#### **AGENDA**

# SAN ELIJO JOINT POWERS AUTHORITY MONDAY, MARCH 11, 2019 AT 8:30 AM SAN ELIJO WATER RECLAMATION FACILITY – CONFERENCE ROOM 2695 MANCHESTER AVENUE CARDIFF BY THE SEA, CALIFORNIA

- 1. CALL TO ORDER
- 2. ROLL CALL
- 3. PLEDGE OF ALLEGIANCE
- 4. ORAL COMMUNICATIONS (NON-ACTION ITEM)
- AWARDS AND RECOGNITION
  - California Sanitation Risk Management Authority 2017/18 Workers' Compensation Excellence Award
  - San Diego County Engineering Council Outstanding Engineering Project Recognizing San Elijo Land Outfall Replacement Project

#### 6. \* CONSENT CALENDAR

- 7. \* APPROVAL OF MINUTES FOR FEBRUARY 11, 2019 MEETING
- 8. \* <u>APPROVAL FOR PAYMENT OF WARRANTS AND MONTHLY INVESTMENT REPORTS</u>
- 9. \* <u>SAN ELIJO WATER RECLAMATION FACILITY TREATED EFFLUENT FLOWS MONTHLY REPORT</u>
- 10. \* <u>SAN ELIJO JOINT POWERS AUTHORITY RECYCLED WATER PROGRAM MONTHLY REPORT</u>
- 11. \* <u>ENCINITAS RANCH RECYCLED WATER EXPANSION PROJECT CONTRACT CHANGE ORDER</u>
- 12. \* PRELIMINARY TREATMENT AND ODOR CONTROL UPGRADES PROJECT CONTRACT CHANGE ORDER
- 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. <u>PROFESSIONAL SERVICE AGREEMENT FOR OCEAN OUTFALL SUPPORT SERVICES</u>

- 1. Authorize the General Manager to execute professional service agreements with Michael R Welch, Ph.D., PE for an amount not to exceed \$78,200; and
- Discuss and take action as appropriate.

Staff Reference: General Manager

#### 15. BUILDING AND SITE IMPROVEMENT PROJECT DISCUSSION

For information only. This is a continuing monthly item to discuss the building and site improvement project.

#### GENERAL MANAGER'S REPORT

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

#### 17. GENERAL COUNSEL'S REPORT

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

#### 18. 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

#### 19. 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".

- Conference with Legal Counsel Anticipated Litigation. Significant exposure to litigation pursuant to Gov. Code Section 54956.9(d)(2);
- Conference with Labor Negotiator; Agency Negotiator: Michael T. Thornton, General Manager; Unrepresented Employees: All Non-Contract Employees pursuant to Gov. Code Section 54957.6.

#### 20. ADJOURNMENT

The next regularly scheduled San Elijo Joint Powers Authority Board Meeting will be Monday, April 15, 2019 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 <a href="https://www.sejpa.org">www.sejpa.org</a>. 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: March 6, 2019

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

#### SAN ELIJO JOINT POWERS AUTHORITY MINUTES OF THE REGULAR BOARD MEETING HELD ON FEBRUARY 11, 2019 AT THE

#### SAN ELIJO WATER RECLAMATION FACILITY

David Zito, Chair

Jody Hubbard, Vice Chair

A regular meeting of the Board of Directors of the San Elijo Joint Powers Authority (SEJPA) was held Monday, February 11, 2019, 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 Zito called the meeting to order at 8:30 a.m.

#### 2. ROLL CALL

Directors Present: David Zito

Jody Hubbard Kristi Becker

Catherine Blakespear

Directors Absent: None

Others Present:

General Manager Michael Thornton

Director of Finance & Administration Paul Kinkel
Director of Operations Chris Trees
SCADA Manager Casey Larsen
Project Manager Mike Konicke
Maintenance Mechanic II Jose Garcia
Administrative Assistant/Board Clerk Jennifer Basco

SEJPA Counsel:

Procopio, Cory, Hargreaves & Savitch Greg Moser

City of Encinitas:

Public Works Management Analyst Bill Wilson

City of Solana Beach:

City Manager Greg Wade

Director of Engineering/Public Works Mohammad "Mo" Sammak

#### 3. PLEDGE OF ALLEGIANCE

Chair Zito led the Pledge of Allegiance.

#### 4. ORAL COMMUNICATIONS

None

#### 5. AWARDS AND RECOGNITION

General Manager Thornton presented the following awards from the California Water Environment Association (San Diego Section) to the Board of Directors:

- Plant of the Year Award Medium Size Facility
- Engineering Achievement Award Land Outfall Replacement Project
- Electrical Instrumentation Person of the Year Casey Larsen
- Mechanical Technician of the Year Jose Garcia

#### 6. <u>CONSENT CALENDAR</u>

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

Agenda Item No. 7	Approval of Minutes for the January 14, 2019 Meeting						
Agenda Item No. 8	Approval for Payment of Warrants and Monthly Investment Report						
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	Professional Service Agreement for Laboratory Support Services						
Agenda Item No. 12	Preliminary Treatment and Odor Control Upgrades Project Contract Change Orders						

Motion carried with the following vote of approval:

AYES: Zito, Hubbard, Becker, Blakespear

NOES None ABSENT: None ABSTAIN: None

#### 13. ITEMS REMOVED FROM CONSENT CALENDAR

None

## 14. <u>SAN ELIJO JOINT POWERS AUTHORITY MID-YEAR REVIEW OF THE FISCAL YEAR 2018-19 OPERATING BUDGET</u>

Paul Kinkel, Director of Finance and Administration, presented the mid-year analysis of the SEJPA's FY 2018-19 estimated financial forecast. Programs budgeted by the SEJPA include: Wastewater Treatment, Laboratory Services, Ocean Outfall, Cardiff Pump Stations, Solana Beach Pump Stations, City of Solana Beach Services, Encinitas Pump Stations, Encinitas Storm Water, Del Mar Pump Station, and Recycled Water. Mr. Kinkel informed the Board of Directors that total operating expenses for the agency are expected to be under budget by \$150,080 or 2.3%. The Recycled Water program projects to deliver \$505,813 revenue over expense.

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

#### 15. MAINTENANCE TRUCK AND SLUDGE TRACTOR PURCHASE

In October 2018 the Board of Directors authorized staff to request bids to replace a 2003 diesel maintenance truck and a 1989 diesel sludge tractor. General Manager Thornton informed the Board Members that staff conducted public contract bidding for two diesel trucks and Rush Truck Centers submitted the lowest responsive and responsible bid totaling \$294,938. The trucks will be received in FY 2019-20, at which time payment will be made. This expense will be included in the upcoming 2019-20 Budget.

Moved by Board Member Blakespear and seconded by Board Member Becker to:

- 1. Authorize the General Manager to issue a purchase order to Rush Truck Centers in the amount of \$193,250 for a 2019 Ford F-750 equipped with Crane Body to be budgeted and delivered in FY 2019-2020; and
- 2. Authorize the General Manager to issue a purchase order to Rush Truck Centers in the amount of \$101,688 for a 2020 Peterbilt 348 Tractor to be budgeted and delivered in FY 2019-2020.

Motion carried with the following vote of approval:

AYES: Zito, Hubbard, Becker, Blakespear

NOES None ABSENT: None ABSTAIN: None

#### 16. CLASSIFICATION AND COMPENSATION ANALYSIS

General Manager Thornton informed the Board of Directors that SEJPA employees are currently operating under a 3-year labor agreement (Resolution No. 2018-02), which is scheduled to expire June 30, 2019. As part of the resolution, the Competitiveness Assessment Decision section states that the SEJPA will perform a Classification and Compensation analysis, and present recommendations to the Board of Directors prior to the end of the agreement. The General Manager stated that SEJPA completed a classification and compensation review of agency positions using salary data from comparable agencies within an approximate 30-mile radius. The overall effort included

review of 20 position classifications collected from 16 cities and agencies in order to collect representative compensation data within the defined labor market. Upon examining the data, the general conclusion is that salaries of some SEJPA labor classes have edged below market competitiveness for attracting and retaining staff, and therefore, consideration may be warranted for adjusting the pay ranges of the positions which were below the median. The General Manager will prepare recommendations for adjustments to the Classification and Compensation Schedule and present it at a future meeting.

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

#### 17. BUILDING AND SITE IMPROVEMENT PROJECT DISCUSSION

General Manager Thornton provided an update to the Building and Site Improvement project. Resource permit applications have been completed; however, review and approval of the permits by the resource agencies may be extended over a year.

No action required. This memorandum was submitted for information only. This is a continuing monthly item to discuss the building and site improvement project.

#### 18. GENERAL MANAGER'S REPORT

The General Manager informed the Board of Directors that staff submitted two grant applications for the Proposition 1 – Round 1 IRWM grant program for storm water, recycled water, and potable reuse projects.

#### 19. GENERAL COUNSEL'S REPORT

None

#### 20. BOARD MEMBER COMMENTS

None

#### 21. CLOSED SESSION

The Board of Directors adjourned to closed session at 9:27 a.m., pursuant to the following Government Code Section:

 CONFERENCE WITH LEGAL COUNSEL—ANTICIPATED LITIGATION. Significant exposure to litigation pursuant to Gov. Code section 54956.9(d)(2): 1 matter;

The Board of Directors came out of closed session at 9:34 a.m., with no reportable action.

#### 22. <u>ADJOURNMENT</u>

The meeting adjourned at 9:35 a.m. The next Board of Directors meeting will be held on Monday, March 11, 2019 at 8:30 a.m.

Respectfully submitted,

Michael T. Thornton, P.E.

General Manager

## SAN ELIJO JOINT POWERS AUTHORITY PAYMENT OF WARRANTS 19-03 For the Months January and February 2019

	Vendor Name	G/L Account	Warrant Description	Amount
36718	Aquatic Bioassay	Services - Laboratory	Toxicity testing	2,800.00
36719	AT&T	Utilities - Telephone	Phone service - 12/13/18 - 01/12/19	399.50
36720	Atlas Pumping Service Inc.	Services - Grease & Scum	Grease and scum pumping; maintenance	7,029.88
36721	Black & Veatch	Services - Engineering	Land outfall replacement project; Solids treatment	27,870.50
36722 36723	Carollo Engineers Coast Waste Management, Inc.	Services - Engineering Services - Grit & Screenings	ARC flash and protection study; SCADA upgrades Disposal	4,090.65 2,516.70
36723 36724	Complete Office	Supplies - Office	Office supplies	2,310.70 68.72
3672 <del>4</del> 36725	Corodata	Rent	Record storage - December	95.31
36726	CWEA Membership	Dues & Memberships	Lab analyst	102.00
36727	D&H Water Systems	Repair Parts Expense	Pump parts	2,627.71
36728	Dell Marketing L.P.	Supplies - Office	Computer	1,514.34
36729	DMV	Services - Other	12/01/18 - 12/31/18	7.00
6730	EDCO Waste & Recycling Service	Utilities - Trash	January	242.75
36731	Encina Wastewater Authority	Service - EWA Support; Lab	Resource sharing - HR and safety; lab supplies	1,742.23
6732	Flo-Systems, Inc.	Capital Outlay	Bearings	3,251.72
36733	Forte of San Diego	Supplies - Janitorial	Supplies	397.30
6734	FRS Environmental	Services - Maintenance	Parts washer service - 01/07/19 - 03/30/19	249.05
86735	Global Equipment Company, Inc.	Supplies - Shop & Field	UltraTech ultra-IBC spill	1,211.06
6736	Golden Bell Products	Supplies - Chemicals	Lift station degreaser and granular chlorine	849.07
6737	Hach Company	Repair Parts Expense	Door kit, membrane replacement kit, lab supplies	877.54
86738	Kemira Water Solutions, Inc.	Supplies - Chemicals	Ferric chloride	5,189.78
86739	Larry Walker Associates	Services - Professional	Laboratory audit and review	5,974.00
6740	Lizbeth Ecke	Licenses	Temp construction access	750.00
86741	McMaster-Carr Supply Co.	Supplies - Shop & Field	Screw-pin, tubes, degreaser, pipe, fittings, cable	2,147.11
36742	MetLife - Group Benefits	Dental/Vision	Dental - February	1,841.76
6743	Michael R. Welch, Ph.D., P.E.	Services - Professional	Ocean outfall discharge	14,110.00
6744	MSA Safety Sales, LLC	Repair Parts Expense	Sensor	534.76
6745	Pacific Green Landscape	Services - Landscape	January	2,625.00
6746	Pacific Pipeline Supply	Repair Parts Expense	Gasket	552.44
6747	Peerless Materials Co., LLC	Supplies - Shop & Field	Shop towels	295.32
6748	Cashier - Jennifer Basco	Supplies - Lab	Replenish petty cash	158.22
86749	Polydyne Inc.	Supplies - Chemicals	Clarifloc	7,141.08
6750	Procopio Cory Hargreaves	Services - Legal	General; Labor & Employment - December	3,600.17
6751	ReadyRefresh	Supplies - Lab	Kitchen and lab supplies	379.76
6752	Santa Fe Irrigation District	Services - Engineering; Utilities	Potable reuse; recycled water	33,922.54
86753	San Dieguito Trophy	Board Expense	Name plates and awards	110.71
6754	Siemens Industry, Inc.	Repair Parts Expense	Zero speed switch	1,534.36
86755	State Water Resources Control	Dues & Memberships	Certification	125.00
6756	State Water Resources Control	Fees - Permits	Index# 365072 - 01/01/19 - 12/31/19	1,400.00
86757	Trussell Technologies, Inc.	Services - Engineering	MF and RO training and data analysis	3,377.50
6758	Unifirst Corporation	Services - Uniforms	Uniform service	205.96
6759	UPS	Postage/Shipping	Mailing parts	392.19
6760	USA Bluebook	Repair Parts Expense	Float switches	315.83
6761	Vantagepoint Transfer Agents	EE Deduction Benefits	ICMA - 457	6,388.94
6762	Vantagepoint Transfer Agents	ICMA Retirement	ICMA - 401a	3,441.99
6763	Verizon Wireless	Utilities - Telephone	Cell phone service - 12/08/18 - 01/07/19	830.87
6764	Volt Management Corp	Services - Intern Program	Periods ended - 01/11/19 and 01/18/19	5,100.44
6765	VWR International, Inc.	Supplies - Lab	Laboratory supplies	922.27
86766	Water Systems Consulting, Inc.	Services - Professional	Strategic communication	3,889.77
6767	Water Environment Federation	Dues & Memberships	Membership	328.00
n-line 159	Chevron & Texaco Business Card	Fuel	January	334.61
n-line 160	P.E.R.S.	Medical Insurance - PERS	Health - February	21,699.33
n-line 161	Public Employees - Retirement	Retirement Plan - PERS	Retirement - 01/12/19 - 01/25/19	13,004.25
6768	Aflac	EE Deduction Benefits	Aflac - February	595.08
6769	Ag Tech, LLC	Services - Biosolids Hauling	Biosolids hauling - January	13,362.52
6770	Albertsons Companies	Services - Medical	Vaccine	34.00
6771	Alfa Laval Ashbrook Simon-Hart	Repair Parts Expense	Nozzle and gasket	1,262.83
6772	Aquatic Bioassay	Services - Laboratory	Toxicity testing	2,800.00
6773	AT&T	Utilities - Telephone	Alarm service - February	399.56
10773		•	•	
36774	Atlas Pumping Service Inc.	Services - Grease & Scum	Grease and scum pumping	554.88

## SAN ELIJO JOINT POWERS AUTHORITY PAYMENT OF WARRANTS 19-03 For the Months January and February 2019

	Vendor Name	G/L Account	Warrant Description	Amount
36776	Black & Veatch	Services - Engineering	Encinitas Ranch RW expansion; land outfall project	156,111.10
36777	Brenntag Pacific, Inc	Supplies - Chemicals	Sodium hydroxide	2,726.38
36778	Burtech Pipeline, Inc.	Services - Contractors	Encinitas Ranch RW expansion	322,905.00
36779	California Boiler	Services - Maintenance	Annual inspection	6,027.00
36780	Carollo Engineers	Services - Engineering	Secondary clarifier hydraulic modeling; SCADA	15,142.83
36781	Coast Waste Management, Inc.	Services - Grit & Screenings	Disposal	1,524.03
36782	Corodata	Rent	Record storage - January	95.09
36783	County of San Diego	Fees - Permits	Facility permit	521.00
36784	County of San Diego	Fees - Permits	Facility permit	521.00
36785	County of San Diego	Fees - Permits	Facility permit	1,236.00
36786	County of San Diego	Fees - Permits	Facility permit	521.00
36787	CWEA Membership	Dues & Memberships	Electrical	102.00
36788	Detection Instruments Corp.	Supplies - Shop & Field	L2 calibration	117.00
36789	Dudek & Associates	Services - Professional	Encinitas Ranch RW expansion	5,565.00
36790	Encina Wastewater Authority	Service - EWA Support	Resource sharing - HR and safety	1,040.77
36791	City of Encinitas	Service - IT Support	Admin network - January and February	5,250.00
36792	Forte of San Diego	Services - Janitorial	February	1,000.00
36793	gafcon	Services - Professional	Encinitas Ranch RW expansion	1,187.00
36794	Global Power Group Inc.	Services - Maintenance	PM service for generators	5,599.00
36795	Golden Bell Products	Supplies - Chemicals	Granular chlorine	396.52
36796	Golden State Overnight	Postage/Shipping	Water samples	49.15
36797	GC Pivotal LLC	Utilities - Internet	T-1 service - March	355.24
36798	Hach Company	Supplies - Lab	Laboratory supplies	982.46
36799	Idexx Distribution,Inc.	Supplies - Lab	Laboratory supplies	2,046.84
36800	Kemira Water Solutions, Inc.	Supplies - Chem - Ferric Chlo	Ferric chloride	5,392.05
36801	Kennedy/Jenks Consultants	Services - Engineering	Utility base mapping; CMAR owner reprentative	11,673.97
36802	Kimley-Horn & Associates, Inc.	Services - Professional	Bike path design	39,779.04
36803	McMaster-Carr Supply Co.	Repair Parts Expense	PVC pipe	896.31
36804	Napa Auto Parts	Repair Parts Expense	Air and oil filters	43.08
36805	NeWest Construction	Services - Contractors	Headworks and grit project	94,804.34
36806	Olivenhain Municipal Water District	Rent	Pipeline rental payment - January	2,713.50
36807	Preferred Benefit Insurance	Dental/Vision	Vision - February	299.30
36808	ProBuild Company, LLC	Supplies - Shop & Field	Tools, repair parts, and shop supplies	235.70
36809	Procopio Cory Hargreaves	Services - Legal	General; Labor & Employment - January	3,120.00
36810	Random Deeds Media LLC	Services - Professional	SEJPA Huber headworks	940.00
36811	Roesling Nakamura Terada Architects	Services - Professional	Building improvements	2,943.00
36812	Rosemount Inc.	Repair Parts Expense	Manifold	504.96
36813	Rusty Wallis, Inc.	Repair Parts Expense	Water softener and salt bags	97.32
36814	Santa Fe Irrigation District	Utilities - Water	Recycled water	1,346.61
36815	Santa Fe Irrigation District	SFID Distribution Pipeline	Pipeline purchase payment - January	800.62
36816	San Dieguito Water District	Utilities - Water	Recycled water	1,902.69
36817	San Dieguito Water District	Utilities - Water	Recycled water	830.64
36818	Sigma-Aldrich	Supplies - Lab	Minerals and nutrients for microbiology samples	285.98
36819	Smart & Final	Supplies - Office	Supplies	185.94
36820	Southwest Valve & Equip.	Repair Parts Expense	Worm gear	4,937.38
36821	Test America	Services - Laboratory	Testing water samples	3,332.39
36822	Thatcher Company of California	Supplies - Chemicals	Aluminum sulfate	6,790.19
36823	Michael Thornton	Subsistence - Travel/Rm & Bd	CASA conference and meeting	726.63
36824	Technology Integration Group	Services - Maintenance	Copier	146.35
36825	Christopher A. Trees	CSRMA Wellness Program	Health and wellness	60.00
36826	Trussell Technologies, Inc	Services - Engineering	RO membrane replacement	448.75
36827	Unifirst Corporation	Services - Uniforms	Uniform service	305.87
36828	Underground Service Alert/SC	Services - Alarm	Dig alert - January	239.21
36829	Vantagepoint Transfer Agents	EE Deduction Benefits	ICMA - 457	6,424.21
36830	Vantagepoint Transfer Agents	ICMA Retirement	ICMA - 401a	3,466.69
36831	Volt Management Corp	Services - Intern Program	Periods ending - 01/27/19; 02/03/2019	6,068.44
36832	VWR International, Inc.	Supplies - Lab	Laboratory supplies	709.05
36833	Water Systems Consulting, Inc.	Services - Professional	Recycled water communications	2,195.00
On-line 162	BankCard Center	Various	IT, luncheon, office supplies, and repair parts	6,028.08
On-line 163	Chevron & Texaco Business Card	Fuel	January and February	448.25
	Public Employees - Retirement	Retirement Plan - PERS	Retirement - 01/26/19 - 02/08/19	13,260.18

## SAN ELIJO JOINT POWERS AUTHORITY PAYMENT OF WARRANTS 19-03 For the Months January and February 2019

Warrant #	Vendor Name	G/L Account	Warrant Description	Amount
On-line 165	San Diego Gas & Electric	Utilities - Gas & Electric	Gas and electric - 01/07/19 - 02/05/19	50,082.80
On-line 166	Sun Life Financial	Life Insurance/Disability	Life and disability insurance - March	1,657.93
	San Elijo Payroll Account	Payroll	Payroll - 02/01/2019	78,229.33
	San Elijo Payroll Account	Payroll	Payroll - 02/15/2019	104,867.67
				\$1,210,446.72

## SAN ELIJO JOINT POWERS AUTHORITY

#### PAYMENT OF WARRANTS SUMMARY

## For the Months January and February 2019 As of February 25, 2019

PAYMENT OF WARRANTS
Reference Number

19-03

\$ 1,210,446.72

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.

Paul F. Kinkel

Director of Finance & Administration

#### STATEMENT OF FUNDS AVAILABLE FOR PAYMENT OF WARRANTS AND INVESTMENT INFORMATION As of February 25, 2019

FUNDS ON DEPOSIT WITH		AMOUNT
LOCAL AGENCY INVESTMENT FUND (JANUARY 2019 YIELD 2.355%)		
RESTRICTED SRF RESERVE UNRESTRICTED DEPOSITS	\$ \$	630,000.00 8,404,658.81
CALIFORNIA BANK AND TRUST (JANUARY 2019 YIELD 0.01%)		
REGULAR CHECKING PAYROLL CHECKING	\$ \$	111,437.58 5,000.00
UNION BANK - TRUSTEE (BOND FUNDS)		
BLACKROCK (JANUARY 2019 YIELD 2.27%)	\$	414,847.93
LAIF (JANUARY 2019 YIELD 2.355%)	\$	16,661,530.24
TOTAL RESOURCES	\$	26,227,474.56

## SAN ELIJO JOINT POWERS AUTHORITY MEMORANDUM

March 11, 2019

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: SAN ELIJO WATER RECLAMATION FACILITY TREATED EFFLUENT FLOWS

- MONTHLY REPORT

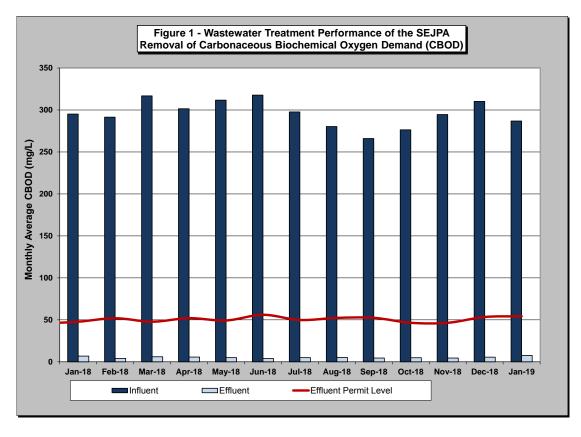
#### RECOMMENDATION

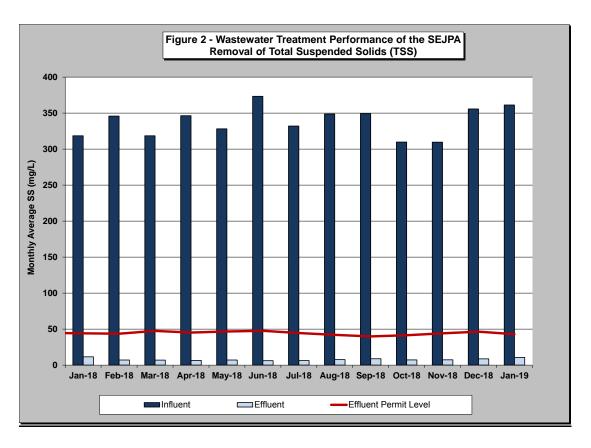
No action required. This memorandum is submitted for information only.

#### **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 January 2019. 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 97.3 and 97.0 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 January. Average daily influent flows were recorded for each Member Agency. Total effluent flow was calculated for the San Elijo Water Reclamation Facility.

	January					
	Influent (mgd)	<u>Effluent</u> (mgd)*				
Cardiff Sanitary Division	1.269	1.221				
City of Solana Beach	0.975	0.938				
Rancho Santa Fe SID	0.153	0.147				
City of Del Mar	0.384	0.369				
Total San Elijo WRF Flow	2.781	2.675				

<sup>\*</sup> 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.

TABLE 1 - SAN ELIJO WATER RECLAMATION FACILITY MONTHLY REPORT - FLOWS AND EDUS

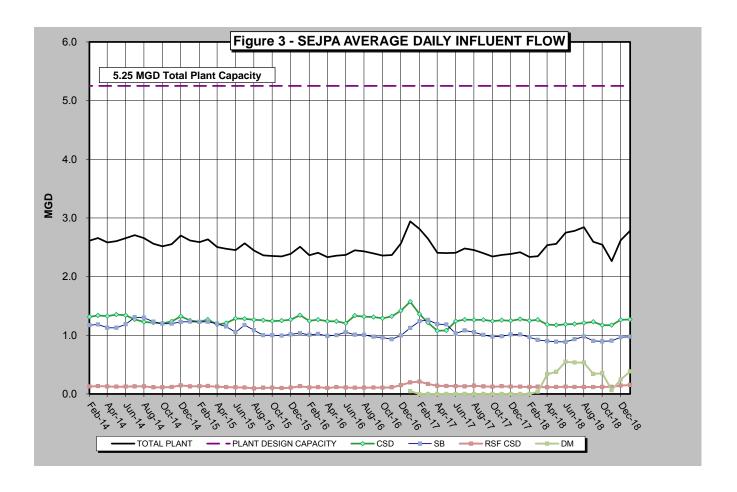
Month   GSB   SEF CSB   SEP   Delta   TOTAL   GSB   SEF CSB   SEP   SE		AVERAGE DAILY INFLUENT FLOW RATE (MGD)			LOW	AVERAGE DAILY EFFLUENT F RATE (MGD)			FLOW	CONNECTED EDUs				AVERA		T INFLU AL/EDU/		OW RATE			
				(	,	TOTAL				,	TOTAL	CSD	RSF CSD	SB		TOTAL		,-		,	TOTAL
Feb-14   1349   0127   1172   2613   0054   0073   0514   1.896   0520   495   7728   10,646   151   054   151   054   151   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054   054					DM					DM					DM					DM	
Mar-14   1328   1389   1384   1389   2,688   0,888   0,896   0,790   1,704   0,324   488   7,728   10,548   105   270   155   156   May-14   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341   1341												,									
												,									
	May-14	1.353	0.124	1.127		2.604	0.159	0.015	0.132		0.306	8,333	498	7,728		16,559	162	249	146		157
Mag-14   1226   1.73   1.288   2.56   0.27   0.286   0.27   0.286   0.27   0.286   0.27   0.286   0.27   0.286   0.27   0.286   0.287   0.286   0.287   0.286   0.287   0.286   0.287   0.288   0.287   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.288   0.28	Jun-14											,									
Sep-14   216   0.113   1.232   2.590   0.214   0.196   0.214   0.414   0.851   5.00   7.728   16.579   1.45   2.28   1.99   1.94   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.95   1.												,									
	_											,									
Nov-16   1237   0.118   1.198   2.53   0.67   0.63   0.46   1.27   0.55   0.50   7.728   16.84   1.68   283   159   155																					
												,									
Feb-16   1299   0.132   1298   2.898   0.677   0.681   0.757   1.9598   3.8361   504   7.977   16.841   147   262   154   156   Apr-15   1.830   0.136   1.231   2.830   0.062   0.566   1.2111   3.836   5.064   7.977   16.847   141   126   150   1496   Apr-15   1.830   0.124   1.196   2.470   0.568   0.583   0.620   0.566   0.2111   3.836   5.064   7.977   16.847   141   246   150   1497   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.841   3.84	Dec-14	1.323	0.147	1.229		2.699	1.163	0.129	1.081		2.373	8,355	502	7,728		16,585	158	293	159		163
Mar-  16   1.89   0.135   1.231   2.35   0.83   0.86   0.86   1.211   8.865   504   7.977   16.846   18.22   88   154   159   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   149   14																					
May-16   1299   0.117   1.149   2.475   0.545   0.053   0.518   1.116   0.367   5.05   7.977   16.848   144   222   1.44   149   149   144   149   149   144   149   149   144   149   144   149   144   149   144   149   144   149   144   149   144   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   145   1																					
Juni-16   1287   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11   1.11												,		,							
May-16   1282   0.110   1.176   2.568   0.392   0.034   0.395   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.396   0.39												,									
Sephif   1266   0.106   1.001   2.382   0.457   0.038   0.364   0.258   8.372   511   8.003   16.886   16.80   126   125   1.398   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1.001   1												,									
Dock-16   1264   0.106   1.002   2.351   0.881   0.058   0.549   1.288   8.373   511   8.003   16.886   148   208   125   139	Aug-15	1.264	0.095	1.087		2.446	0.315	0.023	0.271		0.609	8,371	510	8,003		16,884	151	186	136		145
Nov-16   1250   0.100   0.994   2.344   0.792   0.083   0.800   1.485   8.376   511   8.003   16.899   149   196   124   139																					
Dec-16   1266   0.107   1.016   2.389   0.971   0.082   0.780   1.833   8.377   5.11   8.003   16.891   151   210   127   1.41																					
												,									
Feb-16   1245   0.112   1.008   2.365   0.780   0.070   0.831   1.481   8.383   512   8.003   16.897   149   219   126   140																					
Mar-16   1267   0.116   1023   2.406   0.763   0.070   0.616   1.449   8.388   512   8.003   16.903   151   227   128   142     Apr-16   1240   0.102   0.0990   2.332   0.675   0.505   0.599   1.289   1.289   1.289   8.389   512   8.003   16.904   148   229   125   139     Jun-16   1.205   0.111   1.055   2.371   0.505   0.508   0.048   0.409   0.962   8.389   512   8.003   16.904   148   229   125   139     Jun-16   1.205   0.111   1.055   2.371   0.502   0.033   0.317   0.712   8.390   514   8.003   16.904   148   229   125   139     Jun-16   1.305   0.105   1.008   2.449   0.586   0.046   0.442   1.074   8.390   514   8.003   16.904   148   229   125   139     Jun-16   1.317   0.107   1.007   2.431   0.647   0.053   0.495   1.195   8.392   514   8.002   16.909   16.904   175   207   126   144     Aug-16   1.317   0.110   0.975   2.396   0.601   0.055   0.449   1.195   8.393   516   8.020   16.929   157   207   126   144     Dec-16   1.289   0.108   0.962   2.359   0.621   0.043   0.389   0.953   8.394   516   8.020   16.933   154   209   120   139     Nov.16   1.323   0.113   0.332   2.388   0.733   0.062   0.514   1.306   8.403   517   8.020   16.933   154   209   120   139     Nov.16   1.323   0.113   0.332   2.388   0.733   0.062   0.514   1.306   8.403   517   8.020   1.69.40   157   219   116   140     Dec-16   1.419   0.150   0.998   2.567   1.179   0.125   0.829   2.133   8.406   549   8.020   1.716   8.6694   187   359   140   142   157     Feb-17   1.361   0.211   1.040   0.000   2.616   0.192   1.126   0.000   2.554   8.409   549   8.020   1.716   8.6694   167   384   155   140   141     Jul-17   1.216   0.070   1.260   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000																					
May-16   1.238	Mar-16	1.267	0.116	1.023		2.406	0.763	0.070			1.449		512				151	227	128		142
Jun-16   1205	Apr-16	1.240	0.102	0.990		2.332	0.675	0.055	0.539		1.269	8,389	512	8,003		16,904	148	199	124		138
Juli-16												,					-				
Aug-16   1.317   0.107   1.007   1.007   2.431   0.647   0.053   0.495   1.195   8.393   516   8.020   16.929   157   207   126   1.44																					
Sep-16   3.11   0.110   0.975   2.396   0.601   0.050   0.447   1.098   8.394   516   8.020   16.930   156   213   122   142   139   1.004   1.008   1.005   0.047   1.008   1.005   0.047   1.008   1.005   0.047   1.005   1.005   0.047   1.005   1.005   0.047   1.005   1.005   0.047   1.005   1.005   0.047   1.005   1.005   0.047   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005   1.005												,									
Nov-16   1.288   0.108   0.962   2.359   0.521   0.043   0.389   0.953   8.397   517   8.020   16.933   154   209   120   139	-																				
Dec-16   1.419   0.150   0.998   2.567   1.179   0.125   0.829   2.133   8.406   549   8.020   16.975   169   273   124   151     Jan-17   1.572   0.197   1.125   0.047   2.941   1.489   0.186   1.066   0.045   2.786   8.409   549   8.020   1.716   18.694   187   359   140   142   157     Feb-17   1.361   0.211   1.240   0.000   2.812   1.236   0.192   1.126   0.000   2.554   8.409   549   8.020   1.716   18.694   162   384   155   0   166     Mar-17   1.215   0.170   1.261   0.000   2.646   0.856   0.120   0.889   0.000   1.870   8.414   551   8.020   1.716   18.698   144   309   157   0   156     Apr-17   1.077   0.139   1.190   0.000   2.406   0.841   0.108   0.929   0.000   1.870   8.414   551   8.020   1.716   18.702   129   247   147   0   141     Jul-17   1.241   0.134   1.032   0.000   2.407   0.980   0.166   0.815   0.000   1.570   8.420   551   8.049   1.716   18.732   147   243   128   0   141     Jul-17   1.262   0.139   1.051   0.000   2.452   0.852   0.082   0.685   0.000   1.590   8.421   551   8.049   1.716   18.753   147   243   128   0   144     Cet-17   1.264   0.139   1.051   0.000   2.452   0.852   0.082   0.685   0.000   1.569   8.421   551   8.049   1.716   18.753   150   236   134   0   146     Cet-17   1.264   0.130   1.006   0.000   2.450   0.866   0.089   0.689   0.000   1.655   8.423   553   8.061   1.716   18.753   150   234   125   0   141     Cet-17   1.242   0.123   0.977   0.000   2.347   0.693   0.053   0.427   0.000   1.223   8.431   555   8.061   1.716   18.762   149   237   122   0   137     Now-17   1.257   0.113   0.983   0.000   2.371   0.693   0.070   0.563   0.000   1.628   8.431   554   8.061   1.716   18.762   148   226   126   0   140     Jan-18   1.265   0.125   1.015   0.000   2.357   0.693   0.070   0.563   0.000   1.223   8.431   554   8.061   1.716   18.762   148   226   126   0   142     Feb-18   1.144   0.115   0.901   0.337   2.537   0.693   0.070   0.563   0.000   0.665   0.066   0.006   0.064   0.006   0.006   0.007   0.006   0.007   0.007   0.007   0.007												,									
Jan-17   1.572   0.197   1.125   0.047   2.941   1.489   0.186   1.066   0.045   2.786   8.409   549   8.020   1.716   18.694   187   359   140   142   157	Nov-16	1.323	0.113	0.932		2.368	0.730	0.062	0.514		1.306	8,403	517	8,020		16,940	157	219	116		140
Feb-17   1.361   0.211   1.240   0.000   2.812   1.236   0.192   1.126   0.000   2.554   8.409   549   8.020   1.716   18.694   162   384   155   0   166   Mar-17   1.215   0.170   1.261   0.000   2.466   0.856   0.120   0.889   0.000   1.876   8.414   551   8.020   1.716   18.698   144   309   157   0   156   Mar-17   1.082   0.136   1.184   0.000   2.402   0.842   0.106   0.922   0.000   1.876   8.414   551   8.020   1.716   18.703   128   252   148   0   142   May-17   1.082   0.136   1.184   0.000   2.402   0.842   0.106   0.922   0.000   1.870   8.416   551   8.049   1.716   18.732   129   247   147   0   141   1.0417   1.267   0.130   1.083   0.000   2.407   0.880   0.082   0.885   0.000   1.656   8.423   553   8.049   1.716   18.737   147   243   128   0   141   1.241   0.134   1.032   0.000   2.402   0.882   0.882   0.082   0.885   0.000   1.656   8.423   553   8.061   1.716   18.753   150   236   134   0   146   146   1.242   0.130   0.000   0.2452   0.852   0.094   0.709   0.000   1.655   8.423   553   8.061   1.716   18.753   150   231   130   0   144   1.0417   1.264   0.130   0.106   0.000   2.400   0.866   0.089   0.688   0.000   1.644   8.427   555   8.061   1.716   18.753   150   234   125   0   141   0.0417   1.267   0.131   0.983   0.000   0.231   0.661   0.669   0.517   0.000   1.247   8.431   554   8.061   1.716   18.762   149   237   122   0   137   0.0418   0.125   0.0418   0.886   0.087   0.070   0.053   0.000   1.247   8.431   554   8.061   1.716   18.762   148   226   126   0   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140   140														,							
Mar-17   1.215   0.170   1.261   0.000   2.646   0.856   0.120   0.889   0.000   1.865   8.413   550   8.020   1.716   18.698   144   309   157   0   156   Apr-17   1.077   0.139   1.190   0.000   2.406   0.841   0.108   0.929   0.000   1.878   8.414   551   8.020   1.716   18.700   128   252   148   0   142   1.014   1.014   1.015   0.000   2.407   0.842   0.106   0.815   0.000   1.870   8.416   551   8.049   1.716   18.732   129   247   147   0   141   1.014   1.015   0.000   2.407   0.980   0.106   0.815   0.000   1.870   8.420   551   8.049   1.716   18.737   147   243   128   0   141   1.015   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.816   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000   0.815   0.000												,		,							
Apr-17   1.077   0.139   1.190   0.000   2.406   0.841   0.108   0.929   0.000   1.878   8.414   551   8.020   1.716   18.700   128   252   148   0   142												,									
May-17   1.082    0.136    1.184    0.000    2.402    0.842    0.106    0.922    0.000    1.870    8.416    551    8.049    1.716    18.732    129    247    147    0    141												,		,							
Jun-17   1.241   0.134   1.032   0.000   2.407   0.980   0.106   0.815   0.000   1.901   8.420   551   8.049   1.716   18.737   147   243   128   0   141     Jul-17   1.267   0.130   1.083   0.000   2.480   0.802   0.822   0.885   0.000   1.569   8.421   551   8.061   1.716   18.749   150   236   134   0   146     Aug-17   1.262   0.139   1.051   0.000   2.490   0.862   0.089   0.089   0.080   0.684   8.427   555   8.061   1.716   18.753   150   251   130   0   144     Oct-17   1.242   0.123   0.977   0.000   2.342   0.543   0.053   0.427   0.000   1.023   8.431   555   8.061   1.716   18.763   147   222   121   0   137     Nov-17   1.257   0.131   0.983   0.000   2.342   0.543   0.053   0.427   0.000   1.247   8.431   554   8.061   1.716   18.762   149   237   122   0   139     Dec-17   1.248   0.125   1.014   0.000   2.387   0.686   0.087   0.075   0.000   1.326   8.431   554   8.061   1.716   18.762   148   226   126   0   140     Jan-18   1.276   0.125   0.115   0.000   2.342   0.543   0.053   0.075   0.000   1.678   8.435   555   8.061   1.716   18.762   148   226   126   0   142     Feb-18   1.249   0.118   0.968   0.000   2.335   0.601   0.056   0.466   0.000   1.238   8.441   555   8.061   1.716   18.763   147   225   126   0   142     Apr-18   1.265   0.122   0.922   0.039   2.348   0.857   0.083   0.625   0.026   1.591   8.451   555   8.061   1.716   18.763   148   213   120   0   137     Mar-18   1.184   0.115   0.901   0.337   2.537   0.627   0.061   0.477   0.179   1.344   8.451   555   8.061   1.716   18.763   148   213   120   0   137     May-18   1.173   0.119   0.890   0.376   2.588   0.566   0.057   0.058   0.417   0.258   1.290   8.461   562   8.061   1.716   18.763   144   226   112   129   135     May-18   1.193   0.118   0.933   0.537   2.781   0.619   0.061   0.484   0.278   1.298   1.442   8.478   562   8.061   1.716   18.793   148   212   110   144   136   1.448   1.193   0.118   0.933   0.537   2.781   0.619   0.061   0.484   0.258   1.290   0.484   0.583   0.611   1.9737   143   212												,									
Aug-17         1.262         0.139         1.051         0.000         2.452         0.852         0.094         0.709         0.000         1.655         8,423         553         8,061         1,716         18,753         150         251         130         0         144           Sep-17         1.264         0.130         1.006         0.000         2.400         0.866         0.089         0.689         0.000         1.644         8,427         555         8,061         1,716         18,759         150         234         125         0         141           Oct-17         1.242         0.123         0.977         0.000         2.342         0.543         0.053         0.427         0.000         1.023         8,431         555         8,061         1,716         18,762         149         222         121         0         137           Nov-17         1,248         0.125         1.015         0.000         2.347         0.693         0.070         0.563         0.000         1.326         8,431         554         8,061         1,716         18,762         149         225         126         0         142           Feb-18         1,249         0.118		1.241	0.134	1.032	0.000	2.407	0.980	0.106	0.815	0.000	1.901	8,420	551	8,049			147	243	128	0	141
Sep-17   1.264   0.130   1.006   0.000   2.400   0.866   0.089   0.689   0.000   1.644   8,427   555   8,061   1,716   18,759   150   234   125   0   141	Jul-17	1.267	0.130	1.083	0.000	2.480	0.802	0.082	0.685	0.000	1.569	8,421	551	8,061	1,716	18,749	150	236	134	0	146
Oct-17         1.242         0.123         0.977         0.000         2.342         0.543         0.053         0.427         0.000         1.023         8,431         555         8,061         1,716         18,763         147         222         121         0         137           Nov-17         1.257         0.131         0.983         0.000         2.371         0.661         0.069         0.517         0.000         1.247         8,431         554         8,061         1,716         18,762         149         237         122         0         139           Dec-17         1.248         0.125         1.014         0.000         2.416         0.886         0.087         0.705         0.000         1.678         8,431         554         8,061         1,716         18,762         148         226         126         0         140           Jan-18         1.265         0.125         1.015         0.000         2.335         0.601         0.056         0.060         0.000         1.531         8,441         555         8,061         1,716         18,762         148         226         126         0         142           Feb-18         1.249         0.118	_													,							
Nov-17         1.257         0.131         0.983         0.000         2.371         0.661         0.069         0.517         0.000         1.247         8,431         554         8,061         1,716         18,762         149         237         122         0         139           Dec-17         1.248         0.125         1.014         0.000         2.387         0.693         0.070         0.563         0.000         1.326         8,431         554         8,061         1,716         18,762         148         226         126         0         140           Jan-18         1.276         0.125         1.015         0.000         2.416         0.886         0.087         0.705         0.000         1.678         8,435         555         8,061         1,716         18,767         151         225         126         0         142           Feb-18         1.249         0.118         0.968         0.000         2.335         0.601         0.056         0.466         0.000         1.123         8,441         555         8,061         1,716         18,762         149         237         122         0         137           Mar-18         1.249         0.119												,		,							
Dec-17   1.248   0.125   1.014   0.000   2.387   0.693   0.070   0.563   0.000   1.326   8,431   554   8,061   1,716   18,762   148   226   126   0   140     Jan-18   1.276   0.125   1.015   0.000   2.416   0.886   0.087   0.705   0.000   1.678   8,435   555   8,061   1,716   18,767   151   225   126   0   142     Feb-18   1.249   0.118   0.968   0.000   2.335   0.601   0.056   0.466   0.000   1.123   8,441   555   8,061   1,716   18,773   148   213   120   0   137     Mar-18   1.265   0.122   0.922   0.039   2.348   0.857   0.083   0.625   0.026   1.591   8,451   555   8,061   1,716   18,782   150   220   114   149   125     Apr-18   1.184   0.115   0.901   0.337   2.537   0.627   0.061   0.477   0.179   1.344   8,451   559   8,061   1,716   18,786   140   206   112   129   135     May-18   1.173   0.119   0.890   0.376   2.558   0.566   0.057   0.430   0.182   1.235   8,461   562   8,061   1,716   18,799   139   212   110   144   136     Jul-18   1.188   0.124   0.888   0.549   2.749   0.557   0.058   0.417   0.258   1.290   8,466   562   8,061   1,716   18,804   140   221   110   144     Aug-18   1.210   0.119   0.980   0.534   2.843   0.686   0.067   0.555   0.303   1.611   8,481   563   8,083   2,611   19,733   143   212   121   205   144     Sep-18   1.230   0.117   0.905   0.341   2.593   0.677   0.064   0.498   0.188   1.427   8,481   563   8,083   2,611   19,737   145   208   111   136   129     Nov-18   1.173   0.121   0.906   0.064   2.264   0.495   0.051   0.383   0.027   0.956   8,488   565   8,083   2,611   19,735   149   255   120   136   129     Jan-19   1.269   0.153   0.975   0.384   2.781   1.221   0.147   0.938   0.369   2.675   8,491   566   8,083   2,611   19,751   149   271   121   147   129     Jan-19   1.269   0.153   0.975   0.384   2.781   1.221   0.147   0.938   0.369   2.675   8,491   566   8,083   2,611   19,751   149   271   121   147   129     Jan-19   1.269   0.153   0.975   0.384   2.781   1.221   0.147   0.938   0.369   2.675   8,491   566   8,083   2,611   19,751   149   27																					
Jan-18   1.276   0.125   1.015   0.000   2.416   0.886   0.087   0.705   0.000   1.678   8,435   555   8,061   1,716   18,767   151   225   126   0   142     Feb-18   1.249   0.118   0.968   0.000   2.335   0.601   0.056   0.466   0.000   1.123   8,441   555   8,061   1,716   18,773   148   213   120   0   137     Mar-18   1.265   0.122   0.922   0.039   2.348   0.857   0.083   0.625   0.026   1.591   8,451   555   8,061   1,716   18,782   150   220   114   149   125     Apr-18   1.184   0.115   0.901   0.337   2.537   0.627   0.061   0.477   0.179   1.344   8,451   559   8,061   1,716   18,786   140   206   112   129   135     May-18   1.173   0.119   0.890   0.376   2.558   0.566   0.057   0.430   0.182   1.235   8,461   562   8,061   1,716   18,799   139   212   110   144   136     Jul-18   1.188   0.124   0.888   0.549   2.749   0.557   0.058   0.417   0.258   1.290   8,466   562   8,061   1,716   18,804   140   221   110   210   146     Jul-18   1.193   0.118   0.933   0.537   2.781   0.619   0.061   0.484   0.278   1.442   8,478   562   8,083   2,611   19,733   141   210   115   206   141     Aug-18   1.210   0.119   0.980   0.534   2.843   0.686   0.067   0.555   0.303   1.611   8,481   563   8,083   2,611   19,737   143   212   121   205   144     Sep-18   1.230   0.117   0.905   0.341   2.593   0.677   0.064   0.498   0.188   1.427   8,481   563   8,083   2,611   19,737   145   208   112   131   131     Oct-18   1.172   0.121   0.897   0.354   2.544   0.529   0.054   0.405   0.160   1.148   8,481   564   8,083   2,611   19,738   138   215   111   136   129     Dec-18   1.264   0.144   0.967   0.244   2.619   1.017   0.116   0.778   0.196   2.107   8,491   566   8,083   2,611   19,751   149   271   121   147   129     Jan-19   1.269   0.153   0.975   0.384   2.781   1.221   0.147   0.938   0.369   2.675   8,491   566   8,083   2,611   19,751   149   271   121   147   129     Jan-19   1.269   0.153   0.975   0.384   2.781   1.221   0.147   0.938   0.369   2.675   8,491   566   8,083   2,611   19,751																					
Mar-18         1.265         0.122         0.922         0.039         2.348         0.857         0.083         0.625         0.026         1.591         8,451         555         8,061         1,716         18,782         150         220         114         149         125           Apr-18         1.184         0.115         0.901         0.337         2.537         0.627         0.061         0.477         0.179         1.344         8,451         559         8,061         1,716         18,786         140         206         112         129         135           May-18         1.173         0.119         0.890         0.376         2.558         0.566         0.057         0.430         0.182         1.235         8,461         562         8,061         1,716         18,789         139         212         110         144         136           Jul-18         1.188         0.124         0.888         0.549         2.749         0.557         0.058         0.417         0.258         1.290         8,466         562         8,061         1,716         18,804         140         221         110         144         146           Jul-18         1.193         0.118 <td></td>																					
Apr-18         1.184         0.115         0.901         0.337         2.537         0.627         0.061         0.477         0.179         1.344         8,451         559         8,061         1,716         18,786         140         206         112         129         135           May-18         1.173         0.119         0.890         0.376         2.558         0.566         0.057         0.430         0.182         1.235         8,461         562         8,061         1,716         18,799         139         212         110         144         136           Jun-18         1.188         0.124         0.888         0.549         2.749         0.557         0.058         0.417         0.258         1.290         8,466         562         8,061         1,716         18,804         140         221         110         210         146           Jun-18         1.193         0.118         0.933         0.537         2.781         0.619         0.061         0.484         0.278         1.442         8,478         562         8,083         2,611         19,733         141         210         115         206         141           Aug-18         1.230         0.117 <td>Feb-18</td> <td>1.249</td> <td>0.118</td> <td>0.968</td> <td>0.000</td> <td>2.335</td> <td>0.601</td> <td>0.056</td> <td>0.466</td> <td>0.000</td> <td>1.123</td> <td>8,441</td> <td>555</td> <td>8,061</td> <td>1,716</td> <td>18,773</td> <td>148</td> <td>213</td> <td>120</td> <td>0</td> <td>137</td>	Feb-18	1.249	0.118	0.968	0.000	2.335	0.601	0.056	0.466	0.000	1.123	8,441	555	8,061	1,716	18,773	148	213	120	0	137
May-18         1.173         0.119         0.890         0.376         2.558         0.566         0.057         0.430         0.182         1.235         8,461         562         8,061         1,716         18,799         139         212         110         144         136           Jun-18         1.188         0.124         0.888         0.549         2.749         0.557         0.058         0.417         0.258         1.290         8,466         562         8,061         1,716         18,804         140         221         110         210         146           Jul-18         1.193         0.118         0.933         0.537         2.781         0.619         0.061         0.484         0.278         1.442         8,478         562         8,083         2,611         19,733         141         210         115         206         141           Aug-18         1.210         0.119         0.980         0.534         2.843         0.686         0.067         0.555         0.303         1.611         8,481         563         8,083         2,611         19,737         143         212         121         205         144           Sep-18         1.230         0.117 <td></td>																					
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Jul-18         1.193         0.118         0.933         0.537         2.781         0.619         0.061         0.484         0.278         1.442         8,478         562         8,083         2,611         19,733         141         210         115         206         141           Aug-18         1.210         0.119         0.980         0.534         2.843         0.686         0.067         0.555         0.303         1.611         8,481         563         8,083         2,611         19,737         143         212         121         205         144           Sep-18         1.230         0.117         0.905         0.341         2.593         0.677         0.064         0.498         0.188         1.427         8,481         563         8,083         2,611         19,737         145         208         112         131         131           Oct-18         1.172         0.121         0.897         0.354         2.544         0.529         0.054         0.405         0.160         1.148         8,481         564         8,083         2,611         19,738         138         215         111         136         129           Nov-18         1.173         0.121 <td>-</td> <td></td>	-																				
Aug-18       1.210       0.119       0.980       0.534       2.843       0.686       0.067       0.555       0.303       1.611       8,481       563       8,083       2,611       19,737       143       212       121       205       144         Sep-18       1.230       0.117       0.905       0.341       2.593       0.677       0.064       0.498       0.188       1.427       8,481       563       8,083       2,611       19,737       145       208       112       131       131         Oct-18       1.172       0.121       0.897       0.354       2.544       0.529       0.054       0.405       0.160       1.148       8,481       564       8,083       2,611       19,737       145       208       112       131       131         Nov-18       1.173       0.121       0.906       0.064       2.264       0.495       0.051       0.383       0.027       0.956       8,488       565       8,083       2,611       19,736       138       214       112       136       129         Dec-18       1.264       0.144       0.967       0.244       2.619       1.017       0.116       0.778       0.196       2.10																					
Sep-18         1.230         0.117         0.905         0.341         2.593         0.677         0.064         0.498         0.188         1.427         8,481         563         8,083         2,611         19,737         145         208         112         131         131           Oct-18         1.172         0.121         0.897         0.354         2.544         0.529         0.054         0.405         0.160         1.148         8,481         564         8,083         2,611         19,738         138         215         111         136         129           Nov-18         1.173         0.121         0.906         0.064         2.264         0.495         0.051         0.383         0.027         0.956         8,488         565         8,083         2,611         19,746         138         214         112         136         129           Dec-18         1.264         0.144         0.967         0.244         2.619         1.017         0.116         0.778         0.196         2.107         8,491         566         8,083         2,611         19,751         149         255         120         136         129           Jan-19         1.269         0.153 <td></td>																					
Oct-18         1.172         0.121         0.897         0.354         2.544         0.529         0.054         0.405         0.160         1.148         8,481         564         8,083         2,611         19,738         138         215         111         136         129           Nov-18         1.173         0.121         0.906         0.064         2.264         0.495         0.051         0.383         0.027         0.956         8,488         565         8,083         2,611         19,746         138         214         112         136         129           Dec-18         1.264         0.144         0.967         0.244         2.619         1.017         0.116         0.778         0.196         2.107         8,491         566         8,083         2,611         19,751         149         255         120         136         129           Jan-19         1.269         0.153         0.975         0.384         2.781         1.221         0.147         0.938         0.369         2.675         8,491         566         8,083         2,611         19,751         149         271         121         147         129	_																				
Nov-18     1.173     0.121     0.906     0.064     2.264     0.495     0.051     0.383     0.027     0.956     8,488     565     8,083     2,611     19,746     138     214     112     136     129       Dec-18     1.264     0.144     0.967     0.244     2.619     1.017     0.116     0.778     0.196     2.107     8,491     566     8,083     2,611     19,751     149     255     120     136     129       Jan-19     1.269     0.153     0.975     0.384     2.781     1.221     0.147     0.938     0.369     2.675     8,491     566     8,083     2,611     19,751     149     271     121     147     129	-																				
Jan-19         1.269         0.153         0.975         0.384         2.781         1.221         0.147         0.938         0.369         2.675         8,491         566         8,083         2,611         19,751         149         271         121         147         129			0.121	0.906				0.051					565				138			136	
				0.975	0.384	2.781	1.221	0.147	0.938	0.369	2.675	8,491	566	8,083	2,611	19,751	149	271	121	147	129

RSF CSD: Ranch Santa Fe Community Service District

SB: Solana Beach DM: City of Del Mar

EDU: Equivalent Dwelling Unit

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 January 2019 from the City of Escondido's Hale Avenue Resource Recovery Facility, which discharges through the San Elijo Ocean Outfall, is reported below.

	Flow (mgd)
Escondido (Average flow rate)	9.8
Escondido (Peak flow rate)	18.3

#### Connected Equivalent Dwelling Units

The City of Solana Beach updated the connected EDUs number that is reported to the SEJPA in July 2018. The City of Encinitas and Rancho Santa Fe CSD report their connected EDUs every month. The City of Del Mar updated their connected EDUs in July 2018. The number of EDUs connected for each of the Member Agencies and lease agencies is as follows:

	Connected (EDU)
Cardiff Sanitary Division	8,491
Rancho Santa Fe SID	566
City of Solana Beach	7,747
San Diego (to Solana Beach)	337
City of Del Mar	2,611
Total EDUs to System	19,751

Respectfully submitted,

Michael T. Thornton, P.E.

General Manager

## SAN ELIJO JOINT POWERS AUTHORITY MEMORANDUM

March 11, 2019

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 January 2019, recycled water demand was 28 acre-feet (AF), which was met using 28 AF of recycled water no supplementation with potable water.

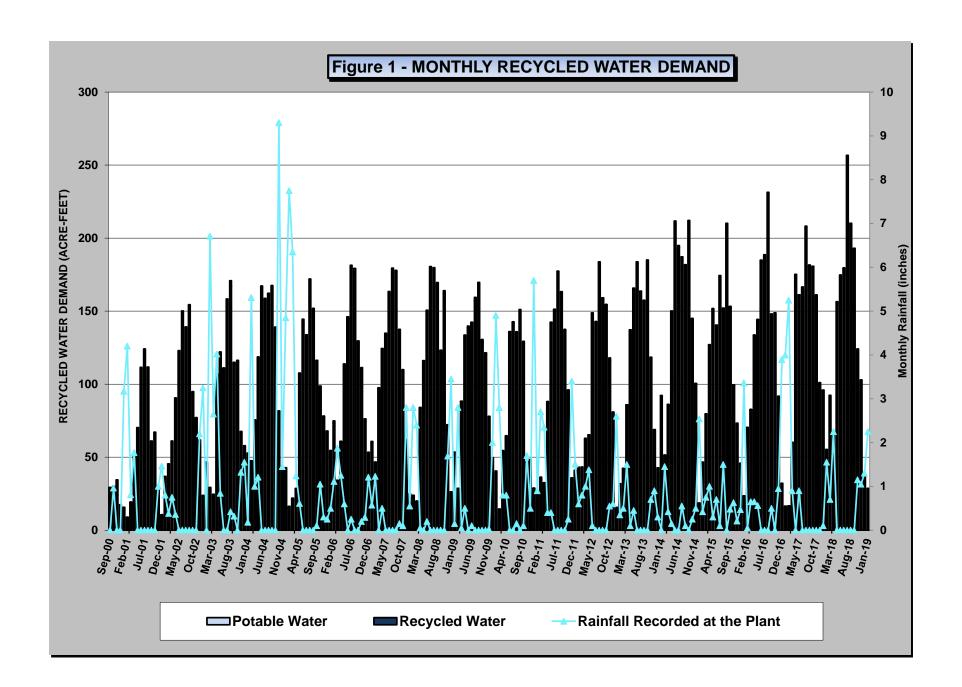
January demand was 45% below budget due to rain events. The total water production for the year is above budget by 8.5% or 17 AF for the first 7 months of the fiscal year.

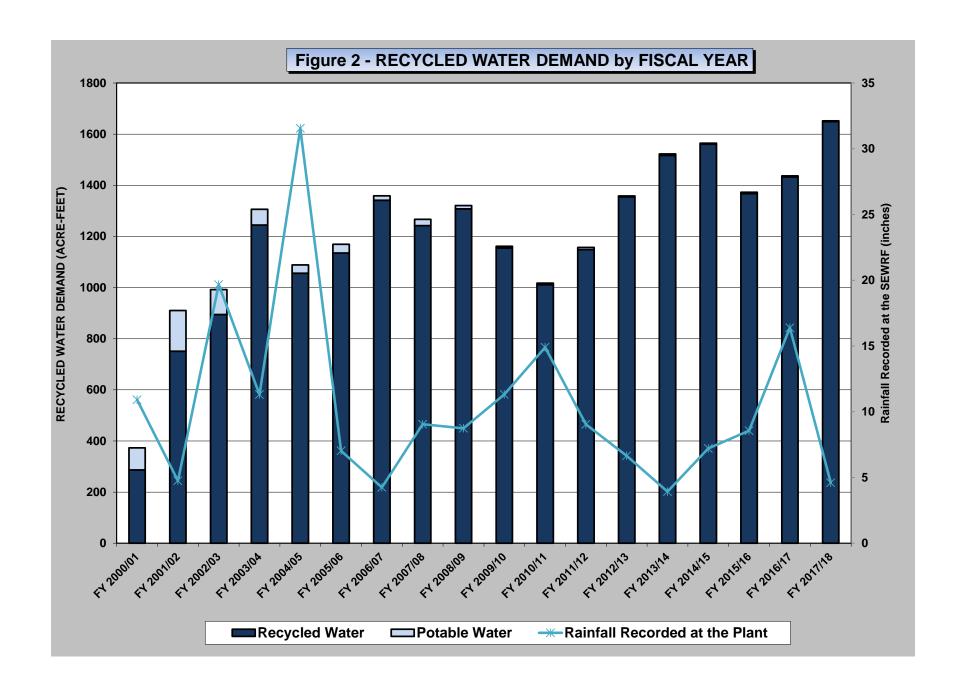
Figure 1 (attached) provides monthly demands for recycled water since deliveries began in September 2000. Figure 2 (attached) provides a graphical view of annual recycled water demand spanning the last 17 fiscal years. Figure 3 (attached) shows the monthly recycled water demand for each January since the program began. Figure 4 (attached) compares budget versus actual recycled water sales for FY 2018-19; showing sales are trending slightly above budget.

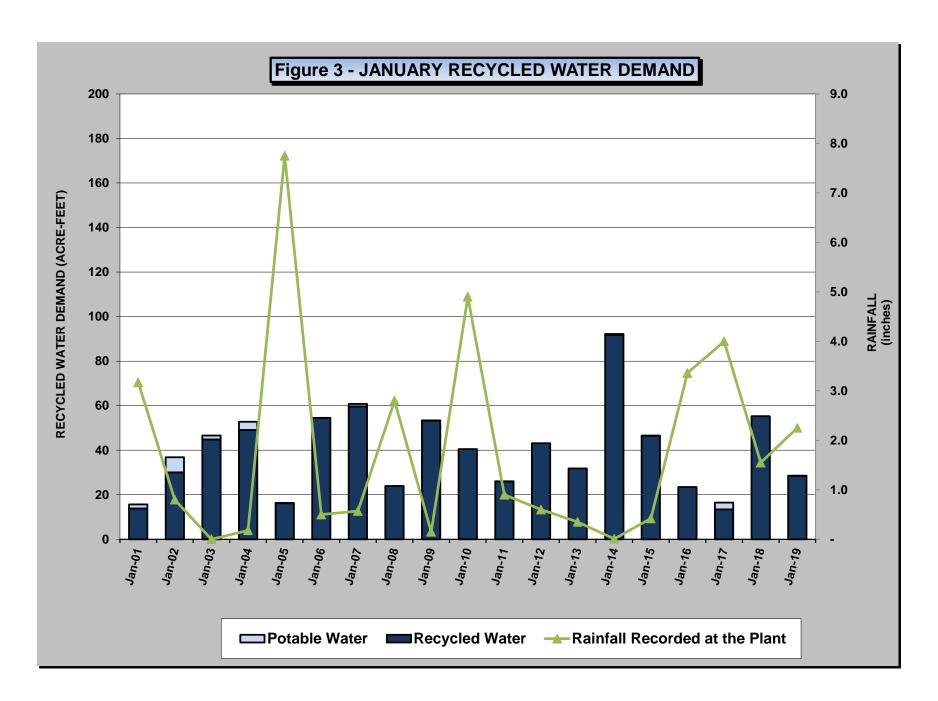
Respectfully submitted,

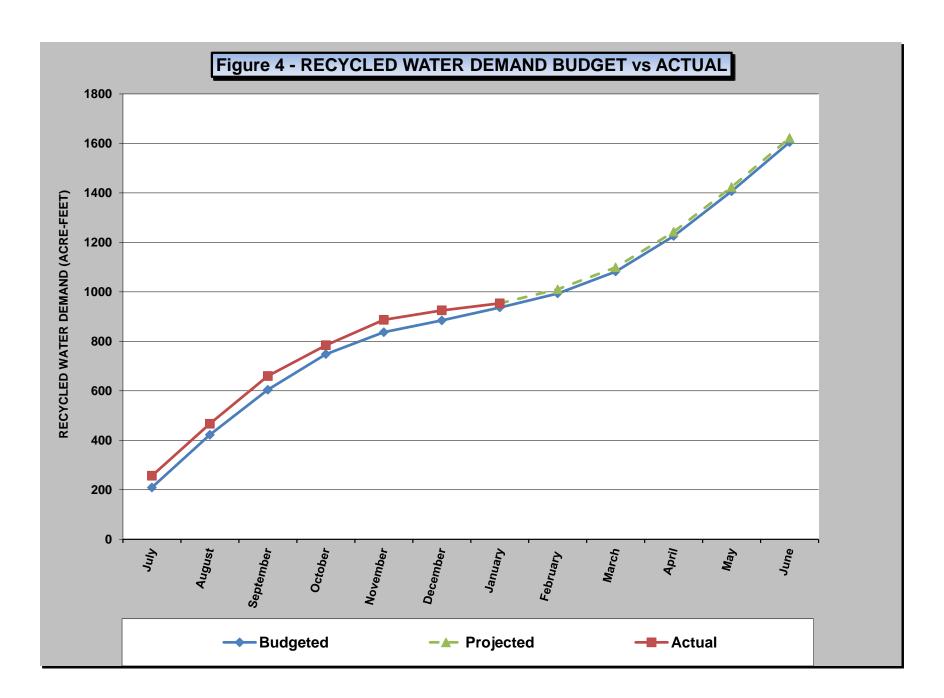
Michael T. Thornton, P.E.

General Manager









AGENDA ITEM NO. 11

## SAN ELIJO JOINT POWERS AUTHORITY MEMORANDUM

March 11, 2019

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: ENCINITAS RANCH RECYCLED WATER EXPANSION PROJECT

**CONTRACT CHANGE ORDER** 

#### **RECOMMENDATION**

It is recommended that the Board of Directors:

1. Authorize the General Manager to grant a construction contract change order to Burtech for a total cost of \$28,920; and

2. Discuss and take action as appropriate.

#### **BACKGROUND**

In 2016, SEJPA was awarded an Integrated Regional Water Management grant to expand recycled water service, implement urban runoff pollution control, conduct water quality monitoring associated with the San Elijo Lagoon, and to provide educational outreach activities. The grant project includes recycled water pipeline expansions in both the Cities of Encinitas and Solana Beach to conserve potable water. The Solana Beach pipeline was completed in late 2016, and recycled water customer conversions are currently in progress. Expansion of recycled water service for the



City of Encinitas is currently underway within the Encinitas Ranch Community Association. The Encinitas Ranch Recycled Water Expansion project is anticipated to offset approximately 45 acre-feet per year, or about 14.6 million gallons annually, of potable water consumption.

This Phase II Capital Improvement Project includes approximately 7,000 linear feet of new pipeline and a small booster pump station. This project will provide recycled water to agricultural customers, HOA green belts and open spaces, and city trails. At the August 2018

meeting, the Board approved the construction contract with Burtech. Construction began October 2018 and substantial completion is anticipated by April 2019.

#### DISCUSSION

During construction, unforeseen conditions and utility conflicts at the connection point in the intersection of Quail Gardens Drive and Paseo de las Flores resulted in additional construction work and delays. In addition, survey work was required to properly site the recycled water booster pump station on Encinitas Ranch Golf Authority's property. A landscape block wall was also required adjacent to the pump station to avoid disturbing historic agricultural features. The proposed change order was reviewed and negotiated by both staff and SEJPA's construction manager. The final proposed cost is reasonable, and in the opinion of staff, approving the change order is in the best interest of SEJPA.



#### FINANCIAL IMPACT

The proposed contract change order is for \$28,920. The project budget is \$1,724,636, of which \$224,953 was budgeted as project contingency. Approving this change order will reduce available contingency to \$196,033, resulting in no increase to the total project cost.

It is recommended that the Board of Directors:

- 1. Authorize the General Manager to grant a construction contract change order to Burtech for a total cost of \$28,920; and
- 2. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.

General Manager

Attachment 1: SEJPA Encinitas Ranch Recycled Water Expansion Project Change Order



#### **Contract Change Order**

Owner:	San Elijo Joint Powers Authority	Date:	01/15/2019
Contractor:	Burtech Pipeline, Inc	Project No.:	SE2018-ERCA
Project Name:	Encinitas Ranch Recycle Water Expansion Project	Change Order No.:	001
Change Order Name:	Unforeseen Conditions and Delays	Spec. Section No.:	NA
Prepared By:	Mark F Cox, Construction Manager	Revision:	0

This Change Order covers changes to the subject contract as described herein. The Contractor shall construct, furnish equipment and materials, and perform all work as necessary or required to complete the Change Order items for a price agreed upon between the Contractor and San Elijo Joint Powers Authority, otherwise referred to as Owner.

The undersigned Contractor approves the foregoing Change Order as to the changes, if any, in the contract price specified for each item including any and all supervision costs and other miscellaneous costs relating to the change in work, and as to the extension of time allowed, if any, for completion of the entire work on account of said Change Order. The Contractor agrees to furnish all labor and materials and perform all other necessary work, inclusive of the directly or indirectly related to the approved time extension, required to complete the Change order items. This document will become a supplement of the contract and all provisions will apply hereto. It is understood that the Change Order shall be effective when approved by the Owner.

Contractor accepts the terms and conditions stated within this Change Order as full and final settlement of any and all claims arising out of this Change Order and acknowledges that the compensation (time and cost) set forth herein comprises the total compensation due for the work or change defined in the Change Order. By signing this Change Order, the Contractor acknowledges and agrees that the stipulated compensation includes payment for all Work contained in the Change Order.



#### **Nature of Contract Change/Justification for Change Order**

COR #1 – During the layout for the booster pump station a discrepancy was discovered in the survey between the existing golf course building and the new booster pump station building locations. This amount is to cover the additional survey and layout time to correct the discrepancy and provide the proper layout.

COR #2 – During the excavation to install the new pipeline in the intersection of Quail Gardens Drive and Paseo De Las Flores, and unplanned and unmarked conduit bank was encountered below the existing potable water main, requiring additional excavation and modifications to the proposed tie-in to the existing recycled water main. This change is to cover the additional time and costs associated with this conflict.

COR #3 – During the layout for the new booster pump station building, it was determined that to finish the grading around the pump station as designed, it would impact the antique farm machinery adjacent to the area. To protect and preserve the machinery as displayed, it was determined to install a gravity block retaining wall along the area next to the machinery. This change is for the time and costs to install the retaining wall.

COR #4 – Significant rainfall caused delays to the project that were beyond the control of the Contractor, and five (5) additional days have been requested as compensation for those delays.

COR #6 – It was determined by the agency not to include disinfection of the new pipe in the contract. This change is a credit for the cost of the disinfection procedure.

#### **Description of Items**

- 1. Additional costs for re-surveying and staking of booster pump station site due to discrepancy of the survey for the conformed drawings: \$3,006.25. This includes subcontractor material and labor costs plus Burtech's 5% markup on subcontractor. There is no time request for this change.
- 2. Additional costs and time for the changed conditions required for the tie-in of the new pipe to the existing recycled water main at the intersection of Quail Gardens Drive and Paseo De Las Flores: \$13,986.78. This includes the contractor's equipment, material and labor costs, plus Burtech's 12% markup on contractor preformed work. This change extends the project completion date by 2 days as this is a critical path item.
- 3. Additional costs and time to install a new retaining wall on the west side of the new booster pump station to protect the existing location of the antique farm machinery located there. This is a lump sum price for the work involved, and includes all equipment, materials, labor and markup for said work: \$17,300.00. This change extends the project completion date by 5 days as this is a critical path item.
- 4. This change extends the project completion date by **5 days** as the critical path of the project was impacted by weather events outside of the control of the contractor (GC 12.6). There are no costs associated with this change.
- 5. Credit for the costs of disinfecting the pipe line that was removed from the scope of the contract: (5,373.34).
- 6. Summary: Total adjusted costs: \$28,919.69. Additional 12 days: New Contract Completion date: 3/26/19.

#### **Change Order Compensation Basis**

Verified Final Total Cost: \$1,253,919.69 Original Contract Amount: \$1,225,000.00 Verified Final Total Time: 177 Calendar Days

Original Contract Days: 165 Calendar Days



Accepted:	19	Date: 3-1-19
Accepted	(Contractor's Authorized Representative)	Date.
Recommend:	Milselich	Date: 3/1/19
	(SEJPA Project Manager)	
Approved:	(SEJPA General Manager)	Date: 3/1/19

Enclosures: COR #1; COR #2; Cor #3; COR #4; ERRWEP COR Summary Sheet

cc: Mike Konicke

## SAN ELIJO JOINT POWERS AUTHORITY MEMORANDUM

March 11, 2019

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: PRELIMINARY TREATMENT AND ODOR CONTROL UPGRADES PROJECT

**CONTRACT CHANGE ORDER** 

#### **RECOMMENDATION**

It is recommended that the Board of Directors:

1. Authorize the General Manager to grant a construction contract change order to NEWest Construction for a total cost of \$42,013; and

2. Discuss and take action as appropriate.

#### **BACKGROUND**

San Elijo Water Reclamation Facility's preliminary treatment system provides basic physical treatment of raw wastewater that enters the facility. This treatment system includes mechanical processes that remove trash, rocks, rags, and other debris that can clog, damage, or interfere with downstream treatment. In addition, preliminary treatment removes sand, grit, and other dense materials from wastewater that can cause premature wearing of pumps and pipes within the treatment plant. The material removed is washed, dewatered, and sent to the local landfill for final disposal. A large air scrubber minimizes aggressive odors and corrosive gases that are present in the preliminary treatment area.



Preliminary Treatment at the SEWRF

The Preliminary Treatment and Odor Control Upgrades Project consists of replacing aging equipment, increasing peak flows handling by 50%, construction of new concrete flow channels, upgrade odor control systems, and repairing damaged concrete and asphalt. The Preliminary Treatment and Odor Control Upgrades project construction contract was approved

by the Board in July 2017, and has been in active construction since October 2017. Substantial completion is anticipated in March 2019.

#### DISCUSSION

During construction, extra work items were identified that increase operator safety, prevent premature corrosion, and were unforeseen until the system was placed in bypass and rehabilitation work began. Trip hazards were eliminated in multiple locations to reduce potential injuries and increase accessibility to work areas and control panels. Components of the grit chamber, which were not visible until construction commenced, were found to be corroded and in need of repair. Additional work was performed to install corrosion protection on buried forcemain valves to prevent premature deterioration and provide ease of future repair or replacement. The cost of the proposed change order was reviewed and negotiated by staff and the SEJPA's construction manager. The final proposed cost is, in the opinion of staff, reasonable and approving the change order is in the best interest of the SEJPA.

#### FINANCIAL IMPACT

The proposed contract change order is for \$42,013. To date, previously approved construction contract change orders have totaled \$61,808. If approved, staff's recommendation would raise the total approved construction change orders to \$103,821. The total contract budget is \$4,897,187 that includes \$191,636 of remaining contingency available to fund this change order request of \$42,013. Approving this change order will reduce the available contingency to \$149,623 resulting in no increase to the total project cost.

It is recommended that the Board of Directors:

- 1. Authorize the General Manager to grant a construction contract change order to NEWest Construction for a total cost of \$42,013; and
- 2. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.

General Manager

Attachment 1: SEJPA Preliminary Treatment Upgrades Change Order I

#### **ATTACHMENT 1**



## SEJPA PRELIMINARY TREATMENT UPGRADES CHANGE ORDER I

Project: San Elijo Water Reclamation Facility - Preliminary Treatment Upgrades						
Owner: San Elijo Joint Powers Authority (SEJPA)  Owner's Contract No.: 12001						
Contractor: NEWest Construction Company, Inc. (NEWest)	B&V's Project No.: 196270					
Engineer: Dudek	Engineer's Project No.: 8981.0001					

Contractor is hereby directed to promptly execute this Change Order, issued in accordance with General Conditions (specification section 00700). All terms and conditions of the Contract Documents are applicable to this Work. Capitalized terms have the meanings defined in the Contract Documents.

Contractor agrees that the Total Compensation shown below is the equitable adjustment to the Contract Price and Contract Time for the execution of all changes described in this Change Order, all schedule impacts, delay, overhead costs, foreseeable impacts to unchanged Work, and other costs, direct and indirect, resulting from this Change Order.

#### Change Scope Summary:

The Contractor shall provide all materials, labor, equipment, and services to incorporate the Changes described below and attached:

- 1. FO 03 Headworks Signal Conduit
- 2. FO 07 Ferric Chloride Sleeve
- 3. PCO 030 Wax Tape Buried Valves
- 4. PCO 033/RFI 117 Wall Repair
- 5. PCO 036 Tree Stump Removal and Cold Patch
- 6. PCO 040 LCP HW/OC Housekeeping Pad
- 7. PCO 041 Grit Building Wall Hole Covers and Grout
- 8. PCO 042 Grit Tank Baffle Wall Removal and Reinstallation
- 9. PCO 043 Grit Overflow Piping Re-alignment Supports
- 10. PCO 045 Canopy Footing Topping Slab
- 11. 01142 3.06 Bypass Odor Control

#### **Total Compensation:**

The Contract Price is increased by \$42,013.00.
The Contract Time is unchanged.

AGREED:

Contractor

Date: 3/1/19

Title: Construction Manager

Date: 3/1/19

APPROVED:

Title: GENERAL MANAGER

Date: 3/1/19

#### **Summary of Changes**

Document Reference	Description	Contract Price Increase (\$)		Contract Price Decrease (\$)		Contract Time Increase (days)	Contract Time Decrease (days)
FO 003	Headworks Signal Conduit	\$	5,410.00	\$	ES	=	#C:
FO 007	Ferric Chloride Double Containment	\$	1,227.00	\$		-	
PCO 030	Wax Tape Buried Valves	\$	3,659.00	\$	-	112	27
PCO 033	RFI 117 Wall Repair	\$	23,958.00	\$	-	0 ,	
PCO 033	RFI 117 Construction Joint Repair	\$	745.00	\$	(10)	1/	*:
PCO 036	Tree Stump Removal	\$	1,763.00	\$		\	2.50
PCO 040	LCP-HW/OC Housekeeping Pad + Sluice Cover	\$	2,198.00	\$	5.5	1750	-
PCO 041	Grout Scrubber Piping Holes in Grit Building	\$	457.00	\$			- 1
PCO 042	Grit Tank Baffle Wall	\$	2,799.00	\$		323	1
PCO 043	Grit Overflow Pipe Supports	\$	1,950.00	\$		-	
PCO 045	Canopy Footing Topping Slab	\$	3,847.00	\$	-		
01142 3.06	SEJPA-provided Bypass Odor Control	\$	+	\$	(6,000)	2011 (UV)	1157
	Subtotal	\$	48,013.00	\$	(6,000)	0	1150

Total Change in Contract Price	42,013.00	
Total Change in Contract Time	0	day(s)

3/1/19 CM note: removed days for further discussion

Document	turther (
Reference	Justification for Change
	Dudek omitted conduits C-13 and C-14 from the Contract Documents to convey status and call signals between LSP-51/52 and the LCP-HW/OC. In addition, the Contractor's screening equipment included signals beyond that required by the Contract Documents. Additional conduit was needed to accompdate those additional signals.
FO 007	The existing ferric chloride line was sleeved and encased. The Contract Documents do not require continuation of the sleeve. SEJPA asked for the sleeve to be continued to maintain manageable double containment on a buried chemical line.
PCO 030	The Contract Documents did not require the wax tape on the buried valves. SEJPA required the valves to be wax taped.
PCO 033	A section of channel wall downstream of the grit chamber was determined to be too damaged to repair with the methods described in the Contract Documents. Dudek provided a repair solution to demolish and reform the wall. This occurred during bypass. In addition, the existing caulking in channel construction joints was found to be missing or severley degraded. RFI 117 directed rehabilitation of the construction joint sealant. SEJPA directed T&M work to implement the solution.
	SEJPA directed conversion of the landscape area at the south west corner of the admin building to pavement. This included the removal of a tree stump.
PCO 040	The bottom elevation of the LCP-HW/OC panel was changed after the original housekeeping pad was placed is order to eliminate a potential tripping hazard near the panel. This required an additional housekeeping pad to be placed. Also, the sluice penetration into the grit building is not sealed in the Contract Documents. This is sealed to contain vermin and ensure the odor control cascade functions as intended.
	Contractor removed odor control piping through the grit building east wall. No detail was provided to seal the holes. This was sealed to contain vermin and ensure the odor control cascade system functions as intended.  During bypass, the grit tank was drained. This revealed the FRP baffle wall that was not shown on the Contractor by Drawings. The Contractor was required to remove the wall in order to coat behind it. In addition, a section of the supports was discovered to be severely corroded and was replaced.
	SEJPA altered the design alignment of the grit classifier overflow piping. This required additional pipe supports.
	The canopy footing was placed such that there would be tripping hazards if placed per plan. Dudek and SEJPA directed placement of a topping slab to create safe walking grades.
	In lieu of providing the required odor control measures during the plant bypass, NEWest provided a bypass plan that required SEJPA to provide and dose chemicals at nearby pump stations to control odors. The cost fo this requirement is deducted from the contract value.

## SAN ELIJO JOINT POWERS AUTHORITY MEMORANDUM

March 11, 2019

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: PROFESSIONAL SERVICE AGREEMENT FOR OCEAN OUTFALL

SUPPORT SERVICES

#### **RECOMMENDATION**

It is recommended that the Board of Directors:

- 1. Authorize the General Manager to execute professional service agreements with Michael R. Welch, Ph.D., PE for an amount not to exceed \$78,200; and
- 2. Discuss and take action as appropriate.

#### BACKGROUND

California Regional Water Quality Control Board (Regional Board) Order No. R9-2018-0003 (NPDES Permit No. CA0107999) establishes requirements for the San Elijo Joint Powers Authority (SEJPA) to discharge treated municipal wastewater from the San Elijo Water Reclamation Facility to the San Elijo Ocean Outfall. This Order incorporates both state and federal water quality requirements and has a scheduled renewal frequency of every 5 years. The final Order was adopted by the Regional Board on April 11, 2018, and became effective on June 1, 2018. The Order expires on May 31, 2023 and establishes a new series of monitoring and reporting requirements with various work plans and studies to be submitted during the permit period.

Similarly and with a concurrent schedule, the Regional Board approved a final Order with the City Escondido that shares the San Elijo Ocean Outfall.

The Regional Board has modeled the new discharge permit after the requirements that are included in the City of San Diego ocean discharge permit and the Board has asked many new questions in the permit that have previously not been considered. The SEJPA ocean outfall monitoring program has been in place for over 40 years in order to collect ocean samples around the outfall and evaluate the impact of the discharge of treated wastewater on the environment. Previous studies have focused on the area within 4,000 feet of the outfall but have not considered the continuing effect of the wastewater plume as it travels along the coast and the potential for this discharge to combine with other discharge sources with a

multiplying effect on the environment. Understanding the fate and transport of the wastewater as it enters the ocean is the next step to ensure the safety of the public.

#### **DISCUSSION**

Given the many new requirements in the final Order, SEJPA and the City of Escondido will benefit by retaining the services of a consultant to provide advice on matters concerning work plans and studies, in addition to specific technical expertise to guide through the process in the most efficient and cost effective manner.

Dr. Michael Welch has over forty years of engineering experience and specializes in assisting municipalities and public agencies in evaluating regulatory compliance with state and federal water quality regulations, state and federal drinking water regulations, and state public health regulations. Furthermore, Dr. Welch has specific and relevant experience with outfall plume monitoring and data acquisition, which is directly applicable to the SEJPA's development of its plume study work plans and study efforts.

Staff is recommending the engagement of Dr. Welch based on his experience and knowledge in these matters (see Attachment 1). Dr. Welch has previously work with both SEJPA and the City of Escondido on NPDES and other Regional Board matters and his analysis, reporting, and expertise has been of benefit.

#### FINANCIAL IMPACT

The proposed professional service agreement with Dr. Michael Welch is for an amount not to exceed \$78,200, and these professional services will span both FY 2018-19 and FY 2019-20. Budgetary spending is projected at \$22,200 and \$56,000 for FY 2018-19 and FY 2019-20, respectively. The funding source for this agreement is the Ocean Outfall Program, which serves and is supported by the SEJPA and the City of Escondido.

It is therefore, recommended that the Board of Directors:

- 1. Authorize the General Manager to execute professional service agreements with Michael R. Welch. Ph.D., PE for an amount not to exceed \$78,200; and
- 2. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.

General Manager

Attachment 1: Letter Proposal and Resume for Michael Welch, Ph.D., PE

#### ATTACHMENT 1



### Michael R. Welch, Ph.D., P.E.

**CONSULTING ENGINEER** 

Office: (858) 625-0167
2735 San Clemente Terrace Fax: (858) 625-0267
San Diego, CA 92122-4030 email: mwelch1@san.rr.com

March 5, 2019

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

Dear Mr. Thornton:

Subject: Proposal for Support Services

NPDES Permit As-Needed Technical Support

Thank you for the opportunity to present a proposal to provide as-needed technical services in support of the San Elijo Joint Powers Authority (SEJPA) NPDES permit for the San Elijo Ocean Outfall (SEOO).

**Overview.** Regional Water Quality Control Board (RWQCB) Order No. R9-2018-0003 regulates SEJPA's discharge of treated wastewater to the Pacific Ocean via the SEOO. In addition to establishing monitoring and reporting requirements for the SEOO discharge, Order No. R9-2018-0003 requires SEJPA to submit and implement a series of work plans, including:

Toxicity Reduction Evaluation (TRE) Work Plan. SEJPA has submitted a proposed TRE work plan which has been accepted by the RWQCB. The TRE work plan establishes procedures SEJPA will implement in the event that effluent toxicity results trigger the need for a TRE.

Sediment Monitoring Work Plan. SEJPA will contract with the Southern California Coastal Water Research Project (SCCWRP) for conducting SEOO sediment monitoring. SEJPA has submitted a proposed sediment monitoring work plan to the RWQCB as required under Order No. R9-2018-0003. SEJPA is currently awaiting RWQCB comment and approval of the submitted plan. In addition to submitting and implementing the required sediment monitoring work plan, SEJPA has also submitted a request to the RWQCB for funding SCCWRP monitoring at Bight 18' stations (to be selected by SCCWRP) in lieu of conducting monitoring at SEOO monitoring stations. The RWQCB has approved this "in lieu" monitoring request, but questions remain unresolved regarding how the SCCWRP regional monitoring data will be reported to the RWQCB.

Plume Tracking Monitoring Plan (PTMP) Work Plan. SEJPA submitted a PTMP work plan to the RWQWCB in November 2018 as required under Order No. R9-2018-0003. SEJPA is now required to implement the work plan and develop a PTMP that will (1) identify and assess potential plume tracking technologies, (2) select appropriate technology for tracking the SEOO plume, and (3) implement the proposed plume tracking monitoring technology. As part of this technology assessment, Order No. R9-2018-0003 requires SEJPA to assess the economic and technical feasibility of using remotely operated underwater vehicles, moored ocean current monitoring devices, and computer modeling. Once plume tracking data collection technologies are selected and implemented, SEJPA will be required to evaluate the collected plume tracking data and prepare and submit a report to the RWQCB that presents the plume tracking results.

**Proposed As-Needed Services.** SEJPA may require outside assistance in (1) following up on the submitted NPDES work plans, (2) implementing the work plans, or (3) addressing other NPDES monitoring or compliance issues. In the event that SEJPA requires outside NPDES permitting technical assistance, I propose to provide such support to SEJPA on an as-needed basis. This proposal addresses as-needed services (if required by SEJPA) for assisting in:

- Addressing RWQCB comments or directives relative to monitoring requirements of Order No. R9-2018-0003 or submitted monitoring work plans, and/or clarifying RWQCB NPDES monitoring requirements.
- 2. Implementing PTMP work plan elements, including:
  - reviewing or developing requests for proposals for specialized outside technical assistance in plume tracking,
  - assisting in finalizing the plume definition,
  - reviewing or coordinating PTMP activities conducted by SEJPA, outside technical specialists, or other stakeholders,
  - providing input on plume monitoring technology assessments and modeling needs, reviewing cost estimates, and reviewing technology findings and feasibility recommendations developed by outside technical specialists,
  - assisting in preparing assigned sections of the PTMP report, and coordinating with SEJPA and outside technical consultants in the development of the overall PTMP report, and
  - responding to or addressing RWQCB comments or directives regarding PTMP implementation.
- Attending meetings with SEJPA and/or regulators to resolve monitoring uncertainties or NPDES compliance issues.

4. Providing other NPDES permit-related assistance as requested and authorized in writing by SEJPA.

Any such as-needed services would be completed under the direction of the SEJPA General Manager in accordance with a mutually agreeable schedule. Table 1 (page 4) summarizes proposed as-needed services. As shown in Table 1, a maximum of 460 hours of as-needed services are proposed. Maximum proposed costs would total \$78,200 if SEJPA were to require the full 460 hours of services. Total costs would be commensurately less if SEJPA requires a lower level of outside technical support.

**Insurance**. My insurance coverage conforms to applicable SEJPA requirements for services not related to construction and design, and includes:

- professional liability (\$1 million occurrence/\$2 million aggregate),
- general liability (\$2 million single occurrence/\$4 million aggregate), and
- commercial auto (\$1 million single occurrence/\$1 million aggregate).

Workman's compensation insurance is not required, as I am a sole proprietor, one-person company. I have contacted my insurers and they are prepared to expedite certificates of insurance listing any required additional insured parties.

Please call me if you have any questions concerning this proposal. Thank you for the opportunity to present a proposal to assist SEJPA in NPDES permitting matters.

Sincerely,

Michael R. Welch, Ph.D., P.E.

Michael R Welch

**CONSULTING ENGINEER** 

## Table 1 Breakdown of Estimated Hours and Costs NPDES As-Needed Support

Task Description	Proposed Hours	Proposed Cost @\$170/hour
Provide up to 460 hours of as-needed services (if required by SEJPA and as directed by SEJPA) for assisting in:  1. Addressing RWQCB comments or directives relative to monitoring requirements of Order No. R9-2018-0003 or submitted monitoring work plans, and/or clarifying RWQCB NPDES monitoring requirements. (Initial Task 1 Estimate: 80 hours totaling \$13,600)¹  2. Implementing PTMP work plan elements, including:  • reviewing or developing requests for proposals for specialized outside technical assistance in plume tracking,  • assisting in finalizing the plume definition,  • reviewing or coordinating PTMP activities conducted by SEJPA, outside technical specialists, or other stakeholders,  • providing input on plume monitoring technology assessments and modeling needs, reviewing cost estimates, and reviewing technology findings and feasibility recommendations developed by outside technical specialists,  • assisting in preparing assigned sections of the PTMP report, and coordinating with SEJPA and outside technical consultants in the development of the overall PTMP report, and  • responding to or addressing RWQCB comments or directives regarding PTMP implementation. (Initial Task 2 Estimate: 260 hours totaling \$44,200)¹  3. Attending meetings with SEJPA and/or regulators to resolve monitoring uncertainties or NPDES compliance issues. (Initial Task 3 Estimate: 80 hours or \$13,600)¹  4. Providing other NPDES permit-related assistance as requested and authorized in writing by SEJPA. (Initial Task 4 Estimate: 40 hours or \$6,800)¹	460	\$ 78,200
Mileage & printing (no charge – included in hourly billing rate overhead)		No charge
Maximum As-Needed Services	460	\$78,200

<sup>1</sup> Initial estimate based on current NPDES monitoring work plans submitted by SEJPA to the RWQCB. SEJPA may reallocate the above initial estimated hours and costs listed in the above sub-tasks on the basis of feedback or directives provided by the RWQCB. Total contract as-needed hours are not to exceed 460 hours and total contract costs are not to exceed \$78,200.



**ENGINEERING** 

**LICENSE:** California Board of Registration for Professional Engineers

Civil Engineer No. 30990 (1979)

**EDUCATION:** Ph.D., 1988, Civil Engineering, University of California,

Irvine, California

M.S., 1977, Civil Engineering, Stanford University,

Stanford, California

B.S., 1977, Civil Engineering, Stanford University,

Stanford, California.

**PROFESSIONAL** 

**MEMBERSHIPS:** American Society of Civil Engineers

American Water Works Association

California Water Environment Association

Water Environment Federation

**HONORARY** 

**MEMBERSHIP:** Tau Beta Pi

#### EXPERIENCE AND PROFESSIONAL BACKGROUND

Dr. Welch has over forty years of experience in planning and implementing Southern California recycled water, wastewater, groundwater, water, and desalination projects. Dr. Welch has served as an independent consultant since 1994, and specializes in assisting municipalities and public agencies in evaluating regulatory compliance with state and federal water quality regulations, state and federal drinking water regulations, and state public health regulations.

**Wastewater and Recycled Water Permitting.** Dr. Welch's experience in municipal wastewater discharge regulations and permitting includes:

- serving as lead consultant for the City of San Diego's successful 1995, 2001 2007 and 2014 NPDES applications to EPA and the Regional Water Board for Clean Water Act Section 301(h) modified secondary treatment requirements for the discharge of advanced primary effluent to the Point Loma Ocean Outfall.
- preparing NPDES permit application documents, assisting in securing NPDES permits or renewed permits, and assessing impacts of effluent discharges for the following ocean outfalls:
  - South Orange County Wastewater Authority discharges to the Aliso Creek and San Juan Creek Ocean Outfalls,
  - City of Oceanside discharge to the Oceanside Ocean Outfall,
  - U.S. Marine Corps Base Camp Pendleton discharge to the Oceanside Ocean Outfall,
  - Encina Wastewater Authority discharge to the Encina Ocean Outfall,
  - City of Carlsbad discharge to the Encina Ocean Outfall,
  - San Elijo Joint Powers Authority discharge to the San Elijo Ocean Outfall,
  - City of Escondido discharge to the San Elijo Ocean Outfall, and
  - City of San Diego discharge to the South Bay Ocean Outfall.

- preparing NPDES permit application documents, assessing Basin Plan surface water quality objectives, and assessing recycled water stream discharge impacts for the following recycled water stream discharge projects: Padre Dam Municipal Water District discharge to the San Diego River, the City of Escondido discharge to Escondido Creek, City of San Diego North City Water Reclamation Plant discharge to San Clemente Canyon, U.S. Marine Corps Base Camp Pendleton discharge to the Santa Margarita River, and Rancho California Water District discharge to Murrieta Creek.
- preparing waste discharge permit applications, assessing Basin Plan water quality objectives, and evaluating impacts associated with recycled water irrigation operations for the:
  - City of Carlsbad,
  - City of Escondido,
  - City of Oceanside,
  - City of San Clemente,
  - City of San Diego,
  - County of San Diego,
  - Olivenhain Municipal Water District,
  - Otay Water District,
  - Padre Dam Municipal Water District,
  - Rancho California Water District,
  - San Elijo Joint Powers Authority,
  - South Orange County Wastewater Authority, and
  - Valley Center Municipal Water District.
- assisting clients in preparing master plans that assessed impacts and evaluated recycled water
  use compliance issues, including the City of San Diego, Rancho California Water District,
  U.S. Marine Corps Base, Camp Pendleton, Encina Wastewater Authority, Olivenhain MWD,
  City of Oceanside, and City of Victorville.
- preparing Sanitary Sewer Management Plans (SSMPs) and sanitary sewer overflow Emergency Response Plans for the City of San Clemente and City of Escondido.
- participating on a team that developed salinity management and recycled water use strategies
  as part of the U.S. Bureau of Reclamation Southern California Phase I and Phase II Water
  Reuse Studies.

Salt and Nutrient Management Plans. In coordination with the Southern California Salinity Coalition, San Diego Regional Water Board, and Southern California water and recycled water agencies, Dr. Welch in 2010 prepared Regional Board-endorsed guidelines for the development of Salt and Nutrient Management Plans (SNMPs) in accordance with implementation provisions of the State Recycled Water Policy. Dr. Welch has served as a technical consultant or technical reviewer on each of the SNMPs that have been prepared in San Diego County, including SNMPs for the Escondido Basin, Lower Santa Margarita Basin, Gower (Ramona) Basin, San Pasqual Basin, Santee/El Monte Basin, and Poway Basin. He has also served as a technical consultant for SNMPs prepared for:

- the Coachella Valley basin (Riverside County, Coachella Valley Water District),
- the Temecula Valley basin (Riverside County, Rancho California Water District), and the
- Aliso and San Juan basins (Orange County, South Orange County Wastewater Authority).

**Groundwater Evaluations.** Dr. Welch has served as lead investigator in a wide variety of groundwater quality or groundwater management efforts, including:

• preparing a County-wide groundwater resource development plan for the San Diego County Water Authority that assessed groundwater resources and identified and evaluated potential groundwater projects in each of the County's major watersheds.

- for the City of San Diego, assessing groundwater availability and preparing a study that developed concept-level extraction, treatment, and conveyance facilities for a proposed groundwater demineralization facility near Qualcomm Stadium.
- preparing a recycled water recharge/groundwater recovery feasibility study for the Yucaipa Valley Water District.
- participating on a team that investigated the potential for recycled water groundwater recharge within the Santee/El Monte basin as part of projects for the Padre Dam Municipal Water District and Helix Water District.
- evaluating groundwater pumping impacts, preparing preliminary facilities studies, and preparing a CEQA Environmental Assessment for expansion of the City of Oceanside Mission Basin Groundwater Purification Facility.

**Reservoir Augmentation.** Dr. Welch is currently serving as a regulatory consultant and permitting specialist on the City of San Diego Pure Water team that is planning and implementing a 30 mgd discharge of highly purified recycle water to Miramar Reservoir. He previously served on the City of San Diego Water Purification Demonstration Project team that received California Department of Public Health (now State Water Resources Control Board Division of Drinking Water) conceptual approval for a San Vicente Reservoir augmentation project. He has also assisted the Rancho California Water District, City of Oceanside, Encina Wastewater Authority, and City of Escondido in assessing the feasibility of potable reuse opportunities.

In the 1990s, Dr. Welch prepared the original San Diego County Water Authority concept feasibility study assessing the potential for discharging recycled water to San Vicente Reservoir. As a follow-up, he served as a lead investigator on the City of San Diego team that further developed the reservoir augmentation concept and obtained concept approval from the State of California for the proposed discharge of purified recycled water to San Vicente Reservoir.

Watershed Protection. Dr. Welch's experience in watershed protection efforts includes:

- serving as lead technical author on the 2007 San Diego Region Integrated Regional Water Management (IRWM) Plan for the San Diego County Water Authority, City of San Diego, and County of San Diego that evaluated water resources and watershed protection needs within the San Diego Region, and participating on the team that updated the San Diego Region IRWM Plan in 2014.
- participating on teams that prepared watershed source control/sanitary surveys for the City of San Diego Water Department for watersheds tributary to Sutherland, Hodges, Murray, Jennings, El Capitan, San Vicente, Barrett, Morena, and Otay Reservoirs.
- preparing sanitary survey/vulnerability assessments that evaluated compliance with source water protection regulations for City of San Clemente and City of Oceanside groundwater wells.

Seawater Desalination. Dr. Welch serves as a regulatory consultant to Poseidon Resources Corporation's seawater desalination facility in Carlsbad and proposed facility in Huntington Beach, California. In this capacity, he has assisted Poseidon in assessing brine discharge impacts, addressing Environmental Impact Report issues, addressing Regional Water Board and State Water Board Division of Drinking Water compliance issues, and obtaining and renewing NPDES permits for the discharge of waste brine to the ocean from Poseidon's Carlsbad and Huntington Beach facilities. Dr. Welch is also assisting the Otay Water District in assessing regulatory issues associated with importing desalinated seawater from a proposed facility in Mexico.

**Salinity and Brine Management.** In 2006, Dr. Welch prepared a study for the San Diego County Water Authority that assessed salinity impacts and salinity management options for the Region's imported water supplies, local groundwater supplies, and local recycled water supplies. Additionally, he has assessed brine management, discharge compliance, and disposal options as part of NPDES permits for the:

- City of Escondido discharge from the City's Industrial Brine Collection System (IBCS) to the San Elijo Ocean Outfall,
- City of Carlsbad recycled water demineralization facility discharge to the Encina Ocean Outfall.
- City of Oceanside groundwater demineralization brine discharge to the Oceanside Ocean Outfall, and
- groundwater demineralization brine discharges to the South Orange County Wastewater Authority San Juan Creek Ocean Outfall.

#### **Industrial Pretreatment.** Dr. Welch's industrial pretreatment project experience includes:

- developing industrial waste pretreatment programs for Rancho California Water District and Elsinore Valley Municipal Water District.
- developing recommended local industrial sewer discharge limits for the Elsinore Valley Municipal Water District, Rancho California Water District, and City of San Clemente.
- providing as-needed industrial pretreatment services for the Rancho California Water District, City of Escondido, City of San Clemente, and City of San Diego.

**NBS/Lowry Experience.** Prior to becoming an independent consultant in 1994, Dr. Welch served for 14 years as a vice president and principal engineer with NBS/Lowry Engineers and Planners. His experience with NBS/Lowry (1980-1994) included serving as project manager and/or principal investigator on the following:

- preparing NPDES permit application documents, evaluating water quality compliance, and assisting in securing NPDES permits for the San Juan Creek Ocean Outfall, Aliso Creek Ocean Outfall, Oceanside Ocean Outfall, Encina Ocean Outfall, San Elijo Ocean Outfall, original and extended Point Loma Ocean Outfall, and South Bay Ocean Outfall.
- for the City of Oceanside, preparing a comprehensive water management plan that included concept planning for a groundwater desalting facility within the Mission Basin.
- preparing a conceptual groundwater management plan for the Otay Water District and Sweetwater Authority that evaluated groundwater treatment, and management alternatives for developing groundwater supply within the Middle Sweetwater River basin.
- assessing the applicability of Basin Plan surface water quality objectives, and preparing
  applications that resulted in the modification of Regional Board Basin Plan surface water
  quality objectives for TDS the Ysidora, DeLuz, and Wolf basins within the Santa Margarita
  River watershed.
- for Fallbrook Public Utility District, preparing a groundwater conjunctive use facilities plan (including filtration and membrane treatment) for complying with state and federal drinking water standards and surface water treatment regulations.
- developing a recycled water master plan for the Rancho California Water District.
- assessing the applicability of Basin Plan water quality objectives, and preparing applications that resulted in the modification of Regional Board Basin Plan groundwater quality objectives for the following basins:
  - Pauba HSA 2.51 and Wolf HAS 2.52 (for the Eastern Municipal Water District),
  - DeLuz HA 2.2 (for the Rancho California Water District),
  - Valley Center HSA 3.14 (for the Valley Center Municipal Water District),
  - Mission San Diego HSA 7.11 (for the Padre Dam Municipal Water District),
  - Poway HA 6.2 (for the City of Poway),
  - Salt Creek and Poggi Canyon Portion of Otay HA (for the Otay Water District), and
  - Telegraph Canyon HSA 9.11 (for the Otay Water District).

- performing assimilative capacity analyses that assessed compliance of proposed water reclamation projects with Basin Plan groundwater quality objectives for Rancho California Water District, Padre Dam Municipal Water District, and City of Escondido.
- preparing conceptual groundwater management plans for the lower Santa Margarita River basin (Camp Pendleton, Fallbrook Public Utility District, Eastern Metropolitan Water District, and Rancho California Water District), and the Paula/Temecula aquifers of the upper Santa Margarita River basin (Rancho California Water District).
- preparing facilities plans and performing environmental analyses (including evaluation of streamflow impacts on downstream groundwater basins) for proposed reclaimed water live stream discharge projects for the Padre Dam Municipal Water District (San Diego River), Fallbrook Sanitary District (Pilgrim Creek), City of San Diego (San Diego River), Eastern Municipal Water District (Santa Margarita River), and Rancho California Water District (Murrieta Creek).
- assessing for the U.S. Navy groundwater availability and water quality impacts associated with wastewater disposal practices at the Naval Air Station, Lemoore, California, and designing facilities to intercept lateral seepage from percolation ponds at Lemoore Naval Air Station.
- developing permit applications, performing groundwater hydrogeologic investigations of impacts of reclaimed water use on groundwaters, and assessing compliance with Basin Plan, water quality objectives, state water reclamation requirements, and public health regulations for recycled water projects proposed by the following projects and clients: Otay Water District; City of Escondido; Ramona Municipal Water District; Valley Center Municipal Water District; Santa Margarita Water District; Moulton Niguel Water District; Rancho California Water District; and Eastern Municipal Water District.
- developing industrial waste pretreatment programs for the Aliso Water Management Agency and Southeast Regional Reclamation Authority (now South Orange County Wastewater Authority).
- investigating compliance with State of California groundwater recharge guidelines for a recycled water project jointly proposed by Fallbrook Public Utility District, U.S. Marine Corps Base Camp Pendleton, Rancho California Water District, and Eastern Municipal Water District.

Regional Water Board Experience. Prior to joining NBS/Lowry in 1980, Dr. Welch served as an associate engineer with the California Regional Water Quality Control Board in San Diego. His duties included assessing Basin Plan water quality objectives and compliance; inspecting and evaluating wastewater facilities; performing special studies assessing the quality of ground and surface waters and water quality impacts resulting from wastewater or recycled water operations; coordinating review and approval of recycled water projects with the State Department of Public Health and County health departments; and preparing discharge permits and enforcement orders.

**University Research.** At Stanford University, Dr. Welch's research projects included assessing alternatives for treating wastewater containing high oxygen demand loads. While at Stanford, Dr. Welch worked as a water quality laboratory technician at the U.S. Geological Survey (USGS) water resources research facility in Menlo Park, California.

At the University of California, Irvine, Dr. Welch's research evaluated relations among groundwater pumping, the availability of soil water in near surface soils, and transpirative water losses from native vegetation in Owens Valley, California. This research was performed with support from the USGS, Los Angeles Department of Water and Power, and County of Inyo.

## SAN ELIJO JOINT POWERS AUTHORITY MEMORANDUM

March 11, 2019

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: BUILDING AND SITE IMPROVEMENT PROJECT DISCUSSION

#### **RECOMMENDATION**

For information only. This is a continuing monthly agenda item to discuss the building and site improvement project.

#### **BACKGROUND**

San Elijo Joint Powers Authority (SEJPA) is developing architectural and engineering designs for building and site improvements at the San Elijo Water Reclamation Facility. This project includes updating and modernizing the water campus to replace aging administration, operations, and maintenance buildings, upgrade physical and cyber security measures, improve the potable water and fire-fighting systems, and add new public parking. In addition, solar power, energy efficiency, automation and electrical system upgrades, EV charging stations, and other Climate Action Plan measures will be incorporated into the project design. Transportation improvements include a regional bicycle/pedestrian path connecting Birmingham Drive to Manchester Avenue through SEJPA property and road crossing enhancements at Manchester Avenue. The bike path, building, and site improvements are being integrated into a single project (Building and Site Improvement Project), which is expected to enter into construction in 2019.

#### **DISCUSSION**

This agenda item will allow for updates and discussion on the progress of this important multiagency project, and provide an opportunity for staff to address any questions or concerns from the Board and public.

Respectfully submitted,

Michael T. Thornton, P.E.

General Manager