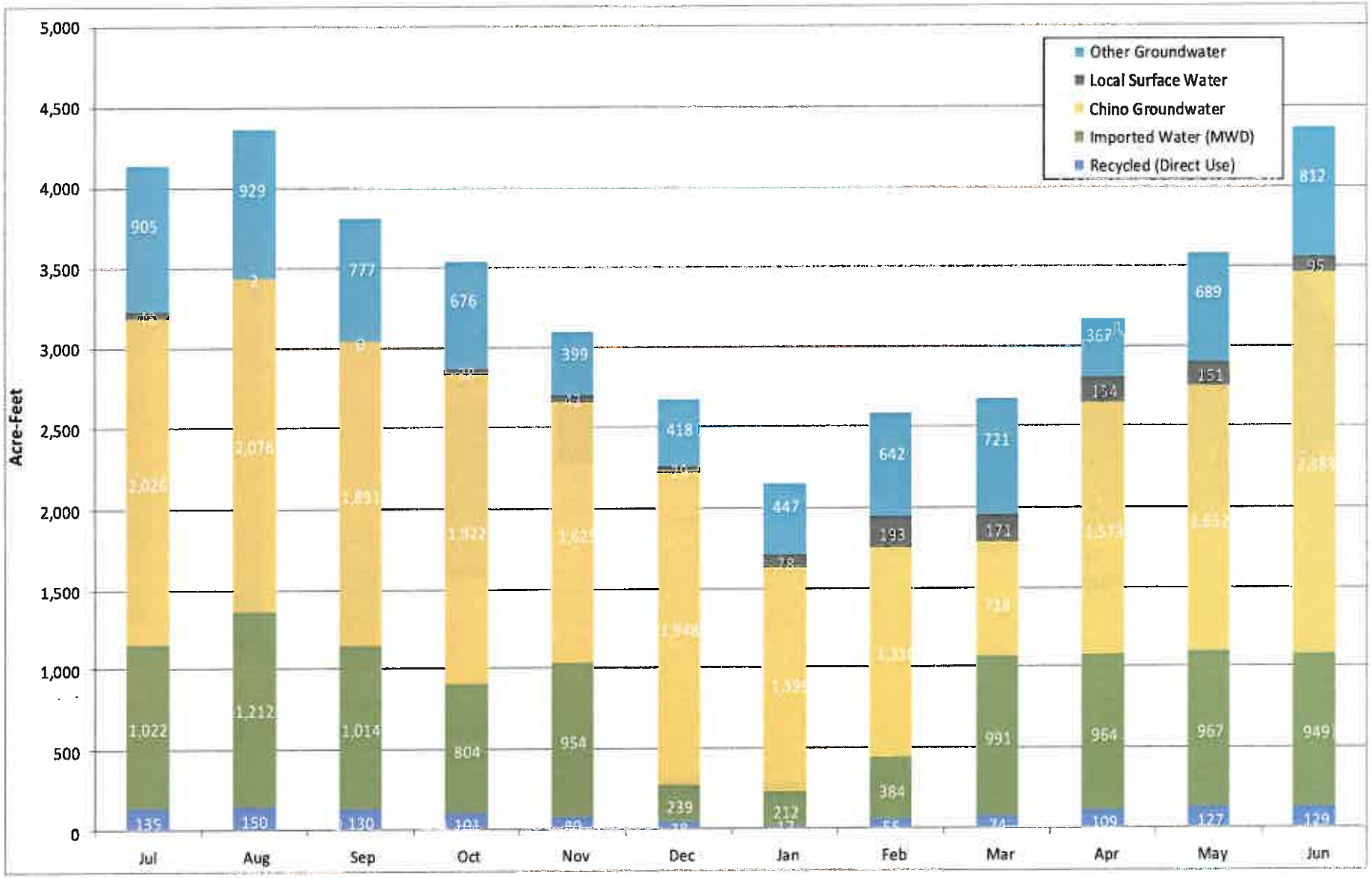
City of Upland

FY 2015/16 Monthly Water Usage

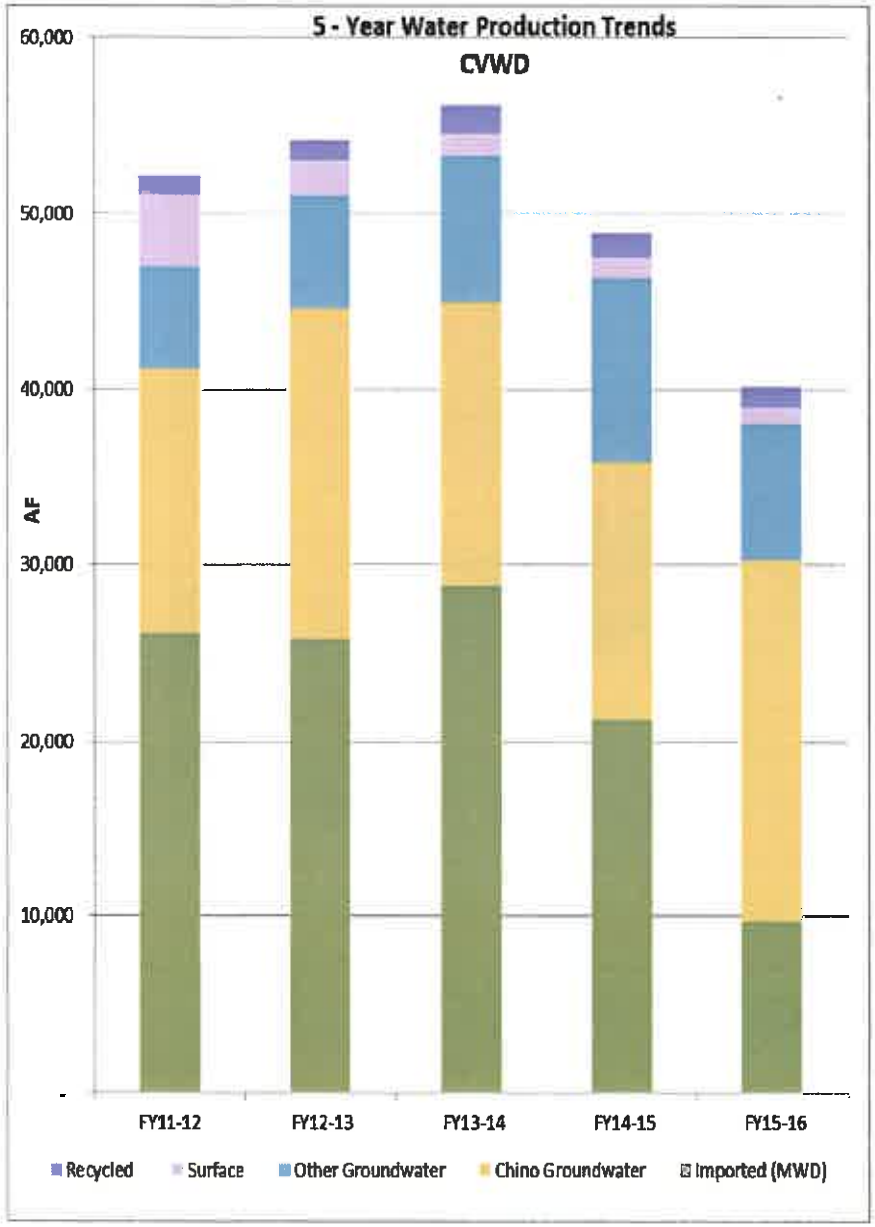
Table 1. IEUA Service Area Water Use by Agency for FY 15-16 (AF) - Upland														
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Purchases from IEUA	Recycled (Direct use)	92	97	82	82	58	37	15	37	34	57	59	69	719
	Imported Water (MWD)	595	717	648	459	292	180	91	165	285	328	377	605	4,742
	Imported Water* (RAW)	0	0	0	0	0	0	23	64	24	7	23	8	148
Subtotal		687	814	730	540	350	217	129	266	344	391	459	681	5,609
Production	Chino Groundwater	174	277	249	242	314	234	177	264	113	201	175	181	2,601
	Other Groundwater	74	91	81	80	92	95	103	92	88	85	92	81	1,054
Subtotal		248	368	330	322	406	329	280	356	201	286	267	262	3,655
Purchase from other agencies	SAWCo Water	541	506	452	491	491	482	420	441	512	541	662	757	6,297
	West End	213	109	85	88	101	84	84	87	96	101	100	97	1,246
Subtotal		753	615	537	579	592	566	505	528	609	642	763	854	7,543
Total		1,689	1,796	1,597	1,442	1,348	1,112	914	1,150	1,153	1,319	1,488	1,798	16,807

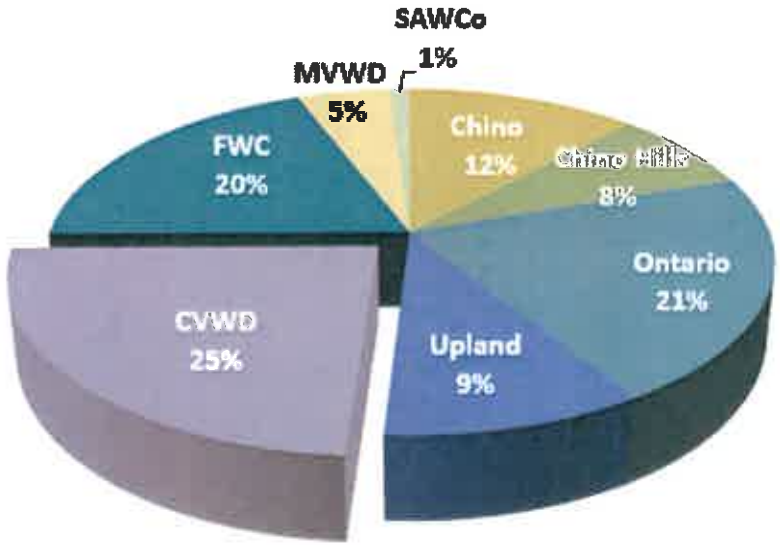
*purchased from WFA

Cucamonga Valley Water District
FY 2015/16 Monthly Water Usage



Cucamonga Valley Water District
FY 2015/16 Water Report



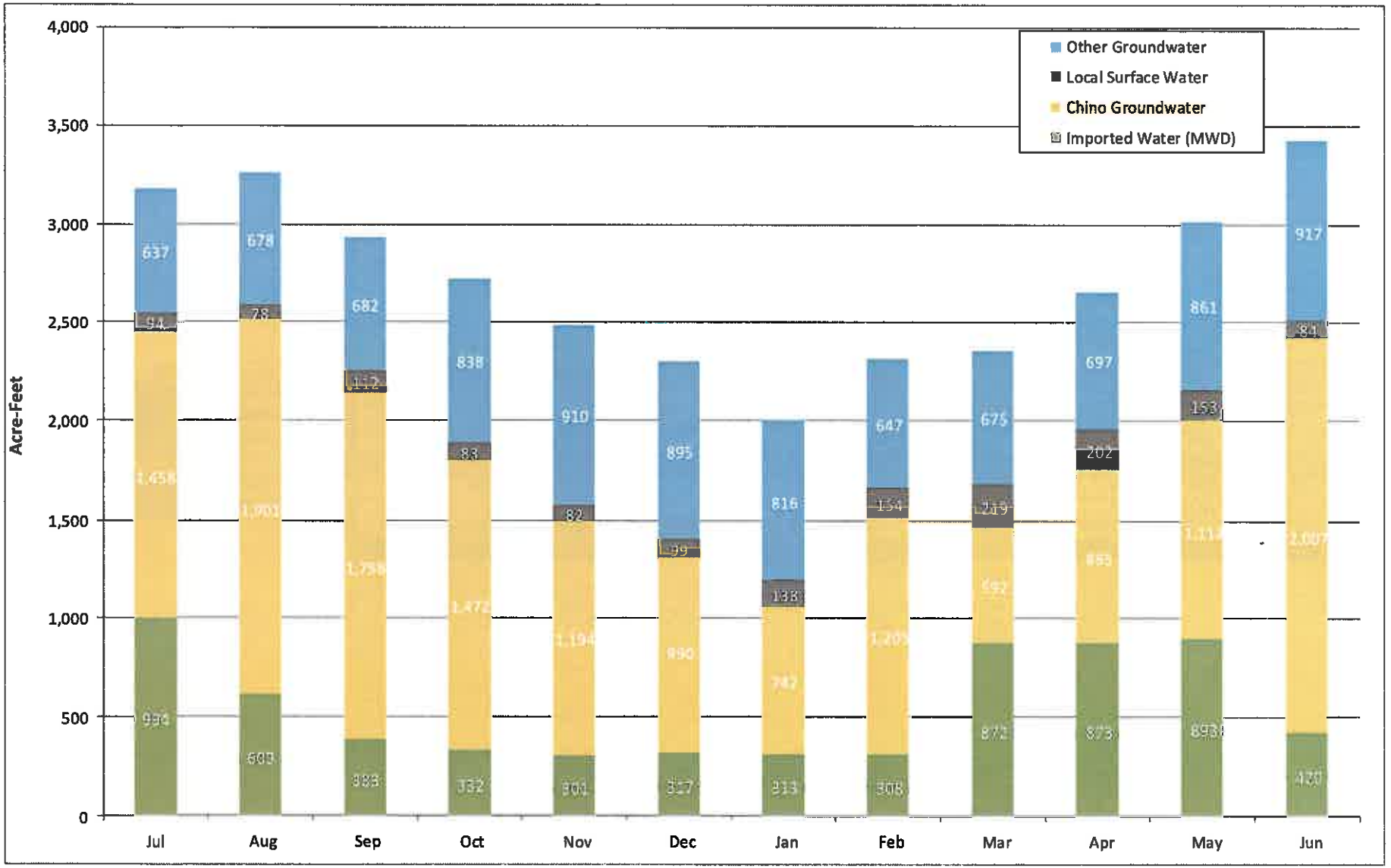


In FY 2015/16, Cucamonga Valley Water District used 25% (40,166 AF) of 168,799 AF used in the IEUA service area.

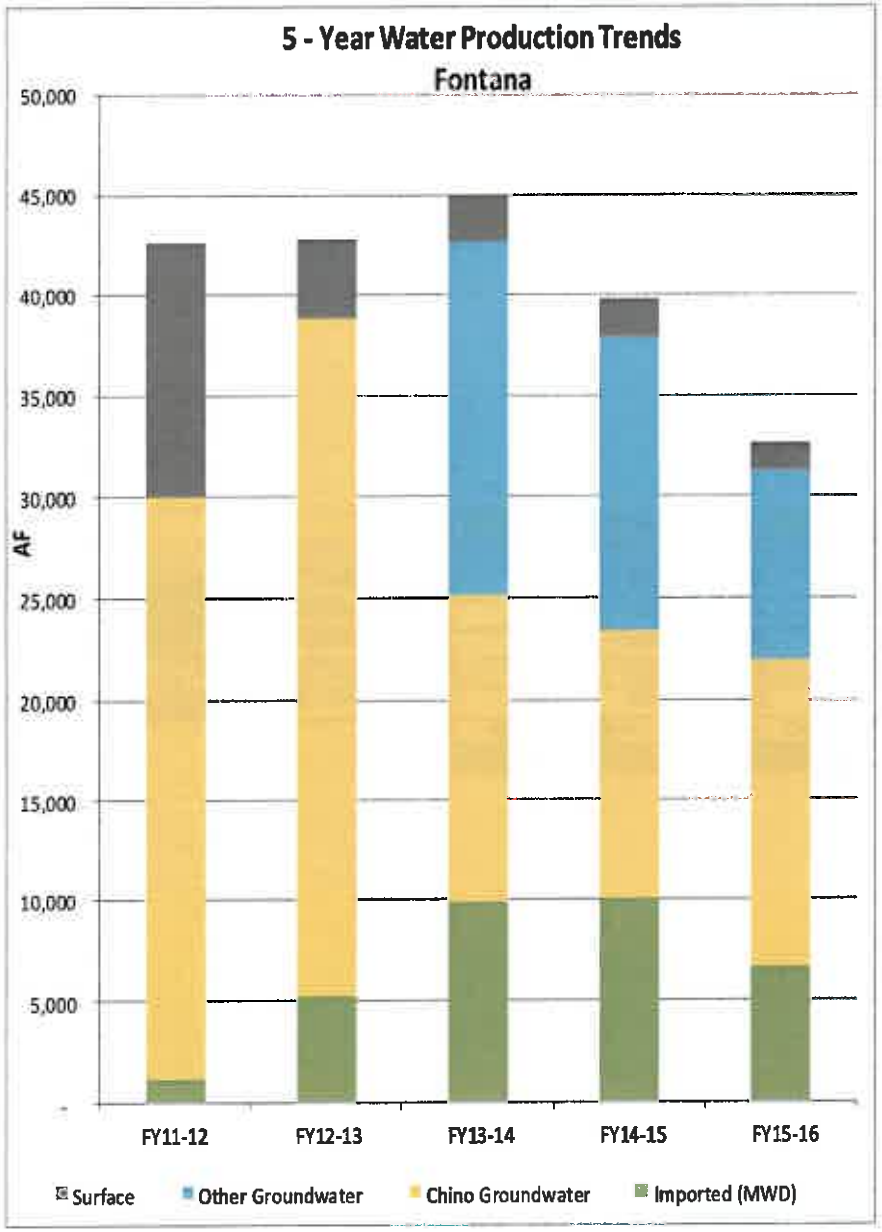
Cucamonga Valley Water District
FY 2015/16 Monthly Water Usage

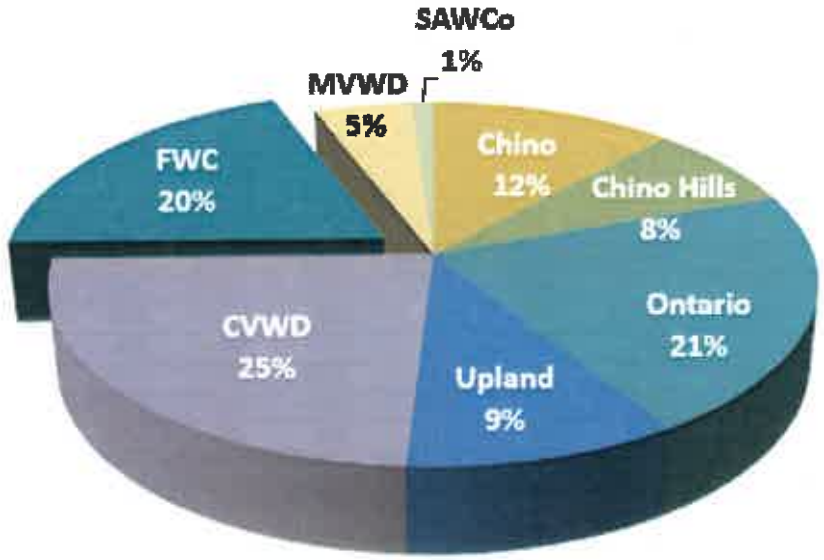
Table 1. IEUA Service Area Water Use by Agency for FY15-16 (AF) - CVWD														
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Purchases from IEUA	Recycled (Direct use)	135	150	130	101	80	38	17	55	74	109	127	129	1,146
	Imported Water (MWD)	1,022	1,212	1,014	804	954	239	212	384	991	964	967	949	9,712
Subtotal		1,157	1,362	1,144	905	1,034	277	229	439	1,065	1,073	1,095	1,078	10,857
Production	Chino Groundwater	2,026	2,076	1,891	1,922	1,625	1,948	1,399	1,310	718	1,573	1,652	2,383	20,524
	Local Surface Water	48	2	0	38	43	29	78	193	171	154	151	95	1,001
	Other Groundwater	905	929	777	676	399	418	447	642	721	367	689	812	7,783
Subtotal		2,979	3,007	2,668	2,636	2,067	2,395	1,924	2,145	1,610	2,094	2,493	3,290	29,309
Total		4,136	4,369	3,812	3,541	3,100	2,672	2,153	2,584	2,675	3,167	3,588	4,368	40,166

Fontana Water Company
FY 2015/16 Monthly Water Usage



Fontana Water Company
FY 2015/16 Water Use Report



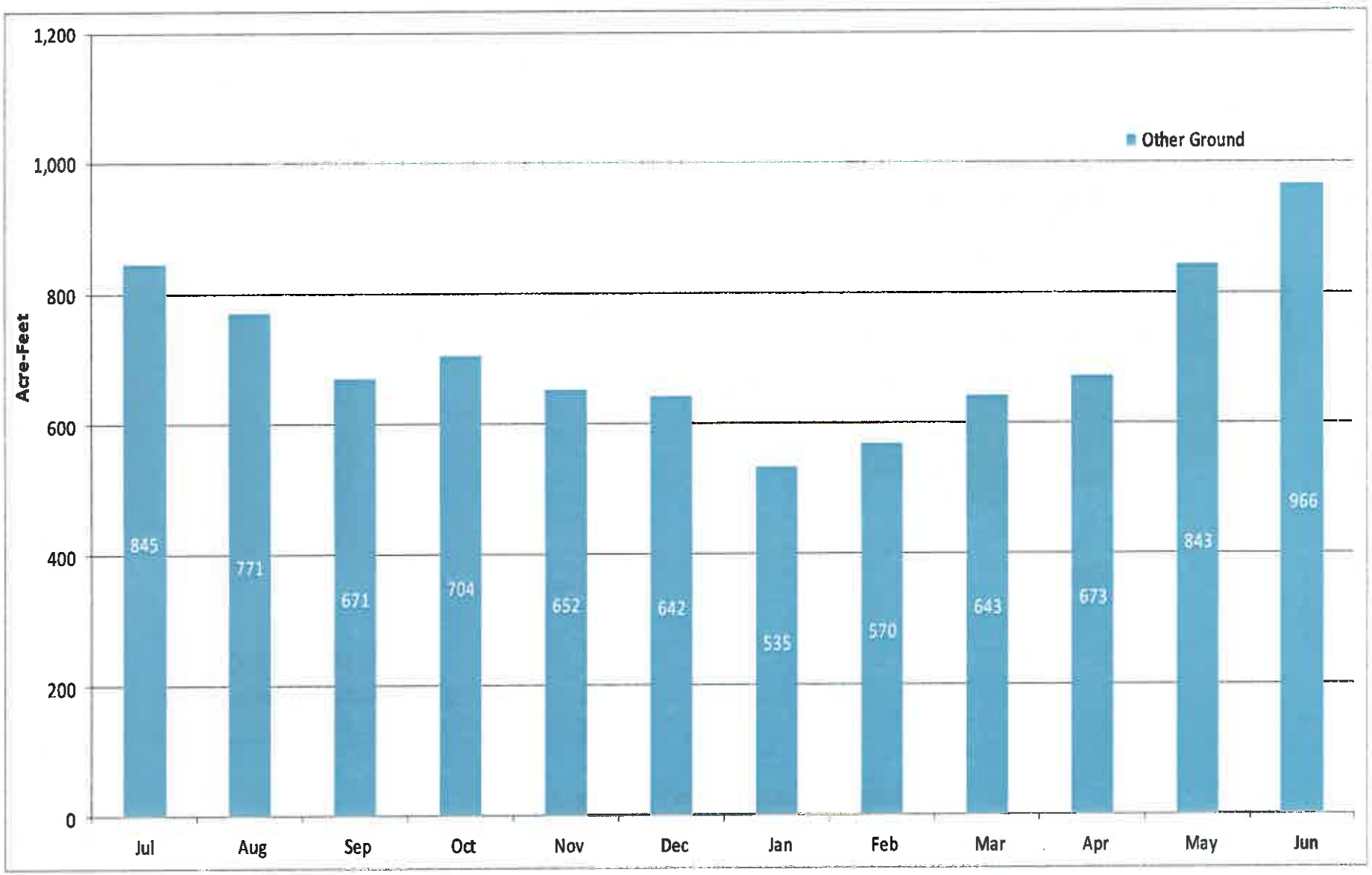


In FY 2015/16, The Fontana Water Company used 20% (32,680 AF) of 168,799 AF used in the IEUA service area.

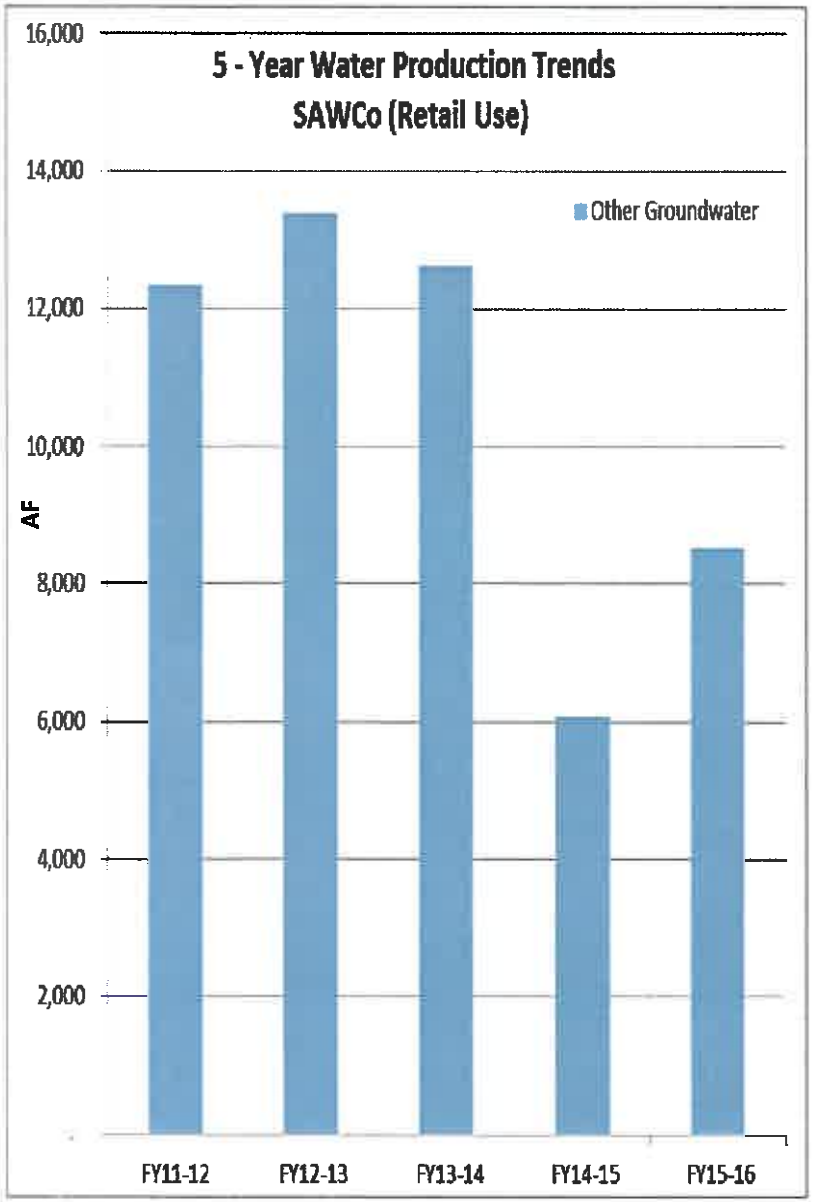
Fontana Water Company
FY 2015/16 Monthly Water Usage

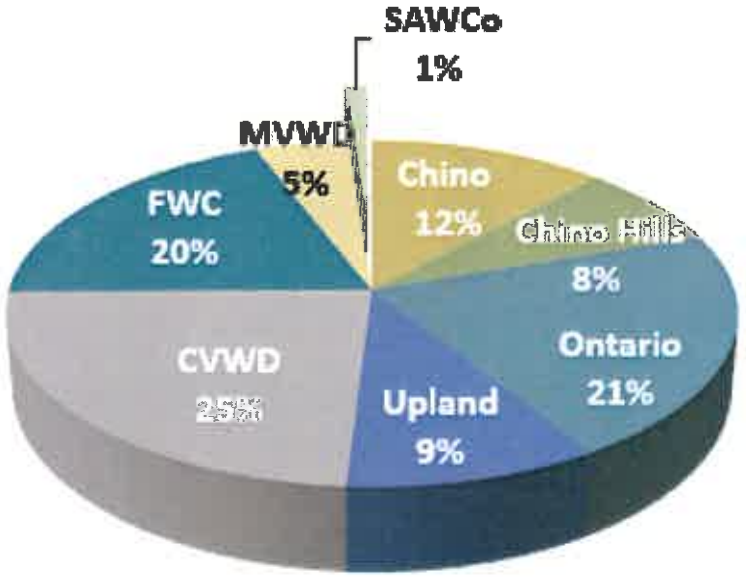
		Table 1. IEUA Service Area Water Use by Agency for FY15-16 (AF) - FWC												
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Purchases from IEUA	Imported Water (MWD)	994	609	383	332	301	317	313	308	872	873	893	420	6,613
Subtotal		994	609	383	332	301	317	313	308	872	873	893	420	6,613
Production	Chino Groundwater	1,458	1,901	1,758	1,472	1,194	990	742	1,205	592	885	1,112	2,007	15,317
	Local Surface Water	94	78	112	83	82	99	138	154	219	202	153	84	1,497
	Other Groundwater	637	678	682	838	910	895	816	647	675	697	861	917	9,253
Subtotal		2,189	2,657	2,552	2,394	2,186	1,984	1,696	2,005	1,486	1,784	2,127	3,007	26,067
Total		3,183	3,266	2,936	2,726	2,487	2,301	2,010	2,313	2,358	2,657	3,020	3,427	32,681

San Antonio Water Company
FY 2015/16 Monthly Water Usage



San Antonio Water Company
FY 2015/16 Water Use Report





In FY 2015/16, The San Antonio Water Company used 1% (1,881 AF) of 168,799 AF used in the IEUA service area.

San Antonio Water Company
FY 2015/16 Monthly Water Usage

Table 1. IEUA Service Area Water Use by Agency for FY15-16 (AF) - SAWCO													
		July	August	September	October	November	December	January	February	March	April	May	June	Total
Production	Other Groundwater	845	771	671	704	652	642	535	570	643	673	843	966	8,517
Subtotal		845	771	671	704	652	642	535	570	643	673	843	966	8,517
Sales to Other Agencies	Ontario	-86	-39	-40	-33	-36	-38	-36	-31	0	0	0	0	-338
	Upland	-541	-506	-452	-491	-491	-482	-420	-441	-512	-541	-662	-757	-6,297
Subtotal		-627	-545	-492	-524	-527	-520	-457	-472	-512	-541	-662	-757	-6,635
Total		218	226	180	181	126	123	78	98	131	132	180	209	1,882

APPENDIX A

Five year Historical Data Summary

FY 15-16		Total IEUA Service Area Water Use by Retail Agency for FY 15-16 (AFY)								
		CHINO	CHINO HILLS	ONTARIO	UPLAND	CVWD	FWC	MVWD	SAWCo	TOTAL
Purchases from IEUA	Imported Water (MWD)	2,843	110	2,755	4,890	9,712	6,613	4,799	0	31,722
	Recycled (Direct Use)	7,217	1,410	7,566	719	1,146	0	278	0	18,336
Subtotal		**10,060**	**1,520**	**10,321**	**5,609**	**10,857**	**6,613**	**5,078**	**0**	**50,058**
Production	Chino Groundwater	5,104	1,630	22,755	2,601	20,524	15,317	8,371	0	76,302
	Other Groundwater	0	0	0	1,054	7,783	9,253	0	8,517	26,607
	Local Surface Water	0	0	0	0	1,002	1,497	0	0	2,499
Subtotal		**5,104**	**1,630**	**22,755**	**3,655**	**29,309**	**26,067**	**8,371**	**8,517**	**105,408**
Purchases from Other Agencies	CDA	5,000	4,201	2,682	0	0	0	0	0	11,883
	MVWD	0	5,642	0	0	0	0	0	0	5,642
	SAWCo Water	0	0	338	6,297	0	0	0	0	6,635
	West End	0	0	0	1,246	0	0	0	0	1,246
Subtotal		**5,000**	**9,843**	**3,020**	**7,543**	**0**	**0**	**0**	**0**	**25,406**
Sales to Other Agencies	Chino Hills	0	0	0	0	0	0	-5,437	0	-5,437
	Ontario	0	0	0	0	0	0	0	-338	-338
	Upland	0	0	0	0	0	0	0	-6,297	-6,297
Subtotal		**0**	**0**	**0**	**0**	**0**	**0**	**-5,437**	**-6,635**	**-12,072**
	Total	**20,163**	**12,993**	**36,096**	**16,807**	**40,166**	**32,681**	**8,012**	**1,882**	**168,799**

FY 14-15		Total IEUA Service Area Water Use by Retail Agency for FY 14-15 (AFY)								
		CHINO	CHINO HILLS	ONTARIO	UPLAND	CVWD	FWC	MVWD	SAWCo	TOTAL
Purchases from IEUA	Imported Water (MWD)	2,830	2,494	10,703	7,047	21,306	9,994	4,530	0	58,905
	Recycled (Direct Use)	8,324	1,827	8,018	636	1,400	0	308	0	20,513
Subtotal		**11,154**	**4,321**	**18,721**	**7,684**	**22,705**	**9,994**	**4,838**	**0**	**79,418**
Production	Chino Groundwater	6,497	2,904	17,426	3,416	14,490	13,344	8,407	0	66,485
	Other Groundwater	0	0	0	1,291	10,631	14,500	0	6,091	32,513
	Local Surface Water	0	0	0	0	1,076	1,969	0	0	3,044
Subtotal		**6,497**	**2,904**	**17,426**	**4,708**	**26,196**	**29,813**	**8,407**	**6,091**	**102,042**
Purchases from Other Agencies	CDA	5,232	4,426	4,827	0	0	0	0	0	14,485
	MVWD	0	4,436	0	0	0	0	0	0	4,436
	SAWCo Water	0	0	172	5,461	0	0	612	0	6,246
	West End	0	0	0	2,139	0	0	0	0	2,139
Subtotal		**5,232**	**8,862**	**5,000**	**7,601**	**0**	**0**	**612**	**0**	**27,306**
Sales to Other Agencies	Chino Hills	0	0	0	0	0	0	-4,439	0	-4,439
	MVWD	0	0	0	0	0	0	0	-612	-612
	Ontario	0	0	0	0	0	0	0	-172	-172
	Upland	0	0	0	0	0	0	0	-3,177	-3,177
Subtotal		**0**	**0**	**0**	**0**	**0**	**0**	**-4,439**	**-3,961**	**-8,400**
	Total	**22,884**	**16,087**	**41,147**	**19,992**	**48,902**	**39,807**	**9,419**	**2,129**	**200,366**

FY 13-14		Total IEUA Service Area Water Use by Retail Agency for FY 13-14 (AFY)								
		CHINO	CHINO HILLS	ONTARIO	UPLAND	CVWD	FWC	MVWD	SAWCo	TOTAL
Purchases from IEUA	Imported Water (MWD)	4,342	962	9,904	7,265	28,825	9,792	5,965	0	67,055
	Recycled (Direct Use)	8,916	2,002	8,428	869	1,652	0	339	0	22,205
Subtotal		**13,258**	**2,964**	**18,332**	**8,134**	**30,477**	**9,792**	**6,304**	**0**	**89,261**
Production	Chino Groundwater	6,725	2,138	21,723	2,822	16,122	15,378	12,522	0	77,430
	Other Groundwater	0	0	0	704	8,324	17,454	0	12,610	39,092
	Local Surface Water	0	0	0	0	1,254	2,405	0	0	3,658
Subtotal		**6,725**	**2,138**	**21,723**	**3,526**	**25,700**	**35,236**	**12,522**	**12,610**	**120,180**
Purchases from Other Agencies	CDA	5,198	4,396	5,141	0	0	0	0	0	14,735
	CVWD	0	0	0	0	0	757	0	0	757
	MVWD	0	8,427	0	0	0	0	0	0	8,427
	SAWCo Water	0	0	0	9,662	0	0	400	0	10,063
	West End	0	0	0	2,653	0	0	0	0	2,653
Subtotal		**5,198**	**12,824**	**5,141**	**12,316**	**0**	**757**	**400**	**0**	**36,636**
Sales to Other Agencies	Chino Hills	0	0	0	0	0	0	-8,428	0	-8,428
	MVWD	0	0	0	0	0	0	0	-400	-400
	Upland	0	0	0	0	0	0	0	-9,662	-9,662
Subtotal		**0**	**0**	**0**	**0**	**0**	**0**	**-8,428**	**-10,063**	**-18,490**
	Total	**25,181**	**17,926**	**45,196**	**23,975**	**56,177**	**45,785**	**10,798**	**2,547**	**227,586**

FY 12-13		Total IEUA Service Area Water Use by Retail Agency for FY 12-13 (AFY)								
		CHINO	CHINO HILLS	ONTARIO	UPLAND	CVWD	FWC	MVWD	SAWCo	TOTAL
Purchases from IEUA	Imported Water (MWD)	4,085	1,822	10,244	6,067	25,845	5,215	5,737	0	59,013
	Recycled (Direct Use)	8,957	1,890	6,894	264	1,231	0	327	0	19,562
Subtotal		**13,042**	**3,711**	**17,138**	**6,331**	**27,075**	**5,215**	**6,063**	**0**	**78,575**
Production	Chino Groundwater	7,022	3,134	20,801	2,358	18,740	33,576	10,325	0	95,956
	Other Groundwater	0	0	0	1,349	6,420	0	0	13,376	21,145
	Local Surface Water	0	0	0	0	1,921	4,059	0	0	5,980
Subtotal		**7,022**	**3,134**	**20,801**	**3,707**	**27,081**	**37,635**	**10,325**	**13,376**	**123,081**
Purchases from Other Agencies	CDA	4,805	4,075	4,792	0	0	0	0	0	13,671
	MVWD	0	6,949	0	0	0	0	0	0	6,949
	SAWCo Water	0	0	0	9,594	0	0	841	0	10,435
	West End	0	0	0	3,692	0	0	0	0	3,692
Subtotal		**4,805**	**11,024**	**4,792**	**13,286**	**0**	**0**	**841**	**0**	**34,747**
Sales to Other Agencies	Chino Hills	0	0	0	0	0	0	-7,249	0	-7,249
	MVWD	0	0	0	0	0	0	0	-841	-841
	Upland	0	0	0	0	0	0	0	-9,594	-9,594
Subtotal		**0**	**0**	**0**	**0**	**0**	**0**	**-7,249**	**-10,435**	**-17,684**
	Total	**24,868**	**17,869**	**42,731**	**23,324**	**54,157**	**42,850**	**9,980**	**2,941**	**218,719**

FY 11-12		Total IEUA Service Area Water Use by Retail Agency for FY 11-12 (AFY)								
		CHINO	CHINO HILLS	ONTARIO	UPLAND	CVWD	FWC	MVWD	SAWCo	TOTAL
Purchases from IEUA	Imported Water (MWD)	2,743	2,173	10,661	6,446	26,144	1,202	3,506	0	52,876
	Recycled (Direct Use)	8,274	1,567	7,493	0	1,019	0	288	0	18,641
Subtotal		**11,018**	**3,740**	**18,154**	**6,446**	**27,163**	**1,202**	**3,793**	**0**	**71,517**
Production	Chino Groundwater	7,856	3,566	19,164	526	14,949	28,748	10,538	0	85,346
	Other Groundwater	0	0	0	1,246	5,933	0	0	12,328	19,507
	Local Surface Water	0	0	0	0	4,070	12,674	0	0	16,744
Subtotal		**7,856**	**3,566**	**19,164**	**1,772**	**24,952**	**41,421**	**10,538**	**12,328**	**121,597**
Purchases from Other Agencies	CDA	4,887	4,236	4,838	0	0	0	0	0	13,961
	MVWD	0	5,416	0	0	0	0	0	0	5,416
	SAWCo Water	0	0	0	8,309	0	0	1,277	0	9,586
	West End	0	0	0	3,324	0	0	0	0	3,324
Subtotal		**4,887**	**9,652**	**4,838**	**11,633**	**0**	**0**	**1,277**	**0**	**32,287**
Sales to Other Agencies	Chino Hills	0	0	0	0	0	0	-5,661	0	-5,661
	MVWD	0	0	0	0	0	0	0	-1,277	-1,277
	Upland	0	0	0	0	0	0	0	-8,309	-8,309
Subtotal		**0**	**0**	**0**	**0**	**0**	**0**	**-5,661**	**-9,586**	**-15,247**
	Total	**23,761**	**16,959**	**42,156**	**19,851**	**52,115**	**42,624**	**9,947**	**2,742**	**210,154**

APPENDIX B

Definitions

Chino Basin Groundwater – Water pumped from the Chino Basin Aquifer and treated by retail water agencies for all potable uses within the IEUA service area.

Desalter Water – Water pumped from Chino Basin Desalter I owned and operated by the Chino Basin Desalter Authority (CDA). Groundwater, with high levels of dissolved solids, is treated and distributed to several retail agencies within the IEUA's service area for potable uses.

Imported Water (MWD) – Water from Northern California and supplied by the Metropolitan Water District of Southern California (MWD), and water transferred from other groundwater basins to retail water agencies operating within the IEUA service area. All Tier I and Tier II deliveries are included in this category.

Other Groundwater – Water produced from other local groundwater basins to retail water agencies operating within IEUA's service area.

Surface Water – Water collected by retail water agencies from mountain runoff and storm flows, which is collected and treated for potable use.

Recycled Water – Title 22 recycled water produced by the IEUA at its water recycling plants for distribution through separate pipelines to retail water agency customers for all non-potable uses.

WECWC– West End Consolidated Water Company supplies some water to the City of Upland.

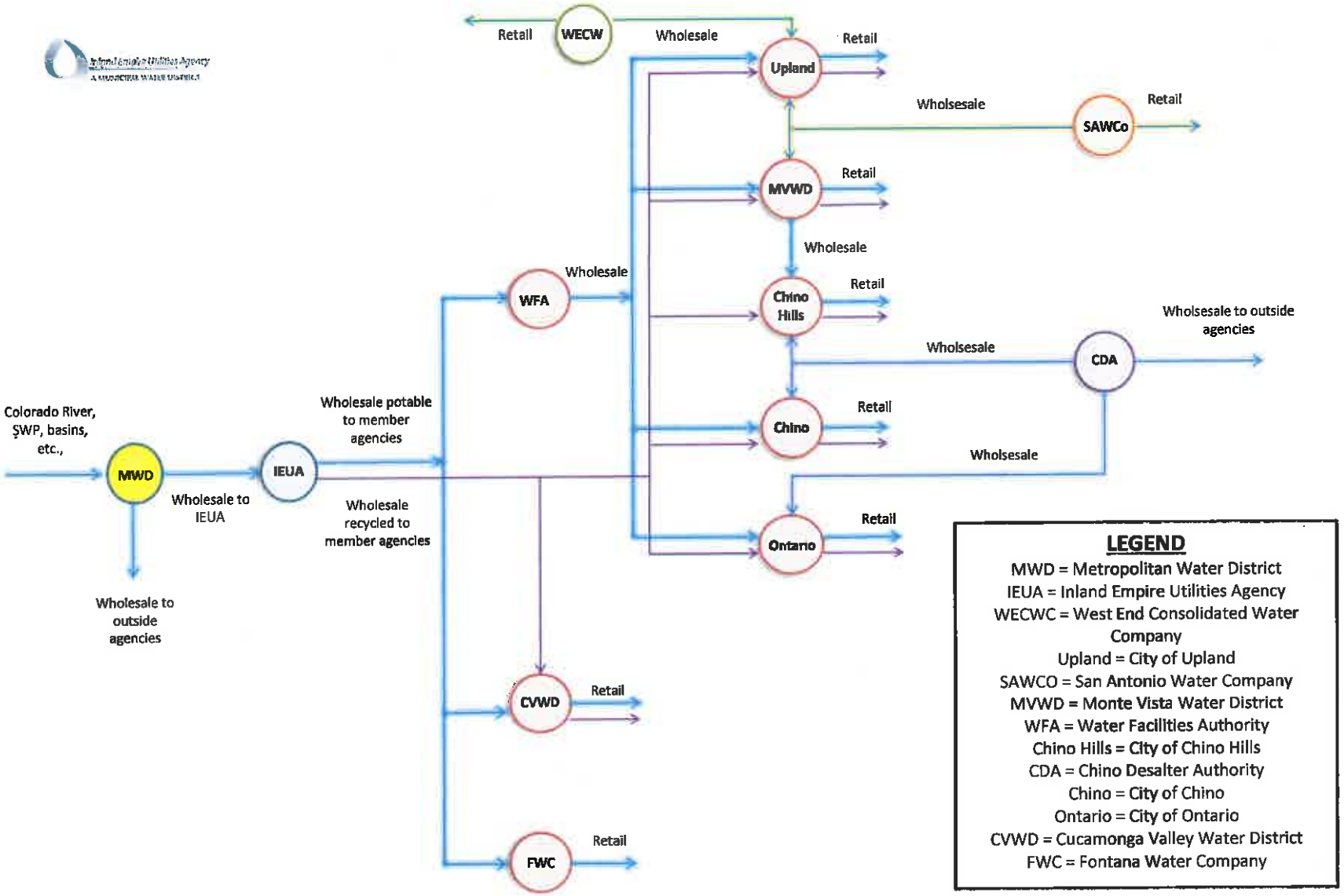
WVWD – West Valley Water District

Production – Amount of water Agencies produce from their groundwater, surface water, or other water supplies that they have rights or jurisdiction over.

Use – Amount of water used within a member agency's jurisdiction, as reported by them to IUEA.

APPENDIX C

Member Agency Organizational Chart



LEGEND

MWD = Metropolitan Water District
IEUA = Inland Empire Utilities Agency
WECWC = West End Consolidated Water Company
Upland = City of Upland
SAWCO = San Antonio Water Company
MVWD = Monte Vista Water District
WFA = Water Facilities Authority
Chino Hills = City of Chino Hills
CDA = Chino Desalter Authority
Chino = City of Chino
Ontario = City of Ontario
CVWD = Cucamonga Valley Water District
FWC = Fontana Water Company

APPENDIX D

Powerpoint Presentations for Governor's Executive Order

Technical and Procedural Aspects of Implementing the EO Efficiency Standards

1. Residential Overview
    - Indoor Implementation Protocol
    - Outdoor Implementation Protocol
2. CII and Water Loss Overview
    - Technical Issues

Data for Residential Efficiency Formula

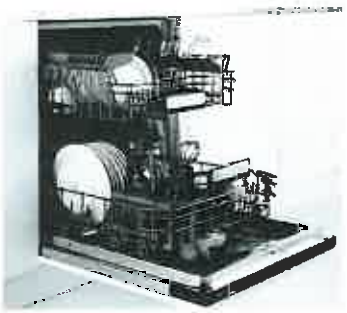
- Collect necessary data:
  - Agency by Agency Single Family Residential landscape area (Aggregated)
    - Shape files for each agency
    - Statewide aerial imagery
    - Averaged/weighted ET per service area
    - Aggregated residential / irrigation efficiency target by agency

Water Efficiency Formula

(# of Residents) (gpcd) + (ET) (Landscape Area) (ET Factor)

indoor

outdoor






Indoor Variables

1) Population or people per household

1. Population or People per Household

DWR Population Tool

- Many utilities used this tool to complete their 2015 UWMP

Urban Water Management Tools

The UWMP Tool allows urban water suppliers to electronically submit their Urban Water Management Plans (UWMPs) to DWR.

Launch UWMP Tool

Timeline: Completed as part of UWMP	Cost: Completed as part of UWMP	Accuracy: moderate (depends on nature of growth)

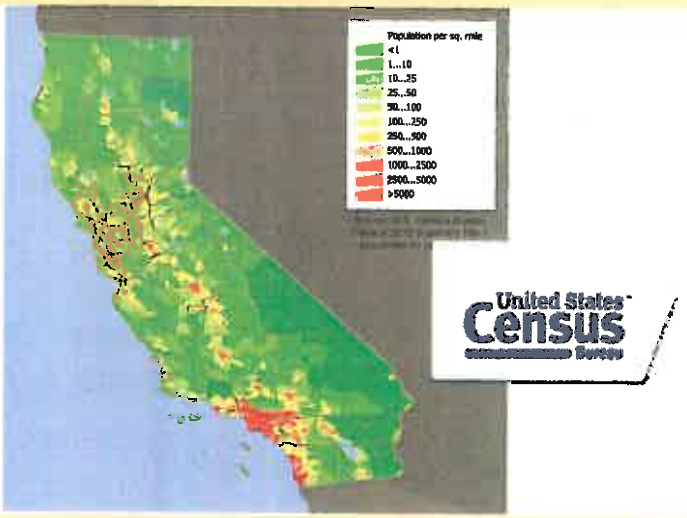
Issues: Growth in a service area

Solutions: Flexibility to update, utilizing a variance process for all agencies to DWR

1. Population or People per Household

Census + Meter Data

- Agency provides population data and/or DWR utilizes Census data.
- Verifying large households can also be done by checking meter reads for actual use



Timeline: Completed as part of UWMP	Cost: Completed as part of UWMP	Accuracy: moderate (depends on alignment of census block and utility boundaries)

Issues: Home by home occupancy is not necessary. Aggregated population within the district is sufficient for calculating an agency efficiency target.

Solutions: Use best available population data either inside the agency, from local sources or Census data. Utilize a "variance" or adjustment process for consistent updates for growth to calculate accurate agency target levels.

(# of Residents) (gpcd) + (ET) (Landscape Area) (Plant Factor)

indoor

outdoor

Outdoor Variables

1) ET
2) Landscape Area
3) Commercial, Industrial, Institutional

Outdoor

1. ET—CIMIS

- Free on CIMIS website
- Coverage challenges in certain urban areas
- How to address multiple micro-climate service areas will be key

Timeline: Currently available

Cost: free

Accuracy: Low (>85%)

Varies per station location and microclimates

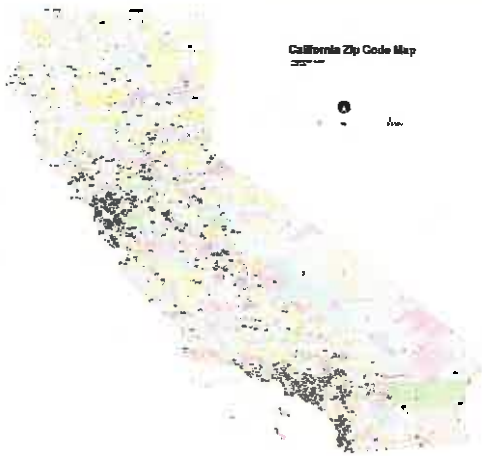
Issues: Proximity of the station to the agency service area; where customers and water use is within the service area; reliability of weather station reporting data; developing "average" ET for agencies with multiple micro-climates

Solutions: Specific to agencies, including using an agreed-to CIMIS station, using Spatial CIMIS, installing an ET station within the service area, utilizing a private sector vendor to produce local, averaged/weighted ET for the service area.

Outdoor

1. ET—Spatial CIMIS

- The ability to collect estimated ET for a time-period on a zip code basis
- A product of DWR



Timeline: Currently available (challenges with web interface)	Cost: free	Accuracy: Low (>85%) Varies per station location and microclimates

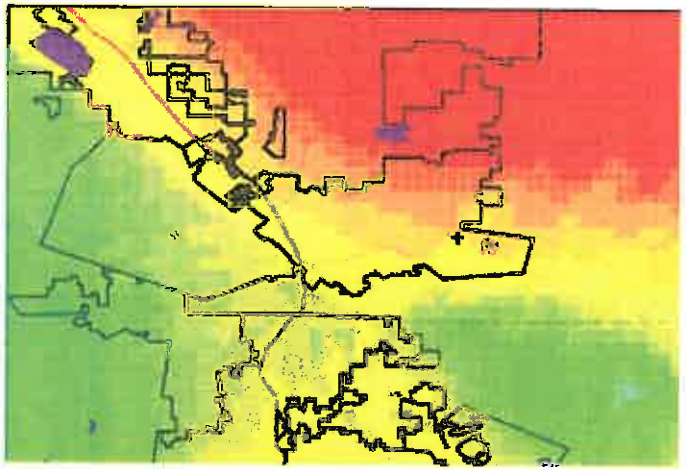
Issues: Availability of Spatial CIMIS for a given zip code. Ability to "average" ET in a large service area or in a service area with different microclimates across zip codes.

Solutions: Agencies work directly with DWR. Agencies work with private vendors to develop an appropriate ET for reporting.

Outdoor

1. ET—Private Vendors

- HydroPoint Data Systems
- Omni Earth/Weather Analytics
- Western Weather Network
- Others



Timeline: 6-9 months	Cost: $2-3M	Accuracy: Medium (85-95%)

Issues: Ability to accurately calculate a single ET value for each reporting period. Opportunity for individual vendors to use private sector ET data for a varied service area.

Solutions: Work with vendors to test the efficacy of this approach as a solution.

Outdoor

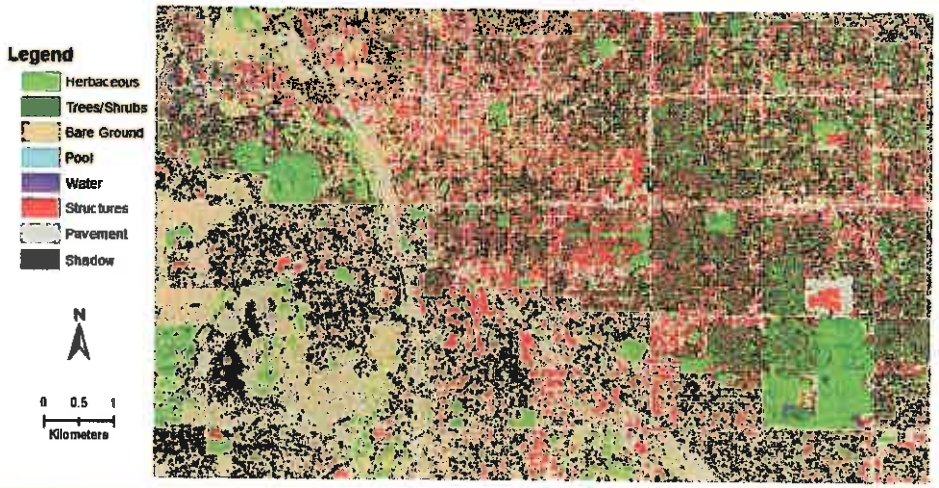
2. Land Cover Measurement---Challenges across methods

- Age of development
  - Wide variation in data quality and accessibility across county assessors
- Edge case land uses
  - Horse paddocks, Urban farming, etc.
- Drought impact on vegetation color
  - Normally irrigated areas may have gone brown during drought
- Proposed solutions
  - Start with initial conservative measurements as a starting point
  - Use variance process and iteratively refine data

Outdoor

2. Land Cover Measurement—NAIP Imagery Analysis

- National Agriculture Inventory Program (NAIP)
- Free imagery
- Updated every 2 years
- Available via the California Data Collaborative (Claremont Graduate University)



Timeline: 6 months

Cost: $1M

Accuracy: Moderate (85-95%)

Issues: Lower resolution imagery with moderate to high accuracy depending upon the service area characteristics; free imagery every 2 years for updating land cover. Recognition of shadow and/or irrigable areas, particularly in wild-land interface areas.

Solutions: Sample ground truthing or hand GIS measurement.

Outdoor

2. Land Cover Measurement— Fully Automated Imagery

- Computerized calculation w/ learning over time (from new imagery)
- Example Vendors
  Omni Earth Inc.
  SRI

Timeline: 6 months	Cost: $2-3 M	Accuracy: Moderate (85-95%)

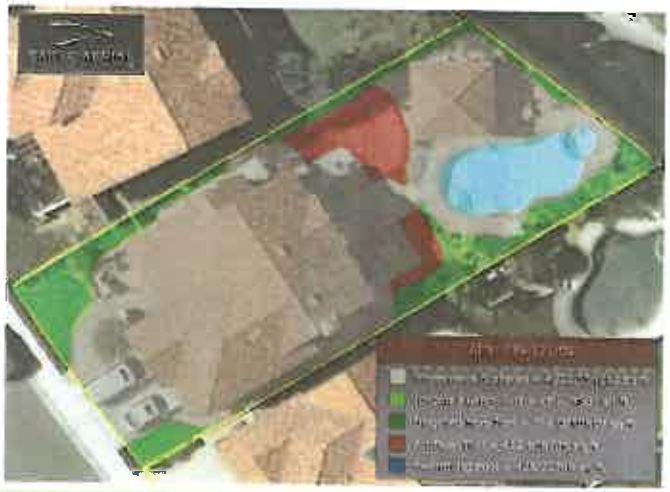
Issues: Recognition of shadow and/or irrigable areas, particularly in wild-land interface areas; common to any aerial imagery source.

Solutions: Sample ground truthing or hand GIS measurement

Outdoor

2. Land Cover Measurement—Automated + Manual Analysis

- Computerized calculation combined with hand and visual sample verification
- Example Vendor: Eagle Aerial Inc.



Timeline: 12 months	Cost: $3-5M	Accuracy: High (>95%)

Issues: While this method is highly accurate, the timing of aerial imagery flights, shadow areas, tree canopy and parcel data alignment (common to any methods) are consistent issues with aerial imagery.

Solutions:

Outdoor

2. Land Cover Measurement— Hand Measure

- Physical measurements on site for each parcel involved

Timeline: 24+ months	Cost: $5+ M	Accuracy: Medium (85-95%)

Issues: Labor intensive; Parcel boundaries may not align with on the ground property

Solutions: use only for edge cases. Allow agency provided data to update imagery under a variance program.

Outdoor

3. Commercial, Industrial, Institutional- Aggregated

- Use selected land cover measurement technique to total CII regardless of parcel/ water supply source

Timeline: Comparable to land cover measurement method used	Cost: Bundled in landscape measurement approach	Accuracy: Comparable to land cover measurement method used

Issues: Disentangling recycled water from potable water landscape area is challenging on an aggregate basis.

Solutions: Diving to the meter level, using a formula to estimate landscape area for recycled water CII versus potable water CII. Customer driven landscape sf method.

Outdoor

3. Commercial, Industrial, Institutional- by meter

- Input metered data by agency into CaDC to breakout indoor versus outdoor and recycled water versus potable.

Timeline: 5 years	Cost: $2-3 M	Accuracy: Dependent on method- potentially over 95%

Issues: Most accurate method to breakdown CII usage to achieve specific policy goals by water source. Some agencies do not breakout indoor versus outdoor CII.

Solutions: Develop process to transition all CII to indoor versus outdoor metering with state assistance.

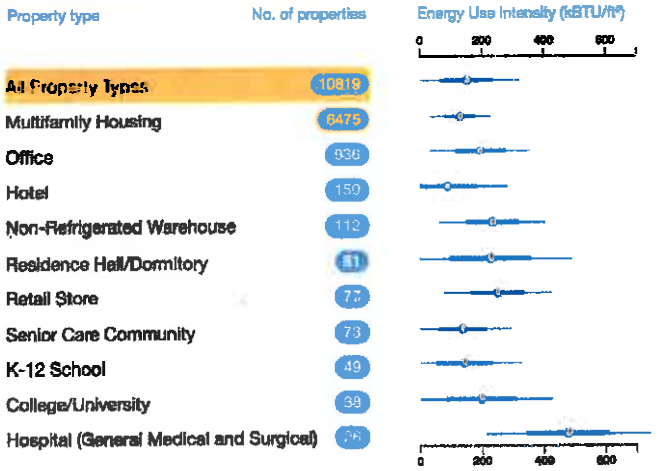
Other Efficiency Standards Issues

1) Commercial, Industrial, Institutional
2) Water Loss

Other Efficiency Standards Issues

1. Benchmarking commercial, industrial, and institutional

- Examples for improvement in energy star score and water / energy efficiency benchmarking in NYC



Timeline: TBD

Cost: Proprietary datasets to scale algorithms statewide

Accuracy: High

Issues: Warehouse, offices and restaurants have very different water use requires and thus there is a need to categorize CII customers at a finer grain. Opportunity to learn from energy benchmarking

Solutions: partnership with NYU CUSP to benchmark water efficiency for more granular customer categories.

Other Efficiency Standards Issues

2. Water loss

- Opportunity for analytics to support utility managers in achieving leak loss detection

Timeline: TBD	Cost: TBD	Accuracy: depends on approach

Issues: large variation in metering and data management practices across California 411 major urban retailers and other water systems.

Solutions: one example of the value of integrating meter level water use and flow data across districts.

Conclusion and key takeaways

- Governor's EO data requirements are **achievable**
- Data requirements are best fulfilled through an **phased approach**
- **Variance process** for agency data is integral for buy-in and building accuracy
- Integrated public/private expertise and **partnership** option available through CaDC

Executive Order Water Efficiency

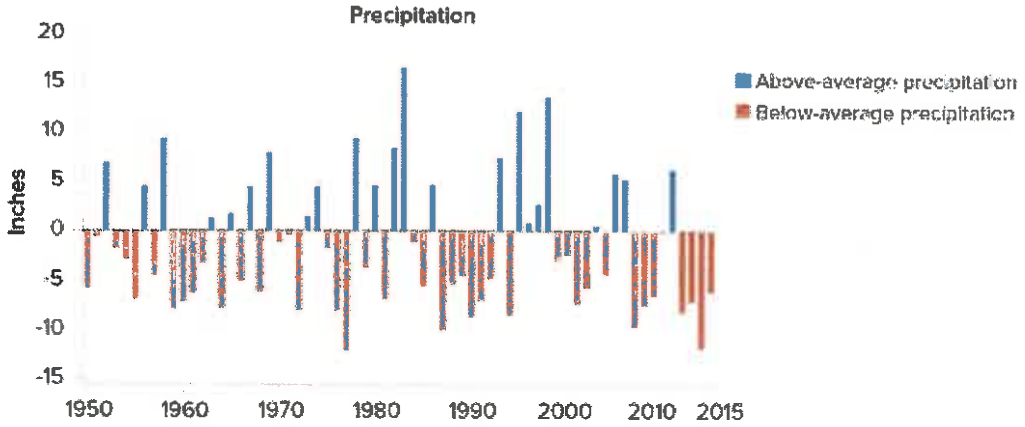
Efficiency Formula Detail

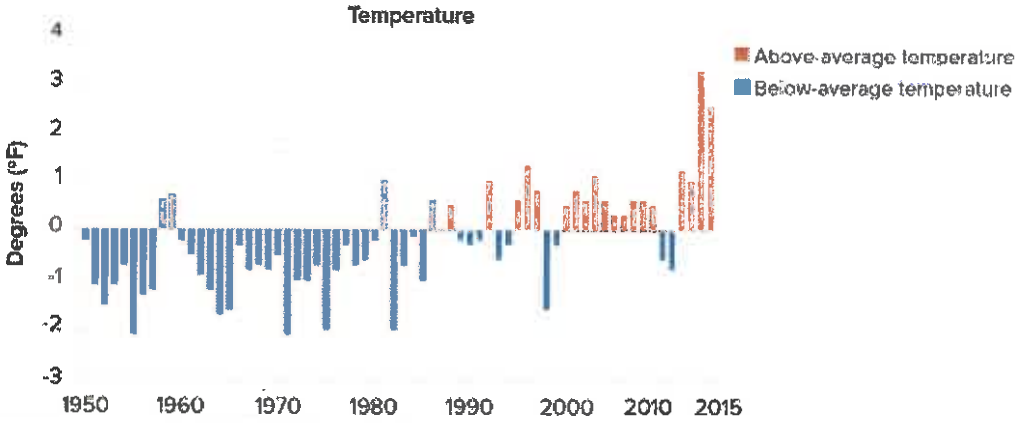
Outline

- Executive Order Context
- Existing Legislation Related to the Executive Order
- Breakdown of the Efficiency Formula and Framework

Drivers for Water Efficiency

- Precipitation is decreasing while temperatures are increasing across the State
- Drought conditions may become the "new normal"
- Future water supplies are uncertain
- Population growth
- Environmental health





Source: Public Policy Institute of California

Existing Legislation Links to the Executive Order

- State Constitution Article 10, Section 2
  "...the waste and unreasonable use of water be prohibited"
- AB 1881 – Model Water Efficient Landscape Ordinance (MWELO, 2006)
  Established efficient landscape allocation formula
- SBX7-7 – 20% Reduction by 2020 (2009)
  Established indoor and outdoor efficiency targets
- Executive Order B-37-16: Making Conservation a Way of Life (May, 2016)
  "These new water use targets shall build upon the existing state law requirements that the state achieve a 20% reduction in urban water usage by 2020."
- California Water Action Plan, 2016
  "Conservation must become a way of life"

Executive Order Requirements

- Meet **efficiency** standards
- **Equitable** across the state
- **Customized** to each agency

"These water use targets shall be ***customized to the unique conditions of each water agency,*** shall generate more statewide water conservation than existing requirements, and shall strengthen standards for:

a. Indoor residential per capita water use SBX7-7d: (# of residents) (55 gpcd)

b. Outdoor irrigation, in a manner that incorporates landscape area, local climate and new satellite imagery data: MWELO: (ET) (Landscape area) (ETAF)

c. Commercial, Industrial, and Institutional water use, and

d. Water Loss through leaks"

Key Definitions

(# of Residents) (55 gpcd) + (ET) (Landscape Area) (.80)

Senate Bill No. 7

CHAPTER 4

[Approved by Governor November 10, 2009. Filed with Secretary of State November 10, 2009.]

" Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. **However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.**

10608.4. It is the intent of the Legislature, by the enactment of this part, to do all of the following:

(a) Require all water suppliers to **increase the efficiency of use** of this essential resource."

What is efficiency?

Definition: *to eliminate waste/ optimize use*

What is conservation?

Definition: *to use less*

Executive Order Formula

(# of Residents) (55 gpcd) + (ET) (Landscape Area) (.80)

EXECUTIVE ORDER 8-37-16
MAKING WATER CONSERVATION A CALIFORNIA WAY OF LIFE

USE WATER MORE WISELY

- The Department of Water Resources (Department) shall work with the Water Board to develop new water use targets as part of a permanent framework for urban water agencies. These new **water use targets shall build upon the existing state law** requirements that the state achieve a 20% reduction in urban water usage by 2020. (Senate Bill No. 7 (7th Extraordinary Session, 2009-2010).) These water use targets shall be customized to the unique conditions of each water agency, shall generate more statewide water conservation than existing requirements, and shall be based on strengthened standards for:
  - Indoor residential per capita water use; (55 gpcd; SBX7-7)
  - Outdoor irrigation, in a manner that incorporates landscape area, local climate, and new satellite imagery data; (AB 1881/MWELO)
  - Commercial, industrial, and institutional water use; and (SBX7-7)
  - Water lost through leaks.

Application of the Formula:

- Applied to every agency statewide
- Every agency has an customized target
- Agency characteristics and past performance are recognized
- Target changes with weather and growth

Applying an Efficiency Formula

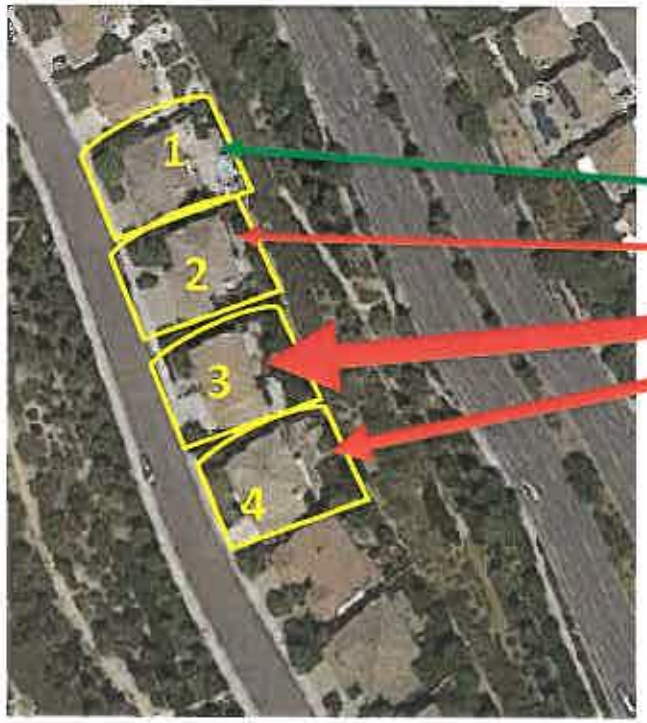
(# of Residents) (55 gpcd) + (ET) (Landscape Area) (.80)

Efficiency Target (one month) = (4) (55gpcd) + (7" ET) (3,000 sf) (.80) = 14 ccf (10,472 gal.)

- 4 homes
- Same lot size
- Same number of residents per household
- Same weather (ET)

Measuring Efficiency

(# of Residents) (55 gpcd) + (ET) (Landscape Area) (.80)



Use	% Target	Gallons saved ↓ / wasted ↑
• 12 CCF	(85% ↓)	(1,496 gallons ↓)
• 25 CCF	(78% ↑)	(8,228 gallons ↑)
• 39 CCF	(178% ↑)	(18,700 gallons ↑)
• 26 CCF	(85% ↑)	(8,976 gallons ↑)

Customized Targets for Statewide Efficiency

EXECUTIVE ORDER 8-37-16

MAKING WATER CONSERVATION A CALIFORNIA WAY OF LIFE

- The Department of Water Resources (Department) shall work with the Water Board to develop new water use targets as part of a permanent framework for urban water agencies. These new water use targets shall build upon the existing state law requirements that the state achieve a 20% reduction in urban water usage by 2020. (Senate Bill No. 7 (7th Extraordinary Session, 2009-2010).) **These water use targets shall be customized to the unique conditions of each water agency**, shall generate more statewide water conservation than existing requirements, and shall be based on strengthened standards for:
  - Indoor residential per capita water use;
  - Outdoor irrigation, in a manner that incorporates landscape area, local climate, and new satellite imagery data;

What is "customized"?

Customer level data across agency service areas:

- Land cover 
- Weather (aka ET) 
- Population United States Census

Indoor Efficiency Formula Variables

(# of Residents) (55 gpcd) + (ET) (Landscape Area) (.80)

Where:

Indoor Efficiency Target (SBX7-7):

✓**# of Residents**: number of residents

✓**55 gpcd:** Current indoor efficiency factor

The Indoor Efficiency Standard is:

- Relative to agencies across the state
- Impartial to family size
- Comes from existing legislation (SBX7-7)
- Reflects customer reality (# of residents and a mix of plumbing new/old plumbing fixtures)

Outdoor Efficiency Formula Variables

(# of Residents) (55 gpcd) + **(ET) (Landscape Area) (.80)**

Outdoor Efficiency Target (MWELO):

- **ET:** reflects the actual ET averaged across the individual agency service area (DWR, MWELO, Ex. Order)
- **Landscape Area:** includes landscape area for the specific agency (SBX7-7, MWELO, Ex. Order)
- **ETAF (Evapotranspiration Adjustment Factor):** Set by the State to reflect a reasonable water allowance for a landscape (SBX7-7, MWELO, Ex. Order)

Current & New MWELO

Special Landscapes 1.00

Existing Residential .80

Existing Commercial .70

New Residential .55

New Commercial .45

Plant Water Needs:

Turf (cool season)

Street Trees

Fruit Trees

Mediterranean plants

Calif. Native plants

Is Efficiency a Brown Lawn?

No.

✓The turf pictured operates at 80% of local ET as per agency allocations.

Crop coefficients (K_c) for cool-season and warm-season turfgrasses in California[1].

Month	Cool-Season[2]	Warm-Season[3]
January	0.61	0.61
February	0.64	0.54
March	0.75	0.76
April	1.04	0.72
May	0.95	0.79
June	0.88	0.68
July	0.94	0.71
August	0.86	0.71
September	0.74	0.62
October	0.75	0.54
November	0.69	0.58
December	0.60	0.55
Annual Average	*0.80*	*0.60*

Source: UC Cooperative Extension

Is Efficiency One Size Fits All?

No.

The Executive Order states, **"water use targets shall be customized to the unique conditions of each water agency…"**

(# of Residents)	**(55 gpcd)**	**+**	**(ET)**	**(Landscape Area)**	**(ETAF)**
Unique to agency	Indoor target		Local Weather	Unique to agency	Outdoor target

✓All agencies <u>are</u> <u>different</u> and are recognized in the efficiency formula framework.

Is there Local Discretion to Achieve Efficiency?

Yes.

- ✓The framework for efficiency establishes a **performance standard for reporting water use**
- ✓Each agency has **complete discretion** of how to achieve the efficiency target
- ✓**There is no stipulation** within the Executive Order to require agencies to adopt rate structures or any other specific method to meet efficiency targets

Flexibility of the Executive Order Framework

- Population changes or growth can be recognized in the framework

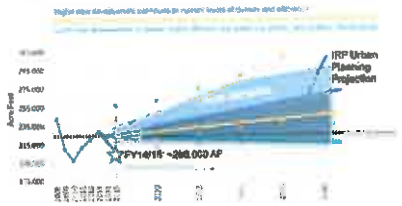
  (# of Residents) (55 gpcd) + (ET) (Landscape Area) (.80)

- Weather changes can be accommodated in the framework

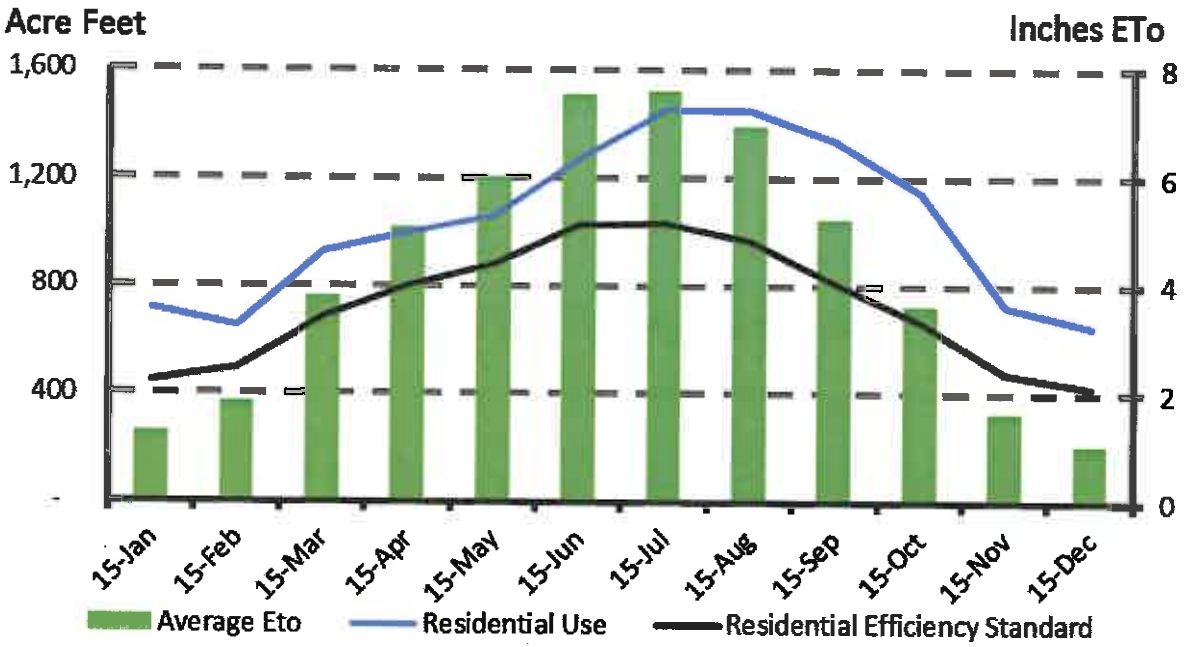
  (# of Residents) (55 gpcd) + (ET) (Landscape Area) (.80)

- Changes in landscape area, such as growth, can be adjusted as growth occurs

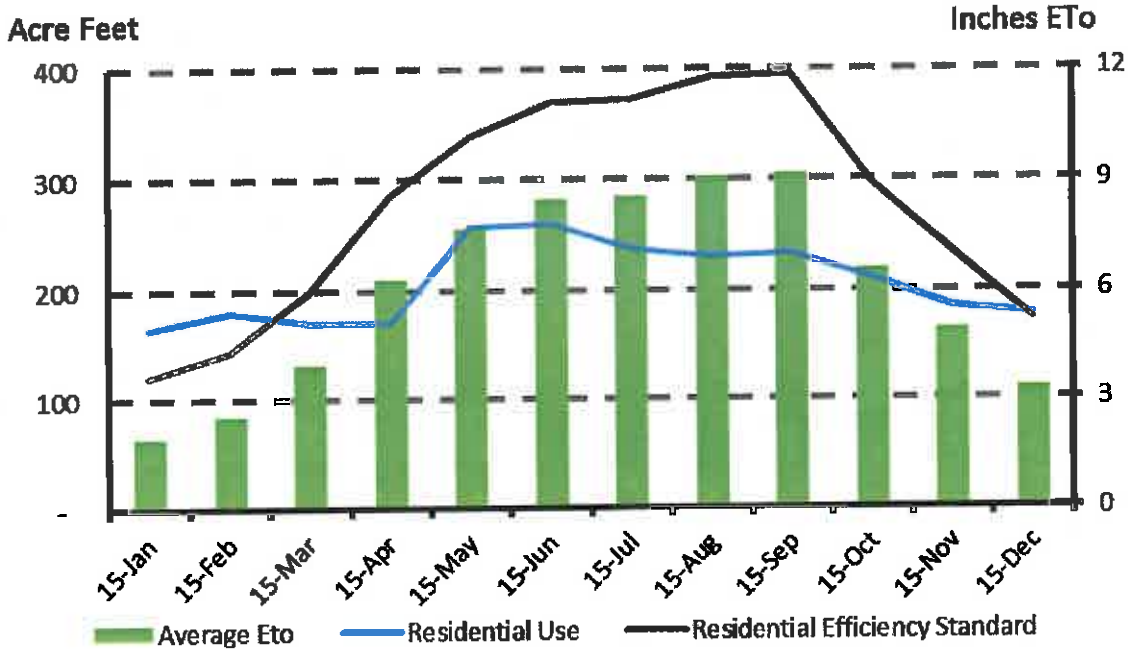
  (# of Residents) (55 gpcd) + (ET) (Landscape Area) (.80)



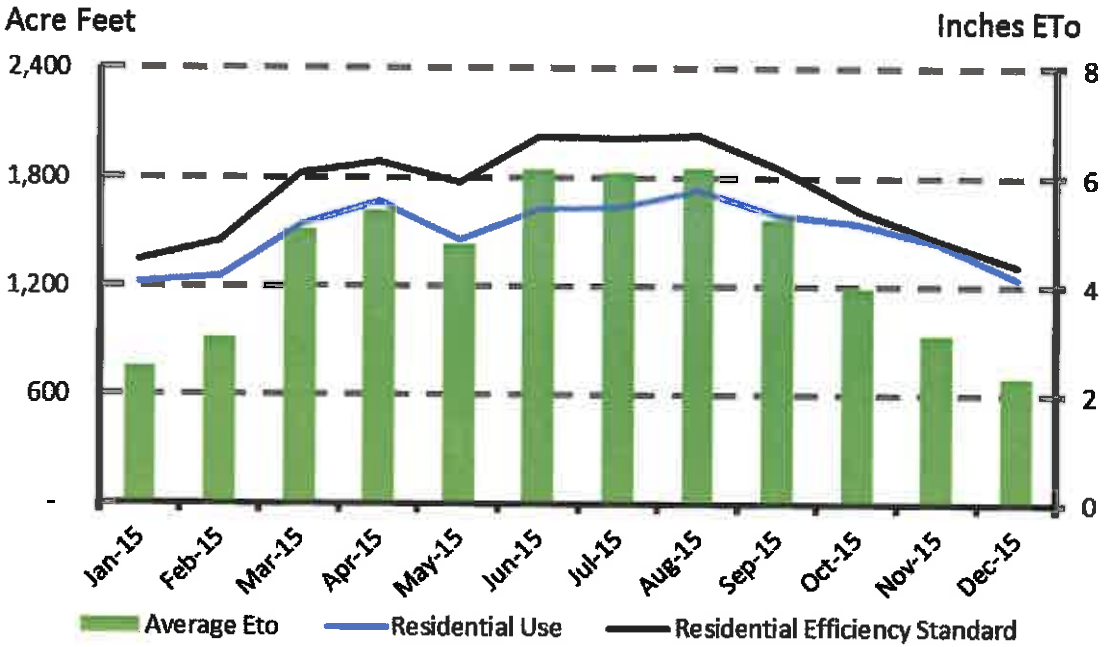
Anytown California #1 – *example community in Sacramento hydrologic region*



Anytown California #2– *sample community in Colorado River Hydrologic Region*



Anytown California #3– *sample community in South Coast hydrologic region*



Summary of Efficiency Formula Breakdown

Measuring efficiency provides a framework that can reduce water waste by:

- Establishing a **standardized** efficiency formula for agencies statewide
- Providing a formula that **customizes** efficiency targets with agency characteristics
- Calculating an efficiency target from the **aggregated** land cover (landscape area), population and weather data for an agency
- Offering **flexibility** for changes in weather, legislation, growth, etc.
- Utilizing existing efficiency standards in legislation for **equitable application** across the state

RECEIVE AND FILE

3E

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date: October 27, 2016

To: Regional Technical Committee

From: Inland Empire Utilities Agency

Subject: FY 2015/16 IEUA Annual Water Use Efficiency Programs Report

RECOMMENDATION

This is an information item for the Regional Committees to review.

BACKGROUND

The item will be presented as an informational item at the IEUA Board of Directors meeting on November 16, 2016, and will go through the Public, Legislative Affairs, and Water Resources Committee on November 9, 2016.

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date: November 16, 2016

To: The Honorable Board of Directors

From: P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch
Executive Manager of Engineering/Assistant General Manager

Sylvie Lee
Manager of Planning and Environmental Compliance

Subject: FY 2015/16 IEUA Annual Water Use Efficiency Programs Report

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Inland Empire Utilities Agency (IEUA) and its regional water use efficiency partners strive to increase regional sustainability through development of local water supplies and reduced dependence on more costly and increasingly less reliable imported water. Water use efficiency (WUE) is universally regarded as the most cost effective method to reduce water demands. The region has made substantial investments in WUE initiatives over the past 24 years and continues to strategically plan for present and future water supply challenges.

Each year, IEUA prepares a comprehensive WUE report that captures all activities that occurred during the prior fiscal year. This report tracks the progress that has been made toward goals and objectives outlined in IEUA's Regional WUE Business Plan. For each member agency a regional WUE summary perspective is included as well as service area specific data and activities that provide the foundation for regulatory compliance with State WUE statutes. The report serves as a benchmark for assessing and evaluating overall program performances for planning existing and future programs.

IEUA currently offers a suite of WUE programs to improve landscape management and reduce outdoor water use. Over the last fiscal year, approximately 65,942 water saving technologies/services were implemented throughout the service area.

The water savings achieved through these regional demand reduction activities is estimated to be 1,858 acre-feet (AF) per year, with an average lifetime savings of 21,470 AF, and adds to IEUA's cumulative lifetime water savings of 133,937 AF for all water conserving activities since 1992.

WUE and conservation are key fundamentals of the IEUA's short and long-term water resource management strategies. Over the last year, IEUA has taken proactive steps to boost conservation efforts through allocating IEUA's resources for the funding of data analytics, technology-based software, and support for development of sustainable water rate structures. In addition, IEUA currently participates in the Data Collaborative, a coalition of water utilities working together to pioneer new data infrastructure that supports water managers in meeting their reliability objectives.

Policies and practices are shaped largely by core strategies and programs designed to meet regulatory requirements of the following initiatives:

- State-mandated Drought Emergency Conservation Regulation (short-term)
- State-mandated Long-Term Conservation Regulations
- Surpassing SBX 7-7 - The Water Conservation Act of 2009 (reduction in per capita water use by 20% by 2020)
- Assembly Bill 1881 – The Model Water Efficient Landscape Ordinance
- State grant and loan eligibility requirements
- Future WUE legislation and regulations

Sustained reduction in water use, as mandated by state legislation, will be met through IEUA's member agency regional alliance and IEUA's continued commitment to implement innovative WUE programs that create market transformations. Many of these programs have been made possible through funding partnerships with local agencies, including the Metropolitan Water District of Southern California, the Department of Water Resources, the U.S. Bureau of Reclamation, and public/private partnerships.

These Programs are consistent with IEUA's Business Goal of increasing *Water Reliability* by promoting water use efficiency and education to enhance water supplies within the region; and meeting the region's need to develop reliable and diverse local water resources in order to reduce dependence on imported water supplies.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None.

Attachment: FY 2015/16 IEUA Annual Water Use Efficiency Programs Report and Appendices can be viewed at the following link:

https://ieua.hostedftp.com/CdDc3Jwk1f3K9colpiK9e1i4I

Annual Water Use Efficiency Programs Report FY 2015-16

Lisa Morgan-Perales

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

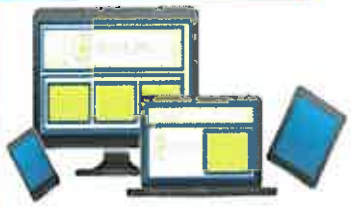
Regional Committees
October/November 2016

FY 2015-2016
Annual WUE Programs Summary

- 65,942 WUE technologies/services implemented
- ~1,858 AF of annual water savings from WUE activities
- Projected lifetime water savings: 21,181 AF
- Total Conservation Program Funding (FY 2015-2016)
  - Outside sources: $10,439,811
  - Agency funding: $1,966,159
  - Imported Tier II ($721) avoided cost: $1,339,618
  - Water Use Efficiency Programmatic Cost Per AF: $92

FY 2015-2016 Regional Priorities

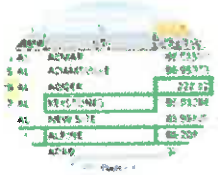
- Statewide Mandatory Reduction Targets
- 2015 Emergency Drought Regulations
- Governor's Executive Order
- Senate Bill X7-7 - The Water Conservation Act of 2009
- Assembly Bill 1420-Demand Management Measures
- Maintain state grant and loan eligibility (IEUA & members)
- Regional Water Use Efficiency Business Plan (2010-2015)
- Compliance with future WUE legislation and regulations



DATA IN

Parcel Data

Imagery



Water Meter Data

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

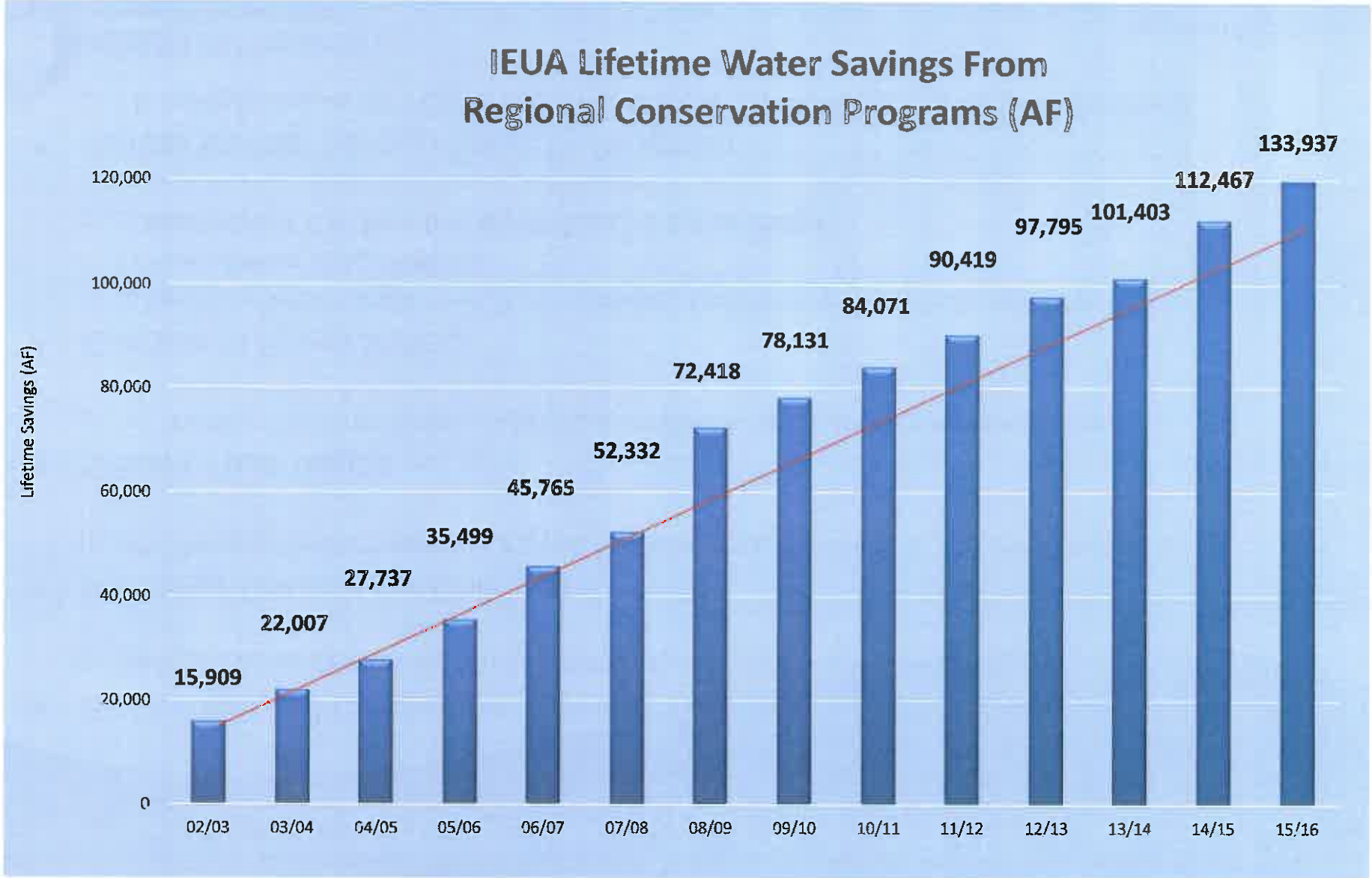
Regional Committees
October/November 2016

FY 2015-2016
Water Use Efficiency Programs

IEUA Locally Implemented WUE Programs	Activity	Savings (AFY)
IEUA Residential Landscape Retrofit Program	501 sites (778 WBICs; 9,135 HE Nozzles	293
Landscape Transformation Program (Turf Removal)	30 sites (26,750 sq. ft.)	4
Freesprinklernozzles.com Voucher Program	227 vouchers (16,874 HE nozzles – Res/CII)	87
Regional Landscape Evaluation and Audit Program	64 residential / 10 CII	58
Residential Pressure Regulation Pilot Program	20 sites (June 2016)	12
Rebates/Devices: Residential and CII	45,671 rebates	1,403

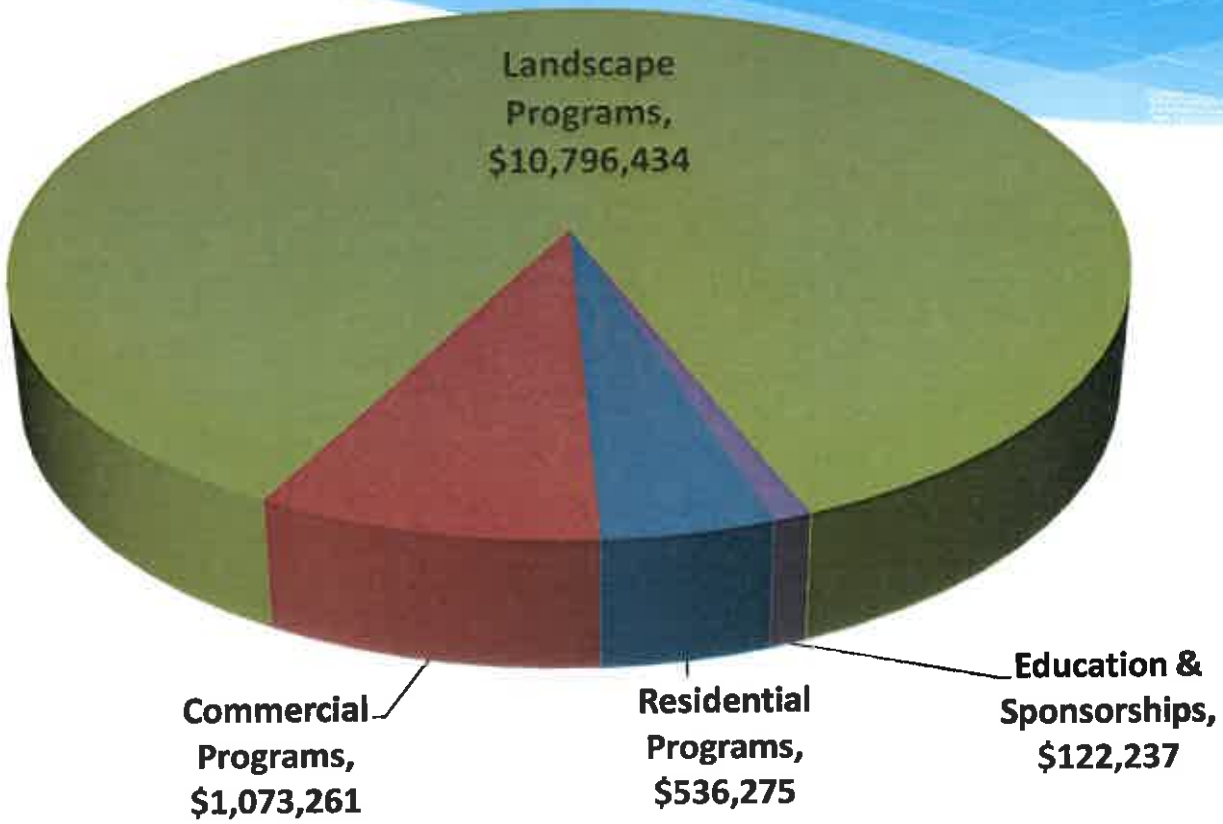
FY 2015-2016
Education & Outreach

- IEUA Regional Landscape Training Workshops
  - 18 residential courses conducted throughout IEUA's service areas
- National Theatre for Children
  - 101 Theater Performances – 27,990 K-6 students, teachers & parents reached
- Shows That Teach
  - 16 Theater Performances – 9,067 K-6 students, teachers & parents reached
- Garden-In-Every School
  - 4 new Gardens Installed – 5,849 students, teachers, and parents reached (Chino, Chino Hills, Fontana)
  - 2 Mini –Grant Gardens Installed (Rancho Cucamonga)
- Water Saving Garden Friendly Program
  - Home Depot Events – Cities of Chino, Rancho Cucamonga, Fontana, and Upland


IEUA Lifetime Water Savings From Regional Conservation Programs (AF)
Lifetime Savings (AF)
120,000
100,000
80,000
60,000
40,000
20,000
0
15,909
22,007
27,737
35,499
45,765
52,332
72,418
78,131
84,071
90,419
97,795
101,403
112,467
133,937
02/03
03/04
04/05
05/06
06/07
07/08
08/09
09/10
10/11
11/12
12/13
13/14
14/15
15/16

FY 2015-2016 WUE Programs

For every $1 invested, IEUA received $5 in outside funding



RECEIVE AND FILE

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Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date: October 27, 2016

To: Regional Technical Committee

From: Inland Empire Utilities Agency

Subject: IEUA IDC Tax Documents

RECOMMENDATION

This is an information item for the Regional Committee to receive and file.

BACKGROUND

The following were requested by the Regional Technical Committee at the September 29, 2016 meeting and is provided as an attachment:

1. IEUA IDC Tax Documents
2. Regional Contract Update/Renewal (October 12, 2016, Special Committee Workshop)
3. Regional Contract Renewal Milestone Response to the Technical Advisory Committee

From: Craig Proctor
Sent: Tuesday, October 11, 2016 7:22 AM
To: 'John Bosler' (JohnB@cvwdwater.com) <JohnB@cvwdwater.com>; 'Braden Yu' (BradenY@cvwdwater.com) <BradenY@cvwdwater.com>; dcrosley@cityofchino.org; Jesus Plasencia (jplasencia@cityofchino.org) <jplasencia@cityofchino.org>; mwiley@chinohills.org; Nadeem Majaj (nmajaj@chinohills.org) (nmajaj@chinohills.org) <nmajaj@chinohills.org>; 'JAlire@cityofchino.org' <JAlire@cityofchino.org>; 'Michael Hudson' (mhudson@cityofmontclair.org) <mhudson@cityofmontclair.org>; 'Nicole deMoet' <ndemoet@cityofmontclair.org>; Chuck Hayes <chays@fontana.org>; Dan Chadwick (dchadwic@fontana.org) <dchadwic@fontana.org>; Scott Burton (sburton@ci.ontario.ca.us) <sburton@ci.ontario.ca.us>; 'KGienger@ontarioca.gov' <KGienger@ontarioca.gov>; rhoerning@ci.upland.ca.us; hnguyen@ci.upland.ca.us
Cc: Joe Grindstaff <jgrindstaff@ieua.org>; Chris Berch <cberch@ieua.org>; Christina Valencia <cvalencia@ieua.org>; Sylvie Lee <slee@ieua.org>; Javier Chagoyen-Lazaro <jchagoyen@ieua.org>
Subject: IEUA IDC Tax Documents

To TAC members, attached please find the Ordinance and Resolutions related to the formation of IEUA Improvement District "C", as well as the property tax use overview presented to the Committees in 2014. These documents will also be posted on the member agency portal. Please let me know if you have any questions or require additional information. Thank you, Craig

Craig Proctor
Source Control/Environmental Resources Supervisor

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

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Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date: May 29, 2014/June 5, 2014

To: Regional Committees

From: Inland Empire Utilities Agency

Subject: Property Tax Use Overview and Proposed Re-Allocation

RECOMMENDATION

This is an information item for the Regional Committees to receive and file and is intended to address a request from the Regional Technical Committee made on April 24, 2014 for clarification on the Agency's authority on the use of property taxes, and the proposed re-allocation of property taxes amongst the Agency's various programs in future years.

BACKGROUND

Agency's Authority on the Use of Property Taxes

The Inland Empire Utilities Agency (Agency), named the Chino Basin Municipal Water District until July 1998, was formed in 1950 as a municipal water district. The service functions and taxing powers and general district purpose are directed by the Municipal Water District Act of 1911. The Agency levied a tax on taxable property within its service area to support the level of service.

In 1970 the Agency adopted the General Plan for Water and Wastewater Systems (the Plan). The Plan was intended to improve water management in the Chino Basin as mandated by the Orange County Water District vs. City of Chino (Superior Court Case #117628). The Plan called for the Agency to own, control and operate a regional wastewater system which would then allow the integration of municipal sewage effluent to the various sources of water supply to satisfy the annual obligation of delivering 17,000 acre feet of water to the Santa Ana River.

This led to the execution of the Regional Sewage Service Contract (the Regional Contract) in August 1972, wherein the Agency purchased the community sewage facilities and infrastructure owned and operated by cities of Upland, Ontario, Chino, Montclair and Fontana and the Cucamonga County Water District (name later changed to Cucamonga Valley Water District). The Agency assumed regional responsibility in January 1973. To finance the acquisition of the existing and future improvement and expansion of the regional wastewater system, the Agency formed an Improvement District "C" (IDC) to levy a tax on taxable property within its service area. As there were no "Connection Fees" for the Regional Wastewater Capital Improvement (RC) fund, IDC taxes supported the regional system acquisition, expansion and improvement costs. The IDC was in addition to the general taxes already levied by the Agency.

The passage of Proposition 13 in 1978 capped the amount of property taxes to 1% of assessed values. As a result the Agency was no longer permitted to levy a property tax, including an IDC tax. Instead,

the Agency began receiving certain tax money levied by the County and allocated to the Agency in lieu of general and IDC taxes previously levied by the Agency. As the Regional Contract was never amended to incorporate the changes brought on by Prop 13, the Agency continued to designate property taxes received from the County for the IDC tax area to the RC fund. The remaining property tax receipts were split between the General Administration (GG) fund and the Tertiary Capital (TU) fund which later evolved into the Tertiary Operations & Maintenance (TO) fund. Both the GG and the TU funds had very small operating revenues, so property taxes were necessary to support operations and administration costs.

Technically, the TO fund is not part of the Regional Contract. It was included in the Regional program in later years as the result of the 1992-93 state legislation which diverted a portion of the Agency's tax revenue to Education Revenue Augmentation Fund (ERAF). Following another ERAF shift in fiscal years (FYs) 2004/05 and 2005/06, (a total of $14 million in Agency property taxes were diverted) the TO fund was combined with the RO fund, resulting in the RO fund receiving the property tax allocation of 27%. Since FY 2006/07, the allocation of property taxes has been 8% to GG fund, 27% to RO fund and 65% (IDC taxes) to RC fund.

With the exception of the "IDC" taxes which are allocated to the RC fund in alignment with the Regional Contract, the IEUA Board has the authority to augment the allocation of all other property taxes collected by the Agency amongst its various programs. The Board has exercised this authority on several occasions;

- In FYs 2001/02 – 2007/08, approximately $75,000 per year was transferred from the GG fund to the Water Resources (WW) fund to support the water conservation program.
- In FY 2009/10, 8%, or approximately $2.8 million, was re-allocated to the Recycled Water (WC) fund from the RO fund to support debt service costs.
- In FY 2011/12, the re-allocation to the WC fund was reduced to 5%, or approximately $1.7 million.
- Proposed for FY 2014/15 is a transfer of 3%, or approximately $1.2 million, from the GG fund to the WW fund to support implementation and administration of drought related projects.

No change in the property taxes allocation percentage to the Regional program is proposed for FY 2014/15.

Proposed Re-Allocation of Property Taxes

Although the Agency, in partnership with its member agencies, have made significant strides in enhancing local water supplies, the severity of the current drought serves as a reminder of how much our region still relies on imported water supplies. Further development of local water supplies, such as maximizing groundwater recharge, improving water quality, and securing alternative water supplies is essential for the region. Additionally, continual promotion of water use efficiency and conservation throughout the region is essential in achieving and sustaining the 20 x 2020 mandate.

Examples of some of the capital investments proposed to be funded with property taxes include:

- Safeguarding land sites to expand groundwater recharge throughout the Chino Basin
- Constructing new recharge basins and ASR well sites
- Implementing groundwater treatment/cleanup to improve water quality
- Securing supplemental/alternative water supplies to reduce dependence on SWP
- Implementing regional drought program to enhance water-use efficiency and conservation
- Maximize regional water supplies by;
    - Expanding current recycled water system to optimize beneficial reuse
    - Constructing interconnections to intertie with IEUA's recycled water system
    - Building a package brine treatment system to recover NRWS flows
    - Increasing Chino Desalter recovery by approximately 10%
    - Optimizing storm water capture from Creeks

Other significant capital investments are the relocation of the Regional Plant 2 (RP-2) biosolids processing facilities to RP-5 and the expansion of the Southern System to meet higher demands from anticipated future growth.

Conclusion

The rapid growth of the Inland Empire since the 1970's has significantly increased property values throughout the Agency's service area. Over the years, rising property values have resulted in higher property tax receipts for the Agency; from an annual average of $9 million in the late 1980's to $36 million in 2008, prior to the onset of the economic recession. In FY 2014/15 total property taxes are projected to be $40 million, approximately 26% of the Agency's total funding sources.

A key assumption in the Agency's long term planning is the continual receipt of property taxes. However, future shifts by the State during periods of fiscal distress are still a potential risk. Given this uncertainty, the Board is committed to reducing reliance on property taxes to support operating costs and other recurring costs which are more appropriately supported by service charges and user fees. A key objective for the Agency is to have full cost of service rates for all programs, (Business Goal Fiscal Responsibility). Achieving this objective will allow the investment of property taxes for capital initiatives/projects that support continual economic development in the region and safeguard the quality of life of the residents served through the Agency's water and sewer member agencies, (Business Goal Water Reliability).

The Agency is in the process of completing a series of long term planning documents, including the Facilities Wastewater Master Plan, Integrated Resources Plan, Conservation Plan Update, Energy Master Plan and the Recycled Water Program Strategy. Projects defined through this process, and once fully vetted by the member agencies, will be integrated in the Agency's Ten Year Capital Improvement Plan and Operating Budget beginning in FY 2015/16. A key funding source for the approved projects is property taxes.

No change in the percentage allocation to the Regional Wastewater program is proposed for FY 2014/15. Discussions on the re-allocation of property taxes to support critical capital investments over the next several years, including amending the Regional Contract to provide for more flexibility in the use of property taxes, will be initiated in the fall 2014. Allocating property taxes to finance the approved projects will help defray future rate increases and new debt issuances, as well as allow the region to

leverage funding opportunities currently available from federal, state and local agencies.

RESOLUTION NO. 72-6-1

RESOLUTION OF THE BOARD OF DIRECTORS OF THE CHINO BASIN MUNICIPAL WATER DISTRICT DECLARING ITS INTENTION TO FORM AN IMPROVEMENT DISTRICT, DESIGNATED AS IMPROVEMENT DISTRICT "C", AND FIXING THE TIME AND PLACE OF HEARING

WHEREAS, Chino Basin Municipal Water District has approved a plan entitled "General Plan for Water and Waste Water Systems" which, among other things: (i) recommends that sewage collection agencies own, control and operate all community sewer systems within the Chino Basin and that Chino Basin Municipal Water District own, control and operate a regional sewerage system serving all community sewer systems within the Chino Basin by providing for the transmission, treatment, reclamation and disposal of all sewage, and (ii) states that the goals and objectives of the regional sewerage system include, not only the protection of public health, but also the enhancement of the entire area served by the regional sewer system by protecting the quality of existing and future water sources, by improvement of water management through integration of the various sources of water supply, including sewage effluent, and by improving general conditions for industrial, residential, commercial and agricultural development; and

WHEREAS, Chino Basin Municipal Water District may use sewage from municipal treatment facilities in satisfaction of its obligation in Orange County County Water District v. City of Chino, Superior Court for Orange County, Case #117628; and

WHEREAS, said general plan will be implemented in stages over a period of years and, from time to time, Chino Basin Municipal Water District will acquire various existing interceptor

sewers and sewage treatment facilities as part of its regional sewerage system; and

WHEREAS, Chino Basin Municipal Water District proposes to enter an agreement or agreements for the purchase or lease of certain existing interceptor sewers and sewage treatment and disposal facilities which shall constitute a portion of its regional sewerage system; and

WHEREAS, said general plan recommends that Chino Basin Municipal Water District finance the capital costs of the acquisition and construction of all existing and future facilities comprising its regional sewerage system through the formation of an improvement district and the imposition of ad valorem taxes, sewage standby or availability charges and other charges and that all agencies contracting for the services of the regional sewerage system pay the costs and expenses incurred by Chino Basin Municipal Water District for maintenance and operation of its regional sewerage system:

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Chino Basin Municipal Water District as follows:

Section 1. That this Board of Directors deems it necessary and hereby declares its intention to form an improvement district, pursuant to Sections 72000 et seq. of the Water Code, for the purpose of undertaking and implementing said regional sewerage system.

Section 2. That, in the opinion of this Board of Directors, only a portion of the Chino Basin Municipal Water District will be benefited by the accomplishment of the purpose stated herein, which portion shall be designated as Improvement District "C" of the Chino Basin Municipal Water District.

Section 3. That, in order to undertake and implement said regional sewerage system, this Board of Directors acting in behalf of said proposed improvement district shall be authorized and empowered to investigate, study, analyze, appraise, finance, acquire, construct, operate, maintain, extend, repair or improve works and facilities for the transmission, treatment and disposal of sewage, waste and storm waters including equipment for operation and maintenance of said works and facilities and for the foregoing appurtenances and appurtenant works, and including acquisition of all lands, easements, machinery, equipment, materials, apparatus and other property necessary therefor, and including all engineering, inspection, appraisal, accounting, legal, fiscal agent and financial consultant fees and costs, cost of special elections, cost of issuing bonds, notes, warrants and any other evidence of indebtedness, interest on any indebtedness, and all other costs and expenses incidental to or connected with undertaking and implementing said regional sewerage system.

Section 4. That, based upon 1972 prices, the average annual expenditures to undertake and implement said regional sewerage system are estimated to be $1,500,000 per year.

Section 5. That said regional sewerage system shall be financed by any or all of the following means: ad valorem taxes levied exclusively upon taxable property within said proposed improvement district; sewage standby or availability charges levied exclusively on acreage within said proposed improvement district; fees and charges for annexation to said proposed improvement district; extraordinary capital outlay charges and annual capital outlay

charges levied on territory outside of said proposed improvement district as compensation for receiving services of the regional sewerage system; service charges collected for sewage delivered into the regional sewerage system; charges for delivery or sale of sewage treated and reclaimed in the regional sewerage system; and such additional amount of ad valorem taxes as may be necessary to pay principal of and interest on bonds issued in connection with said regional sewerage system.

Section 6. That Wednesday, the 16th day of August, 1972, at the hour of 10:00 o'clock A.M., of said day, at the Central School, located at 7955 Archibald Avenue, Cucamonga, California, be and the same is hereby fixed by this Board of Directors as the time and place for a hearing by this Board of Directors on the formation and extent of said proposed improvement district; on the purpose for which said proposed improvement district is to be formed; on the estimated expenses of carrying out such purposes; and in any other matters set forth in this resolution.

Section 7. That at the time and place fixed for said hearing, or at any time and place to which said hearing is adjourned, this Board of Directors shall proceed with the hearing and shall hear and consider all written and oral objections, protests or comments from any person interested, including all persons owning property in the Chino Basin Municipal Water District or in said proposed improvement district, to any matters set forth in this resolution.

Section 8. That a map showing the exterior boundaries of said proposed improvement district, with relation to the territory

immediately contiguous thereto, is on file with the Secretary of Chino Basin Municipal Water District and is available for inspection by any person or persons interested at the Offices of the Chino Basin Municipal Water District, located at 8555 Archibald Avenue, Cucamonga, California.

Section 9. That said map showing the exterior boundaries of said proposed improvement district shall govern for all details as to the extent of said proposed improvement district.

Section 10. That notice of said hearing shall be given by the Secretary of this Board of Directors by publication of a copy of this resolution in the DAILY REPORT, a newspaper of general circulation printed and published in said proposed improvement district, pursuant to Section 6066 of the Government Code.

Section 11. That further notice of said hearing shall be given by the Secretary of this Board of Directors by posting a copy of this resolution in three (3) public places within said proposed improvement district at least two (2) weeks prior to the time fixed for said hearing.

Section 12. That said copy of this resolution so published and posted shall be accompanied by a notice subscribed by said Secretary, with the seal of the district attached, to the effect that the hearing referred to in this resolution will be had at the time and place above specified, that at said time and place this Board of Directors shall hear and consider all written and oral objections, protests and comments from any person interested on any matters set forth in this resolution, and that a map of said

proposed improvement district is on file with the Secretary of the district and available for inspection by any interested person.

Section 13. That said Secretary is directed to give further notice of said hearing by placing in the mail, postage prepaid, first class, copies of said notice and of this resolution, addressed to all persons owning property within said proposed improvement district, as shown on the last equalized assessment roll used by the district, said mailing to be completed at least fifteen (15) days prior to said hearing.

ADOPTED this 21st day of June, 1972.

Carl B. Macomber
President of the Chino Basin Municipal Water District and of the Board of Directors thereof.

ATTEST:

Ernest L. Koehler
Secretary of the Chino Basin Municipal Water District and of the Board of Directors thereof.

(SEAL)

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN BERNARDINO)

I, ERNEST KEECHLER, Secretary of the Board of Directors of the Chino Basin Municipal Water District, DO HEREBY CERTIFY that the foregoing resolution was duly adopted by the Board of Directors of said district at a regular meeting of the Board held on the 21st day of June, 1972 and that it was so adopted by the following vote:

AYES: Directors Masingale, Ferguson, Keechler, Comstock, Tobin

NOES: None

ABSENT: None

(SEAL)

Ernest L Keechler
Secretary of the Chino Basin Municipal Water District and of the Board of Directors thereof.

STATE OF CALIFORNIA)
)
COUNTY OF SAN BERNARDINO)

I, ERNEST KEECHLER, Secretary of the Board of Directors of the Chino Basin Municipal Water District, DO HEREBY CERTIFY that the above and foregoing is a full, true and correct copy of Resolution No. 72-6-1 of said Board, and that the same has not been amended or repealed.

DATED: June 21, 1972.

Ernest L Keechler
Secretary of the Chino Basin Municipal Water District and of the Board of Directors thereof.

(SEAL)

RESOLUTION NO. 72-8-10

RESOLUTION OF THE BOARD OF DIRECTORS OF THE CHINO BASIN MUNICIPAL WATER DISTRICT MAKING DETERMINATIONS AND DECLARING FORMATION OF IMPROVEMENT DISTRICT "C"

WHEREAS, on June 21, 1972, this Board of Directors adopted a resolution of intention to form an improvement district, pursuant to Sections 72000 et seq. of the Water Code, for the purpose of undertaking and implementing a regional sewerage system; and

WHEREAS, in said resolution of intention, this Board of Directors fixed Wednesday, August 16, 1972, at 10:00 o'clock a.m., at the Central School, 7955 Archibald Avenue, Cucamonga, California, as the time and place for a hearing by this Board of Directors on the questions of the formation and extent of said proposed improvement district, the purpose for which it is to be formed and the estimated expense of carrying out such purpose; and

WHEREAS, notice of hearing, accompanied by copies of said resolution of intention, was duly given as provided by law; and

WHEREAS, said hearing was duly held at the time and place fixed in said notice; and

WHEREAS, at said hearing, all persons interested, including all persons owning property in the district or in said proposed improvement district, were given the opportunity to appear and present any matters material to the questions set forth in said resolution of intention and a full and fair hearing has been held; and

WHEREAS, at said hearing, evidence was presented to this Board of Directors on the questions before it and this Board of Directors is fully advised in the premises:

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Chino Basin Municipal Water District as follows:

Section 1. That this Board of Directors does hereby declare that the purpose for said proposed improvement district is to undertake and implement a regional sewerage system.

Section 2. That, as a result of said hearing and upon the evidence presented, this Board of Directors does hereby find and determine as follows:

(a) That the whole of the district will not be benefited by the accomplishment of said purpose.

(b) That only a portion of the district will be benefited by the accomplishment of said purpose.

(c) That said portion so benefited is determined to be said portion of the district lying within the exterior boundary line described on Exhibit "A" attached hereto and made a part hereof.

Section 3. That this Board of Directors does hereby declare that said portion of the district described in Section 2(c) hereof shall hereupon constitute and be known as "IMPROVEMENT DISTRICT "C" OF THE CHINO BASIN MUNICIPAL WATER DISTRICT."

Section 4. That this Board of Directors does hereby find and determine that, in order to accomplish the purpose described in Section 1 hereof, it shall hereupon be authorized and empowered to investigate, study, analyze, appraise, finance, acquire, construct, operate, maintain, extend, repair or improve works and facilities for the transmission, treatment, and disposal of sewage, waste and storm waters including equipment for operation and maintenance of said works and facilities and for the foregoing appurtenances and appurtenant works, and including acquisition of all lands, easements, machinery, equipment, materials, apparatus and other property necessary therefor, and including all engineering, inspection, appraisal, accounting, legal, fiscal agent and financial consultant fees and costs, cost of special elections, cost of issuing bonds, notes, warrants and any other evidence of indebtedness, interest on any indebtedness, and all other costs and expenses incidental to or connected with undertaking and implementing said regional sewerage system.

Section 5. That this Board of Directors does hereby find and determine that, based upon 1972 prices, the average annual expenditures to undertake and implement said regional sewerage system are estimated to be $1,500,000 per year.

Section 6. That this Board of Directors does hereby find and determine that said regional sewerage system shall be financed by any or all of the following means: ad valorem taxes levied exclusively upon taxable property within Improvement District "C"; sewage standby or availability charges levied exclusively

on acreage within Improvement District "C"; fees and charges for annexation to Improvement District "C"; extraordinary capital outlay charges and annual capital outlay charges levied on territory outside of Improvement District "C" as compensation for receiving services of the regional sewerage system; service charges collected for sewage delivered into the regional sewerage system; charges for delivery or sale of sewage treated and reclaimed in the regional sewerage system; and such additional amount of ad valorem taxes as may be necessary to pay principal of and interest on bonds issued in connection with said regional sewerage system.

Section 7. That a map showing the exterior boundaries of Improvement District "C" shall be on file with the Secretary of the district and shall be available for inspection by any person or persons interested at the Offices of the Chino Basin Municipal Water District, located at 8555 Archibald Avenue, Cucamonga, California.

Section 8. That the Secretary shall cause a copy of this resolution to be published in the DAILY REPORT, a newspaper of general circulation printed and published in Improvement District "C", pursuant to Section 6066 of the Government Code.

Section 9. That the Secretary shall cause a copy of this resolution to be posted in three (3) public places within Improvement District "C".

Section 10. That, if a petition signed by not less than ten percent (10%) of the voters of Improvement District "C" requesting that an election be held on the formation thereof is presented to this Board of Directors before the effective date of this resolution as provided in Section 11 hereof, this Board of Directors shall by resolution call a special election in Improvement District "C" for the purpose of submitting the question of the formation of Improvement District "C" to the voters therein.

Section 11. That this resolution shall not be effective until the 31st day after completion of said publication and posting.

Section 12. That the determinations made in this resolution shall be final and conclusive.

ADOPTED this 23rd day of August, 1972.

Carl B. Maenpaa
President of the Chino Basin Municipal Water District and of the Board of Directors thereof.

ATTEST:

Ernest L Reedles
Secretary of the Chino Basin Municipal Water District and of the Board of Directors thereof.

(SEAL)

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN BERNARDINO)

I, ERNEST KEECHLER, Secretary of the Board of Directors of the Chino Basin Municipal Water District, DO HEREBY CERTIFY that the foregoing resolution was duly adopted by the Board of Directors of said district at a regular meeting of said Board held on the 23rd day of August, 1972, and that it was so adopted by the following vote:

AYES: Directors Comstock, Ferguson, Keechler

NOES: None

ABSENT: Directors Masingale, Tobin

(SEAL)

Ernest L Keechler
Secretary of the Chino Basin Municipal Water District and of the Board of Directors thereof.

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN BERNARDINO)

I, ERNEST KEECHLER, Secretary of the Board of Directors of the Chino Basin Municipal Water District, DO HEREBY CERTIFY that the above and foregoing is a full, true and correct copy of Resolution No. 72-8-10 of said Board, and that the same has not been amended or repealed.

DATED: August 23, 1972.

Ernest L Keechler
Secretary of the Chino Basin Municipal Water District and of the Board of Directors thereof.

(SEAL)

ORDINANCE NO. 24

ORDINANCE OF THE BOARD OF DIRECTORS OF THE CHINO BASIN MUNICIPAL WATER DISTRICT, SAN BERNARDINO COUNTY, CALIFORNIA, PROVIDING FOR THE LEVY AND COLLECTION OF TAXES WITHIN IMPROVEMENT DISTRICT "C", FOR THE CREATION AND ACCUMULATION OF A CAPITAL OUTLAY FUND AND FOR THE EXPENDITURE OF MONEYS IN SAID FUND IN ACCORDANCE WITH A REGIONAL SEWERAGE SYSTEM PLAN

WHEREAS, the Board of Directors of the Chino Basin Municipal Water District has approved a plan on file with the Secretary of the District entitled "General Plan for Water and Waste Water Systems" in the Chino Basin which, among other things, recommends that local sewage collection agencies own, control and operate all community sewer systems for the collection of sewage and that the District own, control and operate a regional sewerage system for the transmission, treatment and disposal of all sewage collected by said community sewer systems; and

WHEREAS, it is anticipated that the plan will be carried out in stages over a period of years and that, from time to time, the District will acquire existing transmission, treatment and disposal facilities owned by various sewage collection agencies as part of its regional sewerage system; and

WHEREAS, to implement said plan and to provide the District with a portion of its regional sewerage system, the District has acquired or proposes to acquire certain existing transmission, treatment and disposal facilities from certain sewage collection agencies; and

WHEREAS, the Board of Directors has initiated proceedings for the formation of Improvement District "C" for the acquisition and expansion of the regional sewerage system, including the construction of new facilities for the transmission, treatment and disposal of sewage and the making of replacements, betterments, additions or extensions of or to the system, all in accordance with the "Chino Basin Regional Sewerage System Plan," hereinafter referred to; and

WHEREAS, the Board of Directors deems it advisable to provide for the levy and collection of taxes within Improvement District "C", upon and after its formation, and for the creation and accumulation of a capital outlay fund for the purpose of the payment of all or part of the costs and expenses of the acquisition and expansion of the regional sewerage system; and

WHEREAS, it is in the public interest that moneys accumulated in said capital outlay fund be expended in accordance with a regional sewerage system plan, and for that purpose, the Board of Directors desires to adopt such a plan and to provide for the continuing review and amendment of such plan:

NOW, THEREFORE, BE IT ORDAINED by the Board of Directors of the Chino Basin Municipal Water District as follows:

Section 1. A capital outlay fund, to be known and be designated as the "Regional Waste Water Capital Improvement

Fund," is hereby created in the treasury of the District for the following purposes:

(a) The payment of all or part of the capital costs and expenses of the acquisition and expansion of the regional sewerage system for Improvement District "C", including the acquisition of certain existing facilities, the construction of new facilities for the transmission, treatment and disposal of sewage and the making of replacements, betterments, additions or extensions of or to the system, and the establishment of reasonable reserves for any of the foregoing, including reserves for unforeseen contingencies and for extraordinary capital costs and expenses, all as more particularly shown and described in the Chino Basin Regional Sewerage System Plan of the District.

The regional sewerage system shall consist of facilities owned and operated by the District and, if in the opinion of the Board of Directors any territory in Improvement District "C" can be more economically or conveniently served by facilities owned, in whole or in part, and operated by others, the system may include interests or capacity rights in facilities owned by others.

Section 2. For the purpose of the creation of and the accumulation of moneys in the capital outlay fund and until such time as the purposes of the capital outlay fund

have been accomplished, the Board of Directors shall annually cause a capital outlay tax to be levied and collected upon all taxable property within Improvement District "C". The annual capital outlay tax shall be in an amount which, together with any amounts then accumulated in the capital outlay fund, the estimated amounts of capital outlay taxes to be levied and collected in future years and the estimated amounts of any other moneys expected to be available for payment of any part of the costs and expenses of the acquisition and expansion of the regional sewerage system, shall be sufficient to provide for the payment of all costs and expenses, as the same become due, of the acquisition and expansion of said system and for any amounts required to be set aside annually in any reserves theretofore established. The capital outlay tax shall be in addition to all other taxes and shall be levied and collected in the same manner as other district taxes. All moneys collected from capital outlay taxes shall be deposited to the credit of the capital outlay fund and shall be expended and disbursed for no other purposes than those set forth in Section 1 hereof.

Section 3. Until such time as the purposes of the capital outlay fund have been accomplished, the Board of Directors shall adopt and maintain a regional sewerage system plan. The plan shall describe the existing and proposed facilities of the regional sewerage system, all territory within Improvement District "C" and any territory proposed

to be annexed thereto upon expansion of the system, and shall specify the methods of financing the costs and expenses of the expansion of the system from the capital outlay fund and any other available moneys. The plan shall include:

(a) Drawings showing the general nature, location and extent of all existing and proposed facilities of the regional sewerage system.

(b) Maps showing the boundaries of Improvement District "C" and any territory outside of the District which is served by the regional sewer system.

(c) Schedules indicating the anticipated dates for the acquisition and expansion and the construction of various portions of the proposed facilities.

(d) Estimates of the costs and expenses for the acquisition and expansion and the construction of all proposed facilities.

(e) If any of the facilities are proposed to be acquired or constructed pursuant to lease, purchase or contract requiring payments in future years, statements of the amounts or estimated amounts to become due in each future year by reason thereof.

(f) Estimates of the amount of capital outlay tax and the tax rate required during each future year for the acquisition and expansion of the system.

(g) Such other drawings, data and explanations as may be necessary or convenient for the understanding of the plan.

Section 4. The proposed "Chino Basin Regional Sewerage System Plan" submitted by the General Manager, and on file with the Secretary is hereby adopted and, until amended, shall constitute the regional sewerage system plan of the district.

Section 5. The Board of Directors, from time to time, may amend the regional sewerage system plan and annex territory to Improvement District "C" and, for that purpose, shall cause a continuing review of the regional sewerage system plan to be made by the General Manager and by the Regional Audit Committee provided for in any sewage service contract between the District and local sewage collection agencies.

Before ordering any substantial amendments to the plan or the annexation of territory to Improvement District "C", the Board of Directors shall adopt a resolution declaring its intention to order the amendments, describe the proposed amendments and specify a time, not sooner than sixty (60) days after the adoption of the resolution, and a place at which the Board of Directors will hold a hearing on the question of the adoption of such amendments. Immediately thereafter the Secretary shall mail a copy of the resolution to the clerk or secretary of each local sewage collection agency

having a sewage service contract with the District and to each member of the Regional Audit Committee provided for in said contracts. The Regional Audit Committee shall review the proposed amendments or annexations and, not later than ten (10) days preceding the date of the hearing, shall submit its written report and recommendation thereon to the General Manager and to each contracting sewage collection agency.

At the hearing on the proposed amendments or annexations, the Board shall consider the report and recommendations of the Regional Audit Committee and shall hear representatives of any contracting agency, members of the Audit Committee and any other interested persons. The Board of Directors may modify the proposed amendments or territory proposed to be annexed to Improvement District "C" and, upon the conclusion of the hearing, order the amendments or the annexations. For the purpose of expenditures and disbursements authorized to be made from the capital outlay fund, the plan, as most recently amended, shall be deemed the Chino Basin Regional Sewage System Plan.

Section 6, The invalidity of any section, clause, sentence or provision of this Ordinance shall not affect the validity of any other part of this Ordinance which can be given effect without such invalid part or parts.

Section 7. This Ordinance shall be in full force and effect from and after its passage.

ADOPTED this 24th day of July, 1974.

President of the Chino Basin Municipal Water District and of the Board of Directors thereof.

ATTEST:

Secretary of the Chino Basin Municipal Water District and of the Board of Directors thereof.

(SEAL)

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN BERNARDINO)

I, ERNEST L. KEECHLER, Secretary of the Board of Directors of the Chino Basin Municipal Water District, DO HEREBY CERTIFY that the foregoing ordinance was duly adopted by the Board of Directors of said district at a regular meeting of said Board held on the 24th day of July, 1974, and that it was so adopted by the following vote:

AYES: Directors Masingale, Ferguson, Keechler, Comstock

NOES: None

ABSENT: Director Pehl

Ernest L. Keechler
Secretary of the Chino Basin Municipal Water District and of the Board of Directors thereof.

(SEAL)

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN BERNARDINO)

I, ERNEST L. KEECHLER, Secretary of the Board of Directors of the Chino Basin Municipal Water District DO HEREBY CERTIFY that the above and foregoing is a full, true and correct copy of Ordinance No. 24 of said Board, and that the same has not been amended or repealed.

DATED: July 24, 1974.

Ernest L. Keechler
Secretary of the Chino Basin Municipal Water District and of the Board of Directors thereof.

(SEAL)

Regional Contract Update/Renewal

Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

Special Regional Technical Committee Workshop

October 12

Regional Contract Update/Renewal

Summary of recent discussions & actions

- July 2014: Initiated Regional Contract (RC) discussions
- Objectives of the RC renewal:
  - New contract term of 50 years
  - Address ongoing RC language issues/interpretations:
    - Recycled water allocation
    - Property Tax allocation
    - Collection of Fees
    - Role of the Policy and Technical Committees
    - Contract amendment/renewal process
- Jan 2015: RCAs requested to address recycled water as first priority
- Jan 2015 – May 2016: developed acceptable RW contract language
- July 2016: Recycled Water resolutions adopted by IEUA

Regional Contract Update/Renewal
Drivers and Risks

- Key drivers for the RC Renewal
  - Support regional growth
    - Capital capacity planning
    - Defined revenue sources & collection methodology
- Risks of delaying the RC Renewal
  - Ability to issue new debt
    - Increased borrowing costs
  - Grant eligibility
  - Inability to meet regional growth needs
  - Continued burden on regional resources

Regional Contract Update/Renewal

Response to September 29th Regional Technical Committee

1. Optimum term of the Regional Contract
   - 50 years

2. What would alleviate the financial concerns?
   - Defined revenue sources & collection methodology

3. What are the impacts if the Regional Contract is not renewed?
   - Ability to issue new debt
     - Increased borrowing costs
   - Grant eligibility
   - Inability to meet regional growth needs
   - Continued burden on regional resources

Regional Contract Update/Renewal

TYCIP Budget Estimate by Fund

	Description	FY 16/17	FY17/18	FY18-26	TYCIP Total
GG	Administrative Services Fund	$ 4,648,012	$ 1,680,200	$ 6,738,600	$ 13,066,812
NC	Non-Reclaimable Wastewater Fund	$ 1,250,000	$ 610,000	$ 9,280,000	$ 11,140,000
RC	Regional Capital Improvement Fund	$ 22,104,400	$ 24,329,000	$ 338,965,000	$ 385,398,400
RO	Regional Operations and Maintenance	$ 24,270,520	$ 35,305,000	$ 79,282,000	$ 138,857,520
RW	Recharge Water Fund	$ 4,739,800	$ 12,730,500	$ 35,749,500	$ 53,219,800
WC	Recycled Water Fund	$ 14,738,063	$ 28,458,458	$ 41,845,000	$ 85,041,521
WW	Water Resources Fund	$ 6,344,195	$ 4,550,000	$ 35,020,000	$ 45,914,195
	TOTAL	**$ 78,094,990**	**$ 107,663,158**	**$ 546,880,100**	**$ 732,638,248**

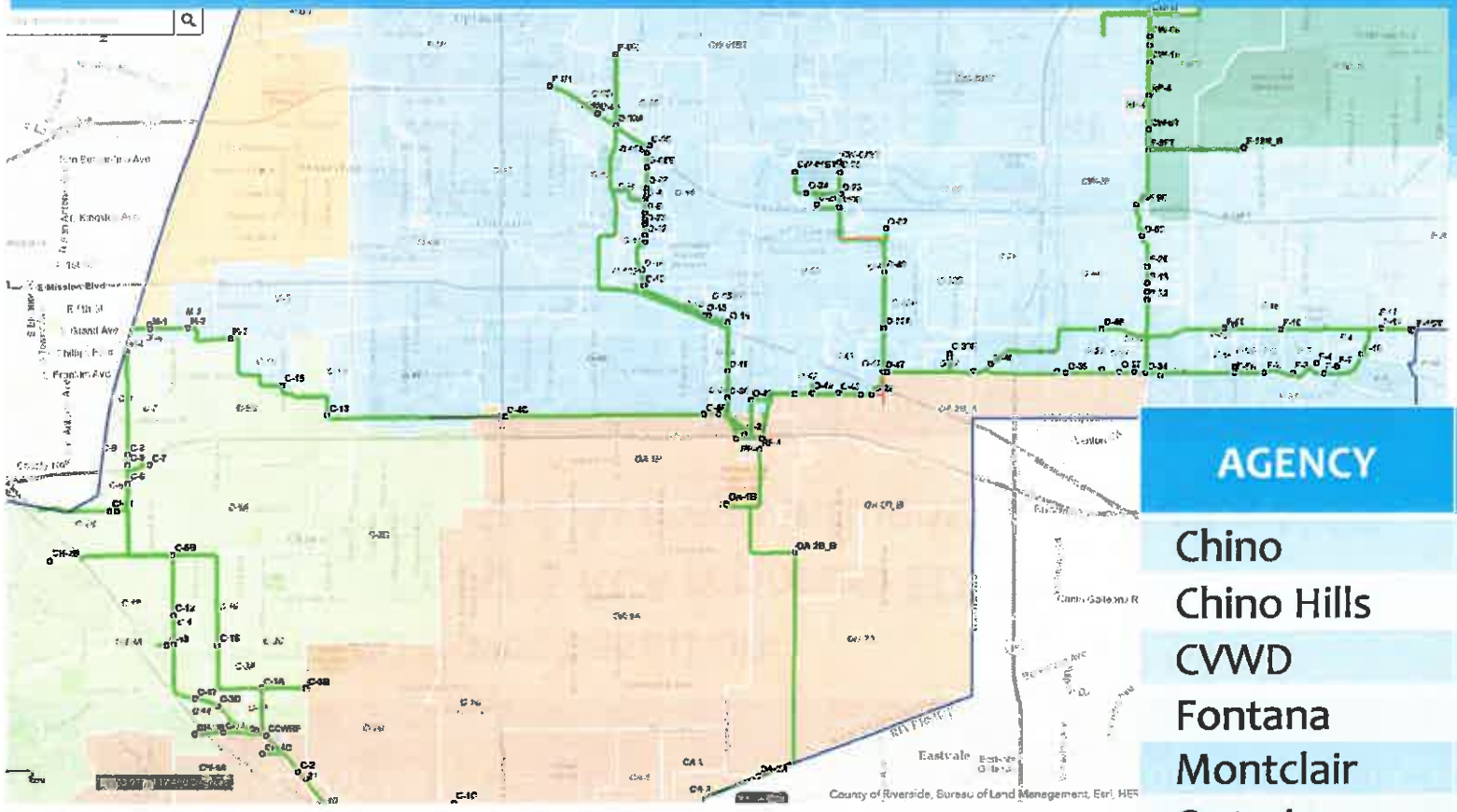
Regional Contract Update/Renewal

Response to September 29th Regional Technical Committee

4. Accounting of RCA flows to the Regional Sewer System
   - Initially identified using Exhibit F in RC (1973)
     - Addition of new connection points made flow monitoring impractical (1980s)
     - RCA installation of flow measuring devices at new connection point suspended (1990s)
     - Current Regional Connections: 216
   - Exhibit A flow monitoring used for RCA compliance with local limits
     - Exhibit A not used for monthly billing
     - Technical Committee approved suspension of Exhibit A flow monitoring (2009)
     - Exhibit A no longer used for Local Limit compliance
     - Exhibit A locations did not provide total flows for all RCAs
     - Exhibit A locations: 26

Regional Contract Update/Renewal

IEUA Regional Sewer System Connections: 216



AGENCY	# Regional Connections
Chino	42
Chino Hills	21
CVWD	18
Fontana	29
Montclair	5
Ontario	98
Upland	3

Regional Contract Update/Renewal

Response to September 29th Regional Technical Committee

5. Estimated flows based on:
   FY 15/16 RCA reported EDU &
   FY 15/16 Average Influent Flow of 48.3 MGD

AGENCY	FY 2015-2016 reported EDU	Pro-Rata %	Pro Rata Flow, MGD
Chino	345,778	10.8	5.2
Chino Hills	291,784	9.1	4.4
CVWD	815,420	25.4	12.3
Fontana	610,436	19.0	9.2
Montclair	140,854	4.4	2.1
Ontario	695,548	21.6	10.5
Upland	313,096	9.7	4.7

Note: pro-rata % based on RCA reported EDUs and may not be representative of flow or strength components.

Regional Contract Update/Renewal

Response to September 29th Regional Technical Committee

6. Improvement District C (IDC) formation documents
   - Summary of IDC Resolution & Ordinance
     - Formation of IDC (1972)
     - Levying and collection of taxes within IEUA service area
     - Undertake regional transmission, treatment, and disposal of sewage, waste and storm water.
     - Payment of all capital expenses for acquisition of existing facilities, construction of new facilities, replacement, O&M, expansion, etc.
   - Mailed to the members of the RCA on October 11, 2016

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

6075 Kimball Avenue • Chino, CA 91708
P.O. Box 9020 • Chino Hills, CA 91709
TEL (909) 993-1600 • FAX (909) 993-1985
www.ieua.org

October 20, 2016

To Technical Advisory Committee (TAC) Members,

Thank you for providing and updating IEUA on the Regional Contract Renewal Milestones at the September 29, 2016 Regional Technical Committee meeting. IEUA appreciates TAC commitment to work together to complete a draft term sheet on contract renewal items by March 2017. To assist TAC in its efforts, IEUA anticipates providing a matrix outlining contract language vs. current practices in the next week.

As discussed, the TAC will provide IEUA with a uniform term sheet by March 2017 that identifies:

- All issues that should be addressed as part of the contract renegotiation process
- A term sheet which includes issues and proposed solution

The milestones as provided do not elaborate on the process in which the term sheet will be generated nor include interim deliverables between October 2016 and March 2017. Although the TAC has indicated that IEUA involvement is not needed prior to March 2017, IEUA believes that continued collaboration with IEUA will help ensure that expectations are aligned. As such, IEUA recommends the continuation of the monthly special TAC workshops to collaborate on key contract issues to help ensure the process continues moving forward in a transparent and constructive manner.

As recommended in the August 2016 TAC meeting, IEUA still believes having an independent third party facilitator help assist in completing a mutually agreed upon contract term sheet would be beneficial to everyone, and is open to the TAC soliciting prospective facilitators to help in this process. In preparation of the negotiations, IEUA recommends the development of a RFP for contract facilitation that can be ready for distribution in February 2017 to ensure that further delays are not encountered. Considering the recent discussions regarding recycled water, IEUA recommends the TAC consider the use of a facilitator during the October 2016 – March 2017 process to develop a uniform term sheet.

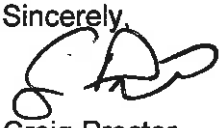
IEUA understands the review of Exhibit J (Sewer Fee Calculation) is a very important part of the updates being considered for the regional contract renewal. However, IEUA believes this project can run in parallel with the other contract renewal discussions. IEUA will be inviting Carollo Engineering to future TAC workshops to present their findings on alternatives and provide anticipated costs shifts.

The TAC has noted they may wish to have an independent consultant review performed on the Sewer Fee Evaluation draft report. While IEUA is not opposed to this, it should be noted that during several of the TAC workshops, IEUA invited all TAC members the opportunity to participate in the development of the scope of work and the consultant selection process. Carollo Engineering was unanimously selected by IEUA and participating TAC staff as the preferred consultant based on their understanding of the scope of work, the project teams qualifications

and previous similar experience. The scope was established with several milestones focused on providing draft findings, soliciting stakeholder feedback and developing a final proposal that considered all input. IEUA believes it is in the public's best interest for all parties to actively participate in the review and development of Exhibit J now, opposed to questioning the findings and recommendations several months from now.

Thank you again for everyone's efforts in helping to keep the contract renegotiation process moving forward.

Sincerely,



Craig Proctor
Source Control/Environmental Resources Supervisor
Inland Empire Utilities Agency