

**AGENDA**  
**SAN ELIJO JOINT POWERS AUTHORITY**  
**MONDAY, MAY 14, 2018 AT 8:30 AM**  
**SAN ELIJO WATER RECLAMATION FACILITY – CONFERENCE ROOM**  
**2695 MANCHESTER AVENUE**  
**CARDIFF BY THE SEA, CALIFORNIA**

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1. CALL TO ORDER
2. ROLL CALL
3. PLEDGE OF ALLEGIANCE
4. ORAL COMMUNICATIONS (NON-ACTION ITEM)
5. PRESENTATION OF AWARDS  

None
6. \* **CONSENT CALENDAR**
7. \* APPROVAL OF MINUTES FOR APRIL 9, 2018 MEETING
8. \* APPROVAL FOR PAYMENT OF WARRANTS AND MONTHLY INVESTMENT REPORTS
9. \* SAN ELIJO WATER RECLAMATION FACILITY TREATED EFFLUENT FLOWS – MONTHLY REPORT
10. \* SAN ELIJO JOINT POWERS AUTHORITY RECYCLED WATER PROGRAM – MONTHLY REPORT
11. \* SAN ELIJO JOINT POWERS AUTHORITY CONTRACT FOR PROCUREMENT OF FERRIC CHLORIDE
12. \* SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2018-19 RECOMMENDED BUDGET UPDATE
13. \* 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**

14. **RECYCLED WATER COST OF SERVICE AND PROPOSED WHOLESALE RATES FOR 2018, 2019, AND 2020**

1. Accept and file the Raftelis Financial Consultants Recycled Water Rate Review and Update;
2. Approve 3.8% annual Recycled Water Rate increase to Santa Fe Irrigation District (SFID), San Dieguito Water District (SDWD), Olivenhain Municipal Water District (OMWD), and the City of Del Mar beginning July 1, 2018, July 1, 2019, and again beginning July 1, 2020; and
3. Discuss and take action as appropriate.

Staff Reference: General Manager

15. **AWARD CONSTRUCTION MANAGEMENT CONTRACT FOR ENCINITAS RANCH RECYCLED WATER EXPANSION PROJECT**

1. Authorize the General Manager to execute a professional services agreement with Black & Veatch for Construction Management Services not to exceed \$166,770; and
2. Discuss and take action as appropriate.

Staff Reference: General Manager

16. **AGREEMENT AMENDMENT FOR CONSTRUCTION MANAGEMENT & INSPECTION SERVICES FOR LAND OUTFALL REPLACEMENT**

1. Authorize amendment of the professional services agreement with Black & Veatch for an additional amount not to exceed \$174,815; and
2. Discuss and take action as appropriate.

Staff Reference: General Manager

17. **GENERAL MANAGER'S REPORT**

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

18. **GENERAL COUNSEL'S REPORT**

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

19. **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.

20. CLOSED SESSION

The Board will adjourn to Closed Session to discuss item(s) identified below. Closed Session is not open to the public; however, an opportunity will be provided at this time if members of the public would like to comment on any item listed below. (Three minute limit.) A closed session may be held at any time during this meeting of the San Elijo Joint Powers Authority for the purposes of discussing potential or pending litigation or other appropriate matters pursuant to the "Ralph M. Brown Act".

None

21. ADJOURNMENT

The next regularly scheduled San Elijo Joint Powers Authority Board Meeting will be Monday, June 11, 2018 at 8:30 a.m.

NOTICE:

The San Elijo Joint Powers Authority's open and public meetings meet 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](http://www.sejpa.org). The SEJPA Board meetings are held on the second Monday of the month, except 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 Reclamation Facility, 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: May 9, 2018



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

SAN ELIJO JOINT POWERS AUTHORITY  
MINUTES OF THE REGULAR BOARD MEETING  
HELD ON APRIL 9, 2018  
AT THE  
SAN ELIJO WATER RECLAMATION FACILITY

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Tasha Boerner Horvath, Chair

David Zito, Vice Chair

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A regular meeting of the Board of Directors of the San Elijo Joint Powers Authority (SEJPA) was held Monday, April 9, 2018, at 8:30 a.m., at the San Elijo Water Reclamation Facility at 2695 Manchester Avenue, Cardiff by the Sea, California.

1. CALL TO ORDER

Chair Boerner Horvath called the meeting to order at 8:30 a.m.

2. ROLL CALL

*Directors Present:*

Tasha Boerner Horvath  
David Zito  
Joe Mosca  
Greg Wade, *Solana Beach Alternate*

*Directors Absent:*

None

*Others Present:*

General Manager  
Director of Operations  
Director of Finance & Administration  
Associate Engineer  
Administrative Assistant/Board Clerk

Michael Thornton  
Chris Trees  
Paul Kinkel  
Mike Konicke  
Jennifer Basco

*SEJPA Counsel:*

Procopio, Cory, Hargreaves & Savitch

Greg Moser

*City of Solana Beach:*

City Manager  
Director of Engineering/Public Works

Greg Wade  
Mohammad "Mo" Sammak

*City of Encinitas:*

Public Works Management Analyst  
Director of Public Works

Bill Wilson  
Carl Quiram

*City of Encinitas Resident*

Bill Steiner

*St. Francis Court HOA, Solana Beach*

Al Evans

3. PLEDGE OF ALLEGIANCE

Chair Boerner Horvath led the Pledge of Allegiance.

4. ORAL COMMUNICATIONS

None

5. PRESENTATION OF AWARDS

None

6. CONSENT CALENDAR

Moved by Vice Chair Zito and seconded by Board Alternate Wade to approve the Consent Calendar.

- |                    |  |
|--------------------|--|
| Agenda Item No. 7  | Approval of Minutes for the March 12, 2018 Meeting   |
| Agenda Item No. 9  | San Elijo Water Reclamation Facility Treated Effluent Flows – Monthly Report                           |
| Agenda Item No. 10 | San Elijo Joint Powers Authority Recycled Water Program – Monthly Report                               |
| Agenda Item No. 11 | Adopt the Proposed CEQA Mitigated Negative Declaration Addendum for Recycled Water System Improvements |

Motion carried with the following vote of approval:

AYES: Boerner Horvath, Zito, Mosca, Wade  
NOES: None  
ABSENT: None  
ABSTAIN: None

- |                   |  |
|-------------------|--|
| Agenda Item No. 8 | Approval for Payment of Warrants and Monthly Investment Report |
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Motion carried with the following vote of approval:

AYES: Boerner Horvath, Zito, Wade  
NOES: None  
ABSENT: None  
ABSTAIN: Mosca

12. ITEMS REMOVED FROM CONSENT CALENDAR

None

13. PRESENTATION OF THE SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2018-19 RECOMMENDED BUDGET

Paul Kinkel, Director of Finance and Administration, presented the Fiscal Year (FY) 2018-19 Recommended Budget to the Board of Directors. The budget estimates all expenditures necessary, including capital costs and debt service, to provide wastewater treatment, waste disposal, recycled water, laboratory, ocean outfall, and pump station services. The total FY 2018-19 Recommended Budget is \$12,110,317 consisting of \$6,436,646 of Operating Costs, \$3,378,671 of Debt Service and \$2,295,000 of Capital Costs. The proposed operating budget for all programs will increase by \$294,567, of which the Ocean Outfall Program represents the largest increase of \$132,877 for new testing and monitoring requirements associated with the NPDES ocean discharge permit. Mr. Kinkel stated that the SEJPA receives revenues from seven primary sources, with the three largest customers being the City of Encinitas, the City of Solana Beach, and the Recycled Water Program, which are expected to provide \$3,029,943, \$2,898,850, and \$2,975,393, respectively.

It was recommended that the Board of Directors take the Recommended Budget to their respective Cities for review and comment. The budget will then be discussed at the next scheduled Board meeting.

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

14. RECYCLED WATER COST OF SERVICE AND PROPOSED WHOLESALE RATE INCREASE

The SEJPA retained Raftelis Financial Consultants (RFC) to prepare a cost of service update and to develop recommendations for future rate increases. The RFC report recommends 3.8% annual increases for San Dieguito Water District, Santa Fe Irrigation District, Olivenhain Municipal Water District, and City of Del Mar through FYE 2021. The proposed rate will provide adequate revenues to fund 90 days operating cash, 1 year of debt service, and to begin funding an asset repair and replacement reserve. This recommendation will be presented to the Board at the May 2018 Board meeting for approval, and, if approved, will increase the price of recycled water to \$1,522 per acre-foot (AF) beginning July 1, 2018, \$1,580 per AF on July 1, 2019, and \$1,640 per AF on July 1, 2020.

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

15. SAN ELIJO JOINT OCEAN OUTFALL 2017 INSPECTION REPORT

Chris Trees, Director of Operations, presented the 2017 ocean outfall inspection report, which was completed by Undersea Graphics, Inc. The San Elijo Ocean Outfall was found to be in excellent overall condition. Offshore areas of the outfall were stable and showed no signs of spalling, rust staining, cracking, or other deficiencies in the concrete

pipe. Anodes that were visible that could be inspected were in good condition. Mr. Trees discussed recommendations for future maintenance activities for continued reliable operation of the San Elijo Ocean Outfall.

Moved by Board Member Mosca and seconded by Vice Chair Zito to:

1. Accept and file the San Elijo Ocean Outfall Year 2017 Inspection Report prepared by Undersea Graphics, Inc.

Motion carried with the following vote of approval:

AYES:	Boerner Horvath, Zito, Mosca, Wade
NOES	None
ABSENT:	None
ABSTAIN:	None

16. CONSTRUCTION CONTRACT CHANGE ORDER – SAN ELIJO LAND OUTFALL REPLACEMENT PROJECT

General Manager Thornton informed the Board of Directors that J.R. Filanc Construction Company, contractor for the Land Outfall Replacement Project, submitted a change order for costs associated with additional work at the beach worksite on Cardiff State Beach. The additional work was performed in order to satisfy California Coastal Commission and City of Encinitas permitting requirements. The work included the import of sand, as well as filling additional sandbags or “supersacks”. These additional measures would provide enhanced protection for the environment, public access, and the worksite in the event of tidal inundation and/or winter storm events. The contractor expedited the procurement of materials and performed this work in good faith. Mr. Thornton stated that staff negotiated the cost of the change order at \$74,000.

Moved by Vice Chair Zito and seconded by Board Member Mosca to:

1. Authorize the General Manager to grant construction contract change order for a total cost of \$74,000.

Motion carried with the following vote of approval:

AYES:	Boerner Horvath, Zito, Mosca, Wade
NOES	None
ABSENT:	None
ABSTAIN:	None

17. GENERAL MANAGER'S REPORT

The General Manager informed the Board of Directors that the SEJPA is now accepting wastewater flows from the City of Del Mar. Next, the General Manager stated that he will be participating in a facilities tour tomorrow with the U.S. Government Accountability Office (GAO) and other water districts in connection with the U.S. Bureau of Reclamation Title XVI Grant Program. Also, Chris Trees, Director of Operations, will

be attending the Regional Water Quality Control Board, San Diego Region Board Meeting this week regarding the NPDES Permit Reissuance. Lastly, General Manager Thornton reported that he will be accompanying Board Chair Tasha Boerner Horvath to Sacramento on Wednesday, April 11, 2018, to attend the CASA and WateReuse 2018 Public Policy Forum.

18. GENERAL COUNSEL'S REPORT

Greg Moser informed the Board of Directors that the hearing on the agency's appeal of CalPERS' determination regarding reporting uniforms as special compensation is scheduled for next Monday, April 16, 2018. Next, Mr. Moser briefed the Board about SB 949, pending in Sacramento, which would amend Government Code Section 1090 rules regarding prohibited conflicts of interest in government contracting to require notice and an opportunity to cure before any prosecutions, and raise the standard of proof for violations, both benefits to public officials.

19. BOARD MEMBER COMMENTS

None

20. CLOSED SESSION

None

21. ADJOURNMENT

The meeting adjourned at 9:30 a.m. The next Board of Directors meeting will be held on May 14, 2018 at 8:30 a.m.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager



**SAN ELIJO JOINT POWERS AUTHORITY****PAYMENT OF WARRANTS****18-05****For the Months of March and April 2018**

<b>Warrant #</b>	<b>Vendor Name</b>	<b>G/L Account</b>	<b>Warrant Description</b>	<b>Amount</b>
35522	AT&T	Utilities - Telephone	Phone service - 02/13/18 - 03/12/18	383.99
35523	Atlas Pumping Service Inc.	Services - Grease & Scum	Grease and scum pumping	554.88
35524	Brenntag Pacific, Inc.	Supplies - Chemicals	Sodium triphosphate	776.88
35525	CA Assoc. of Sanitation Agencies	Seminars/Education	Public policy forum	275.00
35526	Chevron & Texaco Business Card	Fuel	March	313.59
35527	Complete Office	Supplies - Office	Office supplies	81.15
35528	San Diego Recorder/County Clerk	Fees - Permits	Notice of determination	50.00
35529	CS-Amsco	Capital Outlay	Automatic valve actuators	8,523.03
35530	CA Sanitation Risk Mgmt Authority	Insurance	Insurance deductible	11,922.71
35531	CWEA Membership	Dues & Memberships	Membership	85.00
35532	Dudek & Associates	Services - Professional	SWAP project	300.00
35533	Forte of San Diego	Supplies - Janitorial	Supplies	487.43
35534	Gierlich Mitchell, Inc.	Capital Outlay	Pump - grit chamber	17,530.61
35535	Hach Company	Supplies - Chemicals	Buffer solution and reagent	323.43
35536	Hardy Diagnostics	Supplies - Lab	Supplies	692.32
35537	Home Depot Credit Services	Repair Parts Expense	Repair parts	153.32
35538	Kemira Water Solutions, Inc.	Supplies - Chemicals	Ferric chloride	4,135.01
35539	The Lawton Group	Services - Intern Program	Weeks worked - 03/05/18 - 03/15/18	879.12
35540	Marine Taxonomic Services, Ltd.	Services - Contractors	Off shore water sampling	434.00
35541	McMaster-Carr Supply Co.	Repair Parts Expense	Valves, gaskets, pipes, and motor mounting base	1,385.50
35542	MetLife - Group Benefits	Dental/Vision	Dental - April	1,861.15
35543	OneSource Distributors, Inc.	Repair Parts Expense	Relay output, programmable controller	1,992.99
35544	Pacific Green Landscape	Services - Landscape	March	2,625.00
35545	Pacific Pipeline Supply	Minor Equip - Shop & Field	Hydrant wrench, hose reducer, and valve gauge	315.80
35546	Peerless Materials Co., LLC	Supplies - Shop & Field	Shop towels	270.88
35547	P.E.R.S.	Medical Insurance - PERS	Health - April	23,258.78
35548	Public Employees - Retirement	Retirement Plan - PERS	Retirement - 03/10/18 - 03/23/18	12,411.20
35549	Polydyne Inc.	Supplies - Chemicals	Clarifloc chemicals	11,399.95
35550	Quality Laser Source, Inc.	Services - Maintenance	Printer service	99.00
35551	ReadyRefresh	Supplies - Lab	Kitchen and lab supplies	392.21
35552	RSF Security Systems	Services - Alarm	Alarm upgrade	299.00
35553	Santa Fe Irrigation District	Utilities - Water	Valley - 01/16/18 - 03/15/18	85.08
35554	SDG&E	Utilities - Gas & Electric	Gas and electric - 02/04/18 - 03/06/18	58,546.52
35555	Sigma-Aldrich	Supplies - Lab	Dissolved oxygen	124.83
35556	Southern California Fleet Service	Vehicle Maintenance	Emergency repair on sludge tractor	436.16
35557	Terminix Processing Center	Services - Maintenance	Pest control	225.00
35558	Test America	Services - Laboratory	Testing water supplies	985.50
35559	Thatcher Company of California	Supplies - Chemicals	Aluminum sulfate	6,525.10
35560	Trussell Technologies, Inc.	Services - Engineering	Ammonia analyzer testing report	3,607.50
35561	Unifirst Corporation	Services - Uniforms	Uniform services	268.79
35562	USA Bluebook	Repair Parts Expense	Pumps and tubing	924.55
35563	Valley Chain & Gear, Inc.	Repair Parts Expense	Spacer hub, flange, and element	169.54
35564	Vantagepoint Transfer Agents	EE Deduction Benefits	ICMA - 457	7,071.87
35565	Vantagepoint Transfer Agents	ICMA Retirement	ICMA - 401a	3,299.38
35566	Verizon Wireless	Utilities - Telephone	02/11/18 - 03/10/18	283.06
35567	Verizon Wireless	Utilities - Telephone	Cell phone service and equip - 02/08/18 - 03/07/18	1,438.25
35568	J.R. Filanc Construction Co.	Services - Contractors	Land outfall replacement project	473,853.04
35569	Void	Void	Void	Void
35570	Abcana Industries	Supplies - Chemicals	Hydrochloric acid	664.09
35571	Aflac	EE Deduction Benefits	Aflac - April	643.60
35572	Ag Tech, LLC	Services - Biosolids Hauling	Biosolids hauling - March	14,405.75
35573	All American First Aid & Safety	Supplies - Safety	Nitrile gloves	610.94
35574	Aquatic Bioassay	Services - Laboratory	Toxicity testing	5,235.00
35575	AT&T	Utilities - Telephone	Alarm service - April	400.68
35576	Atlas Pumping Service Inc.	Services - Grease & Scum	Grease and scum pumping	1,303.88
35577	American Water Works Association	Dues & Memberships	Membership	269.00
35578	Black & Veatch	Services - Management	Land Outfall Replacement; Solids Treatment Proces:	113,075.42
35579	Chevron & Texaco Business Card	Fuel	March and April fuel	586.59
35580	Coast Waste Management, Inc.	Services - Grit & Screenings	Waste disposal	1,371.20
35581	Complete Office	Supplies - Office	Supplies	185.18
35582	Corodata	Rent	Record storage - March	120.66

**SAN ELIJO JOINT POWERS AUTHORITY**  
**PAYMENT OF WARRANTS**  
**18-05**  
**For the Months of March and April 2018**

<b>Warrant #</b>	<b>Vendor Name</b>	<b>G/L Account</b>	<b>Warrant Description</b>	<b>Amount</b>
35583	CS-Amsco	Repair Parts Expense	Rubber flapper swing check valves	5,962.60
35584	D&H Water Systems	Services - Maintenance	Service Micro 2000	657.86
35585	Dudek & Associates	Services - Professional	Preliminary Treatment Upgrades	12,563.48
35586	EDCO Waste & Recycling Service	Utilities - Trash	March	242.75
35587	Evantec Lab Supply	Supplies - Lab	Laboratory supplies	751.40
35588	J.R. Filanc Construction Co.	Services - Contractors	Land Outfall Replacement Project	353,921.47
35589	Fisher Scientific	Supplies - Lab	Laboratory supplies	380.13
35590	Grainger, Inc.	Shop Tools and Equip.	Air needle scaler	349.26
35591	GTT Communications	Utilities - Internet	T-1 Service - May	299.39
35592	Hach Company	Repair Parts Expense	Pump, motor, gear, and desiccant refill	867.80
35593	Hardy Diagnostics	Supplies - Lab	Laboratory supplies	295.05
35594	Helix Environmental Planning	Services - Professional	As needed support, environmental permitting	605.00
35595	Kennedy/Jenks Consultants	Services - Engineering	Land Ocean Outfall during construction	4,020.69
35596	Kimley-Horn & Associates, Inc.	Services - Professional	Services for Caltrans and Building project	11,306.13
35597	The Lawton Group	Services - Intern Program	Weeks worked - 03/19/18 - 03/29/18	862.84
35598	Lomas Santa Fe Country Club	Other Personnel Cost	Deposit	150.00
35599	Marine Taxonomic Services, Ltd.	Services - Contractors	Offshore Water Sampling	434.00
35600	McMaster-Carr Supply Co.	Repair Parts Expense	Valve and pipe	907.89
35601	NeWest Construction	Services - Contractors	Headworks/Grit Project	172,107.70
35602	Olivenhain Municipal Water District	Rent	Pipeline rental payment - March	2,835.00
35603	OneSource Distributors, Inc.	Repair Parts Expense	Timer	177.79
35604	Public Employees - Retirement	Retirement Plan - PERS	Retirement - 03/24/18 - 04/06/18	12,437.21
35605	Preferred Benefit Insurance	Dental/Vision	Vision - April	323.40
35606	ProBuild Company, LLC	Supplies - Shop & Field	Repair parts, shop and field supplies	110.46
35607	Procopio Cory Hargreaves	Services - Legal	General; labor and employment	12,967.50
35608	Roesling Nakamura Terada Architects	Services - Professional	Building improvements	31,522.50
35609	Santa Fe Irrigation District	Utilities - Water	Recycled water	1,339.71
35610	Santa Fe Irrigation District	SFID Distribution Pipeline	Pipeline purchase payment - March	661.50
35611	San Dieguito Water District	Utilities - Water	Recycled water	1,186.18
35612	San Dieguito Water District	Utilities - Water	Recycled water	953.07
35613	Sigma-Aldrich	Supplies - Lab	Laboratory supplies	1,111.05
35614	Smart & Final	Supplies - Office	Kitchen supplies	179.15
35615	Television 101	Services - Professional	Ocean outfall video	4,595.00
35616	Terminix Processing Center	Services - Maintenance	Pest control	40.00
35617	Undersea Graphics, Inc.	Services - Contractors	Ocean Outfall Inspection Report	34,100.00
35618	Unifirst Corporation	Services - Uniforms	Uniform service	308.44
35619	UPS	Postage/Shipping	Postage	49.32
35620	Underground Service Alert/SC	Services - Alarm	Database maintenance fee	170.05
35621	USA Bluebook	Supplies - Lab	Thermometers, hot plate, desiccant drying cartridge	1,118.72
35622	Vallecitos Water District	Prepaid - Other	Employee Assistant Program	742.44
35623	Vantagepoint Transfer Agents	EE Deduction Benefits	ICMA - 457	7,101.11
35624	Vantagepoint Transfer Agents	ICMA Retirement	ICMA - 401a	3,311.78
35625	VWR International, Inc.	Supplies - Lab	Thermometers, probe stand, draining basket	731.24
35626	Willdan Financial Services	Services - Professional	Arbitrage rebate services	1,750.00
35627	WorkPartners Occupational	Services - Medical	Vaccine	95.00
35628	County of San Diego	Fees - Permits	Encinitas Ranch RW pipelines and facility upgrades	50.00
35629	2ndgear	Supplies - Office	Computer	477.71
35630	Advanced Air & Vacuum	Services - Maintenance	Unit #1 onsite repair	784.99
35631	AGM Electronics Inc.	Repair Parts Expense	Isolator	256.58
35632	American Backflow	Dues & Memberships	Membership	80.00
35633	AT&T	Utilities - Telephone	Phone service - 03/13/18 - 04/12/18	382.56
35634	Atlas Pumping Service Inc.	Services - Grease & Scum	Grease and scum pumping	554.88
35635	BankCard Center	Various	IT, parts, and travel	5,653.60
35636	Black & Veatch	Services - Management	Land Outfall Replacement; Solids Treatment Proces:	94,876.08
35637	Brenntag Pacific, Inc.	Supplies - Chemicals	Citric acid	2,032.70
35638	California Boiler	Services - Maintenance	Pilot flame failure onsite repair	865.00
35639	Carollo Engineers	Services - Engineering	SCADA upgrades project	5,073.40
35640	Chevron & Texaco Business Card	Fuel	April	711.48
35641	Classic Automation LLC	Repair Parts Expense	Analog current output module	1,291.00
35642	Clear Edge Filtration	Repair Parts Expense	Wire pre-straightened - belt press	207.13
35643	Complete Office	Supplies - Office	Supplies	175.37

**SAN ELIJO JOINT POWERS AUTHORITY****PAYMENT OF WARRANTS****18-05****For the Months of March and April 2018**

<b>Warrant #</b>	<b>Vendor Name</b>	<b>G/L Account</b>	<b>Warrant Description</b>	<b>Amount</b>
35644	County of San Diego	Fees - Permits	Facility permits	469.00
35645	CS-Amsco	Repair Parts Expense	Valve and handwheel	3,989.10
35646	DMV	Services - Other	Safety records - 03/01/18 - 03/31/18	6.00
35647	Duhig Stainless	Repair Parts Expense	Weld pipe	968.46
35648	Duperon Corporation	Equipment Rental/Lease	Washer compactor	4,310.00
35649	Encina Wastewater Authority	Service - EWA Support	Resource sharing - HR and safety	1,029.65
35650	City of Encinitas	Licenses; IT Support	Software license; admin network	2,849.75
35651	Forte of San Diego	Services - Janitorial	May	1,000.00
35652	Fuscoe Engineering	Services - Professional	Survey and record services	327.00
35653	Golden Bell Products	Supplies - Chemicals	Lift station degreaser	558.15
35654	Grainger, Inc.	Shop Tools and Equip.	Core remover, valve core torque, shaft seal	58.82
35655	Hach Company	Services - Maintenance	Field instruments evaluation	11,699.75
35656	Helix Environmental Planning	Services - Professional	As needed support	2,090.00
35657	Michael Henke	Dues & Memberships	Electrical renewal	90.00
35658	Home Depot Credit Services	Shop Tools and Equip.	Supplies, tools, and parts	756.12
35659	Kemira Water Solutions, Inc	Supplies - Chemicals	Ferric chloride	4,055.17
35660	Kennedy/Jenks Consultants	Services - Engineering	Land outfall design; utility base mapping	20,740.00
35661	The Lawton Group	Services - Intern Program	Weeks worked - 04/02/18 - 04/12/18	1,524.95
35662	McMaster-Carr Supply Co.	Shop Tools and Equip.	Bearing, lightbulb, brush, fuse, plumbing parts	1,376.67
35663	MetLife - Group Benefits	Dental/Vision	Dental - May	1,816.05
35664	Midas Shop	Vehicle Maintenance	Truck tires	660.00
35665	NeWest Construction	Services - Contractors	Headworks/grit project	197,014.80
35666	Olin Corp - Chlor Alkali	Supplies - Chemicals	Sodium hypochlorite	2,854.13
35667	Olivenhain Municipal Water District	Services - Professional	RMC grant admin costs	5,679.01
35668	Olivenhain Municipal Water District	Services - Lobbying	NSDCRRWP	6,566.28
35669	OneSource Distributors, Inc.	Repair Parts Expense	Circuit feed through blocks; ethernet processor	3,982.98
35670	Pacific Green Landscape	Services - Landscape	Landcaping; tree and valve installation	4,820.00
35671	Pacific Pipeline Supply	Repair Parts Expense	Valve, hand wheel, gasket, and bolt set	1,347.04
35672	Public Employees - Retirement	Retirement Plan - PERS	Retirement - 04/07/18 - 04/20/18	12,461.49
35673	U.S. Postal Service	Postage/Shipping	Postage stamps	500.00
35674	Raftelis Financial Consultants	Services - Professional	Recycled water cost of service	4,997.50
35675	ReadyRefresh	Supplies - Lab	Kitchen and lab supplies	352.68
35676	Rohan & Sons, Inc.	Services - Maintenance	Refrigerator	110.00
35677	RSF Security Systems	Services - Alarm	Connected antenna for alarm	78.00
35678	Rusty Wallis, Inc.	Services - Maintenance	Water softener, tanks, and salt bags	137.33
35679	Safe Hearing America	Services - Medical	Annual hearing testing	918.50
35680	San Dieguito Water District	Repair Parts Expense	Repair parts	738.74
35681	San Diego Business Journal	Subscriptions	Subscription	59.00
35682	San Diego Gas & Electric	Utilities - Gas & Electric	Gas and electric - 03/06/18 - 04/04/18	56,202.04
35683	Board of Equalization	Accrued Sales Tax Payable	1st Qtr 2018	1,130.00
35684	SWRCB	Dues & Memberships	Wastewater operator certificate	110.00
35685	Television 101	Services - Professional	Ocean outfall video production	1,320.00
35686	Terminix Processing Center	Services - Maintenance	Pest control	225.00
35687	Michael Thornton	Subsistence - Travel/Rm & Bd	CASA/WateReuse event; joint agency meeting	1,094.16
35688	Technology Integration Group	Services - Maintenance	Copier service	96.17
35689	Christopher A. Trees	Subsistence - Travel	Mileage	60.06
35690	Trussell Technologies, Inc.	Services - Engineering	Ammonia analyzer testing; membrane replacement	3,214.50
35691	Unifirst Corporation	Services - Uniforms	Uniform service	544.07
35692	UPS	Postage/Shipping	Mailing parts	31.82
35693	USA Bluebook	Capital Outlay; Repair Parts	Incubator; submersible transmitter	5,241.97
35694	Vantagepoint Transfer Agents	EE Deduction Benefits	ICMA - 457	7,108.71
35695	Vantagepoint Transfer Agents	ICMA Retirement	ICMA - 401a	3,319.38
35696	Verizon Wireless	Utilities - Telephone	03/11/18 - 04/10/18	282.44
35697	Verizon Wireless	Utilities - Telephone	Cell phone service - 03/08/18 - 04/07/18	768.99
35698	WageWorks	Payroll Processing Fees	Admin and compliance fees	118.25
	San Elijo Payroll Account	Payroll	Payroll - 03/30/2018	65,338.67
	San Elijo Payroll Account	Payroll	Payroll - 04/13/2018	65,233.05
	San Elijo Payroll Account	Payroll	Payroll - 04/27/2018	70,420.31
				<u>\$2,185,856.34</u>

SAN ELIJO JOINT POWERS AUTHORITY

PAYMENT OF WARRANTS SUMMARY

**For the Months of March and April 2018  
As of May 1, 2018**

PAYMENT OF WARRANTS		\$ 2,185,856.34
Reference Number	18-05	

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.



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Paul F. Kinkel  
Director of Finance & Administration

STATEMENT OF FUNDS AVAILABLE FOR PAYMENT OF WARRANTS  
AND INVESTMENT INFORMATION  
As of May 1, 2018

FUNDS ON DEPOSIT WITH	AMOUNT
<b>LOCAL AGENCY INVESTMENT FUND</b>	
<i>(MARCH 2018 YIELD 1.524%)</i>	
RESTRICTED SRF RESERVE	\$ 630,000.00
UNRESTRICTED DEPOSITS	\$ 9,356,136.89
<b>CALIFORNIA BANK AND TRUST</b>	
<i>(MARCH 2018 YIELD 0.01%)</i>	
REGULAR CHECKING	\$ 85,093.30
PAYROLL CHECKING	\$ 5,000.00
<b>UNION BANK - TRUSTEE (BOND FUNDS)</b>	
BLACKROCK	\$ 600,846.70
<i>(MARCH 2018 YIELD 1.42%)</i>	
LAIF	\$ 20,225,883.74
<i>(MARCH 2018 YIELD 1.524%)</i>	
<b>TOTAL RESOURCES</b>	<b>\$ 30,902,960.63</b>

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

May 14, 2018

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: SAN ELIJO WATER RECLAMATION FACILITY TREATED EFFLUENT FLOWS  
– MONTHLY REPORT

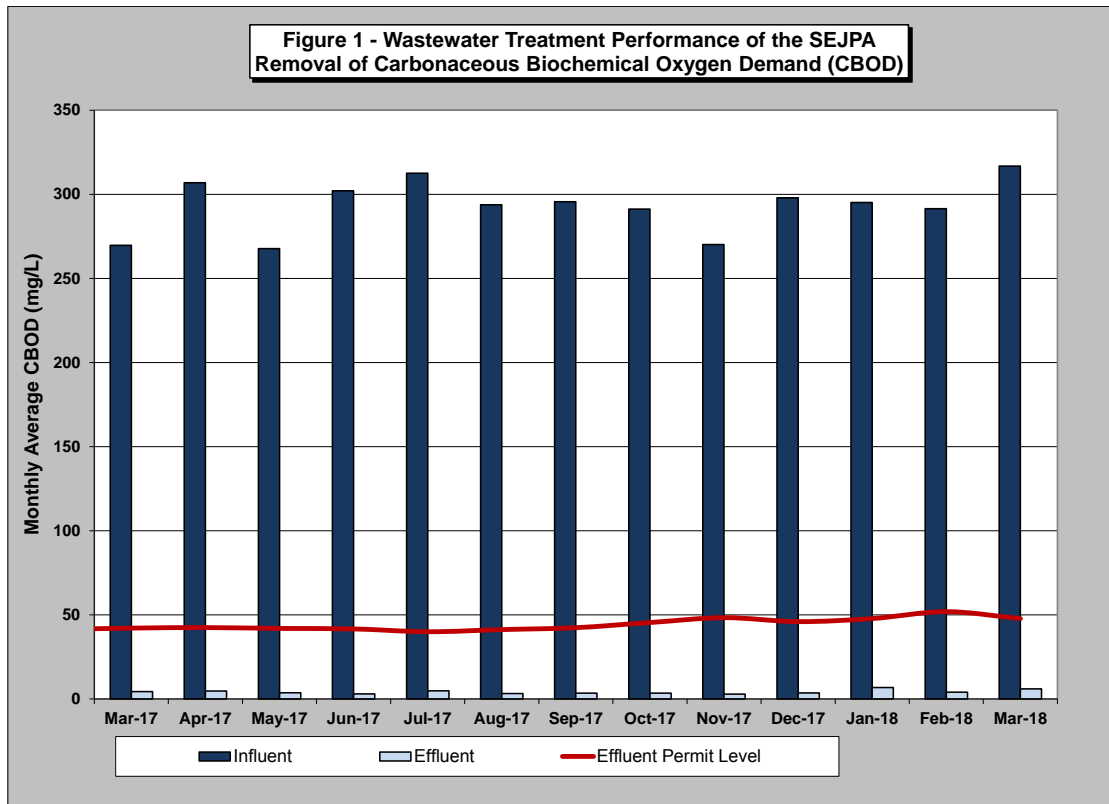
RECOMMENDATION

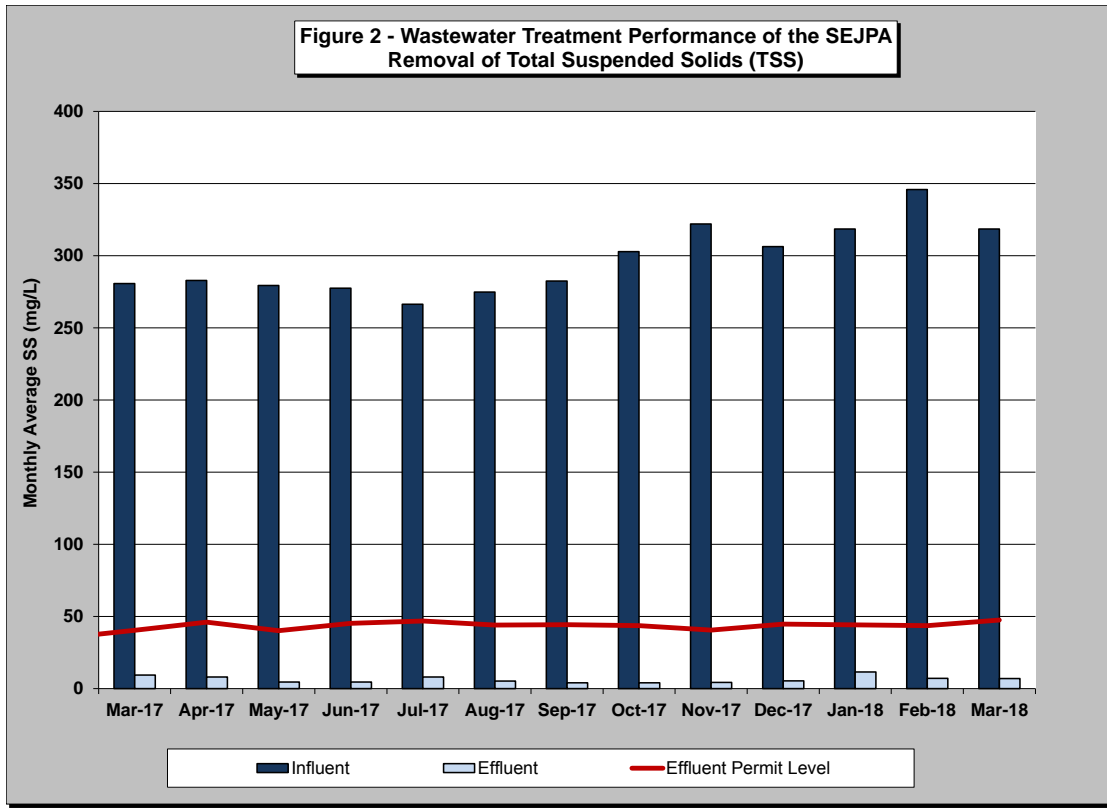
No action required. This memorandum is submitted for information only.

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 March 2018. 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 98.1 and 97.8 percent removal, respectively, (as shown in Figure 1 and Figure 2).





**Member Agency Flows**

Presented below are the influent and effluent flows for the month of March. Average daily influent flows were recorded for each Member Agency. Total effluent flow was calculated for the San Elijo Water Reclamation Facility. January 2017 was the first month that the City of Del Mar pumped flow to SEJPA. However, due to the treatment process upset and high influent flows associated with the January 2017 rain events, the flow was diverted back to San Diego JPA Metro. Currently, the City of Del Mar is in the process of eliminating high salinity infiltration that is occurring within the sanitary sewer collection system at the low lying beach areas. High salinity wastewater can negatively impact the biological treatment and water recycling process. The SEJPA began receiving wastewater flow from Del Mar again on March 29, 2018.

	<b>March</b>	
	<b><u>Influent (mgd)</u></b>	<b><u>Effluent (mgd)*</u></b>
Cardiff Sanitary Division	1.265	0.857
City of Solana Beach	0.922	0.625
Rancho Santa Fe SID	0.122	0.083
City of Del Mar	0.039	0.026
<b>Total San Elijo WRF Flow</b>	<b>2.348</b>	<b>1.591</b>

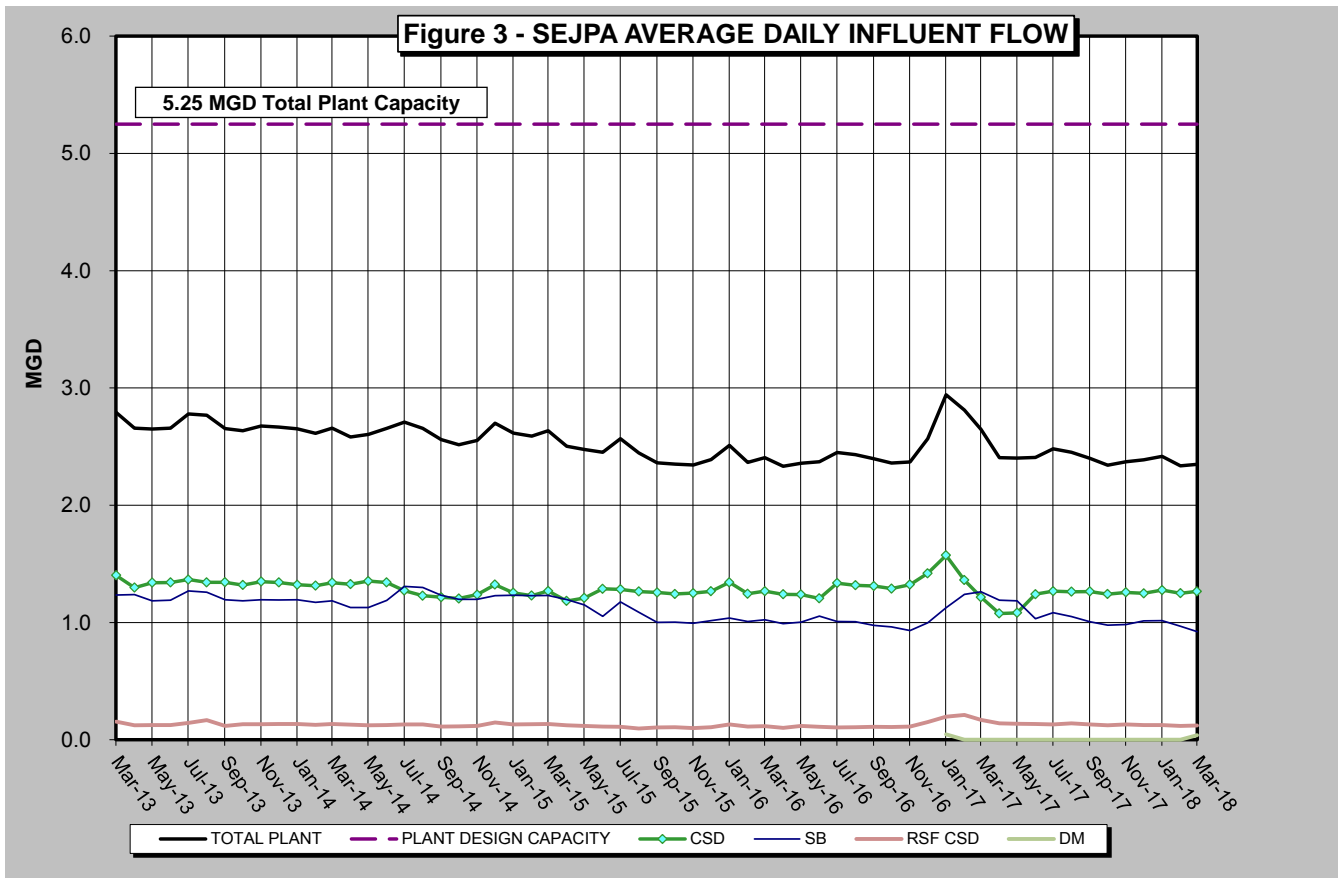
\* Effluent is calculated by subtracting the recycled water production from the influent wastewater.

Table 1 (below) presents the historical average, maximum, and unit influent and effluent flow rates per month for each of the Member Agencies during the past 5 years. It also presents the number of connected Equivalent Dwelling Units (EDUs) for each of the Member Agencies during this same time period.





Figure 3 (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 treated flow by each agency. Also shown in Figure 3 is the total wastewater treatment capacity of the plant, 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.



City of Escondido Flows

The average and peak flow rate for the month of March 2018 from the City of Escondido's Hale Avenue Resource Recovery Facility, which discharges through the San Elijo Ocean Outfall, is reported below.

	<b>Flow (mgd)</b>
Escondido (Average flow rate)	10.4
Escondido (Peak flow rate)	17.5

Connected Equivalent Dwelling Units

The City of Solana Beach updated the connected EDUs number that is reported to the SEJPA in July 2017. The City of Encinitas and Rancho Santa Fe CSD report their connected EDUs every month. The City of Del Mar reported their connected EDUs in March 2017; however, flows have been diverted to the San Diego Metro JPA due to high salinity which has recently been resolved. The number of EDUs connected for each of the Member Agencies is as follows:

	<b>Connected (EDU)</b>
Cardiff Sanitary Division	8,451
Rancho Santa Fe SID	555
City of Solana Beach	7,724
San Diego (to Solana Beach)	337
City of Del Mar	1,716
<b>Total EDUs to System</b>	<b>18,782</b>

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

May 14, 2018

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: SAN ELIJO WATER RECLAMATION PROGRAM – MONTHLY REPORT

RECOMMENDATION

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

DISCUSSION

*Recycled Water Production*

For the month of March 2018, recycled water demand was 65.56 acre-feet (AF), which was met using 65.56 AF of recycled water and 0.0 AF of supplementation with potable water.

The treatment plant recorded the most rain of any March since 2011 resulting in water sales being slightly below average and under budget for the month. Total sales for the fiscal year are still above the budgeted amount due to strong sales in December through February.

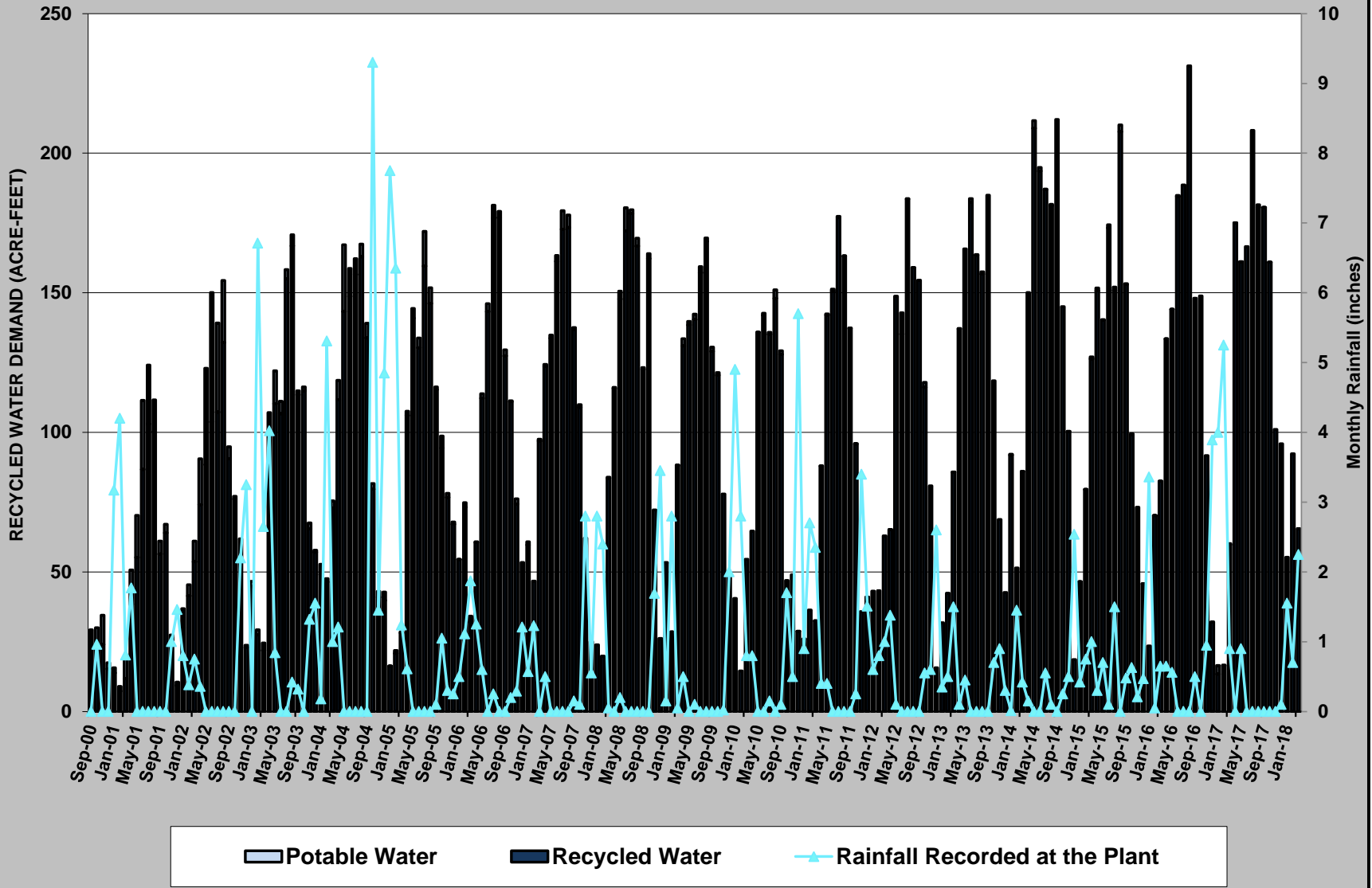
Figure 1 (attached) provides monthly demands for recycled water since deliveries began in September 2000. Figure 2 (attached) provides a graphical view of annual recycled water demand spanning the last 17 fiscal years. Figure 3 (attached) shows the monthly recycled water demand for each March since the program began. Figure 4 (attached) compares budget versus actual recycled water sales for FY 2017-18; currently sales are trending above budget.

Respectfully submitted,

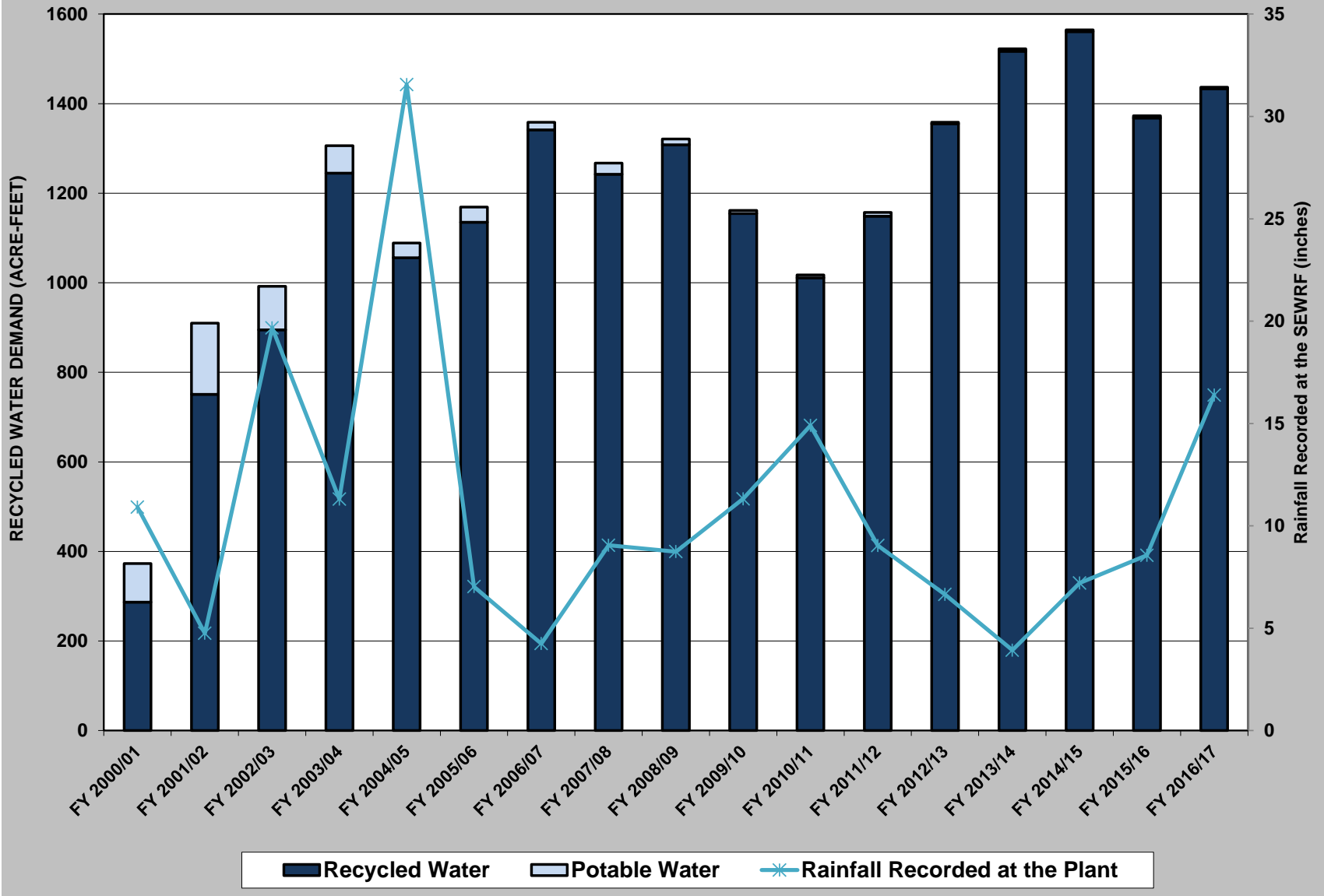


Michael T. Thornton, P.E.  
General Manager

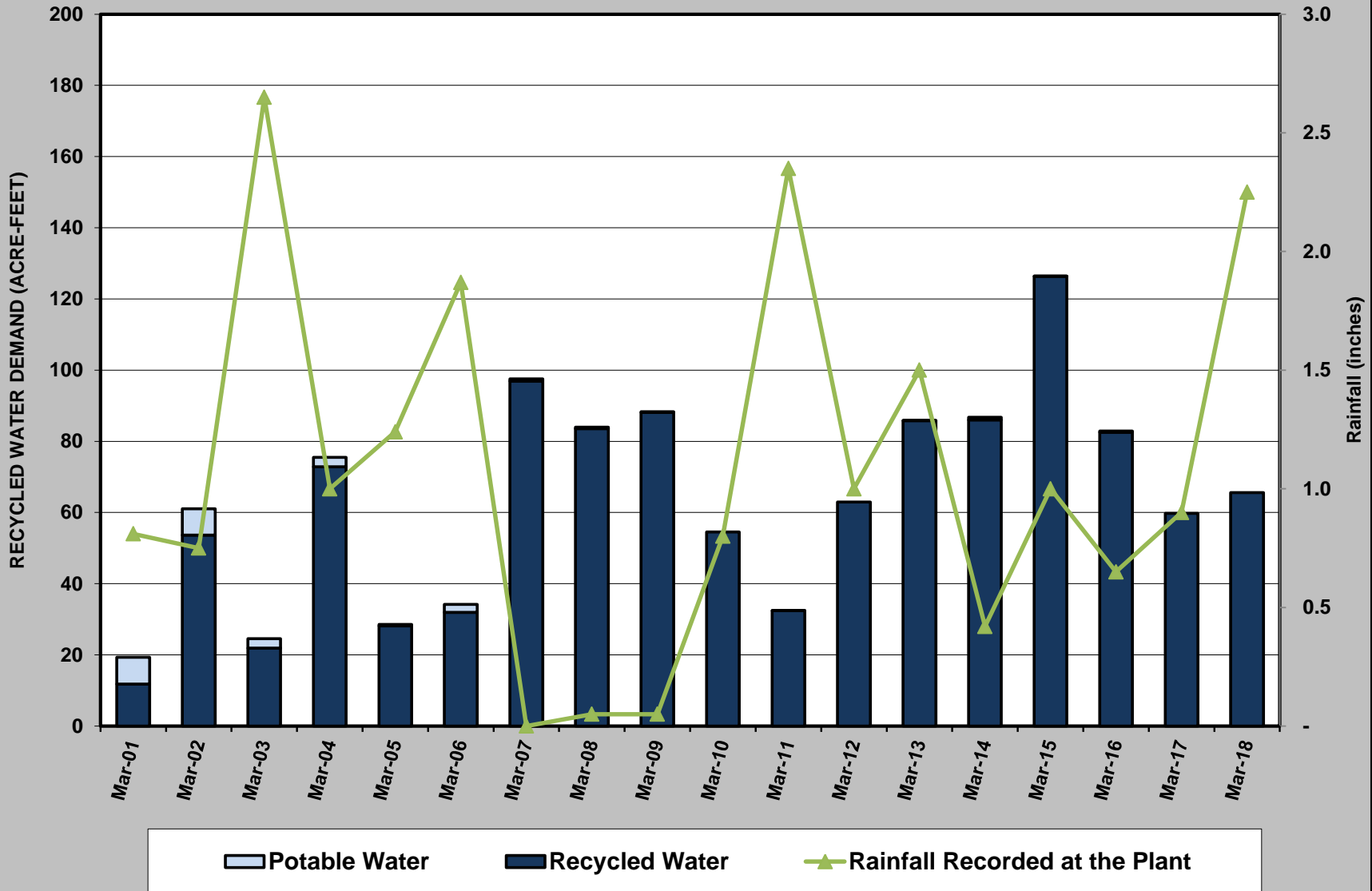
**Figure 1 - MONTHLY RECYCLED WATER DEMAND**



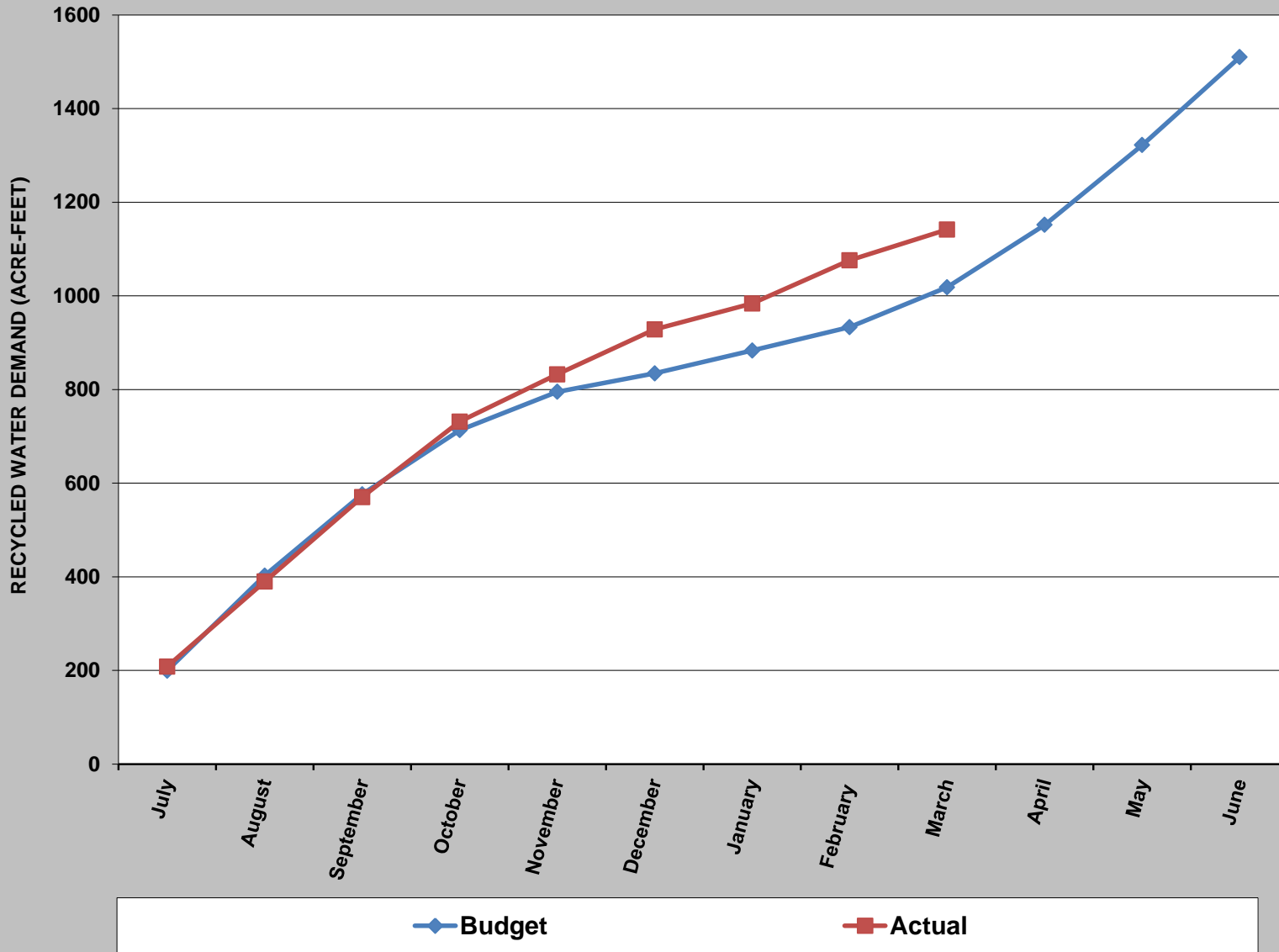
**Figure 2 - RECYCLED WATER DEMAND by FISCAL YEAR**



**Figure 3 - MARCH RECYCLED WATER DEMAND**



**Figure 4 - RECYCLED WATER DEMAND BUDGET vs ACTUAL**



SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

May 14, 2018

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: SAN ELIJO JOINT POWERS AUTHORITY CONTRACT FOR PROCUREMENT  
OF FERRIC CHLORIDE

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to enter into an agreement with Kemira Water Solutions, Inc. for the procurement of Ferric Chloride for an amount not to exceed \$44,460;
2. Discuss and take action as appropriate.

BACKGROUND

San Elijo Joint Powers Authority (SEJPA) and Encina Wastewater Authority (EWA) operate similar facilities in north coastal San Diego County. Over the last several years, the agencies have partnered to identify opportunities to share resources, collaborate on mutual aid, and create efficiencies to reduce costs and improve service.

Success has been obtained in shared HR services, safety inspections, and emergency response assistance. EWA and SEJPA have also implemented a labor leasing agreement that allows employee sharing between the agencies to address spikes in workloads and fluctuation in staffing, conduct special projects, or other assignments.

In 2016, EWA and SEJPA were successful in partnering on opportunities to reduce cost through bulk purchasing of supplies and services. Staff identified two chemicals (Sodium Hypochlorite and Ferric Chloride) that are common to the operation of both agencies and that are purchased in large quantities, usually through multi-year contracts.

Staff worked with Procopio Cory Hargreaves & Savitch LLP to develop joint agency agreements for bulk purchasing of supplies and services. The agreements address purchasing terms and responsibilities of each agency, as well as liability, indemnification, and insurance requirements



to reduce risk to all parties. In administering previous supply contracts, both EWA and SEJPA found that requesting bids together while issuing separate contracts to procure the chemicals was often the most efficient method of procurement.

## DISCUSSION

EWA staff solicited bids from three vendors for Ferric Chloride on February 23, 2018 and opened the bids on March 21, 2018. Two of the three vendors responded. The results are shown in the Table 1 below:

**Table 1: Ferric Chloride Bid Results**

<b>Vendor</b>	<b>Cost per Dry Ton</b>
<b>California Water Technologies</b>	\$ 509.00
<b>Kemira Water Solutions, Inc.</b>	\$ 494.00
<b>Univar USA</b>	No Bid

EWA entered into a contract with Kemira Water Solutions, Inc. at a price of \$494.00 per dry ton. Kemira Water Solutions, Inc. has offered to extend the same price for Ferric Chloride to SEJPA under the same terms of the EWA contract, similar to the contract method that was used in June 2016. The SEJPA Purchasing Policy and Procedures, Section 10.2 authorizes the General Manager to acquire supplies and equipment from or in cooperation with another governmental agency.

## FISCAL IMPACT

Adequate funding for the proposed chemical purchase is budgeted in the SEJPA Wastewater Treatment program.

It is therefore recommended that the Board of Directors:

1. Authorize the General Manager to enter into an agreement with Kemira Water Solutions, Inc. for the procurement of Ferric Chloride for an amount not to exceed \$44,460;
2. Discuss and take action as appropriate.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

Attachment 1: Agreement between San Elijo Joint Powers Authority and Kemira Water Solutions, Inc. for the Procurement of Ferric Chloride

## ATTACHMENT 1

### **AGREEMENT**

THIS AGREEMENT is made and entered into on this 1<sup>st</sup> day of July, 2018, by and between the San Elijo Joint Powers Authority, a municipal corporation, hereinafter referred to as AUTHORITY, and Kemira Water Solutions, Inc., hereinafter referred to as SUPPLIER.

#### WITNESSETH:

WHEREAS, Encina Wastewater Authority (EWA) invited bids for the provision of Ferric Chloride.

WHEREAS, pursuant to said invitation, SUPPLIER submitted a bid which was accepted by EWA for said services.

WHEREAS, AUTHORITY desires and SUPPLIER is willing to provide said services to AUTHORITY on the same pricing terms as EWA, as described in the letter dated \_\_\_\_\_, 2018, attached hereto and incorporated herein.

NOW THEREFORE, in consideration of their mutual promises, obligations and covenants hereinafter contained, the parties hereto agree as follows:

1. TERM. The term of this Agreement shall be from the date this Agreement is made and entered, as first written above, until June 30, 2019.
2. AUTHORITY'S OBLIGATIONS. For furnishing services or supplies as specified in the Agreement, AUTHORITY will pay and SUPPLIER shall receive compensation for Ferric Chloride at the unit price of \$494 per dry ton. The total amount of Ferric Chloride to be purchased under this Agreement has been estimated to be 90 dry tons per year, but actual usage may be considerably less. In no case will total compensation exceed \$44,460. The unit cost and total cost shall include all delivery, tax and shipping charges.

Payments to the SUPPLIER shall be made within forty-five (45) days after receipt of an original invoice from the SUPPLIER and provision of said services to AUTHORITY. SUPPLIER shall invoice no more frequently than monthly for services or supplies provided. Neither AUTHORITY'S acceptance of, nor payment for any of the services, shall be construed to operate as a waiver of any rights under this Agreement or any cause of action arising out of the performance of this Agreement.

3. SUPPLIER'S OBLIGATIONS. For and in consideration of the payments and agreements hereinbefore mentioned to be made and performed by AUTHORITY, SUPPLIER agrees with AUTHORITY to furnish the said services and to do everything required by this Agreement and the said specifications. Without limiting the generality of the foregoing, SUPPLIER warrants on behalf of itself and all sub-SUPPLIERS engaged for the performance of this Agreement that only persons authorized to work in the United States pursuant to the Immigration Reform and Control Act of 1986 and other applicable laws shall be employed in the performance of the work hereunder. In performing services under this Agreement, SUPPLIER agrees to comply with all laws, rules and regulations and ordinances, whether federal, state or local, and any and all AUTHORITY policies, procedures, departmental rules or other directives applicable to the services to be performed by provided by AUTHORITY'S General Manager or his designee, to

SUPPLIER. Any changes to AUTHORITY'S policies and procedures that relate to SUPPLIER will be provided to SUPPLIER in writing. SUPPLIER agrees to review such policies, procedures, rules and directives and the contents of which SUPPLIER will be deemed to have knowledge. SUPPLIER shall ensure that any report generated under this Agreement complies with California Government Code section 7550.

4. HOLD HARMLESS AND INDEMNIFICATION. SUPPLIER agrees to defend, indemnify, and hold harmless AUTHORITY, its member agencies (to include the City of Encinitas and the City of Solana Beach), and each of their respective directors, officials, officers, employees, representatives, and agents (collectively, "Indemnified Parties"), from and against all claims, lawsuits, liabilities or damages, including attorney's fees and costs, of whatsoever nature arising out of or in connection with, or relating in any manner to any act or omission of SUPPLIER, its agents, employees, and sub-SUPPLIERS of any tier and employees thereof in connection with the performance or non-performance of this Agreement. The SUPPLIER shall thoroughly investigate any and all claims and indemnify the Indemnified Parties and do whatever is necessary to protect the Indemnified Parties as to any such claims lawsuits, liabilities, expenses, or damages.
  
5. INSURANCE. During the course of the Agreement, SUPPLIER shall pay for and maintain, in full force and effect, all insurance required by any governmental agency having jurisdiction to require particular insurance of SUPPLIER in connection with or related to the work covered hereby. SUPPLIER SHALL FURTHER TAKE OUT AND SHALL FURNISH SATISFACTORY PROOF BY CERTIFICATE OR OTHERWISE AS MAY BE REQUIRED, THAT HE HAS TAKEN OUT COMPREHENSIVE GENERAL LIABILITY INSURANCE AND AUTO LIABILITY WITH AUTHORITY, ITS MEMBER AGENCIES (TO INCLUDE THE CITY OF ENCINITAS AND THE CITY OF SOLANA BEACH), AND EACH OF THEIR RESPECTIVE DIRECTORS, OFFICIALS, OFFICERS, EMPLOYEES, REPRESENTATIVES AND AGENTS ("INSURED PARTIES") NAMED HEREIN AS ADDITIONAL INSUREDS, AS WELL AS ALL OTHER COVERAGE REQUIRED BY THIS AGREEMENT. Insurance carrier shall be satisfactory to AUTHORITY, and insurance shall be purchased from insurance companies with a current A.M. Best rating of no less than A:VII, unless otherwise agreed in writing by AUTHORITY. Insurance shall be in such form approved by AUTHORITY so as to protect all Insured Parties against loss from liability assumed by contract or imposed by law from damages on account of bodily injury, including death resulting therefrom, suffered or alleged to have been suffered by any person or persons, other than employees, resulting directly or indirectly from the negligent performance or execution of this Agreement by SUPPLIER or any subcontract with SUPPLIER thereunder, and also to protect all Insured Parties against loss from liability imposed by law for damage to any property, caused directly or indirectly by the negligent performance or execution or the Agreement by SUPPLIER; which insurance shall also cover accidents arising out of the use and operation of owned, non-owned and hired automobiles, trucks, and/or other mobile equipment. Automobile liability shall be at least as broad as form number CA 0001, covering code 1 (any auto), covering bodily injury and property damage, with a combined single limit of no less than \$1,000,000 per claim for bodily injury and property damage. General liability shall be at least as broad as occurrence form CG 0001, covering bodily injury, personal injury and property damage. The amounts of coverage of said insurance shall not be less than the following:

Public Liability	\$1,000,000 single limit/\$3,000,000 aggregate
Property Damage	\$1,000,000 single limit/\$3,000,000 aggregate

SUPPLIER shall further maintain adequate Worker's Compensation Insurance, including occupational disease provisions, under the laws of the State of California and employer's general liability insurance for the benefit of its employees with a combined single limit of no less than \$1,000,000 per claim for bodily injury or disease, and shall require similar insurance to be provided by its sub-SUPPLIERS. A certificate shall be furnished to AUTHORITY showing compliance with above.

Said policies shall have a non-cancellation clause providing that thirty (30) days written notice shall be given to AUTHORITY prior to any material modification or cancellation, and a certificate of such insurance shall be furnished to AUTHORITY by direct mail from SUPPLIER'S insurance carrier and shall specifically cover any contractual liability incurred hereunder.

All insurance policies shall be on an occurrence basis and cover the period of performance under this Agreement.

The coverage shall contain no special limitations on the scope of protection afforded to the Insured Parties.

SUPPLIER'S Insurance shall be primary insurance as respects the Insured Parties, and each of them. Any insurance, self-insurance or other coverage maintained by Insured Parties shall be excess of the SUPPLIER'S insurance and not contribute to it.

SUPPLIER hereby agrees to waive rights of subrogation which any insurer of SUPPLIER may acquire from SUPPLIER by virtue of the payment of any loss. SUPPLIER agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. The workers' compensation policy shall be endorsed with a waiver of subrogation in favor of the Insured Parties for all work performed by the SUPPLIER, its employees, agents and sub-SUPPLIERS.

Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to Insured Parties.

SUPPLIER'S insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of insurer's liability.

All insurance policies shall specifically cover any contractual liability incurred pursuant to this Agreement.

Any deductibles or self-insured retention limits must be disclosed to and approved by AUTHORITY prior to execution of this Agreement. At the option of AUTHORITY, either: the insurer shall reduce or eliminate such deductibles as respects the Insured Parties; or SUPPLIER shall provide a financial guarantee satisfactory to AUTHORITY guaranteeing payment of losses and related investigations, claim administration and defense expenses.

SUPPLIER shall furnish to AUTHORITY certificates of insurance prior to the commencement of work under this Agreement, and as may be periodically requested by AUTHORITY. SUPPLIER shall include all endorsements necessary to comply with this Agreement, including additional insured endorsements, signed by the insurer's

representative. Such evidence shall include confirmation that coverage includes or has been modified to include all provisions required by this Agreement. SUPPLIER shall, upon request of AUTHORITY at any time, deliver to AUTHORITY complete, certified copies of the policies of insurance, including endorsements, and receipts for payment or premiums thereon, required by this Agreement. Failure to obtain the required documents prior to the work beginning shall not waive SUPPLIER'S obligation to provide them.

If any of the required coverages expire during the term of this Agreement, SUPPLIER shall deliver the renewal certificate(s) including the general liability and auto liability additional insured endorsements to AUTHORITY at least ten (10) days prior to the expiration date.

In the event that SUPPLIER employs sub-SUPPLIERS to perform any portion of the services to be performed pursuant to this Agreement, it shall be SUPPLIER'S responsibility to require and confirm that each sub-SUPPLIER meets the minimum insurance requirements specified in this Agreement.

6. AMENDMENTS. Any amendment, modification, or variation from the terms of this Agreement shall be in writing and shall be effective only upon written approval by the Manager of the AUTHORITY.
7. TERMINATION. If, during the term of this contract, AUTHORITY determines that SUPPLIER is not faithfully abiding by any term or condition contained herein, AUTHORITY may notify SUPPLIER in writing of such defect or failure to perform; which notice must give SUPPLIER five (5) working days thereafter in which to perform said work or cure the deficiency. If SUPPLIER has not performed the work or cured the deficiency within five (5) days specified in the notice, such shall constitute a breach of this contract and AUTHORITY may terminate this contract immediately by written notice to SUPPLIER to said effect. Thereafter, neither party shall have any further duties, obligations, responsibilities, or rights under this Agreement, except, however, any and all indemnification, hold harmless and defense obligations of SUPPLIER shall remain in full force and effect, and shall not be extinguished, reduced, or in any manner waived by the termination hereof. In said event, SUPPLIER shall be entitled to the reasonable value of its services performed from the beginning of the period in which the breach occurs up to the day it received AUTHORITY's Notice of Termination, minus any offset from such payment representing AUTHORITY's damages from such breach. AUTHORITY reserves the right to delay any such payment, to allow for a full and complete accounting of costs. In no event, however, shall SUPPLIER be entitled to receive in excess of the compensation quoted in its bid.
8. STATUS OF SUPPLIER. SUPPLIER and its employee(s) are engaged in an independent SUPPLIER relationship with AUTHORITY in performing all work, duties and obligations hereunder. AUTHORITY shall not exercise any control or direction over the methods by which SUPPLIER shall perform its work and functions. AUTHORITY'S sole interest and responsibility is to ensure that the services covered by this Agreement are performed and rendered in a competent, satisfactory and legal manner. SUPPLIER represents that its employee(s) have the qualifications and skills necessary to perform the services under this Agreement in a competent, professional manner, without the advice or direction of AUTHORITY. SUPPLIER will supply all tools, materials and equipment required to perform the services under this Agreement. The parties agree that no work, act, commission or omission of SUPPLIER or its employee(s) pursuant to this

Agreement shall be construed to make SUPPLIER and its employee(s) the agent, employee or servant of AUTHORITY. SUPPLIER and its employee(s) are not entitled to receive from AUTHORITY vacation pay, sick leave, retirement benefits, Social Security, workers' compensation, disability benefits, unemployment benefits or any other employee benefit of any kind. SUPPLIER shall be solely responsible for paying all federal and state employment and income taxes, for carrying workers' compensation insurance and for otherwise complying with all other employment law requirements with respect to SUPPLIER or its employee(s). To the maximum extent allowable by law, SUPPLIER agrees to indemnify, defend and hold AUTHORITY harmless from any and all liability, damages or losses (including attorney's fees, costs, penalties and fines) AUTHORITY suffers as a result of (a) SUPPLIER'S failure to meet its employer obligations, or (b) a third party's designation of SUPPLIER or its employee as an employee of AUTHORITY, regardless of any actual or alleged negligence by AUTHORITY.

9. ASSIGNMENT. Neither this Agreement nor any duties or obligations under this Agreement may be assigned or subcontracted by SUPPLIER without the prior written consent of AUTHORITY. AUTHORITY has entered into this Agreement in order to receive the professional services of SUPPLIER. The provisions of this Agreement shall apply to any sub-SUPPLIER of SUPPLIER. AUTHORITY shall have the right to approve any sub-SUPPLIER agreements, in addition to the written consent required by this section.
10. PROPRIETARY RIGHTS. Any written, printed, graphic, or electronically or magnetically recorded information furnished by AUTHORITY for SUPPLIER'S use are the sole property of AUTHORITY. SUPPLIER and its employee(s) will keep any information identified by AUTHORITY as confidential in the strictest confidence, and will not disclose it by any means to any person except with AUTHORITY approval, and only the extent necessary to perform the services under this Agreement. This prohibition also applies to SUPPLIER'S employees, agents, and sub-SUPPLIERS. On termination of this Agreement, SUPPLIER will promptly return any confidential information in its possession to AUTHORITY.
11. PARTIAL INVALIDITY. If any non-material provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will continue in full force and effect without being impaired or invalidated in any way.
12. COUNTERPARTS. This Agreement may be executed in counterparts, each of which shall constitute an original, but all of which together shall constitute one and the same agreement, and the signature of any party to any counterpart shall be deemed a signature to, and may be appended to, any other counterpart.
13. PROVISIONS REQUIRED BY LAW. Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed to be inserted herein, and the Agreement shall be read and enforced as though they were included herein. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the request of either party, the Agreement shall forthwith be physically amended to make such insertion.
14. GOVERNING LAW. This Agreement and all questions relating to its validity, interpretation, performance, and enforcement (including, without limitation, provisions

concerning limitations of actions), shall be governed by and construed in accordance with the laws of the State of California, notwithstanding any conflict-of-laws doctrines of such state or other jurisdiction to the contrary and without the aid of any canon, custom, or rule of law requiring construction against the draftsman.

15. JURISDICTION, FORUM AND VENUE. The proper jurisdiction, forum and venue for any claims, causes of action or other proceedings concerning this Agreement shall be in the state and federal courts located in the State of California, County of San Diego. AUTHORITY and SUPPLIER agree not to bring any action or proceeding arising out of or relating to this Agreement in any other jurisdiction, forum or venue. AUTHORITY and SUPPLIER hereby submit to personal jurisdiction in the State of California for the enforcement of this Agreement and hereby waive any and all personal rights under the law of any state to object to jurisdiction within the State of California for the purposes of any legal action or proceeding to enforce this Agreement, whether on grounds of inconvenient forum or otherwise.
16. COMPLETE AGREEMENT. This written Agreement, including all writings specifically incorporated herein by reference, shall constitute the complete agreement between the parties hereto. No oral agreement, understanding, or representation not reduced to writing and specifically incorporated herein shall be of any force or effect, nor shall any such oral agreement, understanding, or representation be binding upon the parties hereto.
17. AUDIT. AUTHORITY shall have the option of inspecting and/or auditing all records and other written materials used by SUPPLIER in preparing its statements to AUTHORITY as a condition precedent to any payment to SUPPLIER. This Agreement is subject to examination and audit of the State Auditor, at the request of AUTHORITY or as part of any audit of AUTHORITY, for a period of three (3) years after final payment under the Agreement. SUPPLIER shall cooperate with AUTHORITY, including any authorized representatives of AUTHORITY, regarding any such audit at no charge to AUTHORITY.
18. NOTICE. All written notices to the parties hereto shall be sent by United States mail, postage prepaid by registered, certified, or first class mail addressed as follows:

AUTHORITY

General Manager  
San Elijo Joint Powers Authority  
2695 Manchester Avenue  
Cardiff, CA 92007

SUPPLIER

Kemira Water Solutions, Inc.  
4321 W. 6<sup>th</sup> Street  
Lawrence, KS 66049

Notices shall be deemed communicated as of the day of receipt or the fifth day after mailing, whichever occurs first.

19. PROTECTION OF EXISTING FACILITIES AND NON-INTERFERENCE WITH PLANT OPERATIONS. SUPPLIER shall perform his duties in such a way that there will be no damage done to existing facilities and all facilities shall be left in the condition they were in prior to the beginning of the contract. SUPPLIER will also perform all work in such a way that there is no interference with plant operations.
20. AUTHORITY TO EXECUTE AGREEMENT. AUTHORITY and SUPPLIER do covenant that the individual executing this agreement on their behalf is a person duly authorized and empowered to execute this Agreement for such party.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed the day and year first above written.

SAN ELIJO JOINT POWERS AUTHORITY

By: \_\_\_\_\_  
Michael T. Thornton, P.E.  
General Manager

KEMIRA WATER SOLUTIONS, INC.

By: \_\_\_\_\_ (Signature)  
Name: \_\_\_\_\_ (Print)  
Title: \_\_\_\_\_



SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

May 14, 2018

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: Director of Finance/Administration

SUBJECT: SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2018-19  
RECOMMENDED BUDGET UPDATE

RECOMMENDATION

It is recommended that the Board of Directors:

- 1. Discuss and take action as appropriate.

BACKGROUND

Each year, the San Elijo Joint Powers Authority (SEJPA) prepares a recommended budget for the upcoming fiscal year. This budget is presented to the Board in April, and becomes a public document for comments and suggested changes by the Board, Member Agencies, other government agencies that receive services from the SEJPA, and the public.

DISCUSSION

At the April 2018 SEJPA Board meeting, Staff presented the FY 2018-19 Recommended Budget to the Board of Directors for public review and comment. In addition, the budget has been provided to staff of both Member Agencies as well as other government agencies that utilize SEJPA's services.

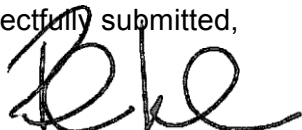
The budget is consistent with the Member Agencies' expectations for their sewer rate structures. To date, the SEJPA has not received any proposed changes from the Member Agencies or other participating government agencies, as well as no public comments.

The budget will be presented to the Board of Directors for adoption at the June meeting along with the investment policy and appointment of SEJPA Treasurer.

It is, therefore, recommended that the Board of Directors:

- 1. Discuss and take action as appropriate.

Respectfully submitted,



\_\_\_\_\_  
Paul F. Kinkel  
Director of Finance/Administration

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

May 14, 2018

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: RECYCLED WATER COST OF SERVICE AND PROPOSED WHOLESAL  
RATES FOR 2018, 2019, AND 2020

RECOMMENDATION

It is recommended that the Board of Directors:

1. Accept and file the Raftelis Financial Consultants Recycled Water Rate Review and Update;
2. Approve 3.8% annual Recycled Water Rate increase to Santa Fe Irrigation District (SFID), San Dieguito Water District (SDWD), Olivenhain Municipal Water District (OMWD), and the City of Del Mar beginning July 1, 2018, July 1, 2019, and again beginning July 1, 2020; and
3. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) owns and operates a utility that wholesales 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; and also has an interruptible service agreement directly with the Encinitas Ranch Golf Authority (ERGA). The agreement between the SEJPA and the water purveyors provides the allowance for annual price increases as prescribed through a cost of service methodology.

The SEJPA retained Raftelis Financial Consultants (RFC) to prepare a recycled water cost of service report and to develop recommendations for future rate increases. The report provides the basis for the cost of recycled water service, which was developed through a detailed review of current and estimated future expenses (operational, capital, debt, and reserve requirements) of the Recycled Water Program. The report then analyzed the program's current and estimated future revenues (water sales, grants, and incentives) to determine adequacy of revenues to meet expenses.

## DISCUSSION

At the April 2018 SEJPA Board meeting, Staff presented the Recycled Water Rate Review and Update (Attachment 1) prepared by RFC. Staff informed the Board that this item was being presented for public discussion in April 2018 and that it would be returned in May 2018 for consideration to accept and file the report and take action on setting future recycled water pricing.

The report recommends 3.8% annual price increases for the non-interruptible customers through FYE 2021. In 2021, the need for further rate increases can be reviewed.

Staff has provided the report to the water purveyors served by the recycled water utility. The water purveyors' staff expressed appreciation for the inclusion in the process, and agreed with the 3.8% recommendation for FY 2018-19, FY 2019-20, and FY 2020-21.

## FINANCIAL IMPACT

Based on budgeted and projected revenues and expenses, the proposed recycled water rates will result in adequate revenues for the utility in FY 2018-19, FY 2019-20 and FY 2020-21. The basis for the 3.8% annual rate increase is supported by the cost of service evaluation conducted by RFC to fund operating expenses, capital, debt, and repair and replacement reserves. The proposed rate increase will provide adequate revenues to fund 90 days operating cash, one year of debt service, and begin funding an asset repair and replacement reserve.

It is therefore recommended that the Board of Directors:

1. Accept and file the Raftelis Financial Consultants Recycled Water Rate Review and Update;
2. Approve 3.8% annual Recycled Water Rate increase to Santa Fe Irrigation District (SFID), San Dieguito Water District (SDWD), Olivenhain Municipal Water District (OMWD), and the City of Del Mar beginning July 1, 2018, July 1, 2019 and again beginning July 1, 2020; and
3. Discuss and take action as appropriate.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

Attachment 1: Raftelis Financial Consultants Recycled Water Rate Review and Update



RAFTELIS

150 North Santa Anita Avenue, Suite #470  
Arcadia, CA 92006  
Phone (626)583-1894  
[www.raftelis.com](http://www.raftelis.com)

## ATTACHMENT 1

March 29, 2018

San Elijo Joint Powers Authority  
2695 Manchester Avenue  
Cardiff by the Sea, CA 92007  
Attention: Mr. Paul Kinkel, Director of Finance & Administration

**Subject: Recycled Water Rate Review and Update**

Dear Mr. Kinkel:

The San Elijo Joint Powers Authority (SEJPA) engaged Raftelis Financial Consultants, Inc. (Raftelis) to conduct a cost of service analysis and calculate recycled water rates in a recycled water rate study (Study). This analysis serves as a review and update of Raftelis' calculation of rates in Fiscal Year Ending (FYE) 2014 and 2016 using a Cash Basis approach to calculating the rates.

### 1. Introduction

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The SEJPA owns and operates a recycled water utility, which in September 2000 commenced service to Santa Fe Irrigation District (SFID), the San Dieguito Water District (SDWD), and the City of Del Mar (together the "participating water agencies"). In 2011, SEJPA began providing interruptible service to the Encinitas Ranch Golf Authority (ERGA), as part of a three-way agreement between SEJPA, SDWD, and ERGA. In October 2012, SEJPA began providing recycled water service to Olivenhain Municipal Water District (OMWD).

The original recycled water system includes tertiary treatment, transmission, storage, and distribution facilities. In 2013, SEJPA completed construction of an advanced water purification (AWP) facility that reduces the Total Dissolved Solids (TDS) and expands recycled water production by 22 percent. Controlling TDS reduces the hardness of the recycled water, and was instrumental in expanding service to cooling towers and other salt-sensitive uses.

In 2017, SEJPA and OMWD completed construction on the Village Park Recycled Water Project. This joint agency project included the construction of 8 miles of pipelines, the conversion of an existing 1 million-gallon potable water steel reservoir to recycled water, and the connection of up to 26 new customer sites. Pipeline and reservoir construction has been completed, and work continues for the connection of new customers to the system.

Recycled water produced by SEJPA is used to offset potable water demands, which improves the region's water reliability. SEJPA's recycled water system has the capacity to deliver 3 million gallons per day (mgd) or approximately 1,800 to 2,000 acre-feet per year (AFY). Recycled water sales have been as high as 1,562 AFY; however, FYE 2016's sales have declined to approximately 1,368 AFY. SEJPA attributes this reduction to strong water conservation messaging that resulted in conservation of both potable and recycled water. Other recycled water suppliers have experienced similar reductions during that period.

## 2018 Recycled Water Rate Study

San Elijo Joint Powers Authority

While SEJPA supports water use efficiency, its recycled water system will be most cost-effective for all users when its average annual delivery rates are closer to the full system design capacity.

SEJPA’s agreements with SFID, SDWD, OMWD, and the City of Del Mar include “minimum annual purchase volumes”, and the interruptible service agreement with ERGA includes a minimum annual delivery volume. These minimum volumes set a revenue floor resulting in sustainability. Table 1-1 below lists the minimum purchase commitments for each agency:

**Table 1-1 – Minimum Purchase Commitments for SEJPA Recycled Water**

Water Purveyors	Minimum Purchase Volume (AFY)				
	FYE 2017	FYE 2018	FYE 2019	FYE 2020	FYE 2021
<b>Santa Fe Irrigation District</b>	450	450	450	450	450
<b>City of Del Mar</b>	120	120	120	120	120
<b>Olivenhain Water District</b>	85	100	125	155	185
<b>San Dieguito Water District</b>	400	400	400	400	400
<b>ERGA</b>	200	200	200	200	200
<b>Total</b>	<b>1,255</b>	<b>1,270</b>	<b>1,295</b>	<b>1,325</b>	<b>1,355</b>

Providing direct interruptible service to ERGA’s Golf Course storage pond has resulted in operational efficiencies for the SEJPA. In addition, the interruptible service coupled with a large water storage pond at the golf course improves system hydraulics, and allows the SEJPA to serve additional customers. In its supply agreement with OMWD, SEJPA has provided for an “infrastructure credit” or “rent back,” as OMWD has constructed the recycled water distribution infrastructure within its service area. Without this infrastructure (valued at approximately \$10.2 million), the SEJPA could not provide recycled water service to OMWD’s customers. In a similar fashion, the SEJPA purchased a recycled water pipeline from SFID with loan payments of \$450 per AF sold through the pipeline, which includes interest that varies from 1.0% to 2.5%. Since its construction, approximately 155 AF has been delivered through the SFID pipeline.

The original recycled water sales agreements tied the price of recycled water to 85% of the potable water rate. During FYE 2014 and FYE 2015, the SEJPA decoupled the price of recycled water from the potable water rates, and developed a single unified rate for all uninterruptible service customers. This rate was based on cost of service. The ERGA interruptible contract extends to June 30, 2024 (with an option to extend), and includes annual rate increases of 4%. In addition to the revenue from customers, the SEJPA also receives incentives from the Southern California Metropolitan Water District (MWD) and the San Diego County Water Authority (CWA) to develop recycled water supplies. These incentives are \$250 and \$200 per AF from MWD and CWA, respectively.

## 2. Assumptions

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The purpose of the study is to provide recommendations for SEJPA recycled water wholesale pricing for FYE 2018, 2019, and 2020. Based on the structure of current wholesale agreements, water rate adjustments will occur on the first day of each fiscal year (i.e., July 1, 2018). Furthermore, the existing agreements have a floor and ceiling provision that range bounds future water rate increases between 3% and 5%. The last rate increase, implemented in 2016, applied a 4% annual rate escalation over a two-year period. The 2016 Study also provided long range financial forecasting that supported future rates rising between 3% and 5% annually.

In developing this Study, revenues and expenses associated with the recycled water program were based on actual and budgeted revenues and expenses, as well as forward looking assumptions that impact the financial models. Actual revenue and expense data were obtained from audited financial statements, and forward looking assumptions were based on estimates, current year budgets, and discussions with staff from the SEJPA and water purveyors regarding future trends. Assumptions include inflation factors, future recycled water sales, potential grant funding, and payment terms for proposed new debt.

### 1. Recycled Water Demand

The Study assumes that the recycled water program will experience an increase in new water sales over the term of the study as a result of new customers within the existing service areas of SDWD, SFID, OMWD, and Del Mar.

Projected usage changes across the Study period were developed with input from the SEJPA and the local water districts. As noted earlier, usage reduction in FYE 2016 was likely due to conservation efforts in response to drought messaging. More typical usage levels returned in FYE 2017, and usage for FYE 2018 has been tracking above average, which is likely due to drier than normal weather coupled with the addition of new customer sites.

Over the last 12 months, 18 new customer sites have been added and additional sites are planned over the next three years. **Table 2-1** lists the SEJPA's projected usages for the customer base during the study period. The table also provides the total revenue-generating AF by using ERGA's minimum contracted delivery volume of 200 AFY.

**2018 Recycled Water Rate Study**  
San Elijo Joint Powers Authority

**Table 2-1 –Actual and Projected Recycled Water Usage**

Customer	Usage in Acre Feet						
	Actual Usage			Forecast Usage			
	FYE 2015	FYE 2016	FYE 2017	FYE 2018*	FYE 2019	FYE 2020	FYE 2021
Santa Fe Irrigation District	524	492	490	534	540	545	550
City of Del Mar	136	118	123	120	125	128	129
Olivenhain Water District	144	86	141	191	200	210	212
San Dieguito Water District	402	350	390	430	440	460	465
Revenue based on AF	<b>1,206</b>	<b>1,046</b>	<b>1,144</b>	<b>1,275</b>	<b>1305</b>	<b>1,343</b>	<b>1,356</b>
Encinitas Ranch Golf Authority (ERGA)	356	322	289	300	300	300	300
<b>Total Usage</b>	<b>1,562</b>	<b>1,368</b>	<b>1,433</b>	<b>1,575</b>	<b>1,605</b>	<b>1,643</b>	<b>1,656</b>
Less: ERGA Interruptible Supply (over 200 AF)	-156	-122	-89	-100	-100	-100	-100
<b>Total Revenue Generating Usage</b>	<b>1,406</b>	<b>1,246</b>	<b>1,344</b>	<b>1,475</b>	<b>1,505</b>	<b>1,543</b>	<b>1,556</b>

\* FYE 2018 Recycled Water usage is based on 8 months of actual usage data.

**Table 2-2 –Actual and Projected Recycled Water Revenue**

Customer	Revenue						
	Actual			Forecast (3.8% Increase)			
	FYE 2015	FYE 2016	FYE 2017	FYE 2018*	FYE 2019	FYE 2020	FYE 2021
Santa Fe Irrigation District	724,137	666,806	657,814	782,844	821,880	861,011	902,666
City of Del Mar	171,062	162,720	170,647	175,920	190,250	202,219	212,002
Olivenhain Water District	184,389	117,226	196,209	280,006	304,400	331,766	347,816
San Dieguito Water District	527,789	542,403	556,629	630,380	669,680	726,725	761,883
Revenue based on AF	<b>1,607,377</b>	<b>1,489,155</b>	<b>1,581,299</b>	<b>1,869,150</b>	<b>1,986,210</b>	<b>2,121,721</b>	<b>2,224,367</b>
Encinitas Ranch Golf Authority	225,736	237,024	248,876	258,830	269,183	279,951	291,149
MWD/CWA Incentives	702,675	615,600	644,805	708,750	720,000	720,000	720,000
<b>Total Revenue</b>	<b>2,535,788</b>	<b>2,341,779</b>	<b>2,474,980</b>	<b>2,836,730</b>	<b>2,975,393</b>	<b>3,121,672</b>	<b>3,235,516</b>

## 2. Inflation

Assumed inflationary factors for operations and maintenance (O&M) costs are shown in **Table 2-3**. In examining program costs, it was determined that some costs do not fluctuate significantly with the change in recycled water produced and delivered by the utility. Some of these “fixed” costs have historical variances due to the focus on increasing the service area, insurance increases, and the timing of certain costs such as repair parts and miscellaneous expenses. The two primary expenses that fluctuate with water production and delivery are power (utilities) and chemicals (supplies). To develop future operating expenses, these costs were multiplied by both an inflationary factor and by the anticipated production percentage increase. Rent associated with the usage of OMWD distribution infrastructure varies dependent on the number of acre-feet delivered to OMWD. **Table 2-3** lists Study inflation factors by operating expense type.

**Table 2-3 –Inflation Factors**

Operating Expense	Type of Expense	Inflation and Assumption Factors
Utilities	Variable	4.0%
Infrastructure Rent	Variable	Unit price fixed; dependent on units delivered
Supplies	Variable	3.0%
All other costs	Fixed	3.0%



### 3. Operating Expenses

The Study was based on a review of the utility’s O&M expenses. Section 4 discusses debt service and Section 5 outlines reserve requirements. **Table 3-1** shows the O&M expenses inflated across the study period using the inflation factors described in **Table 2-3** beginning with FYE 2018. For Utilities (which consists primarily of Power costs) and Supplies (primarily Chemical costs), these expenses are influenced by both water production and delivery (sales), as well as inflation. Capital Outlay is an expense category for repair and replacement items that are considered capital not operational for financial reporting purposes. Capital outlay for FYE 2019 is planned at \$15,000 and is assumed to increase at 3.0% annually.

**Table 3-1 – Operating and Maintenance Expenses**

Operating Expenses	Actual FYE 2016	Actual FYE 2017	Est. Actual FYE 2018	Projected FYE 2019	Projected FYE 2020	Projected FYE 2021
Personnel Costs	\$567,376	\$537,467	\$524,025	\$542,798	\$559,082	\$575,854
Utilities	271,007	277,749	316,468	356,123	379,137	397,525
Contracted Services	206,241	135,405	243,196	247,283	254,701	262,343
Supplies	100,951	105,305	116,741	123,191	129,891	134,881
Repair Parts	60,113	53,449	41,048	55,000	56,650	58,350
Miscellaneous	17,671	21,455	18,140	25,468	26,232	27,019
Infrastructure Rent	41,180	63,473	90,450	94,500	101,250	102,195
Permit/Purveyor Fees	24,811	25,099	24,070	24,792	25,536	26,302
Insurance	16,520	17,472	17,578	18,105	18,648	19,208
Capital Outlay	42,640	15,315	12,399	15,000	15,450	15,913
<b>Total Operating Expenses</b>	<b>\$1,348,510</b>	<b>\$1,252,189</b>	<b>\$1,404,115</b>	<b>\$1,502,260</b>	<b>\$1,566,577</b>	<b>\$1,619,590</b>

### 4. Debt Service

#### 4.1 Current Debt

SEJPA’s Recycled Water Program currently has three outstanding loans: The State Revolving Fund (SRF), which funded the original recycled water infrastructure in 1999; the Municipal Finance Corporation Loan, which funded the advanced water purification facility (AWP) in 2012, and the SFID Pipeline Loan (SFID) in FYE 2013, which funded the purchase of the recycled water pipeline in the Santa Fe Irrigation District.

The SRF Loan has a remaining balance of \$1,650,000 and final payment will be made in August 2020 (FYE 2021). The AWP Loan has a remaining balance of \$1,519,541 and payments will extend through FYE 2032. The SFID loan has a remaining balance of \$438,339 and payment is based on AF conveyed through the pipeline with any remaining loan balance due in FYE 2033.

## 4.2 Capital Expenses and Proposed Debt

The SEJPA has plans for capital projects during the study period that will be funded by bond issuance, SRF loan, or other means. Planned projects include recycled water pipelines and onsite storage estimated at \$3.1 million.

The SEJPA has secured grant funding of approximately \$525,000 for the planned capital projects, thus the remaining amount to be funded from the Wastewater Fund is estimated to be \$2.5 million. The Study assumes that this capital expense will be incurred during FYE 2018 through 2021 and paid back over a five-year period.

**Table 4-1 – Capital Debt (Existing and Proposed)**

Debt	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020	FYE 2021
State Revolving Fund Loan	\$834,675	\$834,675	\$834,675	\$834,675	\$834,675	\$834,675
Municipal Finance Corporation Loan	148,153	148,153	148,153	148,153	148,153	148,153
SFID Reimbursement Agreement	12,667	11,719	15,000	15,000	15,000	15,000
<b>Total Debt Service</b>	<b>995,495</b>	<b>994,547</b>	<b>997,828</b>	<b>997,828</b>	<b>997,828</b>	<b>997,828</b>

## 5. Reserve Requirements and Goals

There are multiple cash reserves that a utility may utilize. Examples are bond, operating and maintenance, and asset repair and replacement (R&R) reserves.

The SEJPA currently has a bond reserve to satisfy SRF loan requirements in the amount of \$630,000. This bond reserve funds are intended to be available for system repairs to ensure the delivery and sale of recycled water. These funds are held in the Recycled Water Debt Reserve Fund, and when the loan is paid off, these funds are available for R&R reserve goals.

The Recycled Water Cost of Service Study prepared by GHD, Inc. dated April 2013 suggested a range from about \$3.0 million to \$3.5 million R&R reserve by FYE 2022 with a \$3.3 million target goal. Rate calculations (Section 6) provide an allowance for R&R funding of approximately \$3.1 million by FYE 2022.

## 6. Rate Calculation

It is the goal of the SEJPA to set recycled water rates such that program revenues cover operating expenses, debt service payments, and fund reserves.

In developing the rate calculations, funds available for R&R reserve goals were the difference between expenses and revenues received. Three rate scenarios were evaluated to determine the viability to meet expense demand and reserve goal funding needs. As shown in Table 7.1, Cash Fund Balances, the R&R reserve is underfunded. The R&R reserve is funded by the excess revenues over expenses in each of the rate scenarios; hence, the percentage varies.

As noted in Section 1, the SEJPA provides both uninterruptible and interruptible recycled water service. To normalize the rate calculation, recycled water sales to ERGA are assumed to be 200 AFY, which is the minimum required delivery per agreement. Furthermore, the Study assumes the SEJPA will qualify for MWD and CWA incentives (\$450 per AF) through FYE 2025 for water sales up to 1,600 AF annually.

**Tables 6-1, 6-2, and 6-3** below consider future rate increases of 3.0%, 3.8%, and 4.6%, respectively.

**Table 6-1 – 3.0% Rate Calculation for Recycled Water with MWD and CWA Incentives**

	Est. Actual FYE 2018	FYE 2019	FYE 2020	FYE 2021
Operating Expenses	\$1,404,115	\$1,502,260	\$1,566,577	\$1,619,590
Debt Service	997,828	997,828	997,828	997,828
Repair & Replacement Funds Available	424,452	454,245	529,960	576,530
Total costs to be recovered	\$2,826,395	\$2,954,333	\$3,094,365	\$3,193,948
Total AF for Calculation	1,475	1,505	1,543	1,556
<b>Cost per AF</b>	<b>\$1,916</b>	<b>\$1,960</b>	<b>\$2,005</b>	<b>\$2,052</b>
<b>Less: MWD and CWA Incentives</b>	<b>-450</b>	<b>-450</b>	<b>-450</b>	<b>-450</b>
<b>Price per AF to Customers</b>	<b>\$1,466</b>	<b>\$1,510</b>	<b>\$1,555</b>	<b>\$1,602</b>
<b>Increase Year over Year</b>		<b>3.0%</b>	<b>3.0%</b>	<b>3.0%</b>

**2018 Recycled Water Rate Study**  
San Elijo Joint Powers Authority

**Table 6-2 – 3.8% Rate Calculation for Recycled Water with MWD and CWA Incentives**

	Est. Actual FYE 2018	FYE 2019	FYE 2020	FYE 2021
Operating Expenses	\$1,404,115	\$1,502,260	\$1,566,577	\$1,619,590
Debt Service	997,828	997,828	997,828	997,828
Repair & Replacement Funds Available	424,252	467,748	567,415	635,813
Total costs to be recovered	\$2,826,195	\$2,967,836	\$3,131,820	\$3,253,231
Total AF for Calculation	1,475	1,505	1,543	1,556
<b>Cost per AF</b>	<b>\$1,916</b>	<b>\$1,972</b>	<b>\$2,030</b>	<b>\$2,090</b>
Less: MWD and CWA Incentives	-450	-450	-450	-450
<b>Price per AF to Customers</b>	<b>\$1,466</b>	<b>\$1,522</b>	<b>\$1,580</b>	<b>\$1,640</b>
<b>Increase Year over Year</b>		<b>3.8%</b>	<b>3.8%</b>	<b>3.8%</b>

**Table 6-3 – 4.6% Rate Calculation for Recycled Water with MWD and CWA Incentives**

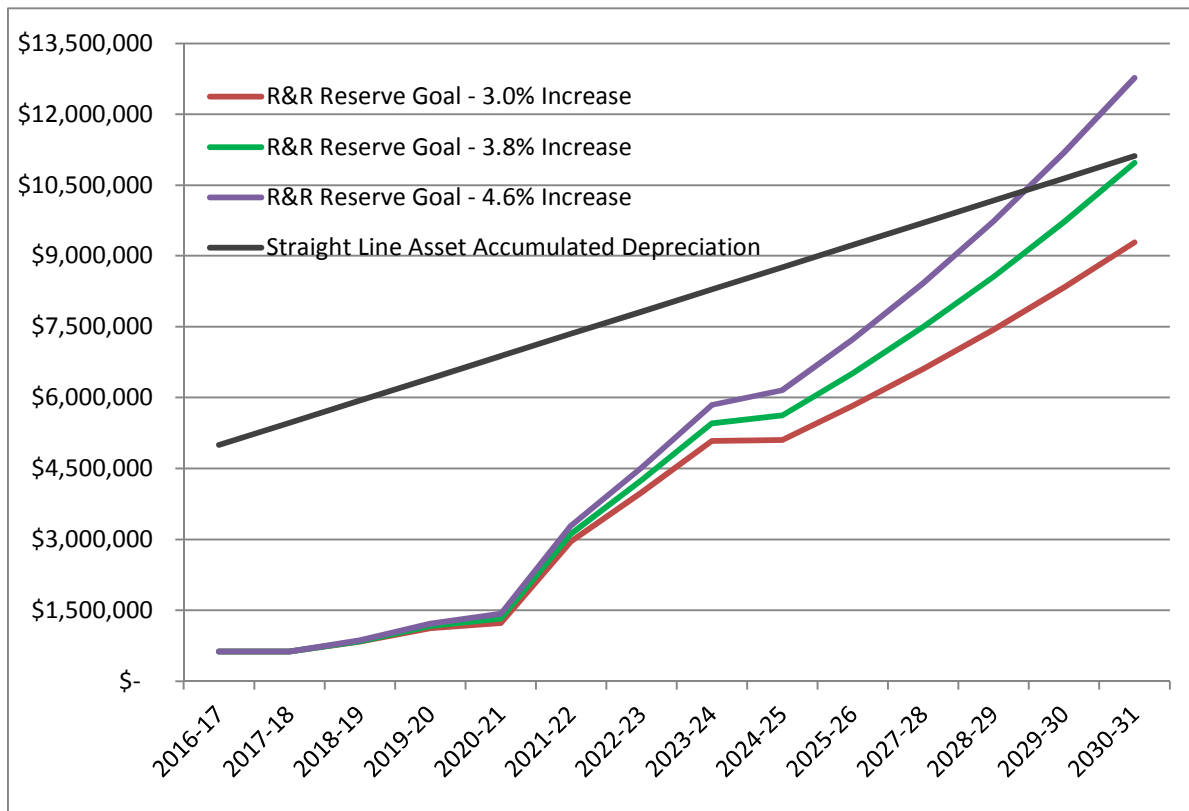
	Est. Actual FYE 2018	FYE 2019	FYE 2020	FYE 2021
Operating Expenses	\$1,404,115	\$1,502,260	\$1,566,577	\$1,619,590
Debt Service	997,828	997,828	997,828	997,828
Repair & Replacement Funds Available	424,252	485,447	604,440	694,277
Total costs to be recovered	\$2,826,195	\$2,985,535	\$3,168,845	\$3,311,695
Total AF for Calculation	1,475	1,505	1,543	1,556
<b>Cost per AF</b>	<b>\$1,916</b>	<b>\$1,984</b>	<b>\$2,054</b>	<b>\$2,128</b>
Less: MWD and CWA Incentives	-450	-450	-450	-450
<b>Price per AF to Customers</b>	<b>\$1,466</b>	<b>\$1,534</b>	<b>\$1,604</b>	<b>\$1,678</b>
<b>Increase Year over Year</b>		<b>4.6%</b>	<b>4.6%</b>	<b>4.6%</b>

## 2018 Recycled Water Rate Study

San Elijo Joint Powers Authority

The 3.8% rate scenario provides R&R reserve balance of about \$3.1 million in FYE 2022, \$5.0 million by FYE 2025, and \$11.0 million by FY 2031 which approximates the straight-line depreciation. This is similar to the funding goals stated in the 2013 Study. Based on the three future rate scenarios, the 3.8% rate provides adequate reserve goal balances at the lowest rate increase.

**Graph 6-1 – Projected R&R Reserve Goals – 3.0%, 3.8% and 4.6% Rate Increases**



### 6.1 Uninterruptible Customer Rate (\$/AF)

The uninterruptible customer rate is intended to recover the costs associated with providing uninterruptible service. This requirement was determined to be 3.8 percent greater than the prior year's rate. The rate was calculated by dividing the total expenses by the total uninterruptible recycled water AF usage, plus the contractual minimum water AF usage for interruptible service. For FYE 2018 this rate is \$1,466 per AF shown in **Table 6-2** above.

### 6.2 Interruptible Customer Rate (\$/AF)

The interruptible recycled water rate was calculated in Raftelis' September 2015 Cost of Service Report. In 2017, SEJPA and ERGA negotiated a seven-year service agreement that provides interruptible service to the Encinitas Ranch Golf Course from FYE 2018 through FYE 2024 that includes the provision of a minimum 200 AFY and an annual rate increase of 4 percent.

## 7. Cash Fund Balances

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To determine whether the proposed rates provide sustainability, Cash Fund Balances were analyzed to confirm adequate cash reserves. The operating cash reserve goal is based on 90 days of operating expense plus one year’s debt service. The R&R cash reserve goal includes the Debt Reserve Requirement as discussed in Section 5.

**Table 7-1** below shows the actual and estimated cash balances for the Recycled Water Fund:

**Table 7-1 – Cash Fund Balances**

	Est. Actual FYE 2018	Projected FYE 2019	Projected FYE 2020	Projected FYE 2021
Operating Cash Reserve Goal	1,348,857	1,373,393	1,389,472	1,402,725
(Under) Funded	(247,583)			
Operating Cash	1,101,274	1,373,393	1,389,472	1,402,725
Debt Reserve	630,000	630,000	630,000	630,000
R&R Reserve	-0-	215,186	536,372	696,218
<b>Total Cash</b>	<b>\$1,731,274</b>	<b>\$2,118,579</b>	<b>\$2,555,844</b>	<b>\$2,728,943</b>

The Operating Cash Reserve Goal is less than 90 days of operating expense for FYE 2018; resulting in the R&R Reserve Goal not funding until FYE 2019. The Study indicates that the Operating Cash Reserve Goal is met in FYE’s 2019, 2020 and 2021.

## 8. Conclusion

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Based on the analysis shown in the Study, Raftelis recommends a 3.8% annual increase in rates for the uninterruptible customers for the proposed 3-year period. Larger rate increases could be justified by the analysis, however customer usage could be impacted by pricing, and the potential reduction in usage could more than offset the revenue increase of the higher rate. This effort also revealed that increasing recycled water sales, without substantial capital investment, provides the greatest benefit to the financial foundation of the utility. Conversely, should future sales decrease, the rates may need to be increased to meet the revenue requirements. The recycled water utility does include safe guards such as minimum purchase contracts with the water districts and ERGA, which provides protection from significant declines in water sales. The utility also receives financial incentives from MWD and CWA that help meet the programs financial needs. These incentives have an expiration date of FYE 2025, but can be retired early based on certain financial measurements. Based on information provided, it does not appear that these incentives will expire during the review period of this Study. However, this situation

**2018 Recycled Water Rate Study**

San Elijo Joint Powers Authority

should be monitored annually as financial events such as receiving grant funding or significant deviations of the price of recycled water from potable water rates can reduce or eliminate incentives in any year. Loss of incentive funding will erode R&R funding goals and likely require a review of future recycled water rates.

Raftelis' staff is grateful for the opportunity to work with and the support of SEJPA's staff.

Sincerely,

Raftelis Financial Consultants, Inc.



Sudhir Pardiwala  
Executive Vice President

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

May 14, 2018

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: AWARD CONSTRUCTION MANAGEMENT CONTRACT FOR ENCINITAS  
RANCH RECYCLED WATER EXPANSION PROJECT

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to execute a professional services agreement with Black & Veatch for Construction Management Services not to exceed \$166,770; and
2. Discuss and take action as appropriate.

BACKGROUND

In 2015, the SEJPA submitted the Coastal Conservation 101 Project for consideration for a Proposition 84, Round 4, Integrated Regional Water Management grant. Project partners included the Cities of Encinitas and Solana Beach, San Dieguito Water District, Santa Fe Irrigation District, Olivenhain Municipal Water District, and the San Elijo Lagoon Conservancy. The project was selected for a \$2.5 million grant in January 2016 to expand recycled water service, implement urban runoff pollution control, conduct water quality monitoring associated with the San Elijo Lagoon, and provide educational outreach activities. The project title was renamed by the grant administrator to the Integrated Water Resource Solutions for Carlsbad Watershed (Integrated Solutions Project).

The Integrated Solutions Project includes recycled water pipeline expansions in both the Cities of Encinitas and Solana Beach to offset potable water. The Solana Beach pipeline was completed in late 2016, and recycled water conversions are currently in progress. For the City of Encinitas, expansion of recycled water service is focused within the Encinitas Ranch area and potentially includes extending an existing recycled water pipeline along Requeza Street. This project includes approximately 7,000 linear feet of new pipeline and a small booster pump station serving HOA's, green spaces, and city trails. It is anticipated to offset approximately 45 acre-feet per year of potable water consumption and is slated for construction in early fall 2018.



## DISCUSSION

Staff recommends Construction Management (CM) services for the Encinitas Ranch Recycled Water Expansion project. Capital projects are typically assigned a construction manager to oversee daily construction activities and ensure that a quality project is delivered safely and in accordance with the contract drawings and specifications. The SEJPA issued a Request for Proposals for Construction Management Services for the project in April 2018. Five engineering firms experienced in the design and inspection of recycled water pipelines and pump stations submitted proposals. The firms were ranked, and the highest two firms were interviewed on April 30, 2018 to discuss project team qualifications, approach, and project management. Staff determined that both teams were well qualified; however, Black & Veatch provided the best value by leveraging their current CM services on the Land Outfall Replacement and Preliminary Treatment Upgrades and Odor Control projects.

Table 1 - CM Services Fee Proposal

Firm	CM Fee
<b>Black &amp; Veatch</b>	\$ 166,770
<b>Hoch Consulting</b>	\$ 171,650
<b>Valley Construction Management</b>	\$ 215,978
<b>Dudek</b>	\$ 322,000
<b>Michael Baker International</b>	\$ 398,622

## FINANCIAL IMPACT

The SEJPA capital program has adequate funding for the recommended CM services agreement.

It is recommended that the Board of Directors:

1. Authorize the General Manager to execute a professional services agreement with Black & Veatch for Construction Management Services not to exceed \$166,770; and
2. Discuss and take action as appropriate.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

Attachment 1: Black & Veatch Proposal, dated May 5, 2018.

Encinitas Ranch HOA and Requeza Street  
Recycled Water Pipeline Construction  
Management and Inspection Services

Optimized Efficiency | Quality Assured | Public Support



April 10, 2018  
Revised May 5, 2018





April 10, 2018



Mr. Mike Konicke  
Associate Engineer  
San Elijo Joint Powers Authority  
2695 Manchester Avenue  
Cardiff by the Sea, California 92007

Dear Mr. Konicke,

The Encinitas Ranch HOA and Requeza Street Recycled Water Pipeline is an important project to expand your recycled water program and further provide reliable service. Having recently worked directly with you on two recent construction management projects, we are well aligned with SEJPA's needs as well as the communities these pipelines will traverse. We know you have other choices for this project management project and would like to point out a couple of differentiators we believe set Black & Veatch apart from the competition.

- **We are your Partner and Advocate** – We understand that our role as your construction manager is to be your advocate and your partner. As we have demonstrated on our recent projects with you, we understand how SEJPA operates and how to bring your projects to a successful completion, while working closely with the community. We will deliver the same service you've become accustomed to receive on this important project.
- **Efficiencies that lead to Cost Savings** – Because our team is already providing CM services for the Headworks upgrades, we can offer some efficiencies that you will see results in reduced costs to SEJPA.

If selected, you can be assured you will feel valued, your project will have our attention, and we will work hard to reduce your hassles and produce another successful project. We have helped you become leaders in water reuse in the past, and we will be team players to take you to even greater heights in the future.

Sincerely,

Kevin Davis, P.E., BCEE  
Project Director



“You have my personal commitment to bring the necessary B&V resources and skillsets to make your project successful.”

**BLACK & VEATCH CORPORATION**  
300 Rancheros Drive , Suite 250  
San Marcos, CA 92069

## Leveraging Lessons Learned

The Black & Veatch Team has learned valuable lessons regarding the community surrounding SEJPA. We will apply those lessons to this project to maintain the highest level of community support for this project.



## EXECUTIVE SUMMARY

### Your Advocates & Partners to Deliver another Challenging Project

Our Team offers the expert knowledge, breadth of experience, and clear plan to navigate the challenges that this project will face, resulting in a hassle-free, community embraced project.

Black & Veatch is excited to work with SEJPA on another important construction management project, leveraging our recent success with you and driving another successful project that will position you to optimize your recycled water system.

### Expert Knowledge to Guide the Team



**Kevin Davis, PE, BCEE** has worked for SEJPA for over 15-years, dating back to the Recycled Water Study that led to many of the improvements SEJPA has made since that time. His commitment to your success is unwavering, leveraging his strong communication skills and technical expertise to drive results and keep his teams working seamlessly.



Serving as your CM Administrator for the existing Headworks Improvements Project, **Chris Stiedemann, PE, QSD**, will apply his knowledge of your facilities, your processes, and your style to flex his overall efficiency on both projects. He will rely on his strong support team to ensure his daily activities are successful.



**Eric Sturtz, PE** will apply his extensive experience in pipeline and pump station construction management to the constructability reviews. He will also be available to support the team in any capacity, including public relations, as he has done successfully on previous projects with SEJPA.

Our Team will build on the recent success at SEJPA and provide project efficiencies by flexing our existing staff on this project to save you money.

## Continuous Communications

We will communicate with you on a regular basis to keep you informed of the project status and all key milestones, challenges, and resolutions.



Document Control & Management



Email



Face to Face



Written Documents



Telephone & Conference Calls



Video Conferencing & Screen Sharing

## EXECUTIVE SUMMARY CONTINUED

### Our Approach Will Deliver a Successful Project

#### Advocacy – We are your Advocate

We understand the trust you put in us to implement your projects accurately, safely, on-time, and on budget. Our approach is focused around advocating for your interests, not only with the contractor, but also with the community and regulators. We value the trust you have put in us and will continue to prove that we deserve that trust.



#### Public Outreach

Placed in a sophisticated beach community, SEJPA's service area requires a team that understands the sensitivities needed to conduct construction in this arena. We have learned how to represent you well and pledge to represent you in a manner that gains continuous community support.

#### Traffic Control

We will work closely with the traffic engineer to establish traffic control measures that minimize impacts to the community and head off potential issues.

#### Quality Assurance

Our quality assurance starts with our constructability review and continues throughout the construction of the project. We will enforce the contract documents and work closely with the engineer and contractor to quickly resolve any issues that arise before they become a hindrance to the project.

#### Safety – Zero Injuries

Black & Veatch has a strong culture of safety that permeates everything we do. We will instill a culture of safety on this project and work closely with the contractor and the public to make sure all safety practices are closely followed, resulting in zero injuries on this project.



## Identification of Responder

### Legal Name

Black & Veatch Corporation

### Legal Company Form

Corporation

### World Headquarters

11401 Lamar Avenue  
Overland Park, KS 66221

### Parent Company

Not Applicable

### San Diego County Addresses

300 Rancheros Drive, Suite 250  
San Marcos, CA 92069



10089 Willow Creek Drive  
San Diego, CA 92021



### Authorized Contact Person

**Kevin N. Davis, PE, BCEE**

Associate Vice President

300 Rancheros Drive, Suite 250  
San Marcos, CA 92069  
office – 760.621.8419  
mobile – 760.525.6843

## EXPERIENCE

The Black & Veatch Team has the construction management expertise in water projects to address all the challenges your project will face. Our team has worked on many assignments similar in scope to the Encinitas Ranch HOA and Requeza Street Recycled Water Pipeline. Having recently worked directly with you on two recent construction management project, we are well aligned with SEJPA's needs as well as the communities these pipelines will traverse.

The following pages highlight a sampling of our world class experience and focus on projects here in Southern California.

PROJECT NAME LOCATION	CLIENT / OWNER	BLACK & VEATCH ROLE	Relevance
<b>Land Outfall Replacement CM</b> <i>Cardiff, CA</i>	San Elijo Joint Powers Authority	<ul style="list-style-type: none"> <li>▪ Construction Management</li> <li>▪ Inspection</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pipelines</li> <li>▪ Public Relations</li> </ul>
<b>Preliminary Treatment Upgrades</b> <i>Cardiff, CA</i>	San Elijo Joint Powers Authority	<ul style="list-style-type: none"> <li>▪ Construction Management</li> <li>▪ Inspection</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pipelines</li> <li>▪ SEJPA Coordination</li> </ul>
<b>San Vicente Dam Raise</b> <i>Lakeside, CA</i>	San Diego County Water Authority	<ul style="list-style-type: none"> <li>▪ Construction Management</li> <li>▪ Inspection</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pipelines, PS</li> <li>▪ Public Relations</li> </ul>
<b>Pump Station No. 2 CM</b> <i>San Diego, CA</i>	City of San Diego	<ul style="list-style-type: none"> <li>▪ Construction Management</li> <li>▪ Inspection</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pipelines, PS</li> <li>▪ Public Relations</li> </ul>
<b>Sand Canyon Pump Station &amp; PL</b> <i>Santa Clarita, CA</i>	Castaic Lake Water Agency	<ul style="list-style-type: none"> <li>▪ Construction Management</li> <li>▪ Inspection</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pipelines, PS</li> <li>▪ Public ROW</li> </ul>
<b>Encina Phase V Upgrades</b> <i>Carlsbad, CA</i>	Encina Wastewater Authority	<ul style="list-style-type: none"> <li>▪ Construction Management</li> <li>▪ Inspection</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pipelines, PS</li> <li>▪ Active Plant</li> </ul>



Success is defined by action and doing what you say you're going to do. The successful HDD pull under the lagoon for your Land Outfall Replacement Construction Management and Inspection Project demonstrates the leadership our team provides as construction managers and inspectors day or night.

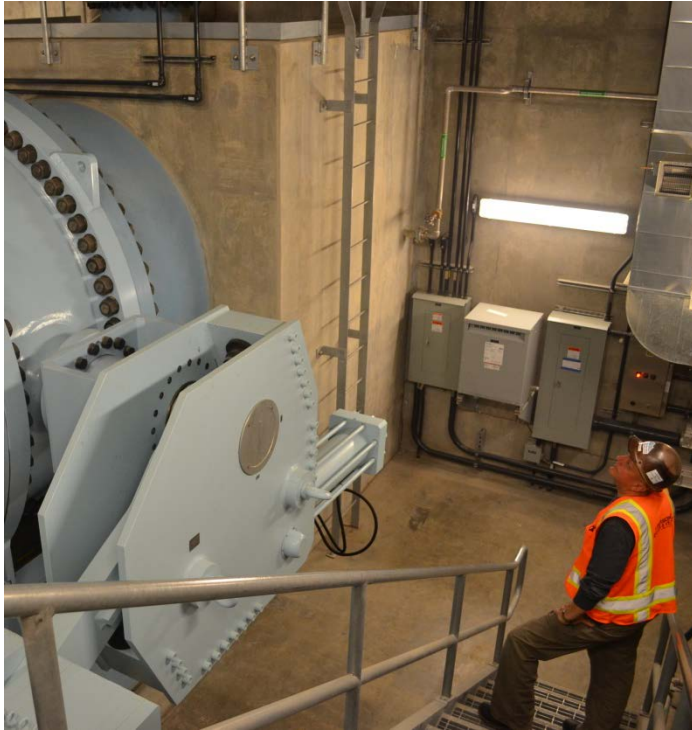
# SAN VICENTE DAM RAISE CM

## CONSTRUCTION MANAGEMENT

San Diego County Water Authority (SDCWA) | Lakeside, CA

The existing San Vicente Dam was a concrete gravity structure constructed in the early 1940s and had a structural height of 220 feet. The dam was raised 117 feet using roller compacted concrete (RCC) increasing water storage from 90,000 acre feet to approximately 242,000 acre feet. control facility.

### SERVICES PROVIDED



Other major project features include; a low level outlet works, outlet works intake tower, tunneling through the right abutment, outlet works pipelines, and a downstream control facility.

- Technical coordination between the dam, inlet/outlet works, downstream control facility, outlet pipelines, saddle dams, relocated marina, several access roads and bypass pipeline connections
- Full-time resident engineer to inspect construction
- Change Order Evaluation
- Reviews of design documents, bid documents, shop drawings, submittal reviews
- Photographic and video recordings of pre-construction, construction and post-construction activities
- Public relations services such as answering resident inquiries, stakeholder meetings, public and board tours, etc.
- Review Contractor's monthly progress pay request and supporting documentation against actual progress

### HIGHLIGHTS

#### DOCUMENTATION

Our team provided extraordinary documentation to protect the owner's interest and ensure proper quality work.

#### INSPECTION

Inspection was performed by professionals who know what they are doing to facilitate construction while ensure proper quality.

#### PUBLIC RELATIONS

Recognizing the sensitive nature of the project and the vocal local community groups, our team proactively engaged with the community to keep all parties well informed and happy.

#### RISK

We identified risks early and provided mitigation strategies that solved problems before the occurred.

### ROLE

Construction Management; Inspection; Scheduling; Change Order Processing; Advocacy; Public Relations; Energy Analysis

### PROJECT VALUE

\$200M

### KEY TEAM MEMBER

Kevin Davis, Eric Sturtz, Ramiro Ojeda, John Bekmanis, Jorj Long

### CLIENT REFERENCE

Jerry Reed  
Director of Engineering  
4677 Overland Avenue  
San Diego, CA 92123  
+1 858.522.6835  
jreed@sdcwa.org

# ENCINA PHASE V EXPANSION

## CONSTRUCTION MANAGEMENT

Encina Wastewater Authority | Carlsbad, CA

Black & Veatch provided planning, design, construction management and startup services for the Encina Wastewater Authority's (EWA) Biosolids Facility Phase V Expansion project.

### SERVICES PROVIDED



The project consisted of the CM of a heat dryer building, solids drying system, digested sludge transfer pumps, booster pumps, installation of a heat dryer control room and related electrical and control equipment, yard piping, grading, paving, and drainage work. Also, four 750kW Caterpillar cogen engines, electrical distribution panel (switchgear, paralleling switchgear, load shed panels, controls, cabling, busway, MCC modifications), heat recovery equipment (waste heat exchangers, water pumps, gas blowers, air blowers), process/ yard piping.

- Resident engineering
- Field inspection and quality assurance
- Coordination with plant staff and management
- Coordination with specialty inspectors
- Review of submittals including all O&M manuals
- Review and acceptance of Contractor's monthly pay requests
- Final Documentation and Punchlist Completion
- Startup and Commissioning
- Steel, PVC, and Ductile Iron Pipe installation and testing

### HIGHLIGHTS

#### DOCUMENTATION

B&V maintained critical documentation of construction activities and expedited correspondence for major equipment.

#### INSPECTION

B&V provided full time inspection for all construction and mitigated potential re-work related to specialty equipment while maintaining plant operations.

#### PUBLIC RELATIONS

B&V provided owner with weekly construction progress and supported local public outreach events.

#### RISK

The Team mitigated risk by coordinating with contractor and equipment providers reducing potential change orders and schedule slippage.

### ROLE

Construction Management; Inspection; Scheduling; Change Order Processing; Advocacy; Public Relations

### PROJECT VALUE

\$35M

### KEY TEAM MEMBER

Kevin Davis, Eric Sturtz, Jorj Long

### CLIENT REFERENCE

Kevin Hardy  
Former General Manager  
+1 760.801.9111  
970 Blackstilt Ct  
Carlsbad, CA



# Pump Station No. 2 CM

CONSTRUCTION MANAGEMENT

City of San Diego | San Diego, CA

Pump Station No. 2 is the City's largest sewage pump station, with a design capacity of 432 MGD. It was placed into operation in 1963 and includes eight pumps: six driven by 2250 HP motors, and two driven by 2400 HP gas engines. It conveys sewage to the City's Point Loma wastewater Treatment Plant via two -87-inch force mains.

## SERVICES PROVIDED



The Power Reliability & Surge Protection Project constructs a Power Generator Facility housing 2 – 3 MW natural gas engine generators and 2 – 4 MW emergency diesel engine generators, and replaces the two gas engine drives with electric motors. The resultant facility provides reliability against loss of grid power, cost effective power and reliable surge protection that is maintained by the constant use of any one pump.

- Overall Construction Management
- Maintenance of plant operations
- Environmental and permit coordination
- Storm water pollution prevention
- Full-time resident engineer
- QA inspection
- Change Order Evaluation
- Schedule management
- Reviews of design documents, bid documents, shop drawings, submittal reviews

## HIGHLIGHTS

### DOCUMENTATION

Our team provides consistent documentation and works closely with the contractor to enforce all documentation requirements.

### INSPECTION

Inspection was performed by professionals who know what they are doing to facilitate construction while ensure proper quality.

### MAINTENANCE OF PLANT OPERATIONS

Our team proactively engaged with the plant operators to keep this mission critical facility on-line and coordinate outages for integrating new equipment.

### RISK

Because of the catastrophic consequences of any missteps on this project, we identified risks early and provided mitigation strategies that solved problems before they occurred.

## ROLE

Construction Management; Inspection; Scheduling; Change Order Processing; Advocacy; Public Relations

## PROJECT VALUE

\$56M

## KEY TEAM MEMBER

Kevin Davis, Eric Sturtz, Jorj Long, Ramiro Ojeda, Chris Stiedemann, Waqar Amjad, John Bekmanis

## CLIENT REFERENCE

Michael Marks  
Senior Civil Engineer

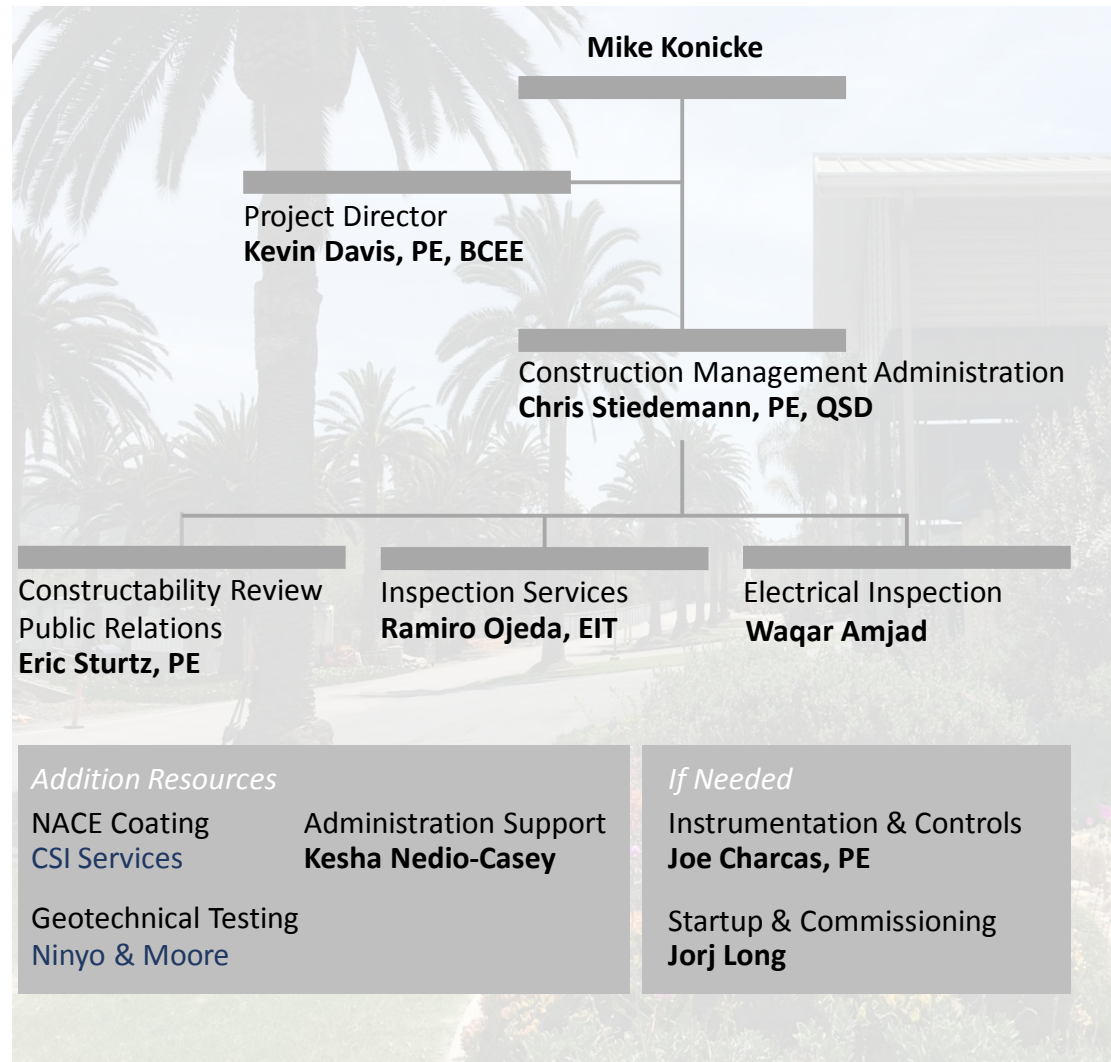
## PROJECT ORGANIZATION AND KEY PERSONNEL

Successful construction management will require a Team that will serve as a trusted advocate for SEJPA. Black & Veatch is well qualified to take on that role. Our Team has strong capabilities in CM, recycled water projects, and sensitive communities.

Black & Veatch’s pipeline experience encompasses planning, design, construction, rehabilitation and maintenance solutions with a strong focus on life-cycle efficiency and economy. Black & Veatch has worked on many of the world’s largest and most technically challenging pipeline and conveyance projects, including recycled water pipelines, with hundreds of projects ranging in size and environments. Our team brings experience and expertise in virtually every type of pipeline condition, alignment corridor, piping size and material, and operational scheme.

Additionally, our team has a strong history of working successfully with SEJPA on recent construction management projects. We know your systems, standards, and preferences. We know the importance of keeping open lines of communication with you and are dedicated to doing so for this project.

As demonstrated by the projects featured on this section, we know how to implement successful projects within the Southern California regulatory arena. Our relevant and local experience will provide you with the right field experience needed to ensure the project gets constructed as designed, and provide quick solutions and adjustments in response to an unforeseen condition. This track record of demonstrated expertise will provide you confidence that Black & Veatch will shepherd the construction phase of your project by applying our lessons learned.



## Primary Team Members



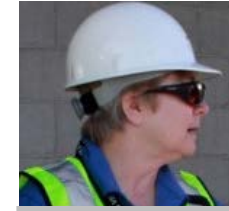
**Chris Stiedemann, P.E., QSD**  
Construction Management/Administration

Chris has extensive pump station, forcemain, paving, traffic control, and construction management experience to provide overall coordination of all project contract administrative experience. Chris currently works closely with SEJPA on the Wastewater Reclamation Facility's Preliminary Treatment Upgrade Project and will efficiently and effectively manage both nearby projects. The proximity of the projects to each other, common designer, similar plan and specification sets, existing relationships with SEJPA staff, design engineer firms, and familiarity with the agency's objectives and administrative processes will allow an efficient utilization of Chris' time and ensure the project success. Chris is a local Black & Veatch CM professional and a registered Civil Engineer in the State of California and can provide specialty inspection as required.



**Ramiro Ojeda**  
Inspection

Ramiro has pipeline and construction management experience working on projects throughout Southern California. His design background and construction management experience give him a broad vision to identify and interpret design issues that could otherwise negatively impact the construction process and project. Ramiro will be supported by a CM team that has vast experience working successfully with SEJPA on the Land Outfall Replacement and Preliminary Treatment Upgrades project and is familiar with the scope, location and SEJPA standard operating procedures.



**Jorj Long,**  
Start Up & Commissioning

Jorj Long will support startup and the review of the startup/operations testing plan. Her experience in facility operation and maintenance, supervision, education, and training makes her a vital part of the Black & Veatch team. She holds the highest level of wastewater operator certification in California, has obtained her EIT, and is also certified in water treatment, collections system operation, industrial waste, laboratory and mechanical maintenance.



**Eric Sturtz, PE**  
Constructability Review / Public Relations

Eric has extensive experience in the analysis, planning, construction, and management of municipal public works, and other building structures in both the United States and countries abroad. He is fluent in constructability review and value engineering and has managed design bid build projects from conception to completion. Eric is a local B&V CM professional, knows the local geography and is sensitive to the logistics of completing this project along the proposed alignment. Eric will be a resource to SEJPA and will bring his recent experience in managing the Land Outfall Replacement and Preliminary Treatment Upgrades, available to support any Public Relations the project needs.



**Kevin Davis, PE, BCEE**  
Project Director

As a lifelong resident of San Diego County, Kevin Davis is well aligned with the local communities, their needs, and how to keep project activities aligned with them. Kevin will ensure Black & Veatch's resources are made available to SEJPA. He will also provide coordination and support as needed and support any challenge that may arise during the project.



## PROJECT APPROACH

Our team provides SEJPA with the familiarity, proven knowledge and the right expertise to address every challenge, whether concerned with the major elements of the recycled water pipeline, booster station or the work necessary to accommodate construction (quality control, geotechnical, safety management, environmental compliance, permitting, traffic control, coordination with third party agencies, and public outreach). Our approach to accomplish the scope of services and manage the technical elements of this project is based upon tested processes and procedures that our Construction Management professionals adhere to, unwaveringly. We will work hand in hand with your staff to implement SEJPA's vision, adhering closely to your capital delivery manual and always focused on risk reduction. Our motto with you has always and continues to be: "How can we accomplish this with the minimum amount of risk and exposure to SEJPA and its rate payers?" Through this motto, we will work to enhance SEJPA's reputation as an environmental steward and careful guardian of scarce public funds. Our approach will achieve the following "Key Objectives":



### Protecting SEJPA's Interests

Being SEJPA's advocate throughout construction will ensure fluid communication between the Contractor, Designers, and SEJPA Professionals.



### Public Outreach and Community Safety

Our existing working relationship with SEJPA has allowed our team to become well acquainted with your staff, systems and culture. We are well aware of what SEJPA and the community expect from our team to support this project with minimal public impact. We are dedicated to meet such expectations for this project.



### Traffic Control

Proactive approach in coordinating with traffic engineer that allows the CM Team to establish traffic control measures and work timing requirements to minimize impacts to residents, vehicular traffic, and pedestrians.



### Quality Assurance

Minimizing change orders on behalf of SEJPA and expediting construction correspondence will keep the project on track.



### Delivering a Zero Injury Project

Instilling a safety culture throughout all project personnel is paramount.

## KEY OBJECTIVE #1: PROTECTING SEJPA'S INTERESTS



Throughout the course of construction, we will be SEJPA's advocate in the conduct of the CM services and enforce the Contract every step of the way on your behalf. We work for you and will take the lead in resolving issues, even contentious ones, with the Contractor. In keeping with our CM philosophy, we will utilize our preconstruction services to establish intimate knowledge of the contract specifications and design drawings so that we can effectively enforce the requirements. We will build upon our relationship with SEJPA and DUDEK to address community and environmental challenges, seeking to head off problems before they surface.



## KEY OBJECTIVE #2: PUBLIC OUTREACH AND COMMUNITY SAFETY



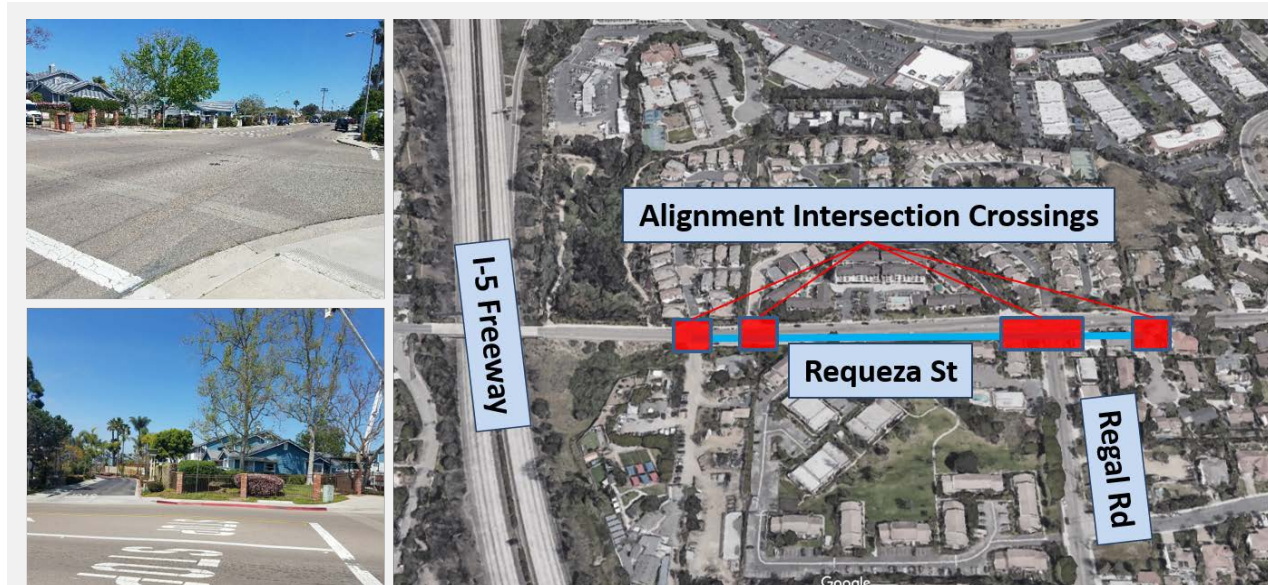
At Black & Veatch, safety is always a priority. This extends not only through the construction sites and offices where we work, but also to areas impacted by our work. Our team will review project safety plans and daily work to ensure that the public is protected from construction activities such as trenches in their streets, heavy equipment, modified traffic patterns, and other project-related disruptions. Black & Veatch team members will ensure that traffic flows safely and hazards are left protected at the end of each day and minimize chances for incidents. Professionals assigned to this project have participated in robust outreach programs to inform those in close proximity or likely to be impacted by the work including door-to-door meetings, hangers, presentations, and weekly electronic updates.



## KEY OBJECTIVE #3: TRAFFIC CONTROL



Professionals assigned to this project bring years of traffic control planning knowledge and experience working in areas where construction can prove to be a significant disruption to day-to-day activities. Our professionals' involvement with the construction of the new I-215/ Newport Road interchange in Menifee near a major shopping center, or installing new storm drain facilities in a 14-foot wide trench across a city street near the Chula Vista Golf Course and surrounding businesses in Bonita, or trenching deeply through 13 miles of city roads for the Carlsbad Desalination Plant pipeline, gives the CM Team vast experience to address traffic control issues during construction and adopt measures to minimize impacts to residents. Traffic control aspects that could present issues during construction include busy intersections, driveway and street access, and impacts to Encinitas Ranch Golf Course.



CM Team will follow a proactive approach with traffic control engineer and SEJPA's public outreach team to coordinate resident notices as applicable and ensure a community friendly project

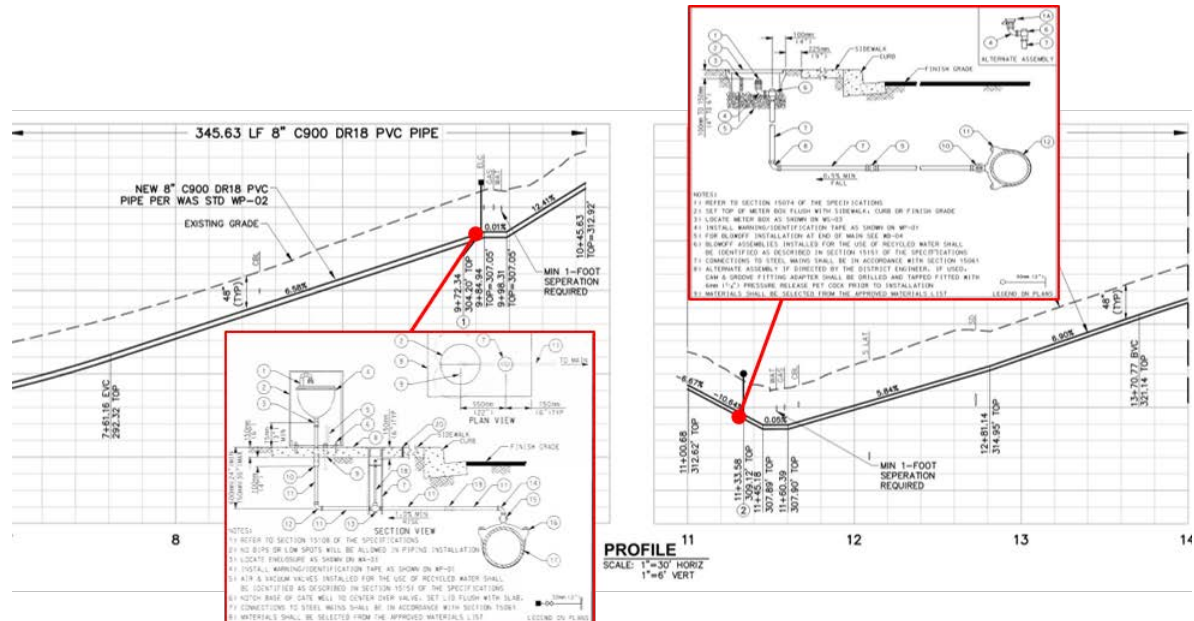
Work along the Encinitas Ranch section will be conducted on narrow street sections which could impact access for residents. The CM Team will assure that one-way traffic is available at all time and sequence work to avoid major intersection impacts.

## KEY OBJECTIVE #4: QUALITY ASSURANCE

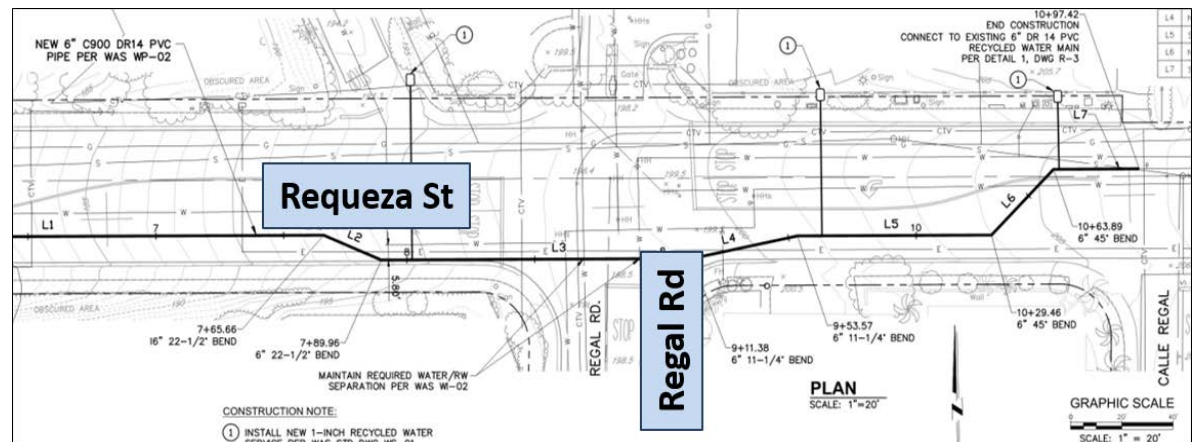


### Restrained C900 PVC Pipe Forcemains and Pump Stations

The Black & Veatch Team is equipped with the experience to deliver thorough construction management services for forcemain and pump station projects. Key team members are currently managing and inspecting the installation of new C900 forcemains as part of the San Elijo Wastewater Reclamation Facility’s preliminary treatment upgrades project. In addition to the experience and relationships built at the agency’s facility, team members reviewed the design and oversaw the construction of 2800 linear feet of split-ring and thrust block restrained C900 PVC forcemain and multiple large and small-scale pump stations at the Carlsbad Desalination Plant.



- ### Quality Assurance Key Items – Pipelines
- Pipeline fittings
  - Compaction of bedding
  - Trench material per WAS standard drawing WP-02
  - Concrete and asphalt testing per City of Encinitas resurfacing standards
  - Service connections according to WAS standard drawings WS-01 and WS-02
  - Protecting existing utilities
  - Blow off and air-vac anticipation valves for elevation changes when required to avoid existing utilities



Some intersections have dense utility crossings including water lines up to 27 inches in diameter.

## KEY OBJECTIVE #4: QUALITY ASSURANCE CONTINUED



### Quality Assurance Key Items – Booster Pump Stations

- Delivery and protection of equipment
- Accurate installation
- Coating checks (i.e. dry film thickness)
- Slab concrete placement quality and proper placement and finishing for drainage
- Reinforcing bar placement



### Startup & Commissioning and Constructability Review

**Startup, Commissioning, and Training** – If desired, Black & Veatch can provide startup and commissioning services as well as constructability reviews. Jorj Long is an industry recognized leader in startup, commissioning, training. She is the go to person for all of our complex projects in Southern California, including OCSD, Encina Wastewater Authority, and the San Diego County Water Authority.

**Constructability Reviews** – Eric Sturtz is poised to perform constructability reviews if needed. He is familiar with your facilities and is extremely well versed in finding potential challenges before the contract documents are sent out to bid.

### Training saves money

- If new operators are needed, hire early and let us train them
- Formal training sessions
- Shadow during startup and commissioning

Jorj Long providing “Shadow Training” to OCSD plant operators, resulting in long-term cost savings to OCSD through efficiencies in operations.





## KEY OBJECTIVE #5: DELIVERING A ZERO-INJURY PROJECT



### Proactive Culture of Safety

Black & Veatch is committed to a zero-injury goal for all project participants. Our staff is current with all OSHA 10-hour certifications, fall hazard training, and confined space training. We will prepare and implement our own project safety plan. In addition, we will be sure to coordinate and follow the contractor's safety plan.

Through our commitment to contribute to the overall safety of the project by all workers, we will:

- **Weekly** – Conduct weekly safety coordination with Contractor representatives with an eye on construction housekeeping and OSHA compliance.
- **Hazard analysis** – Participate in Contractor pre-activity meetings to review hazards analysis and coordinate inspection.



# FEE PROPOSAL



After reviewing the RFP, Black & Veatch prepared the following scope of work and related fee. As is the case with any project, we have used our best professional judgement to provide services in accordance with your needs and 7 month construction duration identified in the RFP, but we may need to clarify your needs and revise the scope and fee accordingly.

## Scope of Work

### Pre-Award and Pre-Construction Services

#### 1. Mobilization

- a) Correspondence, Reports, and Other Forms of Communication
- b) Document Standards: Consultant will prepare project correspondence and other forms of communication.
- c) Document/Tracking Control: Consultant will manage the receipt, logging, control, tracking, and timely processing of project documents. Documents and correspondence related to the Project will be archived.
- d) Records: Consultant will maintain records of inspections, reports, and test results received from the Contractor, Design Engineer, manufacturers, and others.

#### 2. Site Conditions and Progress Visual Documentation

- a) Pre-Construction Video: Consultant will coordinate, review, and confirm the Contractor's videotape of preconstruction site conditions prior to beginning work. Consultant will meet with owners of pre-existing damage identified to document and confirm existing conditions. Consultant will document any damage to public and private improvements resulting from construction and meet with the owners following discovery of damage to resolve repair requirements and responsibilities.
- b) Progress and Other Photos: Consultant will maintain a digital photographic library of significant construction activities, differing site conditions, change order and claim items, and any special or unique conditions.

### Services During Construction

#### 1. Meetings

- a) Weekly to Monthly Construction Progress Meetings: Consultant will schedule and conduct progress meetings with the Contractor and the SEJPA. Meeting agendas will be provided, action items will be identified, and minutes will be prepared to document the meetings.
- b) Other Meetings: Consultant will attend other construction-related meetings as requested by the SEJPA.

#### 2. Public Outreach

- a) Public Outreach: Consultant will assist and support the public outreach process for the Project. This includes reviewing the public outreach plan and coordinating with the agency and Contractor to ensure compliance with Project requirement and minimize public impacts.

#### 3. Shop Drawing Submittals Reviews

- a) Submittal Reviews: Consultant will review the submittals from the Contractor for conformance with the Contract Documents. Consultant's review will be for general conformity to the construction Contract Documents and will not relieve the Contractor of any of his contractual responsibilities. Such reviews will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs.
- b) Submittal Log and Status of Submittals: Consultant will log, route, track, and monitor shop drawings, calculations, data samples, submittals, and manuals from the Contractor as required by the construction Contract Documents.



## Services During Construction Continued

### 4. Plan and Specification Interpretation and Control

- a) Requests for Information (RFI): Consultant will coordinate the RFI log and respond to the Contractor RFIs within five (5) calendar days. Changes will be recorded in the record specifications and drawings.
- b) Requests for Changes in Design: Consultant will review and respond to requests for design revisions by the Contractor.
- c) Field Orders: Consultant will initiate, review, and track field orders when a change in work is needed to maintain the design intent. The field order will be issued to the Contractor and the work monitored for compliance.
- d) Substitution Requests: Consultant will coordinate the evaluation of “or-equal” or product substitution requests with the Design Engineer, SEJPA, or others.
- e) Record Drawings and Specifications: Consultant will update the drawings and specifications as the work progresses based on modifications and changes from submittals, RFIs, VEs, field orders, extra work, or change orders.
- f) SWPPP: Consultant will enforce the Storm Water Pollution Prevention Program (SWPPP) prepared by the Contractor and will maintain documentation on behalf of the SEJPA.

### 5. Construction Management Administration

- a) Management: Consultant will oversee and coordinate construction management services as required by the progress of the work.
- b) Resolution of Day-to-Day Construction Issues: Consultant will lead resolution of day-to-day issues raised. Consultant will coordinate with the SEJPA, Design Engineer, and Contractor on technical issues of concern as well as interpretation of the design documents.

### 6. Baseline Schedule and Schedule Updates

- a) Consultant will work with the Contractor to meet the milestones on the baseline Gantt chart schedule developed by the Contractor. Updates to the schedule will be included in the monthly progress report.

## Services During Construction Continued

### 7. Progress Payments

- a) Monthly Review: Consultant will conduct monthly schedule and progress payment meetings with the Contractor and coordinate and update the record drawings at this meeting.
- b) Monthly Progress Reports for the SEJPA staff: Consultant will prepare the monthly progress reports that will include the following:
  - Summary of the weekly reports for the month
  - Summary of the main accomplishments over the previous month
  - Highlight any unresolved issues discussed during the weekly meetings
  - Summary of current construction activities
  - Photographs of representative project activities
  - Summary of progress payments, change orders, disputes, submittals, RFIs, and Notices of Noncompliance
  - Identification of key problems, action items, and issues including recommendation for solutions
  - Overall Contractor’s conformance to the contract schedule and quality requirements
  - Schedule updates as appropriate

### 8. Change Order Management

- a) Identify and Track Changes: Consultant will identify, log, and track potential changes to the work from Contractor or SEJPA initiated changes to the work, extra work, or change orders.
- b) Requests for Cost Proposals: Consultant will request cost proposals from the Contractor for extra work and assist with cost negotiation.
- c) Justification for Extra Work or Change: Consultant will prepare written justification and cost estimates for each extra work or change order.
- d) Prepare Change Orders: Consultant will prepare and submit change orders in the SEJPA’s format within seven (7) calendar days of final negotiations.
- e) Claims Management: Consultant will identify, prepare, log, and monitor Contractor claims.
- f) Resolution Alternative: Consultant will prepare a written explanation of each claim and recommendation for action.
- g) Negotiate and Resolve Claims: Consultant will assist and support the SEJPA in resolving claims and disputes.
- h) Private Party Claims: Consultant will investigate claims for damages from private parties and respond in writing within two (2) calendar days of receipt of the claim, after coordination with the SEJPA.



## Services During Construction Continued

### 9. Quality Assurance

- a) Inspection of the Work: Consultant will provide inspections as necessary so work has been completed in compliance with the Contract Documents.
- b) Reports: Consultant will prepare reports of the construction activities including: weather conditions, manpower, equipment, materials, visitors, delays, and deficiencies.
- c) Revisions to Contractor's Methods: Consultant will discuss appropriate revisions to the methods and procedures used in performing the work and will be resolved through the RFI process.
- d) Deviations in the Work: Consultant will document, track, and advise the SEJPA's Project Manager and the Contractor of deviations in the work.
- e) Pipeline Shutdowns and Bypassing: Consultant will coordinate necessary pipeline shutdowns and bypassing with SEJPA staff as required.
- f) Acoustical Monitoring Services: Consultant will provide an acoustician to monitor construction noise when specifications have sound limitations.
- g) Water Quality Monitoring Services: Consultant will provide a trained water quality/erosion control specialist (QSP or QSD certified) to monitor construction site BMPs and erosion protection devices.

### 10. Material Testing Services

- a) General Requirements: Consultant will provide specialized services for geotechnical testing, coating testing, materials testing including concrete and asphalt concrete, and corrosion protection testing.

## Services During Construction Continued

### 11. Startup, Closeout, and Acceptance Services

- a) Operation Testing Plan: Consultant will review and recommend the operational testing plan that is developed in consultation with the SEJPA, Design Engineer, Contractor, and the appropriate vendors.
- b) Punch List: Consultant will prepare a project punch list at substantial completion of the project. Consultant will provide confirmation of the Contractor's compliance on work items specifically requested by the SEJPA.
- c) Final Walk-Through: Consultant will schedule, coordinate, and conduct a final walk-through and project review prior to acceptance of the work with the SEJPA.
- d) Recommended Acceptance: Consultant will recommend acceptance of the work in writing in preparation for the issuance of the Certificate of Substantial Completion and/or Notice of Completion.
- e) Closing out Contract: Consultant will take the lead in negotiating and closing out the construction contract and will prepare a memorandum to the SEJPA recommending acceptance of the project and the Notice of Completion.
- f) Final Project Records and Documents: Consultant will provide the final project records and documents to the SEJPA upon completion of the project.

### 12. Post Construction

- a) Operations and Maintenance Manuals: Consultant will deliver the Operations and Maintenance Manuals and any spare parts and equipment upon acceptance of the project by the SEJPA.
- b) Record Drawings Certification: Consultant will review and confirm that the Contractor's project record drawings are complete and accurate. The drawings will be provided to the Design Engineer.
- c) Final Payment: Consultant will recommend final payment in the form of release of retention to the Contractor in accordance with the Contract Documents. Consultant will confirm that the Contractor has made all payments to the subcontractors and vendors and that any stop notices or liens have been released. Consultant will obtain an Unconditional Waiver of Lien as appropriate from the Contractor prior to recommending final payment.



### Fee Proposal

Black & Veatch prepared the following fee in conformance with our understanding of the scope of work and the project requirements. We are happy to meet with you to discuss any modifications to our fee to align with your expectations. We have also included two optional tasks shown in the Extended Services section of the Fee Table. We believe these two optional tasks will provide long-term value to SEJPA should you elect to add these to the project scope.

		San Elijo Joint Powers Authority									BLACK & VEATCH					
		Encinitas Ranch HOA and Requeza Street Water Pipeline Project														
		Fee Proposal for Construction Management and Inspection Services														
Task	Description	Kevin Davis	Eric Sturtz	Chris Stiedemann	Ramiro Ojeda	Waqar Amjad	Jorj Long	Administration	B&V Total Hours	Total Fee	B&V Direct Expenses	CSI	Ninyo & Moore	Video Inspection	Subconsultant Markup (5%)	Total
		Project Director	Project Manager	Construction Manager	Inspector	Electrical Inspection	Startup and Commissioning									
<b>TASK 1 - PROJECT MANAGEMENT &amp; ADMINISTRATION</b>		\$300	\$180	\$165	\$125	\$140	\$230	\$110								
1.1	Project Management and Administration	2	18					20	40	\$6,040	\$0	\$0	\$0	\$0	\$0	\$6,040
<b>TASK 2 - CONSTRUCTION MANAGEMENT</b>																
2.1	Construction Management and Inspection			460	370	32			862	\$126,630	\$500	\$6,000	\$16,000	\$10,000	\$1,600	\$160,730
<b>TOTAL:</b>		<b>2</b>	<b>18</b>	<b>460</b>	<b>370</b>	<b>32</b>	<b>0</b>	<b>20</b>	<b>902</b>	<b>\$132,670</b>	<b>\$500</b>	<b>\$6,000</b>	<b>\$16,000</b>	<b>\$10,000</b>	<b>\$1,600</b>	<b>\$166,770</b>
<b>Extended Services</b>																
ES.1	Startup and Commissioning Assistance							24	24	\$5,520	\$0	\$0	\$0	\$0	\$0	\$5,520
ES.2	Constructability Review	2	10	10					22	\$4,050	\$0	\$0	\$0	\$0	\$0	\$4,050
<b>NOTES:</b>																
1 - Billing rates provided are valid through March 2019. Should the project extend past March 2019, the consultant shall have the right to request a 3% adjustment to the labor billing rates.																
2 - Schedule assumes Contractor 5-day a week calendar 8 hour working days, with spot inspection as required and construction starting end of June 2018.																
3 - Task distribution of hours and expenses are based upon best estimates and understanding of the project. Re-allocation of the total fee may be necessary.																

# Resumes

## List of Resumes



- Chris M Stiedemann, QSD, PE – Construction Manager
- Ramiro Ojeda, EIT – Inspector
- Eric Sturtz, PE – Constructability Review / Public Relations
- Waqar Amjad – Electrical Inspector



# Chris M Stiedemann, QSD, PE

## Construction Manager



### Expertise:

Commissioning; Construction Management; Desalination; Membranes; Permitting

Mr. Stiedemann is a licensed California Professional Civil Engineer and Qualified SWPPP Developer with over seven years of field and office civil engineering experience. Chris' expertise is concentrated in water infrastructure construction management with practical experience in the construction of pipelines, pump stations, valves, tanks, coatings, membrane treatment systems, chemical storage areas, instrumentation, control systems, filtration technologies as well as knowledge of water treatment processes, plant commissioning, and O&M. Chris' start-to-finish project experience allows him to provide technical guidance to others and proactively identify and resolve conflicts in all stages of construction.

Chris is an ambitious decision maker, continuously focused on self and team improvement, proactive project management, client relationships and all-party communication. Chris also recognizes the importance of safety while managing work and assertively evaluates and improves site and work safety while performing daily inspections. Chris also excels at in-office administrative support from research and reporting, to exhibit preparation, punchlisting, change orders, pay estimates, and as-built preparation. Above all, Chris is a great communicator, problem solver, and team member ready to face the challenges of any project.

### PROJECT EXPERIENCE

#### San Elijo Joint Powers Authority | San Elijo Land Outfall Replacement Project

**Construction Manager.** Assisted with project execution

#### City of Chula Vista | Willow Street Bridge Replacement

**Lead Civil Inspector** - DHS Consulting, Inc.. \$15 million, replace existing bridge with a 610-foot-long state-of-the-art structure.

Improve sidewalks, trail, sewerage, roads.

- Enforced compliance with contract documents during daily jobsite inspection of drainage, electrical, concrete, pavement, SWPPP compliance, utility coordination, and roadway safety items.
- Communicated daily plan, progress, and issues with resident engineer and other inspectors.
- Reviewed submittals for compliance with multiple jurisdictions' standards and plans.
- Provided solutions for unforeseen conditions (birds, unsuitable subgrade, contamination) and tracked extra work.

### Office Location

San Marcos, CA

### Education

- MS, Civil and Environmental Engineering, Construction Engineering and Management, Leland Stanford Junior University, 2011
- BS, Civil and Environmental Engineering, Leland Stanford Junior University, 2010

### Professional Registration

- Certification, Qualified SWPPP Developer (QSD), Not Applicable, C84118, California, United States, 2016
- License, California Profession Engineer, Civil, C84118, California, United States, 2013
- Certification, 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER), General, United States, 2013

### Year Career Started

2011

### Year Started with B&V

2017

### Language Capabilities

- English
- German
- Portuguese

## Chris M Stiedemann, QSD, PE

### Construction Manager



#### County of Riverside | I-215 Newport Road Interchange Improvements

**Assistant Resident Engineer** - DHS Consulting, Inc.. \$50 million, replace existing bridges and new loop interchange system, major grading, paving, drainage, traffic control. • Assertively inspected and enforced CalTrans specifications, standards, and methods with a difficult contractor and followed through with corrective action plans and punchlisting. • Determined change order merit, tracked quantities, created logs and file management systems

#### San Diego County Water Authority | Carlsbad Desalination Plant; Carlsbad

Project Engineer - Poseidon Water. \$1 billion, construction and commissioning of a 54 MGD SWRO desalination plant and 54" transmission pipeline. • Provided field and office civil engineering support and daily inspection during design, permitting (NPDES, DDW), environmental remediation, construction, commissioning, startup, and operations phases. • Developed paths forward through plant design flaw and permitting issues to restore full production capacity. • Verified compliance with contract performance requirements, plans, and specifications. • Generated scope and contracts, reviewed bids, scheduled, budgeted, and selected multidisciplinary contractors. • Trained and managed a team of operators to sample, troubleshoot, analyze water quality, and react to changing operating conditions in a plant process system pilot plant study. Developed and implemented a comprehensive sampling regimen and metric set to determine compliance with test requirements.

- Conducted complex data analyses to provide performance forecasts, propose solutions, and analyze risk.
- Created computer-based tools to efficiently generate reports, reduce costs, and track submittal review workflows.
- Interfaced with investors, engineers, clients, contractors, media, and community groups to inform and educate.

#### Petrobras | Offshore Oil Reservoir Characterization

Wireline Field Engineer - Schlumberger. \$2-10 million per operation, high-revenue, time-sensitive exploratory offshore oil well data acquisition services • Managed and trained a team of operators to prepare, maintain, calibrate and safely use a wide variety of tools relying on shaped charges, powerful radioactive sources, resistivity, sonic, and coring methods. • Provided real-time data, quality control, and tool function to well owner. Finalized complex engineering deliverables. • Resolved instrumentation, control, and telemetry issues efficiently with proper training and operation planning. • Improved workshop efficiency for the team of engineers with a modified tool organization system.



## Ramiro Ojeda, EIT

### Inspector



#### Expertise:

Construction Management; Dams; Field Engineering; Field Inspection; Heavy Civil; Pipelines; Pressure Grouting; Resident Engineer; RCC; Water Transmission

Ramiro brings a fundamental knowledge of Civil Engineering design backed with Construction Management, Field Engineering and Inspection Experience. He has worked on a variety of civil/environmental projects throughout the southwestern United States and abroad. His experience includes preliminary and detail design, hydraulic analysis, rehabilitation, construction management and support services of water pumping facilities, pipelines, treatment plants, and dams.

#### PROJECT EXPERIENCE

##### San Diego County Water Authority | San Vicente Dam Raise

#### Construction Inspector / Resident Engineer.

Assisted the Resident Engineers and Construction Manager by acting as the owner's agent to ensure construction activities were conducted in accordance with the contract documents and California Division of Safety of Dams (DSOD) standards. The San Vicente Dam Raise consisted of raising the existing San Vicente Dam 117 feet from its original height of 220 feet using roller-compacted concrete (RCC) making it the tallest RCC dam raise in the world. Construction inspection responsibilities during phases II and III included the following:

**Phase 2 (2010)** – Inspection of material processing and placement for a 324,000 CY earth and rock fill that served as lay area for the RCC aggregate and batch plants.

**Phase 3 (Foundation Prep, 2010 - 2011)** – Inspection of drilling and grouting activities compiling the grouting program which included extending the existing grout curtain, stitch grouting across specific discontinuities within the dam foundation, consolidation grouting in the dam foundation excavation, and check grouting within the grout curtain of the existing dam for a total of 58,000 linear feet of core drilling and rotary percussion drilling. Grout specific gravity and viscosity were tested as part of inspection responsibilities.

**Phase 3 (RCC, 2011 - 2012)** – Oversaw Contractor activities for foundation cleaning and joint preparation. Inspection of production, transportation, and placement of RCC for the 337-ft high, 600,000 cubic yard, San Vicente Dam. Form work inspection.

**Resident Engineer (2013 – 2014)** – Coordinated monthly progress payment reports with inspection team, developed monthly progress reports, reviewed technical submittals, assisted with coordination of weekly construction meetings and developed minutes, weekly safety inspection walks.

#### Office Location

San Marcos, CA

#### Education

- BS, Civil Engineering, San Diego State University 2006

#### Professional Registration

- EIT 2006, CA - 125962

#### Year Career Started

2006

#### Year Started with B&V

2006

#### Language Capabilities

- English
- Spanish



**Metropolitan Water District | Second Lower Feeder**

**Project Engineer.** Black & Veatch was retained by the Metropolitan Water Districts to conduct preliminary design of relining of 30 miles of 78-inch and 84-inch precast concrete cylinder pipe (PCCP) through urban environment in greater Los Angeles. The existing pipeline is to be relined using collapsible steel pipe liner inserted into position, expanded, welded and then grouted into place to provide a fully structural lining solution to completely rehabilitate the existing pipeline. Approximately 120 separate excavation sites to provide access into the existing pipeline were required, located within 15 separate cities. Responsibilities included design of the relining activities within the city limits of Los Angeles, CA, Lomita, CA, Rolling Hills Estates, CA, relocations and replacements of pipeline appurtenances, bulkheads, and staging areas.

**City of Escondido | Cemetery Area Water Pipeline Replacement**

**Staff Engineer.** Worked in the design of a 12,000 LF pipeline consisting of pipe ranging from 6 inches to 30 inches. Duties include coordination with Environmental, Surveying, Geotechnical, and Corrosion sub consultants as well as the development of drawings, specifications, and cost opinions.

**Calleguas Municipal Water District | Salinity Management Pipeline (SMP) Phase 2A/2B/2C**

**Staff Engineer.** Contributed in the investigation and development of pipeline alignment alternatives for 6.4 miles of 30-inch pipeline. Coordinated with appropriate agencies to identify existing utilities within the project area and assisted in the design and layout of Phase 2A/2B/2C of the Salinity Management Pipeline. Worked closely with multiple regulatory agencies to determine applicable environmental permits for the Army Corps of Engineers, US Fish and Wildlife Service, Regional Water Quality Control Board, and California Fish and Game. Developed project schedule and cost opinion. Deliverables included technical memorandums for alignment alternatives, pipe materials evaluation, construction phasing, permits, schedule, and a preliminary design report.

**San Diego County Water Authority | San Vicente Pump Station**

**Staff Engineer.** Provided construction support assistance by coordinating and reviewing submittals and RFI's. Additional tasks included participation in design for alternative pipeline filling and an additional jockey pump fill system. This project involves the construction of a new 444 cfs pumping station to deliver raw water from the San Vicente Reservoir to Pipeline 5 and the RM Leavy WTP, as part of the San Diego County Water Authority Emergency Storage Project. Project involved three 148 cfs horizontal split case pump with 7,000 hp motors and VFD's.

## Eric Sturtz, PE

### Constructability Review | Public Relations



#### Expertise:

Heavy Civil Construction;  
Construction Mgmt.; Resident Engineering;  
Project Controls;  
Water, Civil Design;  
DSOD Trusted Partner

Mr. Sturtz brings to Black & Veatch extensive field experience gained as Construction Manager, Resident Engineer, and Inspector on a wide range of large and complex construction projects throughout the United States and New Zealand. His experience as a civil engineering hydraulics and site layout designer, coupled with his California P.E., gives him the ability to analyze complicated engineering issues and provide sound decisions. His breadth of experience and high level of professionalism working alongside Clients, Engineers, Contractors, and Regulatory Agencies provides you with a reliable and trusted partner backed with sound Engineering and practical solutions

#### PROJECT EXPERIENCE

##### **Encina Wastewater Authority | Phase V Expansion Project; Biosolids and Energy Management Facilities; Carlsbad, CA**

**Construction Manager.** Construction Management for the final construction, startup, and commissioning for the Phase V Expansion Project, Biosolids and Energy Management facilities consisting of two separate design contracts. As CM, Eric's responsibilities included final inspection and closeout of project, overseeing final

commissioning and training activities, troubleshooting performance issues and implementing design changes to resolve those issues, as well as handing over all documents and records to the client.

**Resident Engineer.** As RE for the bulk of the project, responsibilities included providing complete support to the construction manager including assisting in preparation and/or review of submittals, requests for information, change orders, and field memo coordination between all disciplines and firms involved. Eric also managed QA and ensured the Contractor adhered to the project specifications and quickly addressed any field issues. Eric also worked with the Contractor and the Client to plan and ensure plant outages (over 100 total) were executed successfully with minimal downtime or impact on ongoing operations.

**Contract 1:** Work included management for construction of a heat dryer building and solids drying system including erection of the heat dryer building, installation of solids dewatering centrifuges, drying equipment, dry product loading building, digested sludge transfer pump station, digested sludge booster pump station, chemically enhanced primary treatment polymer and ferric chloride storage and transfer facility, dissolved air floatation thickening and centrifuge polymer storage, mixing and feeder facilities, installation of a heat dryer control room, and related electrical and control equipment, yard piping, grading, paving, and drainage work.

#### Office Location

San Marcos, CA

#### Education

- BS, Civil Engineering, University of Arizona, 2003

#### Professional Registration

- License, California Profession Engineer, Civil, C73333, California, United States, 2008

#### Year Career Started

2003

#### Year Started with B&V

2003

#### Language Capabilities

- English

## Eric Sturtz, PE

### Constructability Review | Public Relations



**Contract 2:** Construction management for the replacement of four 750kW Caterpillar 3516 cogeneration engine generator sets, electrical distribution equipment (switchgear, paralleling switchgear, load shed panels, controls, cabling, bus-way, MCC modifications), heat recovery equipment (waste heat exchangers, water pumps, gas booster blowers, air blowers), process piping, and yard piping.

#### **San Diego County Water Authority | San Vicente Dam Raise - Roller Compacted Concrete Dams and Appurtenant Facilities – Package 3; San Diego, CA**

**Resident Engineer.** As part of the world's largest RCC dam raise project, Eric was responsible for the QA management of the Outlet Tower, Gallery Access Building, Crest Control Building, Outlet Tunnel, and Downstream Control Facility. Eric also gained extensive experience managing and tracking the construction issues for the new RCC dam. The Outlet Tower and Crest Control Building as constructed was a 222-ft tall cast-in-place concrete structure consisting of six tower outlet gates, fish screens, gate hoists, and two tunnel entrance gates leading to an outlet shaft and tunnel containing a side-by-side 66-in and 90-in welded steel pipes. The Outlet Tunnel and 85-foot vertical shaft were performed by drill and shoot methods with a radius of 13.5-ft and a horizontal distance of approximately 500-ft. The tunnel walls were supported with rock dowels, as necessary, and shotcrete.

The Downstream Control Facility was a cast-in-place concrete structure that housed and associated piping. Other typical duties included making interpretation on the plans and specifications, reviewing submittals, preparing change orders, field orders, requests for pricing, reviewing contractor monthly pay requests, coordinating inspection with QA Manager and Inspectors, verifying that the inspector observes the critical success factors for each work feature, reviewing Daily Inspection Reports, evaluating non-compliance situations, coordinating with QA Manager for the severity of non-compliance situations, assisting Construction Manager in resolving non-compliance situations, and leading the Construction Management Team weekly meetings. Eric also was the DSOD main point of contact for the Outlet Works and was granted approval for DSOD sign-off of critical project components requiring their approval. Overall project cost of \$140M USD.

#### **City of Carlsbad | Carlsbad Water Recycling Facility; Carlsbad, CA**

**Startup Specialist.** Performed construction startup services of the City of Carlsbad's 4 mgd Water Recycling Facility. Project consisted of coordinating and monitoring the startup of the plant's various wastewater treatment processes and assisting in operator training of the equipment controls and operations.

Project components consisted of Microfiltration, Reverse Osmosis, Granular Media Filtration, high-rate thickening units, and numerous feed water and chemical metering pumps. Coordinated Contractor equipment checkout and wet testing of all vendor-supplied equipment as well as the repairs of piping and equipment with an on-call Contractor. Assisted in tracer testing for the determination of the Chlorine Contact Basin modal time and conducted final inspection with Regional Water Control Board for the Discharge Permit.

#### **Castaic Lake Water Agency | Sand Canyon Pipeline and Reservoir; Santa Clarita, CA**

**Resident Engineer.** Pipeline / Pump Station. Provided full time engineering support on multiple multi-phased construction projects. Conveyed project design and specification information to the contractor and construction manager to represent the needs of the client and intent of the engineers in the office. Coordinated with environmental firms and regulatory agencies as to help the construction manager respond to changing field conditions that may require additional or amended regulatory permits. Met with Regulatory Agencies on a regular basis to ensure the construction projects followed the guidelines and stipulations spelled out in the permit documents procured and agreed upon during the design phase of the project.

## Waqar Amjad

### Electrical Inspector



#### Expertise:

Electrical construction inspection

Waqar bring his experience as an Electrical Engineer/Inspector who has monitored electrical construction and commissioning work including power, lighting, PLC and fire alarm & suppression systems.

#### PROJECT EXPERIENCE

##### **Pump Station No. 2 Construction Management | City of San Diego**

**Assistant Resident Engineer/Electrical Inspector.** Pump Station No. 2 is the City's largest sewage pump station, with a design capacity of 432 MGD. It was placed into operation in 1963 and includes eight pumps: six driven by 2250 HP motors, and two driven by 2400 HP gas engines. It conveys sewage to the City's Point Loma wastewater Treatment Plant via two -87-inch force mains.

The Power Reliability & Surge Protection Project constructs a Power Generator Facility housing 2 – 3 MW natural gas engine generators and 2 – 4 MW emergency diesel engine generators, and replaces the two gas engine drives with electric motors. The resultant facility provides reliability against loss of grid power, cost effective power and reliable surge protection that is maintained by the constant use of any one pump.

##### **New York City Department of Environmental Protection | Coney Island Water Pollution Control Plant (WPCP) Retrofit of Primary Settling Tank Odor Control Building**

**Electrical Inspector.** Mr. Amjad supervised electrical and instrumentation construction work including power, lighting, PLC wiring for Odor Control Monitoring Panel (OCPM), Gas Monitoring Panel, and Fire Alarm Panel. He was responsible for reviewing and implementing the contract documents and designs; modifications and change orders; reviewed and recommended monthly contractors payments; reviewed and approved as-built drawings and final documents; supervised the execution of day-to-day work; technical review of engineering packages; performed construction inspection for conformance with design and contract specification; prepared and implemented directives for corrective actions; coordinated and reviewed the CPM schedule; and performed all other inspections and evaluations.

#### Office Location

San Diego, CA

#### Education

- BS, Electrical Engineering, University College of Engineering and Technology, Pakistan 2008

#### Year Career Started

2006

#### Year Started with B&V

2013

#### Language Capabilities

- English

## Waqar Amjad

### Electrical Inspector



**New York City Department of Environmental Protection | 26th Ward Water Pollution Control Plant (WPCP) Emergency Generators Upgrade and Regulator Reconstruction Assistant Resident Engineer/Electrical Inspector.** Upgrade of emergency generators to 75MW and regulator reconstruction at this 180 mgd WPCP. Worked on following aspects: cost analysis, resource-loaded CPM schedule, processing payments, managing inspections and reviewing start-up and commissioning plan for the system. Mr. Amjad's participation was divided into the following phases:

- **Phase 1:** Managed engineering and construction contractors to complete the installation, start-up, testing and commissioning of six 1 MW Interim Generators with two 480/4160V **2500KW Step-up Transformers.**
- **Phase 2:** Field inspected the installation of three 2.5MW Emergency Generators & 5kV Metal-clad Emergency Switchgear.
- **Phase 3:** Worked on Quality Assurance for installation of Mimic Control Panels for 5kV Commercial Power Feeds and Switchgear Modification.

Phase 4: Performed Engineering and Technical support tasks to connect Emergency Generators to Switchgear per detailed specifications and National Electric Code. Currently connecting generators to the Fire Alarm System in accordance with NFPA 110 and 111.

Waqar supervised electrical and instrument construction work which included power, lighting, and PLC wiring for Odor Control Monitoring Panel (OCPM), Gas Monitoring Panel and Fire Alarm Panel. He was responsible for reviewing and implementing the contract documents and designs; modifications and change orders; review and recommendation of the monthly payments of contractors; review and approval of the as-built drawings and final documents; supervision of the execution of day-to-day work; technical review of engineering packages; performing construction inspection for conformance with design and contract specification; preparation and implementation directives for corrective actions; coordination and review of the CPM schedule and all other inspections and evaluations.

In addition, Waqar also analyzed risk exposure monthly using variances and exceptions; reviewed contractor's claims and studies; performed delay analyses, and he implemented NYC Electrical Code & NFPA-70E, IEEE & NETA Standards to achieve Quality Generation. He coordinated with Con-Edison and Plant Operations to schedule power outages to tie the new system into the existing utility set up. In addition, Waqar finished work on complex reconstruction of a plant hydraulic regulator structure, associated demolition work and foundation work. Construction value was \$50 million.

**Anne Arundel County Projects | Cox Creek WRF Phase 2 (ENR) and Phase 3 (Non-ENR) Upgrade Project / Jennifer Rd PS / Mayo WRF ENR Upgrade**

**Electrical Inspector and Training Coordinator.** Mr. Amjad's primary duty was in the role of Electrical Inspector at Anne Arundel County projects including the \$84M Cox Creek WRF Phase 2 ENR Upgrade project (for the installation of 35KV Distribution System, Membrane Filtration System, Fine Screens and High Flow System) and Phase 3 Non-ENR (Upgrade of Headworks Building), Jennifer Rd Pumping Station, and the Mayo WRF ENR Upgrade.

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

May 14, 2018

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: AGREEMENT AMENDMENT FOR CONSTRUCTION MANAGEMENT &  
INSPECTION SERVICES FOR LAND OUTFALL REPLACEMENT

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize amendment of the professional services agreement with Black & Veatch for an additional amount not to exceed \$174,815; and
2. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) has initiated Phase I of a multi-phased capital improvement program to construct a series of clean water related infrastructure projects (wastewater and recycled water).

Phase I includes the following projects:

- Land Outfall Replacement Project (“LORP”). This project will replace approximately 2,600 linear feet of aging 30-inch diameter asbestos-concrete pipeline originally installed in 1965. The land outfall is critical wastewater infrastructure in use 24 hours a day that conveys on average 10 million gallons per day (“mgd”) of treated wastewater from the cities of Encinitas, Solana Beach, Del Mar, and Escondido for ocean disposal approximately 1.5 miles from shore. The outfall system is essential for meeting water quality compliance, and failure would likely have both environmental and financial impacts.
- Preliminary Treatment and Odor Control Upgrades Project. This project will increase peak flow wastewater and treatment by more than 50% to approximately 13.6 MGD from the current flow of 9.0 MGD. Although the average daily flow to the San Elijo Water Reclamation Facility is approximately 3.0 MGD, winter storms can increase peak flows for short durations to approximately 9.0 MGD. This project will increase the

robustness and effectiveness of the system, and protect the environment and public health from unintended spillage of raw sewage. Project elements include the installation of new treatment and process monitoring equipment, construction of concrete channels, replacement of aging chemical storage tanks, and upgrades to existing odor control system.

In May 2017, the Board awarded the professional services agreement to Black & Veatch in the amount of \$979,669 for construction management and environmental compliance services for the Phase I projects. In February 2018, Amendment No. 1 for the LORP was issued to Black & Veatch in the amount of \$119,715 for additional inspection work required to provide 24-hour construction inspection and monitoring during the horizontal directional drilling phase of the project (November 2017 through January 2018). Initially, the directional drilling work was anticipated to be completed working 10 hours per day, 5 days per week. However, due to construction difficulties, work shifted to 24 hours per day, 6 days per week to meet a permit driven construction schedule.

## DISCUSSION

Since the completion of the directional drilling and installation of the new Land Outfall pipeline, the contractor encountered further construction challenges at the beach site where the new pipeline connects to the existing ocean outfall pipeline. These delays placed the project at-risk of extending past regulatory permit construction work windows and migratory bird seasons. The unforeseen delays also increased the potential to stall other local infrastructure projects within the San Elijo lagoon and at Cardiff State Beach, including the City of Encinitas Living Shoreline, San Elijo Lagoon Restoration, and San Elijo Lagoon Double Track projects. The SEJPA is required by the California Coastal Commission permit to coordinate with these local projects to reduce impacts to the environment and community. These critical projects share similar regulatory and biological compliance requirements with the LORP, in addition to added complexity of the railroad absolute work windows. Furthermore, all of these projects rely on the LORP to be completed on-time to minimize significant schedule and cost impacts.

In consideration of the additional delays and constraints, the contractor was allowed to work overtime to achieve a construction completion date prior to the expiration of the project permits. The SEJPA authorized Black & Veatch to provide inspection and construction management to ensure the contractor continued to complete the work with high quality, and in accordance with the drawings and specifications. Budget for this work also contains an amount expected to be used by Black & Veatch to continue inspection and construction management through the end of the construction period, currently set at June 8, 2018.

## FINANCIAL IMPACT

The total project budget, including 5% construction contingency, was originally \$9,680,455. As outlined in this staff report, construction management and inspection services are expected to require an additional \$174,815 to complete the project. Furthermore, the contractor has indicated that additional change orders for additional work incurred as a result of buried obstructions (beach site) and unexpected utility conflicts (at the SEWRF) will be submitted in the near future. Staff will evaluate the merit of these items once they are submitted. Based on the latest forecast, it is anticipated that these additional costs may be within the construction contingency allowance, assuming no further unforeseen events are encountered.



Funding for this proposed contract amendment is available in the SEJPA capital program. Costs are shared based on capacity ownership of 21% SEJPA and 79% City of Escondido. It is recommended that the Board of Directors:

1. Authorize amendment of the professional services agreement with Black & Veatch for an additional amount not to exceed \$174,815; and
2. Discuss and take action as appropriate.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "M. Thornton", written over a horizontal line.

Michael T. Thornton, P.E.  
General Manager

Attachment 1: Black & Veatch Letter dated May 8, 2018



May 8, 2018

Mr. Michael Thornton, P.E.  
General Manager  
San Elijo Joint Powers Authority  
2695 Manchester Avenue  
Cardiff by the Sea, CA 92007

B&V Project 196270  
B&V File 14.2100  
Letter No. 003

Subject: Amendment – Construction Management Services for the Land Outfall Replacement and Preliminary Treatment Upgrades Construction Management and Inspection Services Projects

Dear Mr. Thornton:

Black & Veatch respectfully requests a contract amendment to provide inspection and construction management services to support SEJPA for the construction completion of the Land Outfall Replacement Project (LORP). Due to the additional services performed beyond the currently budgeted amount, Black & Veatch will be unable to complete the overall project, which also consists of the Construction Management and Inspection of the Preliminary Treatment Upgrades (PTU) Project, within the current budget.

Amendment No. 1 of our construction services contract, issued by SEJPA on February 12, 2018, was based on an estimated LORP substantial completion date of March 16, 2018. Based on the current construction schedule, that date has now been extended to the end of May. This will be followed by the final demobilization and restoration of the beach and SEWRF work areas, paving, striping, punchlists, and project closeout, which is anticipated to be completed by the end of June 2018.

Filanc has encountered a number of unanticipated delays throughout the course of this project which have had a direct impact on the project critical path work and overall completion date. This includes the inability to drive a steel casing under HWY 101 at an effective rate, encountering a number of existing utilities not previously known, obstructions below the sand at the beach outfall affecting the installation of a dewatering system and excavation of the existing outfall pipe, a differing configuration of ACP collars on the existing outfall at the beach requiring a modified tapping sleeve design, and other substantive delays. Filanc has worked additional time and employed additional resources as available to make up for these delays.

- **Construction Services budget impact**

- Due to the above delays, an extended duration of inspection and construction management oversight has been required beyond the originally budgeted duration. The project schedule currently shows a substantial construction completion by May 31, 2018. This would be followed by punchlist work and final closeout by the inspection and construction management team which is expected to be completed by June 29, 2018.
- The additional cost to cover the extended contract duration is as follows:
  - Construction Management Support
    - 298.5 hours for an additional cost of \$46,566
  - Inspection Support
    - 635.5 hours for an additional cost of \$113,119.



- Through the services of a corrosion protection specialist, Black & Veatch has provided SEJPA with corrosion protection system for the new outfall connection point at the beach. This additional work provides assurance that the connection point between the Land Outfall and Ocean Outfall systems is adequately protected against corrosion and premature failure.
  - Corrosion Protection Design and Installation
    - \$15,130

As a result the project extended construction period, and the corrosion protection design and installation, the total budget increase request for the above activities is \$174,815. This budget is based on the rates presented in our original proposal.

Please don't hesitate to call me to discuss this proposed budget increase. Black & Veatch will continue to seek out strategies to remain as efficient as possible to keep costs to a minimum. We sincerely look forward to successfully completing the LORP and the PTU Projects with you.

Very truly yours,  
Black & Veatch



Kevin N. Davis, P.E., BCEE  
Associate Vice President / Project Director

cc: Eric Sturtz, John Bekmanis