# AGENDA SAN ELIJO JOINT POWERS AUTHORITY MONDAY FEBRUARY 9, 2015 AT 9:00 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)
- 5. PRESENTATION OF AWARDS

California Water Environment Association (CWEA), San Diego Section – 2014 Plant of the Year Award

- 6. \* CONSENT CALENDAR
- 7. \* APPROVAL OF MINUTES FOR THE JANUARY 12, 2015 MEETING
- 8. \* <u>APPROVAL FOR PAYMENT OF WARRANTS AND MONTHLY INVESTMENT</u> REPORTS
- 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. \* 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**

#### 12. NEW BOARD MEMBER ORIENTATION

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

Staff Reference: General Manager

## 13. <u>SAN ELIJO JOINT POWERS AUTHORITY MID-YEAR REVIEW OF THE FISCAL</u> YEAR 2014-15 OPERATING BUDGET

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

Staff Reference: Director of Finance and Administration

#### 14. SAN ELIJO WATER RECLAMATION FACILITY 2015 FACILITY PLAN UPDATE

- 1. Receive the Draft San Elijo Water Reclamation 2015 Facility Plan for review; and
- Discuss and take action as appropriate.

Staff Reference: General Manager

#### 15. <u>AWARD OF CONTRACT FOR SAN ELIJO LAND OUTFALL PRELIMINARY DESIGN</u> AND CEQA PERMITTING

- Approve the Agreement with Kennedy/Jenks Consultants for the San Elijo Land Outfall Preliminary Design and CEQA Permitting for an Amount not to Exceed \$167,912; and
- Discuss and take action as appropriate.

Staff Reference: General Manager

#### 16. 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. <u>BOARD MEMBER COMMENTS</u>

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

#### None

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".

#### 20. ADJOURNMENT

The next regularly scheduled San Elijo Joint Powers Authority Board Meeting will be Monday, March 9, 2015 at 9:00 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="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: February 4, 2015

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

# SAN ELIJO JOINT POWERS AUTHORITY MINUTES OF THE BOARD MEETING HELD ON JANUARY 12, 2015 AT THE SAN ELIJO WATER RECLAMATION FACILITY

Mark Muir, Chair David Zito, Vice Chair

A meeting of the Board of Directors of the San Elijo Joint Powers Authority (SEJPA) was held Monday, January 12, 2015, at 9:00 a.m., at the San Elijo Water Reclamation Facility at 2695 Manchester Avenue, Cardiff by the Sea, California.

#### 1. CALL TO ORDER

Chair Muir called the meeting to order at 9:00 a.m.

#### 2. ROLL CALL

Directors Present: Catherine S. Blakespear

Mark Muir David Zito

David Ott (Solana Beach Alternate)

Directors Absent: None

Others Present:

General Manager Michael Thornton
Director of Operations Christopher Trees

Director of Finance & Administration Paul Kinkel
Safety/HR Administrator Marisa Buckles
Administrative Assistant/Board Clerk Jennifer Basco

SEJPA Counsel:

Procopio, Cory, Hargreaves & Savitch Adriana Ochoa

City of Encinitas:

Director of Engineering and Public Works Glenn Pruim Public Works Management Analyst Bill Wilson

City of Solana Beach

Interim City Manager David Ott

Director of Engineering/Public Works Mohammad "Mo" Sammak

#### 3. PLEDGE OF ALLEGIANCE

Chair Muir led the Pledge of Allegiance.

#### 4. ORAL COMMUNICATIONS

None

#### 5. PRESENTATION OF AWARDS

None

#### 6. CONSENT CALENDAR

Moved by Vice Chair Zito and seconded by Chair Muir to approve the Consent Calendar.

Motion carried with unanimous vote of approval.

#### Consent Calendar:

Agenda Item No. 7 Approval of Minutes for the December 8, 2014 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

#### 11. ITEMS REMOVED FROM CONSENT CALENDAR

None

#### 12. NEW BOARD MEMBER ORIENTATION

Item Removed from the Regular Agenda.

#### 13. ELECTION OF OFFICERS AND SCHEDULE OF BOARD MEETINGS

Paul Kinkel, Director of Finance & Administration, stated that in accordance with Article 3 of the San Elijo Joint Powers Authority (SEJPA) formation agreement, the SEJPA Board is required to appoint a chairperson and vice chairperson and establish the time and place for its regular meeting by the second meeting of each calendar year. The Director of Finance & Administration reported that the SEJPA's regular meeting schedule has been generally set as 9:00 a.m. on the second Monday of each month, with no meeting in August. The regular meetings have been held at the San Elijo Water Reclamation Facility, located at 2695 Manchester Avenue, Cardiff-by-the-Sea, CA 92007.

Moved by Chair Muir and seconded by Vice Chair Zito to:

1. Appoint David Zito as Chairperson and Catherine S. Blakespear as Vice Chair for the 2015 SEJPA Board of Directors.

Motion carried with unanimous vote of approval.

Moved by Vice Chair Zito and seconded by Chair Muir to:

Establish the SEJPA regular meeting schedule for 2015 as the second Monday
of each month with no planned meeting for August, with the meeting location as
the San Elijo Water Reclamation Facility.

Motion carried with unanimous vote of approval.

Chair Zito presided over the meeting after this motion and approval.

#### 14. SAN ELIJO OCEAN OUTFALL 2014 ANNUAL INSPECTION REPORT

Christopher Trees, Director of Operations, reported to the Board of Directors that the annual inspection of the ocean portion of the outfall was completed and the outfall was found to be in good overall condition. Ballast rock shows no significant signs of movement since the last reballasting project. The outfall showed no signs of spalling, rust staining, or cracking and there was no leakage observed from pipe joints or any other location on the outfall. Anodes that were visible and could be inspected were in good condition and have considerable mass remaining. Overgrown kelp was removed from over the pipeline to minimize the threat of ballast movement. The exposed pile supports were found to have excellent cathodic protection, except for pile support 26, 28, and 32. Mr. Trees stated that the SEJPA has scheduled additional investigation and maintenance for these pile supports in January 2015.

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

1. Accept and file the San Elijo Ocean Outfall Year 2014 Annual Inspection Report prepared by Merkel & Associates, Inc.

Motion carried with unanimous vote of approval.

# 15. CONSIDER APPROVAL OF THE LOCAL PROJECT PARTICIPANT AGREEMENT WITH THE OLIVENHAIN MUNICIPAL WATER DISTRICT FOR THE NORTH SAN DIEGO COUNTY REGIONAL RECYCLED WATER PROJECT – PHASE II

General Manager Thornton briefed the Board of Directors on the North San Diego County Regional Recycled Water Project (NSDCRRWP). This project is a coalition of 11 organizations that include the SEJPA, Olivenhain Municipal Water District, Leucadia Wastewater District, Carlsbad Municipal Water District, Vallecitos Water District, Santa Fe Irrigation District, Vista Irrigation District, City of Oceanside, City of Vista, Rincon Del Diablo Municipal Water District, City of Escondido, and Marine Corps Base Camp Pendleton. The goal of the coalition is to cost effectively expand recycled water use in north San Diego County. Phase I of the NSDCRRWP was awarded \$1.455 million under the Round 1 Proposition 84 IRWM grant application. Funds were

used to develop a Programmatic Environmental Impact Report and Feasibility Study, and provide funding to each project participant for planning, engineering, and constructing recycled water infrastructure. The SEJPA received approximately \$90,000 for the purchase of treatment equipment associated with the Advanced Water Purification facility.

Phase II of the NSDCRRWP is for construction projects that were identified by each member of the coalition. Phase II was recommended by the Regional Water Management Group to receive a grant award of \$3.45 million. The SEJPA is expected to receive \$345,000, which will be applied to construction of the Village Park Recycled Water Project. In order to receive grant funds, the local project participant agreement must be executed by the partnering agencies. The local project participant agreement establishes the terms of the grant agreement and responsibilities of the local project participant. The agreement is intended to ensure that the work elements, as proposed by each project partner in the grant application, is completed to an acceptable standard as defined by the granting agency. Grant funding will be on a reimbursement basis, based on grant agreement adherence and acceptability of work.

Moved by Member Muir and seconded by Chair Zito to:

1. Authorize the General Manager to execute the Local Project Participant Agreement.

Motion carried with unanimous vote of approval.

#### 16. GENERAL MANAGER'S REPORT

General Manager Thornton stated that the SEJPA is currently in discussions with the Rancho Santa Fe Community Services District to update and extend their wastewater treatment agreement for another 20-25 years. An agreement is expected to be completed in the next 60 days. Next, Mr. Thornton informed the Board of Directors that a tri-agency potable reuse study between the San Dieguito Water District, the Santa Fe Irrigation District, and the SEJPA is in development. The scope of work and cost-sharing agreement is expected to be drafted and ready for Board consideration in February. Finally, the General Manager stated that he will be attending the CASA Conference, WateReuse local chapter meeting, and meeting with legislative staff members during the month of January.

#### 17. GENERAL COUNSEL'S REPORT

Adriana Ochoa, General Counsel, briefly reported on new prevailing wage requirements for the State of California that became effective on January 1, 2015. All contractors that are used on public works projects must be registered with the Department of Industrial Relations.

#### 18. <u>BOARD MEMBER COMMENTS</u>

None

#### 19. <u>CLOSED SESSION</u>

None

#### 20. <u>ADJOURNMENT</u>

The meeting adjourned at 9:47 a.m. The next Board of Directors meeting will be held on February 9, 2015.

Respectfully submitted,

Michael T. Thornton, P.E.

# SAN ELIJO JOINT POWERS AUTHORITY PAYMENT OF WARRANTS 15-02

For the Month of January

	Vendor Name	G/L Account	Warrant Description	Amount
31163	Ag Tech, LLC	Services - Biosolids Hauling	Biosolid haulings - December	13,885.83
31164	Atlas Pumping Service Inc.	Services - Grease & Scum	Grease and scum pumping; grit and screening	1,574.67
31165	B&B Electronics	Repair Parts Expense	LTE cell router and antenna	1,584.10
31166	BankCard Center	Supplies - Office	Office supplies and repairs	2,092.27
31167	Barracuda Networks, Inc	Utilities - Internet	Network back-up	50.00
31168	The Brickman Group LTD	Services - Landscape	Landscape service - January	385.00
31169	C.E. Wilson Corporation	Subcontractors	Seascape Sur low flow diversion structure	10,813.52
31170	Carollo Engineers	Services - Engineering	Facility plan update	5,374.40
31171	Chevron Diesel Advantage	Fuel	Diesel	205.60
31172	Coast Waste Management, Inc.	Services - Grit & Screenings	Roll-off - 12/15/14 - 12/31/14	97.28
31173	Complete Office	Supplies - Office	Office supplies	192.60 101.71
31174 31175	Corodata Dixieline Lumber	Rent	Record storage - December	51.86
31176	EDCO Waste & Recycling Service	Repair Parts Expense Utilities - Trash	Repair parts Trash service - December	234.21
31177	Euronfins Calscience, Inc.	Services - Laboratory	Water samples testing	60.00
31178	Filter Belts	Repair Parts Expense	Wire	141.65
31179	Guardian	Dental/Vision	Dental - 01/01/15 - 01/31/15	1,920.66
31180	Hardy Diagnostics	Supplies - Lab	Laboratory supplies	372.21
31181	Home Depot Credit Services	Supplies - Cab Supplies - Office	Repairs, shop and field supplies	326.64
31182	Jani-King of CA, Inc.	Services - Janitorial	Janitorial service - January	882.64
31183	Jennifer Basco	Subsistence - Travel	Mileage	66.90
31184	Kennedy/Jenks Consultants	Services - Engineering	I-5 pipeline relocation study	5,587.50
31185	Konica Minolta	Services - Maintenance	Copier maintenance service	38.01
31186	McMaster-Carr Supply Co.	Repair Parts Expense	Ceramic tube, fuel hose, and worm clamp	64.53
31187	Miramar Truck Center	Vehicle Maintenance	Oil change	216.73
31188	Olivenhain Municipal Water District	Rent	Pipeline rental payment	846.00
31189	Public Employees - Retirement	Retirement Plan - PERS	Retirement - 12/20/14 - 12/31/14	338.84
31190	Public Employees - Retirement	Retirement Plan - PERS	Retirement - 12/20/14 - 01/02/15	14,380.44
31191	Preferred Benefit Insurance	Dental/Vision	Vision insurance - 01/01/15 - 01/31/15	310.00
31192	Process Pump Sale's, Inc.	Capital Outlay	PCM progressive cavity pump	9,991.00
31193	Procopio Cory Hargreaves	Services - Legal	General - November	3,086.00
31194	San Dieguito Water	Utilities - Water	Recycled water	9,174.50
31195	Santa Fe Irrigation District	Utilities - Water	Recycled water	536.73
31196	Santa Fe Irrigation District	SFID Distribution Pipeline	Pipeline purchase payment - December	480.37
31197	San Dieguito Trophy	Board Expense	Award plaques	154.98
31198	San Diego Gas & Electric	Utilities - Gas & Electric	Gas and elecitric - 12/07/14 - 01/07/15	2,352.57
31199	Smart & Final	Supplies - Office	Kitchen supplies	107.37
31200	Southern California Fleet	Vehicle Maintenance	Perform service	664.59
31201	Specter Instruments	Licenses	SCADA notification annual renewal	395.00
31202	State Board of Equalization	Accrued Sales Tax Payable	Sales tax fourth quarter	139.00
31203	Sun Life Financial	Life Insurance/Disability	Life and disability insurance - January	1,275.54
31204	Terminix Processing Center	Prepaid - Other	Pest control	232.80
31205	Michael Thornton	Supplies - Office	Coffee maker and coffee	174.98
31206	Unifirst Corporation	Services - Uniforms	Uniform service	233.27
31207	Underground Service Alert	Services - Alarm	Dig Alert - December	52.50
31208	Valley Chain & Gear, Inc.	Repair Parts Expense	Pillow block bearing unit and v-belts	367.86
31209	Vantagepoint Transfer Agents	EE Deduction Benefits	457 - ICMA	5,863.92
31210	Vantagepoint Transfer Agents	ICMA Retirement	401a - ICMA	2,425.75
31211	VWR International, Inc.	Supplies - Lab	Gloves, tubes, pipette filler, and pour boat	1,030.72
31212	WEX Bank	Fuel	Fuel - December	632.79
31213	Aflac	EE Deduction Benefits	Medical and supplemental life insurance	693.36
31214	Applied Industrial Tech.	Repair Parts Expense	Angular and medium size balls	786.56
31215	Susana Arredondo	Seminars/Education	Water management and leadership course	829.40
31216	Arrowhead	Supplies - Lab	Kitchen and lab supplies	1,138.20 376.76
31217 31218	AT&T AT&T	Utilities - Telephone	Phone service - 12/13/14 - 01/12/15	376.76 89.05
31218	AT&T	Utilities - Telephone	DSL - 12/10/14 - 01/09/15	389.36
31219		Utilities - Telephone Services - Grease & Scum	Alarm service	1,297.23
31220	Atlas Pumping Service Inc. Barracuda Networks, Inc	Utilities - Internet	Grease and scum pumping, grit and screening Network back-up	50.00
31221	Bay City Electric Works	Services - Maintenance	Service on generators	1,311.25
31222	Bob's Crane Service	Equipment Rental/Lease	Crane service	749.00
	DOD 3 CIGITO DOI VICE			
	Calpers	Retirement Plan - PFRS	1959 Survivor Benefits - 07/01/14 - 06/30/15	/63 XII
31224 31225	Calpers Carollo Engineers	Retirement Plan - PERS Services - Engineering	1959 Survivor Benefits - 07/01/14 - 06/30/15 Facility plan update	763.80 1,295.60

# SAN ELIJO JOINT POWERS AUTHORITY PAYMENT OF WARRANTS 15-02

For the Month of January

Warrant #	Vendor Name	G/L Account	Warrant Description	Amount
31227	CA Sanitation Risk Mgmt Auth.	Insurance - Liability	Liability insurance - 12/31/14 - 12/31/15	31,879.00
31228	CWEA - TCP	Dues & Memberships	Mechanical Tech and Electrical/Instrumentation	428.00
31229	Dudek & Associates	Services - Engineering	As-needed services - GIS map update	945.00
31230	City of Encinitas	Service - IT Support	Admin network - December and January	4,500.00
31231	Escondido Metal Supply	Repair Parts Expense	Excess prime plate	24.35
31232	Euronfins Calscience, Inc.	Services - Laboratory	Testing water samples	1,352.00
31233	Guardian	Dental/Vision	Dental - February	1,552.94
31234	Health and Human Resource	Employee Assistance Program	February	300.96
31235	Hoch Consulting, APC	Services - Engineering	Project engineering services	400.00
31236	Jani-King of CA, Inc.	Supplies - Janitorial	Janitorial supplies	536.46
31237	Lee Michael Konicke	CSRMA Wellness Program	Health and wellness reimbursement	60.00
31238	The Lawton Group	Services - Intern Program	Week worked - 01/15/15 - 01/16/15	178.75
31239	Lomas Santa Fe Country Club	Other Personnel Cost	Deposit - Holiday Luncheon 12/16/15	150.00
31240	McMaster-Carr Supply Co.	Repair Parts Expense	Transmitter, battery terminal, and v-belt	1,631.11
31241	MegaPath Corporation	Utilities - Internet	T-1 Service - February	279.27
31242	MPC Containment Systems LLC	Retention	Flow equalization basins floating covers project	19,452.10
31243	Napa Auto Parts	Vehicle Maintenance	Fuse, seal, and steering wheel cover	28.02
31244	North County Personnel Assoc.	Dues & Memberships	Membership	100.00
31245	Pacific Green Landscape	Services - Landscape	Landscape service - January	1,125.00
31246	Pacific Pipeline Supply	Repair Parts Expense	Plumbing supplies and fire hose	1,499.75
31247	P.E.R.S.	Medical Insurance - PERS	Health - February	16,886.69
31248	Public Employees - Retirement	Retirement Plan - PERS	Retirement - 01/03/15 - 01/16/15	15,336.92
31249	U.S. Postal Service	Postage/Shipping	Postage stamps	294.00
31250	Prime USA Scales	Services - Testing	Onsite calibration axle scale with weights	550.00
31251	Procopio Cory Hargreaves	Services - Legal	General - December	1,710.00
31252	Rising Tide Partners	Services - Professional	Consulting	937.50
31253	San Dieguito Water District	Utilities - Water	Recycled water	10,056.35
31254	Santa Fe Irrigation District	Utilities - Water	Recycled water	61.57
31255	San Dieguito Trophy	Board Expense	Name plates	50.76
31256	San Diego Gas & Electric	Utilities - Gas & Electric	Gas and electric - 12/04/14 - 01/06/15	43,203.17
31257	SWRCB	Fees - Permits	Annual permit fees	1,632.00
31258	TC Construction Company	Subcontractors	Air vacuum valve	3,953.80
31259	Michael Thornton	Printing	Presentations	325.00
31260	Trussell Technologies, Inc.	Services - Engineering	Process engineering and evaluation	430.00
31261	Unifirst Corporation	Services - Uniforms	Uniform service	297.71
31262	USA Bluebook	Repair Parts Expense	Impeller and volute	2,170.65
31263	Vantagepoint Transfer Agents	EE Deduction Benefits	ICMA - 457	6,781.14
31264	Vantagepoint Transfer Agents	ICMA Retirement	ICMA - 401a	2,636.29
31265	Verizon Wireless	Utilities - Telephone	Cell phone service - 12/08/14 - 01/07/15	687.62
31266	VWR International, Inc.	Supplies - Lab	Laboratory supplies	333.06
32200	San Elijo Payroll Account	Payroll	Payroll - 01/09/15 (Less Retirement Plans)	83,015.07
	San Elijo Payroll Account	Payroll	Payroll - 01/23/15 (Less Retirement Plans)	64,189.44
	San Enjo i ayron / iccount	1 4,1011	· · · · · · · - · · · - · · - · · - · · - · · - ·	\$ 440,120.40

# SAN ELIJO JOINT POWERS AUTHORITY PAYMENT OF WARRANTS SUMMARY

# For the Month of January As of January 31, 2015

PAYMENT OF WARRANTS Reference Number

15-02

\$ 440,120.40

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.

Păul F. Kînkel

Director of Finance & Administration

#### STATEMENT OF FUNDS AVAILABLE FOR PAYMENT OF WARRANTS AND INVESTMENT INFORMATION As of January 31, 2015

FUNDS ON DEPOSIT WITH	AN	MOUNT
LOCAL AGENCY INVESTMENT FUND (DECEMBER 2014 YIELD 0.27%)		
RESTRICTED SRF RESERVE UNRESTRICTED DEPOSITS	\$ \$	630,000.00 8,326,169.68
CALIFORNIA BANK AND TRUST (DECEMBER 2014 YIELD 0.01%)		
REGULAR CHECKING PAYROLL CHECKING	\$ \$	46,287.42 5,000.00
TOTAL RESOURCES	\$	9,007,457.10

AGENDA ITEM NO. 9

## SAN ELIJO JOINT POWERS AUTHORITY MEMORANDUM

February 9, 2015

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: SAN ELIJO WATER RECLAMATION FACILITY TREATED EFFLUENT FLOWS -

MONTHLY REPORT

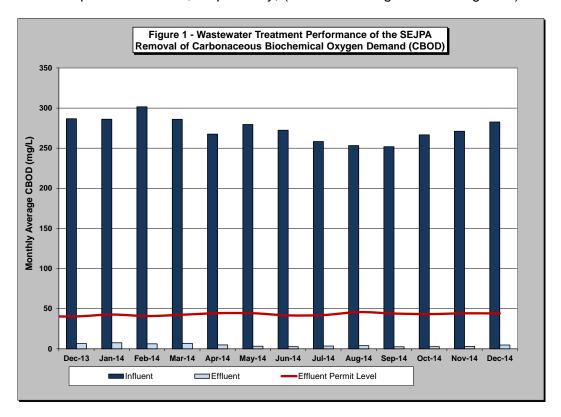
#### **RECOMMENDATION**

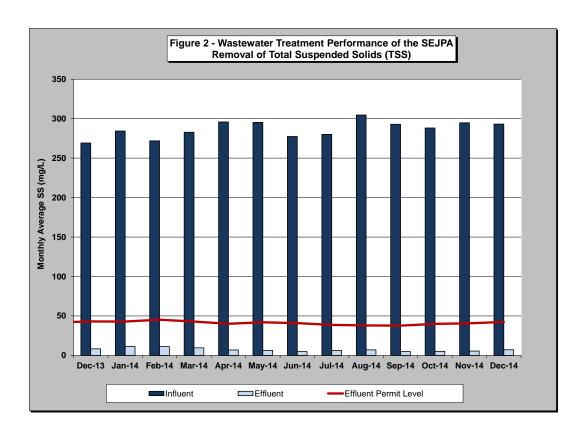
No action required. This memorandum is submitted for information only.

#### **DISCUSSION**

#### Monthly Treatment Plant Performance and Evaluation

Wastewater treatment for the San Elijo Joint Powers Authority (SEJPA) met all NPDES ocean effluent limitation requirements for the month of December 2014. 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. For the month of December, treatment levels for CBOD and TSS were 98.4 and 97.5 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 December. Average daily influent flows were recorded for each Member Agency. Total effluent flow was calculated for the San Elijo Water Reclamation Facility.

	Dece	mber
	Influent (mgd)	Effluent (mgd)*
Cardiff Sanitary Division	1.323	1.163
City of Solana Beach	1.229	1.081
Rancho Santa Fe SID	0.147	0.129
Total San Elijo WRF Flow	2.699	2.373

Notes: As of July 1995, Rancho Santa Fe Community Services District (CSD) combined SID #2 and SID #3 into one Sewer Improvement District (SID).

Table 1 (next page) 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.

<sup>\*</sup> Effluent is calculated by subtracting the recycled water production from the influent wastewater.

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

	AVERAG	E DAILY INF		OW RATE	AVERAGE DAILY EFFLUENT FLOW RATE				CONNECTE				AVERAGE UNIT INFLUENT FLOW RATE				
		(MG	iD)			(MG	D)							(GAL/EDU/DAY)			
MONTH	CSD	RSF CSD	SB	TOTAL PLANT	CSD	RSF CSD	SB	TOTAL PLANT	CSD EDUS	RSF CSD EDUS	SB EDUS	TOTAL EDUS	CSD	RSF	SB	TOTAL PLANT	
Dec-09	1.401	0.127	1.322	2.850	1.149	0.104	1.084	2.337	8,193	469	7,728	16,390	171	271	171	174	
Jan-10	1.532	0.155	1.372	3.059	1.271	0.128	1.138	2.537	8,196	472	7,728	16,396	187	329	178	187	
Feb-10	1.487	0.148	1.382	3.017	1.371	0.136	1.274	2.781	8,197	474	7,728	16,399	181	313	179	184	
Mar-10	1.455	0.145	1.398	2.998	1.108	0.110	1.064	2.282 2.172	8,198	474	7,728	16,400	177	306	181	183	
Apr-10 May-10	1.451 1.379	0.137 0.128	1.391 1.385	2.979 2.892	1.058 0.672	0.100 0.063	1.014 0.675	1.410	8,198 8,201	474 474	7,728 7,728	16,400 16,403	177 168	289 270	180 179	182 176	
Jun-10	1.437	0.122	1.453	3.012	0.650	0.055	0.657	1.362	8,202	474	7,728	16,404	175	258	188	184	
Jul-10	1.375	0.119	1.466	2.960	0.694	0.061	0.740	1.495	8,204	475	7,728	16,407	168	251	190	180	
Aug-10	1.366	0.125	1.451	2.942	0.585	0.053	0.621	1.259	8,205	475	7,728	16,408	166	263	188	179	
Sep-10	1.346	0.114	1.342	2.802	0.627	0.053	0.626	1.306	8,207	475	7,728	16,410	164	240	174	171	
Oct-10	1.413	0.123	1.311	2.847	1.177	0.102	1.092	2.371	8,207	477	7,728	16,412	172	258	170	173	
Nov-10	1.399	0.117	1.297	2.813	1.090	0.091	1.011	2.192	8,209	478	7,728	16,415	170	245 450	168 178	171	
Dec-10 Jan-11	1.605 1.452	0.215 0.158	1.375 1.338	3.195 2.948	1.417 1.272	0.189 0.139	1.214 1.172	2.820 2.583	8,212 8,227	478 478	7,728 7,728	16,418 16,433	195 176	331	178	195 179	
Feb-11	1.413	0.156	1.339	2.908	1.176	0.130	1.114	2.420	8,228	480	7,728	16,436	170	325	173	177	
Mar-11	1.387	0.208	1.343	2.938	1.186	0.178	1.148	2.512	8,229	480	7,728	16,437	169	434	174	179	
Apr-11	1.320	0.181	1.323	2.824	0.867	0.118	0.869	1.854	8,248	482	7,728	16,458	160	376	171	172	
May-11	1.327	0.162	1.320	2.809	0.564	0.069	0.561	1.194	8,248	483	7,728	16,459	161	336	171	171	
Jun-11	1.343	0.156	1.390	2.889	0.545	0.063	0.564	1.172	8,249	483	7,728	16,460	163	323	180	176	
Jul-11	1.293	0.151	1.430	2.874	0.425	0.050	0.470	0.945	8,250	484	7,728	16,462	157	312	185	175	
Aug-11 Sep-11	1.292 1.262	0.150 0.146	1.405 1.333	2.847 2.741	0.479 0.564	0.056 0.066	0.521 0.596	1.056 1.226	8,252 8,254	485 486	7,728 7,728	16,465 16,468	157 153	310 301	182 172	173 166	
Oct-11	1.260	0.140	1.303	2.741	0.730	0.082	0.755	1.567	8,260	486	7,728	16,474	153	292	169	164	
Nov-11	1.338	0.167	1.307	2.812	1.099	0.137	1.074	2.310	8,261	486	7,728	16,475	162	344	169	171	
Dec-11	1.299	0.164	1.305	2.768	1.103	0.139	1.108	2.350	8,264	487	7,728	16,479	157	337	169	168	
Jan-12	1.291	0.145	1.303	2.739	1.032	0.116	1.042	2.190	8,266	488	7,728	16,482	160	232	169	166	
Feb-12	1.259	0.137	1.283	2.679	1.006	0.109	1.025	2.140	8,268	488	7,728	16,484	152	281	166	163	
Mar-12	1.313	0.153	1.255	2.721	0.968	0.113	0.925	2.006	8,269	488	7,728	16,485	159	314	162	165	
Apr-12	1.348	0.145	1.209 1.211	2.702	0.906	0.097	0.813	1.816 1.167	8,278	488	7,728	16,494	163	297 308	156 157	164	
May-12 Jun-12	1.333 1.365	0.150 0.143	1.211	2.694 2.745	0.577 0.547	0.065 0.057	0.525 0.496	1.107	8,280 8,284	488 489	7,728 7,728	16,496 16,501	161 165	293	160	163 166	
Jul-12	1.372	0.143	1.296	2.794	0.457	0.042	0.431	0.930	8,289	489	7,728	16,506	166	258	168	169	
Aug-12	1.383	0.128	1.291	2.802	0.473	0.044	0.441	0.958	8,290	490	7,728	16,508	167	261	167	170	
Sep-12	1.349	0.142	1.220	2.711	0.544	0.058	0.492	1.094	8,291	490	7,728	16,509	163	290	158	164	
Oct-12	1.327	0.123	1.203	2.653	0.678	0.063	0.615	1.356	8,294	490	7,728	16,512	160	251	156	161	
Nov-12	1.343	0.128	1.181	2.652	0.862	0.082	0.758	1.702	8,299	490	7,728	16,517	162	261	153	161	
Dec-12	1.383	0.141	1.197	2.721	1.261	0.129	1.091	2.481	8,300	490	7,728	16,518	167	288	155	165	
Jan-13 Feb-13	1.357 1.349	0.145 0.138	1.215 1.201	2.717 2.688	1.155 1.048	0.124 0.108	1.034 0.933	2.313 2.089	8,300 8,301	490 490	7,728 7,728	16,518 16,519	163 163	296 282	157 155	164 163	
Mar-13	1.402	0.154	1.235	2.791	0.905	0.100	0.797	1.802	8,302	493	7,728	16,521	169	314	160	169	
Apr-13	1.297	0.124	1.237	2.658	0.531	0.051	0.506	1.088	8,304	493	7,728	16,523	156	253	160	161	
May-13	1.339	0.126	1.185	2.650	0.376	0.036	0.333	0.745	8,304	493	7,728	16,525	161	256	153	160	
Jun-13	1.341	0.126	1.190	2.657	0.269	0.025	0.239	0.533	8,307	493	7,728	16,528	161	256	154	161	
Jul-13	1.366	0.144	1.269	2.779	0.482	0.050	0.448	0.980	8,309	493	7,728	16,530	164	292	164	168	
Aug-13	1.342	0.168	1.258	2.768	0.380	0.048	0.356	0.784	8,311	494	7,728	16,533	161	340	163	167	
Sep-13 Oct-13	1.343 1.319	0.117 0.132	1.193 1.184	2.653 2.635	0.403 0.629	0.036 0.063	0.358 0.565	0.797 1.257	8,311 8,314	494 494	7,728 7,728	16,533 16,536	162 159	237 267	154 153	160 159	
Nov-13	1.319	0.132	1.184	2.635	0.629	0.063	0.826	1.850	8,315	494 494	7,728 7,728	16,537	162	270	155	162	
Dec-13	1.341	0.133	1.191	2.666	1.030	0.103	0.915	2.048	8,316	494	7,728	16,538	161	272	154	161	
Jan-14	1.322	0.135	1.194	2.651	0.851	0.087	0.768	1.706	8,318	495	7,728	16,541	159	273	155	160	
Feb-14	1.314	0.127	1.172	2.613	0.954	0.093	0.851	1.898	8,323	495	7,728	16,546	158	257	152	158	
Mar-14	1.339	0.134	1.185	2.658	0.858	0.086	0.760	1.704	8,324	496	7,728	16,548	161	270	153	161	
Apr-14	1.326	0.128	1.128	2.582	0.449	0.043	0.382	0.874	8,328	498	7,728	16,554	159	257	146	156	
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	
Jun-14	1.341 1.271	0.126 0.130	1.188 1.307	2.655 2.708	0.207 0.232	0.020 0.024	0.183 0.239	0.410 0.495	8,333 8,338	498 499	7,728 7,728	16,559 16,565	161 152	253 261	154 169	160 163	
Jul-14 Aug-14	1.271	0.130	1.307	2.708	0.232	0.024	0.239	0.495	8,338	499 500	7,728 7,728	16,565 16,573	152 147	261	169	163	
Sep-14	1.215	0.130	1.232	2.560	0.227	0.024	0.239	0.444	8,351	500	7,728	16,579	145	226	159	154	
Oct-14	1.204	0.114	1.198	2.516	0.394	0.038	0.392	0.824	8,353	500	7,728	16,581	144	228	155	152	
Nov-14	1.237	0.118	1.198	2.553	0.667	0.063	0.646	1.376	8,354	502	7,728	16,584	148	235	155	154	
Dec-14	1.323	0.147	1.229	2.699	1.163	0.129	1.081	2.373	8,354	502	7,728	16,584	158	293	159	163	
CSD: Cardiff	Sanitary Divis	ion															

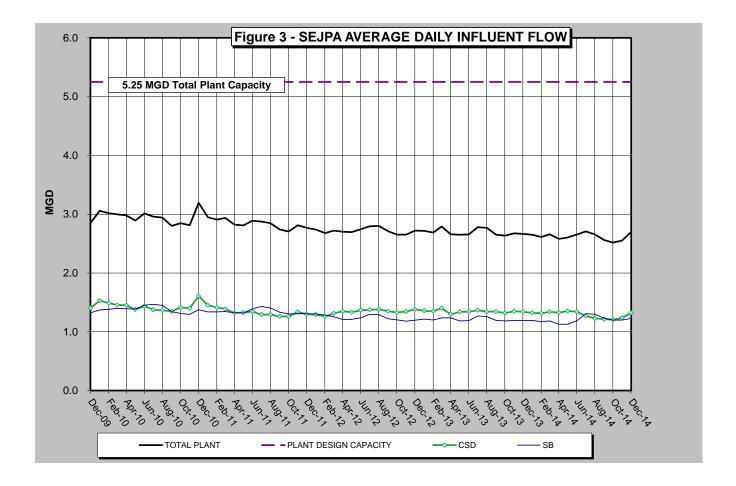
RSF CSD: Ranch Santa Fe Community Service District

SB: Solana Beach

EDU: Equivalent Dwelling Unit

ASSUMPTIONS: SB average flow includes San Elijo Hills flow of 0.131 mgd SB Connected EDUs includes 300 EDUs for the City of San Diego EDU Numbers Revised by Dudek for March and April 2013

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. As shown in the figure, the average treated flow has been approximately 2.6 million gallons per day (mgd). 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 2.5 mgd, and Rancho Santa Fe Community Service District has the right to 0.25 mgd.



#### City of Escondido Flows

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

	Flow (mgd)
Escondido (Average flow rate)	9.27
Escondido (Peak flow rate)	18.0

#### Connected Equivalent Dwelling Units

The number of EDUs connected for each of the Member Agencies for the month of December is as follows:

	Connected (EDU)
Cardiff Sanitary Division	8,355
Rancho Santa Fe SID	502
City of Solana Beach	7,428
San Diego (to Solana Beach)	300
Total EDUs to System	16,585

Respectfully submitted,

Michael T. Thornton, P.E.

February 9, 2015

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

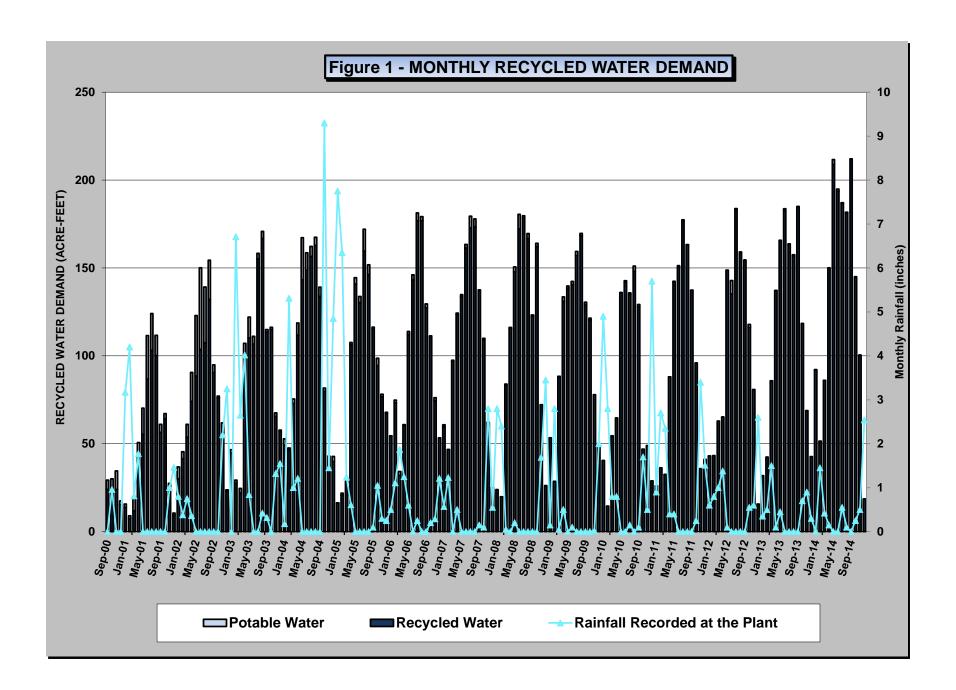
Recycled Water Production

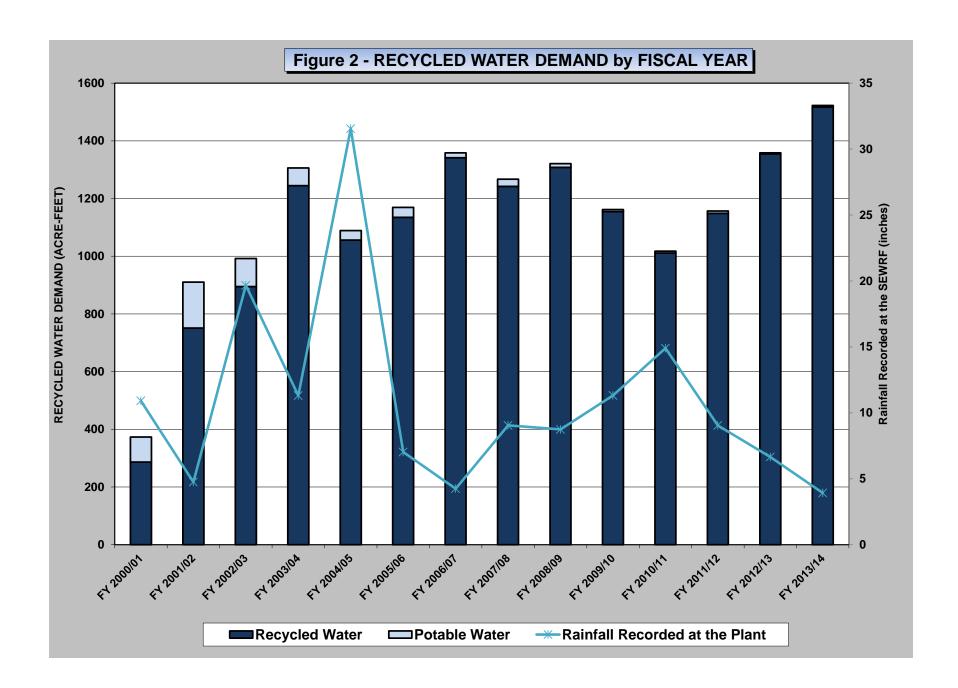
For the month of December 2014, recycled water demand was 18.61 acre-feet (AF), which was met using 18.61 AF of recycled water and 0.00 AF of supplementation with potable water.

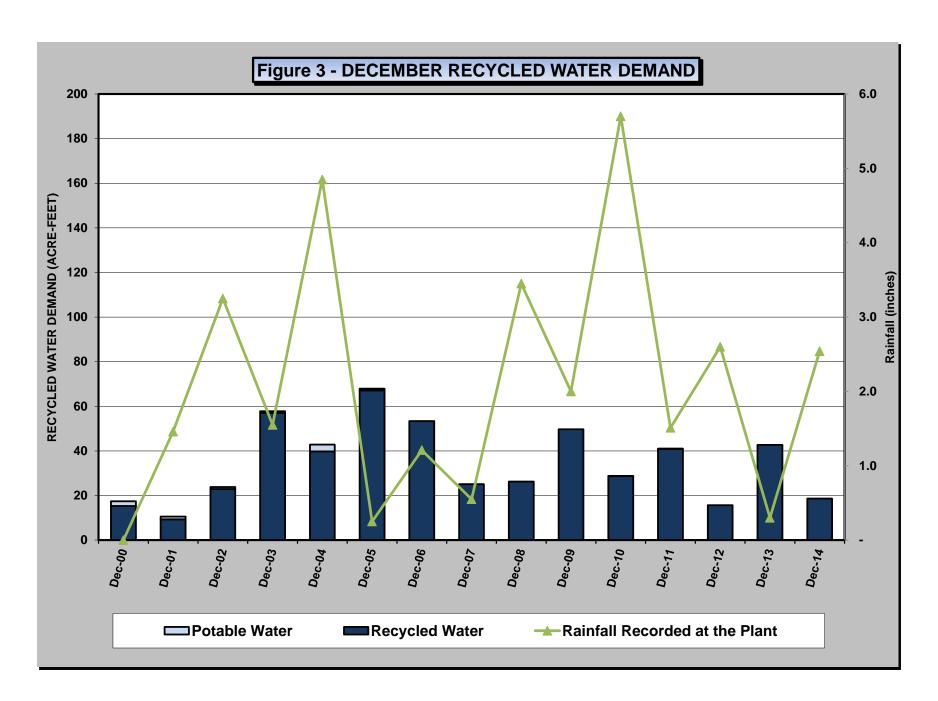
Figure 1 (attached) provides monthly supply demands for recycled water since September 2000. Figure 2 (attached) provides a graphical view of annual recycled water demand spanning thirteen fiscal years. Figure 3 (attached) shows the monthly recycled water demand for each December since the program began.

Respectfully submitted,

Michael T. Thornton, P.E.







February 9, 2015

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: NEW BOARD MEMBER ORIENTATION

#### **RECOMMENDATION**

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

#### **DISCUSSION**

In 2015, the San Elijo Joint Powers Authority (SEJPA) will have two new Board Members joining the Board of Directors. Staff will provide a brief presentation on the organization, its history, mission, and key projects currently underway.

Respectfully submitted,

Michael T. Thornton, P.E.

February 9, 2015

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: Director of Finance/Administration

SUBJECT: SAN ELIJO JOINT POWERS AUTHORITY MID-YEAR REVIEW OF THE

FISCAL YEAR 2014-15 OPERATING BUDGET

#### **RECOMMENDATION**

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

#### **BACKGROUND**

The San Elijo Joint Powers Authority (SEJPA) owns and operates the San Elijo Water Reclamation Facility (SEWRF), recycled water storage and distribution infrastructure, and is a co-owner of the San Elijo Ocean Outfall. The SEJPA also manages several related service programs to support the cities of Encinitas and Solana Beach, as well as other local governmental agencies. The SEJPA mission statement is "To serve our communities by providing safe and reliable recycled water and wastewater services in order to protect the environment and public health."

Programs operated by the SEJPA include:

- Wastewater Treatment
- Laboratory Services
- Ocean Outfall
- Cardiff Pump Stations
- Solana Beach Pump Stations
- Encinitas Pump Stations
- Encinitas Storm Water
- Solana Beach Storm Water
- Recycled Water

The SEJPA provides wastewater treatment and disposal, water recycling, and technical support to local clean-water programs. In providing these services, the SEJPA seeks to accomplish its mission in an environmentally, socially, and fiscally responsible manner. Each of the above programs is funded by the customer base that is served and cost allocations are generally applied based on actual flows treated or level of effort provided. Operational funding collected but not spent is returned to the contributing agencies. The total operating budget for this Fiscal Year (FY 2014-15) is \$5,323,993.

#### DISCUSSION

The following information is an estimate of expenses for FY 2014-15, which ends June 30, 2015. Estimates are based on the best known information at the time of preparation of this report; accordingly, final results may differ due to emergencies, unplanned repairs, or unforeseen events.

Below are tables by program and category showing the budget, forecast, variance and percent variance to the budget:

#### **Expense by Program**

Program	Budget 6/30/2015	Forecast 6/30/2015	(	(Over)/Under Budget	(Over)/Under Budget %
Wastewater Treatment	\$ 2,513,430	\$ 2,468,182	\$	45,248	1.8%
Laboratory	435,535	416,310		19,225	4.4%
Ocean Outfall	570,032	553,080		16,952	3.0%
Cardiff Sanitary Division	229,377	167,798		61,580	26.8%
Encinitas Sanitary Division	137,439	131,171		6,269	4.6%
City of Encinitas	28,549	27,614		935	3.3%
City of Solana Beach	294,676	269,039		25,637	8.7%
Programs before Reclaimed Water	4,209,040	4,033,193		175,847	4.2%
Reclaimed water	1,114,954	1,148,751		(33,797)	-3.0%
Total SEJPA Programs	\$ 5,323,993	\$ 5,181,944	\$	142,050	2.7%

#### **Expense by Category**

Expense Category	Budget 6/30/2015	Forecast 6/30/2015	(	(Over)/Under Budget	(Over)/Under Budget %
Personnel	\$ 2,774,742	\$ 2,669,804	\$	104,938	3.8%
Supplies and Services	2,384,251	2,381,176		3,076	0.1%
Capital Outlay	40,000	130,964		(90,964)	-227.4%
Contingency	125,000	-		125,000	100.0%
Total Operating Cost	\$ 5,323,993	\$ 5,181,944	\$	142,050	2.7%

These positive variances are primarily a result of lower Personnel Costs, Repair Parts, Retrofit expenses and unspent Contingency offset by higher than budgeted Utility Costs as a result of increased production of recycled water and higher than anticipated electrical rates.

Personnel costs are lower due to open positions resulting in lower wages and other associated payroll benefits.

Capital Outlay primarily consists of mechanical repairs to Primary No. 4 and Secondary Clarifier No. 4 (\$58,500), lab air conditioner replacement (\$5,000), digester recirculation pump replacement (\$10,000), replacement vehicle (\$24,000), Moonlight Pump Station surge tank (\$23,000), emergency recycled pipeline repair (\$6,000), and planned Ocean Outfall pump rebuild (\$4,000). Capital Outlay for FY 2014-15 was budgeted at \$40,000. Actual costs are forecasted at \$130,964 due primarily to unforeseen repairs. Funding for unplanned Capital Outlay expenses is by Contingency Funds.

#### **Wastewater Treatment**

Expense Category	Budget 6/30/2015	Forecast 6/30/2015	(	Over)/Under Budget	(Over)/Under Budget %
Personnel	\$ 1,264,641	\$ 1,229,429	\$	35,212	2.8%
Supplies and Services	1,173,089	1,160,591		12,499	1.1%
Capital Outlay	17,000	78,162		(61,162)	-359.8%
Contingency	 58,700	=		58,700	100.0%
Total Operating Cost	\$ 2,513,430	\$ 2,468,182	\$	45,248	1.8%

This program is the cost center for operations and maintenance activities for wastewater treatment at the San Elijo Water Reclamation Facility. Activities include full secondary wastewater treatment for the cities of Encinitas and Solana Beach as well as the Rancho Santa Fe Community Services Districts, with the effluent being recycled or disposed to the ocean. Wastewater biosolids are treated and dewatered, then hauled by contractor to Arizona for beneficial reuse through land application.

Wastewater Treatment is expected to be under budget by \$45,248. This is primarily due to lower Personnel expenses. Utilities are expected to exceed budget by \$9,000; however, supplies are expected to be under budget by \$11,000 as a result of lower fuel cost. Contingency was used for the Capital Outlay variance. Overall the Wastewater Treatment Program is projected to complete the year 1.8% below budget.

#### **Laboratory Services**

	Budget	Forecast	(	Over)/Under	(Over)/Under
Expense Category	6/30/2015	6/30/2015		Budget	Budget %
Personnel	\$ 375,587	\$ 371,528	\$	4,059	1.1%
Supplies and Services	49,048	32,902		16,146	32.9%
Capital Outlay	6,000	11,880		(5,880)	-98.0%
Contingency	 4,900	=		4,900	100.0%
Total Operating Cost	\$ 435,535	\$ 416,310	\$	19,225	4.4%

The laboratory located at the San Elijo Water Reclamation Facility provides analytical laboratory services for the SEJPA's wastewater and recycled water programs as well as to other entities through contract agreements. For the Fiscal Year 2014-15, contract agreements include the Fairbanks Ranch Community Services District, the Rancho Santa Fe Community Services District, the Santa Fe Valley Community Services District, and the Whispering Palms Community Services District.

Laboratory Services is expected to be under budget by \$19,225. Lower outsourced testing and supplies contribute to the positive variance.

#### **Ocean Outfall**

	Budget	Forecast	(	Over)/Under	(Over)/Under
Expense Category	6/30/2015	6/30/2015		Budget	Budget %
Personnel	\$ 260,153	\$ 258,752	\$	1,401	0.5%
Supplies and Services	283,679	282,328		1,351	0.5%
Capital Outlay	12,000	12,000		(0)	0.0%
Contingency	 14,200	-		14,200	100.0%
Total Operating Cost	\$ 570,032	\$ 553,080	\$	16,952	3.0%

This program provides a cost center for all operation and maintenance services related to the ocean outfall system. These activities include effluent pump station operations and maintenance; ocean monitoring; sampling and testing; and annual outfall inspection. As the outfall capacity is shared through an agreement with the City of Escondido, all operations and maintenance costs are shared on the basis of actual usage (measured by discharged flows).

Ocean Outfall is expected to be under budget by \$16,952 or 3% due to lower than planned laboratory and legal services, and unused Contingency; however, utilities are expected to exceed budget by \$12,000.

#### **Cardiff Sanitary Division**

Expense Category	Budget 6/30/2015	Forecast 6/30/2015	(	Over)/Under Budget	(Over)/Under Budget %
Personnel	\$ 149,095	\$ 114,782	\$	34,313	23.0%
Supplies and Services	66,882	53,015		13,867	20.7%
Capital Outlay	-	=		-	
Contingency	 13,400	=		13,400	100.0%
Total Operating Cost	\$ 229,377	\$ 167,798	\$	61,580	26.8%

Under this program, the SEJPA provides pump station maintenance and operation services to the City of Encinitas, and the Cardiff Sanitary Division (CSD). These facilities include the Cardiff, Coast Highway, and Olivenhain pump stations. The actual costs incurred are borne solely by the CSD.

The forecasted positive variance of \$61,580 is primarily due to lower than anticipated Personnel and repairs expenses, plus unused Contingency. Overall, the Cardiff Sanitary Division Program is forecasted to complete the year at 26.8% below budget.

#### **Encinitas Sanitary Division**

	Budget	Forecast	(	Over)/Under	(Over)/Under
Expense Category	6/30/2015	6/30/2015		Budget	Budget %
Personnel	\$ 62,443	\$ 51,640	\$	10,803	17.3%
Supplies and Services	62,496	56,796		5,701	9.1%
Capital Outlay	-	22,735		(22,735)	
Contingency	 12,500	-		12,500	100.0%
Total Operating Cost	\$ 137,439	\$ 131,171	\$	6,269	4.6%

Under this program, the SEJPA provides pump station maintenance and operation services to the City of Encinitas, and the Encinitas Sanitary Division (ESD) for the Moonlight Beach pump station. The actual costs incurred are borne solely by the ESD.

The program is forecasted to be under budget by \$6,269 due to Personnel costs being less than planned, and the use of Contingency to offset the unplanned Capital Expense of \$22,735. This Capital Outlay is due to the replacement of a 422 gallon surge tank. The old surge tank had reached the end of its useful life and had developed a leak from internal corrosion. Overall, the Encinitas Sanitary Division Program is projected to complete the year at 4.6% below budget.

#### **City of Encinitas**

Expense Category	Budget 6/30/2015	Forecast 6/30/2015	((	Over)/Under Budget	(Over)/Under Budget %
Personnel	\$ 21,085	\$ 20,612	\$	473	2.2%
Supplies and Services	7,464	7,002		462	6.2%
Capital Outlay	-	-		-	
Contingency	-	=		-	
Total Operating Cost	\$ 28,549	\$ 27,614	\$	935	3.3%

Under this program, the SEJPA provides maintenance and operation services to the City of Encinitas. These services include the Urban Runoff Treatment Facility, the Phoebe Stormwater Pump Station, and the Storm Drain Sediment Drying and Disposal program. The actual costs incurred are borne solely by the City of Encinitas. This program is expected to be under budget by \$935 or 3.3%.

#### City of Solana Beach

Expense Category	Budget 6/30/2015	Forecast 6/30/2015	(	Over)/Under Budget	(Over)/Under Budget %
Personnel	\$ 161,688	\$ 155,083	\$	6,605	4.1%
Supplies and Services	111,688	113,956		(2,268)	-2.0%
Capital Outlay	-	-		-	
Contingency	 21,300	-		21,300	100.0%
Total Operating Cost	\$ 294,676	\$ 269,039	\$	25,637	8.7%

Under this program, the SEJPA provides pump station maintenance and operation services to the City of Solana Beach (SB). These facilities include the Eden Gardens, Solana Beach, San Elijo Hills, and Fletcher Cove pump stations, as well as the Storm Drain Sediment Drying & Disposal Program. The actual costs incurred are borne solely by the City of Solana Beach.

This program is forecasted to complete the year at 8.7% below budget primarily due to unused Contingency.

#### **Recycled Water**

The SEJPA owns and operates a recycled water utility which wholesales recycled water to the Santa Fe Irrigation District, the San Dieguito Water District, the City of Del Mar, and the Olivenhain Municipal Water District, as well as provides direct water sales to the Encinitas Ranch Golf Authority. SEJPA's recycled water program delivers more than 1,300 acre-feet per year (AFY) of recycled water to its retail partners. Local customers that use the recycled water for landscape irrigation include the Encinitas Ranch Golf Course, Lomas Santa Fe Executive and Country Club Golf Courses, Encinitas Community Park, Ecke YMCA, Del Mar Fairgrounds, local schools, parks, businesses, and street/freeway landscape. With the completion of the Advanced Water Purification System, the facility can now produce up to 3.02 million gallons per day.

Below is table of the Recycled Water revenues, expenses, debt service, incentives and reserves:

Reclaimed Water	Budget	Forecast	Budget	Budget
Program Summary	6/30/2015	6/30/2015	Variance	Variance %
Santa Fe Irrigation District	\$ 681,737 \$	700,583 \$	18,846	2.8%
San Dieguito Water District	524,000	524,000	-	0.0%
City of Del Mar	147,773	170,118	22,346	15.1%
Encinitas Ranch Golf Course	225,736	225,736	-	0.0%
Olivenhain Municipal Water District	131,023	205,130	74,107	56.6%
Total Customer Revenue	1,710,269	1,825,567	115,299	6.7%
Operating Expenses	(1,114,954)	(1,148,751)	(33,797)	-3.0%
Debt Service	 (996,328)	(996,328)	-	0.0%
Revenues less Expenses	(401,013)	(319,511)	81,502	20.3%
MWD and CWA Incentives	 603,393	684,000	80,607	13.4%
Capital and Reserve Funding	\$ 202,381 \$	364,489 \$	162,109	80.1%

The MWD and CWA (Metropolitan Water District and San Diego County Water Authority respectively) revenues are incentive funding for recycled water.

Below is a table of Recycled Water Expenses:

Expense Category	Budget 6/30/2015	Forecast 6/30/2015	(	Over)/Under Budget	(Over)/Under Budget %
Personnel	\$ 480,050	\$ 467,978	\$	12,072	2.5%
Supplies and Services	629,904	674,586		(44,683)	-7.1%
Capital Outlay Contingency	5,000 -	6,187 -		(1,187) -	-23.7%
Total Operating Cost	\$ 1,114,954	\$ 1,148,751	\$	(33,797)	-3.0%

Program Expenses are expected to exceed budget due to higher than anticipated water sales. Increased water sales are positive for the Program and produce revenues that offset these expenses.

#### **Summary**

Overall, the SEJPA is anticipating \$115,299 or 6.7% higher than planned reclaimed water sales. Total expenses for the agency are expected to be \$142,050 or 2.7% under budget. These estimates for fiscal year end June 30, 2015 are based on the information available as of the preparation of this report; accordingly, events may occur that could change the results.

Respectfully submitted,

Paul Kinkel

Director of Finance and Administration

February 9, 2015

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: SAN ELIJO WATER RECLAMATION FACILITY 2015 FACILITY PLAN

UPDATE

#### RECOMMENDATION

It is recommended that the Board of Directors:

- 1. Receive the Draft San Elijo Water Reclamation 2015 Facility Plan for review; and
- 2. Discuss and take action as appropriate.

#### <u>BACKGROUND</u>

The San Elijo Water Pollution Control Facility and the San Elijo Ocean Outfall were originally constructed in 1965. At that time, the water pollution control facility provided primary treatment that discharged effluent through a 4,000 foot-long ocean outfall. Since its original construction, the treatment facility has experienced many minor improvement projects, and two major facility upgrades. The first major upgrade project was to meet Clean Water Act standards, which began in 1989 and was completed in 1991. The second major upgrade project was the construction of the recycled water treatment, storage, and distribution facilities. This project commenced in 1998 and was completed in 2000. With its completion, the facility was renamed the San Elijo Water Reclamation Facility. In 2013, the SEJPA completed the Advanced Water Purification Facility to augment the recycled water treatment system and improve the water quality. The facility has a rated wastewater treatment capacity of 5.25 million gallons per day (MGD) and a recycled water treatment capacity of 3.02 MGD, and provides high quality recycled water to four local water purveyors.

Since its initial construction, the ocean outfall has also experienced both minor and major improvements. In 1974, the ocean outfall was extended an additional 4,000 feet into the ocean with the inclusion of the City of Escondido as an outfall partner. About once every 10 years, new ballast rock is placed around the outfall pipe to support and protect the structure. The outfall has a rated discharge capacity of 25.5 MGD, and is jointly owned by the SEJPA and the City of Escondido, where the SEJPA is the managing authority of the outfall.

In 2007, the SEJPA retained Carollo Engineers to prepare a wastewater facilities master plan. The 2007 facility plan, which primarily focused on the wastewater treatment facilities, is a planning document with specific guidance and direction on asset management, facility planning, and capital improvement plan (CIP) budgeting.

Best management practices recommend regularly reviewing and updating facility plans in order to incorporate changing operating conditions, compliance, and strategies, to assess and address risk associated with facility failures, and to provide justification and scheduling for new capital projects. Such information is critical for operating a utility focused on the triple bottom line (social, environmental, and financial), and providing reliable water and wastewater service.

At the March 10, 2014 Board meeting, the Board of Directors approved a contract with Carollo Engineers to update the 2007 Facility Plan. The proposal from Carollo Engineers was selected based on their cost effective approach and their experience with condition assessment, facility planning, wastewater master planning, recycled water master planning, and asset management for over 100 municipal clients.

#### **DISCUSSION**

Carollo Engineers have completed their evaluation of our facility and have produced a draft Facility Plan for review. The 2015 Facility Plan includes an evaluation of the facility assets, including the wastewater, recycled water, and ocean outfall systems. Elements of the Facility Plan include condition assessment and engineering evaluation of the facilities, regulatory compliance analysis, risk assessment for facility failure, project recommendations, capital project prioritization, budgetary cost estimates, and projected capital outlay for fiscal years 2015 – 2025. The draft Facility Plan has been provided to City staff for review and comment.

Moving forward, SEJPA staff plans to receive comments from City staff during the next 40-45 days and would like to discuss the Board review of the plan at the March 2015 Board meeting. Once comments have been received and incorporated into the Plan, Staff anticipates that the Final 2015 Facility Plan will be brought to the Board in April 2015 for acceptance.

#### FINANCIAL IMPACT

The Facility Plan outlines a list of prioritized projects that total approximately \$36.3 million over the next 10 years. Discussions are ongoing with regard to cash flow and timing of the projects to fulfill requirements of each City regarding available reserves.

It is therefore recommended that the Board of Directors:

- Receive the Draft San Elijo Water Reclamation 2015 Facility Plan for review; and
- 2. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton General Manager

February 9, 2015

TO: Board of Directors

San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: AWARD OF CONTRACT FOR SAN ELIJO LAND OUTFALL PRELIMINARY

**DESIGN AND CEQA PERMITTING** 

#### **RECOMMENDATION**

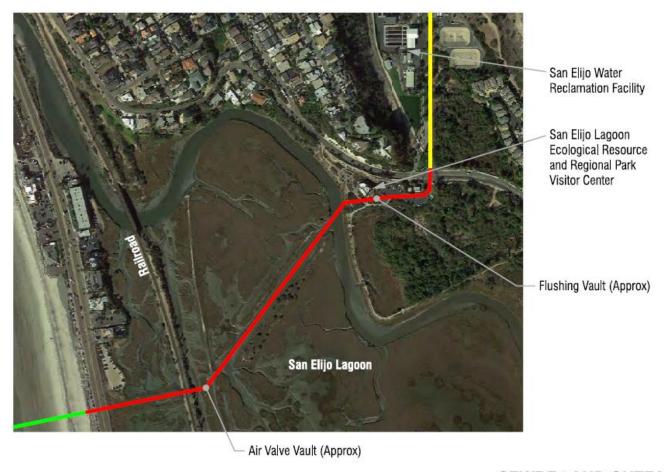
It is recommended that the Board of Directors:

- Approve the Agreement with Kennedy/Jenks Consultants for the San Elijo Land Outfall Preliminary Design and CEQA Permitting for an Amount not to Exceed \$167,912; and
- 2. Discuss and take action as appropriate.

#### BACKGROUND

The SEJPA is the managing authority for the San Elijo Ocean Outfall, which was constructed in 1965 and co-owned with the City of Escondido. The outfall conveys up to 25.5 million gallons per day (MGD) of treated wastewater from the San Elijo Water Reclamation Facility and the City of Escondido to the Pacific Ocean. The outfall is critical wastewater infrastructure that is in constant use and which must be operational at all times. As shown in Figure 1, the ocean outfall transverses the San Elijo Lagoon and crosses under the railroad tracks and Coast Highway. It is this portion of the ocean outfall that has been identified for replacement. The pipeline through the San Elijo Lagoon is 50 years old and, based on the pipe material and corrosive nature of the lagoon, is considered to be at or near the end of its useful life.

The replacement of this pipeline is a high priority project for the SEJPA as failure of this pipeline will have both environmental and financial impacts. The San Elijo Lagoon has been designated by the State of California as a marine reserve due to its biological significance and discharging treated wastewater into the lagoon would likely result in negative impacts. Furthermore, the SEJPA is subject to fines up to \$10 per gallon for spills from the outfall. Therefore, a significant failure of the outfall pipeline could result in a multi-million dollar fine. To date, the SEJPA has not experienced wastewater spills associated with the outfall and keeping the pipeline in good operation is of utmost importance to the agency. As good stewards of the environment, the SEJPA desires to replace the land outfall prior to failure. It is our conclusion, supported by our consultants' recommendations, that now is the time to commence the replacement process.



#### SEWRF LAND OUTFALL

FIGURE 1

#### DISCUSSION

The SEJPA requested proposals from six engineering firms for this project. Four firms submitted proposals, all of which exhibited a strong comprehension of project needs. The proposal that provided the best combination of qualifications, project understanding, and value based approach was submitted by Kennedy/Jenks Consultants.

The proposal from Kennedy/Jenks Consultants listed experience with pipeline rehabilitation and repair, horizontal directional drilling, ocean outfall maintenance, construction coordination and management for numerous municipal clients. The firm has teamed with Helix Environmental Planning for CEQA permitting and compliance consulting services. Helix has local CEQA compliance experience and is currently involved in the San Elijo Lagoon Restoration and NCTD Double Track projects. The proposed project team is locally based in San Diego and exhibits strong experience in pipeline design and construction in difficult environments. This team provides an excellent value in their proposed project approach to efficiently complete this effort. They have a proven track record of successful project delivery on past SEJPA projects including the Ocean Outfall Re-ballasting Design and Construction Management, Energy Optimization Evaluation and Advanced Water Purification projects.

FEE ESTIMATE EVALUATION						
Consulting Firm	Proposed Fee					
Kennedy/Jenks Consultants	\$167,912					
Dudek	\$180,846					
Carollo	\$186,846					
IEC	\$225,308					

#### FINANCIAL IMPACT

The preliminary design will evaluate construction methods to replace the existing outfall pipeline to identify the preferred method based on construction risk, cost, and final product longevity. Concurrent with the preliminary design, the consultant will commence the CEQA permitting and environmental review. The proposed cost to the SEJPA for completing the preliminary design and CEQA permitting is \$167,912, which includes the development of an Initial Study/Mitigated Negative Declaration (IS/MND) document.

The cost of the preliminary design will be funded by the ocean outfall reserve, which has a balance of \$600,000. The total project cost is estimated at 6.27 million, however this cost estimate will be refined as the project develops through preliminary and final design. Based on the ownership agreement with the City of Escondido, cost sharing for this project is 21% SEJPA and 79% Escondido. Therefore, the potential cost sharing based on the current project cost is \$1.32 million for the SEJPA and \$4.95 million for Escondido.

It is therefore recommended that the Board of Directors:

- 1. Approve the Agreement with Kennedy/Jenks Consultants for the San Elijo Land Outfall Preliminary Design and CEQA Permitting for an Amount not to Exceed \$167,912; and
- 2. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.

General Manager

Attachment: Kennedy/Jenks Consultants - Proposal for Preliminary Design of Land Outfall

Replacement and Permitting/CEQA Compliance

# Preliminary Design of Land Outfall Replacement and Permitting/CEQA Compliance









San Elijo Toint Powers Authority February 2, 2015

#### Kennedy/Jenks Consultants

February 2, 2015

Mr. Christopher A. Trees Director of Operations San Elijo Joint Powers Authority 2695 Manchester Avenue Cardiff by the Sea, California 92007 Engineers and Scientists 9665 Granite Ridge Drive, Suite 210 San Diego, California 92123 Office (858) 676-3620 Fax (858) 292-1694

#### Subject: Preliminary Design of Land Outfall Replacement and Permitting/CEQA Compliance

Dear Mr. Trees:

Kennedy/Jenks Consultants (Kennedy/Jenks) is pleased to provide this proposal to provide engineering services to San Elijo Joint Powers Authority (SEJPA) for the planning and preliminary design of the San Elijo Water Reclamation Facility outfall replacement within the San Elijo Lagoon.

Kennedy/Jenks has specific, relevant experience in design and construction management services for ocean outfall, underwater construction and rehabilitation repair projects. The involvement of the Kennedy/Jenks team in the on-going planning of recycled water pipeline replacement in the I-5 corridor gives us an unparalleled familiarity with the related work in this area.

Kennedy/Jenks has teamed with two subconsultants that we have a successful working history with: Staheli Trenchless and Helix Environmental.

Staheli Trenchless is the premier firm in trenchless technology and they will assist in the evaluation, and planning of potential trenchless installation methods, including horizontal directional drilling (HDD) and microtunneling. The Staheli approach focuses on the reduction of trenchless risk through feasibility study, geotechnical investigation, engineering and design.

Kennedy/Jenks understands that extensive coordination will need to take place with multiple agencies. To assist with this rigorous process, we have teamed with Helix Environmental. Helix Environmental has local in-house restoration planning and implementation staff to provide guidance on how the project can take advantage of restoration efforts currently planned, minimize additional restoration efforts as may be required by the outfall replacement, and if necessary plan for and implement such restoration. Helix is currently providing CEQA compliance services for the Lagoon Restoration project and Double Track project. Building from this on-going effort, Helix will be able to provide services for the Land Outfall project that are well coordinated with the lagoon restoration efforts.

We are confident that the local Kennedy/Jenks team can provide an in-depth evaluation of the outfall rehabilitation/replacement alternatives and select the most appropriate and economical alternative. Our team has expertise in each proposed construction method which enables us to efficiently evaluate the pipeline alternatives and provide greater cost accuracy for the recommended project alternative. Kennedy/Jenks understands that the selected alternative will allow the installation schedule to be coordinated with the other ongoing lagoon projects, thereby reducing environmental and community impacts, while streamlining the permitting process.

Should you have any questions regarding this proposal or would like to request additional information, please do not hesitate to contact me.

Very truly yours,

KENNEDY/JENKS CONSULTANTS

OTE THE

Patrick T. Huston, PE

Vice President, Principal-in-Charge

# **5.1 Identification of Responder**

## Legal Name and Address of Company

Kennedy/Jenks Consultants 9665 Granite Ridge Drive Suite 210 San Diego, California 92123

### **Legal Form of Company**

Corporation

### **Parent Companies**

None

## Addresses of Offices in San Diego County

Kennedy/Jenks Consultants 9665 Granite Ridge Drive Suite 210 San Diego, California 92123

### **Proposal Contact**

Patrick T. Huston, PE Vice President Principal-in-Charge Kennedy/Jenks Consultants 9665 Granite Ridge Drive Suite 210 San Diego, California 92123 Direct (858) 676-7514

### **Agreement Exceptions**

Our exceptions to the agreement are at the end of our proposal document located under the Agreement Exceptions tab.

## **Kennedy/Jenks Consultants**

Kennedy/Jenks Consultants is a multidiscipline engineering firm that has been serving a wide range of municipal clients since 1919. The essential components that drive our practice are client service, innovation, and a quest for excellence. These principles have guided the performance and growth of our company and have helped us to provide our clients with technically advanced and cost-effective solutions specifically tailored to their needs.

Kennedy/Jenks has consistently provided our clients with planning, design, permitting and other services that achieve the four cornerstones of high-quality professional services: 1) solutions that meet users' needs, 2) preparation of accurate reports and contract documents, 3) project delivery on schedule and 4) within budget. We are proud of our record of performance as is demonstrated by the fact that more than 80% of our business comes from satisfied repeat clients.

The Kennedy/Jenks team is staffed with individuals who are familiar to you, including Pat Huston as our Principal-in-Charge and Sarah Williams as our Project Manager. Our team also includes Staheli Trenchless Consultants and Helix Environmental Planning. Kim Staheli, a recognized leader in the trenchless engineering community, will work with Sarah Williams to evaluate tunneling options alongside in situ lining and open trench construction alternatives. Melissa Whittemore of Helix Environmental will provide CEQA compliance services.

### Staheli Trenchless Consultants

Staheli Trenchless Consultants (STC) is a specialty engineering firm focusing on the reduction of trenchless risk through trenchless engineering services, including feasibility studies, geotechnical investigations, design and bid services as well as construction management and inspection services. STC will be applying their knowledge and experience to assist in outfall installation method evaluation. This will include constructability considerations of various trenchless methods. STC will also be providing review of trenchless construction cost estimates.

### Helix Environmental Planning

Helix Environmental Planning, Inc. (Helix) is a 109-person, full-service environmental consulting firm with extensive expertise in providing California Environmental Quality Act (CEQA) compliance, biological resources, regulatory permitting, cultural resource management, noise/acoustics and air quality/ greenhouse gas studies. Helix is very familiar with the project area and one of their first projects involved the preparation of a Supplemental EIR for the San Elijo Ocean Outfall Improvement project and the coordination with public agencies on the project. Helix also has a long and successful history as a subconsultant to Kennedy/Jenks Consultants. Currently, Helix is providing CEQA compliance services for the Lagoon Restoration project and the Double Track project. Building from this ongoing effort, Helix will be able to effectively provide CEQA compliance services for the Land Outfall Project that are well coordinated with the Lagoon Restoration efforts and their mitigation requirements.

# **5.2 Experience and Technical Competence**

# San Elijo Ocean Outfall Re-ballasting Project

San Elijo Joint Powers Authority Cardiff by the Sea, California

January 2004 to July 2006

### **Client Contact**

Michael Thorton General Manager Phone (760) 753-6203

### K/J Staff on SEJPA Project

Pat Huston, Project Manager Corey Young, Project Engineer

### **Subconsultants**

Ben C. Gerwick, Inc. C&W Diving Services, Inc. Fugro Pelagos, Inc. Thales Geosolutions, Inc.



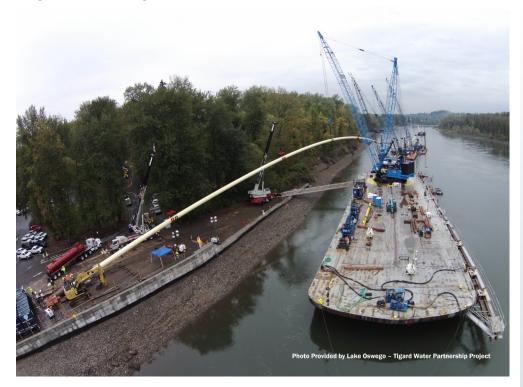
San Elijo Joint Powers Authority's (SEJPA) annual ocean outfall inspection in 2002 revealed that portions of the outfall along the diffuser section were found to have dangerously low ballast, with one section appearing to be potentially unsupported.

In response, SEJPA contracted with Kennedy/Jenks to provide design and construction management services for their ocean outfall re-ballasting project. Kennedy/Jenks developed first-hand knowledge of the original outfall design and pipe materials, outfall hydraulics, alignment, permitting requirements, and significant environmental sensitivities associated with work on the outfall.

This project included coordination of bathometric surveys of the outfall, conducting remote operated vehicle inspections, conducting diver inspections in the shallow water sections; designing the ballast replacement, removing diffuser blanks and obstructions to increase the outfall's hydraulic capacity, replacing cathodic protection anodes; and leading all permitting and Coastal Commission approval efforts.

# **Raw and Finished Water Pipeline Projects**

# City of Lake Oswego, Oregon July 2011 to July 2012



Kennedy/Jenks provided engineering design services, land use and permitting assistance on new Raw and Finished Water Pipeline projects. These projects included replacing several storm and sanitary sewer systems via open cut construction, replacing several manholes and catch basins and replacing several sewer laterals.

### Raw Water Pipeline

The new 1.9-mile, 48-inch diameter pipeline conveys water from the Willamette River via a new river intake pump station to the City's new Water Treatment Plant.

Construction employed a combination of open cut and trenchless technology that included 3,900-feet of 36-inch diameter HDD welded steel pipe beneath the Willamette River and 48-inch welded steel pipe inside 600-feet of 60-inch steel casing installed via microtunneling under Highway 99E.

### **Finished Water Pipeline**

This new 6.9 miles of 48-inch diameter pipe conveys treated water from the City's new Water Treatment Plant to a new reservoir.

Construction consisted of a combination of open cut and microtunneling using a 60-inch steel casing under Trillium Creek.

### **Client Contact**

David Prock City of Lake Oswego Phone (503) 697-7417

### K/J Staff on SEJPA Project

Allen Shewey, Lead Engineer

### **Subconsultants**

Applied Professional Services
Bravo Environmental
Brix Paving NW, Inc.
CS Services
Degenkolb Engineers
DKS Associates
Green Works, P.C.
Harrity Tree Specialists, Inc.
Kleinfelder, Inc.
Norton Corrosion, Ltd., LLC
Revey Associates
Saylor Consulting Group
Staheli Trenchless Consultants\*
VacX (G.A.W.), Inc.

\*assigned to SEJPA Project

# **Lakeshore Trunk Sewer Project**

# Elsinore Valley Municipal Water District Riverside County, California

### April 2005 to November 2006



Elsinore Valley Municipal Water District's service area had continued to experience significant population growth, which increased wastewater flows to near capacity. In addition, rain events taxed the existing system's capacity, underscoring the need to swiftly implement the Lakeshore Trunk Sewer project.

This large-scale, high-profile project included several factors impacting the design and construction of the project including: public outreach, traffic control, alternative construction methods and odor control. Working as an extension of staff to minimize disruptions during the design and bid phases of the project, Kennedy/Jenks provided the following benefits:

- Reduced construction impacts by utilizing trenchless technology including micro-tunneling in downtown streets.
- Lowered costs by allowing bids to include alternative pipe materials.
- Promoted public acceptance through a proactive outreach program during design to familiarize the public with the project's purpose.
- Controlled odors in the system by working in sync with the Regional Lift Station project.

The seven mile-long Lakeshore Trunk Sewer was designed to increase its B-Series Interceptor system capacity in three reaches: Mission Trail/ Malaga Reach; Northern Reach; and Southern Reach. The existing interceptor included gravity pipelines ranging from 15- to 27-inches in diameter. The new trunk sewer included pipe sizes ranging in diameter from 33- to 54-inches.

Other project challenges included: high groundwater in several locations, traffic and traffic control, and utility conflicts. These issues were comprehensively addressed by the Kennedy/ Jenks Team, and trenchless techniques, including micro-tunneling and bore and jack were incorporated in the design. The project also encompassed close coordination with the Regional Lift Station design team.

### **Client Contact**

Paul Carver Director of Engineering Elsinore Valley Municipal Water District Phone (951) 674-3146

### K/J Staff on SEJPA Project

Allen Shewey, Lead Engineer Corey Young, Permitting

### **Subconsultants**

Airx Utility Surveyors, Inc.
Associated Engineers
DR McNatty & Associates, Inc.
Katz & Associates, Inc.
Kleinfelder, Inc.
KOA Corporation
Sitts & Hill Engineers
Staheli Trenchless Consultants\*

\*assigned to SEJPA Project

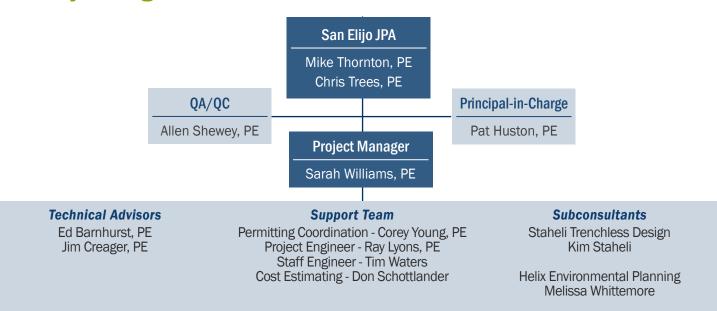
### **Additional Relevant Projects**

In addition to our three referenced projects above, we have included a list of additional relevant projects that augment our experience.

- 48-inch Force Main Repair Project, Silicon Valley Clean Water, Redwood City, CA
- West Twain Interceptor Rehabilitation Project, Clark County Water Reclamation District, Las Vegas, NV
- Meyer Flume Rehabilitation Project, Vista Irrigation District, Vista, CA
- Perris Valley Pipeline, Metropolitan Water District of Southern California, Los Angeles, CA
- Influent Force Main Joint Repair in San Francisco Bay Mud Formation, South Bayside System Authority, San Mateo County, CA
- 20-inch Force Main Rehabilitation Design, Sausalito-Marin City Sanitary District, Sausalito, CA
- Brine Line Hueneme Outfall, Calleguas Municipal Water District, Thousand Oaks, CA
- 42-inch Underwater Intake Pipeline Design and Construction for the Bon Tempe Water Treatment Plant, Marin Municipal Water District, Corte Madera, CA
- Treasure Island Outfall Improvements, City and County of San Francisco, CA
- Joint Use Outfall Repair Project, City of Millbrae, CA
- Ocean Outfall Repair, City of Richmond, CA
- Richmond Deep Water Outfall Project, Chevron USA, Brea, CA

# **5.3 Project Organization and Key Personnel**

# **Project Organization**



# **Key Personnel**

### Pat Huston, PE - Principal-in-Charge

With more than 20 years of experience, Pat is an environmental engineer with expertise in water, wastewater, and reclamation service areas, including treatment facilities, pump stations, storage reservoirs, and pipelines. His involvement in these areas has included project management, planning, analysis, design, construction and permit coordination. For the San Elijo JPA, Pat served as the principal-in-charge or project manager for the Energy Optimization Evaluation and Advanced Water Treatment Plant projects.

# Sarah Williams, PE - Project Manager

Our proposed project manager, Sarah has 12 years of experience designing large-scale water resources projects, including pipeline design and rehabilitation, wastewater treatment plants, and construction projects throughout southern California. Her experience includes design of pipelines ranging from 8-inches to 60-inches in diameter using various pipe materials, such as CML&C, ductile iron, HDPE, PVC, and RCP. She has also designed pipelines using trenchless installation methods, such as jack and bore and horizontal directional drilling crossing freeways, railroads, major utilities and city streets.

# Allen Shewey, PE - QA/QC

Allen Shewey's experience extends from wastewater, water supply, surface water to drainage and irrigation systems. He offers a wide range of expertise in piping systems and is one of Kennedy/Jenks Consultants leading advocates for the use of trenchless technologies for pipeline rehabilitation. Allen has been a member of the North American Society for Trenchless Technologies (NASTT) since 2000 and was the project engineer for the NASTT National Pipeline Rehabilitation Project of the Year in 2000. This winning project rehabilitated 9,000-lineal-feet of a 15-foot, 4-inch-diameter siphon originally constructed as a part of the Grand Coulee Dam construction program to irrigate Central and Eastern Washington.

# 5.4 Project Approach

# **Project Approach**

Kennedy/Jenks' local team of experts will leverage our familiarity with the San Elijo Land Outfall pipe with our expertise in design, scheduling and coordination to deliver a feasible, cost effective solution that can be sequenced with the adjacent San Elijo Lagoon restoration work. The involvement of the Kennedy/Jenks team in the on-going planning of recycled water pipeline replacement in the I-5 corridor gives us an unparalleled familiarity with the related work in this area. Additionally, allowing Kennedy/Jenks to serve on multiple ongoing projects results in superior inter-project coordination, and effective planning, sequencing and permitting.

# 1. Predesign Technical Approach

Kennedy/Jenks will prepare a Preliminary Design Report finalizing design concepts and criteria. Methods of installation to be evaluated include: 1) in situ rehabilitation by slip-lining or cured-in-place lining; 2) installation of a new parallel outfall by open trench methods; or 3) installation of a new parallel outfall through trenchless construction. Design concepts to be evaluated and finalized during this phase include:

- Hydraulics of selected rehabilitation/replacement method
- Pipe alignment options
- Cost analysis of each rehabilitation/ installation method and alignment options. A Class 4 estimate will be prepared by our professional cost estimator, Dan Schottlander.
- Life expectancy of design
- Planning level design and construction phase scheduling
- Determination of environmental and/or permit requirements (See Task 2 in Scope of Work), permitting impact of alternatives
- Constructability and construction risks
- Recommendations for final rehabilitation and/or replacement options

Advantages	Considerations						
In situ Pipe Rehabilitation							
<ul> <li>Based on current condition/ expected life, install best rehabilitation method, likely CIPP (cured in place pipe)</li> <li>Less Impact to community than open trench pipe replacement</li> <li>Lower cost compared to installing new pipeline</li> <li>Extend service life of existing pipe</li> <li>Provide reliable and environmentally safe conveyance</li> </ul>	<ul> <li>Structural integrity of existing pipe will influence suitability of rehabilitation</li> <li>Condition of interior pipe wall will influence suitability of rehabilitation</li> <li>Hydraulics of liner including roughness coefficient, changes to inside diameter, etc. will be considered</li> <li>Life expectancy of lining</li> <li>Requirements for by-pass pumping during construction</li> </ul>						
Open Trench Installation							
Evaluate pipe replacement         • Replace aging infrastructure         • Leaving existing outfall in-place could provide redundancy for future         • Reduce need for temporary pumped bypass system	Constructability of open trench installation including environmental impacts, permitting requirements, and costs						

Advantages	Considerations
Trenchless Installation	
Trenchless methods of installation will provide a new pipe with minimal impact to community and environment  Staheli Trenchless will apply vast experience in trenchless installation in coastal environments and soft soils.  Replace aging infrastructure  Leaving existing outfall in-place could provide redundancy for future  Reduce need for temporary pumped bypass system	<ul> <li>Explore trenchless methods of installation suitable to site and soil conditions</li> <li>Placement of launch and receiving shafts will be determined to minimize environmental impacts and permitting.</li> <li>Cost comparison to other alternatives will be prepared.</li> <li>Turning radius of trenchless installation will be evaluated to optimize use of existing easement and eliminate need to acquire additional easements</li> </ul>

### **Staheli Trenchless**

When evaluating trenchless installation methods, Staheli Trenchless Consultants (STC) will review existing geotechnical information and project constraints to evaluate trenchless methods deemed potentially feasible for the outfall replacement rehabilitation. Each trenchless method will be evaluated for feasibility factors such as suitability of the method given the geotechnical conditions, geotechnical risks, available construction layout area, launch and receiving shafts, pipe layout area, work within available easements/ right of way, compatibility of method with desired pipe diameter and materials, need for dewatering, environmental impacts, and required easements. STC will review planning level cost estimates for any alternatives recommended for design consideration.

### **A. Evaluation Process**

We will host a collaborative workshop with SEJPA to clearly identify all evaluation criteria and to assign a weighted value to each criteria based on SEPJA priorities. Kennedy/Jenks will then create a weighted criteria matrix that will reflect SEJPA's needs and priorities, in order to determine a final recommended rehabilitation/replacement method. We are familiar with SEJPA's commitment to the community and the environment. We also understand the need for a cost effective design that will minimize risk. The alternatives will be rated on their fulfillment of the necessary criteria as prioritized by SEJPA, resulting in a well-documented, thorough decision making process that ensures a design that meets all of SEJPA's priorities.

# 2. Permitting/CEQA Approach

Successfully completing the Land Outfall Replacement project while minimizing environmental impacts is of primary importance to the SEJPA. Kennedy/Jenks will consider the environmental impacts of each rehabilitation or replacement method, which will influence the final recommendation. It is understood that the entire outfall alignment is within a SEJPA easement. No additional easements are anticipated to be obtained for this project. If, at a later time, additional easements, permitting, or environmental reporting is deemed necessary, the Kennedy/Jenks' team has the knowledge and expertise to provide these services.

Kennedy/Jenks understands that extensive coordination will need to take place with several different agencies including U.S. Army Corps of Engineers (USACOE), U.S. Fish and Wildlife (USFWS), California Dept. of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), and California Coastal Commission (CCC). Pat Huston and Corey Young have collaborated with these agencies and addressed the necessary permitting requirements on past projects including the SEJPA Re-ballasting Project and also the Olivenhain Pump Station to name a few. To assist with this rigorous permitting process and with CEQA, we have teamed with Helix Environmental. Helix is currently providing CEQA compliance services for the Lagoon Restoration project and Double Track project. Building from this on-going effort,

Helix will be able to provide services for the Land Outfall project that are well coordinated with the lagoon restoration efforts. Read more about Helix's services in the Scope of Work section.

# 3. Project Management Approach

Project management responsibilities will include scheduling of meetings, quality reviews, budget control, invoice preparation, and coordination with the SEJPA and the Kennedy/Jenks project team.

### A. Project Meetings/Workshops

- The project kickoff meeting will be held within a week of the receipt of a notice to proceed. This
  meeting will include representatives from the SEJPA, Kennedy/Jenks and key subconsultants. At this
  meeting project reporting/ communication protocols will be established and the scope of work,
  schedule and key technical issues will be discussed.
- 2. We will have a collaborative workshop with SEJPA to clearly identify all evaluation criteria and to assign a weighted value to each criteria based on SEPJA priorities. This data will be used in the decision matrix.
- 3. After the SEJPA has completed their review of the draft submittal, the project team will meet with the SEJPA to review the information and develop a consensus. Kennedy/Jenks will prepare an agenda in advance of the meeting and will distribute minutes to each of the meeting participants. The purpose of the review meeting will be for Kennedy/Jenks and the SEJPA to discuss and clarify any comments that may have been made on each submittal. Kennedy/Jenks will compile all SEJPA comments into a spreadsheet format (Decision Log) prior to the comment review meetings and provide a response as to our planned course of action to address each comment. These spreadsheets will be distributed prior to the review meeting and will serve as a basis of discussion.

Additional meetings will include a progress check meeting and up to 4 monthly Caltrans/Lagoon meetings. Kennedy/Jenks is able to realize efficiencies for the SEJPA because we are already working on the Recycled Water Pipeline Project and are in attendance to the Agency coordination meetings, therefor there is no additional cost to attend these meetings.

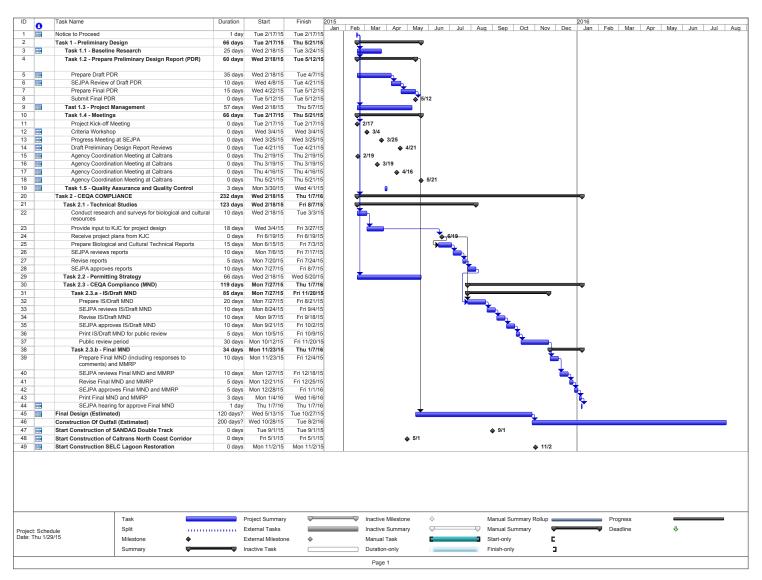
## **B.** Quality Control/Quality Assurance

Kennedy/Jenks will provide quality assurance and quality control (QA/ QC) reviews throughout the course of the project consistent with Kennedy/Jenks' policies as outlined in our QA/QC and Quality Management Manual. Our QA/QC and quality management procedures establish and maintain a structure for providing adequate reviews of all work products and adherence to industry design standards. Specific QA/QC efforts on this project will include:

- Development of a Project Memorandum, which will define the requirements, responsibilities, schedule, budget, goals and expectations for the work. This tool used by each team member is our "internal contract" for the performance of the work.
- Development of a Quality Assurance Plan, which will outline how QA/QC reviews will take place during the course of the work. The Plan will also outline specific technical protocols, methods, and checklists for our staff to use in preparing work products.
- Concept and Criteria Review of the project design at the predesign phase.
- Review of all notes and design calculations, along with design drawings and specifications, by an appropriate reviewer independent of the project design team prior to each design submittal.

# 4. Scheduling

The design, construction and permitting schedules will need to be sequenced to ensure appropriate interfacing with adjacent San Elijo Lagoon Rehabilitation project and Double Track project, which will require ongoing coordination with Caltrans, SANDAG, and the San Elijo Lagoon Conservancy, among others, which will ultimately minimize community and environmental impacts. Kennedy/Jenks staff has been attending coordination meetings with these agencies for the last several months which provide us with superior familiarity with these projects and schedules, while reducing SEJPA staff time impacts. Since Kennedy/Jenks will be working on the Recycled Water Pipeline relocation project concurrently to the Outfall Project, we will realize efficiencies in budget and schedule. Kennedy/Jenks will also be working closely with our environmental permitting subconsultant, Helix Environmental, to ensure the most streamlined permitting process in conjunction with the other ongoing projects. Refer to attached preliminary project schedule illustrating timeline for predesign and anticipated schedules for design, construction and permitting in parallel with the other ongoing lagoon work.



# **Scope of Work**

### Task 1 - Preliminary Design

#### Task 1.1 - Baseline Research

Kennedy/Jenks will perform the baseline research as outlined in the RFP.

### Task 1.2 - Prepare Preliminary Design Report

Kennedy/Jenks will prepare the preliminary design report, drawings and all submittals as outlined in the RFP.

### Task 1.3 - Project Management

Kennedy/Jenks will perform project management duties as outlined in the RFP and described in the Project Management Approach Section 5.4.3.

### Task 1.4 - Meetings

Kennedy/Jenks will participate in (8) scheduled meetings with San Elijo through the course of the preliminary design. These meetings will include:

- Project kickoff meeting (1)
- Progress review meetings at SEJPA (2)
- Draft preliminary design report review (1)
- Monthly Caltrans/Lagoon Meetings (4)

Kennedy/Jenks will prepare meeting agendas and minutes for each of these meetings, which will be distributed to all attendees.

### Task 1.5 - Quality Assurance and Quality Control

Kennedy/Jenks will provide quality assurance and quality control (QA/QC) reviews through the course of project consistent with Kennedy/Jenks' policies as outlined in our QA/QC and Quality Management manual. These efforts will be conducted by Allen Shewey. Allen has over 30 years of experience in condition assessment, pipeline rehabilitation, and large diameter pipeline design. Allen has recently worked on the San Marcos Interceptor Replacement project for Vallecitos Water District, and was the principal-in-charge for the design of 1.9 miles of 42-inch diameter pipeline for the City of Lake Oswego, OR. Allen will perform a Concept and Criteria Review of the project design at this early predesign phase, which will include review of the Predesign Report, Predesign Drawings, List of Specifications and preliminary calculations.

## Task 2 - Permitting and CEQA Compliance

### Task 2.1 - Technical Studies

Kennedy/Jenks' subconsultant, Helix, will prepare the following technical studies:

- Biological Technical Report
- Cultural Resources Letter Report

### Task 2.1.a - Biological Technical Report

Based on a preliminary review of available information, the proposed project alignment traverses undeveloped land within San Elijo Lagoon that supports sensitive biological resources, thereby warranting

further evaluation in a biological resources technical study. Helix understands that trenchless construction methods will be considered for pipeline installation, which would substantially reduce the potential for sensitive biological resources to be impacted during project construction. This task assumes that open cut trenching, although not preferred, is also being considered for installation, and that potential impacts associated with open cut methods could ultimately require analysis in the CEQA Initial Study (IS)/Mitigated Negative Declaration (MND).

Due to the potential for sensitive biological resources to occur on and in the immediate vicinity of potential limits of work, preparation of a concise biological resources technical study is recommended to support the CEQA IS/MND. The study will consist of a pre-survey investigation, general biological survey, and preparation of a biological technical report. The pre-survey investigation will include a literature review, database search, and preparation for field surveys. Helix will utilize existing information from previous studies completed for the Interstate 5 North Coast Corridor Project, LOSSAN rail corridor, and Escondido sewer outfall, all of which have study areas that overlap portions of the proposed project alignment. The general biological survey will consist of a one-day field visit to verify existing conditions in the immediate vicinity of the project alignment. The survey will include vegetation mapping, habitat assessment for sensitive species, and identification of sensitive biological resources that present a potential constraint on the project. Portions of the alignment that traverse saltmarsh and open water habitat are expected to be inaccessible by foot, but will be visually inspected from adjacent areas using binoculars, spotting scopes, and interpretation of aerial imagery. The extent of potential jurisdictional waters and wetlands (i.e., saltmarsh, open water, and riparian habitat associated with San Elijo Lagoon) will be preliminarily delineated in the field. A formal jurisdictional delineation is not included in this study and not anticipated to be required for CEQA review, although will likely be required to support later-phase environmental permitting for the project. Upon completion of the field survey, Helix will identify significant biological constraints to facility siting and communicate the issues to the project team for consideration as part of the alternatives evaluations.

Helix will prepare a report documenting the findings of the pre-survey investigation and general survey tasks. The report will include discussions for the project location, project description, study methods, regulatory framework, potential impacts, and proposed measures to reduce the impacts to less than significant levels. Figures will be prepared and attached to the report depicting the project in relation to existing biological resources. The draft letter report will be electronically submitted to SEJPA for review. This task assumes analysis of one version of the project plans and one round of minor revisions. Helix will provide an electronic copy and up to 10 hard copies of the final report to SEJPA.

### Task 2.1.b - Cultural Resources Letter Report

Helix will obtain and review a records search from the South Coastal Information Center for the project alignment and the immediate vicinity. Helix also will contact the Native American Heritage Commission for a Sacred Lands File search and list of Native American contacts, and will contact the Native American community, as appropriate. Helix archaeologists will then conduct a field survey of the project site. This scope and cost includes the presence of a Native American (Kumeyaay) monitor during the field survey.

Helix is aware of at least one archaeological site in proximity to the project area. If cultural resources are identified, they must be recorded. This scope and cost assumes up to one site needing to be recorded by Helix archaeologists. If cultural resources cannot be avoided through project design, they must be tested to assess significance. The cost of such testing would depend on the nature and extent of the resources identified.

It is assumed that no historic structures will be affected by the project. If, however, historic structures are identified, historic archival research would be required, and these resources would need to be

documented using the appropriate California Department of Parks and Recreation (DPR) forms. The scope and cost of such testing and/or research will depend on the nature and extent of the resources identified.

Based on the information obtained during research and the field survey, Helix will prepare a cultural resources letter report, which will document the methods and results of the cultural resources survey, as well as any recommendations. A draft letter report will be electronically submitted to SEJPA for review. One round of minor revisions will be made based on SEJPA comments. Up to 10 hard copies of the final report will be printed and delivered to SEJPA.

### Task 2.2 - Permitting Strategy

Kennedy/Jenks and SEJPA have already begun discussion with the San Elijo Lagoon Conservancy regarding the possibility of utilizing/amending existing permits for this project. The need for the following permits will be evaluated during predesign.

- U.S. Army Corps of Engineers (USACOE)
- California Department of Fish and Wildlife (CDFW)
- US Fish and Wildlife (USFWS)
- Regional Water Quality Control Board (RWQCB)
- California Coastal Commission
- Railroad Encroachment Permit
- California State Lands Commission
- City of Encinitas (crossing of Manchester and Coast Highway)

The San Elijo Lagoon is under the jurisdiction of multiple agencies with discretionary project authority. Thus, a wide variety of county, state, and federal permits will likely be necessary to successfully implement the project. The exact type of permit and process for each responsible or trustee agency will need to be determined based on the review of the existing documentation prepared for the project area, a detailed habitat assessment completed by Helix biologists, and pre-application coordination with agency staff. Preparation of permit applications is not included in this scope of work. This effort can be included as part of the Final Design, once the task has been better defined.

### Task 2.3 - CEQA Compliance (MND)

Kennedy/Jenks has reviewed the San Elijo Lagoon Conservancy Restoration Plan and the Caltrans I-5 (North Coast Corridor) environmental documentation and believe that neither of these would cover the SEJPA for the sewer outfall replacement. At this time it is assumed that the permitting process may proceed with the preparation of an Initial Study/ Mitigated Negative Declaration (IS/MND) document. However, if it is found that this is not sufficient or if there is opposition to the document, then an Environmental Impact Report (EIR) may need to be prepared. Any associated costs or schedule impacts for that change are not accounted for in this scope of work and would be negotiated at a future date.

### Task 2.3.a – Initial Study (IS) and Draft Mitigated Negative Declaration (MND)

Helix will prepare an administrative draft IS that includes identification of environmental effects based on the questions contained in the IS environmental checklist (Appendix G of the State CEQA Guidelines). Preparation of the IS will begin once the construction method (trenching or tunneling) is determined by SEJPA and Kennedy Jenks, as waiting for this information will result in efficiencies with regard to both schedule and cost. Following completion of the IS checklist, Helix will prepare an administrative Draft MND that complies with CEQA requirements and includes a statement of findings based on the results of

the IS. Helix also will prepare a draft Notice of Intent to Adopt a Mitigated Negative Declaration, including brief discussions of the project location and description, location map, and public review information.

In support of IS/Draft MND preparation, Helix's air quality specialist will quantify construction emissions associated with the proposed project and analyze construction air quality and greenhouse gas impacts. Operational emissions associated with the project are expected to be negligible.

The noise analysis in the IS will be prepared by Helix's acoustical analyst. Helix will take a qualitative approach to the noise analysis. Specifically, the analysis will be based on typical construction equipment noise. Construction and operational noise levels associated with the proposed project will be required to comply with applicable noise ordinances. No noise modeling or acoustic measurements will be conducted for construction or operation of the project.

The project is not expected to increase maintenance trips beyond current conditions once the project is installed. Therefore, this scope (and fee) assumes that based on the type of proposed project, no modeling of traffic conditions/impacts is required; Helix will address traffic qualitatively.

Helix will provide SEJPA with electronic copies of the administrative Draft MND, including the IS checklist, and draft Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) for review and comment. Up to five hard copies will also be provided if requested. Within one week of receipt of comments on the administrative IS/Draft MND, Helix will provide SEJPA with a revised electronic copy of the documents for final review and, pending SEJPA approval, public distribution. Once approval is received, Helix will print up to 30 hard copies of the public review IS/Draft MND (including 15 hard copies for the State Clearinghouse). Helix also will prepare and submit for SEJPA review and approval a Notice of Completion and Environmental Document Transmittal (NOC and EDT) Form.

This scope assumes that Helix will send the IS/Draft MND to the State Clearinghouse and other applicable federal, state, and local agencies (under the direction of SEJPA). In addition, Helix will file the NOI with the San Diego County Clerk. SEJPA will conduct outreach and distribute the NOI to members of the general public. This scope also assumes that SEJPA will publish the notice in a local newspaper of general circulation, and pay the County Clerk's filing fee and the costs of publishing the notice.

#### Task 2.3.b – Final MND and Mitigation Monitoring and Reporting Program (MMRP)

Helix will respond to comments made during the 30 day public review period for the Draft MND and prepare an administrative Final MND and MMRP. Helix will provide SEJPA with electronic copies of the administrative Final MND, including preliminary responses to comments, and MMRP within two weeks after the end of the public review period. After receiving SEJPA's comments on this submittal, Helix will revise the documents and provide SEJPA with electronic copies of the Final MND and MMRP for consideration by SEJPA's Board of Directors.

Prior to the Board of Directors hearing on the Final MND, Helix will prepare and submit for SEJPA review and approval a draft Notice of Determination (NOD). Following adoption of the Final MND and project approval, Helix will send a copy of the signed NOD to the State Clearinghouse and file the NOD with the San Diego County Clerk. It is assumed that SEJPA will pay the California Department of Fish and Wildlife filing fee and the County Clerk's fee.

# **5.5 Consultant Fee Estimate**

# **Firm's Estimated Fee**

January 1, 2015 Rates																		s
Classification:	Eng-Sci-9	Eng-Sci-8	Eng-Sci-7	Eng-Sci-6	Eng-Sci-5	Eng-Sci-4	Eng-Sci-3	Eng-Sci-2	Eng-Sci-1	CAD Technician	САБ	Project Admin.	Admin. Assist.	Total	Total Labor	Total Subs	Total Expenses	Total Labor + Subs + Expenses
Hourly Rate:	\$270	\$250	\$235	\$215	\$190	\$175	\$160	\$145	\$130	\$120	\$110	\$90	\$110	Hours		Fees		Fees
Task 1 - Preliminary Design																		
Task 1.1 - Baseline Research				8			16						8	32	\$5,160	\$15,554	\$536	\$21,250
Task 1.2 - Prepapre Preliminary Design Report	4			80			80			80			12	256	\$42,000	\$10,844	\$3,990	\$56,834
Task 1.3 - Project Management	4			20									8	32	\$6,260	\$0	\$580	\$6,840
Task 1.4 - Meetings														0	\$0	\$0	\$0	\$0
Task 1.5 - Quality Assurance and Quality Control	4	28											4	36	\$8,520	\$0	\$781	\$9,301
Task 1 - Subtotal	12	28	0	108	0	0	96	0	0	80	0	0	32	356	\$61,940	\$26,398	\$5,888	\$94,225
Task 2 - Permitting and CEQA Compliance																		\$0
Task 2.1 - Technical Studies				8			8							16	\$3,000	\$16,346	\$340	\$19,686
Task 2.2 - Permitting Strategy				48			12						4	64	\$12,680	\$3,300	\$1,167	\$17,147
Task 2.3 - CEQA Compliance (MND)				16			16							32	\$6,000	\$30,283	\$570	\$36,853
Task 2 - Subtotal	0	0	0	72	0	0	36	0	0	0	0	0	4	112	\$21,680	\$49,929	\$2,077	\$73,686
All Phases Total (Excluding Optional Tasks)	12	28	0	180	0	0	132	0	0	80	0	0	36	468	\$83,620	\$76,327	\$7,965	\$167,912

# **Table of Billing Rates**

# **Personnel Compensation**

Classification	Hourly Rates							
CAD Technician	\$120							
Designer	\$155							
Engineer/Scientist 1	\$130							
Engineer/Scientist 2	\$145							
Engineer/Scientist 3	\$160							
Engineer/Scientist 4	\$175							
Engineer/Scientist 5	\$190							
Engineer/Scientist 6	\$215							
Engineer/Scientist 7	\$235							
Engineer/Scientist 8	\$250							
Engineer/Scientist 9	\$270							
Administrative Assistant	\$110							
Project Administrator	\$90							
Aide	\$70							

In addition to the above Hourly Rates, a four percent communications charge will be added to Personnel Compensation for normal and incidental copies, communications, and postage.

### **Direct Expenses**

Reimbursement for direct expenses, as listed below, incurred in connection with the work, will be at cost plus ten percent for items such as:

- a. Maps, photographs, reproductions, printing, equipment rental, and special supplies related to the work.
- b. Consultants, soils engineers, surveyors, contractors, and other outside services.
- c. Rented vehicles, local public transportation and taxis, travel and subsistence.
- d. Specific telecommunications and delivery charges.
- e. Special fees, insurance, permits, and licenses applicable to the work.
- f. Outside computer processing, computation, and proprietary programs purchased for the work.

Reimbursement for owned automobiles, except trucks and four-wheel drive vehicles, used in connection with the work will be at the federally approve mileage rates or at a negotiated monthly rate. Reimbursement for use of computerized drafting systems (CAD), geographical information systems (GIS), and other specialized software and hardware will be at the rate of \$12 per hour. Rates for professional staff for legal proceedings or as expert witnesses will be at rates one and one-half times the Hourly Rates specified above. Excise and gross receipts taxes, if any, will be added as a direct expense. The foregoing Table of Billing Rates is incorporated into the agreement for the services provided, effective January 1, 2015 through December 31, 2015. After December 31, 2015, invoices will reflect the Table of Billing Rates currently in effect.

# Pat Huston, PE

## Principal-in-Charge

### **Education**

MS, Civil Engineering, San Diego State University, 1995

BS, Civil Engineering, San Diego State University, 1992

### **Registrations**

Professional Civil Engineer, California (54225)

### **Memberships/Affiliations**

American Public Works Association American Society of Civil Engineers Design-Build Institute of America

### **Professional Summary**

Pat Huston is an environmental engineer with experience in water, wastewater, and reclamation service areas, including treatment facilities, pump stations, storage reservoirs, and distribution systems. His involvement in these areas has included project management, planning, analysis, design, construction and permit coordination.

### **Project Experience**

Outfall Reballasting Design and Construction Management Services, San Elijo Joint Powers Authority, Cardiff by the Sea, CA - *Project Manager* - Led a team that evaluated underwater condition assessment surveys of the existing 6,000-foot, 30-inch-diameter ocean outfall. An outfall rehabilitation design was prepared to both replace depleted portions of rock ballast and improve the performance of the diffuser ports by removing the remaining diffuser blanks. Kennedy/Jenks provided construction management services, including both topside and underwater inspections using a combination of dive teams and remotely operated vehicles. Following construction, Kennedy/Jenks commissioned a bathymetric survey to confirm that the ballast placement met the design requirements.

**Energy Optimization Evaluation Project, San Elijo Joint Powers Authority, Cardiff by the Sea, CA** - *Principal-In-Charge* - Led a team which evaluated alternatives for reducing energy consumption at the San Elijo JPA Water Pollution Control Facility. Studies of the plant's energy usage and treatment systems determined approximately 80,000 kWh per year could be saved through various plant upgrades. Following the study, Kennedy/Jenks designed various plant upgrades to improve the plant's energy efficiency, including chemically enhanced primary treatment, stepped aeration, blower and air piping modifications, improved SCADA controls, and automation of the FEB pump-back system. Kennedy/Jenks provided construction management and inspection services for the plant improvements.

Advanced Water Treatment Plant Project, San Elijo Joint Powers Authority, Cardiff by the Sea, CA - Principle-in-Charge - Worked with SEJPA to secure private financing and construction through a public-private partnership to build a 0.5-mgd advanced water treatment facility, expandable to 1-mgd capacity. The treatment process employs microfiltration followed by reverse osmosis that Kennedy/Jenks designed for the treatment facility to take advantage of existing secondary and disinfection processes, and complement the existing 2.5-mgd tertiary treatment system to increase the overall treatment plant capacity and lower TDS to meet the District's reuse objectives.

**U2** and **U1** Gravity Sewer Rehabilitation Study, Las Virgenes Municipal Water District, Calabasas, CA - *Project Manager* - Managed a rehabilitation study for 15,000 feet of 18- to 30-inch gravity sewer along Highway 101 in western Los Angeles County. The rehabilitation study included CCTV inspection of the sewer lines and visual inspection of sewer manholes. The results of the CCTV and visual inspections were summarized in a GIS for the sewer system.

**Perris Valley Pipeline South Reach Final Design, Metropolitan Water District, Perris, CA** - *Project Director* - Led a team that designed 4 miles of 96-inch-diameter treated water pipeline delivering water from the Mills Filtration Plant to Western Municipal Water District and Eastern Municipal Water District. Two turnout facilities were constructed for this project. Project also included the tunnel crossing of I-215. Kennedy/Jenks provided engineering services during construction.

**Jack Creek Bench, Big Tunnel, Vista Irrigation District, Vista, CA** - *Principal-In-Charge* - Lining the Jack Creek Bench (approximately 325 feet), Big Tunnel (approximately 1,400 feet), with HDPE piping. The Tunnel Bench is approximately 3,800 feet long and will be lined using multiple headings and insertion pits due to its length.

Otay 1 & 2 Pipeline Abandonment-East of Highlands, City of San Diego, San Diego, CA - *Technical Reviewer* - Prepared plans and specifications for the design of the abandonment of approximately 6,870 feet of 30- and 36-inch diameter pipe from the Otay 1 pipeline and 6,760 feet of 36-inch diameter pipe of the Otay 2 pipeline. Due to the cast iron pipe in the segment is mildly to severely deteriorated, with up to 35 percent graphitization, this project reduced the potential for pipe breaks and increase the ability of City crews to maintain the pipeline by removing it from inaccessible canyons and from below private homes and schools. In addition, the Altaden/Chollas pipeline will be upsized to 16-inch PVC pipe with connections to the Trojan pipeline and the Otay 2 pipeline.

**Wellfield Nos. 1 and 2 Siting and GIS Mapping, Calleguas Municipal Water District, Thousand Oaks, CA** - *Project Manager* - Led a team that assembled as-built drawings prepared through numerous projects to create a GIS-based mapping system for Wellfield Nos.1 and 2. The GIS allows users to view the various water system infrastructure at the 200-acre sites, including 18 wells, miles of raw water and treated water pipelines, reservoir, valve yard, and disinfection system. The GIS is linked to the as-built drawings to provide users ready access to the detailed design drawings.

**Final Design/Construction of the Vista Flume and Lining Pilot Project, Vista Irrigation District, Vista, CA** - *Technical Reviewer* - Completed the final design and construction support of the HDPE sliplining pilot project. Approximately 2,200-linear-feet of the existing concrete flume was rehabilitated by the sliplining 42-inch HDPE pipe. Project was delivered with a design-build procurement with a total contract amount of \$1.7 million.

On-Call Plant Engineering Services at Mills and Diemer Water Filtration Plant Facilities, Metropolitan Water District, Los Angeles, CA - *Project Director* - Various improvements and expansion projects at Mills and Diemer Water Filtration Plants, including preliminary design for the rehabilitation of a 160-mgd process train at the Mills Filtration Plant. Eighteen projects were executed under this as-needed contract, including site civil improvements, entrance road and security improvements, administration building improvements, HVAC improvements, miscellaneous plant piping improvements and seismic retrofit upgrades.

# Sarah Williams, PE, LEED AP

## Project Manager/Pipe Designer

#### **Education**

BS, Civil Engineering (Water Resources), University of Colorado, 2002

### **Registrations**

Professional Engineer, California (C71694) Professional Engineer, Nevada (C71694)

#### **Certifications**

Leadership in Energy and Environmental Design (LEED), U.S. Green Building Council

### **Memberships/Affiliations**

American Society of Civil Engineers American Public Works Association California Water Environment Association

### **Professional Summary**

Sarah Williams has 12 years of experience designing large-scale water resources projects, including pipeline design and rehabilitation, wastewater treatment plants, and construction projects throughout southern California. Her experience includes design of pipelines ranging from 8-inches to 60-inches in diameter using various pipe materials, such as CML&C, ductile iron, HDPE, PVC and RCP. She has also designed pipelines using trenchless installation methods, such as jack and bore and horizontal directional drilling crossing freeways, railroads, major utilities and city streets. Additionally, Sarah is a LEED Accredited Professional and experienced in pervious pavements, onsite materials reuse, site planning, and incorporating recycled materials.

### **Project Experience**

Otay 1 & 2 Pipeline Abandonment-East of Highlands, City of San Diego, CA – Civil Engineer - Provided engineering during construction of a nearly 9,000-linear-foot pipeline replacement and more than 14,000-linear-foot pipeline abandonment. Pipeline design included the replacement of six 12-inch AC and PVC pipe with 16-inch PVC pipe. The alignment installation area was extremely dense in other existing utilities. Pipeline abandonment involved the slurry filling of several thousand linear feet of 30-inch and 36-inch CI and DI transmission pipeline.

**Vallecitos Alignment Study, Vallecitos Water District, San Diego, CA** - *Civil Engineer* - Prepared alignment study evaluating various potential pipe alignments with special consideration and coordination with future City of San Diego plans for a river walk recreational area. Part of pipe alignment study occurred in a wetlands area with special environmental considerations. Advantages were evaluated from the perspective of City of Vallecitos and the City of San Diego. The alignment study was used to support the City of Vallecitos' request for additional alignment easement area.

**Potable Water Conveyance MCB Camp Pendleton, U.S. Navy Facilities, San Diego, CA** - *Senior Engineer* - Responsibilities included preparation of a request for proposal for the design-build potable water conveyance project at Camp Pendleton. Documentation included preliminary design drawings for 24 miles of water pipeline varying in size from 12- to 20-inch diameter HDPE pipeline. The project required trenchless crossings at two creek locations. Geotechnical data was analyzed to evaluate various crossing methods resulting in the selection of jack and bore installation. The project also included an additional 12-inch diameter pipeline crossing of the I-5 freeway using horizontal directional drilling. A connection to two new pump stations and a reservoir (designed by another consultant) and connection to existing facilities at various locations was included in the design. An in-

line pressure reducing station was also implemented. Strict environmental regulations where adhered to and design provisions were made to protect existing habitat.

Recycled Water Pipeline Segments A and B, Inland Empire Utilities Agency (IEUA), Upland, CA - Senior Engineer - Led the design of approximately 25,000 feet of 24-inch recycled water pipeline spanning the cities of Upland, Ontario and Rancho Cucamonga requiring public outreach and agency coordination. The design allowed for the option of steel or ductile iron. The pipe alignment was through city streets with many existing utility crossings, as well as crossing two railroad right-of-ways and the 152-inch Metropolitan Water District feeder line. Jack and bore was required at several locations. Also mitigated traffic control issues in front of schools by limiting hours of work and establishing alternate pipeline routes.

**Los Coches Pump Station, Helix Water District and San Diego County Water Authority, Lakeside, CA** - *Senior Engineer* - Designed the replacement of the Los Coches Pump Station and associated 24-inch and 36-inch piping. Existing utility obstructions were an issue. It was an issue to have plant shutdowns for piping connections. Piping tie-ins were designed such that the old pump station remained in service while the new station was constructed and tested.

**450-1 Recycled Water Reservoir and Pump Station, Otay Water District, San Diego, CA** - Design Engineer - Designed complex grading plan for above grade 12 million-gallon steel recycled water reservoir, and 12,000-gpm pump station. Designed yard piping, including 1,000-feet of 30-inch recycled water pipeline. Yard piping also required four 200-foot-long, 50-foot deep jack and bore tunnels through the hillside with 8-, 12-, 18- and 54-inch steel casings to connect excavated reservoir site to existing utilities on nearby public right-of-way. Project utilized San Diego Regional Standards, City of San Diego Standards and White Book with Green Book standards.

Anaheim Hills Windy Ridge Pipeline and Reservoir, City of Anaheim, CA - Civil Engineer - Design of new 16-inch water pipeline and reservoir in affluent neighborhood of Anaheim Hills in Orange County. Reservoir visibility was a community concern which was mitigated through strategic placement of the reservoir and grading of the surrounding site in such a way to minimize exposure. Community outreach was held with public meetings and presentations of 3D renderings of the finished site. The project design included connections to existing utilities in the street, and a new pressure regulating station.

Quartz Hill Water Treatment Plant Refurbishment and Expansion, Antelope Valley East Kern County, Lancaster, CA - Senior Engineer - Project involved design of extensive yard piping up to 60-inch in diameter, including CML&C steel pipe, ductile iron and plastic pipe. Routing evaluations had to be performed due to the dense existing utilities at the water treatment plant. Protection of existing facilities in place was a major consideration. It was also critical that plant access was fully maintained during construction. Project work needed to be coordinated around other ongoing construction activities at the plant.

# Allen Shewey, PE

### QA/QC

#### **Education**

BS, Civil Engineering, Oregon State University, 1974

### **Registrations**

Professional Engineer, Nevada (20356)
Professional Engineer, California (80160)
Professional Civil Engineer, Washington (17633)
Professional Civil Engineer, Oregon (09709)
Professional Environmental Engineer, Oregon (09709)

#### **Certifications**

Pipeline Assessment and Certification Program, National Association of Sewer Service Companies (NASSCO)

### **Memberships/Affiliations**

North American Society for Trenchless Technology American Water Works Association American Society of Civil Engineers Water Pollution Control Federation

### **Professional Summary**

Allen Shewey's experience extends from wastewater, water supply, surface water to drainage and irrigation systems. He offers a wide range of expertise in piping systems and is one of Kennedy/Jenks Consultants leading advocates for the use of trenchless technologies for pipeline rehabilitation.

Allen has been a member of the North American Society for Trenchless Technologies (NASTT) since 2000 and was the project engineer for the NASTT National Pipeline Rehabilitation Project of the Year in 2000. This winning project rehabilitated 9,000-lineal-feet of a 15-foot, 4-inch-diameter siphon originally constructed as a part of the Grand Coulee Dam construction program to irrigate Central and Eastern Washington.

Currently, Allen specializes in pipeline assessment under the National Association of Sewer Service Contractors (NASSCO) Manhole Assessment and Certification Program (MACP) and Pipeline Assessment and Certification Program (PACP) rules and innovative rehabilitation projects for wastewater conveyance, water transmission and irrigation piping systems that effectively utilize trenchless methods.

### **Project Experience**

**U2** and **U1** Gravity Sewer Rehabilitation Study, Las Virgenes Municipal Water District, Calabasas, CA - *Technical Advisor* - Provided senior review services for a sewer rehabilitation study of a 7,800-linear-foot sewer mainline from 10- to 21-inches in diameter. The evaluation included manhole and pipeline assessments followed by recommendations for pipeline rehabilitation/replacement and a corrective action plan for manholes. Three runs of piping were recommended for cured-in-place-pipe (CIPP) installation. Due to heavy accumulations of hydrogen sulfide gas manhole rehabilitation was recommended, including reconstructing the concrete bench, grouting existing void spaces and epoxy lining the manhole interiors. Requirements for bypass pumping with full redundancy were also evaluated in this rehabilitation study.

Wastewater Collection System Rehabilitation Plan, City of Simi Valley, CA - Project Manager - In addition to providing project management services, served as discipline lead/senior engineer for the pipeline assessment of 47 miles of sewer interceptor/mainline. The existing sewers consisted largely of asbestos cement pipe constructed approximately 30 years ago. The standard defect rating system for sewers, adopted by NASSCO and PACP, was utilized to rate the sewer condition and remaining

## Kennedy/Jenks Consultants

life. After the nationally certified PACP process was completed, additional criticality factors were developed for each pipeline to assist the City in further identifying critical areas for pipeline repair/replacement. These factors identified pipelines in major transportation corridors, in sensitive lands and wetlands, and in critical business zones. A Capital Improvements Plan was developed to provide guidance to the City for the areas of pipeline to be rehabilitated. Significant effort was expended to develop estimates of probable cost for pipeline rehabilitation into the future. Developing accurate costs for flow bypassing was challenging, requiring several iterations to successfully obtain representative costs. Rehabilitation favored the use of CIPP or slip lining to upgrade existing sewers.

**Balch Consolidation Conduit Project, Bureau of Environmental Services, City of Portland, OR** - *Principal-In-Charge* - Work included advanced planning and design of the Balch Conduit West Side Combined Sewer Overflow (CSO) tunnel. The project includes 7,000-linear-feet of 84-inch and 3,000 feet of 54-inch microtunneling to develop a new sewer trunk line to replace an existing mainline constructed on piling in the early 1900s in northwest Portland. A substantial overburden was placed over this trunk sewer causing the piling to punch up into the aged brick sewer trunk, significantly restricting flow. Significant challenges encountered during design include contaminated media, soft soils with blow counts of 2 or less, tunneling through an abandoned landfill, deep shaft excavations and extremely limited right-of-way.

**72-Inch Raw Water Bypass Pipeline, San Juan Water District, Granite Bay, CA** - *Technical Advisor* - Provided concept development and senior review for planning and design of 3,800-linear-feet of a 72-inch raw water bypass line at the toe of Folsom Dam. The project included significant rock excavation, protection of the dam and a surge tower. The selected pipe material is cement-mortar lined and coated (CML&C) steel.

**Temescal Agricultural Pipeline Condition Assessment, Elsinore Valley Municipal Water District, Lake Elsinore, CA** - *Technical Advisor* - Pipeline assessment of 10 miles of 30-inch recycled water pipeline constructed in the 1920s of concrete pipe. Included 5 miles of CCTV investigation of gravity pipeline and siphons, development of a rehabilitation plan, cost estimation, prioritization of improvements over time and recommendations for inclusion of projects into a Capital Improvements Plan. Significant coordination was featured in working directly with subconsultant Houston and Harris, a noted California-based internal pipeline cleaning and CCTV inspection firm. Trenchless rehabilitation methods and costs were developed in rehabilitation plan for HDPE slip-lining, pipe bursting, sewage lining using thin wall HDPE, cured-in-place pipe and open-cut replacement.

**Bair Island Force Main Replacement, Silicon Valley Clean Water, Redwood City, CA** - *Project Engineer* - Senior engineer providing input to concept development for 13,000-feet of 48-inch-diameter and 19,400-linear-feet of 54-inch-diameter reinforced concrete force main rehabilitation. Concept development included a review of pipeline rehabilitation options to eliminate leakage, provide corrosion resistance and improve the force main's pressure rating. Input was also provided concerning options for bypass pumping where rehabilitation methods would require diversion of incoming flow. An upgrade to the force main was a part of a 10-year, \$340-million capital improvements program.

**Final Design/Construction of the Vista Flume and Lining Pilot Project, Vista Irrigation District, Vista, CA** - *Technical Reviewer* - Completed the final design and construction support of the HDPE sliplining pilot project. Approximately 2,200-linear-feet of the existing concrete flume was rehabilitated by the sliplining 42-inch HDPE pipe. Project was delivered through a design-build procurement with a total contract amount of \$1.7 million.

## **Kennedy/Jenks Consultants**

# **Ed Barnhurst, PE**

### **Technical Advisor**

#### **Education**

BS, Civil Engineering, Oregon State University

### **Registrations**

Professional Civil Engineer, Oregon

Professional Civil Engineer, Washington

### Memberships/Affiliations

American Society of Civil Engineers, Member

### **Professional Summary**

Ed Barnhurst is a senior engineer, serving as our Community of Practice Leader for Pipelines, with 38 years of experience in the civil/municipal area, with emphasis on water resources, water pumping, transmission pipelines, and storage reservoirs/tanks; wastewater pumping and conveyance, storm drainage, and transportation engineering. The work performed includes project planning, preliminary design, route selection, final design, construction management, and computer modeling for various projects throughout the United States and around the world. The work has been performed for both the public and private sectors.

### **Project Experience**

**Hoquiam River Water and Sewer Line Crossings** - Project Engineer - Prepared the design for two river crossings of the Hoquiam River in Hoquiam Washington. Each of the crossings was by horizontal directional drilling (HDD) methods and involved development of a suitable alignment and profile based on numerous river side conflicts, such as existing piling and obstructions. The water line crossing was 1,100 feet of 12-inch pipe and the sewer crossing was 1,450 feet of 12-inch pipe.

Richmond Beach Flow Transfer Project, King County, Seattle, WA – Project Engineer - Prepared the design for an 11.8-mgd sewerage pumping station with three associated 18-inch and 20-inch diameter forcemains and 24-inch to 36-inch gravity outfall lines. The pump station provided a total lift of 130 feet with two independent pump systems to pump to the Edmonds forcemain or the McAleer forcemain as required. Variable frequency motor drivers (VFD's) were used to match flow signals from the Richmond Beach pump station. The forcemain and gravity pipe alignment traverse through several residential communities in North King County and southern Snoqualmie County. The hilly terrain required approximately 3,600 feet of 48-inch diameter boring to install the sewer line piping. Several of the bored tunnels are over 40 feet in depth with one boring of 820 feet in length.

Willamette Interceptor Flood Damage Repair Project, Portland, OR – Project Engineer - Completed the design for the project on a fast track basis to restore segments of the Willamette Interceptor, which had been exposed by flooding on the Willamette River. Work included preparation of the design for various retaining wall, rip-rap, gabion and pier and footing repairs to reconstruct support and erosion protection for the sewer pipeline.

**Albany-Millersberg Supply Pipeline, Albany, OR** - Project Engineer - This work included the design of more than 17,000-linear-feet of 42-inch diameter transmission main pipeline from the new Albany-Millersberg Water Treatment Plant to the distribution system connection. Also included in the design were three tunneled creek crossings.

**Pajaro Coastal Pipeline, Watsonville, CA -** Project Engineer - Prepared the preliminary design for the 24-mile long Coastal Distribution System (CDS). The CDS delivers water to an area roughly bounded by Monterey Bay to the west, Highway 1 to the east, Academy Road to the north, and Elkhorn Slough to the south and southeast. It consists of approximately 24 miles of transmission and distribution lateral pipelines from 48-inch to 8-inch diameter pipe and approximately 90 agricultural turnouts. The CDS provides a pressurized pipeline conveyance system to serve 8,960 acres of agricultural land in Santa Cruz and Monterey counties and serves the needs of growers in the Pajaro Valley, generally the area west of Highway 1. Preliminary design included pipeline route selection, hydraulic modeling, pipe materials selection, and plan and profile drawings of the pipelines.

Owens Lake Dust Mitigation Project, Phases III, IV and V, Lone Pine, CA - Project Engineer - Work included design of various pipeline turnouts and pumping facilities for the project. Pipeline turnouts varied in sizes from 6- to 18-inch diameter, handling and controlling flows up to 30,000-gpm at a given location. Pump facilities included submersible pump systems ranging in size from 25- to 250-Hp. All piping was stainless steel, using valves, pumps and equipment with special coating systems due to the harsh saline environment of the Owens dry lake bed.

**Tanner Creek Phase 2 and 5 Stream Separation Project, Portland, OR -** Project Engineer - Prepared the preliminary design study and routing evaluation, final design and assistance during construction management for a 72-inch diameter storm water tunnel through west Portland. The work included 5,270 feet of 72-inch diameter storm drain pipe installed by micro-tunneling methods (earth pressure balance machine), and 885 feet of open cut 60-inch and 72-inch diameter pipe. Improvements also included 18-inch and 24-inch diameter sanitary sewer piping (590 feet, 450 feet) respectively.

**South West Parallel Interceptor Project, Portland, OR -** Project Engineer - Prepared the preliminary design report for the Southwest Parallel Interceptor (SWPI) project. Work included development of alignment alternatives, selection of evaluation criteria and evaluation of sixteen (16) various alignment alternatives. Development of the alternatives, including alignment location, pipe sizing and development of project costs. Piping included 14,080 feet of 36-inch to 84-inch pipe. Pre-design level plan and profile drawings were prepared for the recommended alternative. The evaluation and recommended alignment were presented to BES in the SWPI Improvements Design Development Report.

# Jim Creager, PE

### **Technical Advisor**

### **Education**

MBA, Business Administration, Loyola Marymount University, 2003

MS, Civil Engineering, Oregon State University, 1983

BS, Civil Engineering, Oregon State University, 1973

### **Registrations**

Professional Engineer, Oregon (10327PE)

Professional Engineer, Washington (18545) Professional Engineer, Hawaii (PE 14826) Professional Engineer, Guam (1693) Professional Engineer, California (31329)

#### **Certifications**

Board Certified Environmental Engineer, AAEES Certified Construction Manager, CMCT

### **Professional Summary**

Jim Creager is a civil and environmental engineer with more than 45 years of experience in planning, design and construction management services. His experience in the operations of public works and environmental engineering projects includes water, wastewater, solid waste and energy recovery facilities, reservoirs, buildings, pipelines, city streets, roads, rail, bridges and grade separations and hazardous waste removal. Jim was previously the manager of AECOM's Construction Management Services Group for the Southern California District. He then was the Manager for Arcadis's Construction Management Services Group for the Los Angeles area. He specializes in construction management, including value engineering and constructability reviews, project controls support, resident engineering, and inspection for projects under construction within Southern California.

### **Project Experience**

Groundwater Recovery Enhancement Treatment Program Phase 1, City of Oxnard, CA - Construction Manager - This project included the \$70 million Advanced Water Purification Facility (AWPF) and the \$30 million Recycled Water Backbone System (RWBS). Phase 1 of the project treated approximately 9-mgd of secondary effluent from the Oxnard Wastewater Treatment Plant and produced 6.25-mgd of recycled water through micro filtration, Reverse Osmosis and advanced oxidation (UV/AOX) processes. The primary milestone for this project included the precommissioning of the process train, which was completed in August 2011.

Anion Exchange Plant Expansion Project, City of Pomona, CA - Construction Manager - Provided resident engineering support services on the Anion Exchange Plant Expansion Project (AEP-2). Duties included submittal review for compliance with the contract documents, set up of logs and document tracking. Provided Owners Representative Services at the City's Perchlorate Facility (AEP-3). This project was a \$7 million expansion of the existing AEP - 1 Facility completed in the summer of 2012. This project includes the AEP Bypass booster pumps and bag filter area and yard piping to the Perchlorate Exchanger Area and the PTP booster pumps

**Los Angeles Aqueduct Filtration Plant Ultraviolet Disinfection Facility, Los Angeles Department of Water and Power, Los Angeles, CA** - *Engineer-of-Record* - Provided engineer-of-record field oversight for the 600-mgd ultraviolet disinfection facility for the Los Angeles Aqueduct Filtration Plant (LAAFP). Conducted periodic site visits to verify construction compliance with the consultant team civil and structural design elements. The LAAFP UV facility construction includes over 50,000 cubic yards of excavated soil and over 6,000 cubic yards of concrete placement.

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**River Supply Conduit Improvement, Los Angeles Department of Water and Power, Los Angeles, CA** - *Construction Support/Subcontracts Manager* - This project included the Upper Reach, Unit 5 and Unit 6 design of the installation by open trench and tunneling of a 78-inch welded steel pipeline from the North Hollywood Pump Station via Lankershim and Burbank Boulevards respectively to the northern terminus of Unit 7 at Biloxi Avenue (approximately 15,500 feet). Responsibilities included the management of permit procurement, traffic control plans, cost estimating, constructability review and design support for the design team.

Chevy Chase 968 Reservoir and Pump Station Replacement, City of Glendale, CA - Construction Manager - Provided project management on the Chevy Chase 968 Reservoir and Pump Station Replacement project. This project was a 14.5-mg buried reservoir under a golf course adjacent to a built out residential area with a project cost of \$21 million and duration of 540 calendar days to substantial completion. Responsibilities included meetings, correspondence, change order negotiation, RFI's and submittal processing for engineer review for compliance with the contract documents, office set up and document tracking. Key challenges included keeping the golf course operational and the residents informed about project events and mitigate noise and dust issues.

**Civil Engineering and Architecture Division, City of Santa Monica, CA** - *Project Manager* - Provided project management services for the capital improvement program. Duties included the supervision and checking of designs, plan preparation, specifications, cost estimating and construction oversight for a variety of public works projects, including water main replacement, a clover-field sound wall project, annual curb ramp project, annual parks and street lighting improvements project, downtown parking structure program, which included the seismic upgrade of existing parking structures and the planning and development of new parking structures, landfill reuse project, Centinela storm mitigation project, and California Incline Environmental Impact Report.

Jim provided project management of design and construction management consultants, including budget, quality and schedule control. He also interfaced with user groups and other agencies for project definition, technical issues and timing of project delivery. During his time in this role, Jim completed more than 40 design and construction management project assignments with a constructed value of more than \$50 million in addition to preparing RFQs, proposals, consultant selection, and the bid and award of projects to contractors.

**Project Management Services, Track It Monitoring Systems, Inc., Various, CA** - *Principal-In-Charge* - Provided engineering and project management services around Southern California. Project services included project planning, studies, field investigations and evaluations, value engineering, constructability reviews, quality assurance, quality control, inspection, document tracking, scheduling and cost estimating, change order evaluations and negotiations, claim evaluation and settlement, expert witness testimony and program management.

Claims Management, Confidential Client, Las Vegas, NV - Construction Support - Participated in the resolution of a \$1.4 billion claim for a design-build construction contract for a major hotel and casino. Duties included project site visits, data collection and review, cost and schedule review, issue validation, resolution strategy, proposals and presentations.

Claims Management Services, Alameda Corridor Transportation Authority, Carson, CA - Construction Support - Provided claims management services for the Alameda Corridor Transportation Authority project worth \$2.4 billion in construction. At the time, this project was the largest public infrastructure project in the United States. Duties included project site visits, meeting attendance, issue investigation and file maintenance, resolution strategy and claim defense.

# Corey Young, PE

## **Permitting Coordination**

#### **Education**

BS, Environmental Engineering, Rensselaer Polytechnic Institute, New York, 1998

### **Registrations**

Professional Civil Engineer, California (69577)

#### **Certifications**

**HAZWOPER** Certification

### **Memberships/Affiliations**

America Society of Civil Engineers California Water Environment Association San Diego County Water Works Group Society of American Military Engineers WateReuse Association - San Diego Chapter

### **Professional Summary**

Corey Young is a registered professional civil engineer with more than 15 years of experience in the planning, design, and construction management of water, wastewater, and recycled water projects. He has been responsible for the design of pump/lift stations, pipelines, wells, and treatment facilities. In addition, he has extensive experience in performing system hydraulic analyses for water, wastewater and recycled water pumping facilities. As an environmental engineer, Corey previously was involved in soil sampling and contaminated soil removal activities at numerous U.S. Navy facilities in California and at other facilities on the East Coast.

### **Project Experience**

Waste Discharge Report and CEQA Document Preparation, Pauma Valley Community Services District, CA - Civil Engineer - Assisted in the preparation of CEQA documentation and a Report of Waste Discharge document, which resulted in relief from nitrate discharge limits that would have forced the District to add nitrate reduction process units. The report addressed the proposed expansion of an existing wastewater treatment facility from 115,000- to 140,000-gpd. Coordination with the Regional Water Quality Control Board, San Diego region, and the California Department of Public Health was provided.

Cardiff Pump Station Generator and Electrical Improvements, San Elijo Joint Powers Authority, Cardiff by the Sea, CA - *Project Manager* - Managed the design and construction management contract for the emergency generator replacement and electrical upgrade for the existing sewer pump station.

**San Marcos Interceptor Sewer Design Project, Vallecitos Water District, San Marcos, CA** - *Project Engineer* - Prepared contract drawings and specifications for the construction of approximately 5,200-linear-feet of 42-inch PVC and 2,300-linear-feet of 36-inch PVC gravity trunk sewer. The project includes approximately 1,400-linear-feet of tunneling (microtunneling) design.

Olivenhain Sewer Pump Station Preliminary Design Report, Design and Construction Project, City of Encinitas, CA - *Project Manager / Project Engineer* - Prepared a complete preliminary design report, final contract documents and specifications for the construction of a new 2.6-mgd sewer pump station. Key design features of the new pump station include a self-cleaning wet well, an emergency storage basin, improved electrical/controls and SCADA, flood plain protection and various "green" building features (solar panels, recycled construction materials, dual-plumbed facility, drought-tolerant landscaping, etc.).

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Moonlight Beach Sewer Pump Station Rehabilitation Design, City of Encinitas, CA - Civil Engineer - Prepared civil and mechanical design drawings for sewer pump station rehabilitation, which included replacement of pumps/motors; new emergency reservoir to hold 2 hours of peak wetweather flow; improved SCADA system; upgraded electrical and emergency generator; relocated electrical equipment above 100-year floodplain of Cottonwood Creek; expanded capacity and reserve; enhanced architecture and landscaping; and new odor control system.

**Poinsettia Lift Station Emergency Storage Improvements Evaluation, City of Carlsbad,** *CA – Project Manager –* Conducted an evaluation of the existing Poinsettia Lift Station and the associated gravity and force main sewer system to determine the existing emergency storage capacity and redundancy capabilities, along with the most susceptible elements of the existing system. This evaluation led to the identification of improvement alternatives that will help minimize the effects of an emergency event. Alternatives included an emergency storage basin, alternate force main, wet well segregation, and secondary pumping system.

**Final Design of the Pujol Street Sewer Lift Station Upgrades, Eastern Municipal Water District,** *CA – Project Manager* – Provided professional engineering services for replacing all piping within the wet well, adding a third submersible pump and replacement two existing pumps, including all piping, fittings and valves to connect to existing above grade discharge header.

**U2** and **U1** Gravity Sewer Rehabilitation Study, Las Virgenes Municipal Water District, Calabasas, CA - *Civil Engineer* - Provided construction management services for installation of a CIPP liner for a sewer main and rehabilitation of associated manholes. Also involved in acquiring necessary permits and temporary construction easements for completing the project.

**Lakeshore Trunk Sewer Design Project, Elsinore Valley Municipal Water District, Lake Elsinore, CA** - *Civil Engineer* - Involved with writing specifications for installation of approximately 35,000 linear feet (North, South and Malaga Reaches) of 48- and 54-inch-diameter sewer pipe using microtunneling technology. Project lead for utility conflict coordination.

# Ray Lyons, PE

### **Project Engineer**

### **Education**

BA, Social Ecology, University of California at Irvine, 1990

### **Registrations**

Professional Civil Engineer, California (62157)

### **Memberships/Affiliations**

American Society of Civil Engineers (ASCE) American Water Works Association (AWWA)

### **Professional Summary**

Ray joined Kennedy/Jenks after a career as a civil designer/engineer for the Metropolitan Water District of Southern California. Projects at Metropolitan included Eastside Pipeline (9 miles of 144-inch welded steel pipe in Hemet, California), Inland Feeder (44 miles of combined 144-inch welded steel pipe and tunnels between Devil's Canyon and Hemet), the Diamond Valley Reservoir project (an 800,000-acre-foot reservoir, including three earth and rock dams), and the Alameda Corridor (relocation of five water pipelines varying in diameter from 42- to 78-inches for the installation of a high-speed freight train channel between the Port of Los Angeles and downtown Los Angeles).

Ray previously worked with another consulting engineering firm where he served Elsinore Valley Municipal Water District, City of Riverside, City of Redlands, Orange County Sanitation District and Irvine Ranch Water District. Projects included both water pipelines varying in diameter from 12- to 60-inches, using various materials, such as PVC, steel, and ductile iron; and wastewater pipelines varying in diameter from 8- to 108-inches using various materials, such as RCP with PVC lining, PVC, VCP and fiberglass-reinforced mortar pipe.

### **Project Experience**

**BNSF Railroad Crossing, Paramount Petroleum Company, Bakersfield, CA -** Design of 310-linear-feet of jack and bore 36-inch-diameter tunnel underneath a busy railroad crossing inside an active oil refinery for the installation of a soil vapor extraction (SVE) system, including vapor pipeline, sparing pipes and electrical conduits. Design included permitting, utility research, plan, profile, detail design, specifications and recommending contractors for project construction.

**Armstrong Avenue Trunk Sewer, Irvine Ranch Water District, Irvine, CA -** Design and construction services for a combined 18,000 feet of 42-inch and 27-inch trunk sewer in Irvine, utilizing microtunneling techniques due to the poor nature of the soil in the area and the significant depth of the pipeline. Work included modeling sewer system to confirm capacity of proposed line, utility search, plan and profile design, project management and utility coordination.

**Recycled Water Main to Mountain View Power Plant, City of Redlands, CA** - Design of three miles of 24-inch-diameter waterline, including valve and pressure control structure from the Redlands Wastewater Treatment Plant to the Mountain View Power Plant. Design included permitting, utility search, plan, profile and detail design.

Sewer Force Main Implementation Study for Reaches "B" and "C" of the Aliso Creek Land Outfall, South Orange County Wastewater Authority, Laguna Hills, CA - Recommendations for monitoring of the 9,000 feet of existing 24-inch sewer force main, and review of potential rehabilitation methods, including sliplining, pipe bursting, cured in place lining, cut and cover construction, and microtunneling. Work included analysis of the different construction methods, including impacts on hydraulics, environmental concerns, and costs.

**Sewer Collection System Asset Evaluation and Rehabilitation Plan, City of Simi Valley, CA** - Review of the existing trunk sewers within the City of Simi Valley, and recommendations for rehabilitation of the sewers, including sliplining and cured in place lining. Work included analysis of different construction methods, review of existing sites for impacts including environmental concerns and traffic controls, and estimates of construction costs for the recommended capital improvement projects.

Eastern Municipal Water District, Sewer Force Main and Recycled Water Pipeline Design; Sun City Force Main and Recycled Water Pipeline Replacement Project, Perris, CA - Design of approximately 15,000 feet of 30-inch sewer force main, 10,000 feet of 36-inch sewer force main, rehabilitation of 5,000 feet of 12-inch recycled water line and rehabilitation of 2,000 feet of 18-inch recycled water line. Work included plan, profile and detail design, specification writing, utility location, relocation and coordination, construction support, and permit pulling for the pipelines, and review of rehabilitations for the 12-inch and 18-inch recycled water lines, including sliplining, Cast in place lining, pipe bursting, and cut and cover construction.

# Timothy M. Waters, E.I.

## Staff Engineer

#### **Education**

BS, Civil Engineering, University of Nevada, Reno, 2010

### **Registrations**

Engineer Intern, Nevada (0T6067)

### **Professional Summary**

Timothy Waters is an engineer with experience in civil and environmental engineering. He has experience in the planning, design, and construction management of water, wastewater, and recycled water projects. Timothy has assisted in the design of pump/lift stations, pipelines, and treatment facilities. In addition, he has experience in performing system hydraulic analyses for water, wastewater, and recycled water pumping facilities and pipelines. Timothy also has experience in groundwater sampling, soil sampling, and contaminated soil removal activities at sites in California and Nevada.

### **Project Experience**

**Lift Station 1 Replacement, Rainbow Municipal Water District, Rainbow, CA** – *Staff Engineer* – Providing engineering services for the preliminary and final design of the Lift Station 1 Replacement Project. In addition to the replacement of Lift Station 1 with a new 2,500-gpm submersible lift station, Kennedy/Jenks will be designing a new 700-foot force main and 9,000-feet of gravity sewer line, including the replacement of an existing inverted siphon underneath the San Luis Rey River by horizontal directional drilling.

**Poinsettia Lift Station Emergency Storage Improvements Evaluation, City of Carlsbad, CA** - *Staff Engineer* - Conducted an evaluation of the existing Poinsettia Lift Station and the associated gravity and force main sewer system to determine the existing emergency storage capacity and redundancy capabilities, along with the most susceptible elements of the existing system. This evaluation led to the identification of improvement alternatives that will help minimize the effects of an emergency event. Alternatives included an emergency storage basin, alternate force main, wet well segregation, and secondary pumping system.

**Littlerock Creek Groundwater Recharge and Recovery Project, Palmdale Water District, Palmdale, CA** - *Staff Engineer* - The Littlerock Creek Groundwater Recharge and Recovery Project will deliver raw water from the East Branch to new spreading basins in or adjacent to the Creek. The project includes an update of valley-wide water demands and supply plans and Kennedy/Jenks has added the development of an Integrated Groundwater Banking Plan. Water quality and subsidence are additional challenges that will be included in a sub-regional groundwater modeling effort.

### Dan Schottlander

### Cost Estimating

### **Education**

MS, Engineering, University of Washington, Seattle, 1978

BA, Architecture, University of Washington, Seattle, 1972

### **Registrations and Licenses**

Licensed Contractor: California #567182, Class A, B, and C21

Chartered Surveyor: United Kingdom #1236735

**LEED Accredited Professional** 

### **Certifications and Training**

Certified Cost Engineer #2100 Certified Professional Estimator (1.4 – 000519-0707)

Hazardous Waste Management Certificate

Hazardous Substances Removal Specialty Contractor #567182

### Memberships/Affiliations

Association for the Advancement of Cost Engineering: Past President, Southern California Section; Member, National Education Board, 2007-2012

American Society of Professional Estimators: President, Orange County Chapter, 2007-2009; Board Director, 2009-2014

Royal Institution of Chartered Surveyors, Certified Member, 2009-2011

### **Years of Experience**

< 1 year with the firm 34 years with other firms

### **Professional Summary**

Dan Schottlander has more than 30 years of experience as an estimator, scheduler and project/construction manager. His projects include civil, water, wastewater, energy, environmental, aviation, transportation and municipal government. He also performs constructability reviews, value engineering, risk assessment, scheduling, change order management, claims and life cycle costing. Mr. Schottlander has performed Level 1 through Level 5 estimates ranging in magnitude from \$100,000 to more than \$2 billion.

### **Project Experience**

Advanced Water Purification Facility, City of Oxnard, Oxnard, CA – Senior Cost Estimator – Prepared cost control estimates and participated in scheduling reviews during construction of this \$5.2 million project.

**Fine Bubble Aeration System, City of Quincy, Quincy, WA** – *Senior Cost Estimator* – Prepared construction estimate for a \$2.3 million replacement of Sanitaire fine bubble diffusion system at an existing food processing water treatment plant.

**New Drinking Wells, Lockheed Martin Corporation, Loma Linda, CA** – *Senior Cost Estimator* – Prepared construction estimate to build new water wells. The \$5.4 million project included pumps, motors water wells, and mechanical and electrical equipment.

Murdock Groundwater Treatment Plan, Lockheed Martin Corporation, Irving, TX – Senior Cost Estimator – Prepared construction estimate for a groundwater treatment plant. The project included sitework, concrete, piping systems, injection wells, extraction wells, monitoring wells, mechanical equipment, electrical, and instrumentation.

Richardson Groundwater Treatment Plant, Lockheed Martin Corporation, Loma Linda, CA – Senior Cost Estimator – Prepared construction estimate for a \$9 million groundwater treatment plant.

## **Kennedy/Jenks Consultants**

The project included sitework, concrete, piping systems, injection wells, extraction wells, monitoring wells, mechanical equipment, electrical, and instrumentation.

**Arsenic Contaminated Groundwater Treatment Plant Expansion, Lockheed Martin Corporation, Loma Linda, CA** - *Senior Cost Estimator* – Prepared construction estimate for 25 percent design drawings for an arsenic contaminated groundwater treatment plant.

River Supply Units 5 and 6, Los Angeles Department of Water and Power, Los Angeles, CA – Senior Cost Estimator – Prepared a 100 percent design estimate for a 78-inch diameter, 1.5 mile long water tunnel and provided quality assurance/quality control for this \$113 million project.

Santa Ana Trunk Sewer Rehabilitation, Orange County Sanitation District, Orange County, CA – Senior Cost Estimator – Prepared engineer's estimate for \$14 million sewer rehabilitation program for an existing 42-, 48- and 60-inch pipelines, including an in situ form CIPP, closed circuit TV, by-pass pumping and manholes.

Magnolia Trunk Sewer Hobas Pipe, Orange County Sanitation District, Orange County, CA – Senior Cost Estimator – Prepared comparison estimate for 19,817 linear feet of slip lining utilizing Hobas piping.

Waste Sludge Drying Study, City of Detroit, Detroit, MI – Senior Cost Estimator – Prepared conceptual design cost estimate for a waste sludge to energy system alternatives, including a belt dryer system and a drum dryer. Cost estimates ranged from \$70 to \$80 million.

**Apra Wastewater Treatment Plant Rehabilitation, Naval Facilities Engineering Command Hawai'i, Guam** – *Senior Cost Estimator* – Prepared design-build estimate for a \$40 million wastewater treatment plant upgrade.

777 – 190<sup>th</sup> Street Landfill, Sanitation Districts of Los Angeles County, Los Angeles, CA – Senior Cost Estimator – Prepared construction cost estimate to close and old landfill. The project included demolition, sitework, erosion controls, excavation and backfill, and asphalt paving.

**Public Works Projects, Orange County Sanitation District, Fountain Valley, CA** – *Project Manager* – Served as the project manager for \$20 million worth of public works projects, including a 100,000 square foot laboratory, administrative headquarters building, and a sanitary control center.

**Truck Wash Facility, Orange County Sanitation District, Fountain Valley, CA** – *Senior Scheduler/Cost Estimator* – Prepared engineer's construction schedule and performed estimate reviews and constructability reviews on engineered drawings and specification for this \$1.1 million project.

**Regional Connector Transit Corridor, Los Angeles County Metropolitan Transportation Authority, Los Angeles, CA** – *Estimating and Scheduling Manager* – Responsible for preparation of a Class 2 cost estimate, managed three estimators and a cost scheduler and prepared a P6 CPM construction schedule for a new 1.9 mile light rail project through downtown Los Angeles. The estimate was more than \$1 billion and also contained options valued at an additional \$1 billion.

Collins Hill and Riverside Parkway Stream Restoration and BMP Projects, Gwinnett County, Lawrenceville, GA – Senior Cost Estimator – Prepared hard bid construction estimate for stormwater retention ponds, stormwater run-offs, stream improvements, wetland upgrades and pedestrian walkways with footbridges.

### Kimberlie Staheli, Ph.D., P.E.

**Principal Engineer** 

#### **Education**

B.S., Mechanical Engineering, Rensselaer Polytechnic Institute, 1992 M.S., Civil Engineering, Mississippi State University, 1996 Ph.D., Geotechnical Engineering, Georgia Institute of Technology, 2006



### Licenses/Certifications/Affiliations/Memberships

Professional Engineer (Civil) in Washington (#36520), Oregon (#75564), California (#74363), Florida (#73673), Missouri (#2014009669), Montana (#30843), and Colorado (#46217) Vice Chair, North American Society for Trenchless Technology

#### **Career Summary**

Kimberlie Staheli is a trenchless technology specialist with a 22-year background including both consulting engineering and engineering for construction contractors. She is the President and Principal Engineer of Staheli Trenchless Consultants and is widely recognized as one of the foremost experts in her field. She works to reduce trenchless construction risk on projects through direct experience with a myriad of trenchless technologies including microtunneling, horizontal directional drilling, auger boring, pipe ramming and guided boring and has performed feasibility studies, designs, development of plans and specifications for construction, constructability reviews, prequalification packages, bid reviews and bid services. She has also performed numerous on-site specialty construction inspections. She has extensive experience providing expert testimony and review as well as forensic reviews of trenchless construction projects for Owners, Engineers, Contractors, and Insurance companies. Prior to founding her consulting practice, Ms. Staheli worked for two trenchless contractors in the United States as a Project Engineer. Ms. Staheli's field experience gives her unique and valuable insight into the construction industry, and allows her to provide sound, practical consulting advice.

#### **Selected Project Experience:**

### Magnolia CSO Control Project, King County, Seattle, WA

<u>Principal Engineer and Conveyance Lead</u> for the installation of 2,700 feet of 32-inch gravity sewer up to 165 feet beneath a highly sensitive bluff with a maximum slope of 1.8%. During pre-design, King County selected HDD for the installation of the conveyance pipeline, , after pre-design, it was decided to include Direct Pipe as an alternative to HDD construction due to recent advances with the Direct Pipe technology. Ms. Staheli led the design for both the HDD and the Direct Pipe alternatives, which were ultimately bid against each other in order to secure the most competitive bids. This included extensive risk evaluation, preparation of cost estimates and construction schedules, construction layout areas and all aspects of trenchless pipeline constructability. The conveyance contract was bid and awarded in early 2014, with HDD coming in as the lowest bid method. Construction of this cutting edge project began in late 2014, and will result in one of the largest, longest, on-grade HDD installations ever constructed.

### Lake Oswego Tigard Water Supply Expansion Project – Project Definition Phase, Lake Oswego, OR

<u>Principal Engineer</u> for the project definition phase, including the preliminary feasibility analysis of two trenchless crossings underneath the Willamette River and Lakewood Bay. As a specialized portion of the Project Management Team established for the project, Staheli Trenchless Consultants has led all HDD feasibility and constructability evaluation efforts, including the analysis of potential alignments and bore geometry, preliminary risk evaluation and cost estimate preparation, preliminary construction schedule and public impact determination, pipe sizing and material selection, geotechnical investigation and laboratory test recommendations, construction layout area and easement selection, and general evaluation of all trenchless pipeline constructability. The HDD bore underneath the Willamette was successfully completed in late 2014.



### Hueneme Outfall Replacement Project, Calleguas Municipal Water District, Port Hueneme, CA

<u>Principal Engineer</u> for the design review of over 2,300 feet of 36-inch diameter HDPE pipeline installation via horizontal directional drilling. Highlights of the project include a 60-foot elevation difference between entry and exit points, a partially confined aquifer located within 20 vertical feet of the proposed drill alignment, and challenging exit area limitations involving reaming, pipe layout and pullback using the assistance of divers, barges and tug boats. Ms. Staheli reviewed the bore geometry and alignment for construction feasibility and risk analysis. She performed pullback calculations and assisted in the development of a drilling fluid release strategy, necessary due to the significant elevation difference in the outfall alignment. She also developed a comprehensive cost estimate for bidding assistance and answered trenchless RFIs during the early phases of construction. This project was successfully completed in 2010.

### Tulalip Water Pipeline, City of Everett and Tulalip Tribes, Everett, WA

<u>Principal Engineer</u> for the design of approximately 8,000 feet of 36-inch diameter steel pipeline installation via horizontal directional drilling. Crossings underneath five separate waterways were evaluated by Staheli Trenchless Consultants for horizontal directional drilling. Ms. Staheli reviewed the geotechnical explorations, and developed layouts and bore geometry to assess risks and construction feasibility. She performed cost estimates in conjunction with construction schedules, performed technical review of all trenchless plans and specifications, and was jointly responsible for the production of a Basis of Design Report. Ms. Staheli also provided technical memoranda for permitting and evaluation of geotechnical risks.

### Anacortes Waterline Replacement Project, City of Anacortes, Anacortes, WA

<u>Principal Engineer</u> for bid services and construction management. The Anacortes Waterline Replacement was part of a larger project which included the Transmission Water Main Replacement to provide drinking water to the City of Anacortes. This phase of the project consisted of a 1500-foot crossing under the Skagit River in primarily soft silts and sands which posed some difficulties in maintaining hole competence. Ms. Staheli provided contractor bid evaluation and review, and arranged for specialized construction management during HDD construction.

#### Dakota Creek Water Transmission Line, Birch Bay Water and Sewer District, Birch Bay, WA

<u>Principal Engineer</u> for evaluating the feasibility of using horizontal directional drilling (HDD) to install a 22-inch inner diameter (ID) water supply pipeline for the Dakota Creek Crossing Water Main Replacement project in Whatcom County, Washington. HDD was selected for the Dakota Creek crossing because of the steep banks around the creek and to provide adequate cover over the pipeline in the tidally influenced zone. The feasibility study included geotechnical site evaluation, bore geometry appraisal, work site evaluation, hydrofracture analysis and conductor casing requirements.

#### Everett Water Transmission Lines 2 and 3 Replacement Project, Everett, Washington

<u>Principal Engineer</u> for feasibility and risk assessment for twin 42-inch diameter pipelines to be installed using horizontal directional drilling. The proposed pipelines are about 4,000 feet long, cross under a slough, a dike and under the existing pile supported water transmission lines. Because of the poor soil conditions, the bores would be about 80 deep and would require conductor casings at both the entry and exit locations to reduce frac-outs. Five entry alternatives and 3 exit alternatives were evaluated. Entry options included locating the bores in a vertically stacked configuration between piles supported structures. The distance between the outer edge of the piles is about 15 feet. The geometry of the preferred exit tie-in location resulted in configurations that crossed under the existing pile-supported pipelines with a clear spacing of about 40 feet.

# **Melissa Whittemore**





### **Summary of Qualifications**

Ms. Whittemore has over 13 years of experience in the environmental planning field. Her responsibilities include managing and preparing environmental compliance documents in accordance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Direct professional experience has included the preparation of Initial Studies/Mitigated Negative Declarations (IS/MNDs), Environmental Impact Reports (EIRs), Environmental Assessments (EAs), and Environmental Impact Statements (EISs). Ms. Whittemore also prepares Biological Technical Reports, Biological Assessments, Habitat Management Plans, and Section 4(f) Evaluations. She has assisted in the preparation of Noise Impact Assessments and Air Quality and Greenhouse Gas Emissions Analysis Studies. In addition, Ms. Whittemore is experienced in the environmental permitting process with resource agencies, and has prepared applications for Section 404 Permits, Section 401 Water Quality Certifications, Section 1602 Streambed Alteration Agreements, and Federal Coastal Consistency Determinations. She has worked on projects throughout San Diego County, including numerous water and sewer pipelines.

### **Selected Project Experience**

Batiquitos Lagoon Double Track Project (2013 - Present). Project Manager for the preparation of environmental studies for the project, which would include the addition of a second main track along a 2.7-mile-long segment of the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor through the cities of Carlsbad and Encinitas, as well as a new bridge over Batiquitos Lagoon. Prepared Environmental Constraints Report, which evaluated potential impacts associated with build alternatives. Working closely with project design staff to avoid and/or minimize environmental impacts. Work is being performed for SANDAG.

Interstate 5 North Coast Corridor Project (2011 - 2013). Assisted in drafting responses to comments on the Draft EIR/EIS and Supplemental Draft EIR/EIS. Planned improvements include construction of High Occupancy Vehicle/Managed Lanes, auxiliary lanes, and direct access ramps where needed, as well as improved crossings of lagoons to improve existing and future traffic operations on the approximately 27-mile stretch of Interstate 5 from La Jolla Village Drive in the City of San Diego to Harbor Drive in the City of Oceanside and Camp Pendleton. Work was performed for California Department of Transportation, District 11. Project sponsors included the Federal Highway Administration (FHWA) and San Diego Association of Governments (SANDAG).

San Dieguito Bridge Replacement, Double Track, and Del Mar Fairgrounds

Special Events Platform Project (2012 - Present). Assisting in the preparation of an EA for the construction and operation of approximately two miles of rail improvements

#### Education

Bachelor of Science, Biology with an emphasis in Ecology, San Diego State University, 2001

Graduate Certificate, National Environmental Policy Act, Utah State University, 2003

# Professional Affiliations

Association of Environmental Professionals

American Planning Association

Board Member of Women's Transportation Seminar – San Diego Chapter

# **Melissa Whittemore**

### **Project Manager**

in the LOSSAN corridor within portions of the cities of Solana Beach and Del Mar. Proposed rail improvements include the construction of new double track bridge structures over the San Dieguito River, the addition of 1.7 miles of new double track, and a special events passenger platform at the Del Mar Fairgrounds. Also prepared a Federal Coastal Consistency Determination analysis. Work is being performed for SANDAG and the Federal Railroad Administration is the lead agency.

East Brook to Shell Double Track Project (2011 - Present). Managing the environmental aspects of the project. Prepared a Categorical Exclusion for the proposed double tracking of a one-mile portion of railroad along the LOSSAN rail corridor through the City of Oceanside and Camp Pendleton, including the construction of an approximately 700-foot-long bridge across the San Luis Rey River. Also prepared an Environmental Constraints Analysis Report, Jurisdictional Delineation Report, Biological Assessment, Section 4(f) Evaluation, and Permitting Handbook. Prepared notifications to the resource agencies of geotechnical borings in the San Luis Rey River for the proposed bridge. Work is being performed for SANDAG, and the lead agency is the Federal Railroad Administration.

**Village Park Recycled Water** (2014). Project Manager and author of an IS/MND for the installation of approximately 6.6 miles of recycled water pipelines and a pump station mainly within existing roadways in the City of Encinitas. Also managed biology and cultural work, as well as a traffic study for the project. This project had an accelerated schedule for the CEQA component, which HELIX met. Work was performed for Olivenhain Municipal Water District.

Campo Road Sewer Pipeline Replacement Project (2014 - Present). Project Manager for preparation of an IS/MND and associated technical studies (biology, noise, and cultural resources) for the replacement of approximately 9,225 linear feet of 10-inch gravity sewer with a new 15-inch gravity sewer system in Rancho San Diego in San Diego County. Key issues include cultural resources, as well as direct and indirect impacts to sensitive avian species. Work is being performed for Otay Water District.

Hollister Street Pipeline Phases 2 and 3 Project (2012 - 2013). Project Manager for the preparation of an IS/MND and Biological Technical Report for the replacement of an existing 6,630-foot-long aged water main segment with a new polyvinyl chloride (PVC) water main of equal diameter. Replacement of the line was needed as the cast iron pipe has been in service for over 70 years, had deteriorated and reached the end of its useful service life. The proposed replacement line is being installed parallel to the existing pipeline alignment with the existing pipeline being abandoned in place. The project site is within the City of San Diego, south of San Diego Bay and north of the Tijuana River. Key issues included indirect noise impacts to sensitive avian species. Work was performed for the City of San Diego.

San Onofre to Pulgas Double Track Project (Stages 1 and 2) (2011 - Present). Managing the environmental aspects of the project. Prepared permit applications for Section 404 and 401 permits and a Federal Coastal Consistency Determination Certification. Prepared Jurisdictional Delineation Report, Biological Assessment, and Summary Conceptual On- and Off-site Mitigation Plan Summary Conceptual On- and Off-site Mitigation Plan. The project would include double tracking of a six-mile portion of railway along the LOSSAN rail corridor within Camp Pendleton. The funding deadline to receive the original permits was five months from the application submittal date; HELIX met this deadline. Work is being performed for SANDAG, and the lead agency is the Federal Railroad Administration.



### **Exceptions to the Agreement**

Please see our additions or deletions below in red.

#### 4.1.5

Any deductible or self-insured retention must be declared to and approved by AUTHORITY. The minimum deductible or self-insured retention shall be Two Hundred and Fiftyenty-Five-Thousand Dollars (\$250,000). In the event any deductible or self-insured retention is greater than the minimum required by this Agreement, at the option of AUTHORITY, either: the insurer shall reduce or eliminate such deductibles, or CONSULTANT shall provide proof of financial responsibility satisfactory to AUTHORITY.

#### 5.2

CONSULTANT shall cooperate with and do whatever is reasonably necessary pursuant to 5.1 above, to protect INDEMNIFIED PARTIES as to any such Liabilities.

#### 5.3

CONSULTANT represents that it knows of no allegations, claims or threatened claims that the services materials, services, hardware or software (collectively referred to as "Consultant Work Products") provided to AUTHORITY under this Agreement infringe on any patent, copyright or other proprietary right. CONSULTANT shall hold harmless, indemnify and defend INDEMNIFIED PARTIES from all Liabilities pertaining to, arising out of, related to or in connection with an assertion or allegation that any Consultant Work Products or the use thereof, infringe any patent, copyright or other proprietary right of any third party. In the case of any such claim, suit or assertion of infringement, CONSULTANT shall either, at its option, (1) procure for AUTHORITY the right to continue using the Consultant Work Products; or (2) replace or modify the Consultant Work Products so that they become non-infringing, but equivalent in functionality and performance. All provisions of Section 5 shall apply to the allegations, claims or threatened claims addressed specifically by this Section 5, subsection 5.3.

#### <u>5.4</u>

If CONSULTANT TRACTOR is obligated to defend INDEMNIFIED PARTIES pursuant to this Section 5 and fails to do so after reasonable notice from AUTHORITY, INDEMNIFIED PARTIES may defend themselves and/or settle such claims, suit or assertion, and CONSULTANT shall pay to INDEMNIFIED PARTIES any and all Liabilities as required by California law incurred in relationship with INDEMNIFIED PARTES' defense and/or settlement of such proceeding.

#### <u>5.5</u>

CONSULTANT shall pay and satisfy any judgment, award, liability or decree that may be awarded, imposed or rendered against INDEMNIFIED PARTIES as a result of and all claims, demands, suits, actions, arbitrations, mediations or other proceedings whether legal, administrative or otherwise, including any settlement related thereto as required by the indemnity provision in 5.1 above.

<u>7.</u>

OWNERSHIP OF DOCUMENTS. Reports, model database, electronic maps, as herein required, are the property of AUTHORITY following payment in full to the CONSULTANT for services rendered. Upon completion of all work under this Agreement, or in the event this Agreement is terminated prior to completion of all such work, all documents, plans, specifications, photograph rendering, drawings of the facility, and all other material provided to assist CONSULTANT in performing under this Agreement shall be delivered forthwith to AUTHORITY. AUTHORITY shall use CONSULTANT'S Work Product only for the project for which it was prepared. All references to CONSULTANT shall be removed by AUTHORITY when reusing on a project other than that for which the document(s) were prepared or modifying any incomplete documents.

Any use of the aforesaid completed documents for other AUTHORITY projects at other sites and/or any use of the aforesaid incomplete documents without specific, written verification by CONSULTANT is not permitted and will be at AUTHORITY's sole risk and without liability or legal exposure to CONSULTANT, and AUTHORITY shall indemnify and hold harmless CONSULTANT from all claims, damages, losses and expense, including attorneys' fees, arising out of or resulting therefrom.

<u>8.</u>

CONFIDENTIAL INFORMATION. Any written, printed, graphic or electronically or magnetically recorded information furnished by AUTHORITY for CONSULTANT's use are and shall remain the sole property of AUTHORITY. AUTHORITY may identify as "CONFIDENTIAL" and provide to CONSULTANT confidential information which may include, but is not limited to, information concerning AUTHORITY's employees, services and operations. CONSULTANT and its employee(s) will keep this confidential information in the strictest confidence, and will not disclose it by any means to any person except with AUTHORITY approval, or when required to do so by legal or regulatory authority, and only to the extent necessary to perform the services under this Agreement. This prohibition also applies to CONSULTANT's officers, officials, directors, employees, subcontractors, representatives, agents, volunteers, successors and assigns. On termination of this Agreement, CONSULTANT shall promptly return any confidential information in its possession to AUTHORITY.

DISPUTE RESOLUTION. Any dispute, claim or controversy arising out of or relating to this Agreement or the breach, termination, enforcement, interpretation or validity thereof, shall be submitted to mediation the cost of which shall be borne equally by the parties, if not resolved pursuant to the Government Claims Act, Government Code section 900 et seq. if applicable, and prior to the commencement of any legal action or other proceeding, unless waived by both parties in writing. Any mediation shall take place in the State of California, County of San Diego.

In the event that mediation has not been successfully concluded, any dispute, claim or controversy arising out of or relating to this Agreement or the breach, termination, enforcement, interpretation or validity thereof, including the determination of the scope or applicability of this agreement to arbitrate, shall be determined by arbitration in the State of California, County of San Diego, before one arbitrator, if not resolved pursuant to the Government Claims Act, Government Code section 900 et seq., if applicable. The arbitration shall be administered by JAMS pursuant to its Comprehensive Arbitration Rules and Procedures if the amount in controversy is equal or greater than Two Hundred Fifty Thousand Dollars (\$250,000), or pursuant to its Streamlined Arbitration Rules and Procedures if the amount in controversy is less than Two Hundred Fifty Thousand Dollars (\$250,000). The use of arbitration shall allow full discovery by all parties associated with the dispute or claim and shall comply with California procedural, evidentiary and substantive law as if tired in the Superior Court. Judgment on the award may be entered in any court having jurisdiction. This clause shall not preclude the parties from seeking provisional remedies in aid of arbitration from a court of competent jurisdiction. The arbitrator may, in the award, allocate all or a part of the costs of the arbitration, including the fees of the arbitrator and the reasonable attorneys' fees of the prevailing party. If either party petitions to confirm, correct or vacate the award as provided by Chapter 4, of Title 9 of the California Code of Civil Procedure (commencing with Section 1285), the prevailing party shall be entitled as part of his or its costs to reasonable attorneys' fees to be fixed by the Court. CONSULTANT agrees that AUTHORITY may consolidate an arbitration conducted under this Agreement with any other arbitration to which AUTHORITY is a party, provided that these rules of the arbitration are strictly followed and the arbitrations to be consolidated substantially involve common questions of law or fact, or CONSULTANT's conduct or performance of professional services is in any way relevant to the subject of the dispute. In the event of any construction dispute that AUTHORITY is required to resolve pursuant to Public Contract Code section 20104 et seq., or any similar provision of law, the procedures for arbitration pursuant to Public Contract Code section 20104 et seq., shall apply to all parties, including CONSULTANT.

# Contact

# **Kennedy/Jenks Consultants**

9665 Granite Ridge Drive, Suite 210 San Diego, California 92123 Office (858) 676-3620 Fax (858) 292-1694

**Pat Huston, PE** 

Direct (858) 676-7514

Sarah Williams, PE

Direct (858) 676-7508