

NOTICE OF MEETING

OF THE
REGIONAL SEWERAGE PROGRAM
TECHNICAL COMMITTEE

OF THE



WILL BE HELD ON

THURSDAY, APRIL 27, 2017

3:30 P.M.

BOARD ROOM
AT THE OFFICE OF THE AGENCY
6075 KIMBALL AVENUE
CHINO, CA 91710



Regional Sewerage Program Technical Committee Meeting

AGENDA
Thursday, April 27, 2017
3:30 p.m.

Location

Inland Empire Utilities Agency
6075 Kimball Avenue
Chino, CA 91708

Call to Order and Roll Call

Additions/Changes to the Agenda

1. Action Items

- A. Approval of the March 30, 2017 Meeting Minutes
- B. RP-5 Expansion Consultant Contract Amendment

2. Informational Items

- A. Regional Contract Update/Renewal (*Oral*)
- B. Energy Management Planning Update
- C. Review of TYCIP and IEUA Regional Budgets: FY 2017/18 & 18/19
- D. Exhibit J Study (*Oral*)

3. Receive and File

- A. Draft Minutes of Regional Sewerage Pretreatment Summary Report
- B. Draft Regional Policy Committee Agenda
- C. Building Activity Report
- D. Recycled Water Distribution - Operations Summary
- E. Engineering Project Updates

4. Previous Technical Committee Items Requested

None

5. Other Business

- A. IEUA General Manager's Update
- B. Committee Member Requested Agenda Items for Next Meeting
- C. Committee Member Comments
- D. Next Meeting – May 25, 2017

6. Adjournment

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, April 24, 2017.



Laura Mantilla

**ACTION
ITEM**

1A



Regional Sewerage Program Technical Committee Meeting MINUTES OF MARCH 30, 2017 MEETING

CALL TO ORDER

A regular meeting of the IEUA/Regional Sewerage Program – Technical Committee was held on Thursday, March 30, 2017, at the Inland Empire Utilities Agency located at 6075 Kimball Avenue, Chino, California. Committee Chairman Chuck Hays called the meeting to order at 3:30 p.m.

ATTENDANCE

Committee Members:

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

Others Present:

Dan Chadwick	City of Fontana
Nicole deMoet	City of Montclair
Chris Berch	Inland Empire Utilities Agency
Kathy Besser	Inland Empire Utilities Agency
Javier Chagoyen-Lazaro	Inland Empire Utilities Agency
Randy Lee	Inland Empire Utilities Agency
Sylvie Lee	Inland Empire Utilities Agency
Laura Mantilla	Inland Empire Utilities Agency
Craig Proctor	Inland Empire Utilities Agency
Shaun Stone	Inland Empire Utilities Agency
Ken Tam	Inland Empire Utilities Agency
Christina Valencia	Inland Empire Utilities Agency

ADDITIONS/CHANGES TO THE AGENDA

Chairman Hays asked if there were any changes/additions/deletions to the agenda. There were none.

1. ACTION ITEMS**A. Approval of the February 23, 2017 Meeting Minutes**

Motion: By Braden Yu/Cucamonga Valley Water District and seconded by Katie Gienger/City of Ontario to approve the minutes of the February 23, 2017 Technical Committee meeting.

Motion carried: Unanimously.

2. INFORMATIONAL ITEMS**A. REGIONAL CONTRACT UPDATE/RENEWAL**

Chairman Hays stated that he provided IEUA with the draft term sheet on behalf of the Technical Advisory Committee. He stated it is a draft term sheet of the items that are important for the Regional Contract Renewal (see attached). Chairman Hays stated that the Technical Advisory Committee will be meeting on April 12. Braden Yu/CVWD indicated that CVWD cannot support the term sheet as it stands, they have concerns with the governance and recycled water. He further stated that he does not want to go backwards on recycled water. Rosemary Hoerning/City of Upland stated that Upland is not in full support of all the items listed. Ms. Hoerning recommended that the items be discussed again and would like to get IEUA's thoughts. Joseph Grindstaff/IEUA indicated that IEUA will get back to the Committee. Ms. Hoerning further stated that she would like to have dialogue with IEUA rather than bringing in a facilitator.

B. SEPTIC TO SEWER FEASIBILITY STUDY UPDATE

Ken Tam/IEUA gave a presentation on the septic study. He stated the purpose of the feasibility study is to evaluate IEUA's service area and each of the contracting agencies service areas to analyze and prioritize groups of septic system parcels for conversion to the sewer system. These group of septic service parcels will be prioritized based on some of following criteria such as cost effectiveness – based on grant funding, groundwater quality benefits, sewer capacity analysis, and low impact development considerations. Contracting agencies provided septic data to IEUA and RMC and identified 21,000 septic system parcels in the service area. RMC established the sewer service regions (SSRs) and sent SSR maps to the contracting agencies for comment. IEUA received comments from four of the seven. Mr. Tam asked that any additional comments be sent to him. He further stated that the Grants Department applied for Fontana service area to State Water Resources Control Board, this grant will allow funding for this feasibility project up to \$500,000 maximum per city for disadvantaged communities.

Mr. Tam then reviewed the septic system parcels locations for Fontana. Mr. Tam reviewed the next steps: RMC is evaluating the current sewer system capacity for all the SSRs; Development of the master sewer layout for SSRs and estimated cost, prioritize SSRs based on information of contracting agencies. Draft feasibility study will be provided by RMC in June 2017 and contracting agencies will be allowed time to comment. The study will be completed in July 2017.

C. BUDGET WORKSHOP

Christina Valencia/IEUA gave a budget presentation that primarily focused on the recycled water and wastewater programs. She stated that this budget workshop was presented to the IEUA Board in March. She informed the Committee that the budget is based on the 5-year rates that the Board

adopted for the regional wastewater and recycled water programs in 2015. Ms. Valencia indicated that we are also tracking actual cost, as requested by the Regional Technical Committee.

Ms. Valencia explained that the Contracts and Procurement Department is working on an initiative to expand the Agency's minority and local business outreach program. IEUA has been doing outreach to small and local businesses since 2008 and are proposing to implement an in-house program to expand those efforts to non-federal and state solicitations. Ms. Valencia provided an overview on the total sources of funds trend for the last nine years. Ms. Valencia noted in 2012/13, funds were higher than budget due to a one-time revenue of over \$10 million from redevelopment (RDA) taxes following the dissolution of redevelopment agencies in 2012. In 2015/16, new EDU connection fees and recycled water sales were much higher. This year, imported water sales dropped from \$40 million a year to under \$20 million, due to the drought. Ms. Valencia reviewed the 5-year rates for wastewater and recycled water program as well as the new water connection fee which took effect January 1, 2016. The forecast for 2018/19, resulted in higher debt proceeds/grants due to more capital improvement projects. Ms. Valencia stated that property tax revenues will remain steady and reviewed the property tax allocation amongst the various funds; 65% of the property tax is allocated to the Regional Wastewater Capital Improvement fund and 35% is allocated to the Regional Wastewater Operations & Maintenance fund, Administrative Services fund, Recycled Water fund, and Water Resources fund. Beginning in 2015/16, the property tax allotment to the Regional Wastewater Operations & Maintenance, Administrative Services, Recycled Water would be set at a fixed amount with the related growth allocated to the Water Resources fund. She stated that the reason for that, is to ensure there are monies to invest in regional water resource projects not supported by rates, such as the Santa Ana River Conservation and Conjunctive Use and Water Bank initiatives.

Ms. Valencia reported on the use of funds, outstanding debt and fund balances. She provided an update on the cost of service for FY 2015/16, the first year of the 5-year rates, for both the regional wastewater and recycled water programs. She discussed the next steps is to present this to the Policy Committee on April 6, 2017 and bring the proposed biennial budget to the Regional Technical Committee in April. The final presentation will be presented in May to the IEUA Finance Committee, Board and Regional Technical Committee. In June, the final presentation will go to the Regional Policy Committee and the Board of Directors for approval.

3. RECEIVE AND FILE

A. FY 2016/17 2ND QUARTER BUDGET VARIANCE

The FY 2016/17 2nd Quarter Budget Variance was received and filed by the Committee.

B. DRAFT REGIONAL POLICY COMMITTEE AGENDA

The draft Regional Policy Committee Agenda was received and filed by the Committee.

C. BUILDING ACTIVITY REPORT

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

D. RECYCLED WATER DISTRIBUTION - OPERATIONS SUMMARY

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

4. PREVIOUS TECHNICAL COMMITTEE ITEMS REQUESTED

None.

5. OTHER BUSINESS

A. IEUA GENERAL MANAGER’S UPDATE

Mr. Grindstaff reported on the following:

- IEUA had a violation for the first time in 10 years at one of the treatment plants. IEUA had a control system failure for 12 minutes and chlorinated effluent was discharged to the river, which may result in a fine.
- IEUA received a new permit in December 2016 on trihalomethanes (THMs) requirements for the wastewater side. The Agency had peaks of bromide THMs, which were over the monthly average that must be maintained. IEUA staff is investigating to determine the source of the bromide.
- IEUA received notification from the State that the Prop 1 grant was approved for the Plume Cleanup Project in the amount of \$11 million. Mr. Grindstaff stated that the plume cleanup will be fully funded and will probably have additional grant revenues that will offset cost for CDA.
- Kathy Besser was promoted to Executive Manager of External Affairs and Policy Development/Assistant General Manager.
- Shaun Stone is in working with Parsons and will be approaching member agencies to see if they would like to be involved in the negotiation process.

B. COMMITTEE MEMBER REQUESTED AGENDA ITEMS FOR NEXT MEETING

Chairman Hays requested the energy update be presented at the next Regional Technical Committee meeting.

C. COMMITTEE MEMBER COMMENTS

Mark Wiley/City of Chino Hills stated that Ron Craig will be on the Regional Technical Committee.

D. NEXT MEETING – APRIL 27, 2017

6. ADJOURNMENT – The meeting adjourned at 4:40 p.m.

Transcribed

by:

Laura, Executive Assistant

Regional Sewerage Service Contract (RSSC) Renewal Member Agency DRAFT Term Sheet

The terms described in this term sheet represent key contractual provisions identified by the member agencies as a preliminary step in contract renewal. The details of these terms must be further developed and additional terms may be identified. The new Regional Sewerage Contract derived from these terms shall be approved and executed by the governing bodies of each agency that is party to the agreement.

1. General Contractual

- a. Update definitions
- b. The parties shall negotiate for the extension or renewal of this contract upon comparable terms and conditions.
- c. If the parties are collectively unable to agree on contract renewal terms, then any Contracting Agency, by written notice given to IEUA at least 12 months prior to the expiration of said term, may elect to receive continued service under the existing contract provisions.
- d. The RSSC can only be amended by unanimous agreement and signature by all parties entering into the new contract, subject to 1(c) above.
- e. The Agencies have the right to audit IEUA for contractual implementation and compliance, finances, and rates/fees.

2. Rights & Responsibilities

- a. The Regional Sewerage System exists for the benefit of the Contracting Agencies and their customers. The parties to the RSSC (IEUA and the Contracting Agencies) each have specific rights and responsibilities.
- b. Inland Empire Utilities Agency (IEUA) has the following rights & responsibilities:
 - i. IEUA shall responsibly plan for current and future development needs.
 - ii. IEUA shall continue to provide annual reporting on the following:
 1. 10-year capacity forecasting
 2. 10-year capital improvement plan
 3. Status of capital improvement or significant maintenance projects
 - iii. IEUA shall provide reliable wastewater treatment and service to the Agencies, consistent with governing regulations.

* Chuck indicated that the "Confidential" watermark was a carryover from the prior draft and can be removed

- iv. IEUA shall verify, via flow and quality measurements, the estimated sewage discharged by each Contracting Agency.
- c. The Contracting Agencies (Agencies) have the following rights & responsibilities:
 - i. The Agencies have the responsibility to serve as the retail agency by performing the following services or contracting them to a third party (including IEUA), provided that the cost of these actions/services be borne by the requesting Agency.
 - 1. Calculating and collecting monthly billing charges.
 - 2. Approving any and all connections to their retail system.
 - 3. Calculating and collecting connection fees.
 - 4. Acting as lead agency for the Capacity Management, Operations and Maintenance (CMOM) regulations including areas such as the pretreatment program for industrial users, FOG program, etc.
 - 5. Managing and servicing Significant Industrial Users in their service area or contracting this to a third party (including IEUA).
 - ii. Should an Agency request that IEUA collect connection fees on its behalf, those fees shall be placed in an escrow account. Interest earned shall be retained by the Agency.
 - iii. The Agencies have the responsibility to provide regular good-faith growth forecasts to IEUA.
 - iv. The Agencies have the right to not be penalized for under- or overestimating growth.
 - v. Upon proper notice, the Agencies have the right to redirect sewage flows without condition or penalty from IEUA, subject to the provisions in Section 2 of the RSSC that permit TAC to review. Before an agency can redirect flows, it must receive approval from TAC following a finding of no detriment to the Regional Sewerage System.

3. Governance

- a. The IEUA Board of Directors must have prior approval of the Technical Advisory and Policy Committees before entering into service agreements related to the Regional Sewerage System and/or reclaimed effluent ("recycled water").
- b. IEUA must have prior approval of the Technical Advisory Committee for any direct connections to the Regional Sewerage System.

- c. The IEUA Board of Directors must take action consistent with the Technical Advisory and Policy Committees for items relating to the Regional Sewerage System, the RSSC, and/or reclaimed effluent ("recycled water"). This includes, but is not limited to, policy and finance actions.
- d. IEUA Board of Directors needs to make finding to justify decision contrary to Policy Commission action.
- e. Explore the development of a Joint Powers Authority

4. Financing

- a. The Agencies shall pay their equitable share of the cost of conveyance and treatment of the actual sewage delivered.
- b. IEUA shall provide an annual accounting of audited Operations & Maintenance (O&M) costs and reconcile these against rates paid by the Agencies.
 - i. Rates shall not exceed net audited costs for O&M.
- c. The IEUA Board of Directors must have prior approval of the Technical Advisory and Policy Committees before approving rate studies or adopting rates.
- d. IEUA shall provide to the Agencies all necessary documentation to comply with Proposition 218.
- e. EDU determination and reporting processes shall be evaluated and improved such that they are efficient and effective including, but not limited to equity amongst the Agencies.
 - i. This may include a methodology that is centered on the total discharge from the Agency to IEUA and the corresponding cost impact on the regional wastewater treatment system.
 - ii. To the extent the methodology is centered on individual retail customer discharge, equity shall be extended to the individual customers.
- f. Capital Calls
 - i. Capital Calls shall describe in detail the project(s) to be funded.
 - ii. IEUA must have prior approval of the Technical Advisory and Policy Committees prior to making a Capital Call. IEUA shall provide background information including demand forecast, needed facilities, and budgeted project amounts for each Capital Call.
 - iii. Capital Calls shall be used for capital expansion related to growth, not capital replacement.

- g. Consideration of a lease capacity option for commercial/industrial users.
- h. Property Taxes
 - i. Property taxes levied on Improvement District "C" (IDC) shall be used solely for the Regional Sewerage Program.
- i. Use of Funds
 - i. IEUA shall maintain transparency in its funding sources and shall demonstrate to the Agencies how property taxes, connection fees, monthly billing fees, and other revenues are utilized.
 - ii. IEUA shall maintain clear boundaries between funds used for the Regional Sewerage Program, reclaimed effluent programs, and any other IEUA programs, such as conservation or water resources.
 - iii. The IEUA Board of Directors must have prior approval of the Technical Advisory and Policy Committees before IEUA borrows from funds related to the Regional Sewerage System (RO or RC Funds).
 - iv. The Regional Sewerage System, the non-reclaimable wastewater system, the reclaimed effluent system, and the reclaimed effluent recharge program shall be financed independently from each other and independently from other IEUA programs.
- j. Restructure the "demand deficit" provisions.
- k. Simplify calculations for the extra-territorial service requests.
- l. Connection and monthly fees identified in audit or otherwise shall be limited to a three-year statute of limitations for retroactive collection.


5. Reclaimed Effluent ("Recycled Water")

- a. IEUA is responsible for the production of reclaimed effluent ("recycled water").
- b. The Agencies have the right of first purchase of all reclaimed effluent, based on each Agency's individual contribution as a percentage of total sewage delivered by the Agencies.
 - i. Agencies also have the right of first purchase of any recycled water not purchased by other contracting agencies for direct use or groundwater replenishment.
- c. Any sale, beneficial use, or discharge of reclaimed effluent by IEUA shall be subject to the Agencies' right of first purchase.

- d. The rate for reclaimed effluent charged to the Agencies shall be based on net audited O&M costs of the reclaimed effluent system. Rates shall not exceed net audited costs for O&M.
 - i. The rate for reclaimed effluent charged to the Agencies shall be based on net audited O&M costs *to deliver* reclaimed effluent to each respective contracting agency. Rates shall not exceed net audited costs for O&M.
- e. IEUA must have prior approval of the Technical Advisory and Policy Committees before making reclaimed effluent available to third parties. Available reclaimed effluent shall be sold to third parties (subject to approval by the Technical Advisory and Policy Committees) at rates that include, at a minimum, net audited costs as well as capital recovery.
- f. As part of the budgeting process, IEUA shall have prior approval of the Technical Advisory and Policy Committees for use of revenues from third party sales above net audited O&M costs.
- g. IEUA shall not make reclaimed effluent available to third parties at a rate that results in the Agencies subsidizing this program, either through reclaimed effluent rates or through the Regional Sewerage Program
- h. The Santa Ana Judgement obligation shall not impact the agencies' recycled water base entitlement.

**ACTION
ITEM**

1B

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



Project Location



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



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.

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

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.

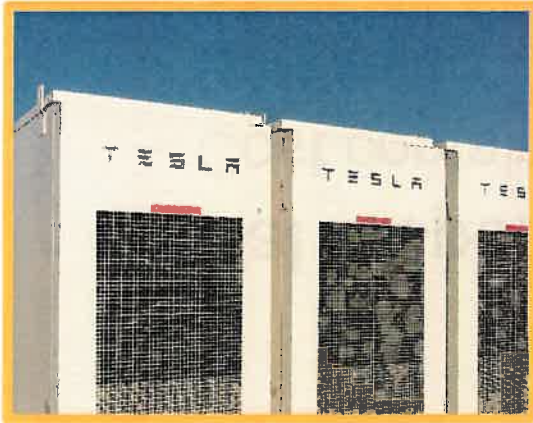
INFORMATION

ITEM

2B

Energy Management Plan #1

Long Term Planning: RP-5



April 2017

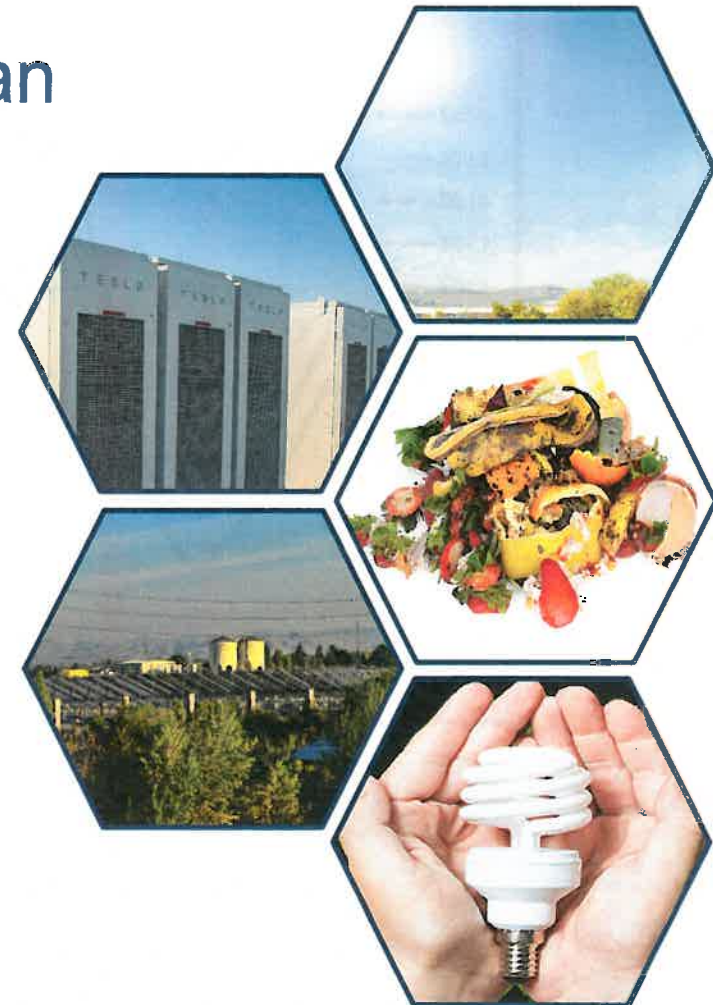
Energy Management Drivers

- **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

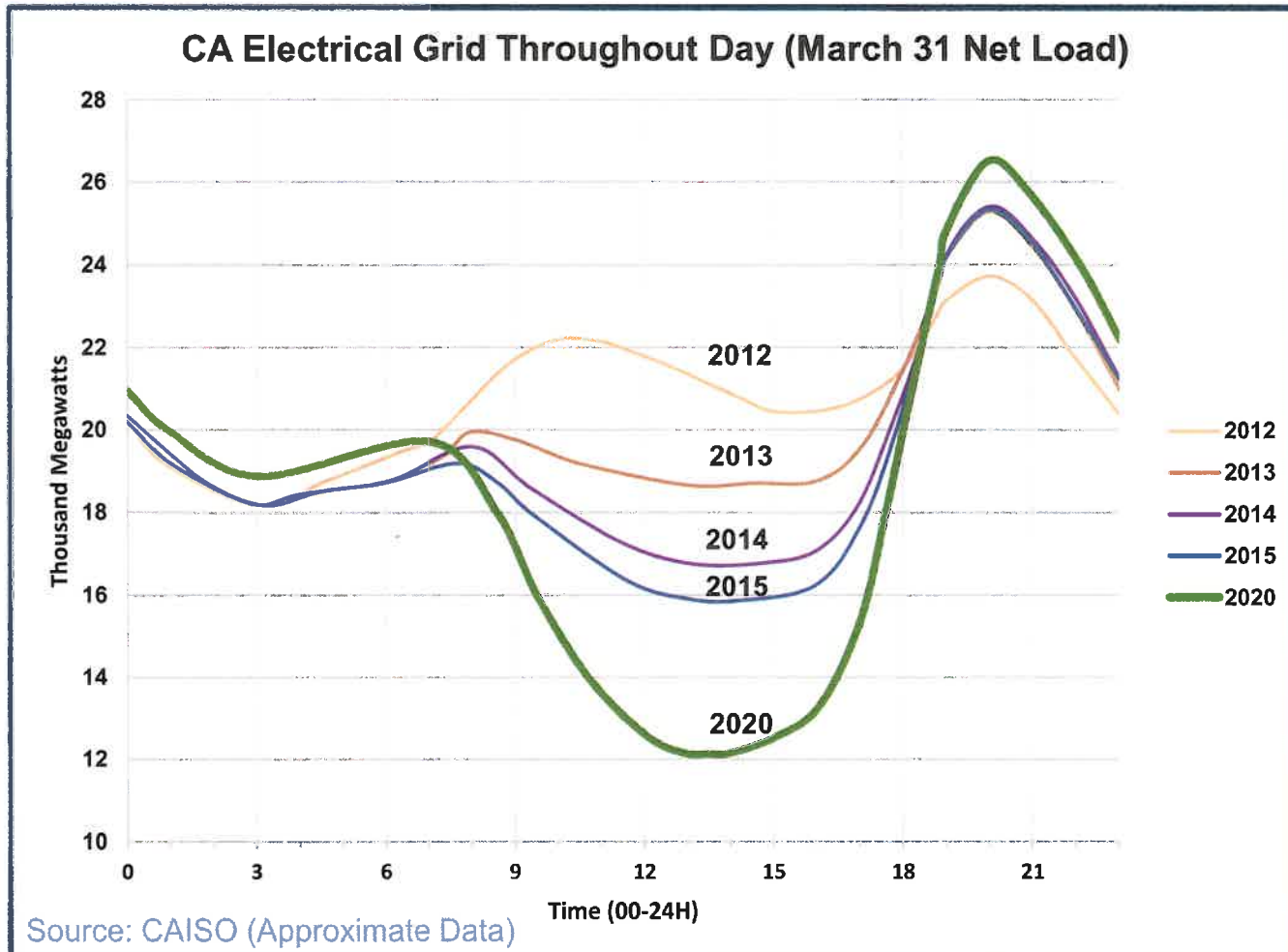
2015 Energy Management Plan

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



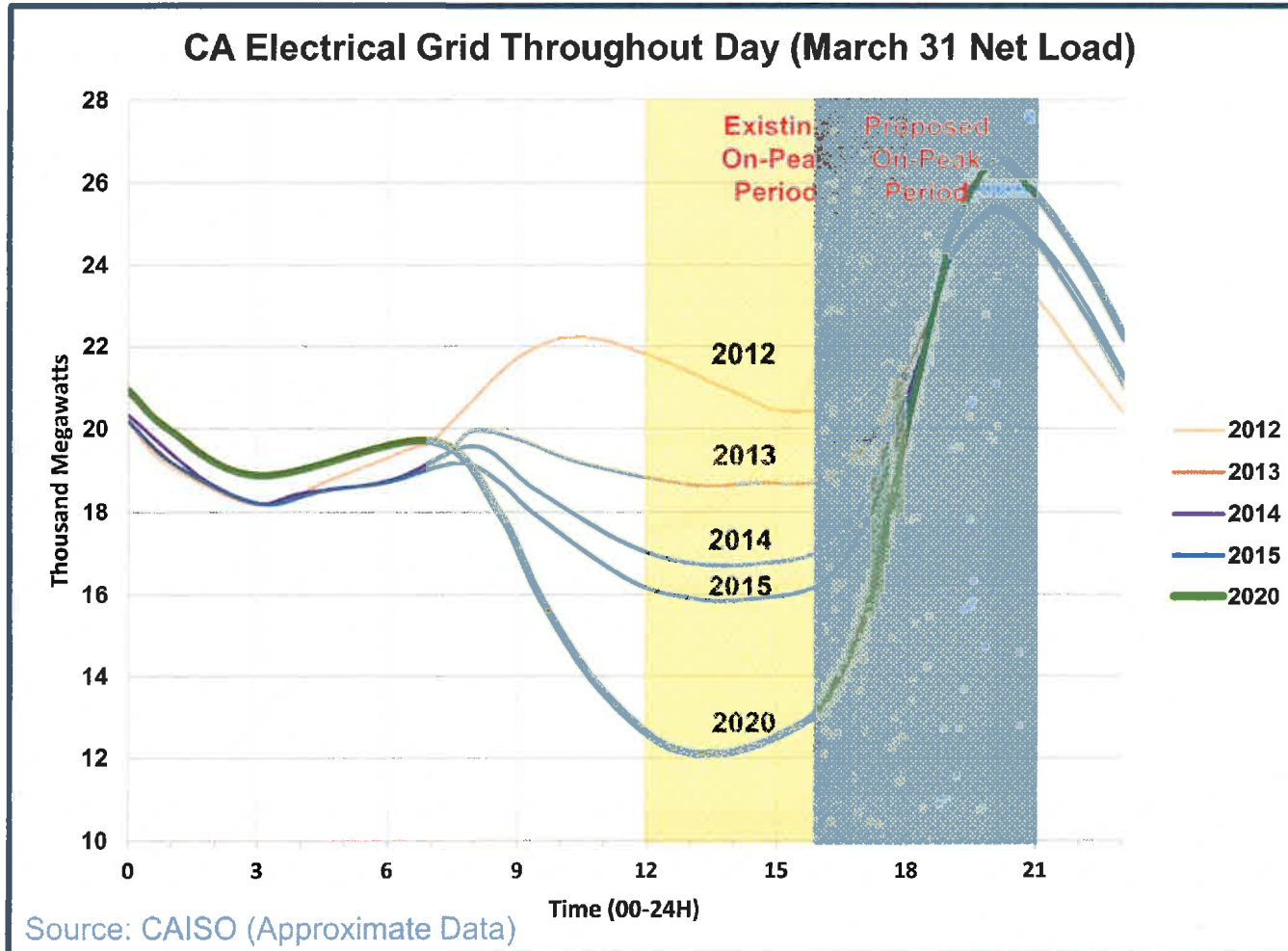
Market Trends

Duck Curve

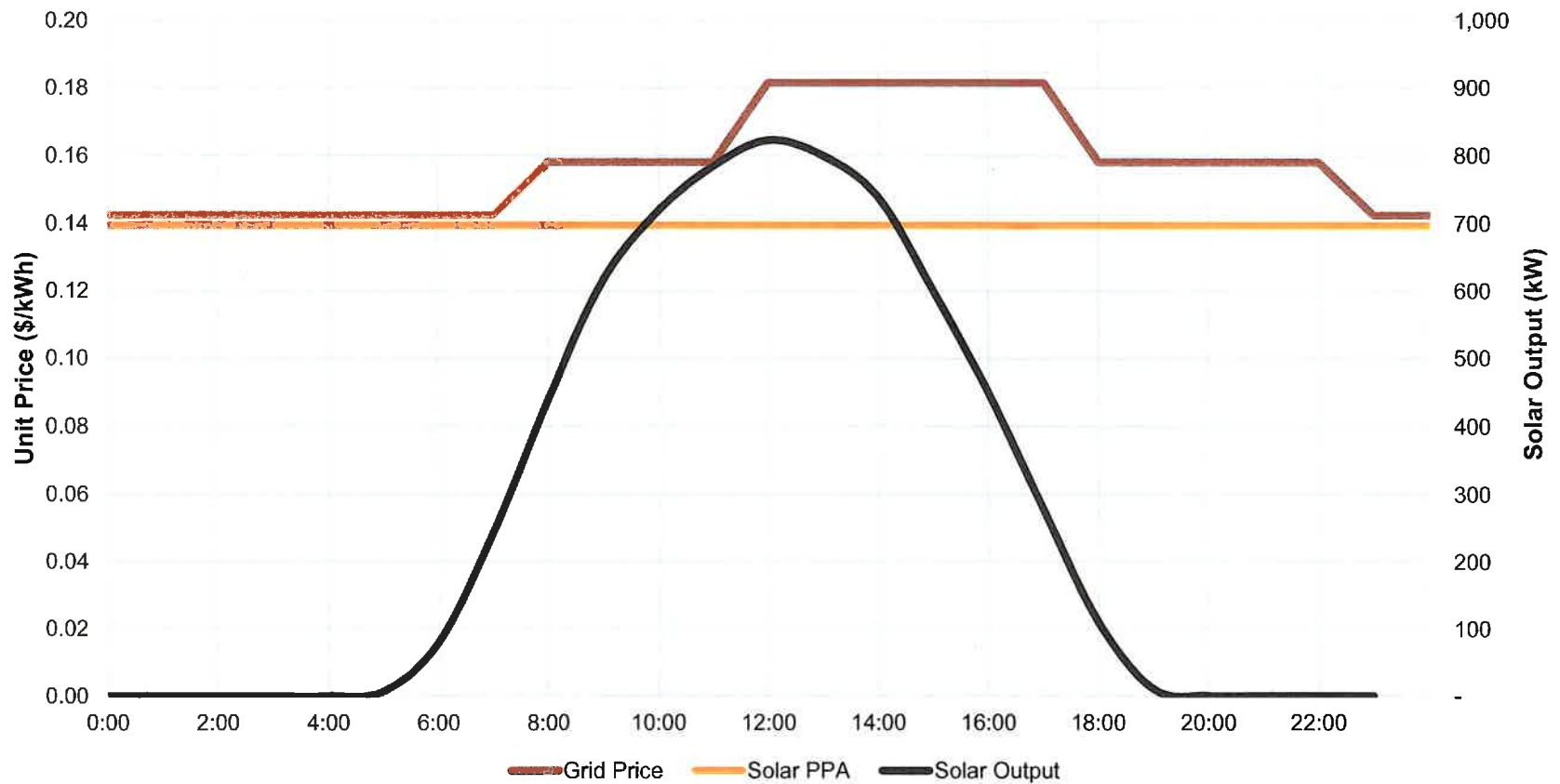


Market Trends

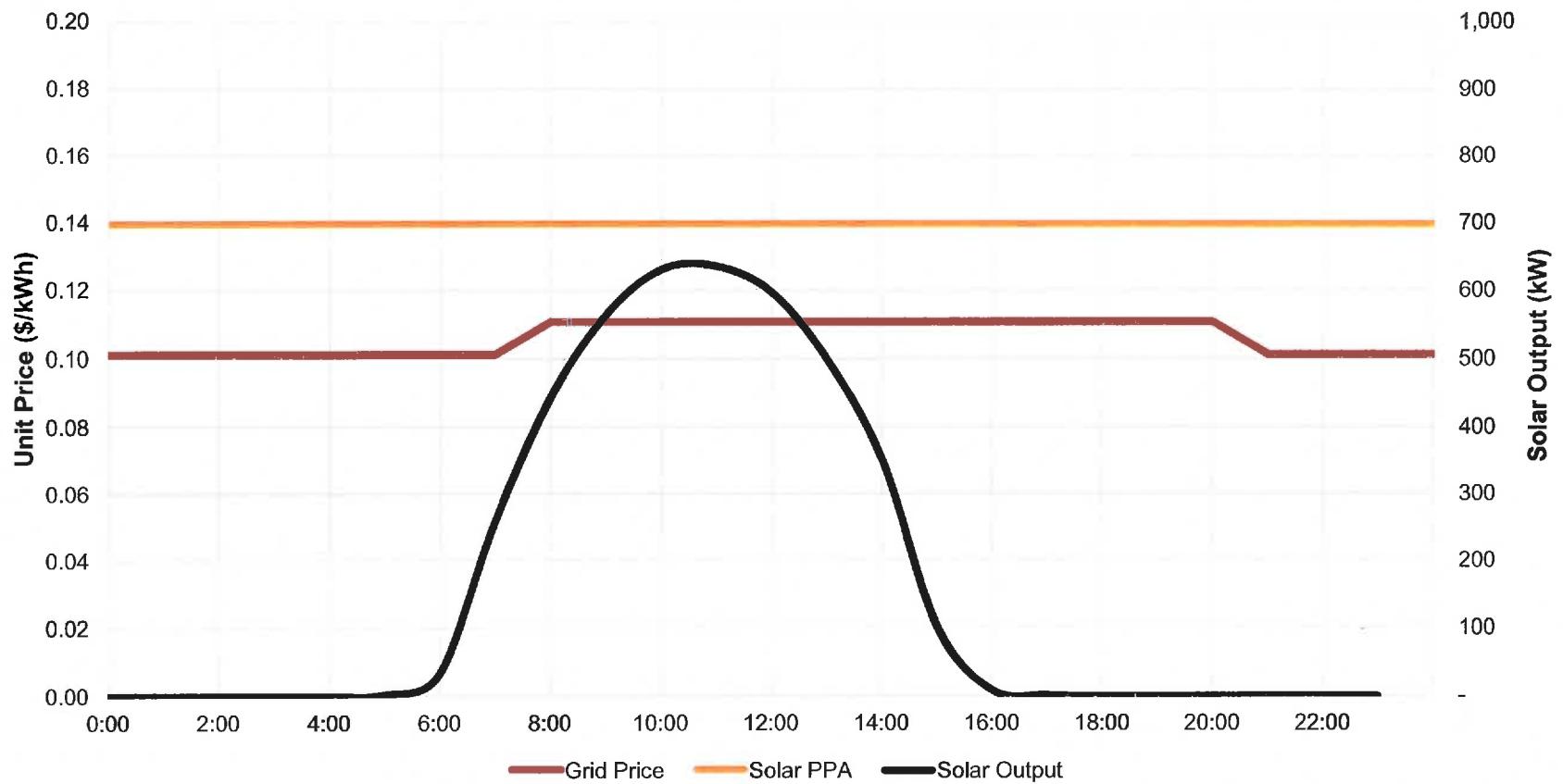
Duck Curve



Time of Use – Summer Season



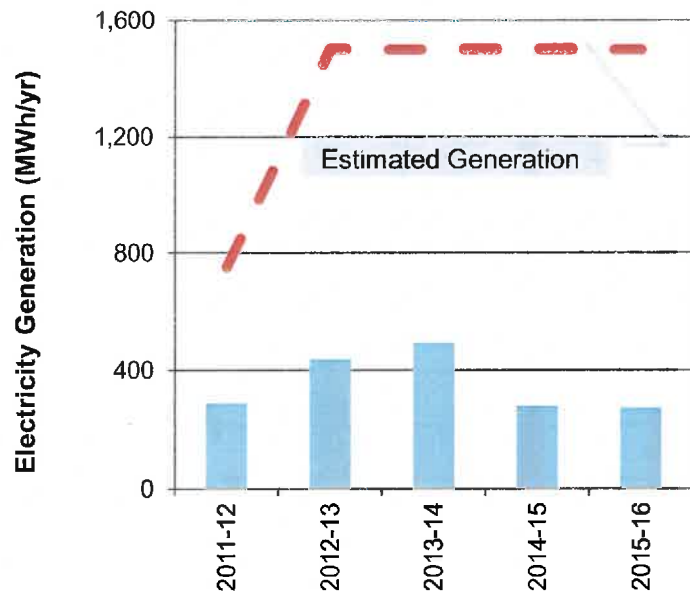
Time of Use – Winter Season



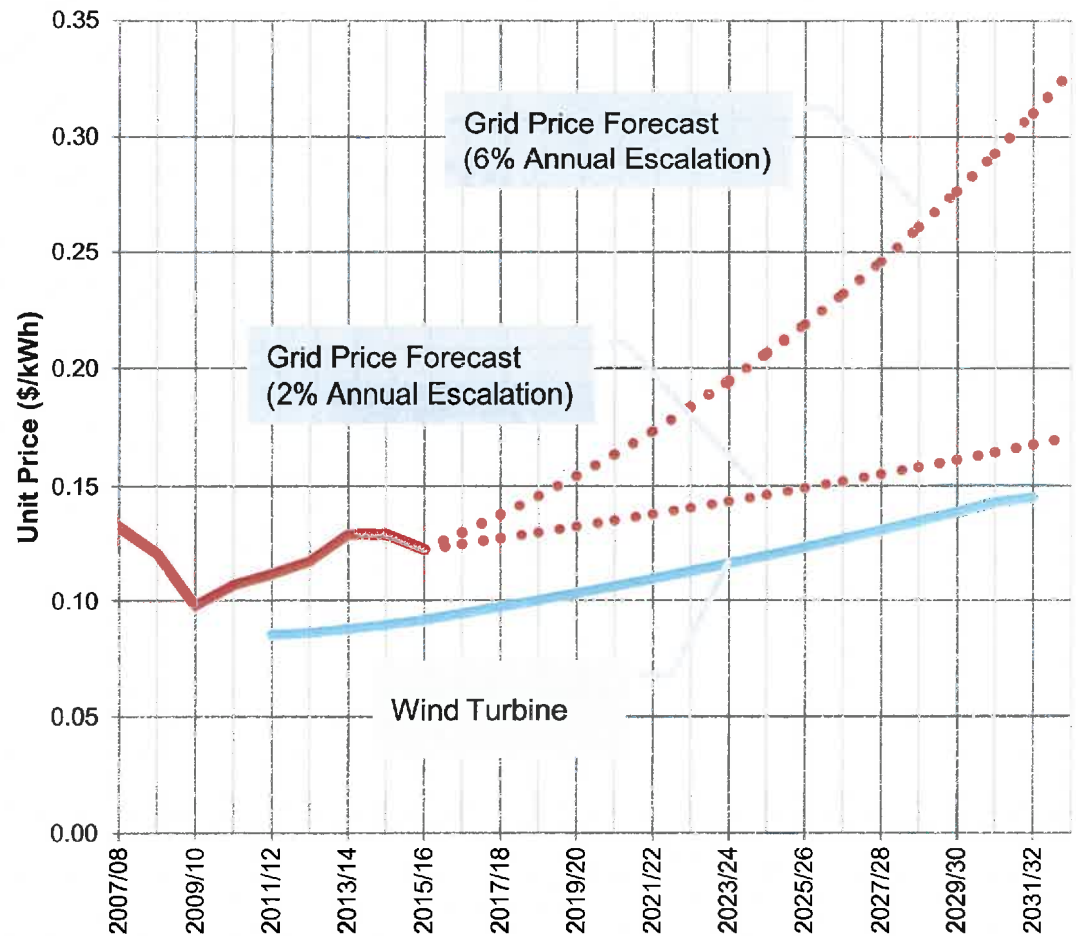
Demand Charges Savings

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

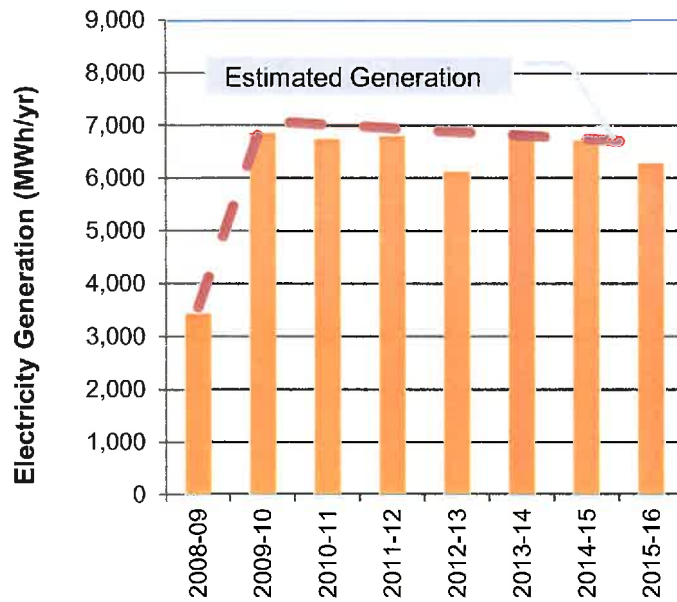
RP-4 Wind Turbine



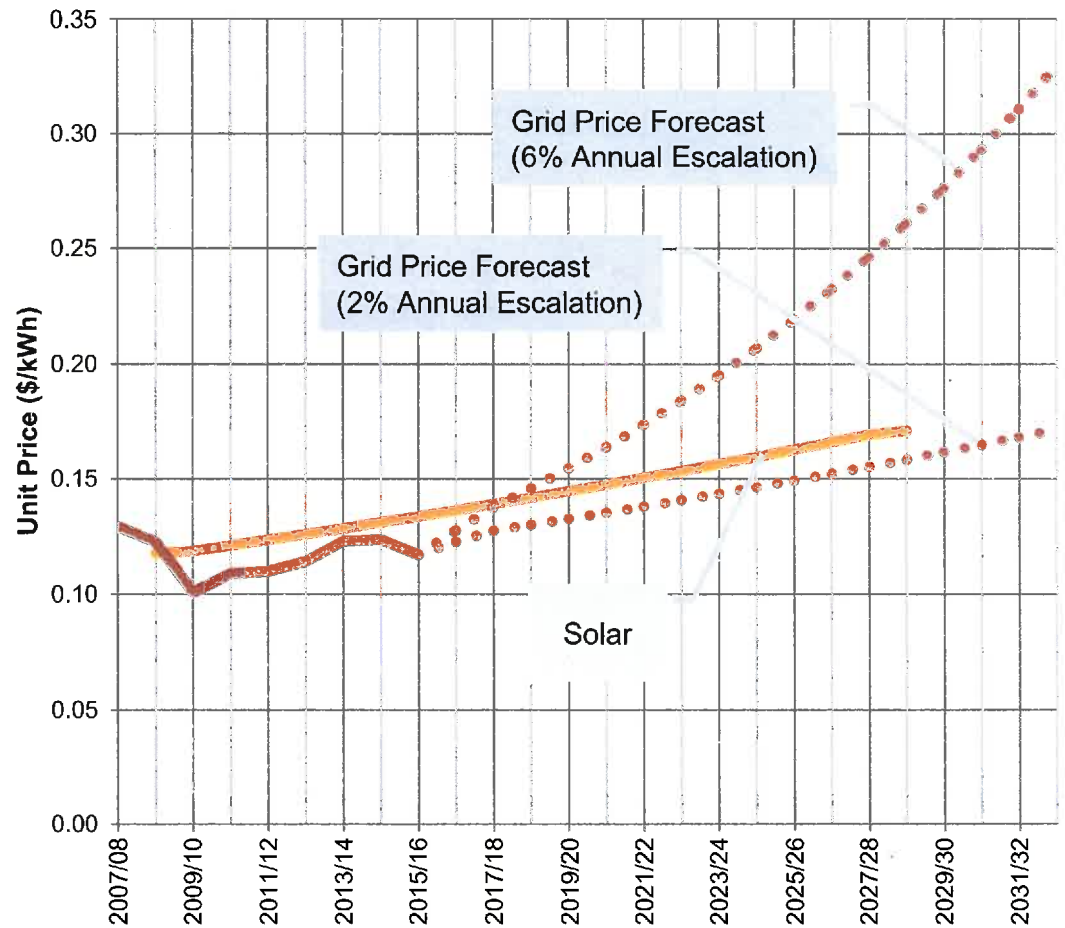
Savings FY 11/12 – FY 15/16	\$53,000
Range of Savings PPA Term (FY 11/12 – FY 31/32)	\$220,000 (2% Esc) \$620,000 (6% Esc)



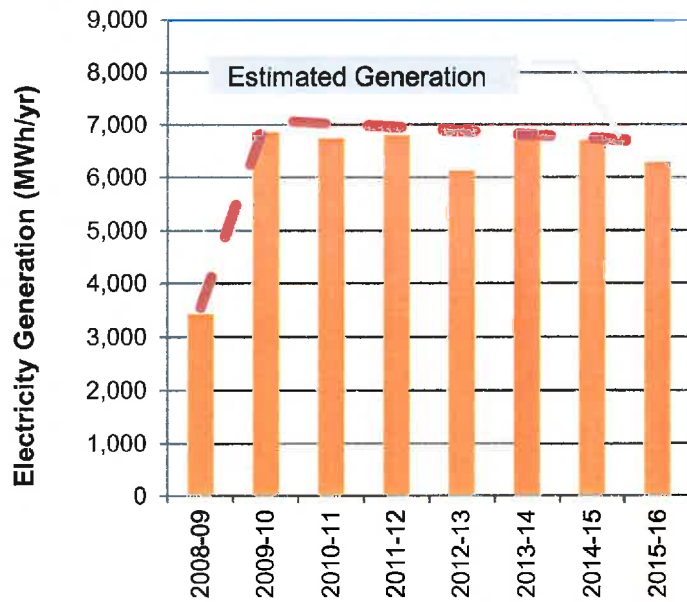
IEUA Solar



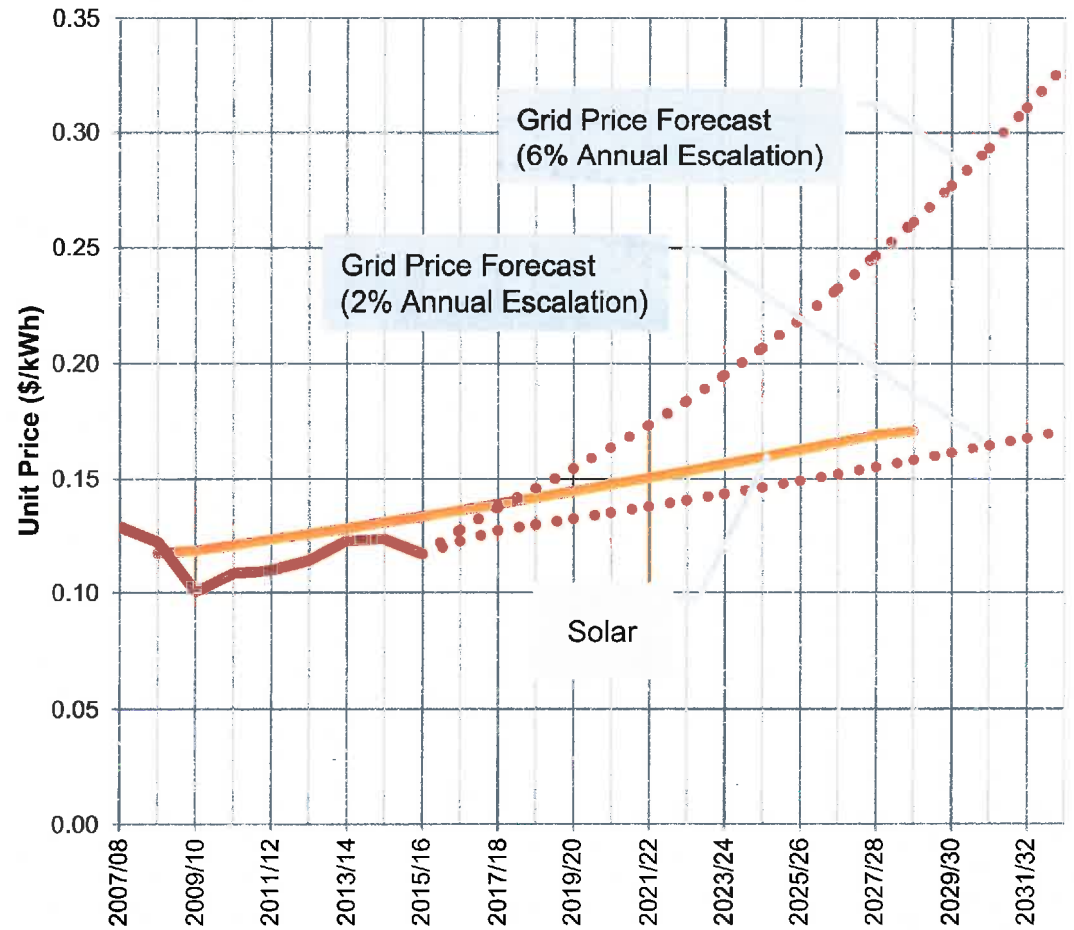
Savings FY 08/09 – FY 15/16	-\$550,000
Range of Savings PPA Term (FY 08/09 – FY 28/29)	-\$1,600,000 (2% Esc) \$2,460,000 (6% Esc)



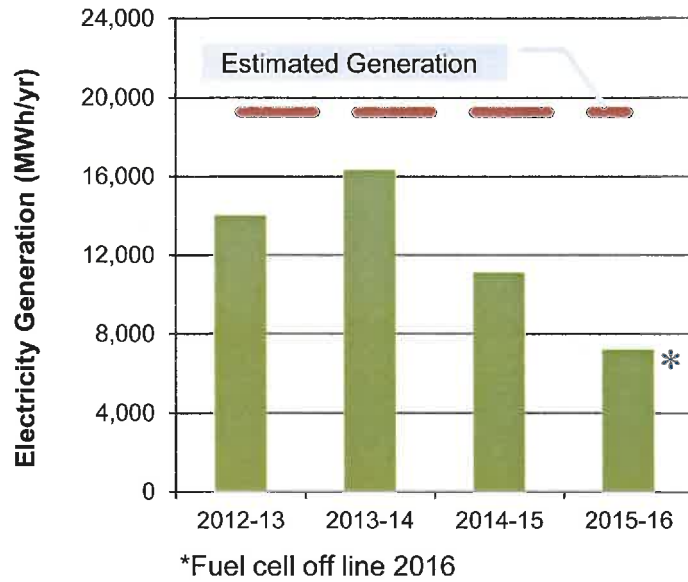
IEUA Solar (with Demand Charges Savings)



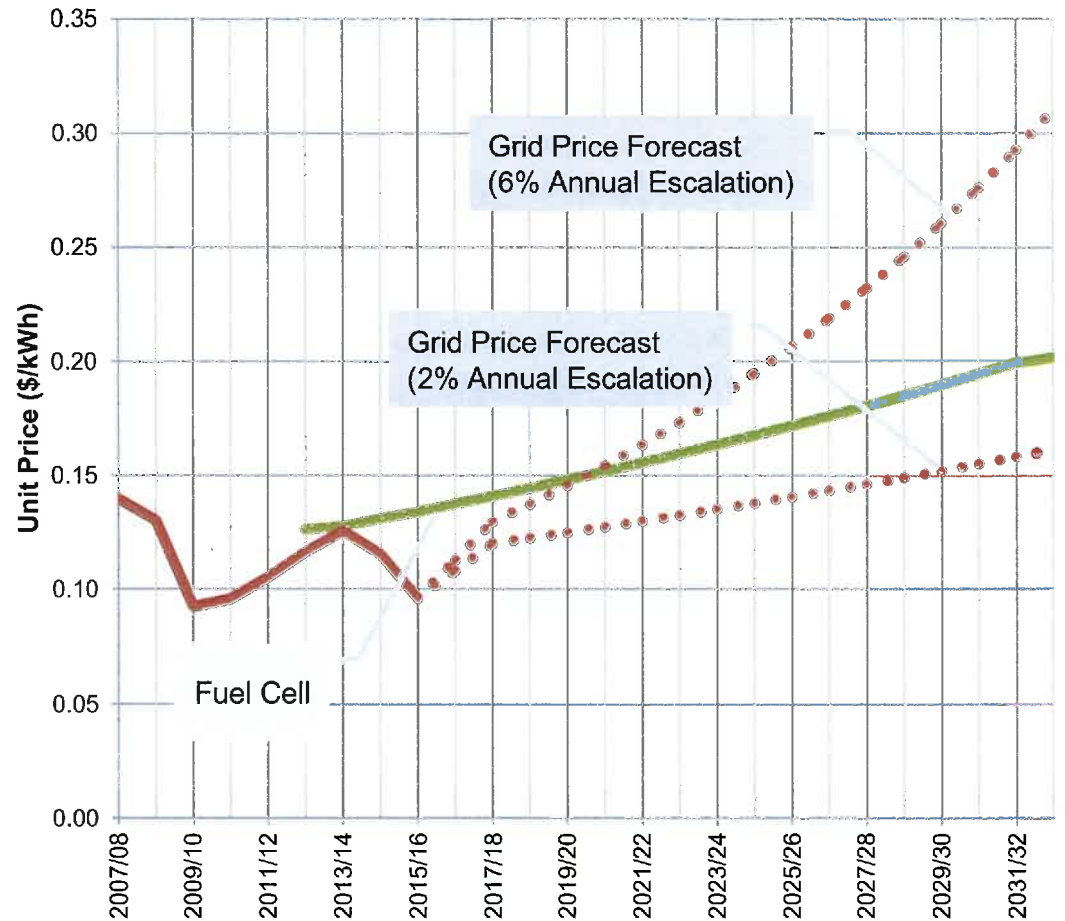
Savings FY 08/09 – FY 15/16	\$98,000
Range of Savings PPA Term (FY 08/09 – FY 28/29)	\$1,800,000 (2% Esc) \$5,900,000 (6% Esc)



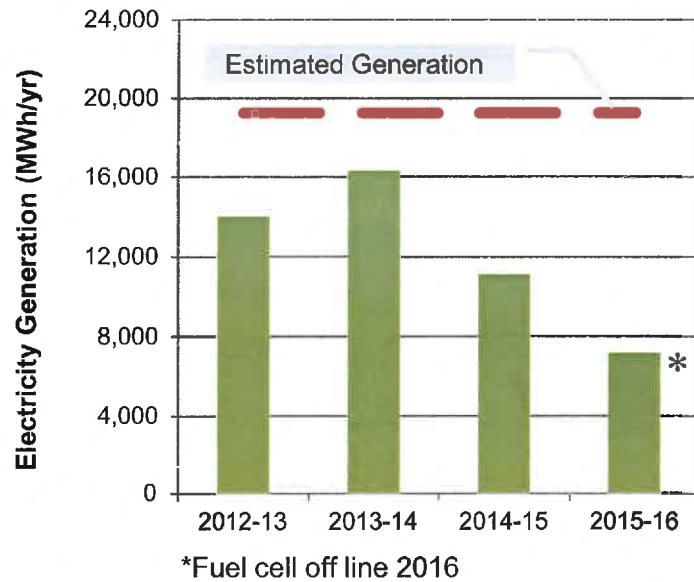
RP-1 Fuel Cell



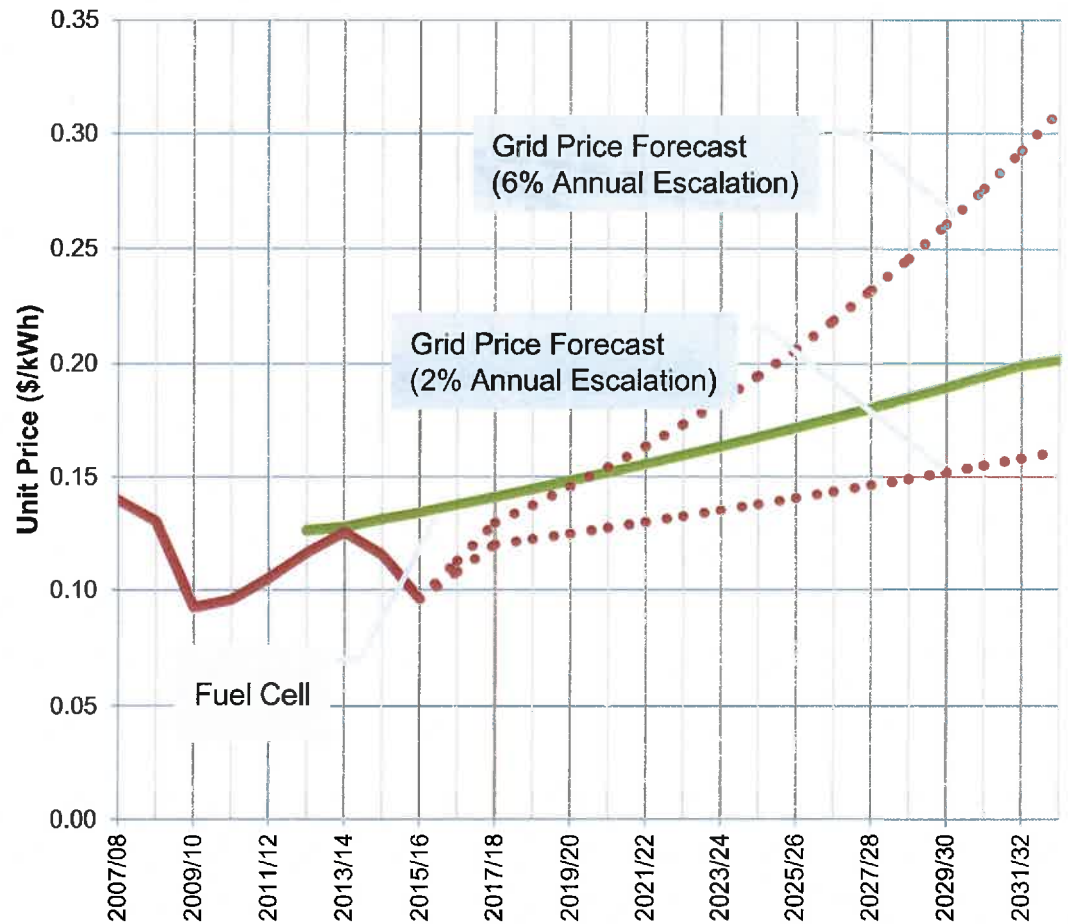
Savings FY 12/13 – FY 15/16	-\$620,000
Range of Savings PPA Term (FY 12/13 – FY 32/33)	-\$10,400,000 (2% Esc) \$9,400,000 (6% Esc)



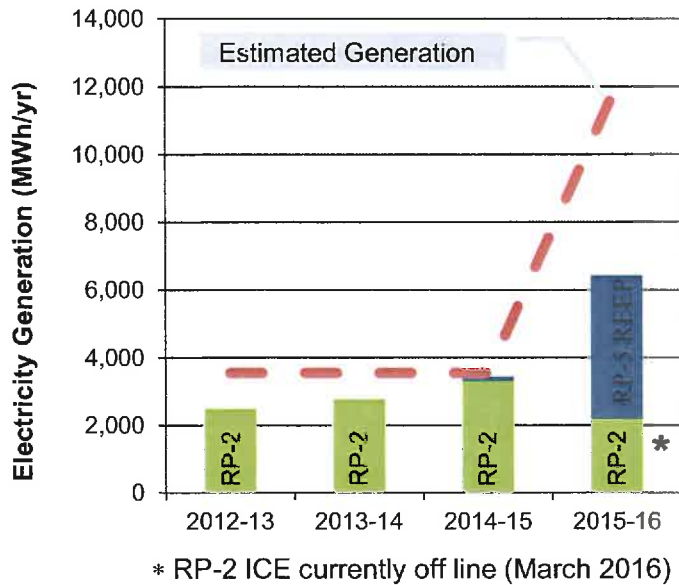
RP-1 Fuel Cell (with Demand Charges Savings)



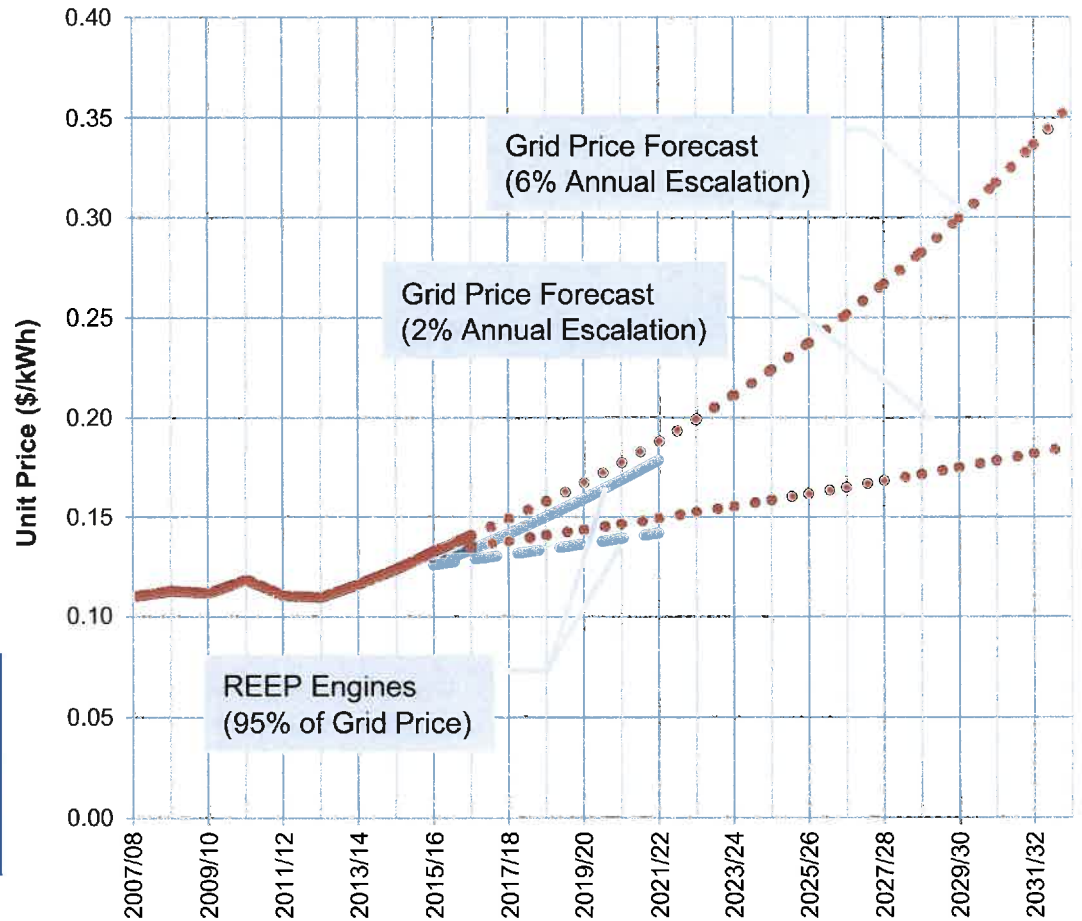
Savings FY 12/13 – FY 15/16	\$368,000
Range of Savings PPA Term (FY 12/13 – FY 32/33)	-\$4,700,000 (2% Esc) \$15,000,000 (6% Esc)



Internal Combustion Engines



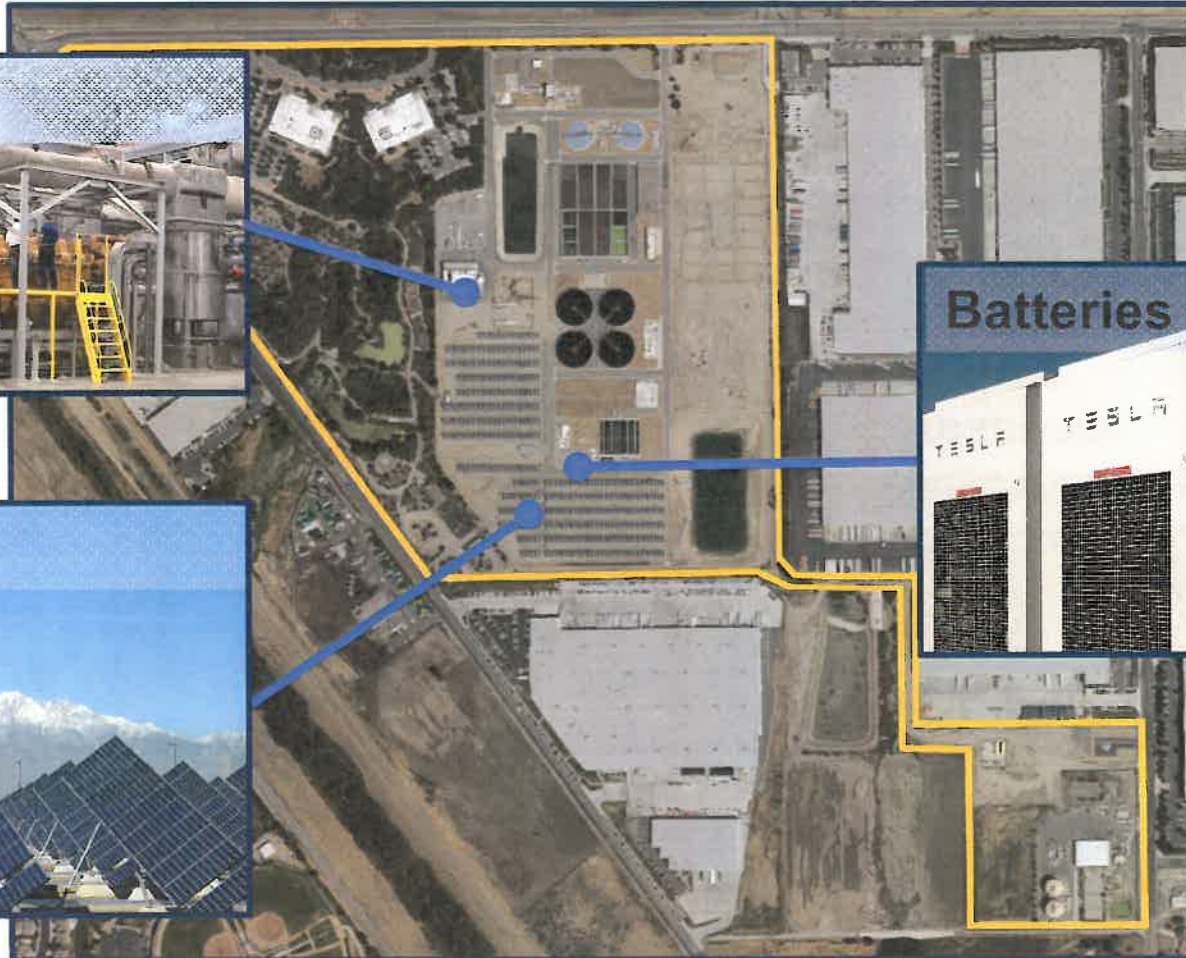
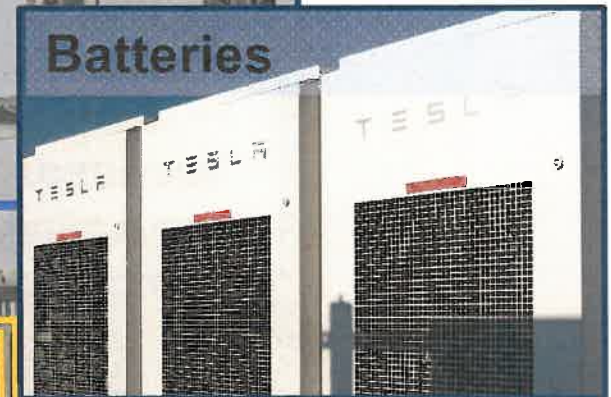
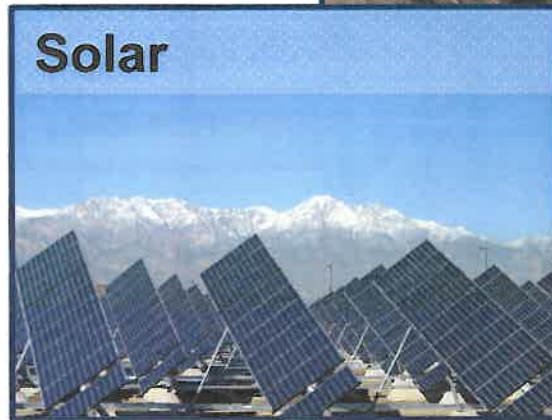
Savings FY 11/12 – FY 15/16	\$28,000
Range of Savings Lease Term (FY 11/12 – FY 21/22)	\$340,000 (2% Esc) \$400,000 (6% Esc)



Case Study – Regional Plant No. 5

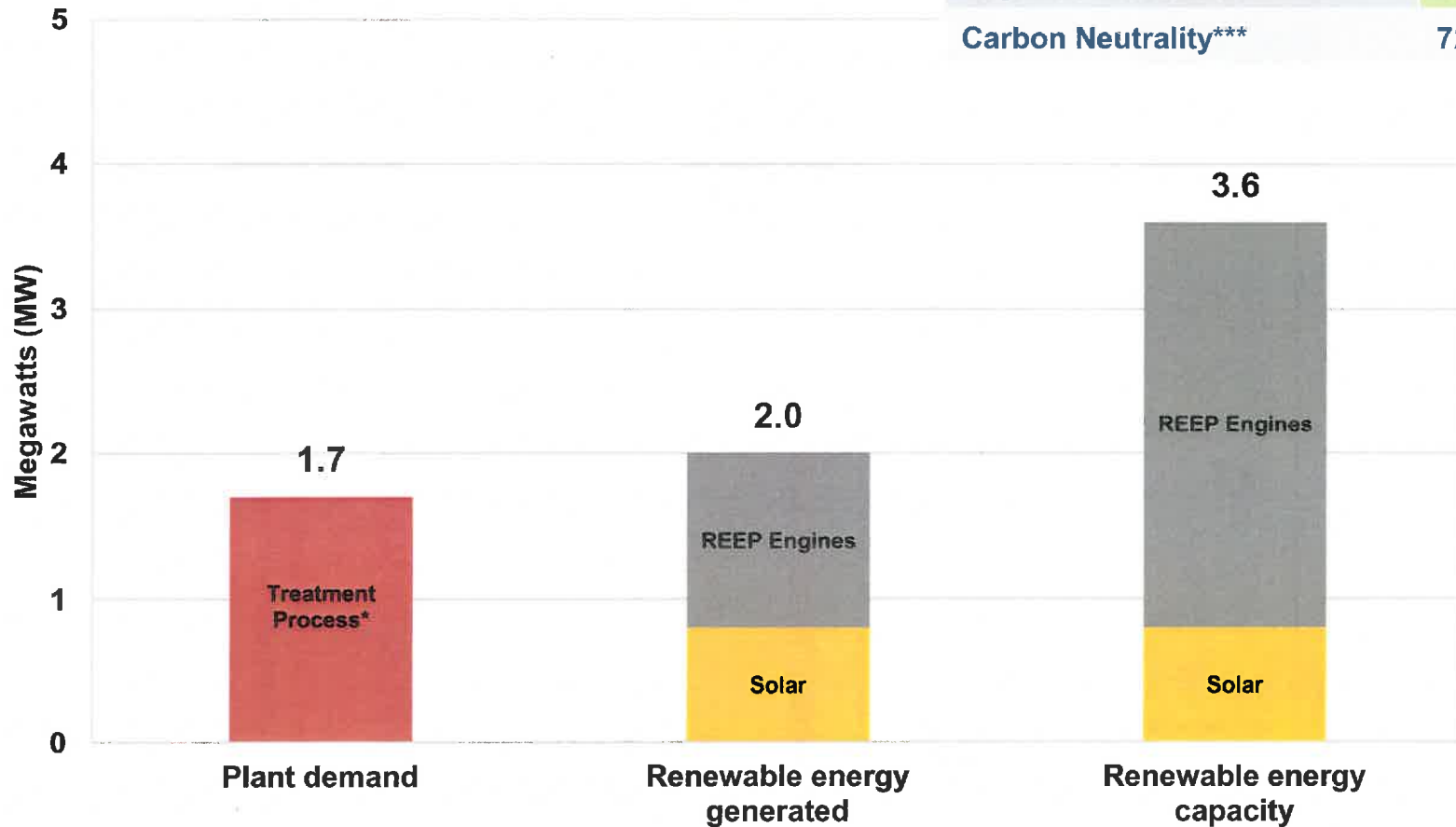


Existing Renewables & Resource Management @ RP-5



Regional Plant No. 5 (Current, 10 MGD)

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



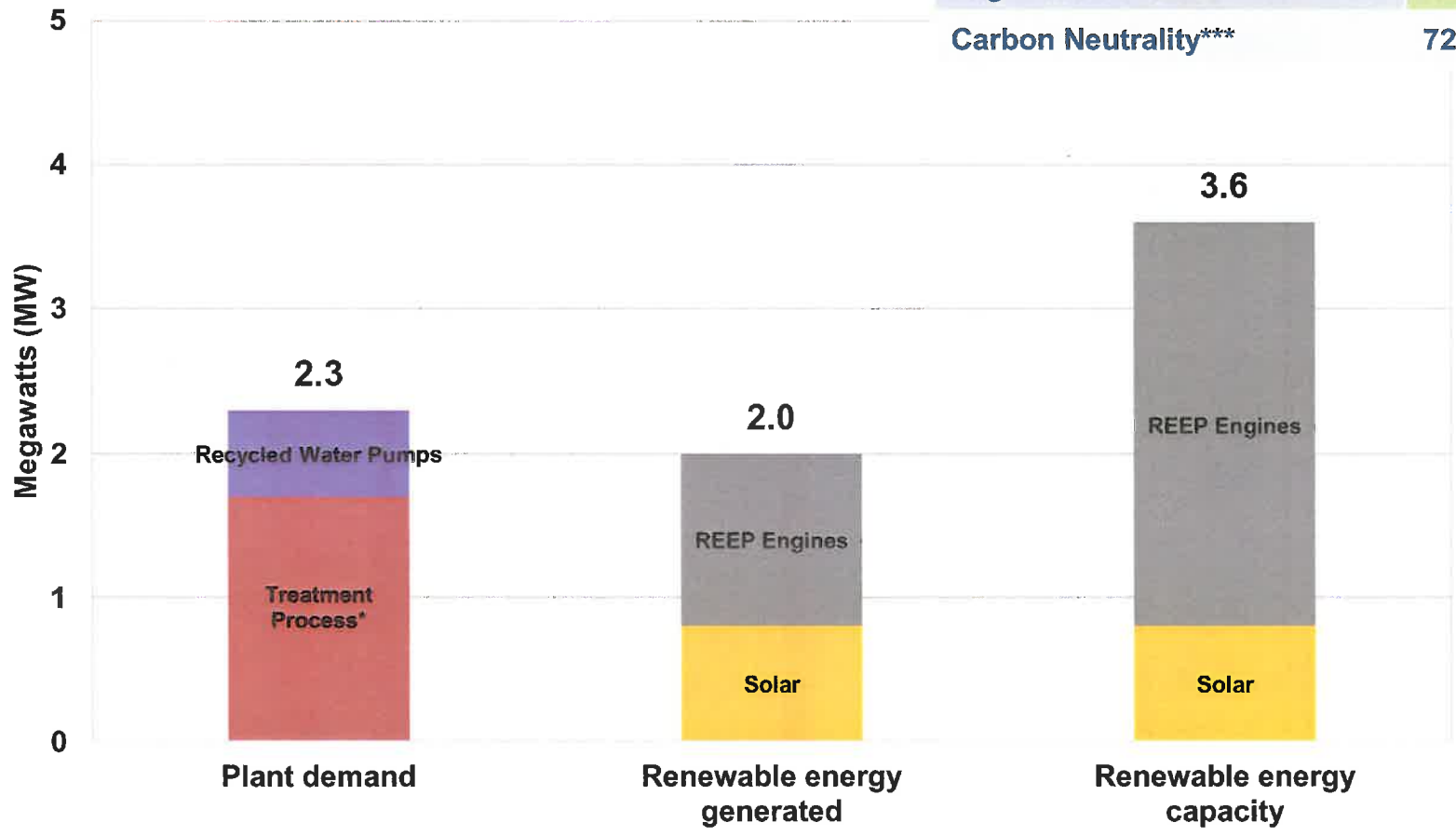
* Includes RP-2 and RP-5 Campus

**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%



* 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

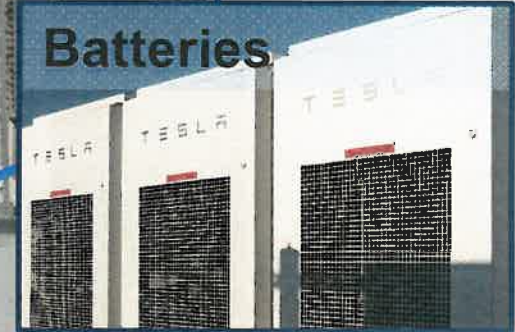
Solar Carport*



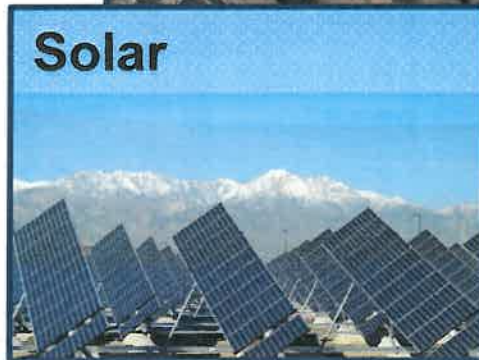
Engines



Batteries

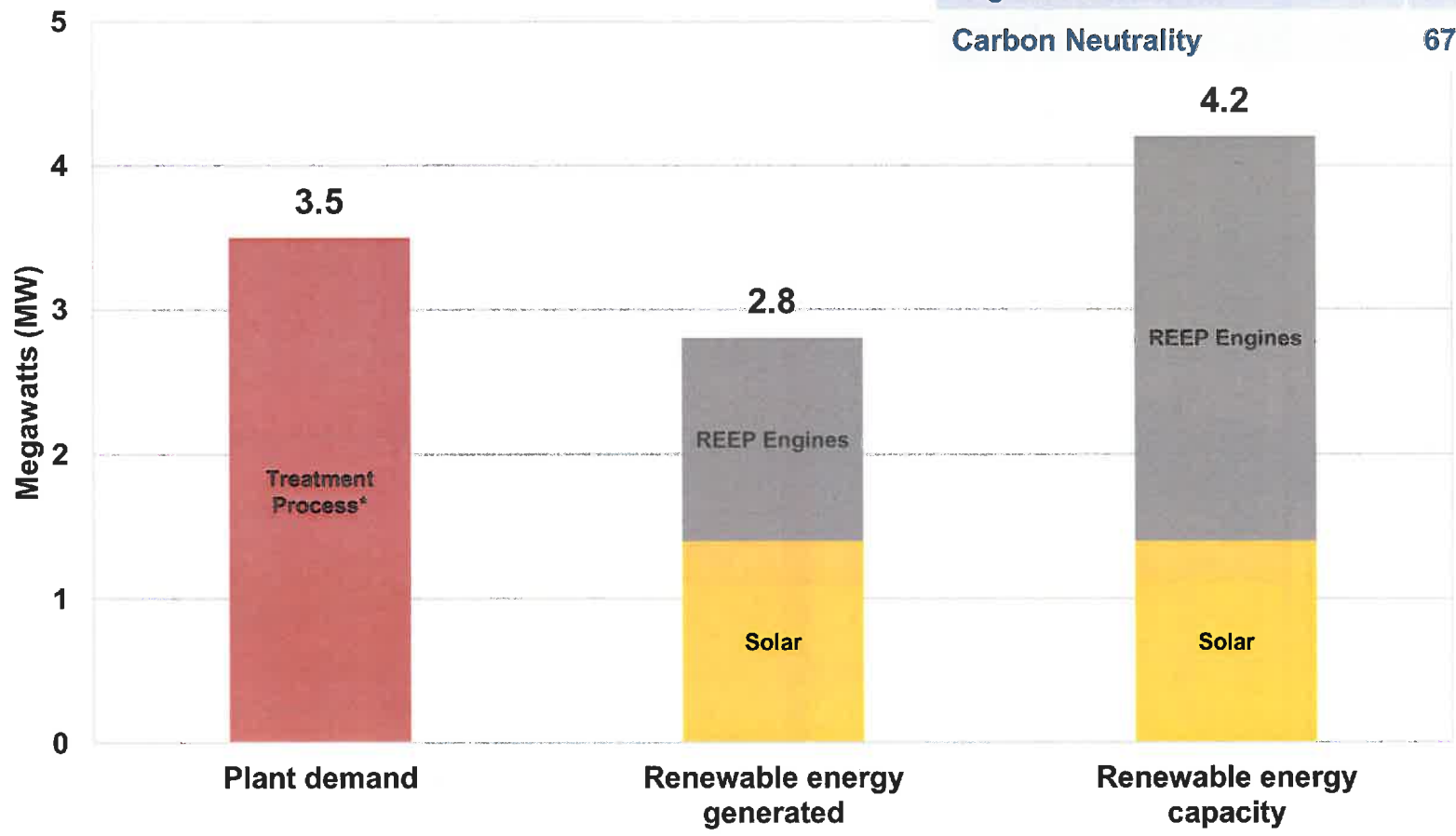


Solar



RP-5 Biosolids Only (2025, 16 MGD)

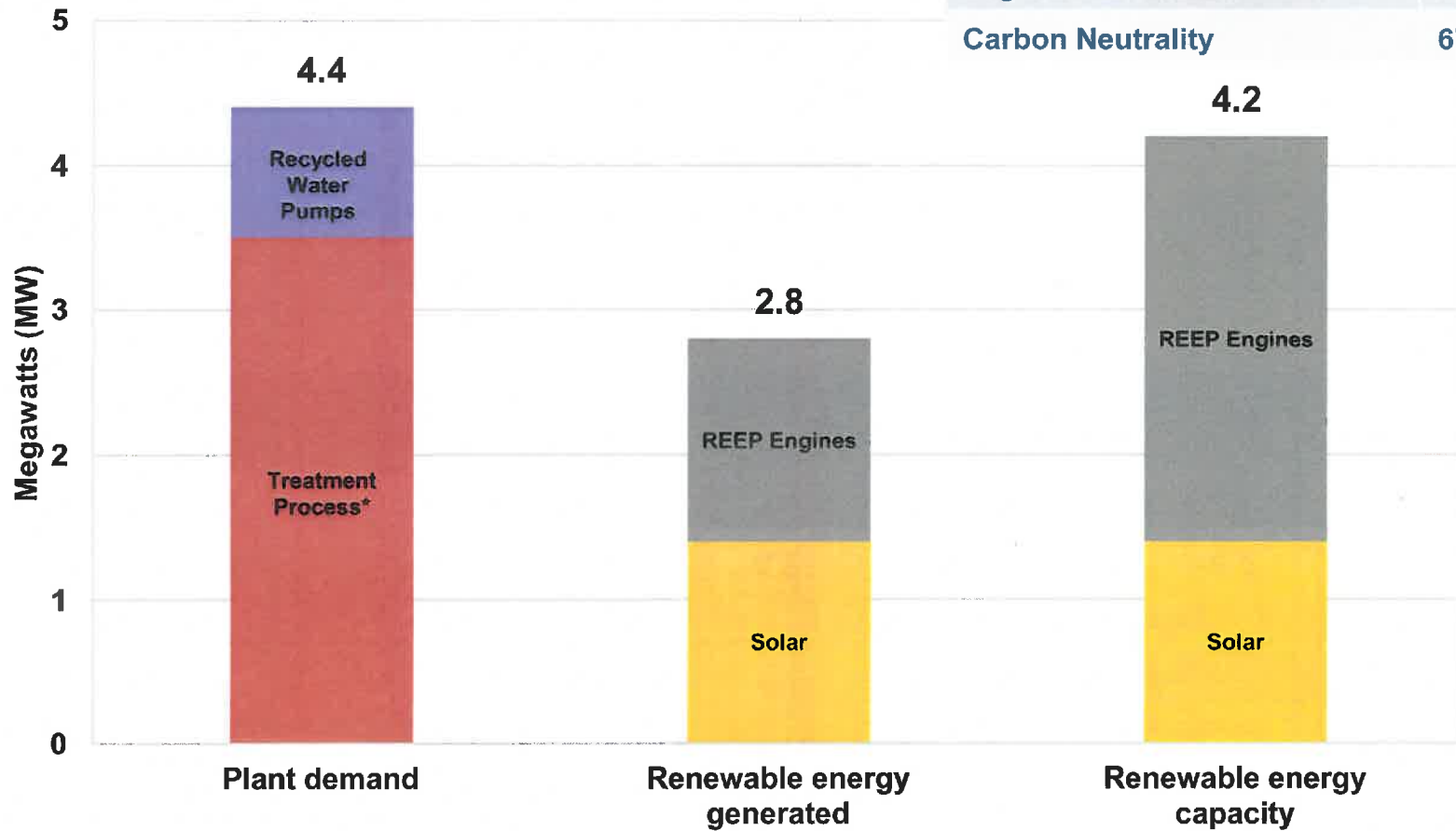
Goals	
Peak Power Independence	No
Grid Interdependence	Yes
Organics Diversion	No
Carbon Neutrality	67%



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

RP-5 Biosolids Only (2025, 16 MGD)

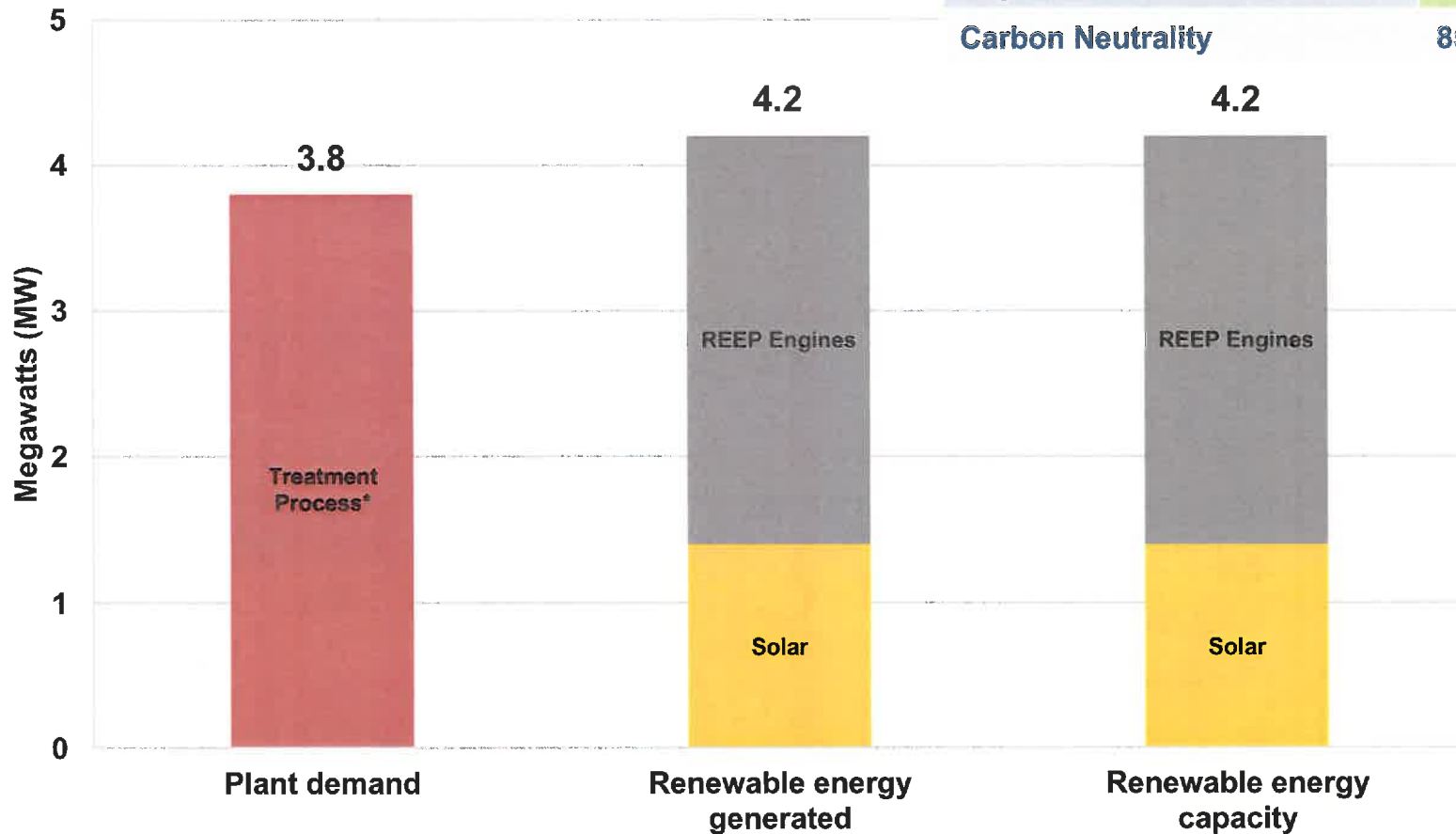
Goals	
Peak Power Independence	No
Grid Interdependence	Yes
Organics Diversion	No
Carbon Neutrality	67%



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

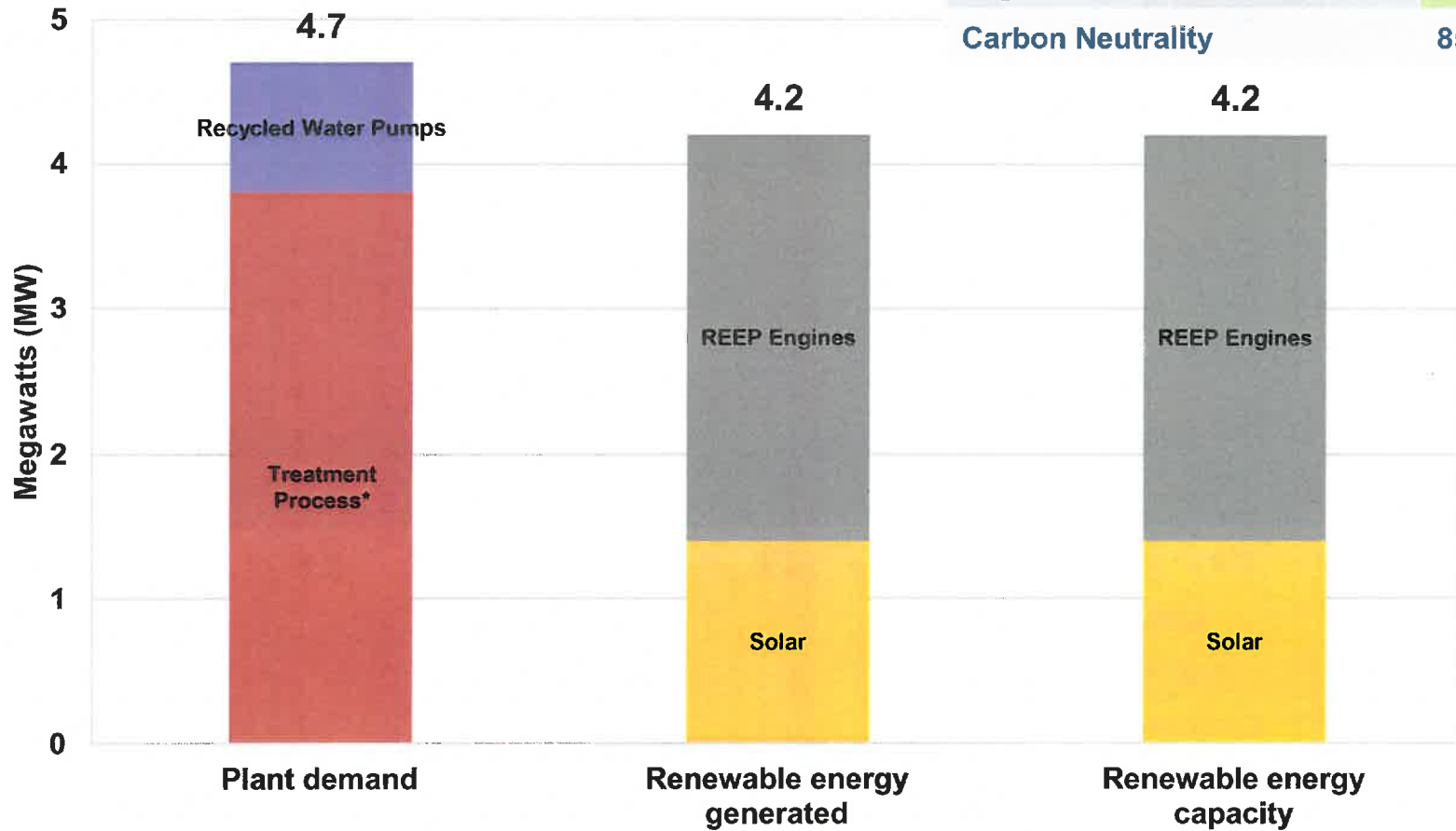
RP-5 Biosolids and Food Waste (2025, 16 MGD)

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



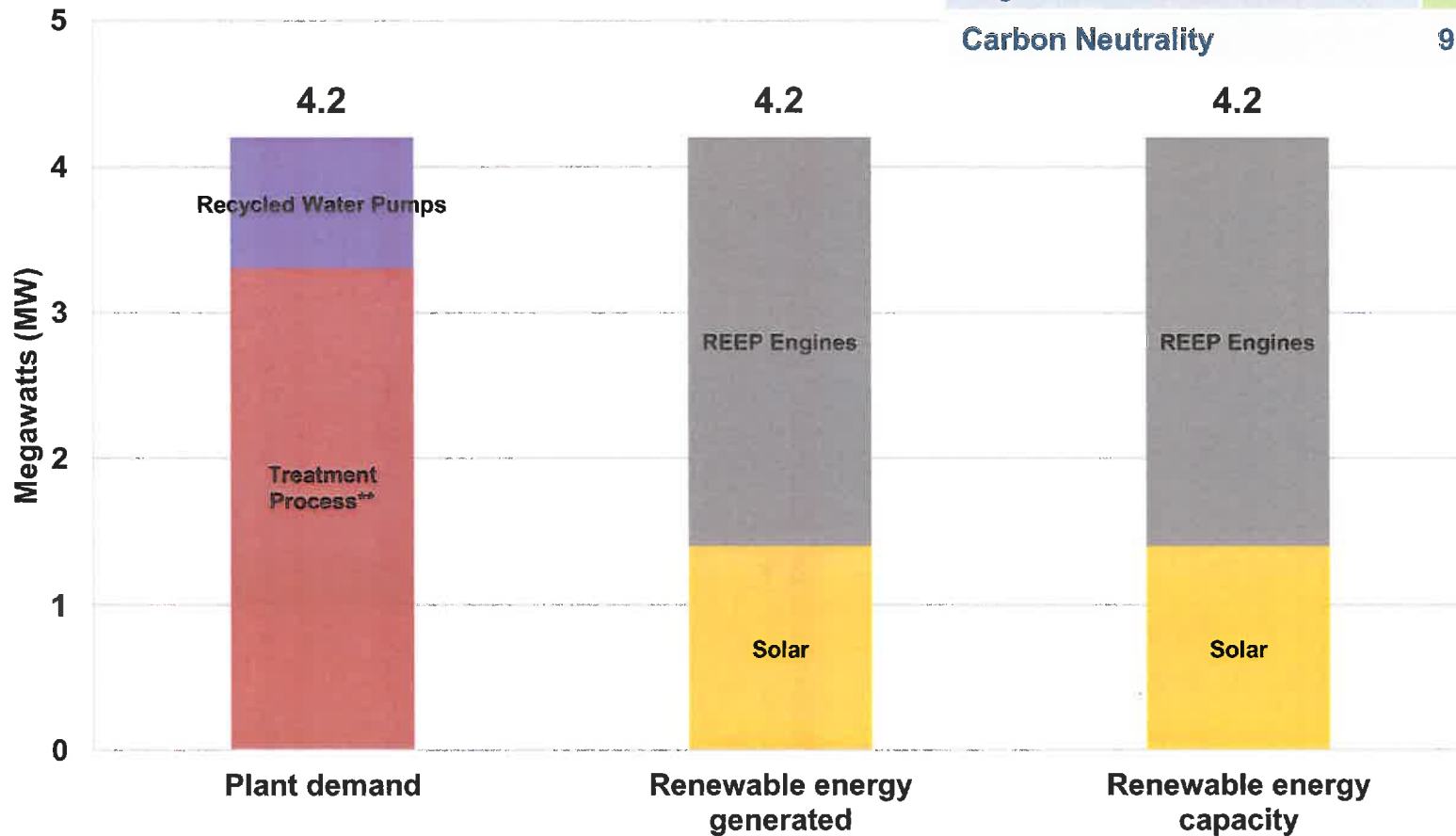
RP-5 Biosolids and Food Waste (2025, 16 MGD)

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



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

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



*Energy efficiency potentially achieved through potential treatment process optimization

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

Next Step

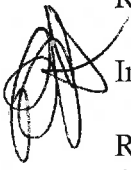
- Energy Management Plan Update #2
 - June 2017

**INFORMATION
ITEM**

2C

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.

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

Major Wastewater Projects	15 Year Forecast								Funding Source	
	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	v	
RP-5 Solids Treatment Expansion								\$ 164	v	v
Water Quality Laboratory								\$ 15	v	v
RP-1 Liquids Treatment Capacity Recovery								\$ 182	v	v
RP-1 Solids Treatment Expansion								\$ 48		v
RP-1 Advanced Water Treatment Facility								\$ 80		v
Subtotal	\$ 16	\$ 11	\$ 66	\$ 152	\$ 103	\$ 64	\$ 252	\$ 664	≈ \$314	≈ \$350

Total 15 Year Total	\$ 1,198
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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 uninterrupted 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

Review of Proposed Biennial Budget for FYs 2017/18 and 2018/19 Regional Wastewater, Recycled Water, Recharge Water Funds and 2018 TYCIP

April 19, 2017

Page 5 of 26

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	

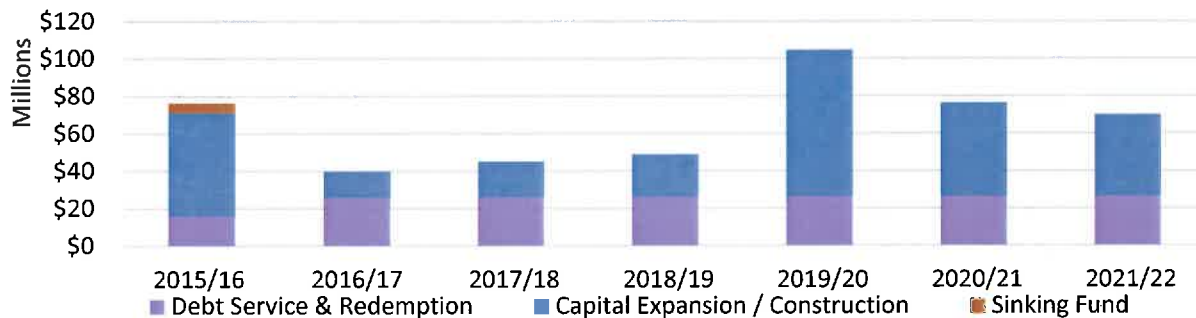
Table 7: Wastewater Capital Fund Major Capital Projects

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

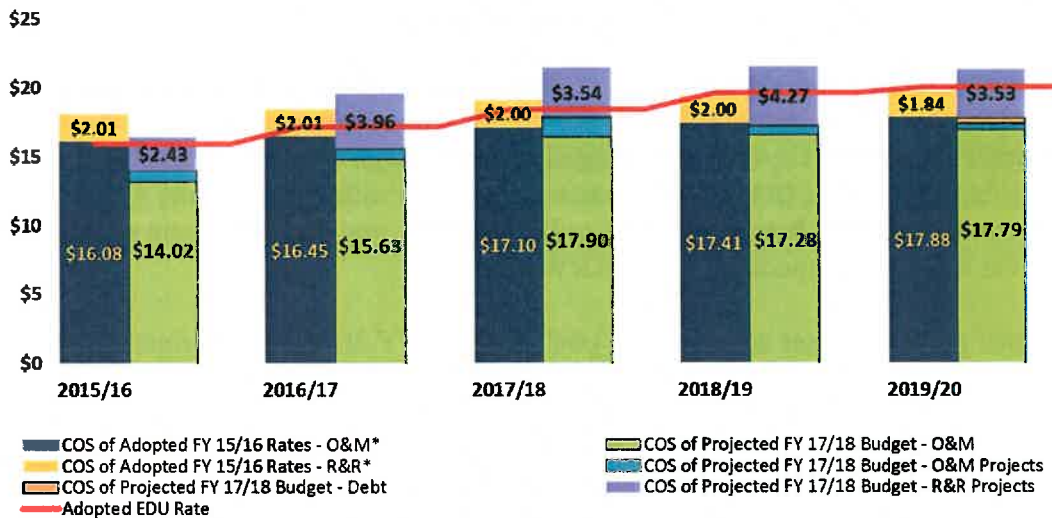
Major Projects (\$Millions)	FY 2017/18	FY 2018/19	FY 2019/20 to FY 2021/22	TYCIP Total
Water Quality Laboratory	\$11.3	\$4.0	\$0.0	\$15.3
SCADA Enterprise System	1.7	2.6	5.7	10.0
RP-4 Process Improvements	1.0	2.1	2.3	5.4
RP-1 Secondary System Rehabilitations	0.7	2.9	1.6	5.2
Digester 6 and 7 Roof Repairs	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.

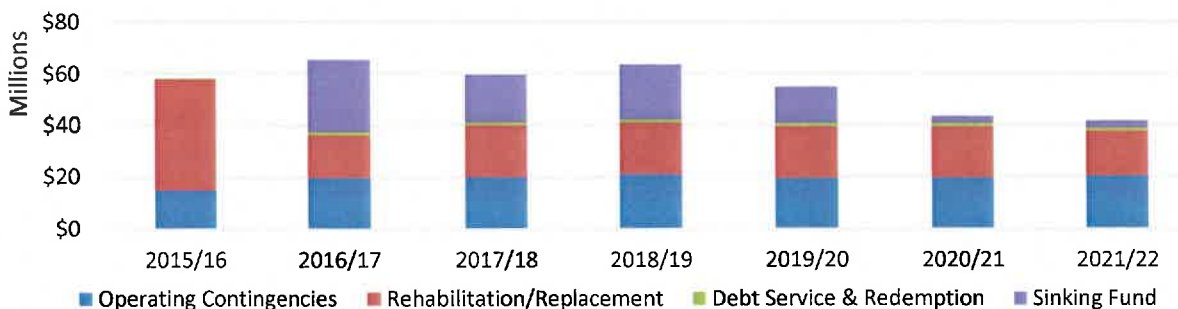
Figure 2: Monthly EDU Sewage Cost of Service



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.

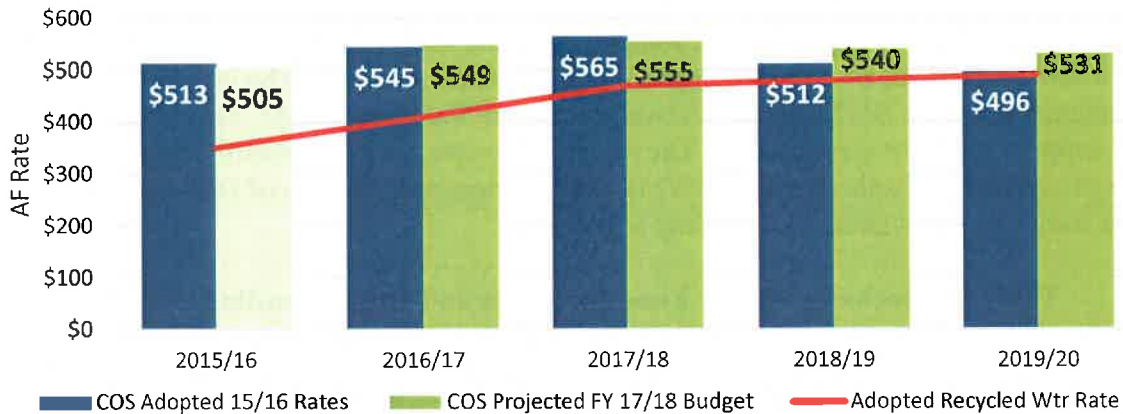
Table 13: Recycled Water Fund Major Capital Projects

Major Projects (\$Millions)	FY 2017/18	FY 2018/19	FY 2019/20 to FY 2021/22	TYCIP Total
San Sevaime 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

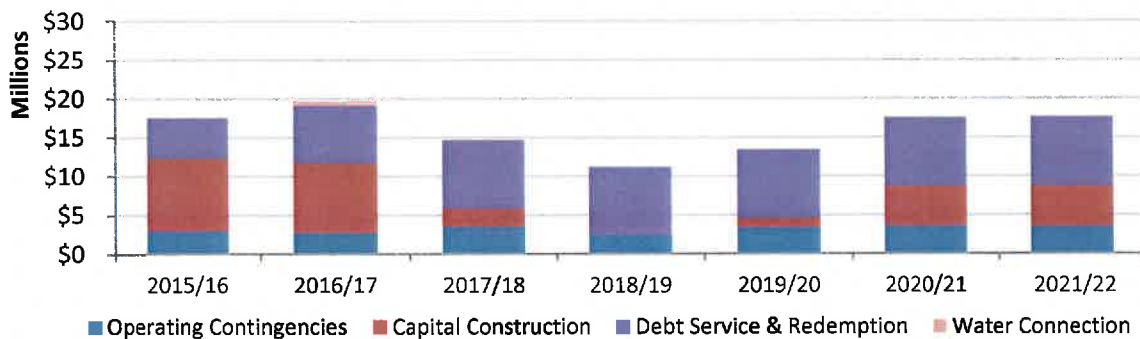
In May 2015, the Board adopted recycled water Acre Foot (AF) service rates for five years (FYs 2015/16 – 2019/20). See Appendix Table A5: Recycled Water Rates. The key objective of the multi-year rates was to establish a rate that fully recovered the cost of providing the service. Historically, the Metropolitan 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 joint 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

Review of Proposed Biennial Budget for FYs 2017/18 and 2018/19 Regional Wastewater,
 Recycled Water, Recharge Water Funds and 2018 TYCIP
 April 19, 2017
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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	2016/2017	2017/18	2018/19	2019/20	2020/21	2021/22
	ACTUAL	PROJECTED ACTUAL	PROPOSED BUDGET	PROPOSED BUDGET	FORECAST		
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 Managern	0	195	2,700	1,020	7,700	10,800	1,000
RO to RC -RP-5 Expansion Maintena	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 Laborator	(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

Review of Proposed Biennial Budget for FYs 2017/18 and 2018/19 Regional Wastewater, Recycled Water, Recharge Water Funds and 2018 TYCIP

April 19, 2017

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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

Review of Proposed Biennial Budget for FYs 2017/18 and 2018/19 Regional Wastewater,
 Recycled Water, Recharge Water Funds and 2018 TYCIP
 April 19, 2017
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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	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
	ACTUAL	PROJECTED ACTUAL	PROPOSED BUDGET	PROPOSED BUDGET	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 (OL)	(\$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

Review of Proposed Biennial Budget for FYs 2017/18 and 2018/19 Regional Wastewater,
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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	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
	ACTUAL	PROJECTED ACTUAL	PROPOSED BUDGET	PROPOSED BUDGET	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

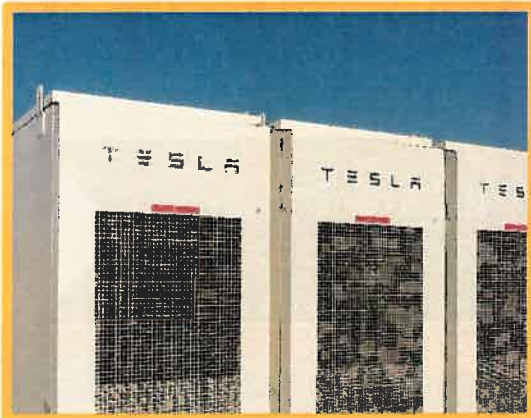
Appendix Table A7: Inter-Fund Loan Repayment Schedule

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



Projects Are Needed to Support

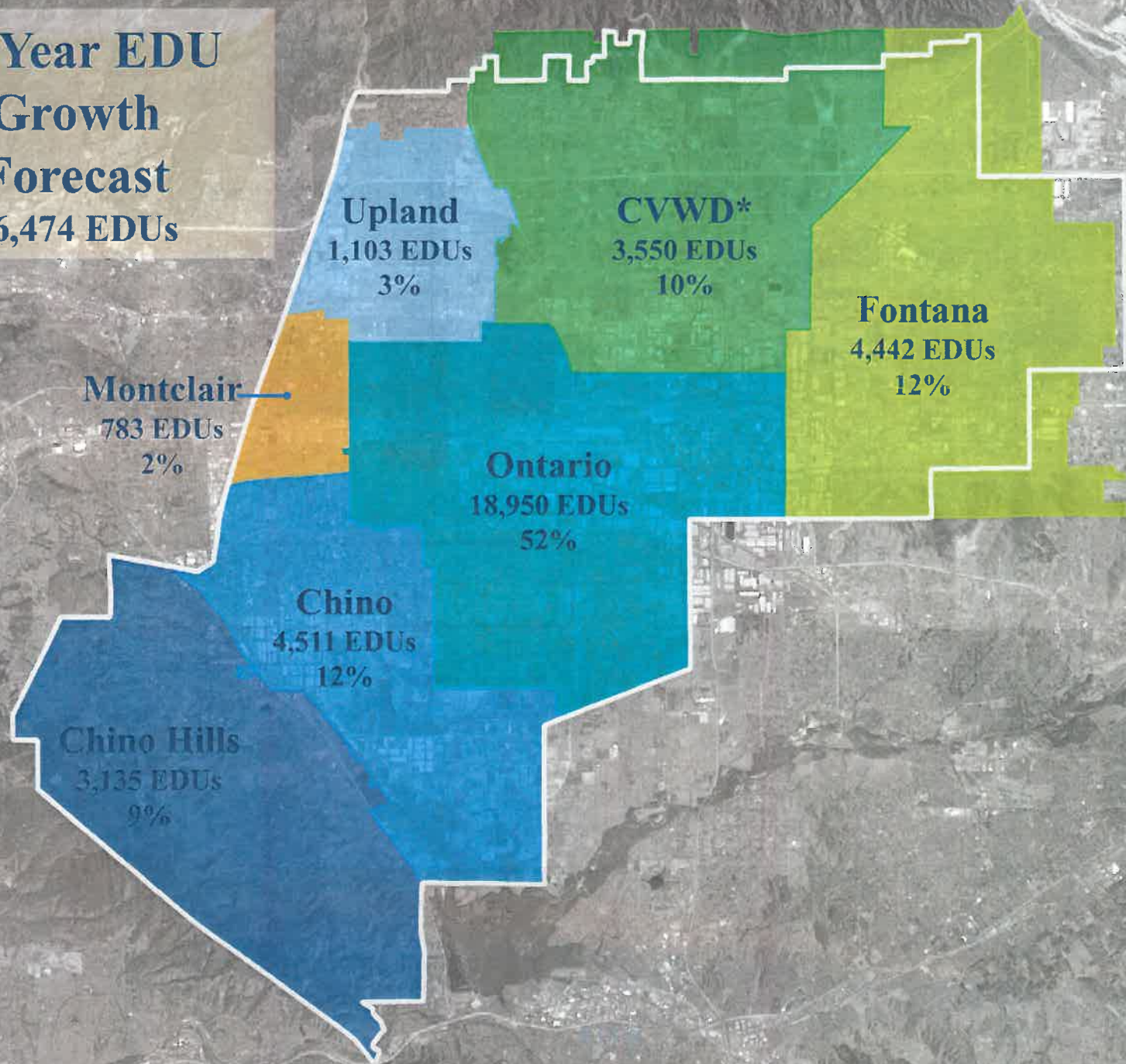
Expansion &
Improvement

Replacement &
Rehabilitation

Regulatory
Compliance

- 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



\$815 Million Planned Over 10 Years



Major Projects Over the Next 15 years

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

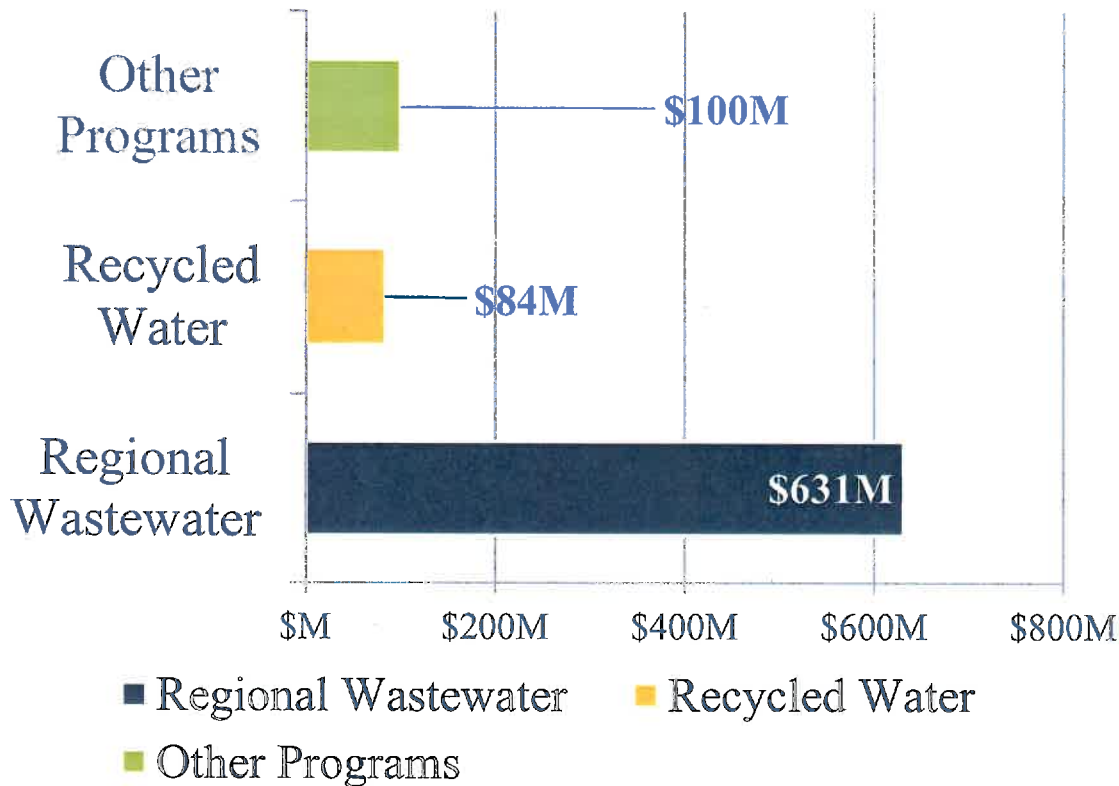
Major Wastewater Projects	15 Year Forecast								Funding Source	
	2018	2019	2020	2021	2022	FYs 2023-27	FYs 2028-32	Estimated Cost (\$million)	Capital	R&R
RP-5 Liquid Expansion to 30 mgd								\$ 174	√	
RP-5 Solids Treatment Expansion								\$ 164	√	√
Water Quality Laboratory								\$ 15	√	√
RP-1 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

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		

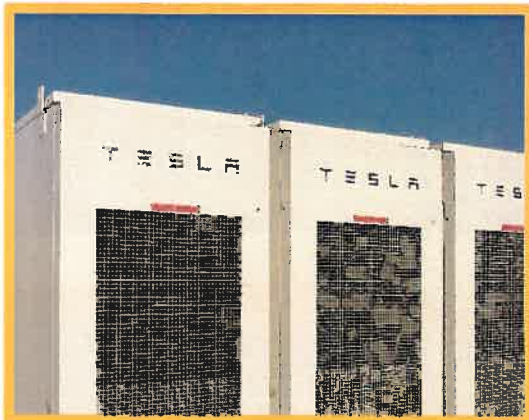
¹ Includes RP-1 Capacity Recovery Project (2023-2030)

² Per WWFMP 2015

Fiscal Years 2017/18 – 2018/19

Biennial Budget Overview

Wastewater, Recycled Water and Recharge Water Programs



Wastewater & Recycled Water Programs

~70% of Total Proposed Budget

FY 2017/18 Operating and Capital Budget
\$230M

FY 2018/19 Operating and Capital Budget
\$247M

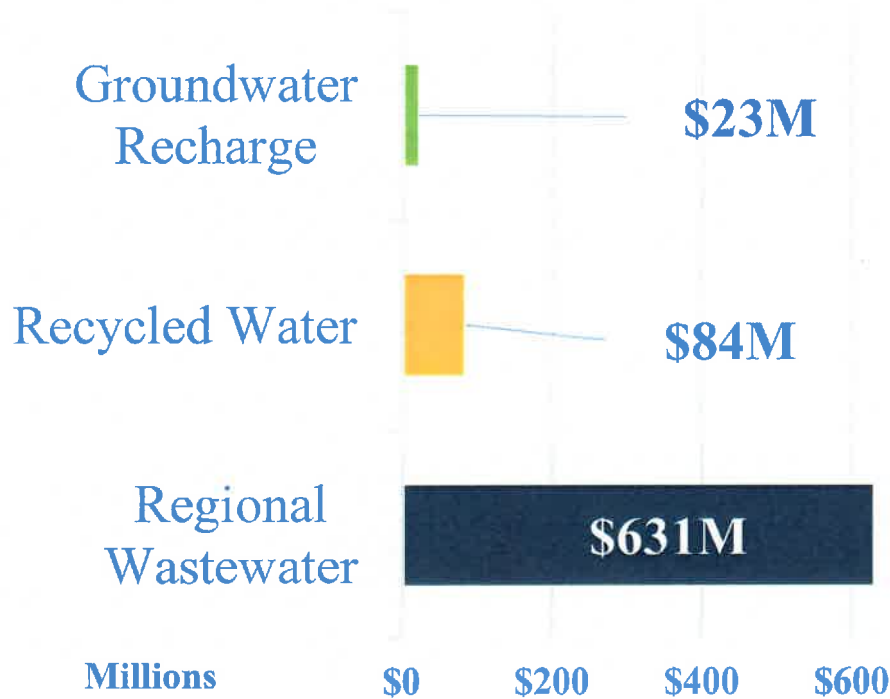


Focus over the next two years

- “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.

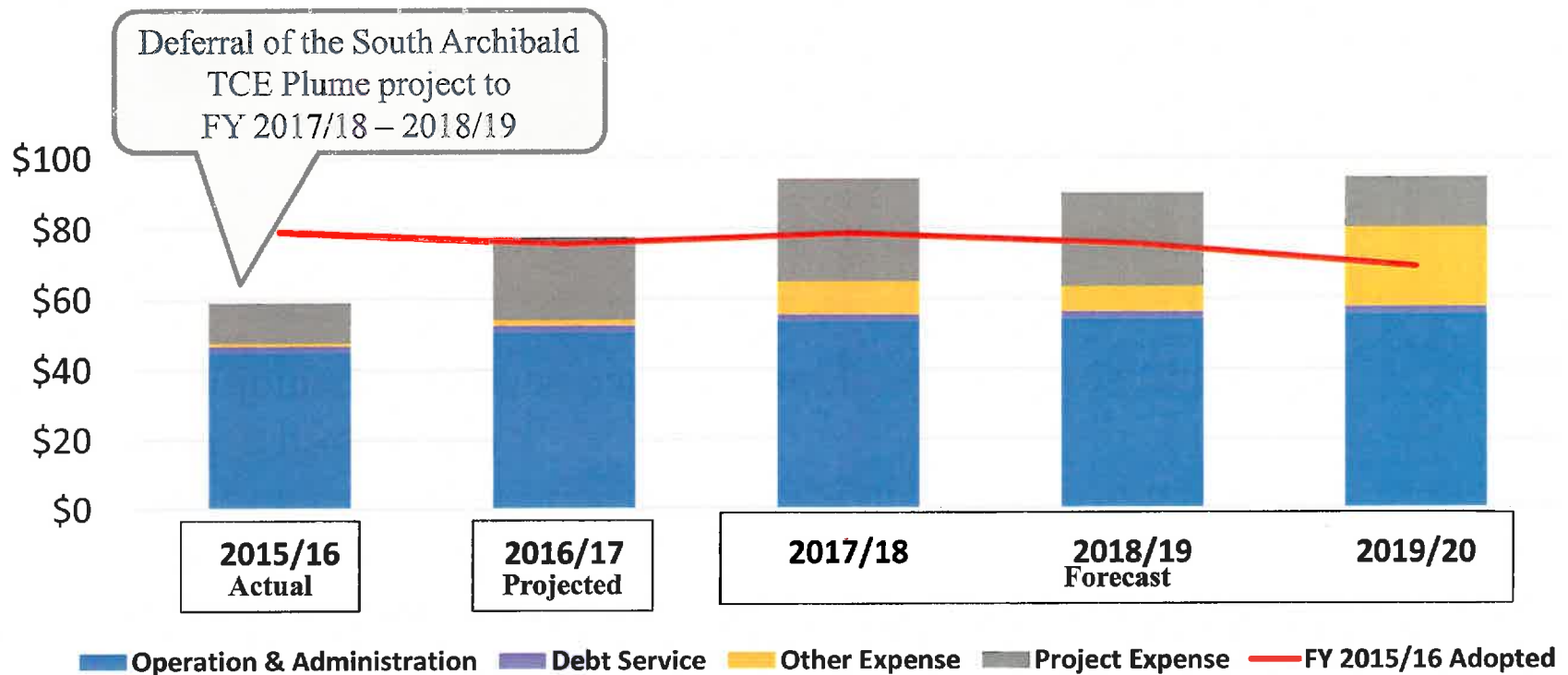
Contributions in support of Recharge Master Plan Update and Napa Lateral Pipeline projects.

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 <i>*Supervisory Control and Data Acquisition (SCADA)</i>	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

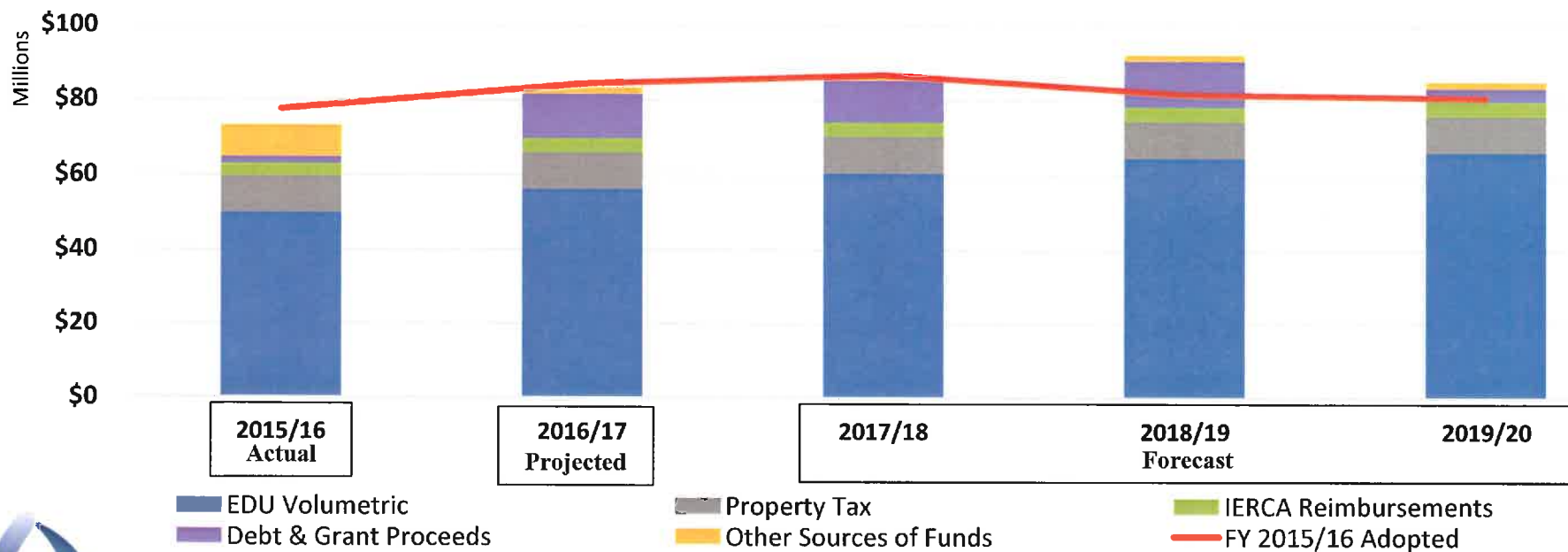
Wastewater Operations Fund Expenses and Other Uses of Funds



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.

Wastewater Operations Fund Revenues and Other Sources of Funds

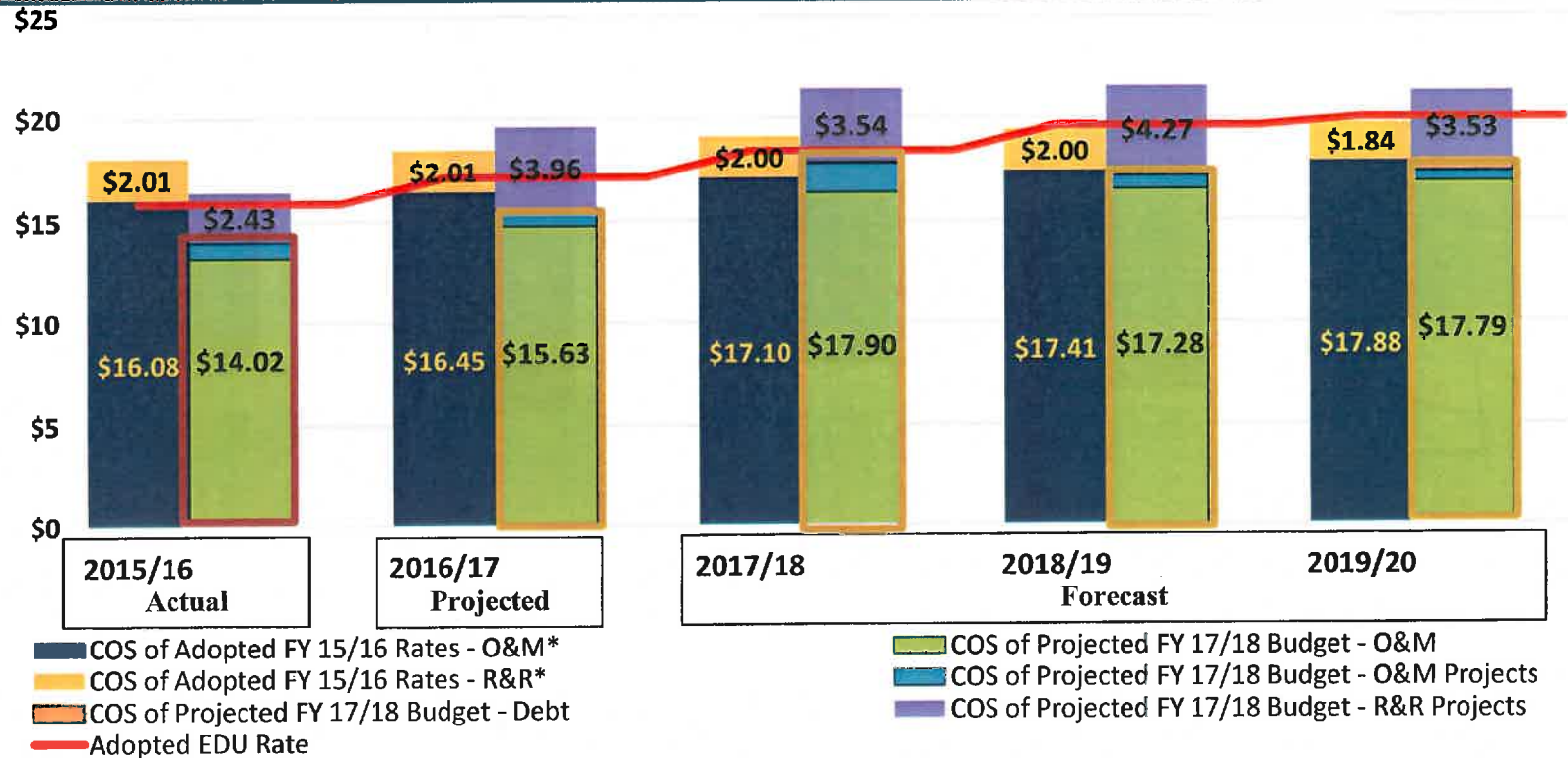
- Higher grants/contributions secured for the South Archibald TCE Plume Clean-Up project
- EDU volumetric revenue based on adopted multi-year rates



Wastewater Operations Fund Cost of Service/EDU

Adopted multiyear rates \$/EDU

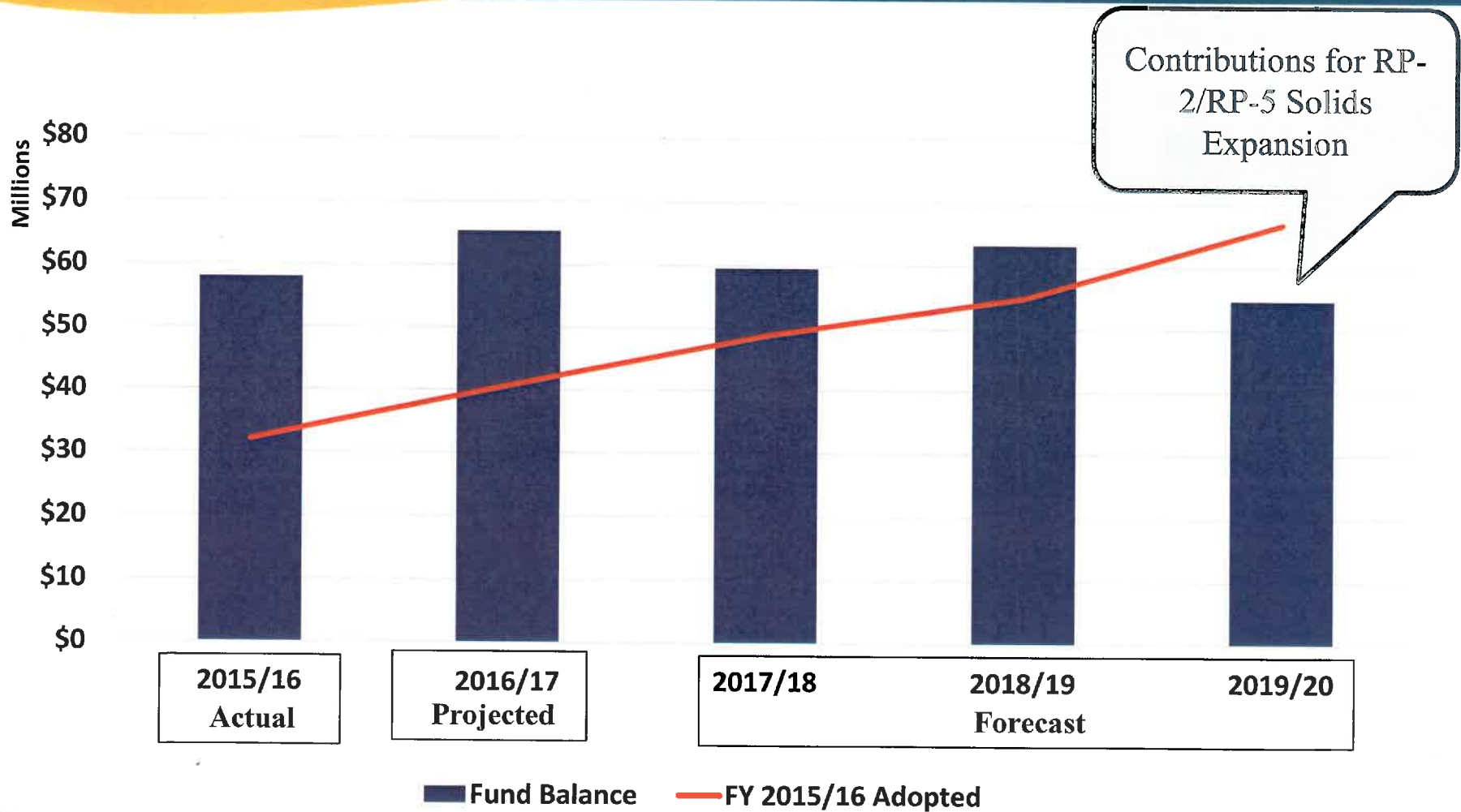
2015/16	2016/17	2017/18	2018/19	2019/20
\$15.89	\$17.17	\$18.39	\$19.59	\$20.00



*O&M: Operations and Maintenance

*R&R: Rehabilitation and Replacement. EDU: Equivalent Dwelling unit

Wastewater Operations Fund Fund Reserve



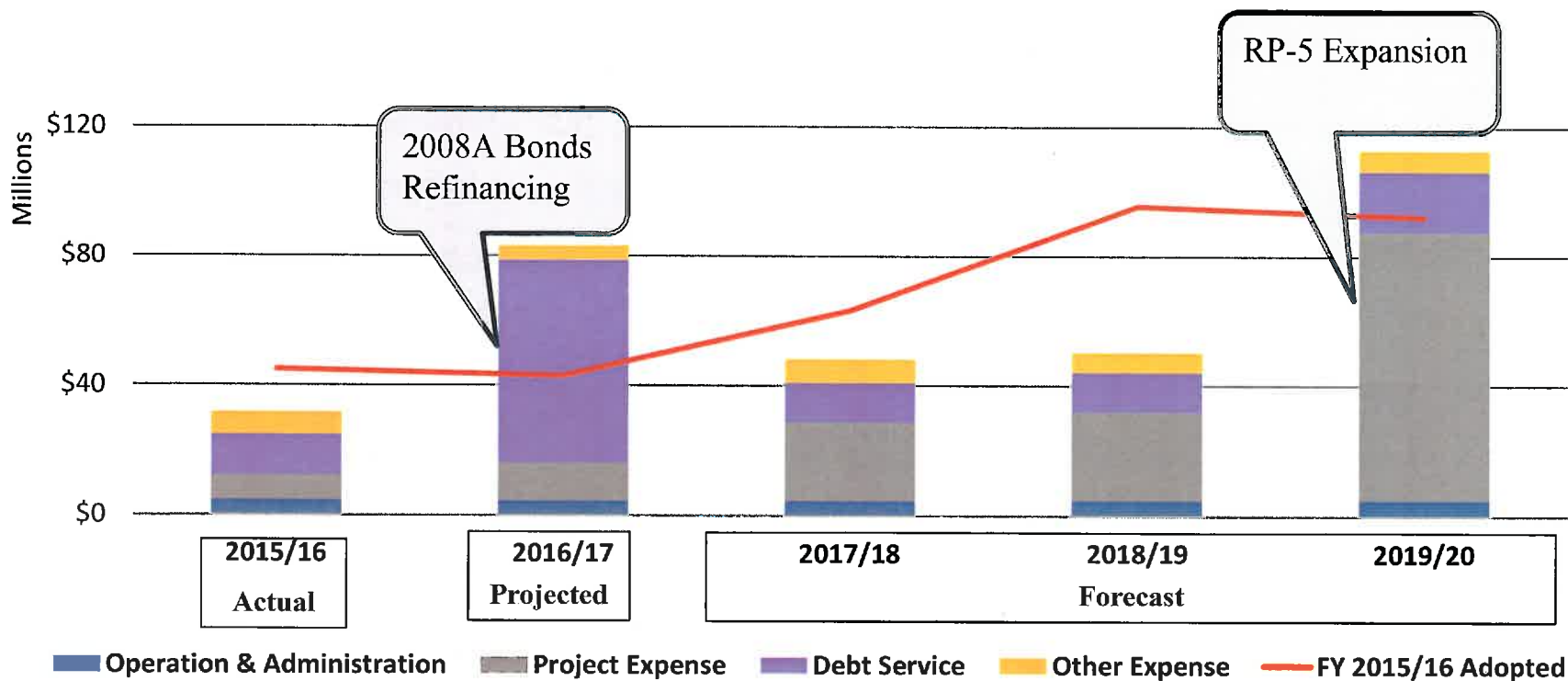
Wastewater Capital Fund

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

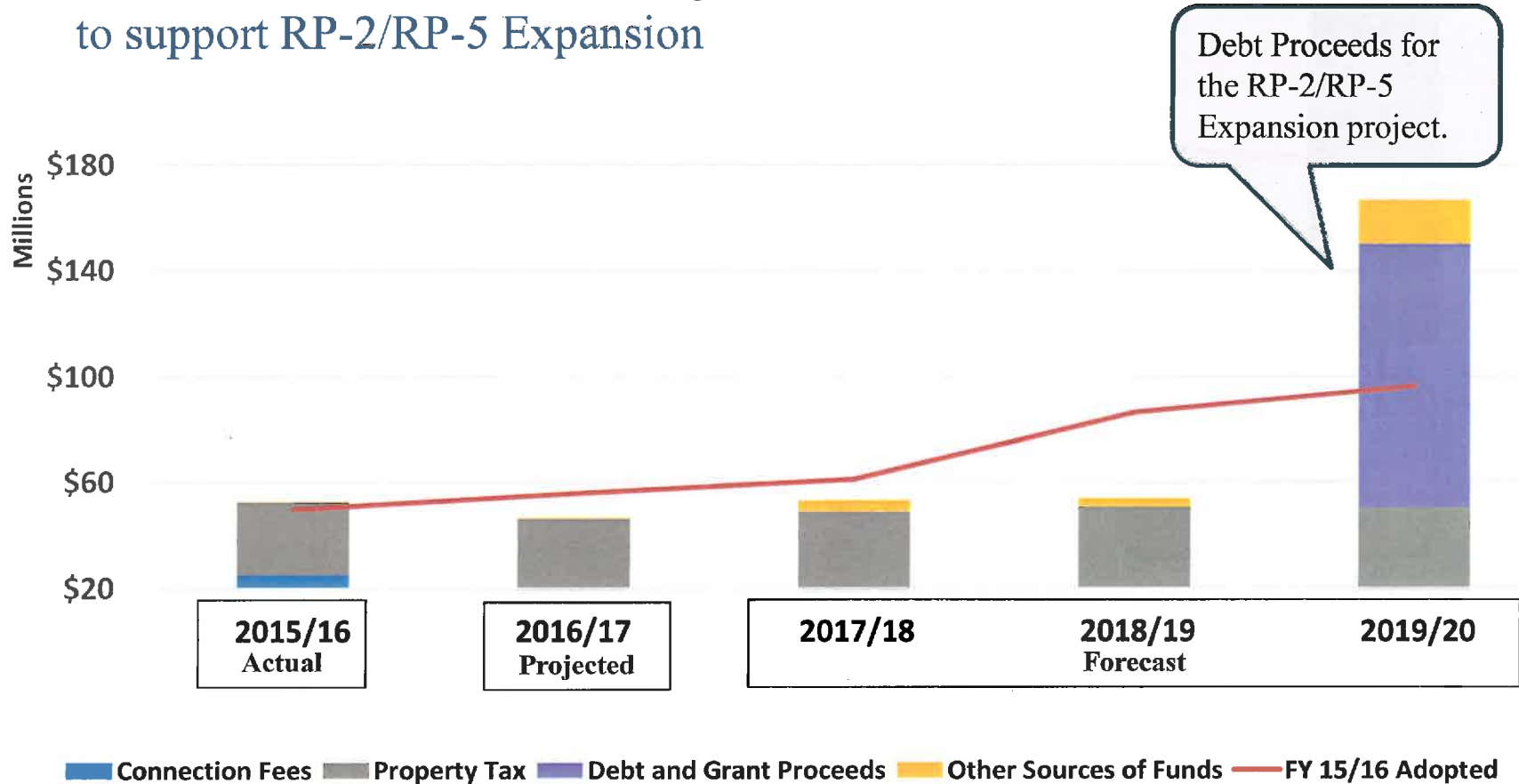
Wastewater Capital Fund Expense and Other Uses of Funds

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

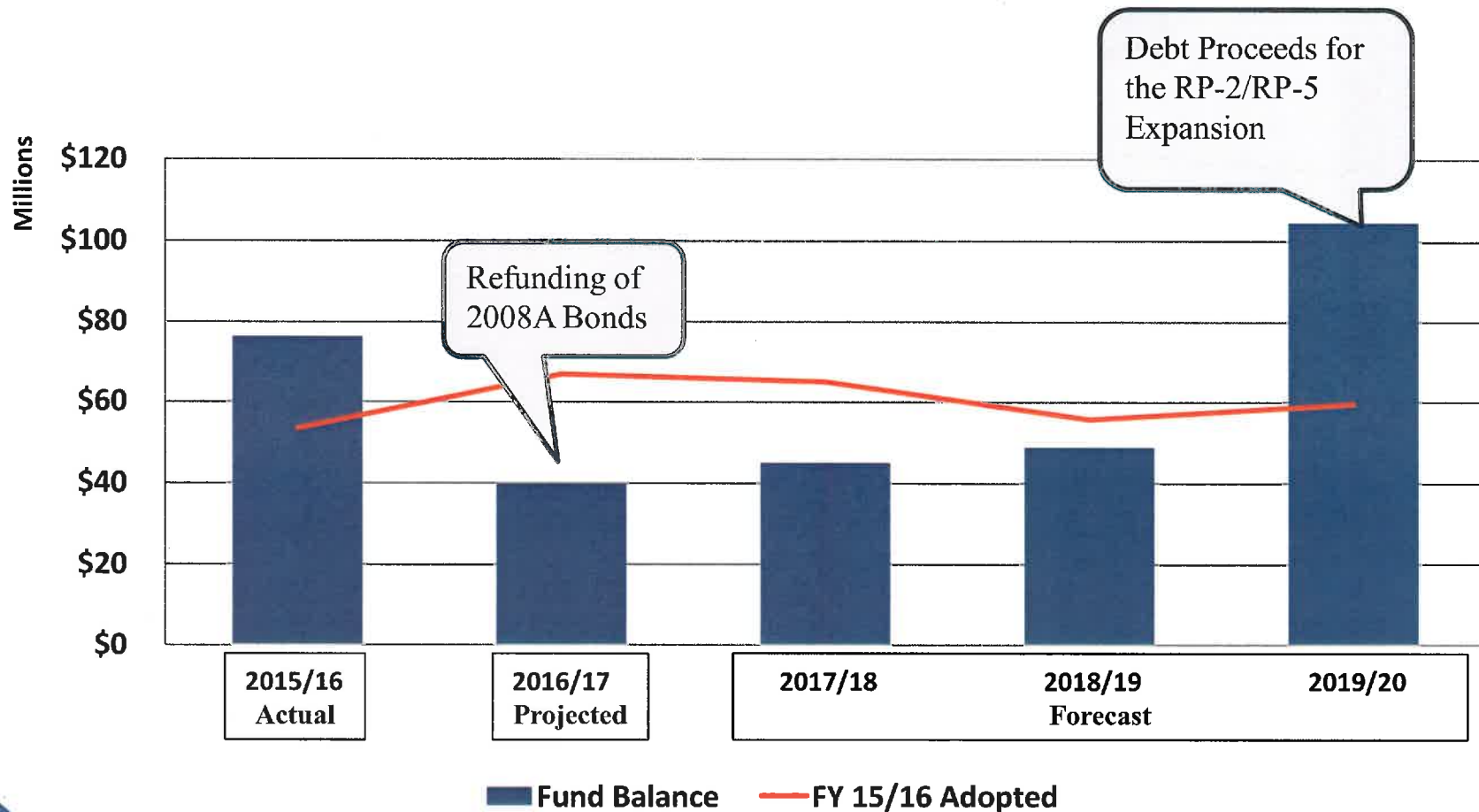


Wastewater Capital Fund Revenues and Other Sources of Funds

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



Wastewater Capital Fund Fund Reserve



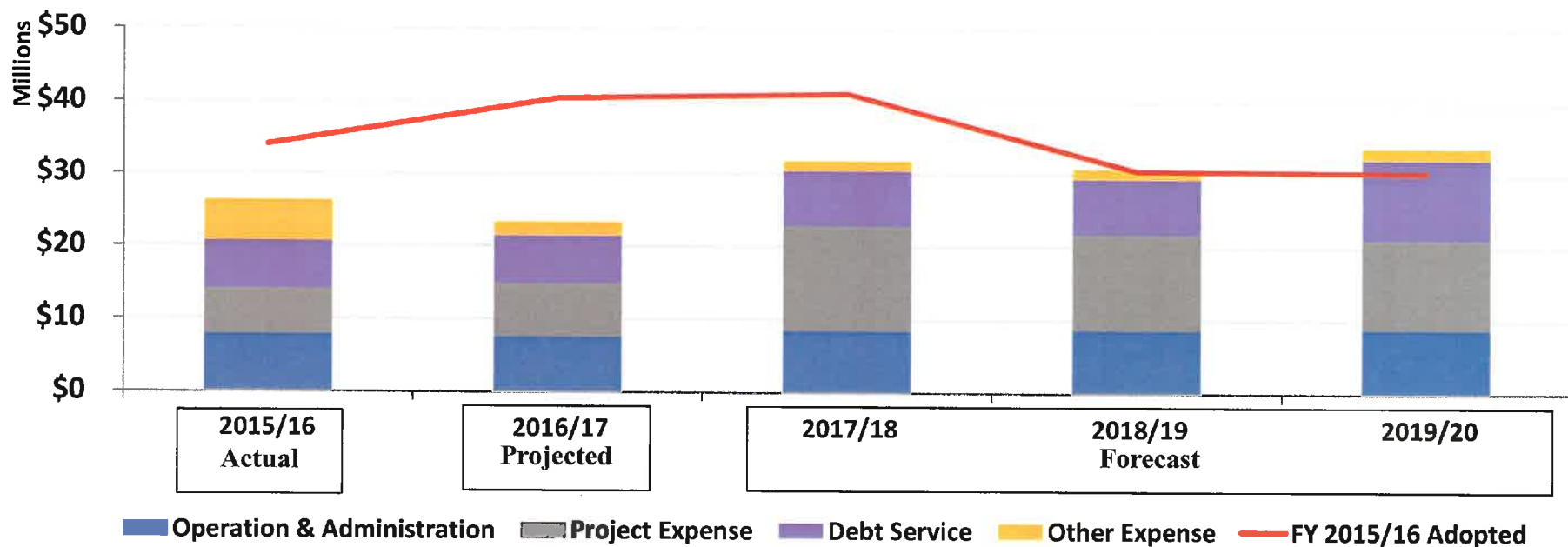
Recycled Water Fund Major Capital Projects

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.*

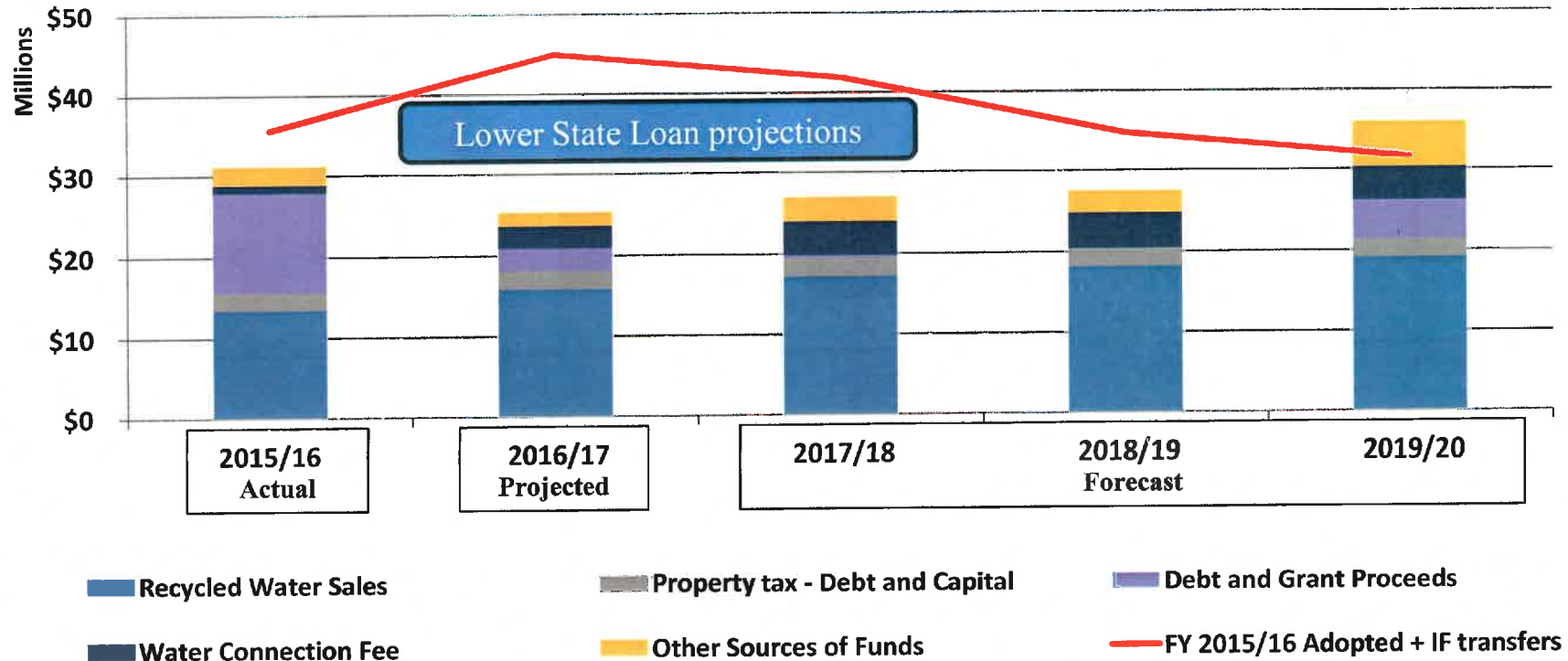
Recycled Water Fund Expense and Other Uses of Funds

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



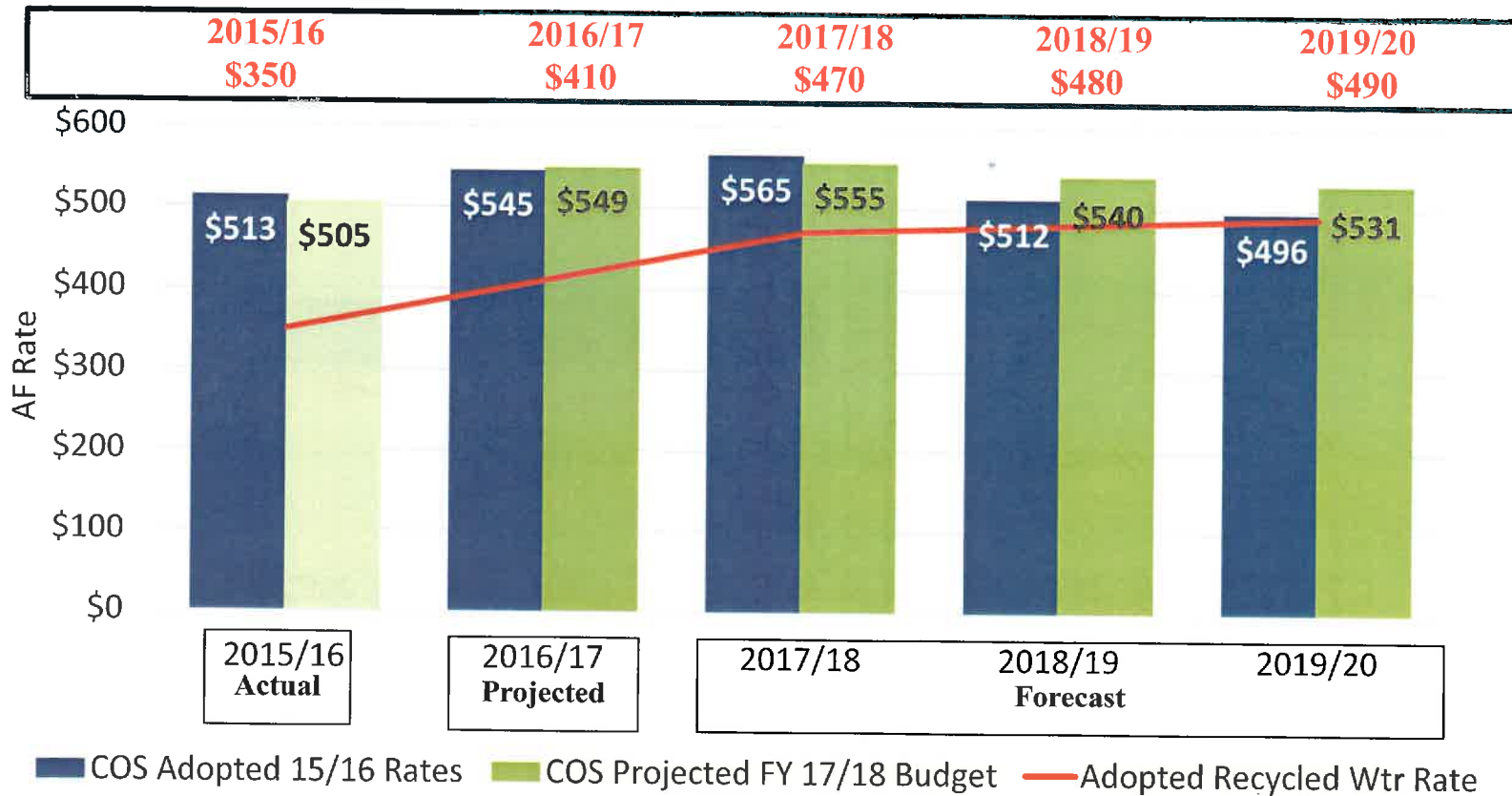
Recycled Water Fund Revenues and Other Sources of Funds

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



Recycled Water Fund Cost of Service/AF

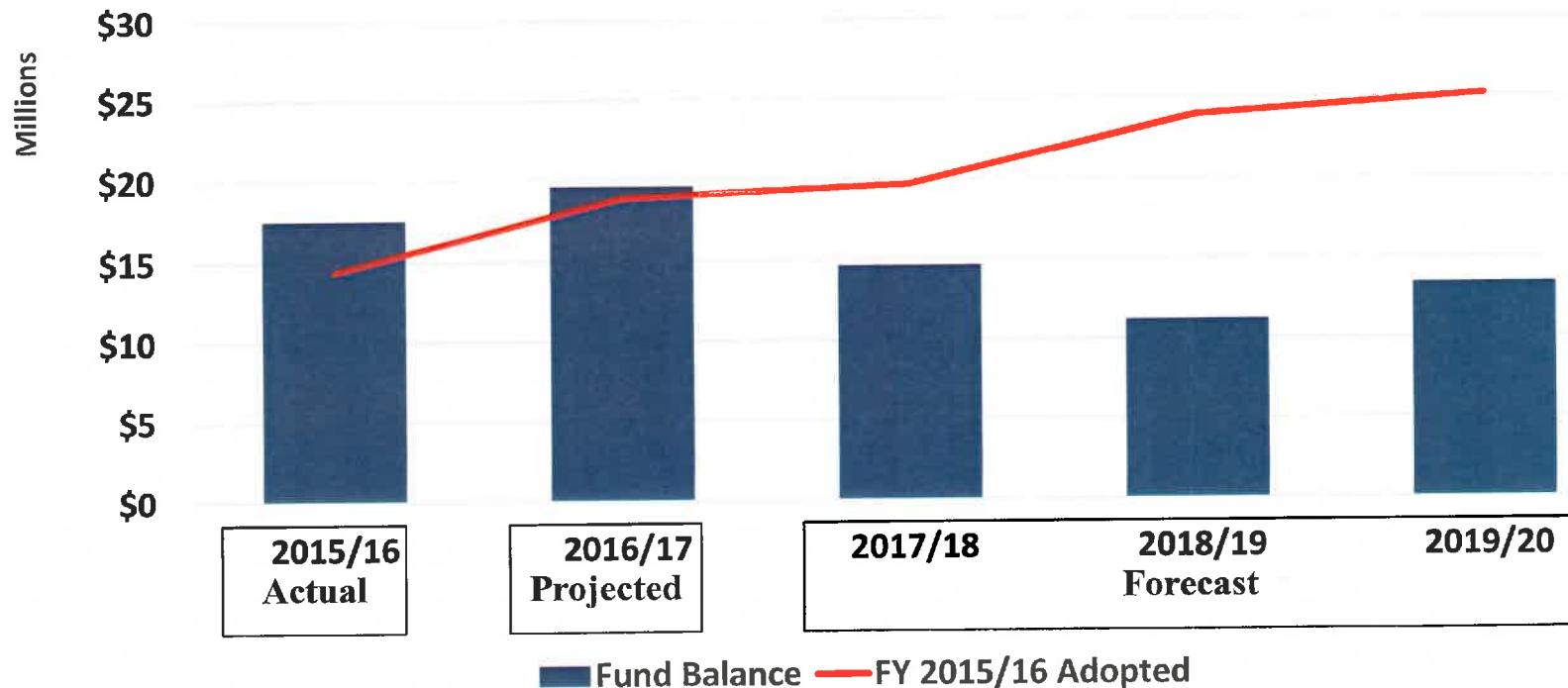
Adopted multiyear rates \$/Acre Feet (AF)



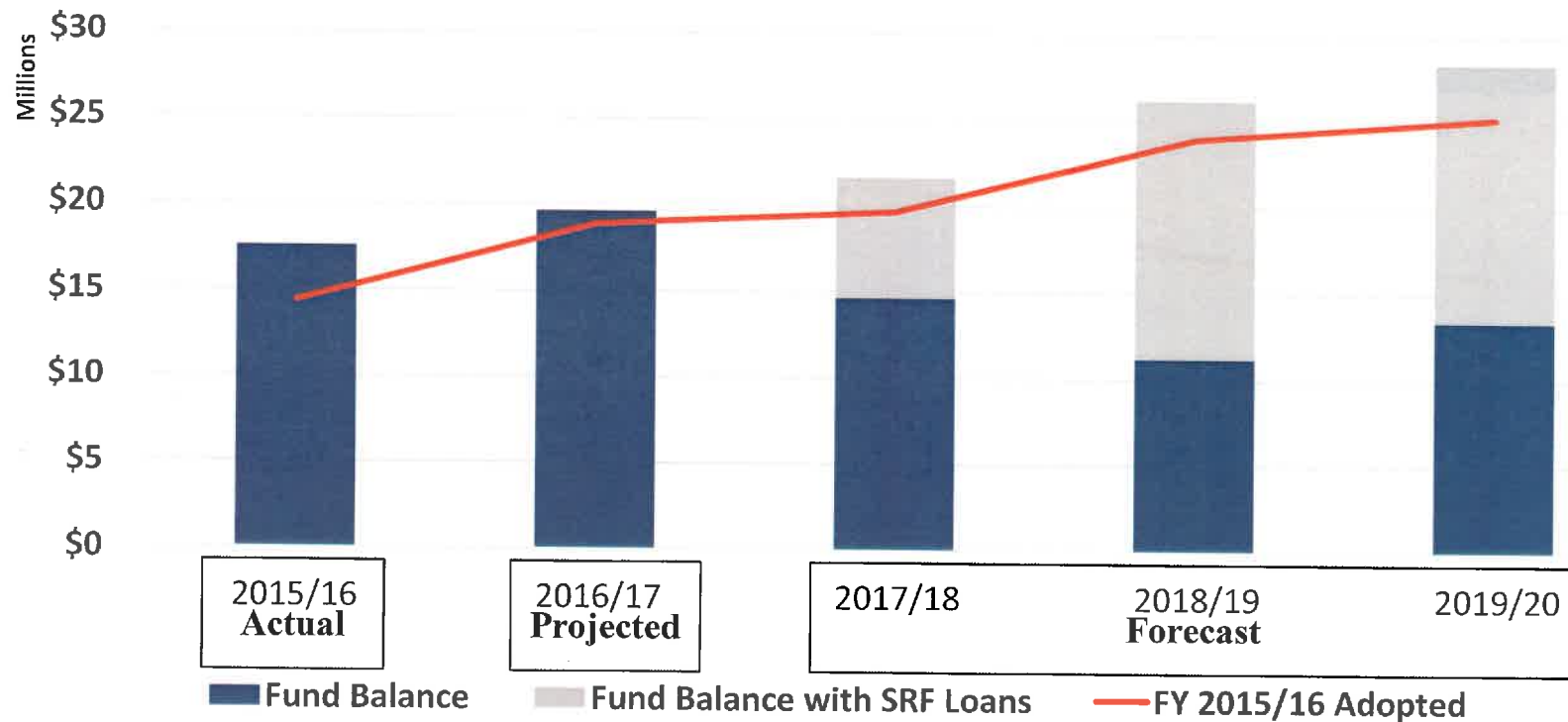
- *Higher recycled water deliveries assumed in 2015 forecasts*

Recycled Water Fund Fund Reserve

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



Recycled Water Fund Fund Reserve with SRF Loans



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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**REGIONAL SEWERAGE PROGRAM
PRETREATMENT SUBCOMMITTEE**

April 4, 2017
1:30 PM
IEUA HQ Building A, Rains Conference Room
6075 Kimball Avenue
Chino, CA 91710

Minutes

Members Present

Ruben Valdez..... City of Chino
Tony Mata..... City of Fontana
Nicole deMoet..... City of Montclair
Michael Birmelin..... City of Ontario
Robert Herbster..... City of Upland
Craig Proctor..... IEUA

Members Present - by Phone

Braden Yu..... CVWD

Absent

Andy Zummo..... City of Chino Hills

Others Present

Nancy Dacumos..... City of Fontana
Eric Stene..... City of Upland
Ken Tam..... IEUA

1. **Introductions**

Introductions of those present were given.

2. **Informational Items & Updates**

a. **Tech Meeting Report**

At the last Regional Technical Committee meeting held on March 30, the Committee provided IEUA staff with a draft copy of the Regional Sewage Service Contract term sheet. Committee members noted that this is a working draft and

should not be considered final. IEUA staff are reviewing the term sheet and will be preparing a response over the next few months. A PowerPoint on the septic to sewer fee study was presented. This study is evaluating the feasibility of converting areas within the service area from septic to sewer service. An overview of the IEUA budget workshop was also presented.

b. Treatment Plants

RP-1/RP-4:

- RP-1/RP-4 met all the NPDES requirements during the months of December 2016 and January 2017.
- On February 14, 2017, RP-1 chlorinated effluent was discharged at Discharge Point 002 for a duration of 12 minutes, resulting in approximately 137,500 gallons of disinfected tertiary recycled water entering the Cucamonga Creek Flood Control Channel. The discharge was caused by several power interruptions that resulted in the sodium bisulfite pumps shutting down.

RP-5:

- RP-5 met all the NPDES requirements during the months of December 2016 through February 2017.

CCWRF:

- CCWRF met all the NPDES requirements during the months of December 2016 and January 2017.
- During February 2017, four effluent grab samples were collected for trihalomethanes (THMs) analysis at CCWRF's effluent monitoring location, M-004. The analyses resulted in a monthly average of 62 µg/L for Chlorodibromomethane, which exceeded the average monthly limit of 34 µg/L. Additionally two samples collected on 2/23/17 and 2/24/17 resulted in 94 µg/L and 71 µg/L, respectively. Both values exceed the maximum daily limit of 68 µg/L for Chlorodibromomethane. IEUA staff is conducting an extensive source control investigation to determine the source of the bromide, which is a precursor for THM formation.

Agency-wide:

- The Agency-Wide 12-month running average TDS for the months of December 2016, January 2017, and February 2017 were 504, 504 and 506 mg/L, respectively, which did not exceed the 550 mg/L Agency-wide 12-month running average limit.
- The Agency-wide 12-month running average incremental increase between secondary effluent and water supply TDS for the months of December 2016,

January 2017, and February 2017 were 227, 226 and 216 mg/L, respectively, which did not exceed the 250 mg/L Agency-wide 12-month running average limit.

Collections System:

- No SSOs occurred during the months of December 2016 through February 2017.

Recycled Water:

- No unauthorized discharges of more than 50,000 gallons of disinfected tertiary recycled water into the waters of the state occurred during the months of December 2016 through February 2017.
- No agricultural runoff events were reported to IEUA by member agencies during the months of December 2016 through February 2017.

c. Pretreatment Programs

American Beef Packers in the City of Chino, was issued a Notice of Non-Compliance for a non-storm water discharge in February. Results of industries investigation found that an unauthorized operator inadvertently switched on a flocculant pump which caused excessive foaming and the subsequent spill. To prevent a recurrence, the unauthorized employee was reprimanded and instructed to not touch the pretreatment system. As this appears to be an isolated incident, no further enforcement action was necessary.

Aquamar, Inc. in the City of Rancho Cucamonga was issued a Notice of Violation and Order for Corrective Action for exceeding the permitted local limit for TDS, fixed in January. Results of industries investigation pointed to low flow conditions as a possible cause. Resampling was conducted for TDS, fixed and results indicated compliance. No further enforcement action was necessary.

Envision Plastics in the City of Chino was issued a Notice of Non-Compliance for exceeding the permitted maximum daily discharge limit for flow in December. Results of industries investigation found that an excessive amount of rainwater was inadvertently pumped into their process water. As a corrective action industry installed a "high level" alarm on the flow meter totalizer to warn operators when flows reach maximum discharge limit. Subsequent months have indicated compliance. No further enforcement action was necessary.

Evolution Fresh in the City of Rancho Cucamonga was issued a Notice of Violation and Order for Corrective Action for exceeding the permitted local limit for TDS, fixed in January. Results of industries investigation was inconclusive. Resampling was conducted. Results indicated inconsistent compliance. Industry exceeded the permitted local limit for TDS, fixed in March. Enforcement action for this violation is pending.

Inland Powder Coating, in the City of Ontario, was issued a Notice of Violation/Order for Corrective Action and Order to Show Cause for improper operation of pH monitoring equipment and improper chemical storage. During a compliance meeting at IEUA, industry admitted that staff assigned to maintain the equipment had failed to conduct calibration checks of the pH system. To prevent a recurrence, this responsibility has been moved over to the mechanical maintenance group. Industry also ordered more containment pallets to ensure all chemicals are properly segregated. A follow up inspection will be conducted by IEUA to verify compliance.

Jewland-Freya Health Sciences, LLC, dba Ingredients by Nature Mfg., LLC., in the City of Montclair, was issued an Administrative Complaint for Administrative Civil Liability for failure to comply with all terms of an Enforcement Compliance Schedule Agreement, repeatedly exceeding the permitted local limit for TDS, fixed, submitting monitoring data past the required due date, and for improper chemical storage and labeling. An administrative hearing was held in March. Results of the hearing are pending.

3. Discussion Items

a. Carbon Canyon WRF Trihalomethanes Exceedances

IEUA updated the Committee on the THM exceedances. During February 2017, four effluent grab samples were collected for trihalomethanes (THMs) analysis at CCWRF's effluent monitoring location, M-004. The analyses resulted in a monthly average of 62 µg/L for Chlorodibromomethane, which exceeded the average monthly limit of 34 µg/L. Additionally two samples collected on 2/23/17 and 2/24/17 resulted in 94 µg/L and 71 µg/L, respectively. Both values exceeded the maximum daily limit of 68 µg/L for Chlorodibromomethane. IEUA staff is conducting an extensive source control investigation to determine the source of the bromide, which is a precursor for THM formation.

4. Other Items

IEUA requested the committee to start thinking about revisions to the Regional Pretreatment Agreement as part of the Regional Contract renewal. As the original agreement is from 1994, and the supplemental agreements with each of the member agencies approved in 2006, some of the language is antiquated and needs to be updated.

With no further business, the meeting adjourned at 2:25 p.m.

The next committee meeting is tentatively scheduled for June 2017.

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Regional Sewerage Program Policy Committee Meeting

CHAIR AGENDA
Thursday, May 4, 2017
4:30 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

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Building Activity Report - YTD Fiscal Year 2016/17



Legend

- Service Area (Blue outline)
- Unincorporated (Grey shaded area)

EDU (YTD)

Residential

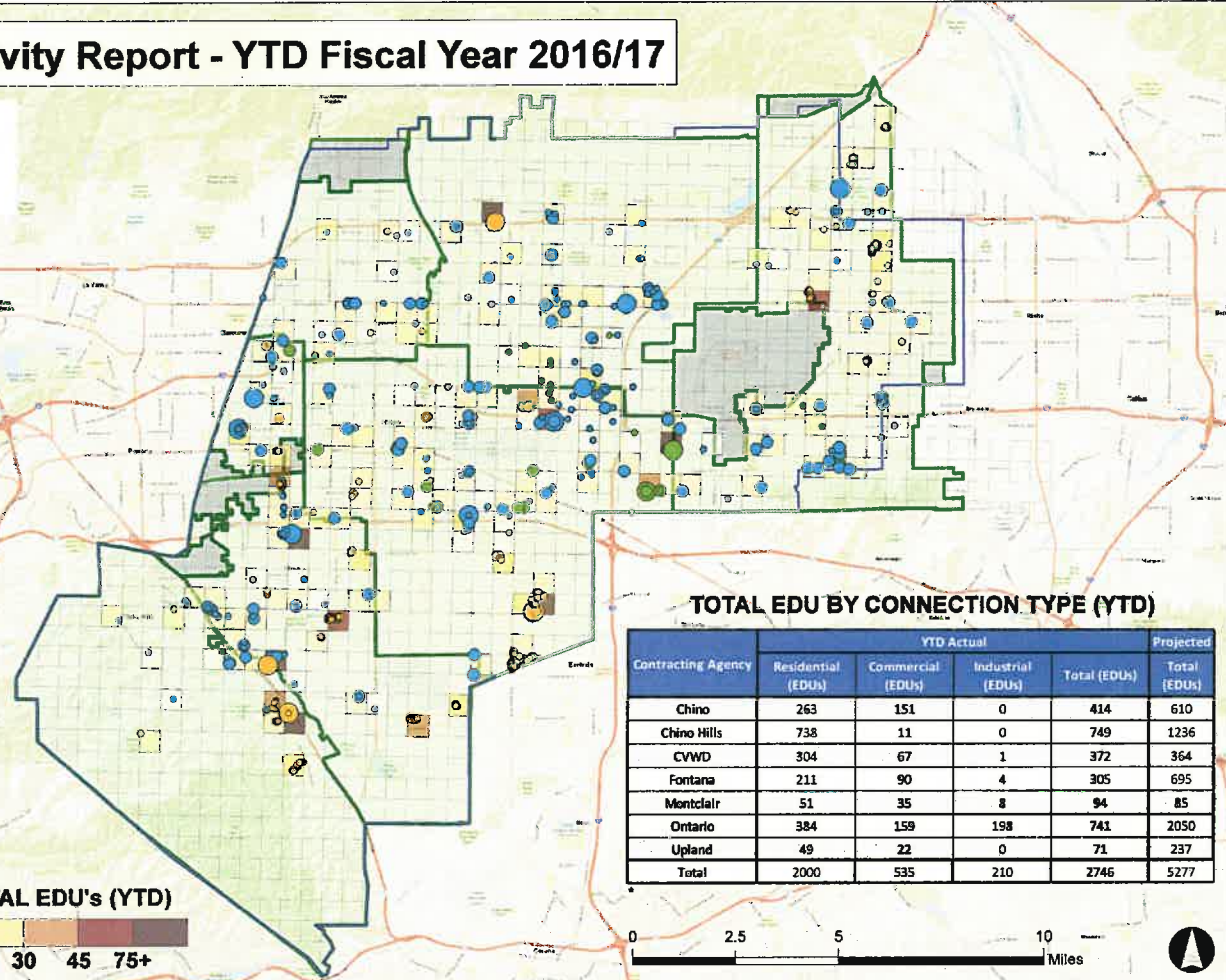
- ≤1.0 (Small white circle)
- 1.0 - 10.0 (Yellow circle)
- >10.0 (Large yellow circle)

Commercial

- ≤1.0 (Small blue circle)
- 1.0 - 10.0 (Medium blue circle)
- >10.0 (Large blue circle)

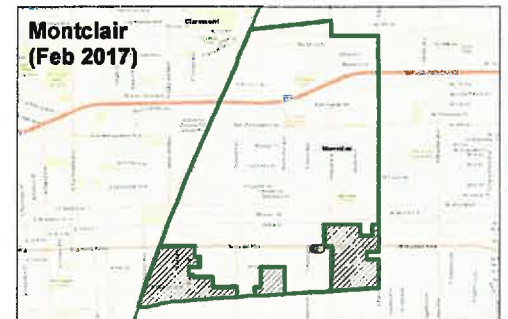
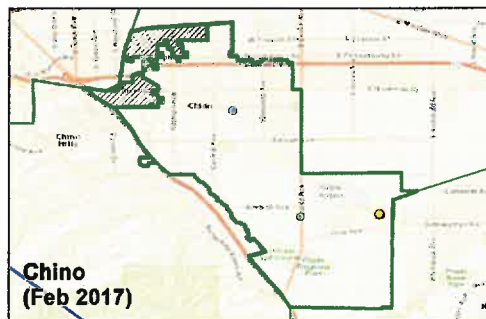
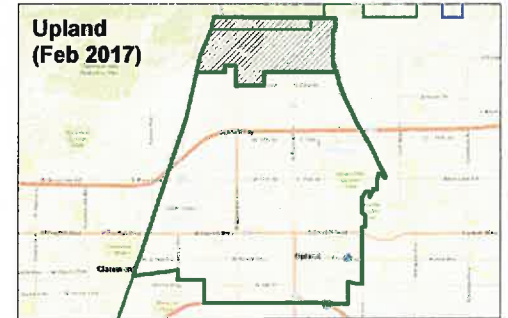
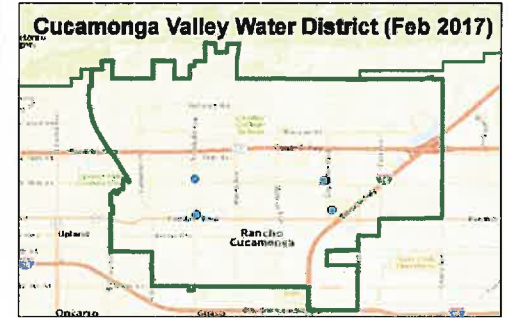
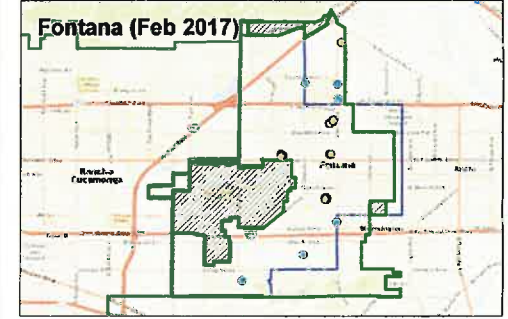
Industrial

- ≤1.0 (Small green circle)
- 1.0 - 10.0 (Medium green circle)
- >10.0 (Large green circle)



TOTAL EDU BY CONNECTION TYPE (YTD)

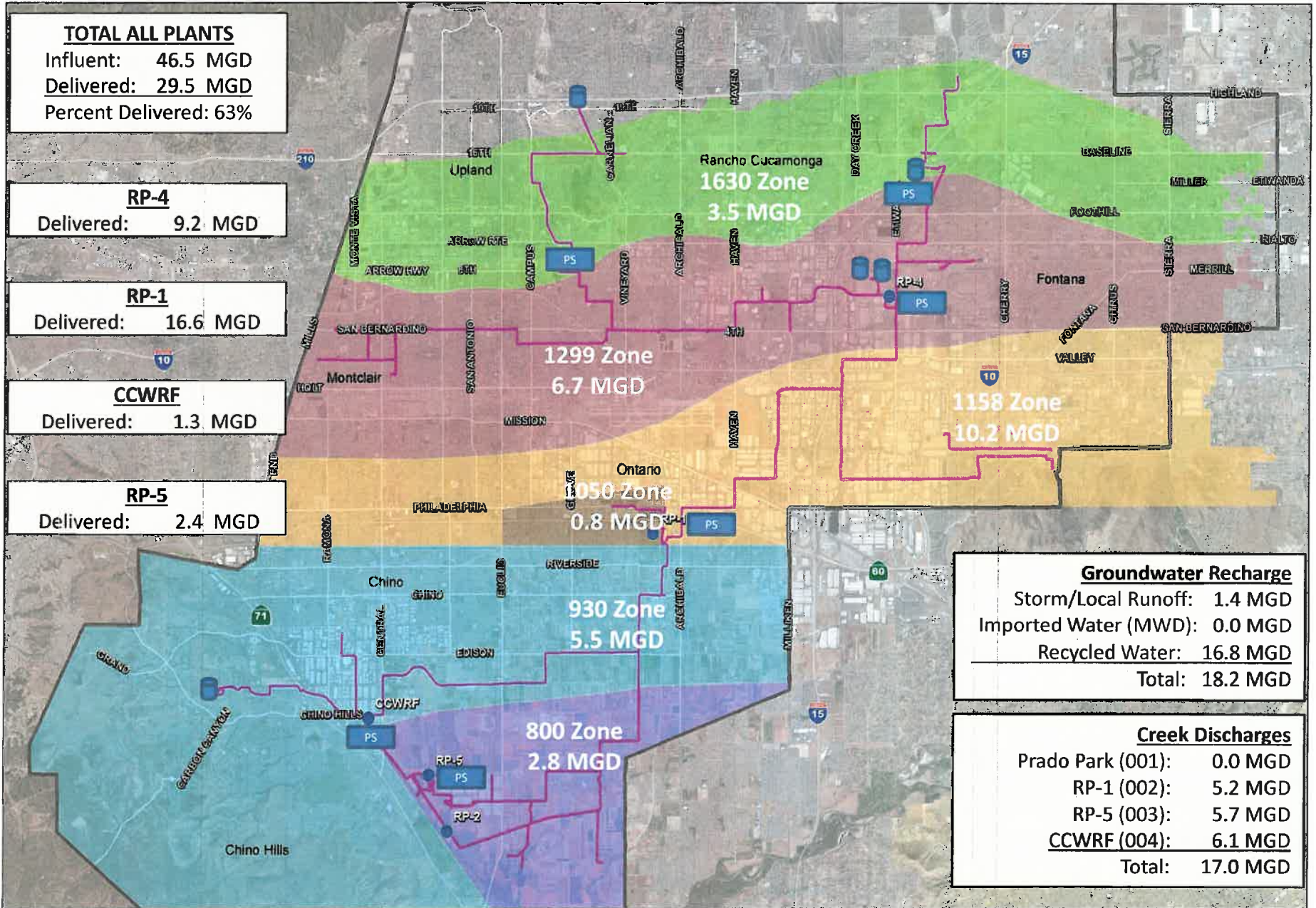
Contracting Agency	YTD Actual			Total (EDUs)	Projected Total (EDUs)
	Residential (EDUs)	Commercial (EDUs)	Industrial (EDUs)		
Chino	263	151	0	414	610
Chino Hills	738	11	0	749	1236
CVWD	304	67	1	372	364
Fontana	211	90	4	305	695
Montclair	51	35	8	94	85
Ontario	384	159	198	741	2050
Upland	49	22	0	71	237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



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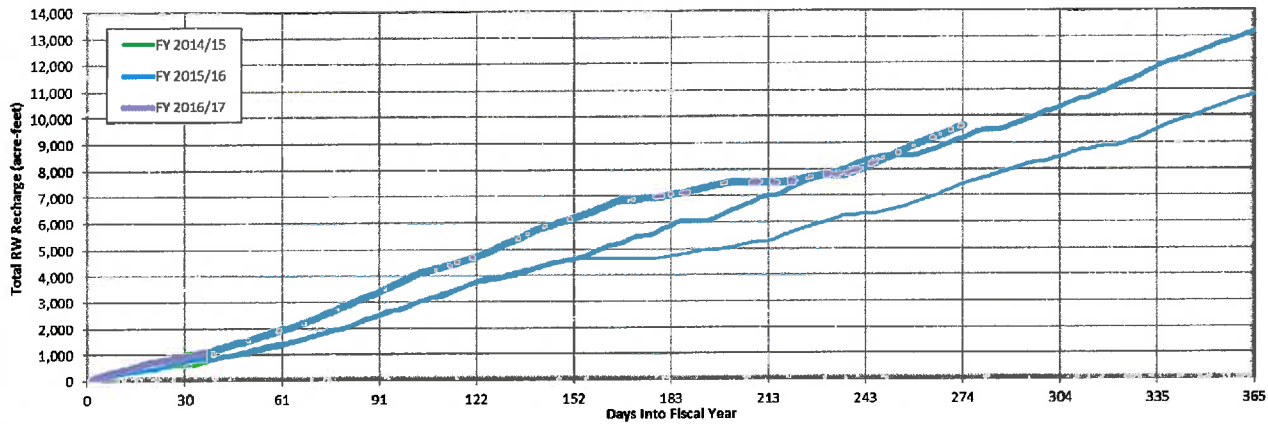
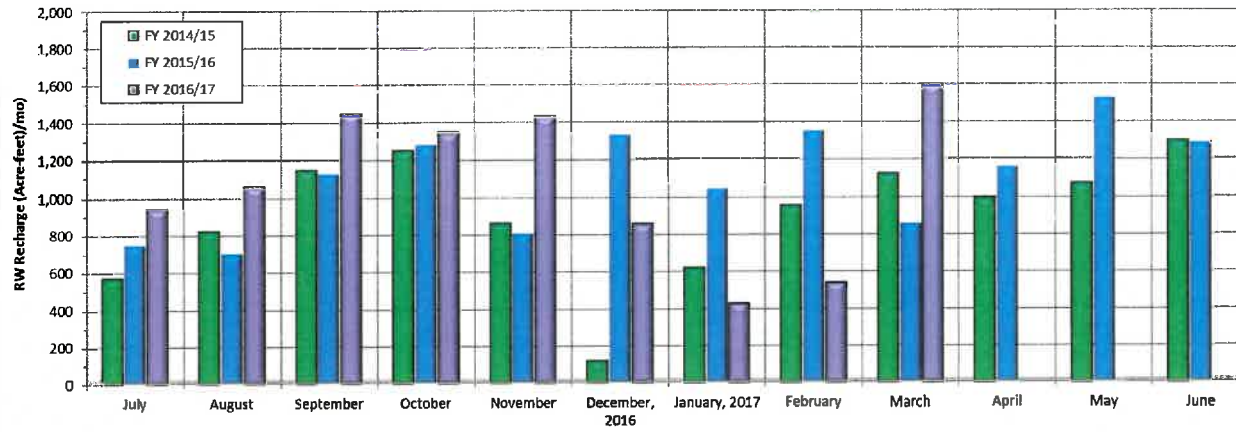
IEUA RECYCLED WATER DISTRIBUTION – MARCH 2017



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		
Declaz	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



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



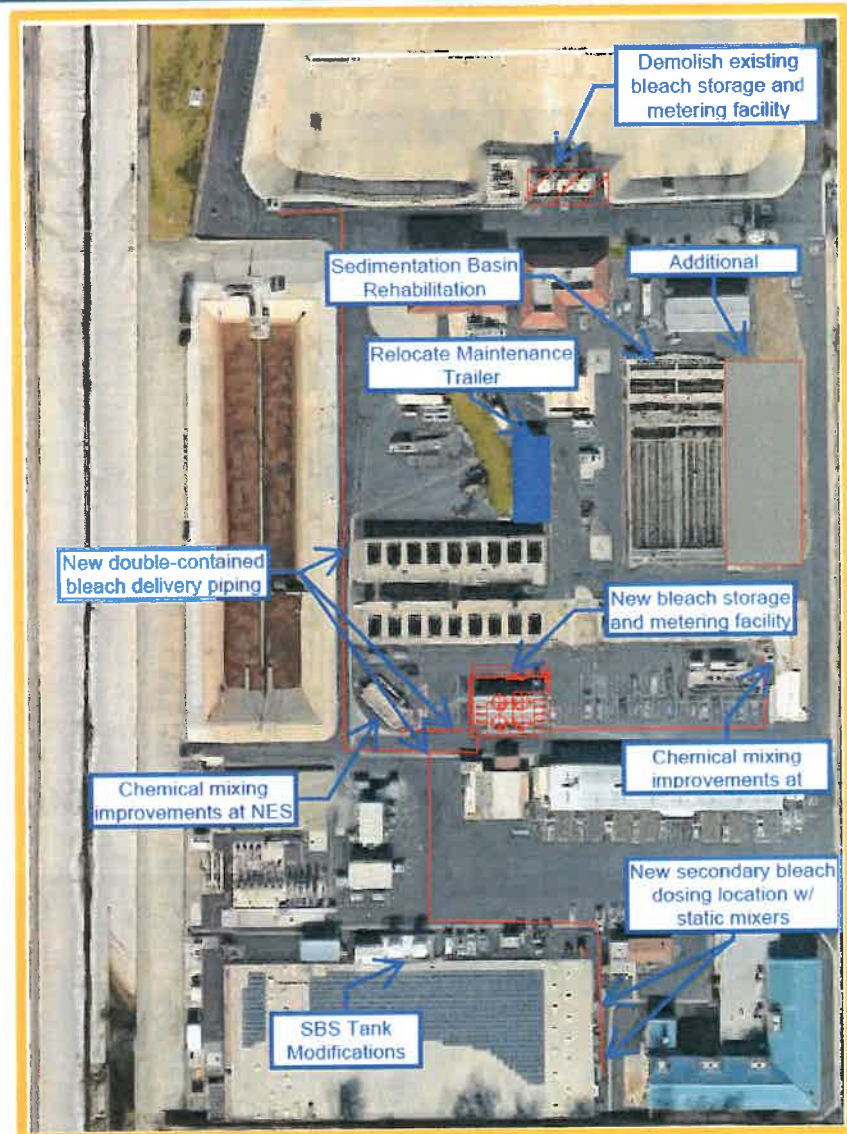
EXISTING SHS PUMPS TO BE REPLACED



CCB INLET STRUCTURE

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



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



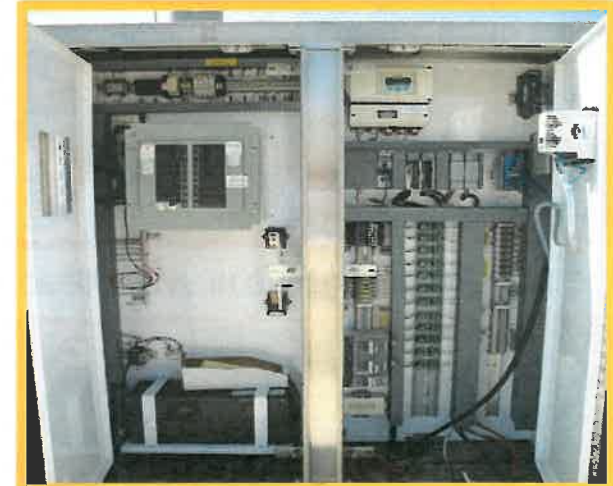
GRIT PROCESSING EQUIPMENT



CORRODED CONCRETE

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 SEVAÏNE TURNOUT CONTROL 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