NOTICE OF MEETING

OF THE

REGIONAL SEWERAGE PROGRAM
POLICY COMMITTEE

OF THE

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

WILL BE HELD ON

THURSDAY, MAY 4, 2017

4:00 P.M.

BOARDROOM
AT THE OFFICE OF THE AGENCY
6075 KIMBALL AVENUE, BUILDING A
CHINO, CA 91710

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Regional Sewerage Program Policy Committee Meeting

AGENDA
Thursday, May 4, 2017
4:00 p.m.

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

Call to Order and Roll Call

Pledge of Allegiance

Public Comment

Changes/Additions/Deletions to the Agenda

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

2. **Action Item**
   A. Approval of the April 6, 2017 Meeting Minutes
   B. RP-5 Expansion Consultant Contract Amendment

3. **Informational Items**
   A. Regional Contract Update/Renewal (*Oral)*
   B. Review of TYCIP and IEUA Regional Budgets: FY2017/18 & 18/19

4. **Receive and File**
   A. Energy Management Planning Update
   B. Building Activity Update
   C. Recycled Water Distribution – Operations Summary
   D. Engineering Project Updates

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 – June 1, 2017

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, May 1, 2017.

Laura Mantilla

ACTION ITEM

2A

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Regional Sewerage Program
Policy Committee Meeting

MINUTES OF APRIL 6, 2017 MEETING

CALL TO ORDER

A meeting of the IEUA/Regional Sewerage Program – Policy Committee was held on Thursday, April 6, 2017, at the Inland Empire Utilities Agency located at 6075 Kimball Avenue, Chino, California. Chairman Armendarez, City of Fontana, called the meeting to order at 4:30 p.m.

ATTENDANCE

Committee Members:

Peter Rogers	City of Chino Hills
Kathy Tiegs	Cucamonga Valley Water District
Jesse Armendarez	City of Fontana
Jim Bowman	City of Ontario
Debbie Stone	City of Upland
Trisha Martinez	City of Montclair
Kati Parker	Inland Empire Utilities Agency
Joseph Grindstaff	Inland Empire Utilities Agency

Others Present:

Katie Gienger	City of Ontario
Braden Yu	Cucamonga Valley Water District
John Bosler	Cucamonga Valley Water District
Manny Martinez	Monte Vista Water District
Christina Valencia	Inland Empire Utilities Agency
Chris Berch	Inland Empire Utilities Agency
Sylvie Lee	Inland Empire Utilities Agency
Shaun Stone	Inland Empire Utilities Agency
Kathy Besser	Inland Empire Utilities Agency
Randy Lee	Inland Empire Utilities Agency
Ken Tam	Inland Empire Utilities Agency
Martha Davis	Inland Empire Utilities Agency

Absent:

Earl Elrod	City of Chino

PLEDGE OF ALLEGIANCE

Committee Member Jim Bowman led those present in the pledge of allegiance to the flag. A quorum was present.

PUBLIC COMMENTS

There were no public comments.

1. **TECHNICAL COMMITTEE REPORT**

   Chris Berch/IEUA stated that the Technical Committee met on March 30, 2017. There were no reportable actions. There was a discussion about the Regional Contract, which will be covered later in this meeting.

2. **ACTION ITEMS**

   A. **Approval of Minutes of March 2, 2017 Regional Policy Committee Meeting**

   Motion: By Jim Bowman/City of Ontario and seconded by Peter Rogers/City of Chino Hills to approve the minutes of the March 2, 2017 Regional Policy Committee meetings.

   Motion carried: Unanimously.

3. **INFORMATIONAL ITEMS**

   A. **Regional Contract Update/Renewal**

   Chris Berch/IEUA reported that late last year the Technical Committee took on the responsibility to develop a term sheet, which was completed, however there is no clear consensus on all of the terms among the different parties. IEUA will return to the Technical Committee in a couple of months with a response on how to move forward.

   B. **Septic to Sewer Feasibility Study Update**

   Ken Tam/IEUA provided a PowerPoint presentation. The study evaluates the cost effectiveness of converting septic parcels to sewer. A grant application has already been prepared for City of Fontana, and additional applications will be pursued for other contracting agency service areas. Mr. Tam reviewed area maps to show the septic parcels and their proximity to sewer lines. The draft study will be completed in June, at which time the Technical Committee will provide comments. The final study is scheduled to be completed in July.

   Joseph Grindstaff/IEUA noted that the state has programs to help with conversions. Parcels developed before 1978 do not have to pay a connection fee, but we will have to find a way to fund it. He estimated it will take 10 to 20 years to complete the entire project. There are many opportunities to obtain grants, which could provide as much as 100 percent funding.

   Kathy Tiegs/Cucamonga Valley Water District asked if there are estimates on the volume/flows. Mr. Tam said that will be part of the study. Mr. Berch said the wastewater flow is about two to three million gallons per day. Ms. Tiegs also asked that water supply impacts be considered.

   Trisha Martinez/City of Montclair asked about the recent reimbursement ruling. Mr. Grindstaff said that those who have collected standby fees for sewer have an obligation. We do not collect

standby fees, but we do collect property tax, and if someone has been paying that tax for several years, that will be among the issues we will have to consider as we work through this project with our member agencies.

C. **Budget Workshop**

Christina Valencia/IEUA noted that the presentation she included in the packet was very lengthy, so she prepared a shorter presentation for today's meeting. She plans to return with a full budget presentation to this Committee in May, and asked if the Committee would prefer to wait to hear that presentation then. She noted that rates are not changing. The Committee decided to wait until May for the full budget presentation.

4. **RECEIVE AND FILE**

A. **2016/17 Second Quarter Budget Variance**

The 2016/17 Second Quarter Budget Variance was received and filed by the Committee.

B. **Building Activity Update**

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

C. **Recycled Water Distribution – Operations Summary**

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

5. **OTHER BUSINESS**

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

Mr. Grindstaff provided the following information:

1. For the first time in 10 years, RP-1 had a control system failure for 12 minutes, which discharged chlorinated effluent to the river and resulted in a violation.
2. We have a new requirement on trihalomethanes (THMs) on the wastewater side. A small amount has shown up, likely caused by bromides. We are working to find the source.
3. We were notified by the State about a grant application for the Plume cleanup. Eleven million dollars will be fully funded, and there will be additional grant revenues that will benefit CDA.
4. Kathy Besser/IEUA was promoted to Executive Manager of External Affairs and Policy Development/Assistant General Manager.
5. Kati Parker/IEUA said that IEUA would like to invite the Policy Committee to a dinner. Potential dates were discussed.

B. **Committee Member Requested Agenda Items for Next Meeting**

Ms. Martinez asked whether the meeting time will be changing. Mr. Berch said that we are waiting to hear back from everyone on the committee. Jesse Armendarez said he prefers to meet earlier and asked that the item be agendized for consideration at the next meeting.

C. **Committee Member Comments**

- Mr. Armendarez announced that it is Jim Bowman's birthday and asked everyone to join him in singing "Happy Birthday."

- Ms. Martinez announced that the City of Montclair is the first city in the state to dedicate a proclamation for World War I.

D. **Next Meeting – May 4, 2017**

6. **ADJOURNMENT – Meeting was adjourned at 4:57 p.m.**

Transcribed by: _____

Lisa Snider
Administrative Assistant II, IEUA

ACTION ITEM

2B

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date: April 27, 2017/May 4, 2017

To: Regional Committees

From: Inland Empire Utilities Agency

Subject: RP-5 Expansion Consultant Contract Amendment

RECOMMENDATION

It is requested that the Regional Committees recommend to the IEUA Board of Directors to approve the consultant contract amendment for the design of the RP-5 Liquids Expansion and Solids Treatment Facility, Project Nos. EN19001 and EN19006, to Parsons Water & Infrastructure, Inc. for the not-to-exceed amount of $17,993,680.

BACKGROUND

On January 20, 2016, IEUA Board of Directors approved the consulting engineering services contract award for the RP-1/RP-5 Expansion Preliminary Design Report (PDR) to Parsons Water & Infrastructure Inc. (Parsons) for the not-to-exceed amount of $2,431,598. The major objectives for the PDR included evaluating the requirements for the RP-1 Liquids and Solids Capacity Recovery, RP-5 Liquids Expansion, and RP-5 Solids Treatment Facility. IEUA and the Parsons project team promptly began working on the PDR, which resulted in three Board Workshops conducted in May 2016, October 2016, and February 2017. Additionally, the project team provided updates to the Engineering, Operations, and Biosolids Management Committee in April 2016, August 2016, and November 2016 and conducted multiple staff workshops over the 14-month preliminary project phase. Based upon the collaborative efforts of the Board of Directors, Agency staff, and Parsons project team throughout the development of the PDR, the RP-1/RP-5 Expansion Preliminary Design Report was completed and approved on March 19, 2017.

Based upon the major recommendations of the PDR, the RP-5 Liquids Expansion, Project No. EN19001, is recommended to consist of the following major items:

- Expanded Influent Pump Station.
- Headworks improvements including: bar screens, vortex grit chamber, fine screens for MBR, and a screenings/grit building.
- Two primary clarifiers and four new primary clarifier covers.
- Improvements to the existing aeration basin including new aeration diffusers, mixed liquor pumps, and air headers.

- Demolish two secondary clarifiers and construct a 30 MGD MBR system for improved water quality.
- UV disinfection system for improved water quality.
- Centralized odor control system for Solids and Liquids to meet the objectives of the IEUA's Business Goals.
- Emergency overflow and storm water system.
- New Mountain Avenue Lift Station and modify the City of Chino Hills Butterfield Ranch Pump Station.

The RP-5 Solids Treatment Facility, Project No. EN19006, is recommended to consist of the following:

- Rotary drum thickening building for primary and secondary solids thickening.
- Phased digestion including acid phase digesters, methane digesters, and digested sludge storage.
- Provide digested sludge storage.
- Centrifuge dewatering building, biosolids cake storage, and centrate equalization.
- Digester gas treatment, digester gas flaring, and emissions control systems for the existing REEP engines.
- Food waste receiving station and digestate transfer pump station at RP-5 Solids Handling Facility.

The project costs for the RP-5 Liquids Expansion and RP-5 Solids Treatment Facility are approximately $160,000,000 and $165,000,000, respectively, with a total estimated project cost of $325,000,000.

Throughout the development of the PDR, Parsons has performed extremely well in meeting project milestones and has fostered a cohesive project team including IEUA, Parsons, and Brown & Caldwell staff. The Parsons project team has worked diligently to complete the PDR in an extremely tight schedule of 14 months to ensure the project can continue through design, construction, and full operational start-up before the completion of the raising of the Prado Dam Spillway in early 2023. They have conducted multiple staff workshops and compiled three different series of technical memoranda packages as part of the creation of the PDR, always meeting or exceeding staff's expectations. Additionally, Parsons has maintained the contract budget for the project only requiring two minor contract amendments amounting to a total of $55,989 for additional work requested by IEUA.

During the contract award of the PDR, staff discussed with the Board of Directors the intention of amending Parsons' contract to complete the RP-5 Expansion design if Parsons performed well as the design consultant for the PDR. As noted, Parsons has performed extremely well in the development of the PDR and has been an outstanding partner on this challenging project. Therefore, staff believes that it is in the best interest of IEUA to amend the existing contract with Parsons to complete the final design. As a design

consultant, Parsons has an intrinsic knowledge of the PDR, an established and committed project team, a successful project history, and does not have to go through a project "learning curve" as another consultant would.

On January 12, 2017, IEUA staff issued a Request for Proposal (RFP) to Parsons for consulting engineering services for the design of the RP-5 Liquids Expansion and Solids Treatment Facility as an amendment to their existing contract for the RP-1 and RP-5 Expansion Preliminary Design Report. On March 9, 2017, IEUA received an excellent proposal from Parsons meeting all the requirements and requested scope of work as detailed in the RFP. The Parsons' fee proposal envelope was opened and a fee of $21,289,859 was presented. This fee was higher than anticipated. IEUA and Parsons entered negotiations to decrease the fee for the requested scope of work. Multiple productive meetings and teleconferences were conducted to collaboratively reach a plan to reduce the overall fee estimate. This plan focused on the following key points:

- Maintain all major scope items as described in the PDR.
- Deferment of project components not immediately required.
- Streamline project management and meetings to reduce cost.
- Parsons to provide a discount of their hourly rates.

With this strategy, the Parsons' fee proposal was reduced to $17.99M, a reduction of $3.30M or 15.5% of the original fee proposal.

During the February Committee meetings, IEUA staff discussed a validation methodology to verify fee negotiations. Staff completed a survey of the scopes of work and the design costs from the recent comparable plant expansions in California, which included:

- City of Riverside's Water Quality Control Plant Expansion
- City of Visalia's Water Conservation Plant Improvements
- Eastern Municipal Water District's Temecula Valley Regional Water Reclamation Facility Expansion
- Elsinore Valley Municipal Water District's Regional Water Reclamation Facility Expansion
- Fresno Yosemite International Airport's Recycled Water Facility
- Irvine Ranch Water District's Michelson Water Reclamation Plant Expansion (Liquids and Solids)
- Western Municipal Water District's WRCRQA Treatment Plant Expansion

This survey covered major designs from Albert A. Webb Associates, Black & Veatch, CDM Smith, CH2M, HDR, and Parsons conducted between 2006 and 2017. To normalize each of the expansions for comparison, IEUA staff analyzed two common industry metrics: the cost per design sheet (adjusted for inflation) and the total design cost versus construction cost (as a percentage). The results of the survey are shown in the table on the following page:

Table 1: Parsons' Fee Comparison to Survey Average

Firm	Cost Per Sheet	% of Construction
Survey Average	$13,652	8.2%
Parsons	$11,723	7.4%

Additionally, to remain consistent with the above approach, it is staff's intention to amend Parsons contract at the conclusion of the final design to include engineering services during construction, an estimated amendment value of $5,500,000 to $8,000,000, contingent upon excellent performance throughout the final design.

The RP-5 Liquids Expansion and Solids Treatment Facility projects are consistent with *IEUA's Business Goal of Wastewater Management* specifically the Water Quality objective that IEUA will ensure that systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements.

RP-5 Liquids Expansion and Solids Treatment Facility Consultant Contract Amendment

Project Nos. EN19001 and EN19006

Regional Committees

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Shaun J. Stone, P.E.

April and May 2017

Project Location

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

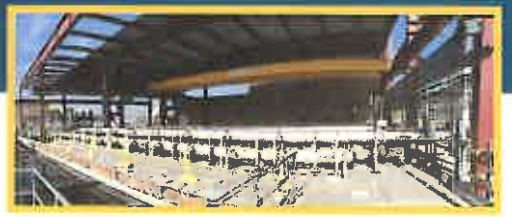
Project Background

- Wastewater Facilities Master Plan created from 2013 – 2015
- Preliminary Design Report (PDR) began development in January 2016
- Objective to create standardization for the capacity recovery at RP-1 and expansion at RP-5 as well as relocate RP-2 Solids Facility
- 40+ project meetings, staff workshops, Committee updates, and Board workshops to develop direction for PDR
- PDR completed in March 2017

Project Scope

RP-5 Liquids Expansion and Solids Facility

Membrane Bio-Reactor



Ultraviolet Disinfection

Rotary Drum Thickening

Phased Digestion

Centrifuge Dewatering

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Amendment Negotiations

- Request for Proposal (RFP) for amendment issued to Parsons on: January 12, 2017
- Proposal received from Parsons on: March 9, 2017

Original Fee Proposal
$21.29M

- Negotiations conducted from March 10th through April 7th
  - Streamlining of project management
  - Deferment of project components not immediately required
  - All major scope items maintained as described in PDR
  - Discount of Parsons Fee

Revised Fee Proposal
$17.99M

- Reduction of fee of $3.30M (15.5%)

Recent Major Expansion Cost Analysis

Recent Local Major Expansion Statistics Summary

- Agencies Surveyed: City of Riverside, City of Visalia, Eastern Municipal Water District, Elsinore Valley Municipal Water District, Fresno Airport, Irvine Ranch Water District, and Western Municipal Water District
- Design Firms Surveyed: A.A. Webb, Black & Veatch, CDM, CH2M, HDR, and Parsons
- Project Design Phase: 2006 - 2017
- Average Cost Per Sheet: $13,652
- Average Design Fee as Percentage of Construction: 8.2%

Parsons Proposed Amendment

Agency	Facility	Design Firm (Date)	Design Cost[1]	Cost Per Sheet[2]	Const. Cost	Design as % of Const.
IEUA	RP-5	Parsons (2016-2019)	$19.8M	$11,723	$269.0M	7.4%

[1] Total design cost including PDR.
[2] Adjusted for inflation.

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Project Budget and Schedule

Description	Estimated Cost
Project Development	$9,200
Consultant Engineer	$17,993,680
IEUA Design Support Services (4%)	$10,760,000
Construction Services (8%)	$21,520,000
Construction (with 30% Contingency)	$269,000,000
Total Project Cost:	$319,282,880
Total Project Budget:	$325,000,000*

* *Total Budget for EN19001 and EN19006*

Milestone	Date
Consultant Contract Amendment	May 2017
Design Completion	June 2019
Construction Contract Award	December 2019
Construction Completion	December 2022

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Recommendation

- Staff requests the Regional Committees recommend to the IEUA Board of Directors to approve the consultant contract amendment for the design of the RP-5 Liquids Expansion and Solids Treatment Facility, Project Nos. EN19001 and EN19006, to Parsons Water & Infrastructure, Inc. for the not-to-exceed amount of $17,993,680;

The RP-5 Liquids Expansion and Solids Treatment Facility Project is consistent with the ***IEUA's Business Goal of Wastewater Management*** specifically the Water Quality objective that IEUA will ensure that systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements.

INFORMATION ITEM

3B

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date: April 27, 2017/May 4, 2017

To: Regional Committees

From: Inland Empire Utilities Agency

Subject: Review of Proposed Biennial Budget for Fiscal Years 2017/18 and 2018/19 for Regional Wastewater, Recycled Water, and Recharge Water Funds and Ten Year Capital Improvement Plan

RECOMMENDATION

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

BACKGROUND

This item was presented at the IEUA Board of Directors meeting on April 19, 2017.

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Date: April 19, 2017

To: The Honorable Board of Directors

From: P. Joseph Grindstaff
General Manager

Submitted by: Christina Valencia
Chief Financial Officer/Assistant General Manager

Javier Chagoyen-Lazaro
Manager of Finance and Accounting

Subject: Review of Proposed Biennial Budget for Fiscal Years 2017/18 and 2018/19 for Regional Wastewater, Recycled Water, and Recharge Water Funds and Ten Year Capital Improvement Plan

RECOMMENDATION

This is an information item for the Board of Directors to review and provide comments.

BACKGROUND

A preliminary overview of the Agency's proposed biennial budget for fiscal years (FYs) 2017/18 and 2018/19 and the FYs 2017/18 – 2026/27 Ten Year Capital Improvement Plan (2018 TYCIP) was presented to the Board of Directors on March 15, 2016. The overview highlighted the key areas of focus over the next two years:

- ***Succession planning*** – Over 30 percent of the Agency's workforce is eligible for retirement over the next 5 years. Essential to the transfer of knowledge and expertise to the next generation of employees is timely recruitment. Included in the proposed biennial budget is elimination of the 3% vacancy factor and set up of a 10-full time equivalent (FTE) succession planning pool for recruitment of critical positions throughout the Agency;
- ***Upkeep of Agency assets*** – Continue the transition from "corrective" to "predictive and preventative" maintenance of Agency assets to ensure regulatory compliance, avoid costly corrective maintenance, and effectively meet the Agency's commitment to delivering a high quality level of service;
- ***Optimize low interest debt and grants*** – Continue to secure low cost financing and grants to finance capital expansion and improvement of Agency's facilities to meet anticipated growth and increased service demands;

- ***Cost of service*** – Maintain rates and fees that fully recover the cost of service;
- ***Cost containment*** – Continue commitment to sustainable cost containment; and
- ***Transparency*** – Continue to provide a platform for transparent communication and timely reporting.

The focus of this review is the proposed biennial budget for the Regional Wastewater, Recycled Water, and Recharge Water programs, and the 2018 TYCIP. These will be presented to the Regional Technical and Regional Policy Committees on April 27, and May 4, 2017, respectively.

FY 2018 – 2027 Ten Year Capital Improvement Plan (TYCIP)

The purpose of the capital improvement plan is to catalog and schedule capital improvement projects over a multi-year period to effectively and efficiently meet the service needs of the region, comply with statutory requirements, and appropriately maintain Agency assets. Each year, pursuant to the Regional Sewage Service Contract (Regional Contract), member agencies provide a ten-year forecast of expected growth in their area. The member agencies forecast, presented to the Board of Directors on November 16, 2016, estimated over 36,000 new connections over the next ten years, with approximately 70% of those new connections anticipated in the southern portion of the Agency's service area. The Agency prepares a ten-year forecast of capacity demands and identifies capital projects needed to meet the service demand from future growth. The TYCIP is updated annually and presented to the Regional Technical and Policy Committees for review and comment.

The rehabilitation, replacement, improvement, and expansion of the Agency's facilities continue to be the key drivers for the proposed FY 2018 TYCIP. These drivers are consistent with the Agency's long term planning documents approved by the Board of Directors, amongst them:

- 2015 Wastewater Facilities Master Plan Updated flow factors and concentrations
- Asset Management Plan
- 2015 Recycled Water Program Strategy Update
- 2015 Energy Management Plan
- 2016 Integrated Resources Plan
- 2016 Water Use Efficiency Business Plan

The proposed FY 2018 TYCIP of $815 million is higher than the current 2017 TYCIP of $746 million by approximately $69 million. Capital projects in the Regional Wastewater and Recycled Water programs account for nearly 90% of the $815 million, with about 80%, or $642 million, scheduled within the first 5 years (2018-2022). The capital improvement plan includes both capital and operational and maintenance projects as shown by fund in Table 1 below.

Table 1: Ten Year Capital Improvement Plan by Fund

Fund ($Millions)	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23 through FY 2026/27	TOTAL
***Wastewater Capital**	$23.4	$26.6	$82.2	$167.8	$107.8	$81.0	**$488.8**
****Wastewater Operations**	29.3	26.8	14.3	10.2	9.1	52.4	**142.1**
Recycled Water	14.3	13.0	12.2	11.6	15.1	17.8	**84.0**
Non-Reclaimable Wastewater	1.2	1.9	1.0	0.3	0.3	7.7	**12.4**
Water Resources	5.7	8.2	17.2	10.2	1.7	9.5	**52.5**
Recharge Water	2.1	13.1	7.7	0.0	0.0	0.0	**22.9**
Admin Services	3.5	1.1	1.8	0.9	0.8	4.1	**12.2**
Total	**$79.5**	**$90.7**	**$136.4**	**$201.0**	**$134.8**	**$172.5**	**$814.9**

**Regional Wastewater Capital Improvement Fund*
***Regional Wastewater Operations & Maintenance Fund*

The RP-1 Liquids and Solids Expansion project and improvements to the regional recycled water system are expected to increase the capital improvement plan to $1.2 billion by 2032. As summarized in Table 2, six major capital projects in the Regional Wastewater program account for nearly 55%, or $664 million, of the $1.2 billion planned over the next 15 years.

Table 2: Wastewater Program Major Projects

	15 Year Forecast								Funding Source	
Major Wastewater Projects	2018	2019	2020	2021	2022	FYs 2023-27	FYs 2028-32	Estimated Cost ($million)	Capital	R&R
RP-5 Liquid Expansion to 30 mgd								$ 174	√	
RP-5 Solids Treatment Expansion								$ 164	√	√
Water Quality Laboratory								$ 15	√	√
RP-1 Liquids Treatment Capacity Recovery								$ 182	√	√
RP-1 Solids Treatment Expansion								$ 48		√
RP-1 Advanced Water Treatment Facility								$ 80		√
Subtotal	$ 16	$ 11	$ 66	$ 152	$ 103	$ 64	$ 252	$ 664	≈ $314	≈ $350

Total 15 Year Total	$ 1,198

These major projects are needed to meet the anticipated growth in the Agency's service area, replacement and rehabilitation (R&R) of aging facilities and infrastructure, and sustainment of water quality in the region. Funding for these major projects is shared by the Regional Wastewater

Capital Improvement (Wastewater Capital) and the Regional Wastewater Operations & Maintenance (Wastewater Operations) funds as indicated in Table 2. Funding sources for the expansion projects in the Wastewater Capital fund include; new wastewater connection fees, property taxes, grant and debt proceeds, and fund reserves. The R&R projects in the Wastewater Operations fund are supported by EDU monthly sewer rates, property taxes and fund reserves.

2018 TYCIP Non-Capital (O&M) Projects

Non-capital (O&M) projects account for approximately $116 million of the proposed $815 million 2018 TYCIP. Approximately 45%, or $52.5 million, is budgeted in the Water Resources fund with the majority ($32.5 million) designated for the Santa Ana River Conservation and Conjunctive Use (SARCCUP) program. Other projects include the Local Supply Resilience Projects, California Data Collaborative Water Use Efficiency Data Analytics, water resource planning documents, and the Agency's regional water use efficiency programs. These projects support sustainability of the region's water supplies, including investment in water use efficiency programs and water banking.

Over 30%, or $36 million is budgeted in the Wastewater Operations fund as reported in Table 3. Projects in the Wastewater Operations fund include condition assessment of Agency-wide assets such as: digester cleaning, aeration panel replacement, and coating of Agency structures. Also included is major maintenance of Agency's facilities, lift stations, and conveyance systems. Timely upkeep of Agency facilities is necessary to ensure uninterruptible delivery of essential services in a cost effective manner. Emergency repairs can cost as much as 30% more. Also, included in the Wastewater Operations fund is the South Archibald TCE Plume Clean-Up project. Due to the significant efforts of Agency staff and other key stakeholders, this project is expected to be fully funded by grants and contributions.

Non-capital projects included in the Administrative Services, Non-Reclaimable Wastewater, Wastewater Capital, and Recycled Water funds support major maintenance of the Agency's general facilities, including roofing and parking lot repairs, Prado Basin annual monitoring, and hydraulic modeling of the Agency's regional recycled water system.

Table 3: 2018 Summary of Non-Capital Projects by Fund

Fund ($Millions)	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23 through FY 2026/27	TYCIP TOTAL
Wastewater Capital	$0.9	$0.8	$0.3	$0.8	$0.3	$3.0	**$6.1**
Wastewater Operations	6.0	8.2	2.4	1.9	1.6	15.9	**36.0**
Recycled Water	2.2	1.7	1.4	1.6	1.1	7.0	**15.0**

Fund ($Millions)	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23 through FY 2026/27	TYCIP TOTAL
Non-Reclaimable Wastewater	0.1	0.1	0.1	0.1	0.1	0.5	**1.0**
Water Resources	5.7	8.2	17.2	10.2	1.7	9.5	**52.5**
Recharge Water	0.3	0.3	0.0	0.0	0.0	0.0	**0.6**
Admin Services	1.1	0.2	0.4	0.4	0.4	2.1	**4.6**
Total	**$16.3**	**$19.5**	**$21.8**	**$15.0**	**$5.2**	**$38.0**	**$115.8**

Regional Wastewater Program

In accordance with the Regional Contract, the Regional Wastewater Program is comprised of two funds; the Regional Wastewater Capital Improvement (Wastewater Capital) fund and the Regional Wastewater Operations and Maintenance (Wastewater Operations) fund, components of each fund is shown below in Table 4.

Table 4: Regional Wastewater Program Components

Description	Wastewater Capital	Wastewater Operations
Accounts for the Agency's regional wastewater system's	Acquisitions, construction, improvement and expansion.	Collection, treatment and disposal of domestic sewage treatment for the contracting agencies, capital replacement and rehabilitation costs, and organics management.
Primary Revenues & Other Funding Sources	New *EDU connection fees, property taxes, debt proceeds and grant receipts.	Monthly *EDU sewer rate, property taxes, and contract reimbursements.
Primary Expenses and Other Uses of Funds	Capital project costs, debt service, and program support.	O&M costs including, employment, chemicals, utilities, materials & supplies, etc.

**EDU = Equivalent dwelling unit is the estimated volumetric impact of a single residence.*

Regional Wastewater Capital Improvement Fund (Wastewater Capital Fund)

Total revenues for the Wastewater Capital fund are projected to increase by approximately 5% in the proposed biennial budget. A key assumption is the continued pace of new development in the Agency's service area with 3,000 new equivalent dwelling unit (EDU) connections projected for each budget year. Based on the 5 year rates adopted in June 2015, revenues from wastewater connection fees are estimated to increase by $1.8 million in FY 2017/18 to $18.9 million, and just

under $1 million to $19.9 million in FY 2018/19. Table 5 summarizes the estimated revenues and other sources of funds. An estimated rise of 3% in assessed valuations accounts for the increase in property tax receipts from $29 million projected in the current fiscal year to $29.9 million and $30.8 million over the next two fiscal years. Property tax receipts allocated to the Wastewater Capital fund first support annual debt service costs, then capital project costs.

Table 5: Wastewater Capital Fund Major Funding Sources

Major Funding Sources ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
Wastewater Connection Fees	$18.9	$19.9	3,000 new wastewater connections per year consistent with FY 2016/17. Adopted fee effective 7/1/17 of $6,309 per EDU, and $6,624 effective 7/1/18.
Property Tax	29.9	30.8	Annual increase of 3% from a projected increase in assessed property values. No change in 65% allocation of total property tax receipts.
Inter-Fund Transfers and Other	3.0	2.2	Includes the Wastewater Operations fund share of the RP-2/RP-5 Solids Treatment Expansion project and interest revenues.
Total	**$51.8**	**$52.9**	

As reported in Table 6, a major expenditure in the Wastewater Capital fund is the capital investment plan (CIP) which account for about 50% of proposed budget. A total of $23.0 million in capital project costs is budgeted in FY 2017/18 and $26.3 million in FY 2018/19. The proposed CIP budget includes design of the RP-2/RP-5 Expansion project along with other major projects summarized in Table 7.

Table 6: Wastewater Capital Fund Major Expenses and Other Uses of Funds

Major Uses of Funds ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
Program Support	$7.2	$7.2	Includes employment, professional services and monthly capacity fees for Non-Reclaimable Wastewater system used to dispose of regional centrate.
Capital Improvement Plan (CIP)	23.0	26.3	Major capital projects as summarized in Table 7.
Debt Service	12.1	12.2	Includes principal and interest for the 2008B, 2010A and 2017A bonds, and State

Major Uses of Funds ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
			Revolving Fund (SRF) loan for RP-1 Dewatering Expansion Facility.
Other	4.6	3.9	Inter-fund transfers for capital and debt service support to other funds, including cost share of the Water Quality Lab project budgeted in the Wastewater Operations fund.
Total	**$46.9**	**$49.6**	

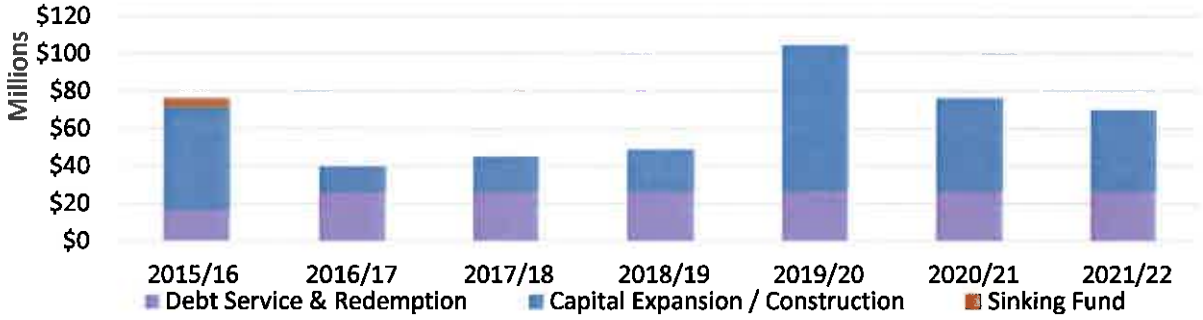
Table 7: Wastewater Capital Fund Major Capital Projects

Major Projects ($Millions)	FY 2017/18	FY 2018/19	FY 2019/20 to FY 2021/22	TYCIP Total
RP-5 Liquid and Solids Expansion	$4.9	$6.8	$320.3	$338.3
RP-1 Solids Thickening Expansion	0.3	1.1	8.0	20.0
RP-1 Disinfection Facility and Pump Improvements	2.8	2.3	2.1	5.3
RP-1 Flare Improvements	1.0	2.4	1.5	4.9
RP-1 Headworks Primary and Secondary Upgrade	5.3	0.6	0.0	5.9
RP-1 Mixed Liquor Return	2.2	0.0	0.0	2.2
*CCWRF Asset Management Improvements	2.7	1.0	19.5	23.2
All Other Capital Projects	3.8	12.1	5.9	86.4
Major Capital Projects	**$23.0**	**$26.3**	**$357.3**	**486.2**

**CCWRF- Carbon Canyon Water Recycling Facility*

The Wastewater Capital ending fund balance for FY 2017/18 is estimated at $45.0 million, and $48.7 million for FY 2018/19. The estimated increase in FY 2019/20 as shown in Figure 1 is due to debt proceeds from new debt issues needed to support construction of the RP-2/RP-5 Expansion project slated to begin in 2019.

Figure 1: Wastewater Capital Fund Reserve by Type



Regional Wastewater Operations & Maintenance Fund (Wastewater Operations)

Total revenues and other funding sources in the Wastewater Operations fund are estimated at $86.7 million and $92.2 million for FYs 2017/18 and 2018/19, respectively. This includes $16.5 million of anticipated State Revolving Fund (SRF) loan proceeds during the two-year period for construction of the Water Quality Laboratory, and $6.4 million of grant receipts for the South Archibald TCE Plume Clean-Up project. Table 8 summarizes the Wastewater Operations fund proposed major revenues and other funding sources for FYs 2017/18 and 2018/19.

Table 8: Wastewater Operations Fund Major Revenues and Other Funding Sources

Major Funding Sources ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
EDU Volumetric	$60.6	$64.7	Adopted EDU rate of $18.39 in FY 2017/18 and $19.59 in FY 2018/19 and assumes annual growth factor of 0.25% in the number of billable EDUs.
State Revolving Fund (SRF) Loans and Grants	11.3	12.4	Loan proceeds for the construction of the Water Quality Laboratory and proceeds for the South Archibald TCE Plume Clean-Up project.
Property Tax	9.5	9.5	Maintain the $9.5 million allocation as adopted by the Board on June 15, 2016.
Cost Reimbursement from IERCA*	3.8	3.9	Reimbursement of the IERCA labor costs.
Other	1.4	1.6	Includes interest revenue, contract cost reimbursement, and lease revenue.
Total	**$86.6**	**$92.1**	

**Inland Empire Regional Composting Authority*

Major expenses in the Wastewater Operations fund include operating and maintenance expenses, capital R&R project costs, organic management activities, and debt service costs. Total expenses

and other uses of funds are $92.5 million in FY 2017/18 and $88.4 million in FY 2018/19. The decrease of $4.1 million between the two years is mainly due a decrease in anticipated capital project spending. Proposed expenses and other uses of funds for FYs 2017/18 and 2018/19 are summarized in Table 9.

Table 9: Wastewater Operations Fund Major Expenses & Other Uses of Funds

Major Uses of Funds ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
Operations & Maintenance (O&M)	$57.7	$58.4	Includes employment, chemicals utilities, professional and contract labor costs, and other O&M costs.
O&M project costs	6.0	8.3	Includes the South Archibald TCE Plume Clean-Up project.
Capital Rehabilitation & Replacement (R&R) project costs	23.3	18.5	Asset Management Plan R&R project costs including completion of the Water Quality Project in FY2018/19.
Debt Service	0.4	0.4	Includes principal and interest for the 2017A bonds
Other	5.1	2.8	Inter-fund transfers for capital project support to the Administrative Services and share of the RP-2/RP-5 Expansion project and CCWRF Asset Management Improvement project.
Total	**$92.5**	**$88.4**	

A total of $23.3 million in capital project costs is budgeted in FY 2017/18 and $18.5 million is projected for FY 2018/19. When the EDU rates were adopted in 2015 only $22.8 million in capital project spending was anticipated over these two years. The increase in capital spending is due to carry forward of projects not completed in FY 2016/17, primarily the Water Quality Laboratory slated for completion in 2019. Major capital projects are listed in Table 10.

Table 10: Wastewater Operations Fund Major Capital Projects

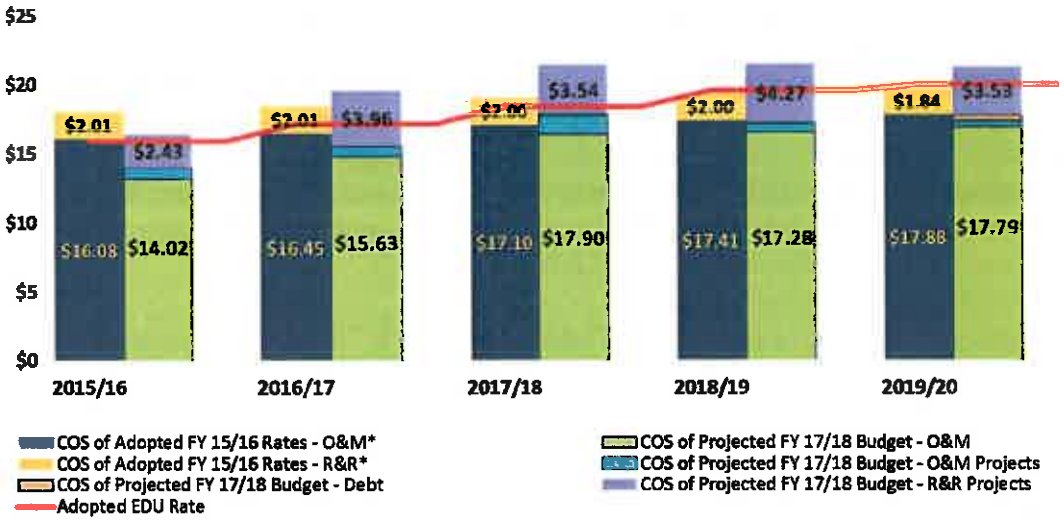
Major Projects ($Millions)	FY 2017/18	FY 2018/19	FY 2019/20 to FY 2021/22	TYCIP Total
Water Quality Laboratory	$11.3	$4.0	$0.0	$15.3
SCADA Enterprise System	1.7	2.6	5.7	10.0
RP-4 Process Improvements	1.0	2.1	2.3	5.4
RP-1 Secondary System Rehabilitations	0.7	2.9	1.6	5.2
Digester 6 and 7 Roof Repairs	1.4	1.4	0.3	3.0
All Other Capital Projects	7.2	5.5	17.9	67.2
Total	**$23.3**	**$18.5**	**$27.8**	**$106.1**

Cost of Service Review

In March 2015, the Board adopted monthly sewage EDU rates for five years (FYs 2015/16 – 2019/20). See Appendix Table A4: Monthly EDU Sewage Rates. The key objective of the multi-year rates was to establish a rate that fully recovered the cost of providing the service. Historically, property taxes have been used to support costs not recovered by rates. Figure 2 below shows the projected cost of service for the Wastewater Operations fund when the FY 2015/16 budget was adopted. The projected cost of service included two components: O&M (dark blue) and R&R project (gold) costs. The R&R component was calculated using an average of 10 years cost for recurring projects and an average of 5 years for non-recurring projects, with the objective to minimize the variability of these type of costs from year to year.

Figure 2 also includes a comparison of the actual cost of service for FY 2015/16, projected actuals for FY 2016/17 and updated forecasts for FYs 2017/18 – 2019/20. The projected R&R cost of service shows the project budget for each fiscal year included in the TYCIP and not an average cost as shown in the 2015 forecasts. Additionally, further breakdown is provided to show the different components included in the original calculation: O&M expenses (green), O&M projects (light blue) and debt service (orange). The O&M EDU unit cost is the sum of these three components. Not included in the projected cost of service are the contributions to the Wastewater Capital fund for the operations share of the RP-2/RP-5 Solid Treatment Expansion project.

Figure 2: Monthly EDU Sewage Cost of Service



Fiscal year 2015/16 was the first of the five-year rates. As reported, actual cost of service of $16.45/EDU exceeded the adopted rate of $15.89/EDU. The updated projections for FYs 2016/17 through 2019/20 exceed the 2015 forecasts, primarily due to the "ramp-up" of succession planning, higher CalPERS rates due to a reduction in the discount rate over the next three years, and higher O&M and R&R projects as reported on Table 9 (Major Expenses) and Table 10 (Major Capital Projects).

The projected Wastewater Operations fund ending fund balance is estimated at $59.5 million and $63.3 million for FYs 2017/18 and 2018/19, respectively. The decrease in fund balance in the future years is due to contributions to the Wastewater Capital fund for the Wastewater Operations fund share of the RP-2/RP-5 Expansion and Carbon Canyon Wastewater Reclamation Facility (CCWRF) Asset Management and Improvements project costs.

Figure 3: Wastewater Operations Fund Reserves by Type

Recycled Water Fund

A continued key initiative for the Agency is to optimize the beneficial reuse of recycled water and provide a cost effective and sustainable alternative to imported water for the region. Included in IEUA's long term planning documents is the continued expansion and improvement of the regional recycled water distribution system and groundwater recharge facilities. The Regional Recycled Water Distribution System (RRWDS) consists of over 89 miles of pipeline, 4 reservoir storage tanks with storage capacity between 2 and 5 million gallons, and multiple pump stations. Currently there are over 800 user connections to the RRWDS.

Total regional recycled water acre feet (AF) deliveries in FY 2017/18 are projected to be 35,500 and 37,100 in FY 2018/19, with related revenues of $17.2 million and $18.2 million, respectively. Volume projections for both fiscal years have been reduced by 8,000 AF when compared to the projection in the FY 2015/16 adopted budget. The AF reductions result in a $4 million decrease of recycled water sales revenues. Recycled water deliveries for direct use has declined in the recent years primarily due to trends in decreased agricultural usage because of the land conversions from farm sites to developed parcels. Other reasons are fewer than anticipated new connections/usage by member agencies for the direct use due to delays in project implementation.

Water connection fee revenues, collected to support capital investments in the Agency's regional water distribution system for FY 2017/18 are projected to be $4.2 million and $4.4 million for FY 2018/19, a 15% decrease as compared to the FY 2015/16 adopted budget. Water connection fee rates are set per meter equivalent unit (MEU). One MEU is equivalent to a 5/8" and 3/4" meter size (standard residential meter size). Revenues and other funding sources of the Recycled Water fund are summarized in Table 11.

Table 11: Recycled Water Fund Major Revenues & Other Funding Sources

Major Funding Sources ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
Recycled Water Sales	$17.2	$18.2	FY 2017/18 direct rate of $470/AF and Groundwater Recharge (GWR) rate of $530/AF FY 2018/19 direct rate of $480/AF and GWR rate of $540/AF
Water Connection Fees	4.2	4.4	FY 2017/18 rate $1,527/MEU FY 2018/19 rate $1,604/MEU 2,730 new MEU connections are projected each fiscal year.
Property Tax	2.2	2.2	Maintain $2.2 million allocation as approved by the Board of Directors in June 15, 2016.

Major Funding Sources ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
Other	3.3	2.7	Grants and capital reimbursements to support basin recharge projects, and inter-fund debt service support for the 2017A bond.
Total	**$26.9**	**$27.5**	

Major expenses for the Recycled Water fund include capital, debt service, and operating costs. Capital expenditures in FY 2017/18 and FY 2018/19 are projected to be $12.1 and $11.3 million, respectively. Operating costs include employment, pumping costs, O&M projects, and a portion of the groundwater recharge O&M costs not reimbursed by Chino Basin Watermaster (CBWM). The projected increase in O&M expenses in FY 2017/18 is primarily due to additional O&M projects needed for the upkeep of groundwater recharge basins and hydraulic monitoring projects. The projected biennial expense and other uses of funds for the Recycled Water fund are summarized in Table 12.

Table 12: Recycled Water Fund Major Expenses & Other Uses of Funds

Major Uses of Funds ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
Operating Expenses	$10.6	$10.3	Includes employment, professional fees, materials and supplies, utilities, a portion of the groundwater recharge operations expense, and O&M project costs.
Capital Improvement Plan (CIP)	12.1	11.3	See Table 13 for a summary of major capital projects.
Debt Service	7.7	7.8	Includes principal and interest costs for outstanding bonds and SRF loans.
Other	1.3	1.5	Inter-fund transfers to Administrative Service, Recharge Water, and Water Resources funds of new water connection fees in support of the RRWDS*.
Total	**$31.7**	**$30.9**	

**Regional Recycled Water Distribution System*

Annual debt service costs, which include principal, interest and financial fees for several SRF loans and 2017A Revenue Bonds, are estimated to be $7.7 million in FY 2017/18 and $7.8 million in FY 2018/19. There is no change to the $28.5 million inter-fund loans ($13.5 million due to the Wastewater Capital fund and $15 million due to the Non-Reclaimable Wastewater fund)

outstanding when the FY 2015/16 budget was adopted. During the FY 2016/17 mid-year budget update, the first inter-fund loan payment was deferred until FY 2019/20 due to higher capital project expenditures. The final re-payment of inter-fund loans is scheduled for FY 2025/26. A summary of inter-fund loans and repayment schedules is provided in Appendix A7.

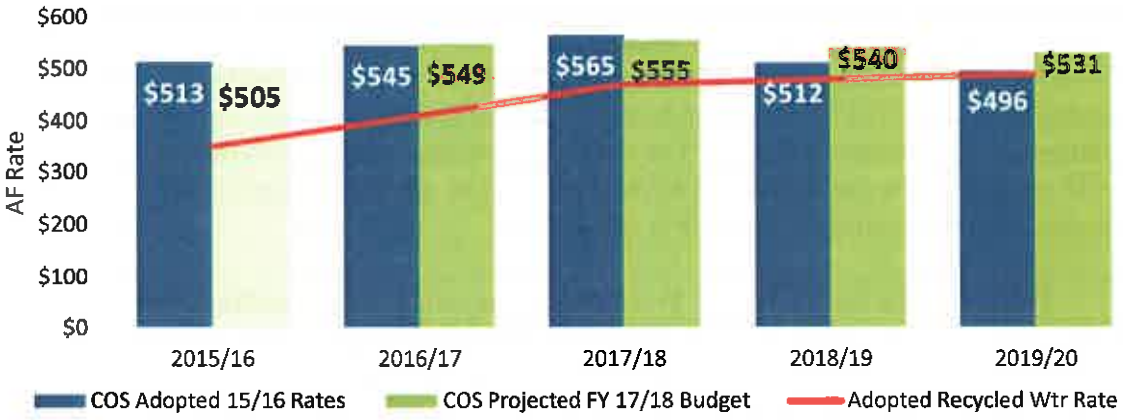
Table 13: Recycled Water Fund Major Capital Projects

Major Projects ($Millions)	FY 2017/18	FY 2018/19	FY 2019/20 to FY 2021/22	TYCIP Total
San Sevaine Basin Improvements	$4.3	$0.5	$0.5	$5.4
Napa Lateral/San Bernardino Speedway	2.7	1.4	1.8	5.9
RP-5 Recycled Water Pipeline Bottleneck	2.1	0.3	0.0	2.4
Baseline Recycled Water Pipeline Extension	0.3	3.0	1.4	4.8
Recycled Water System Cathodic Improvements	0.2	2.2	1.1	3.5
All Other Capital Projects	2.5	3.9	30.0	47.0
Total	**$12.1**	**$11.3**	**$34.8**	**$69.0**

Cost of Service Review

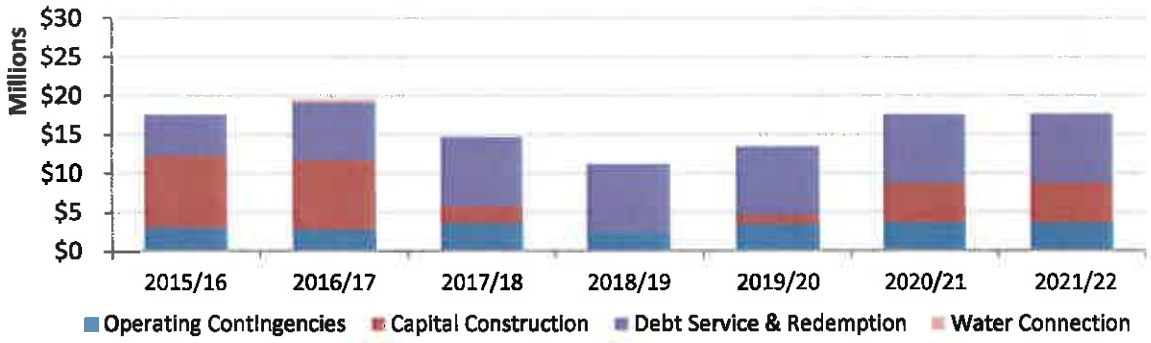
In May 2015, the Board adopted recycled water Acre Foot (AF) service rates for five years (FYs 2015/16 – 2019/20). See Appendix Table A5: Recycled Water Rates. The key objective of the multi-year rates was to establish a rate that fully recovered the cost of providing the service. Historically, the Metropolitan Water District (MWD) Local Project Program rebate and property taxes have been used to support costs not recovered by rates. The current fiscal year will be the final year of the MWD Local Project Program rebate equal to a maximum $2.1 million per year. The adopted multi-year rates account for the loss of this funding source. Figure 4 is a comparison of the cost of service projections (dark blue) as 2015 (COS Adopted 15/16 Rates) to the updated projections. Included in the cost of service AF calculation are operational and maintenance (O&M) costs, O&M and R&R projects less any grants or contributions, and debt service which is also partially offset by property tax receipts. The 2015 projected cost of service assumed higher recycled water deliveries which partly account for the changes in the AF unit cost in the updated forecasts. As shown in Figure 4 the estimated cost of service of $531/AF in FY 2019/20 is projected to exceed the adopted rate of $490/AF. Future projections and underlying assumptions are reviewed and updated each year as part of the budget process.

Figure 4: Recycled Water Cost of Service



The Recycled Water fund projected ending fund balances for FY 2017/18 and FY 2018/19 is $14.7 million and $11.2 million, respectively. Given the uncertainty of SRF loan/grant funding, pay-go funding is assumed for capital projects planned over the next two years. This accounts for the projected decrease in fund balance in FY 2018/19. Based on current assumptions future year balances begin to increase as capital spending trends downward and recycled water deliveries steadily grow. Projected ending fund balances are reported below in Figure 5. However, should SRL loan funding be available, this will result in higher fund balances.

Figure 5: Recycled Water Fund Reserve by Type



Recharge Water Fund

The Recharge Water (RW) fund accounts for the revenues and expenses associated with groundwater recharge (GWR) operations and maintenance through join efforts with Chino Basin Watermaster, Chino Basin Water Conservation District (CBWCD), and the San Bernardino County Flood Control District (SBCFCD). Operating expenses include general basin maintenance and/or restoration, groundwater administration (e.g. labor, tools, and supplies), contracted services

(e.g. weeding and vector control), compliance reporting, and environmental documentation for permit compliance.

Total budgeted revenues, other funding sources, and inter-fund contributions and support for FYs 2017/18 and 2018/19 are $4.8 million and $16.1 million, respectively. The budget is comprised of reimbursements from CBWM for groundwater recharge facilities' O&M, capital and non-capital project support, and debt service costs. The remaining balance will be contributed by IEUA for its portion of capital (50/50 share with CBWM), debt service, and pro-rata of O&M costs. See Table 14 for a summary of revenues and funding sources.

Table 14: Recharge Water Fund Revenues and Other Funding Sources

Major Funding Sources ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
Watermaster Operating Cost Reimbursement	$1.0	$1.0	Reimbursement of groundwater recharge operations & maintenance (GWR O&M) and facilities.
Watermaster Debt Service	0.5	0.6	Reimbursement for its share of debt service costs for the 2008B bonds, estimated interest rates are 2% and 3% for each fiscal year respectively.
Watermaster Project Reimbursement	0.4	2.2	Capital project costs funded by Watermaster.
State Revolving Fund Loan	1.4	10.7	Loan proceeds to support Recharge Mater Plan Update (RMPU) projects.
Other	1.5	1.6	Inter-fund transfer for the Agency's operating support for pro-rata share of groundwater basin maintenance; capital projects; non-reimbursable labor; and debt service, from the Recycled Water and Wastewater Capital funds.
Total	**$4.8**	**$16.1**	

Total Recharge Water program expenses for FYs 2017/18 and 2018/19 are $4.7 million, and $16.1 million, respectively. The key expenses include capital costs related to the Recharge Master Plan Update (RMPU) projects, debt service costs for the Chino Basin Facilities Improvement Project (CBFIP), and groundwater O&M costs.

The FYs 2017/18 and 2018/19 groundwater O&M budget, shown below in Table 15, includes utilities and general groundwater basin maintenance costs for infiltration, restoration and slope repairs on three groundwater basins: Brooks, RP-3 and Victoria Basins.

Table 15: Recharge Water Major Expenses & Other Uses of Funds

Major Uses of Funds ($Millions)	FY 2017/18	FY 2018/19	Key Assumptions
Operating Expense	$2.0	$2.0	Program support and maintenance, utilities, specialty O&M, Watermaster and SBCFCD costs, and IEUA's pro-rata share.
Debt Service	1.0	1.2	Principal, interest and financial expense for the bonds.
Capital Improvement Plan (CIP)	1.7	12.9	Capital project costs shared with Watermaster for RMPU projects.
Total	**$4.7**	**$16.1**	

The FY 2016/17 and 2017/18 capital project costs for the Recharge Capital Program mainly involve modifications, improvements, and refurbishment at selected basins for $1.7 million and $12.9 million, respectively. CBWM has updated the Recharge Master Plan, and Agency staff is taking the lead in the execution and administration of the capital projects. Table 16 is a summary of major projects in the Recharge Water program.

Table 16: Recharge Water Fund Capital Projects

Major Projects ($Millions)	FY 2017/18	FY 2018/19	FY 2019/20 to FY 2021/22	TYCIP Total
Recharge Master Plan Update	$1.2	$0.5	$0.0	$1.7
Lower Day Recharge Master Plan Update	0.3	2.2	1.1	3.7
Recharge Master Plan Update – Construction	0.2	10.2	6.6	17.0
Total	**$1.7**	**$12.9**	**$7.7**	**$22.4**

The ending fund balance for FYs 2017/18 and 2018/19 is projected to be $3.4 million and $3.6 million, respectively (Figure 6). Throughout the subsequent years, ending fund balances are estimated to average $3.7 million.

Figure 6: Recharge Water Fund Reserve by Type

Conclusion

Over the next two fiscal years, key areas of focus will be execution of critical Asset Management Plan projects and timely recruitment of critical personnel to ensure the transfer for knowledge and expertise to the next generation of Agency employees. Achieving these objectives will ensure the Agency is positioned to delivery essential high quality services in a cost effective manner and support the region's economic development.

Attached in the Appendix section are the Sources and Uses of Fund reports of the Agency's Wastewater Capital, Wastewater Operations, Recycled Water and Recharge Water funds. The proposed budget for these programs is consistent with the IEUA Business Goals of *Fiscal Responsibility, Water Reliability, Wastewater Management, Environmental Stewardship and Business Practices.*

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None.

Attachments:
Appendix A – Sources and Uses of Funds: Regional Wastewater Capital, Regional Wastewater O&M, Recycled Water and Recharge Water funds.
Appendix Table A1 – Acronyms
Appendix Table A2 – Key assumptions for FYs 2017/18 and 2018/19 budget
Appendix Table A3 – Wastewater connection fees
Appendix Table A4 – EDU volumetric rates
Appendix Table A5 – Recycled water rates
Appendix Table A6 – Water connection fees
Appendix Table A7 – Inter-fund loan repayment schedule
Appendix Table A8 – Major projects in FYs 2017/18 and 2018/19, and Total Ten Year Budget

Appendix A

INLAND EMPIRE UTILITIES AGENCY
FISCAL YEARS 2017/18 and 2018/19 BIENNIAL BUDGET
REGIONAL CAPITAL FUND - SOURCES AND USES OF FUNDS (In Thousands)

	2015/2016 ACTUAL	2016/2017 PROJECTED ACTUAL	2017/18 PROPOSED BUDGET	2018/19 PROPOSED BUDGET	2019/20 FORECAST	2020/21	2021/22
REVENUES							
Interest Revenue	$135	$187	$248	$364	$552	$551	$363
TOTAL REVENUES	$135	$187	$248	$364	$552	$551	$363
OTHER FINANCING SOURCES							
Property Tax - Debt and Capital	$27,659	$29,058	$29,930	$30,828	$31,444	$32,073	$32,715
Regional System Connection Fees	24,910	17,136	18,927	19,872	18,779	20,658	20,337
Debt Proceeds	0	0	0	0	100,000	100,000	75,000
Other Revenues	10	1	1	1	1	1	1
TOTAL OTHER FINANCING SOURCE	$52,579	$46,195	$48,858	$50,701	$150,224	$152,732	$128,053
EXPENSES							
Employment Expenses	$4,248	$3,995	$4,057	$4,155	$4,243	$4,478	$4,682
Contract Work/Special Projects	1,253	795	900	800	300	800	300
Operating Fees	240	242	246	254	261	269	277
Professional Fees and Services	234	329	364	365	372	377	382
Other Expenses	509	475	1,591	1,596	1,588	1,627	1,668
TOTAL EXPENSES	$6,484	$5,836	$7,158	$7,170	$6,765	$7,551	$7,310
CAPITAL PROGRAM							
IERCA investment	$0	$0	$500	$500	$500	$500	$0
Work In Progress	6,057	10,737	22,550	25,793	81,875	166,955	107,500
TOTAL CAPITAL PROGRAM	$6,057	$10,737	$23,050	$26,293	$82,375	$167,455	$107,500
DEBT SERVICE							
Financial Expenses	($203)	$140	$175	$174	$280	$175	$173
Interest	5,882	5,064	3,140	3,114	7,792	12,581	15,793
Principal	7,074	57,274	8,791	8,922	10,875	12,716	14,450
TOTAL DEBT SERVICE	$12,753	$62,479	$12,105	$12,211	$18,947	$25,472	$30,415
TRANSFERS IN (OUT)							
Capital Contribution							
RO to RC -RP-5 Solids Treatment	$0	$0	$1,350	$1,715	$3,472	$3,472	$3,472
RO to RC -CCWRF Asset Manager	0	195	2,700	1,020	7,700	10,800	1,000
RO to RC -RP-5 Expansion Mainten	0	0	0	0	5,000	5,000	5,000
RC to GG - Agency-wide Projects	(358)	(1,416)	(921)	(423)	(594)	(280)	(224)
RC to RO - Water Quality Laboratory	(11)	(103)	(103)	(92)	0	0	0
Debt Service							
RO to RC - RP-5 Expansion Debt F	0	0	0	0	1,736	3,472	4,774
RP-1 Expansion Debt Funding	0	0	0	0	0	0	0
RC to RW - 2008B Bond Debt	(382)	(402)	(515)	(583)	(592)	(644)	(641)
RC to RO - Water Quality Lab SRF I	0	0	0	0	(253)	(253)	(253)
RC to WC - 2017A Bond Debt	(1,390)	(1,103)	(2,399)	(2,400)	(2,400)	(2,400)	(2,399)
Capital - Connection Fee Allocation t	(527)	(770)	(1,378)	(410)	(697)	(195)	(156)
Capital - Connection Fee Allocation t	(3,545)	0	0	0	0	0	0
Capital - Connection Fee Allocation t	(123)	(246)	(293)	(456)	(245)	(72)	(72)
TOTAL INTERFUND TRANSFERS IN	($6,335)	($3,843)	($1,559)	($1,630)	$13,127	$18,900	$10,501
FUND BALANCE							
Net Income (Loss)	$21,083	($36,514)	$5,234	$3,761	$55,815	($28,294)	($6,307)
Beginning Fund Balance July 01	55,173	76,257	39,743	44,977	48,738	104,553	76,259
ENDING FUND BALANCE AT JUNE	$76,257	$39,743	$44,977	$48,738	$104,553	$76,259	$69,951
RESERVE BALANCE SUMMARY							
Capital Construction	$240	($4,429)	$1,808	$2,435	$39,420	$2,473	$1,824
CCRA Capital Construction	55,201	18,337	17,264	20,136	38,915	47,573	41,910
Debt Service & Redemption	15,615	25,835	25,904	26,166	26,218	26,213	26,217
Sinking Fund	5,200	0	0	0	0	0	0
ENDING BALANCE AT JUNE 30	$71,057	$39,743	$44,977	$48,738	$104,553	$76,259	$69,951

INLAND EMPIRE UTILITIES AGENCY
FISCAL YEARS 2017/18 AND 2018/19 BIENNIAL BUDGET
REGIONAL WASTEWATER OPERATIONS & MAINTENANCE FUND - SOURCES AND USES OF FUNDS (In Thousands)

	2015/16	2016/17	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
	ACTUAL	PROJECTED ACTUAL	PROPOSED BUDGET	PROPOSED BUDGET	FORECAST		
REVENUES							
User Charges	$49,958	$56,381	$60,634	$64,743	$66,260	$68,422	$70,653
Cost Reimbursement JPA	3,403	3,750	3,825	3,902	3,980	4,059	4,140
Contract Cost Reimbursement	79	93	93	93	93	93	93
Interest Revenue	284	308	466	611	733	730	738
TOTAL REVENUES	$53,724	$60,532	$65,018	$69,348	$71,065	$73,304	$75,624
OTHER FINANCING SOURCES							
Property Tax Revenues - Debt/Capital/Reserves	$9,573	$9,549	$9,549	$9,549	$9,549	$9,549	$9,549
State Loans	1,480	1,779	7,901	8,598	2,606	0	0
Grants	445	10,128	3,389	3,830	1,037	900	958
Other Revenues	972	757	776	795	816	836	858
TOTAL OTHER FINANCING SOURCES	$12,470	$22,212	$21,614	$22,772	$14,007	$11,285	$11,365
EXPENSES							
Employment Expenses	$25,644	$28,590	$29,752	$30,601	$31,359	$32,026	$33,531
Contract Work/Special Projects	3,595	10,500	5,971	8,265	2,447	1,850	1,600
Utilities	5,828	6,761	6,671	6,872	7,078	7,290	7,509
Operating Fees	1,807	1,848	2,018	2,073	2,133	2,199	2,260
Chemicals	3,895	4,277	4,419	4,547	4,684	4,824	4,969
Professional Fees and Services	1,969	2,612	4,089	3,358	3,438	3,523	3,622
Office and Administrative expenses	7	1	4	4	4	5	5
Biosolids Recycling	3,777	4,433	4,307	4,408	4,540	4,676	4,816
Materials & Supplies	1,927	2,080	2,161	2,200	2,266	2,333	2,404
Other Expenses	951	1,634	4,325	4,339	4,319	4,425	4,538
TOTAL EXPENSES	$49,401	$62,736	$63,717	$66,668	$62,268	$63,152	$65,253
CAPITAL PROGRAM							
Capital Construction & Expansion (WIP)	$7,814	$13,000	$23,329	$18,494	$11,869	$8,365	$7,568
TOTAL CAPITAL PROGRAM	$7,814	$13,000	$23,329	$18,494	$11,869	$8,365	$7,568
DEBT SERVICE							
Financial Expenses	$0	$1	$0	$0	$0	$0	$0
Interest	162	206	179	175	638	619	599
Principal	0	0	172	177	726	744	765
TOTAL DEBT SERVICE	$163	$207	$351	$352	$1,364	$1,364	$1,364
TRANSFERS IN (OUT)							
Capital Contribution							
Capital Contribution							
WC to RO - SCADA Enterprise SRF Loan	$3,430	$598	$0	$0	$0	$0	$0
RC to RO - New Water Quality Laboratory SRF Loan	11	103	103	92	0	0	0
RO to RC - CCWRF Asset Management and Improvem	0	(195)	(2,700)	(1,020)	(7,700)	(10,800)	(1,000)
RO to RC - RP-1 Maintenance Facility Cost Share	0	0	0	0	(5,000)	(5,000)	(5,000)
RO to RC - RP-5 Solids Handling Facility Cost Share	0	0	(1,350)	(1,715)	(3,472)	(3,472)	(3,472)
Debt Service							
RC to RO - New Water Quality Laboratory SRF Loan	0	0	0	0	253	253	253
RO to WC - SCADA Enterprise SRF Loan	0	0	0	0	(149)	(149)	(149)
RO to RC - RP-5 Solids Handling Facility SRF Loan	0	0	0	0	(1,736)	(3,472)	(4,774)
Operation support to GG for Non-Capital Projects	0	0	(1,059)	(167)	(407)	(373)	(373)
Capital - Connection Fees Allocation	3,545	0	0	0	0	0	0
TOTAL INTERFUND TRANSFERS IN (OUT)	$6,985	$506	($5,006)	($2,810)	($18,211)	($23,013)	($14,515)
FUND BALANCE							
Net Income (Loss)	$15,801	$7,307	($5,772)	$3,797	($8,639)	($11,304)	($1,711)
Beginning Fund Balance July 01	42,211	58,012	65,319	59,546	63,343	54,704	43,399
ENDING FUND BALANCE AT JUNE 30	$58,012	$65,319	$59,546	$63,343	$54,704	$43,399	$41,688
RESERVE BALANCE SUMMARY							
Operating Contingies	$14,969	$19,662	$19,964	$20,922	$19,429	$19,698	$20,371
Rehabilitation/Replacement	42,827	16,592	19,930	19,930	19,930	19,625	17,190
Debt Service	216	1,051	1,169	1,169	1,169	1,169	1,169
Sinking Fund	0	28,013	18,484	21,323	14,176	2,908	2,959
ENDING BALANCE AT JUNE 30	$58,012	$65,319	$59,546	$63,343	$54,704	$43,399	$41,688

INLAND EMPIRE UTILITIES AGENCY
FISCAL YEARS 2017/18 and 2018/19 BIENNIAL BUDGET
RECYCLED WATER FUND - SOURCES AND USES OF FUNDS (In Thousands)

	2015/2016 ACTUAL	2016/2017 PROJECTED ACTUAL	2017/2018 PROPOSED BUDGET	2018/2019 PROPOSED BUDGET	2019/2020	2020/2021	2021/2022
						FORECAST	
REVENUES							
Interest Revenue	$106	$113	$141	$137	$126	$155	$175
Water Sales	13,468	15,891	17,245	18,188	19,100	20,266	21,486
TOTAL REVENUES	$13,574	$16,004	$17,386	$18,325	$19,226	$20,421	$21,661
OTHER FINANCING SOURCES							
Property Tax - Debt/Capital	$2,162	$2,170	$2,170	$2,170	$2,170	$2,170	$2,170
Connection Fees	997	2,739	4,169	4,379	4,138	4,263	3,984
State Loans	7,851	1,740	0	0	3,581	5,833	4,261
Grants	4,371	1,116	388	63	1,262	2,172	2,172
Capital Contract Reimbursement	761	389	345	72	3,087	67	68
Other Revenues	13	0	0	0	0	0	0
TOTAL OTHER FINANCING SOURCES	$16,153	$8,155	$7,071	$6,683	$14,237	$14,505	$12,655
EXPENSES							
Employment Expenses	$4,412	$4,099	$4,157	$4,258	$4,349	$4,586	$4,796
Contract Work/Special Projects	1,023	637	2,151	1,681	1,360	1,610	1,110
Utilities	2,433	2,195	2,182	2,248	2,315	2,385	2,456
Operating Fees	3	3	10	10	11	11	11
Professional Fees and Services	480	511	686	722	698	667	725
Office and Administrative Expense	1	0	4	4	4	4	4
Materials & Supplies	106	190	218	222	228	235	242
Other Expenses	415	586	1,196	1,202	1,200	1,229	1,259
TOTAL EXPENSES	$8,874	$8,221	$10,603	$10,347	$10,163	$10,725	$10,603
CAPITAL PROGRAM							
Work In Progress	$5,077	$6,487	$12,134	$11,274	$10,851	$10,000	$13,960
TOTAL CAPITAL PROGRAM	$5,077	$6,487	$12,134	$11,274	$10,851	$10,000	$13,960
DEBT SERVICE							
Financial Expenses	($31)	$1	$1	$3	$1	$1	$1
Interest	2,722	2,746	2,568	2,543	2,804	2,713	2,549
Principal	3,962	3,919	5,159	5,256	6,437	6,740	6,883
Short Term Inter-Fund Loan	0	0	0	0	2,000	2,000	2,000
TOTAL DEBT SERVICE	$6,653	$6,666	$7,728	$7,802	$11,242	$11,455	$11,433
TRANSFERS IN (OUT)							
Capital Contribution	($4,734)	($936)	($321)	($265)	($22)	($10)	($8)
Debt Service	1,390	1,103	2,399	2,400	2,550	2,549	2,548
Operation support	(466)	(506)	(666)	(668)	(679)	(688)	(717)
One Water	(386)	(387)	(352)	(512)	(843)	(464)	(80)
TOTAL INTERFUND TRANSFERS IN (OU	($4,197)	($727)	$1,060	$955	$1,006	$1,388	$1,743
FUND BALANCE							
Net Income (Loss)	$4,927	$2,058	($4,948)	($3,459)	$2,213	$4,133	$63
Beginning Fund Balance July 01	12,636	17,563	19,620	14,672	11,213	13,426	17,560
ENDING BALANCE AT JUNE 30	$17,563	$19,620	$14,672	$11,213	$13,426	$17,560	$17,622
RESERVE BALANCE SUMMARY							
Operating Contingency	$2,958	$2,740	$3,534	$2,350	$3,388	$3,575	$3,534
Capital Construction	8,847	8,993	2,274	(0)	1,175	5,121	5,224
Water Connection	0	501	0	0	0	0	0
Rehabilitation/Replacement (R&R)	500	0	0	0	0	0	0
Debt Service	5,258	7,386	8,863	8,863	8,863	8,863	8,863
ENDING BALANCE AT JUNE 30	$17,563	$19,620	$14,672	$11,213	$13,426	$17,560	$17,622

INLAND EMPIRE UTILITIES AGENCY
FISCAL YEARS 2017/2018 AND 2018/2019 BIENNIAL BUDGET
RECHARGE WATER FUND - SOURCES AND USES OF FUNDS (In Thousands)

	2015/2016 ACTUAL	2016/2017 PROJECTED ACTUAL	2017/2018 PROPOSED BUDGET	2018/2019 PROPOSED BUDGET	2019/2020 FORECAST	2020/2021 FORECAST	2021/2022 FORECAST
REVENUES							
Cost Reimbursement from JPA	$486	$889	$1,059	$1,056	$1,087	$1,120	$1,153
Contract Cost reimbursement	0	0	38	0	0	0	0
Interest Revenue	14	10	15	20	25	25	25
TOTAL REVENUES	**$499**	**$899**	**$1,111**	**$1,076**	**$1,112**	**$1,145**	**$1,178**
OTHER FINANCING SOURCES							
State Loans	$0	$0	$1,414	$10,653	$6,554	$9	$0
Grants	0	60	0	0	0	0	0
Capital Contract Reimbursement	1,080	941	772	2,831	1,700	1,453	1,449
Other Revenues	34	0	0	0	0	0	0
TOTAL OTHER FINANCING SOURCES	**$1,115**	**$1,001**	**$2,186**	**$13,485**	**$8,254**	**$1,461**	**$1,449**
EXPENSES							
Employment Expenses	$444	$539	$592	$593	$594	$603	$631
Contract Work/Special Projects	37	0	325	250	0	0	0
Utilities	92	122	72	74	76	79	81
Operating Fees	7	5	7	7	7	7	7
Professional Fees and Services	511	650	877	904	930	957	985
Office and Administrative expenses	9	16	16	16	17	17	18
Expense Allocation	76	52	54	55	54	56	57
Materials & Supplies	75	74	68	70	72	74	76
Other Expenses	0	15	0	0	0	0	0
TOTAL EXPENSES	**$1,249**	**$1,473**	**$2,011**	**$1,968**	**$1,751**	**$1,794**	**$1,856**
CAPITAL PROGRAM							
Capital Expansion/Construction	$2,064	$880	$1,729	$12,902	$7,662	$10	$0
TOTAL CAPITAL PROGRAM	**$2,064**	**$880**	**$1,729**	**$12,902**	**$7,662**	**$10**	**$0**
DEBT SERVICE							
Financial Expenses	$114	$76	$89	$88	$100	$89	$86
Interest	17	80	259	368	346	853	811
Principal	632	647	683	710	739	1,155	1,193
TOTAL DEBT SERVICE	**$764**	**$803**	**$1,031**	**$1,166**	**$1,185**	**$2,097**	**$2,091**
TRANSFERS IN (OUT)							
Capital Contribution	$1,291	$287	$288	$250	$0	$0	$0
Debt Service	382	402	515	583	592	644	641
Operation support	466	506	627	662	664	674	703
Property Tax Transfer	86	122	56	131	53	0	0
TOTAL INTERFUND TRANSFERS IN (OU	**$2,225**	**$1,317**	**$1,486**	**$1,626**	**$1,309**	**$1,318**	**$1,344**
FUND BALANCE							
Net Income (Loss)	($238)	$61	$13	$151	$78	$25	$24
Beginning Fund Balance July 01	$3,575	$3,337	$3,397	$3,410	$3,561	$3,638	$3,663
ENDING FUND BALANCE AT JUNE 30	**$3,337**	**$3,397**	**$3,410**	**$3,561**	**$3,638**	**$3,663**	**$3,687**
RESERVE BALANCE SUMMARY							
Operating Contingencies	$2,337	$2,305	$2,327	$2,469	$2,494	$2,522	$2,543
Capital Expansion / Construction	500	500	500	500	500	500	500
Debt Service & Redemption	500	592	583	592	644	641	644
ENDING BALANCE AT JUNE 30	**$3,337**	**$3,397**	**$3,410**	**$3,561**	**$3,638**	**$3,663**	**$3,687**

Appendix Table A1: Acronyms

Acronyms	
AF	Acre Foot
CBFIP	Chino Basin Facilities Improvement Project
CCWRF	Carbon Canyon Wastewater Reclamation Facility
CIP	Capital Improvement Plan
EDU	Equivalent Dwelling Unit
FTE	Full Time Equivalent
FY	Fiscal Year
GG	Administrative Services Program
GWR	Groundwater Recharge
IERCA	Inland Empire Regional Composting Authority
kWh	Kilowatt hour
MEU	Meter Equivalent Unit
NC	Non-Reclaimable Wastewater Program
NRW	Non-Reclaimable Wastewater
O&M	Operations & Maintenance
R&R	Replacement & Rehabilitation
RC	Regional Wastewater Capital Improvement Program
RMPU	Recharge Master Plan Update
RO	Regional Wastewater Operations and Maintenance Program
RP-1	Regional Water Reclamation Facility (Plant) in the City of Ontario
RP-2	Regional Water Reclamation Facility (Plant) in the City of Chino
RP-3	Old Regional Water Reclamation Facility (Plant) in the City of Fontana rebuilt into a recharge facility with 4 recharge basins or cells.
RP-4	Regional Water Reclamation Facility (Plant) in the City of Rancho Cucamonga
RP-5	Regional Water Reclamation Facility (Plant) in the City of Chino
RRWDS	Regional Recycled Water Distribution System
RW	Recharge Water Program
SBCFCD	San Bernardino County Flood Control District
SCADA	Supervisory Control and Data Acquisition
SRF	State Revolving Fund
TCE	Trichloroethylene
TYCIP	Ten Year Capital Improvement Plan
WW	Water Resources Program

Appendix Table A2: Key Assumptions for FYs 2017/18 and 2018/19 Budget

Revenues and Other Funding Sources	Expenses and Other Uses of Funds
3,000 new wastewater connections per year	3% average CPI for O&M expenses
3.3 million volumetric EDU @ 0.25% annual growth	Includes debt service savings from the refinancing of the 2008A Bond ($125M) and inclusion of the new 2017A Bond ($67.6M)
Recycled Water Deliveries: FY 2017/18 35,550 AF FY 2018/19 37,100 AF	Addition of several major construction projects within the next two-year period
2,730 new water connections (MEU) per year	
3% growth in property tax receipts. Property tax allocated to Regional Capital fund remains at 65%, and "fixed amount" allocation to Regional O&M, Recycled Water, and Administrative Service funds, based on FY 2016/17 budget amendment.	Eliminates 3% vacancy factor in staffing to support succession plan Leverage professional services to achieve effective maintenance approach
Capital Improvement Plan (CIP) partially funded by low interest SRF loans and grants	Assumes no SRF funding to support recycled water capital projects in fiscal years 2017/18 and 2018/19

Appendix Table A3: Wastewater Connection Fees

Rate Description	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20
Wastewater Connection Fee	$5,415	$6,009	$6,309	$6,624	$6,955
Effective Date	1/01/16	1/01/17	7/01/17	7/01/18	7/01/19
Wastewater Connection Units	4,774	3,000	3,000	3,000	2,700

Appendix Table A4: Monthly EDU Sewage Rates

Rate Description	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20
EDU Volumetric Rate	$15.89	$17.14	$18.39	$19.59	$20.00
Rate Increase	$1.50	$1.25	$1.25	$1.20	$0.41
Effective Date	10/01/15	7/01/16	7/01/17	7/01/18	7/01/19

Appendix Table A5: Recycled Water Rates

Rate Description	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20
Direct Delivery/Acre Foot (AF)	$350	$410	$470	$480	$490
Groundwater Recharge/Acre Foot (AF)	$410	$470	$530	$540	$550
Effective Date	10/01/15	7/01/16	7/01/17	7/01/18	7/01/19
AF Deliveries	32,400	35,500	36,700	37,800	39,000

Appendix Table A6: Water Connection Fees

Rate Description	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20
Water Connection Fee (for 5/8" and 3/4" meter size)	$693	$1,455	$1,527	$1,604	$1,684
Effective Date	1/01/16	1/01/17	7/01/17	7/01/18	7/01/19
Meter Equivalent Units (MEUs)	1,455	1,527	1,604	1,684	1,735

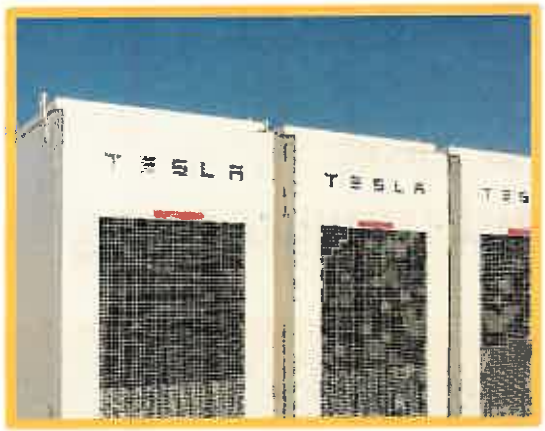
Appendix Table A7: Inter-Fund Loan Repayment Schedule

Inter Fund Loans Issued	Due to	Loan Amount ($Millions)	Repayment Schedule
FY 2007/08	Non-Reclaimable Wastewater (NRW) Fund	$9.0	2016/17-17/18 $4.0 2018/19-19/20 $2.0 2020/21 $3.0 Total $9.0
FY 2007/08	Regional Wastewater Capital (RC) Fund	3.0	2022/23 $1.0 2023/24-2024/25 $2.0 Total $3.0
FY 2009/10	Non-Reclaimable Wastewater (NRW) Fund	6.0	2020/21 $2.0 2021/22 $3.0 2022/23 $1.0 Total $6.0
FY 2014/15	Regional Wastewater Capital Improvement (RC) Fund	10.5	2022/23 $1.0 2023/24 $5.0 2024/25 $4.5 Total $10.5
Total	**Grand Total**	**$28.5**	**$28.5**

Appendix Table A8: Major Projects in FYs 2017/18 and 2018/19

Projects ($Thousands)	FY 2017/18 Proposed	FY 2018/19 Proposed	Total Ten Year Budget
Wastewater Capital Fund			
RP-5 Liquid Expansion to 30 MGD	$2,450	$3,360	$174,135
RP-5 Solids Treatment Expansion	2,450	3,430	164,135
CCWRF Assets Management and Improvements	2,700	1,020	23,220
Purchase Existing Solar Installation	0	7,500	7,500
RP-1 Headworks Primary and Secondary Upgrades	5,290	588	5,878
RP-1 Disinfection Pump Improvements	1,197	2,086	5,342
RP-1 Flare Improvements	1,050	2,380	4,900
RP-1 Mixed Liquor Return Pumps	2,172	0	2,172
Total Regional Capital Fund Major Projects	**$17,309**	**$20,364**	**$387,282**
Wastewater Operations Fund			
Water Quality Laboratory	11,300	4,000	15,300
SCADA Enterprise System	1,680	2,632	10,020
South Archibald TCE Plume	1,350	6,120	8,315
Agency-Wide Aeration Panel Replacement	3,220	500	7,920
RP-4 Process Improvements	980	2,100	5,350
RP-1 Secondary System Rehabilitations	700	2,940	5,200
Digester 6 and 7 Roof Repairs	1,350	1,350	3,000
RP-4 Primary Clarifier Rehab	1,050	980	2,915
Total Regional Operations Fund Major Projects	**$21,630**	**$20,622**	**$58,020**
Recycled Water Fund			
Napa Lateral	2,730	1,400	5,900
San Sevaine Basin Improvements	4,320	548	5,408
Baseline RWPL Extension	350	3,010	4,800
RP-1 1158 RMPU Upgrades	196	2,354	3,643
RW System Cathodic Protection Improvements	210	2,240	3,500
RP-5 RW Pipeline Bottleneck	2,070	330	2,400
Total Recycled Water Fund	**$9,876**	**$9,882**	**$25,651**
Recharge Water Fund			
RMPU Construction Costs	210	10,137	16,910
Lower Day Basin RMPU Improvements	315	2,248	3,672
Total Recharge Water Fund	**$525**	**$12,385**	**$20,582**
TOTAL MAJOR PROJECTS	**$49,340**	**$63,253**	$491,535

Fiscal Years 2017/18 – 2026/27
Ten Year Capital Improvement Plan



Christina Valencia, CFO/AGM
April 2017
Board Meeting

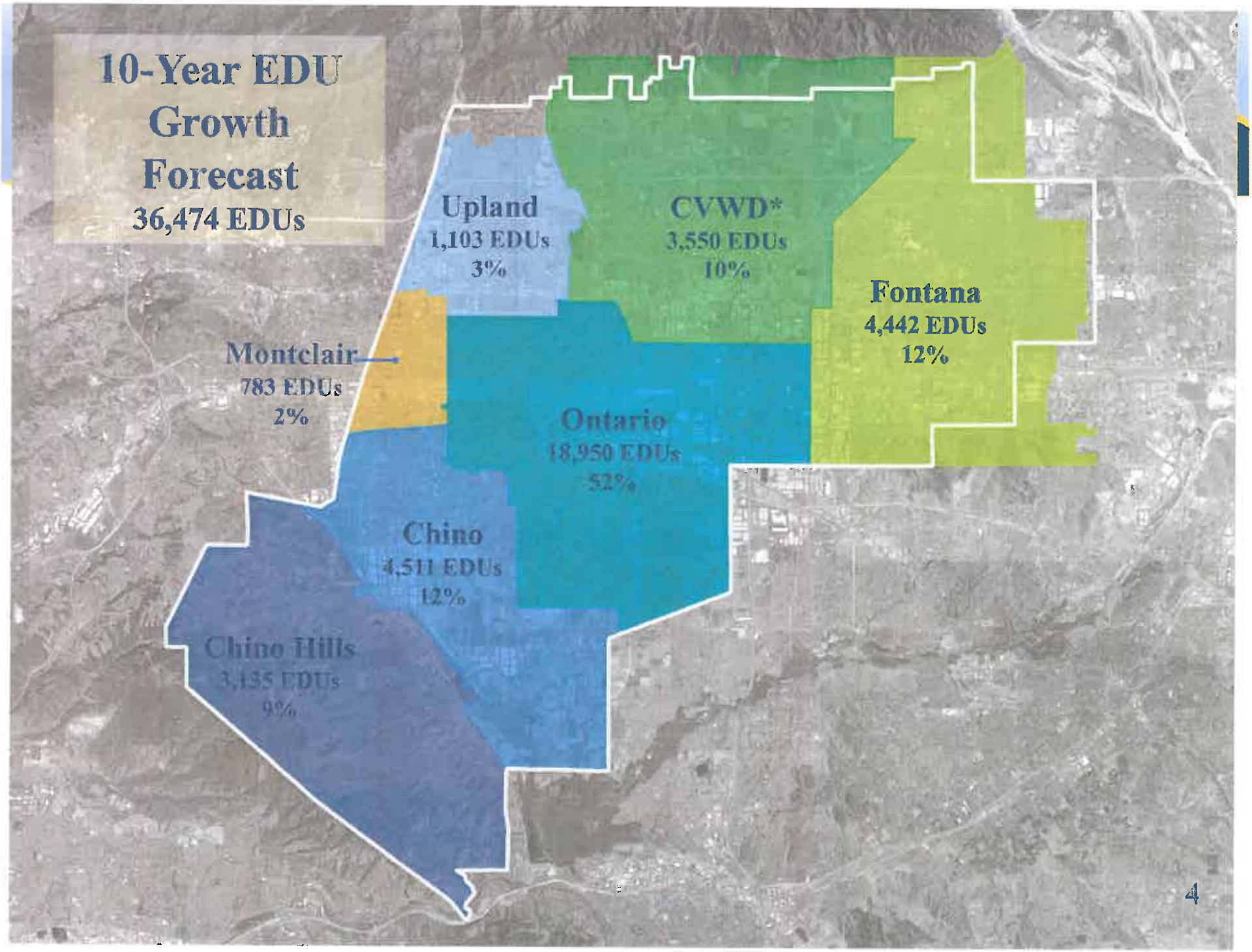
Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Ten Year Capital Improvement Plan Highlights

- $815 million planned over the next 10 years
  - ~80%, $642 million, planned between 2018 – 2022
    - RP-5 Liquids Expansion to 30 million gallons per day (MGD)
    - RP-5 Solids Treatment Expansion
    - Water Quality Laboratory
- $1.2 billion planned through 2032
    - RP-1 Rehabilitation & Improvement
- Primary funding sources;
  - 47% Pay-GO
  - 46% New Debt (bonds and low interest loans)
  - 7% Grants and Contributions

Projects Are Needed to Support

- Member Agency growth projections
- 2015 Wastewater Facilities Master Plan Updated flow factors and concentrations
- Asset Management Plan
- 2015 Recycled Water Program Strategy Update
- 2015 Energy Management Plan
- 2016 Integrated Resources Plan
- 2016 Water Use Efficiency Business Plan


10-Year EDU Growth Forecast
36,474 EDUs
Upland
1,103 EDUs
3%
CVWD*
3,550 EDUs
10%
Fontana
4,442 EDUs
12%
Montclair
783 EDUs
2%
Ontario
18,950 EDUs
52%
Chino
4,511 EDUs
12%
Chino Hills
3,135 EDUs
9%

$815 Million Planned Over 10 Years

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Major Projects Over the Next 15 years

- $1.2 billion planned through 2032
  - Six major capital projects account for ~55%

	15 Year Forecast								Funding Source	
Major Wastewater Projects	2018	2019	2020	2021	2022	FYs 2023-27	FYs 2028-32	Estimated Cost ($million)	Capital	R&R
RP-5 Liquid Expansion to 30 mgd								$ 174	√	
RP-5 Solids Treatment Expansion								$ 164	√	√
Water Quality Laboratory								$ 15	√	√
RP-1 Liquids Treatment Capacity Recovery								$ 182	√	√
RP-1 Solids Treatment Expansion								$ 48		√
RP-1 Advanced Water Treatment Facility								$ 80		√
Subtotal	**$ 16**	**$ 11**	**$ 66**	**$ 152**	**$ 103**	**$ 64**	**$ 252**	**$ 664**	**≈ $314**	**≈ $350**

Total 15 Year Total	**$ 1,198**

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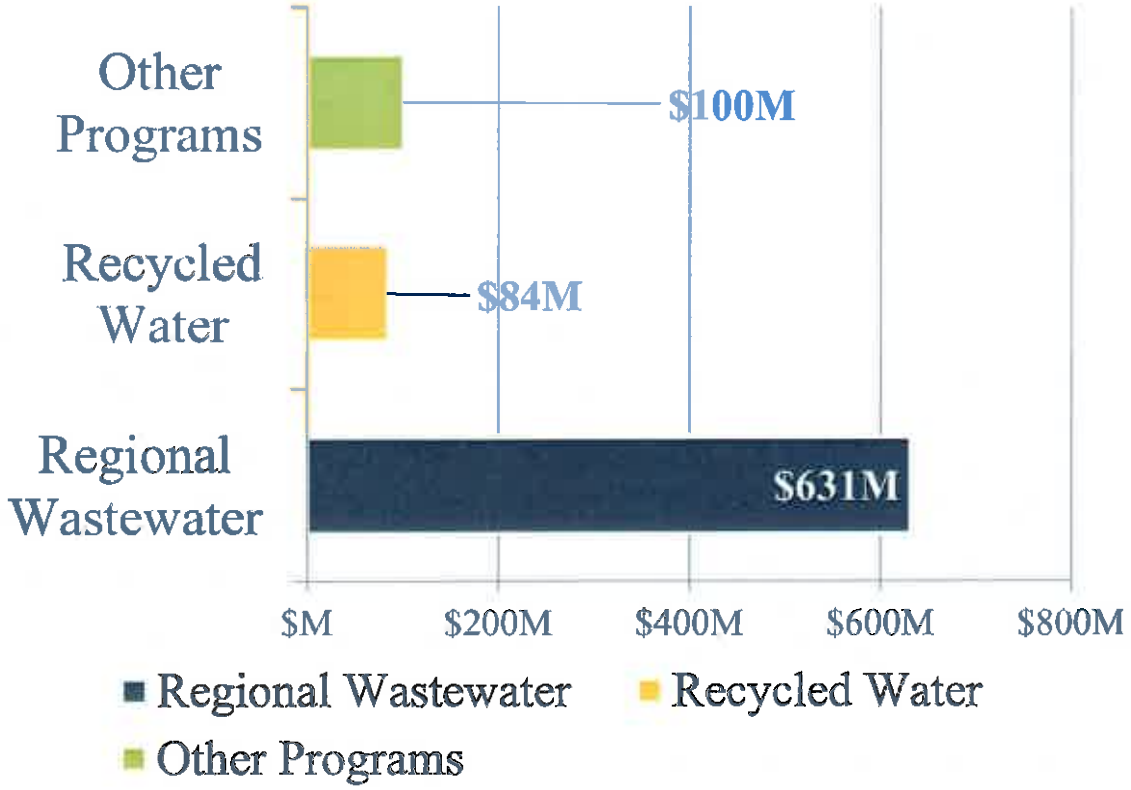
TYCIP by Program and Funding Sources
$815M

Projects by Program



Funding Sources

- **Pay Go** 47%
- **Debt** 46%
- **Grants** 5%
- **Contributions** 2%

Pay-Go includes connection fees, property taxes, and fund reserves

Contributions in support of Recharge Master Plan Update and Napa Lateral Pipeline projects.

Other Programs include:

Administrative Services:	$12M
Groundwater Recharge:	$23M
Non-Reclaimable Wastewater:	$12M
Water Resources:	$53M
Total Other Programs:	$100M

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Regional Water Recycling Plant Capacities

	Hydraulic Capacity		Liquid Treatment Capacity		Solids Treatment Capacity	
	Existing	TYCIP	Existing	TYCIP	Existing	TYCIP
RP-4	14 mgd	14 mgd	14 mgd	14 mgd	**38 mgd[2]**	**60 mgd[1]**
RP-1	44 mgd	44 mgd	28 mgd	**40 mgd[1]**		
CCWRF	12 mgd	12 mgd	12 mgd	12 mgd	**18 mgd[2]**	**30 mgd**
RP-5	15 mgd	**30 mgd**	15 mgd	**30 mgd**		

[1] Includes RP-1 Capacity Recovery Project (2023-2030)
[2] Per WWFMP 2015

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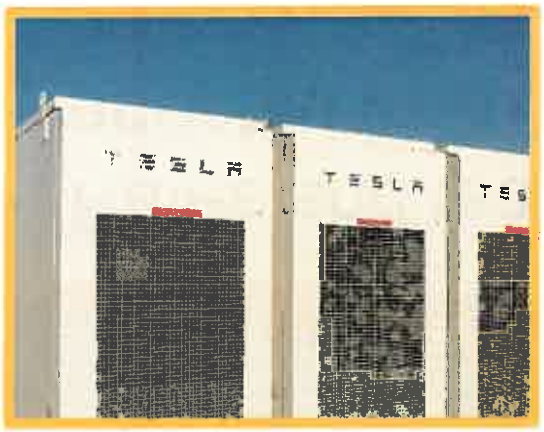
Fiscal Years 2017/18 – 2018/19

Biennial Budget Overview
Wastewater, Recycled Water and Recharge Water Programs



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Christina Valencia, CFO/AGM
April 2017

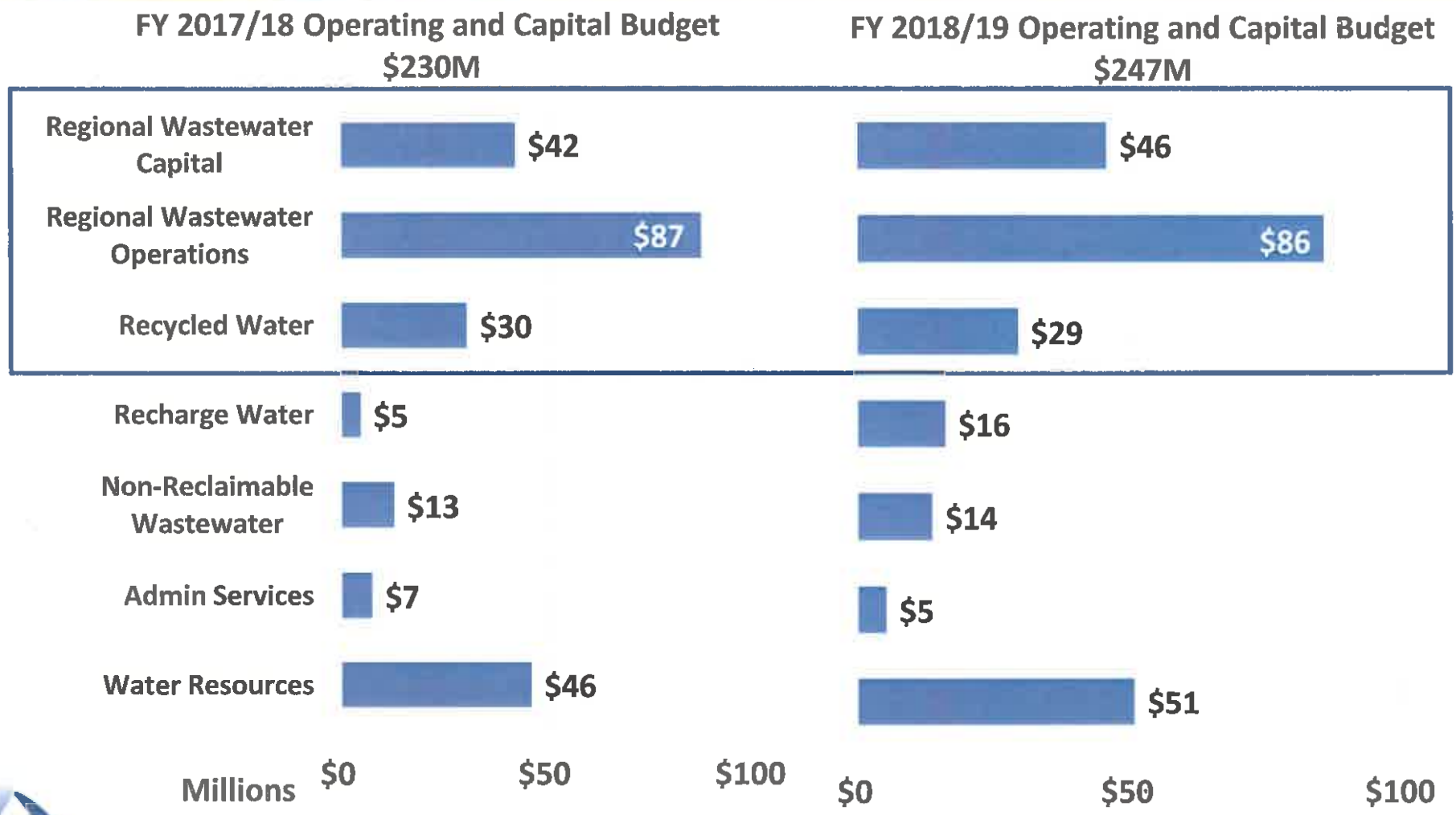
Operating Biennial Budget
Revenue Highlights

- Rates and fees consistent with multi-year rates adopted in 2015
- 3,000 new wastewater connections per year
- Slight increase in recycled water deliveries
  - 35,500 AF FY 2017/18
  - 36,700 AF FY 2018/19
- South Archibald TCE Plume project fully supported by grants and contributions

Operating Biennial Budget Expenditure Highlights

- Support succession planning
- Continue to transition from corrective to preventive/predictive maintenance
- Emphasis on upkeep and improvement of facilities and infrastructure to meet service demands
- Continue funding of long term retirement obligations

Wastewater & Recycled Water Programs ~70% of Total Proposed Budget



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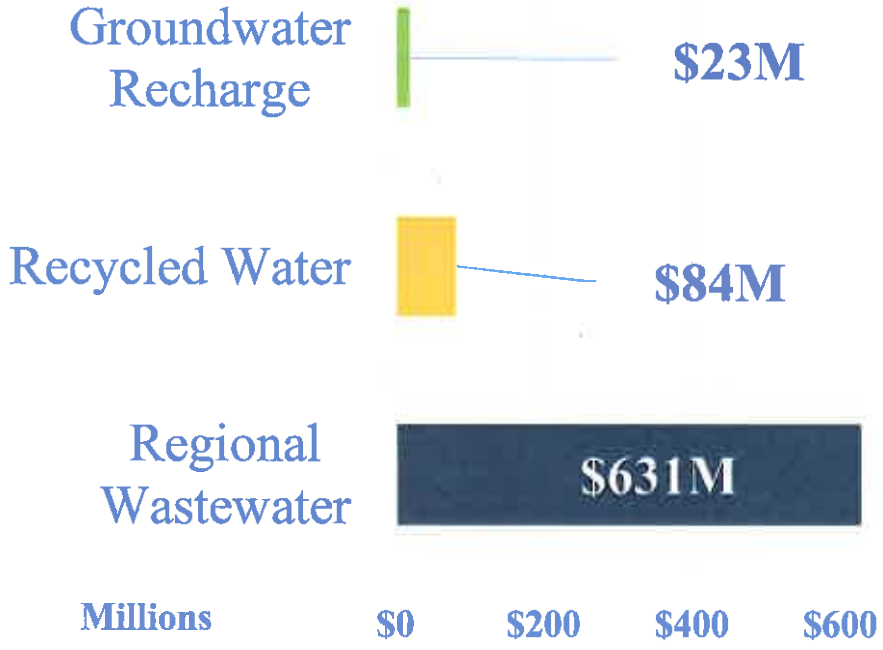
Focus over the next two years

- "Ramp-Up" succession planning
- Optimize grants and low interest debt to support capital expansion and improvements
- Transition from corrective to preventive maintenance
- Upkeep of Agency assets to ensure level of service delivery
- Sustainable cost containment
- Transparent communication and timely reporting

Wastewater and Recycled Water Projects and Funding Sources

10 years, $738M



Funding Sources

- **Pay Go** 49%
- **Debt** 46%
- **Grants** 2%
- **Contributions** 3%

Pay-go includes connection fees, property taxes, and fund reserves.

Contributions in support of Recharge Master Plan Update and Napa Lateral Pipeline projects.

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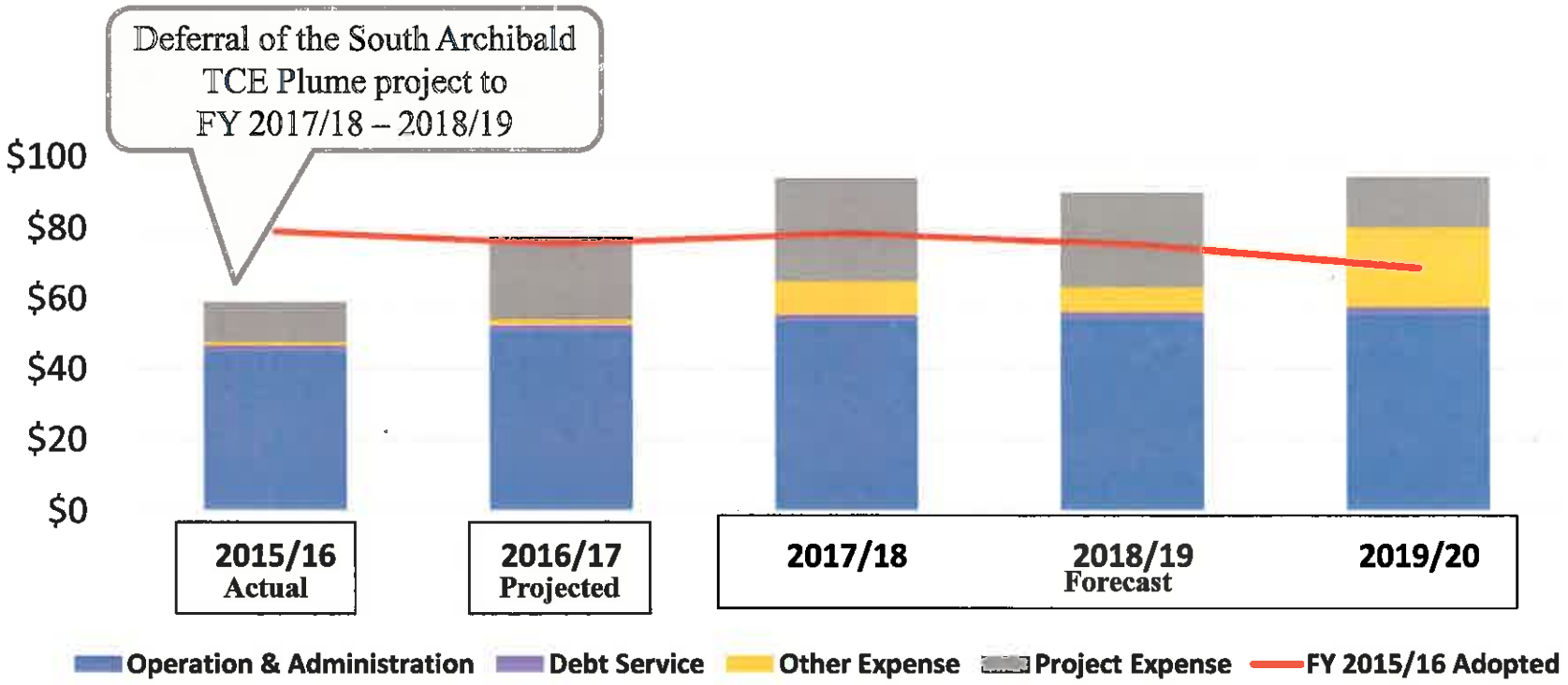
Wastewater Operations Fund
Major Capital Projects

Project Name ($ million)	FY 2017/18	FY 2018/19	Ten Year Estimated Cost
Water Quality Laboratory	$11.3	$4.0	$15.3
*SCADA Enterprise System *Supervisory Control and Data Acquisition (SCADA)*	1.7	2.6	10.0
RP-4 Process Improvements	1.0	2.1	5.4
RP-1 Secondary System Rehabilitations	0.7	2.9	5.2
Digester 6 and 7 Roof Repairs	1.4	1.4	3.0
All Other Capital Projects	7.2	5.5	67.2
Total Capital Projects	**$23.3**	**$18.5**	**$106.1**

Wastewater Operations Fund
Expenses and Other Uses of Funds



Other Expenses includes inter-fund transfers to Regional Capital fund in support of the RP-5 Solids Treatment Expansion, RP-5 O&M Building, and Carbon Canyon facility asset management projects.

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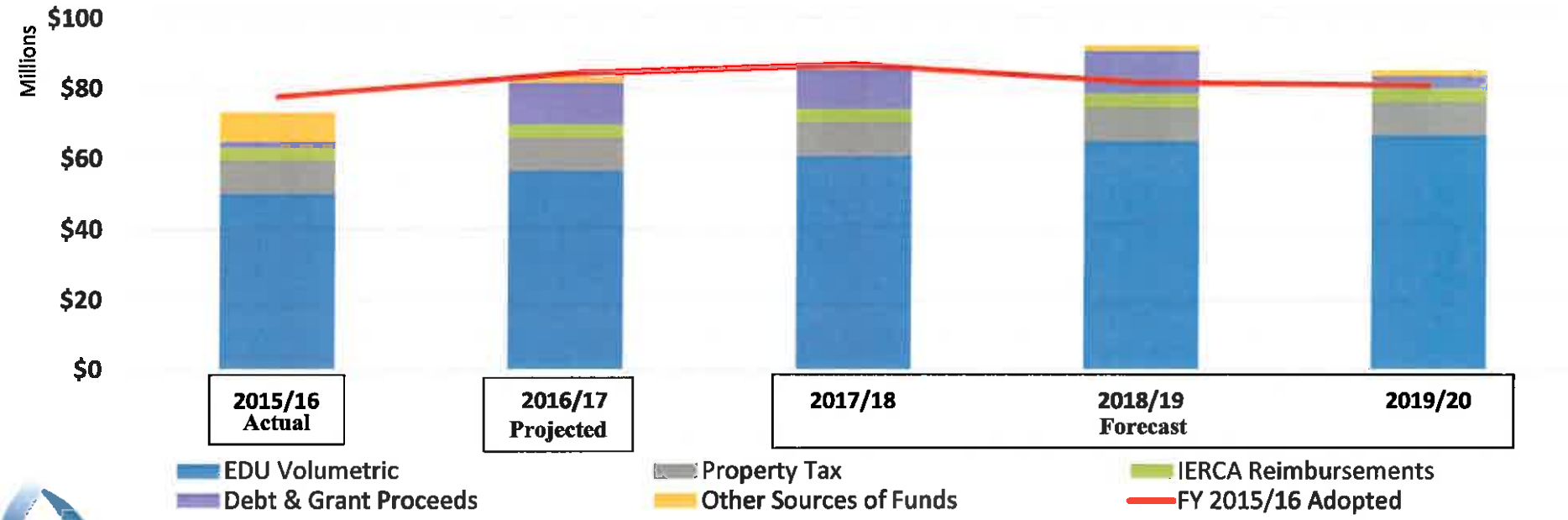
Wastewater Operations Fund
Revenues and Other Sources of Funds

- Higher grants/contributions secured for the South Archibald TCE Plume Clean-Up project
- EDU volumetric revenue based on adopted multi-year rates



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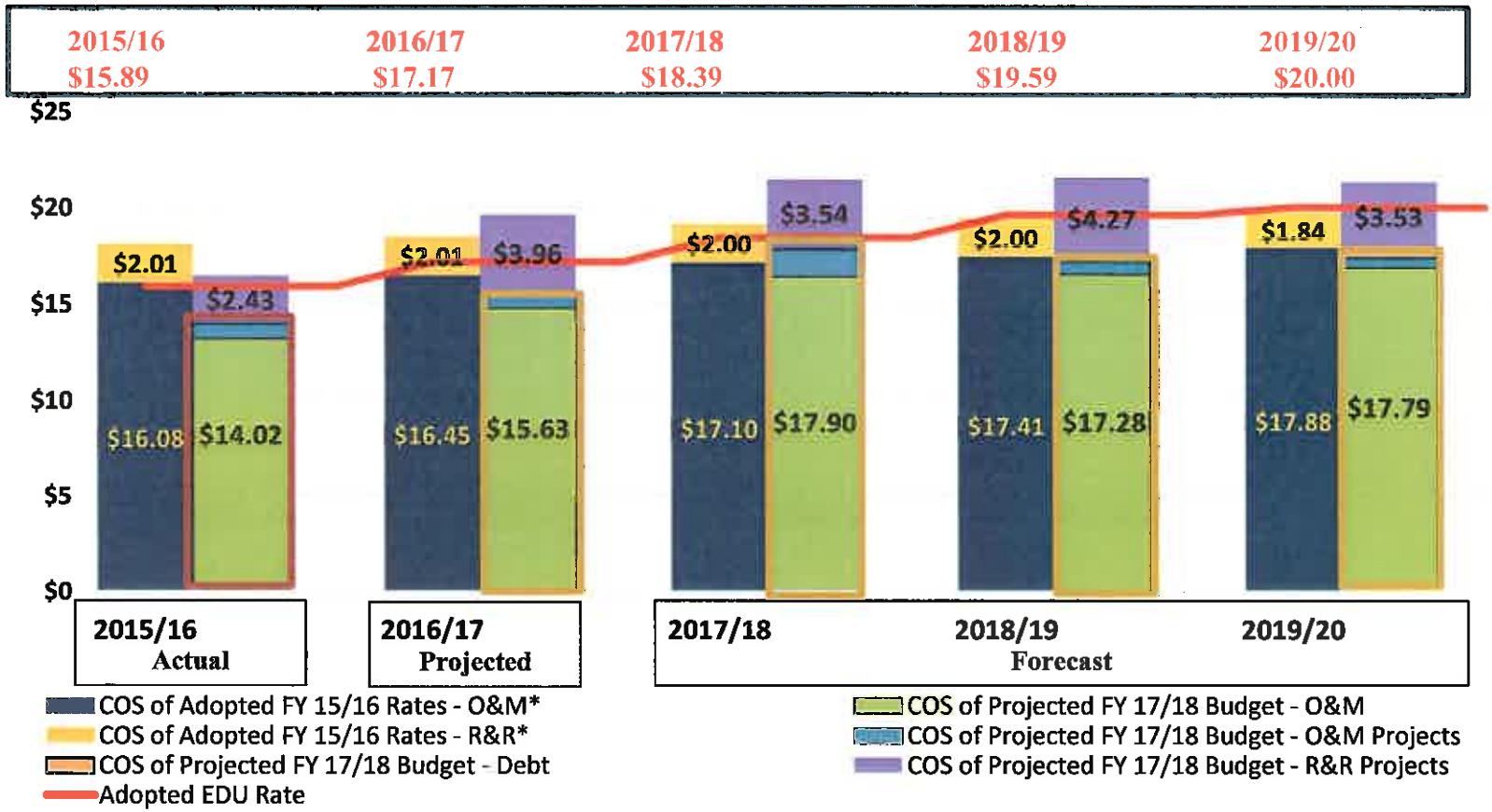
Wastewater Operations Fund
Cost of Service/EDU

Adopted multiyear rates $/EDU



*O&M: Operations and Maintenance
*R&R: Rehabilitation and Replacement. EDU: Equivalent Dwelling unit

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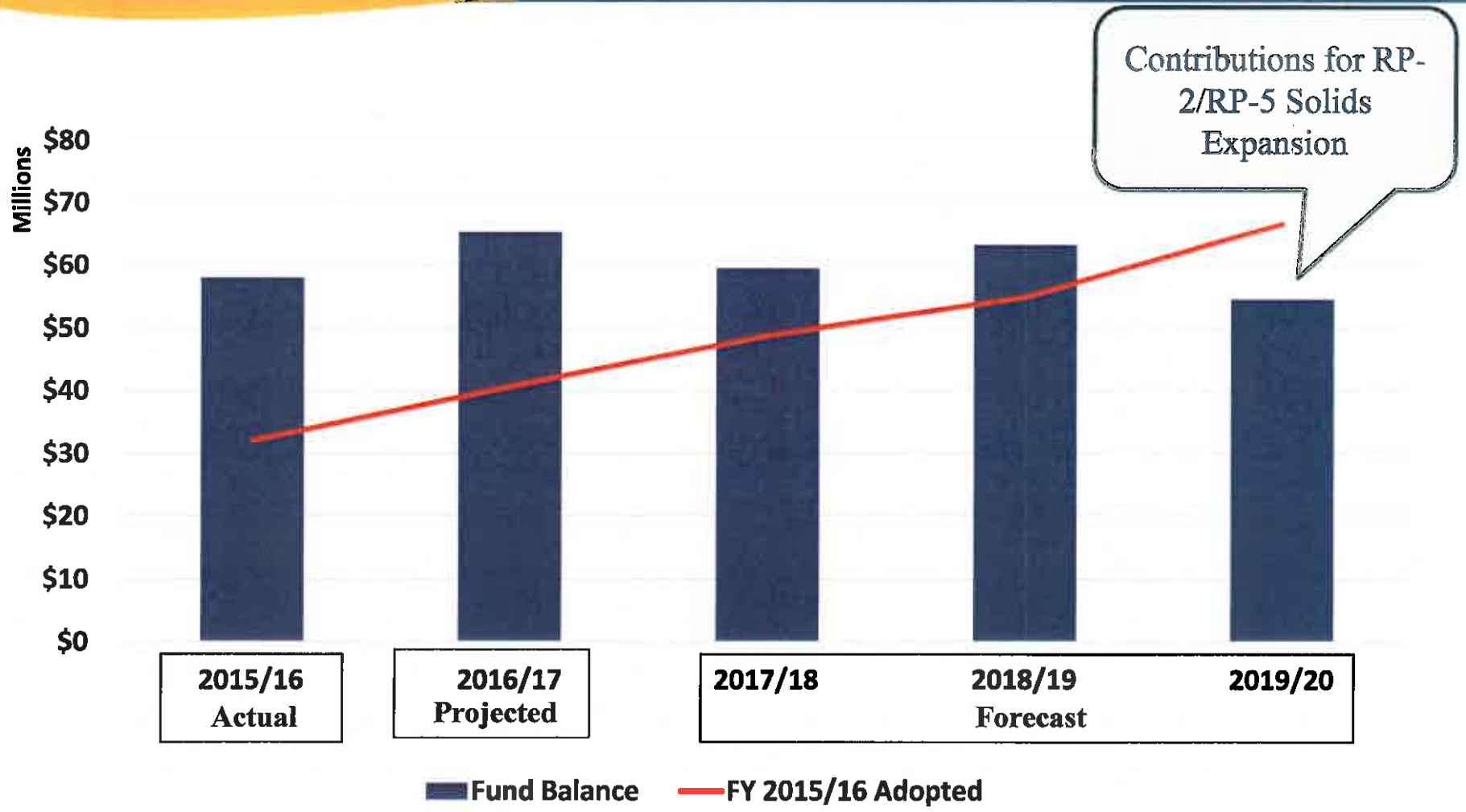
Wastewater Operations Fund
Fund Reserve



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Wastewater Capital Fund
Major Capital Projects

Project Name	FY 2017/18	FY 2018/19	Ten Year Estimated Cost ($ million)
RP-5 Expansion to 30 mgd*	$2.4	$3.4	$174.1
RP-5 Solids Treatment Expansion	2.4	3.4	164.1
RP-1 Liquid Treatment Capacity Recovery	0.0	0.0	43.3
**CCWRF Assets Management and Improvements	2.7	1.0	23.2
RP-1 Solids Thickening Expansion	0.4	1.1	20.0
RP-1 Solids Treatment Expansion	0.1	0.0	11.6
Other Projects (Under $10 million)	15.0	17.4	49.9
Total	**$23.0**	**$26.3**	**$486.2**

*Million gallons per day
**Carbon Canyon Wastewater Recycling Facility

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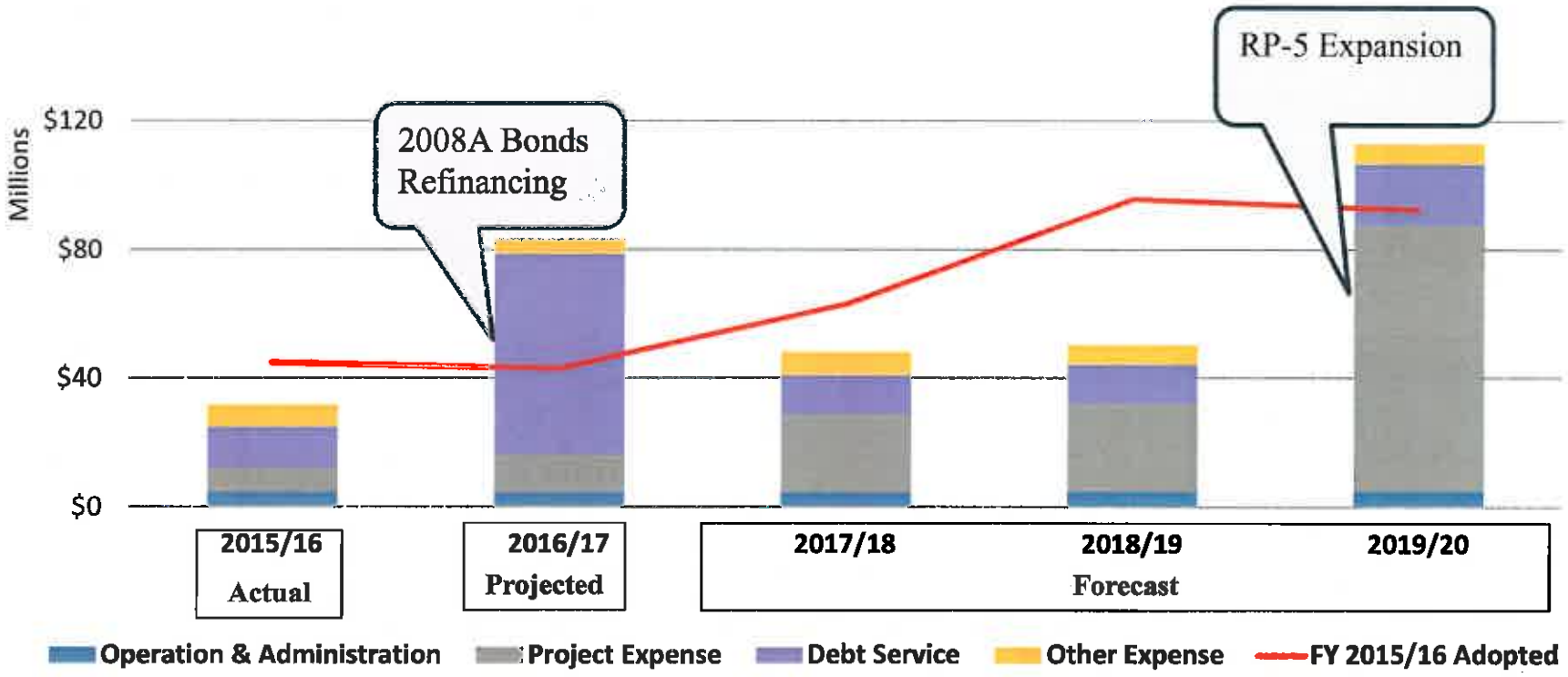
20

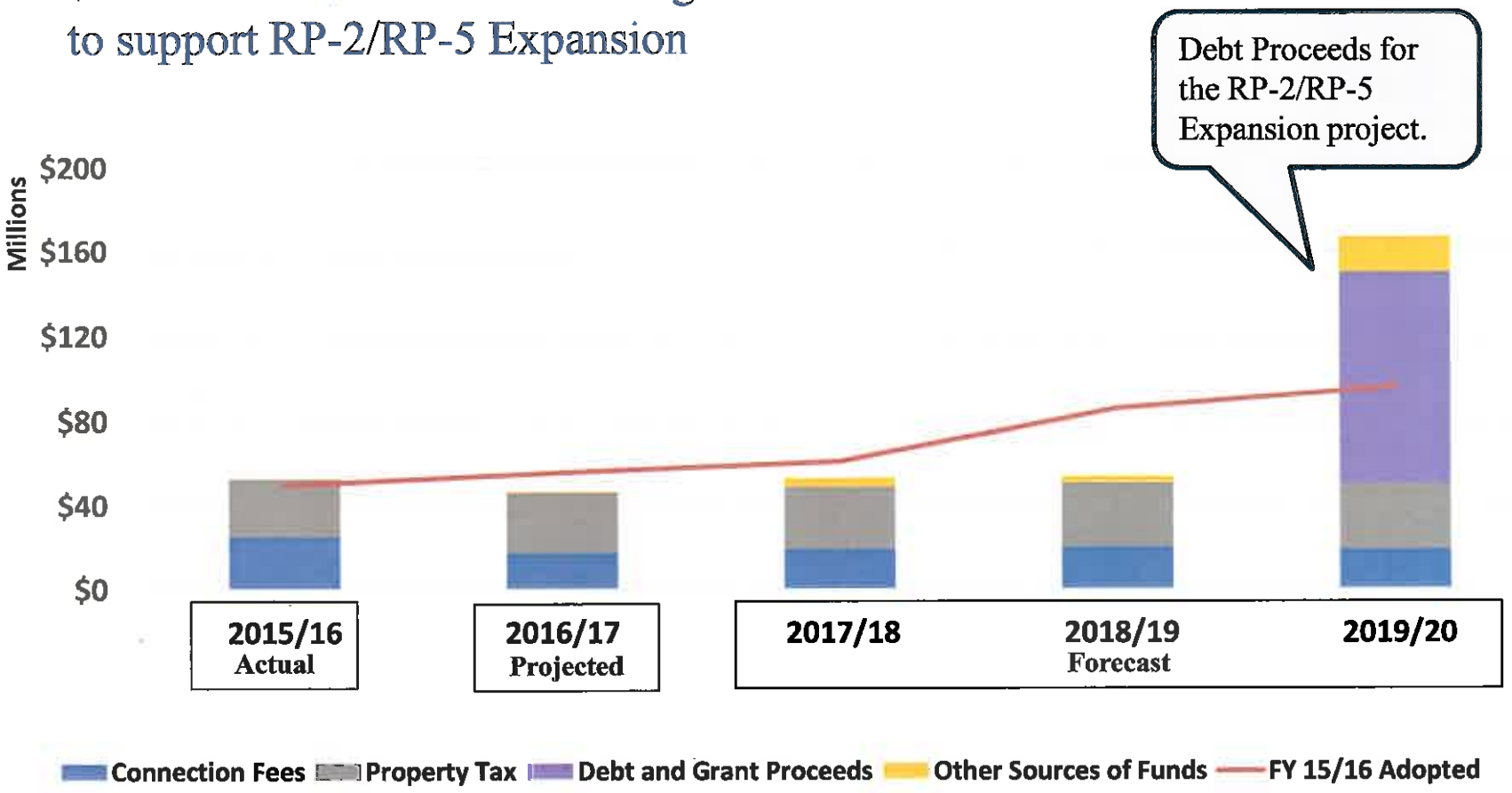
Wastewater Capital Fund
Expense and Other Uses of Funds

- ~$131 million capital project costs projected over the next three years.

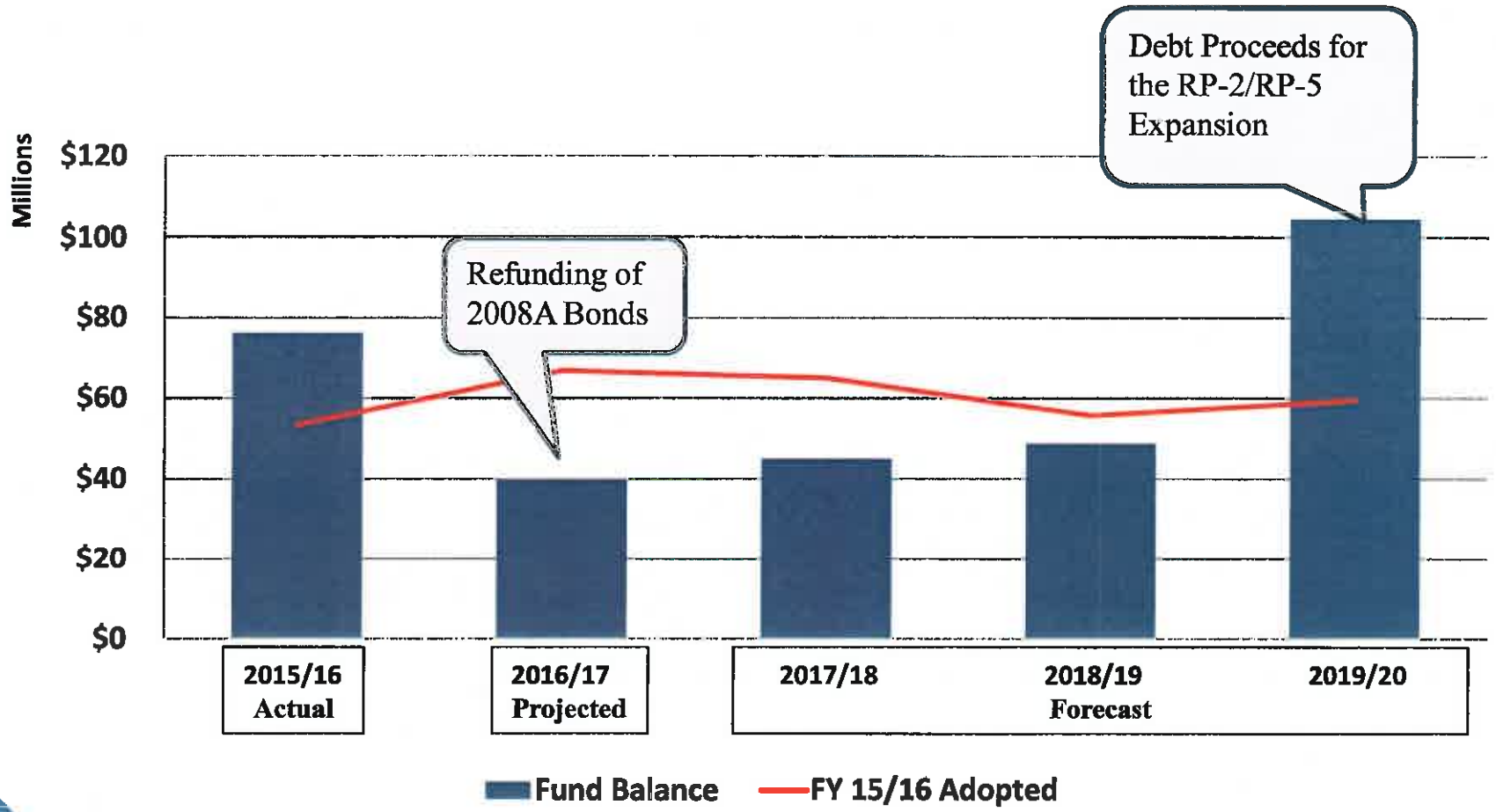


Wastewater Capital Fund
Revenues and Other Sources of Funds

- $100 million in new debt starting in Fiscal Year 2019/20 to support RP-2/RP-5 Expansion



Wastewater Capital Fund
Fund Reserve



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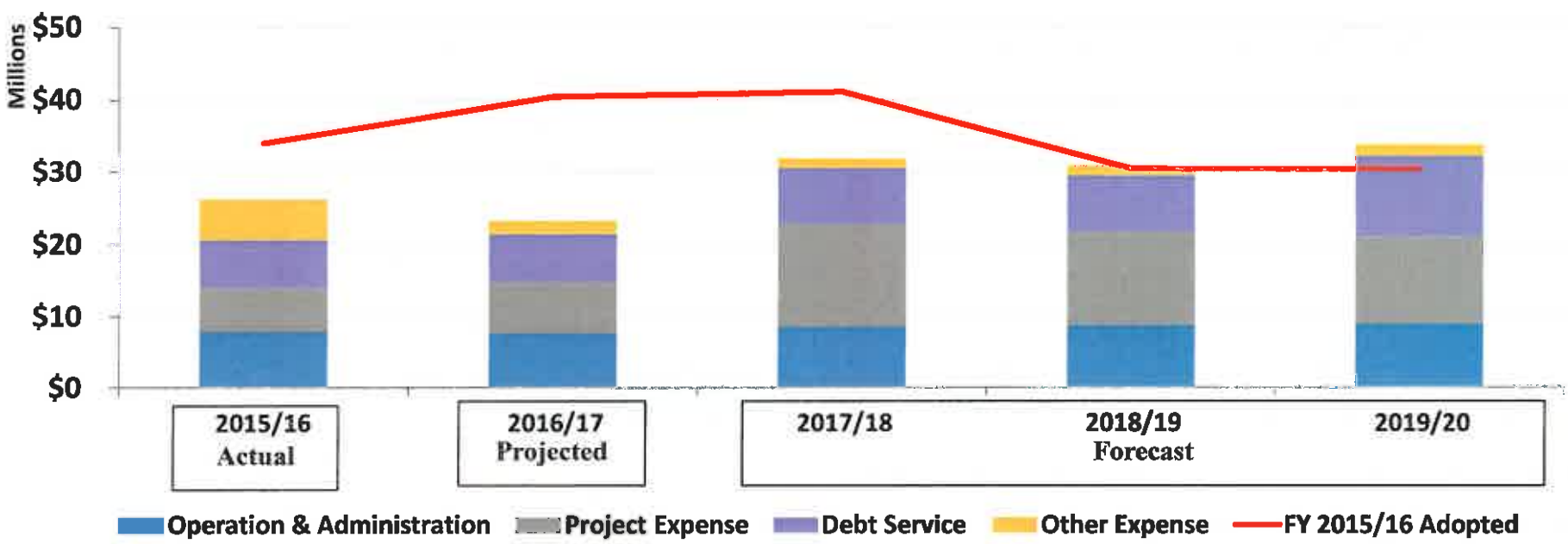
Recycled Water Fund
Major Capital Projects

Project Name	FY 2017/18	FY 2018/19	Ten Year Estimated Cost ($ million)
*JCSD Recycled Water Intertie	$0.0	$0.0	$15.5
San Sevaine Basin Improvements	4.3	0.5	5.4
RP-5 Pipeline Bottleneck	2.1	0.3	2.4
Recycled Water Cathodic Protection Improvements	0.2	2.2	3.5
Napa Lateral Pipeline	2.7	1.4	5.9
Other Projects	2.8	6.9	36.3
Total	**$12.1**	**$11.3**	**$69.0**

**Jurupa Community Services District. Project funded by IEUA and JCSD.*

Recycled Water Fund
Expense and Other Uses of Funds

- Repayment of inter fund loans deferred to FY 2019/20
- Currently project increased capital spending beginning FY 2018/19



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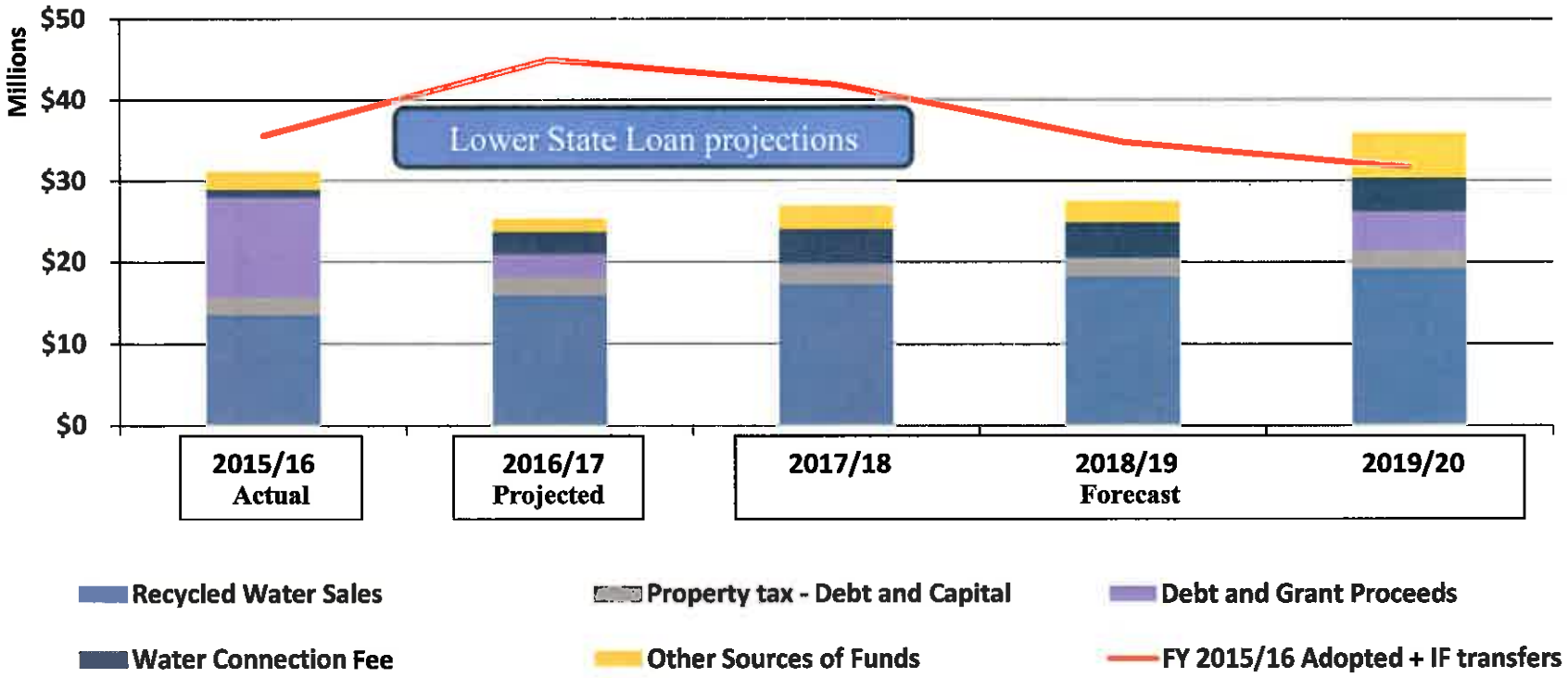
Recycled Water Fund
Revenues and Other Sources of Funds

- Recycled water sales based on multiyear rates
- Assumes no State Revolving Fund loans available until FY 2019/10



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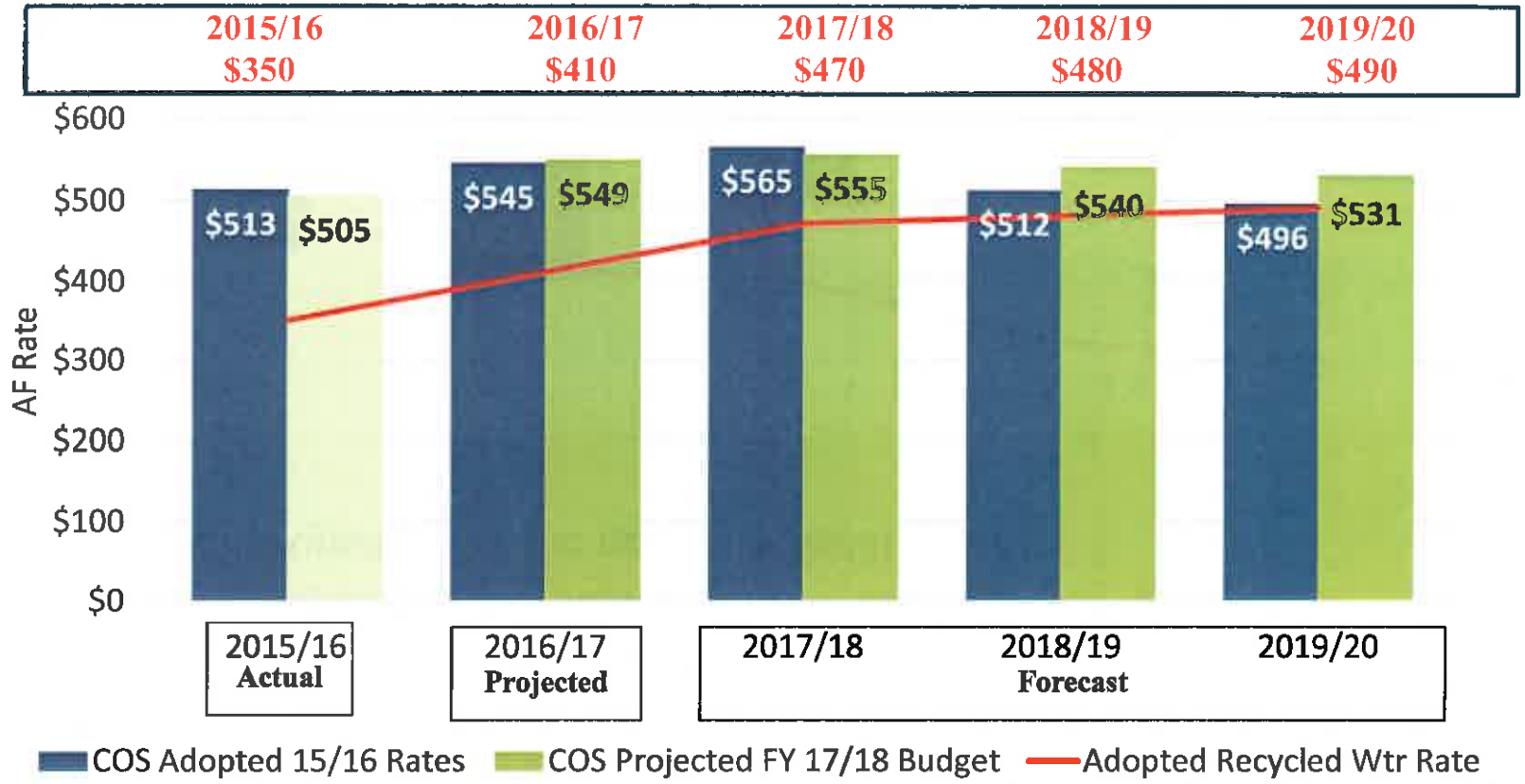
Recycled Water Fund
Cost of Service/AF

Adopted multiyear rates $/Acre Feet (AF)



- *Higher recycled water deliveries assumed in 2015 forecasts*

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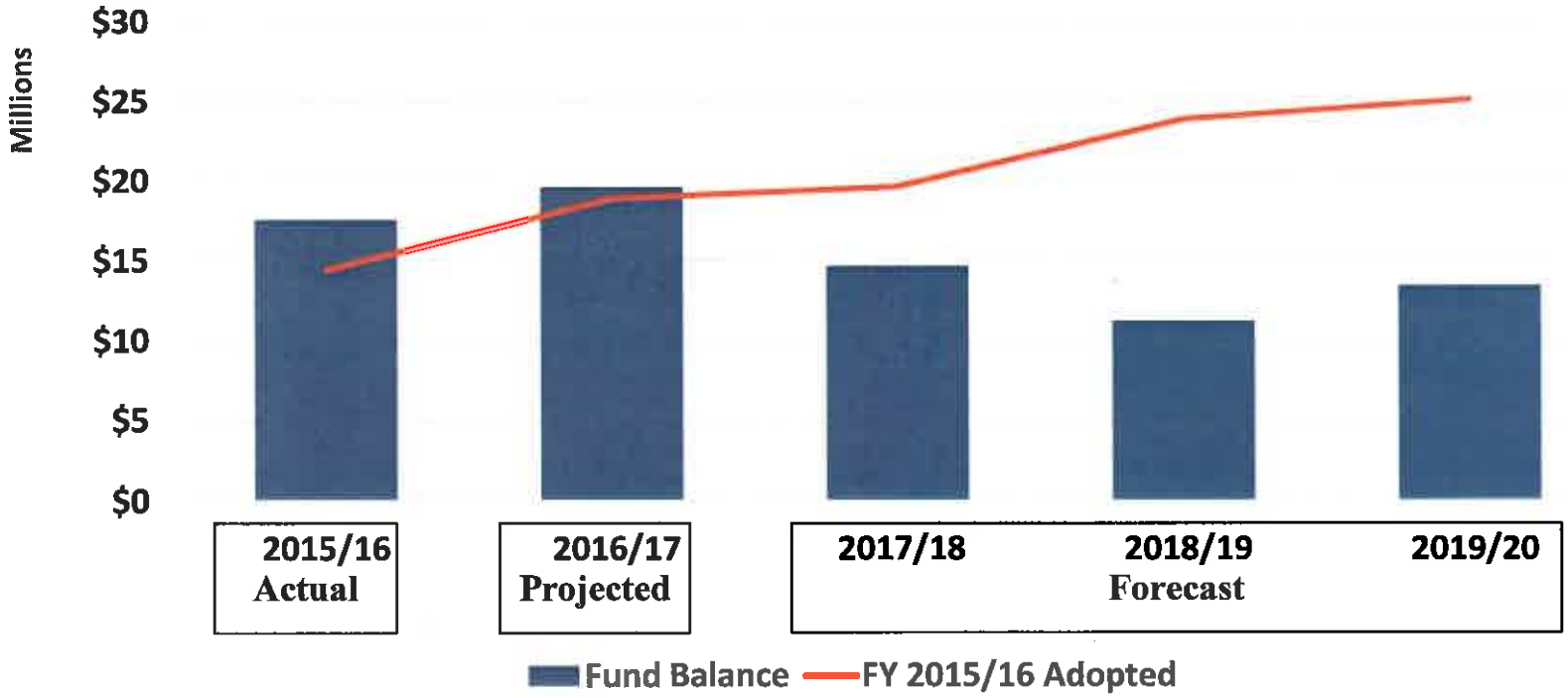
Recycled Water Fund
Fund Reserve

- Lower projected fund balance due to assumed pay-go of capital projects over the next two fiscal years



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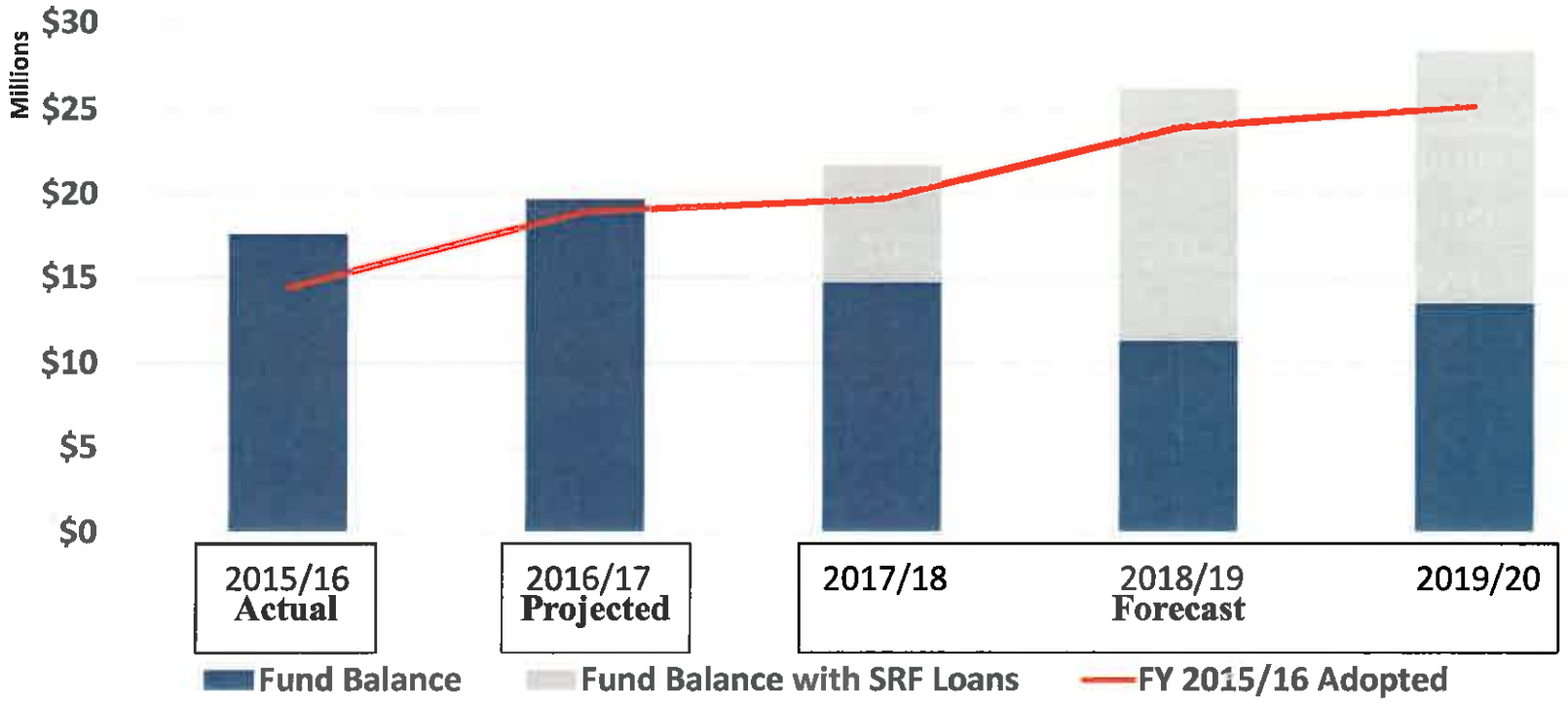
Recycled Water Fund
Fund Reserve with SRF Loans



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Groundwater Recharge Fund Major Projects

- RMPU projects to be financed by State Revolving Fund (SRF) loans
- Lower Day Basin supported by $750K grant and Chino Basin Watermaster

Major Projects	FY 2017/18	FY 2018/19	Total TYCIP Costs* $/Thousands
*RMPU Pre Design & Design	$1,203.9	$515.9	$1,719.8
RMPU Construction	210.0	10,137.3	16,910.0
Lower Day Basin	315.0	2,248.4	$3,672.3
Grand Total	**$1,728.9**	**$12,901.6**	**$22,302.1**

*Recharge Management Plan Update

Next Steps

Timeline	IEUA Finance Committee/Board	Regional Technical/Policy Committees
Budget Workshop	March 1	
Fiscal Years 2017/18-2018/19 Biennial Budget Overview	March 8 March 15	March 30 April 6
Review of proposed biennial O&M budget for Regional Wastewater, Recycled Water, and Recharge Water programs and Ten Year Capital Improvement Plan (TYCIP) FYs 2018-2027.	April 19	April 27 May 4
Review proposed biennial O&M and capital budget of Non-reclaimable Wastewater, Water Resources, and Administrative Services funds.	May 10 May 17	
Recommendation on proposed biennial O&M budget for Regional Wastewater and Recycled Water programs and TYCIP.		May 25 June 1
Final review and approval of proposed biennial O&M budget and TYCIP..	June 14 June 21	

The proposed biennial budget and TYCIP are consistent with the Agency's business goal of fiscal responsibility to plan multi-year budgets and rate requirements to maintain fiscal stability for IEUA and the member agencies.

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RECEIVE AND
FILE

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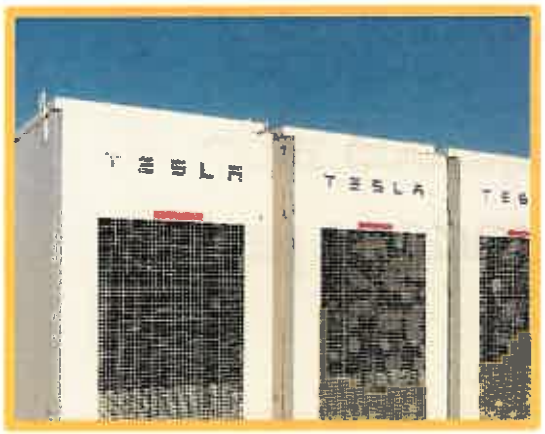
Energy Management Plan #1
Long Term Planning: RP-5



April 2017

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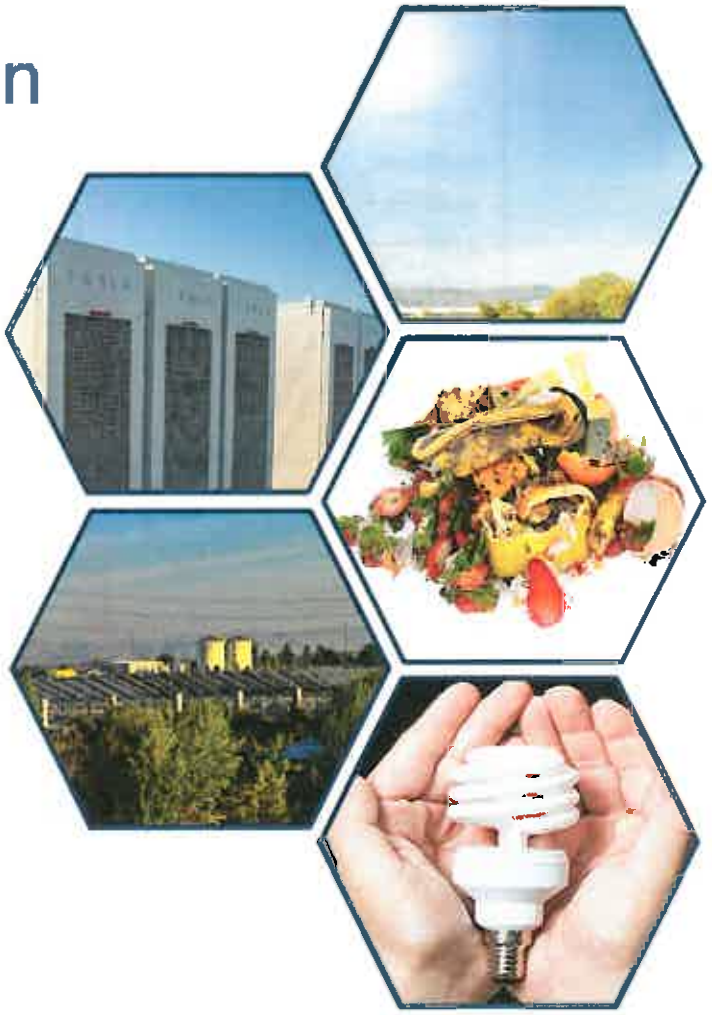
Energy Management Drivers

- Fiscal responsibility
  - Cost containment
  - Budgeting
  - Future grant eligibility
- Operational reliability
  - Minimize dependence on utility
- Environmental Stewardship
  - Enhance air quality
  - Support state goals

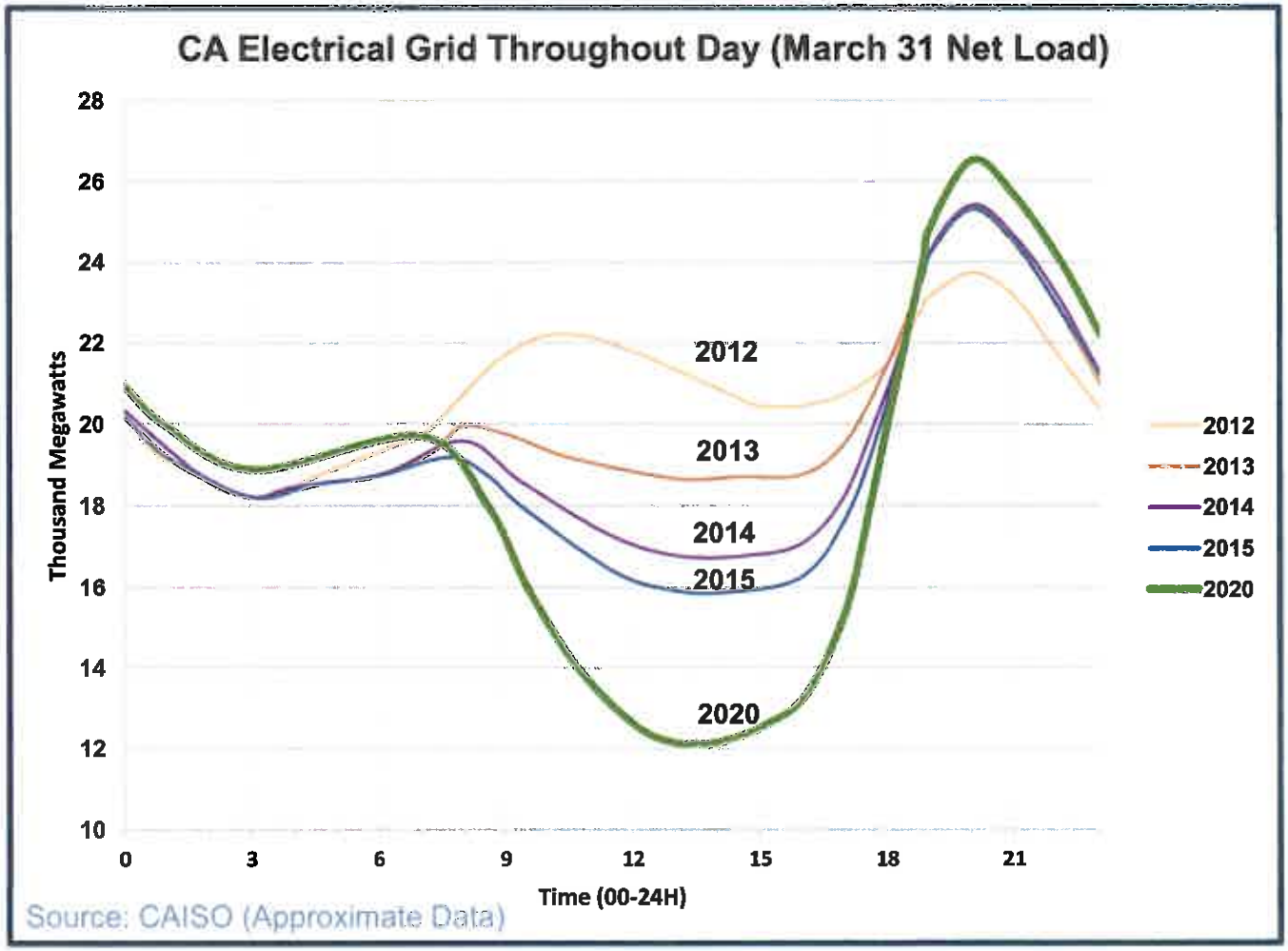
Energy Management Initiatives

2015 Energy Management Plan

- Peak power independence
- Grid interdependence
- Organics diversion
- Carbon neutrality
- Energy efficiency



Market Trends
Duck Curve



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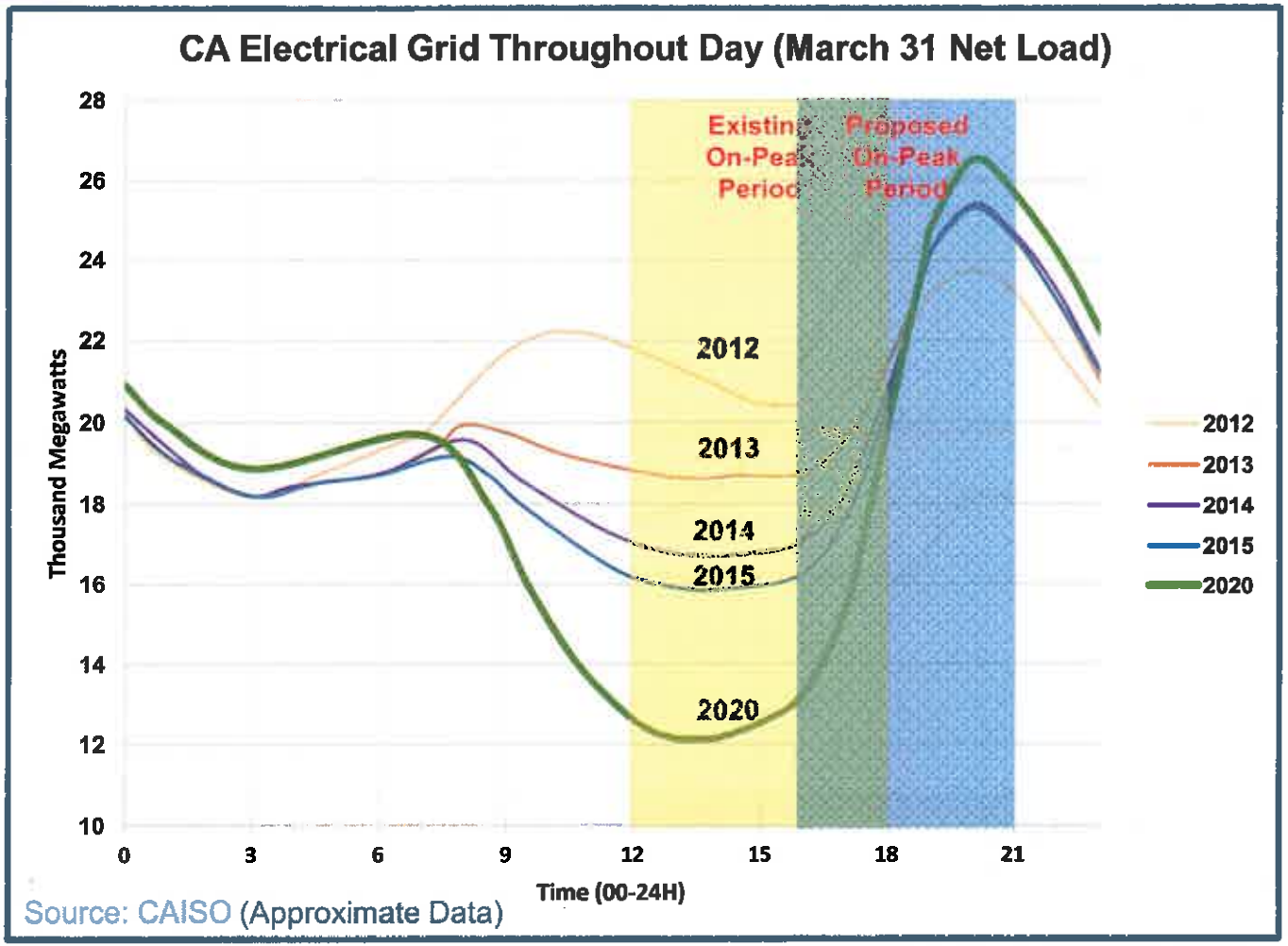
Market Trends
Duck Curve



Source: CAISO (Approximate Data)

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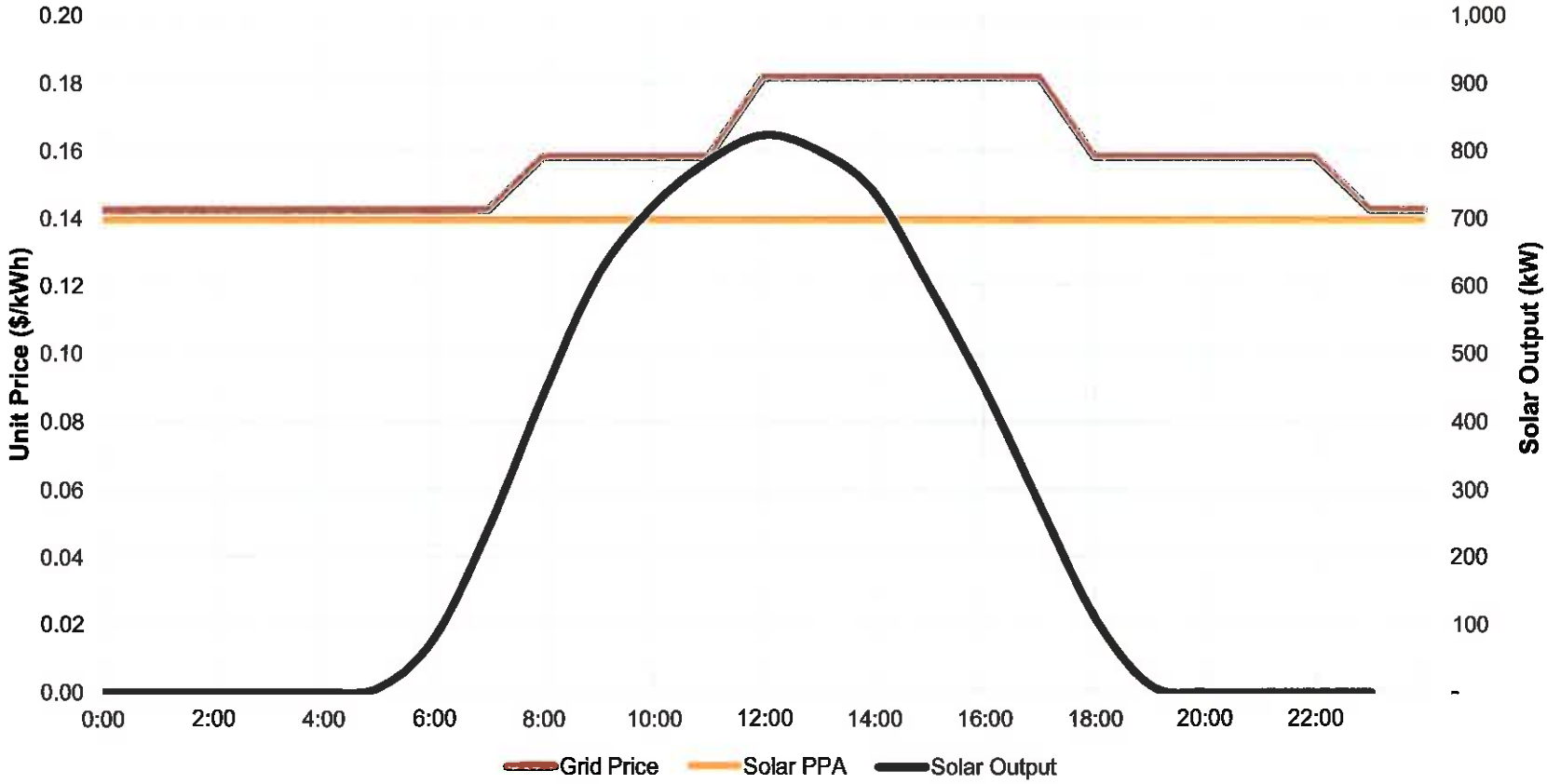
Time of Use – Summer Season



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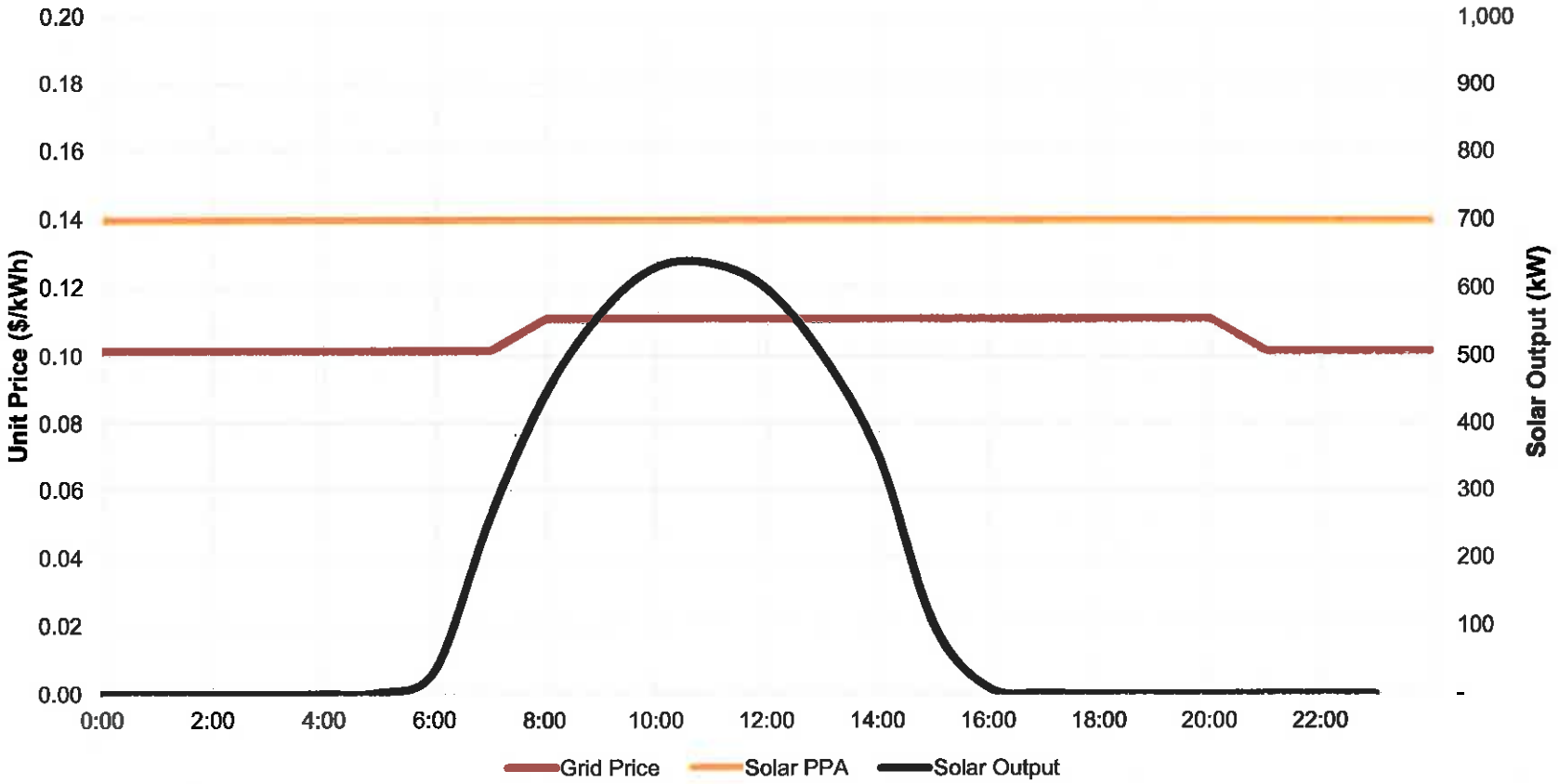
Time of Use – Winter Season



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Demand Charges Savings

Facility	Demand Charges Without On-Site Generation	Demand Charges With On-Site Generation	Monthly Savings	Annual Savings
RP-1	$ 79,200	$ 55,684	$ 23,516	$ 282,192
RP-4	$ 73,800	$ 64,790	$ 9,010	$ 108,120
RP-5	$ 28,800	$ 19,790	$ 9,010	$ 108,120
TOTAL				**$ 498,432**

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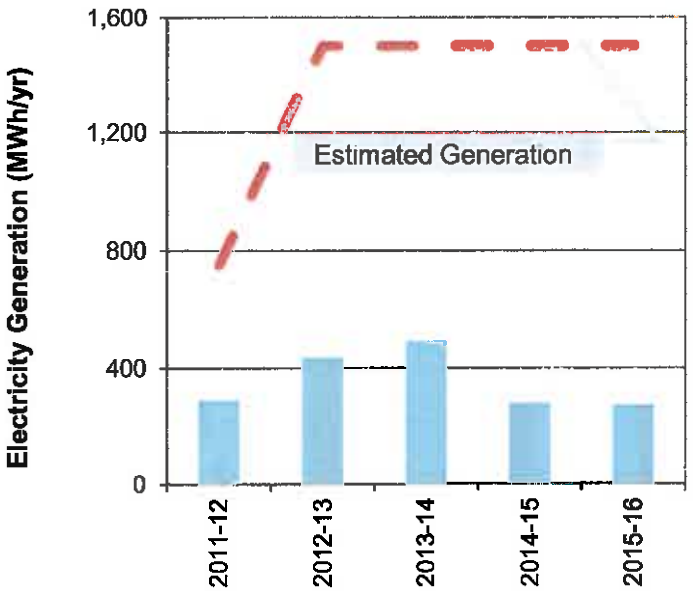
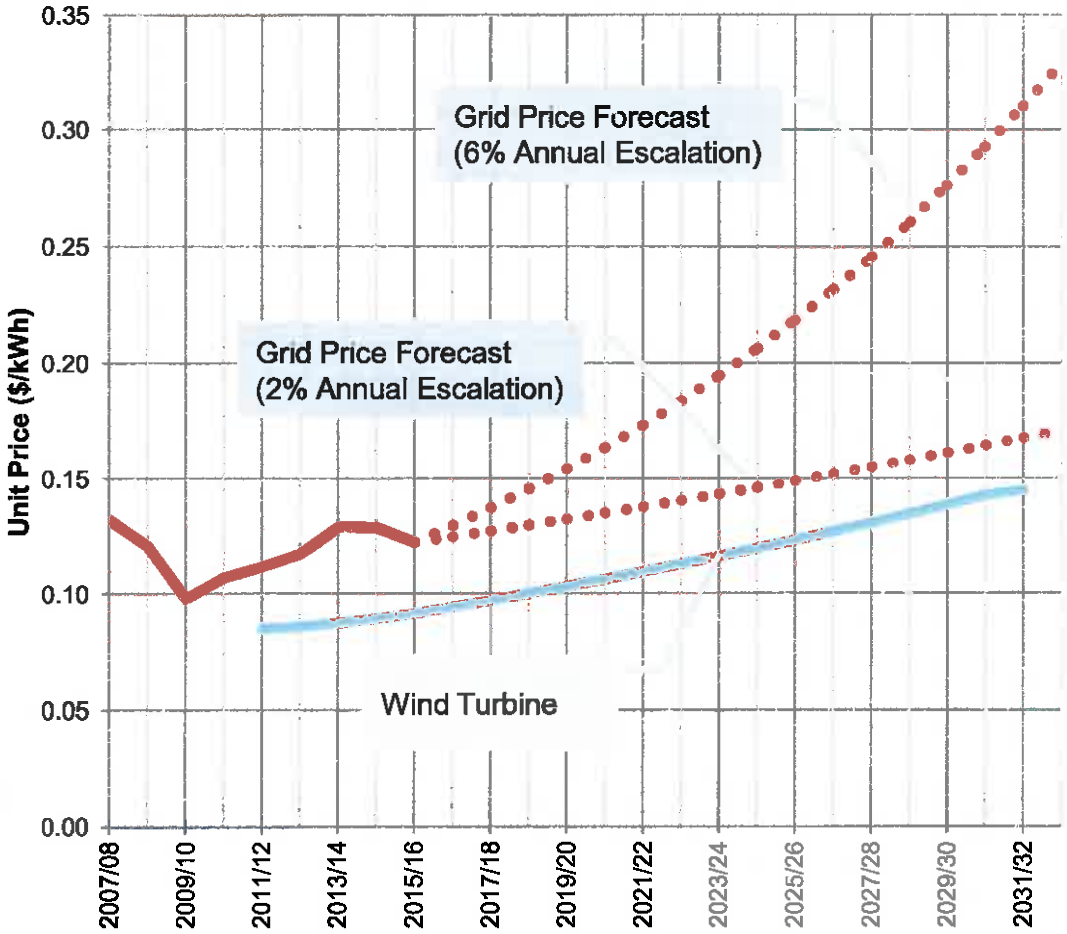
RP-4 Wind Turbine



Savings FY 11/12 – FY 15/16	$53,000
Range of Savings PPA Term (FY 11/12 – FY 31/32)	$220,000 (2% Esc) $620,000 (6% Esc)



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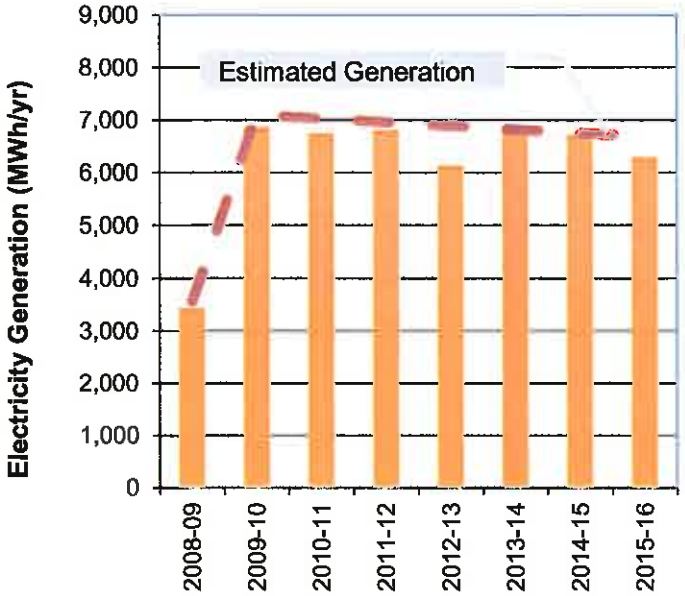
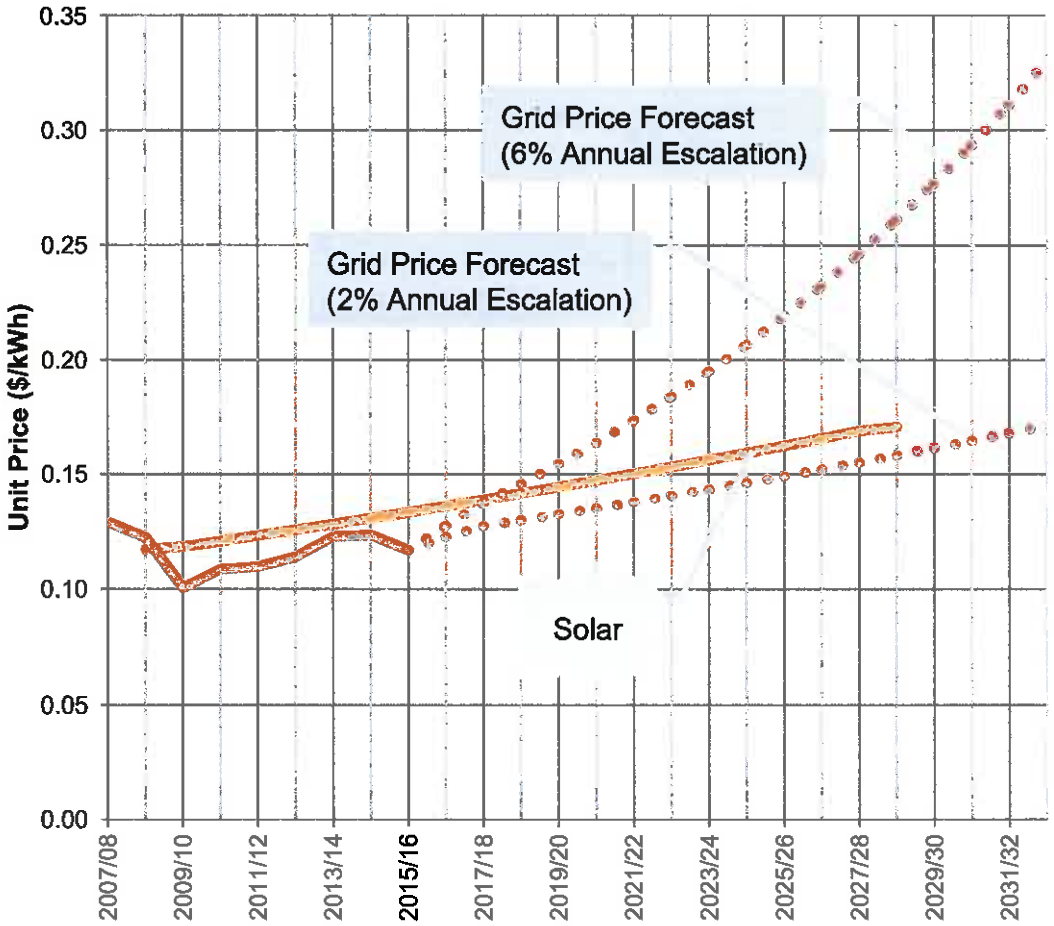
IEUA Solar



Savings FY 08/09 – FY 15/16	-$550,000
Range of Savings PPA Term (FY 08/09 – FY 28/29)	-$1,600,000 (2% Esc) $2,460,000 (6% Esc)



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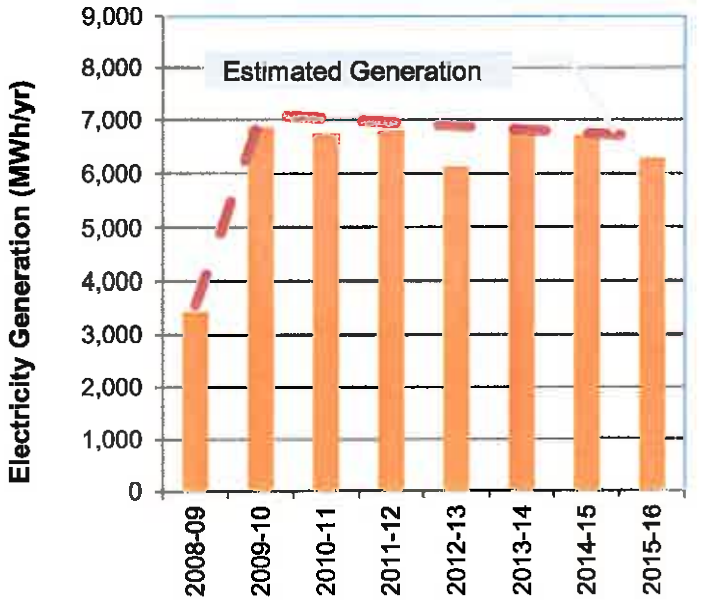
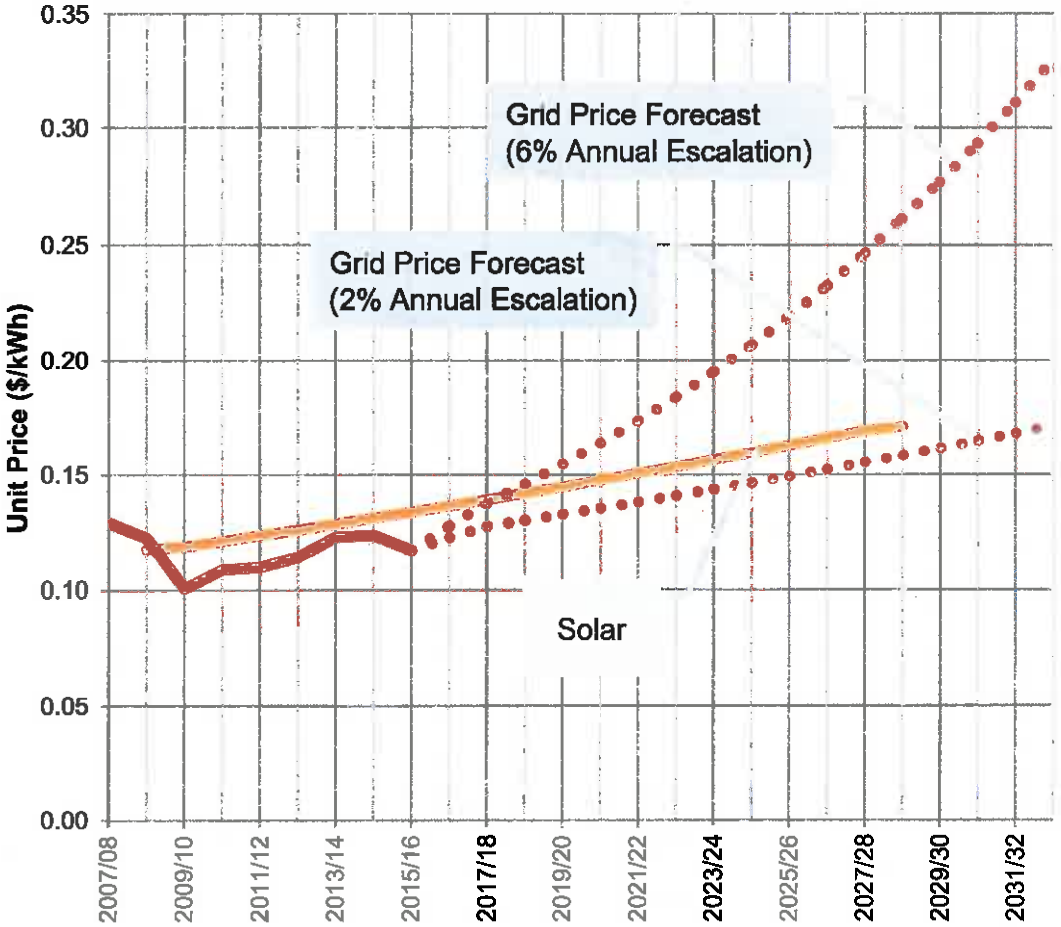
IEUA Solar (with Demand Charges Savings)



Savings FY 08/09 – FY 15/16	$98,000
Range of Savings PPA Term (FY 08/09 – FY 28/29)	$1,800,000 (2% Esc) $5,900,000 (6% Esc)



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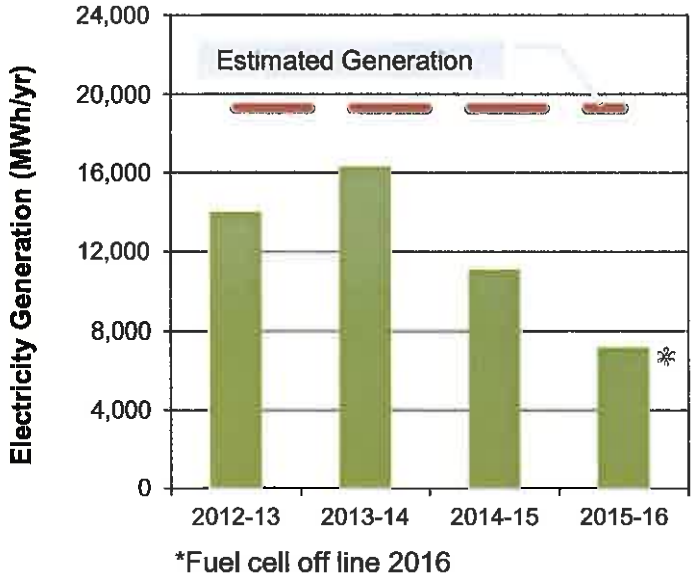
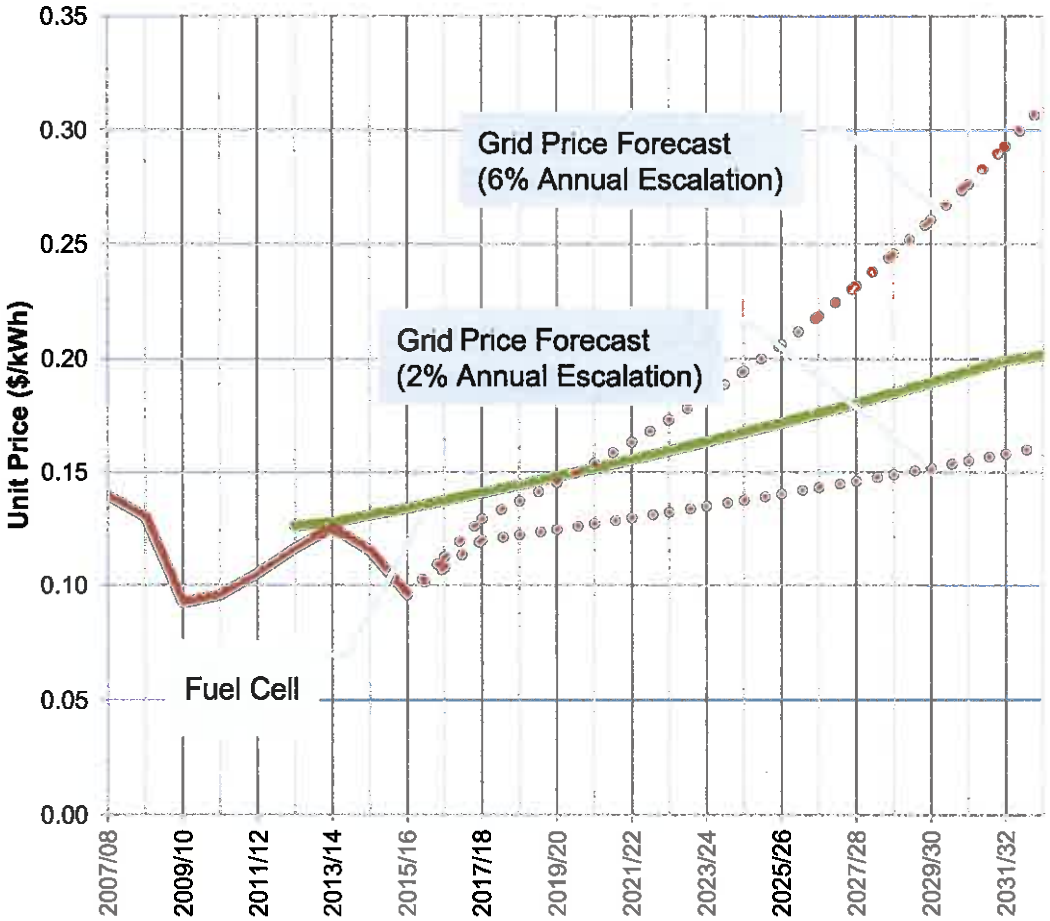
RP-1 Fuel Cell



*Fuel cell off line 2016

Savings FY 12/13 – FY 15/16	-$620,000
Range of Savings PPA Term (FY 12/13 – FY 32/33)	-$10,400,000 (2% Esc) $9,400,000 (6% Esc)



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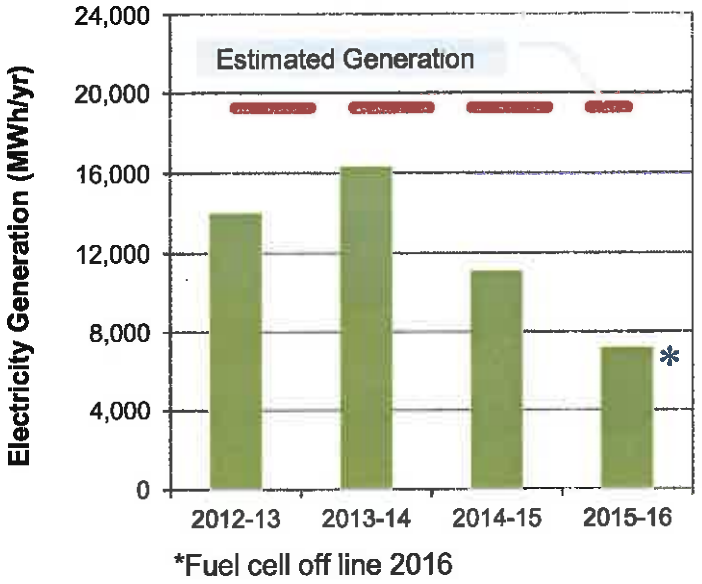
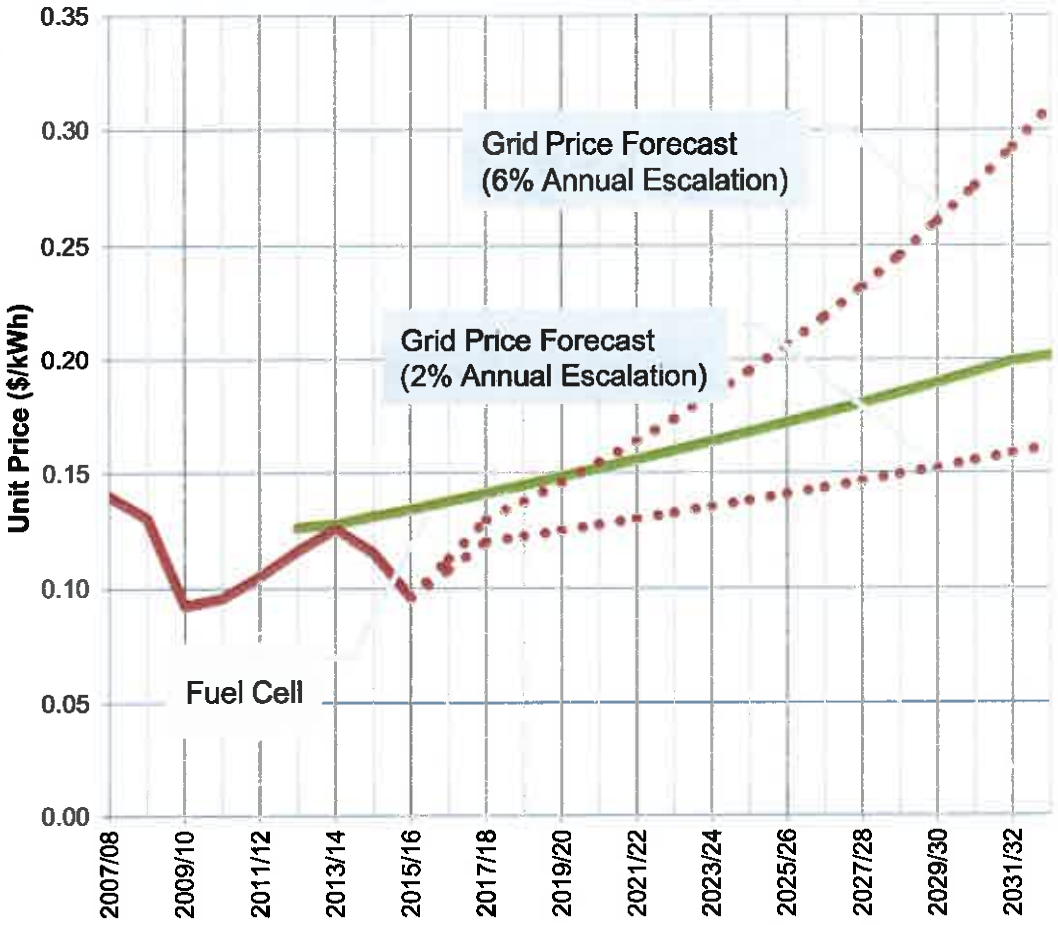
RP-1 Fuel Cell (with Demand Charges Savings)



*Fuel cell off line 2016

Savings FY 12/13 – FY 15/16	$368,000
Range of Savings PPA Term (FY 12/13 – FY 32/33)	-$4,700,000 (2% Esc) $15,000,000 (6% Esc)



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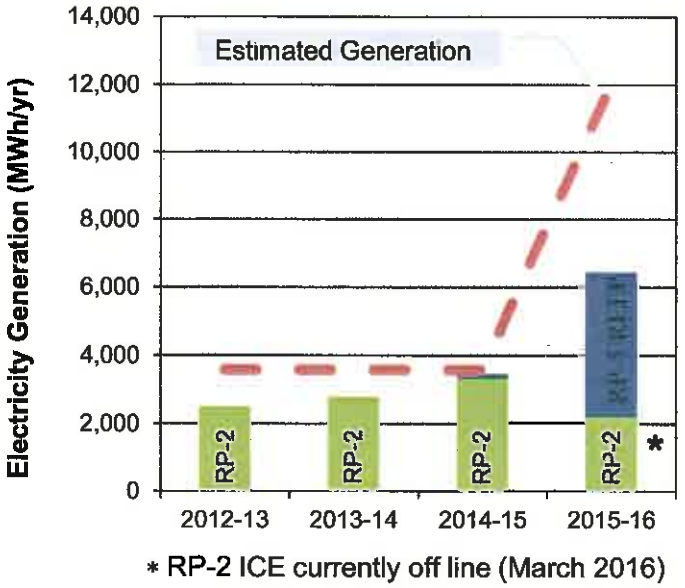
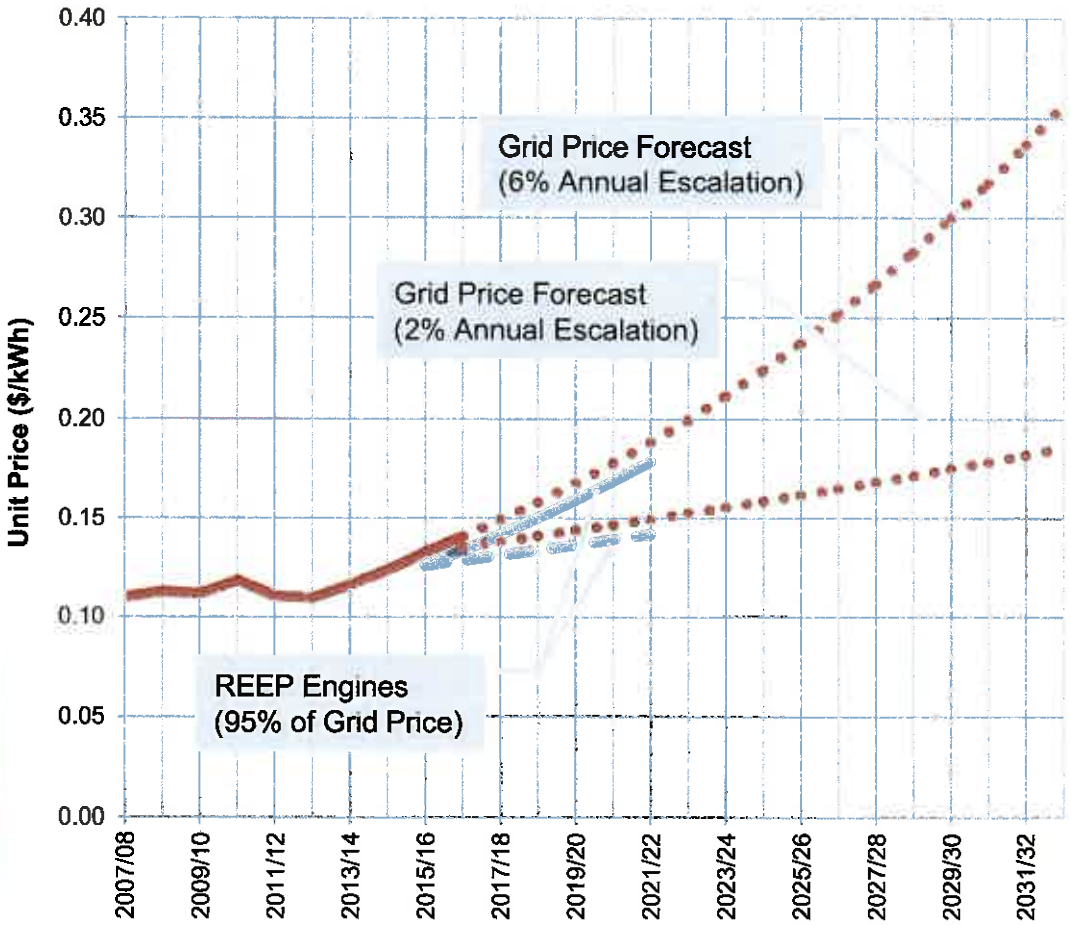
Internal Combustion Engines



Savings FY 11/12 – FY 15/16	$28,000
Range of Savings Lease Term (FY 11/12 – FY 21/22)	$340,000 (2% Esc) $400,000 (6% Esc)



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Case Study – Regional Plant No. 5

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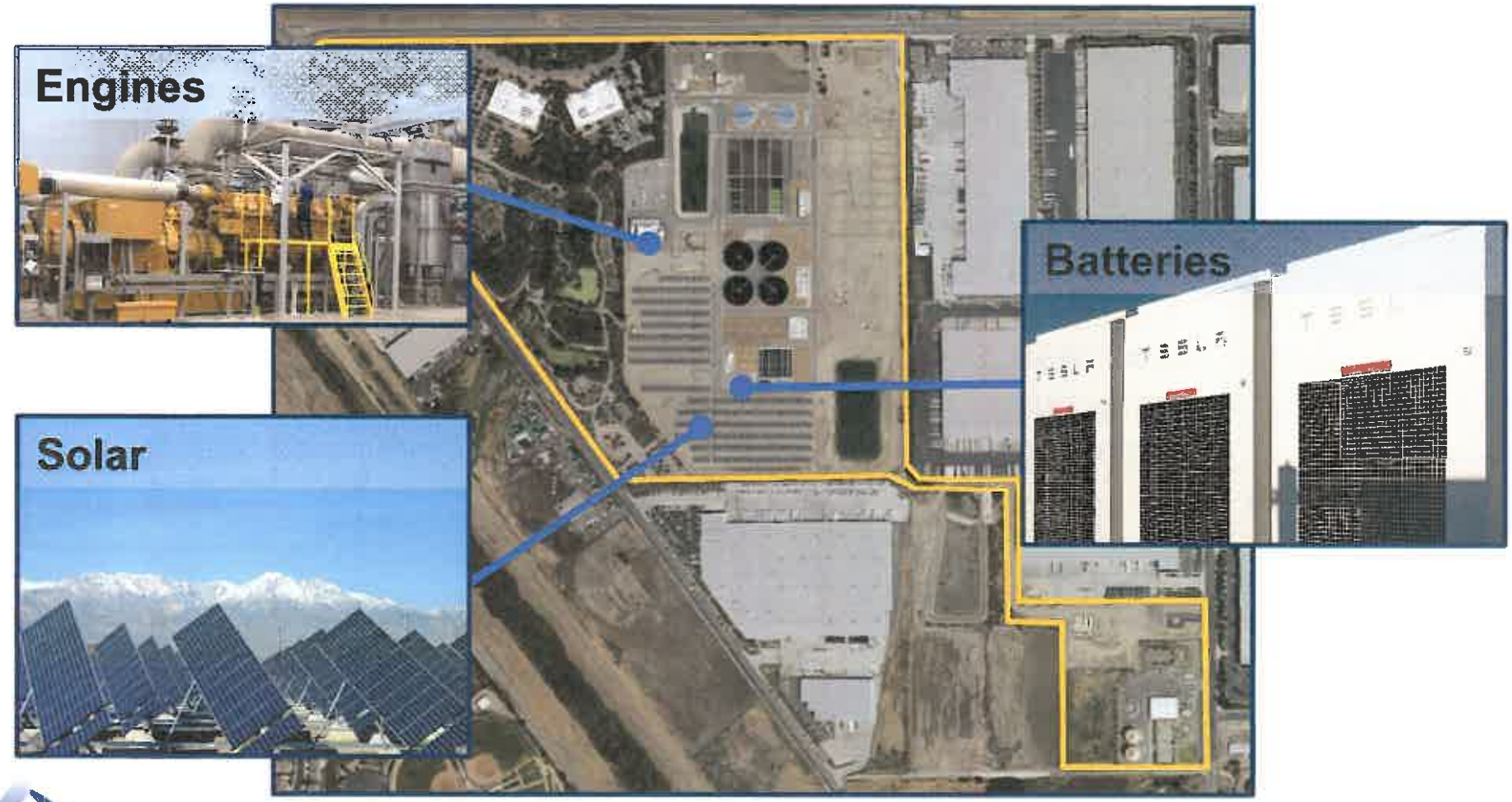
*Operated by Inland BioEnergy (IBE)

Existing Renewables & Resource Management @ RP-5



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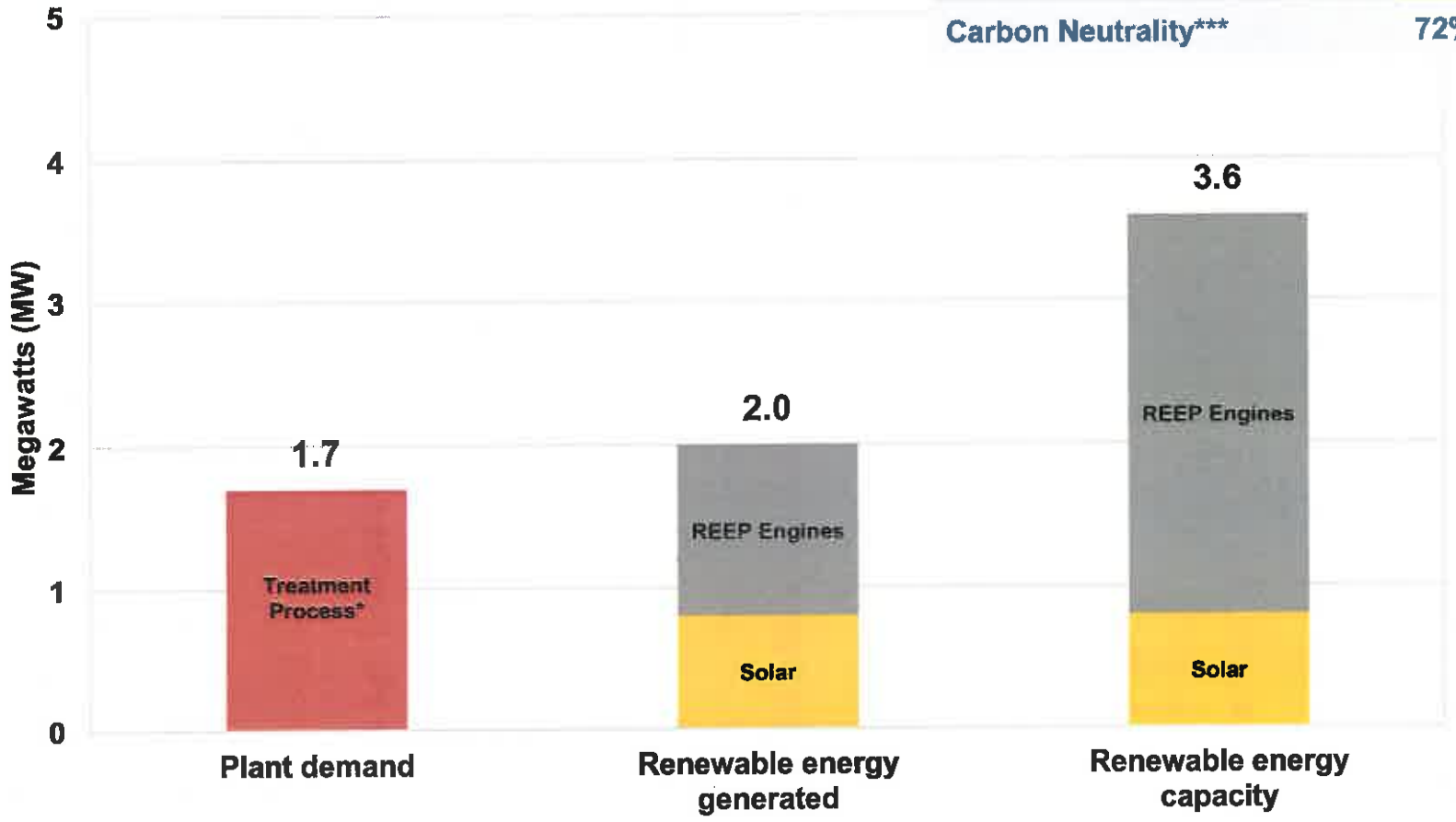
Regional Plant No. 5 (Current, 10 MGD)

Goals	
Peak Power Independence	Yes
Grid Interdependence	Yes
Organics Diversion**	Yes
Carbon Neutrality***	72%



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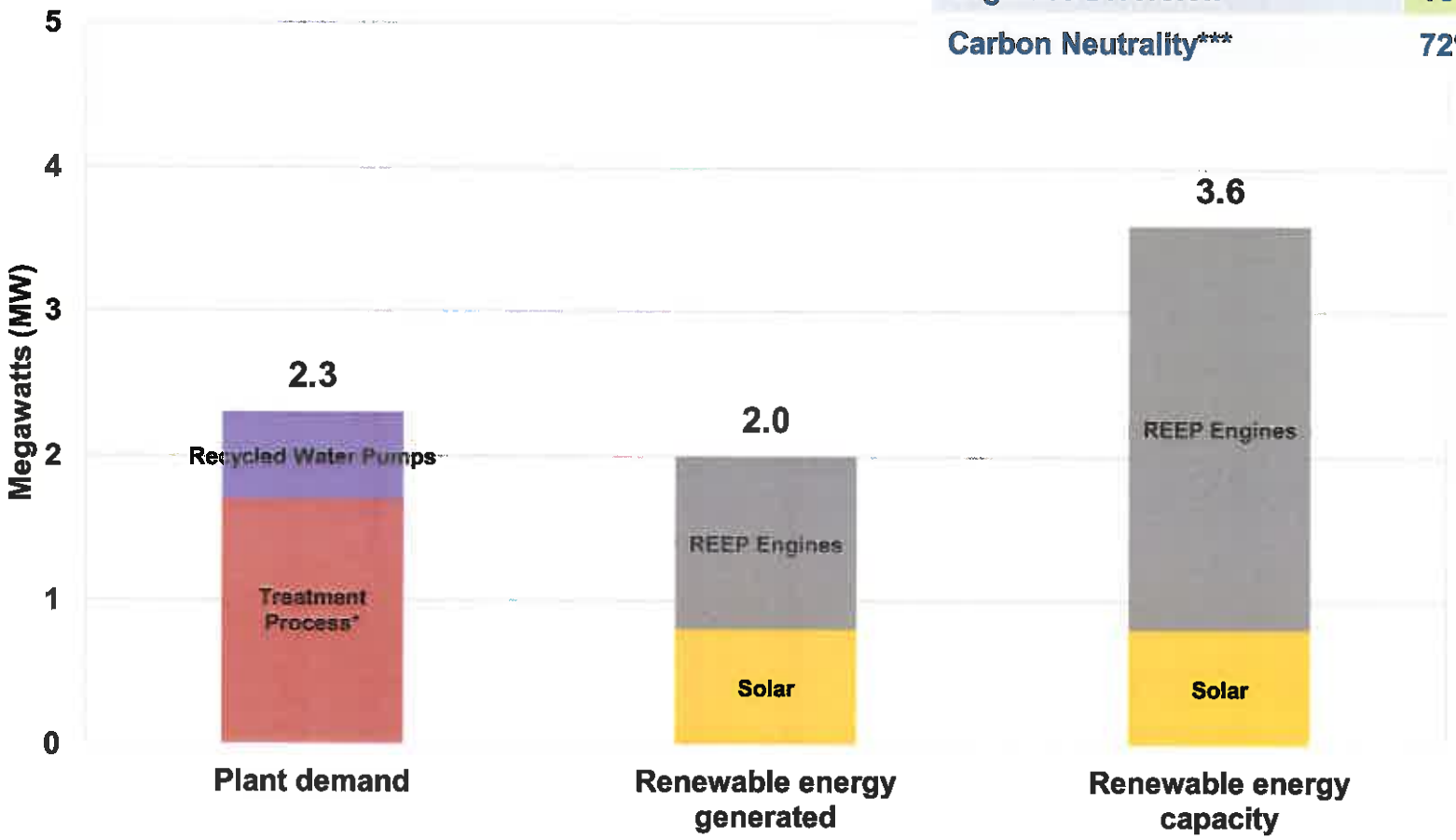
* Includes RP-2 and RP-5 Campus
**Organics diversion indirectly achieved through RP-5 SHF
*** 48% of the attributes assigned to IBE by contract for RP-5 SHF

Regional Plant No. 5 (Current, 10 MGD)

Goals	
Peak Power Independence	No
Grid Interdependence	Yes
Organics Diversion**	Yes
Carbon Neutrality***	72%



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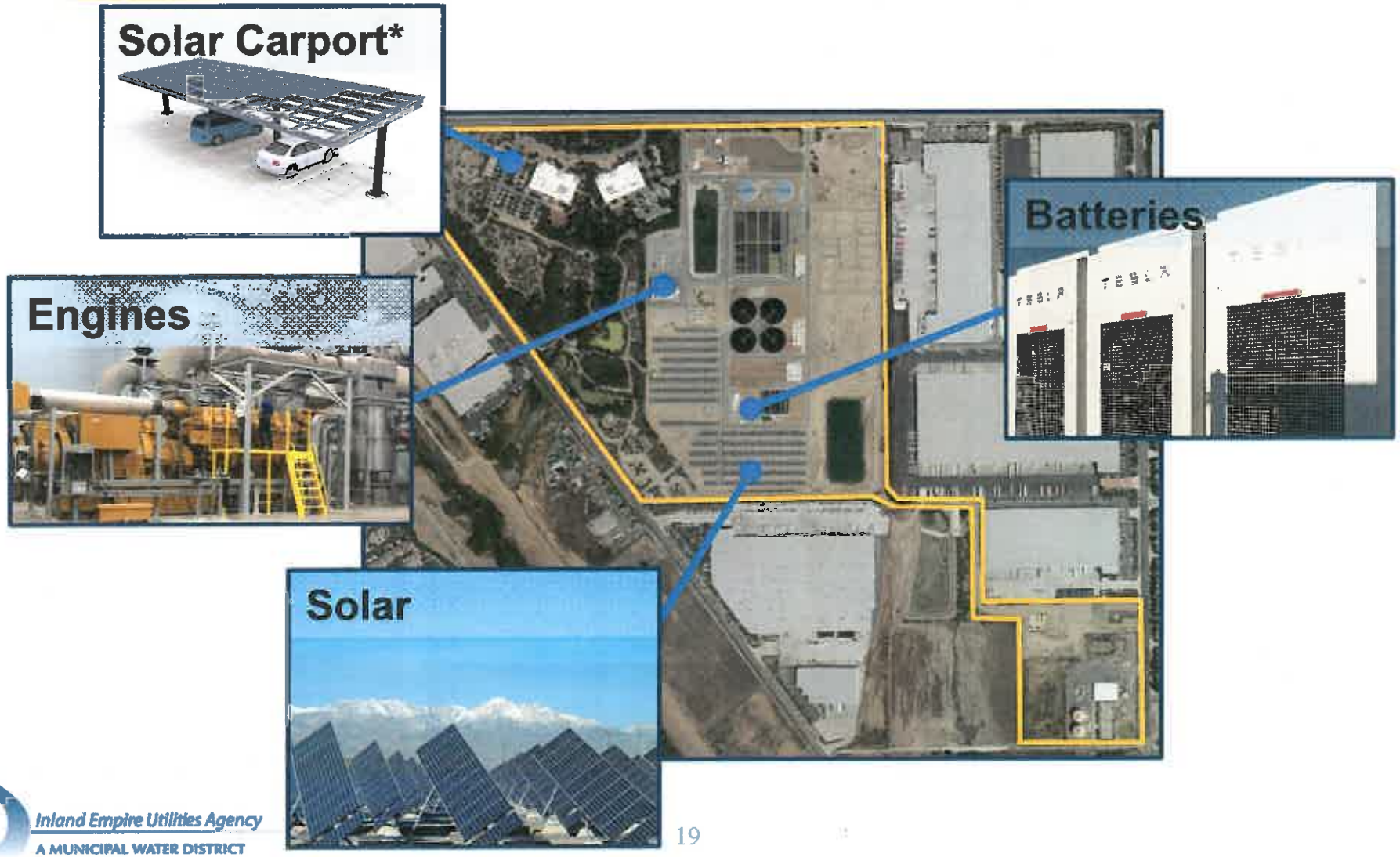
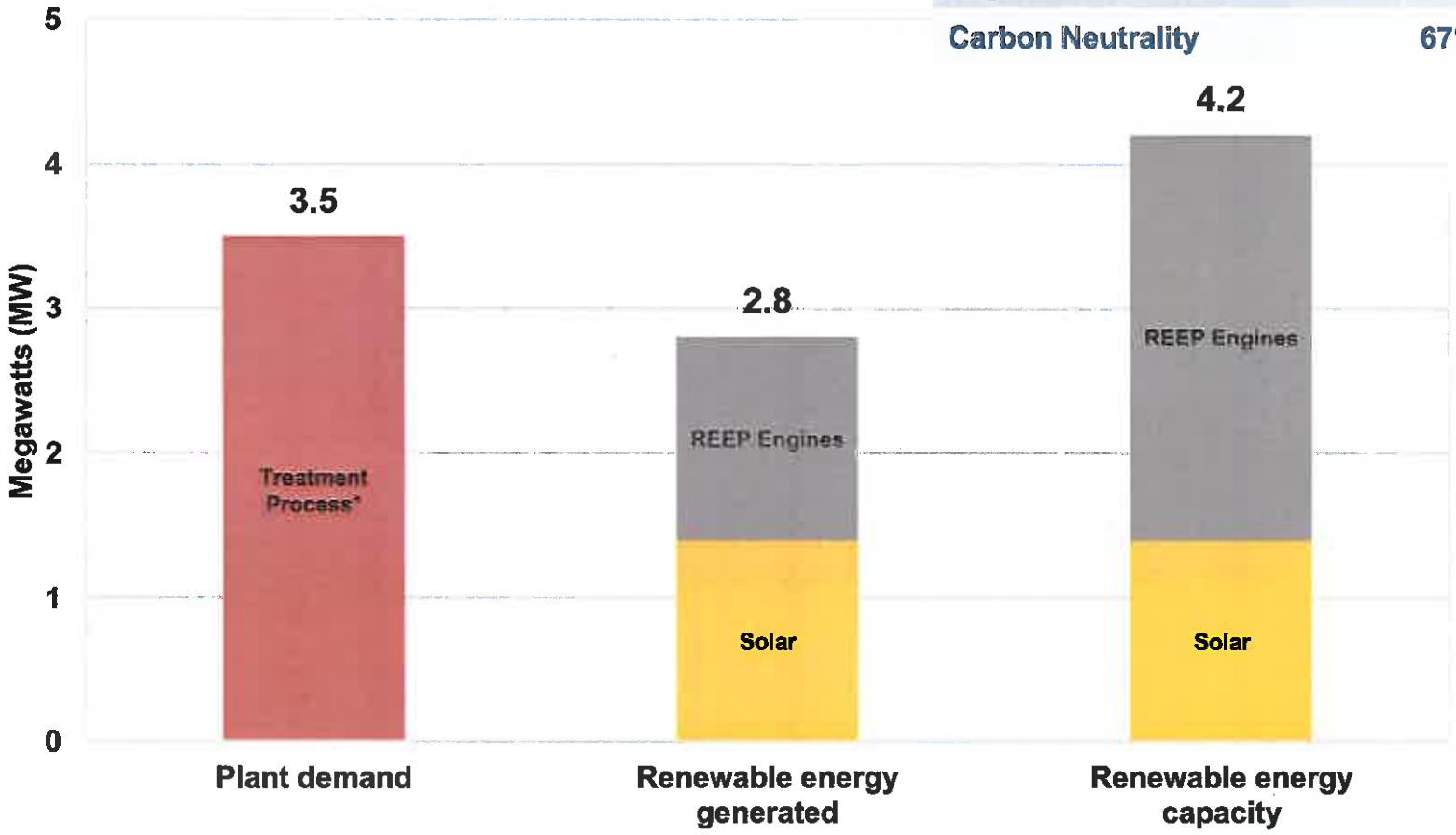
* Includes RP-2 and RP-5 Campus
**Organics diversion indirectly achieved through RP-5 SHF
*** 48% of the attributes assigned to IBE by contract for RP-5 SHF

Potential Renewable* & Resource Management @ RP-5



RP-5 Biosolids Only (2025, 16 MGD)

Goals	
Peak Power Independence	No
Grid Interdependence	Yes
Organics Diversion	No
Carbon Neutrality	67%



* RP-5 Campus (Liquid and Solid Treatment, Headquarters)

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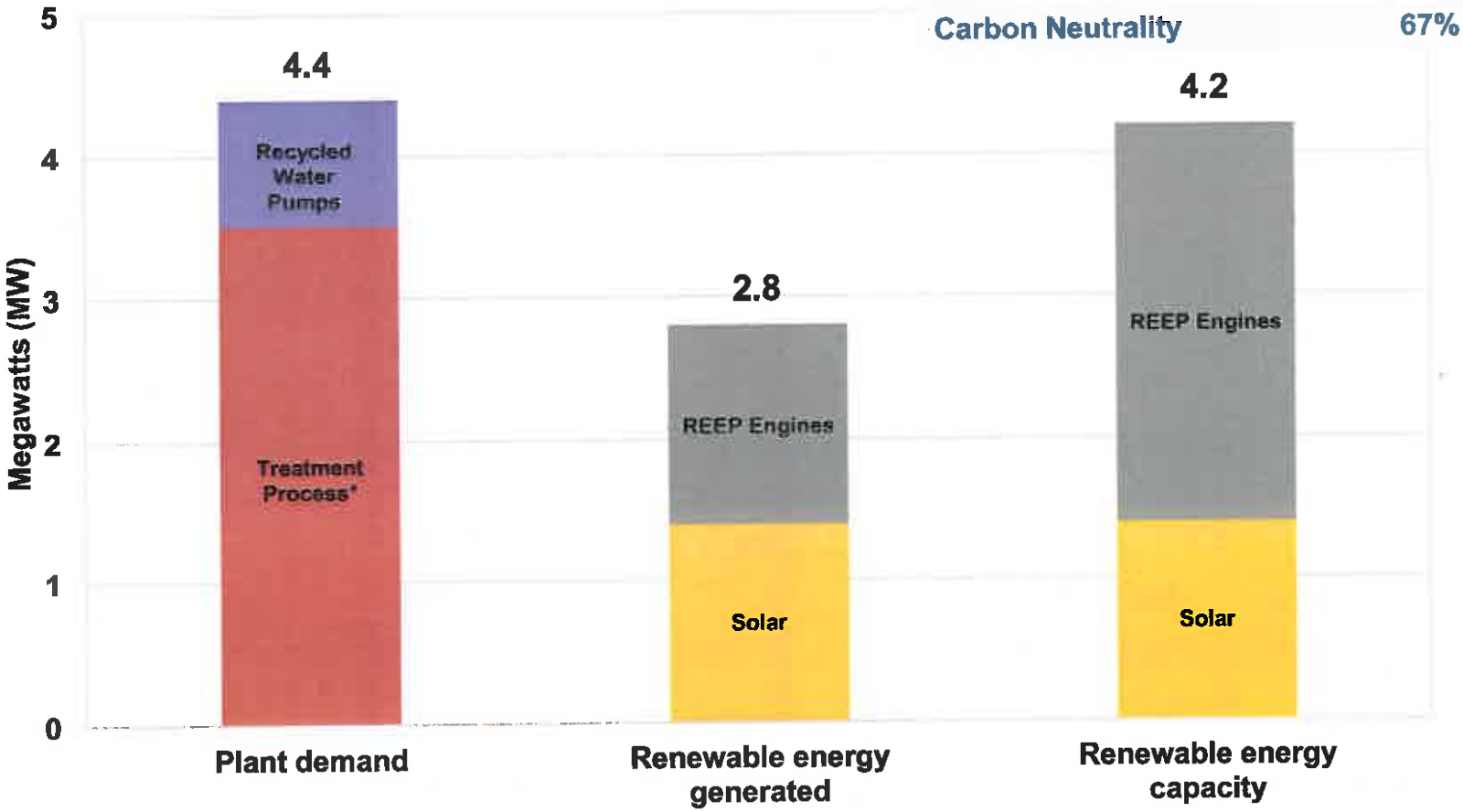
RP-5 Biosolids Only (2025, 16 MGD)

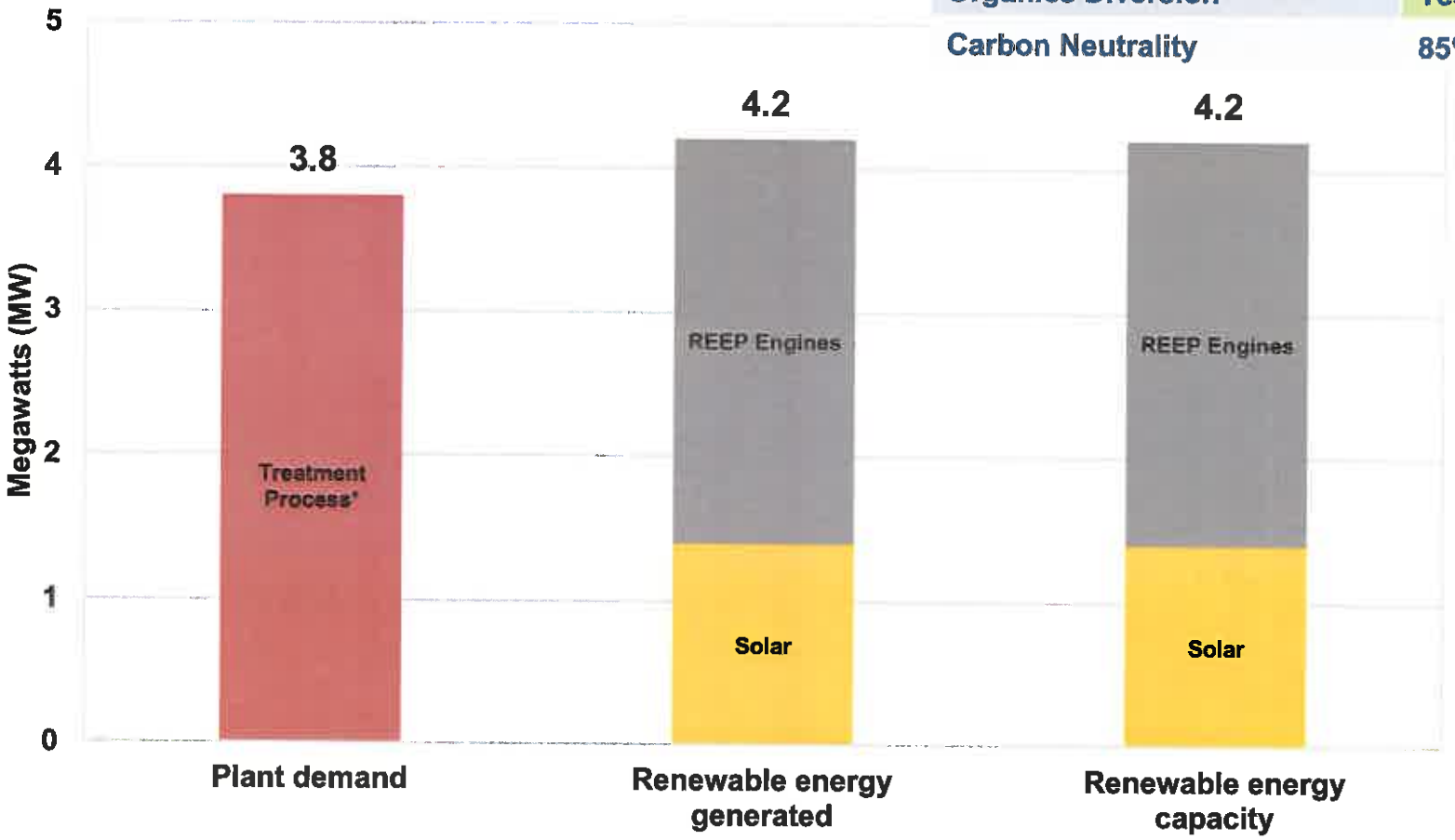
Goals	
Peak Power Independence	No
Grid Interdependence	Yes
Organics Diversion	No
Carbon Neutrality	67%



* RP-5 Campus (Liquid and Solid Treatment, Headquarters)

RP-5 Biosolids and Food Waste (2025, 16 MGD)

Goals	
Peak Power Independence	Yes
Grid Interdependence	Yes
Organics Diversion	Yes
Carbon Neutrality	85%



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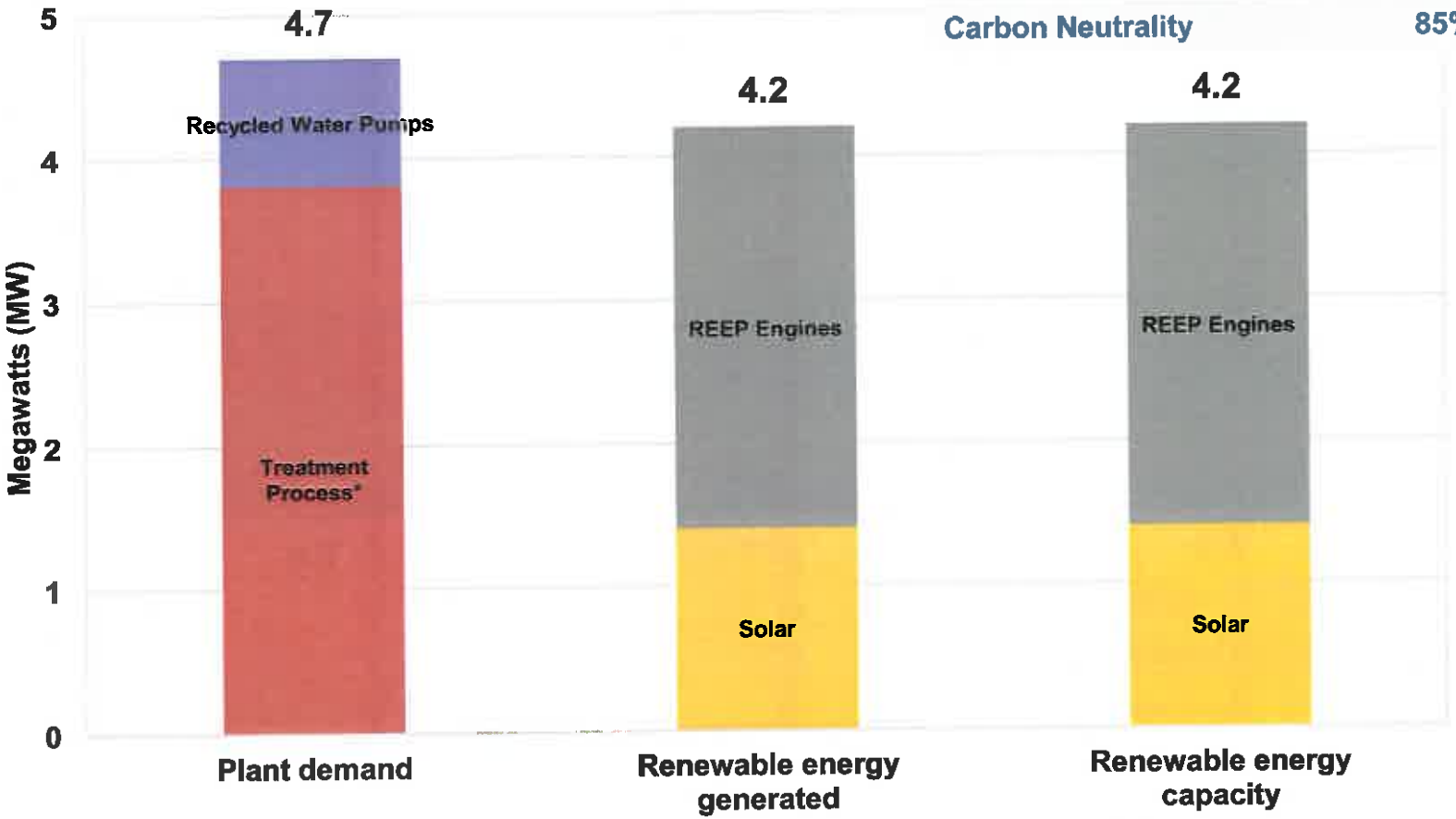
* RP-5 Campus (Liquid, Solid & Food Waste Treatment, Headquarters)

RP-5 Biosolids and Food Waste (2025, 16 MGD)

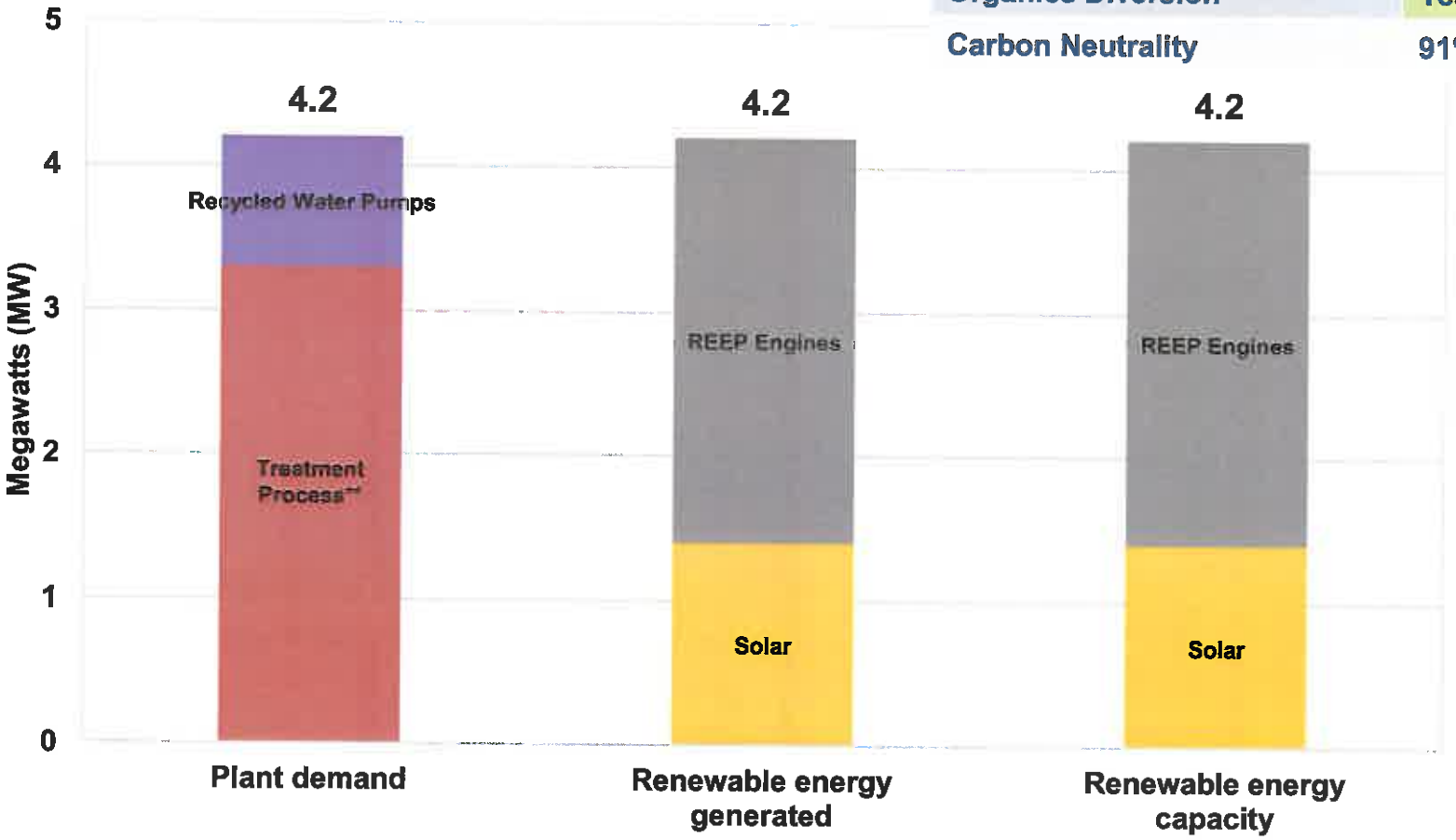
Goals	
Peak Power Independence	No
Grid Interdependence	Yes
Organics Diversion	Yes
Carbon Neutrality	85%



* RP-5 Campus (Liquid, Solid & Food Waste Treatment, Headquarters)

RP-5 Biosolids, Food Waste, Energy Efficiency* (2025, 16 MGD)

Goals	
Peak Power Independence	Yes
Grid Interdependence	Yes
Organics Diversion	Yes
Carbon Neutrality	91%



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*Energy efficiency potentially achieved through potential treatment process optimization

** RP-5 Campus (Liquid and Solid & Food Waste Treatment, Headquarters)

Next Step

- Energy Management Plan Update #2
  - June 2017

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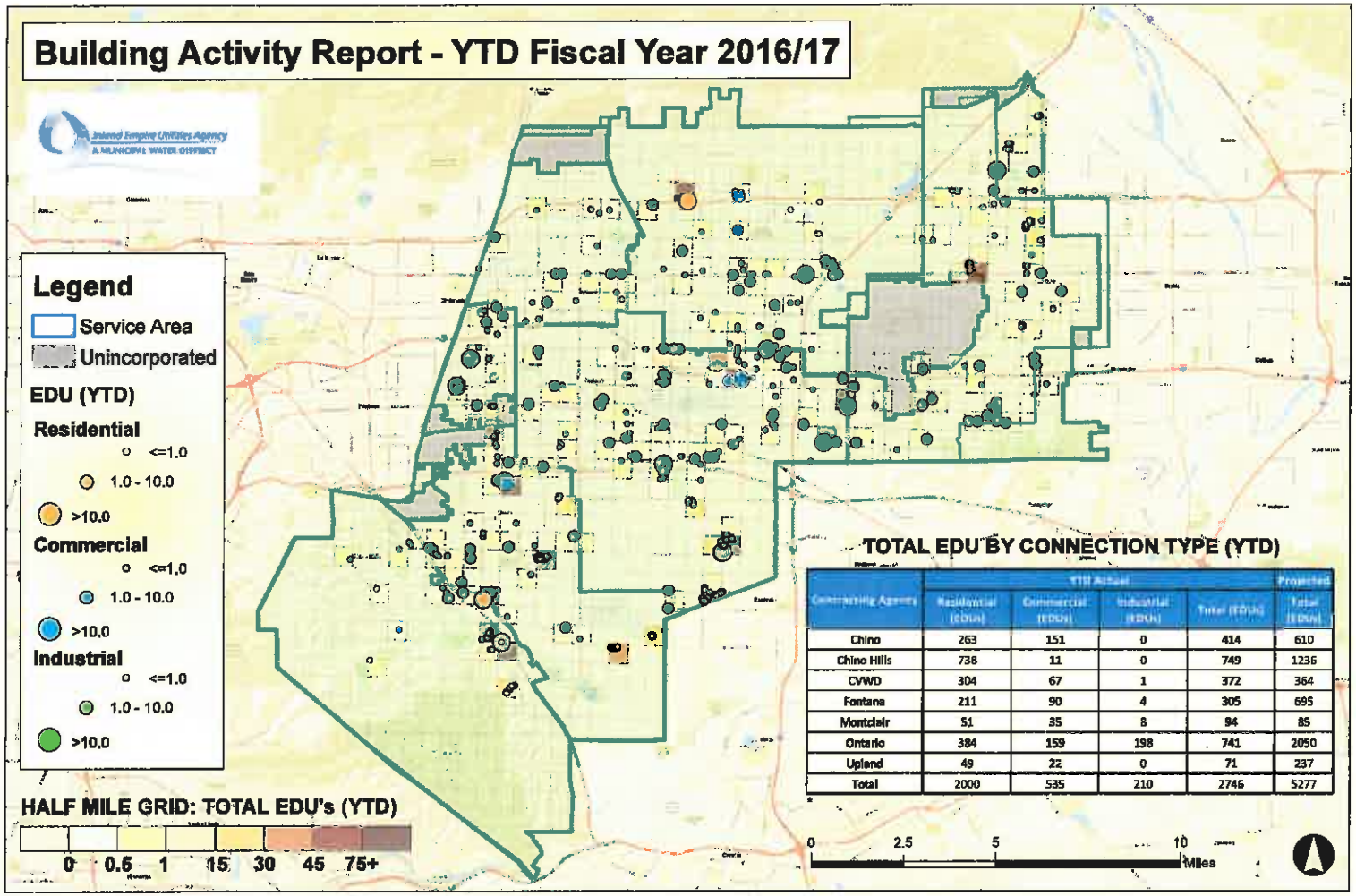
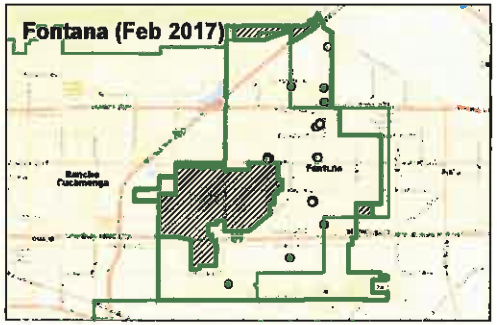
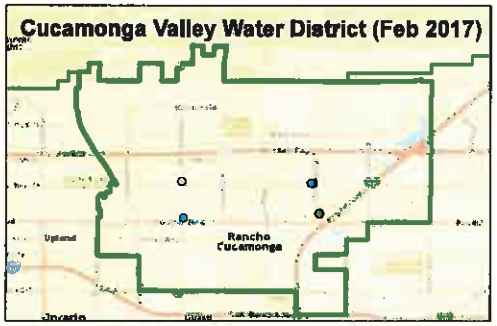
Building Activity Report - YTD Fiscal Year 2016/17

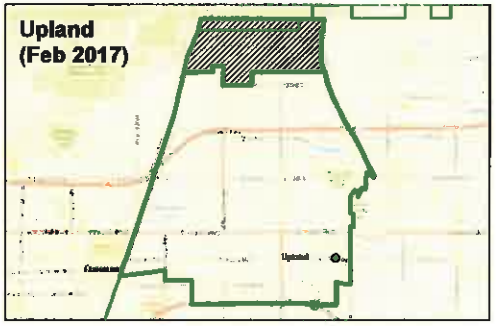


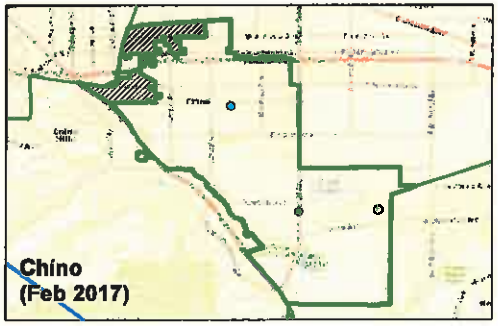
TOTAL EDU BY CONNECTION TYPE (YTD)

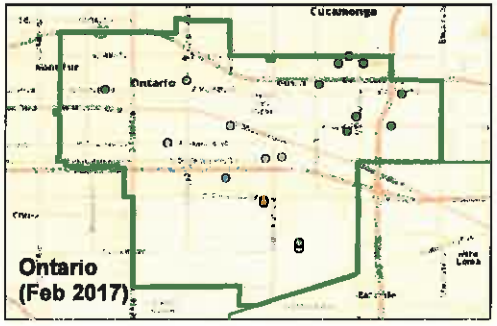
Contracting Agency	YTD Actual				Projected
	Residential (EDUs)	Commercial (EDUs)	Industrial (EDUs)	Total (EDUs)	Total (EDUs)
Chino	263	151	0	414	610
Chino Hills	738	11	0	749	1236
CVWD	304	67	1	372	364
Fontana	211	90	4	305	695
Montclair	51	35	8	94	85
Ontario	384	159	198	741	2050
Upland	49	22	0	71	237
Total	2000	535	210	2746	5277

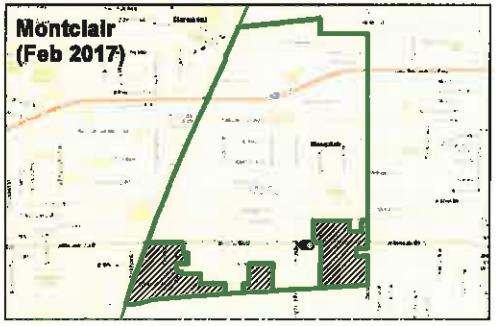












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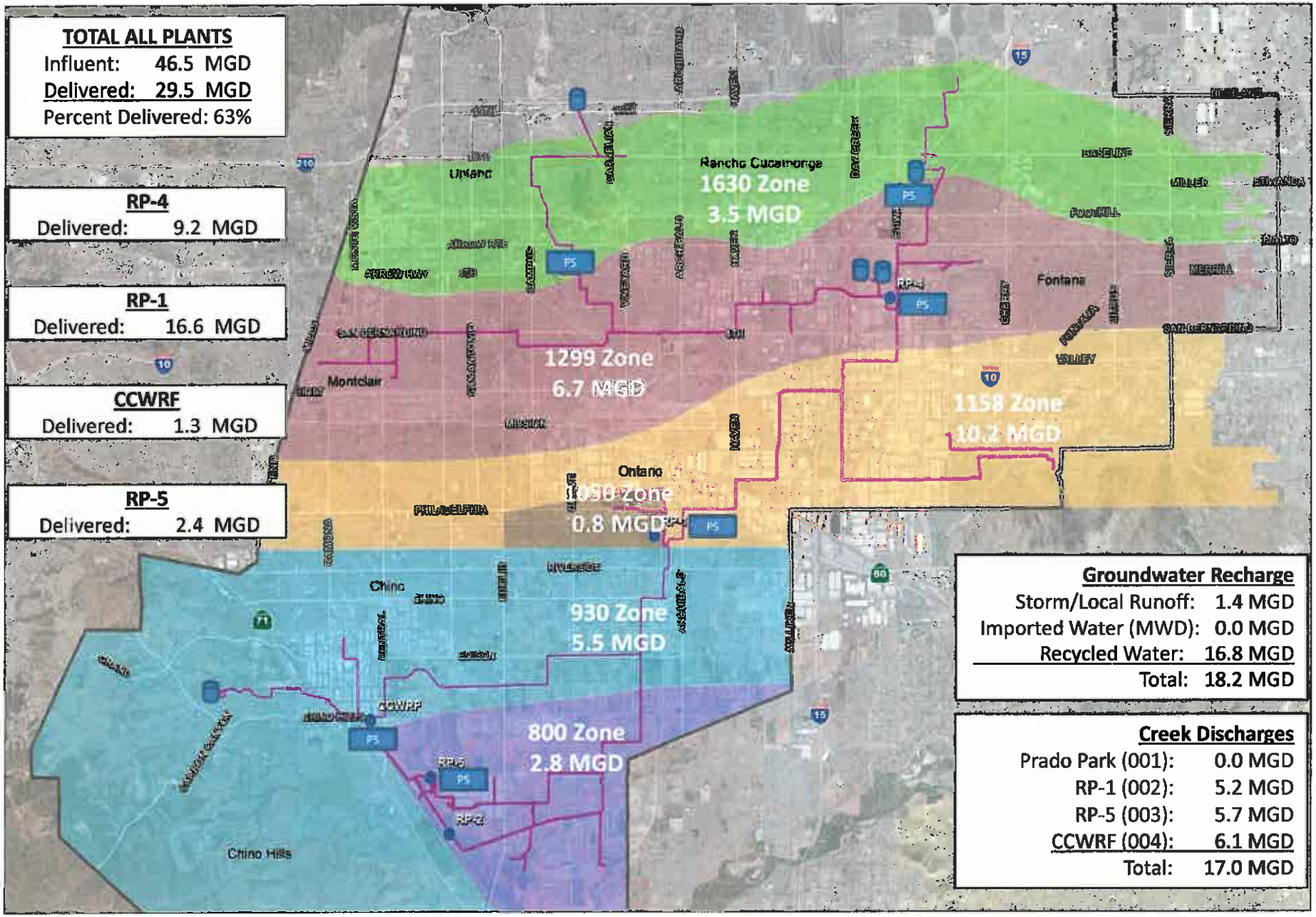
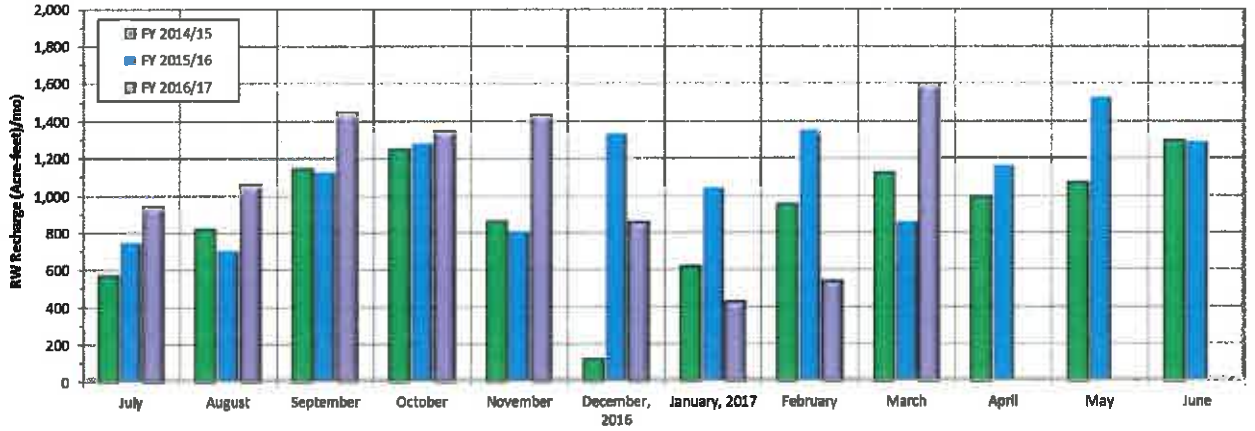
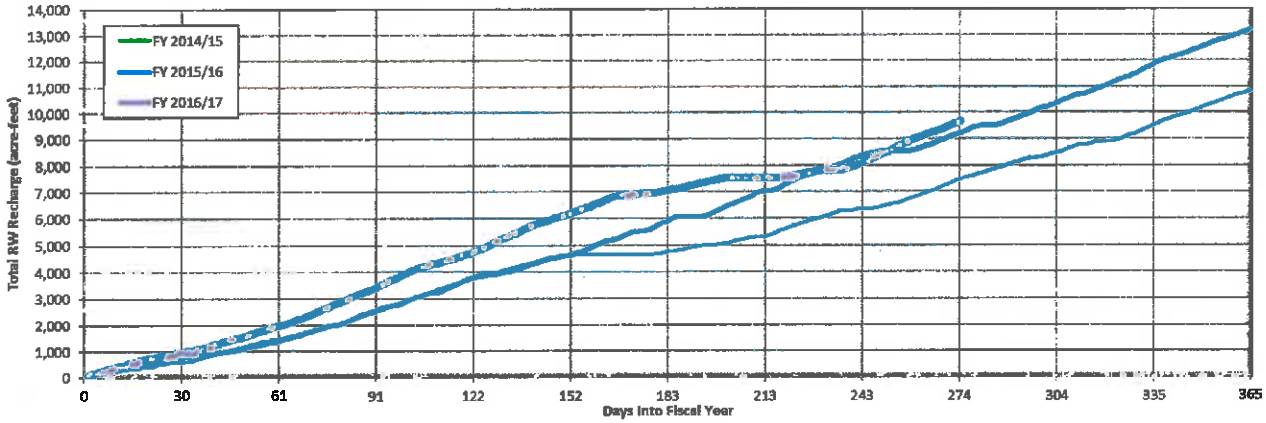
IEUA RECYCLED WATER DISTRIBUTION – MARCH 2017



Recycled Water Recharge Deliveries - March 2017 (Acre-Feet) **Deliveries are draft until reported as final.**

Basin	3/1-3/10	3/11-3/17	3/18-3/24	3/25-3/31	Month Actual	FY To Date Actual		
Ely	20.9	39.5	14.8	47.7	123	902		
Banana	0.0	0.0	0.0	0.0	0	500		
Hickory	0.0	0.0	0.0	0.0	0	136		
Turner 1 & 2	44.2	45.6	31.0	18.0	139	746		
Turner 3 & 4	84.6	25.1	26.5	28.6	165			
8th Street	59.4	59.9	12.4	43.9	176	1619		
Brooks	0.0	0.0	0.3	15.3	16	309		
RP3	232.3	166.7	198.5	162.7	760	4139		
Declez	0.0	0.0	0.0	0.0	0	514		
Victoria	109.0	44.8	27.5	38.0	219	791		
San Sevaine	0.0	0.0	0.0	0.0	0	0		
Total	550.3	381.6	311.0	354.2	1598	9,656	9,249	AF, Previous FY End of Month Actual





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Engineering and Construction Management Project Updates

Board Meeting

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Shaun J. Stone, P.E.
May 2017

EN11031 – RP-5 Flow Equalization

- Contractor: SCW Contracting
- Current Contract (Construction): $945 K
- Total Project Budget: $3.4 M
- Project Completion: June 2017
- Scope of Work:
  - Install level transmitters at emergency splitter box and chlorine contact basin inlet structure
  - Replace chemical pumps
  - Concrete repair and coating at chemical facility
- Current Activities:
  - Mobilization
  - Chemical pump removal and replacement
  - Facility concrete repair and coating

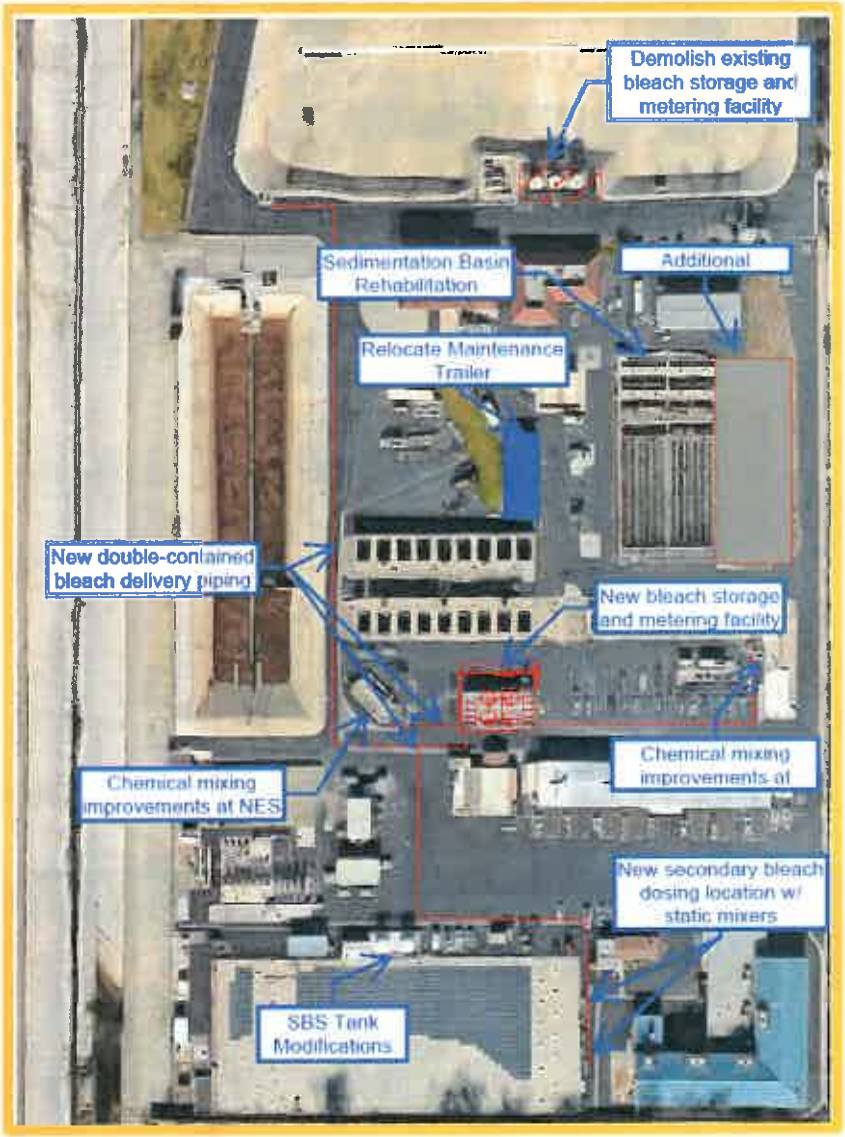
EXISTING SHS PUMPS TO BE REPLACED

CCB INLET STRUCTURE

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

EN11039 – RP-1 Disinfection Pump Improvements

- Design Engineer: Carollo Engineers
- Current Contract (Design): $498 K
- Total Project Budget: $1.3 M
- Project Completion: August 2018
- Scope of Work:
  - Chemical containment area relocation
  - New chemical feed systems
  - New/upgraded chemical dosing locations
- Current Activities:
  - 30% Design submittal received
  - Beginning 50% design
  - Potholing and surveying



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EN14019 – RP-1 Headworks Primary and Secondary Upgrades

- Design Engineer: RMC Water and Environment
- Current Contract (Design): $819 K
- Total Project Budget: $10.4 M
- Project Completion: October 2018
- Scope of Work:
  - Rehabilitate the grit removal systems
  - Install submersible scum pumps and mixer
  - Design a bypass for System C flow meter
- Current Activities:
  - Final design complete
  - Advertise to bid

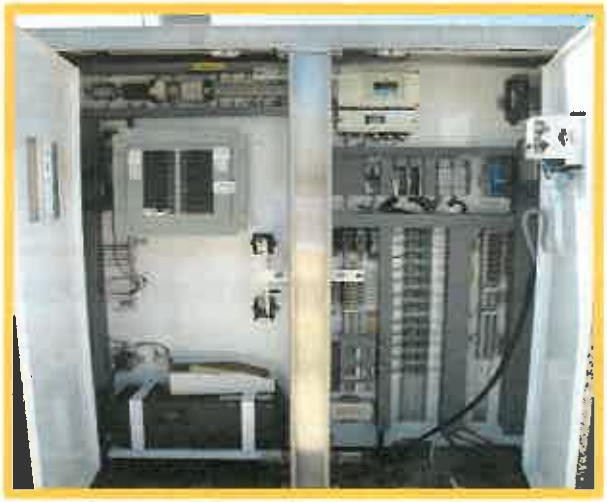
GRIT PROCESSING EQUIPMENT

CORRODED CONCRETE

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

EN14047 – GWR and RW SCADA Control Upgrades

- Contractor: Trimax
- Current Contract (Construction): $251 K
- Total Project Budget: $932 K
- Project Completion: May 2017
- Scope of Work:
  - Replace rubber dam system and controllers at five recharge basins
  - Upgrade remote interface system
- Current Activities:
  - Import upgraded SCADA application onto IEUA server
  - Conduct testing



SAN SEVAINE TURNOUT CONTORL PANEL

TURNER BASIN CONTROL PANEL

EN15012 – RP-1 Primary Effluent Conveyance Improvements

- Design Engineer: Stantec Consulting
- Current Contract (Design): 461 K
- Total Project Budget: $1.8 M
- Project Completion: May 2019
- Scope of Work:
  - Rehabilitation of the RP-1 east primary effluent system
  - RP-1 Primary Clarifier Conveyance corrosion protection
  - Trickling filter/Plant 2 wet well decommissioning pre-design
  - Analysis for localized improvement of foul air system
- Current Activities:
  - Preliminary Design Report

EXPOSED REBAR IN GRATING AT SUPPORT BEAM

IPS WET WELL CONCRETE CORROSION

EN16047 – HQ Parking Lot

- Contractor: W.A. Rasic
- Current Contract (Construction): $264 K
- Total Project Budget: $443 K
- Project Completion: September 2018
- Scope of Work:
  - Remove 59 ash trees
  - Replace 24 slabs (49 parking stalls)
  - Grind 85 lf of raised pavement
  - Clean 7,000 sf of permeable concrete
- Current Activities:
  - Pouring concrete on remaining slabs
  - Preparing to clean permeable concrete

SLAB POUR

RECENTLY POURED SLABS AND REMOVED ASH TREES

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