AGENDA
SAN ELIJO JOINT POWERS AUTHORITY
MONDAY MAY 11, 2015 AT 9:00 AM
SAN ELIJO WATER RECLAMATION FACILITY – CONFERENCE ROOM
2695 MANCHESTER AVENUE
CARDIFF BY THE SEA, CALIFORNIA

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1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

4. ORAL COMMUNICATIONS (NON-ACTION ITEM)

5. PRESENTATION OF AWARDS

   California Water Environment Association – 2014 Plant of the Year Award (5-20 MGD)

6. * **CONSENT CALENDAR**

7. * APPROVAL OF MINUTES FOR THE APRIL 13, 2015 MEETING

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

9. * SAN ELIJO WATER RECLAMATION FACILITY TREATED EFFLUENT FLOWS – MONTHLY REPORT

10. * SAN ELIJO JOINT POWERS AUTHORITY RECYCLED WATER PROGRAM – MONTHLY REPORT

11. * SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2015-16 RECOMMENDED BUDGET UPDATE

12. * ITEMS REMOVED FROM CONSENT CALENDAR

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

REGULAR AGENDA

13. BUILDING UPGRADE PROJECT

    1. Discuss and take action as appropriate.

    Staff Reference: General Manager

14. CALPERS UNFUNDED ACTUARIAL LIABILITY UPDATE

    1. Authorize the General Manager to apply positive FY 2014-15 Budget variances to the CalPERS Unfunded Actuarial Liability; and

    2. Discuss and take action as appropriate.

    Staff Reference: Director of Finance/Administration

15. AWARD OF ENGINEERING CONTRACT FOR THE PRELIMINARY TREATMENT UPGRADE PROJECT – PRELIMINARY DESIGN REPORT

    1. Approve the Engineering Service Agreement with Dudek for an amount not to exceed $55,476; and

    2. 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. BOARD MEMBER COMMENTS

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

19. CLOSED SESSION

    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, June 8, 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 www.sejpa.org. The SEJPA Board meetings are held on the second Monday of the month, except August.

AFFIDAVIT OF POSTING

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

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

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

Date: May 6, 2015

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

SAN ELIJO JOINT POWERS AUTHORITY
MINUTES OF THE BOARD MEETING
HELD ON APRIL 13, 2015
AT THE
SAN ELIJO WATER RECLAMATION FACILITY

David Zito, Chair — Catherine S. Blakespear, Vice Chair

A meeting of the Board of Directors of the San Elijo Joint Powers Authority (SEJPA) was held Monday, April 13, 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 Zito called the meeting to order at 9:01 a.m.

2. ROLL CALL

Directors Present:	Catherine S. Blakespear Ginger Marshall 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
Administrative Assistant/Board Clerk	Jennifer Basco
SEJPA Counsel:	
Procopio, Cory, Hargreaves & Savitch	Adriana Ochoa
City of Solana Beach	
Interim City Manager	David Ott
Director of Engineering/Public Works	Mohammad “Mo” Sammak
City of Encinitas:	
Public Works Management Analyst	Bill Wilson
San Dieguito Water District	
General Manager	Bill O’Donnell
Southwest Membrane Operators Association	
Board Member	David Smith
Consultant	Michael Welch, Ph.D., P.E.

3. PLEDGE OF ALLEGIANCE

Chair Zito led the Pledge of Allegiance.

4. ORAL COMMUNICATIONS

None

5. PRESENTATION OF AWARDS

General Manager Thornton introduced David Smith, Board Member of the Southwest Membrane Operators Association, who presented the American Membrane Technology Association – 2015 Membrane Facility Award to the SEJPA Board of Directors.

6. CONSENT CALENDAR

Moved by Board Member Muir and seconded by Board Member Marshall to approve the Consent Calendar.

Motion carried with unanimous vote of approval.

Consent Calendar:

Agenda Item No. 7	Approval of Minutes for the March 9, 2015 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. PRESENTATION OF THE SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2015-16 RECOMMENDED BUDGET

Paul F. Kinkel, Director of Finance/Administration presented the Fiscal Year (FY) 2015-16 Recommended Budget to the Board of Directors. The budget estimates all expenditures necessary, including capital costs and debt services, to provide wastewater treatment, waste disposal, water reclamation, laboratory, ocean outfall, and pump station services. The total FY 2015-16 Recommended Budget is $9,753,797 consisting of $5,686,151 of Operating Costs, $2,470,646 of Debt Service and $1,597,000 of Capital Costs. The proposed Operating Costs for FY 2015-16 will increase by $362,157 as a result of adding new service programs, increasing recycled water production, and expected cost increases for supplies and services. The two new programs consist of Solana Beach Services and Del Mar Services representing $9,137 and $74,981, respectively. Mr. Kinkel stated that the SEJPA receives revenues from seven primary sources, with the three largest customers being the City of Encinitas, the City of Solana Beach, and the Recycled Water Program, which are expected to provide $2,991,526, $2,881,168, and $2,593,403, respectively.

It was recommended that the Board of Directors take the Recommended Budget to their respective Councils for further discussion and support. The budget will then be discussed at the next scheduled Board meeting.

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

13. CONSIDER APPROVAL OF PARTNERSHIP WITH THE CITY OF SOLANA BEACH FOR DESIGN OF RECYCLED WATER PIPELINES

General Manager Thornton informed the Board of Directors that the SEJPA is interested in partnering with the City of Solana Beach in exploring the possibilities of extending the recycled waterlines west to the 101 Highway corridor. This project may ultimately serve 90 acre feet or more per year, but will likely be constructed in phases based on available funding and local developer participation. The City of Solana Beach will be the project leader and be responsible for the engineering and construction contracts. As a project partner, the SEJPA is proposing to cost share for the development of the final design for an amount of $23,770.

Moved by Board Member Muir and seconded by Board Member Marshall to:

1. Authorize the General Manager to execute an agreement for an amount not to exceed $23,770 to fund engineering costs associated with recycled water pipelines.

Motion carried with unanimous vote of approval.

14. PRESENTATION ON THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT RENEWAL

General Manager Thornton stated that the California Regional Water Quality Control Board Order No. R9-2010-0087 (NPDES CA0107999) regulates the discharge of wastewater from the SEWRF to the Pacific Ocean via the San Elijo Ocean Outfall. Order No. R9-2010-0087 expires on October 27, 2015, and the Order requires the SEJPA to submit a Report of Waste Discharge within 180 days of this expiration date as application for renewal of the NPDES permit. Mr. Thornton introduced consultant Michael Welch, Ph.D., P.E., who prepared a draft of the Report of Waste Discharge. Mr. Welch provided background on the NPDES permit and answered questions from the Board of Directors.

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

15. 2015 FACILITY PLAN FOR THE SAN ELIJO WATER RECLAMATION FACILITY

General Manager Thornton stated that at the February 9, 2015 Board meeting, staff presented the draft 2015 Facility Plan to the Board of Directors for public review and comment. Subsequently, no public comments or suggested changes were received. The Facility Plan will serve as an asset management tool providing guidance for asset replacement decisions and serving as the foundation of the SEJPA's CIP program. The Facility Plan outlines a list of prioritized projects that total nearly $37 million over the next 10 years.

Moved by Board Member Muir and seconded by Board Member Marshall to:

1. Accept and file the 2015 Facility Plan for the San Elijo Water Reclamation Facility.

Motion carried with unanimous vote of approval.

16. GENERAL MANAGER'S REPORT

The General Manager informed the Board of Directors that the SEJPA is leading a multi-agency grant application to pursue IRWM Proposition 84, Round 4 funds. The coalition consists of six agencies and one non-governmental organization. The grant application, entitled "Coastal Conservation 101," will focus on projects along the Highway 101 corridor of Encinitas and Solana Beach.

17. GENERAL COUNSEL'S REPORT

None

18. BOARD MEMBER COMMENTS

None

19. CLOSED SESSION

None

20. ADJOURNMENT

The meeting adjourned at 10:31 a.m. The next Board of Directors meeting will be held on May 11, 2015.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

SAN ELIJO JOINT POWERS AUTHORITY
PAYMENT OF WARRANTS
15-05
For the Month of March

Warrant #	Vendor Name	G/L Account	Warrant Description	Amount
31444	A-1 Broadway Foto	Printing	Identification cards	24.00
31445	Arrowhead	Supplies - Lab	Kitchen and lab supplies	179.89
31446	AT&T - 9777	Utilities - Telephone	Phone service - 02/13/15 - 03/12/15	265.85
31447	AT&T	Utilities - Telephone	DSL - 02/10/15 - 03/09/15	89.28
31448	AT&T	Utilities - Telephone	DSL - 02/20/15 - 03/19/15	88.14
31449	Atlas Pumping Service Inc.	Services - Grease & Scum	Grease and scum pumping	554.88
31450	American Water Works Assoc.	Dues & Memberships	Membership	249.00
31451	Barracuda Networks, Inc	Utilities - Internet	Network back-up	50.00
31452	Bay City Electric Works	Services - Maintenance	PM maintenance	400.00
31453	Boot World, Inc.	Uniforms - Boots	Safety boots	150.00
31454	Carollo Engineers	Services - Engineering	Facility plan update	6,477.70
31455	Cerilliant	Supplies - Lab	Laboratory supplies	663.88
31456	Dale Kreinbring	Supplies - Office	Cell phone cover	37.75
31457	Fisher Scientific	Supplies - Chemicals	Sodium dodecylbenzene sulfonate	230.26
31458	Full Compass Systems, LTD	Supplies - Safety	Zone controller	606.62
31459	Global Capacity	Utilities - Internet	T-1 Service - May	288.59
31460	Golden State Overnight	Postage/Shipping	Mailing lab samples	31.92
31461	Guardian	Dental/Vision	Dental - April	1,958.46
31462	Harrington Industrial Plastics	Repair Parts Expense	Pump, motor, and wall bracket	1,050.63
31463	Health and Human Resource	Employee Assistance Program	April	334.40
31464	Home Depot Credit Services	Supplies - Shop & Field	Grease, lubricant, and flashlight	298.08
31465	Emmanuel Hurtado	Fuel	Fuel	57.02
31466	Jani-King of CA, Inc. - SEO	Services - Janitorial	Janitorial Service	882.64
31467	Jennifer Basco	Subsistence - Travel	Mileage	113.27
31468	John Deere Landscapes, Inc.	Repair Parts Expense	Node 100 controller	186.54
31469	Kennedy/Jenks Consultants	Services - Engineering	Relocation study	2,561.54
31470	Paul Kinkel	Subsistence - Travel	Meeting and mileage	52.80
31471	The Lawton Group	Services - Intern Program	Week worked - 03/16/15 - 03/20/15	556.87
31472	Mark Saracusa	Training - Safety	Forklift and aerial platform training	1,150.00
31473	McMaster-Carr Supply Co.	Repair Parts Expense	Plumbing supplies	780.57
31474	Napa Auto Parts	Vehicle Maintenance	Oil, backup alarm, and gloves	172.54
31475	Olivenhain Municipal Water District	Rent	Pipeline rental payment	4,374.00
31476	Olivenhain Municipal Water District	Services - Professional	RMC Water and Environment	482.55
31477	Olivenhain Municipal Water District	Services - Engineering	NSDCRRWP Environmental Impact Report	18,000.00
31478	Parada Painting	Services - Contractors	Painting digesters #1 and #2 piping	11,400.00
31479	Public Employees- Retirement	Retirement Plan - PERS	Retirement - 03/14/15 - 03/27/15	15,613.87
31480	Preferred Benefit Insurance	Dental/Vision	Vision - April	293.70
31481	Roesling Nakamura Terada	Services - Professional	Assessment report, building ramp, control room	10,757.50
31482	SCAP	Dues & Memberships	Annual membership for FY 2015-16	2,210.00
31483	San Diego Gas & Electric	Utilities - Gas & Electric	Gas and electric - 02/04/15 - 03/08/15	46,794.25
31484	Southland Paving, Inc.	Services - Contractors	Replace valve cans	4,670.00
31485	State Water Resources Control Board	Dues & Memberships	Operator-in-Training certificate	230.00
31486	Sun Life Financial	Life Insurance/Disability	Life and disability insurance	1,328.55
31487	Test America	Services - Laboratory	Testing water samples	145.00
31488	Thatcher Company of California	Supplies - Chemicals	Aluminum sulfate	2,572.85
31489	Michael Thornton	Subsistence - Travel/Rm & Bd	WateReuse conference	878.68
31490	Christopher A. Trees	Subsistence - Travel/Rm & Bd	WateReuse conference	654.08
31491	Trussell Technologies, Inc	Services - Engineering	Process engineering and evaluation	1,918.00
31492	Unifirst Corporation	Services - Uniforms	Uniform service	500.53
31493	UPS	Postage/Shipping	Mailing	1.50
31494	USA Bluebook	Repair Parts Expense	Votex sewage pump	5,758.46
31495	Vantagepoint Transfer Agents	EE Deduction Benefits	457 - ICMA	6,006.73
31496	Vantagepoint Transfer Agents	ICMA Retirement	401a - ICMA	2,717.65
31497	WageWorks	Payroll Processing Fees	Administration fee and compliance fee	113.00
31498	Watson Bros. Inc	Services - Maintenance	Calibration and maintenance	495.00
31499	WEX Bank	Equipment Rental/Lease	Fuel - March	636.79
31500	Aflac	EE Deduction Benefits	Medical and supplement life insurance	693.36
31501	AT & T	Utilities - Telephone	Alarm service	390.47
31502	BankCard Center	Various	Seminars, office supplies, and parts	2,621.42
31503	Ravy H. Chea	CSRMA Wellness Program	Health and wellness reimbursement	60.00
31504	Coast Waste Management, Inc.	Services - Grit & Screenings	Roll-off	39.42
31505	County of San Diego	Fees - Permits	Facility permit - DEH2011-HUPFP-213701	292.00
31506	EDCO Waste & Recycling Service	Utilities - Trash	Trash service - March	234.21
31507	Hach Company	Repair Parts Expense	Cable and turbidity meter	2,399.51
31508	P.E.R.S.	Medical Insurance - PERS	Health - May	20,940.47
31509	Public Employees - Retirement	Retirement Plan - PERS	Retirement - 03/28/15 - 04/10/15	15,863.13
31510	San Dieguito Water	Utilities - Water	Recycled water	11,274.13
31511	Santa Fe Irrigation District	Utilities - Water (Suppl.)	Recycled water	1,626.68
31512	Board of Equalization	Accrued Sales Tax Payable	Sales tax 1st quarter - 2015	49.00

SAN ELIJO JOINT POWERS AUTHORITY
PAYMENT OF WARRANTS
15-05
For the Month of March

Warrant #	Vendor Name	G/L Account	Warrant Description	Amount
31513	Vantagepoint Transfer Agents	EE Deduction Benefits	ICMA - 457	6,116.73
31514	Vantagepoint Transfer Agents	ICMA Retirement	ICMA - 401a	2,797.41
31515	A-Check Global	Preemployment Screening	New employee background check	181.00
31516	Ag Tech, LLC	Services - Biosolids Hauling	Biosolids hauling - March	14,150.64
31517	Applied Industrial Tech.	Repair Parts Expense	Putty, shafts, and coupling sleeves	393.50
31518	Atlas Pumping Service Inc.	Services - Grease & Scum	Grease and scum pumping	1,297.23
31519	Bee Friendly	Services - Maintenance	Live removal of bees	180.00
31520	Boot World, Inc.	Uniforms - Boots	Safety boots	145.71
31521	The Brickman Group Ltd.	Services - Landscape	Landscape service - April	385.00
31522	Cerilliant	Supplies - Lab	Lab supplies	587.80
31523	Complete Office	Supplies - Office	Pencils, paper, and steno books	55.58
31524	DC Frost Associates, Inc	Repair Parts Expense	Bags for heliclean	497.55
31525	eMaint Enterprises, LLC	Services - Maintenance	CMMS software renewal	480.00
31526	City of Encinitas	Service - IT Support	Administration network	2,500.00
31527	Evantec Lab Supply	Supplies - Lab	Lab, shop and field supplies	1,391.04
31528	Ferrellgas	Fuel	Cylinder	48.24
31529	Hach Company	Services - Maintenance	Maintenance service	6,657.00
31530	Konica Minolta	Services - Maintenance	Copier maintenance service	105.14
31531	The Lawton Group	Services - Intern Program	Weeks worked - 03/23/15 - 04/30/15	1,024.38
31532	McMaster-Carr Supply Co.	Repair Parts Expense	Plumbing supplies	283.43
31533	Napa Auto Parts	Vehicle Maintenance	Auto parts	26.69
31534	Olin Corp - Chlor Alkali	Supplies - Chem - Sodium Hypo	Sodium hypochlorite	2,776.11
31535	Pacific Pipeline Supply	Repair Parts Expense	Coupling	340.20
31536	Palomar Backflow	Services - Maintenance	Service and retest device	45.00
31537	Polydyne Inc.	Supplies - Chem - Polymer	Clarifloc	11,426.40
31538	Procopio Cory Hargreaves	Services - Legal	General, labor and employment - March	4,543.14
31539	Santa Fe Irrigation District	SFID Distribution Pipeline	Pipeline purchase payment	1,164.26
31540	Smart & Final	Supplies - Office	Kitchen supplies	137.98
31541	Southwest Valve & Equipment	Repair Parts Expense	Flex check valve	524.20
31542	Unifirst Corporation	Services - Uniforms	Uniform services	364.85
31543	Univar USA Inc.	Supplies - Chemicals	Citric acid and drum deposit	825.20
31544	Underground Service Alert/SC	Services - Alarm	Dig alert - March	61.50
31545	USA Bluebook	Repair Parts Expense	Repair parts and plumbing supplies	861.12
31546	Valley Chain & Gear, Inc.	Repair Parts Expense	Timing belt	126.84
31547	Water Environment Federation	Dues & Memberships	Membership	272.00
31548	WorkPartners Occupational	Services - Medical	New employees medical services	470.00
	San Elijo Payroll Account	Payroll	Payroll - 04/03/15	59,342.97
	San Elijo Payroll Account	Payroll	Payroll - 04/17/15	60,577.78
				$ 398,743.23

SAN ELIJO JOINT POWERS AUTHORITY

PAYMENT OF WARRANTS SUMMARY

For the Month of March
As of April 29, 2015

PAYMENT OF WARRANTS		$ 398,743.23
Reference Number	15-05	

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

Paul F. Kinkel
Director of Finance & Administration

STATEMENT OF FUNDS AVAILABLE FOR PAYMENT OF WARRANTS
AND INVESTMENT INFORMATION
As of April 29, 2015

FUNDS ON DEPOSIT WITH		AMOUNT
LOCAL AGENCY INVESTMENT FUND		
(MARCH 2015 YIELD 0.26%)		
RESTRICTED SRF RESERVE	$	630,000.00
UNRESTRICTED DEPOSITS	$	7,941,169.68
CALIFORNIA BANK AND TRUST		
(MARCH 2015 YIELD 0.01%)		
REGULAR CHECKING	$	48,925.91
PAYROLL CHECKING	$	64,874.69
TOTAL RESOURCES	$	8,684,970.28

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AGENDA ITEM NO. 9

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 11, 2015

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

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

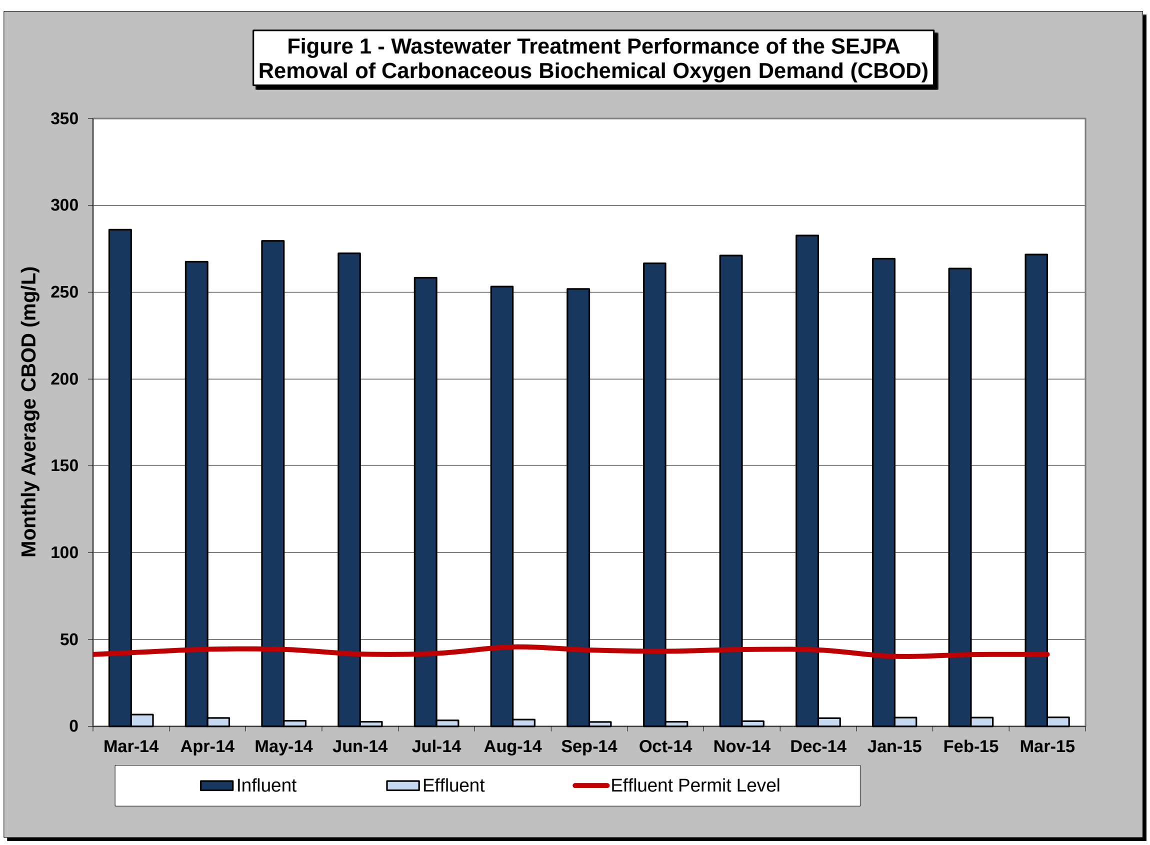
RECOMMENDATION

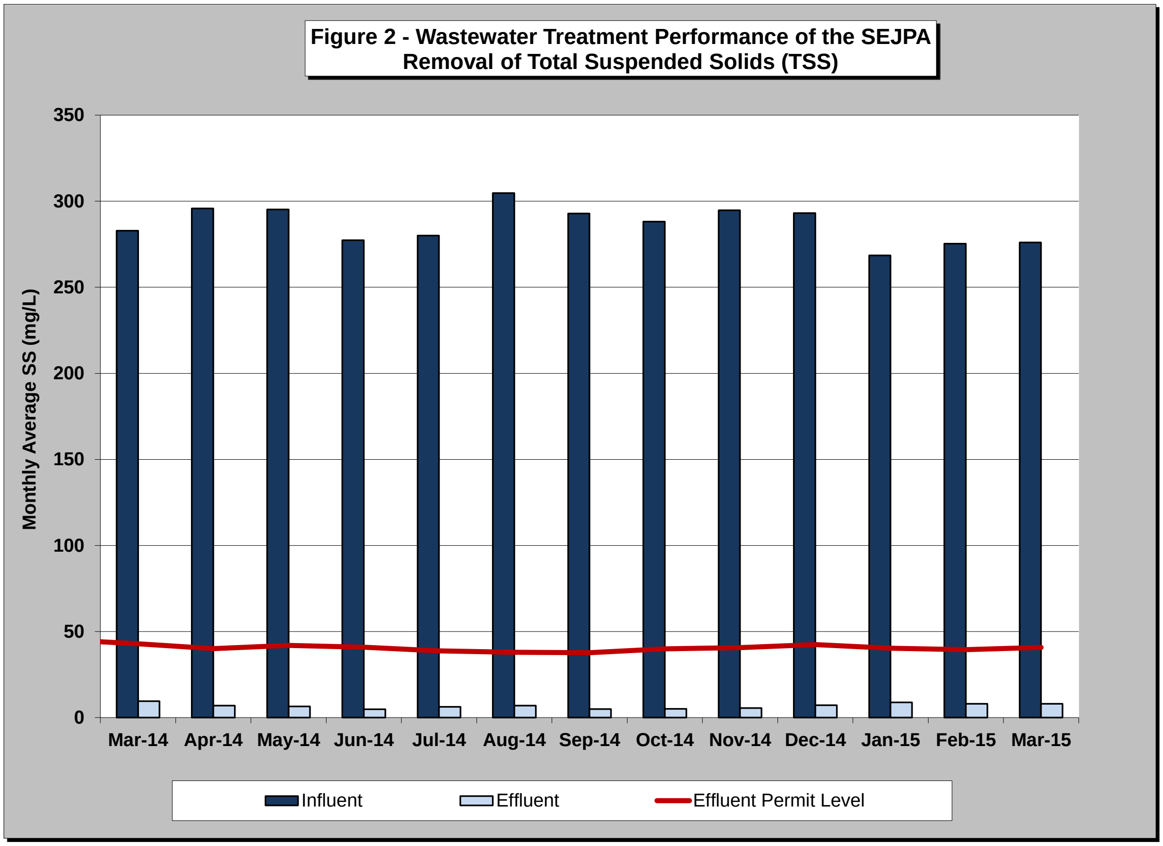
No action required. This memorandum is submitted for information only.

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 March 2015. 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 March, treatment levels for CBOD and TSS were 98.1 and 97.1 percent removal, respectively, (as shown in Figure 1 and Figure 2).





Member Agency Flows

Presented below are the influent and effluent flows for the month of March. Average daily influent flows were recorded for each Member Agency. Total effluent flow was calculated for the San Elijo Water Reclamation Facility.

	March	
	Influent (mgd)	**Effluent (mgd)***
Cardiff Sanitary Division	1.269	0.583
City of Solana Beach	1.231	0.566
Rancho Santa Fe SID	0.135	0.062
Total San Elijo WRF Flow	**2.635**	**1.211**

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

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.

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

	AVERAGE DAILY INFLUENT FLOW RATE (MGD)				AVERAGE DAILY EFFLUENT FLOW RATE (MGD)				CONNECTED EDUs				AVERAGE UNIT INFLUENT FLOW RATE (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
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	8,198	474	7,728	16,400	177	306	181	183
Apr-10	1.451	0.137	1.391	2.979	1.058	0.100	1.014	2.172	8,198	474	7,728	16,400	177	289	180	182
May-10	1.379	0.128	1.385	2.892	0.672	0.063	0.675	1.410	8,201	474	7,728	16,403	168	270	179	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	168	171
Dec-10	1.605	0.215	1.375	3.195	1.417	0.189	1.214	2.820	8,212	478	7,728	16,418	195	450	178	195
Jan-11	1.452	0.158	1.338	2.948	1.272	0.139	1.172	2.583	8,227	478	7,728	16,433	176	331	173	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	172	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	1.292	0.150	1.405	2.847	0.479	0.056	0.521	1.056	8,252	485	7,728	16,465	157	310	182	173
Sep-11	1.262	0.146	1.333	2.741	0.564	0.066	0.596	1.226	8,254	486	7,728	16,468	153	301	172	166
Oct-11	1.260	0.142	1.303	2.705	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	2.702	0.906	0.097	0.813	1.816	8,278	488	7,728	16,494	163	297	156	164
May-12	1.333	0.150	1.211	2.694	0.577	0.065	0.525	1.167	8,280	488	7,728	16,496	161	308	157	163
Jun-12	1.365	0.143	1.237	2.745	0.547	0.057	0.496	1.100	8,284	489	7,728	16,501	165	293	160	166
Jul-12	1.372	0.126	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	1.357	0.145	1.215	2.717	1.155	0.124	1.034	2.313	8,300	490	7,728	16,518	163	296	157	164
Feb-13	1.349	0.138	1.201	2.688	1.048	0.108	0.933	2.089	8,301	490	7,728	16,519	163	282	155	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	1.343	0.117	1.193	2.653	0.403	0.036	0.358	0.797	8,311	494	7,728	16,533	162	237	154	160
Oct-13	1.319	0.132	1.184	2.635	0.629	0.063	0.565	1.257	8,314	494	7,728	16,536	159	267	153	159
Nov-13	1.348	0.133	1.194	2.675	0.932	0.092	0.826	1.850	8,315	494	7,728	16,537	162	270	155	162
Dec-13	1.341	0.134	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	0.126	1.188	2.655	0.207	0.020	0.183	0.410	8,333	498	7,728	16,559	161	253	154	160
Jul-14	1.271	0.130	1.307	2.708	0.232	0.024	0.239	0.495	8,338	499	7,728	16,565	152	261	169	163
Aug-14	1.228	0.130	1.298	2.656	0.227	0.024	0.239	0.490	8,345	500	7,728	16,573	147	260	168	160
Sep-14	1.215	0.113	1.232	2.560	0.211	0.019	0.214	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	8,355	502	7,728	16,585	158	293	159	163
Jan-15	1.253	0.130	1.232	2.615	0.984	0.102	0.967	2.053	8,359	503	7,977	16,838	150	259	154	155
Feb-15	1.229	0.132	1.228	2.589	0.757	0.081	0.757	1.595	8,361	504	7,977	16,841	147	262	154	154
Mar-15	1.269	0.135	1.231	2.635	0.583	0.062	0.566	1.211	8,365	504	7,977	16,846	152	268	154	156

CSD: Cardiff Sanitary Division

RSF CSD: Ranch Santa Fe Community Service District

SB: Solana Beach

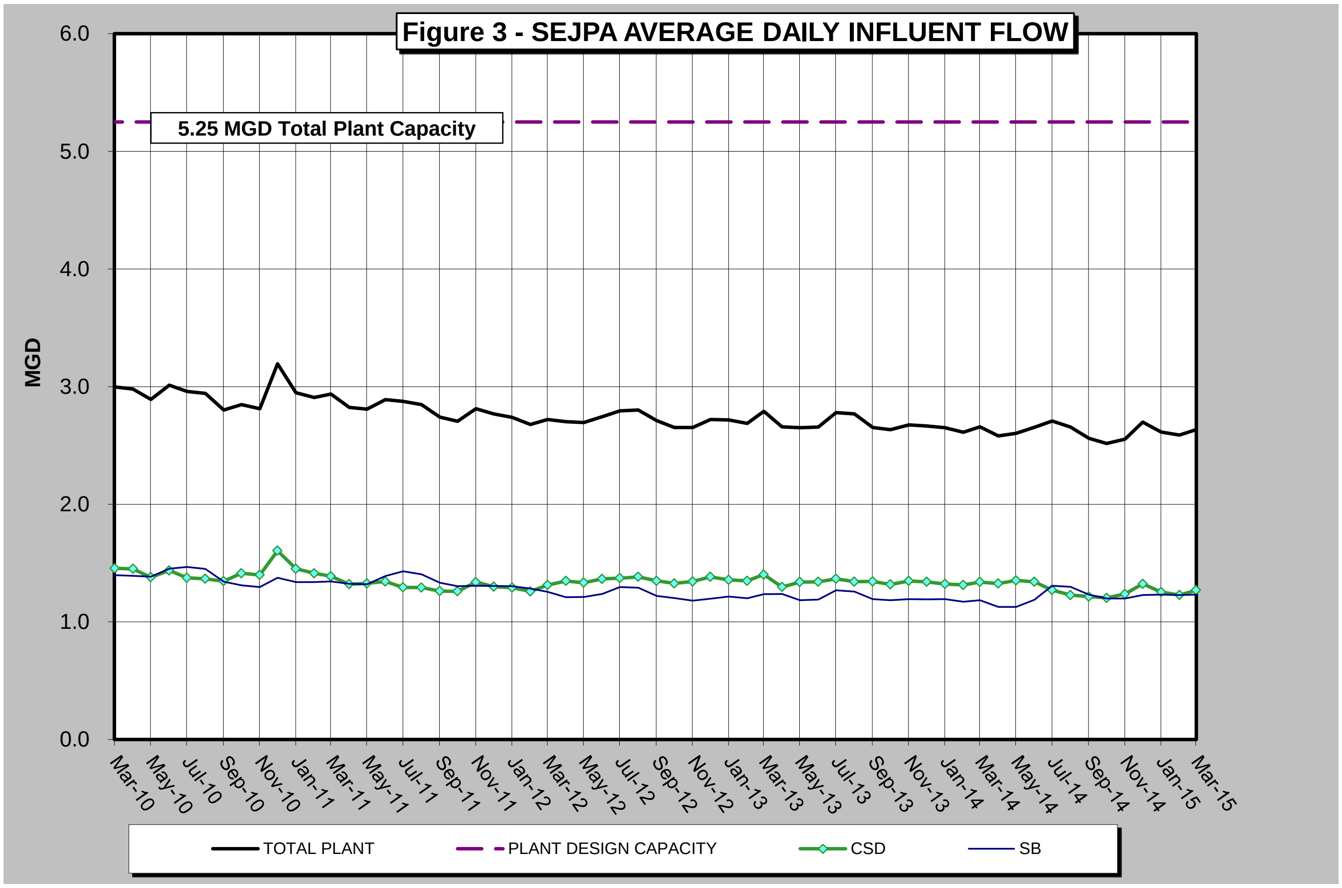
EDU: Equivalent Dwelling Unit

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 March 2015.

	Flow (mgd)
Escondido (Average flow rate)	8.63
Escondido (Peak flow rate)	18.0

Connected Equivalent Dwelling Units

The City of Solana Beach updated the connected EDUs number that is reported to the SEJPA in January 2015. The number of EDUs connected for each of the Member Agencies is as follows:

	Connected (EDU)
Cardiff Sanitary Division	8,365
Rancho Santa Fe SID	504
City of Solana Beach	7,640
San Diego (to Solana Beach)	337
Total EDUs to System	**16,846**

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

* AGENDA ITEM NO. 10

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 11, 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 March 2015, recycled water demand was 127.09 acre-feet (AF), which was met using 126.35 AF of recycled water and 0.74 AF of supplementation with potable water. This is the highest March demand since the program began.

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 fourteen fiscal years. Figure 3 (attached) shows the monthly recycled water demand for each March since the program began.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

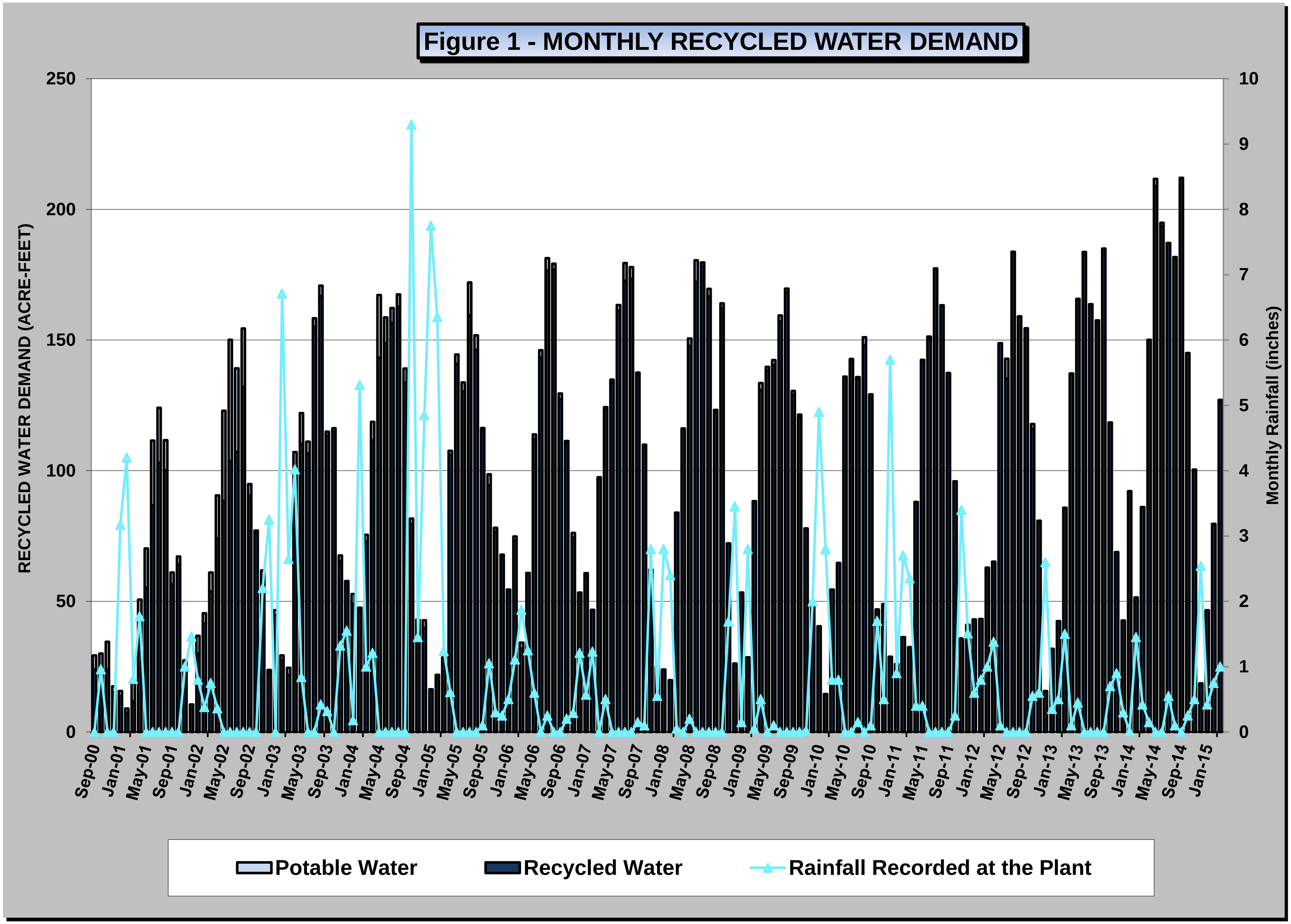


Figure 1 - MONTHLY RECYCLED WATER DEMAND
RECYCLED WATER DEMAND (ACRE-FEET)
Monthly Rainfall (inches)
0
50
100
150
200
250
0
1
2
3
4
5
6
7
8
9
10
Sep-00
Jan-01
May-01
Sep-01
Jan-02
May-02
Sep-02
Jan-03
May-03
Sep-03
Jan-04
May-04
Sep-04
Jan-05
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Jan-11
May-11
Sep-11
Jan-12
May-12
Sep-12
Jan-13
May-13
Sep-13
Jan-14
May-14
Sep-14
Jan-15
Potable Water
Recycled Water
Rainfall Recorded at the Plant

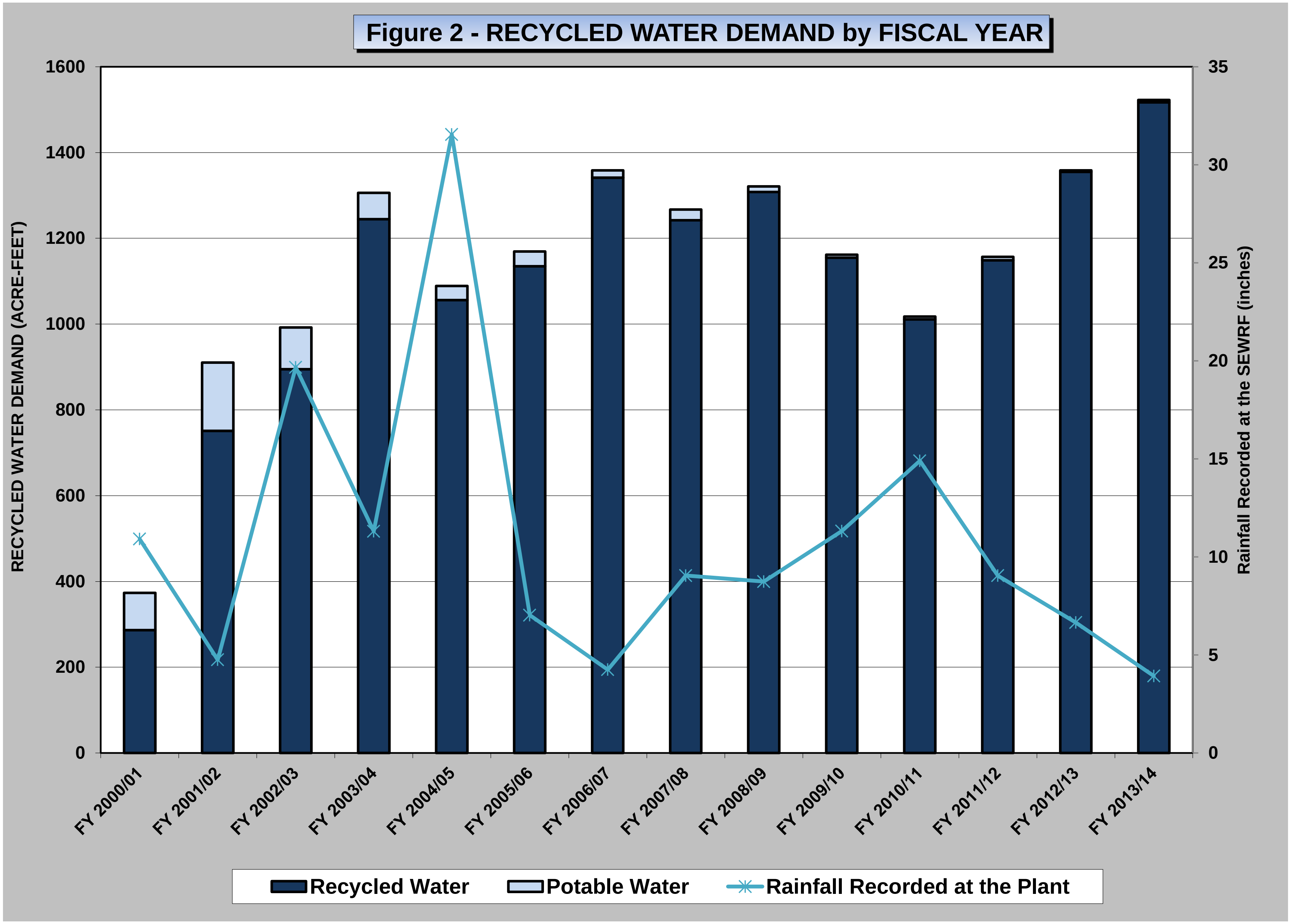

Figure 2 - RECYCLED WATER DEMAND by FISCAL YEAR
RECYCLED WATER DEMAND (ACRE-FEET)
0
200
400
600
800
1000
1200
1400
1600
Rainfall Recorded at the SEWRF (inches)
0
5
10
15
20
25
30
35
FY 2000/01
FY 2001/02
FY 2002/03
FY 2003/04
FY 2004/05
FY 2005/06
FY 2006/07
FY 2007/08
FY 2008/09
FY 2009/10
FY 2010/11
FY 2011/12
FY 2012/13
FY 2013/14
Recycled Water
Potable Water
Rainfall Recorded at the Plant

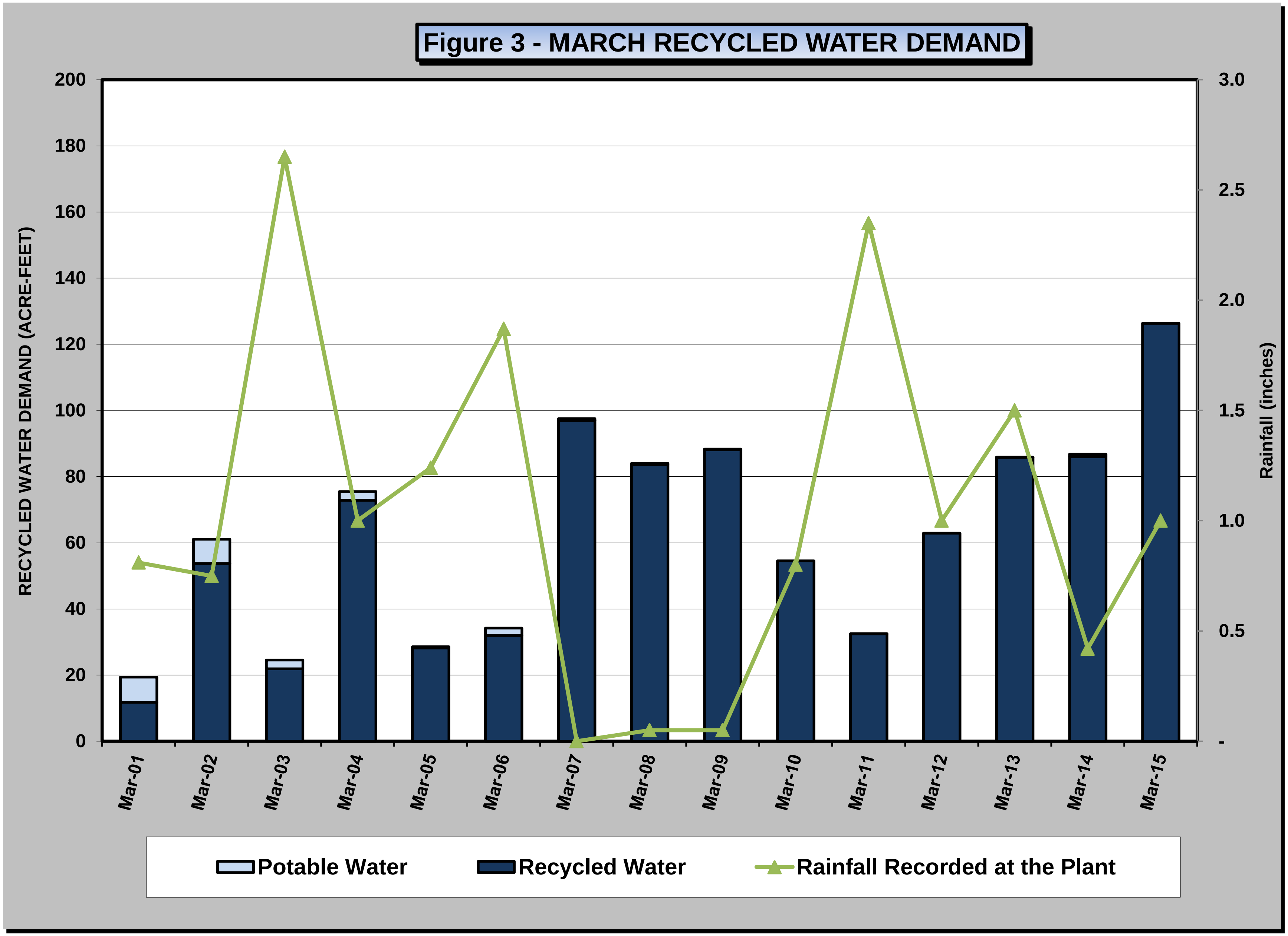

Figure 3 - MARCH RECYCLED WATER DEMAND
RECYCLED WATER DEMAND (ACRE-FEET)
200
180
160
140
120
100
80
60
40
20
0
Rainfall (inches)
3.0
2.5
2.0
1.5
1.0
0.5
-
Mar-01
Mar-02
Mar-03
Mar-04
Mar-05
Mar-06
Mar-07
Mar-08
Mar-09
Mar-10
Mar-11
Mar-12
Mar-13
Mar-14
Mar-15
Potable Water
Recycled Water
Rainfall Recorded at the Plant

*

AGENDA ITEM NO. 11

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 11, 2015

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Director of Finance/Administration

SUBJECT: SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2015-16 RECOMMENDED BUDGET UPDATE

RECOMMENDATION

It is recommended that the Board of Directors:

1. Discuss and take action as appropriate.

DISCUSSION

At the April 2015 SEJPA Board meeting, staff presented the FY 2015-16 Recommended Budget to the Board of Directors for public review and comment. During the past month, SEJPA staff has had discussions with staff members from both Member Agencies to receive comments and/or suggested changes.

The Member Agencies support the FY 2015-16 Recommended Budget, and the budget is in line with expectation for their rate structures. There have been no recommendations, changes or comments from the other participating government agencies, and no public comments.

The budget will be presented to the Board of Directors for adoption at the June meeting along with the investment policy and appointment of SEJPA Treasurer. Any action from the current meeting will be incorporated into the budget before the June meeting.

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

1. Discuss and take action as appropriate.

Respectfully submitted,

Paul F. Kinkel
Director of Finance/Administration

AGENDA ITEM NO. 13

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 11, 2015

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: BUILDING UPGRADE PROJECT

RECOMMENDATION

It is recommended that the Board of Directors:

1. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) is responsible for providing wastewater treatment and disposal; recycled water production and delivery; operation and maintenance of Member Agency remote facilities; and ocean outfall management. It is the goal of the SEJPA to provide these services using the most sustainable, efficient, and cost-effective approach. As such, the SEJPA staff utilizes the facility master planning process in order to identify and prioritize future capital improvement projects necessary to efficiently operate and maintain its facilities.

DISCUSSION

The 2015 Facility Plan recently performed by Carollo Engineers, identified significant building deficiencies at the San Elijo Water Reclamation Facility including FLS (fire, life, and safety), ADA accessibility, and seismic code issues. The report identified Building and Seismic Upgrades as the 2nd highest ranked capital improvement project. Staff will provide a brief PowerPoint presentation highlighting the findings of the report and the potential next steps to address building deficiencies.

It is recommended that the Board of Directors:

1. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

AGENDA ITEM NO. 14

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 11, 2015

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Director of Finance/Administration

SUBJECT: CalPERS UNFUNDED ACTUARIAL LIABILITY UPDATE

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to apply positive FY 2014-15 Budget variances to the CalPERS Unfunded Actuarial Liability; and

2. Discuss and take action as appropriate.

DISCUSSION

California Public Employees' Retirement System ("CalPERS") is the nation's largest public pension fund and the sixth largest in the world with assets totaling $296B. The San Elijo Joint Powers Authority (SEJPA) participates in CalPERS' Miscellaneous Risk Pool for its defined benefit retirement program which is currently 74% funded. CalPERS has approved a plan to combine several risk pools and amortize the unfunded liability up to 30 years to help to avoid unnecessary increases.

CalPERS uses many assumptions in their actuarial calculations, including interest rates, inflation, investment return rates, life expectancy, retirement age and payroll cost changes. Recently CalPERS reduced its investment return rate from 7.75% to 7.50% and increased the average life expectancy by 2.1 years for males and 1.6 years for females. These changes increased the cost of the SEJPA's Tier 1 Retirement Plan; but had minimal impacts to the SEJPA's Tier 2 and Tier 3 Plans.

Currently, CalPERS calculates the SEJPA's pension contributions as a percentage of payroll. Starting in FY 2015-16, the SEJPA will pay the normal cost of its pension plans as a percentage of payroll but will be charged a flat dollar amount for its portion of the unfunded liability.

Tier 1 Plan - 2.5% @ 55
Because the SEJPA's Tier 1 plan was essentially closed to new entrants with the enactment of the Public Employees' Pension Reform Act ("PEPRA"), the unfunded liability on this plan

increased. CalPERS estimates the SEJPA's total contribution on the Tier 1 plan will increase by approximately $60,000 in FY 2014-15. This plan is 74% funded with an unfunded liability of approximately $2.4M. This amount will be recorded in the SEJPA's financial statements starting with FY 2014-15. The SEJPA has the option to prepay the unfunded liability, which would provide cost savings in avoided interest.

Tier 2 Plan - 2% @ 60
This plan is only open to new employees who are current CalPERS' members. There is essentially no unfunded liability on this plan and the SEJPA's contribution rate is unchanged. This plan represents 10% of the SEJPA's current workforce.

PEPRA Plan - 2% @ 62
This plan is for new employees who are not current CalPERS' members. There is no unfunded liability on this plan and the SEJPA's contribution rate is unchanged. This plan represents approximately 15% of the SEJPA's.

FINANCIAL IMPACT

The SEJPA anticipates completing FY 2014-15 under budget. To reduce the unfunded liability and smooth future pension costs, Staff recommends applying any positive budget variances to the unfunded liability. The current forecast of the positive budget variance is estimated to be in excess of $100,000.

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

1. Authorize the General Manager to apply positive FY 2014-15 Budget variances to the CalPERS Unfunded Actuarial Liability; and

2. Discuss and take action as appropriate.

Respectfully submitted,

Paul F. Kinkel
Director of Finance/Administration

Attachment: CalPERS October 2014 MISCELLANEOUS PLAN FOR THE SAN ELIJO JOINT POWERS AUTHORITY (CalPERS ID: 1650430914) Annual Valuation Report as of June 30, 2013 (2.5% @ 55)

California Public Employees' Retirement System
Actuarial Office
P.O. Box 942709
Sacramento, CA 94229-2709
TTY: (916) 795-3240
(888) 225-7377 phone – (916) 795-2744 fax
www.calpers.ca.gov

October 2014

MISCELLANEOUS PLAN OF THE SAN ELIJO JOINT POWERS AUTHORITY
(CalPERS ID: 1650430914)
Annual Valuation Report as of June 30, 2013

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2013 actuarial valuation report of your pension plan. Because this plan is in a risk pool and the CalPERS Board approved structural changes to risk pooling on May 21, 2014 you will notice some changes between your last actuarial report and this one. An overview of the changes to pooling is provided below and we urge you to carefully review the information provided in this report.

Because this plan is in a risk pool, the following valuation report has been separated into two Sections:

- Section 1 contains specific information for your plan, including the development of your pooled employer contributions and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to your plan, as of June 30, 2013.

Section 2 can be found on the CalPERS website at (www.calpers.ca.gov) then select in order "Employers", "Actuarial, Risk Pooling & GASB 27 Information", "Risk Pooling", "Risk Pool Annual Valuation Reports", then select the appropriate pool report.

Your 2013 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your CalPERS staff actuary, whose signature appears in the Actuarial Certification Section on page 1, is available to discuss your report with you after October 31, 2014.

Future Contribution Rates

Fiscal Year	Employer Normal Cost Rate	+	Employer Payment of Unfunded Liability
2015-16	9.671%		$ 142,876
2016-17 (projected)	10.1%		$ 160,817

The exhibit above displays the Minimum Employer Contributions, before any cost sharing, for 2015-16 along with estimates of the contributions for 2016-17. The estimated contributions for 2016-17 are based on a projection of the most recent information we have available, including an estimated 18.0 percent investment return for fiscal 2013-14, the impact of the new amortization methods adopted by the CalPERS Board in April 2013 that will impact employer rates for the first time in 2015-16 and new actuarial assumptions adopted by the CalPERS Board in February 2014 that will impact rates for the first time in 2016-17. These new demographic assumptions include a 20-year projected improvement in mortality.

A projection of employer contributions beyond 2016-17 can be found in the Risk Analysis Section of this report, "Analysis of Future Investment Return Scenarios", under a variety of investment return scenarios. Please disregard any projections provided to you in the past. Member contributions, other than cost sharing (whether paid by the employer or the employee), are in addition to the above amounts. The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.

The estimate for 2016-17 also assumes that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.) This is a very important assumption because these gains and losses do occur and can have a significant effect on your contributions. Even for the largest plans or pools, such gains and losses can impact the employer's contribution rate by one or two percent of payroll or even more in some less common circumstances. These gains and losses cannot be predicted in advance so the projected employer contributions are estimates. Your actual employer contributions for 2016-17 will be provided in next year's valuation report.

Changes since the Prior Year's Valuation

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and rate smoothing policies. Beginning with the June 30, 2013 valuations that set the 2015-16 rates, CalPERS will employ an amortization and smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The impact of this new actuarial methodology is reflected in the *"Analysis of Future Investment Return Scenarios"* subsection of the *"Risk Analysis"* section of your report.

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. In addition to creating new retirement formulas for newly hired members PEPRA also effectively closed all existing active risk pools to new employees. As such it is no longer appropriate to assume that the payroll of the risk pools for the classic formulas will continue to grow at 3 percent annually. Funding the promised pension benefits as a percentage of payroll would lead to the underfunding of the plans. In addition the current allocation of the existing unfunded liabilities based on payroll would create equity issues for employers within the risk pools. Furthermore the declining payroll of the classic formula risk pools will lead to unacceptable levels of employer rate volatility.

In order to address these issues the CalPERS Board of Administration approved at their May 21, 2014 meeting structural changes to the risk pools. All pooled plans will be combined into two active pools, one for all miscellaneous groups and one for all safety groups, effective with the 2013 valuations. By combining the pools this way the payroll of the risk pools and the employers within the pools can once again be expected to increase at the assumed 3 percent annual growth. However two important changes are being made which will affect employers.

1. Beginning with FY 2015-16 CalPERS will collect employer contributions toward your unfunded liability and side fund as dollar amounts instead of the prior method of a contribution rate. This change will address the funding issue that would still arise from the declining population of classic formula members. Although employers will be invoiced at the beginning of the fiscal year for their unfunded liability and side fund

payments the plan's normal cost contribution will continue to be collected as a percentage of payroll.

2. The pool's unfunded liability will be allocated to each individual plan based on the plan's total liability rather than by plan individual payroll. This will allow employers to track their own unfunded liability and pay it down faster if they choose. The change in the allocation of unfunded liabilities will result in some employers paying more towards their unfunded liability and some paying less.

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. The impact of the PEPRA changes are included in the rates and the benefit provision listings of the June 30, 2013 valuation for the 2015-16 rates. For more information on PEPRA, please refer to the CalPERS website.

In 2014 CalPERS completed a 2-year asset liability management study incorporating actuarial assumptions and strategic asset allocation. On February 19, 2014 the CalPERS Board of Administration adopted relatively modest changes to the current asset allocation that will reduce the expected volatility of returns. The adopted asset allocation is expected to have a long-term blended return that continues to support a discount rate assumption of 7.5 percent. The Board also approved several changes to the demographic assumptions that more closely align with actual experience. The most significant of these is mortality improvement to acknowledge the greater life expectancies we are seeing in our membership and expected continued improvements. The new actuarial assumptions will be used to set the FY 2016-17 contribution rates for public agency employers. The increase in liability due to new actuarial assumptions will be calculated in the 2014 actuarial valuation and will be amortized over a 20-year period with a 5-year ramp-up/ramp-down in accordance with Board policy.

Besides the above noted changes, there may also be changes specific to your plan such as contract amendments and funding changes.

Further descriptions of general changes are included in the *"Highlights and Executive Summary"* section and in Appendix A, *"Statement of Actuarial Data, Methods and Assumptions"* of your section 2 report. We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their result, we ask that, you wait until after October 31 to contact us with actuarial related questions.

If you have other questions, please call our customer contact center at (888) CalPERS or (888**-225-7377**).

Sincerely,

ALAN MILLIGAN
Chief Actuary

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CalPERS

ACTUARIAL VALUATION

as of June 30, 2013

for the
MISCELLANEOUS PLAN
of the
SAN ELIJO JOINT POWERS AUTHORITY

(CalPERS ID: 1650430914)

REQUIRED CONTRIBUTIONS
FOR FISCAL YEAR
July 1, 2015 - June 30, 2016

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TABLE OF CONTENTS

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Section 1

Plan Specific Information for the MISCELLANEOUS PLAN of the SAN ELIJO JOINT POWERS AUTHORITY

(CalPERS ID: 1650430914)
(Rate Plan: 1932)

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ACTUARIAL CERTIFICATION

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2013 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2013 provided by employers participating in the SAFETY risk pool to which your plan belongs and benefit provisions under the CalPERS contracts for those agencies.

As set forth in Section 2 of this report, the Pool Actuary has certified that, in their opinion, the valuation of the Risk Pool containing your MISCELLANEOUS PLAN has been performed in accordance with generally accepted actuarial principles consistent with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for the Risk Pool as of the date of this valuation and as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for your plan, it is my opinion as your Plan Actuary that the Side Fund and other Unfunded Accrued Liability bases as of June 30, 2013 and employer contribution rate as of July 1, 2015, have been properly and accurately determined in accordance with the principles and standards stated above.

The undersigned is an actuary for CalPERS, who is a member of both the American Academy of Actuaries and Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Nancy E Campbell

NANCY E. CAMPBELL, ASA, MAAA
Enrolled Actuary
Supervising Pension Actuary, CalPERS
Plan Actuary

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HIGHLIGHTS AND EXECUTIVE SUMMARY

- **INTRODUCTION**
- **PURPOSE OF SECTION 1**
- **REQUIRED EMPLOYER CONTRIBUTION**
- **PLAN'S FUNDED STATUS**
- **PROJECTED CONTRIBUTIONS**

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Introduction

This report presents the results of the June 30, 2013 actuarial valuation of the MISCELLANEOUS PLAN of the SAN ELIJO JOINT POWERS AUTHORITY of the California Public Employees' Retirement System (CalPERS). This actuarial valuation was used to set the 2015-16 required employer contribution rates.

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and rate smoothing policies. Beginning with the June 30, 2013 valuations that set the 2015-16 rates, CalPERS will employ an amortization and smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The impact of this new actuarial methodology is reflected in the *"Analysis of Future Investment Return Scenarios"* subsection of the *"Risk Analysis"* section of your report.

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. In addition to creating new retirement formulas for newly hired members PEPRA also effectively closed all existing active risk pools to new employees. As such it is no longer appropriate to assume that the payroll of the risk pools for the classic formulas will continue to grow at 3 percent annually. Funding the promised pension benefits as a percentage of payroll would lead to the underfunding of the plans. In addition the current allocation of the existing unfunded liabilities based on payroll would create equity issues for employers within the risk pools. Furthermore the declining payroll of the classic formula risk pools will lead to unacceptable levels of employer rate volatility.

In order to address these issues the CalPERS Board of Administration approved at their May 21, 2014 meeting structural changes to the risk pools. All pooled plans will be combined into two active pools, one for all miscellaneous groups and one for all safety groups, effective with the 2013 valuations. By combining the pools this way the payroll of the risk pools and the employers within the pools can once again be expected to increase at the assumed 3 percent annual growth. However two important changes are being made which will affect employers.

1. Beginning with FY 2015-16 CalPERS will collect employer contributions toward your unfunded liability and side fund as dollar amounts instead of the prior method of a contribution rate. This change will address the funding issue that would still arise from the declining population of classic formula members. Although employers will be invoiced at the beginning of the fiscal year for their unfunded liability and side fund payments the plan's normal cost contribution will continue to be collected as a percentage of payroll.
2. The pool's unfunded liability will be allocated to each individual plan based on the plan's total liability rather than by the plan's individual payroll. This will allow employers to track their own unfunded liability and pay it down faster if they choose. The change in the allocation of unfunded liabilities will result in some employers paying more towards their unfunded liability and some paying less.

The impact of most of the PEPRA changes will first show up in the rates and the benefit provision listings of the June 30, 2013 valuation that sets the contribution rates for the 2015-16 fiscal year. For more detailed information on changes due to PEPRA, please refer to the CalPERS website.

In 2014 CalPERS completed a 2-year asset liability management study incorporating actuarial assumptions and strategic asset allocation. On February 19, 2014 the CalPERS Board of Administration adopted relatively modest changes to the current asset allocation that will reduce the expected volatility of returns (see Appendix). The adopted asset allocation is expected to have a long- term blended return that continues to support a discount rate assumption of 7.5 percent. The Board also approved several changes to the demographic assumptions that more closely align with actual experience. The most significant of these is mortality improvement to acknowledge the greater life expectancies we are seeing in our membership and expected continued improvements. The new actuarial assumptions will be used to set the FY 2016-17 contribution rates for public agency employers. The increase in liability due to new actuarial assumptions will be calculated in the 2014 actuarial valuation and will be amortized over a 20-year period with a 5-year ramp-up/ramp-down in accordance with Board policy.

Purpose of Section 1

This section 1 report for the MISCELLANEOUS PLAN of the SAN ELIJO JOINT POWERS AUTHORITY of the California Public Employees' Retirement System (CalPERS) was prepared by the Plan Actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2013;
- Determine the required employer contribution for this plan for the fiscal year July 1, 2015 through June 30, 2016;
- Provide actuarial information as of June 30, 2013 to the CalPERS Board of Administration and other interested parties; and
- Provide pension information as of June 30, 2013 to be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement Number 27 for a Cost Sharing Multiple Employer Defined Benefit Pension Plan.

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

California Actuarial Advisory Panel Recommendations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 12.

Additionally, this report includes the following "Enhanced Risk Disclosures" also recommended by the CAAP in the Model Disclosure Elements document:

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1 percent plus or minus change in the discount rate.

Required Employer Contribution

Actuarially Determined Employer Contributions:		**Fiscal Year 2014-15**[1]		**Fiscal Year 2015-16**
Employer Contributions (in Projected Dollars)				
Plan's Employer Normal Cost	$	164,667	$	150,883
Plan's Payment on Amortization Bases		115,486		142,876[2]
Surcharge for Class 1 Benefits[3]				
a) FAC 1		10,477		10,051
Phase out of Normal Cost Difference[4]		0		0
Amortization of Side Fund		40,567		0
Total Employer Contribution	$	331,197	$	303,810
Projected Payroll for the Contribution Fiscal Year	$	1,851,028	$	1,664,090
Required Employer Contributions (Percentage of Payroll)				
Plan's Net Employer Normal Cost		8.896%		9.067%
Plan's Payment on Amortization Bases		6.239%		8.586%[2]
Surcharge for Class 1 Benefits[3]				
a) FAC 1		0.566%		0.604%
Phase out of Normal Cost Difference[4]		0.000%		0.000%
Amortization of Side Fund		2.192%		0.000%
Total Employer Contribution Rate		17.893%		18.257%

Required Employer Contribution for FY 2015-16		
Employer Contribution Rate[5]		**9.671%**
***Plus* Monthly Employer Dollar UAL Payment**[6]	**$**	**11,906**
Annual Lump Sum Prepayment Option	**$**	**137,802**

*For FY 2015-16 the total minimum required employer contribution is the **sum** of the Plan's Employer Contribution Rate (expressed as a percentage of payroll) **plus** the Employer Unfunded Accrued Liability (UAL) Contribution Amount (in dollars). Whereas in prior years it was possible to prepay total employer contributions for the fiscal year, beginning with FY 2015-16 and beyond, only the UAL portion of the employer contribution can be prepaid.*

[1] The results shown for FY 2014-15 reflect the prior year valuation and do not reflect any lump sum payment, side fund payoff or rate adjustment made after annual valuation report is completed.

[2] For FY 2015-16 the Plan's Payment on Amortization Bases reflects the sum of all UAL amortization bases including the Plan's Side Fund (where applicable).

[3] Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

[4] Risk pooling was implemented for most plans as of June 30, 2003. The normal cost difference was scheduled to be phased out over a five year period. The phase out of normal cost difference is 100 percent for the first year of pooling, and is incrementally reduced by 20 percent of the original normal cost difference for each subsequent year.

[5] The minimum employer contribution under PEPRA is the greater of the required employer contribution or the total employer normal cost.

[6] The Plan's Payment on Amortization Bases Contribution amount for FY 2015-16 will be billed as a level dollar amount monthly over the course of the year. Late payments will accrue interest at an annual rate of 7.5 percent. Lump sum payments may be made through my|CalPERS. Plan Normal Cost contributions will be made as part of the payroll reporting process. As a percentage of payroll your UAL contribution is 8.586 percent.

Plan's Funded Status

	June 30, 2012	June 30, 2013
1. Present Value of Projected Benefits (PVB)	$ 10,065,602	$ 10,945,881
2. Entry Age Normal Accrued Liability	7,929,510	8,982,617
3. Plan's Market Value of Assets (MVA)	5,485,540	6,623,478
4. Unfunded Liability [(2) - (3)]	2,443,970	2,359,139
5. Funded Ratio [(3) / (2)]	69.2%	73.7%

Projected Contributions

The contribution rate and amount shown below is an estimate for the employer contribution for fiscal year 2016-17. The estimated contribution is based on a projection of the most recent information we have available, including an estimate of the investment return for fiscal year 2013-14, namely 18.0 percent. It also reflects implementation of the direct rate smoothing method and the impact of new actuarial assumptions.

Projected Employer Contribution Rate:	10.1%
Projected Plan UAL Contribution	$ 160,817

The estimate also assumes that there are no liability gains or losses among the plans in your risk pool, that your plan has no new amendments in the next year, and that your plan's and your risk pool's payrolls both increase exactly 3.0 percent in the 2013-14 fiscal year. Therefore, the projected employer contribution for 2016-17 is strictly an estimate. Your actual rate for 2016-17 will be provided in next year's valuation report. A more detailed analysis of your projected employer contributions over the next five years can be found in the "Risk Analysis" section of this report.

ASSETS AND LIABILITIES

- DEVELOPMENT OF PLAN'S SHARE OF POOL'S UAL
- DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA
- SCHEDULE OF PLAN'S SIDE FUND & OTHER AMORTIZATION BASES
- ALTERNATIVE AMORTIZATION SCHEDULES
- FUNDING HISTORY
- PLAN'S TOTAL NORMAL COST RATE

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Development of the Plan's Share of Pool's Unfunded Accrued Liability

It is the policy of the CalPERS to ensure equity within the risk pools by allocating the pool's unfunded accrued liability in a manner that treats each employer fairly and that maintains benefit security for the members of the System while minimizing substantial variations in employer contributions. Commencing with the June 30, 2013 actuarial valuations and for purposes of allocating the pool's unfunded accrued liability to all the individual plans within the pool, an individual plan's total unfunded accrued liability (Preliminary Plan UAL) on a specific valuation date will be set equal to the sum of the outstanding unamortized balances on the valuation date for the following:

a) Side Fund
b) Plan's share of Pool UAL due to benefit changes (including golden handshakes) provided to the members of that plan
c) Plan's share of the Pool UAL created before the valuation date for reasons other than benefit changes

1.	Plan's Accrued Liability	$	8,982,617
2.	Plan's Side Fund		289,892
3.	Increase in Plan's AL for amendments in FY 2012-13		0
4.	Pool's Accrued Liability	$	2,389,797,201
5.	Sum of Pool's Individual Plan Side Funds		83,573,887
6.	Increase in Pool's AL for amendments in FY 2012-13		964,580
7.	Pre-2013 Pool's UAL	$	319,504,744
8.	Plan's Share of Pre-2013 Pool's UAL [(1)-(2)-(3)]/[(4)–(5)-(6)] * (7)	$	**1,204,796**
9.	Pool's 2013 Investment & Asset (Gain)/Loss		231,453,080
10.	Pool's 2013 Other (Gain)/Loss		(2,213,098)
11.	Plan's Share of Pool's Asset (Gain)/Loss [(1)-(2)-(3)]/[(4)–(5)-(6)] * (9)		872,769
12.	Plan's Share of Pool's Other (Gain)/Loss [(1)]/[(4)] * (10)		(8,318)
13.	Plan's UAL as of 6/30/2013 [(2)+(8)+(11)+(12)]	$	**2,359,139**

Development of the Plan's Share of Pool's Market Value of Assets

1.	Plan's Accrued Liability	$	8,982,617
2.	Plan's UAL	$	2,359,139
3.	Plan's Share of Pool's MVA (1)-(2)	$	**6,623,478**

Schedule of Plan's Side Fund and Other Amortization Bases

There is a two-year lag between the Valuation Date and the Contribution Fiscal Year.

- The assets, liabilities and funded status of the plan are measured as of the valuation date; June 30, 2013.
- The employer contribution determined by the valuation is for the fiscal year beginning two years after the valuation date; fiscal year 2015-16.

This two-year lag is necessary due to the amount of time needed to extract and test the membership and financial data, and due to the need to provide public agencies with their employer contribution well in advance of the start of the fiscal year.

The Unfunded Liability is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The Unfunded Liability is rolled forward each year by subtracting the expected Payment on the Unfunded Liability for the fiscal year and adjusting for interest. The Expected Payment on the Unfunded Liability for a fiscal year is equal to the Expected Employer Contribution for the fiscal year minus the Expected Normal Cost for the year. The Employer Contribution Rate for the first fiscal year is determined by the actuarial valuation two years ago and the rate for the second year is from the actuarial valuation one year ago. The Normal Cost Rate for each of the two fiscal years is assumed to be the same as the rate determined by the current valuation. All expected dollar amounts, with the exception of the Side Fund base, are determined by multiplying the rate by the expected payroll for the applicable fiscal year, based on payroll as of the valuation date.

							Amounts for Fiscal 2015-16		
Reason for Base	**Date Established**	**Amorti-zation Period**	**Balance 6/30/13**	**Expected Payment 2013-14**	**Balance 6/30/14**	**Expected Payment 2014-15**	**Balance 6/30/15**	**Scheduled Payment for 2015-16**	**Payment as Percentage of Payroll**
SIDE FUND	06/30/13	7	$289,892	$39,386	$270,798	$40,567	$249,047	$41,784	2.511%
SHARE OF PRE-2013 POOL UAL	06/30/13	21	$1,204,796	$82,218	$1,209,910	$108,199	$1,188,470	$87,041	5.231%
ASSET (GAIN)/LOSS	06/30/13	30	$872,769	$0	$938,227	$0	$1,008,594	$14,186	0.852%
NON-ASSET (GAIN)/LOSS	06/30/13	30	$(8,318)	$0	$(8,942)	$0	$(9,613)	$(135)	(0.008%)
TOTAL			**$2,359,139**	**$121,604**	**$2,409,993**	**$148,766**	**$2,436,498**	**$142,876**	**8.586%**

Commencing with the June 30, 2013 actuarial valuations, the side fund will be treated as a liability as opposed to an asset. Prior to June 30, 2013, a positive side fund conveyed that a public agency had a surplus when risk pooling began June 30, 2003. Conversely, a negative side fund signified that a public agency had an unfunded liability that required elimination through an amortization payment schedule. After June 30, 2013 a positive side fund will signify that an agency has an unfunded liability while a negative side fund will indicate a surplus asset. The amortization schedule will remain unchanged, with the exception that a plan with a negative side fund may have its amortization period extended at the discretion of the plan actuary.

Your plan's allocated share of the risk's pool's unfunded accrued liability is based on your plan's accrued liability and is amortized over the average amortization period of the combined existing amortization bases prior to June 30, 2013. The payments on this base for Fiscal Year 2013-14 and 2014-15 are allocated by your plan's payroll.

The (gain)/loss base is your plan's allocated share of the risk pool's asset gain/loss for the Fiscal Year 2012-13, the change in unfunded accrued liability due to direct rate smoothing and your plan's allocated share of the risk pool's other liability gains and losses for fiscal year 2012-13. This base will be amortized according to Board policy over 30 years with a 5-year ramp-up.

Alternate Amortization Schedules

The amortization schedule shown on the previous page shows the minimum contributions required according to CalPERS amortization policy. There has been considerable interest from many agencies in paying off these unfunded accrued liabilities sooner and the possible savings in doing so. As a result, we have provided alternate amortization schedules to help analyze your current amortization schedule and illustrate the advantages of accelerating unfunded liability payments towards your plan's unfunded liability of $2,436,498 as of June 30, 2015, which will require total payments of $5,692,143.

Shown below are the level rate payments required to amortize your plan's unfunded liability assuming a fresh start over the various periods noted. Note that the payments under each scenario would increase by 3 percent for each year into the future.

Level Rate

Period	2015-16 Payment	Total Payments	Total Interest	Savings
20	$ 183,969	$ 4,943,316	$ 2,506,818	$ 748,827
15	$ 223,353	$ 4,154,123	$ 1,717,625	$ 1,538,020

Current CalPERS Board policy calls for lump sum contributions in excess of the required employer contribution shall first be used to eliminate the side fund, if applicable, and then the plan's share of the pool's unfunded accrued liability.

Please contact your plan actuary before making such a payment to ensure that the payment is applied correctly.

Funding History

The Funding History below shows the actuarial accrued liability, the plan's share of the pool's market value of assets, plan's share of the pool's unfunded liability, funded ratio and the annual covered payroll.

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Plan's Share of Pool's Unfunded Liability	Funded Ratio	Annual Covered Payroll
06/30/2011	$ 6,972,991	$ 5,088,359	$ 1,884,632	73.0%	$ 1,594,676
06/30/2012	7,929,510	5,485,540	2,443,970	69.2%	1,693,953
06/30/2013	8,982,617	6,623,478	2,359,139	73.7%	1,522,878

Plan's Total Normal Cost Rate

The Public Employees' Pension Reform Act of 2013 requires that new employees pay at least 50 percent of the total annual normal cost and that current employees approach the same goal through collective bargaining. Please refer to the CalPERS website for more details.

Shown below are the total annual normal cost rates for your plan.

	Fiscal Year 2014-15	Fiscal Year 2015-16
Plan's Net Total Normal Cost Rate for 2.5% @ 55	16.788%	17.009%
Surcharge for Class 1 Benefits		
a) FAC 1	0.566%	0.604%
Plan's Total Normal Cost Rate	17.354%	17.613%

RISK ANALYSIS

- VOLATILITY RATIOS
- PROJECTED EMPLOYER CONTRIBUTIONS
- ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS
- ANALYSIS OF DISCOUNT RATE SENSITIVITY
- HYPOTHETICAL TERMINATION LIABILITY

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Volatility Ratios

The actuarial calculations supplied in this communication are based on a number of assumptions about very long-term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise the employer's rates from one year to the next. Therefore, the rates will inevitably fluctuate, especially due to the ups and downs of investment returns.

Asset Volatility Ratio (AVR)

Plans that have higher asset to payroll ratios produce more volatile employer rates due to investment return. For example, a plan with an asset to payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility, than a plan with an asset to payroll ratio of 4. Below we have shown your asset volatility ratio, a measure of the plan's current rate volatility. It should be noted that this ratio is a measure of the current situation. It increases over time but generally tends to stabilize as the plan matures.

Liability Volatility Ratio (LVR)

Plans that have higher liability to payroll ratios produce more volatile employer rates due to investment return and changes in liability. For example, a plan with a liability to payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability to payroll ratio of 4. The liability volatility ratio is also included in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility and the asset volatility ratio, described above, will tend to move closer to this ratio as the plan matures.

Rate Volatility		**As of June 30, 2013**
1. Market Value of Assets	$	6,623,478
2. Payroll		1,522,878
3. Asset Volatility Ratio (AVR = 1. / 2.)		4.3
4. Accrued Liability	$	8,982,617
5. Liability Volatility Ratio (LVR = 4. / 2.)		5.9

Projected Employer Contributions

The estimated rate for 2016-17 is based on a projection of the most recent information we have available, including an estimated 18.0 percent investment return for fiscal 2013-14, the impact of the new smoothing methods adopted by the CalPERS Board in April 2013 that will impact employer rates for the first time in 2015-16 and new actuarial assumptions adopted by the CalPERS Board in February 2014. These new demographic assumptions include a 20-year projected improvement in mortality. A complete listing of the new demographic assumptions to be implemented with the June 30, 2014 annual actuarial valuation and incorporated in the projected rates for FY 2016-17 and beyond can be found on the CalPERS website at: http://www.calpers.ca.gov/eip-docs/about/pubs/employer/actuarial-assumptions.xls

The table below shows projected employer contribution rates (before cost sharing) for the next five Fiscal Years, ***assuming CalPERS earns 18.0% for fiscal year 2013-14 and 7.50 percent every fiscal year thereafter***, and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the fiscal year 2016-17.

	New Rate	**Projected Future Employer Contribution Rates**				
	2015-16	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
Normal Cost %:	9.671%	10.1%	10.1%	10.1%	10.1%	10.1%
UAL $	$ 142,876	$ 160,817	$ 179,707	$ 199,584	$ 220,493	$ 226,189

Analysis of Future Investment Return Scenarios

In 2014 CalPERS completed a 2-year asset liability management study incorporating actuarial assumptions and strategic asset allocation. On February 19, 2014 the CalPERS Board of Administration adopted relatively modest changes to the current asset allocation that will reduce the expected volatility of returns. The adopted asset allocation is expected to have a long- term blended return that continues to support a discount rate assumption of 7.5 percent. The newly adopted asset allocation has a lower expected investment volatility that will result in better risk characteristics than an equivalent margin for adverse deviation. The current asset allocation has an expected standard deviation of 12.45 percent while the newly adopted asset allocation has a lower expected standard deviation of 11.76 percent.

The investment return for fiscal year 2013-14 was announced July 14, 2014. The investment return in fiscal year 2013-14 is 18.42 percent before administrative expenses. This year, there will be no adjustment for real estate and private equities. For purposes of projecting future employer rates, we are assuming a 18.0 percent investment return for fiscal year 2013-14.

The investment return realized during a fiscal year first affects the contribution rate for the fiscal year 2 years later. Specifically, the investment return for 2013-14 will first be reflected in the June 30, 2014 actuarial valuation that will be used to set the 2016-17 employer contribution rates, the 2014-15 investment return will first be reflected in the June 30, 2015 actuarial valuation that will be used to set the 2017-18 employer contribution rates and so forth.

Based on a 18.0 percent investment return for fiscal year 2013-14, the April 17, 2013 CalPERS Board-approved amortization and rate smoothing method change, the February 18, 2014 new demographic assumptions including 20-year mortality improvement using Scale BB and assuming that all other actuarial assumptions will be realized, and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the fiscal year 2016-17, the effect on the 2016-17 Employer Rate is as follows:

	Estimated 2016-17 Employer Contribution	**Estimated Increase in Employer Contribution between 2015-16 and 2016-17**
Normal Cost %:	10.1%	0.4%
UAL $	$ 160,817	$ 17,941

As part of this report, a sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2014-15, 2015-16 and 2016-17 on the 2017-18, 2018-19 and 2019-20 employer rates. Once again, the projected rate increases assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Five different investment return scenarios were selected.

- The first scenario is what one would expect if the markets were to give us a 5th percentile return from July 1, 2014 through June 30, 2017. The 5th percentile return corresponds to a -3.8 percent return for each of the 2014-15, 2015-16 and 2016-17 fiscal years.
- The second scenario is what one would expect if the markets were to give us a 25th percentile return from July 1, 2014 through June 30, 2017. The 25th percentile return corresponds to a 2.8 percent return for each of the 2014-15, 2015-16 and 2016-17 fiscal years.
- The third scenario assumed the return for 2014-15, 2015-16, 2016-17 would be our assumed 7.5 percent investment return which represents about a 49th percentile event.
- The fourth scenario is what one would expect if the markets were to give us a 75th percentile return from July 1, 2014 through June 30, 2017. The 75th percentile return corresponds to a 12.0 percent return for each of the 2014-15, 2015-16 and 2016-17 fiscal years.
- Finally, the last scenario is what one would expect if the markets were to give us a 95th percentile return from July 1, 2014 through June 30, 2017. The 95th percentile return corresponds to a 18.9 percent return for each of the 2014-15, 2015-16 and 2016-17 fiscal years.

The table below shows the estimated projected contribution rates and the estimated increases for your plan under the five different scenarios.

2014-17 Investment Return Scenario	Estimated Employer UAL Contribution			Estimated Total Change in Employer UAL Contribution between 2016-17 and 2019-20
	2017-18	2018-19	2019-20	
-3.8% (5th percentile)	$ 193,704	$ 241,732	$ 305,156	$ 144,339
2.8% (25th percentile)	$ 185,529	$ 217,501	$ 257,262	$ 96,445
7.5%	$ 179,707	$ 199,584	$ 220,493	$ 59,676
12.0%(75th percentile)	$ 174,131	$ 181,916	$ 183,133	$ 22,316
18.9%(95th percentile)	$ 165,581	$ 0	$ 0	$ (160,817)

In addition to the UAL Contribution amounts shown above the estimated employer normal cost of 10.1% of payroll will also be payable in each of the fiscal years shown above. The projected plan normal cost is expected to remain relatively stable over this time period.

Analysis of Discount Rate Sensitivity

The following analysis looks at the 2015-16 employer contributions under two different discount rate scenarios. Shown below are the employer contributions assuming discount rates that are 1 percent lower and 1 percent higher than the current valuation discount rate. This analysis gives an indication of the potential required employer contribution rates if the PERF were to realize investment returns of 6.50 percent or 8.50 percent over the long-term.

This type of analysis gives the reader a sense of the long-term risk to the employer contributions.

2015-16 Employer Contribution			
As of June 30, 2013	6.50% Discount Rate (-1%)	7.50% Discount Rate (assumed rate)	8.50% Discount Rate (+1%)
Plan's Employer Normal Cost	13.6%	9.7%	6.6%
Accrued Liability	$ 10,302,998	$ 8,982,617	$ 7,892,248
Unfunded Accrued Liability	$ 3,679,520	$ 2,359,139	$ 1,268,770

Hypothetical Termination Liability

Below is an estimate of the financial position of your plan if you had terminated your contract with CalPERS as of June 30, 2013 using the discount rates shown below. Your plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For this hypothetical termination liability both compensation and service is frozen as of the valuation date and no future pay increases or service accruals are included. In December 2012, the CalPERS Board adopted a more conservative investment policy and asset allocation strategy for the Terminated Agency Pool. Since the Terminated Agency Pool has limited funding sources, expected benefit payments are secured by risk-free assets. With this change, CalPERS increased benefit security for members while limiting its funding risk. This asset allocation has a lower expected rate of return than the PERF. Consequently, the lower discount rate for the Terminated Agency pool results in higher liabilities for terminated plans.

In order to terminate your plan, you must first contact our Retirement Services Contract Unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow your plan actuary to give you a preliminary termination valuation with a more up-to-date estimate of your plan liabilities. CalPERS advises you to consult with your plan actuary before beginning this process.

Valuation Date	Hypothetical Termination Liability[1]	Market Value of Assets (MVA)	Unfunded Termination Liability	Termination Funded Ratio	Termination Liability Discount Rate[2]
06/30/2011	$ 9,880,979	$ 5,088,359	$ 4,792,620	51.5%	$ 4.82%
06/30/2012	14,707,606	5,485,540	9,222,066	37.3%	2.98%
06/30/2013	14,578,181	6,623,478	7,954,703	45.4%	3.72%

[1] The hypothetical liabilities calculated above include a 7 percent mortality load contingency in accordance with Board policy. Other actuarial assumptions, such as wage and inflation assumptions, can be found in appendix A.

[2] The discount rate assumption used for termination valuations is a weighted average of the 10 and 30-year US Treasury yields in effect on the valuation date that equal the duration of the pension liabilities. For purposes of this hypothetical termination liability estimate, the discount rate used, is the yield on the 30-year US Treasury Separate Trading of Registered Interest and Principal of Securities (STRIPS). Note that as of June 30, 2014 the 30-year STRIPS rate is 3.55 percent.

Participant Data

The table below shows a summary of your plan's member data upon which this valuation is based:

	June 30, 2012	June 30, 2013
Projected Payroll for Contribution Purposes	$ 1,851,028	$ 1,664,090
Number of Members		
Active	20	17
Transferred	7	8
Separated	5	5
Retired	8	11

List of Class 1 Benefit Provisions

- One Year Final Compensation

Information for Compliance with GASB Statement No. 27 for Cost-Sharing Multiple-Employer Defined Benefit Plan

Disclosure under GASB 27 follows. However, note that effective for financial statements for fiscal years beginning after June 15, 2014, GASB 68 replaces GASB 27. Disclosure required under GASB 68 will require additional reporting. CalPERS is intending to provide GASB 68 disclosure information upon request for an additional fee. We urge you to start discussions with your auditors on how to implement GASB 68.

Your plan is part of the Miscellaneous Risk Pool, a cost-sharing multiple-employer defined benefit plan. Under GASB 27, an employer should recognize annual pension expenditures/expense equal to its contractually required contributions to the plan. Pension liabilities and assets result from the difference between contributions required and contributions made. The contractually required contribution for the period July 1, 2015 to June 30, 2016 has been determined by an actuarial valuation of the plan as of June 30, 2013. Your unadjusted contribution for the indicated period is a normal cost contribution of 9.671 percent of payroll and an unfunded accrued liability dollar amount of $142,876. In order to calculate the dollar value of the contractually required contributions for inclusion in financial statements prepared as of June 30, 2016, this normal cost contribution rate, less any employee cost sharing, and as modified by any subsequent financing changes or contract amendments for the year, would be multiplied by the payroll of covered employees that was actually paid during the period July 1, 2015 to June 30, 2016 combined with the UAL amount of $142,876. However, if this contribution is fully prepaid in a lump sum, then the dollar value of contractually required contributions is equal to the lump sum prepayment. The employer and the employer's auditor are responsible for determining the contractually required contributions. Further, the required contributions in dollars and the percentage of that amount contributed for the current year and each of the two preceding years is to be disclosed under GASB 27.

A summary of principal assumptions and methods used to determine the contractually required contributions is shown below for the cost-sharing multiple-employer defined benefit plan.

Valuation Date	June 30, 2013
Actuarial Cost Method	Entry Age Normal Cost Method
Amortization Method	Level Percent of Payroll
Asset Valuation Method	Market Value
Actuarial Assumptions	
Discount Rate	7.50% (net of administrative expenses)
Projected Salary Increases	3.30% to 14.20% depending on Age, Service, and type of employment
Inflation	2.75%
Payroll Growth	3.00%
Individual Salary Growth	A merit scale varying by duration of employment coupled with an assumed annual inflation growth of 2.75% and an annual production growth of 0.25%.

Complete information on assumptions and methods is provided in Appendix A of the Section 2 report. Appendix B of the Section 2 report contains a description of benefits included in the Risk Pool Actuarial Valuation.

A Schedule of Funding for the Risk Pool's actuarial value of assets, accrued liability, their relationship, and the relationship of the unfunded liability (UL) to payroll for the risk pool(s) to which your plan belongs can be found in Section 2 of the report.

PLAN'S MAJOR BENEFIT OPTIONS

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Plan's Major Benefit Options

Shown below is a summary of the major optional benefits for which your agency has contracted. A description of principal standard and optional plan provisions is in Appendix B within Section 2 of this report.

	Contract package			
Benefit Provision	Receiving	Active Misc	Active Misc	
Benefit Formula		2.0% @ 55	2.5% @ 55	
Social Security Coverage		no	no	
Full/Modified		full	full	
Final Average Compensation Period		12 mos.	12 mos.	
Sick Leave Credit		yes	yes	
Non-Industrial Disability		standard	standard	
Industrial Disability		no	no	
Pre-Retirement Death Benefits				
Optional Settlement 2W		yes	yes	
1959 Survivor Benefit Level		indexed	indexed	
Special		no	no	
Alternate (firefighters)		no	no	
Post-Retirement Death Benefits				
Lump Sum	$500	$500	$500	
Survivor Allowance (PRSA)	no	no	no	
COLA	2%	2%	2%	

Section 2

Section 2 may be found on the CalPERS website (www.calpers.ca.gov) then selecting:

- **Employers**
- **Actuarial & GASB 27 Information**
- **Risk Pooling**
- **Risk Pool Annual Valuation Report**

AGENDA ITEM NO. 15

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 11, 2015

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: AWARD OF ENGINEERING CONTRACT FOR THE PRELIMINARY TREATMENT UPGRADE PROJECT - PRELIMINARY DESIGN REPORT

RECOMMENDATION

It is recommended that the Board of Directors:

1. Approve the Engineering Service Agreement with Dudek for an amount not to exceed $55,476; and

2. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Water Reclamation Facility's preliminary treatment system provides basic physical treatment to the raw wastewater that enters the facility. This treatment system includes mechanical processes that screen-out trash, rocks, rags, and other debris that can clog, damage, or interfere with downstream treatment. In addition, preliminary treatment removes sand, grit, and other dense materials from the wastewater that can cause premature wearing of pumps and pipes within the treatment plant. The material that is removed is then washed, dewatered, and sent to the local landfill for final disposal.

The 2015 Facility Plan recommended improvements and equipment upgrades to the Preliminary Treatment Process to address system wear and aging equipment. The majority of the equipment and process tanks have more than 20 years of service, and much of the equipment and protective concrete liners are in need of replacement. SEJPA staff has reviewed the engineer's recommendations for improving and upgrading the Preliminary Treatment Process, and concur with the findings. Staff has noted that the mechanical bar screen equipment is no longer supported by the manufacturer and that equipment reliability is in question. Furthermore, the polyurethane liner that protects the concrete walls from corrosive gases is in need of replacement, as are the grit tank odor control covers. The engineer's budgetary estimate for the project is $2.37 million.

DISCUSSION

The SEJPA requested design proposals from four engineering firms for this project. Three firms submitted proposals, two of which exhibited a strong comprehension of the project needs. Staff interviewed the top two proposal teams. The engineering team that provided the best combination of qualifications, project understanding, and value-based approach was submitted by Dudek.

Dudek's proposal listed experience on similar type projects, strong industry knowledge relative to screening equipment, and provided a detailed approach to evaluating and selecting the construction method and equipment for the proposed project.

The proposed project team is locally based in Encinitas and exhibits strong experience in plant rehabilitation and upgrade designs, as well as construction in difficult environments. This team provides an excellent value in their proposed project approach to efficiently complete this effort. In addition, they have a track record of successful project delivery on past SEJPA projects, including the recently constructed emergency power project at the SEWRF.

FINANCIAL IMPACT

The preliminary design report will be the basis of design for the Preliminary Treatment Upgrade Project, and will include recommendations for preferred equipment, concrete rehabilitation and lining, construction sequencing to capture efficiency, lower construction risk, and produce system longevity, resulting in overall project value.

The proposed cost to the SEJPA for preparing the Preliminary Design Report is $55,476. The cost of the preliminary design will be funded by the Headworks/Grit Project Reserve, which has a balance of $838,000. The total project cost is estimated at $2.37 million, however this cost estimate will be refined as the project develops through preliminary and final design.

It is therefore recommended that the Board of Directors:

1. Approve the Engineering Service Agreement with Dudek for an amount not to exceed $55,476; and

2. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

Attachment: Dudek Proposal for the Preliminary Design of Headworks Rehabilitation and Upgrade

DUDEK

CORPORATE OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

April 23, 2015

P215031

Christopher A. Trees, PE
Director of Operations
San Elijo Joint Powers Authority
2695 Manchester Avenue
Cardiff-by-the-Sea, California 92007

Subject: Proposal for the Preliminary Design of Headworks Rehabilitation and Upgrade

Dear Mr. Trees:

We appreciate the opportunity to provide this final scope and fee letter proposal for the preliminary design of the headworks rehabilitation and upgrades project at the San Elijo Water Reclamation Facility (SWERF). This proposal provides a detailed scope of work and fee based in part on SEJPA's Request for Proposals dated January 21, 2015 and our original proposal dated March 10, 2015, as amended by discussions between SEJPA and Dudek the week of April 13th.

Task 1.1 Baseline Research

Dudek will obtain and review facility records pertinent to the headworks project scope. We will review record drawings and planning documents including the SEWRF Facilities Plan Update completed in 2014, and relevant planning documents. It is understood that the basis of design headworks hydraulic loading will be 13.6 mgd in order to preserve the current plant rated capacity as presented in the 1989 Malcolm Pirnie expansion plans. Field survey will be deferred to final design stage as part of construction drawing development. We anticipate the following additional information needs during the preliminary design and have provided for the respective efforts in our proposal:

- Field measurements of the existing structures including top of walls and channel inverts from the Parshall Flume to the influent junction chamber – this field data will allow us to confirm record drawing dimensions and elevations for use in hydraulic calculations and to also refine the existing base drawing that will be used for eventual construction plans;
- Screenings volume and/or weight data to provide baseline data for defining screenings loading design criteria, that will be considered in conjunction with any change to screenings openings for screen and wash/press selection and incorporated into eventual construction plans;
- Access to, and assistance with, visual inspections of influent channels and grit chamber to obtain take-offs for estimating concrete rehabilitation extents.
- Documents related to the existing headworks odor control system including, but not limited to, recent operational assessment by Don King, original design documents, and record O&M Manuals.

Task 1.2 Prepare Preliminary Design Report

Dudek will prepare a Preliminary Design Report (PDR) including the following:

- Screening type and sizing;
- Screenings washing and dewatering;
- Hydraulics of each alternative;
- Cost analysis of each design alternative;
- Planning level design and construction phase scheduling;
- Determination of environmental and/or permit requirements;
- Permitting impact of alternatives;
- Constructability and construction risks;
- Associated maintenance requirements for each alternative;
- Redundancy and emergency operation;
- Recommendations for final design alternative;

Dudek will review influent flow characteristics and plant hydraulics, in-situ rehabilitation methods, bypass pumping and temporary screening, concrete repair and lining material selection, grit collection, redundancy and emergency operation, and other information significant to the evaluation of construction methods and design of the project. Planning level cost estimates for recommended project alternative will be presented.

Screenings type and size will be selected in consideration of hydraulic constraints and screenings capture goals defined in discussions with the SEJPA staff based on operational experience with screenings pass-through. The screening equipment alternatives will be described in the PDR with a pros/cons matrix that will evaluate headloss characteristics, screenings capture efficiency, southern California operating experience, conduciveness to odor control, relative maintenance intensity, and capital cost. Screenings conveyance and wash/press alternatives will be evaluated in the PDR with emphasis on redundancy and proven operational performance in southern California. Preferred screenings, conveyance, and wash/press configurations and equipment type/manufacturer(s) will be documented in the PDR. Dudek will facilitate SEJPA discussions and/or site visits to facilities operating selected equipment.

Dudek's sub-consultant Moraes Pham and Associates (MPA) will perform a field investigation and review record documents to generate an electrical single-line-diagram and to define space requirements for proposed electrical improvements and to evaluate net load impact on the distribution system. MPA will review control strategies for the new headworks equipment and support the development of preliminary cost estimates.

Dudek's sub-consultant R2H Engineering will perform a field investigation and review record documents to support assessment of structural modifications, constructability, and to assist with scoping concrete rehabilitation or structural improvements of the existing structures.

We anticipate that the PDR will develop up to three alternatives that will be identified with input from SEJPA staff. Tentatively, the alternatives will include the two options identified in Dudek's proposal dated March 10, 2015 (i.e., parallel screenings channel and options for screenings conveyance and wash/press installation) and the option described in the 2014 Facilities Plan to construct a new headworks structure north of the existing structure. Selection of a preferred alternative will be based on hydraulic calculations, constructability and an economic evaluation while considering input from SEJPA staff with respect to accessibility, redundancy, and operability.

Dudek will review available documents and recent operational assessment of the existing odor control system to identify improvements necessary to coordinate the new headworks upgrades with the existing grit and screenings building and odor control system. The PDR will document our findings as related to odor scrubber design criteria and performance and specify improvements, if any, recommended for inclusion in the final design.

Preliminary (30% design) drawings will be prepared and presented as figures in the PDR. Background (existing) drawings for the figures will be created using SEJPA's most recent topographic base map, available record drawings, and field measurements.

Dudek will prepare and submit six (6) copies of the Draft Preliminary Design Report to SEJPA for review. Dudek will incorporate comments from SEJPA after the review meeting and with SEJPA's acceptance, Dudek will submit six (6) copies of the Final Preliminary Design Report along with one (1) CD containing the electronic format of documents.

Task 1.3 Project Management

Our project team believes that communication with the project team members and the owner is of paramount importance. We encourage scheduled bi-weekly meetings or calls with SEJPA to ensure timely exchange of information that will keep the project on schedule and budget. Our team is very familiar with SEJPA staff and with our Encinitas office located only 5 minutes from the SEWRF, impromptu in-person meetings and site visits will be easily accommodated. We will prepare monthly project status reports to accompany our invoice that document work completed, budget status, schedule status and planned upcoming activities.

Task 1.4 Meetings

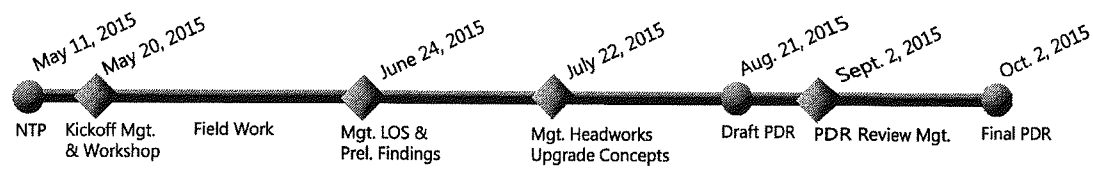
Consistent with the RFP scope of work, we anticipate four (4) formal meetings with SEJPA through the course of preliminary design. Fundamental to our approach is to conduct the Project Kickoff Meeting in a "workshop" format with the intent of identifying key project objectives, defining level of service goals, and mapping out immediate field work needs. Given our familiarity with the SEWRF, the specific project background and SEJPA staff, we intend to use this time together in a productive technical-focused manner. We anticipate up to two (2) additional meetings: one to review field investigative work, level-of-service (LOS) definition, hydraulics, and screen selections and a second to review headworks layout concepts. Following submittal of the draft PDR, we will meet with SEJPA staff to review comments and discuss finalization of the PDR. Dudek will prepare meeting agendas and minutes for each meeting, which will be distributed to all attendees.

Task 1.5 Quality Assurance and Quality Control

Our Quality Control Manager, Steve Deering, will be engaged throughout the project, providing invaluable input from his extensive experience with the tributary collection system pump stations and SEWRF upgrades over the years. Mr. Deering will ensure the completion of quality control processes that will include review of specific project elements by appropriate senior staff. Additionally, the quality control reviewer(s) and project manager will collaborate on interdisciplinary reviews, checking of actual field conditions, project calculation reviews, cost opinions, deliverable review, unique project requirements, and successfully resolving and providing responses to City comments.

Schedule and Fee

We propose to complete the above scope of work for a time and materials fee not to exceed $55,500 as itemized in our attached fee estimate. We will complete the work in accordance with the following milestone schedule.



We appreciate the opportunity to assist you with Preliminary Design of Headworks Rehabilitation and Upgrade, and look forward to your notice to proceed. Please feel free to contact me at 760.479.4149 or by email at tfalk@dudek.com, if you have any questions or require any additional information.

Respectfully Submitted,
DUDEK

Tom Falk, PE
Project Manager

Steve Deering, PE
Principal, Chief Engineer

San Elijo Joint Powers Authority

Preliminary Design of Headworks Rehabilitation and Upgrade

DUDEK FEE ESTIMATE

4/23/2015

	Labor Hours and Rates							Subconsultant Fees				
Project Team Role:	PIC QA/QC CEQA	Project Manager	Project Engineer	CAD Designer	Admin			Electrical and I&C Engineering (Moraes-Pham Assoc.)	Survey ROW Engineering	Structural Engineering R2H Engineering		
Team Member:	M. Metts S. Deering C. Fernandes	T. Falk	M. Hill	N. Hunter	P. Bristow	TOTAL HOURS	DUDEK LABOR COST	Fee	Fee	Fee	OTHER DIRECT COSTS	TOTAL FEE
Billable Rate :	$225	$195	$150	$140	$80							
Task 1 - Baseline Research												
Review Record Drawings and Background Data	1	2	4	2		9	$ 1,495	$ 308		$ 660		$ 2,463
Site Investigation (Field Measurements)			6	4		10	$ 1,460	$ 616		$ 660		$ 2,736
Subtotal Task 1.1	1	2	10	6		19	$ 2,955	$ 924	$ -	$ 1,320	$ -	$ 5,199
Task 1.2 - Prepare Preliminary Design Report												
Hyd Calcs, Data Analysis, Alt. Development, & Cost Est.	1	8	40	1		50	$ 7,925	$ 803		$ 1,320		$ 10,048
Permitting	4					4	$ 900					$ 900
Draft Preliminary Design Report	2	16	52	32	8	110	$ 16,490	$ 3,036		$ 1,320		$ 20,846
Final Preliminary Design Report	1	4	16	8	4	33	$ 4,845			$ 660		$ 5,505
Subtotal Task 1.2	8	28	108	41	12	197	$ 30,160	$ 3,839	$ -	$ 3,300	$ -	$ 37,299
Task 1.3 - Project Management												
Project Management (4 Months)	2	16			4	22	$ 3,890					$ 3,890
Subtotal Task 1.3	2	16			4	22	$ 3,890	$ -	$ -	$ -	$ -	$ 3,890
Task 1.4 - Meetings												
Kickoff Meeting/Workshop	2	2	4			8	$ 1,440					$ 1,440
Progress Meeting No. 1	2	2	4			8	$ 1,440	$ 374				$ 1,814
Progress meeting No. 2	2	2	4			8	$ 1,440					$ 1,440
PDR Review Meeting	2	2	4			8	$ 1,440	$ 374				$ 1,814
Subtotal Task 1.4	8	8	16			32	$ 5,760	$ 748	$ -	$ -	$ -	$ 6,508
Task 1.5 - Quality Assurance & Quality Control												
Review Calculations & Design Criteria	4	2				6	$ 1,290					$ 1,290
Review Deliverables	4	2				6	$ 1,290					$ 1,290
Subtotal Task 1.5	8	4				12	$ 2,580	$ -	$ -	$ -	$ -	$ 2,580
Total Non-Optional Hours and Fee	27	58	134	47	16	282	$ 45,345	$ 5,511	$ -	$ 4,620	$ -	$ 55,476
Percent of Project Hours:	*10%*	*21%*	*48%*	*17%*	*6%*	*100%*						
Percent of Equivalent Full Time:	*3%*	*7%*	*15%*	*5%*	*2%*							