

**AGENDA**  
**SAN ELIJO JOINT POWERS AUTHORITY**  
**MONDAY JULY 13, 2009 AT 9:00 A.M.**  
**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
6. \* **CONSENT CALENDAR**
7. \* APPROVAL OF MINUTES FOR THE JUNE 8, 2009 MEETINGS
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. \* AUTHORIZATION FOR ACCEPTANCE AND NOTICE OF COMPLETION FOR CONSTRUCTION OF THE CARDIFF PUMP STATION GENERATOR AND ELECTRICAL IMPROVEMENTS PROJECT WITH SATURN ELECTRIC
12. \* CONCEPTUAL DESIGN REPORT FOR FLOW EQUALIZATION AND RECYCLED WATER STORAGE
13. \* ITEMS REMOVED FROM CONSENT CALENDAR

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

**REGULAR AGENDA**

14. SAN ELIJO RECYCLED WATER PROGRAM - 2009 FINANCIAL ASSESSMENT

It is recommended that the Board of Directors:

1. Accept and file the 2009 Financial Assessment of the Recycled Water Program;  
and

2. Discuss and take action as appropriate.

Staff Reference: General Manager, Michael Thornton

15. AWARD OF PRELIMINARY DESIGN OF AN ADVANCED WASTEWATER TREATMENT SYSTEM FOR THE SAN ELIJO WATER RECLAMATION FACILITY

It is recommended that the Board of Directors:

1. Authorize the Chair to execute an agreement with Kennedy/Jenks Consultants for Preliminary Design of an Advanced Wastewater Treatment System for the San Elijo Water Reclamation Facility; and
2. Discuss and take action as appropriate.

Staff Reference: General Manager, Michael Thornton

16. MEMORANDUMS OF UNDERSTANDING (MOU's) BETWEEN THE SAN ELIJO JOINT POWERS AUTHORITY AND THE CITY OF ENCINITAS AND THE CITY OF SOLANA BEACH FOR PUMP STATION OPERATION AND MAINTENANCE SERVICES

It is recommended that the Board of Directors:

1. Discuss and take action as appropriate.

Staff Reference: General Manager, Michael Thornton

17. RECYCLED WATER RETROFIT LOAN - OAK CREST PARK

It is recommended that the Board of Directors:

1. Authorize the Chair to execute a loan with the Encinitas Union School District to convert the Ocean Knoll Elementary School's irrigation system to recycled water; and
2. Discuss and take action as appropriate.

Staff Reference: General Manager, Michael Thornton

18. GENERAL MANAGER'S REPORT

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

19. GENERAL COUNSEL'S REPORT

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

20. 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.

21. CLOSED SESSION

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".

22. ADJOURNMENT

The next regular scheduled San Elijo Joint Powers Authority Board Meeting will be September 14, 2009 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](http://www.sejpa.org). The SEJPA Board meetings are held on the second Monday of the month, except August.

AFFIDAVIT OF POSTING

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

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

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

Date: July 8, 2009



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

SAN ELIJO JOINT POWERS AUTHORITY  
MINUTES OF THE BOARD MEETING  
HELD ON JUNE 8, 2009  
AT THE  
SAN ELIJO WATER RECLAMATION FACILITY

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Dave Roberts, Chair

Maggie Houlihan, Vice Chair

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A Meeting of the Board of Directors of the San Elijo Joint Powers Authority (SEJPA) was held Monday, June 8, 2009, 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 Roberts called the meeting to order at 9:00 a.m.

2. ROLL CALL

*Directors Present:*

Teresa Barth  
Thomas Campbell  
Maggie Houlihan  
Dave Roberts

*Others Present:*

General Manager  
Finance Manager  
Administrative Assistant  
Accounting Tech

Michael Thornton  
Greg Lewis  
Monica Blake  
Carrie Cook

*SEJPA Counsel:*

Procopio, Cory, Hargreaves & Savitch

Greg Moser

City of Encinitas, Director of Public Works  
City of Encinitas,

Larry Watt

Public Works Management Analyst

Bill Wilson

City of Solana Beach, City Manager

David Ott

City of Solana Beach,

Director of Engineering/Public Works

Mohammad "Mo" Sammak

Goates Consulting Group

Jeff Freedman

Guest

Carol Childs

3. PLEDGE OF ALLEGIANCE

Carol Childs led the Pledge of Allegiance.

4. ORAL COMMUNICATIONS

None

5. PRESENTATION OF AWARDS

None

6. CONSENT CALENDAR

Moved by Board Member Barth and seconded by Board Member Campbell to approve the Consent Calendar with unanimous vote of approval.

Consent calendar:

Agenda Item No. 7	Approval of Minutes for the May 11, 2009 meeting and the May 11, 2009 General Manager Performance Review Subcommittee meeting.
Agenda Item No. 8	Approval for Payment of Warrants and Monthly Investment Report
Agenda Item No. 9	San Elijo Water Reclamation Facility Treated Effluent Flows – Monthly Report
Agenda Item No. 10	San Elijo Joint Powers Authority Recycled Water Program – Monthly Report
Agenda Item No. 11	Award of Annual Supplies and Services Contracts for the San Elijo Joint Powers Authority.

12. ITEMS REMOVED FROM CONSENT CALENDAR

None

*Vice Chair Maggie Houlihan arrived at 9:05.*

13. ADOPTION OF THE SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2009-10 BUDGET, INVESTMENT POLICY, AND APPOINTMENT OF SEJPA TREASURER

SEJPA Director of Finance/Administration, Greg Lewis, presented the Fiscal Year (FY) 2009-10 Budget cost reductions, as requested by the Board, and answered questions from the Board of Directors. It was stated that the operating budget was reduced, overall, by \$58,310. The FY 2009-10 recommendations for capital projects remained unchanged.

For the City of Encinitas, the cost for all programs decreased from -2.7% to -2.9%. For the City of Solana Beach, the cost for all programs was reduced by 0.6%, from an increase of 1.7% to 1.1%.

Board Member Barth thanked staff for their efforts in additional budget reductions. Board Member Campbell requested background information on the SEJPA pay structure be revisited at a future date.

Moved by Board Member Barth and seconded by Board Member Campbell to:

1. Adopt Resolution No. 2009-05, entitled Resolution Approving the San Elijo Joint Powers Authority Operating and Capital Improvement Budgets for Fiscal Year 2009-10 with the recommended changes identified in this report.

Motion carried with unanimous vote of approval.

State law requires the Investment Policy be reviewed and adopted annually. The current investment policy was reviewed and it was recommended that Gregory Lewis, Director of Finance/Administration be reappointed as SEJPA Treasurer.

Moved by Board Member Barth and seconded by Board Member Campbell to:

2. Adopt Resolution No. 2009-06, Approving the San Elijo Joint Powers Authority Investment Policy and Guidelines and Appointment of SEJPA Treasurer.

Motion carried with unanimous vote of approval.

#### 14. SAN ELIJO JOINT POWERS AUTHORITY MISSION & VISION STATEMENTS

General Manager Michael Thornton introduced Jeff Freedman from the Goates Consulting Group and provided a brief review of the draft vision statement created by the Board of Directors at an earlier workshop. The SEJPA management team conducted three workshops with staff to develop a draft mission statement to compliment the draft vision statement. The draft mission statement was presented as follows:

Serving our community, we provide recycled water and wastewater services to protect our ocean's coastal environment and public health, today and tomorrow.

Board Member Campbell suggested deleting "today and tomorrow". Board Member Barth suggested adding "and create additional water resources", after the words public health. Staff was given direction on finalizing the mission statement. Additionally, staff was directed to continue the process to the next level and to return to the board with an estimate of staff time and outside costs before proceeding.

#### 15. STATUS REPORT: SEJPA EFFORTS ON WASTEWATER PUMP STATION CAPITAL IMPROVEMENT PROJECTS

General Manager, Michael Thornton, reported on the four active pump station capital improvement projects. An emergency back-up power generator is being replaced at

Cardiff Pump Station. Construction is anticipated to finish in July 2009 and is expected to be on budget. The Eden Gardens Pump Station had reached the end of its life expectancy and replacement began in 2008. It is anticipated that construction will be completed and operation will begin December 2009. Fletcher Cove Pump Station is in need of renovation. The design drawings have been completed and construction is planned for fall 2009. The design effort to replace the Olivenhain Pump Station, which is more than 30 years old, is underway.

This was an informational report not requiring Board action.

16. GENERAL MANAGER'S REPORT

The General Manager, Michael Thornton updated the Board on the Water Recycling Program Santa Fe Irrigation District plans to expand upon.

SEJPA staff is assisting the San Dieguito Water District with marketing recycled water and customer outreach.

The General Manager stated that work continues on the financial evaluation of the recycled water program, which is being performed by the consulting firm Winzler & Kelly. The review is on schedule to be presented to the Board of Directors at the July meeting.

In response to Board Member Barth's inquiry on the Marine Life Protection Act (MLPA) and if it would impact the operation of the agency's ocean outfall, the General Manager stated that the agency was successful in gaining a ¼ mile buffer zone around the outfall for maintenance and repair activities.

The General Manager updated the Board on the Joint Meeting of the Santa Fe Irrigation District Water (SFID) Resources Committee and the Board of Directors held on May 26, 2009 at the SFID main office. The General Manager reported that the SFID is examining alternatives for expanding recycled water use in their eastern service area. In their analysis of alternatives, SFID has identified the City of San Diego and the SEJPA as potentially feasible supply options. SFID is currently studying recycled water cost and infrastructure needs from both suppliers to determine the best value for their customers.

17. GENERAL COUNSEL'S REPORT

General Counsel Greg Moser stated that bill SB802 is moving through the state capitol to cap the amount of retention to only 5% of contract proceeds.

18. BOARD MEMBER COMMENTS

Board Member Barth thanked Michael Thornton for participating at the Encinitas Environment Day. Chair Roberts stated he will not be attending the July 13, 2009 Board meeting as he has a conflicting commitment, and he thanked Director of Finance/Administration Gregory Lewis for his work on the adopted budget.



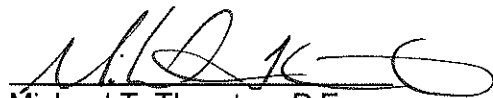
19. CLOSED SESSION

None

20. ADJOURNMENT

The Board of Directors adjourned at 10:14 a.m. The next Board of Directors meeting will be held on Monday, July 13, 2009.

Respectfully submitted,

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

Michael T. Thornton, P.E.  
General Manager

SAN ELIJO JOINT POWERS AUTHORITY  
MINUTES OF THE  
GENERAL MANAGER PERFORMANCE REVIEW  
SUBCOMMITTEE MEETING  
HELD ON JUNE 8, 2009  
AT THE  
SAN ELIJO WATER RECLAMATION FACILITY

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Dave Roberts, Chair

Teresa Barth, Board Member

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A General Manager Performance Review Meeting of the San Elijo Joint Powers Authority (SEJPA) was held Monday, June 8, 2009, at 2:00 p.m., at the San Elijo Water Reclamation Facility at 2695 Manchester Avenue, Cardiff by the Sea, California.

1. CALL TO ORDER

Chair Roberts called the meeting to order at 2:00 p.m.

2. ROLL CALL

*Directors Present:*

Teresa Barth  
Dave Roberts

*Others Present:*  
General Manager

Michael Thornton


3. CLOSED SESSION

Government Code Section 54957 with respect to Public Employee Performance Evaluation. Title: General Manager.

4. ADJOURNMENT

The Subcommittee members adjourned at 2:55 p.m. with no reportable action. The next Board of Directors meeting will be held on Monday, July 13, 2009.

Respectfully submitted,

  
Michael T. Thornton, P.E.  
General Manager

PAYMENT OF WARRANTS

09-07 and 10-07

3-Jul-09

VENDOR	DESCRIPTION OF EXPENSE	AMOUNT
<b><u>09-07 WARRANTS</u></b>		
AG Tech, LLC	Biosolids hauling - May	\$12,199.46
A T & T	Alarm service - June	\$380.84
Airgas West	Sensor for all pump stations	\$142.46
Airgas West	Equipment rental - lab	\$208.12
Airgas West	Equipment rental - lab	\$280.38
Anue Environmental, Inc.	Washing system for grease mats, walls - Moonlight P. S.	\$8,685.71
Aramark	Uniform service - May	\$62.75
Aramark	Uniform service - June	\$251.00
Arrowhead	Kitchen and lab supplies	\$245.87
Arrowhead	Kitchen and lab supplies	\$179.86
Atlas Pumping Service	Grease and scum pumping - May	\$554.88
Atlas Pumping Service	Grease and scum pumping - June	\$806.43
Atlas Pumping Service	Grit and screening - plant - May	\$742.35
Atlas Pumping Service	Grit and screening - plant - June	\$742.35
Bay City Electric Works	Diesel fuel - San Elijo, Eden Garden, and Solana Beach	\$703.40
Bay City Electric Works	Diesel fuel - Olivenhain and the plant	\$410.31
Blake, Monica	Expense report - mileage	\$53.56
Blake, Monica	Expense report - mileage and office supplies	\$84.00
Boot World, Inc.	Safety boots - T. Hutchinson	\$150.00
Boot World, Inc.	Safety boots - J. Mosqueda	\$150.00
Boyle, John	Expense report - educational expense	\$134.22
Buckles, Marisa	Expense report - staff meetings	\$140.10
Buckles, Marisa	Expense report - mileage and meetings	\$76.35
CWEA - TCP	Certificate renewal - M. Henke	\$61.00
CWEA - Membership	Membership renewal - M. Piper	\$132.00
CDS Printing	Business cards and note pads	\$407.86
Carr, Scott	Expense report - CWEA meeting	\$25.00
Coast Waste Management, Inc.	Grit and screening and storm drain cleaning	\$679.01
Complete Office	Office supplies - June	\$60.29
Conocophillips Fleet	Vehicle fuel - May	\$608.16
Cor-o-van Records Mgmt. Inc.	Record storage - May	\$56.97
County of San Diego, DEH	Permit - San Elijo Hills P. S.	\$296.00
County of San Diego, DEH	Permit - Olivenhain P. S.	\$461.00
County of San Diego, DEH	Permit - Solana Beach P. S.	\$296.00
County of San Diego, DEH	Permit - Eden Gardens P. S.	\$296.00
County of San Diego, DEH	Permit - Cardiff P. S.	\$461.00
Covad	T-1 service - June	\$359.00
DC Frost Associates, Inc.	Magazine baggers - plant	\$470.88
DLT & V Systems Engineering, Inc.	Instrumentation and controls work - Eden Gardens P. S.	\$244.00
DLT & V Systems Engineering, Inc.	Instrumentation and controls work - Eden Gardens P. S.	\$3,233.00
Detection Instruments Corporation	Repair and calibrate oda loggers - all pump stations	\$225.31
Dudek	Engineering service - recycled water improvement project	\$13,701.25
Dudek	Engineering service - recycled water improvement project	\$4,895.00
Edco Waste and Recycling Service	Trash and recycling service - May	\$184.01
Edco Waste and Recycling Service	Trash and recycling service - June	\$184.01
Ferguson Waterworks	Glass line for sludge meter line - plant	\$311.74
Flo-Systems, Inc.	Liner cone 600 - grit screw - plant	\$367.41
Goates	Mission and vision statement consulting	\$2,000.00
Golden State Overnight	Mailing monthly report - compliance reports	\$28.18
Grainger	Plant supplies - cable and epoxy - plant	\$401.26

PAYMENT OF WARRANTS

09-07 and 10-07

3-Jul-09

VENDOR	DESCRIPTION OF EXPENSE	AMOUNT
Grainger	Sealant, fuse, oil pads, v-belts and ratchets - plant	\$339.18
Grainger	Safety supplies - plant	\$86.62
Grainger	Sealant, car wash soap, and degreaser	\$284.00
Hach Company	Lab supplies - cod digestion vial - lab	\$93.29
Hardy Diagnostics	E. aerogenes, petri dish, and nutrient agar - lab	\$161.18
Hawthorne Power Systems	Repair part for block heater - San Elijo Hill P. S.	\$218.03
Hoch, Adam	Expense report - router for SCADA system - Eden Garden	\$72.43
Hoch, Adam	Expense report - supplies for model - environmental day	\$303.19
Hoch, Adam	Expense report - seminar - EPA Energy Management	\$111.10
Home Depot	Office and field supplies	\$252.51
Horizon Health	Employee Assistance Program - June	\$351.12
Hydrologix	July - grease reduction - Coast Blvd P. S.	\$350.00
Hydro-scape	Purple marking paint and sprinkler fitting supplies - wtr rec.	\$183.60
Infrastructure Engineering Corp.	Flow equalization - recycled water storage - water rec.	\$680.00
Jani-King	Janitorial service - June	\$882.64
Jani-King	Janitorial supplies	\$429.08
Ken Grody Ford	Install back rack and strobe light - water reclamation	\$1,094.99
Kennedy/Jenks Consultants	Cardiff pump station electrical project	\$3,699.00
Konica	Monthly copier maintenance	\$101.89
Larsen, Casey	Expense report - mileage and parking	\$36.40
Lewis, Greg	Expense report - budget printing, scada moden, and drill	\$768.69
MBC	Intensive ocean water monitoring and testing - outfall	\$9,596.05
Nolte	Engineering service - Fletcher Cove P. S. vault project	\$910.00
North American Industry Tech	Troubleshoot F.E.B. valves - plant	\$637.50
North County Equipment, Inc	Equipment rental - plant	\$234.69
O.M.W.D.	Manchester - 04/09 - 05/08	\$32.30
OneSource Distributors, LLC	Heat-shield for generator - plant	\$67.43
Olin	Sodium hypochlorite - plant and water reclamation	\$4,526.13
Omega Engineering, Inc.	Dial thermometer - digester - plant	\$375.39
One Source Distributors	Parts to tie into blower - plant	\$906.53
Orion	Energy optimization - final retention	\$57,715.85
PERS - Retirement	Retirement premium - 06/05/09	\$11,922.51
PERS - Retirement	Retirement premium - 06/19/09	\$11,922.51
Petty Cash	Replenish petty cash	\$187.11
Pacific Green	Landscape service - June	\$1,250.00
Pacific Safety Council	CAL/OSHA seminar - M. Buckles	\$75.00
Preferred Benefit	Dental insurance - June	\$1,731.69
Probuild	Repairs, shop and field supplies - May	\$214.25
Process Equipment Co.	Casing o-rings - scrubber's headwork - plant	\$143.01
Process Pump Sales, Inc.	Progressive cavity pump - water reclamation	\$4,751.54
Procopio	Legal services - general - May	\$1,311.00
Procopio	Legal services - labor and employment - May	\$313.50
Rapid Forms	Accounts payable and reimbursement checks	\$271.40
Regnier, Ken	Expense report - tube gasket	\$55.16
Rohan & Sons, Inc.	Service F.E.B. control building - plant	\$380.96
Rohan & Sons, Inc.	June - 90 days maintenance service - plant	\$320.00
San Diego Employers Association	Seminar - Human Resource Roundtable - M. Buckles	\$40.00
San Diego Gas and Electric	Gas and electric - 05/07 - 06/08	\$50,509.84

PAYMENT OF WARRANTS

09-07 and 10-07

3-Jul-09

VENDOR	DESCRIPTION OF EXPENSE	AMOUNT
San Diego Gas and Electric	Cardiff P. S. - 04/30 - 05/08	\$268.51
San Diego Gas and Electric	Cardiff P. S. - 05/08 - 05/12	\$1.27
San Diego Gas and Electric	Cardiff P. S. - 05/08 - 06/09	\$1,650.37
San Dieguito Water District	Manchester - 03/23 - 05/26	\$181.86
San Dieguito Water District	Manchester - 03/23 - 05/26	\$141.45
San Dieguito Water District	Manchester - 04/30 - 05/26	\$4,824.21
San Dieguito Water District	Manchester - 04/30 - 05/26	\$144.16
San Dieguito Water District	Manchester - 04/30 - 05/26	\$1,919.71
San Dieguito Water District	S. Coast Highway 101 - 03/23 - 05/26	\$33.82
San Dieguito Water District	2710 manchester - 03/23 - 05/26	\$219.21
San Elijo Payroll Account	Payroll - 06/05/09	\$65,314.08
San Elijo Payroll Account	Payroll - 06/19/09	\$64,846.12
Santa Fe Irrigation District	Water service - Valley - 04/30/09 - 05/28/09	\$33.59
Santa Fe Irrigation District	Water service - Lomas Santa Fe Dr. - 03/17 - 05/18	\$3,610.05
Saturn Electric, Inc	Electrical improvement - Cardiff P. S.	\$72,000.00
Siemens Water Technologies Corp.	Hydrogen peroxide - plant, Cardiff, and Olivenhain P. S.	\$7,841.94
Smart & Final	Kitchen supplies	\$141.61
Sprint	Cellular phone service	\$653.57
Sprint	Cellular phone service	\$653.92
Sound Billing	Vehicles maintenance	\$111.15
Stitcheree	Employee uniform shirts	\$345.56
TargetSafety	Online safety training semi-annual billing 05/01 - 10/31	\$1,000.00
Terminix	Pest control - June	\$81.00
Test America	Lab testing - May	\$456.00
Test America	Lab testing - June	\$346.00
Thatcher	Aluminum sulfate - water reclamation	\$2,534.96
Thornton, Michael	Expense report - meeting	\$66.62
Thornton, Michael	Expense report - supplies for model - environmental day	\$89.18
Thornton, Michael	Expense report - diagnostic, repair, and upgrade computer	\$429.97
Trussell Technologies, Inc	Treatment process analysis - April	\$13,099.00
Trussell Technologies, Inc	Biological optimization project - April	\$343.76
Trussell Technologies, Inc	Treatment process analysis - May	\$3,620.00
UPS	Shipping - parts	\$7.72
USA Bluebook	PVC discharge hose - water reclamation	\$231.96
Underground Service Alert	Dig alert - May	\$39.00
Unifirst Corporation	Uniform service	\$74.50
VWR International, Inc	Lab supplies - culture tubes, filter, broth, and conductvty	\$727.68
VWR International, Inc	Lab supplies - agar	\$88.80
Valley Chain & Gear, Inc.	Seal for digester #3 - plant	\$62.57
	Total 09-07 Warrants:	<u>\$476,964.91</u>
<b>10-07 WARRANTS</b>		
Alliant Insurance Service	Life and disability insurance - July	\$2,027.83
San Elijo Payroll Account	Payroll - 07/03/09	\$66,075.50
PERS - Health	Health - July	\$11,668.35
PERS - Retirement	Retirement premium - 07/03/2009	\$12,309.05
Preferred Benefit	Dental insurance - July	\$1,731.69
	Total 10-07 Warrants:	<u>\$93,812.42</u>
	Total 09-07 and 10-07 Warrants	<u>\$570,777.33</u>

SAN ELIJO JOINT POWERS AUTHORITY  
PAYMENT OF WARRANTS SUMMARY

3-Jul-09

PAYMENT OF WARRANTS	\$476,964.91
Reference Number	09-07 and 10-07

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



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Gregory Lewis  
Director of Finance/Administration  
Treasurer

STATEMENT OF FUNDS AVAILABLE FOR PAYMENT OF WARRANTS  
AND INVESTMENT INFORMATION  
AS OF

3-Jul-09

<u>FUNDS ON DEPOSIT WITH</u>	<u>AMOUNT</u>
<b>LOCAL AGENCY INVESTMENT FUND</b> <i>(MARCH 2009 YIELD 1.91%)</i>	
SELF INSURANCE RESERVE	\$ 300,000.00
RESTRICTED SRF RESERVE	\$ 630,000.00
UNRESTRICTED DEPOSITS	\$ 5,474,854.10
<b>CALIFORNIA BANK AND TRUST</b> <i>(MARCH 2009 YIELD 0.10%)</i>	
REGULAR CHECKING	\$ 25,130.00
PAYROLL CHECKING	\$ 5,000.00
<b>TOTAL RESOURCES</b>	<b>\$ 6,434,984.10</b>

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SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

July 13, 2009

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 May 2009. The primary indicators of treatment performance include the removal of Carbonaceous Biochemical Oxygen Demand (CBOD) and Total Suspended Solids (TSS). Treatment levels for CBOD and TSS exceeded monthly percent removal requirements (as shown in Figure 1 and Figure 2).

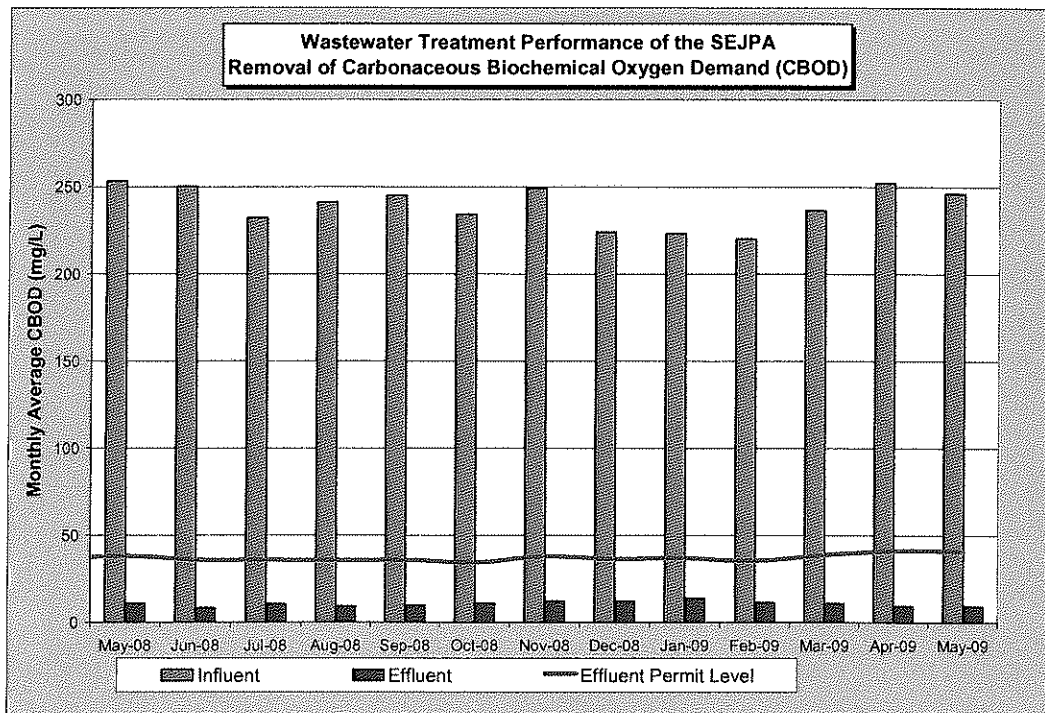


FIGURE 1



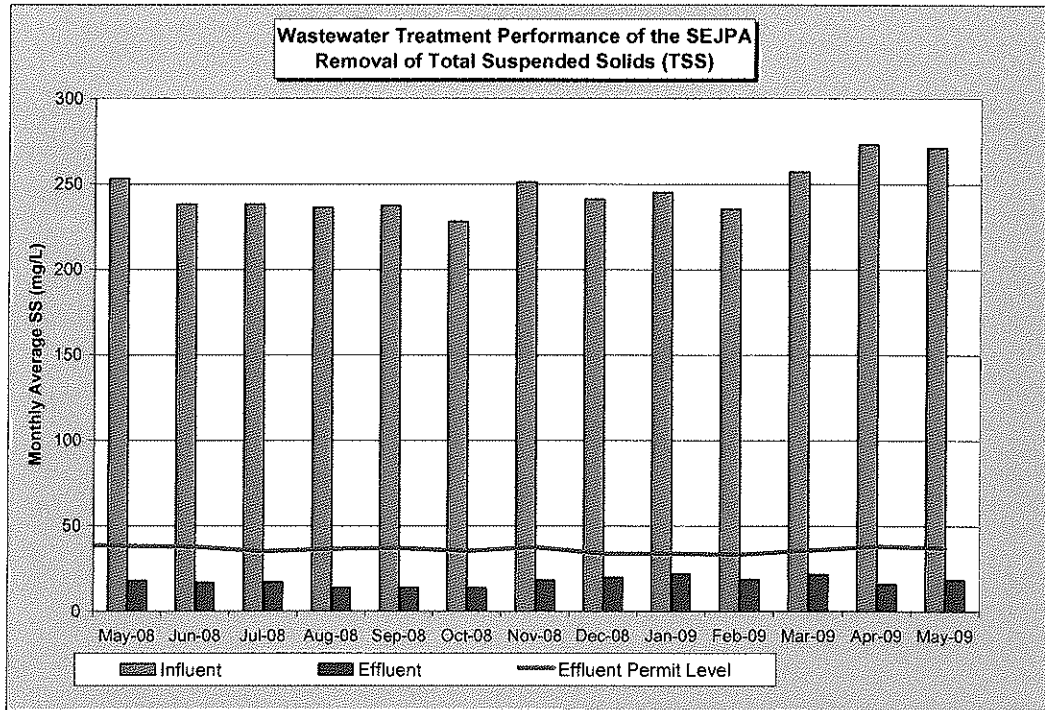


FIGURE 2

### Member Agency Flows

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

	May	
	<u>Influent (mgd)</u>	<u>Effluent (mgd)*</u>
Cardiff Sanitary Division	1.465	0.712
City of Solana Beach	1.247	0.606
Rancho Santa Fe SID	<u>0.117</u>	<u>0.057</u>
<b>Total San Elijo WRF Flow</b>	<b>2.829</b>	<b>1.375</b>

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

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

The attached table presents the historical average, maximum, and unit influent and effluent flow rates per month for each of the Member Agencies. It also presents the number of connected Equivalent Dwelling Units (EDUs) for each of the Member Agencies during this same time period.

The attached figure presents the 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 typically ranges between 2.9 and 3.1 million gallons per day (mgd). Also shown on the figure, 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's Hale Avenue Resource Recovery Facility, which discharges through the San Elijo Ocean Outfall, is reported below. The following flows are reported by the City of Escondido for the month of May:


	<b>May (mgd)</b>
Escondido (Average flow rate)	10.1
Escondido (Peak flow rate)	18.3

Connected Equivalent Dwelling Units

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

	<b>May (EDU)</b>
Cardiff Sanitary Division	8,185
Rancho Santa Fe SID	464
City of Solana Beach	7,428
San Diego (to Solana Beach)	300
<b>Total EDUs to System</b>	<b>16,377</b>

Respectfully submitted,

  
Michael T. Thornton, P.E.  
General Manager

Attachments:      Table: SEWRF Monthly Report – Flows and EDUs  
                            Figure: Average Daily Flow

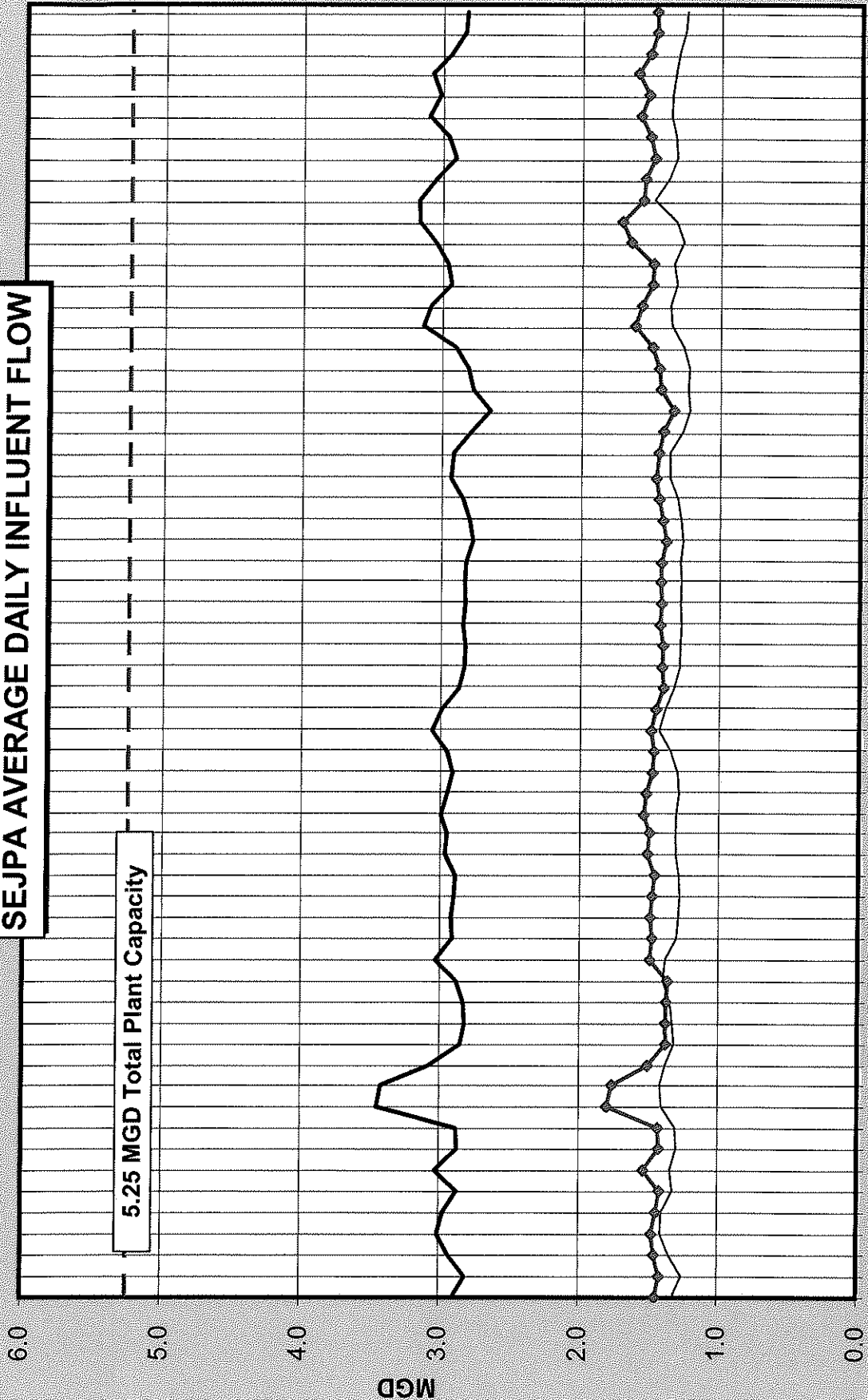
SAN ELIJO WATER RECLAMATION FACILITY MONTHLY REPORT - FLOWS AND EDUS

MONTH	AVERAGE DAILY INFLUENT FLOW RATE (MGD)			AVERAGE DAILY EFFLUENT FLOW RATE (MGD)			AVERAGE UNIT INFLUENT FLOW RATE (GAL/EDU/DAY)		
	GSD	RSF/GSD	TOTAL PLANT	GSD	RSF/GSD	TOTAL PLANT	GSD	RSF	TOTAL EDUS
Apr-04	1.450	0.127	1.327	2.900	0.106	1.154	7.910	375	15,944
May-04	1.421	0.127	1.259	2.810	0.069	0.667	7.915	377	7,659
Jun-04	1.458	0.120	1.353	2.930	0.064	0.634	7.917	381	7,659
Jul-04	1.478	0.114	1.414	3.010	0.051	0.616	7.929	383	7,659
Aug-04	1.447	0.116	1.408	2.970	0.059	0.706	7.945	382	7,659
Sep-04	1.420	0.124	1.327	2.870	0.089	0.970	7.950	392	7,659
Oct-04	1.538	0.144	1.346	3.030	0.140	1.287	7.961	395	7,659
Nov-04	1.426	0.146	1.301	2.870	0.138	1.247	7.965	395	7,659
Dec-04	1.433	0.143	1.308	2.880	0.141	1.331	7.973	395	7,659
Jan-05	1.803	0.242	1.409	3.450	0.248	1.469	7.976	396	7,659
Feb-05	1.786	0.229	1.420	3.420	0.234	1.418	7.982	398	7,659
Mar-05	1.509	0.187	1.363	3.080	0.203	1.489	7.988	399	7,659
Apr-05	1.379	0.150	1.320	2.850	0.157	1.366	7.989	403	7,659
May-05	1.381	0.107	1.332	2.820	0.117	1.471	7.993	406	7,659
Jun-05	1.374	0.107	1.349	2.830	0.115	1.451	7.996	409	7,659
Jul-05	1.365	0.115	1.399	2.880	0.125	1.508	8.016	409	7,659
Aug-05	1.494	0.149	1.385	3.030	0.154	1.404	8.020	410	7,659
Sep-05	1.479	0.131	1.302	2.910	0.129	1.306	8.023	416	7,659
Oct-05	1.483	0.134	1.290	2.920	0.146	1.376	8.033	418	7,659
Nov-05	1.480	0.142	1.280	2.900	0.140	1.284	8.040	421	7,659
Dec-05	1.463	0.143	1.288	2.890	0.138	1.282	8.040	421	7,659
Jan-06	1.515	0.139	1.310	2.964	0.129	1.219	8.044	423	7,659
Feb-06	1.499	0.139	1.313	2.951	0.111	1.111	8.044	424	7,659
Mar-06	1.542	0.144	1.309	2.995	0.137	1.252	8.044	424	7,659
Apr-06	1.523	0.139	1.288	2.950	0.128	1.184	8.044	424	7,659
May-06	1.471	0.130	1.299	2.913	0.068	0.699	8.066	429	7,659
Jun-06	1.471	0.130	1.350	2.951	0.068	0.699	8.080	430	7,659
Jul-06	1.490	0.135	1.436	3.061	0.065	0.693	8.087	431	7,659
Aug-06	1.466	0.144	1.392	2.992	0.074	0.715	8.088	432	7,659
Sep-06	1.403	0.138	1.327	2.868	0.072	0.704	8.092	432	7,659
Oct-06	1.414	0.132	1.286	2.832	0.088	0.857	8.092	432	7,659
Nov-06	1.408	0.135	1.284	2.827	0.100	1.003	8.094	434	7,659
Dec-06	1.429	0.138	1.275	2.842	0.156	1.566	8.099	436	7,659
Jan-07	1.419	0.128	1.282	2.829	0.109	1.089	8.100	441	7,659
Feb-07	1.425	0.129	1.277	2.831	0.116	1.150	8.106	444	7,659
Mar-07	1.421	0.118	1.285	2.824	0.104	0.985	8.112	444	7,659
Apr-07	1.366	0.122	1.267	2.775	0.076	0.794	8.115	447	7,659
May-07	1.411	0.106	1.281	2.798	0.063	0.693	8.115	447	7,659
Jun-07	1.438	0.104	1.304	2.846	0.051	0.632	8.117	449	7,659
Jul-07	1.461	0.109	1.364	2.934	0.049	0.613	8.119	450	7,659
Aug-07	1.442	0.110	1.365	2.917	0.044	0.541	8.120	450	7,659
Sep-07	1.410	0.107	1.270	2.787	0.046	0.537	8.124	452	7,659
Oct-07	1.335	0.096	1.222	2.653	0.058	0.712	8.124	452	7,659
Nov-07	1.430	0.113	1.235	2.778	0.088	0.969	8.138	453	7,659
Dec-07	1.443	0.143	1.225	2.811	0.137	1.171	8.144	453	7,659
Jan-08	1.491	0.144	1.268	2.903	0.144	1.266	8.146	454	7,659
Feb-08	1.620	0.162	1.355	3.137	0.150	1.254	8.150	456	7,659
Mar-08	1.569	0.149	1.365	3.083	0.119	1.097	8.151	456	7,659
Apr-08	1.463	0.125	1.318	2.936	0.097	1.019	8.151	456	7,659
May-08	1.487	0.136	1.339	2.962	0.069	0.680	8.153	456	7,659
Jun-08	1.649	0.131	1.270	3.050	0.052	0.498	8.161	456	7,659
Jul-08	1.713	0.131	1.324	3.168	0.055	0.558	8.163	456	7,659
Aug-08	1.562	0.125	1.483	3.170	0.048	0.577	8.165	459	7,659
Sep-08	1.547	0.121	1.378	3.046	0.064	0.724	8.167	459	7,659
Oct-08	1.478	0.111	1.319	2.908	0.051	0.599	8.170	460	7,659
Nov-08	1.511	0.118	1.329	2.968	0.084	0.950	8.171	462	7,659
Dec-08	1.580	0.156	1.362	3.098	0.143	1.246	8.172	462	7,659
Jan-09	1.522	0.141	1.354	3.017	0.116	1.117	8.177	462	7,659
Feb-09	1.599	0.145	1.330	3.074	0.128	1.171	8.179	462	7,659
Mar-09	1.510	0.124	1.307	2.941	0.085	0.892	8.180	463	7,659
Apr-09	1.463	0.116	1.262	2.841	0.058	0.630	8.183	463	7,659
May-09	1.465	0.117	1.247	2.829	0.057	0.606	8.185	464	7,659

RSF GSD: Ramon Santa Fe Community Service District  
 SB: Solana Beach  
 EDU: Equivalent Dwelling Unit  
 ASSUMPTIONS: SB average flow includes San Elijo Hills flow of .131 mgd  
 SB Connected EDUs includes 300 EDUs for the City of San Diego

# SEJPA AVERAGE DAILY INFLUENT FLOW

5.25 MGD Total Plant Capacity



TOTAL PLANT    
  PLANT DESIGN CAPACITY    
  SB    
  CSD

Apr-04, May-04, Jun-04, Jul-04, Aug-04, Sep-04, Oct-04, Nov-04, Dec-04, Jan-05, Feb-05, Mar-05, Apr-05, May-05, Jun-05, Jul-05, Aug-05, Sep-05, Oct-05, Nov-05, Dec-05, Jan-06, Feb-06, Mar-06, Apr-06, May-06, Jun-06, Jul-06, Aug-06, Sep-06, Oct-06, Nov-06, Dec-06, Jan-07, Feb-07, Mar-07, Apr-07, May-07, Jun-07, Jul-07, Aug-07, Sep-07, Oct-07, Nov-07, Dec-07, Jan-08, Feb-08, Mar-08, Apr-08, May-08, Jun-08, Jul-08, Aug-08, Sep-08, Oct-08, Nov-08, Dec-08, Jan-09, Feb-09, Mar-09, Apr-09, May-09

\*

AGENDA ITEM NO. 10

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

July 13, 2009

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 May 2009, recycled water demand was 139.76 acre-feet (AF), which was met using 138.47 AF of recycled water and 1.29 AF of supplementation with potable water. This equates to a blend mix for May of 99.1 percent recycled water and 0.9 percent potable water supplementation.

The attached Figure 1 provides monthly supply demands for recycled water since the inception of the program. The attached Figure 2 provides a graphical view of annual recycled water demand spanning the last seven fiscal years. Recycled water demand can fluctuate from year to year, which is typically a function of weather. For example, Fiscal Year 2003-04, an unusually dry year, resulted in increased recycled water demand; and Fiscal Year 2004-05, an unusually wet year, resulted in lower recycled water demand.

For the first eleven months of FY 2008-09, recycled water demand totaled 1179 AF, which is slightly more than the demand for the same period one year ago.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

MONTHLY RECYCLED WATER DEMAND

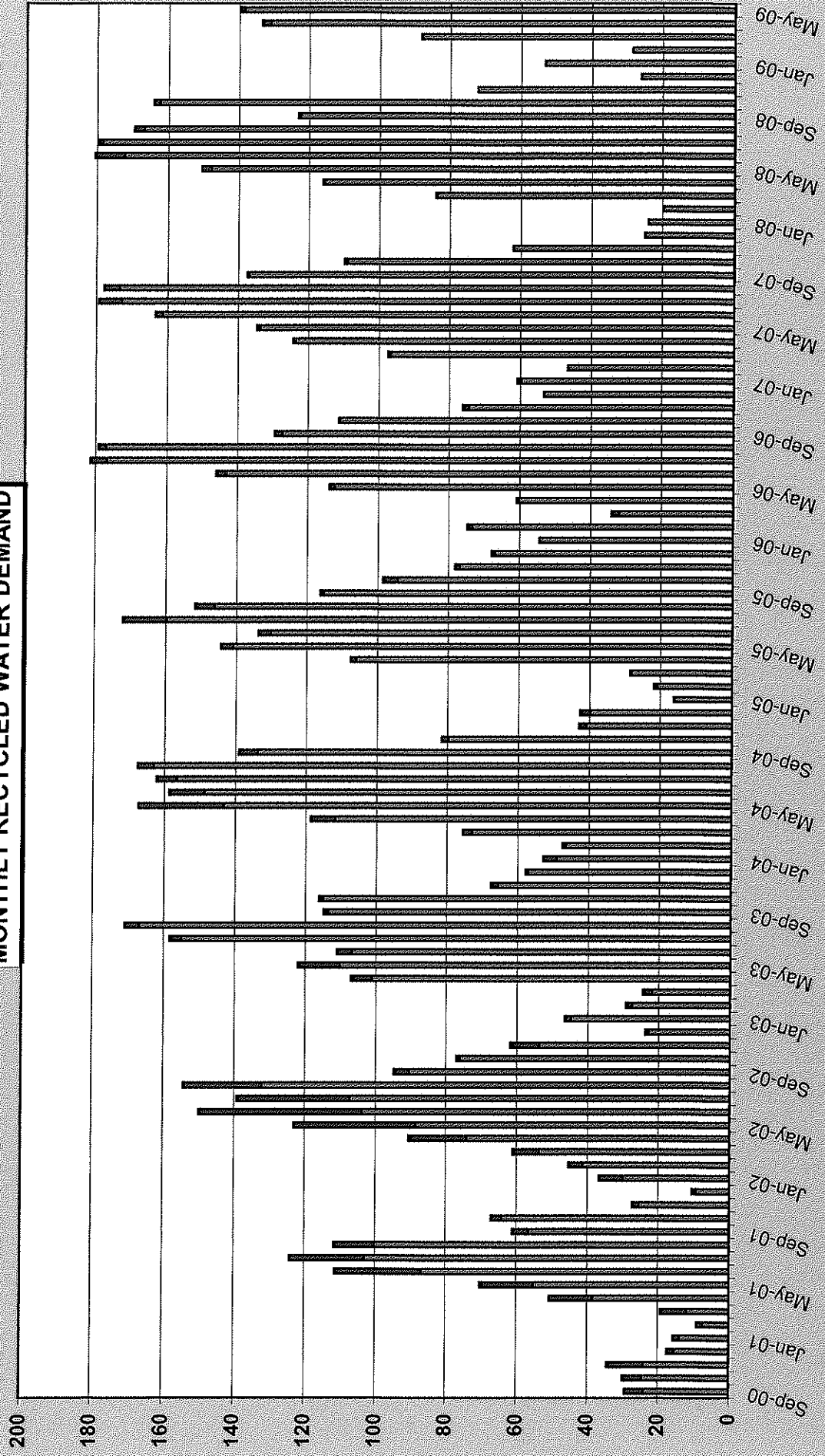


Figure 1

**ANNUAL RECYCLED WATER DEMAND**

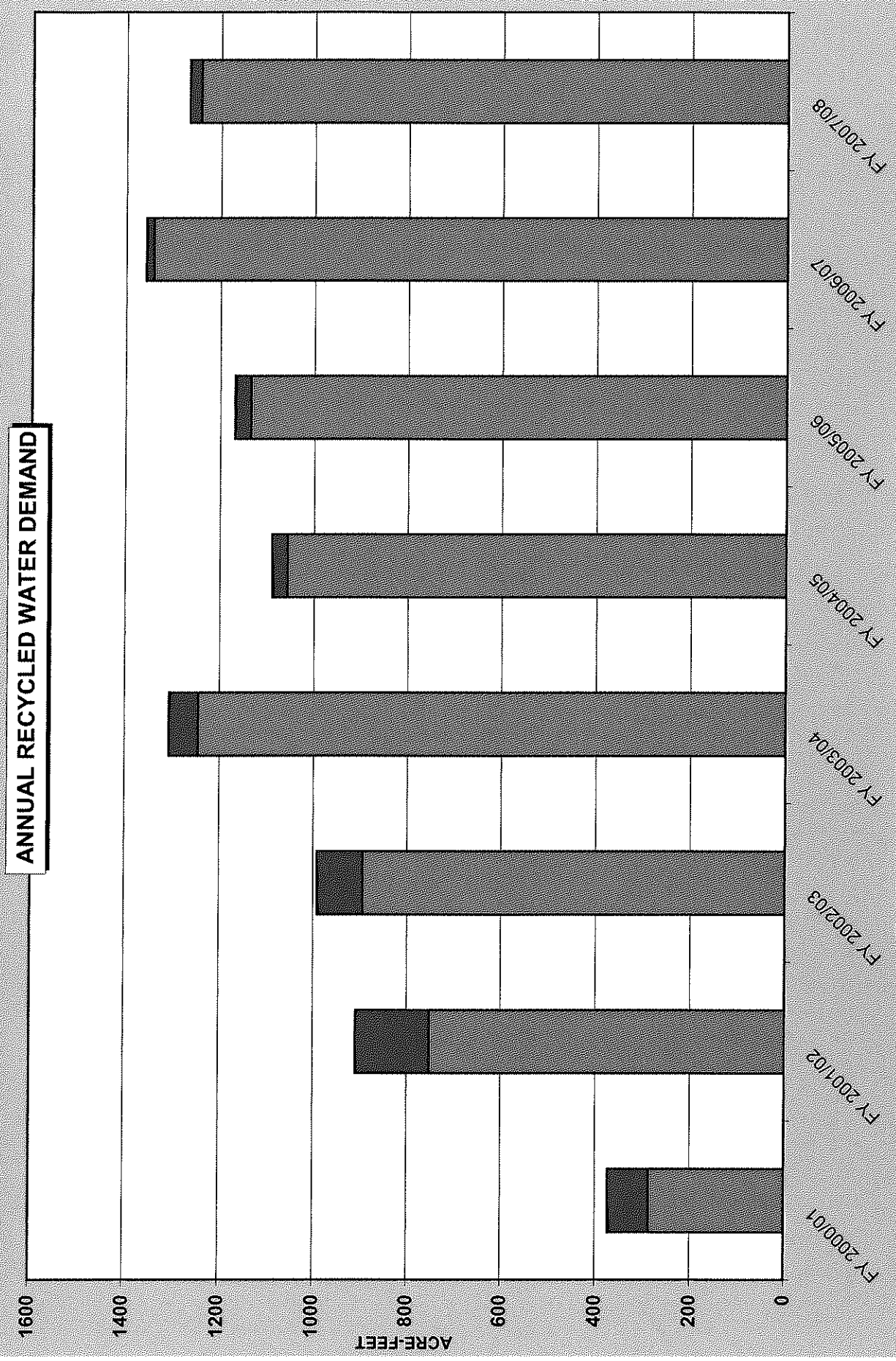


Figure 2

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

July 13, 2009

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: AUTHORIZATION FOR ACCEPTANCE AND NOTICE OF COMPLETION FOR  
CONSTRUCTION OF THE CARDIFF PUMP STATION GENERATOR AND  
ELECTRICAL IMPROVEMENTS PROJECT WITH SATURN ELECTRIC

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to accept the Cardiff Pump Station Generator and Electrical Improvements Project and sign and record a Notice of Completion for the project; and
2. Discuss and take other action as appropriate.

BACKGROUND

The Cardiff PS Generator and Electrical Improvements Project contract was awarded to Saturn Electric in July 2008. The project was designed to replace an emergency back-up power generator that recently reached the end of its useful life and an inefficient and aging electrical system. The approved project budget was \$425,000.

DISCUSSION

Construction of the Cardiff Pump Station Generator and Electrical Improvements Project began in December 2008. Kennedy/Jenks Consultants, the engineer of record for the project, provided construction management services for the project. And, as of July 1, 2009, all major project components have been constructed. Final testing of the generator and start-up are anticipated to be completed by the end of July. The project is tracking below budget, with no injuries and no filed claims.

Once construction is completed and the project is accepted by the SEJPA, the agency must file a Notice of Completion for the project. The SEJPA Attorney will file the Notice of Completion with the County Clerk. After 35 days, the final payment will be made to the Contractor.



## PROJECT COST SUMMARY

The project has \$425,000 budget (see Table 1), of which \$330,888 has been committed to project contracts. The SEJPA has completed negotiations on Contract Change Order No. 2 with Saturn Electric for extra work associated with installing new electrical conduit due to unexpected water damage in an existing conduit. The total amount for this new work is \$9,990. After payment of this new work, the project budget will have \$84,120 in remaining funds. One additional change order may be encountered for the unanticipated removal of exhaust louvers and retesting of the generator. This change order should not exceed \$2,500.

**TABLE 1  
PROJECT BUDGET  
CARDIFF PUMP STATION GENERATOR AND ELECTRICAL IMPROVEMENTS PROJECT**


<i>ITEM DISCRIPTION</i>	<i>AMOUNT</i>
Design, Permitting & Bid Assistance	\$56,000
Utility Coordination & Relocation	\$30,000
Construction	\$275,000
Construction Management	\$21,000
Contingency (10%)	\$43,000
<b>Total Approved Budget</b>	<b>\$425,000</b>
Current Funds Committed	(\$330,888)
Saturn Electric Change Order No. 2	(\$9,990)
<b>Total Estimated Funds Committed</b>	<b>(\$340,878)</b>

The Cardiff Pump Station Generator and Electrical Improvements Project is anticipated to be constructed in a reasonable period of time and for less than budgeted. Total project costs, including construction, design, and management efforts, are expected to be approximately twenty percent under budget. The work by Saturn Electric has been of good quality and the contractor worked well with SEJPA staff.

It is therefore recommended that the Board of Directors:

1. Authorize the General Manager to accept the Cardiff Pump Station Generator and Electrical Improvements Project and sign and record a Notice of Completion for the project; and
2. Discuss and take other action as appropriate.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

\*

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

July 13, 2009

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: CONCEPTUAL DESIGN REPORT FOR FLOW EQUALIZATION AND  
RECYCLED WATER STORAGE

RECOMMENDATION

It is recommended that the Board of Directors:

1. Accept and file the *Conceptual Design Report for Flow Equalization and Recycled Water Storage Facility*; and
2. Discuss and take action as appropriate.

BACKGROUND

In December 2008, the San Elijo Joint Powers Authority (SEJPA) Board of Directors awarded the professional services contract to Infrastructure Engineering Corporation (IEC) for preparing the *Conceptual Design Report for Flow Equalization and Recycled Water Storage Facility* (Conceptual Design Report). The purpose and scope of the Conceptual Design Report was to assess options for providing flow equalization to the ocean outfall system and for increasing recycled water storage at the San Elijo Water Reclamation Facility.

The San Elijo Ocean Outfall is a 25.5 million gallon per day (mgd) rated system that extends 8,000 feet into the Pacific Ocean, discharging through 200 diffuser ports at an average depth of 150 feet. The ocean outfall serves the SEJPA (5.35 mgd) and the City of Escondido (20.15 mgd). As stated in the 2006 Wastewater Treatment and Disposal Facilities Capacity Study for the City of Escondido, the City has reached its flow capacity limits within the structure and that corrective actions are recommended. Furthermore, the 2005 SEJPA Recycled Water Expansion and Optimization Study concluded that additional recycled water storage would be beneficial for improving operational efficiencies and for increasing the program's service capacity. The Conceptual Design Report examined options for constructing joint use storage facilities that would benefit both the ocean outfall system and the SEJPA recycled water system. Funding for the Conceptual Design Report was shared between the SEJPA and the City of Escondido.

DISCUSSION

The Conceptual Design Report identified two potential project options that would help the SEJPA achieve its goals.

Project Option No. 1 consists of constructing new storage tank, constructing a new RW pump station, and utilizing existing underutilized tanks. Option No. 1 can be beneficial to the SEJPA, the City of Escondido, and the community in the following ways:

- Increases recycled water storage capacity by 5 million gallons (MG), which allows more recycled water to be beneficially used in the cities of Encinitas, Solana Beach, and Del Mar;
- Allows the City of Escondido up to 2,000 gallons per minute of additional flow capacity to the ocean outfall system for up to 41 hours; and
- Allows up to 215,000 gallons of Escondido secondary effluent to be stored at the SEWRF during high flow or surge events on the land outfall, which would provide an additional 1,400 gpm to be diverted from the land outfall to the SEWRF for 2.5 hours.



Project Option No. 2 focuses on using existing underutilized tanks at the SEWRF as storage options for the RW and ocean outfall systems. This option is less costly than Project Option No. 1 but may only be an interim solution as it provides significantly less water storage. Project Option No. 2 can be beneficial to the SEJPA, the City of Escondido, and the community in the following ways:

- Increases storage capacity to 453,000 gallons which allows more recycled water to be beneficially used in the cities of Encinitas, Solana Beach and Del Mar;
- Allows the City of Escondido up to 2,000 gallons per minute of additional flow capacity to the ocean outfall system for up to 3.7 hours; and
- Allows up to 215,000 gallons of Escondido secondary effluent to be stored at the SEWRF during high flow or surge events on the land outfall, which would provide an additional 1,400 gpm to be diverted from the land outfall to the SEWRF for 2.5 hours.

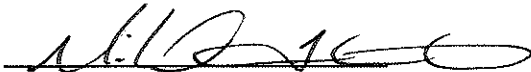


The Conceptual Design Report is intended to best position the SEJPA and the City of Escondido in developing a cost-effective regional solution for maximizing the service life of ocean outfall, preventing wastewater spills from the Escondido Land Outfall, and for expanding the SEJPA's recycled water program.

It is therefore recommended that the Board of Directors:

1. Accept and file the *Conceptual Design Report for Flow Equalization and Recycled Water Storage Facility*; and
2. Discuss and take action as appropriate.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

Attachment: Conceptual Design Report for Flow Equalization/Recycled Water Storage Facility  
- Executive Summary

**ATTACHMENT**

# **San Elijo Joint Powers Authority Flow Equalization/Recycled Water Storage Facilities**

## **Executive Summary**

### ***Introduction***

The San Elijo Joint Powers Authority (SEJPA) owns and operates the San Elijo Water Reclamation Facility (SEWRF), a 5.25 million gallons per day (MGD) wastewater treatment and 2.48 MGD water reclamation facility. The SEJPA also owns and operates nineteen miles of recycled water (RW) distribution pipelines, one booster pump station, and two off-site recycled water reservoirs, co-owns and operates the San Elijo Ocean Outfall with the City of Escondido, and operates eight wastewater lift stations for the cities of Encinitas and Solana Beach. The San Elijo Ocean Outfall is a 25.5 MGD rated system that extends 8,000 ft into the Pacific Ocean, discharging through 200 diffuser ports at an average sea depth of 150 ft. The ocean outfall serves the SEJPA (5.35 MGD) and the City of Escondido (20.15 MGD). As stated in the 2006 Wastewater Treatment and Disposal Facilities Capacity Study for the City of Escondido, the city has reached its flow capacity limits within the structure and that corrective actions are recommended. Furthermore, the SEJPA's RW program, which has experienced steady growth since its inception, could benefit from additional summer water storage. This has led the SEJPA to consider possible projects that could serve both programs. Similar work was completed between the City of Carlsbad and the Encina Wastewater Authority for the construction of a joint use facility for storing recycled water in the summer and for outfall flow equalization in the winter.

### ***Purpose and Scope of the Conceptual Design Report (Design Report)***

To meet existing and forecasted challenges with the RW and ocean outfall systems, the SEJPA is exploring various solutions to help ease existing operational strains, meet projected future demands, and economize both systems' operation. This design report was prepared as a planning level study to evaluate projects that work towards these goals. The primary focus was on analyzing storage options at the SEWRF that would jointly benefit the RW and ocean outfall programs. This included evaluating constructing new facilities as well as modifying existing facilities to meet these goals.

### ***Project Description and Location***

Infrastructure Engineering Corporation (IEC) pursued two solutions that would help address current deficiencies: (1) increase water storage capacity at the SEWRF, and (2) modernize the RW pumping system. With these solutions in mind, two potential projects were identified and evaluated. Project Option No. 1 proposes to construct a new onsite recycled water storage tank and pump station and adapt existing underutilized tank to store secondary effluent. Project Option No. 2 proposes to adapt the existing underutilized tanks to store recycled water and secondary effluent and modify the existing pumping configuration. Each project would be located at the SEWRF located at 2695 Manchester Avenue, Cardiff by the Sea, CA 92007; see the location map in Figure 1.

### ***Project Benefits (SEJPA & City of Escondido)***

Project Option No. 1 consists of constructing new storage tank, constructing a new RW pump station, and utilizing existing underutilized tanks to store up to 215,000 gallons of the City of Escondido's secondary effluent. Project Option No. 1 can be beneficial to the SEJPA, the City of Escondido, and the community in the following ways:

- Increases storage capacity, 3.5 to 5 million gallons (MG), which allows more recycled water to be beneficially used in the cities of Encinitas, Solana Beach and Del Mar;
- Allows the City of Escondido up to 2,000 gallons per minute of additional flow capacity to the ocean outfall system for up to 41 hours, which may ease short-term capacity issues; and

- Allows up to 215,000 gallons of Escondido secondary effluent to be stored at the SEWRF during high flow or surge events on the land outfall, which would provide an additional 1,400 gpm to be diverted from the land outfall to the SEWRF for 2.5 hours.

Project Option No. 2 focuses on using existing underutilized tanks at the SEWRF as storage options for the RW and ocean outfall systems. This option is less costly than Project Option No. 1 but may only be an interim solution as it provides significantly less water storage. Project Option No. 2 can be beneficial to the SEJPA, the City of Escondido, and the community in the following ways:

- Increases storage capacity to 453,000 gallons which allows more recycled water to be beneficially used in the cities of Encinitas, Solana Beach and Del Mar;
- Allows the City of Escondido up to 2,000 gallons per minute of additional flow capacity to the ocean outfall system for up to 3.7 hours; and
- Allows up to 215,000 gallons of Escondido secondary effluent to be stored at the SEWRF during high flow or surge events on the land outfall, which would provide an additional 1,400 gpm to be diverted from the land outfall to the SEWRF for 2.5 hours.

***Project Implementation Plan for Project Options 1 and 2***

The table below compares the timeline anticipated for both options. For details refer to Technical Memorandum 7.

Phase	Option 1	Option 2
Conceptual Design <sup>1</sup>	6 months	3 months
Final Design	8 months	6 months
Environmental Documentation <sup>2</sup>	18 months	45 days
Bid Award	3 months	3 months
Project Construction	18 months	8 months
<b>Total</b>	<b>45 months (3 yrs, 9 mo)</b>	<b>20 months (1 yr, 8 mo)</b>

<sup>1</sup>This phase is currently being performed and will be completed with the finalization of the design report

<sup>2</sup>If an EIR is required the timeline can be revised to 24-months.

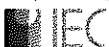
***Planning Level Project Costs***

The table below compares the planning level costs for both options. For details refer to Technical Memorandum 8.

Options	Total Range (millions)
Project Option No. 1a (3.5 MG Tank & PS)	\$7.8 - \$8.4
Project Option No. 1b (5 MG Tank & PS)	\$9.7 - \$10.5
Project Option No. 2	\$2.0 - \$2.2

***Conclusions***

Project Option No. 1 potentially provides a long-term solution to both the SEJPA’s RW storage needs and Escondido capacity issues in the ocean outfall. However, this project is significantly more expensive than Project Option No. 2 and may not be financially feasible at this time.





Project Option No. 2 takes advantage of SEJPA's underutilized facilities and is expected to have a shorter timeline, less permitting requirements, and a lower total cost. However, this project provides significantly less storage and flow equalization than Option No. 1.

Both options improve the SEJPA's existing recycled water distribution pump stations and would realize long-term energy savings.

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

July 13, 2009

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: SAN ELIJO RECYCLED WATER PROGRAM –  
2009 FINANCIAL ASSESSMENT

RECOMMENDATION

It is recommended that the Board of Directors:

1. Accept and file the 2009 Financial Assessment of the Recycled Water Program; and
2. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) owns and operates a municipal recycled water utility located in the cities of Encinitas, Solana Beach, and Del Mar. The SEJPA owns the infrastructure of this utility, including the treatment, storage, and distribution facilities, and wholesales the water to the local water districts that have purvey rights to the water customers. The SEJPA currently has agreements with three retail water purveyors, the City of Del Mar, the Santa Fe Irrigation District (SFID), and the San Dieguito Water District (SDWD), for purchasing recycled water and retailing it to the end customer. The total commitment value of these contracts is 1,244 acre-feet per year (AFY) and the current actual usage is approximately 1,300 AFY.

The SEJPA recycled water program has become financially stable and the agency is now examining opportunities to reinvest into the program's infrastructure. The opportunity and need for expanding the program appear evident. The state of California is in a multi-year, state wide drought. Last year, the California Department of Water Resources reported that *"California is facing the most significant water crisis in its history. After experiencing two years of drought and the driest spring in recorded history, the state's water reserves are extremely low. With the Sacramento-San Joaquin Delta ecosystem near collapse, court-ordered restrictions on water deliveries from the Delta have reduced supplies from the state's two largest water systems by twenty to thirty percent."* Many of the local water districts have enacted drought ordinances that require water conservation.

In addition to the region's water supplies issues, the SEJPA has identified the need to add treatment for removing salinity from its recycled water. Salinity levels have increased in the water as a result of the drought. To address this issue, desalinization treatment is recommended to desalt a portion of the recycled water. This would allow the SEJPA to meet its water quality requirements and increase the program's ability to serve more recycled water.

## DISCUSSION

The SEJPA has examined options for improving and expanding its recycled water utility. A variety of infrastructure improvements have been identified to increase the serving capacity of the system and to improve water quality and system reliability. To assist the SEJPA in evaluating the recycled water program's ability to carry new infrastructure debt, the firm of Winzler & Kelly was retained to perform a financial assessment of the program. The scope of work for this assessment included:

- Conduct a third party review of the program's current financial situation and provide observations and recommendations that stem from the review,
- Perform a financial analysis of future planning scenarios in order to guide decisions around investments in proposed capital improvement activities, and
- Provide an economic justification for the proposed capital improvements.

Winzler & Kelly's financial assessment (Attachment) and concludes that *"The recycled water program's recent history indicates that it is in a good financial position. Revenues regularly outpace costs and the available fund balance exceeds annual expenses. Because approximately one-half of the program's expenditures (debt service) are a fixed cost, inflation-based increases to water rates are likely to outpace inflation-based increases to expenditures. The program has some capacity to make careful, planned investments."*

Winzler & Kelly developed four possible expansion scenarios, all of which included funding for desalinization treatment. The scenarios ranged from investing \$2 million to \$7 million in near-term capital projects and with assumptions in expected growth in future water sales. The goal was to develop a series of planning scenarios that book-end the probable financial outcome of the program given the capital investments and corresponding likely market growth being considered.

The models indicate that the investment value needs to be in line with the expected revenue returns on future water sales. The threshold for investment appears to be between \$2 million to \$3 million assuming 0 to 300 AFY in new water sales by 2020, and \$4 million to \$7 million assuming 300 to 600 AFY in future water sales by 2020. In all four models, the program is able to sustain new infrastructure debt to improve and expand the program while continuing its current debt payments and the repayment of the SEJPA member agencies between the years 2019 and 2024.

It is recommended that the Board of Directors:

1. Accept and file the 2009 Financial Assessment of the Recycled Water Program, and
2. Discuss and take action as appropriate.

Respectfully submitted,



Michael T. Thornton, P.E.

General Manager

Attachment: Winzler & Kelly Financial Assessment

**ATTACHMENT**

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# Updated Financial Assessment for the Recycled Water System

PREPARED FOR: San Elijo Joint Powers Authority  
Mr. Michael Thorton PE, General Manager

PREPARED BY: Mary Grace Pawson/Winzler & Kelly

DATE: June 24, 2009

PROJECT NUMBER: 1190609001-32100

## Background

The San Elijo Joint Powers Authority (SEJPA) owns and operates a recycled water utility. The SEJPA is the producer of the recycled water and wholesales it to the Santa Fe Irrigation District (SFID), the San Dieguito Water District (SDWD) and the City of Del Mar. The SEJPA financed, permitted and constructed the recycled water treatment, storage and distribution systems, which became operational in September 2000. The SEJPA's recycled water program (program) currently delivers approximately 1,300 acre-feet per year (afy).

Much like any typical business venture, the early years of the program were financially challenging. During the first six years of operations, the program's expenditures exceeded revenues. However, as water sales grew and the value of water increased, the program became financially secure. For the past three years, revenues have exceeded expenditures and the program has built-up a small dedicated repair-replacement reserve of \$630,000. In addition, the program has an operating fund balance of approximately \$2.3 million, which can be used to fund capital improvements and to bridge future budget shortfalls, if they were to reappear.

The program has long-term debt in the form of a State Revolving Fund (SRF) loan with an estimated balance of \$8.5 million and the program has an internal debt to the SEJPA Member Agencies of approximately \$4 million. At the current rate of repayment, these debts are projected to be paid off in 14 years.

At the present time, the program is at a crossroads. It is financially successful at its current size, but state and regional water supply concerns are creating an environment in which it may be very attractive to expand the volume of water delivered. Additionally, while the program provides recycled water that meets Title 22 standards for unrestricted use, increasing concerns about water quality, particularly salinity, suggest that a proactive investment in demineralization could benefit SEJPA, its retailers and ultimately the customers. In order to balance future investments with sound financial practices, SEJPA has requested an update to its July 2005 Financial Assessment.

## Goals for the Updated Financial Assessment

SEJPA requested a financial assessment that:

- Provides a third party review of the program's current financial situation including observations and recommendations that stem from the review;
- Includes a financial analysis of future planning scenarios in order to guide decisions around investments in proposed capital improvement activities.

The primarily goals of the updated financial assessment are to:

- Provide decision makers with information on the cost of providing recycled water service relative to revenues generated from the program
- Provide decision makers with information regarding the estimated future financial condition of the program
- Provide an economic justification for proposed improvements to the recycled water system.

## Current Financial Situation

SEJPA receives revenue from recycled water sales and incentive funding provided by both the Metropolitan Water District of Southern California (Metropolitan) and the San Diego County Water Authority (Authority). Recycled water is sold at 85% of the potable water rate; therefore the recycled water rate is slightly different in each of the three retail water service areas. The anticipated (FY 2009-10) revenue structure for SEJPA is illustrated below

	Recycled Water Rate (AFY)	Volume of Recycled Water Purchased (AF)	Total Revenue
Santa Fe Irrigation District	\$1071	510	\$546,210
City of Del Mar	\$922	150 <sup>1</sup>	\$138,300
San Dieguito Water District	\$1003 <sup>2</sup>	710	\$712,130
Incentives (Metropolitan & Authority)	\$450	1300 <sup>3</sup>	\$585,000
<b>Total Revenue</b>			<b>\$1,981,640</b>

<sup>1</sup> The City of Del Mar has a take or pay agreement with the SEJPA for 150 afy. The estimated Del Mar use for FY 2009-10 is 80 afy; the 22<sup>nd</sup> Agricultural District of California is responsible for paying the difference.

<sup>2</sup> The San Dieguito Water District has two rates at which recycled water is sold at (\$922 afy and \$1125 afy). Sales are roughly split 60/40 between the two rates which produces an average rate of \$1003 afy.

<sup>3</sup> Incentives are paid on actual water deliveries which are estimated to be 510 AFY of SFID, 80 AFY to Del Mar and 710 AFY to SDWD for a total of 1300 AFY.

SEJPA has two major categories of expenditure including its debt service on the SRF loan used to construct the system and its operating costs. The anticipated (FY 2009-10) cost structure for SEJPA is illustrated below.

<b>Budgeted Operating Costs</b>	
Debt Service on SRF Loan	\$834,675
Personnel	\$420,130
Supplies & Services	\$522,090
Contingency	\$42,040
<b>Total Expenditures</b>	<b>\$1,818,935</b>

### Recent Revenue and Expenditure History

While SEJPA had struggled financially with its recycled water utility in the early years, recent financial performance has been quite solid. The table below shows a trend of improving financial performance for the recycled water program.

	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Total Revenues	\$ 1,311,080	\$ 1,450,720	\$1,748,725	\$ 1,818,136	\$ 1,998,371
Total Expenditures	\$ 1,451,475	\$ 1,589,727	\$ 1,601,753	\$ 1,701,029	\$ 1,750,935
Program Cash Flow	\$ (140,395)	\$ (139,007)	\$ 146,972	\$ 117,107	\$ 247,436
<b>Running Fund Balance<sup>1</sup></b>	<b>\$ 2,802,213</b>	<b>\$ 2,817,739</b>	<b>\$ 2,630,389</b>	<b>\$ 2,890,694</b>	<b>\$ 2,960,587</b>
Fund Balance as % of Expenditures	143.45%	177.25%	164.22%	169.34%	169.09%

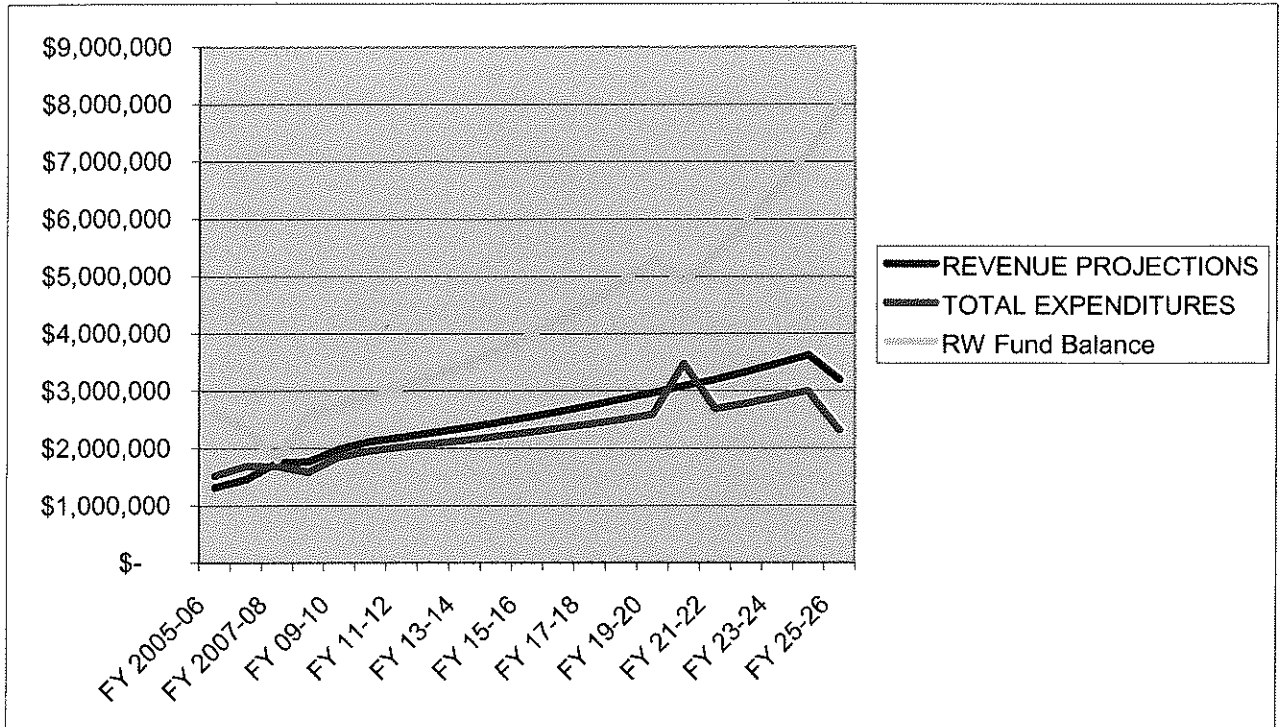
<sup>1</sup> Running fund balance includes accrued interest and reserves

### Assumptions and Projections for the Status Quo

In order to understand the program’s ability to support new capital investments, the current revenue and expenditure pattern was projected forward to the year 2030 using the following assumptions:

- No increase in recycled water deliveries;
- 5% increase in water rates annually
- 5% increase in program operating costs annually (debt service and debt service reserve requirements remain fixed)
- SRF loan pay-off in 2020
- Member agency pay-off in 2024
- Metropolitan and Authority incentives end in 2025

The graph below illustrates the results of this modeling and clearly shows that, particularly in the out years, the recycled water program is accumulating substantial fund balances.



### Summary Conclusions

The recycled water program’s recent history indicates that it is in a good financial position. Revenues regularly outpace costs and the available fund balance exceeds annual expenses. Because approximately one-half of the program’s expenditures (debt service) are a fixed cost, inflation-based increases to water rates are likely to outpace inflation-based increases to expenditures. The program has some capacity to make careful, planned investments.

### Future Planning Scenarios, Assumptions and Results

The analysis of current conditions indicates that the recycled water program has some capacity to pursue new capital projects that can improve and expand the existing program. In order to understand the impacts of these investments, a spreadsheet based financial model has been developed in order study and analyze the impacts of various planning scenarios on the financial health of the program. A range of assumptions regarding future size of the program, the scope of future infrastructure investments, inflation rates and financing plans were developed with the SEJPA staff and modeled by the consultant. The intent of this modeling effort is to bracket a reasonable range of assumptions and assist decision makers in targeting an appropriate level of investment while maintaining an overall fiscally sound recycled water utility.

### Drivers for Investing in the Recycled Water Program

There are two primary drivers for future investments in the recycled water program: water supply and water quality.



## Water Supply

The Authority's 2005 Urban Water Management Plan (UWMP), which is consistent with Metropolitan's Integrated Resources Plan, recognizes the need for diversified local supplies in order to enhance water supply reliability and reduce the impacts of drought, climate change and regulatory uncertainties around the imported water supply. The Authority's 2005 UWMP identifies the need for up to 14,000 afy in new recycled water supplies by the year 2030 to meet dry year water needs.

Currently, the Authority has all of its member agencies under Drought Alert, which includes a requirement for 20% mandatory conservation. Water recycling is a very effective conservation practice resulting in a 100% offset of potable water demands. SEJPA has recently experienced significant interest, from its retail water agency partners, in expanding recycled water deliveries as they work to comply with the Drought Alert.

## Water Quality

While recycled water has a role to play to expanding local water supplies, the State Water Resource's Control Board's newly adopted Recycled Water Policy is clear that water quality must also be addressed. Recycled water has an incrementally higher Total Dissolved Solids (TDS) load than potable water and TDS levels above 1100 mg/liter can limit the use of recycled water for landscape irrigation. Long-term use of incrementally saltier water can also result in groundwater degradation. In order to balance the water supply and water quality concerns, the Recycled Water Policy calls for the development of regional salt and nutrient management plans.

There are several areas in California where these plans have been developed: the Santa Ana Watershed Project Authority and the Callegus watershed are notable local examples. In both these cases, demineralization strategies to improve water quality are part of the long-term suite of solutions that provide for recycled water use in the area.

As noted, the TDS loading in SEJPA's recycled water approaches the level that can limit irrigation applications. Investments in improving water quality could anticipate future regulatory requirements while preserving the value of the water resource the SEJPA provides.

## Planning Scenarios

Four planning scenarios have been developed to model a range of future conditions that SEJPA may experience. These are:

- Scenario 1 Status Quo with demineralization improvements: the scenario involves construction of demineralization improvements to meet current demands and improving the quality of water delivered to customers. This scenario is intended to represent the low range of future probable costs.
- Scenario 2 Slow growth with demineralization improvements: this scenario involves construction of demineralization improvements to serve a maximum system demand of 1600 afy. It also assumes that the system will slowly build-out to capacity by Fiscal Year 2019-20.

- Scenario 3 Rapid near-term growth with demineralization, storage and pumping improvements: this scenario assumes that the current drought conditions will result in 150 afy of new recycled water demands by Fiscal Year 2011-12, with slower build-out to full system capacity by Fiscal Year 2019-20. This scenario assumes an investment of \$3 million in demineralization treatment and \$1.5 million in storage and pump system improvements to meet these new demands.
- Scenario 4 Maximum near-term growth with demineralization, distribution, pumping and storage improvements: this scenario assumes that the current drought conditions will result in 300 afy of new recycled water demands by Fiscal Year 2011-12, coupled with continued growth through Fiscal Year 2019-20 for a maximum demand of 1900 afy. This scenario includes allowance for SEJPA to invest funds in constructing expected improvements necessary to meet these new demands. This scenario is intended to represent the high range of future probable costs.

The assumptions for each scenario are illustrated below. Detailed discussion follows in the next sub-section.

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Current Sales	1300 afy			
Future Sales	no increase	1600 afy by FY 2019-20	1450 afy by FY 2011-12 1600 afy by FY 2019-20	1600 afy by FY 2011-12 1900 afy by FY 2019-20
Water Rate Increases	5% annually			
Inflation Increases	5% annually			
Interest on Fund Balance	2% annually			
Future SRF Rates and Terms	0% interest for 20 years			
CIP Improvements	demineralization	demineralization	demineralization pumping storage	demineralization distribution system pumping storage
CIP Budget	\$2,000,000	\$3,000,000	\$4,500,000	\$7,000,000
SEJPA Contribution to CIP	\$1,000,000			\$1,400,000
Increase in O&M	\$60,000	75,000	105,000	135,000

## Assumptions

The following assumptions are reflected in the each of the scenarios modeled. The goal of the analysis is to assist decision makers in bracketing a reasonable range of deliveries. All cost estimates are “order of magnitude” cost estimates with expected accuracy of +50% to -30%.

- **Current Sales:** SEJPA retails approximately 510 afy to Santa Fe Irrigation District, approximately 710 afy to San Dieguito Water District and approximately 80 afy to the City of Del Mar. However, the City of Del Mar is required to pay for 150 afy regardless of use.
- **Future Sales:**
  - Scenario 1 assumes that there are no increases in future sales.
  - Scenario 2 assumes future sales grow slowly in the Santa Fe Irrigation District and San Dieguito Water District service areas until the system reaches build-out capacity in Fiscal Year 2019-20.
  - Scenario 3 assumes that Santa Fe Irrigation District and San Dieguito Water District each add 75 afy of new demand in the next 3 years as a result of drought pressures and then grow slowly to buildout (1600afy) by year Fiscal Year 2019-20.
  - Scenario 4 has the assumptions as Scenario 3 but include the addition of a new service area (Rancho Santa Fe Golf Course) that adds 300 afy in the next three years. This scenario assumes that slow growth continues within the existing service areas to 1600 afy by the year 2020. This usage, coupled with the addition of the Rancho Santa Fe (RSF) Golf Course (300 afy), totals a system demand of 1900 afy in 2020. It is assumed that the Santa Fe Irrigation District will construct the necessary distribution system and offsite storage to serve the RSF Golf Course and that SEJPA will construct the necessary treatment, storage and pumping improvements at the water reclamation facility. For this new distribution system, it is assumed that the recycled water rate is \$900/af and that the Metropolitan & Authority financial assistance is equally shared (\$225 each) between the Santa Fe Irrigation District and SEJPA, as both agencies are contributing to the capital cost of this new service area.
- **Water Rate Increases:** All scenarios assume that water rates increase at 5% per year. This increase in water rates is based on the fact that Metropolitan, the wholesale water supplier, is budgeting for steep increases in water rates (approximately 20% in 2010 and 12% in 2011). These increases in wholesale water pricing will influence retail rates.
- **Inflation Increases:** All scenarios assume that SEJPA's operation costs will also increase at a rate of 5% per year.
- **Interest on Fund Balance:** All scenarios assume that SEJPA will earn a 2% interest rate on its invested fund balance.
- **SRF Rates and Terms:** All scenarios assume that SEJPA will utilize the State Water Resources Control Board's Revolving Fund Loan Program (SRF) to construct facilities. The SRF has two borrowing programs. The conventional borrowing program allows agencies to borrow money at half the current state general obligation rate. The "match" program allows agencies to borrow money at a 0% interest rate, which is the rate at which the State borrows fund from the federal

government, provided that the agencies provides a 20% match to project costs, which is the match that the State must provide the federal government to access SRF Funds. All scenarios assume that repayments on the second SRF loan begin in Fiscal Year 2012-13 (i.e. one year after the completion of construction).

- CIP Improvements and Budget: Scenario 1 assumes the SEJPA constructs minimum capacity demineralization facilities at a cost of \$2 million. Scenario 2 assumes that SEJPA constructs demineralization facilities with a capacity of up to 1600 afy at a cost of \$3 million. Scenario 3 assumes that SEJPA constructs full capacity demineralization facilities and modest extensions to its distribution and storage systems at a cost of \$4.5 million. Scenario 4 assumes that SEJPA constructs demineralization facilities, pumping, storage and distribution facilities at a cost of \$7 million. All estimates include a 15% allowance for soft costs.
- SEJPA Contribution to the CIP: Scenarios 1, 2 and 3 assume that SEJPA provides a \$1 million match to project costs, which allows it to access the SRF's zero-interest match program. Scenario 4 assumes that SEJPA provides a \$1.4 million match (or 20% of the project costs), which allows it to access the zero-interest match program.
- Increase in O&M Costs: It is assumed that SEJPA's non-fixed operating costs (labor, energy, chemicals, repair parts, etc.) will increase proportionally to water sales and demineralization operations. All scenarios assume that the demineralization facilities come on-line in Fiscal Year 2011-12. For Scenario 1, it is assumed that the SEJPA's operating costs increase by \$60,000. For Scenario 2, it is assumed that the SEJPA's operating costs increase by \$75,000. For Scenario 3, it is assumed that the SEJPA's operating costs increase by \$105,000. For Scenario 4, it is assumed that the SEJPA's operating costs increase by \$135,000.

## Summary of Results

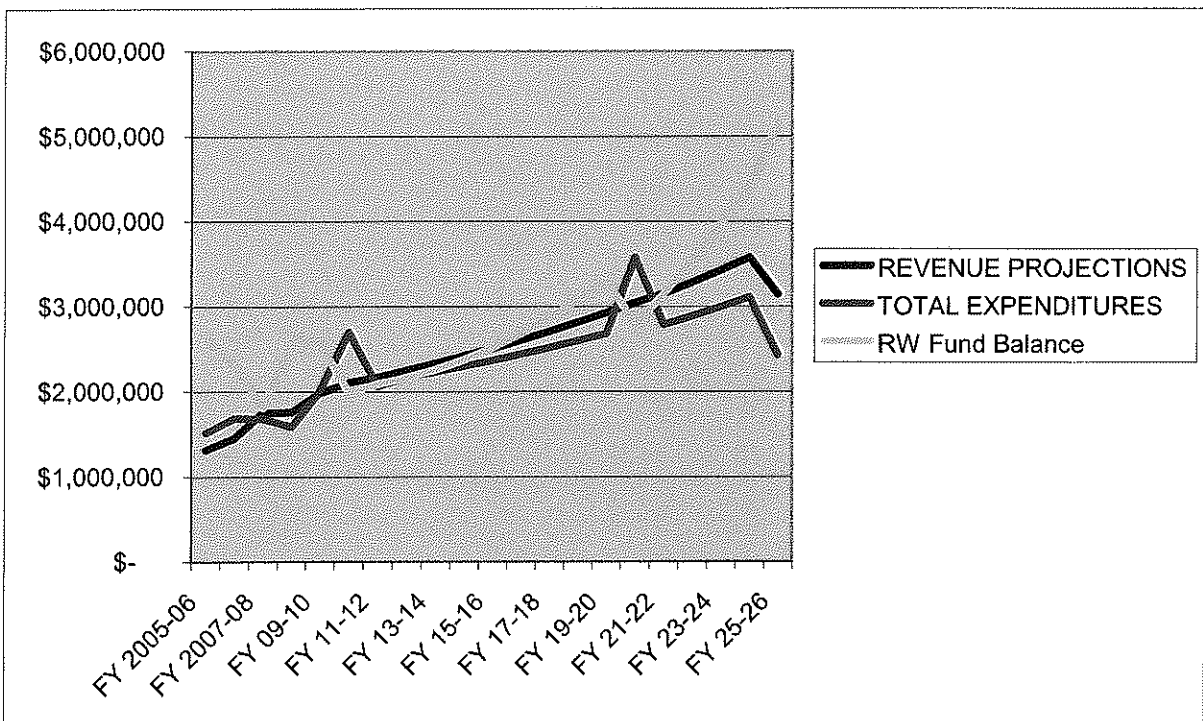
The spreadsheet model was used to analyze the impacts of each of the proposed scenarios on SEJPA's cash flow and fund balance. In each case, the program cash-flow and fund balance recovers quickly after the initial investment in system construction, indicating that the program has the financial capacity to make these investments. The results are presented graphically below.

Because of the current rate structure, overall program revenues are closely tied to assumptions about water rates. The model assumes that water rates are likely to increase because of factors such as drought, climate change and regulatory constraints around the State Water Project. In all four models, program revenues begin to outpace expenditures around 2015. If this modeled condition holds true, the SEJPA will be in a strong position to dedicate additional funds to its repair and replacement asset account. Currently this account is funded at the minimum level required by the State Revolving Fund. In future years, SEJPA may wish to develop a formal reserve policy to guide the dedication of revenues to overall management of its infrastructure assets.

**Scenario 1**

This scenario maintains positive cash flow, except in Fiscal Years 2009-10 and 2010-11 when the initial \$1 million investment is made, and again in Fiscal Year 2020-21, when SEJPA makes the last payment on its first SRF loan and begins re-paying member agencies. The program generally retains a Fund Balance in excess of expenditures. In Fiscal Year 2025-26, when the first SRF loan and member agency contributions are paid off, the program has an estimated fund balance of \$5.2 million, or approximately \$3 million less than is projected for the Status Quo. This reflects the investment made in improved water quality.

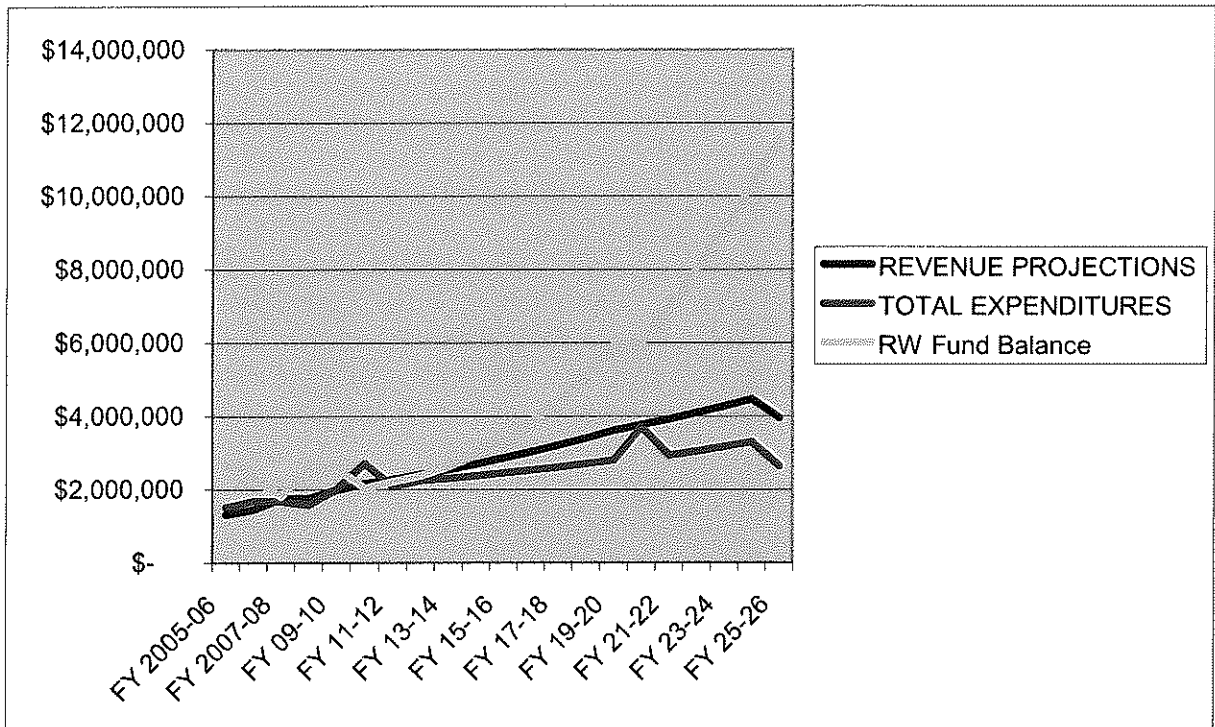
The program's projected revenues, expenditures and fund balance, under Scenario 1, are illustrated below.



**Scenario 2**

This scenario also maintains positive cash flow, except in Fiscal Years 2009-10 and 2010-11 when the initial \$1 million investment is made, and again in Fiscal Year 2020-21, when SEJPA makes the last payment on its first SRF loan and begins re-paying member agencies. The program retains a Fund Balance well in excess of expenditures beginning in Fiscal Year 2015-16. In Fiscal Year 2025-26, when the first SRF loan and member agency contributions are paid off, the program has an estimated fund balance of approximately \$11.5 million, or approximately \$3 million more than is projected for the Status Quo. This illustrates that water quality improvements can more than pay for themselves, if they allow the program to attract additional customers at a very modest rate.

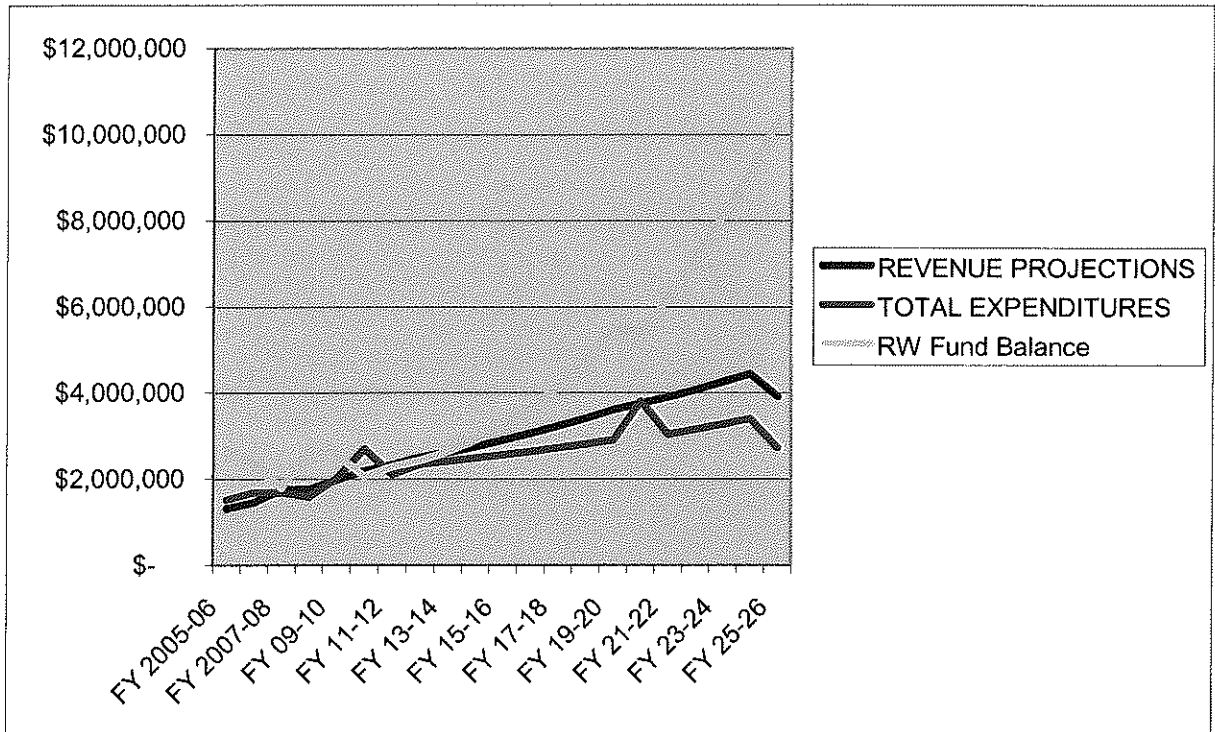
The program’s projected revenues, expenditures and fund balance, under Scenario 2, are illustrated below.



**Scenario 3**

This scenario also maintains positive cash flow, except in Fiscal Years 2009-10 and 2010-11 when the initial \$1 million investment is made, and again in Fiscal Year 2020-21, when SEJPA makes the last payment on its first SRF loan and begins re-paying member agencies. The program retains a Fund Balance well in excess of expenditures beginning in Fiscal Year 2016-17. In Fiscal Year 2025-26, when the first SRF loan and member agency contributions are paid off, the program has an estimated fund balance of approximately \$10.3 million, or approximately \$2 million more than is projected for the Status Quo. This illustrates that water quality improvements and system expansion can pay for themselves, if they allow the program to attract additional customers.

The program’s projected revenues, expenditures and fund balance, under Scenario 3, are illustrated below.

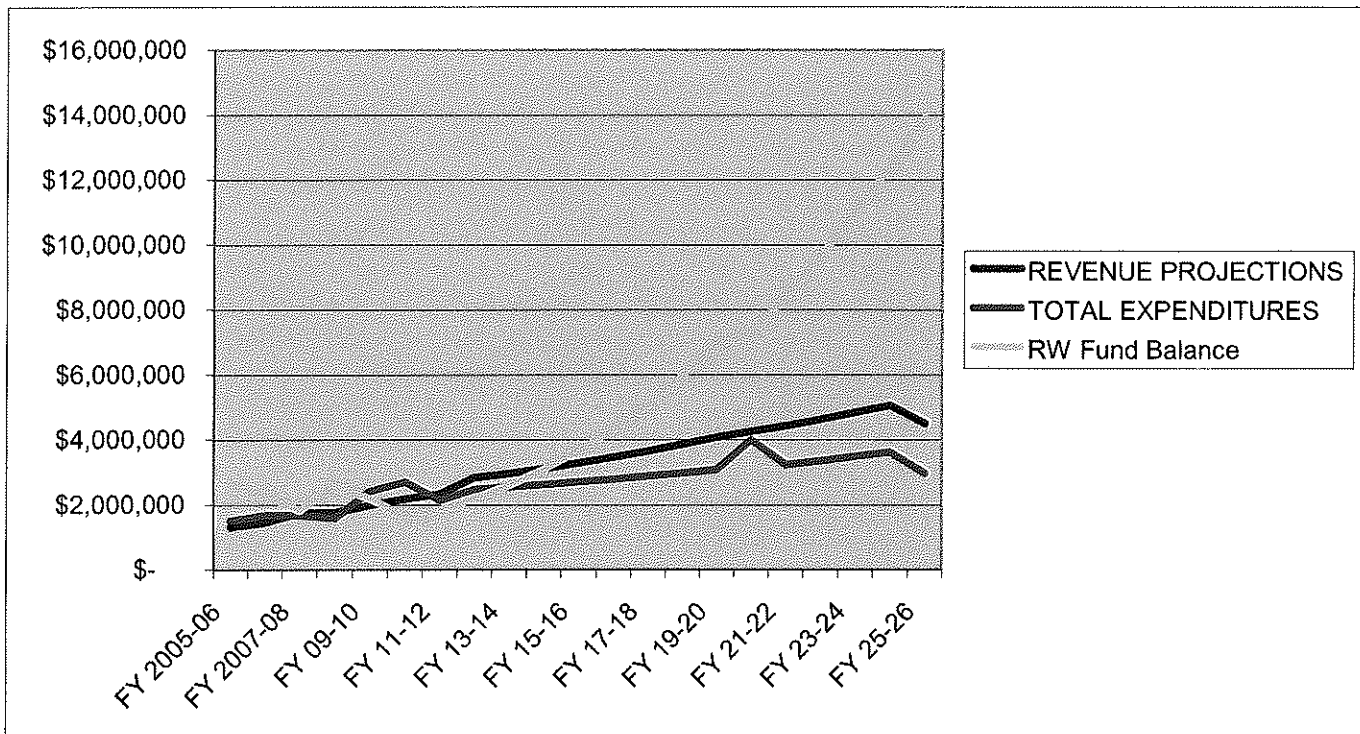


**Scenario 4**

This scenario results in the largest drain on near-term cash flow but ultimately the highest potential for revenue growth. SEJPA makes the largest near-term investment, \$1.4 million. For the next three fiscal years, expenditures will exceed revenues while investments are made in design and construction. The success of the scenario is highly dependent upon the golf course coming on-line in Fiscal Year 2012-13 so that additional water sales begin to increase revenues. However at the end of the planning term, this scenario results in the largest fund balance of \$14 million.

The major risk of this scenario is that the water rate for the new golf course customer is “decoupled” from water rates. This could set a precedent for SEJPA’s negotiations with other water retailers in the future. Future fund balance accruals are dependent on water rates outpacing expenditures. If future recycled water rates for all retailers are set at \$900/af, then future fund balances will be substantially less than the model predicts and cash flow may again turn negative.

The program’s projected revenues, expenditures and fund balance, under Scenario 4, are illustrated below.





SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

July 13, 2009

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: AWARD OF PRELIMINARY DESIGN OF AN ADVANCED WASTEWATER  
TREATMENT SYSTEM FOR THE SAN ELIJO WATER RECLAMATION FACILITY

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the Chair to execute an agreement with Kennedy/Jenks Consultants for Preliminary Design of an Advanced Wastewater Treatment System for the San Elijo Water Reclamation Facility; and
2. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) owns and operates a municipal recycled water utility that serves the San Dieguito Water District (SDWD), Santa Fe Irrigation District (SFID), and the City of Del Mar. Currently the recycled water program serves an annual demand of approximately 1,300 acre-feet (AF) or 423 million gallons.

Over the last seven years, the SEJPA has investigated opportunities to improve and expand the recycled water program. Based on completed engineering studies, it appears feasible to expand the recycled water program. Potential use from new customers ranges from 300 AF per year for sites relatively close to the existing distribution system to more than 600 AF per year if the conveyance system was extended to serve the Santa Fe Golf Course and surrounding area.

The main components needed to expand the program include adding water storage, constructing conveyance system improvements, and building treatment facilities to increase production capacity and to lower the levels of total dissolved solids (TDS) in the recycled water. Water storage could be added at the treatment plant or within the distribution system and there could be benefits to eventually adding storage to both.

Water treatment improvements would likely require the addition of an advanced treatment system (micro filtration and reverse osmosis) to remove TDS and other undesirable constituents. The treatment system may be able to increase the overall output of the water reclamation facility, but its

main function will be to maintain water quality compliance. Concentration levels of TDS in the potable water supply have increased as water supplies have become constrained due to the statewide drought. This has had a direct effect on the TDS levels in the wastewater received by the SEJPA. Furthermore, the Member Agencies of the SEJPA have limited options for regulating or banning salt discharges to the public sewer system, which includes residential use of salt-based water softeners. Without treatment options, the SEJPA will continue to have difficulty in complying with its Recycled Water Master Permit for TDS daily maximum concentrations as well as contractual obligations of its wholesale water agreements. This element of the project is expected to be the most expensive part of the project.

In 2008, the SEJPA retained professional engineering services to prepare the conceptual design of new water storage facilities at the water reclamation facility that could benefit both the Water Reclamation Program and the San Elijo Ocean Outfall. This scope of work was amended to include analyzing the conversion of underutilized wastewater tanks as a cost-effective alternative to building new facilities. The amendment also included incorporating new and previous work performed on demineralization treatment including location requirements, sizing criteria, and utility layouts. The intent is that this conceptual design work, which was built upon findings from previously efforts, will lay the ground work for the preliminary and final design should authorization be given. Studies and reports that have contributed to this effort include the 2002 Demineralization and Conveyance System Improvements Preliminary Design Report, 2005 SEJPA Recycled Water Optimization and Expansion Study, 2005 SFID Recycle Water Master Plan, and the 2007 SEJPA Water Reclamation Facility Master Plan.

## DISCUSSION

### *PROJECT PURPOSE & GOALS*

At this time, staff recommends pursuing a 0.5 million gallon per day (MGD) demineralization facility.

The primary goals of the project are as follows:

- Improve water quality to meet or exceed permit and water agreement requirements
- Increase production capacity of the recycled water system

Secondary goals of the project are as follows:

- Improve operational efficiency of the recycled water system
- Provide limited allowances to Member Agencies for groundwater discharge to sewer system
- Provide limited allowances to Member Agencies for diverting dry weather urban runoff to sewer system

The secondary project goals provide benefits to the Member Agencies through the use of water treatment for non-wastewater flows. These flows may be related to construction dewatering needs or as part of storm water pollution prevention plans. The SEJPA is currently unable to accept such flows due to TDS concerns. With the addition of advanced treatment, limited discharges could be permissible to the Member Agencies' sanitary sewer systems.

### *PROJECT FINANCING*

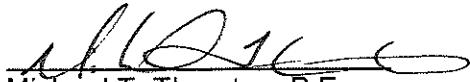
The SEJPA Water Reclamation Fund has a FY 2008-09 balance of \$2.96 million. Staff has budgeted the use of \$910,000 of these funds for the Recycled Water Improvement and Expansion

project, of which this project is a part of. This design contract is for an amount not to exceed \$136,000.

It is therefore recommended that the Board of Directors:

1. Authorize the Chair to execute an agreement with Kennedy/Jenks Consultants for Preliminary Design of an Advanced Wastewater Treatment System for the San Elijo Water Reclamation Facility; and
2. Discuss and take action as appropriate.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

- Attachment 1: Agreement with Kennedy/Jenks Consultants for Preliminary Design of an Advanced Wastewater Treatment System for the San Elijo Water Reclamation Facility
- Attachment 2: Kennedy/Jenks Consultants Proposal for Preliminary Design of an Advanced Wastewater Treatment System for the San Elijo Water Reclamation Facility

# **ATTACHMENT 1**

## **AGREEMENT**

THIS AGREEMENT is made and entered into on this \_\_\_\_ day of \_\_\_\_\_, 2009 by and between the San Elijo Joint Powers Authority, hereinafter referred to as "AUTHORITY", and Kennedy/Jenks Consultants, hereinafter referred to as "CONSULTANT".

### WITNESSETH:

WHEREAS, AUTHORITY requires the professional services for the preliminary design of an advanced wastewater treatment system for the San Elijo Water Reclamation Facility, and

WHEREAS, CONSULTANT represents that it has available, adequate personnel who are well-qualified by reason of education and experience in these matters to perform the necessary professional services under the direction of the AUTHORITY, and

WHEREAS, AUTHORITY desires, and CONSULTANT is willing, to provide professional services as described in Exhibit A of this Agreement,

NOW THEREFORE, the AUTHORITY and CONSULTANT do hereby enter into the following agreement.

1. TERM OF AGREEMENT. The term of this Agreement shall be from the date this Agreement is made and entered, as first written above, until completion and acceptance of the work effort by the General Manager of the AUTHORITY.

2. AUTHORITY OBLIGATIONS

2.1 DATA FURNISHED BY AUTHORITY. For the purpose of aiding CONSULTANT in the performance of its obligations under this Agreement, AUTHORITY shall furnish CONSULTANT with all data in its possession relevant to the project and shall direct its officers, agents and employees to render all reasonable assistance to CONSULTANT in connection with its performance under this Agreement. AUTHORITY is responsible for the reasonable correctness of data so furnished, but it shall likewise be the responsibility of CONSULTANT to apply reasonable caution in its use and interpretation of the data and to promptly advise AUTHORITY of any incorrectness or inconsistencies in the data furnished.

2.2 PAYMENT TO CONSULTANT

2.2.1 DETERMINATION OF COMPENSATION. The compensation by AUTHORITY to CONSULTANT for services under this Agreement shall be billed on a time and material basis not to exceed \$136,000. The scope of work is detailed in Exhibit A.

2.2.2 PAYMENT OF COMPENSATION. Compensation shall be billed monthly in increments based on the work completed, and AUTHORITY shall make payment to CONSULTANT within forty-five (45) calendar days of approval of invoices.

All monthly invoices from CONSULTANT to AUTHORITY shall include detailed breakdowns with a summary of the hours spent by each individual, a budget summary for each task showing the original contract amount, the amount billed for the current invoice

period, the amount previously billed, the amount remaining, and the percentage of work completed.

2.3 AUTHORITY'S PROJECT OFFICER. AUTHORITY's Project Officer, who shall be empowered to act for the AUTHORITY in accordance with law or AUTHORITY ordinance, shall be the General Manager of the AUTHORITY. AUTHORITY's Project Officer or duly-authorized representative shall act on behalf of AUTHORITY in administrative matters of the Contract Documents. This includes, but is not limited to, review of change orders, correspondence, progress payments, etc.

### 3. CONSULTANT'S OBLIGATIONS

#### 3.1 SERVICES TO BE PERFORMED

3.1.1 PROFESSIONAL SERVICES. CONSULTANT shall perform the professional services as described in the scope of work and included herein as Exhibit A and made a part of this Agreement.

#### 3.2 TIME PERIOD.

3.2.1 CONSULTANTING SERVICES. CONSULTANT will commence performance of services after a Notice to Proceed is issued by AUTHORITY.

3.3 CONSULTANT'S PROJECT OFFICER. CONSULTANT's Project Officer shall be empowered to act for CONSULTANT in accordance with the Agreement in all matters relating to the technical administration of services to be provided, shall be CONSULTANT'S duly appointed Project Officer.

The CONSULTANT'S Project Officer shall be PATRICK T. HUSTON.

#### 3.4 RESPONSIBILITY OF CONSULTANT.

- (a) CONSULTANT shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all services furnished by CONSULTANT under this Agreement. CONSULTANT shall, without additional compensation, correct or revise any errors, omissions, or other deficiencies in his analysis, reports, and other services.
- (b) CONSULTANT shall perform such professional services as may be necessary to accomplish the work required to be performed under this Agreement, in accordance with this Agreement in effect on the date of execution of this Agreement, and in accordance with the project schedule contained in Exhibit A.
- (c) Acceptance by AUTHORITY of reports, and incidental professional work or materials furnished hereunder, shall not in any way relieve CONSULTANT of responsibility for the technical adequacy of his work. Neither AUTHORITY's acceptance of, nor payment for any of the services, shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.

- (d) CONSULTANT shall be and remain liable in accordance with applicable law for all damages to AUTHORITY caused by CONSULTANT's negligent performance of any of the services furnished under this Agreement, except for errors, omissions or other deficiencies to the extent attributable to AUTHORITY, AUTHORITY-furnished data, or any third party. CONSULTANT shall not be responsible for any time delays in the project caused by circumstances beyond CONSULTANT's control.
- (e) "Errors, omissions, and deficiencies" are defined as acts of CONSULTANT in preparing drawings, specifications, reports, or other work under this Agreement, which are the result of CONSULTANT's failure to perform in accordance with the standard of practice normally exercised in the performance of professional services of a similar nature, and which result in cost to AUTHORITY in excess of what the cost would have been had such act not occurred. Nothing contained herein shall serve to expand or increase the responsibility of CONSULTANT to any party beyond that imposed by the common law of the State of California.

4. INSURANCE. During the course of the Agreement, CONSULTANT shall pay for and maintain, in full force and effect, all insurance required by any governmental agency having jurisdiction to require particular insurance of CONSULTANT in connection with or related to the work covered hereby. CONSULTANT shall further take out and shall furnish satisfactory proof, by certificate or otherwise as may be required, that he has taken out commercial general liability insurance with AUTHORITY included herein as an additional insured. Insurance carrier shall be satisfactory to AUTHORITY, and insurance shall be in such form approved by AUTHORITY so as to protect AUTHORITY and its employees against loss from liability imposed by law from damages on account of bodily injury, including death resulting therefrom, suffered or alleged to have been suffered by any person or persons, other than employees, resulting directly from the negligent performance or execution of this Agreement by CONSULTANT, and also to protect AUTHORITY and its employees against loss from liability imposed by law for damage to any property, caused directly by the negligent performance or execution of the Agreement by CONSULTANT; which insurance shall also cover accidents arising out of the use and operation of automobiles, trucks, and/or other mobile equipment. All said commercial liability and property damage insurance shall be for the period of performance under this Agreement. The amounts of coverage of said insurance shall be the following:

General and Professional Liability - \$1,000,000 limit  
Auto Insurance (company owned) - \$ 500,000 limit  
Auto Insurance (non-company owned) - \$1,000,000 limit

Said policies shall have a non-cancellation clause providing that thirty (30) days written notice shall be given to AUTHORITY prior to any material modification or cancellation, and a certificate of such insurance shall be furnished to AUTHORITY by direct mail from CONSULTANT's insurance carrier and shall specifically cover any contractual liability incurred hereunder. CONSULTANT shall further maintain adequate Workers' Compensation Insurance, including occupational disease provisions, under the laws of the State of California and employer's general liability insurance for the benefit of its employees, and shall require similar insurance to be provided by its subcontractors. A certificate shall be furnished to AUTHORITY showing compliance with above.

CONSULTANT further agrees to provide AUTHORITY within seven (7) days from the date of execution of this Agreement, proof of insurance verifying that CONSULTANT maintains

Professional Liability Insurance (Errors and Omissions) in the amount of \$1,000,000. Said Professional Liability Insurance shall be paid for by CONSULTANT, and shall be maintained in full force and effect throughout the term of the Agreement.

5. HOLD HARMLESS AND INDEMNIFICATION. CONSULTANT agrees to indemnify, defend and hold harmless AUTHORITY, its officers, its officials, employees, representatives and agents from and against all claims, lawsuits, liabilities or damages to the extent caused by any negligent act or omission of CONSULTANT, his agents, employees, and subcontractor and employees thereof, pursuant to this Agreement. CONSULTANT shall indemnify AUTHORITY and do whatever is necessary to protect AUTHORITY, its officials, officers, employees, agents, and representatives as to any such claims, lawsuits, liabilities or damages. CONSULTANT's liability for all of the aforesaid matters is limited to the proceeds recovered from insurance carried by the CONSULTANT and within the monetary limits of the insurance specified in Article thereto. In no event shall CONSULTANT or AUTHORITY be liable in contract, tort, strict liability, warranty or otherwise for any special, indirect incidental or consequential damages.

AUTHORITY agrees to hold harmless and defend CONSULTANT, its officers, agents, and employees with respect to any claim or legal proceedings or judgment made, filed, or presented against and foregoing, by reason of AUTHORITY's, its officers, agents, employees, malfeasance, misfeasance, or nonfeasance during the term of this Agreement.

6. ASSIGNMENT. Except as expressly provided herein, this Agreement shall not be assignable by either party without the prior written consent of the other party hereto. No assignment of this Agreement shall relieve the assignor until the Agreement shall have been assumed by the assignee. When duly assigned in accordance with the foregoing, this Agreement shall be binding upon and shall insure to the benefit of the assignee.
7. TERMINATION. If, during the term of this Agreement, AUTHORITY determines that the CONSULTANT is not faithfully abiding by any term of condition contained herein, AUTHORITY may notify CONSULTANT in writing of such defect of failure to perform; which notice must give CONSULTANT a ten (10) day notice time thereafter in which to perform said work or cure the deficiency. If CONSULTANT has not performed the work or cured the deficiency within the number of days specified in the notice, such shall constitute a breach of this Agreement, and AUTHORITY may terminate this Agreement immediately by written notice to CONSULTANT to said effect. Thereafter, neither party shall have any further duties, obligations, responsibilities, or rights under this Agreement. In said event, CONSULTANT shall be entitled to the reasonable value of its service performed from the beginning of the period in which the breach occurs up to the day it received AUTHORITY's notice of termination, minus any offset from such payment representing AUTHORITY's damages from such breach. In no event, however, shall CONSULTANT be entitled to receive in excess of the total lump sum price bid of the proposal and special services.



8. OWNERSHIP OF DOCUMENTS. Reports, model database, electronic maps, as herein required, are the property of AUTHORITY following payment in full to the CONSULTANT for services rendered. Upon completion of all work under this Agreement, or in the event this Agreement is terminated prior to completion of all such work, all documents, plans, specifications, photograph rendering, drawings of the facility, and all other material provided to assist CONSULTANT in performing under this Agreement shall be delivered forthwith to AUTHORITY.

Any use of the aforesaid completed documents for other AUTHORITY projects at other sites and/or any use of the aforesaid incomplete documents without specific, written verification by CONSULTANT will be at AUTHORITY's sole risk and without liability or legal exposure to CONSULTANT, and AUTHORITY shall indemnify and hold harmless CONSULTANT from all claims, damages, losses and expense, including attorneys' fees, arising out of or resulting therefrom.

9. SUBCONTRACTS. AUTHORITY has entered into this Agreement in order to receive the professional service of CONSULTANT. The provisions of the Agreement shall apply to any subcontractor to CONSULTANT. AUTHORITY shall have the right to approve all subcontractor agreements.

10. ENTIRE AGREEMENT. This Agreement constitutes the whole Agreement between the parties hereto with respect to the subject matter hereof, and neither party nor any of its agents or employees had made any representation except as specifically provided herein. Neither of the parties in executing or performing this Agreement is relying upon any statement or information to whosoever made or given directly or indirectly, verbally or in writing by any individual or corporation except as specifically provided herein. The Agreement may not be modified or altered except in writing signed by all parties of the Agreement.

11. PROHIBITED EMPLOYMENT DISCRIMINATION. In the performance of the terms of this Agreement, CONTRACTOR agrees that it will not engage in, nor permit such subcontractors as it may employ to engage in, discrimination in employment of persons in violation of Labor Code Section 1735, which reads as follows:

A contractor shall not discriminate in the employment of persons upon public works on any basis listed in subdivision (a) of Section 12940 of the Government Code, as those bases are defined in Sections 12926 and 12926.1 of the Government Code, except as otherwise provided in Section 12940 of the Government Code. Every contractor for public works who violates this section is subject to all penalties imposed for a violation of this chapter.

Violation of this provision may result in the imposition of penalties referred to in Labor Code Section 1735.

12. NOTICES. All communications, notices, and demands of any kind which either party hereto may be required or may desire to give to or serve upon the other party or any office hereof or by enclosing it in a sealed envelope and depositing it in the United States mail, postage prepaid, certified return-receipt, and addressed to the respective parties as follows:

AUTHORITY:

San Elijo Joint Powers Authority  
2695 Manchester Avenue, P.O. Box 1077  
Cardiff by the Sea, California 92007-7077

CONSULTANT:

Kennedy/Jenks Consultants  
16855 West Bernardo Drive, Suite 360  
San Diego, California 92127-1613

- 13. LITIGATION COSTS. In the event an action is filed by either party to enforce any rights or obligations under this Agreement, the prevailing party shall be entitled to recover reasonable attorneys' fees and court costs, in addition to any other relief granted by the Court.
- 14. AUTHORITY TO EXECUTE AGREEMENT. Both AUTHORITY and CONSULTANT do covenant that each individual executing this Agreement on behalf of each party is a person duly authorized and empowered to execute agreements for such party.
- 15. THIRD PARTY RIGHTS. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than AUTHORITY and CONSULTANT.

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

ATTEST:

SAN ELIJO JOINT POWERS AUTHORITY

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

Date: \_\_\_\_\_

SAN ELIJO JOINT POWERS AUTHORITY

By: \_\_\_\_\_  
Dave Roberts, Chairperson

Date: \_\_\_\_\_

CONSULTANT

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

Date: \_\_\_\_\_

## **ATTACHMENT 2**

# Kennedy/Jenks Consultants

## Engineers & Scientists

10920 Via Frontera, Suite 110  
San Diego, California 92127  
858-676-3620  
858-676-3625 (Fax)

30 June 2009

Mr. Michael T. Thornton, P.E.  
General Manager  
San Elijo Joint Powers Authority  
2695 Manchester Avenue  
Cardiff by the Sea, California 92007-1077

Subject: Proposal for Preliminary Design of an Advanced Wastewater Treatment System for the San Elijo Water Reclamation Facility.

Dear Mr. Thornton:

Kennedy/Jenks presents the following proposal for the above-referenced project, building from our April 16, 2009 Statement of Qualifications and our scoping meetings held with San Elijo JPA on May 19, 2009 and June 18, 2009. Kennedy/Jenks is proposing a preliminary design phase scope of work which builds up on Technical Memorandum No. 35.001-008, Conceptual Design for a 0.5 MGD Demineralization Facility, Trussell Technologies, Inc., January 30, 2009.

The following summarizes our proposed scope of work for the preliminary design phase of the project.

## **Task 1 – Project Management**

### **Task 1.1 – Project Meetings/Workshops**

Kennedy/Jenks's project team will hold four (4) project meetings/workshops with San Elijo JPA. These meetings are anticipated to address the following:

- Project Kickoff
- AWT System Evaluations Review
- Electrical, I&C and Solar System Review
- Draft PDR Review

Kennedy/Jenks will prepare an agenda for each meeting and will distribute minutes to each of the meeting participants.

The project kickoff meeting will be held within two weeks from receipt of a notice to proceed. This meeting will include representatives from San Elijo JPA, Kennedy/Jenks. At this kickoff

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meeting, project reporting/communication protocols will be established, a project Gantt chart schedule will be provided to San Elijo JPA and key technical issues will be discussed.

The purpose of the review meetings will be for Kennedy/Jenks and SEJPA staff to discuss and clarify any comments that may have been made on each submittal. Kennedy/Jenks will compile all SEJPA comments into a spreadsheet format prior to the comment review meetings, and provide a response as to our planned course of action to address each comment. These spreadsheets will be distributed prior to the review meetings, and will serve as the basis for discussion.

### **Task 1.2 – Quality Control/Quality Assurance**

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

### **Task 1.3 – Project Management**

This task addresses the management responsibilities associated with proper scheduling review, budget control, invoice preparation and coordination with San Elijo JPA and the Kennedy/Jenks' project team. Mr. Matt Tebbetts, Kennedy/Jenks' Project Manager will review the status of the project with San Elijo JPA's Project Manager on a monthly basis. A monthly status report will be provided, including a listing of items accomplished in the previous reporting period, items expected to be accomplished in the next reporting period, an update on the status of the project budget, and an updated project Gantt chart schedule.

### **Task 1.4 – Regional Board and California Department of Health Coordination**

Implementation of the proposed treatment modifications will require permit modifications and concurrence on the use of the existing SEWRF facilities for storage of disinfected tertiary effluent. During the planning stage, it will be important to seek input from both agencies to avoid delays and possible issues when permits are formally obtained as a part of the design process. This task will include meetings with the Regional Board and CDPH to seek and obtain input on permit requirements for the new treatment process and identify concerns and options. Meeting minutes will be issued for each regulatory agency meeting and will serve as documentation. The preliminary design for the AWT system will incorporate improvements needed to satisfy regulatory agency concerns.

## **Task 2 – Site Investigations**

### **Task 2.1 – Geotechnical Investigation**

Geotechnical investigations for the preliminary design phase of the project will include reviewing historical soils borings and existing geotechnical reports for the San Elijo WRF site. These data

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will be used to generally assess the geotechnical design parameters likely for the project, including:

- General site geology
- Anticipated soil conditions
- Depth to groundwater
- Anticipated groundwater quality
- Soil corrosivity

The information collected from the previous investigations and studies should be sufficient to support the preliminary design phase of the project. Given that the final design and construction of the project may be conducted in phases, we are proposing that project-specific geotechnical investigations be conducted at the final-design phase of the project, as a means of reducing or deferring project costs.

### **Task 2.2 – Site Surveying**

Kennedy/Jenks will utilize the site surveying data being developed by San Elijo JPA as a background image for the AWT system design. We understand that the following information will be furnished to Kennedy/Jenks:

- Survey and mapping data prepared at a scale 1" = 40', with one (1) foot contour intervals in AutoCAD format.
- An aerial photograph of the plant site.
- An AutoCAD drawing file of the surveys showing property lines together with the aerial mapping and field located topographic features. Included will be the basis of bearings for the survey, benchmark information, monument descriptions plus boundary annotation.

### **Task 3 – Engineering Analysis & Alternatives Evaluation**

This task provides engineering analysis and evaluation of alternatives of the project including:

- Advanced wastewater treatment (AWT) system
- Electrical, instrumentation and control systems
- Solar power and energy efficiency

A summary of the analyses and alternatives evaluations for each of the above-described project elements will be presented to San Elijo in the form of draft PDR sections, which will allow both timely exchange of information and ideas between San Elijo JPA and Kennedy/Jenks' project team, as well as the efficient development of the final preliminary design report.

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### **Task 3.1 – Advanced Wastewater Treatment System**

Kennedy/Jenks will build off the previous work in the “Conceptual Design of a 0.5 mgd Demineralization Facility”, dated January 2009, to further develop and define the design criteria and objectives for the AWT System.

Kennedy/Jenks understands your objective for the AWT System is to cost-effectively reduce the overall TDS in the recycled water produced by the San Elijo JPA to less than 1,000 mg/l. Kennedy/Jenks will work with San Elijo JPA staff to evaluate innovative ideas to minimize the capital and operating costs of the AWT while still meeting the overall project objective. Ideas to save costs include:

- Providing a layout and equipment slab for a system with multiple units for flexibility and reliability, but phasing the purchase of the equipment to meet current needs.
- Designing the AWT area canopy to accommodate future aesthetic treatments or solar panels, but initially installing only what is necessary to protect the equipment.
- Designing the RO system to operate at reduced recovery or in a single stage configuration during the winter when demands are lower. This could permit operating the system to provide just the amount of desalted water necessary and help save energy costs.
- Providing a bench-top RO element tester to permit San Elijo JPA to confidently reuse low-cost secondary market RO membrane elements in the AWT.

Kennedy/Jenks understands that the AWT treatment process will have a capacity of 0.5 mgd and include packaged, skid-mounted microfiltration (MF) or ultrafiltration (UF) pretreatment ahead of reverse osmosis (RO) desalination treatment.

#### **MF/UF Pretreatment Filtration**

For this relatively small capacity, the MF and UF pretreatment units will be packaged, skid mounted systems. Manufacturers such as GE/Zenon, Pall, and Siemens/Memcor make pressurized and immersed package membrane systems with standard capacities of 0.25 to 0.5 mgd, that are skid mounted and designed for slab-on-grade installation.

Kennedy/Jenks will compare the footprint requirements, and capital and operating costs of different MF and UF packaged pretreatment systems to evaluate if one system has significant advantages over any others. However, for this application, Kennedy/Jenks recommends permitting both MF and UF membrane suppliers, as well as both pressure and immersed systems, to bid for the project. This will provide for more competitive bidding on the project without sacrificing system performance. In discussions with San Elijo JPA, Kennedy/Jenks agrees that pilot testing is not required for this project. The project specifications would clearly specify conservative flux rates and performance criteria for the MF or UF (MF/UF) systems based on successful performance on similar waters.

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Kennedy/Jenks recommends having at least two units for the MF/UF pretreatment system each designed for 0.25 MGD or higher flow. This would provide flexibility, reliability and permit more simple operational controls. Kennedy/Jenks will evaluate options to phase the equipment installation to potentially save initial project costs. This could include installing a single unit initially with space for a future unit. Another approach could be installing two units, but with only the number of membrane elements that are initially needed. The unit capacity could be expanded in the future by adding more membrane elements.

### **RO Desalination**

Kennedy/Jenks will work with San Elijo JPA to determine if one or two RO units are the most cost effective approach for this project. With proper pre-treatment, an RO system can be fairly reliable. It may be more cost-effective to provide one 0.5 mgd RO skid and to design flexibility into the single skid to permit producing more or less water, as required to blend with the recycled water to meet the <1,000 mg/l objective. In the summer, the RO could operate in a full capacity, 2-stage, high recovery mode to produce 0.5 mgd of low TDS water for blending. In the winter, the system could operate at a reduced recovery or in a single stage only configuration to produce approximately 0.25 mgd of water.

### **Develop Design Criteria and Process Equipment Layouts**

Based on the evaluations and coordination with San Elijo JPA described above, Kennedy/Jenks will describe the treatment objectives and the recommended treatment processes for the AWT to meet the project objectives. Kennedy/Jenks will prepare a detailed preliminary design criteria table for the AWT and a preliminary layout of the mechanical equipment for the AWT. This summary description, design criteria table and preliminary layout will be used in our discussions at the AWT Evaluation Review Meeting and will be included in the PDR. Our proposal assumes that the existing chlorine contact tank will be used to disinfect the AWT system effluent.

Kennedy/Jenks will prepare a process flow diagram and hydraulic profile for the new AWT processes, illustrating how the AWT system hydraulics will fit within the established hydraulic grade lines of the secondary clarifiers and the chlorine contact tank. The process flow diagram provides a schematic drawing of how the new process will be operated in conjunction with the existing facilities. The hydraulic profile is important to make sure the new facilities are designed to work properly with the existing San Elijo WRF process units from a hydraulic standpoint. We will also prepare preliminary process and instrumentation diagrams (P&ID) for the AWT treatment processes. These drawings will be included in the PDR.

As part of this task, we will provide a computational analysis of the recycled water quality resulting from the AWT system. We will also identify brine concentrate quality for comparison with the San Elijo WRF's NPDES permit effluent limitations to confirm that these requirements will be met, even during times when plant effluent is dominated by brine concentrate flows.



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### **Reuse of Secondary-Market RO Elements**

Kennedy/Jenks understands that San Elijo JPA has obtained low-cost, secondary-market Hydranautics ESPA RO membranes that could be used in the AWT. This can be a cost-effective approach to providing RO membrane elements for the project because the exact ion specific salt rejection from individual RO membranes is not as critical as the ability of the overall system to reduce TDS for blending. However, it is important to test the used membrane elements to make sure they perform to a minimum standard of salt rejection. Kennedy/Jenks understands that San Elijo JPA would like to be able to perform bench-top membrane element testing of their secondary-market RO membranes. Using San Elijo JPA staff to perform this testing saves considerable costs as compared to sending the elements to a manufacturer for testing.

Kennedy/Jenks will evaluate options for San Elijo JPA to purchase a bench-top scale 8-inch RO element test system. Kennedy/Jenks will also prepare a preliminary process and instrumentation diagram (P&ID) for a bench-top scale 8-inch RO element test system. If San Elijo JPA determines they would rather build the bench-top scale 8-inch RO element test system, the preliminary P&ID would be further developed in the next phases of the project.

### **Cost-Effective Architectural Treatments**

The AWT system is currently envisioned to be located beneath a canopy structure to cost-effectively protect the AWT equipment from the sun and rain. Kennedy/Jenks will develop a plan and elevation drawing of the canopy system based on the space and access requirements for the AWT system. Kennedy/Jenks will review with San Elijo JPA architectural treatment options for the canopy system to create an aesthetically acceptable and cost effective solution. The architectural treatments will also consider incorporating solar panels as part of the canopy.

For scoping purposes, our proposal assumes that 2 different elevation views will be developed for the canopy showing the two different architectural treatment options. These options will be reviewed with San Elijo JPA, with the selected alternative identified in the preliminary design report.

### **Task 3.2 – Electrical, Instrumentation and Control Systems**

Kennedy/Jenks and our subconsultant Moraes and Pham will evaluate the electrical, instrumentation and control systems in support of the AWT system.

The existing MCCs have the capacity to accommodate the new loads of the AWT system. However the impact on the main switchboard needs to be assessed. We will evaluate the power needs for the proposed AWT system.

The existing PLC will communicate with the new recycled water pump station VFDs using discrete I/O and communicate with new AWT system skid control panels via Ethernet. Ethernet communications may be copper or fiber optic, depending on San Elijo's preferences. PLC, Operator Interface Terminal (OIT) and central MMI programming are assumed to be conducted by San Elijo JPA staff. Alternatively, this programming work could be assigned to the Contractor, should San Elijo JPA so choose.

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The scope of the electrical, instrumentation and control system evaluations will include:

- Interview with Authority staff to confirm PLC integration division of work.
- Prepare partial single line diagrams for new MCC loads.
- Evaluate impact of new loads on existing service meter switchboard. We will request the past 12 months of SDG&E billing data from San Elijo JPA. The billing data will indicate the maximum demand for each monthly period. We also intend to log switchboard amperage readings during peak demand. Peak demand may be simulated by manually forcing pumps on for a short duration.
- Provide space planning for locating new feeder breakers and appurtenances assuming that the new electrical equipment is located within the existing electrical room.
- Control system diagram, showing existing and new PLCs, and tie-ins to existing fiber-optic backbone and SCADA system.

### **Task 3.3 – Solar Power and Energy Efficiency**

Kennedy/Jenks will evaluate the use of solar panels as part of the project as a means to effectively offset a portion of the San Elijo WRFs energy use. This evaluation will include the potential for placing solar panels on top of the existing chlorine contact tank and on top of the proposed AWT System canopy. Power production, costs, financial incentives and pay-back periods will be identified.

As part of this effort we will identify the energy efficiency features proposed for the project and quantify the incremental cost of these features and their resulting energy savings. This information can be used by San Elijo JPA as part of an Energy Savings By Design Grant application.

### **Task 4.1 – Preliminary Design Report Preparation**

Building from the evaluations conducted as part of Task 3, and the input provided by San Elijo Staff during the Task 3 review meetings, Kennedy/Jenks will develop a preliminary design report that will lay out the foundation for the final design of the advance wastewater treatment system. The preliminary design report will summarize the following:

- Defining design criteria
- Equipment sizing
- Identifying manufactures, models and specifications for key equipment
- Noted operator preferences for equipment, materials and configurations
- Mechanical layout drawings
- P&IDs
- Permitting requirements
- CEQA compliance requirements (summarizing Dudek's forthcoming CEQA report)

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- Construction costs
- Phasing plan

Kennedy/Jenks will prepare and submit ten (10) copies of the Draft preliminary design report to San Elijo JPA for review. Kennedy/Jenks will incorporate all comments from San Elijo JPA after each review. Upon acceptance by San Elijo JPA, Kennedy/Jenks will then submit ten (10) copies of the Final preliminary design report, along with ten (10) copies in electronic format provided on CD.

Kennedy/Jenks assumes the following preliminary level drawings would be included in the Preliminary Design Report.

**Table 1  
 Anticipated PDR Drawing List**

Sheet	Description
<b>General</b>	
G1.4	AWT Plant Flow Schematic
G1.5	AWT Hydraulic Profile
<b>CIVIL</b>	
C1.3	AWT Site Plan
<b>Architectural</b>	
A2.1	AWT Facility - Plan
A2.2	AWT Facility - Exterior Elevations
<b>Mechanical</b>	
M2.2	AWT Facility - Process Plan
M2.2	AWT Facility - Process Sections
<b>Electrical</b>	
E1.1	Electrical Symbols, Abbreviations and Legend
E1.2	Main Distribution - Single Line Diagram
E1.3	Electrical Site Plan Alternatives
E2.1	AWT Facility - Single Line Diagram
<b>P&amp;IDs</b>	
I1.1	Instrumentation Legend and Abbreviations
I1.2	Control System Block Diagram
I1.3	P&ID - AWT Membrane Pretreatment System
I1.4	P&ID - AWT RO Treatment System
I1.5	P&ID - RO CIP System
I1.6	P&ID - Spent Washwater System

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**Schedule and Fee**

Kennedy/Jenks is prepared to initiate work on this project immediately following receipt of a notice to proceed. The attached Gantt chart outlines our proposed project schedule.

Kennedy/Jenks proposes to perform the above-described scope of work on a time-and-materials basis consistent with the attached 2009 rate schedule. Our estimated fee for this project is \$136,000. The attached table outlines our estimated fee by task.

We greatly appreciate the opportunity to work with you on this exciting project. If you have any questions about this draft scope of work, please do not hesitate to contact me.

Very truly yours,  
KENNEDY/JENKS CONSULTANTS, INC.

Handwritten signature of Patrick Huston, consisting of a stylized 'P' and 'H' with a 'T' in the middle.

Patrick Huston, P.E.  
Vice President

c: M. Tebbetts  
C. Young  
T. Reynolds

**Client/Address:** San Elijo Joint Powers Authority  
2695 Manchester Avenue  
Cardiff by the Sea, California 92007

**Contract/Proposal Date:** June 26, 2009

## Schedule of Charges

January 1, 2009

### Personnel Compensation

Classification	Hourly Rate
CAD-Technician .....	\$95
Designer-Senior Technician .....	\$125
Engineer-Scientist-Specialist 2 .....	\$120
Engineer-Scientist-Specialist 3 .....	\$135
Engineer-Scientist-Specialist 4 .....	\$150
Engineer-Scientist-Specialist 5 .....	\$165
Engineer-Scientist-Specialist 6 .....	\$185
Engineer-Scientist-Specialist 7 .....	\$210
Engineer-Scientist-Specialist 8 .....	\$220
Engineer-Scientist-Specialist 9 .....	\$225
Project Administrator .....	\$85
Administrative Assistant .....	\$70
Aide.....	\$55

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

### Direct Expenses

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

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

Reimbursement for vehicles used in connection with the work will be at the federally approved mileage rates or at a negotiated monthly rate.

Reimbursement for use of computerized drafting systems (CAD), geographical information systems (GIS), and other specialized software and hardware will be at the rate of \$12 per hour.

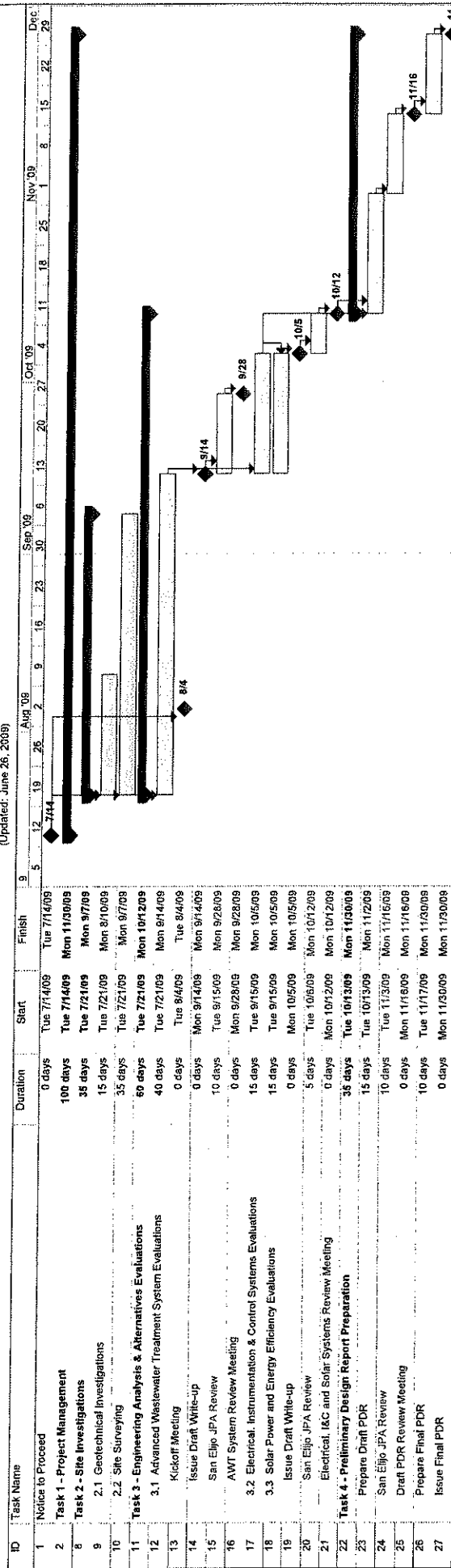
Rates for professional staff for legal proceedings or as expert witnesses will be at rates one and one-half times the Hourly Rates specified above.

Other in-house charges for prints and reproductions, equipment usage, laboratory analyses, etc. will be at standard company rates.

Excise and gross receipts taxes, if any, will be added as a direct expense.

The foregoing Schedule of Charges is incorporated into the agreement for the services provided, effective January 1, 2009 through December 31, 2009. After December 31, 2009, invoices will reflect the Schedule of Charges currently in effect.

**San Elijo Joint Powers Authority  
Advanced Wastewater Treatment System  
Preliminary Design Phase Schedule**  
(Updated: June 26, 2009)



Project: RWAWT PDR Schedule 062Z  
Date: Fri 6/25/09

Task Split

Progress Milestone

Summary Project Summary

External Tasks External Milestone

Deadline

**Proposal Fee Estimate**

**Kennedy/Jenks Consultants**

CLIENT Name: San Eljio Joint Powers Authority  
 PROJECT Description: Advanced Wastewater Treatment System Preliminary Design  
 Date: June 29, 2009

Classification:	January 1, 2009 Rates									Total Hours	Sub-Consultants	Expenses	Total Fee				
	Eng-Sc-9	Eng-Sc-8	Eng-Sc-7	Eng-Sc-6	Eng-Sc-5	Eng-Sc-4	Eng-Sc-3	Designer	Project Admin.					Admin. Assist.	Total Fees	Labor	
Hourly Rate:	\$225	\$220	\$210	\$185	\$165	\$150	\$135	\$125	\$85	\$70							
<b>Task 1 - Project Management</b>																	
1.1 Project Meetings & Workshops (4)	4	16	12	4							4	40	\$7,960	\$0	\$400	\$8,360	
1.2 Quality Control/Quality Assurance	8	8	0	0	0						4	20	\$3,840	\$0	\$170	\$4,010	
1.3 Project Management	4	16	0	0	0						4	28	\$5,040	\$0	\$250	\$5,290	
1.5 Regional Board and CDPH Coordination	12	12	0	0	0						4	16	\$2,920	\$0	\$150	\$3,070	
<b>Task1 - Subtotal</b>	16	52	12	4	0	0	0	0	4	4	16	104	\$19,760	\$0	\$970	\$20,730	
<b>Task 2 - Site Investigations</b>																	
2.1 Geotechnical Investigations		1	4		4						1	9	\$1,570	\$0	\$80	\$1,650	
2.2 Site Surveying		1	4	0	4						1	6	\$950	\$0	\$50	\$1,000	
<b>Task 2 - Subtotal</b>	0	1	4	0	8			0	0	0	2	15	\$2,520	\$0	\$130	\$2,650	
<b>Task 3 - Engineering Analysis &amp; Alternatives Evaluations</b>																	
3.1 Advanced Wastewater Treatment System Evaluate and Prepare Design Criteria		8	12									8	68	\$10,540	\$0	\$500	\$11,040
Process Flow Diagram and Hydraulic Profile		2	8									70	\$10,320	\$0	\$520	\$10,840	
Process Mechanical Layout		2	8									78	\$11,480	\$0	\$570	\$12,050	
Investigate Reuse of RO Elements		8	4									52	\$8,200	\$0	\$410	\$8,610	
Architectural Options Eval		8	4									54	\$8,540	\$4,000	\$430	\$12,970	
3.2 Electrical Instrumentation & Control Systems		4	8									16	\$3,220	\$11,090	\$100	\$14,410	
3.3 Solar Power and Energy Efficiency		4										2	\$4,150	\$0	\$200	\$4,350	
<b>Task 3 - Subtotal</b>	0	36	44	0	24	88	60	84	0	12	368		\$56,460	\$15,090	\$2,730	\$74,280	
<b>Task 4 - Preliminary Design Report Preparation</b>																	
Preliminary Design Report		8	16	8								20	\$17,300	\$7,260	\$820	\$25,380	
P&IDs		4	16									80	\$12,340	\$0	\$620	\$12,960	
<b>Task 4 - Subtotal</b>	0	12	32	8	0	48	20	60	0	20	200		\$29,640	\$7,260	\$1,440	\$38,340	
<b>Total</b>	16	101	92	12	32	136	100	144	4	50	687		\$108,380	\$22,350	\$5,270	\$136,000	

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

July 13, 2009

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: MEMORANDUMS OF UNDERSTANDING (MOU's) BETWEEN THE SAN ELIJO JOINT POWERS AUTHORITY AND THE CITY OF ENCINITAS AND THE CITY OF SOLANA BEACH FOR PUMP STATION OPERATION AND MAINTENANCE SERVICES

RECOMMENDATION

It is recommended that the Board of Directors:

1. Discuss and take action as appropriate.

BACKGROUND

The cities of Encinitas and Solana Beach own municipal storm water and wastewater utility infrastructure. Some of this infrastructure is operated and maintained through agreement with the San Elijo Joint Powers Authority (SEJPA). For the cities, the SEJPA operates and maintains the following facilities:

ENCINITAS PUMP STATIONS:	SOLANA BEACH PUMP STATIONS:
Cardiff Wastewater 2690 Manchester Avenue	Eden Gardens Wastewater Corner of Valley Road & Highland Drive
Coast Wastewater 2470 South Hwy. 101	Fletcher Cove Wastewater Corner of Plaza & Highland Drive
Moonlight Beach Wastewater 150 B Street	San Elijo Hills Wastewater 751 Santa Helena Avenue
Moonlight Beach Storm Water UV Treatment 150 B Street	Solana Beach Wastewater 1000 North Rios Avenue
Olivenhain Wastewater 3101 Manchester Avenue	Solana Beach Wastewater Siphon Station 800 Santa Inez
Phoebe Storm Water 1226 North Hwy. 101	



## DISCUSSION

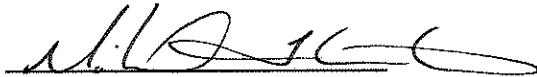
Since the formation of the SEJPA, this agency has performed operation and maintenance services for wastewater and storm water infrastructure owned by the Cities of Encinitas and Solana Beach. During this period, the primary agreement between the parties to document and memorialize the operation and maintenance services was the annual SEJPA budget document. Whereas all parties are interested in continuing this operating agreement and would like to formally document the roles and responsibilities of each party, the staff of each agency has worked together to develop memorandums of understanding (MOU's). The draft MOU's are now ready for review by the SEJPA and its Member Agencies.

## RECOMMENDATION

It is recommended that the Board of Directors:

1. Discuss and take action as appropriate.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

Attachment 1: MEMORANDUM OF UNDERSTANDING BETWEEN SAN ELIJO JOINT POWERS AUTHORITY AND CITY OF ENCINITAS FOR PUMP STATION OPERATION AND MAINTENANCE SERVICES

Attachment 2: MEMORANDUM OF UNDERSTANDING BETWEEN SAN ELIJO JOINT POWERS AUTHORITY AND CITY OF SOLANA BEACH FOR PUMP STATION OPERATION AND MAINTENANCE SERVICES

# **ATTACHMENT 1**

**MEMORANDUM OF UNDERSTANDING BETWEEN  
SAN ELIJO JOINT POWERS AUTHORITY  
AND CITY OF ENCINITAS FOR  
PUMP STATION OPERATION AND MAINTENANCE SERVICES**

This Memorandum of Understanding is entered into as of \_\_\_\_\_, 2009 by and between the City of Encinitas, hereinafter referred to as CITY, and the San Elijo Joint Powers Authority, hereinafter referred to as SEJPA (collectively referred to as "Parties" and individually referred to as "Party"), with respect to the following facts:

**RECITALS**

WHEREAS, CITY owns the Olivenhain, Cardiff, Coast and Moonlight Beach Wastewater pump stations and the Moonlight Beach Storm Water UV Treatment Facility and Phoebe Storm Water pump station (collectively referred to as the "Pump Stations" and individually referred to as "Pump Station"), including the force mains associated with such stations, their valves and appurtenances, and certain gravity sewer lines; and

WHEREAS, for purposes of this Memorandum of Understanding, the Pump Stations and related facilities located inside the fencing surrounding Pump Stations, are identified in **Exhibit 1**, City Owned Facilities that are operated and maintained by SEJPA; and

WHEREAS, SEJPA is currently operating and maintaining the Pump Stations to the satisfaction of CITY; and

WHEREAS, CITY desires SEJPA to continue to operate and maintain the Pump Stations, and SEJPA is willing to provide such services, subject to written terms and conditions.

NOW, THEREFORE, in consideration of the mutual promises, obligations and covenants set forth herein, CITY and SEJPA set forth the following Memorandum of Understanding ("MOU").

**ARTICLE I: SCOPE OF WORK**

The SEJPA shall maintain in good operating condition the equipment at the Pump Stations. Specific services to be provided by SEJPA hereunder are detailed in **Exhibit 2**, Scope of Work for Annual Operation and Maintenance ("O&M") Services. In performing these services, SEJPA shall follow practices consistent with generally accepted technical standards and SEJPA represents that its staff are skilled in the expertise necessary to provide these services.

The SEJPA shall be responsible solely for the operation and maintenance of the Pump Stations as provided by the CITY. While the intent of the SEJPA is to maximize the performance of the existing facilities, SEJPA shall not be liable for any consequential damage or failure caused by the inability of the facilities to handle flows outside of their rated operating range.

## **ARTICLE II: BUDGETING**

A. CITY shall compensate SEJPA for all expenses associated with the operation and maintenance of the Pump Stations, in accordance with annual budgets to be developed and recommended by SEJPA and adopted by CITY.

B. The Pump Stations' budgets shall be based on a fiscal year beginning July 1 and extending through June 30 of the following year, and shall be prepared in accordance with the Restatement of Agreement Between Cardiff Sanitation District and Solana Beach Sanitation District Establishing the San Elijo Joint Powers Authority.

1. The operating and maintenance budgets shall be separate for each Pump Station, and each budget shall include the estimated amount of money required for operation and maintenance including, but not limited to: salaries and benefits, building and equipment maintenance costs, utilities, chemicals, permits and permit amendment costs, accounting and auditing costs, administration costs, legal services, overhead costs, insurance and other costs as required for operation and maintenance in conformance with this MOU.

2. Concurrently with the preparation of the SEJPA Annual Budget, SEJPA shall also prepare a recommended capital budget as part of the annual budget process for the Pump Stations. The capital budget shall be for replacement and rehabilitation efforts which will not affect the designed capacity or operating characteristics of the station(s), to maintain the station(s) reliability, safety and compliance with regulatory requirements.

3. CITY shall be responsible for the planning, design, bidding, construction management and supervision of all capital improvements for the Pump Stations. Under no circumstances shall SEJPA be responsible for the planning, design, bidding, construction management or supervision of such work at either Pump Station. SEJPA shall, however, coordinate the continued operation and maintenance of the Pump Stations as necessary during the course of such construction. CITY shall, before letting any contract for such work, provide a reasonable opportunity to SEJPA to comment on plans for making the proposed improvements as respects operational and maintenance consequences. Any such contract shall require the contractor to name SEJPA as additional insured as to any insurance required of the contractor by the awarding agency and as to which the awarding agency will be insured, provided that SEJPA need not be an insured under any bid, performance or payment bonds required.

C. SEJPA shall forward estimated operating and capital budgets to CITY for review. Until such time as formal approval has been received from CITY, the estimated budgets shall constitute merely proposed budgets, subject to consideration or revision. In the event a recommended budget is not approved, SEJPA shall continue to operate and maintain the Pump Stations using the previous fiscal year budget figures, provided that if no budget is approved prior to the end of the current fiscal year, SEJPA shall have no obligation to continue to provide services hereunder after the close of the fiscal year.

## **ARTICLE III: COMPENSATION**

SEJPA shall bill CITY on a quarterly basis, on July 1, October 1, January 1 and April 1. CITY shall promptly pay for one fourth of the annual cost of operation and maintenance services

for the Pump Stations, as approved in the annual operating budget. In the event at the end of any fiscal year, the amount paid by CITY exceeds the amount which should have been charged based upon the actual expenses for the full fiscal year, the excess shall be credited to the CITY for the following fiscal year. In case of underpayment, the CITY shall be billed by the SEJPA for the deficiency.

#### **ARTICLE IV: PERMITTING**

Except as otherwise agreed upon by all Parties in writing, CITY shall be responsible for all costs and activities related to the issuance, amendment or renewal authority of any regulatory permit required or which may become required by the State of California, including, but not limited to, the Regional Water Quality Control Board and/or by the government of the United States of America in the operation and/or maintenance of the Pump Stations or any other permits required for the Pump Stations. SEJPA is not responsible for obtaining, renewing, or amending any permit for the Pump Stations. SEJPA shall coordinate with CITY during the preparation of SEJPA's annual Operation & Maintenance Budget, which includes specific line item budget amounts for permits that may be required at the Pump Stations.

#### **ARTICLE V: HOLD HARMLESS**

SEJPA and CITY agree to indemnify and hold harmless each other, their officers, officials, contractors and employees from all claims arising out of the performance of services provided for herein except the intentional misconduct of the other party.

#### **ARTICLE VI: DISCLAIMERS**

A. SEJPA shall not be responsible for any defects, omissions or errors in the design or construction of the Pump Stations, but only for the exercise of ordinary care in the operation and maintenance of the Pump Stations.

B. In the event of an overflow inside the fence line of a Pump Station, SEJPA will assist the City in containing the spill and repairing the spill source. The City will be responsible for contacting any regulatory agency, per any applicable permitting requirements, within the required notification time specified in any applicable permit or permits, and shall prepare, or cause to be prepared, a written Sanitary Sewer Overflow Report in conformance with all applicable permit requirements.

C. In the event of a regulatory permit violation resulting from operation or maintenance of the Pump Stations, SEJPA shall immediately notify the City. SEJPA shall, within the required notification time, prepare or cause to be prepared, a written report on behalf of CITY. CITY shall review and comment on the content of the written report prior to submittal by SEJPA.

D. CITY shall be responsible for developing and maintaining the Pump Stations' spill response plans required by any regulatory agency, and making current copies of such plans available to SEJPA. SEJPA shall comply with such plans on behalf of CITY as to the Pump Stations; provided that SEJPA shall provide CITY draft spill response plans for such Pump Stations. Except as set forth in this paragraph, however, SEJPA shall have no responsibility for maintaining or carrying out the spill response plans of CITY.

E. SEJPA shall make good faith efforts to comply with all regulatory requirements imposed on the owner which are applicable to the Pump Stations. CITY shall promptly advise SEJPA if or when there are other applicable requirements. CITY shall promptly advise the SEJPA if or when applicable requirements change.

**ARTICLE VII: TERMINATION**

This MOU shall remain in effect until amended in writing. This MOU may be cancelled by either party upon one hundred eighty (180) days prior written notice.

**ARTICLE VIII: NOTICES**

A. CITY's point of contact for issues related to the implementation of this MOU is the Public Works Director. SEJPA's point of contact for issues related to the implementation of this MOU is the SEJPA General Manager.

B. All notices, statements, demands, requests, consents, approvals, authorizations, agreements, appointments or designations hereunder shall be given in writing and addressed to:

To CITY: City of Encinitas  
Public Works Director  
505 South Vulcan Avenue  
Encinitas, CA 92024

To SEJPA: San Elijo Joint Powers Authority  
General Manager  
2695 Manchester Avenue, PO Box 1077  
Cardiff by the Sea, CA 92007-7077

**ARTICLE IX: MODIFICATIONS**

This MOU contains all of the terms and conditions made between the Parties hereto and shall not be altered except by an amendment in writing.

**ARTICLE X: GOVERNING LAW**

This Memorandum is to be governed by and construed in accordance with the laws of the State of California.

IN WITNESS WHEREOF, the Parties hereto have caused this MOU to be executed as of the day and year first above written.

**CITY OF ENCINITAS**

**SAN ELIJO JOINT POWERS AUTHORITY**

By: \_\_\_\_\_

By: \_\_\_\_\_

Approved as to form

Approved as to form

By: \_\_\_\_\_  
CITY Counsel

By: \_\_\_\_\_  
SEJPA Counsel

**EXHIBIT 1  
CITY-OWNED FACILITIES  
OPERATED AND MAINTAINED BY SAN ELIJO JOINT POWERS AUTHORITY**

- 1) Moonlight Beach Wastewater Pump Station  
150 B Street  
Encinitas, CA. 92024
  
- 2) Moonlight Beach Storm Water UV Treatment Facility  
150 B Street  
Encinitas, CA. 92024
  
- 3) Phoebe Storm Water Pump Station  
1226 North Hwy. 101  
Encinitas, CA. 92024
  
- 4) Coast Wastewater Pump Station  
2470 South Hwy. 101  
Cardiff, CA. 92007
  
- 5) Cardiff Wastewater Pump Station  
2690 Manchester Avenue  
Cardiff, CA. 92007
  
- 6) Olivenhain Wastewater Pump Station  
3101 Manchester Avenue  
Cardiff, CA. 92007

**EXHIBIT 2**  
**SCOPE OF WORK FOR ANNUAL OPERATION AND MAINTENANCE (“O&M”)**  
**SERVICES**

**SEJPA Pump Station Responsibilities**

- SEJPA operates and maintains pump stations to be in compliance with regulatory permits.
- SEJPA inspects each sanitary sewer pump station daily (including weekends and holidays) to ensure proper pump station operations and site security.
- SEJPA monitors and responds to pump station alarms 24-hours a day (including weekends and holidays) for critical events, such as power failures, high wet wells, losses of flow, and flooded dry wells.
- SEJPA provides visual monitoring of the flow from Cardiff, Olivenhain, and the Cardiff gravity line as it enters the San Elijo Water Reclamation Facility 7 days per week during normal business hours (7am - 4pm).
- SEJPA maintains permits, hazardous material business plans, and Air Pollution Control District (APCD) permits for air treatment systems and emergency power generators.
- Provide technical assistance for design and construction efforts to improve, upgrade, or replace the pump stations.
- Assist the City of Encinitas with collection system interface and operation.
- SEJPA provides, prepares and submits a recommended O&M and Capital Budget annually for each pump station.
- Manage planning, design, bidding, and construction of small-scale CIP projects.
- Provides supervision for consultant, contractor, and vendor access to pump stations.
- Explore asset enhancement/upgrade opportunities for optimizing pump station operation.
- Coordinate with SDG&E on SDG&E projects and planned power outages.

**Typical SEJPA Pump Station O&M Procedures**

Daily

1. Record hour meter readings of pumps and motors
2. Inspect pumps and electric motors
  - Alternate lead pumps
  - Check operation of motors
  - Flush jacket
  - Check operation of controls as they apply to the station
  - Check mechanical seals
  - Check mechanical and electrical systems for unusual noises, temperatures, and operational readings
  - Inspect pumping system for proper operation (remove blockages from pumps as needed)
  - Inspect dry well sump pump for proper operation (clean debris in sump as needed)
  - Check the ventilation system
  - Check for proper lighting



3. Inspect wet well
4. Inspect engine generator set as per directions on generator clipboard
5. Inspect outside station for security integrity including graffiti, vandalism, and fence tampering
6. Record odor scrubber readings for APCD compliance

#### Weekly

1. Wash and clean drywell
2. Flush out sump pump
3. Perform yard maintenance and housekeeping as needed
4. Pump down and clean wet well. Hose down walls and scum accumulations

#### Biweekly

1. Test run emergency power generator for approximately ½ hour

#### Monthly

1. Test alarms
  - Power failure
  - High dry well
  - High wet well
  - Generator engine online where applied
2. Inspect fire extinguishers
3. Exercise suction and discharge valves
4. Replace all log sheets with new and take utility readings
5. If Diesel day tank is low call for refill

#### Annually

1. Facilitate APCD Inspection (Facility inspection and review of files and records)
2. Prepare recommendations for repairs and capital improvements to be included in annual budget

## **ATTACHMENT 2**

**MEMORANDUM OF UNDERSTANDING BETWEEN  
SAN ELIJO JOINT POWERS AUTHORITY  
AND CITY OF SOLANA BEACH FOR  
PUMP STATION OPERATION AND MAINTENANCE SERVICES**

This Memorandum of Understanding is entered into as of \_\_\_\_\_, 2009 by and between the City of Solana Beach, hereinafter referred to as CITY, and the San Elijo Joint Powers Authority, hereinafter referred to as SEJPA (collectively referred to as "Parties" and individually referred to as "Party"), with respect to the following facts:

**RECITALS**

WHEREAS, CITY owns the Eden Gardens, Fletcher Cove, San Elijo Hills and Solana Beach sewer pump stations and the Inverted Siphon Station (collectively referred to as the "Pump Stations" and individually referred to as "Pump Station"), including the force mains associated with such stations, their valves and appurtenances, and certain gravity sewer lines; and

WHEREAS, for purposes of this Memorandum of Understanding, the Pump Stations and related facilities located inside the fencing surrounding Pump Stations, are identified in **Exhibit 1**, City Owned Facilities that are operated and maintained by SEJPA; and

WHEREAS, SEJPA is currently operating and maintaining the Pump Stations to the satisfaction of CITY; and

WHEREAS, CITY desires SEJPA to continue to operate and maintain the Pump Stations, and SEJPA is willing to provide such services, subject to written terms and conditions.

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The SEJPA shall be responsible solely for the operation and maintenance of the Pump Stations as provided by the CITY. While the intent of the SEJPA is to maximize the performance of the existing facilities, SEJPA shall not be liable for any consequential damage or failure caused by the inability of the facilities to handle flows outside of their rated operating range.

## **ARTICLE II: BUDGETING**

A. CITY shall compensate SEJPA for all expenses associated with the operation and maintenance of the Pump Stations, in accordance with annual budgets to be developed and recommended by SEJPA and adopted by CITY.

B. The Pump Stations' budgets shall be based on a fiscal year beginning July 1 and extending through June 30 of the following year, and shall be prepared in accordance with the Restatement of Agreement Between Cardiff Sanitation District and Solana Beach Sanitation District Establishing the San Elijo Joint Powers Authority.

1. The operating and maintenance budgets shall be separate for each Pump Station, and each budget shall include the estimated amount of money required for operation and maintenance including, but not limited to: salaries and benefits, building and equipment maintenance costs, utilities, chemicals, permits and permit amendment costs, accounting and auditing costs, administration costs, legal services, overhead costs, insurance and other costs as required for operation and maintenance in conformance with this MOU.

2. Concurrently with the preparation of the SEJPA Annual Budget, SEJPA shall also prepare a recommended capital budget as part of the annual budget process for the Pump Stations. The capital budget shall be for replacement and rehabilitation efforts which will not affect the designed capacity or operating characteristics of the station(s), to maintain the station(s) reliability, safety and compliance with regulatory requirements.

3. CITY shall be responsible for the planning, design, bidding, construction management and supervision of all capital improvements for the Pump Stations. Under no circumstances shall SEJPA be responsible for the planning, design, bidding, construction management or supervision of such work at either Pump Station. SEJPA shall, however, coordinate the continued operation and maintenance of the Pump Stations as necessary during the course of such construction. CITY shall, before letting any contract for such work, provide a reasonable opportunity to SEJPA to comment on plans for making the proposed improvements as respects operational and maintenance consequences. Any such contract shall require the contractor to name SEJPA as additional insured as to any insurance required of the contractor by the awarding agency and as to which the awarding agency will be insured, provided that SEJPA need not be an insured under any bid, performance or payment bonds required.

C. SEJPA shall forward estimated operating and capital budgets to CITY for review. Until such time as formal approval has been received from CITY, the estimated budgets shall constitute merely proposed budgets, subject to consideration or revision. In the event a recommended budget is not approved, SEJPA shall continue to operate and maintain the Pump Stations using the previous fiscal year budget figures, provided that if no budget is approved prior to the end of the current fiscal year, SEJPA shall have no obligation to continue to provide services hereunder after the close of the fiscal year.

## **ARTICLE III: COMPENSATION**

SEJPA shall bill CITY on a quarterly basis, on July 1, October 1, January 1 and April 1. CITY shall promptly pay for one fourth of the annual cost of operation and maintenance services

for the Pump Stations, as approved in the annual operating budget. In the event at the end of any fiscal year, the amount paid by CITY exceeds the amount which should have been charged based upon the actual expenses for the full fiscal year, the excess shall be credited to the CITY for the following fiscal year. In case of underpayment, the CITY shall be billed by the SEJPA for the deficiency.

#### **ARTICLE IV: PERMITTING**

Except as otherwise agreed upon by all Parties in writing, CITY shall be responsible for all costs and activities related to the issuance, amendment or renewal authority of any regulatory permit required or which may become required by the State of California, including, but not limited to, the Regional Water Quality Control Board and/or by the government of the United States of America in the operation and/or maintenance of the Pump Stations or any other permits required for the Pump Stations. SEJPA is not responsible for obtaining, renewing, or amending any permit for the Pump Stations. SEJPA shall coordinate with CITY during the preparation of SEJPA's annual Operation & Maintenance Budget, which includes specific line item budget amounts for permits that may be required at the Pump Stations.

#### **ARTICLE V: HOLD HARMLESS**

SEJPA and CITY agree to indemnify and hold harmless each other, their officers, officials, contractors and employees from all claims arising out of the performance of services provided for herein except the intentional misconduct of the other party.

#### **ARTICLE VI: DISCLAIMERS**

A. SEJPA shall not be responsible for any defects, omissions or errors in the design or construction of the Pump Stations, but only for the exercise of ordinary care in the operation and maintenance of the Pump Stations.

B. In the event of an overflow inside the fence line of a Pump Station, SEJPA will assist the City in containing the spill and repairing the spill source. The City will be responsible for contacting any regulatory agency, per any applicable permitting requirements, within the required notification time specified in any applicable permit or permits, and shall prepare, or cause to be prepared, a written Sanitary Sewer Overflow Report in conformance with all applicable permit requirements.

C. In the event of a regulatory permit violation resulting from operation or maintenance of the Pump Stations, SEJPA shall immediately notify the City. SEJPA shall, within the required notification time, prepare or cause to be prepared, a written report on behalf of CITY. CITY shall review and comment on the content of the written report prior to submittal by SEJPA.

D. CITY shall be responsible for developing and maintaining the Pump Stations' spill response plans required by any regulatory agency, and making current copies of such plans available to SEJPA. SEJPA shall comply with such plans on behalf of CITY as to the Pump Stations; provided that SEJPA shall provide CITY draft spill response plans for such Pump Stations. Except as set forth in this paragraph, however, SEJPA shall have no responsibility for maintaining or carrying out the spill response plans of CITY.

E. SEJPA shall make good faith efforts to comply with all regulatory requirements imposed on the owner which are applicable to the Pump Stations. CITY shall promptly advise SEJPA if or when there are other applicable requirements. CITY shall promptly advise the SEJPA if or when applicable requirements change.

**ARTICLE VII: TERMINATION**

This MOU shall remain in effect until amended in writing. This MOU may be cancelled by either party upon one hundred eighty (180) days prior written notice.

**ARTICLE VIII: NOTICES**

A. CITY's point of contact for issues related to the implementation of this MOU is the Public Works Director. SEJPA's point of contact for issues related to the implementation of this MOU is the SEJPA General Manager.

B. All notices, statements, demands, requests, consents, approvals, authorizations, agreements, appointments or designations hereunder shall be given in writing and addressed to:

To CITY: City of Solana Beach  
Public Works Director  
635 South Highway 101  
Solana Beach, CA 92075

To SEJPA: San Elijo Joint Powers Authority  
General Manager  
2695 Manchester Avenue, PO Box 1077  
Cardiff by the Sea, CA 92007-7077

**ARTICLE IX: MODIFICATIONS**

This MOU contains all of the terms and conditions made between the Parties hereto and shall not be altered except by an amendment in writing.

**ARTICLE X: GOVERNING LAW**

This Memorandum is to be governed by and construed in accordance with the laws of the State of California.

IN WITNESS WHEREOF, the Parties hereto have caused this MOU to be executed as of the day and year first above written.

**CITY OF SOLANA BEACH**

**SAN ELIJO JOINT POWERS AUTHORITY**

By: \_\_\_\_\_

By: \_\_\_\_\_

Approved as to form

Approved as to form

By: \_\_\_\_\_  
CITY Counsel

By: \_\_\_\_\_  
SEJPA Counsel

**EXHIBIT 1  
CITY-OWNED FACILITIES  
OPERATED AND MAINTAINED BY SAN ELIJO JOINT POWERS AUTHORITY**

- 1) Eden Gardens Pump Station  
Corner of Valley Road & Highland Drive  
Solana Beach CA. 92075
  
- 2) Fletcher Cove Pump Station  
Corner of Plaza & Highland Drive  
Solana Beach CA. 92075
  
- 3) San Elijo Hills Pump Station  
751 Santa Helena Avenue  
Solana Beach CA. 92075
  
- 4) Solana Beach Pump Station  
1000 North Rios Avenue  
Solana Beach CA. 92075
  
- 5) Solana Beach Siphon Station  
Santa Inez (S.E Lagoon East of I-5)  
Solana Beach CA. 92075

**EXHIBIT 2**  
**SCOPE OF WORK FOR ANNUAL OPERATION AND MAINTENANCE (“O&M”)**  
**SERVICES**

**SEJPA Pump Station Responsibilities**

- SEJPA operates and maintains pump stations to be in compliance with regulatory permits.
- SEJPA inspects each sanitary sewer pump station daily (including weekends and holidays) to ensure proper pump station operations and site security.
- SEJPA monitors and responds to pump station alarms 24-hours a day (including weekends and holidays) for critical events, such as power failures, high wet wells, losses of flow, and flooded dry wells.
- SEJPA provides visual monitoring of the flow from Eden Gardens, Fletcher Cove, San Elijo Hills and Solana Beach Pump Stations as it enters the San Elijo Water Reclamation Facility 7 days per week during normal business hours (7am - 4pm).
- SEJPA maintains permits, hazardous material business plans, and Air Pollution Control District (APCD) permits for air treatment systems and emergency power generators.
- Provide technical assistance for design and construction efforts to improve, upgrade, or replace the pump stations.
- Assist the City of Solana Beach with collection system interface and operation.
- SEJPA provides, prepares and submits a recommended O&M and Capital Budget annually for each pump station.
- Manage planning, design, bidding, and construction of small-scale CIP projects.
- Provides supervision for consultant, contractor, and vendor access to pump stations.
- Explore asset enhancement/upgrade opportunities for optimizing pump station operation.
- Coordinate with SDG&E on SDG&E projects and planned power outages.

**Typical SEJPA Pump Station O&M Procedures**

Daily

1. Record hour meter readings of pumps and motors
2. Inspect pumps and electric motors
  - Alternate lead pumps
  - Check operation of motors
  - Flush jacket
  - Check operation of controls as they apply to the station
  - Check mechanical seals
  - Check mechanical and electrical systems for unusual noises, temperatures, and operational readings
  - Inspect pumping system for proper operation (remove blockages from pumps as needed)
  - Inspect dry well sump pump for proper operation (clean debris in sump as needed)
  - Check the ventilation system
  - Check for proper lighting



3. Inspect wet well
4. Inspect engine generator set as per directions on generator clipboard
5. Inspect outside station for security integrity including graffiti, vandalism, and fence tampering
6. Record odor scrubber readings for APCD compliance

#### Weekly

1. Wash and clean drywell
2. Flush out sump pump
3. Perform yard maintenance and housekeeping as needed
4. Pump down and clean wet well. Hose down walls and scum accumulations

#### Biweekly

1. Test run emergency power generator for approximately ½ hour

#### Monthly

1. Test alarms
  - Power failure
  - High dry well
  - High wet well
  - Generator engine online where applied
2. Inspect fire extinguishers
3. Exercise suction and discharge valves
4. Replace all log sheets with new and take utility readings
5. If Diesel day tank is low call for refill

#### Annually

1. Facilitate APCD Inspection (Facility inspection and review of files and records)
2. Prepare recommendations for repairs and capital improvements to be included in annual budget

SAN ELIJO JOINT POWERS AUTHORITY  
MEMORANDUM

July 13, 2008

TO: Board of Directors  
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: RECYCLED WATER RETROFIT LOAN - OAK CREST PARK

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the Chair Person to execute a loan with the Encinitas Union School District to convert the Ocean Knoll Elementary School's irrigation system to recycled water; and
2. Discuss and take action as appropriate.

DISCUSSION

The Encinitas Union School District and the San Dieguito Water District (SDWD) support water conservation and to this end are interested in converting the landscape irrigation at Ocean Knoll Elementary School from potable to recycled water. The school is estimated to use up to 10 acre feet annually (AF/Y) or more than 3 million gallons per year (see Figure 1 for site layout). Landscape architect drawings have been prepared for this work and the project is currently ready to move to bidding and construction.

The anticipated cost of the retrofit improvements is \$35,000. The school district has requested a retrofit loan from the SEJPA to finance the project in an amount not to exceed \$35,000. The terms of the loan will be 4.5 percent interest for a loan period of ten years. The SEJPA has provided similar loans to other sites as means of assisting customers in moving from potable water to recycled water.

FINANCIAL IMPACT

Funds for this loan are available in the Water Reclamation Fund. The interest rate on the proposed loan is competitive with market rates and higher than the current interest rate that the Water Reclamation Fund is receiving.

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

1. Authorize the Chair Person to execute a loan with the Encinitas Union School District to convert the Ocean Knoll Elementary School's irrigation system to recycled water; and
2. Discuss and take action as appropriate.

Respectfully submitted,



Michael T. Thornton, P.E.  
General Manager

Attachment: Retrofit Loan Agreement with Encinitas Union School District – Ocean Knoll Elementary School

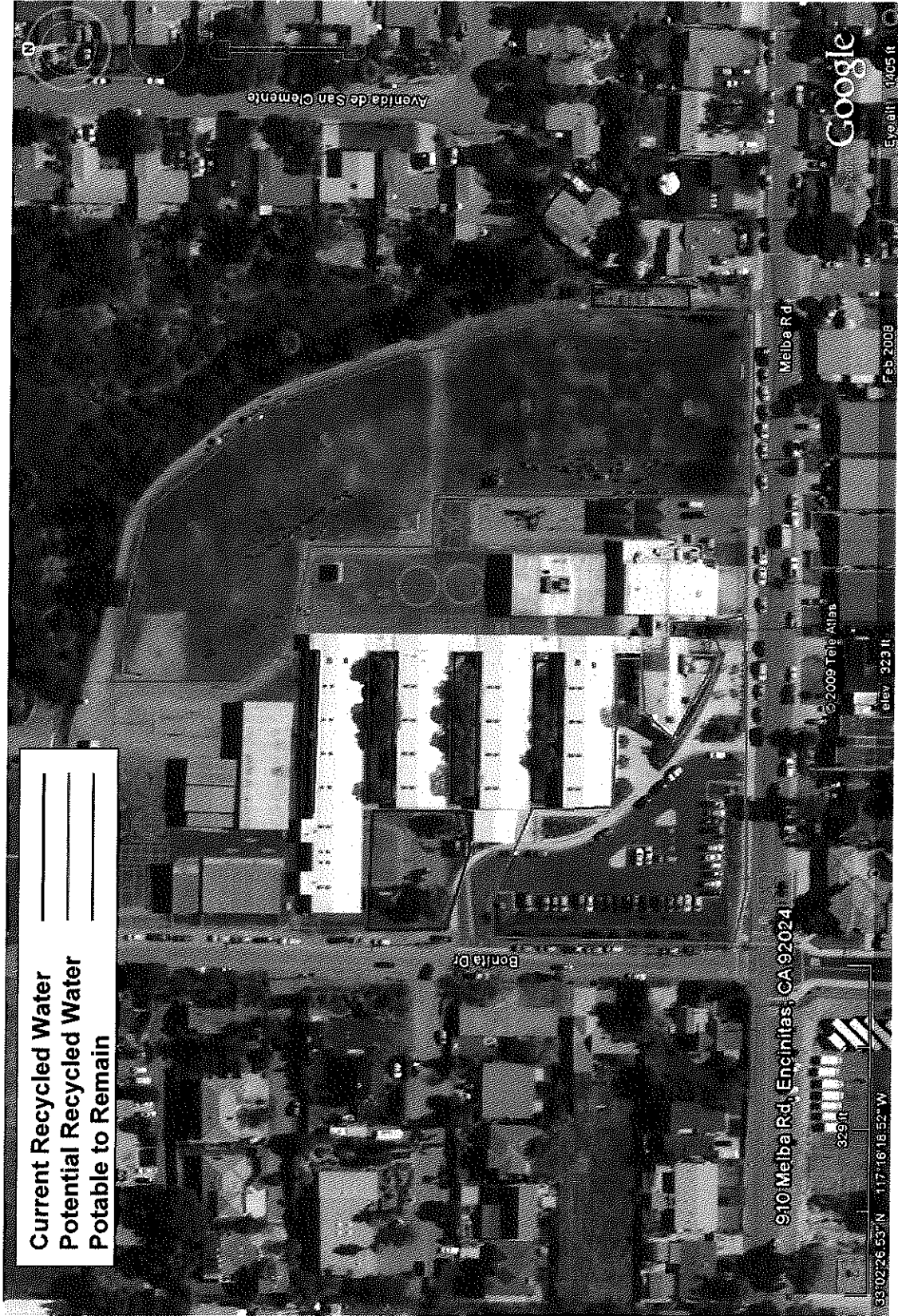


Figure 1: Ocean Knoll Elementary – Potential Recycled Water Conversions

**ATTACHMENT**

**AGREEMENT FOR REIMBURSEMENT OF COSTS  
OF RECYCLED WATER FACILITIES**

This Agreement is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2009 by and between the SAN ELIJO JOINT POWERS AUTHORITY, a joint powers authority comprised of the City of Encinitas and the City of Solana Beach, hereinafter referred to as SEJPA, the SAN DIEGUITO WATER DISTRICT, hereinafter referred to as Water Purveyor, and OCEAN KNOLL ELEMENTARY SCHOOL OF THE ENCINITAS UNION SCHOOL DISTRICT, hereinafter referred to as Water User.

**RECITALS**

WHEREAS, SEJPA treats wastewater and operates the San Elijo Water Reclamation Facility to produce recycled water for non-potable water uses;

WHEREAS, SEJPA and the Water Purveyor have entered into an Agreement (Recycled Water Sales Agreement) providing for the production and delivery of recycled water to Water User for non-potable water uses;

WHEREAS, Water User desires to purchase recycled water from the Water Purveyor for non-potable water uses;

WHEREAS, Water User must make certain alterations and improvements in and to its onsite water distribution system (hereinafter referred to as retrofit work) in order to accept and use recycled water for non-potable water uses;

WHEREAS, Water User agrees to use the recycled water in accordance with the Water Purveyor's rules and regulations for recycled water; and

WHEREAS, San Elijo desires to provide financial assistance to Water User with respect to the retrofit work to encourage and facilitate the purchase of SEJPA's recycled water in particular and the use of recycled water in general as an important supplemental water source to meet the growing water demands of San Diego County.

**AGREEMENT**

NOW, THEREFORE, in consideration of these Recitals and the mutual covenants contained herein, SEJPA, Water Purveyor, and Water User agree as follows:

1. Reimbursement of Costs of Retrofit Work. SEJPA shall reimburse Water User for actual costs incurred for the retrofit work (including materials) within 45 days of receipt of water users request for reimbursement, provided that a reasonably detailed description of the retrofit work shall have been first reviewed and approved by SEJPA (which approval shall not be unreasonably withheld) and that recycled water is in use at the site. The aggregate amount of such reimbursements shall not exceed **\$35,000** unless SEJPA otherwise expressly agrees in writing in advance. SEJPA shall not be obligated to reimburse any costs for retrofit work that has not been previously approved as part of this project's scope of work and which has not been completed by **December 31, 2009**.

Water User shall also permit the Water Purveyor and the SEJPA access to all portions of its property affected by the retrofit work for the purpose of inspecting work quality; adherence to design description, drawing, and code compliance; and verifying completion of work.

2. Repayment by Water User of Retrofit Work Reimbursement. Water User shall repay to SEJPA the aggregate amount of the retrofit work costs reimbursed by SEJPA, together with interest on the unpaid amount. The interest rate on the unpaid amount shall be **4.5% per year**. All payments shall be credited first on interest due and the remainder on principal; and interest shall thereupon cease upon the principal so credited. A repayment schedule is attached as Exhibit A.

Water User may prepay to SEJPA some or all of the principal and interest due under this Agreement at any time without any prepayment charge or penalty.

3. Installation, Ownership, Operation and Maintenance of Retrofit Facilities. Water User shall be responsible for all planning, designing, permitting, installation, construction, maintenance and operation of the retrofit work and SEJPA shall have no obligations, responsibilities, or duties in connection therewith other than reimbursement of costs as set forth in this Agreement. Water User will have full and complete responsibility for the design and construction of all retrofit work at their property. Water User will hold SEJPA, staff employed by SEJPA, Water Purveyor, and staff employed by Water Purveyor, harmless for any assistance or guidance provided by SEJPA staff that result in a faulty design, construction, or operating system. Water User is solely responsible for all work performed on their property. SEJPA will not have any ownership interest in or to the retrofit work or any other property of Water User by reason of the terms and provisions of this Agreement.

4. Dispute Resolution. In the event that a dispute shall arise with regard to the interpretation, application, or enforcement of this Agreement, any party may initiate informal dispute resolution as follows:

- a. Demand: Any party may, in writing, make a demand on the other party or parties for informal dispute resolution;
- b. At least one meeting: Within 30 days of the date of mailing of such notice, at least one informal dispute resolution meeting shall be held and attended by a representative of each of the parties involved in the dispute. Such additional meetings and time extensions shall occur as the parties may agree to at the time.
- c. Litigation: The foregoing dispute resolution process shall be informal and non-binding. The parties, at their option, may involve the services of a professional mediator but shall not be obligated to do so. Any party may file litigation to interpret, enforce, or apply the terms of this Agreement provided that either (1) informal dispute resolution has been invoked and at least one meeting has been held as described above, or (2) informal dispute resolution has been invoked in writing, and through no fault of the party seeking to commence litigation, 30 days has expired and the other party or parties have been unable or unwilling to attend informal dispute resolution.

It is the intent of the parties to have at least one informal meeting to try and resolve any differences before any party resorts to litigation.

5. Applicable Law. This Agreement is entered into in the State of California and California law shall apply to the interpretation and construction of all of its provisions.
6. Attorney's Fees. If any arbitration proceeding or action at law is brought to enforce or interpret the provisions of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees and litigation expenses in addition to statutory costs and any other relief to which the prevailing party may be entitled.
7. Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors in interest, assigns, and personal representatives. Water User, and its assigns, successors in interest, and personal representatives, agree to disclose the terms and conditions of this Agreement to their respective successors in interest and assignees prior to the date of transfer.
8. Entire Agreement. This Agreement constitutes the entire understanding between the parties hereto with respect to the subject matter hereof superseding all negotiations, prior discussions and preliminary agreements and understandings, written or oral. This Agreement shall not be amended, except by written consent of the parties hereto, and no waiver of any rights under this Agreement shall be binding unless it is in writing signed by the party waiving such rights. In the event any provision of this Agreement shall be held to be invalid and unenforceable, the other provisions of this Agreement shall be valid and binding on the parties hereto.
9. Notices. Notices required or permitted under this Agreement shall be sufficiently given if in writing and if either served personally upon the party to whom it is directed or by deposit in the United States mail, postage prepaid, certified, return receipt requested, addressed to the parties at the following addresses:
  - a. SEJPA  
 Michael T. Thornton, P.E.  
 General Manager  
 San Elijo Joint Powers Authority  
 2695 Manchester Ave  
 Cardiff, CA 92007
  - b. Water Purveyor  
 Larry Watt  
 General Manager  
 San Dieguito Water District  
 505 S. Vulcan Ave.  
 Encinitas, CA 92024
  - c. Water User  
 Jerry Devitt  
 Ocean Knoll Elementary School,  
 Encinitas Union School District  
 910 Melba Rd  
 Encinitas, CA 92024-3999
10. Precedence. In the event that any of the terms, provisions, or conditions of this Agreement conflict with or are otherwise inconsistent with the terms of the Recycled Water Sales Agreement, the terms, provisions and conditions of the Recycled Water Sales Agreement shall control.



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

ATTEST:

**SAN ELIJO JOINT POWERS AUTHORITY**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
David Roberts  
SEJPA Chair of the Board

**SAN ELIJO JOINT POWERS AUTHORITY**

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

**SAN DIEGUITO WATER DISTRICT**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Larry Watt  
General Manager

**OCEAN KNOLL ELEMENTARY SCHOOL**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
  
Ocean Knoll Elementary School,  
Encinitas Union School District  
910 Melba Rd  
Encinitas, CA 92024-3999

# **EXHIBIT A**

OCEAN KNOLL ELEMENTARY SCHOOL  
 PRINCIPAL \$35,000.00  
 INTEREST 4.50%  
 TERM 120 MONTHLY PAYMENTS  
 10 YEARS  
 PAYMENT \$362.73 PER MONTH

PERIOD	PERIOD PAYMENT	INTEREST	PRINCIPAL	END BALANCE	TOTAL PAYMENT TO DATE
1	362.73	131.25	231.48	34,768.52	362.73
2	362.73	130.38	232.35	34,536.16	725.47
3	362.73	129.51	233.22	34,302.94	1,088.20
4	362.73	128.64	234.10	34,068.84	1,450.94
5	362.73	127.76	234.98	33,833.86	1,813.67
6	362.73	126.88	235.86	33,598.01	2,176.41
7	362.73	125.99	236.74	33,361.27	2,539.14
8	362.73	125.10	237.63	33,123.64	2,901.88
9	362.73	124.21	238.52	32,885.11	3,264.61
10	362.73	123.32	239.42	32,645.70	3,627.34
11	362.73	122.42	240.31	32,405.39	3,990.08
12	362.73	121.52	241.21	32,164.17	4,352.81
13	362.73	120.62	242.12	31,922.05	4,715.55
14	362.73	119.71	243.03	31,679.03	5,078.28
15	362.73	118.80	243.94	31,435.09	5,441.02
16	362.73	117.88	244.85	31,190.24	5,803.75
17	362.73	116.96	245.77	30,944.46	6,166.49
18	362.73	116.04	246.69	30,697.77	6,529.22
19	362.73	115.12	247.62	30,450.15	6,891.95
20	362.73	114.19	248.55	30,201.61	7,254.69
21	362.73	113.26	249.48	29,952.13	7,617.42
22	362.73	112.32	250.41	29,701.72	7,980.16
23	362.73	111.38	251.35	29,450.36	8,342.89
24	362.73	110.44	252.30	29,198.07	8,705.63
25	362.73	109.49	253.24	28,944.83	9,068.36
26	362.73	108.54	254.19	28,690.63	9,431.10
27	362.73	107.59	255.14	28,435.49	9,793.83
28	362.73	106.63	256.10	28,179.39	10,156.56
29	362.73	105.67	257.06	27,922.33	10,519.30
30	362.73	104.71	258.03	27,664.30	10,882.03
31	362.73	103.74	258.99	27,405.31	11,244.77
32	362.73	102.77	259.96	27,145.34	11,607.50
33	362.73	101.80	260.94	26,884.40	11,970.24
34	362.73	100.82	261.92	26,622.49	12,332.97
35	362.73	99.83	262.90	26,359.59	12,695.71
36	362.73	98.85	263.89	26,095.70	13,058.44
37	362.73	97.86	264.88	25,830.82	13,421.17
38	362.73	96.87	265.87	25,564.95	13,783.91
39	362.73	95.87	266.87	25,298.09	14,146.64
40	362.73	94.87	267.87	25,030.22	14,509.38
41	362.73	93.86	268.87	24,761.35	14,872.11
42	362.73	92.86	269.88	24,491.47	15,234.85
43	362.73	91.84	270.89	24,220.58	15,597.58
44	362.73	90.83	271.91	23,948.67	15,960.31
45	362.73	89.81	272.93	23,675.75	16,323.05
46	362.73	88.78	273.95	23,401.80	16,685.78
47	362.73	87.76	274.98	23,126.82	17,048.52

PRINCIPAL \$35,000.00  
 INTEREST 4.50%  
 TERM 120 MONTHLY PAYMENTS  
 10 YEARS  
 PAYMENT \$362.73 PER MONTH

PERIOD	PERIOD PAYMENT	INTEREST	PRINCIPAL	END BALANCE	TOTAL PAYMENT TO DATE
48	362.73	86.73	276.01	22,850.81	17,411.25
49	362.73	85.69	277.04	22,573.77	17,773.99
50	362.73	84.65	278.08	22,295.68	18,136.72
51	362.73	83.61	279.13	22,016.56	18,499.46
52	362.73	82.56	280.17	21,736.38	18,862.19
53	362.73	81.51	281.22	21,455.16	19,224.92
54	362.73	80.46	282.28	21,172.88	19,587.66
55	362.73	79.40	283.34	20,889.55	19,950.39
56	362.73	78.34	284.40	20,605.15	20,313.13
57	362.73	77.27	285.47	20,319.68	20,675.86
58	362.73	76.20	286.54	20,033.15	21,038.60
59	362.73	75.12	287.61	19,745.54	21,401.33
60	362.73	74.05	288.69	19,456.85	21,764.07
61	362.73	72.96	289.77	19,167.08	22,126.80
62	362.73	71.88	290.86	18,876.22	22,489.53
63	362.73	70.79	291.95	18,584.27	22,852.27
64	362.73	69.69	293.04	18,291.23	23,215.00
65	362.73	68.59	294.14	17,997.09	23,577.74
66	362.73	67.49	295.25	17,701.84	23,940.47
67	362.73	66.38	296.35	17,405.49	24,303.21
68	362.73	65.27	297.46	17,108.02	24,665.94
69	362.73	64.16	298.58	16,809.45	25,028.68
70	362.73	63.04	299.70	16,509.75	25,391.41
71	362.73	61.91	300.82	16,208.92	25,754.14
72	362.73	60.78	301.95	15,906.97	26,116.88
73	362.73	59.65	303.08	15,603.89	26,479.61
74	362.73	58.51	304.22	15,299.67	26,842.35
75	362.73	57.37	305.36	14,994.31	27,205.08
76	362.73	56.23	306.51	14,687.80	27,567.82
77	362.73	55.08	307.66	14,380.15	27,930.55
78	362.73	53.93	308.81	14,071.34	28,293.29
79	362.73	52.77	309.97	13,761.37	28,656.02
80	362.73	51.61	311.13	13,450.24	29,018.75
81	362.73	50.44	312.30	13,137.95	29,381.49
82	362.73	49.27	313.47	12,824.48	29,744.22
83	362.73	48.09	314.64	12,509.84	30,106.96
84	362.73	46.91	315.82	12,194.01	30,469.69
85	362.73	45.73	317.01	11,877.01	30,832.43
86	362.73	44.54	318.20	11,558.81	31,195.16
87	362.73	43.35	319.39	11,239.42	31,557.90
88	362.73	42.15	320.59	10,918.84	31,920.63
89	362.73	40.95	321.79	10,597.05	32,283.36
90	362.73	39.74	323.00	10,274.05	32,646.10
91	362.73	38.53	324.21	9,949.85	33,008.83
92	362.73	37.31	325.42	9,624.42	33,371.57
93	362.73	36.09	326.64	9,297.78	33,734.30
94	362.73	34.87	327.87	8,969.91	34,097.04
95	362.73	33.64	329.10	8,640.82	34,459.77

PRINCIPAL \$35,000.00  
 INTEREST 4.50%  
 TERM 120 MONTHLY PAYMENTS  
 10 YEARS  
 PAYMENT \$362.73 PER MONTH

PERIOD	PERIOD PAYMENT	INTEREST	PRINCIPAL	END BALANCE	TOTAL PAYMENT TO DATE
96	362.73	32.40	330.33	8,310.48	34,822.51
97	362.73	31.16	331.57	7,978.91	35,185.24
98	362.73	29.92	332.81	7,646.10	35,547.97
99	362.73	28.67	334.06	7,312.04	35,910.71
100	362.73	27.42	335.31	6,976.72	36,273.44
101	362.73	26.16	336.57	6,640.15	36,636.18
102	362.73	24.90	337.83	6,302.32	36,998.91
103	362.73	23.63	339.10	5,963.22	37,361.65
104	362.73	22.36	340.37	5,622.85	37,724.38
105	362.73	21.09	341.65	5,281.20	38,087.12
106	362.73	19.80	342.93	4,938.27	38,449.85
107	362.73	18.52	344.22	4,594.05	38,812.58
108	362.73	17.23	345.51	4,248.54	39,175.32
109	362.73	15.93	346.80	3,901.74	39,538.05
110	362.73	14.63	348.10	3,553.64	39,900.79
111	362.73	13.33	349.41	3,204.23	40,263.52
112	362.73	12.02	350.72	2,853.51	40,626.26
113	362.73	10.70	352.03	2,501.48	40,988.99
114	362.73	9.38	353.35	2,148.12	41,351.73
115	362.73	8.06	354.68	1,793.45	41,714.46
116	362.73	6.73	356.01	1,437.44	42,077.19
117	362.73	5.39	357.34	1,080.09	42,439.93
118	362.73	4.05	358.68	721.41	42,802.66
119	362.73	2.71	360.03	361.38	43,165.40
120	362.73	1.36	361.38	(0.00)	43,528.13