AGENDA
SAN ELIJO JOINT POWERS AUTHORITY
TUESDAY, OCTOBER 20, 2020 AT 8:30 AM

The next regular meeting of the San Elijo Joint Powers Authority (SEJPA) will be on Tuesday, October 20, 2020 at 8:30 a.m., PST.

Pursuant to the State of California Executive Order N-29-20 and the amended County Health Orders, members of the public will only be allowed to participate in meetings telephonically.

This regular meeting of the San Elijo Joint Powers Authority can be accessed using the phone number listed below:

Dial-In Phone Number: 669-900-9128 Meeting ID: 927-7173-7565

Public Comments (including oral communication and agenda item related topics must be submitted via email to hackneyv@sejpa.org not later than 7:30 a.m. the day of the meeting, October 20, 2020. These comments will be read into the record during the oral communications. Please include your name, address, group affiliation, subject, and question or comment in your email.

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1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

4. ORAL COMMUNICATIONS (NON-ACTION ITEM)

5. AWARDS AND RECOGNITION:

   - MICAHEL THORNTON, GENERAL MANAGER, 20 YEARS OF SERVICE

6. * **CONSENT CALENDAR**

7. * APPROVAL OF MINUTES FOR SEPTEMBER 15, 2020 MEETING

8. * APPROVAL FOR PAYMENT OF WARRANTS AND MONTHLY INVESTMENT REPORTS

9. * WASTEWATER TREATMENT REPORT

10. * RECYCLED WATER REPORT

11. * AWARD OF CONTRACT FOR THE 2021 RECYCLED WATER COST OF SERVICE RATE STUDY

12. * ITEMS REMOVED FROM CONSENT CALENDAR

Items on the Consent Calendar are routine matters and there will be no discussion unless an item is removed from the Consent Calendar. Items removed by a "Request to Speak" form from the public will be handled immediately following adoption of the Consent Calendar. Items removed by a Board Member will be handled as directed by the Board.

REGULAR AGENDA

13. BUREAU OF RECLAMATION GRANT PURSUIT – STORMWATER HARVESTING

1. Approve Resolution 2021-01 of the Board of Directors of the San Elijo Joint Powers Authority Establishing its Commitment to the Financial and Legal Obligations Associated with Receipt of a Financial Assistances Award from the Department of the Interior; and

2. Discuss and take action as appropriate.

Staff Reference: General Manager

14. RECYCLED WATER PROGRAM – PROPOSED WHOLESALE AGREEMENT AMENDMENTS

1. Authorize the General Manager to execute a Third Amendment to the Agreement for Sale of Reclaimed Water to the San Dieguito Water District by the San Elijo Joint Powers Authority, subject to the General Manager's final negotiations with the District and General Counsel's final review;

2. Authorize the General Manager to execute a Second Amendment to the Agreement for Sale of Reclaimed Water to the City of Del Mar by the San Elijo Joint Powers Authority, subject to the General Manager's final negotiations with the City and General Counsel's final review;

3. Authorize the General Manager to execute a Second Amendment to the Reclaimed Water Sales Agreement Between the San Elijo Joint Powers Authority, the City of Del Mar and the 22nd District Agricultural Association, subject to the General Manager's final negotiations with the City and the Association and General Counsel's final review; and

4. Discuss and take action as appropriate.

Staff Reference: General Manager

15. GENERAL MANAGER'S REPORT

Informational report by the General Manager on items not requiring Board action.

16. GENERAL COUNSEL'S REPORT

Informational report by the General Counsel on items not requiring Board action.

17. BOARD MEMBER COMMENTS

This item is placed on the agenda to allow individual Board Members to briefly convey information to the Board or public, or to request staff to place a matter on a future agenda and/or report back on any matter. There is no discussion or action taken on comments by Board Members.

18. ADJOURNMENT

The next regularly scheduled San Elijo Joint Powers Authority Board Meeting will be Tuesday, November 17, 2020 at 8:30 a.m.

NOTICE:

The San Elijo Joint Powers Authority's open and public meetings comply with the protections and prohibitions contained in Section 202 of the Americans With Disabilities Act of 1990 (42 U.S.C Section 12132), and the federal rules and regulations adopted in implementation thereof. Any person with a disability who requires a modification or accommodation, including auxiliary aids or services, in order to participate in a public meeting of the SEJPA Board of Directors may request such modification or accommodation from Michael T. Thornton, General Manager, (760) 753-6203 ext. 72.

The agenda package and materials related to an agenda item submitted after the packet's distribution to the Board is available for public review in the lobby of the SEJPA Administrative Office during normal business hours. Agendas and minutes are available at www.sejpa.org. The SEJPA Board meetings are held on the third Tuesday of each month, with no scheduled meetings in August.

AFFIDAVIT OF POSTING

I, Michael T. Thornton, Secretary of the San Elijo Joint Powers Authority, hereby certify that I posted, or have caused to be posted, a copy of the foregoing agenda in the following locations:

San Elijo Water Campus, 2695 Manchester Avenue, Cardiff, California
City of Encinitas, 505 South Vulcan Avenue, Encinitas, California
City of Solana Beach, 635 South Highway 101, Solana Beach, California

The notice was posted at least 72 hours prior to the meeting, in accordance with Government Code Section 54954.2(a).

Date: October 15, 2020

Michael T. Thornton, P.E.
Secretary / General Manager

SAN ELIJO JOINT POWERS AUTHORITY
MINUTES OF THE BOARD MEETING
HELD ON SEPTEMBER 15, 2020
VIA VIDEO CONFERENCE

Jody Hubbard, Chair — Kristi Becker, Vice Chair

A meeting of the Board of Directors of San Elijo Joint Powers Authority (SEJPA) was held Tuesday, September 15, 2020, at 8:30 a.m., via a public web conference.

1. CALL TO ORDER

Chair Hubbard called the meeting to order at 8:32 a.m.

2. ROLL CALL

Directors Present:	Jody Hubbard Kristi Becker Catherine Blakespear David Zito
Directors Absent:	None
Others Present:	
General Manager	Michael Thornton
Director of Operations	Chris Trees
Director of Finance and Administration	Amy Chang
Administrative Coordinator	Vanessa Hackney
Senior Project Manager	Mike Konicke
SEJPA Counsel:	
Procopio, Cory, Hargreaves & Savitch	Adriana Ochoa
City of Encinitas:	
Assistant City Manager	Mark Delin
Director of Public Works	Carl Quiram
Assistant Director/Assistant General Manager	Isam Hireish
City of Solana Beach:	
City Manager	Greg Wade
Director of Engineering/Public Works	Mohammad “Mo” Sammak
Interim Finance Director	Rodney Greek

3. PLEDGE OF ALLEGIANCE

General Manager Thornton led the Pledge of Allegiance.

4. ORAL COMMUNICATIONS

None

5. AWARDS AND RECOGNITION

Mike Henke – 20 Years of Service

John Boyle – 15 Years of Service

6. CONSENT CALENDAR

Moved by Board Member Blakespear and seconded by Board Member Zito to approve the Consent Calendar.

Agenda Item No. 7	Approval of Minutes for the July 13, 2020 Meeting
Agenda Item No. 8	Approval for Payment of Warrants and Monthly Investment Report
Agenda Item No. 9b	San Elijo Water Campus Treated Effluent Flows – Monthly Report
Agenda Item No. 10b	San Elijo Water Recycling Program – Monthly Report
Agenda Item No. 11	Construction Completion – Boiler Replacement Project
Agenda Item No. 12	Construction Completion – SCADA Project Completion

Motion carried with the following vote of approval:

AYES:	Hubbard, Becker, Blakespear, Zito
NOES	None
ABSENT:	None
ABSTAIN:	None

13. ITEMS REMOVED FROM CONSENT CALENDAR

No. 9a & No. 10a

Moved by Chair Hubbard and seconded by Board Member Zito to Accept No.9a & No. 10a:

AYES:	Hubbard, Becker, Blakespear, Zito
NOES	None
ABSENT:	None
ABSTAIN:	None

14. WATER CAMPUS IMPROVEMENT PORJECT – STAGE 2 LEASE-PURCHASE AGREEMENT AMENDMENT

Senior Project Manager, Michael Konicke, stated that the Water Campus Improvement Project was approved by the Board in March 2020 for a total construction cost of $18,410,000, subject to the finalization of contract terms. Staff developed a two-phase project delivery method to deal with the uncertainty associated with COVID-19.

The contractor completed the rebidding of GMP-2 in July 2020, and the results initially exceeded the budget allotment of $18,410,000. The contractor, SEJPA staff, and the design team conducted value engineering and design reviews to reach a final guaranteed maximum price that achieved the overall project budget goal. Staff worked with legal counsel to complete the Lease-Purchase Agreement, which includes both GMP-1 and GMP-2 for a total of $18,409,269. As the project contract value was within the Board approved value, the General Manager executed the agreement on August 18, 2020 and preconstruction activities for Phase 2 (GMP-2) are underway.

No action required. This memorandum was submitted for information only.

15. PROPOSED SOLAR PHOTOVOLTAIC SYSTEM LOCATED AT THE SAN ELIJO WATER CAMPUS

General Manager Thornton stated that the San Elijo Water Campus uses a substantial quantity of electricity (approximately 3,300 megawatt-hours annually) to treat wastewater, produce and distribute recycled water, and for other onsite operational needs. Looking forward, it is reasonable to forecast that energy cost and consumption for the SEJPA will trend higher.

In an effort to stabilize future energy costs and to increase the use of renewable energy, staff is seeking to develop a solar photovoltaic (PV) project at the San Elijo Water Campus. The PV project is designed to be large enough to attract third-party construction and financing through a Power Purchase Agreement, adding the financial benefit of tax credits that further lowers the project cost. For our proposed project, PPA financing benefits include:

1. No up-front cost
2. Ability for the tax-exempt entity to benefit from federal tax incentives through lower rates
3. A predictable cost of electricity during the PPA term
4. Simplified design and permitting process
5. No maintenance responsibilities for the term of the PPA

Government Code Section 4217.10 et seq. provides authority to public agencies to select and contract with qualified energy services companies, to develop and construct energy efficiency, conservation, and alternative energy projects under a single contract.

Staff hosted site walks, conducted team interviews, responded to information requests, and gathered proposals from interested firms. After consideration of qualifications and project approach, staff has selected IGS Solar as the preferred firm to finance and construct the PV project utilizing a Power Purchase Agreement.

IGS Solar submitted their best and final proposal to construct, operate, and maintain the solar PV system, which is currently under review by our third-party energy consultant, Sage Energy Consulting. If the final proposal meets all requirements of Government Code Section 4217.10 et seq., and achieves our desired financial and operational terms, then this PPA will be reviewed by legal counsel and presented to the Board at the next regular Board meeting for approval consideration.

No action required. This memorandum is submitted for information only. It is anticipated that staff will provide a PPA for Board approval consideration at the October 2020 Board meeting.

16. RECOMMENDED UPDATE TO THE SAN ELIJO JOINT POWERS AUTHORITY RESTATEMENT OF AGREEMENT BETWEEN CARDIFF SANITATION DISTRICT AND SOLANA BEACH SANITATION DISTRICT ESTABLISHING THE SAN ELIJO JOINT POWERS AUTHORITY

San Elijo Joint Powers Authority (SEJPA) is a joint exercise of powers authority organized and existing under and by virtue of California Government Code section 6500 et seq. (Title 1, Division 7, Chapter 5, Article 1). The joint powers agreement was amended a number of times between 1989 and 2005, and in 2008, SEJPA adopted a "Restatement of Agreement between Cardiff Sanitation District and Solana Beach Sanitation District Establishing the San Elijo Joint Powers Authority" (Restatement) in order to incorporate prior amendments into a single document, update the agreement between the member agencies, and clarify and supplement the duties and responsibilities of SEJPA and the member agencies.

Staff and General Counsel have conferred about amending the 2008 Restatement in order to account for new laws and updated information. General Counsel has prepared draft language for the SEJPA Board of Directors, which amends the 2008 Restatement. If the SEJPA Board of Directors approves, the next step will be to circulate proposed revisions to the City Managers and City Attorneys for both member agencies for their review. Ultimately, the City Councils for both Encinitas and Solana Beach will have to approve the amended Restatement at a duly noticed public meeting in order to make the amendment effective.

Within 30 days after the effective date of the amendment, SEJPA must cause two copies of a notice of the amendment to be prepared and filed with the Secretary of State, who will forward a copy to the Controller. (Gov. Code, § 6503.5.) SEJPA must also file a copy of the full text of the original joint powers agreement, and all amendments thereto, with the Controller, and with San Diego LAFCO. (Gov. Code, § 6503.6.)

Moved by Board Member Zito and seconded by Chair Hubbard to:

1. Review the Recommended Restatement of the Joint Powers Authority Agreement; and

2. Discuss and take action as appropriate.

Motion carried with the following vote of approval:

AYES:	Hubbard, Becker, Zito
NOES:	None
ABSENT:	Blakespear
ABSTAIN:	None

17. GENERAL MANAGER'S REPORT

None

18. GENERAL COUNSEL'S REPORT

Adriana Ochoa stated that last week the California legislator enacted AB1867, adding a labor code provision that requires public agencies to provide COVID paid sick leave benefits to employees who have not been provided paid sick leave under Families First Corona Virus Response Act.

Adriana also stated that counsel is aware of the Los Angeles Waterkeeper vs. State Water Resources Control Board case and its ruling. Counsel will be following any appeals closely and will keep the Board up to date with any important or relevant information.

19. BOARD MEMBER COMMENTS

Chair Hubbard stated that she will not be in attendance for the October SEJPA Board Meeting. Chair Hubbard also stated that the City of Oceanside announced that they will be starting construction on their Pure Water Project.

City Manager Greg Wade introduced Rod Greek as the City of Solana Beach's interim Finance Director.

20. ADJOURNMENT

The meeting adjourned at 10:03 a.m. The next Board of Directors meeting is scheduled to be held on Tuesday, October 20, 2020 at 8:30 a.m.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

SAN ELIJO JOINT POWERS AUTHORITY
PAYMENT OF WARRANTS
20-10
For the Month of September 2020

Warrant #	Vendor Name	G/L Account	Warrant Description	Amount
38805	Advanced Air & Vacuum	Services - Maintenance	Air compressor inspection, install new condenser fan motor and cycle switch	$ 1,978.99
38806	Allied Storage Containers	Equipment Rental/Lease	Storage container rental	549.52
38807	Aquatic Bioassay	Services - Laboratory	Toxicity testing	1,050.00
38808	AT&T	Utilities - Telephone	Phone service - 07/13/20 - 08/12/20	428.85
38809	AT&T	Utilities - Telephone	Alarm service - Aug, Sep	839.20
38810	Boot World, Inc.	Uniforms - Boots	Employee reimbursement - Safety boots (2)	375.34
38811	Brenntag Pacific, Inc	Supplies - Chem - Odor	Sodium hydroxide	2,755.32
38812	BrightView Landscapes	Services - Landscape	Jul, Aug, Sep	8,346.00
38813	California Water Technologies	Supplies - Chem - Ferric Chlo	Ferric chloride	11,893.22
38814	California Boiler	Services - Contractors	Boiler No.1 replacement	182,594.58
38815	Carollo Engineers	Services - Engineering	SCADA upgrades, ARC Flash studies	65,530.00
38816	Carrie Cook	Supplies - Office	Employee reimbursement - Printer ink	57.10
38817	Corodata	Rent	Record storage - Jul	99.35
38818	CS-Amsco	Repair Parts Expense	Biosolids hopper gate replacement	8,448.99
38819	Denali Water Solutions LLC	Services - Biosolids Hauling	Jul	17,723.74
38820	DMV	Services - Other	Safety records - 07/01/20 - 07/31/20	1.00
38821	EDCO Waste & Recycling Service	Utilities - Trash	Jul, Aug	530.32
38822	City of Encinitas	Service - IT Support & Licenses	IT support and licenses - Aug, Sep	7,834.96
38823	Erosion Control Application	Services - Contractors	Flow equalization basins floating covers inspection and maintenance	23,350.00
38824	Eurofins Calscience, Inc.	Services - Laboratory	Testing water sample	192.00
38825	Evantec Scientific	Supplies - Laboratory	Various lab supplies	418.83
38826	Forte of San Diego	Services - Janitorial	Sep	1,000.00
38827	FRS Environmental	Services - Maintenance	Parts washer service	271.55
38828	Golden Bell Products	Supplies - Chemicals	Lift station degreaser	452.55
38829	Grainger, Inc.	Repair Parts Expense	Cossover tool box for truck bed, solenoid valve, motor start capacitor	1,251.19
38830	Unifirst First Aid Corp	Supplies - Office	First aid supplies	34.77
38831	GSM Filtration Inc.	Repair Parts Expense	Heat sealed filtration	928.17
38832	GLS US	Postage/Shipping	Shipping for water samples	93.03
38833	GC Pivotal LLC	Utilities - Internet	T1 service - Oct	355.24
38834	Hardy Diagnostics	Services - Laboratory	Various lab supplies	1,569.79
38835	Hartzell Air Movement	Repair Parts Expense	Shaft for headworks air recirculation blower	714.51
38836	Idexx Distribution,Inc.	Services - Laboratory	WQC E. coli and Enterococci	2,104.92
38837	Infrastructure Engineering	Services - Engineering	Recycled water storage and conveyance system evaluation	5,125.00
38838	Jody Hubbard	Board Expense	Board preparation meeting	160.00
38839	Casey Larsen	Supplies - Office	Employee reimbursement - Printer ink	81.88
38840	Liquid Environmental Solution	Services - Grease & Scum, Grit & Screening	Grease and scum pumping, roll-off box disposal	2,082.32
38841	Void	N/A	N/A	-
38842	McMaster-Carr Supply Co.	Supplies - Shop & Field	Industrial hardware, repair parts	3,818.81
38843	MetLife - Group Benefits	Dental/Vision	Dental - Aug, Sep, Oct	4,856.92
38844	Michael R. Welch, Ph.D., P.E.	Services - Professional	As needed regulatory support for Ocean Outfall	6,460.00
38845	Midas Shop	Vehicle Maintenance	Oil change for pump run truck	63.60
38846	Olin Corp - Chlor Alkali	Supplies - Chem - Sodium Hypo	Sodium hypochlorite	11,182.36
38847	Olivenhain Municipal Water Dis	Rent & Lobbying Services	Pipeline rental payment - Aug, lobbying cost share	24,501.92
38848	Eric ORiley	Supplies - Safety & Seminars/Education	Employee reimbursement - Tuition, books, safety glasses, lab supplies	598.47
38849	Pacific Pipeline Supply	Repair Parts Expense	Repair parts to replace distribution system main gate valve	728.51
38850	Pacific Safety Center	Training - Safety	Annual membership renewal	145.00
38851	PCL Construction Services PCL	Services - Contractors	GMP-2 Lease Purchase Agreement Installment - 1 of 14	976,612.00
38852	Polydyne Inc.	Supplies - Chem - Polymer	Clarifloc C-378	1,241.36
38853	Preferred Benefit Insurance	Dental/Vision	Vision - Aug	299.30
38854	ProBuild Company, LLC	Supplies - Shop & Field	Supplies and repair parts	360.61
38855	Procopio Cory Hargreaves	Services - Legal	Legal service fees - Apr, Aug	19,428.00
38856	RSF Security Systems	Services - Alarm	Security service - 09/01/20 - 11/30/20	1,455.00
38857	Rusty Wallis, Inc.	Repair Parts Expense	Water softener, tank service, and salt bags	397.39
38858	Safe Hearing America	Services - Medical	Employee hearing testing (OSHA requirement)	1,835.20
38859	San Dieguito Water District	Fees - Permits	Construction water meter application	200.00
38860	Santa Fe Irrigation District	Utilities - Water	Water and recycled water	2,033.13
38861	Santa Fe Irrigation District	Utilities - Water	Pipeline purchase payment - Jul	1,388.43
38862	San Dieguito Water District	Utilities - Water	Water and recycled water	4,556.60
38863	San Dieguito Water District	Utilities - Water	Water and recycled water	2,422.83
38864	So-Cal Truck	Vehicle Maintenance	Safety lights for truck	3,260.34
38865	Sunbelt Rentals	Equipment Rental/Lease	Boom lift rental for inspection of sludge conveyor liners	1,551.22
38866	Terminix Processing Center	Services - Maintenance	Pest control service - Jul, Aug	888.00
38867	Tesco Controls	Services - Professional	SCADA system upgrade	43,100.00
38868	Test America	Services - Laboratory	Testing water samples	786.50
38869	Thatcher Company of California	Supplies - Chemicals	Citric acid	2,039.92
38870	Technology Integration Group	Services - Maintenance	Copier	134.64
38871	Trussell Technologies, Inc	Services - Engineering & Professional	Operations plan and training update, information and education support	19,121.50
38872	Unifirst Corporation	Services - Uniforms	Uniform service	752.50
38873	UPS	Postage/Shipping	Shipping parts and fees	47.12
38874	Underground Service Alert/SC	Services - Alarm	Safe excavation board and dig alert - Aug	224.94
38875	USA Bluebook	Supplies - Laboratory	Various lab supplies	2,345.64
38876	Vanessa Hackney	Board Expense	Employee reimbursement - Office supplies	6.45
38877	Vantagepoint Transfer Agents	EE Deduction Benefits	ICMA - 457	12,695.06
38878	Vantagepoint Transfer Agents	ICMA Retirement	ICMA - 401a	7,704.28
38879	Veolia ES Technical Solutions	Fees - Disposal	Lab waste	303.03
38880	Verizon Wireless	Utilities - Telephone	07/11/20 - 08/10/20	399.69
38881	Verizon Wireless	Utilities - Telephone	Cell phone - 07/08/20 - 08/07/20	1,099.96
38882	Volt Management Corp	Services - Temp	Internship program - Period end 07/10/2020 thru 09/04/2020	3,305.79
38883	VWR International, Inc.	Supplies - Laboratory	Various lab supplies	702.54
38884	WageWorks	Payroll Processing Fees	Admin and compliance fee	128.75
38885	WM Corporate Services, Inc.	Services - Grit & Screenings	Bin service charge - Jul, Aug	787.34
38886	WorkPartners Occupational	Services - Medical	Covid-19 NP swab for employees	4,100.00
38887	Alliant Insurance Services,Inc	Insurance - Property	Annual premium - 07/01/20 - 07/01/21	88.00
38888	Aquatic Bioassay	Services - Laboratory	Toxicity testing	1,050.00
38889	Atlas	Services - Engineering	WCI - Bike trail	8,481.00
38890	Black & Veatch	Services - Management	Solids treatment process	1,983.99
38891	Carollo Engineers	Services - Engineering	SCADA upgrades, ARC Flash studies	4,670.90
38892	Corodata	Rent	Record storage - Aug	99.44
38893	CWEA Membership	Dues & Memberships	Employee professional membership dues	758.00
38894	ERA	Supplies - Laboratory	Various lab supplies	1,658.63
38895	Eurofins Calscience, Inc.	Services - Laboratory	Testing water samples	358.50
38896	Evantec Scientific	Supplies - Laboratory	Various lab supplies	562.68
38897	Forte of San Diego	Services - Janitorial	Oct	1,000.00
38898	Hardy Diagnostics	Services - Laboratory	Various lab supplies	350.51
38899	Kennedy/Jenks Consultants	Services - Engineering	WCI - CMAR-Owner representative	3,452.50
38900	Kimley-Horn & Associates, Inc.	Accrued Liabilities	WCI - Caltrans trail & entrance	2,556.36
38901	Liquid Environmental Solution	Services - Grease & Scum, Grit & Screening	Grease and scum pumping, roll-off box delivery	2,082.32

SAN ELIJO JOINT POWERS AUTHORITY
PAYMENT OF WARRANTS
20-10
For the Month of September 2020

Warrant #	Vendor Name	G/L Account	Warrant Description	Amount
38902	Marine Taxonomic Services, LTD	Services - Contractors	Water quality monitoring and water sampling for ocean outfall	2,390.00
38903	McMaster-Carr Supply Co.	Supplies - Shop & Field	Industrial hardware, repair parts	36.64
38904	Olin Corp - Chlor Alkali	Supplies - Chem - Sodium Hypo	Sodium hypochlorite	3,801.91
38905	Preferred Benefit Insurance	Dental/Vision	Vision - Sep	290.40
38906	Procopio Cory Hargreaves	Services - Legal	Legal service fees - Jul	9,767.50
38907	Red Truck Fire & Safety Co.	Service - Fire Control	Annual fire extinguisher inspection	1,134.22
38908	Roesling Nakamura Terada Archi	Services - Professional	WCI - SEJPA building improvement	13,605.17
38909	Rohan & Sons, Inc	Services - Maintenance	Air conditioning and heating service	945.06
38910	Sage Energy Consulting	Services - Professional	WCI - Solar project PPA evaluation	8,640.00
38911	Santa Fe Irrigation District	Utilities - Water	Water and recycled water	97.40
38912	Santa Fe Irrigation District	Utilities - Water	Pipeline purchase payment - Aug	1,238.64
38913	SCST, LLC	Services - Engineering	WCI - Bike trail	1,608.00
38914	Terminix Processing Center	Services - Maintenance	Pest Control service	50.00
38915	Tesco Controls	Services - Professional	SCADA system upgrade	9,800.00
38916	Trussell Technologies, Inc	Services - Engineering & Professional	Operations plan and training update, information and education support	6,085.00
38917	Unifirst Corporation	Services - Uniforms	Uniform service	456.89
38918	USP Technologies	Supplies - Chem - Odor	Calcium nitrate	13,199.41
38919	Vantagepoint Transfer Agents	EE Deduction Benefits	ICMA - 457	6,322.16
38920	Vantagepoint Transfer Agents	ICMA Retirement	ICMA - 401a	3,908.36
38921	Verizon Wireless	Utilities - Telephone	Cell phone - 08/08/20 - 09/07/20	1,066.05
38922	Volt Management Corp	Services - Temp	Internship program - Period end 08/23/2020 thru 09/23/2020	4,132.97
38923	WorkPartners Occupational	Services - Medical	New employees health screening	260.00
On-line 442	Aflac	EE Deduction Benefits	Aflac - Sep	417.84
On-line 443	Calpers	Services - Accounting	GASB 68 reporting service fee	1,050.00
On-line 444	Fuelman	Fuel	Aug	1,237.07
On-line 445	Home Depot Credit Services	Supplies - Safety	Tools and supplies	589.64
On-line 446	P.E.R.S.	Medical Insurance - Pers	Health - Sep	21,135.77
On-line 447	Public Employees- Retirement	Retirement Plan - PERS	Retirement - 08/08/20 - 08/21/20	15,328.03
On-line 448	Public Employees- Retirement	Retirement Plan - PERS	Retirement - 08/22/20 - 09/04/20	15,223.06
On-line 449	ReadyRefresh	Supplies - Laboratory	Kitchen and lab supplies	484.08
On-line 450	San Diego Gas & Electric	Utilities - Gas & Electric	Gas and electric - 08/04/20 - 09/03/20	87,238.79
On-line 451	Sun Life Financial	Life Insurance/Disability	Life and disability insurance - Sep, Oct	3,406.29
On-line 452	BankCard Center	Various	Parts, office supplies, tools, and printing	5,194.04
On-line 453	Public Employees- Retirement	Retirement Plan - PERS	Retirement - 09/05/20 - 09/18/20	15,286.58
	San Elijo Payroll Account	Payroll	Payroll - 09/11/2020	86,065.22
	San Elijo Payroll Account	Payroll	Payroll - 09/25/2020	80,845.38
				$ 1,972,783.28

SAN ELIJO JOINT POWERS AUTHORITY

PAYMENT OF WARRANTS SUMMARY

For the Month of September 2020
As of September 30, 2020

PAYMENT OF WARRANTS		$ 1,972,783.28
Reference Number	20-10	

I hereby certify that the demands listed and covered by warrants are correct and just to the best of my knowledge, and that the money is available in the proper funds to pay these demands. The cash flows of the SEJPA, including the Member Agency commitment in their operating budgets to support the operations of the SEJPA, are expected to be adequate to meet the SEJPA's obligations over the next six months. I also certify that the SEJPA's investment portfolio complies with the SEJPA's investment policy.

Amy Chang
Director of Finance & Administration

STATEMENT OF FUNDS AVAILABLE FOR PAYMENT OF WARRANTS
AND INVESTMENT INFORMATION
As of September 30, 2020

FUNDS ON DEPOSIT WITH		AMOUNT
LOCAL AGENCY INVESTMENT FUND *(SEPTEMBER 2020 YIELD 0.685%)*		
RESTRICTED SRF RESERVE	$	630,000.00
UNRESTRICTED DEPOSITS		4,186,147.94
CALIFORNIA BANK AND TRUST *(SEPTEMBER 2020 YIELD 0.01%)*		
REGULAR CHECKING		7,308,816.64
PAYROLL CHECKING		5,000.00
UNION BANK - TRUSTEE (BOND FUNDS)		
BLACKROCK *(SEPTEMBER 2020 YIELD 0.04%)*		279.81
LAIF *(SEPTEMBER 2020 YIELD 0.685%)*		8,657,099.38
PARS - TRUSTEE (POST-EMPLOYMENT BENEFITS TRUST) *(AUGUST 2020 YIELD 2.93%)*		55,785.13
TOTAL RESOURCES	$	20,843,128.90

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AGENDA ITEM NO. 9

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

October 20, 2020

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: WASTEWATER TREATMENT REPORT

RECOMMENDATION

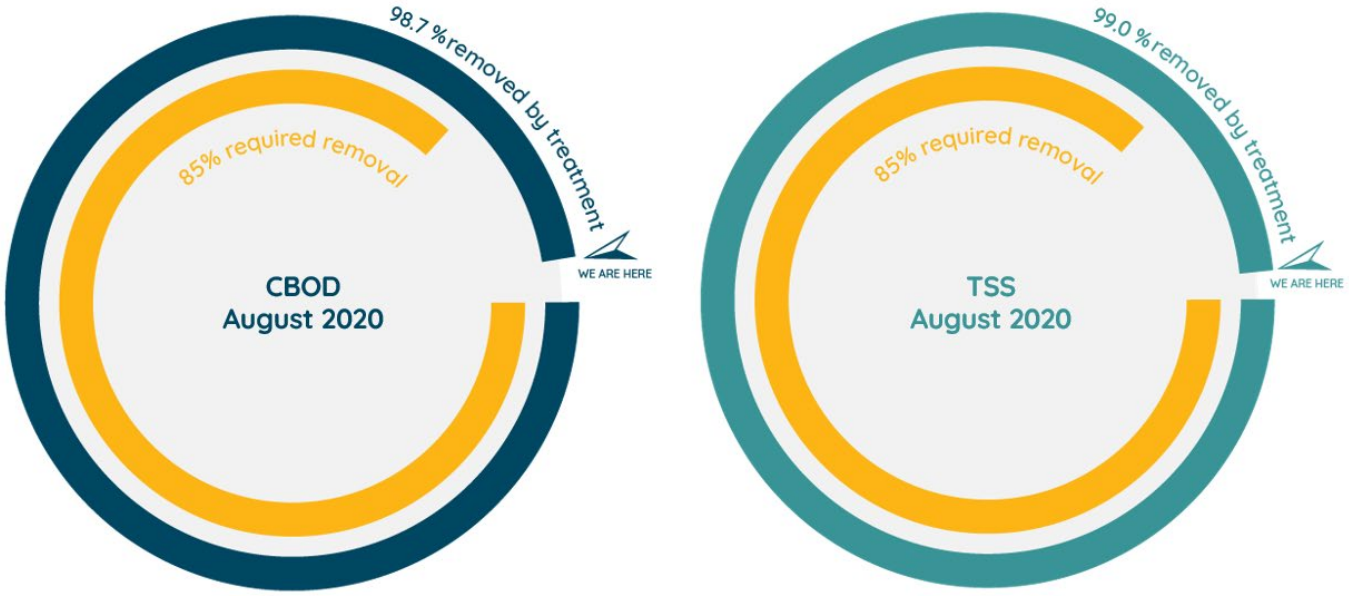
No action required. This memorandum is submitted for information only.

DISCUSSION

Monthly Treatment Plant Performance and Evaluation

Wastewater treatment for the San Elijo Joint Powers Authority (SEJPA) met all National Pollutant Discharge Elimination System (NPDES) ocean effluent limitation requirements for the month of August 2020. The primary indicators of treatment performance include the removal of Carbonaceous Biochemical Oxygen Demand (CBOD) and Total Suspended Solids (TSS). The SEJPA is required to remove a minimum of 85 percent of the CBOD and TSS from the wastewater. Treatment levels for **CBOD** and **TSS** were **98.7** and **99.0** percent removal, respectively (as shown in Figure 1).

FIGURE 1: REMOVAL OF CBOD AND TSS BY WASTEWATER TREATMENT (%)



CBOD: Carbonaceous Biochemical Oxygen Demand

TSS: Total Suspended Solids

Figures 2 and 3 (below) show historic treatment performance trends for the removal of CBOD and TSS over the last 13 months. Influent CBOD and TSS can fluctuate based on the strength of the

wastewater being received by the SEJPA. Rain events often result in rainwater entering into the sewer system which can dilute both CBOD and TSS. The COVID19 pandemic appears to have resulted in reduced wastewater strength (as measured by CBOD and TSS) likely due to reduced hotel occupancy and bar/restaurant use.

FIGURE 2: TREATED EFFLUENT FLOWS REMOVAL OF CBOD

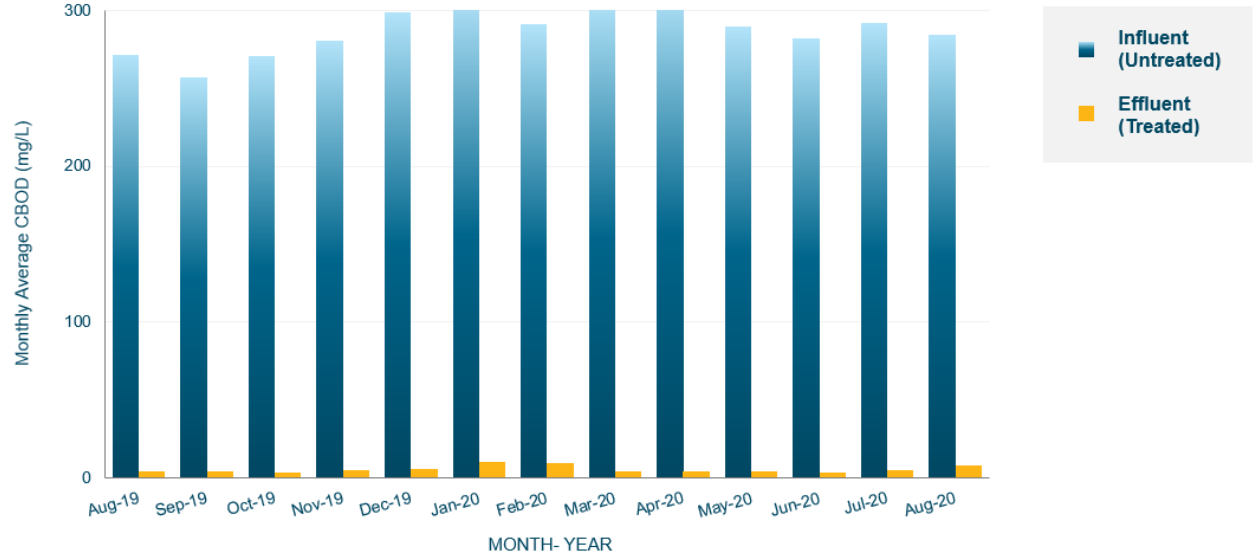
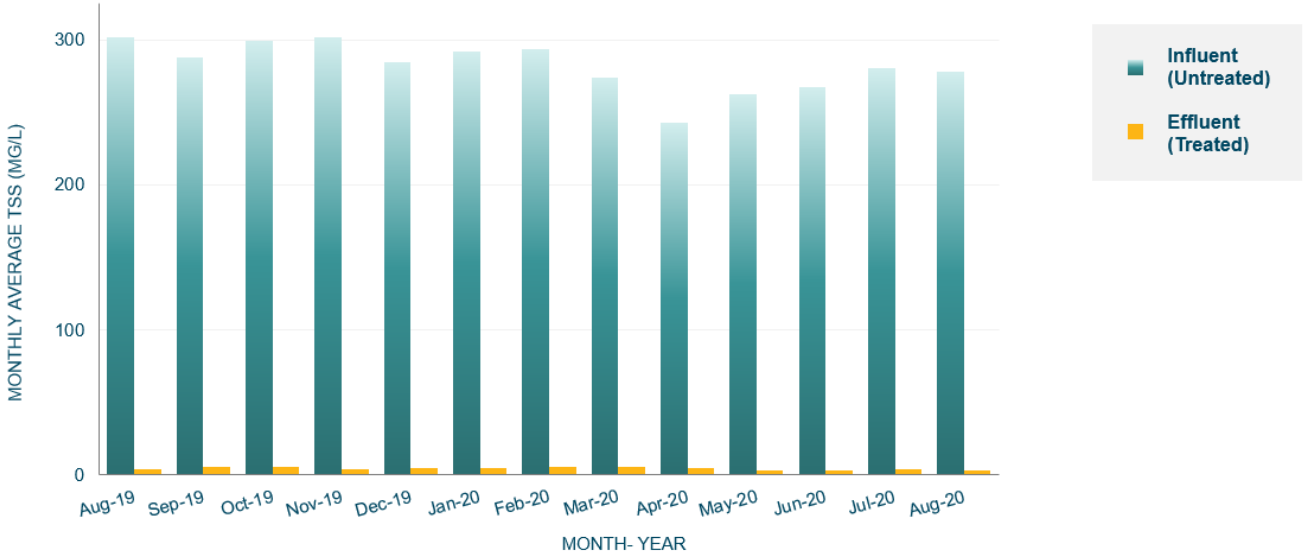


FIGURE 3: TREATED EFFLUENT FLOWS REMOVAL OF TSS



Member Agency Flows

Table 1 (below) presents the influent and effluent flows for the month of August. Average daily influent flows were recorded for each Member Agency. Total effluent flow was calculated for the San Elijo Water Campus.

TABLE 1 – INFLUENT AND EFFLUENT FLOWS IN AUGUST

AUGUST			
	Influent (mgd)	Recycled Water (mgd)	Effluent (mgd)*
Cardiff Sanitary Division	1.226	1.087	0.139
City of Solana Beach	0.949	0.841	0.108
Rancho Santa Fe SID	0.156	0.138	0.018
City of Del Mar	0.479	0.425	0.054
Total San Elijo Water Campus Flow	2.810	2.491	0.319

* Effluent is calculated by subtracting the recycled water production from the influent wastewater.

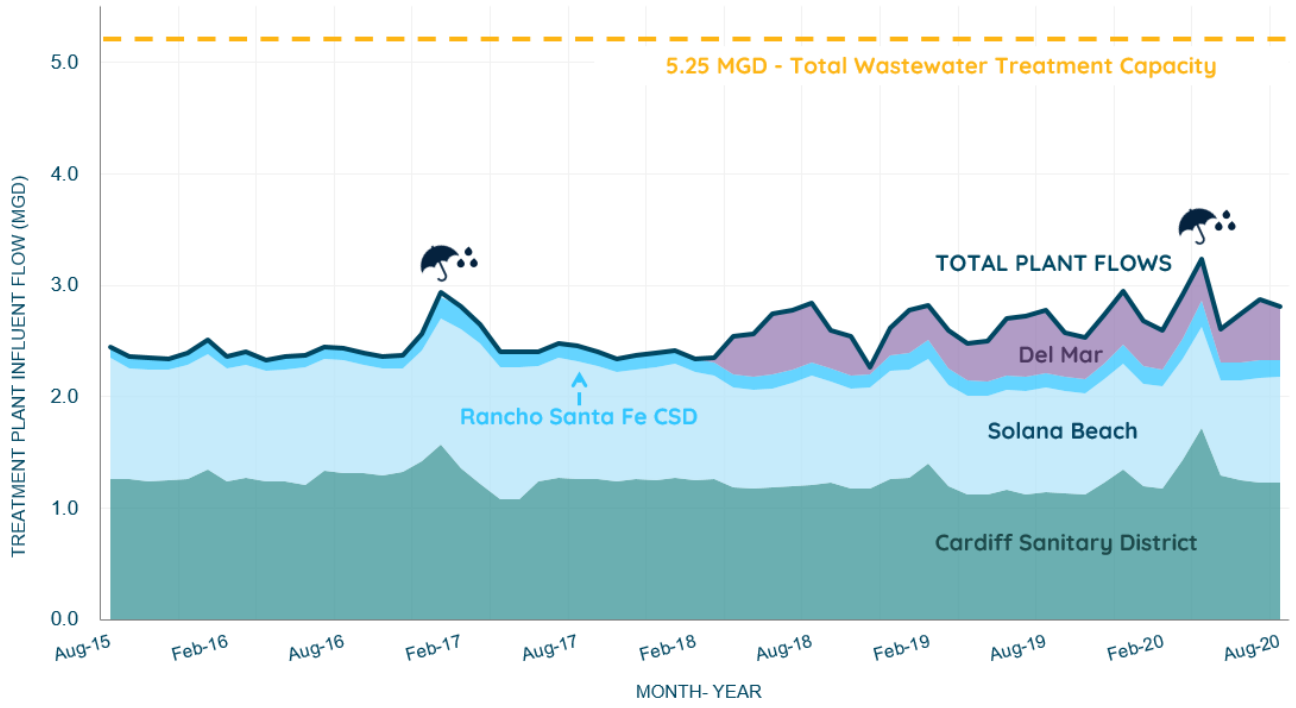
Table 2 (below) presents the historical average and unit influent rates per month for each of the Member Agencies during the past 3 years. It also presents the number of connected Equivalent Dwelling Units (EDUs) for each of the Member Agencies during this same time period.

TABLE 2 - SAN ELIJO WATER RECLAMATION FACILITY MONTHLY REPORT - FLOWS AND EDUS

	AVERAGE DAILY INFLUENT FLOW RATE (MGD)					CONNECTED EDUs					AVERAGE UNIT INFLUENT FLOW RATE (GAL/EDU/DAY)				
MONTH	CSD	RSF CSD	SB	DM	TOTAL PLANT	CSD EDUS	RSF CSD EDUS	SB EDUS	DM	TOTAL EDUS	CSD	RSF	SB	DM	TOTAL PLANT
Aug-17	1.262	0.139	1.051	0.000	2.452	8,423	553	8,061	1,716	18,753	150	251	130	0	144
Sep-17	1.264	0.130	1.006	0.000	2.400	8,427	555	8,061	1,716	18,759	150	234	125	0	141
Oct-17	1.242	0.123	0.977	0.000	2.342	8,431	555	8,061	1,716	18,763	147	222	121	0	137
Nov-17	1.257	0.131	0.983	0.000	2.371	8,431	554	8,061	1,716	18,762	149	237	122	0	139
Dec-17	1.248	0.125	1.014	0.000	2.387	8,431	554	8,061	1,716	18,762	148	226	126	0	140
Jan-18	1.276	0.125	1.015	0.000	2.416	8,435	555	8,061	1,716	18,767	151	225	126	0	142
Feb-18	1.249	0.118	0.968	0.000	2.335	8,441	555	8,061	1,716	18,773	148	213	120	0	137
Mar-18	1.265	0.122	0.922	0.039	2.348	8,451	555	8,061	1,716	18,782	150	220	114	149	125
Apr-18	1.184	0.115	0.901	0.337	2.537	8,451	559	8,061	1,716	18,786	140	206	112	129	135
May-18	1.173	0.119	0.890	0.376	2.558	8,461	562	8,061	1,716	18,799	139	212	110	144	136
Jun-18	1.188	0.124	0.888	0.549	2.749	8,466	562	8,061	1,716	18,804	140	221	110	210	146
Jul-18	1.193	0.118	0.933	0.537	2.781	8,478	562	8,083	2,611	19,733	141	210	115	206	141
Aug-18	1.210	0.119	0.980	0.534	2.843	8,481	563	8,083	2,611	19,737	143	212	121	205	144
Sep-18	1.230	0.117	0.905	0.341	2.593	8,481	563	8,083	2,611	19,737	145	208	112	131	131
Oct-18	1.172	0.121	0.897	0.354	2.544	8,481	564	8,083	2,611	19,738	138	215	111	136	129
Nov-18	1.173	0.121	0.906	0.064	2.264	8,488	565	8,083	2,611	19,746	138	214	112	136	129
Dec-18	1.264	0.144	0.967	0.244	2.619	8,491	566	8,083	2,611	19,751	149	255	120	136	138
Jan-19	1.269	0.153	0.975	0.384	2.781	8,491	566	8,083	2,611	19,751	149	271	121	147	141
Feb-19	1.400	0.173	0.935	0.309	2.817	8,492	566	8,083	2,611	19,752	165	306	116	137	145
Mar-19	1.200	0.149	0.908	0.340	2.597	8,493	568	8,083	2,611	19,755	141	263	112	132	132
Apr-19	1.119	0.138	0.887	0.334	2.478	8,494	568	8,083	2,611	19,756	132	243	110	128	125
May-19	1.125	0.133	0.880	0.361	2.499	8,494	568	8,083	2,611	19,756	132	234	109	138	126
Jun-19	1.162	0.126	0.903	0.507	2.698	8,504	568	8,083	2,611	19,766	137	222	112	194	136
Jul-19	1.127	0.128	0.924	0.546	2.725	8,504	568	8,083	2,611	19,766	133	226	114	209	138
Aug-19	1.148	0.126	0.938	0.567	2.779	8,505	570	8,105	2,612	19,792	135	221	116	217	140
Sep-19	1.131	0.132	0.918	0.393	2.574	8,507	570	8,105	2,612	19,794	133	232	113	150	130
Oct-19	1.120	0.124	0.914	0.378	2.536	8,507	571	8,105	2,612	19,795	132	217	113	145	128
Nov-19	1.230	0.137	0.927	0.437	2.731	8,510	571	8,105	2,612	19,798	145	240	114	172	138
Dec-19	1.347	0.173	0.946	0.483	2.949	8,516	571	8,105	2,612	19,804	158	303	117	185	149
Jan-20	1.194	0.163	0.917	0.410	2.684	8,517	571	8,105	2,612	19,805	140	286	113	157	136
Feb-20	1.176	0.146	0.919	0.352	2.593	8,517	571	8,105	2,612	19,805	138	256	113	135	131
Mar-20	1.432	0.185	0.907	0.389	2.913	8,519	572	8,105	2,612	19,808	168	324	112	149	147
Apr-20	1.720	0.231	0.912	0.377	3.240	8,522	572	8,105	2,612	19,811	202	404	113	153	164
May-20	1.293	0.158	0.853	0.304	2.608	8,523	573	8,105	2,612	19,813	152	276	105	133	132
Jun-20	1.251	0.164	0.897	0.434	2.746	8,534	576	8,105	2,612	19,826	147	285	111	179	139
Jul-20	1.231	0.157	0.937	0.548	2.873	8,535	576	8,110	2,616	19,837	144	273	116	222	145
Aug-20	1.226	0.156	0.949	0.479	2.810	8,540	577	8,110	2,616	19,843	144	271	117	195	142

Figure 4 (below) presents the 5-year historical average daily flows per month for each Member Agency. This is to provide a historical overview of the average flow treated for each agency. Also shown in Figure 4 is the total wastewater treatment capacity of the water campus, 5.25 mgd, of which each Member Agency has the right to 2.2 mgd, Rancho Santa Fe Community Service District leases 0.25 mgd, and the City of Del Mar leases 0.60 mgd.

FIGURE 4: SEJPA AVERAGE DAILY FLOWS OVER THE PAST 5 YEARS



City of Escondido Flows

The average and peak flow rate for the month of August 2020 from the City of Escondido's Hale Avenue Resource Recovery Facility, which discharges through the San Elijo Ocean Outfall, is reported below in Table 3.

TABLE 3 – CITY OF ESCONDIDO FLOWS

	Flow (mgd)
Escondido (Average flow rate)	8.25
Escondido (Peak flow rate)	18.3

Connected Equivalent Dwelling Units

The City of Solana Beach and the City of Del Mar updated the connected EDUs number that is reported to the SEJPA in July 2020. The City of Encinitas and Rancho Santa Fe CSD report their connected EDUs every month. The number of EDUs connected for each of the Member Agencies and lease agencies is reported in Table 4 below.

TABLE 4 – CONNECTED EDUs BY AGENCY

	Connected (EDU)
Cardiff Sanitary Division	8,540
Rancho Santa Fe SID	577
City of Solana Beach	7,773
San Diego (to Solana Beach)	337
City of Del Mar	2,616
Total EDUs to System	19,843

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

*

AGENDA ITEM NO. 10

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

October 20, 2020

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: RECYCLED WATER REPORT

RECOMMENDATION

No action required. This memorandum is submitted for information only.

DISCUSSION

Recycled Water Production

For the month of August 2020, recycled water demand was 246.6 acre-feet (AF), which was met using 246.0 AF of recycled water and 0.6 AF supplementation with potable water. This was the highest August demand since the program began.

August demand was 13.1% above budget expectations of 218 AF. The total water production for FY 2020-21 is slightly above budget (4.7%) for the first two months.

Figure 1 (attached) provides a graphical view of annual recycled water demand spanning the last 10 fiscal years, with the overlay of annual rainfall. Since the recycled water program primarily serves outdoor irrigation, annual demand is reduced during wet periods and increases during times of drought. Figure 2 (attached) shows the monthly recycled water demand for each August for the last ten years to provide a year-over-year comparison. Figure 3 (attached) compares budget versus actual recycled water sales for FY 2020-21.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

FIGURE 1: RECYCLED WATER DEMAND AND RAINFALL COMPARISON

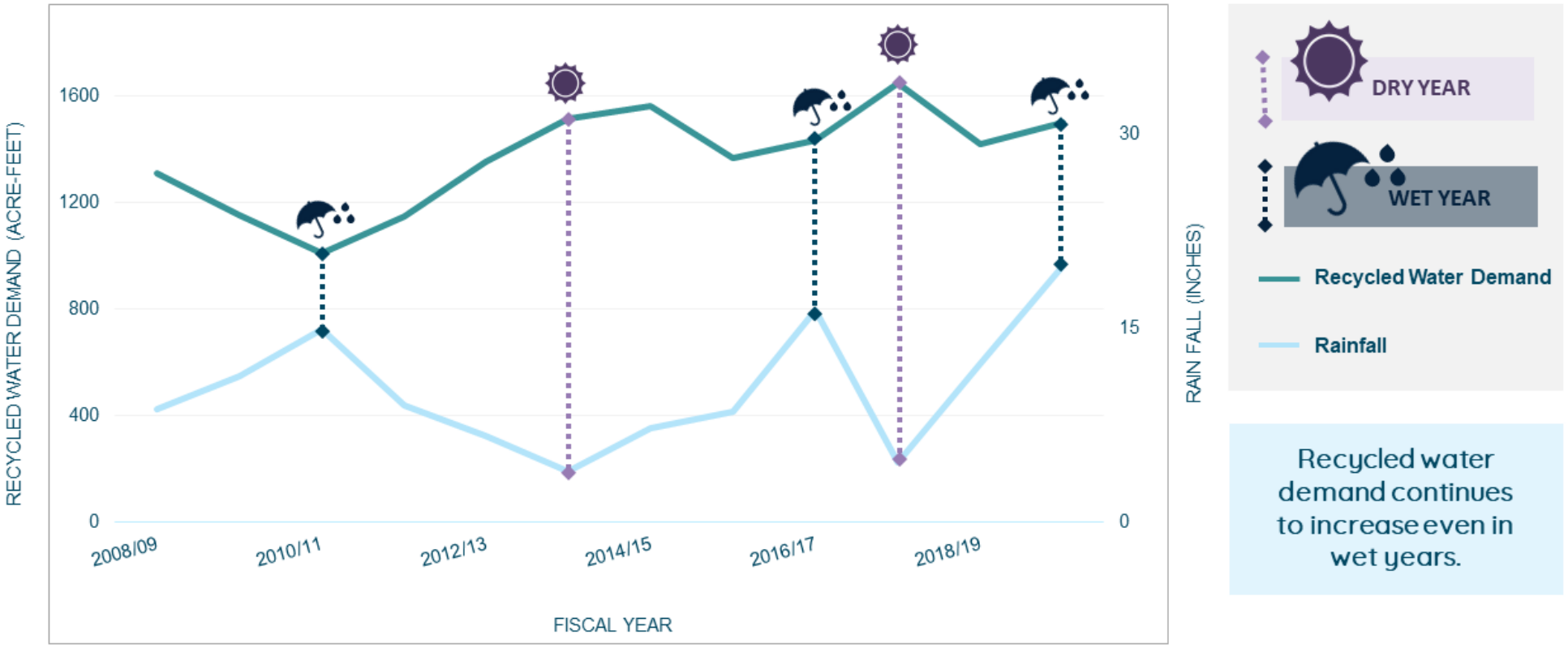


FIGURE 2: AUGUST RECYCLED WATER DEMAND

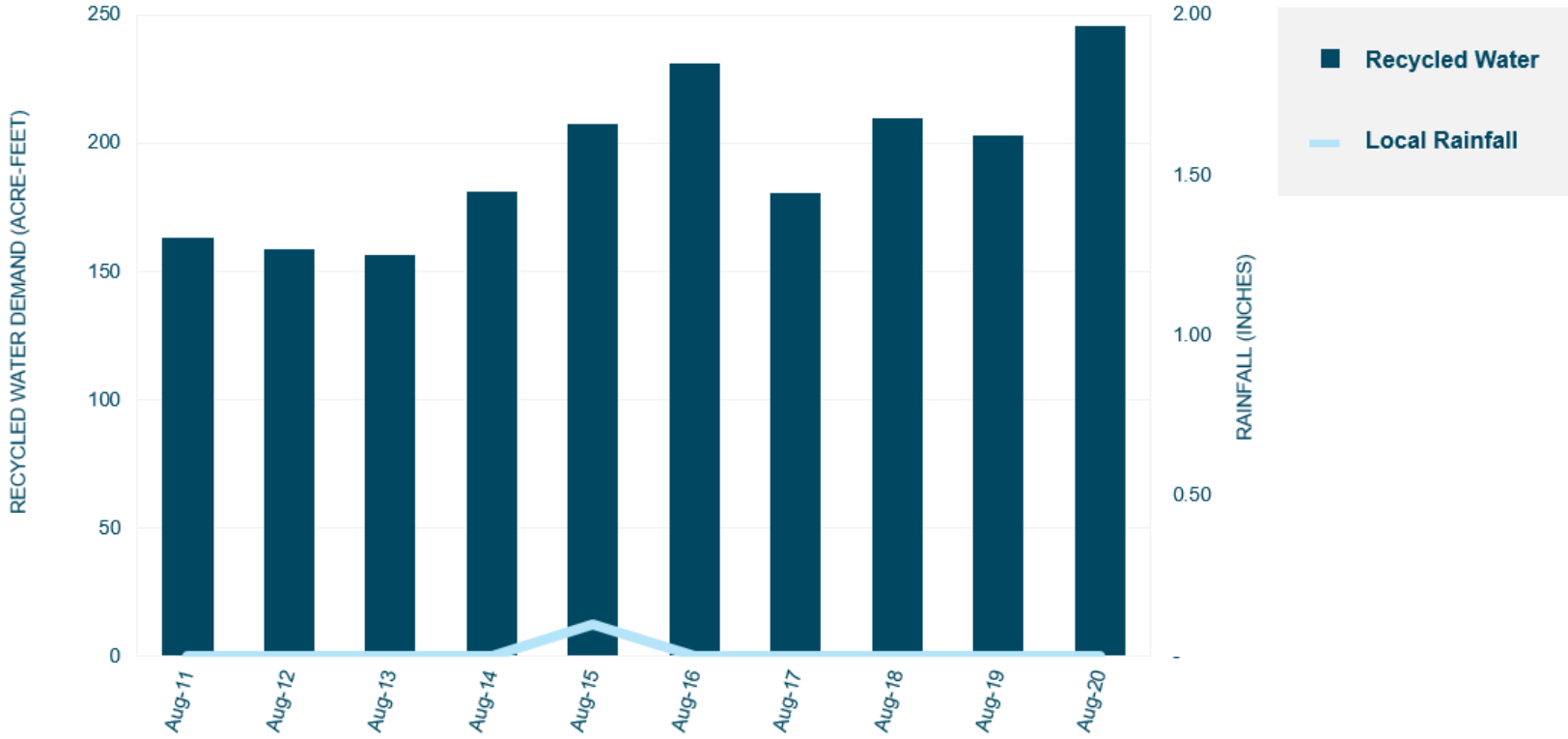
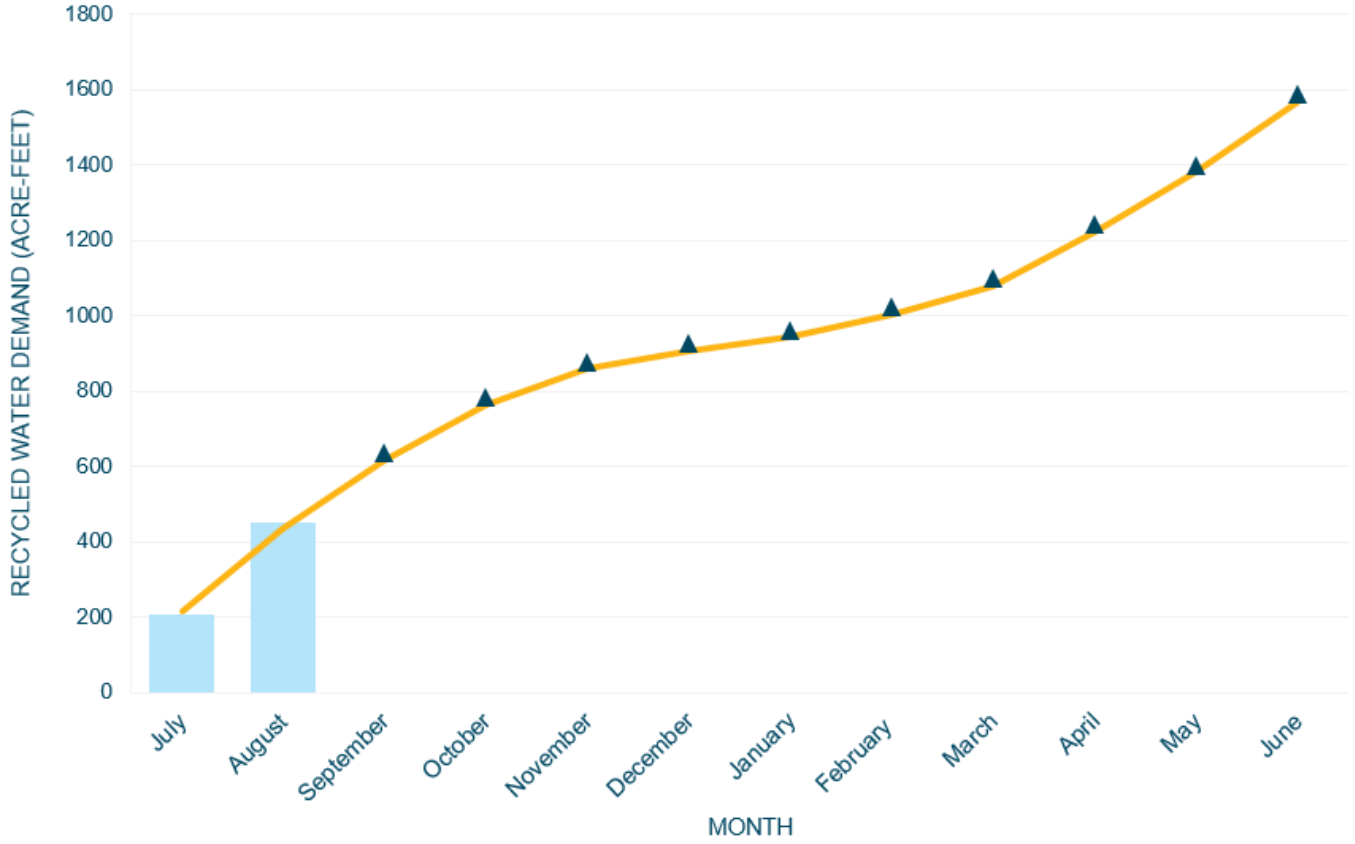


FIGURE 3: FY2020/21 CUMULATIVE DEMAND VS BUDGET



Actual

Budgeted

Projected

Recycled water sales are tracking close to budget.

*

AGENDA ITEM NO. 11

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

October 20, 2020

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Director of Finance and Administration

SUBJECT: AWARD OF CONTRACT FOR THE 2021 RECYCLED WATER COST OF SERVICE RATE STUDY

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to execute the Agreement with Carollo Engineers for the Recycled Water Cost of Service Study for an amount not to exceed $47,841; and

2. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) supplies recycled water to Santa Fe Irrigation District (SFID), San Dieguito Water District (SDWD), the City of Del Mar, Olivenhain Municipal Water District (OMWD), and the Encinitas Ranch Golf Association (ERGA). The SEJPA has individual agreements with each entity that describes the terms and conditions for the delivery and purchase of the recycled water. The agreements, except for ERGA, will require price setting for July 2021, and beyond. ERGA's contract is different than the other agreements as it is an interruptible supply based on SEJPA's available recycled water. The recycled water agreement between SEJPA and ERGA has established pricing set through June 30, 2024.

The agreements with SFID, SDWD, OMWD, and Del Mar state that recycled water rates shall be developed using a cost-of-service methodology to determine the revenue needed to operate and maintain the recycled water utility, and to cover capital expenses and reserves.

DISCUSSION

In August 2020, staff advertised a request for proposals (RFP) for the development of the 2021 Recycled Water Cost of Service Study on the public bidding website, PlanetBids, and 75 vendors were notified. The website indicated that 12 firms downloaded the RFP and three firms submitted proposals. The proposals were reviewed by an SEJPA lead panel that included staff from San Dieguito, Santa Fe, and Olivenhain water districts. Based on the project approach and team members, the proposal from Carollo was selected. The Carollo project team was interviewed to further discuss their experience, anticipated project challenges, scope of work, schedule, and fee. The scope of work and fee were further refined and are included with this staff report.

The scope of work includes a kickoff meeting, cost of service analysis including reviewing existing rates and data, customer usage and projections, revenue requirement, cost allocation, rate workshop, study report and workshop, rate model functionality with scenario manager and six hours of model training, and board presentation materials. These deliverables will support a five-year rate recommendation for adoption consideration by the SEJPA Board.

FINANCIAL IMPACT

The proposed professional service agreement to develop the financial model and prepare the cost of service study is $47,841. Funding for this effort is available in the Fiscal Year 2020-21 Recycled Water Program budget.

It is therefore recommended that the Board of Directors:

1. Authorize the General Manager to execute the Agreement with Carollo Engineers for the 2021 Recycled Water Cost of Service Study for an amount not to exceed $47,841; and

2. Discuss and take action as appropriate.

Respectfully submitted,

Amy Chang
Director of Finance and Administration

Attachment 1: Carollo Scope of Work and Fee Schedule

Prepared for
SAN ELIJO JOINT POWERS AUTHORITY

RECYCLED WATER RATE COST OF SERVICE STUDY

PROPOSAL
SEPTEMBER 2020

carollo
Engineers...Working Wonders With Water®

carollo
Engineers...Working Wonders With Water®

5355 Mira Sorrento Place, Suite 270, San Diego, California 92121
P. 858.505.1020

September 2, 2020

San Elijo Joint Powers Authority
2695 Manchester Avenue
Cardiff by the Sea, CA 92007
Submitted via PlanetBids

Subject: Proposal for Recycled Water Rate Cost of Service Study

Dear Selection Committee:

The San Elijo Joint Powers Authority (Authority) needs a trusted and proven advisor to develop a defensible Recycled Water Rate Cost of Service Study to maintain fiscal sustainability, ratepayer equity, and environmental stewardship. As public scrutiny and litigation of rate and charges for water service increases, so does the need for an independent review and third-party recommendation of rates to equitably recover costs from those customers who directly benefit from the services provided.

Combined with our deep water engineering resources, Carollo Engineers has become one of the most experienced and tested rate consultants in California in recent years. Our selected project team has successfully delivered comprehensive financial studies to more than 100 utilities. With the knowledge, resources, and capabilities to support this complex undertaking, as well as our direct experience working with the Authority, Carollo will develop a Recycled Water Rate Cost of Service Study that will provide a cohesive roadmap for the Authority to continue providing recycled water to its customers.

Carollo values this opportunity to continue our relationship with the Authority and looks forward to proving our record of service by providing a clear, defensible, and comprehensive Study. Should you have any questions regarding this proposal, please contact Jennifer at (972) 339-0783 or Alex at (213) 279-3314.

Sincerely,

CAROLLO ENGINEERS, INC.

Jennifer Ivey
Vice President/Principal-in-Charge

Alex Bugbee
Project Manager

A. Executive Summary

Carollo's hand-picked team has the experience and technical qualifications to successfully deliver a Cost of Service Study (COSS) that presents sound financial strategies for the recycled water rates for the San Elijo Joint Powers Authority (Authority).

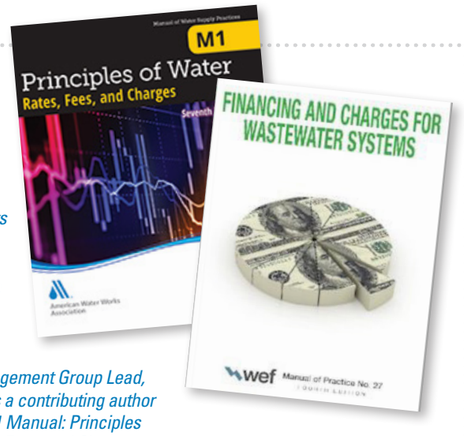
Firm Qualifications

WATER
OUR FOCUS
OUR BUSINESS
OUR PASSION

Carollo Engineers is the largest engineering firm in the United States dedicated solely to water-related engineering **— it's all we do.**

For 87 years, Carollo has provided water, wastewater, and recycled water system planning and financial services to utilities. Over the past several years, Carollo has created one of the most sought-after rate consulting practices in the United States. Our comprehensive financial studies for public agencies include financial modeling, cost allocations, and rate and fee developments.

Carollo's Financial Management Group (FMG) works closely with utility leaders to help them make the important, and sometimes difficult, decisions that allow the utility to continue on a successful path.



Our financial advisory experts have written the book when it comes to rate studies and other financial services. Our Financial Management Group Lead, Jennifer Ivey, is a contributing author for AWWA's M1 Manual: Principles of Water Rates, Fees, and Charges, 7th edition, and is part of the editorial team for the upcoming 8th edition. She also served as a reviewer for WEF's updated Manual of Practice 27: Financing and Charges for Wastewater Systems.

carollo
Engineers...Working Wonders With Water®
MEETS the CRITERIA

Personnel

Availability of consultant staff can be a cause for concern for many clients. This is where Carollo's team resources bring a distinct advantage. The organization chart provided on page 6 shows our proposed team of key personnel and analysts. These are the staff we are committing to your Cost of Service Study, and we will make them available.

Our team will provide continuous communication with the Authority's project manager to make sure we are doing the right thing the first time. Our entire approach to working with you is based upon responsiveness, meeting deadlines, strong project management, and quality technical expertise.

KEY PERSONNEL


Alex Bugbee
Project Manager


Jennifer Ivey
Principal-in-Charge


Jeff Weishaar
Quality Manager


Maddie Atkins
Financial Analyst

Experience and Technical Capabilities

Our combination of engineering and financial knowledge produces a cost of service analysis that is backed by engineering principles. This allows you to clearly relate rates charged to a customer to the service that they are provided.

We will take time to understand your unique challenges, allocate costs in a fair and equitable manner, and keep all stakeholders engaged throughout the process. It is an approach that has made us the leading rate consultant in several states and has served our clients extremely well.

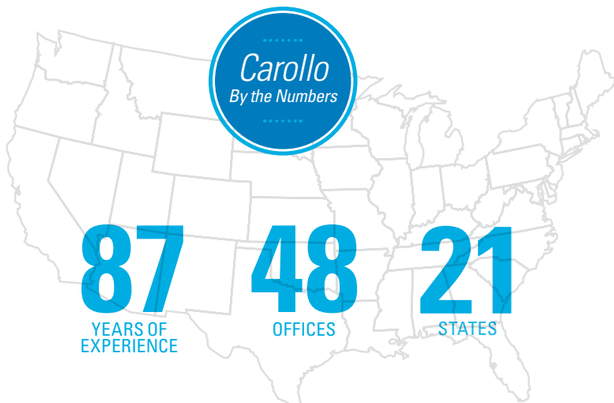
To succeed in the cost-conscious and results-driven utility market, it is important for utilities to execute technical solutions within the context of sound business practices. Our team works closely with utility managers to effectively administer financial solutions to evolving challenges like no other consultant in the industry. Our experts understand the unique hurdles that agencies like the San Elijo Joint Powers Authority face. Our goal is to provide information and advice to help implement solutions that are beneficial, defensible, and credible.

Carollo has the necessary resources to develop this rate study and tackle the unique challenges facing the Authority.

Relevant Experience

Carollo is one of the most experienced rate consultants in California with more than 100 studies completed. Our team is knowledgeable about Proposition 218 and other legislation relevant to utility rates and charges. We know how to apply that knowledge to develop defensible, fair, and effective rates for your agency.

In addition to our financial experience, Carollo has worked with the Authority on numerous engineering project and will bring that familiarity with your system to this rate study.



300+
Cost of Service/Rate Studies Completed by Carollo

CONSULTANT INFORMATION

Legal Name and Address of Company:

Carollo Engineers, Inc.

Headquarters:

2795 Mitchell Drive
Walnut Creek, CA 94598
P: 925-932-1710 | F: 925-930-0208

Legal Form of Company

Carollo is a corporation.

Wholly Owned Subsidiary of a Parent Company

Carollo is not a subsidiary of any parent company.

Addresses of Offices Working on this Project

Los Angeles, CA

707 Wilshire Boulevard, Suite 3920
Los Angeles, CA 90017
P: 213-489-1587 | F: 213-572-0361

Dallas, TX

14755 Preston Road, Suite 500
Dallas, TX 75254
P: 972-763-4466 | F: 972-239-9117

San Diego, CA

5355 Mira Sorrento Place, Suite 270
San Diego, CA 92121
P: 858-505-1020 | F: 858-505-1015

Primary Point of Contact

Jennifer Ivey, Principal-in-Charge
14755 Preston Road, Suite 500
Dallas, TX 75254
P: 972-763-4466 | C: 972-339-0783
jivey@carollo.com

B. Project Understanding and Approach

PROJECT UNDERSTANDING

The San Elijo Joint Powers Authority (Authority) is seeking a consultant to complete a comprehensive Recycled Water Rate Cost of Service Study to evaluate and recommend rates and charges for recycled water service. The Authority provides recycled water to 4 wholesale customers: San Dieguito Water District, Santa Fe Irrigation District, Olivenhain Municipal Water District, and the City of Del Mar. The current recycled water rate structure is 100 percent variable with no fixed charge. The Authority offers 2 level-of-service-based rates: interruptible and non-interruptible. It completes a cost of service study for recycled water rates about every 2 years, with the most recent study completed in 2018.

Carollo understands the importance of selecting a qualified rate consultant for this Study to provide an independent analysis and defensible recommendations for consideration by your Board of Directors. We understand that adequate recovery of costs and compliance with legal and regulatory requirements, debt covenants, and your policies are not merely objectives of this Study – they are essential to the continued operation of the Authority. Carollo's proven California experience and industry leadership will successfully lead you through the Study.

OUR APPROACH

Carollo's approach is simple: understand your unique challenges, allocate costs in a fair and equitable manner, and keep stakeholders engaged throughout the process. It is an approach that has served our clients extremely well and made us the leading rate consultant across much of the United States.

Combined Engineering and Financial Approach

Carollo's combined engineering and financial expertise differentiates us from other rate consultants. A rate study developed only from a financial perspective may provide an answer that achieves revenue sufficiency, but a truly complete rate study includes **engineering expertise that helps justify the need for rates** based on the underlying engineering assessment.

Carollo's engineering expertise allows us to understand the importance and gravity of the opportunities and challenges you face. Our financial capabilities provide a road map for meeting these goals. The continued decline in demand for recycled water is one example of the challenges the Authority is facing that require a combined engineering and financial framework to be reflected in the rate study. Otherwise, the resulting rate structure only paints half the picture.

OUR FINANCIAL EXPERTISE, COMBINED WITH OUR TEAM'S INTIMATE ENGINEERING KNOWLEDGE OF YOUR SYSTEM, ALLOWS CAROLLO TO TAKE OUR ANALYSIS FURTHER AND TO PROVIDE YOU WITH DETAILED AND SUPPORTABLE RECYCLED WATER RATES BASED ON THE DESIGN AND OPERATION OF THE SYSTEM. THIS APPROACH ULTIMATELY PROVIDES EQUITY AND DEFENSIBILITY TO THE STUDY.

Fair and Equitable Cost Allocations

Rate studies are increasingly under public scrutiny. That is why it is important to have a trusted advisor with a proven track record of anticipating and responding to the most common and significant rate study pitfalls facing utilities today. It is not enough to simply avoid this scrutiny. Utilities must proactively prepare for and be ready to respond to it. **Carollo's approach is founded upon fair and equitable cost allocations. Simply put, system usage determines system rates.**

This approach has made Carollo one of the most sought-after rate consultant in California, where the legal environment surrounding utility rates under Proposition 218 has become increasingly litigious. The development of a nexus between how costs are incurred and who receives the benefits is crucial to the cost of service process, and the burden of proof for this nexus falls on the utility. Carollo's engineering-based approach focuses on this nexus and has been affirmed in the courts for its clear and defensible cost of service principles, something that most other rate consultants cannot claim.

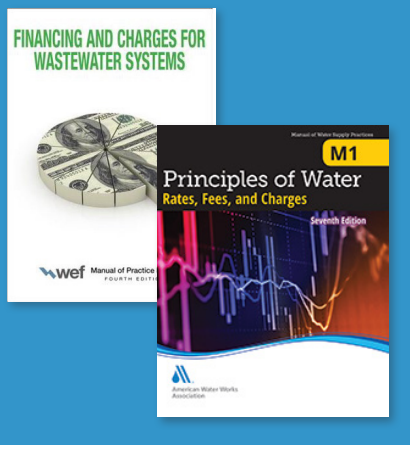
Stakeholder Engagement and Collaboration

Developing the rate structure is only half of the project. The other half is getting buy-in from your key stakeholders. The Carollo team has extensive experience with public outreach and stakeholder engagement. We understand the various perspectives that come into play during a rate study, ranging from occasional users to consistent users with large demands. **From project kickoff to final rate adoption, stakeholder engagement must be a priority.**

Too many rate studies are developed in a vacuum with few opportunities for staff to provide input. Carollo prefers a collaborative approach that engages staff during the early stages of the project and keeps them engaged throughout the Study. **Carollo views this Study as an opportunity to collaborate with the Authority and its varied and diverse stakeholders. In our experience, this philosophy results in a more successful rate study and garners more support from your customers.**

Project Management and Communication

The key to Carollo's project management approach is communication, both internal and external. This begins with the project scope, making sure everyone is in agreement and that the written scope of work provides sufficient detail. We will also communicate our anticipated schedule to ensure we are meeting your expectations. Our project manager will monitor the scope and schedule carefully throughout the Study and communicate with you if either start to get off track. We expect our project manager, Alex Bugbee, to have an open line of communication with the Authority's project manager to efficiently communicate all needs of the study.



What Sets Us Apart: ***INDUSTRY EXPERTS*** in Rate Studies

Over the course of many successful projects, our team has become a leader in cost-of-service rate design and financial planning for agencies of all sizes and in all regions. Our team regularly presents at national conferences and publishes in industry journals, placing us at the forefront of this ever-changing field. Our Financial Management Group Lead, Jennifer Ivey, is active in industry associations including the AWWA national Rates and Charges Committee and WEF Utility Management Committee. She is also a contributing author for AWWA's Principles of Water Rates, Fees, and Charges M1 Rates Manual, 7th edition, and is part of the editorial team for the upcoming 8th edition. She also served as a reviewer of WEF's manual of Practice 27: Financing and Charges for Wastewater Systems.

ANTICIPATED CHALLENGES

CHALLENGE #1 *Legal Compliance*

Proposition 218 has become increasingly litigious and poses a clear legal and financial hurdle to the rate-setting process. In addition, any study can be challenged as the onus is on the utility. As such, it is paramount for the Authority to have a trusted and tested approach and administrative record.

Combined Engineering and Financial Understanding

Carollo can help position the Authority for success in the event its rates are challenged. Our team and approach address the full picture by combining both engineering and financial lenses. Our approach draws a traceable line between costs and the users benefitting from those costs. It is the only equitable way to calculate rates. We do not simply rely on "the numbers" to tell the story to your ratepayers and Board, and we never use generic allocation factors under the guise of "industry standards." Our sound engineering basis is tailored to your system and will explain the "who" and "why." The result: stakeholders can understand the complexities of the rate structure and clearly see the cost of service nexus.

Our approach and dedication to cost of service is something we believe sets us apart from the competition.

CHALLENGE #2 *Future Usage Uncertainty*

California's recent multi-year drought brought increased conservation messaging to customers. For recycled water providers, the usage volatility experienced during the drought is magnified by the high irrigation demand that can fluctuate drastically with the weather. Although the Authority continues to add new users to its recycled water customer base, growth has been below initial projections. All of these factors contribute to a demand projection challenge for this Study.

Leaders in Demand Planning and Data Analysis

The Carollo team leads the industry in financial and data analyses for water and wastewater agencies. It all starts with a thorough understanding and analysis of your customer usage data. This step is commonly glossed over, much to the detriment of the final rate recommendations, which then lack the detail needed to fully recover revenues.

Our approach uses detailed data science methods to understand your system and your customer demands. Only with this understanding can the rate structure truly reflect system usage. Our data analysis outputs are easy to understand and will provide actionable intelligence to the Authority's staff to assist with tracking trends.

CHALLENGE #3 *Communication and Outreach*

Public perception and engagement are critical underpinnings to a successful rate study. It is a crucial step that cannot be overlooked. Too often though, rate studies postpone stakeholder feedback until too late in the process, leaving the door open to political and legal challenges.

Track Record of Public Engagement

Carollo's philosophy is to engage with stakeholders early and often. This starts with your Board of Directors. We need their buy-in and understanding or else the rate recommendations will not resonate with them. We achieve this by listening to staff and the Board to identify their priorities and "pain points" so we can design our alternatives accordingly. We recently worked with the Santa Fe Irrigation District and its Board of Directors to develop its 2020 water rates. Much of the success of that study is due to the many workshops we had with the Board to understand its objectives so we could create several unique but effective alternatives for their consideration.

C. Project Organization and Key Personnel

LOCAL PRESENCE COMBINED WITH CLOSE UNDERSTANDING OF YOUR SYSTEM

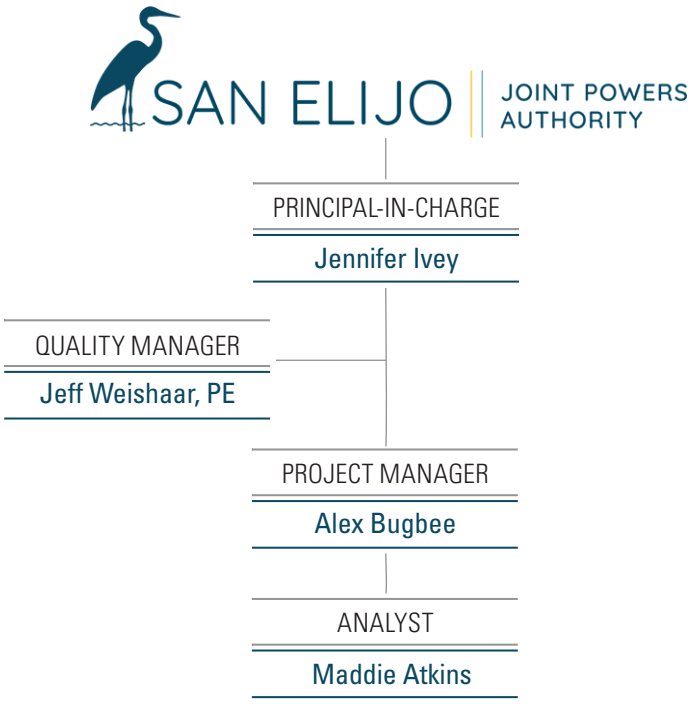
Our team's local presence offers greater flexibility to meet the needs of this project. Furthermore, our experience developing rates for San Elijo JPA will be invaluable to meet the Authority's timeline.

The success of this project lies in the experience and abilities of the project team. A successful project team must demonstrate practical and relevant experience in all of the technical aspects of the project, a well-conceived work plan and project approach, and a commitment to the project goals.

We have dedicated a team to your project that will fulfill these requirements in totality.

Our proposed team has completed numerous successful rate studies together, which provides enhanced abilities meeting the Authority's unique needs and delivering the project.

Our team is illustrated in the organization chart at the right, with brief introductions below. Resumes are provided in the appendix of this proposal.



PRIMARY PROJECT CONTACT

Jennifer Ivey
Principal-in-Charge
P: 972-763-4466
C: 972-339-0783
jivey@carollo.com

TEAM MEMBER	OFFICE LOCATION
Alex Bugbee	Los Angeles, CA
Jennifer Ivey	Dallas, TX
Jeff Weishaar	San Diego, CA
Maddie Atkins	Los Angeles, CA

Carollo Engineers and all assigned key professional staff are properly registered/licensed to practice in California.

PROJECT MANAGER

Alex Bugbee

Alex Bugbee has managed rate studies for numerous agencies across Southern California, including Los Angeles Bureau of Sanitation, City of Oceanside, Inland Empire Utilities Authority, and City of Riverside. He is a senior analyst with more than 11 years of experience in utility rates and financing and asset management. His primary expertise includes assisting water and wastewater agencies develop financial and econometric models, program funding and implementation strategies, asset management plans, rehabilitation and replacement programs, as well as compiling and analyzing the necessary background data. Most recently, Alex managed the Inland Empire Utilities Agency's water and wastewater rate and fee study, including development of a new One Water Regional Connection Fee that provides funding for recycled water and water resources projects and initiatives.

Alex will be responsible for directing the day-to-day activities of the project and meeting the budget and schedule requirements. He will be responsible for the commitment of resources, as well as the technical accuracy of the work. Alex will be the Authority's point person for status updates and working with stakeholders. Alex will not be reassigned without prior written approval from the Authority.

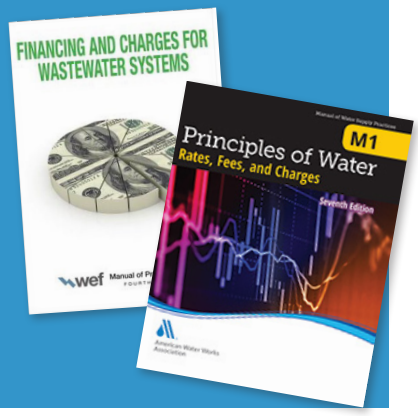
PRINCIPAL-IN-CHARGE

Jennifer Ivey, PE

A vice president and the lead of Carollo's Financial Management Group (FMG), Jennifer Ivey has more than 15 years of experience providing utility rate structure guidance to agencies across the country, with a focus on California in the last four years. Her combined financial and engineering expertise supports the development of accurate financial results based on sound engineering and cost causation foundation, leading to transparent and defensible study recommendations.

Jennifer will serve as the Principal-in-Charge on the project and will be available for the Authority to weigh in on critical issues such as Proposition 218 guidance or stakeholder outreach and engagement.

Jennifer Ivey is a contributing author for AWWA's updated *Principles of Water Rates, Fees, and Charges M1 Rates Manual* and a reviewer of WEF's *Manual of Practice 27: Financing and Charges for Wastewater Systems.*



QUALITY MANAGER

Jeff Weishaar, PE

Jeff Weishaar, a civil and environmental engineer with Carollo Engineers, has worked on various wastewater projects, including elements of analysis, design, and construction. He has 12 years of experience encompassing all phases of design for upgrade and expansion projects. Jeff brings a local perspective and intimate knowledge of your facility having led the 2015 SEWRF Facility Plan Update. His local project portfolio includes key roles with the cities of Oceanside, Escondido, and Vista, as well as the Encina Wastewater Authority covering all phases of design for rehabilitation, upgrade, and expansion projects.

ANALYST

Maddie Atkins

Maddie Atkins is a highly detail-oriented analyst with broad experience working on California rate studies. She has worked on recycled water rates for agencies including the City of Carlsbad and Inland Empire Utilities Agency. Maddie's data analysis experience with statistical programming languages like R will be extremely valuable to getting better insights from your customer data.

D. Experience and Technical Competence

TECHNICAL CAPABILITIES

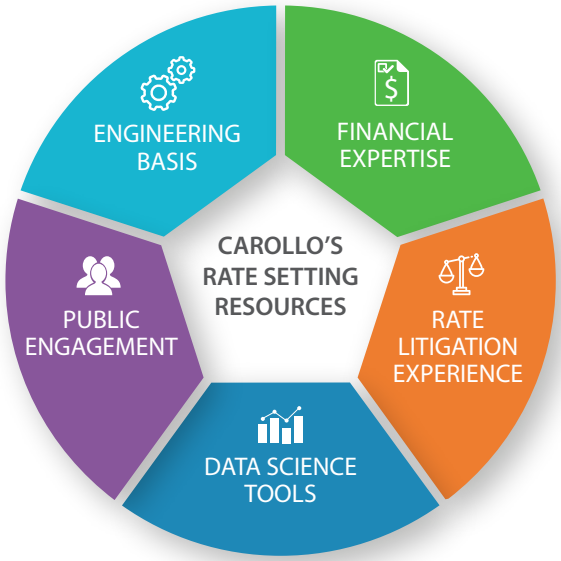
Carollo Engineers, Inc. is the largest engineering firm in the United States dedicated solely to water-related engineering—it's all we do. This targeted expertise allows us to focus on developing cost-effective, innovative, and reliable solutions to help our clients implement best value solutions to protecting public health and the environment. It also allows us to recruit the brightest minds in the water industry, train our staff on the issues impacting water and wastewater, and lead the industry with innovative ideas tailored to the specific needs of our clients. Carollo is guided by a culture of teamwork and integrity. Embracing the firm's rich history and solid reputation for offering professional excellence, our employees have a shared mission to provide exceptional service to our clients. We are dedicated to overcoming challenges, seizing opportunities, and "Working Wonders with Water."

National Water and Wastewater Experts

Carollo is the nation's largest environmental engineering firm specializing exclusively in the planning, design, and construction of water and wastewater facilities. Since 1933, Carollo has successfully completed more than 20,000 projects for public sector clients. Carollo is currently ranked within *Engineering News-Record*'s (*ENR*) top 100 design firms and among the top firms for water and wastewater treatment plant design.

Rate Study Leaders

For 87 years, Carollo has provided water, wastewater, and recycled water system planning and financial services to utilities throughout California and the United States. In recent years, Carollo has become one of the largest rate consultants in California. Collectively, our proposed project team for this study has provided financial planning services for more than 200 utilities. We have performed work for clients with service area populations ranging in size from several hundred to 4 million residents. Our comprehensive financial studies for public agencies include financial modeling, cost allocations, and rate and fee development.



Carollo has the necessary resources to develop this rate study and tackle the unique challenges facing the Authority.

CAROLLO FINANCIAL MANAGEMENT GROUP

To achieve success in the cost-conscious and results-driven modern utility market, it is important for utilities to provide creative technical solutions executed within the context of sound business practices. Combined with the technical expertise in water, wastewater, and recycled water systems, the Carollo Financial Management Group (FMG) has been successfully helping its clients like no other consultant can in the industry. The FMG works with utility managers to effectively administer business operations with creative solutions to evolving challenges. As a leading environmental engineering and consulting firm focused in the utility market, our experts understand the unique hurdles that agencies face. It is important for utilities to continue to provide creative technical solutions. However, these solutions must be executed within the context of sound, innovative business practices to be successful in the competitive and results-driven modern utility market. Our goal is to provide utilities with the information and advice to allow them to provide successful creative solutions The FMG is comprised of professionals who have proven and

practical experience delivering innovative business practices to the public sector solutions that are specifically tailored to each client's needs. We provide a broader range of services than just rate studies. Our services are grouped within one of the following six disciplines:

- Finance, Funding, and Economic Sustainability.
- Asset Management.
- Strategy and Business Case Evaluations.
- Information Management.
- Organizational Development.
- Operations and Maintenance Management.

COMPREHENSIVE FINANCIAL PLANNING EXPERIENCE

Our combined financial and engineering expertise provides us with the unique ability to efficiently allocate rates in a fair and equitable way, thus reducing potential Proposition 218 concerns. Our technical expertise, paired with proven financial strategies, allows us to anticipate and meet the specific objectives for this study. While not a complete list, the matrix on the next page demonstrates the breadth and depth of our financial services expertise.

Carollo has a depth of resources few other firms can match. Carollo's project team allows your project to receive the management and technical expertise, personal attention, and resources required to successfully complete the Study.

PROPOSITION 218 UNDERSTANDING

Considering recent case law, the Authority needs a trusted and tested advisor to help develop defensible cost of service analysis and transparent rates for its customers.

We have a thorough understanding of Proposition 218 as well as the recent legal opinions and the potential implications of these challenges. Our combined financial and engineering approach is necessary to achieve the Authority's desired result of detailing a defensible cost of service framework and validating its existing work. With a true engineering basis providing the foundation of the analysis, the Authority can pinpoint the specific attributes of the system related to providing various recycled water demands. This approach sets us apart from the rest of the industry.

Our mission is clear: we serve our clients to build vibrant, high-performing organizations through value appreciation in both service and utility equity.

California Recycled Water Rate Experts

San Elijo Joint Power's Authority's recycled water program provides a stable and vital resource to its customers in a time of increasing water supply uncertainty. As such, it is imperative that the program remains on a strong financial footing so that its infrastructure can continue to provide reliable service.

From accurately projecting revenues to appropriately recovering operational and capital costs from users, the development of recycled water rates sets the stage for the financial and operational sustainability of any recycled water program.

For **Inland Empire Utilities Agency**, we performed extensive modeling of recycled water revenues under varied demand scenarios to assess the financial and rate impact of unstable demands. We also developed multiple rate structure alternatives aimed at decreasing revenue volatility.

For **Eastern Municipal Water District**, we expanded on the District's rate structure to bring fixed rates into better alignment with customer demands and updated volumetric rates for agricultural, non-agricultural, demand, and contract customers.

For **Carlsbad Municipal Water District**, we developed a recycled water rate structure with fixed and variable components to support CMWD's ongoing programs and continued investment in expanding and maintaining the recycled water system.

RELEVANT EXPERIENCE

The table below presents Carollo's relevant projects undertaken in the last 5 years.

CAROLLO'S CALIFORNIA RATE-SETTING EXPERIENCE	Capital Planning and Funding	Cost of Service Rate Structure Analysis	Revenue Requirements	Fiscal Policy Review	Connection/ Impact Free	Custom Financial Model	Bond Coverage Evaluation	Stakeholder Involvement/ Public Outreach
City of Arcadia, CA	●	●	●	●		●	●	●
City of Carlsbad, CA	●	●	●	●	●	●	●	●
City of Corona, CA	●	●	●	●		●	●	●
City of Del Mar, CA	●	●	●	●	●	●	●	●
City of Los Angeles, CA	●	●	●	●		●	●	●
City of Modesto, CA	●	●	●	●	●	●	●	●
City of Oceanside, CA	●	●	●	●	●	●	●	●
City of Pasadena, CA	●	●	●	●		●	●	●
City of Reedley, CA	●	●	●			●	●	●
City of Riverside, CA	●	●	●	●	●	●	●	●
City of Sacramento, CA	●	●	●	●	●	●	●	●
City of San Clemente, CA	●	●	●	●		●	●	●
City of San José, CA	●	●	●	●	●	●	●	●
City of Simi Valley, CA	●	●	●	●	●	●		●
City of Upland, CA		●	●	●	●	●		●
Coachella Valley Water District, CA	●	●	●	●		●	●	●
Eastern Municipal Water District, CA	●	●	●	●		●	●	●
El Toro Water District, CA		●	●			●		
Encina Wastewater Authority, CA		●		●				●
Inland Empire Utilities Agency, CA	●	●	●	●	●	●	●	●
Irvine Ranch Water District, CA	●	●	●	●		●		
Jurupa Community Services District, CA	●	●	●	●	●	●	●	●
Marin Municipal Water District, CA	●	●	●	●	●	●	●	●
Marina Coast Water District, CA	●	●	●	●	●	●	●	●
Monte Vista Water District, CA		●	●	●	●	●		●
Napa Sanitation District, CA	●	●	●	●	●	●	●	●
Orange County Sanitation District, CA	●	●	●	●	●	●	●	●
Padre Dam Municipal Water District, CA	●	●	●	●		●	●	●
Pajaro Valley Water Management Agency, CA	●	●	●	●		●	●	●
Palmdale Water District, CA	●	●	●	●	●	●	●	●
Sacramento County Department of Water Resources, CA	●	●	●	●		●	●	●
Sacramento Regional County Sanitation District, CA	●	●	●	●	●	●	●	●
San Diego County Water Authority, CA		●	●	●	●	●	●	●
San Francisco Public Utility Commission, CA	●	●	●	●	●	●	●	●
Santa Ana Watershed Project Authority, CA	●	●	●	●	●	●	●	●
Santa Fe Irrigation District, CA	●	●	●	●		●	●	●
Santa Margarita Water District, CA	●	●	●	●	●	●	●	●
South Coast Water District, CA	●	●	●	●		●	●	●

Carollo's **combined financial and engineering expertise** supports development of **accurate financial results based on sound engineering and cost causation** foundation.

Cost of Service Rate Study

EASTERN MUNICIPAL WATER DISTRICT, CA

SIMILAR PROJECT EXPERIENCE

Eastern Municipal Water District (EMWD) retained Carollo to conduct a full cost-of-service analysis of its water, wastewater, and recycled water rates. EMWD utilizes water budgets for its residential customers, and Carollo investigated water budgets for commercial users under the new cost-of-service analysis. Furthermore, Carollo worked with EMWD to develop refinements to the current water budgets in order to encourage conservation and maintain financial stability.

Like many agencies throughout California, EMWD has seen substantial revenue fluctuations as a result of significant conservation undertaken by the District's customers. Carollo assisted EMWD to develop a more resilient and financially stable rate structure that can better weather future demand changes.

EMWD maintains a varied portfolio of water sources, including local groundwater and imported water. Carollo worked with EMWD to align each source of water with its rates, providing a comprehensive cost-of-service basis for each rate component.

EMWD also has significant capital plans for the coming years. One of the key issues for this study is a simplification and consolidation of the rate structure. EMWD currently maintains over 40 unique water rate codes. Carollo also developed a more resilient and financially stable rate structure that can better withstand future demand changes. Carollo worked with EMWD to align each source of water with its rates, providing a comprehensive cost of service basis for each rate component.

PROJECT INFORMATION

- TEAM INVOLVEMENT: Jennifer Ivey (Project Manager), Alex Bugbee (Quality Manager)
- TYPE OF WORK PERFORMED: Cost of Service Rate Study
- DURATION: 2015 - 2019
- PROJECT FEE: $357,770
- POINT OF CONTACT:
  Mr. Charles Turner
  Former CFO/Treasurer at Eastern Municipal Water District (currently Executive Director of Financial and Organizational Services at UCLA)
  Ph: (949) 422-5130
  E: cturner@be.ucla.edu

2019 Water and Recycled Water Cost of Service Study

CARLSBAD MUNICIPAL WATER DISTRICT, CA

SIMILAR PROJECT EXPERIENCE

Carollo has provided cost of service and rate setting services to the Carlsbad Municipal Water District (CMWD) since 2016, and most recently completed the 2019 Water and Recycled Water Cost of Service Rate Study. CMWD operates its potable and recycled water systems as separate enterprises with each having a unique rate structure and its own operating, replacement, and expansion funds.

During the rate study, Carollo analyzed operating and capital revenue requirements of each program to ensure rates were sufficient to support CMWD's ongoing programs and continued investment in expanding and maintaining the recycled water system. Carollo also assessed the rate structures to verify costs were recovered appropriately from CMWD's fixed and variable rate components, and form each type of customer.

Carollo also worked with the City of Carlsbad to conduct comprehensive wastewater cost-of-service and rate studies in 2016 and 2019. The studies included analysis of revenue requirements to determine the sufficiency of rates to cover operating and capital costs, and a cost of service analysis to develop rates for each customer class based on their sewer discharge.

Currently, Carollo is assisting CMWD and the City of Carlsbad in an update of the potable water, recycled water, and sewer connection fees. As a component of the study, Carollo will evaluate the need for unique potable and recycled water connection fees to replace the common fee currently in place.

PROJECT INFORMATION

- TEAM INVOLVEMENT: Jennifer Ivey (Principal-in-Charge), Alex Bugbee (Project Manager), Maddie Atkins (Analyst)
- TYPE OF WORK PERFORMED: Cost of Service Rate Study
- DURATION: 2018-2019
- PROJECT FEE: $202,687
- POINT OF CONTACT:
  Ms. Shoshana Aguilar
  Senior Management Analyst, Utilities
  Ph: 760-603-7360
  E: shoshana.aguilar@carlsbadca.gov

Cost of Service and Rate Design Study for Water, Wastewater, and Recycled Water

SOUTH COAST WATER DISTRICT, CA

SIMILAR PROJECT EXPERIENCE

Seeking to review the South Coast Water District's water, sewer, and recycled water rates, the District engaged Carollo to perform a comprehensive cost-of-service and rate design study. The review addressed recent changes to the California legal environment, notable the San Juan Decision, as well as mandates from the State to cut water use by 25 percent.

Through an extensive education and public input workshop process, Carollo developed various cost-of-service rate design alternatives to balance the District's competing objectives. Carollo held nine public workshops with the Board and community to develop rates in a open, transparent, and communicative process.

Facing declining revenues (due to the drought and conservation mandate) and a need to develop resilient revenues, Carollo developed a innovative rate design to provide greater fixed revenues while still providing an incentive to conserve. Based on the design and utilization of the system, a Demand Charge was developed to align the cost to carry/support capacity year-round based on a customer's peak demand from the system.

Carollo's thorough understanding of engineering and finance, also provided cost based refinements to the District's Recycled Water and Sewer Rate. At the end of the process, the Board, Staff, and community unanimously approved and supported the updated rate analysis.

PROJECT INFORMATION

- TEAM INVOLVEMENT: Jennifer Ivey (Principal-in-Charge)
- TYPE OF WORK PERFORMED: Cost of Service Rate Study
- DURATION: 2015-2017
- PROJECT FEE: $93,447
- POINT OF CONTACT:
  Mr. Andrew Brunhart
  General Manager
  Ph: (949) 449-4555
  E: abrunhart@scwd.org

Water and Wastewater Rate and Fee Study

INLAND EMPIRE UTILITIES AGENCY, CA

SIMILAR PROJECT EXPERIENCE

The Inland Empire Utilities Agency (IEUA) is a regional water and wastewater provider and currently collects a connection fee for each new connection to the regional system. Carollo re-evaluated the connection fee with the goal of increasing cost recovery and revenue available. The existing rate required the IEUA to fund growth related capital projects from its property tax revenues rather than connection charges.

Carollo worked with IEUA, its member agencies, and the development community through a collaborative process to garner rate increases to continue funding regional and necessary capital projects. Carollo performed a detailed engineering analysis of IEUA's current and future assets. With the focus on meeting California legal requirements, as well as developer concerns, this analysis provides a solid foundation and backstop for all system allocations and demand assumptions.

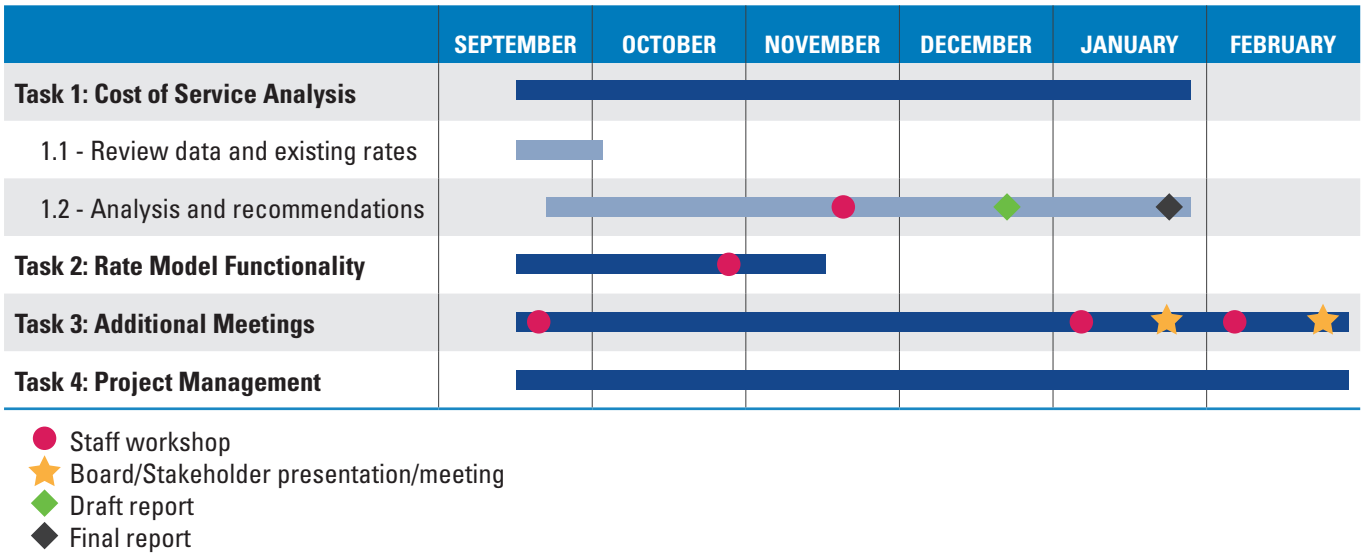
As IEUA continues to expand local water supplies and promote resiliency, it was critical to develop a capital funding and cost-recovery strategy. As part of the water connection fees, Carollo developed a "One Water" approach that combines the potable and recycled water fees into a single water resources fee in compliance with California law.

PROJECT INFORMATION

- TEAM INVOLVEMENT: Jennifer Ivey(Principal-in-Charge), Alex Bugbee (Project Manager), Maddie Atkins (Analyst)
- TYPE OF WORK PERFORMED: Cost of Service rates and charges and capacity charge study
- DURATION: 2018-ongoing
- PROJECT FEE: $286,880
- POINT OF CONTACT:
  Ms. Sylvie Lee
  Project Mananger/Senior Engineer
  Ph: (909) 993-1600
  E: slee@ieua.org

E. Schedule

Carollo is committed to meeting the Authority's timeline for rate implementation by July 1, 2021. Per the RFP, Carollo anticipates a start of mid-September 2020 and a final report delivery in January 2021. This will allow the Authority sufficient time for required Proposition 218 noticing and public hearings. While we show the Board meetings in January and February, these can be moved as necessary to meet the Authority's objectives.



F. Cost Estimate

Carollo has uploaded our proposed cost estimate as a separate file per the instructions of the RFP.

F. Cost Estimate

Carollo has uploaded our proposed cost estimate as a separate file per the instructions of the RFP.

G. Copy of Recyled Water Rate Study Report

As required in the RFP, we have included our most recent recycled water cost of service study report on the following pages. Although the report is labeled as a draft, it was made public at the member agency committee meetings.

Carollo Engineers, Inc.
3400 Central Avenue, Suite 205 • Riverside,
California 92506 • P. 951.776.3955 • F. 951.776.4207
carollo.com

Inland Empire Utilities Agency

2020 RATE STUDY RECYCLED & RECHARGE WATER RATES

DRAFT | APRIL 2020

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

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Abbreviations

AF	acre-feet
AFY	Acre-Feet per Year
Carollo	Carollo Engineers, Inc.
CBWCD	Chino Basin Water Conservation District
CIP	Capital Improvement Plan
FY	Fiscal Year
GG	General Administrative Fund
IEUA or Agency	Inland Empire Utilities Agency
IRP	Integrated Water Resources Plan
MGD	million gallons per day
MWD	Metropolitan Water District of Southern California
O&M	operations and maintenance
RC	Wastewater Regional Capital Fund
RRWDS	regional recycled water distribution system
RW	Recharge Water Fund
RWPS	Recycled Water Program Strategy
SBCFCD	San Bernardino County Flood Control District
Watermaster	Chino Basin Watermaster
WC	Recycled Water Fund
WW	Water Resources

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Section 1 – Preface

The Inland Empire Utilities Agency (IEUA or Agency) is in the process of completing a cost of service and rate analysis for its Recycled and Recharge Water service as a component a comprehensive rate and fee study that began in January of 2019. An initial draft of Recycled and Recharge Rates was developed and detailed in the "2020 Rate Study Recycled & Recharge Water Rates" draft report dated December 2019. That report presented rates that had been developed based on IEUA's planning level recycled water and recharge water demand projections and explored several options for the implementation of a fixed charge. This report presents an updated analysis of Recycled and Recharge Water Rates that incorporates feedback provided by IEUA's contracting agencies after the presentation of the initial draft results.

The analysis and results in this report were presented to the contracting agencies during the January 2020 Rate Study Workshop (Workshop 7) and are based on the following modifications to the initial draft analysis:

1. Decreased recycled and recharge water demand projections that use the average demands from FY 2016/17 through FY 2018/19 as the basis for future demands.
2. Increased use of connection fees to support eligible debt service costs.
3. Phase in of fixed charges to allow additional time for contracting agencies to plan for the potential rate structure change.

The appendices of this report includes the results of an additional analysis based on recycled and recharge water demands between those of the initial report and those based on FY 2016/17 through FY 2018/19.

Section 2 – Introduction

IEUA is a public agency serving the Inland Empire region of Southern California as a regional wastewater agency, as well as a wholesale supplier of imported and recycled water. The Agency contracted with Carollo Engineers, Inc. (Carollo) to conduct a Water, Recycled Water, and Wastewater Rate and Connection Fee Study for the regional wastewater and water systems. This report details the purpose and cost basis for updating the Agency's Recycled Water Direct Use and Groundwater Recharge Rates. The analysis discussed in this report provides the support for an update to those rates to be implemented in Fiscal Year (FY) 2020/21 effective July 1, 2020. The proposed FY 2020/21 rates will be updated to reflect the projected revenue requirements for FY 2020/21 through FY 2024/25, and present two alternatives: 1) Maintaining current rate structure comprised of a variable recycled water rate per acre-feet[1] (AF) for direct use, and a recharge water surcharge rate per AF, and 2) proposing a combination of the current variable

[1] An acre-foot of water is equal to 325,900 gallons of water, the equivalent of filling one acre one foot deep with water.

component for direct use and recharge along with a fixed charge component to recover a portion of revenue requirements.

IEUA supplies water to retail agencies through both imported water supplied by the Metropolitan Water District of Southern California (MWD) and recycled water. Costs associated with imported MWD water deliveries are recorded in the Water Resources fund. Costs associated with recycled water deliveries for direct use are recorded in the Recycled Water Fund (WC), and recharge deliveries in the Recharge Water fund.

In 2000, IEUA and its contracting agencies identified recycled water use as a critical component in drought-proofing the region and maintaining its economic growth. With imported water rates increasing and long-term imported supply reliability in decline, the region committed to aggressively and proactively develop local water supplies to offset these impacts.

IEUA, in partnership with its contracting agencies and Chino Basin Watermaster (Watermaster), invested over $600 million in water recycling, conservation, recharge improvements, the MWD groundwater storage and recovery projects, the Chino Desalter, and other water management programs. These programs collectively reduce the region's need for imported water, especially during drought or conditions when imported water supplies may not be available. In addition to the region switching large potable water users to recycled water, IEUA and Watermaster obtained a landmark permit in 2005 for groundwater recharge using IEUA's high-quality recycled water. The use of recycled water provides a high-quality alternative water source to the Agency, its seven member agencies (Cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Upland, and Cucamonga Valley Water District), commercial customers, and recharge basins for groundwater storage which helps to improve the resiliency of the region's water supply.

Due to the increasing need for reliable water supplies and for additional supplies to meet the needs of future growth, IEUA will continue to invest in localized water supplies. These investments are based on the 2015 Recycled Water Program Strategy (RWPS) which updated the 2005 Recycled Water Implementation Plan and the 2007 Recycled Water Three Year Business Plan. The primary objective of the RWPS is to prioritize projects to maximize the beneficial use of recycled water throughout the year accounting for changes in the region's water resource priorities due to increased water use efficiencies. These projects are integrated in the Agency's long-term planning documents including; the capital improvement plan (CIP) and long-term (20-year) capital outlook based on the 2015 Integrated Water Resources Plan (IRP).

IEUA and contracting agencies also affirmed the Recycled Water Policy Principles in 2015 to guide investment of any remaining significant system improvements. One of these principles is to "maintain a financially viable recycled water program with rates that incentivize use of all available recycled water and that provide funding to achieve full cost-of-service for the recycled water program".

The proposed FY 2020/21 Recycled and Recharge Water Rates reflect the capacity needed to serve each customer, and support IEUA's recycled and recharge programs consistent with the 2015 RWPS. The Recycled Water fund accounts for revenues and expenses related to operations and maintenance for distributing recycled water from the Agency's four recycling plants to direct users, CIP costs, debt service costs, and a portion of the groundwater recharge activities not covered by the reimbursement agreement with Watermaster. The Recharge Water fund accounts for revenues and expenses associated with groundwater recharge operations and maintenance. The recharge program is a joint effort between the Watermaster, the Chino Basin

Water Conservation District (CBWCD), the San Bernardino County Flood Control District (SBCFCD), and IEUA.

2.1 Current Rate Structure

IEUA's current rate design consists of a variable recycled water rate per AF, and a recharge water surcharge rate per AF, entirely commodity based. Revenues generated under the current rate design vary from year to year based on the volume of recycled water delivered, primarily due to weather conditions.

The 2015 Rate Study conducted by Carollo considered other rate alternatives to facilitate revenue stability and lessen the fiscal impact of reduced deliveries. One alternative proposed in 2015 included a fixed charge based on either an account or meter equivalent basis. Following an extensive review with member agencies, no consensus was reached on a fixed charge component and the existing commodity-based rate design was maintained with no fixed component.

This analysis will evaluate and develop rates for FY 2020/21 through FY 2024/25 based on the current commodity based structure, as well as the change in recycled water sales trends since the adoption of the IEUA resolution (2016-6-17) unanimously requested and approved by IEUA and regional contracting agencies establishing regulations for the purchase of recycled water above base entitlement and the addition of a fixed component to recover debt service costs not affected by volumetric fluctuations from year to year.

The recycled and recharge water rates were designed to recover the costs of the Recycled Water direct use and Recharge costs not covered by the reimbursement agreement with Watermaster.

As wholesale service charges to other agencies and entities, IEUA's direct use and recharge rates need to meet the requirements of Article XIII of the California Constitution as amended by Proposition 26. The rates are considered to be fees for a specific service and are therefore exempt from the approval requirements of taxes, however, the rates charged must be proportional to the specific level of service provided to each user to maintain that status. As stated in Article XIII, the rates must be: "A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the State of providing the service or product to the payor." To meet these requirements, it is important that the rates appropriately recover costs from each user, establishing a nexus between the level of service that each user receives and the fees or rates that they are charged.

2.1.1 Recycled Water Direct Use Service

IEUA owns and operates five water recycling treatment facilities, four of which produce recycled water. These facilities receive an average of 53 million gallons per day (MGD) of wastewater from its member agencies which is treated to Title 22 regulations set forth by the California Division of Drinking Water and State Water Resources Board.

IEUA currently collects rate revenue for recycled water direct use deliveries on a commodity, or volumetric basis. As of July 2019, the direct use rate is $490 per acre-foot delivered. IEUA provides service to member agencies, as well as direct use service to irrigation and industrial customers. Rates are collected completely on a commodity basis and are intended to recover operation and maintenance (O&M) expenses, capital project costs benefitting existing users/uses

and which are not allocated to support future growth, debt service costs, as well as a portion of groundwater recharge O&M costs not reimbursable by Watermaster.

2.1.2 Recharge Water Service

In addition to the direct use deliveries, IEUA recharges up to 50,000 AF of imported water from northern California, between 15,000 and 25,000 AF of stormwater, and between 10,000 and 15,000 AF of recycled water. Annual recharge varies due to weather patterns and the availability of supplemental water supplies (imported and recycled water). In partnership with Watermaster, CBWCD, SBCFCD, the Agency currently operates 19 recharge basins throughout the Chino Basin.

The current rate for recharge deliveries of recycled water to various groundwater basins is $550 per AF as of July 2019. The recharge water rate is the combination of the $490 per AF recycled water direct use rate with a $60 per AF surcharge added to recover costs associated with the operation and maintenance of the recharge basins not reimbursable by Watermaster. Similar to the recycled water direct use rate, the recharge water rate is collected entirely on a commodity basis with no fixed component. Table 1 shows adopted Recycled and Recharge Water Rates through FY 2019/20.

Table 1 Adopted Recycled and Recharge Water Rates

Fiscal Year (FY)	Recycled Water Direct Use Rate ($/AF)	Recharge Water Surcharge Rate ($/AF)	Total Recharge Water Rate ($/AF)
FY 2015/16	$350	$60	$410
FY 2016/17	$410	$60	$470
FY 2017/18	$470	$60	$530
FY 2018/19	$480	$60	$540
FY 2019/20	$490	$60	$550

2.2 Direct Use and Recharge Demand

2.2.1 Historic Demand

A key objective of the 2015 Rate Study was to set rates that fully recovered program costs. The rates implemented for the Recycled Water and Recharge Water funds were based on projected demand for recycled direct use and recharge water deliveries. The volume of recycled water delivery of direct use and groundwater recharge can vary seasonally and annually based on a variety of factors (e.g. rainfall intensity, rainfall duration, and recharge basin maintenance activities. As presented in Figure 1, actual deliveries for the last four fiscal years were significantly lower than projected primarily due to significant changes in recycled water sales trends following the adoption of the resolution (2016-6-17) establishing regulations for the purchase of recycled water above base entitlement and delays in groundwater recharge projects, and recycled water capacity improvement projects. The high precipitation this past winter season also resulted in lower recycled water deliveries in FY 2018/19.

Lower than expected demands since the 2015 Rate Study have led to decreased direct usage and recharge surcharge revenues. These revenue shortfalls, in part, drive the need for the rate increases proposed by this study and the exploration of alternative methodology to recover

costs. The volumetric projections of this study take a more conservative approach than the previous study to mitigate the potential for revenue shortfalls.

2.2.2 Projected Recycled and Recharge Water Demand

The total amount of recycled water for direct use and groundwater recharge is used to determine the $/AF rate imposed on recycled and recharge water customers. Current recycled and recharge water demands were provided by the Agency, and demand projections were calculated in cooperation with Agency staff. Figure 1 illustrates the forecasted recycled and recharge water demand from FY 2020/21 through FY 2024/25.

This updated analysis is based on decreased recycled and recharge water demand projections that use the average demands from FY 2016/17 through FY 2018/19 as the basis for future demands.

A modest increase in demand is expected through the end of the study period in FY 2024/25. Recycled water direct use demand is projected to increase from 19,000 AF in FY 2020/21 to 19,400 AF in FY 2024/25, an annualized growth rate of 0.5 percent. Recharge water demand is projected to increase from 12,900 AF in FY 2020/21 to 13,800 AF in FY 2024/25, an annualized growth rate of 1.7 percent.

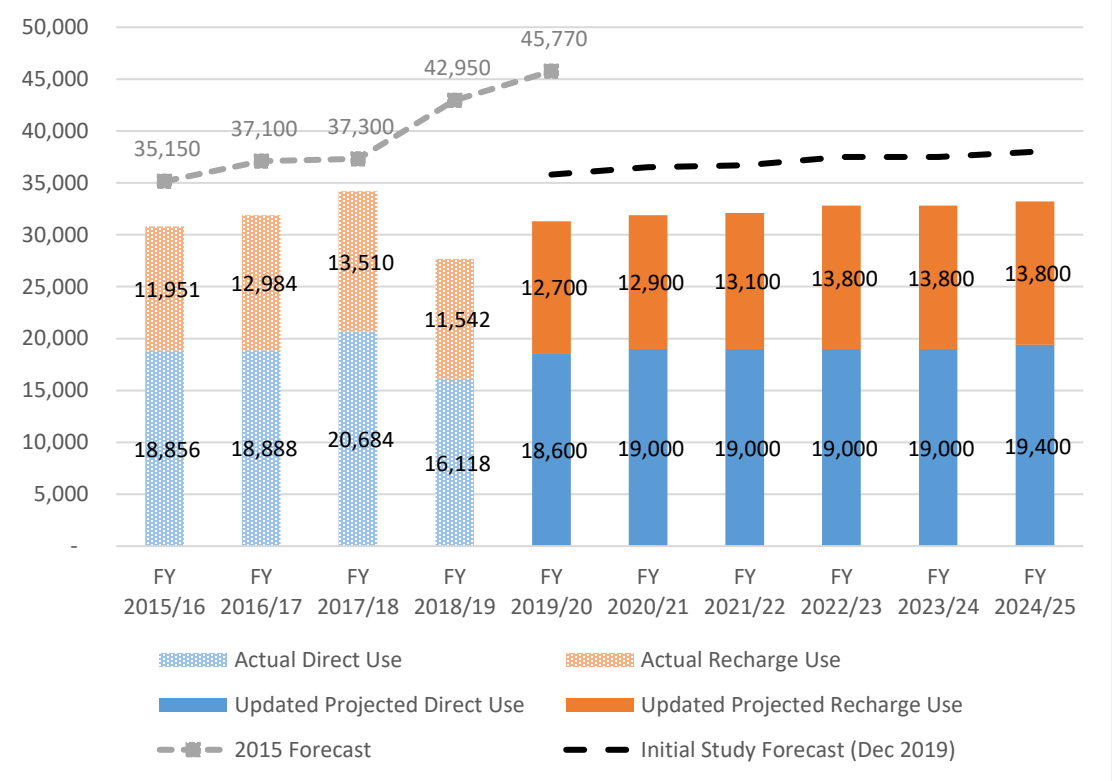


Figure 1 Recycled and Recharge Water Demands (AFY)

Future demands for each user are projected based on the Agency's overall recycled water demand projections and each user's demands over the past three years. Historic and projected demands for each user are included for reference in Appendix A.

Section 3 – Revenue Requirements Analysis

The findings and results presented in this report represent the first draft of the Recycled and Recharge Water Rate analysis. IEUA may continue to refine the rate calculations as additional or new data becomes available and based on feedback from the member agencies and other stakeholders.

3.1 Recycled and Recharge Water Program Costs

Recycled Water Program and Recharge Water Program costs were projected through FY 2024/25 based on current costs and typical cost escalation factors. The projections also consider any specific increases or decreases in costs that the Agency expects over the rate study period. Appendix B provides details for O&M budget line-items. As reported in Appendix B, some program costs, such as debt service costs, tend to be fixed in nature and do not change significantly based on the quantity of recycled water delivered. Some expenses, such as utilities, can vary based on the volume delivered.

3.1.1 Recycled Water Direct Use Costs

The Recycled Water fund records the revenues and expenses associated with the operations and maintenance of the facilities used to distribute recycled water supplied from Agency's four Agency water recycling plants to direct users and recharge basins, including a portion of groundwater recharge O&M expenses not funded by Watermaster. Additionally, the Recycled Water fund records all revenues and costs related to capital projects and financing of the regional recycled water distribution system (RRWDS).

In FY 2020/21 the projected costs for the Recycled Water fund total $26.14 million and include: $10.47 million O&M expenses, non-operating expenses of $12.12 million debt service costs and $2.30 million capital project costs, and $1.25 million non-reimbursable recharge O&M expenses as summarized in Table 2. Appendix B provides details for O&M budget line-items.

Table 2 Recycled Water Expenses Summary

Recycled Water Expenses	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Direct Use Activity					
Operating Expenses	$10.47	$10.54	$10.80	$11.16	$12.24
Non-operating Expenses					
Debt Service	12.12	12.47	14.42	15.41	14.68
Capital	2.30	1.50	5.31	4.00	3.96
Subtotal - Recycled Water Direct Use Activity	**$24.89**	**$24.51**	**$30.52**	**$30.57**	**$30.88**
Recharge Activity - Non-Reimbursable					
Operating Expenses	$1.25	$1.31	$1.37	$1.34	$1.30
Non-operating Expenses	-	-	-	-	-
Subtotal - Recharge Water Activity	**$1.25**	**$1.31**	**$1.37**	**$1.34**	**$1.30**
Total Recycled Water	**$26.14**	**$25.82**	**$31.89**	**$31.91**	**$32.18**

Notes:
(1) Presented totals may not tie due to rounding for presentation purposes. All values in millions of dollars.

As legally required, the recharge operating expenses currently recorded in the Recycled Water fund not reimbursable from Watermaster will be consolidated into the Recharge Water fund to appropriately calculate the recharge rate needed to recover related program costs. In FY 2020/21 non-reimbursable recharge activity costs are projected to be $1.25 million as reported in Table 2.

3.1.2 Recharge Water Costs

The Recharge Water fund accounts for the revenues and expenses associated with the operations and maintenance of groundwater recharge facilities. Through the joint effort of the Watermaster, the CBWCB, the SBCFCD, the Agency operates and maintains 19 groundwater recharge basins. Costs recorded in the Recharge Water fund are partially reimbursable by Watermaster and include general basin maintenance or restoration costs, groundwater administration (e.g. labor, utilities, equipment, and tools), contracted services (e.g. weeding and vector control), and compliance reporting and environmental documentation fees for the program's Fish & Game Permit. As shown in Table 3, recharge O&M costs for FY 2020/21 are projected to be $1.79 million. Also included are non-reimbursable recharge activity costs currently recorded in the Recycled Water fund (see Table 2). As legally required, these non-reimbursable recharge operating expenses will be consolidated into the Recharge Water fund to appropriately calculate the recharge rate needed to recover related program costs. In FY 2020/21 non-reimbursable recharge activity costs are projected to be $1.25 million as reported in Table 3.

Non-operating expenses for the Recharge Water fund include debt service and capital project costs as presented in Table 3. In FY 2020/21 debt service costs are projected to be $1.32 million and capital project costs are $13.18 million. Debt service costs are for the 2008B Variable Rate Bonds (refinancing the 2002A Bonds in May 2008) issued to finance the Chino Basin Facilities Improvement Project (CBFIP). Debt principal and interest costs are equally shared by Watermaster and the Agency. The Agency's portion of debt service cost is supported by an inter-fund transfer from the Regional Wastewater Capital Improvement fund and the Recycled Water fund supports capital.

In FY 2020/21 total costs for the Recharge Water fund are projected to be $17.54 million, including $3.04 million O&M (inclusive of recharge costs from the Recycled Water fund), $1.32 million debt service costs, and $13.18 million capital project costs. Appendix B provides details for O&M budget line-items.

Table 3 Recharge Water Operating Expenses

Recharge Water	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Operating Expenses	$1.79	$1.85	$1.92	$1.99	$2.08
Recharge Expenses from Recycled Water fund (Table 2)	$1.25	$1.31	$1.37	$1.34	$1.30
Total Recharge Operating Expenses	**$3.04**	**$3.17**	**$3.29**	**$3.33**	**$3.38**
Non-operating Expenses					
Debt Service	$1.32	$1.51	$1.50	$1.50	$1.50
Capital	13.18	0.29	0.50	0.75	1.00
Total Recharge Water Non-Operating Expenses	**$14.51**	**$1.80**	**$2.00**	**$2.25**	**$2.50**
Total Recharge Water	**$17.55**	**$4.96**	**$5.29**	**$5.58**	**$5.87**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

3.2 Transfers

IEUA utilizes inter-fund transfers to support related costs in other programs. One example is the transfer of water connection fees from the Recycled Water fund to the Water Resources, Recharge Water and Administrative funds. Water connection fees are initially recorded in the Recycled Water fund and transferred to other funds to support capital project costs related to growth in the service area. Table 4 and Table 5 summarize the forecasted transfers IN and OUT of the Recycled Water and Recharge Water funds over the next five fiscal years. These transfers are accounted for in both the recycled and recharge water revenue requirement calculations.

Table 4 Recycled Water Fund Transfers ($ millions)

Transfers	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Transfer In/(Out) - Recycled Water - Direct Usage Activity					
Capital Contribution (to Administrative fund)	$(0.02)	$(0.01)	$(0.01)	$(0.02)	$(0.03)
Connection Fee Allocation (to Water Resources, Recharge Water, Administrative funds)	(4.53)	(1.39)	(1.25)	(2.45)	(0.72)
Debt Service (from Regional Wastewater funds)	2.54	2.54	2.54	2.67	2.67
Operating Support (to Administrative fund)	(0.05)	(0.01)	(0.04)	(0.03)	-
Subtotal - Recycled Water Direct Usage	**$(2.05)**	**$1.13**	**$1.24**	**$0.17**	**$1.91**
Transfer In/(Out) - Recycled Water - Recharge Activity					
Capital Contribution (to Recharge Water fund)	$-	$-	$(0.01)	$(0.11)	$(0.22)
Operating Support (to Recharge Water fund)	(0.71)	(0.75)	(0.78)	(0.81)	(0.87)
Subtotal - Recycled Water Recharge	**$(0.71)**	**$(0.75)**	**$(0.79)**	**$(0.92)**	**$(1.08)**
Total Net Recycled Water Fund Transfers	**$(2.76)**	**$0.38**	**$0.45**	**$(0.75)**	**$0.83**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

Table 5 Recharge Water Fund Transfers ($ millions)

Transfer In/(Out) - Recharge Water	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Capital Contribution (from Recycled Water)	$-	$-	$0.01	$0.11	$0.22
Connection Fee Allocation (from Recycled Water)	3.03	0.07	0.12	0.17	0.23
Debt Service (from Regional Wastewater Capital)	0.66	0.69	0.69	0.69	0.69
Operating Support (from Recycled Water)	0.71	0.75	0.78	0.81	0.87
Total Recharge Water Transfers	**$4.40**	**$1.51**	**$1.59**	**$1.78**	**$2.00**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

3.3 Offsetting Revenues

In addition to revenues generated from the Recycled and Recharge Water rates, there are other offsetting revenue sources that decrease the amount of funds required to be collected through the Recycled and Recharge Water rates. The following revenues are used to offset the Recycled and Recharge Water Rate revenue requirements;

Operating Offsetting Revenues:

- Cost reimbursement from Watermaster
- Interest revenue

Non-Operating Offsetting Revenues:

- Connection fees
- Property tax – debt & capital
- Loans
- Grants
- Capital Cost Reimbursement

Table 6 summarizes the total amounts of each offsetting operating revenue applied to the total Recycled and Recharge Water Rate revenue requirement.

Table 6 Offsetting Operating Revenues ($ millions)

Offsetting Operating Revenues	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Offsetting Operating Revenues - Recycled Water Direct Use					
Interest Revenue	$0.95	$0.94	$1.23	$1.36	$1.44
Subtotal Recycled Water	**$0.95**	**$0.94**	**$1.23**	**$1.36**	**$1.44**
Offsetting Operating Revenues - Recharge Water					
Cost Reimbursement from Watermaster	$1.08	$1.11	$1.14	$1.18	$1.21
Interest Revenue	0.16	0.19	0.20	0.20	0.20
Subtotal Recharge Water	**$1.24**	**$1.30**	**$1.34**	**$1.37**	**$1.41**
Total Offsetting Operating Revenues	**$2.19**	**$2.24**	**$2.57**	**$2.75**	**$2.85**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

Table 7 summarizes the total amounts of each offsetting non-operating revenue, including the use of connection fees, applied to the total Recycled and Recharge Water Rate revenue requirement.

Table 7 Offsetting Non-Operating Revenues

Non-Operating Revenues	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Non-Operating Revenues - Recycled Water Direct Use					
Property Tax	$2.17	$2.17	$2.17	$2.17	$2.17
Projected Connection Fees Revenue	6.42	6.67	6.93	7.20	7.48
Loans	3.48	-	-	-	-
Grants	1.35	-	-	-	-
Capital Cost Reimbursement	0.09	0.09	0.09	0.09	0.10
Subtotal Recycled Water	**$13.51**	**$8.93**	**$9.19**	**$9.46**	**$9.75**
Non-Operating Revenues - Recharge Water					
Loans	3.76	0.14	-	-	-
Grants	11.52	-	-	-	-
Capital Cost Reimbursement	0.66	0.94	1.06	1.19	1.31
Subtotal Recharge Water	**$15.95**	**$1.08**	**$1.06**	**$1.19**	**$1.31**
Total Non-Operating Offsetting Revenues	**$29.45**	**$10.01**	**$10.25**	**$10.65**	**$11.06**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

Revenues from IEUA's one water connection fee are collected in the WC and used for eligible expenditures which include capital projects as well as a share of debt service. Additionally, connection fees are transferred to the Recharge Water (RW), Water Resources (WW), or General Administrative (GG) funds to pay for eligible projects. Table 8 shows the expected connection fee revenues for each fiscal year as well as the projected use of connection fees. In years where

connection fee revenues exceed uses, excess revenues are held in the connection fee reserve to be used in later years.

Table 8 Use of Connection Fees

Use of Connection Fees	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Projected Connection Fee Revenue	**$6.42**	**$6.67**	**$6.93**	**$7.20**	**$7.48**
Eligible Recycled Water Projects	$0.38	$0.44	$1.28	$0.98	$1.10
Transfer to Recharge Water Fund for Eligible Projects	3.03	0.07	0.12	0.17	0.23
Transfer to Water Resources Fund for Eligible Projects	1.45	1.31	1.11	2.26	0.47
Transfer to General Administrative Fund for Eligible Projects	0.04	0.01	0.03	0.02	0.02
Use for Debt Service	1.43	1.79	3.73	4.60	3.87
Total Connection Fees to be Used	**$6.34**	**$3.62**	**$6.26**	**$8.03**	**$5.69**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

3.4 Projected Revenue Requirements

The amount of revenue to be collected from user rates is defined by the total revenue requirements less any offsetting revenues. The sections below present the revenue required from both the Recycled Water Rate and Recharge Water Rate. Additional detailed financial projection tables are included for reference in Appendix B.

Actual recycled water demands since the 2015 Rate Study were significantly below the expected demands that served as the basis for that study, resulting in lower revenues for the Recycled Water and Recharge Water funds. The revenue shortfall between FYs 2015/16 – 2018/19 due to lower than projected recycled water deliveries is estimated at $11 million. In order to recover from these revenue losses and to keep up with inflationary increases in costs, annual increases of 8 percent for FY 2020/21 through FY 2022/23, and 6.2 percent for FY 2023/24 and FY 2024/25 would be needed for the direct recycled water use rate.

In order to appropriately recover recharge program costs (including non-reimbursable recharge costs recorded in the WC) and keep up with inflationary cost increases, the recharge surcharge will need to be adjusted by 24 percent for FY 2020/21 through FY 2022/23, and 21 percent for FY 2023/24 and FY 2024/25.

3.4.1 Recycled Water Revenue Requirement

Based on preliminary budget projections, IEUA's recycled water total revenue requirement for FY 2020/21 is $16.88 million. As illustrated in Table 9, the total recycled water revenue requirement is projected to grow to $23.09 million by FY 2024/25, driven by forecasted increases in recycled water demand and inflationary increases in costs.

Table 9 Required Recycled Water Direct Use Rate Revenues

Recycled Water Fund Required Rate Revenues	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Operating Expenses	$10.47	$10.54	$10.80	$11.16	$12.24
Debt Service	12.12	12.47	14.42	15.41	14.68
Capital	2.30	1.50	5.31	4.00	3.96
Transfers	2.76	(0.38)	(0.45)	0.75	(0.83)
Total Expenses	**$27.65**	**$24.13**	**$30.08**	**$31.32**	**$30.05**
Remove Operation Support to Recharge Water Fund	(0.71)	(0.75)	(0.78)	(0.81)	(0.87)
Remove Capital Support to Recharge Water Fund	0.00	0.00	(0.01)	(0.11)	(0.22)
Less: Offsetting Revenues					
Operating Revenues	$(0.95)	$(0.94)	$(1.23)	$(1.36)	$(1.44)
Non-Operating Revenues, net of connection fees (Table 7)	(7.09)	(2.26)	(2.26)	(2.26)	(2.27)
Use of Connection Fees for Transfers, Projects, and Debt Service (Table 8)	(6.34)	(3.62)	(6.26)	(8.03)	(5.69)
Subtotal: Offsetting Revenues	**$(14.38)**	**$(6.82)**	**$(9.75)**	**$(11.65)**	**$(9.40)**
Contribution to (Use of) Reserves	**$4.33**	**$1.78**	**$0.70**	**$2.74**	**$3.53**
Required Revenues from Direct Usage Rates	**$16.88**	**$18.34**	**$20.23**	**$21.49**	**$23.09**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

The offsetting revenues include One Water connection fees to help lower the rate revenue requirements by using connection fees to pay a portion of debt service. The calculation of the water connection fee includes an allocation of the existing assets based on excess capacity and CIP projects that will benefit future users. Therefore, annual revenues from connection fees can be used to offset direct capital costs and/or debt service payment that would otherwise be borne by user rates. The use of connection fees in this manner allows the Agency to account for fluctuations driven by the development cycle.

3.4.2 Recharge Water Revenue Requirement

Based on preliminary budget projections, IEUA's recharge water total revenue requirement for FY 2020/21 is $0.96 million. Table 10 presents the required rate revenues for recharge water usage. As shown, the total recharge water revenue requirement is projected to grow to $2.30 million by FY 2024/25, driven primarily by the rate revenue increases needed to reach full cost recovery and to a lesser extent increases in demands.

Table 10 Required Recharge Water Rate Revenues ($ millions)

Recharge Water Required Rate Revenues	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Operating Expenses	$3.04	$3.17	$3.29	$3.32	$3.38
Debt Service	1.32	1.51	1.50	1.50	1.50
Capital	13.18	0.29	0.50	0.75	1.00
Transfers (Includes Connection Fees)	(4.40)	(1.51)	(1.59)	(1.78)	(2.00)
Total Expenses	**$13.14**	**$3.46**	**$3.70**	**$3.79**	**$3.88**
Plus: Operations Previously Supported by Recycled Water Fund	0.71	0.75	0.78	0.81	0.87
Plus: Capital Previously Supported by Recycled Water Fund	-	-	0.01	0.11	0.22
Less: Offsetting Revenues					
Operating Revenues	$(1.24)	$(1.30)	$(1.34)	$(1.37)	$(1.41)
Non-Operating Revenues	(15.95)	(1.08)	(1.06)	(1.19)	(1.31)
Subtotal: Offsetting Revenues	**$(17.19)**	**$(2.38)**	**$(2.40)**	**$(2.56)**	**$(2.72)**
Contribution to (Use of) Reserves	**$4.30**	**$(0.62)**	**$(0.52)**	**$(0.25)**	**$0.06**
Required Revenues from Recharge Surcharge Rates	**$0.96**	**$1.20**	**$1.57**	**$1.90**	**$2.30**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

Section 4 – Rate Design

The rate design analysis uses the results of the revenue requirement analysis along with recycled water demands (direct usage and recharge) to calculate rates. The study has reviewed several rate structure options including retaining the existing variable rate structure or the implementation of a fixed charge to recover a portion of revenue requirements.

4.1 Current Structure Rates

The current rate design consists of a variable recycled water rate per AF, and a recharge water surcharge rate per AF. The forecasted recycled water demand and projected revenue requirements are used to determine the $/AF recycled water rate over the FY 2020/21 through FY 2024/25 rate study period using the following calculation.

$$Recycled\ Water\ Direct\ Use\ Rate\ (^{\$}/_{AF}) = \frac{Required\ Recycled\ Water\ Diect\ Use\ Rate\ Revenue}{Forecasted\ Recycled\ Water\ Demand}$$

The forecasted recharge water demand and projected revenue requirements are used to determine the $/AF recharge water surcharge over the FY 2020/21 through FY 2024/25 rate study period using the following calculation.

$$Recharge\ Water\ Rate\ \left(\$/_{AF}\right) = \left(\frac{Required\ Recharge\ Water\ Rate\ Revenue}{Forecasted\ Recharge\ Water\ Demand}\right) + Recycled\ Water\ Rate$$

4.1.1 Proposed Recycled Water Direct Use Rate: Alternative 1

Table 11 presents the calculation of the proposed recycled water direct use rates for each year of the study period under the current rate structure. The rates presented would be charged to all users of recycled water whether for direct use or recharge.

Table 11 Proposed Recycled Water Direct Use Rate ($/AF)

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Required Revenues from Rates (millions)	$16.88	$18.34	$20.23	$21.49	$23.09
Projected Demands (AF)	31,900	32,100	32,800	32,800	33,200
Recycled Water Direct Use Rate per AF	**$529**	**$571**	**$617**	**$655**	**$696**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

4.1.2 Proposed Recharge Water Rate: Alternative 1

The Agency's recharge water customers are charged a per AF surcharge in addition to the recycled water rate. Table 12 presents the calculation of the proposed recharge surcharge rates as well as the total rate for recharge water for each year of the study period under the current rate structure.

Table 12 Proposed Recharge Water Surcharge Rate ($/AF)

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Required Revenues from Rates (millions)	$0.96	$1.20	$1.57	$1.90	$2.30
Projected Demands (AF)	12,900	13,100	13,800	13,800	13,800
Recharge Surcharge Rate per AF	**$74**	**$92**	**$114**	**$138**	**$167**
Direct Usage Rate per AF	$529	$571	$617	$655	$696
Total Recharge Rate per AF	**$603**	**$663**	**$731**	**$793**	**$863**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

4.2 Potential Fixed Charges

As an alternative to the current variable-only rate structure, IEUA is recommending developing a fixed charge component to the recycled and recharge water funds. The implementation of a fixed charge, combined with a commodity charge, would provide revenue stability for both the Recycled Water and Recharge Water programs. Given that cash flow and revenue requirements for each fund vary from year to year as seen in Table 9 and Table 10, the addition of a fixed charge would provide a more consistent revenue source to support a portion of the fixed costs and insulate the funds from years of low demand or large capital expenditures.

In addition to the Alternative 1 (current rate structure), IEUA is considering an alternative rate structure (Alternative 2) that uses each member agency's **three-year rolling average** direct use and recharge water demands as a basis for implementing a fixed charge.

Previously Reviewed Alternatives

In addition to Alternatives 1 and 2, previous version of the analysis reviewed additional methods for assessing a fixed charge. Rates and member agency impacts were for each alternative were included in the December 2019 Draft Report and presented at the January 2020 workshop. The additional alternatives were discontinued based on feedback from the member agencies as well as an analysis of the rate impacts. Additional information about the discontinued alternatives can be found in the December 2019 Draft Report, the now discontinued alternatives included:

Alternative 3 (discontinued) - Member agency number of EDUs.

Alternative 4 (discontinued) - Member agency three-year rolling average for fixed revenue requirements related to all recycled water direct use and number of EDUs for recharge water related fixed revenue requirements.

Alternative 5 (discontinued) - Member agency number of MEUs for fixed revenue requirements related to all recycled water direct use and number of EDUs for recharge water related fixed revenue requirements.

4.2.1 Fixed Charge Expenses

There are various cost components within the groundwater recharge and direct use activities that are consistent year over year in order to maintain the delivery of recycled and recharge water to the Agency's users. This analysis focused on developing fixed charges to sufficiently cover the Agency's annual debt service costs, less any other contributions toward debt service.

Under the fixed charge rate alternatives, the Watermaster and the Regional Wastewater Capital Improvement fund transfers are projected to continue to cover all of debt service costs for the Recharge Water fund; therefore, no fixed charge component is necessary for the recharge rate. Under the options presented below, the proposed recharge surcharge would be equal to the surcharge presented previously in Table 12 (i.e. $74 per AF in FY 2020/21 increasing to $167 per AF by FY 2024/25).
As shown in

Table 13, the Agency applies property tax revenues and a transfer from the Regional Wastewater Capital Improvement fund to cover a portion of the Recycled Water fund debt service costs. As discussed previously, the Agency can also use a portion of One Water connection fee revenues to cover a share of debt service on the excess capacity of existing system assets, as well as future

debt service for growth related projects. Moving forward, the Agency intends to take advantage of this ability and allocate a portion of connection fee revenues to cover eligible Recycled Water debt service costs. The use of connection fee revenues in this manner will help to smooth the year-over-year changes in fixed revenue collection and help the Agency account for fluctuations in the annual connection fee revenues caused by varying development.

Table 13 Direct Use Fixed Charge Revenue Requirement

Budget Item	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Debt Service	$9.12	$9.47	$9.42	$9.41	$9.18
Short Term Inter-Fund Loan	3.00	3.00	5.00	6.00	5.50
Fixed Offsetting Revenues & Transfers					
Property Tax - Debt and Capital	$(2.17)	$(2.17)	$(2.17)	$(2.17)	$(2.17)
Debt Service Transfer from Regional Wastewater Capital Fund	(2.54)	(2.54)	(2.54)	(2.67)	(2.67)
Connection Fee Contribution for Debt Service	(1.43)	(1.79)	(3.73)	(4.60)	(3.87)
Direct Use Fixed Rate Revenue Requirement	**$5.98**	**$5.97**	**$5.98**	**$5.97**	**$5.97**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

The revenue requirements previously presented in Table 9 represent the total amount of revenue that must be recovered through rates for the Recycled Water fund. If a fixed charge component is implemented, the total revenue requirement would be split between the fixed and variable charges.

Fixed charges would be set to recover the fixed rate revenue requirements shown in

Table 13, the remaining rate revenue requirement, after subtracting the fixed rate component from the total, is the variable component that is used to develop a reduced variable rate per AF for direct recycled water use as shown in Table 14. Like the current rate structure, the presented direct usage rates would be assessed to all recycled water demands (direct and recharge).

Table 14 shows the calculation of the variable revenue requirement and the resulting direct use and total recharge rates. If a fixed charge is included to the maximum level in FY 2020/21, the proposed direct recycled water variable rate for FY 2020/21 would be $342/AF, and the recharge water variable rate (a combination of the direct recycled rate and the recharge surcharge) would be $416/AF. After that time, the direct use rate would begin to increase to follow increases in variable revenue requirements.

Table 14 Direct Use Variable Revenue Requirement

Budget Item	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total Revenue Requirement	$16.88	$18.34	$20.23	$21.49	$23.09
Less: Fixed Rate Revenue Requirement	($5.98)	($5.97)	($5.98)	($5.97)	($5.97)
Variable Rate Revenue Requirement	**$10.90**	**$12.37**	**$14.25**	**$15.52**	**$17.12**
Recycled & Recharge Water Demands (AF)	31,900	32,100	32,800	32,800	33,200
Direct Recycled Water Rate ($/AF)	**$342**	**$385**	**$435**	**$473**	**$516**
Recharge Surcharge ($/AF)	$74	$92	$114	$138	$167
Total Recharge Rate ($/AF)	**$416**	**$477**	**$549**	**$611**	**$683**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

4.2.2 Alternative 2: Three-year Rolling Average Demands

Alternative 2 allocates fixed charge costs based on the three-year rolling average of recycled and recharge water demands. The allocated fixed revenue collection for each year would be apportioned to each recycled water user based on their proportionate share of three year rolling average demands. This methodology recognizes that the Agency constructed and operates the system, and plans for future improvements, to provide capacity to serve expected member agency demands. Thus, the historic member agency demands are used as a measure of the system capacity, and fixed costs, required to serve each user's demands.

The calculation relies on total recycled water usage from each agency (recycled and recharge) since the greater recycled water system (transmission, distribution, etc.) is necessary to provide water for direct use as well as recharge. Table 15 shows the projected three- year rolling average consumption for each recycled water user. The overall fixed revenue collected each year would remain consistent with projections because the Agency would adopt the total fixed revenues to be collected, rather than a unit rate.

Table 15 Total Recycled and Recharge Water Three-Year Rolling Average Demands

User	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
San Bernardino County	217	209	233	235	235
City of Ontario	11,400	11,086	11,610	11,755	11,824
City of Chino	6,267	6,259	6,413	6,467	6,477
City of Chino Hills	2,944	2,876	3,046	3,095	3,125
City of Upland	1,997	1,955	2,049	2,092	2,124
City of Fontana	2,794	2,676	2,847	2,926	2,989
CVWD	4,535	4,353	4,645	4,754	4,836
City of Montclair	897	873	924	943	957
Total Recycled & Recharge Three Year Rolling Average Demand	**31,051**	**30,287**	**31,767**	**32,267**	**32,567**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in acre-feet (AF).

The overall fixed revenue requirements to be allocated among the other users is the fixed rate revenue requirement shown in

Table 13. Each user's share is set by multiplying the fixed revenue requirement by their share of three-year rolling average consumption. Table 16 shows an example of the fixed revenue allocation under Alternative 2 for FY 2020/21.

Table 16 Alternative 2 FY 2020/21 Fixed Revenue Allocation Example

User	Three-Year Rolling Average Demand Projected As of FY 2020/21		Allocated Fixed Revenues
	AF	**%**	**$ millions**
San Bernardino County	217	0.7%	$0.04
City of Ontario	11,400	36.7%	2.20
City of Chino	6,267	20.2%	1.21
City of Chino Hills	2,944	9.5%	0.57
City of Upland	1,997	6.4%	0.39
City of Fontana	2,794	9.0%	0.54
CVWD	4,535	14.6%	0.87
City of Montclair	897	2.9%	0.17
Total	**31,051**	**100.0%**	**$5.98**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

Table 17 shows an example of the total revenue calculation under Alternative 2 for FY 2020/21.

Table 17 FY 2020/21 Total Revenue Calculation Example

User	Direct Use	Recharge	Variable Revenues	Fixed Revenues (Alt 2)	Total Revenues
Rate	**$342.00**	**$416.00**	**$ millions**	**$ millions**	**$ millions**
	AF	**AF**			
San Bernardino County	235	-	$0.08	$0.04	$0.12
City of Ontario	8,705	2,966	4.21	2.20	6.41
City of Chino	6,035	421	2.24	1.21	3.45
City of Chino Hills	1,788	1,271	1.14	0.57	1.71
City of Upland	702	1,352	0.80	0.39	1.19
City of Fontana	120	2,728	1.18	0.54	1.71
CVWD	1,103	3,549	1.85	0.87	2.73
City of Montclair	311	615	0.36	0.17	0.54
Total	**19,000**	**12,900**	**$11.86**	**$5.98**	**$17.84**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

4.2.3 Alternative 2A: Three-year Rolling Average Demands with Phase-In

Based on feedback received from the member agencies, the Alternative 2 was modified to include a phase-in of fixed revenue collection to allow for the member agencies to prepare for the rate structure change. The Alternative with the phase-in included will be denoted as Alternative 2A. The fixed revenue requirement would be phased-in over four years, starting in FY 2023/24 as shown in Table 18 below.

Table 18 Alternative 2A Fixed Rate Phase in Schedule

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27
Fixed Rate Phase-In Schedule	**0%**	**0%**	**0%**	**25%**	**50%**	**75%**	**100%**

During the phase-in, revenues not collected through the fixed charge would continue to be collected through the volumetric rates. As such, the Alternative 2A volumetric rates for FY 2020/21 through FY 2022/23 are equal to those in Alternative 1. Volumetric rates would start to differ from those in Alternative 1 beginning in FY 2023/24 as collection of revenues through the fixed charges begins. By phasing in a fixed charge, the variable rate component for the direct use and recharge water funds will begin to decrease in FY 2023/24. Variable rates would begin to decrease in FY 2023/24 as the fixed charge is phased-in. Table 19 shows the calculation of volumetric direct use rates for Alternative 2A.

Table 19 Alternative 2A Volumetric Rates Calculation

Budget Item	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total Revenue Requirement	$16.88	$18.34	$20.23	$21.49	$23.09
Less: Phased Fixed Rate Revenue Requirement ($M)	$0.00	$0.00	$0.00	($1.49)	($2.99)
Variable Rate Revenue Requirement	$16.88	$18.34	$20.23	$20.00	$20.10
Recycled & Recharge Water Demands (AF)	31,900	32,100	32,800	32,800	33,200
Direct Recycled Variable Water Rate ($/AF)	**$529**	**$571**	**$617**	**$610**	**$606**
Recharge Surcharge ($/AF)	**$74**	**$92**	**$114**	**$138**	**$167**
Total Recharge Variable Rate ($/AF)	**$603**	**$663**	**$731**	**$748**	**$773**

Table 20 shows the estimated fixed revenues from each user under three-year rolling average for each year of the analysis. The values shown in Table 20 are based on projected demands for each user and are for illustrative purposes. If this rate structure is adopted, the three-year rolling average that is used to allocate the fixed revenues to each user would be updated each year based on the three previous years of deliveries.

Table 20 Alternative 2A Fixed Revenues by User (Millions)

User	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
San Bernardino County	$-	$-	$-	$0.01	$0.02
City of Ontario	-	-	-	0.54	1.08
City of Chino	-	-	-	0.30	0.59
City of Chino Hills	-	-	-	0.14	0.29
City of Upland	-	-	-	0.10	0.19
City of Fontana	-	-	-	0.14	0.27
CVWD	-	-	-	0.22	0.44
City of Montclair	-	-	-	0.04	0.09
Total Fixed Revenues	$-	$-	$-	**1.49**	**2.99**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

4.2.4 Fixed Charge Revenue Comparison

The above rate structure alternatives provide the Agency with different ways to recover fixed revenues for the recycled and recharge water funds. Under each alternative, the total revenues from each user would be equal to their allocated share of fixed costs plus their variable charges based on their usage in each year and the rates shown in Table 11 and Table 12 for the current rate structure or Table 14 or Table 19 for the fixed structure alternatives. Table 21 illustrates the projected total revenue to be recovered for both the direct use and groundwater recharge rates by each user under the each alternative for FY 2020/21 through FY 2024/25. As shown, differences in total revenue from each user would be minimal for the analyzed alternatives based on the projected recycled water and recharge water demands. If demands change disproportionately among the users, revenues from each user would adjust to reflect those changes.

Table 21 FY 2020/21 through FY 2024/25 Total Revenue by User, Direct and Recharge

User	Alt 1: Current Structure	Alt 2: Three-Year Rolling Average	Alt 2A: Three-Year Rolling Average (Phase-In)
San Bernardino County	$0.72	$0.72	$0.72
City of Ontario	38.19	38.24	38.20
City of Chino	20.21	20.28	20.22
City of Chino Hills	10.38	10.37	10.38
City of Upland	7.34	7.33	7.34
City of Fontana	10.82	10.78	10.82
CVWD	16.99	16.95	16.99
City of Montclair	3.31	3.31	3.31
Total Revenue	**$107.98**	**$107.98**	**$107.98**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

Table 22 presents the percent of total revenue to be collected for each alternative, by each user for FY 2020/21 through FY 2024/25. As shown, the change in percent of total recycled and recharge revenue from each user would be less than 0.1%.

Table 22 Five Year Average Revenue Comparison, User Percent Share of Total Revenues

User	Alt 1: Current Structure	Alt 2: Three-Year Rolling Average	Alt 2A: Three-Year Rolling Average (Phase-In)
San Bernardino County	0.7%	0.7%	0.7%
City of Ontario	35.4%	35.4%	35.4%
City of Chino	18.7%	18.8%	18.7%
City of Chino Hills	9.6%	9.6%	9.6%
City of Upland	6.8%	6.8%	6.8%
City of Fontana	10.0%	10.0%	10.0%
CVWD	15.7%	15.7%	15.7%
City of Montclair	3.1%	3.1%	3.1%
Total Revenue	**100.0%**	**100.0%**	**100.0%**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

Figure 2 shows the projected recycled and recharge revenue from each user under Alternative 2. As shown in the lighter colored bars at the bottom of the chart, fixed revenues from each user would remain consistent from year to year and variable revenues would increase.

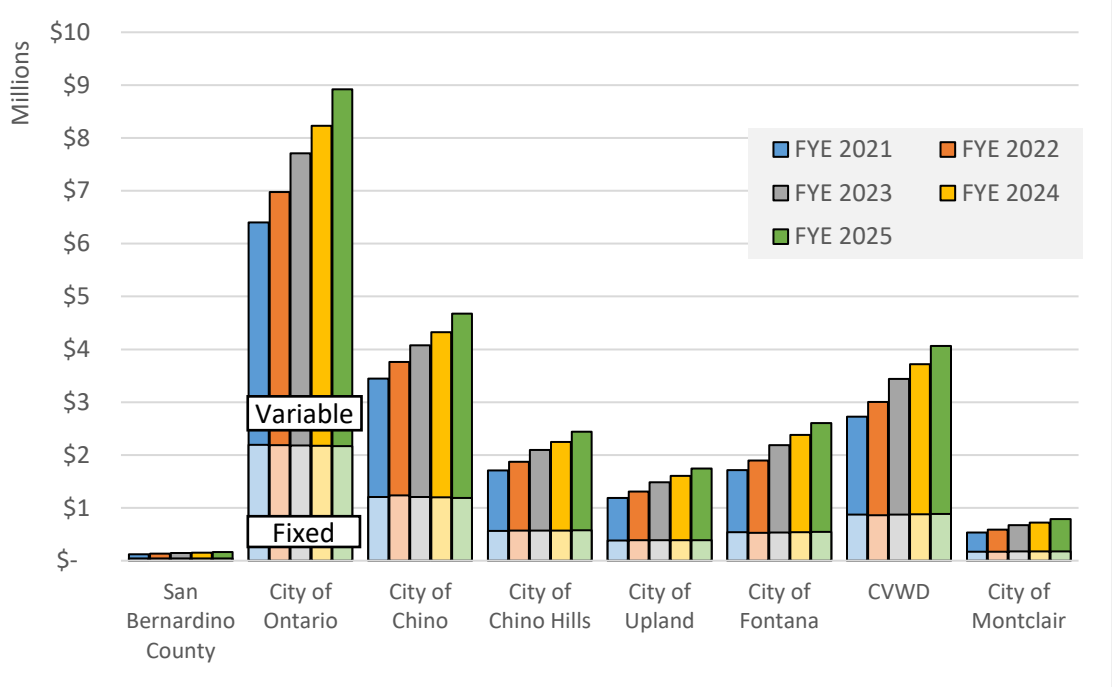


Figure 2 Alternative 2: Total Recycled and Recharge Fixed Charge Revenues, by User

Figure 3 shows the projected recycled and recharge revenue from each user under Alternative 2A. As shown in the lighter colored bars at the bottom of the chart, fixed revenues collection would not begin until FY 2023/24. After that time, fixed revenue collection would increase each year until the fixed charges are fully phased-in.

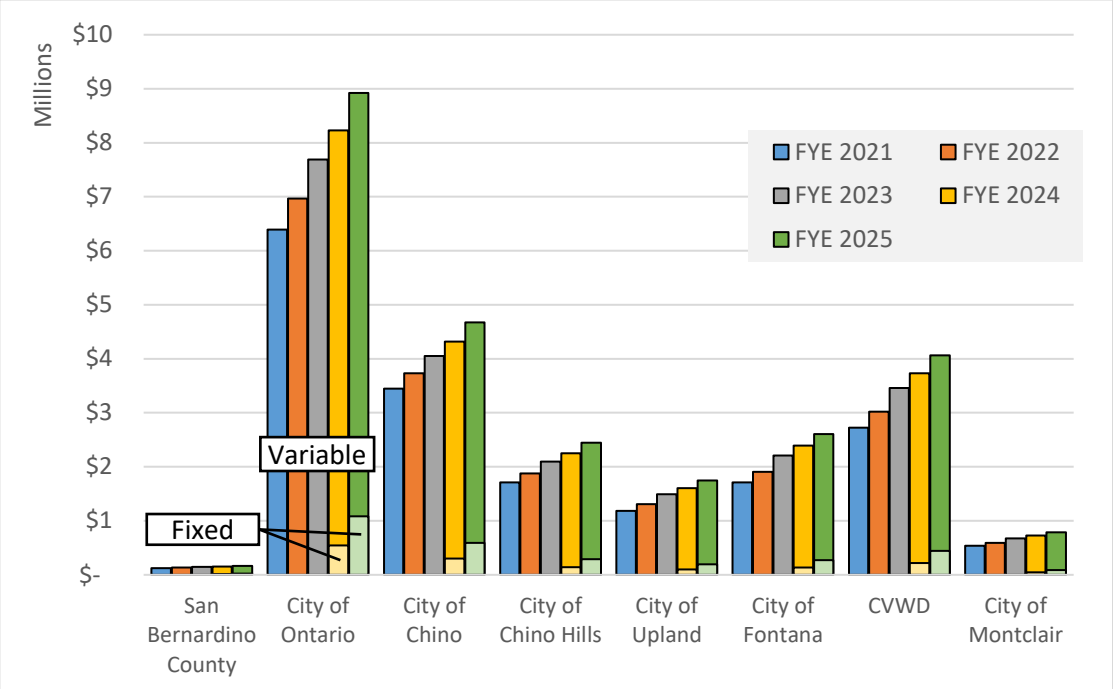
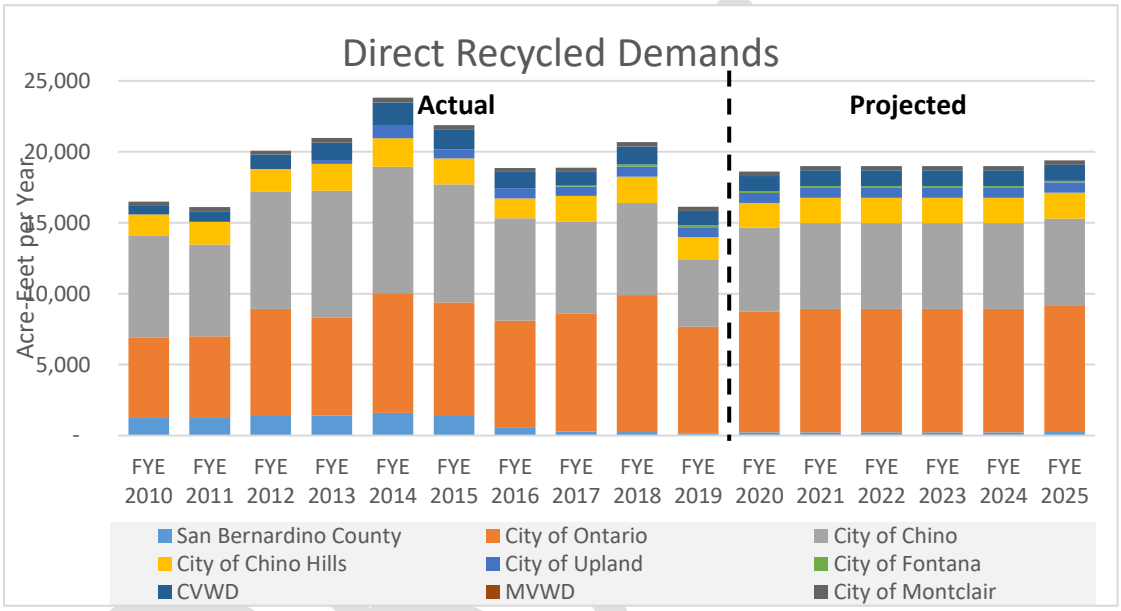


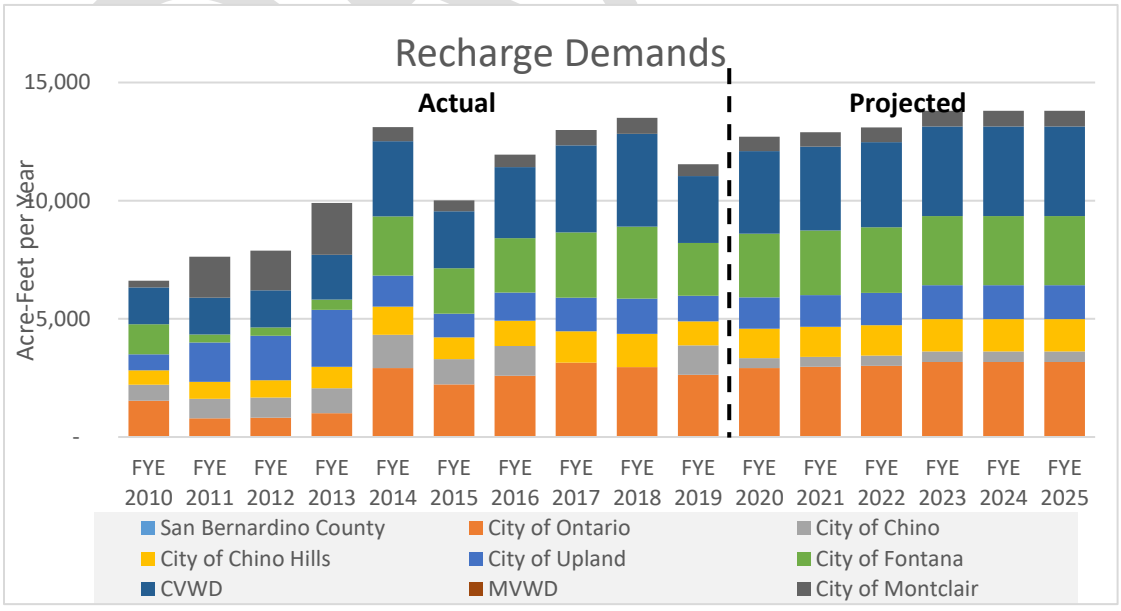
Figure 3 Alternative 2A: Total Recycled and Recharge Fixed Charge Revenues, by User

Appendix A

HISTORIC AND PROJECTED DEMANDS

Direct Recycled Water and Recharge Water demands for each member agency are shown in the figures below. Given total direct and recharge water demands projected by IEUA, demands by user were projected based on their 3-year average share of direct or recharge demands during FY 2016/17 through FY 2018/19. Additional detail is provided in the tables on the following pages.





Appendix B

FINANCIAL PROJECTIONS

Inland Empire Utilites Agency

Recycled and Recharge Water Rate Study

Financial Forecast Summary

Recycled Water (WC) Fund - This fund accounts for direct use activities and a portion of recharge water activity

All Values in $ Millions	Table 1a Direct Use Activity					Table 1b Recharge Activity				
Presented totals may vary from sum of values above due to rounding for presentation purposes.										
Recycled Water (WC) Fund	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**
Sales Revenue										
Recycled Water Sales w/o Increase	$15.63	$15.73	$16.07	$16.07	$16.27	-	-	-	-	-
Adopted Increase	1.25	2.61	4.16	5.42	6.83	-	-	-	-	-
Recharge Sales w/o Increase	-	-	-	-	-	$0.77	$0.79	$0.83	$0.83	$0.83
Adopted Increase	-	-	-	-	-	0.19	0.41	0.74	1.08	1.48
Total Sales Revenue	**$ 16.88**	**$ 18.34**	**$ 20.23**	**$ 21.49**	**$ 23.09**	**$ 0.96**	**$ 1.20**	**$ 1.57**	**$ 1.90**	**$ 2.30**
Operating Revenue										
Interest Revenue	$ 0.95	$ 0.94	$ 1.23	$ 1.36	$ 1.44	$ -	$ -	$ -	$ -	$ -
JPA Cost Reimbursement	-	-	-	-	-	-	-	-	-	-
Total Operating Revenue	**$ 0.95**	**$ 0.94**	**$ 1.23**	**$ 1.36**	**$ 1.44**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Non-Operating Revnue										
Property Tax	$ 2.17	$ 2.17	$ 2.17	$ 2.17	$ 2.17	$ -	$ -	$ -	$ -	$ -
Connection Fees	6.42	6.67	6.93	7.20	7.48	-	-	-	-	-
Loans	3.48	-	-	-	-	-	-	-	-	-
Grants	1.35	-	-	-	-	-	-	-	-	-
Capital Cost Reimb	0.09	0.09	0.09	0.09	0.10	-	-	-	-	-
Total Non-Operating Revenue	**$ 13.51**	**$ 8.93**	**$ 9.19**	**$ 9.47**	**$ 9.75**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Operating Expense										
Employment	$ 4.46	$ 4.79	$ 5.02	$ 5.24	$ 5.70	$ 0.91	$ 0.92	$ 0.92	$ 0.92	$ 0.93
Utilities	2.88	2.97	3.06	3.15	3.25	-	-	-	-	-
Materials & Supplies	0.12	0.13	0.14	0.16	0.18	0.05	0.05	0.05	0.06	0.06
Other Expenses	3.00	2.65	2.57	2.61	3.11 (1)	0.28	0.34	0.40	0.36	0.31 (1)
Total Operating Expense	**$ 10.47**	**$ 10.54**	**$ 10.80**	**$ 11.16**	**$ 12.24**	**$ 1.25**	**$ 1.31**	**$ 1.37**	**$ 1.34**	**$ 1.30**
Non-Operting Expense										
Debt Service	$ 12.12	$ 12.47	$ 14.42	$ 15.41	$ 14.68	$ -	$ -	$ -	$ -	$ -
Capital	2.30	1.50	5.31	4.00	3.96	-	-	-	-	-
Total Non-Operating Expense	**$ 14.42**	**$ 13.97**	**$ 19.73**	**$ 19.41**	**$ 18.64**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Transfers In/(Out)										
Capital Contribution (to GG)	$ (0.02)	$ (0.01)	$ (0.01)	$ (0.02)	$ (0.03) (2)	$ -	$ -	$ (0.01)	$ (0.11)	$ (0.22) (2)
Connection Fee Allocation to RW	(3.03)	(0.07)	(0.12)	(0.17)	(0.23) (3)	-	-	-	-	-
Connection Fee Allocation to WW	(1.45)	(1.31)	(1.11)	(2.26)	(0.47) (4)					
Connection Fee Allocation to GG	(0.04)	(0.01)	(0.03)	(0.02)	(0.02)					
Debt Service (from RC, RO)	2.54	2.54	2.54	2.67	2.67 (5)	-	-	-	-	-
Operating Support (to GG)	(0.05)	(0.01)	(0.04)	(0.03)	(0.00) (6)	(0.71)	(0.75)	(0.78)	(0.81)	(0.87) (6)
Total Transfers In/(Out)	**$ (2.05)**	**$ 1.13**	**$ 1.24**	**$ 0.17**	**$ 1.91**	**$ (0.71)**	**$ (0.75)**	**$ (0.79)**	**$ (0.92)**	**$ (1.08)**

(1) Other Expenses include contract work and special projects, professional fees and services, and other administrative and miscellaneous expenses.

(2) WC fund contributes 3.4% of GG fund capital project costs and IEUAs share of RW fund capital expense

(3) WC fund allocates a portion of connection fee receipts for project costs that support investments in integrated water resource management

(4) Total connection fee transfer to the water resources fund to cover capital projects, water use efficiency projects, and other projects.

(5) Regional funds support a portion debt service costs in the WC and RW funds

(6) WC fund supports 3.4% operating project costs in the GG fund and basin maintenance expense in the RW fund per the Peace I and II agreements with CBWM.

Inland Empire Utilites Agency

Recycled and Recharge Water Rate Study

Financial Forecast Summary

Recharge Water (RW) Fund - Accounts for basin activities as part of the joint agreement with Chino Basin Watermaster, San Bernardino County Flood Control District, and Chino Basin Water Conservation District

Table 2

All Values in $ Millions

Recharge Activity Reimbursement agreement

Presented totals may vary from sum of values above due to rounding for presentation purposes.

Recharge Water (RW) Fund Recharge Activity	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	
Sales Revenue						
Recycled Water Sales w/o Increase	-	-	-	-	-	
Adopted Increase	-	-	-	-	-	
Recharge Sales w/o Increase	-	-	-	-	-	
Adopted Increase	-	-	-	-	-	
Total Sales Revenue	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
Operating Revenue						
Interest Revenue	$ 0.16	$ 0.19	$ 0.20	$ 0.20	$ 0.20	
JPA Cost Reimbursement	1.08	1.11	1.14	1.18	1.21	
Total Operating Revenue	**$ 1.24**	**$ 1.30**	**$ 1.34**	**$ 1.37**	**$ 1.41**	
Non-Operating Revnue						
Property Tax	$ -	$ -	$ -	$ -	$ -	
Connection Fees	-	-	-	-	-	
Loans	3.76	0.14	-	-	-	
Grants	11.52	-	-	-	-	
Capital Cost Reimb	0.66	0.94	1.06	1.19	1.31	
Total Non-Operating Revenue	**$ 15.95**	**$ 1.08**	**$ 1.06**	**$ 1.19**	**$ 1.31**	
Operating Expense						
Employment	$ 0.68	$ 0.72	$ 0.75	$ 0.78	$ 0.83	
Utilities	0.07	0.07	0.07	0.08	0.08	
Materials & Supplies	0.10	0.10	0.11	0.11	0.11	
Other Expenses	0.94	0.96	0.99	1.02	1.05	(1)
Total Operating Expense	**$ 1.79**	**$ 1.85**	**$ 1.92**	**$ 1.99**	**$ 2.07**	
Non-Operting Expense						
Debt Service	$ 1.32	$ 1.51	$ 1.50	$ 1.50	$ 1.50	
Capital	13.18	0.29	0.50	0.75	1.00	
Total Non-Operating Expense	**$ 14.51**	**$ 1.80**	**$ 2.00**	**$ 2.25**	**$ 2.50**	
Transfers In/(Out)						
Capital Contribution (from WC)	$ -	$ -	$ 0.01	$ 0.11	$ 0.22	(2)
Connection Fee Allocation (from WC)	3.03	0.07	0.12	0.17	0.23	(3)
Debt Service (from RC)	0.66	0.69	0.69	0.69	0.69	(4)
Operating Support (from WC)	0.71	0.75	0.78	0.81	0.87	(5)
Total Transfers In/(Out)	**$ 4.40**	**$ 1.51**	**$ 1.59**	**$ 1.78**	**$ 2.00**	

(1) Other Expenses include contract work and special projects, professional fees and services, and other administrative and miscellaneous expenses.

(2) WC fund contributes 3.4% of GG fund capital project costs and IEUAs share of RW fund capital expense

(3) WC fund allocates a portion of connection fee receipts for project costs that support investments in integrated water resource management

(4) Regional funds support a portion debt service costs in the WC and RW funds

(5) WC fund supports 3.4% operating project costs in the GG fund and basin maintenance expense in the RW fund per the Peace I and II agreements with CBWM.

Inland Empire Utilites Agency

Recycled and Recharge Water Rate Study

Financial Forecast Summary

Combined WC fund (Recharge water expense) and RW fund activity

Table 1b and Table 2

All Values in $ Millions

Direct use and total Recharge Activity

Presented totals may vary from sum of values above due to rounding for presentation purposes.

Combined (WC and RW funds) Recharge Water Activity	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	
Sales Revenue						
Recycled Water Sales w/o Increase	-	-	-	-	-	
Adopted Increase	-	-	-	-	-	
Recharge Sales w/o Increase	$0.77	$0.79	$0.83	$0.83	$0.83	
Adopted Increase	0.19	0.41	0.74	1.08	1.48	
Total Sales Revenue	**$ 0.96**	**$ 1.20**	**$ 1.57**	**$ 1.91**	**$ 2.31**	
Operating Revenue						
Interest Revenue	$ 0.16	$ 0.19	$ 0.20	$ 0.20	$ 0.20	
JPA Cost Reimbursement	1.08	1.11	1.14	1.18	1.21	
Total Operating Revenue	**$ 1.24**	**$ 1.30**	**$ 1.34**	**$ 1.37**	**$ 1.41**	
Non-Operating Revnue						
Property Tax	$ -	$ -	$ -	$ -	$ -	
Connection Fees	-	-	-	-	-	
Loans	3.76	0.14	-	-	-	
Grants	11.52	-	-	-	-	
Capital Cost Reimb	0.66	0.94	1.06	1.19	1.31	
Total Non-Operating Revenue	**$ 15.95**	**$ 1.08**	**$ 1.06**	**$ 1.19**	**$ 1.31**	
Operating Expense						
Employment	$ 1.59	$ 1.64	$ 1.67	$ 1.70	$ 1.76	
Utilities	0.07	0.07	0.07	0.08	0.08	
Materials & Supplies	0.15	0.15	0.16	0.17	0.17	
Other Expenses	1.22	1.30	1.39	1.38	1.36	(1)
Total Operating Expense	**$ 3.04**	**$ 3.16**	**$ 3.29**	**$ 3.33**	**$ 3.37**	
Non-Operting Expense						
Debt Service	$ 1.32	$ 1.51	$ 1.50	$ 1.50	$ 1.50	
Capital	13.18	0.29	0.50	0.75	1.00	
Total Non-Operating Expense	**$ 14.51**	**$ 1.80**	**$ 2.00**	**$ 2.25**	**$ 2.50**	
Transfers In/(Out)						
Capital Contribution (from WC)	$ -	$ -	$ 0.01	$ 0.11	$ 0.22	(2)
Connection Fee Allocation (from WC)	3.03	0.07	0.12	0.17	0.23	(3)
Debt Service (from RC)	0.66	0.69	0.69	0.69	0.69	(4)
Operating Support (from WC)	0.71	0.75	0.78	0.81	0.87	(5)
Total Transfers In/(Out)	**$ 4.40**	**$ 1.51**	**$ 1.59**	**$ 1.78**	**$ 2.00**	

(1) Other Expenses include contract work and special projects, professional fees and services, and other administrative and miscellaneous expenses.

(2) WC fund contributes 3.4% of GG fund capital project costs and IEUAs share of RW fund capital expense

(3) WC fund allocates a portion of connection fee receipts for project costs that support investments in integrated water resource management

(4) Regional funds support a portion debt service costs in the WC and RW funds

(5) WC fund supports 3.4% operating project costs in the GG fund and basin maintenance expense in the RW fund per the Peace I and II agreements with CBWM.

Appendix C

CAPITAL PROJECTS

Inland Empire Utilites Agency

Recycled and Recharge Water Rate Study

Capital Improvement Projects (CIP)

Project Number	Project Title	Note	Growth - One Water	Replacement	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Recharge Water Fund - RW - Capital Projects									
EN22008	GWR Asset Management	Overall MEU Growth	23%	77%	$ -	$ 250,000	$ 500,000	$ 750,000	$ 1,000,000
IS21008	GWR Infrastracture Replacement Project	Overall MEU Growth	23%	77%	$ 30,000	$ -	$ -	$ -	$ -
RW15003	Recharge Master Plan Update Projects	Overall MEU Growth	23%	77%	$ 9,750,000	$ 40,041	$ -	$ -	$ -
RW15004	Lower Day Basin RMPU Improvements	Overall MEU Growth	23%	77%	$ 3,404,044	$ -	$ -	$ -	$ -
	Recharge Water Fund - RW - Capital Projects				**$ 13,184,044**	**$ 290,041**	**$ 500,000**	**$ 750,000**	**$ 1,000,000**
Recycled Water Fund - WC - Capital Projects									
EN15002	1158 Reservoir Site Cleanup	Overall MEU Growth	23%	77%	$ 1,000,000	$ -	$ -	$ -	$ -
EN17032	RP-4 Outfall Repair from Mission Blvd to	Overall MEU Growth	23%	77%	$ -	$ 1,000,000	$ 4,000,000	$ -	$ -
EN19003	RP-1 Outfall Parallel Line	Overall MEU Growth	23%	77%	$ -	$ -	$ 230,000	$ 1,925,000	$ 960,000
EN22009	WC Asset Management	Overall MEU Growth	23%	77%	$ -	$ 500,000	$ 1,000,000	$ 2,000,000	$ 3,000,000
EN20022	1299 Reservoir Paint/Coating Repairs and	No Growth Allocation	0%	100%	$ 100,000				
EN22004	1158 East Reservoir Re-coating/painting	No Growth Allocation	0%	100%	$ 1,200,000				
EN24005	1630 West Reservoir Paint/Coating Repair	No Growth Allocation	0%	100%			$ 75,000		
EN24006	930 Reservoir Paint/Coating Repairs and	No Growth Allocation	0%	100%				$ 75,000	
Subtotal	**Recycled Water Fund - WC - Capital Projects**				**$ 2,300,000**	**$ 1,500,000**	**$ 5,305,000**	**$ 4,000,000**	**$ 3,960,000**

Inland Empire Utilites Agency

Recycled and Recharge Water Rate Study

Capital Improvement Projects (CIP)

Project Number	Project Title	Note	Growth - One Water	Replacement	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Recycled Water Fund - WC - Contract Work/Special Projects									
EN16035	WC Planning Documents	Overall MEU Growth	23%	77%	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 500,000
EN18021	Prado Basin AMP Annual Monitoring	No Growth Allocation	0%	100%	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
EN19030	WC Asset Management (Assessment Only)	No Growth Allocation	0%	100%	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000
EN20017	WC Emergency O&M Projects FY 19/20	No Growth Allocation	0%	100%	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000
EN20031	Recycled Water Program Strategy 2020	Overall MEU Growth	23%	77%	$ 250,000	$ -	$ -	$ -	$ -
EN20049	Reservoir Maintenance (Repair/Improve)	No Growth Allocation	0%	100%	$ 50,000	$ -	$ -	$ -	$ -
EN20050	Reservoir Maintenance (Access)	No Growth Allocation	0%	100%	$ -	$ -	$ 20,000	$ -	$ -
EN21036	WC On Call/ Small Projects 20/21	No Growth Allocation	0%	100%	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000
EN25031	Recycled Water Program Strategy 2025	Overall MEU Growth	23%	77%	$ -	$ -	$ -	$ -	$ 250,000
WR16001	Water Softener Removal Rebate Program	Overall MEU Growth	23%	77%	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000
WR20029	Upper SAR HCP & Integrated Model-Recycled Water Bene	Overall MEU Growth	23%	77%	$ 90,000	$ 88,000	$ -	$ -	$ -
Subtotal	**Recycled Water Fund - WC - Contract Work/Special Projects**				**$ 1,365,000**	**$ 1,063,000**	**$ 995,000**	**$ 975,000**	**$ 1,475,000**
Total	**Recycled Water Fund - WC**				**$ 3,665,000**	**$ 2,563,000**	**$ 6,300,000**	**$ 4,975,000**	**$ 5,435,000**
Recharge Water (RW) One Water Connection Fee Eligible Projects Cost					**$ 3,032,330**	**$ 66,709**	**$ 115,000**	**$ 172,500**	**$ 230,000**
Recycled Water (WC) One Water Connection Fee Eligible Projects Cost					**$ 382,950**	**$ 439,990**	**$ 1,277,650**	**$ 977,500**	**$ 1,100,550**

Appendix D

ADDITIONAL RATE OPTION – MID-DEMAND SCENARIO

An additional recycled rate option was analyzed with input from Agency staff. This scenario looked at a decreased demand projection summarized below. The average of the total demands from the December 2019 Report and the demands from the body of this report (based on the projected 3-year average of demands was used as a middle of the road demand analysis. This assumption results in a demand projection that that is 2,300 acre-ft per year higher than the projection from the body of this report in FY 2020/21 and increases to be 2,400 acre-ft per year higher by FY 2024/25.

In recognition of the groundwater recharge projects that have recently be completed, the majority if the additional demands, 2,000 acre-ft per year, are assumed to be for recharge deliveries. The remaining additional demands are assumed to be for direct use. Table D-1 below shows the projected demands for the Mid-Demand scenario are shown in the table below.

Table D-1 Mid-Demand Scenario Projected Demands (Acre-ft)

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Decreased Projection (Body of Report) (Based On 3-Year Average FY 2016/17 through FY 2018/19)	31,900	32,100	32,800	32,800	33,200
Initial Projection (December 2019 Report)	36,500	36,700	37,500	37,500	38,000
Mid Demand (Average of Initial Projection and Decreased Projection)	**34,200**	**34,400**	**35,150**	**35,150**	**35,600**
Amount Above Decreased Projection	2,300	2,300	2,350	2,350	2,400
Allocation to Recharge	*2,000*	*2,000*	*2,000*	*2,000*	*2,000*
Allocation to Direct Use	*300*	*300*	*350*	*350*	*400*
Modeled Direct Use Demand	**19,300**	**19,300**	**19,350**	**19,350**	**19,800**
Modeled Recharge Demand	**14,900**	**15,100**	**15,800**	**15,800**	**15,800**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

The required rate revenues for the Mid-Demand scenario were updated to reflect the increase in demands (as compared to those in the body of this report). The revenue requirements projections were set to recover total revenues for FY 2020/21 through FY 2024/25 that are approximately equal to those presented in the body of this report. Table D-2 shows the required rate revenues for the direct use rates. Table D-3 shows the required rate revenues for the recharge water surcharge.

Table D-2 Mid-Demand Scenario – Required Recycled Water Direct Use Rate Revenues

Recycled Water Fund Required Rate Revenues	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Operating Expenses	$10.47	$10.54	$10.80	$11.16	$12.24
Debt Service	12.12	12.47	14.42	15.41	14.68
Capital	2.30	1.50	5.31	4.00	3.96
Transfers	2.76	(0.38)	(0.45)	0.75	(0.83)
Total Expenses	**$27.65**	**$24.13**	**$30.08**	**$31.32**	**$30.05**
Remove Operation Support to Recharge Water Fund	(0.71)	(0.75)	(0.78)	(0.81)	(0.87)
Remove Capital Support to Recharge Water Fund	0.00	0.00	(0.01)	(0.11)	(0.22)
Less: Offsetting Revenues					
Operating Revenues	$(0.95)	$(0.94)	$(1.23)	$(1.36)	$(1.44)
Non-Operating Revenues, net of connection fees (Table 7)	(7.09)	(2.26)	(2.26)	(2.26)	(2.27)
Use of Connection Fees for Transfers, Projects, and Debt Service (Table 8)	(6.34)	(3.62)	(6.26)	(8.03)	(5.69)
Subtotal: Offsetting Revenues	**$(14.38)**	**$(6.82)**	**$(9.75)**	**$(11.65)**	**$(9.40)**
Contribution to (Use of) Reserves	**$5.08**	**$2.08**	**$0.52**	**$2.33**	**$2.91**
Required Revenues from Direct Usage Rates	**$17.63**	**$18.64**	**$20.04**	**$21.08**	**$22.47**

Notes:
(2) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

Table D-3 Required Recharge Water Rate Revenues ($ millions)

Recharge Water Required Rate Revenues	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Operating Expenses	$3.03	$3.17	$3.29	$3.32	$3.38
Debt Service	1.32	1.51	1.50	1.50	1.50
Capital	13.18	0.29	0.50	0.75	1.00
Transfers (Includes Connection Fees)	(4.40)	(1.51)	(1.59)	(1.78)	(2.00)
Total Expenses	**$13.13**	**$3.46**	**$3.70**	**$3.79**	**$3.88**
Plus: Operations Previously Supported by Recycled Water Fund	0.71	0.75	0.78	0.81	0.87
Plus: Capital Previously Supported by Recycled Water Fund	-	-	0.01	0.11	0.22
Less: Offsetting Revenues					
Operating Revenues	$(1.24)	$(1.30)	$(1.34)	$(1.37)	$(1.41)
Non-Operating Revenues	(15.95)	(1.08)	(1.06)	(1.19)	(1.31)
Subtotal: Offsetting Revenues	**$(17.19)**	**$(2.38)**	**$(2.40)**	**$(2.56)**	**$(2.72)**
Contribution to (Use of) Reserves	**$4.40**	**$(0.56)**	**$(0.52)**	**$(0.31)**	**$(0.05)**
Required Revenues from Recharge Surcharge Rates	**$1.06**	**$1.27**	**$1.57**	**$1.85**	**$2.19**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes.

Table D-4 shows the calculation of the recharge surcharge for the Mid-Demand Scenario. The rates in the mid demand scenario would be lower than those presented in the body of this report due to the higher assumed demands.

Table D-4 Mid-Demand Scenario – Recharge Water Surcharge Rate ($/AF)

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Required Revenues from Rates (millions)	$1.06	$1.27	$1.57	$1.85	$2.19
Projected Demands (AF)	14,900	15,100	15,800	15,800	15,800
Recharge Surcharge Rate per AF	**$71**	**$84**	**$99**	**$117**	**$138**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

Like the analysis presented in the body of this report, direct use rates were calculated for rate structure alternatives without and with a fixed rate component. The fixed share of revenue requirements for the Mid-Demand scenario alternatives is identical to those presented in the body of this report since they are not impacted by demands.

The calculated rates for the Mid-Demand scenario use the same methodology as discussed in the report and include three options:

Alternative 1 – Current Rate Structure

Alternative 2 – Fixed Component based on Three-Year Rolling Average of Total Use

Alternative 2A – Fixed Component based on Three-Year Rolling Average of Total Use with phase-in starting in FY 2023/24

The recharge surcharge is consistent for each of the alternatives. The direct use rates in the mid demand scenario for each alternative would be lower than those presented for the corresponding alternative in the body of this report due to the higher assumed demands.

Table D-5 shows the calculation of the direct use rates and total recharge rate for Alternative 1 with the Mid-Demand Scenario.

Table D-5 Mid-Demand Scenario – Alternative 1 Rate Calculation

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Required Revenues from Rates (millions)	$17.63	$18.64	$20.04	$21.08	$22.47
Projected Demands (AF)	34,200	34,400	35,150	35,150	35,600
Recycled Water Direct Use Rate per AF	**$515**	**$542**	**$570**	**$600**	**$631**
Recharge Surcharge ($/AF)	$71	$84	$99	$117	$138
Recycled Water Total Recharge Rate per AF	**$586**	**$626**	**$669**	**$717**	**$769**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

Table D-6 shows the calculation of the direct use rates and total recharge rate for Alternative 2 with the Mid-Demand Scenario.

Table D-6 Mid-Demand Scenario – Alternative 2 Rate Calculation

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total Revenue Requirement	$17.63	$18.64	$20.04	$21.08	$22.47
Less: Phased Fixed Rate Revenue Requirement ($M)	($5.97)	($5.97)	($5.97)	($5.97)	($5.97)
Variable Rate Revenue Requirement	$11.66	$12.67	$14.07	$15.11	$16.50
Recycled & Recharge Water Demands (AF)	34,200	34,400	35,150	35,150	35,600
Direct Recycled Variable Water Rate ($/AF)	**$341**	**$368**	**$400**	**$430**	**$463**
Recharge Surcharge ($/AF)	$71	$84	$99	$117	$138
Recycled Water Direct Use Rate per AF	**$412**	**$452**	**$499**	**$547**	**$601**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

Table D-7 shows the calculation of the direct use rates and total recharge rate for Alternative 2A with the Mid-Demand Scenario.

Table D-7 Mid-Demand Scenario – Alternative 3 Rate Calculation

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total Revenue Requirement	$17.63	$18.64	$20.04	$21.08	$22.47
Less: Phased Fixed Rate Revenue Requirement ($M)	$0.00	$0.00	$0.00	($1.49)	($2.99)
Variable Rate Revenue Requirement	$17.63	$18.64	$20.04	$19.59	$19.48
Recycled & Recharge Water Demands (AF)	34,200	34,400	35,150	35,150	35,600
Direct Recycled Variable Water Rate ($/AF)	**$515**	**$542**	**$570**	**$557**	**$547**
Recharge Surcharge ($/AF)	$71	$84	$99	$117	$138
Recycled Water Direct Use Rate per AF	**$586**	**$626**	**$669**	**$674**	**$685**

Notes:
(1) Presented totals may vary from values above due to rounding for presentation purposes. All values in millions of dollars.

Mid-Demand Scenario Detailed Financial Projections

The following pages present detailed financial projections for the Mid-Demand Scenario.

Inland Empire Utilites Agency

Recycled and Recharge Water Rate Study

Financial Forecast Summary - Mid Demand Scenario

Recycled Water (WC) Fund - This fund accounts for direct use activities and a portion of recharge water activity

All Values in $ Millions

Presented totals may vary from sum of values above due to rounding for presentation purposes.

	Table 1a – Direct Use Activity					Table 1b – Recharge Activity				
Recycled Water (WC) Fund	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**
Sales Revenue										
Recycled Water Sales w/o Increase	$16.76	$16.86	$17.22	$17.22	$17.44	-	-	-	-	-
Adopted Increase	0.87	1.78	2.82	3.85	5.03	-	-	-	-	-
Recharge Sales w/o Increase	-	-	-	-	-	$0.89	$0.91	$0.95	$0.95	$0.95
Adopted Increase	-	-	-	-	-	0.16	0.37	0.62	0.91	1.24
Total Sales Revenue	**$ 17.63**	**$ 18.64**	**$ 20.04**	**$ 21.08**	**$ 22.47**	**$ 1.06**	**$ 1.27**	**$ 1.57**	**$ 1.85**	**$ 2.19**
Operating Revenue										
Interest Revenue	$ 0.95	$ 0.94	$ 1.23	$ 1.36	$ 1.44	$ -	$ -	$ -	$ -	$ -
JPA Cost Reimbursement	-	-	-	-	-	-	-	-	-	-
Total Operating Revenue	**$ 0.95**	**$ 0.94**	**$ 1.23**	**$ 1.36**	**$ 1.44**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Non-Operating Revnue										
Property Tax	$ 2.17	$ 2.17	$ 2.17	$ 2.17	$ 2.17	$ -	$ -	$ -	$ -	$ -
Connection Fees	6.42	6.67	6.93	7.20	7.48	-	-	-	-	-
Loans	3.48	-	-	-	-	-	-	-	-	-
Grants	1.35	-	-	-	-	-	-	-	-	-
Capital Cost Reimb	0.09	0.09	0.09	0.09	0.10	-	-	-	-	-
Total Non-Operating Revenue	**$ 13.51**	**$ 8.93**	**$ 9.19**	**$ 9.47**	**$ 9.75**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Operating Expense										
Employment	$ 4.46	$ 4.79	$ 5.02	$ 5.24	$ 5.70	$ 0.91	$ 0.92	$ 0.92	$ 0.92	$ 0.93
Utilities	2.88	2.97	3.06	3.15	3.25	-	-	-	-	-
Materials & Supplies	0.12	0.13	0.14	0.16	0.18	0.05	0.05	0.05	0.06	0.06
Other Expenses	3.00	2.65	2.57	2.61	3.11 (1)	0.28	0.34	0.40	0.36	0.31 (1)
Total Operating Expense	**$ 10.47**	**$ 10.54**	**$ 10.80**	**$ 11.16**	**$ 12.24**	**$ 1.25**	**$ 1.31**	**$ 1.37**	**$ 1.34**	**$ 1.30**
Non-Operting Expense										
Debt Service	$ 12.12	$ 12.47	$ 14.42	$ 15.41	$ 14.68	$ -	$ -	$ -	$ -	$ -
Capital	2.30	1.50	5.31	4.00	3.96	-	-	-	-	-
Total Non-Operating Expense	**$ 14.42**	**$ 13.97**	**$ 19.73**	**$ 19.41**	**$ 18.64**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Transfers In/(Out)										
Capital Contribution (to GG)	$ (0.02)	$ (0.01)	$ (0.01)	$ (0.02)	$ (0.03) (2)	$ -	$ -	$ (0.01)	$ (0.11)	$ (0.22) (2)
Connection Fee Allocation to RW	(3.03)	(0.07)	(0.12)	(0.17)	(0.23) (3)	-	-	-	-	-
Connection Fee Allocation to WW	(1.45)	(1.31)	(1.11)	(2.26)	(0.47) (4)					
Connection Fee Allocation to GG	(0.04)	(0.01)	(0.03)	(0.02)	(0.02)					
Debt Service (from RC, RO)	2.54	2.54	2.54	2.67	2.67 (5)	-	-	-	-	-
Operating Support (to GG)	(0.05)	(0.01)	(0.04)	(0.03)	(0.00) (6)	(0.71)	(0.75)	(0.78)	(0.81)	(0.87) (6)
Total Transfers In/(Out)	**$ (2.05)**	**$ 1.13**	**$ 1.24**	**$ 0.17**	**$ 1.91**	**$ (0.71)**	**$ (0.75)**	**$ (0.79)**	**$ (0.92)**	**$ (1.08)**

(1) Other Expenses include contract work and special projects, professional fees and services, and other administrative and miscellaneous expenses.

(2) WC fund contributes 3.4% of GG fund capital project costs and IEUAs share of RW fund capital expense

(3) WC fund allocates a portion of connection fee receipts for project costs that support investments in integrated water resource management

(4) Total connection fee transfer to the water resources fund to cover capital projects, water use efficiency projects, and other projects.

(5) Regional funds support a portion debt service costs in the WC and RW funds

(6) WC fund supports 3.4% operating project costs in the GG fund and basin maintenance expense in the RW fund per the Peace I and II agreements with CBWM.

Inland Empire Utilites Agency

Recycled and Recharge Water Rate Study

Financial Forecast Summary - Mid Demand Scenario

Recharge Water (RW) Fund - Accounts for basin activities as part of the joint agreement with Chino Basin Watermaster, San Bernardino County Flood Control District, and Chino Basin Water Conservation District

Table 2

All Values in $ Millions

Recharge Activity Reimbursement agreement

Presented totals may vary from sum of values above due to rounding for presentation purposes.

Recharge Water (RW) Fund Recharge Activity	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	
Sales Revenue						
Recycled Water Sales w/o Increase	-	-	-	-	-	
Adopted Increase	-	-	-	-	-	
Recharge Sales w/o Increase	-	-	-	-	-	
Adopted Increase	-	-	-	-	-	
Total Sales Revenue	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
Operating Revenue						
Interest Revenue	$ 0.16	$ 0.19	$ 0.20	$ 0.20	$ 0.20	
JPA Cost Reimbursement	1.08	1.11	1.14	1.18	1.21	
Total Operating Revenue	**$ 1.24**	**$ 1.30**	**$ 1.34**	**$ 1.37**	**$ 1.41**	
Non-Operating Revnue						
Property Tax	$ -	$ -	$ -	$ -	$ -	
Connection Fees	-	-	-	-	-	
Loans	3.76	0.14	-	-	-	
Grants	11.52	-	-	-	-	
Capital Cost Reimb	0.66	0.94	1.06	1.19	1.31	
Total Non-Operating Revenue	**$ 15.95**	**$ 1.08**	**$ 1.06**	**$ 1.19**	**$ 1.31**	
Operating Expense						
Employment	$ 0.68	$ 0.72	$ 0.75	$ 0.78	$ 0.83	
Utilities	0.07	0.07	0.07	0.08	0.08	
Materials & Supplies	0.10	0.10	0.11	0.11	0.11	
Other Expenses	0.94	0.96	0.99	1.02	1.05	(1)
Total Operating Expense	**$ 1.79**	**$ 1.85**	**$ 1.92**	**$ 1.99**	**$ 2.07**	
Non-Operting Expense						
Debt Service	$ 1.32	$ 1.51	$ 1.50	$ 1.50	$ 1.50	
Capital	13.18	0.29	0.50	0.75	1.00	
Total Non-Operating Expense	**$ 14.51**	**$ 1.80**	**$ 2.00**	**$ 2.25**	**$ 2.50**	
Transfers In/(Out)						
Capital Contribution (from WC)	$ -	$ -	$ 0.01	$ 0.11	$ 0.22	(2)
Connection Fee Allocation (from WC)	3.03	0.07	0.12	0.17	0.23	(3)
Debt Service (from RC)	0.66	0.69	0.69	0.69	0.69	(4)
Operating Support (from WC)	0.71	0.75	0.78	0.81	0.87	(5)
Total Transfers In/(Out)	**$ 4.40**	**$ 1.51**	**$ 1.59**	**$ 1.78**	**$ 2.00**	

(1) Other Expenses include contract work and special projects, professional fees and services, and other administrative and miscellaneous expenses.

(2) WC fund contributes 3.4% of GG fund capital project costs and IEUAs share of RW fund capital expense

(3) WC fund allocates a portion of connection fee receipts for project costs that support investments in integrated water resource management

(4) Regional funds support a portion debt service costs in the WC and RW funds

(5) WC fund supports 3.4% operating project costs in the GG fund and basin maintenance expense in the RW fund per the Peace I and II agreements with CBWM.

Inland Empire Utilites Agency

Recycled and Recharge Water Rate Study

Financial Forecast Summary - Mid Demand Scenario

Combined WC fund (Recharge water expense) and RW fund activity

Table 1b and Table 2

All Values in $ Millions

Direct use and total Recharge Activity

Presented totals may vary from sum of values above due to rounding for presentation purposes.

Combined (WC and RW funds) Recharge Water Activity	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	
Sales Revenue						
Recycled Water Sales w/o Increase	-	-	-	-	-	
Adopted Increase	-	-	-	-	-	
Recharge Sales w/o Increase	$0.89	$0.91	$0.95	$0.95	$0.95	
Adopted Increase	0.16	0.37	0.62	0.91	1.24	
Total Sales Revenue	**$ 1.05**	**$ 1.28**	**$ 1.57**	**$ 1.86**	**$ 2.19**	
Operating Revenue						
Interest Revenue	$ 0.16	$ 0.19	$ 0.20	$ 0.20	$ 0.20	
JPA Cost Reimbursement	1.08	1.11	1.14	1.18	1.21	
Total Operating Revenue	**$ 1.24**	**$ 1.30**	**$ 1.34**	**$ 1.37**	**$ 1.41**	
Non-Operating Revnue						
Property Tax	$ -	$ -	$ -	$ -	$ -	
Connection Fees	-	-	-	-	-	
Loans	3.76	0.14	-	-	-	
Grants	11.52	-	-	-	-	
Capital Cost Reimb	0.66	0.94	1.06	1.19	1.31	
Total Non-Operating Revenue	**$ 15.95**	**$ 1.08**	**$ 1.06**	**$ 1.19**	**$ 1.31**	
Operating Expense						
Employment	$ 1.59	$ 1.64	$ 1.67	$ 1.70	$ 1.76	
Utilities	0.07	0.07	0.07	0.08	0.08	
Materials & Supplies	0.15	0.15	0.16	0.17	0.17	
Other Expenses	1.22	1.30	1.39	1.38	1.36	(1)
Total Operating Expense	**$ 3.04**	**$ 3.16**	**$ 3.29**	**$ 3.33**	**$ 3.37**	
Non-Operting Expense						
Debt Service	$ 1.32	$ 1.51	$ 1.50	$ 1.50	$ 1.50	
Capital	13.18	0.29	0.50	0.75	1.00	
Total Non-Operating Expense	**$ 14.51**	**$ 1.80**	**$ 2.00**	**$ 2.25**	**$ 2.50**	
Transfers In/(Out)						
Capital Contribution (from WC)	$ -	$ -	$ 0.01	$ 0.11	$ 0.22	(2)
Connection Fee Allocation (from WC)	3.03	0.07	0.12	0.17	0.23	(3)
Debt Service (from RC)	0.66	0.69	0.69	0.69	0.69	(4)
Operating Support (from WC)	0.71	0.75	0.78	0.81	0.87	(5)
Total Transfers In/(Out)	**$ 4.40**	**$ 1.51**	**$ 1.59**	**$ 1.78**	**$ 2.00**	

(1) Other Expenses include contract work and special projects, professional fees and services, and other administrative and miscellaneous expenses.

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(4) Regional funds support a portion debt service costs in the WC and RW funds

(5) WC fund supports 3.4% operating project costs in the GG fund and basin maintenance expense in the RW fund per the Peace I and II agreements with CBWM.

H. Acknowledgement of Agreement and Statement of Exceptions

Carollo has reviewed the Standard Professional Services Agreement provided in the RFP and takes no exceptions.

I. Addenda to this Request for Proposals

Carollo acknowledges the receipt of the following addenda:

- Addendum No. 1, dated August 17, 2020.

APPENDICES

Appendix A – Scope of Work

Appendix B – Resumes

Appendix A – Scope of Work

Appendix A

Carollo has developed the following Scope of Work based on the information outlined in the RFP. We are open to modifying this Scope to meet additional needs anticipated by the Authority.

Task 1 – Cost of Service Analysis

Task 1.1 – Review Data and Existing Rates

Our approach begins with gathering and reviewing the data necessary to complete the Recycled Water Rate Cost of Service Study (Study), including:

- Current budgets and projections for future years
- The latest recycled water master plan and CIP
- Customer billing records for the previous 3 years, including any additional projected growth data
- Financial policies, especially for debt and reserve fund balances
- Existing recycled water rates and previous cost of service studies
- Capital improvements plans (CIP) and planned funding sources
- Existing financial and rate-planning models
- Any other financial inputs as appropriate

Carollo will forecast each of these financial inputs for the Study period. Carollo will test the adequacy of revenues from the current rate structure to meet the Authority's policy objectives, beginning with three tests:

- **Cash Flow Needs Review** – do revenues exceed expenses?
- **Debt Coverage Test** – does the revenue structure provide enough revenues to meet debt coverage for any potential bonds?
- **Reserve Funds Review** – are operating and capital reserve fund balances projected to meet or exceed policy targets?

Carollo will review with the Authority any shortcomings on these tests and create a plan for funding over the forecast window.

Task 1.2 – Analysis and Recommendations

Customer Usage Analysis and Projections

Carollo will review the Authority's recycled water customer usage data and analyze it to understand relevant trends and customer profiles. This analysis will focus on summarizing total system usage on a customer class basis and identifying trends to use in developing demand projections.

As a quality management step, Carollo will perform a "price out" comparison of your recorded actual revenues against our calculated revenues from the usage information. Any deviation requires explanation and reconciliation.

Carollo will then forecast the customer account and usage assumptions for the period of study.

Revenue Requirements

Carollo will review the Authority's existing financial planning model and work closely with staff to understand these numbers. Carollo will then build its own rate model based on financial reports from the Authority, including but not limited to:

- Budgeted Operations and Maintenance Expenditures
- Recycled water production unit costs per acre-foot

Cost Allocations

Carollo will perform a cost of service analysis consistent with industry standard practice and relevant California statutory requirements. Carollo will:

- Identify the Authority's primary cost drivers based on operating and capital costs
- Create clearly defined and defensible nexus between costs and levels of service (e.g., interruptible and non-interruptible)
- Thoroughly document these findings in a way that is understandable and defensible

Rate Structure Review and Calculation

Carollo will begin with a review of the Authority's current rate structure and make recommendations for any changes that may better support the Authority's policy and financial goals, or that may enhance ratepayer equity. Carollo will also consider Proposition 218 and industry best practices when reviewing the rates and make recommendations on these considerations. Specifically, Carollo will work with the Authority to determine where costs for wastewater service stop and the recycled water benefits begin. Carollo will also take into

consideration the unique seasonality of this source of supply. Finally, Carollo will present options to the Authority regarding implementing a fixed meter charge in its recycled water rate structure.

Following this review of costs, Carollo will calculate the recycled water rates.

Rate Workshop

Upon completion of the analysis subtasks described above, Carollo will facilitate a workshop with Authority staff to explore the developed rate alternatives and determine the most appropriate rate structure to meet the Authority's objectives.

Study Report

Carollo will prepare both draft and final reports for the Authority outlining inputs and assumptions, methodology and calculations, and final recommendations and rate tables. This report will be written to support the Proposition 218 process and will document the nexus between rates and cost of service.

Following Authority feedback on the draft report, Carollo will revise the report and deliver a final draft report.

Task 2 – Rate Model Functionality

During this Kickoff Meeting (see Task 3), Carollo and Authority staff will outline modeling assumptions such as growth and inflation factors and financing inputs. Carollo will rely upon its experience with other California recycled water providers while still starting with a blank slate for the Authority. This step presents an opportunity to better understand the Authority's cost drivers and rate planning considerations before we can dive into the analysis. It also allows Carollo to get input from Authority staff about the layout of the model, its functionality, and the desired reporting features.

The Microsoft Excel-based model will incorporate a user-friendly graphic user interface and scenario manager, which will enable Carollo and Authority staff to run on-the-fly, what-if, and sensitivity analyses for improved rate and financial accuracy. Carollo will develop sensitivity analyses into the rate model as necessary to explore a range of potential rate planning scenarios. These sensitivity analyses can include items such as cost escalation and customer demands. Carollo will identify these assumptions and scenarios with input from Authority staff.

Upon completion of the Study analysis, Carollo will deliver the electronic model file to the Authority. Carollo will facilitate up to 6 hours of model training for Authority staff and will provide a model user manual to guide the user through use and updating of the model.

Task 3 – Additional Meetings

Kickoff Meeting

Carollo will facilitate a virtual kickoff meeting with staff to introduce the Study team, discuss the data transfer, outline goals for the project, review the scope and schedule, and provide an overview of cost of service methodology.

Report Review Workshops

Carollo will host two workshops with Authority staff to review the draft and final versions of the study report. The report will be provided to staff up to two weeks prior to each workshop to give staff time to review. During the workshop, staff will share comments with Carollo and provide further explanation or clarity as needed.

Board Presentations

Carollo has incorporated into its schedule and proposed budget two presentations to the Authority's Board of Directors. While these presentations can be scheduled at any point during the Study, Carollo has included them after completion of the analysis based on language in the RFP stating the purpose is to present findings and rate recommendations. For each presentation, Carollo will prepare a slide deck for review and comment by Authority staff prior to the Board meeting.

Task 4 – Project Management

Carollo's Project Manager and Principal-in-Charge will work together to keep the Study scope, schedule, and budget on track, coordinating with Authority staff as needed. Carollo will submit monthly invoices to the Authority for work completed to date.

Appendix B – Resumes

Education

BS Mining Engineering, Pennsylvania State University, 2009

Licenses

Engineer-in-Training, Pennsylvania

Alexander T. Bugbee

Alexander Bugbee is a senior analyst in Carollo's Financial Management Group with 11 years of experience in utility rates and financing and asset management. His primary expertise includes assisting water and wastewater agencies develop financial and econometric models, cost of service analyses and rate setting for water, wastewater, and stormwater agencies, asset management plans, rehabilitation and replacement programs, and program funding and implementation strategies, as well as compiling and analyzing the necessary background data. He has completed work for several dozen agencies, cities, and special districts throughout California and the western US.

→ Project manager and senior analyst for the On-Call Financial Services for the City of Oceanside, California. He has provided ongoing financial planning to the City since 2013 including multiple cost of service studies, and economic analyses, and funding plans.

→ Project manager and senior financial analyst for the Inland Empire Utilities Agency, California Wastewater and One Water Rate and Fee Study. He is leading comprehensive rate and fee update encompassing potable, recycled, and recharge water service rates, and wastewater service rates, as well as wastewater and one-water connection fees. He also leads the creation and delivery of presentations and workshops for an extensive outreach program aimed at garnering buy-in and support from the member agencies, builders association, and other stakeholders.

→ Site assessment lead and analyst for the Water and Recycled Water Master Plan for the City of Glendale, California. He led an assessment of selected water facilities. He the utilized the results of the site assessments to develop an asset rehabilitation and replacement program, which he then incorporated into a funding and connection fee analysis aimed at creating an implementable CIP strategy based on a series of priority based project phasing options.

→ Project manager for the Water and Sewer Cost of Service Study, City of Arcadia, CA. He is leading the completion of a comprehensive cost of service analysis and rate design study for the City's water and sewer utilities.

→ Project manager and main analyst for the Water Cost of Service and Rate Design Study, City of Riverside, CA. He led the completion of a comprehensive cost of service analysis and rate design study for the City's water utility. He worked closely with the City to develop and review multiple rate structure options and modifications to create an overall rate structure that reflects the City's unique water supply, operational characteristics, and extensive capital program. The proposed rate structure updates were designed to provide Proposition 218 compliant rates in light of new case law and the impacts of the ongoing drought and statewide conservation efforts.

→ Financial analyst for the 2015 Wastewater Cost of Service Study, City of Carlsbad, California. The project included developing the revenue requirement, cost of service analysis, and functional allocation. It also provided recommendations for a new customer class rate.

→ Project manager for the Water and Wastewater Cost of Service Rate Study, City of Del Mar, California.

→ Project manager for the Pasadena Cost of Service and Rate Design, Pasadena, California.

→ Project manager for the City of Riverside DPW Agricultural Rates Task Force Assistance, Riverside, California.

→ Financial analyst for the Pajaro Valley Water Management Agency Rate Setting Services, Watsonville, California. Supported the team with data processing, financial analysis, capital funding, and rate setting alternatives.

→ Senior analyst and financial task lead for the Wastewater Integrated Master Plan, City

Alexander T. Bugbee

of Riverside, CA He led the rate study portion of the project which included the development of a cost of service and rate study. He provided analysis and input throughout the master planning process to assess the capital funding potential of the utility based on various rate implementation plans and funding scenarios. His work on the projects culminated in the development of a comprehensive 5-year rate and fee study with an additional long term financial plan.

→ Financial analysis task lead for the Safe, Clean Water Program Development, City of Los Angeles, CA, As the financial analysis task lead for the project, he led the effort to assess the impact of a new county-wide stormwater parcel-tax on the finances of the City's stormwater program, and determine the amount of capital funds available for new projects under several funding scenarios. To do so, he developed a financial model with multiple scenarios to test several debt, PAYGO, and combined funding strategies, estimate incremental operational costs associated with new projects, and optimize the use of the parcel tax revenue.

→ Project manager and senior analyst for the Sewer Service Charge Study, City of Los Angeles, CA. He led the completion of a comprehensive cost of service and rate study to develop an updated rate plan for the City's wastewater utility.

→ Cost of service study lead for the Public Works Integrated Master Plan for the City of Oxnard, California. He completed multiple cost of service analyses for the City's water and wastewater systems including a full restructuring of water rates.

→ Financial task lead for the City of Simi Valley Sewer System Reliability Assessment and Financial Plan, Simi Valley, CA. He incorporated the recommended CIP and other financial information from the City into a high level financial assessment to test the impact of the CIP on the City's rates. The project included the development of multiple capital funding scenarios to optimize the use of PAYGO, debt, and existing reserves.

→ Lead financial analyst for City of San Jose, San Jose-Santa Clara Regional Wastewater Facility Funding Strategy, CA. Developed a ten-year CIP funding strategy for a ten-year $1.5 billion capital program. He developed long term financial projections for the regional wastewater system as well as the City of San Jose to assess the financial impact of CIP on owner and member agencies. The analysis incorporated several policy best practices related to reserves, debt coverage, and funding sources designed to help the agencies achieve favorable financing conditions.

→ Senior analyst and QA/QC for the Dominion Water Service District Financial Plan and Rate and TAP Fees Study. He assisted in the development of financial planning and cost of service models for water, wastewater, and stormwater rates and TAP fees. He provided guidance staff analysts in the creation of financial projections, cost of service allocations, rate design, and model dashboards. He also completed QA/QC on the completed models and calculations.

→ Analyst for the Marina Coast Water District Financial Plan Rate Study, Marina, California.

→ Analyst for the On-Call Financial Study for the City of Oceanside, California. He developed a financial model for the Solid Waste Department, which allows the client to predict future cash flows and fund balances based on past performance and expected rate changes in order to optimize the rate impact to customers and develop accurate operational budgets. He provides continued support to the client and makes model modifications as deemed necessary. Also provided as-needed support to the Water and Wastewater Departments including maintenance, updating, and modifications of existing financial models. He also worked with the departments to revamp the models to improve user interface and functionality.

→ Analyst for the Water Rate Study for the City of Upland, California. His responsibilities included analysis of usage and financial data and assisting in the development of a financial model for the City's Water Utility. He also performed a cost-of-service analysis in order to design fixed and variable water rates for various customer classes.

Education

MBA Finance, Southern Methodist University, 2003

BS Civil Engineering, University of Texas, Austin, 1998

Licenses

Professional Engineer, Texas

Professional Affiliations

American Water Works Association

- Rates and Charges Committee

Water Environment Federation

- Utility Management Committee
- Program Committee

Chi Epsilon National Civil Engineering Honor Society

Jennifer R. Ivey, P.E.

Jennifer Ivey is a Vice President with Carollo with 22 years of extensive experience in multi-year financial planning; impact fee; bond feasibility; and cost of service, rate, and charge studies throughout the U.S., as well as civil and environmental design projects. Her combined financial and engineering expertise provides accurate financial results based on sound engineering and cost causation foundation. She is currently active in industry associations including the American Water Works Association (AWWA) Rates and Charges Committee and the Water Environment Foundation (WEF) Utility Management Committee and Program Committee. She was a contributing author for AWWA's updated *Principles of Water Rates, Fees, and Charges M1 Rates Manual* and a reviewer for WEF's updated *Manual of Practice 27: Financing and Charges for Wastewater Systems*. Additionally, Jennifer was co-chair of the 2019 Utility Management Conference in Nashville.

Relevant Experience

→ Technical advisor for the Water and Sewer Rate Study Update, City of Arcadia, California. Provided technical expertise to develop a suitable rate structure to address the City's key cost-of-service issues. Recommended a budget-based rate structure with minimal cost or administrative burden.

→ Technical advisor for the Water and Wastewater Cost of Service Study, City of Carlsbad, California. Assisted the project team with expertise in revenue requirements, cost allocation, rate design, and Proposition 218 process. Study resulted in recommended rates for potable water, recycled water, and wastewater services.

→ Project manager for the Cost of Service Study, Coachella Valley Water District, California. Carollo is developing cost of service rates and charges for the District's domestic water, canal water, and replenishment funds. The study includes Proposition 218 assistance and public outreach.

→ Quality manager for the Water and Wastewater Cost of Service Rate Study, City of Del Mar, California. Reviewed cost of service rate calculations and the report for compliance with cost of service best practices and California legislation, including Proposition 218.

→ Technical advisor for the Wholesale Cost of Service Rate Study, Eastern Municipal Water District, California. The study involved developing a method to allocate operating and capital costs to functional components and calculate cost-based rates. Presented the findings of the study and provided recommendations to the Board of Directors. The study included the Proposition 218 notification process.

→ Financial technical lead for the Revenue and Financial Program Evaluation Update, Encina Wastewater Authority, California. This study evaluates program modifications to allocate wastewater costs to member agencies based on flows and loadings. The project entails reviewing sampling locations and making recommendations for adjustments to improve accuracy of sampling data, as well as upgrading the financial model to equitably allocate revenue requirements among member agencies.

→ Technical advisor for the Cost of Service Study, Hi-Desert Water District, California. Analyzed existing customer data to develop a reasonable estimate of capacity requirements for various types of commercial customers and costs associated with providing the service. The study resulted in a fee assessed to new commercial customers.

→ Technical advisor for the Wastewater and One Water Rate and Connection Fee Study, Inland Empire Utilities Agency, California. The project included providing a study to develop rates and connection charges for wastewater and one water (potable and recycled water) services. The study also involved several presentations to stakeholders throughout the analysis.

→ Technical advisor for the Water and Wastewater Cost of Service Rate Study, Marina Coast Water District, California. Provided technical expertise and oversight for a

study to develop cost-based water and wastewater rates for two service areas within the District. Presented study recommendations at a Public Hearing, as required by Proposition 218.

→ Technical advisor for the Financial Modeling and Support, City of Oceanside, California. Provided technical expertise for various financial tasks as requested by the City, including development and maintenance of financial models.

→ Project manager for the Water and Wastewater Cost of Service Rate Design and Associated Financial Planning Services, Oklahoma City Water Utilities Trust, Oklahoma. The Carollo team analyzed customer billing and financial data to determine revenue requirements, allocated revenue requirements to functional categories, and rated components to determine class cost of service. The study also included transitioning rates toward cost of service, presenting study findings and recommendations to stakeholders, and training staff on using financial planning and rate models. In addition, developed special recycled water rates for two energy facilities.

→ Quality manager for the Cost of Service Study, Orange County Sanitation District, California. This study was part of a master plan and included Proposition 218 assistance. Reviewed revenue requirements, cost of service allocations, and a rate design for wastewater service.

→ Technical advisor for the Cost of Service Study and Financial Services, City of Oxnard, California. Provided technical expertise for the cost of service study and other associated financial tasks.

→ Technical advisor for the Comprehensive Rate Study, Padre Dam Municipal Water District, California. The project involved a cost of service rate study to develop potable water, recycled water, and wastewater rates and charges.

→ Financial technical lead for the Cost of Service Rate Study, Pajaro Valley Water Management Agency, California. Led the financial analysis to develop cost of service rates and charges for metered groundwater usage and delivered water service.

→ Project manager for the Utility Cost of Service and Rate Study, San Francisco Public Utilities Commission (SFPUC), California. Carollo developed the comprehensive connection fee and cost of service rate study for water, wastewater, and stormwater to define customer equity and comply with Proposition 218 in accordance with California Government Code §66013. The study included allocating wastewater costs between dry weather (wastewater) and wet weather (stormwater). The community outreach component included video messaging, bus tours, and multi-lingual meetings, in addition to mandated Proposition 218 notifications. Managed the team to allocate revenue requirements to functional categories and develop cost-based rates that comply with Proposition 218 requirements.

→ Principal-in-charge for the Water Rate Cost of Service Study, Santa Fe Irrigation District, California. Carollo cross referenced historical demand data at the household level with a variety of other data sources to establish a detailed baseline demand profile, and then project future demands. These other data sources included land use, household size, lot size, landscaping, pools and water features, median home value, and geographic location.

→ Project manager for the Reclaimed Water Rates, City of Fort Worth, Texas. Completed a cost of service study on the City's proposed reclaimed water system. Evaluated various financing alternatives for the capital costs of the reclaimed water system. Developed a rate model to consider costs and benefits of reclaimed water to calculate a rate to provide reclaimed water service.

→ Project manager for the Reclaimed Water Rates, City of Irving, Texas. Assisted the City with a cost of service study for a proposed reclaimed water system. Evaluated various financing alternatives for reclaimed water capital costs. Developed rate model to identify costs and benefits of reclaimed water and calculated cost-based rate for reclaimed water service.

Education

MS Environmental Engineering, University of Missouri, Rolla, 2006

BS Civil Engineering, University of Missouri, Rolla, 2004

Licenses

Civil Engineer, California

Professional Affiliations

American Society of Civil Engineers

Society of American Military Engineers

Water Environment Federation

Jeffrey A. Weishaar, P.E.

Jeffrey A. Weishaar, a civil and environmental engineer with Carollo Engineers, has worked on various wastewater projects, including elements of analysis, design, and construction. He has 12 years of experience encompassing all phases of design for upgrade and expansion projects. Jeff brings a local perspective and intimate knowledge of your facility having led the 2015 SEWRF Facility Plan Update. His local project portfolio includes key roles with the cities of Oceanside, Escondido, and Vista, as well as the Encina Wastewater Authority covering all phases of design for rehabilitation, upgrade, and expansion projects.

Relevant Experience

→ Project manager for the Water Reclamation Plant Expansion for the City of San Clemente, California. The preliminary and final design project will increase plant recycled water production capacity from 2.2 to 4.4 mgd. Preliminary design responsibilities included process evaluation of disinfection processes and flow balancing to evaluate on-site storage of secondary effluent prior to tertiary treatment. Final design responsibilities included civil and yard piping, mechanical and process design for drawing production, specification preparation, and cost estimating.

→ Project engineer for the San Luis Rey Water Reclamation Plant for the City of Oceanside, California. The preliminary and final design project will increase plant recycled water production capacity from less than 0.5 to 1.5 mgd and includes master planning to an ultimate capacity of 7.5 mgd. Specific responsibilities included process evaluation and life-cycle cost analysis for tertiary and disinfection processes during preliminary design. Final design responsibilities included civil work, yard piping, mechanical and process design for drawing production, specification preparation, and cost estimating.

→ Project manager for the Elsinore Valley Municipal Water District, California, Regional WRF Program Management project. The project included administration building rehabilitation – office/laboratory/staff breakroom/storage room.

→ Project manager for the Encina Wastewater Authority, California, Process Master Plan for the Encina Water Pollution Control Facility.

→ Project manager for the City of Oceanside Facility Needs Condition Assessment. This project provided condition assessment at three treatment plants owned and operated by the City. Specific duties included coordination and overall lead for the condition assessments, civil and mechanical condition assessment, identification of potential improvement projects; project cost estimating; and report preparation. Recommendations for project implementation, based on criticality and available budget, were provided to assist the City in preparing for their upcoming fiscal year budget and updating the Capital Improvements Program.

→ Project engineer for the J.B. Latham Treatment Plant Facility Plan for the South Orange County Wastewater Authority, California. The Facility Plan provided a 20-year planning window for liquid and solids treatment, flow analysis, odor control, energy management, site planning, and regulatory issues. Project duties included flow and plant capacity analysis, solids treatment analysis for thickening and digestion, site planning, cost estimating, and report preparation.

→ Project engineer for the La Salina Treatment Plant Facility Plan for the City of Oceanside, California. His responsibilities included condition assessment of civil, process, and mechanical facilities; identification of potential improvement projects; project cost estimating; and report preparation. Recommendations for project implementation, based on criticality and available budget, were provided to assist the City in preparing for their upcoming fiscal year budget and updating the Capital Improvements Program.

Jeffrey A. Weishaar, P.E.

→ Project engineer for the Asset Valuation Study for the City of Santa Paula, California, water and sewer systems. His responsibilities included preparation of replacement, less depreciated cost values, for the City's water and sewer systems, including distribution and collection piping and appurtenances, water and wastewater treatment plants, pump stations, reservoirs, and estimated land value.

→ Project engineer for the La Salina Wastewater Treatment Plant Asset Valuation Study for the City of Oceanside, California. His responsibilities included preparation of replacement, less depreciated cost values, for the 5.5-mgd treatment plant.

→ Condition assessment task leader for the City of Colton, California, Wastewater Master Plan. Responsibilities included leading a team of discipline engineers to assess the City's wastewater treatment plant facility.

→ Condition assessment task leader for the City of Oceanside, California, 2013 Integrated Mater Plan update. The task entailed condition assessment of the City's 32 sewer lift stations. Replacement and rehabilitation projects were identified and prioritized for use in the City's CIP.

→ Project engineer for the City of Barstow, California. Wastewater Treatment Plant Improvements Phase 1 Project. This project covered multiple subtasks including condition assessment of the wastewater treatment plant, project development and ranking, process modeling, preliminary design and final design. The Phase 1 construction project includes rehabilitation of the aeration basins, secondary clarifiers, and gravity thickener. The Phase 2 construction project will include upgrades to the primary clarifiers and aerobic digesters as well as a new influent pump station, a new electrical control building and additional SCADA, electrical, and instrumentation upgrades.

→ Project engineer for the Regional Treatment Plant Headworks Upgrade for the South Orange County Wastewater Authority, California. The project involved production of drawings and contract documents for replacement of the headworks building roof; rehabilitation of the existing mechanical bar screens; installation of new conveyors, screenings dewatering equipment, level measurement equipment in the existing channels for bar screen controls, and gas analyzers; channel concrete repair; odor control; and electrical and instrumentation modifications and upgrades. Roof replacement also incorporated a temporary odor control system with focus on the contractor's responsibility in capturing odors. He provided construction management services, submittal review, and responses to contractor requests for information.

→ Project manager for the Encina Wastewater Authority, California, Solids Thickening Project for the Encina Water Pollution Control Facility.

→ Project manager for the Coastal Treatment Plant Export Sludge Equalization Basin Design-Build Project for the South Orange County Wastewater Authority, California. The project included preliminary design of a sludge holding tank, export pumping station, and electrical building for storage and pumping of the Coastal Plant's primary and thickened sludges. The sludges are pumped approximately 4 miles to a nearby facility for processing. Preparation of the design-build procurement package included development of plans and specifications to a 60-percent completion level, preparation of the design-build agreement, agreement forms, and the request for proposals. Bids were received and evaluated from multiple design-build teams. Carollo is currently operating as the Owner's representative in overseeing the final design and construction and providing inspection services.

Project engineer for the J.B. Latham Wastewater Treatment Plant Digester 3 Repairs for the South Orange County Wastewater Authority, California. The project included delivery of a preliminary design report analyzing the necessary repairs to the digester's mechanical appurtenances and instrumentation to improve safety and operations reliability. Drawings and specifications were prepared for concrete repair and recoating, piping and valve modifications, and instrumentation upgrades.

Education

MEM Water Resources Management, Duke University, 2018

BA Geology and Environmental Science, Case Western Reserve University, 2015

Professional Affiliations

American Water Works Association (AWWA)

Water Environment Federation (WEF)

Madeline A. Atkins

Maddie Atkins is an analyst in Carollo's Utility Advisory Services group, located in Los Angeles, California. She specializes in financial analysis and modeling, data analytics, and data visualization using advanced tools such as R and Tableau. During her time at Carollo, she has contributed to a variety of asset management, cost of service analysis, and rate study projects. Ms. Atkins is a strategic team member who brings her expertise in financial analysis and a data-driven approach to help produce effective solutions for technical challenges.

Relevant Experience

→ Analyst of the City of Arcadia Water and Sewer Rate Study Update. She performed an extensive customer data analysis and developed a five-year financial model to project future cash flows, perform cost-of-service analysis, and design water rates.

→ Analyst for the Pajaro Valley Water Management Authority Cost of Service Study. Carollo developed a financial and rate model that updated and analyzed the Agency's pumping augmentation and delivered water charges.

→ Analyst for the City of Carlsbad Water and Wastewater Cost of Service Study. She developed the water and recycled water financial model, customer data analysis, cost of service analyses, rate design, and study report.

→ Analyst for the Inland Empire Utilities Agency Wastewater and One Water Connection Fee Study. This study developed rates and connection fees for water, recycled water, and wastewater services. She developed financial models, member agency workshop materials, and the study report.

→ Analyst for the Monte Vista Water District Financial Master Plan Study. The project included an update to the District's water budget-based rates, demand reduction rates, and connection fees. She developed the customer data analysis, water budget rate design, and completed the study report.

→ Analyst for the San Diego County Water Authority Financial Rate Modeling Program Update, San Diego, California. Carollo performed an upgrade of the Financial Rate Modeling Program and in the review of the Water Authority's cost of service analysis.

→ Analyst for the South Orange County Wastewater Authority Treatment Cost Allocation Analysis. The study involved an update to the Authority's treatment cost allocation methodology. She developed a dynamic cost allocation model, drafted the study report, and presented study results to the member agency board.

Previous Financial Experience

→ Project manager of the Fuqua School of Business Client Consulting Practicum, Durham, North Carolina. Provided expertise to our client on developing innovative finance mechanisms for coastal restoration in Louisiana. Responsible for client and external stakeholder communication, work plan management, performing financial models, and presentation of deliverables.

→ Water Utility Finance Research Assistant, for The Environmental Finance Center at the University of North Carolina, Chapel Hill, North Carolina. Performed a financial analysis of water, wastewater, and stormwater utility debt in North Carolina. Combined debt data with utility rates, capital needs, and affordability data to address future financial capacity. Utilized technical writing skills by publishing blogs for public audiences on complex financial topics.

→ Environmental Consultant for the Duke Law School, Environmental Law and Policy Clinic, Durham, North Carolina. Provided confidential environmental science counsel to a case team of attorneys to meet the goals of our client. Analyzed technical documents and translated their meaning to our client. Facilitated weekly case team meetings and met key deadlines for deliverables to our client, and led meetings with state government officials and community groups.

Madeline A. Atkins

→ Graduate Fellow for the Natural Resources Defense Council, Chicago, Illinois. Performed an analysis of all fifty states use of their EPA State Revolving Funds for use of leveraging in financing infrastructure. Provided policy analysis of the National Flood Insurance Program to incorporate climate-smart solutions for repeatedly flooded homes. Conducted interviews with homeowners to record flood experiences. Produced a report of my cumulative research used by NRDC for congressional advocacy efforts.

→ Water Infrastructure Finance Research Assistant at the Nicholas Institute for Environmental Policy Solutions, Durham, North Carolina. Researched the extent that water infrastructure spending through the State Revolving Funds is responsive to federal regulations of affordability and equity across all states. Annotated merged, and analyzed large data layers for all states using Excel and ArcGIS. Created a database management system.

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Engineers...Working Wonders With Water®

SEJPA Recycled Water Cost of Service Study
Update Pricing Proposal - 10/07/2020

Task	Jennifer Ivey Principal-in-Charge $ 285	Alex Bugbee Project Manager $ 180	Maddie Atkins Financial Analyst $ 145	Jeff Weishaar Quality Management $ 235	Administrative Support $ 100	Labor Cost	Expenses	Total
San Elijo Joint Powers Authority Recycled Water Rate Cost of Service Study								
Task 1: Cost of Service Analysis	**14.0**	**37.0**	**102.0**	**8.0**	**8.0**	**$ 28,120**	**$ 2,197**	**$ 30,317**
1.1 - Review data and existing rates	*-*	*4.0*	*8.0*	*-*	*-*		*$ 156*	
1.2 - Analysis and recommendations	*14.0*	*33.0*	*94.0*	*8.0*	*8.0*		*$ 2,041*	
Demand Forecast	*2.0*	*5.0*	*14.0*	*2.0*	*-*		*$ 299*	
Financial Forecast	*4.0*	*10.0*	*20.0*	*2.0*	*-*		*$ 468*	
Rate Calculation	*4.0*	*6.0*	*20.0*	*2.0*	*-*		*$ 416*	
Study Report	*4.0*	*12.0*	*40.0*	*2.0*	*8.0*		*$ 858*	
Task 2: Rate Model Functionality	**2.0**	**16.0**	**32.0**	**-**	**-**	**$ 8,090**	**$ 650**	**$ 8,740**
Task 3: Additional Meetings	**6.0**	**20.0**	**12.0**	**5.0**	**-**	**$ 8,225**	**$ 559**	**$ 8,784**
Kickoff Meeting	*2.0*	*4.0*	*4.0*	*1.0*	*-*		*$ 143*	
Draft and Final Report Workshops (2)	*2.0*	*4.0*	*4.0*	*2.0*	*-*		*$ 156*	
Board Presentations (2)	*2.0*	*12.0*	*4.0*	*2.0*	*-*		*$ 260*	
Task 4: Project Management	**Included in Tasks 1 through 3**							
Total	**22.0**	**73.0**	**146.0**	**13.0**	**8.0**	**$ 44,435**	**$ 3,406**	**$ 47,841**

*Note: the proposed scope of work and fee assumes that all meetings will take place virtually via video conference.

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SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

October 20, 2020

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: BUREAU OF RECLAMATION GRANT PURSUIT- STORMWATER HARVESTING

RECOMMENDATION

It is recommended that the Board of Directors:

1. Approve Resolution 2021-01 of the Board of Directors of the San Elijo Joint Powers Authority Establishing its Commitment to the Financial and Legal Obligations Associated with Receipt of a Financial Assistance Award from the Department of the Interior; and

2. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) owns the San Elijo Water Reclamation Facility (Water Campus) in the City of Encinitas. The Water Campus provides wastewater treatment, water recycling, and some limited stormwater capture and reuse. The requested Bureau of Reclamation Title XVI grant funding will leverage existing water infrastructure and build from the implementation of the Phase I Stormwater Capture and Reuse project scheduled for construction in 2021, with funding from the California Proposition 1 for integrated water resource projects. Phase 1 will divert stormwater from the existing regional storm channel located on SEJPA property to the Water Campus for treatment and use within the water recycling system. The project is estimated to capture and treat 19 acre-feet per year (AFY) of stormwater, which is based on an estimate of 10 inches of rainfall per year (average for the region), a runoff coefficient of 0.79, a drainage area of 486 acres, a water quality volume of stormwater runoff of 18.89 ac-ft based on an 85th percentile storm, and runoff losses of 50%.

DISCUSSION

The proposed Phase 2 Stormwater Capture and Reuse is intended to build upon progress of Phase 1 and will include infrastructure to expand recycled water supply during peak demand periods using new source waters from stormwater capture and groundwater storage/extraction.

The project concept is that stormwater will be drawn from the open flood channel that traverses the Water Campus site. As shown in the photo (Figure 1), the open channel contains an existing de-silting basin created by a concrete weir within the channel that backs up storm flows and allows sediment to drop out. Accumulated sediment is periodically removed as part of the channel maintenance conducted by SEJPA.

Figure 1 – Existing De-silting Basin

Stormwater from the open channel will be diverted to a new open storage basin that is underlain with a detention/infiltration gallery (see Figure 2). The infiltration basin will be located on currently vacant land between the concrete channel and the planned multiuse trail. Grading for Phase 2 will accommodate the new bike pathway and maintenance access. The underlying infiltration gallery will be composed of perforated metal culverts surrounded and overlain with gravel and geotextile filter system. The Phase 2 infiltration basin will provide temporary storage of diverted stormwater during storm events and excess treated recycled water between wet weather events in addition to providing a hydraulic head to promote groundwater infiltration.

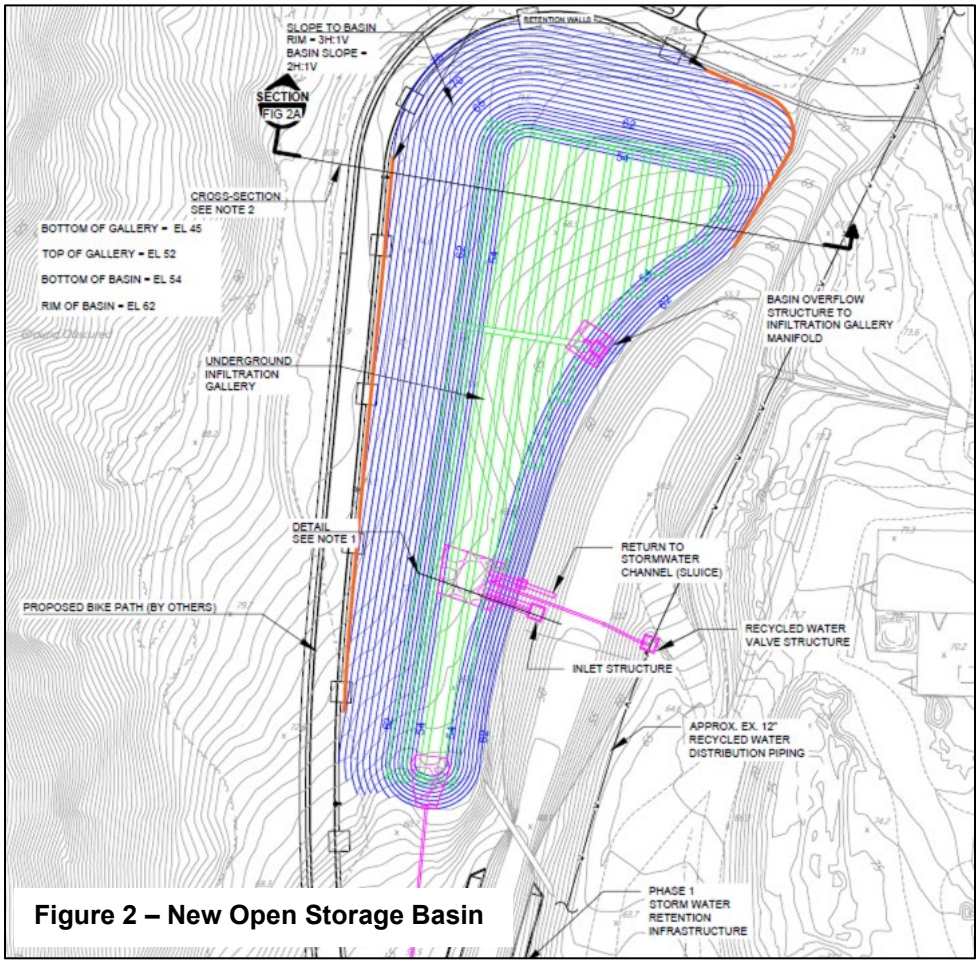

Figure 2 – New Open Storage Basin

Phase 2 pumping and conveyance system will include a distribution box that can divert a portion of the storm flows to the Phase 1 desilting basins that then go directly to the treatment system for immediate “wet weather” harvesting, and also divert storm flows to the infiltration basins to provide for “dry weather” storage and later extraction from the groundwater. The system will also allow for transfer of excess produced recycled water from the Water Campus meeting Title 22 standards between wet weather events when demand for irrigation is lower to the infiltration basins for additional recharge and later extraction from onsite groundwater to meet dry season demands.

Phase 2 also includes the installation of up to five production wells in the southern and central portion of the site. These wells will be used to draw groundwater for diversion to the Water Campus for advanced treatment. The reported groundwater levels range from 5 to 20 feet. Production wells will be screened from above the top of bedrock that ranges from 40-80 feet to the groundwater table. Conveyance piping will be installed from the Phase 2 extraction wells to the Water Campus.

In addition, Phase 2 includes considerations for integration into the existing treatment and recycled water offsite storage. This includes the evaluation to optimize and expand microfiltration and reverse osmosis advanced treatment systems to increase non-potable recycled water production and provide the foundation for a future potable reuse program.

The planning and design of Phase 2 will provide a more resilient and reliable local water supply adaptable to climate change and flexibility in local water management during water shortages and growing local demand through diversification of water supplies.

FINANCIAL IMPACT

This grant resolution supports SEJPA’s efforts in obtaining $294,550 in grant funding from the Department of the Interior – Bureau of Reclamation. In addition, SEJPA is pursuing grant funding at both the State and Federal levels to provide substantial funding for the investigation, design, and construction of Phase 2 Stormwater Capture and Reuse. If the SEJPA Board determines that adequate grant funding has been obtained, then as its own determination, the Board will consider budget appropriations to the capital funding of the project. The project budget is $5.2 million, of which SEJPA is seeking at least 50% in grants with the remaining in low-interest loan funding. At this time, there is no financial commitment by the Board to proceed with the project. The attached resolution oulines the commitment if the SEJPA is awarded and accepts the grant from the Department of the Interior. Currently, SEJPA has submitted a grant application to the State for approximately $2 million as part of Proposition 1, stormwater grant solicitation.

It is therefore recommended that the Board of Directors:

1. Approve Resolution 2021-01 of the Board of Directors of the San Elijo Joint Powers Authority Establishing its Commitment to the Financial and Legal Obligations Associated with Receipt of a Financial Assistance Award from the Department of the Interior; and

2. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

NO. 13 ATTACHMENT 1

RESOLUTION NO. 2021-01

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN ELIJO JOINT POWERS AUTHORITY ESTABLISHING ITS COMMITMENT TO THE FINANCIAL AND LEGAL OBLIGATIONS ASSOCIATED WITH RECEIPT OF A FINANCIAL ASSISTANCE AWARD FROM THE DEPARTMENT OF THE INTERIOR

WHEREAS, San Elijo Joint Powers Authority is a joint powers authority organized and operating pursuant to Government Code Sections 6500 et seq. (**SEJPA**); and

WHEREAS, the Board of Directors of SEJPA recognizes the water supply benefits for capturing and integrating stormwater into its recycled water system; and

WHEREAS, receiving state and federal funding to support the investigation, engineering, and implementation provides financial viability for stormwater capture and reuse; and

WHEREAS, the Board of Directors of SEJPA has reviewed and supports the application for federal funding through the Department of the Interior, Bureau of Reclamation, Research and Development Office (**Government**) for Phase 2 of the Stormwater Capture and Reuse Project Integrated into Existing Water Reclamation Facility for Recycled and Indirect Potable Water Use;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF SAN ELIJO JOINT POWERS AUTHORITY AS FOLLOWS:

1. The Board of Directors has reviewed and supports hereby directs SEJPA staff to submit the application for funding to the Government for Water Reclamation and Reuse Research Projects for a total of $294,550 to partially fund Phase 2 of the Stormwater Capture and Reuse Project.

2. The Board of Directors hereby authorizes its General Manager, Michael T. Thornton, to enter into an agreement with the Government if the requested grant funding is awarded, and if SEJPA secures additional funding from alternative sources.

3. SEJPA affirms that it has the capability to meet the stated match funding through anticipated state grants, planned capital budgets, and in-kind staff hours.

4. SEJPA shall work with the Government to meet established deadlines for entering into a grant or cooperative agreement.

Reviewed and approved by the SEJPA Board of Directors: Resolution 2021-01 on October 20, 2020

PASSED, ADOPTED AND APPROVED at a Regular Meeting of the Board of Directors of the San Elijo Joint Powers Authority held this 20th day of October 2020, by the following roll call vote:

AYES:	Boardmembers:
NOES:	Boardmembers:
ABSENT:	Boardmembers:
ABSTAIN:	Boardmembers:

_____
Jody Hubbard, Chairperson
SEJPA Board of Directors

ATTEST:

_____
Michael T. Thornton, P.E.
Secretary of the Board

AGENDA ITEM NO. 14

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

October 20, 2020

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: RECYCLED WATER PROGRAM - PROPOSED WHOLESALE AGREEMENT AMENDMENTS

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to execute a Third Amendment to the Agreement for Sale of Reclaimed Water to the San Dieguito Water District by the San Elijo Joint Powers Authority, subject to the General Manager's final negotiations with the District and General Counsel's final review;

2. Authorize the General Manager to execute a Second Amendment to the Agreement for Sale of Reclaimed Water to the City of Del Mar by the San Elijo Joint Powers Authority, subject to the General Manager's final negotiations with the City and General Counsel's final review;

3. Authorize the General Manager to execute a Second Amendment to the Reclaimed Water Sales Agreement Between the San Elijo Joint Powers Authority, the City of Del Mar and the 22nd District Agricultural Association, subject to the General Manager's final negotiations with the City and the Association and General Counsel's final review; and

4. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) operates a recycled water utility that sells recycled water to four water purveyors; Santa Fe Irrigation District (SFID), San Dieguito Water District (SDWD), Olivenhain Municipal Water District (OMWD) and the City of Del Mar/22nd District Agricultural Association (CoDM/22DAA); and also has an interruptible service agreement directly with the Encinitas Ranch Golf Authority (ERGA). The purveyors then sell the recycled water to end customers. The SEJPA owns most of the recycled water infrastructure system including treatment, storage, and pipelines. The water districts generally own only the recycled water meter that measures the customer's usage and provide customer billing and other needed administrative services. SEJPA works collaboratively with the water purveyors to provide seamless utility and customer service, as well as to meet regulatory quality control and oversight requirements.

SEJPA has individual wholesale water agreements with each water purveyor that includes pricing structure, water quality, and minimum purchase volume. Most of these agreements were created in the mid-1990's using an "index pricing method" to establish the price of recycled water. The price and term of the agreements was amended in 2013 to provide a consistent structure for each agency based on cost of service principals, which has been successful for meeting revenue requirements of the program at the lowest possible cost that is consistent among the wholesale customers.

The current recycled water agreements expire on June 30, 2021 and both the SDWD and the 22DAA have expressed interest in extending the term of their agreement for an additional 2 years, however with a lower minimum purchase volume. During the last fiscal year, both SDWD and 22DAA did not meet minimum purchase volumes as a result of higher than normal rainfall, reduced events at the Del Mar Fairground due to COVID19, and Caltrans construction.

DISCUSSION

Staff has met with representatives from both SDWD and 22DAA to discuss anticipated recycled water use projections and events that are impacting usage. Changes to the facilities at the Del Mar Fairgrounds and uncertainty with future operations have reduced recycled water use by 22DAA. The proposed agreement amendment seeks to reduce the guaranteed minimum annual purchase volume from 120 AFY to 85 AFY, which is consistent with recycled water usage in FY 2019-20.

Similarly, SDWD is seeking to reduce the guaranteed minimum annual purchase volume from 400 AFY to 300 AFY, as their service area has experience reduced usage by Caltrans as a result of I-5 freeway construction and general water conservation by its customers. The new proposed minimum annual purchase volume is in line with the lower consumption patterns experienced in FY 2019-20. Usage should increase in future years with new landscape irrigation by Caltrans upon completion of construction, and with new customers being connected.

The proposed agreement amendments (attached) provide wholesale price increases as prescribed based on mutually acceptable cost of service methodology and decreases the annual minimum purchase volume to a level that is acceptable to the agencies.

SEJPA is experiencing steady recycled water sales to OMWD, SFID, and ERGA, with new customers on the horizon.

FINANCIAL IMPACT

The financial impact of these amendments could potentially provide less recycled water revenue from SDWD and 22DAA than presented in the FY 2020-21 SEJPA Adopted Budget. However, the total recycled water sales through the first quarter of FY 2020-21 is approximately 5% above budget and new customers are being pursued. It is reasonable to project that the proposed agreement amendments will not materially impact the FY 2020-21 adopted budget unless rainfall is substantial this winter.

It is therefore recommended that the Board of Directors:

1. Authorize the General Manager to execute a Third Amendment to the Agreement for Sale of Reclaimed Water to the San Dieguito Water District by the San Elijo Joint Powers Authority, subject to the General Manager's final negotiations with the District and General Counsel's final review;

2. Authorize the General Manager to execute a Second Amendment to the Agreement for Sale of Reclaimed Water to the City of Del Mar by the San Elijo Joint Powers Authority, subject to the General Manager's final negotiations with the City and General Counsel's final review;

3. Authorize the General Manager to execute a Second Amendment to the Reclaimed Water Sales Agreement Between the San Elijo Joint Powers Authority, the City of Del Mar, and the 22nd District Agricultural Association, subject to the General Manager's final negotiations with the City and the Association and General Counsel's final review; and

4. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

Attachment 1: Third Amendment to the Agreement for Sale of Reclaimed Water to the San Dieguito Water District by the San Elijo Joint Powers Authority

Attachment 2: Second Amendment to the Agreement for Sale of Reclaimed Water to the City of Del Mar by the San Elijo Joint Powers Authority

Attachment 3: Second Amendment to the Recycled Water Sales Agreement Between the San Elijo Joint Powers Authority, the City of Del Mar and the 22nd District Agricultural Association

NO. 14 ATTACHMENT 1

THIRD AMENDMENT TO THE AGREEMENT FOR SALE OF RECLAIMED WATER TO THE SAN DIEGUITO WATER DISTRICT BY THE SAN ELIJO JOINT POWERS AUTHORITY

This Third Amendment to the Agreement for Sale of Reclaimed Water, hereinafter referred to as the "Third Amendment," is made and entered into this _____ day of _____, 2020, by and between the San Elijo Joint Powers Authority, a joint powers authority, hereinafter referred to as the "San Elijo JPA," and the San Dieguito Water District, a California irrigation district, hereinafter referred to as the "Reclaimed Water Purveyor."

RECITALS

WHEREAS, the San Elijo JPA and the Reclaimed Water Purveyor have entered into an agreement dated March 26, 1997, with a first amendment dated August 23, 2000, and a second amendment dated December 12, 2013 for the sale of reclaimed water by the San Elijo JPA to the Reclaimed Water Purveyor, together hereinafter referred to as the "Purveyor Agreement"; and

WHEREAS, the parties are interested in amending the terms of the Purveyor Agreement to extend its term beyond June 30, 2021, adjust the cost of reclaimed water to the Reclaimed Water Purveyor pursuant to Section 11 of the Purveyor Agreement, and reduce minimum quantity commitments for reclaimed water delivery.

NOW, THEREFORE, in consideration of these recitals and the mutual covenants contained herein, and notwithstanding anything to the contrary in the Purveyor Agreement, the San Elijo JPA and Reclaimed Water Purveyor agree as follows:

1. The provisions of this Third Amendment shall apply to the sale of reclaimed water by the San Elijo JPA to the Reclaimed Water Purveyor commencing July 1, 2020, through June 30, 2023, and shall continue thereafter from year to year on the same terms and conditions as provided herein unless terminated as provided in the Purveyor Agreement or otherwise amended by the parties.

2. For the term of this Third Amendment, the San Elijo JPA and the Reclaimed Water Purveyor agree that the cost of reclaimed water charged by the San Elijo JPA to Reclaimed Water Purveyor shall increase from the current rate of $1,640 per Acre-Foot (AF) on July 1 of each year as determined based upon a cost-of-service analysis prepared by San Elijo JPA and approved by the Reclaimed Water Purveyor. In the event that the parties do no reach an agreement on the applicable rate by July 1, a rate increase of three percent (3%) shall go into effect through June 30 of the following year provided that either party may (1) initiate arbitration to determine if a different increase between two percent (2%) and five percent (5%) is appropriate for the applicable July 1 to June 30 time period, or terminate the agreement upon one (1) years' written notice to the other party. In the event either party initiates arbitration, the Parties shall bear their own costs and fees incurred related to such arbitration.

3. For the term of this Third Amendment, the Reclaimed Water Purveyor agrees to purchase from the San Elijo JPA no less than three hundred (300) acre-feet ("AF") of reclaimed water for Fiscal Year 2020-21 through Fiscal Year 2022-23. In the event Reclaimed Water Purveyor fails to accept the minimum 300 AF per year, Reclaimed Water Purveyor agrees to pay for the difference between the AF accepted by the Reclaimed Water Purveyor during the fiscal year and the minimum 300 AF at the applicable reclaimed water rate stated in this Third Amendment.

The expiration of the provisions of this Third Amendment shall not affect the terms of the Purveyor Agreement, except as expressly provided herein. The remaining terms and conditions of the Purveyor Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this Third Amendment to be executed and be effective on the date first mentioned above.

SAN ELIJO JOINT POWERS AUTHORITY	**SAN DIEGUITO WATER DISTRICT**
By: _____	By: _____
Name: _____	Name_____
Its: _____	Its: _____

NO. 14 ATTACHMENT 2

SECOND AMENDMENT TO THE RECLAIMED WATER SALES AGREEMENT BETWEEN THE SAN ELIJO JOINT POWERS AUTHORITY, THE CITY OF DEL MAR AND THE 22ND DISTRICT AGRICULTURAL ASSOCIATION

This agreement (hereinafter referred to as the "SECOND AMENDMENT"), which is the Second Amendment to the Reclaimed Water Sales Agreement (AGREEMENT) by and between the San Elijo Joint Powers Authority (JPA), an agency of the State of California, the City of Del Mar (CITY), a municipal corporation and the 22nd District Agricultural Association (DISTRICT), an agency of the State of California is made and entered into this ____ day of _____, 2020.

RECITALS

WHEREAS, on November 5, 1997, the JPA, the CITY and the DISTRICT entered into the AGREEMENT where the JPA produces and the JPA and the CITY deliver to the DISTRICT Reclaimed Water; and

WHEREAS, Section 8 of the AGREEMENT provides that the cost of reclaimed water to the DISTRICT may be adjusted by agreement of all parties; and

WHEREAS, the pricing structure of the AGREEMENT was based on indexing the reclaimed water price to 85% of the domestic water price and that the parties executed the FIRST AMENDMENT in December 2015 to change the pricing structure to utilize cost of service pricing principles; and

WHEREAS, the JPA uses cost of service pricing principles in setting reclaimed water rates with other water purveyors; and

WHEREAS, the parties executed the FIRST AMENDMENT in December 2015 to reduce the annual minimum purchase volume and are interested in further adjusting the minimum annual reclaimed water delivery quantity commitments in Section 4 of the AGREEMENT; and

WHEREAS, the Del Mar Fairgrounds 22nd Agricultural District issued a Notice of Termination of the AGREEMENT on June 1, 2020 that becomes effective July 1, 2021 unless the AGREEMENT is further amended.

NOW, THEREFORE, in consideration of these recitals and the mutual covenants contained herein, and notwithstanding any terms to the contrary in the AGREEMENT, the JPA, the CITY and the DISTRICT hereby amend certain terms of the AGREEMENT, and agree as follows:

1. The provisions of this SECOND AMENDMENT shall apply to the sale of reclaimed water by the JPA to the CITY and the CITY to the DISTRICT commencing October 20, 2020, through June 30, 2023, and shall continue thereafter from year to year on the same terms and conditions as provided herein unless terminated as provided in the Purveyor Agreement or otherwise amended by the parties.

2. For the Term of this SECOND AMENDMENT, the JPA, the CITY, and the DISTRICT agree that the cost of reclaimed water charged by the JPA to the CITY and the CITY to the DISTRICT shall increase from the current reclaimed water rate of $1,640 per acre-foot on July 1 of each year as determined based upon a cost-of-service analysis prepared by San Elijo JPA and approved by the Reclaimed Water Purveyor. In the event that the parties do not reach an agreement on the applicable rate by July 1st, a rate increase of three percent (3%) shall go into effect through June 30th of the following year provided that either party may (1) initiate arbitration to determine if a different increase between two percent (2%) and five percent (5%) is appropriate for the applicable July 1st to June 30th time period, or terminate the agreement upon one (1) years' written notice to the other party. In the event either party initiates arbitration, the Parties shall bear their own costs and attorneys' fees incurred related to such arbitration.

3. For the term of this Second Amendment, the City and the District agrees to purchase from the San Elijo JPA no less than eighty-five (85) acre-feet ("AF") of reclaimed water annually from July 1, 2020, through June 30, 2023. In the event Reclaimed Water Purveyor fails to accept the minimum 85 AF per year, Reclaimed Water Purveyor agrees to pay for the difference between the AF accepted by the Reclaimed Water Purveyor during the fiscal year and the minimum 85 AF at the applicable reclaimed water rate stated in this Amendment.

The expiration of the provisions of this Second Amendment shall not affect the terms of the Purveyor Agreement, except as expressly provided herein. The remaining terms and conditions of the Purveyor Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this SECOND AMENDMENT to be executed and be effective on the date first mentioned above.

SAN ELIJO JOINT POWERS AUTHORITY

By:_____

Name: _____

Its: _____

CITY OF DEL MAR

By:_____

Name: _____

Its: _____

22nd DISTRICT AGRICULTURAL ASSOCIATION

By:_____

Name:_____

Its:_____

NO. 14 ATTACHMENT 3

SECOND AMENDMENT TO THE AGREEMENT FOR SALE OF RECLAIMED WATER TO THE CITY OF DEL MAR BY THE SAN ELIJO JOINT POWERS AUTHORITY

This Second Amendment to the Agreement for Sale of Reclaimed Water, hereinafter referred to as the "Second Amendment," is made and entered into this ____ day of _____, 2020, by and between the San Elijo Joint Powers Authority, a joint powers authority, hereinafter referred to as the "San Elijo JPA," and the City of Del Mar, a municipal corporation, hereinafter referred to as the "Reclaimed Water Purveyor."

RECITALS

WHEREAS, the San Elijo JPA and the Reclaimed Water Purveyor have entered into an agreement dated November 5, 1997, for the sale of reclaimed water by the San Elijo JPA to the Reclaimed Water Purveyor, hereinafter referred to as the "Purveyor Agreement"; and

WHEREAS, Section 8 of the Purveyor Agreement provides that the cost of reclaimed water to the Reclaimed Water Purveyor may be adjusted by agreement of both parties; and

WHEREAS, the pricing structure of the Purveyor Agreement was based on indexing the recycled water price to 85% of the domestic water price and that the parties executed the FIRST AMENDMENT in December 2015 to change the pricing structure to utilize cost of service pricing principles; and

WHEREAS, the San Elijo JPA uses cost of service pricing principles in setting recycled water rates with other water purveyors; and

WHEREAS, the parties executed the FIRST AMENDMENT in December 2015 to reduce the annual minimum purchase volume and are interested in further adjusting the minimum annual reclaimed water delivery quantity commitments in Section 4 of the AGREEMENT; and

WHEREAS, the Del Mar Fairgrounds 22nd Agricultural District issued a Notice of Termination of the AGREEMENT on June 1, 2020 that becomes effective July 1, 2021 unless the AGREEMENT is further amended.

NOW, THEREFORE, in consideration of these recitals and the mutual covenants contained herein, and notwithstanding anything to the contrary in the Purveyor Agreement, the San Elijo JPA and Reclaimed Water Purveyor agree as follows:

1. The provisions of this Second Amendment shall apply to the sale of reclaimed water by the San Elijo JPA to the Reclaimed Water Purveyor commencing October 20, 2020, through June 30, 2023, and shall continue thereafter from year to year on the same terms and conditions as provided herein unless terminated as provided in the Purveyor Agreement or otherwise amended by the parties..

2. For the term of this Second Amendment, the cost of reclaimed water charged by the San Elijo JPA to Reclaimed Water Purveyor shall increase from the current price of $1,640 per AF on July 1 of each year as determined based upon a cost-of-service analysis prepared by San Elijo JPA and approved by the Reclaimed Water Purveyor. In the event that the parties do no reach an agreement on the applicable rate by July 1, a rate increase of three percent (3%) shall go into effect through June 30 of the following year provided that either party may (1) initiate arbitration to determine if a different increase between two percent (2%) and five percent (5%) is appropriate for the applicable July 1 to June 30 time period, or terminate the agreement upon one (1) years' written notice to the other party. In the event either party initiates arbitration, the Parties shall bear their own costs and fees incurred related to such arbitration.

3. For the term of this Second Amendment, the Reclaimed Water Purveyor agrees to purchase from the San Elijo JPA no less than eighty-five (85) acre-feet ("AF") of reclaimed water annually from July 1, 2020, through June 30, 2023. In the event Reclaimed Water Purveyor fails to accept the minimum 85 AF per year, Reclaimed Water Purveyor agrees to pay for the difference between the AF accepted by the Reclaimed Water Purveyor during the fiscal year and the minimum 85 AF at the applicable reclaimed water rate stated in this Amendment.

The expiration of the provisions of this Second Amendment shall not affect the terms of the Purveyor Agreement, except as expressly provided herein. The remaining terms and conditions of the Purveyor Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this Second Amendment to be executed and be effective on the date first mentioned above.

SAN ELIJO JOINT POWERS AUTHORITY	**CITY OF DEL MAR**
By:_____	By:_____
Name: _____	Name: _____
Its: _____	Its: _____