AGENDA
SAN ELIJO JOINT POWERS AUTHORITY
MONDAY APRIL 8, 2013 AT 9:00 AM
SAN ELIJO WATER RECLAMATION FACILITY – CONFERENCE ROOM
2695 MANCHESTER AVENUE
CARDIFF BY THE SEA, CALIFORNIA

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1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

4. ORAL COMMUNICATIONS (NON-ACTION ITEM)

5. PRESENTATION OF AWARDS

   None

6. * **CONSENT CALENDAR**

7. * APPROVAL OF MINUTES FOR THE MARCH 11, 2013 MEETING

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

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

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

11. * ITEMS REMOVED FROM CONSENT CALENDAR

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

REGULAR AGENDA

12. PRESENTATION OF THE SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2013-14 RECOMMENDED BUDGET

It is recommended that the Board of Directors:

1. Review the Fiscal Year 2013-14 Recommended Budget; and

2. Discuss and take action as appropriate.

Staff Reference: Director of Finance/Administration

13. RECYCLED WATER COST OF SERVICE STUDY

It is recommended that the Board of Directors:

1. Discuss and take action as appropriate.

Staff Reference: General Manager

14. GENERAL MANAGER'S REPORT

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

15. GENERAL COUNSEL'S REPORT

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

16. 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.

17. CLOSED SESSION

None

A closed session may be held at any time during this meeting of the San Elijo Joint Powers Authority for the purposes of discussing potential or pending litigation or other appropriate matters pursuant to the "Ralph M. Brown Act".

18. ADJOURNMENT

The next regularly scheduled San Elijo Joint Powers Authority Board Meeting will be Monday, May 13, 2013 at 9:00 a.m.

NOTICE:

The San Elijo Joint Powers Authority's open and public meetings meet the protections and prohibitions contained in Section 202 of the Americans With Disabilities Act of 1990 (42 U.S.C Section 12132), and the federal rules and regulations adopted in implementation thereof. Any person with a disability who requires a modification or accommodation, including auxiliary aids or services, in order to participate in a public meeting of the SEJPA Board of Directors may request such modification or accommodation from Michael T. Thornton, General Manager, (760) 753-6203 ext. 72.

The agenda package and materials related to an agenda item submitted after the packet's distribution to the Board is available for public review in the lobby of the SEJPA Administrative Office during normal business hours. Agendas and minutes are available at www.sejpa.org. The SEJPA Board meetings are held on the second Monday of the month, except August.

AFFIDAVIT OF POSTING

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

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

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

Date: April 3, 2013

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

SAN ELIJO JOINT POWERS AUTHORITY
MINUTES OF THE BOARD MEETING
HELD ON MARCH 11, 2013
AT THE
SAN ELIJO WATER RECLAMATION FACILITY

Thomas M. Campbell, Chair — Mark Muir, Vice Chair

A Meeting of the Board of Directors of the San Elijo Joint Powers Authority (SEJPA) was held Monday, March 11, 2013, 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

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

2. ROLL CALL

Directors Present:	Mark Muir David Zito David Ott (Solana Beach Alternate)
Directors Absent:	Teresa Barth Thomas M. Campell
Others Present:	
General Manager	Michael Thornton
Director of Operations	Christopher Trees
Administrative Assistant	Jennifer Basco
Accounting Technician	Carrie Cook
Safety/HR Administrator	Marisa Buckles
SEJPA Counsel:	
Procopio, Cory, Hargreaves & Savitch	Aiko Yamakawa
City of Encinitas,	
Public Works Management Analyst	Bill Wilson
Director of Engineering and Public Works	Glenn Prium
City of Solana Beach,	
Director of Engineering/Public Works	Mohammad “Mo” Sammak
Santa Fe Irrigation District,	
General Manager	Michael J. Bardin
President of the Board of Directors	Michael T. Hogan
Member of the Board of Directors	Alan L. Smerican

3. PLEDGE OF ALLEGIANCE

General Manager Michael Thornton led the Pledge of Allegiance.

4. ORAL COMMUNICATIONS

None

5. PRESENTATION OF AWARDS

None

6. CONSENT CALENDAR

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

Motion carried with the following vote of approval:

AYES: Muir, Zito, and Ott
NOES: None
ABSENT: Barth and Campbell
ABSTAIN: None

Consent Calendar:

Agenda Item No. 7	Approval of Minutes for the February 11, 2013 meeting
Agenda Item No. 8	Approval for Payment of Warrants and Monthly Investment Report
Agenda Item No. 9	San Elijo Water Reclamation Facility Treated Effluent Flows – Monthly Report
Agenda Item No. 10	San Elijo Joint Powers Authority Recycled Water Program – Monthly Report

11. ITEMS REMOVED FROM CONSENT CALENDAR

None

12. CONSIDER APPROVAL OF THE LOCAL PROJECT SPONSOR AGREEMENT WITH THE SAN DIEGO COUNTY WATER AUTHORITY FOR THE NORTH SAN DIEGO COUNTY COOPERATIVE DEMINERALIZATION PROJECT

General Manager Thornton presented the Local Project Sponsor (LPS) Agreement to the Board Members and provided background on the North San Diego County Cooperative Demineralization Project. This project is a joint cooperative effort between the SEJPA, the Olivenhain Municipal Water District, and the San Elijo Lagoon Conservancy under the Integrated Regional Water Management (IRWM) concept of creating one project that solves multiple issues. The Round 1 Proposition 84 IRWM grant agreement, executed on December 12, 2012, granted $7.9 million to the San Diego IRWM plan. Before grant funding may be distributed for this project, the SEJPA, as the project's lead sponsor, is required to enter into the LPS Agreement.

Under the LPS Agreement, the SEJPA's project elements include construction of an Advanced Water Treatment facility and storm water diversion structures to divert urban runoff from entering the San Elijo Lagoon and the Pacific Ocean. General Manager Thornton stated that a majority of the SEJPA's work has been completed. Also, the Advanced Water Treatment system will resolve the SEJPA's TDS permit compliance issues and has opened new opportunities/markets for the sale of recycled water.

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

1. Authorize the General Manager to execute the Local Project Sponsor Agreement; and

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

Motion carried with unanimous vote of approval.

13. CONSIDER APPROVAL OF THE LOCAL PROJECT PARTICIPANT AGREEMENT WITH THE OLIVENHAIN MUNICIPAL WATER DISTRICT FOR THE NORTH SAN DIEGO COUNTY REGIONAL RECYCLED WATER PROJECT

General Manager Thornton briefed the Board of Directors on the North San Diego County Regional Recycled Water Project (NSDCRRWP), which is also under the IRWM process. This project is a coalition of 12 organizations that include the SEJPA, Olivenhain Municipal Water District, Leucadia Wastewater District, Carlsbad Municipal Water District, Vallecitos Water District, Santa Fe Irrigation District, Vista Irrigation District, City of Oceanside, City of Vista, Rincon Del Diablo Municipal Water District, City of Escondido, and Marine Corps Base Camp Pendleton. The goal of the project is to increase regional infrastructure in north San Diego County for cost effectively expanding recycled water use. The project was awarded a grant which will be used to develop a Programmatic Environmental Impact Report and Feasibility Study, and provide funding to each project participant for planning, engineering, and constructing recycled water infrastructure. The SEJPA will receive approximately $90,000 for the purchase of treatment equipment associated with the Advanced Water Treatment facility.

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

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

Motion carried with unanimous vote of approval.

14. JOINT LOBBYING AND COST SHARING BETWEEN THE MEMBERS OF THE NORTH SAN DIEGO COUNTY REGIONAL RECYCLED WATER PROJECT

General Manager Thornton informed the Board of Directors on the value of the SEJPA's continued participation in the joint lobbying and cost sharing for the North San Diego County Regional Recycled Water Project. After two years of lobbying efforts, the project has garnered attention at the federal level. It has received praise for its regional, multi-agency approach, as well as for the project's value for creating locally produced, drought resistant water supply that reduces demand pressure on the bay-delta project. Over the last two years, several agencies have sent representatives to Washington DC to meet with congressional representatives to develop federal support for this project. If this project does receive congressional authorization, future federal funding would be beneficial to continuing the infrastructure development of the SEJPA's recycled water program. Infrastructure improvements could include pipelines, storage systems, and treatment improvements.

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

1. Approve the continued participation in the joint lobbying and cost sharing for the North San Diego County Regional Recycled Water Project.

Motion carried with unanimous vote of approval.

15. GENERAL MANAGER'S REPORT

General Manager Thornton provided an update on the Advanced Water Treatment project Regional Board permit. As part of the Advanced Water Treatment project, the SEJPA is required to amend its recycled water permit with the Regional Water Quality Control Board. General Manager Thornton stated that he will be attending the Regional Board Meeting on Wednesday to answer questions regarding the permit modification.

General Manager Thornton also updated the Board of Directors on the status of the Advanced Water Treatment project. The Advanced Water Treatment system is currently in start-up mode, which is anticipated to be completed in the next 45 days. A ribbon cutting ceremony to officially introduce the Advanced Water Treatment system to the public is anticipated to occur in 60 days.

16. GENERAL COUNSEL'S REPORT

None

17. BOARD MEMBER COMMENTS

None

18. CLOSED SESSION

None

19. ADJOURNMENT

The Board of Directors adjourned at 9:30 a.m. The next Board of Directors meeting will be held on April 8, 2013.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

PAYMENT OF WARRANTS
13-04
28-Mar-13

VENDOR	DESCRIPTION OF EXPENSE	AMOUNT
13-04 Warrants		
Abcana Industries	Hypochlorite solution	$176.69
Aire Filter Products - California	Air filters	$334.45
Akzo Nobel Paints, LLC	San Elijo white paint	$194.05
Alliant Insurance Services, Inc.	CSRMA Master Crime Policy - 04/01/13 - 04/01/14	$1,167.00
Arredondo, Susana	Expense report - CWEA workshop	$175.00
Arrowhead Direct	Kitchen and lab supplies	$271.36
Ashbrook Simon-Hartley	Switch sensor for belt press #2	$319.26
AT&T	Phone service	$378.93
AT&T - Eden Gardens	DSL - 01/20/13 - 02/19/13	$73.45
Atlas Pumping Service	Grease and scum pumping - February	$1,225.36
Barracuda Networks, Inc.	Network back-up	$50.00
Basco, Jennifer	Expense report - mileage	$34.03
Bay City Electric Works	Generator rental - 01/14/13 - 02/10/13	$2,577.42
BlackBurn MFG. CO.	Marker paint	$229.48
Broding's Battery Warehouse	Battery	$78.66
Calpers	1959 Survivor Benefit - FY 2012-13	$624.00
Calscience Environmental Lab	Lab testing	$88.00
Complete Office	Office supplies	$63.68
Cook, Carrie	Expense report - training	$55.53
EDCO Waste & Recycling	Trash service - February	$198.77
Golden State Overnight	Mailing lab samples	$84.69
Grainger, Inc.	Electronic ballast t8 lamps	$224.46
Guardian	Dental insurance - 03/01/13 - 03/31/13	$1,236.33
Jani-King	Janitorial service - March	$882.64
John Deere Landscapes, Inc.	3/4" reclaimed sch40 PVC	$28.62
Konica Minolta	Monthly copier maintenance	$86.84
Marine Taxonomic Services	Ocean offshore monitoring	$740.00
McMaster-Carr Supply Co.	Repair parts - hoses, PVC stencil set, gloves, forkmount	$899.54
Michael R. Welch, Ph.D., P.E.	Recycled water waste discharge permit amendment	$600.00
MegaPath Inc.	T-1 service - March	$288.80
OMWD	Manchester - 01/09/13 - 02/11/13	$49.01
PERS - Health	Health premium - March	$17,083.27
PERS - Retirement	Retirement premium - 02/16/13 - 03/01/13	$14,637.66
Polydyne Inc.	Clarifloc (R) we-007	$11,426.40
Preferred Benefit Insurance	Vision insurance - 03/01/13 - 03/31/13	$293.70
R.J. Safety Co., Inc.	11' x 1' web lifeline hook - carabiner	$317.53
SFID	Water - Lomas Santa Fe PS 12/17/12 - 02/20/13	$182.81
San Elijo Payroll Account	Payroll - 03/08/2013	$70,296.54
San Elijo Payroll Account	Payroll - 03/22/2013	$70,140.66
Sigma-Aldrich RTC	Streptococcus, chlorine, turbidity, settleable solids, nutrients	$421.97
Sun Life Financial	Life and disability insurance	$1,256.15
Talbot, Nicholas	Expense report - Bobcat rear right tire patch	$38.00
Terminix Processing Center	Pest control	$447.00
Trees, Christopher	Expense report - SCWRRP meeting, mileage	$84.45
Trussell Technologies, Inc.	Process engineer and water quality services	$1,720.00

PAYMENT OF WARRANTS
13-04
28-Mar-13

VENDOR	DESCRIPTION OF EXPENSE	AMOUNT
Underground Service Alert	Dig alert - February	$42.00
Unifirst Corporation	Uniform service - March	$92.57
Unifirst Corporation	Uniform service - February	$31.45
Unifirst Corporation	Uniform service - February	$93.30
UPS	Mailing - compliance reports	$52.87
VWR International, Inc.	Buffer, glass filter, spigot, and tubes	$719.75
W.M. Lyles Co.	AWT Project	$193,222.10
	Total 13-04 Warrants	$396,036.23

SAN ELIJO JOINT POWERS AUTHORITY

PAYMENT OF WARRANTS SUMMARY

28-Mar-13

PAYMENT OF WARRANTS		$396,036.23
Reference Number	13-04	

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.

Gregory Lewis
Director of Finance/Administration
Treasurer

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

28-Mar-13

FUNDS ON DEPOSIT WITH		AMOUNT
LOCAL AGENCY INVESTMENT FUND		
(NOVEMBER 2012 YIELD 0.324%)		
	RESTRICTED SRF RESERVE	$ 630,000.00
	UNRESTRICTED DEPOSITS	$ 6,590,830.64
CALIFORNIA BANK AND TRUST		
(DECEMBER 2012 YIELD 0.01%)		
	REGULAR CHECKING	$ 116,842.10
	PAYROLL CHECKING	$ 5,000.00
TOTAL RESOURCES		$ 7,342,672.74

*

AGENDA ITEM NO. 9

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

April 8, 2013

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 February 2013. The primary indicators of treatment performance include the removal of Carbonaceous Biochemical Oxygen Demand (CBOD) and Total Suspended Solids (TSS). The SEJPA is required to remove a minimum of 85 percent of the CBOD and TSS from the wastewater. Treatment levels for CBOD and TSS were 97.4 percent and 95.9 percent, respectively, for February (as shown in Figure 1 and Figure 2).

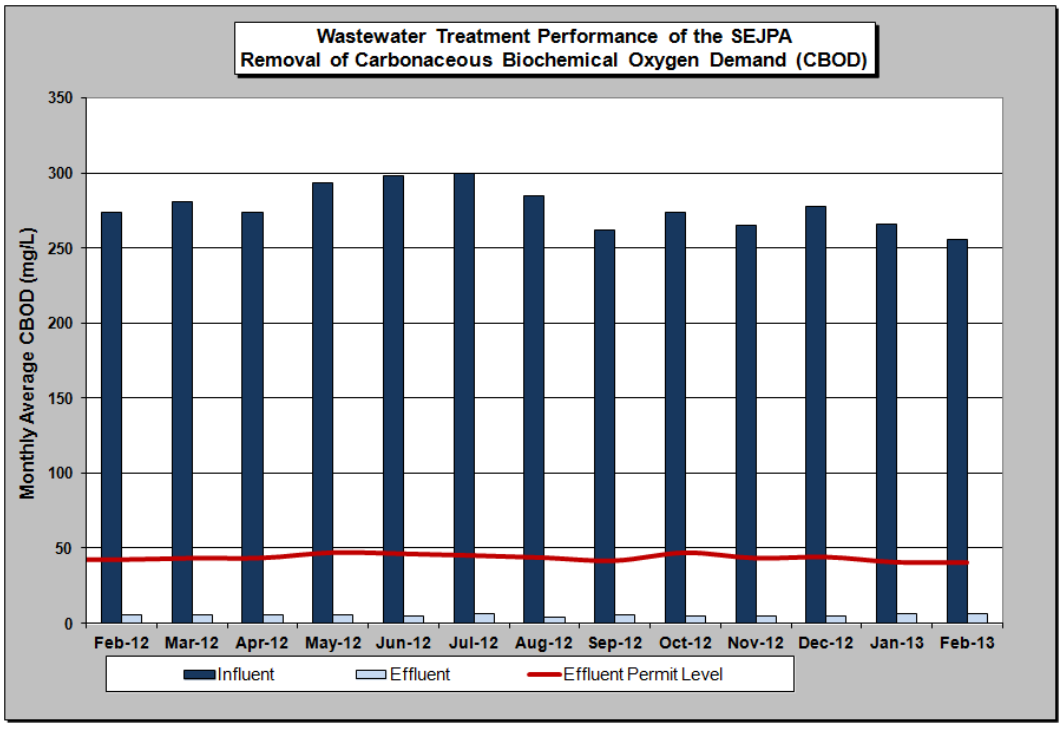


FIGURE 1

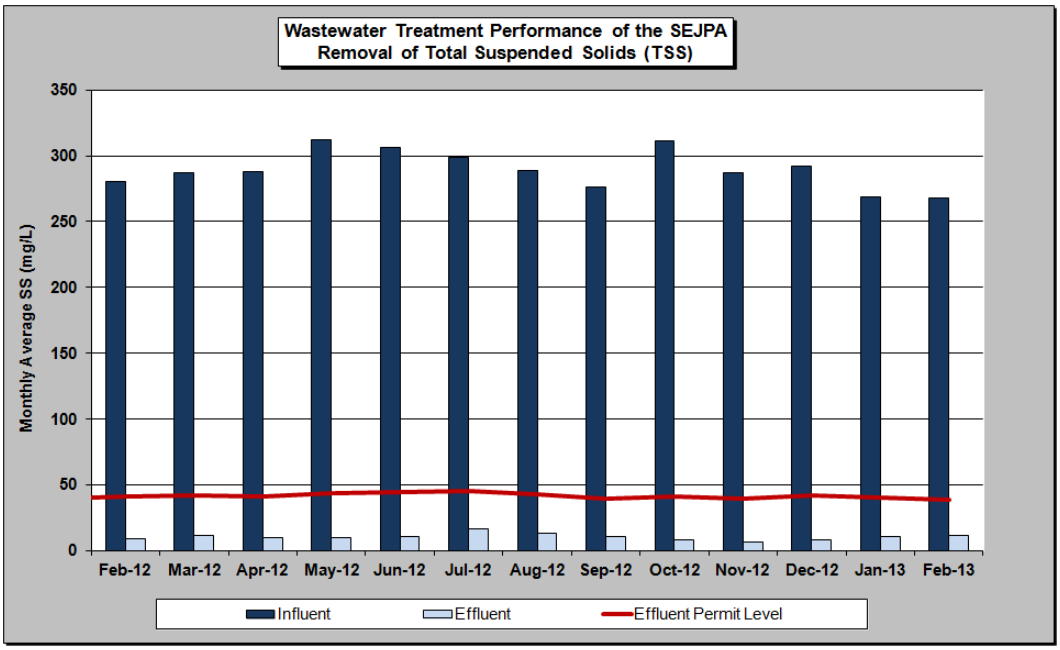


FIGURE 2

Member Agency Flows

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

	February	
	Influent (mgd)	**Effluent (mgd)***
Cardiff Sanitary Division	1.349	1.048
City of Solana Beach	1.201	0.933
Rancho Santa Fe SID	0.138	0.108
Total San Elijo WRF Flow	**2.688**	**2.089**

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.

Table 1 (below) presents the historical average, maximum, and unit influent and effluent flow rates per month for each of the Member Agencies since July 2008. It also presents the number of connected Equivalent Dwelling Units (EDUs) for each of the Member Agencies during this same time period.

Figure 3 (below) presents the historical average daily flows per month for each Member Agency. This is to provide a historical overview of the average treated flow by each agency. As shown in the figure, the average treated flow has been approximately 2.7 million gallons per day (mgd). Also shown in Figure 3 is the total wastewater treatment capacity of the plant, 5.25 mgd, of which each Member Agency has the right to 2.5 mgd, and Rancho Santa Fe Community Service District has the right to 0.25 mgd.

SAN ELIJO WATER RECLAMATION FACILITY MONTHLY REPORT - FLOWS AND EDUS

	AVERAGE DAILY INFLUENT FLOW RATE (MGD)				AVERAGE DAILY EFFLUENT FLOW RATE (MGD)				CONNECTED EDUs				AVERAGE UNIT INFLUENT FLOW RATE (GAL/EDU/DAY)			
MONTH	CSD	RSF CSD	SB	TOTAL PLANT	CSD	RSF CSD	SB	TOTAL PLANT	CSD EDUS	RSF CSD EDUS	SB EDUS	TOTAL EDUS	CSD	RSF	SB	TOTAL PLANT
Jul-08	1.713	0.131	1.324	3.168	0.722	0.055	0.558	1.335	8,163	456	7,728	16,347	210	288	171	194
Aug-08	1.562	0.125	1.483	3.170	0.608	0.048	0.577	1.233	8,165	457	7,728	16,350	191	274	192	194
Sep-08	1.547	0.121	1.378	3.046	0.813	0.064	0.724	1.601	8,167	459	7,728	16,354	189	264	178	186
Oct-08	1.478	0.111	1.319	2.908	0.671	0.051	0.599	1.321	8,170	460	7,728	16,358	181	242	171	178
Nov-08	1.511	0.118	1.329	2.958	1.080	0.084	0.950	2.114	8,171	462	7,728	16,361	185	256	172	181
Dec-08	1.580	0.156	1.362	3.098	1.446	0.143	1.246	2.835	8,172	462	7,728	16,362	193	338	176	189
Jan-09	1.522	0.141	1.354	3.017	1.256	0.116	1.117	2.489	8,177	462	7,728	16,367	186	306	175	184
Feb-09	1.599	0.145	1.330	3.074	1.408	0.128	1.171	2.707	8,179	462	7,728	16,369	196	314	172	188
Mar-09	1.510	0.124	1.307	2.941	1.030	0.085	0.892	2.007	8,180	463	7,728	16,371	185	268	169	180
Apr-09	1.463	0.116	1.262	2.841	0.731	0.058	0.630	1.419	8,183	463	7,728	16,374	179	251	163	174
May-09	1.465	0.117	1.247	2.829	0.712	0.057	0.606	1.375	8,185	464	7,728	16,377	179	252	161	173
Jun-09	1.479	0.115	1.319	2.913	0.712	0.056	0.635	1.403	8,185	465	7,728	16,378	181	248	171	178
Jul-09	1.437	0.109	1.376	2.922	0.599	0.045	0.573	1.217	8,186	467	7,728	16,381	176	234	178	178
Aug-09	1.431	0.113	1.419	2.963	0.603	0.047	0.598	1.248	8,186	467	7,728	16,381	175	242	184	181
Sep-09	1.404	0.108	1.346	2.858	0.690	0.053	0.661	1.404	8,187	468	7,728	16,383	171	231	174	174
Oct-09	1.375	0.108	1.332	2.815	0.744	0.058	0.721	1.523	8,187	468	7,728	16,383	168	231	172	172
Nov-09	1.366	0.111	1.323	2.800	0.843	0.069	0.816	1.728	8,189	469	7,728	16,386	167	237	171	171
Dec-09	1.401	0.127	1.322	2.850	1.149	0.104	1.084	2.337	8,193	469	7,728	16,390	171	271	171	174
Jan-10	1.532	0.155	1.372	3.059	1.271	0.128	1.138	2.537	8,196	472	7,728	16,396	187	329	178	187
Feb-10	1.487	0.148	1.382	3.017	1.371	0.136	1.274	2.781	8,197	474	7,728	16,399	181	313	179	184
Mar-10	1.455	0.145	1.398	2.998	1.108	0.110	1.064	2.282	8,198	474	7,728	16,400	177	306	181	183
Apr-10	1.451	0.137	1.391	2.979	1.058	0.100	1.014	2.172	8,198	474	7,728	16,400	177	289	180	182
May-10	1.379	0.128	1.385	2.892	0.672	0.063	0.675	1.410	8,201	474	7,728	16,403	168	270	179	176
Jun-10	1.437	0.122	1.453	3.012	0.650	0.055	0.657	1.362	8,202	474	7,728	16,404	175	258	188	184
Jul-10	1.375	0.119	1.466	2.960	0.694	0.061	0.740	1.495	8,204	475	7,728	16,407	168	251	190	180
Aug-10	1.366	0.125	1.451	2.942	0.585	0.053	0.621	1.259	8,205	475	7,728	16,408	166	263	188	179
Sep-10	1.346	0.114	1.342	2.802	0.627	0.053	0.626	1.306	8,207	475	7,728	16,410	164	240	174	171
Oct-10	1.413	0.123	1.311	2.847	1.177	0.102	1.092	2.371	8,207	477	7,728	16,412	172	258	170	173
Nov-10	1.399	0.117	1.297	2.813	1.090	0.091	1.011	2.192	8,209	478	7,728	16,415	170	245	168	171
Dec-10	1.605	0.215	1.375	3.195	1.417	0.189	1.214	2.820	8,212	478	7,728	16,418	195	450	178	195
Jan-11	1.452	0.158	1.338	2.948	1.272	0.139	1.172	2.583	8,227	478	7,728	16,433	176	331	173	179
Feb-11	1.413	0.156	1.339	2.908	1.176	0.130	1.114	2.420	8,228	480	7,728	16,436	172	325	173	177
Mar-11	1.387	0.208	1.343	2.938	1.186	0.178	1.148	2.512	8,229	480	7,728	16,437	169	434	174	179
Apr-11	1.320	0.181	1.323	2.824	0.867	0.118	0.869	1.854	8,248	482	7,728	16,458	160	376	171	172
May-11	1.327	0.162	1.320	2.809	0.564	0.069	0.561	1.194	8,248	483	7,728	16,459	161	336	171	171
Jun-11	1.343	0.156	1.390	2.889	0.545	0.063	0.564	1.172	8,249	483	7,728	16,460	163	323	180	176
Jul-11	1.293	0.151	1.430	2.874	0.425	0.050	0.470	0.945	8,250	484	7,728	16,462	157	312	185	175
Aug-11	1.292	0.150	1.405	2.847	0.479	0.056	0.521	1.056	8,252	485	7,728	16,465	157	310	182	173
Sep-11	1.262	0.146	1.333	2.741	0.564	0.066	0.596	1.226	8,254	486	7,728	16,468	153	301	172	166
Oct-11	1.260	0.142	1.303	2.705	0.730	0.082	0.755	1.567	8,260	486	7,728	16,474	153	292	169	164
Nov-11	1.338	0.167	1.307	2.812	1.099	0.137	1.074	2.310	8,261	486	7,728	16,475	162	344	169	171
Dec-11	1.299	0.164	1.305	2.768	1.103	0.139	1.108	2.350	8,264	487	7,728	16,479	157	337	169	168
Jan-12	1.291	0.145	1.303	2.739	1.032	0.116	1.042	2.190	8,266	488	7,728	16,482	160	232	169	166
Feb-12	1.259	0.137	1.283	2.679	1.006	0.109	1.025	2.140	8,268	488	7,728	16,484	152	281	166	163
Mar-12	1.313	0.153	1.255	2.721	0.968	0.113	0.925	2.006	8,269	488	7,728	16,485	159	314	162	165
Apr-12	1.348	0.145	1.209	2.702	0.906	0.097	0.813	1.816	8,278	488	7,728	16,494	163	297	156	164
May-12	1.333	0.150	1.211	2.694	0.577	0.065	0.525	1.167	8,280	488	7,728	16,496	161	308	157	163
Jun-12	1.365	0.143	1.237	2.745	0.547	0.057	0.496	1.100	8,284	489	7,728	16,501	165	293	160	166
Jul-12	1.372	0.126	1.296	2.794	0.457	0.042	0.431	0.930	8,289	489	7,728	16,506	166	258	168	169
Aug-12	1.383	0.128	1.291	2.802	0.473	0.044	0.441	0.958	8,290	490	7,728	16,508	167	261	167	170
Sep-12	1.349	0.142	1.220	2.711	0.544	0.058	0.492	1.094	8,291	490	7,728	16,509	163	290	158	164
Oct-12	1.327	0.123	1.203	2.653	0.678	0.063	0.615	1.356	8,294	490	7,728	16,512	160	251	156	161
Nov-12	1.343	0.128	1.181	2.652	0.862	0.082	0.758	1.702	8,299	490	7,728	16,517	162	261	153	161
Dec-12	1.383	0.141	1.197	2.721	1.261	0.129	1.091	2.481	8,300	490	7,728	16,518	167	288	155	165
Jan-13	1.357	0.145	1.215	2.717	1.155	0.124	1.034	2.313	8,300	490	7,728	16,518	163	296	157	164
Feb-13	1.349	0.138	1.201	2.688	1.048	0.108	0.933	2.089	8,301	490	7,728	16,519	163	282	155	163

CSD: Cardiff Sanitary Division

RSF CSD: Ranch Santa Fe Community Service District

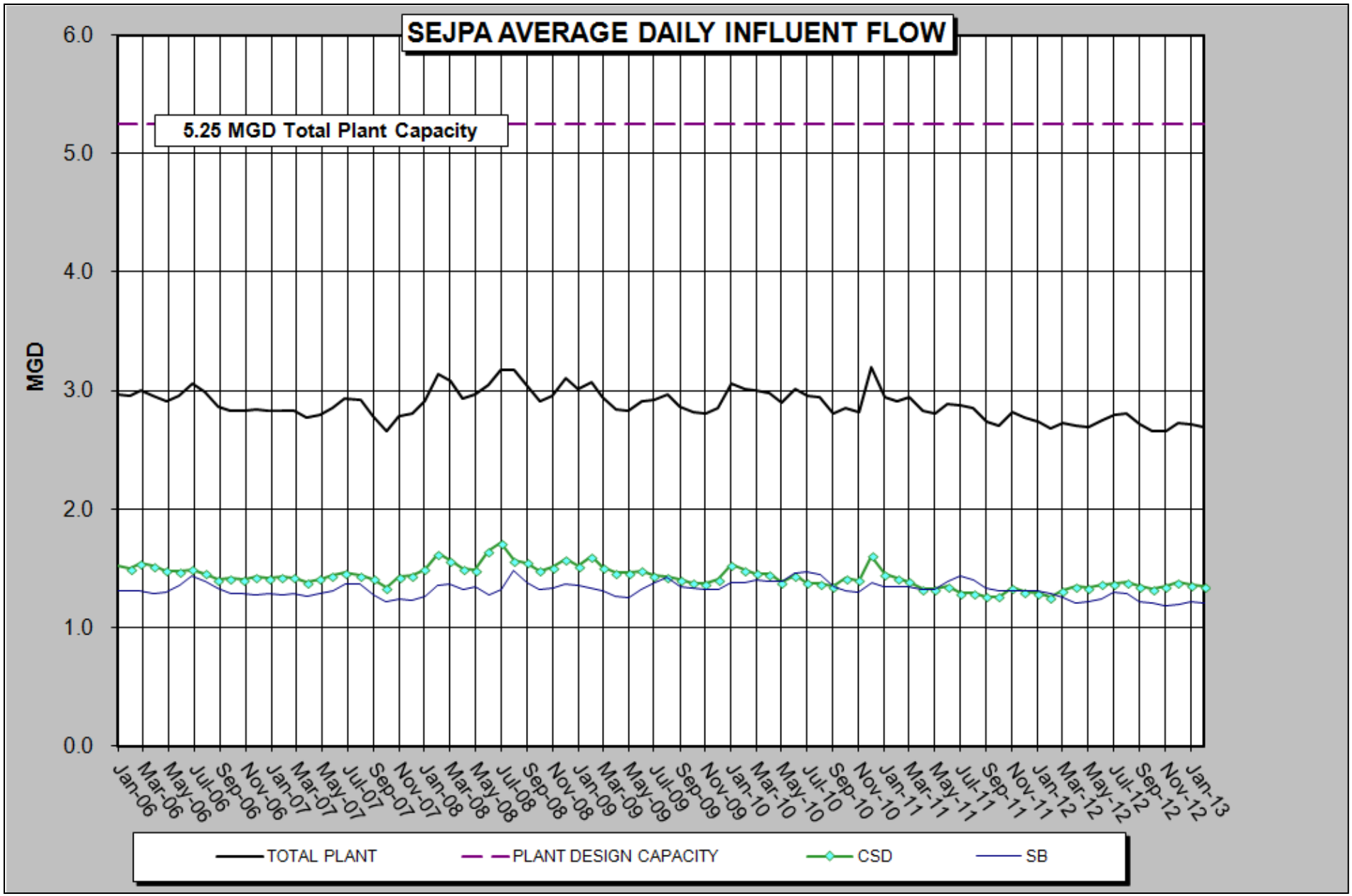
SB: Solana Beach

EDU: Equivalent Dwelling Unit

ASSUMPTIONS: SB average flow includes San Elijo Hills flow of 0.131 mgd

SB Connected EDUs includes 300 EDUs for the City of San Diego

TABLE 1


SEJPA AVERAGE DAILY INFLUENT FLOW
5.25 MGD Total Plant Capacity
MGD
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Jan-06
Mar-06
May-06
Jul-06
Sep-06
Nov-06
Jan-07
Mar-07
May-07
Jul-07
Sep-07
Nov-07
Jan-08
Mar-08
May-08
Jul-08
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May-10
Jul-10
Sep-10
Nov-10
Jan-11
Mar-11
May-11
Jul-11
Sep-11
Nov-11
Jan-12
Mar-12
May-12
Jul-12
Sep-12
Nov-12
Jan-13
TOTAL PLANT
PLANT DESIGN CAPACITY
CSD
SB

Figure 3

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 average flow rate and peak flow rate is reported by the City of Escondido for the month of February.

	February (mgd)
Escondido (Average flow rate)	9.4
Escondido (Peak flow rate)	18.4

Connected Equivalent Dwelling Units

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

	February (EDU)
Cardiff Sanitary Division	8,301
Rancho Santa Fe SID	490
City of Solana Beach	7,428
San Diego (to Solana Beach)	300
Total EDUs to System	**16,519**

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

*

AGENDA ITEM NO. 10

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

April 8, 2013

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 February 2013, recycled water demand was 42.35 acre-feet (AF), which was met using 42.35 AF of recycled water and 0.00 AF of supplementation with potable water. This equates to a blend mix for February of 100.0 percent recycled water and 0.0 percent potable water supplementation.

Figure 1 (attached) provides monthly supply demands for recycled water over the last five years. Figure 2 (attached) provides a graphical view of annual recycled water demand spanning the last twelve fiscal years. Recycled water demand can fluctuate from year to year, which is typically a function of weather. For example, Fiscal Years 2003-04, 2006-07, and 2008-09 were unusually dry years, resulted in increased recycled water demand; and Fiscal Year 2004-05 was an unusually wet year, resulted in lower recycled water demand.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

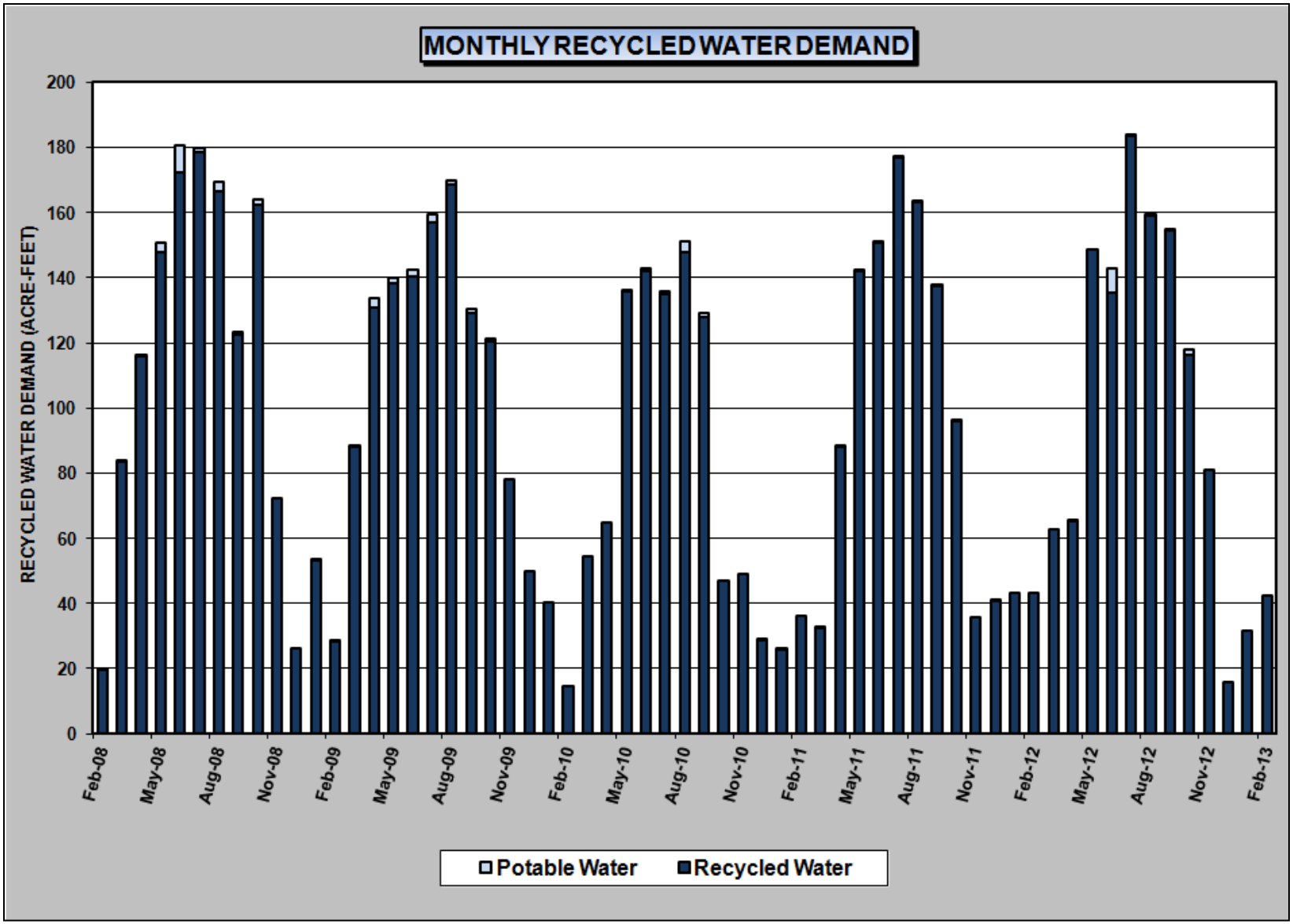

MONTHLY RECYCLED WATER DEMAND
RECYCLED WATER DEMAND (ACRE-FEET)
200
180
160
140
120
100
80
60
40
20
0
Feb-08
May-08
Aug-08
Nov-08
Feb-09
May-09
Aug-09
Nov-09
Feb-10
May-10
Aug-10
Nov-10
Feb-11
May-11
Aug-11
Nov-11
Feb-12
May-12
Aug-12
Nov-12
Feb-13
Potable Water
Recycled Water

Figure 1

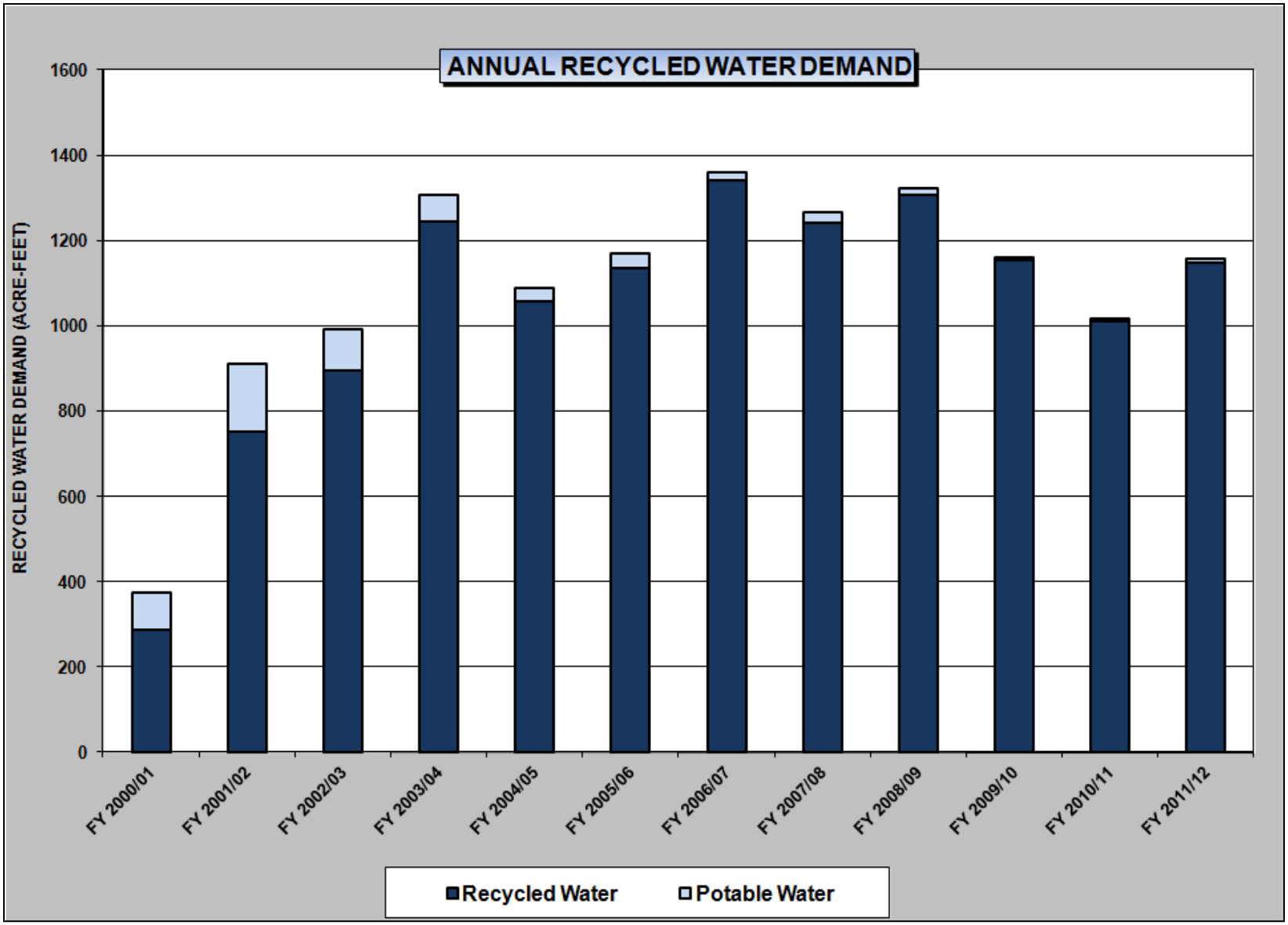

ANNUAL RECYCLED WATER DEMAND
RECYCLED WATER DEMAND (ACRE-FEET)
1600
1400
1200
1000
800
600
400
200
0
FY 2000/01
FY 2001/02
FY 2002/03
FY 2003/04
FY 2004/05
FY 2005/06
FY 2006/07
FY 2007/08
FY 2008/09
FY 2009/10
FY 2010/11
FY 2011/12
Recycled Water
Potable Water

Figure 2

AGENDA ITEM NO. 12

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

April 8, 2013

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Director of Finance/Administration

SUBJECT: PRESENTATION OF THE SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2013-14 RECOMMENDED BUDGET

RECOMMENDATION

It is recommended that the Board of Directors:

1. Review the Fiscal Year 2013-14 Recommended Budget; and

2. Discuss and take action as appropriate.

DISCUSSION

The Fiscal Year (FY) 2013-14 San Elijo Joint Powers Authority (SEJPA) Recommended Budget has been prepared in accordance with the SEJPA formation agreement and the SEJPA's existing service agreements with other government entities. The budget estimates all expenditures necessary to provide wastewater treatment, waste disposal, water reclamation, laboratory, ocean outfall, and pump station services.

The total recommended Fiscal Year (FY) 2013-14 budget for the Wastewater Treatment Fund (which includes operations and maintenance for wastewater, laboratory, outfall, and pump stations, as well as bond debt for the 2011 SEJPA Revenue Bonds) is $5,629,967. The total recommended FY 2013-14 operating budget for the Water Reclamation Fund (which includes operations and maintenance, as well as debt service expenses) is $2,086,111. The FY 2013-14 appropriation for the Capital Project Fund is $1,098,000.

SEJPA management has reviewed in detail all aspects of operations to control costs without impacting the agency's ability to perform its vital functions. The proposed budget for all operating programs will increase by approximately $320,620. The Ocean Outfall Program had the largest single impact to this increase ($180,000) due to the intensive monitoring program, which is required to be performed once every five years by the SEJPA's ocean discharge permit. The Recycled Water Program had the second largest impact ($70,000), which will be offset by the addition of new water sales to the Olivenhain Municipal Water District. All other programs averaged an increase of 1.7 percent.

The cost for wastewater treatment and disposal services of the Member Agencies are allocated based on use, indicated by measured flows or level of effort, as appropriate. Flows are averaged over a 12 month period and vary from year to year, impacting the level of participation for each agency. On the basis of 16,028 connected equivalent dwelling units (EDU's) through December 2012, the services provided to the Member Agencies by the SEJPA for wastewater treatment and disposal will cost an average of $159.16 per EDU. This represents an increase of 3.9 percent from a year ago. In historic terms, the proposed EDU rate reflects an annualized increase of *less than 1.2 percent* since the facility was upgraded to secondary treatment twenty years ago (average EDU rate was $127 in Fiscal Year 1993-94).

Recycled water sales revenues are budgeted to increase by approximately 5.6 percent from the current fiscal year. It is anticipated that sales volume will be about 1,233 acre-feet (AF) in the upcoming fiscal year, which is an increase of 73 AF from the previous year. The program is projected to generate $2.2 million in recycled water revenues for FY 2013-14. Expenses are projected to be $2.1 million, which includes operation costs, capital improvements, and debt service.

The SEJPA Capital Improvement Program includes both new and ongoing projects for improvements to the wastewater treatment, ocean outfall, pumping stations, and the water reclamation programs. For the wastewater treatment program, capital projects include (1) Headworks and Grit Chamber Rehabilitation Project, (2) Biosolids Upgrade Reserve, (3) energy efficiency improvements, (4) building improvements (5) hydraulic management of the outfall, (6) digester rehabilitation and upgrades, and (7) funding to begin planning for the replacement of the emergency generators for the facility. Funding is being requested for the Ocean Outfall Program to fund a reserve for an ocean outfall reballast project which is generally done about every seven to ten years. All of these projects were listed in the Water Reclamation Facility Master Plan prepared by Corollo Engineers in 2007.

Debt service for the SEJPA is budgeted at $2,527,198, which is approximately 1% greater than last fiscal year. This minor increase is attributable to the acquisition of a distribution pipeline from the Santa Fe Irrigation District. The annual debt service consists of the following:

- 2011 Revenue Bond payment of $1,480,867 (Secondary Treatment Upgrades Project, 1991)
- State Revolving Fund loan payment of $834,675 (Water Reclamation Facility Project, 2000)
- Advanced Water Treatment (AWT) loan payment of $148,153 (constructed in 2013)
- SFID pipeline acquisition of $63,500 (down payment and 1st payment)

Further information for the FY 2013-14 recommended budget is discussed in detail in the budget document, along with information regarding the contribution requirements of the various agencies served by the SEJPA.

SUMMARY

The total recommended FY 2013-14 operating budget for the Wastewater Treatment Fund is $5,629,967, which is a 4.7 percent increase from a year ago. The majority of this increase is due to the intensive monitoring program required by the ocean discharge permit. Revenues to support the Wastewater Treatment Fund come from the users of the provided services. The total recommended FY 2013-14 operating budget for the Water Reclamation Fund is

$2,086,111, which is a 6.6 percent increase from a year ago. The addition of the AWT project attributed to a portion of this increase, but aided the program in adding the OMWD as a customer. Water Reclamation Fund revenues come from the sale of recycled water. The FY 2013-14 appropriation for the Capital Project Fund is $1,098,000, which will fund repair and replacement activities associated with the wastewater treatment, pump stations, water reclamation, and ocean outfall system.

It is therefore recommended that the Board of Directors:

1. Review the Fiscal Year 2013-14 Recommended Budget; and

2. Discuss and take action as appropriate.

Respectfully submitted,

Gregory Lewis
Director of Finance/Administration

AGENDA ITEM NO. 13

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

April 8, 2013

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: RECYCLED WATER COST OF SERVICE STUDY

RECOMMENDATION

It is recommended that the Board of Directors:

1. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) owns and operates a municipal recycled water utility that is located in the cities of Encinitas, Solana Beach, and Del Mar. This utility wholesales recycled water to four water purveyors; Santa Fe Irrigation District (SFID), San Dieguito Water District (SDWD), the City of Del Mar; and most recently to Olivenhain Municipal Water District (OMWD) through an interruptible service agreement. The SEJPA also has an interruptible service agreement directly with the Encinitas Ranch Golf Authority, as agreed by SDWD. The purveyors in turn retail the recycled water to end customers. Except for the OMWD agreement, the SEJPA owns the entire recycled water infrastructure system including treatment, storage and distribution facilities, and pipelines. In general, the water districts only own the recycled water meter that measures the customer's usage.

The SEJPA has wholesale water agreements with SFID, SDWD, the City of Del Mar, and OMWD. These agreements establish the basis of cost for the recycled water and include a minimum water volume that each water district agrees to purchase. For SFID, the minimum is 450 acre-feet per year (AFY); SDWD's minimum water volume is 425 AFY; the City of Del Mar's minimum is 150 AFY; and OMWD's is 25 AFY. These types of agreements are commonly known as "take or pay" agreements. Most of these agreements were created in the mid-1990's and use an "index pricing method" to establish the price of recycled water. Initially, the agreements indexed the recycled water at 85% of the potable water rate. This pricing structure methodology is common in southern California and is endorsed by the San Diego County Water Authority.

Over the last 15 years, both the pricing structures of the purveyors and the consumption habits of the end users have changed. Some of the purveyors have not consistently reached their minimum purchase volumes as established by the agreements, which has caused these purveyors to "purchase" water that they had no demand for. Other purveyors have experienced dramatic potable water price increases, which by "indexing" has caused recycled water rates to spike as

well. To address these issues, the SEJPA Board of Directors has executed agreement amendments on an individual basis to creatively manage the unique conditions of each purveyor.

Looking forward, the original wholesale agreements between the SEJPA and the purveyors will expire between 2016 and 2020. The SEJPA commenced a recycled water cost of service study that could serve as the basis for modifying or extending these agreements and that would strive to meet the following goals:

- 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 under a range of planning scenarios
- analyze the financial impacts of decoupling all wholesale agreements from the potable water rate structure
- describe the policy decisions that are necessary to implement reserve funds and a cost-of-service revenue model

This staff report provides the draft-Final Cost of Service Study for presentation and discussion. Staff proposes that the Board allow for a two week public comment period of this study (ending 10am on Tuesday, April 23, 2013). Comments received will then be presented to the Board for consideration at the regularly scheduled May 13, 2013 Board meeting. The proposed tentative date for presenting the Final Cost of Service Study to the Board for consideration and acceptance is June 10, 2013.

DISCUSSION

Initial Analysis

On February 11, 2013, the Board heard an initial briefing on recycled water reserves and the cost of service study. This briefing highlighted several facts about SEJPA's recycled water utility:

1. The utility has a relatively high percentage of fixed costs (approximately 85%), which include debt service and which do not vary with recycled water sales
2. The utility has a variable revenue structure, which is dependent on the volume of water sold
3. With the exception of a $630,000 repair and replacement reserve, the utility has not budgeted for capital replacement of the system
4. The utility has an "unrestricted reserve" or fund balance that has helped manage capital needs and system repairs to date

At that briefing, the Board gave direction to staff and the consultants to complete the ongoing cost of service study based on:

1. Establishing an operational reserve equal to one year of expenses, including debt service
2. Establishing a capital reserve with future "goals" for the balance in that reserve
3. Maintaining a competitive price for recycled water
4. Moving away from the "indexed" rate model to a true cost of service model, where possible

Recommended Reserve Targets

Operational Reserve: For future planning, the study assumes that SEJPA will maintain one year of operational costs, including debt service costs, in an operational reserve. Based on the current balance in the Recycled Water Program Fund, estimated at $2.2 million, there is adequate funding here to create the proposed operational reserve.

Capital Reserve: One strategy for managing repair and replacement of the recycled water system is to fully fund depreciation of the system. If SEJPA had been fully funding depreciation, the repair and replacement reserve would currently be approximately $3.7 million, rather than the $630,000 currently in the reserve. This exceeds the value of the current fund balance.

Practically, there are a number of ways to manage repair and replacement of utility system assets. Bond financing, low interest loans, and grants are all mechanisms for funding capital projects within the system, without placing the full burden of depreciation on current rate payers. In addition, in SEJPA's case, the life of its asset base is generally longer than the term of the two loans. This affords the utility the ability to "reprogram" the expenditures currently dedicated to debt service, to a capital reserve as debt is retired, effectively increasing the capital reserve contribution as assets age.

Acknowledging these practical realities, the cost of service study utilized a fiscal model to help determine "milestone" capital reserve goals that would allow accrual of a capital reserve with a value close to the depreciated value of the assets in Fiscal Year 2030-31, when the debt is retired. This initial analysis suggests that SEJPA should budget for a capital reserve of approximately $3.0 million in Fiscal Year 2020-21, a key program milestone after which the SRF loan is paid off. The analysis also suggests that SEJPA should budget for a capital reserve of approximately $4.8 million in Fiscal Year 2025-26, another key program milestone after which the last of the incentive funding expires. These repair and replacement goals reflect a practical strategy for managing replacement of assets, given the current fiscal status of the system.

Scenarios Modeled

With reserve goals and historic financial performance established, the cost of service study reviewed three future water delivery scenarios to help "bookend" the potential impacts on rates.

Status Quo: Under this scenario, recycled water sales remain flat, except within the OMWD service area, where they grow from 35 acre feet to 80 acre feet annually.

In order for SEJPA to meet the reserve goals, the model projects future recycled water rate increases at 5 percent or more annually. Water purveyors that are meeting or exceeding their minimum purchase volumes typically experienced lower rate increases than those that did not. From 2020-21 through 2025-26,projected rate increases for all purveyors averaged 5.5 percent annually to compensate for expected revenue loss associated with the San Diego County Water Authority incentives expiring. This scenario results in an estimated Repair and Replacement Reserve Balance of $4.74 million in FY 2025-26.

Ten Percent Increase Scenario (1,335 AFY by FY 2018-19): Under this scenario, recycled water deliveries grow at a rate of approximately 2% per year.

In order for SEJPA to meet its reserve goals, the model projects future recycled water rate increases are predominately between 3 to 5 percent annually. Water purveyors that are meeting or exceeding their minimum purchase volumes typically experienced lower rate increases than those that did not.

In general, the average annual water rate increase is approximately 1 percent less than the Status Quo Scenarios. From 2020-21 through 2025-26, projected rate increases for all purveyors averaged 4 percent annually to compensate for expected revenue loss associated with the San Diego County Water Authority incentives expiring. This scenario results in an estimated Repair and Replacement Reserve balance of $4.95 million in FY 2025-26.

Twenty Percent Increase Scenario (1,437 AFY by FY 2018-19): Under this scenario, recycled water deliveries grow at a rate of approximately 4% per year.

In order for SEJPA to meet its reserve goals, recycled water rate increases for the participating agencies are predominately between 2.0 to 4.5 percent annually. As with the previous scenarios, water purveyors that are meeting or exceeding their minimum purchase volumes typically experienced lower rate increases than those that did not. From 2020-21 through 2025-26, projected rate increases for all purveyors averaged 2.8 percent annually. This scenario results in an estimated Repair and Replacement Reserve balance of $5.12 million in FY 2025-26.

Conclusions

Each of the scenarios considered allows SEJPA to cover costs, meet capital reserve goals, and repay the Member Agencies. However, the model clearly shows the beneficial impact of increasing water sales as a means to manage future water rate increases. Rapid increase in water sales in near term years produces noticeable gains in both reserve balance and in lower required rate increases. Growing the recycled water utility from current deliveries of approximately 1,100 acre feet per year to future deliveries of 1,437 acre feet per year or more will result in the lowest future recycled water costs and the best opportunities to manage future water rate increases.

The Study recommends that SEJPA:

1. Formalize the recommended Operational and Capital Reserve Policies and goals in order to provide transparency and fiscal targets to guide rate setting

2. Develop an updated market assessment, with its partner agencies, in order to identify the best strategies for increasing recycled water sales

3. Moving forward, refine the fiscal model as necessary in order to transition rates towards a cost-of-service model based on actual performance of the recycled water utility

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 A: Recycled Water Cost of Service Study

Attachment A to Agenda Item No. 13

Recycled Water Cost of Service Study

San Elijo Joint Powers Authority

April 2013

This Recycled Water Cost of Service Study ("Report"):

1. *has been prepared by GHD Inc. ("GHD") for the San Elijo Joint Powers Authority(SEJPA);*
2. *may only be used and relied on by SEJPA;*
3. *must not be copied to, used by, or relied on by any person other than SEJPA without the prior written consent of GHD;*
4. *may only be used for the purpose of evaluating potential recycled water growth and fund balance scenarios (and must not be used for any other purpose).*

GHD and its employees and officers otherwise expressly disclaim responsibility to any person other than SEJPA arising from or in connection with this Report.

To the maximum extent permitted by law, all implied warranties and conditions in relation to the services provided by GHD and the Report are excluded unless they are expressly stated to apply in this Report.

The services undertaken by GHD in connection with preparing this Report were limited to those specifically detailed in this Report

The opinions, conclusions and any recommendations in this Report are based on assumptions made by GHD when undertaking services and preparing the Report, including but not limited to, assumptions about inflation rates and assumptions about potable water cost escalation

GHD expressly disclaims responsibility for any error in, or omission from, this Report arising from or in connection with any of the assumptions being incorrect.

Subject to the paragraphs in this section of the Report, the opinions, conclusions and any recommendations in this Report are based on conditions encountered and information reviewed at the time of preparation.

Contents

1. Background and Purpose

The San Elijo Joint Powers Authority(SEJPA) owns and operates a recycled water utility which has provided service to customers within the Santa Fe Irrigation District (SFID), the San Dieguito Water District (SDWD) and the City of Del Mar (together the "participating water agencies") since September 2000. In 2011, SEJPA began providing interruptible service to the Encinitas Ranch Golf Course (Golf Course), as part of a three way agreement between SEPJA, SDWD and the Golf Course. In October 2012, SEJPA began providing recycled water service, on an interruptible wholesale basis, to Olivenhain Municipal Water District (OMWD).

The recycled water system currently includes tertiary treatment, transmission, storage and distribution facilities. SEJPA is constructing an advanced treatment facility (the AWT Project) which will reduce the Total Dissolved Solids (TDS) in its recycled water, which both enhances permit compliance and makes its product easier to use for a wide range of irrigation and other nonpotable purposes. The AWT system is expected to become operational in mid-2013.

SEJPA's recycled water is used to offset potable water demands, which improves the reliability of the local potable water systems. Both San Diego County Water Authority(County Water Authority) and the Metropolitan Water District of Southern California (Metropolitan) provide financial incentives to SEPJA for producing recycled water, because recycled water provides supply reliability in their service area. SEJPA's recycled water system has the capacity to deliver approximately 1,800 acre-feet (AF) per year. Recycled water sales have been as high as 1,300 acre feet per year, however in the past two fiscal years sales have declined to approximately 1,100 acre feet per year. SEJPA attributes this reduction to the retail price of the recycled water and a strong emphasis on water conservation in its service area, which has caused users of both potable and recycled water to become more efficient in their practices. While SEJPA supports water use efficiency, its recycled water system will be most cost-effective for all users when its average annual delivery rates are closer to the full design capacity of the system.

SEJPA's agreements with SFID, SDWD and the City of Del Mar were originally developed in the mid-1990s and were structured to assure that the system could be financed and operated. Each of these three participating water agencies agreed to a "minimum purchase volume" and a recycled water rate set at 85% of the potable water rate in their service area. This practice means that SEJPA's rate revenue automatically increases when one or more of the participating water agencies raise potable water rates. This revenue recovery structure has provided sufficient revenue for SEJPA to finance and operate the system and has also provided a financial incentive to recycled water customers.

However, with recycled water use well below system capacity and changes to participating water agency rate structures, SEJPA has modified its agreements with SFID and SDWD to better encourage use. Specifically, because of large water rate increases in the SFID service area, SEJPA has "decoupled" its recycled water rate from the potable water rate and has established a fixed rate with an escalator that is reviewed on a roughly annual basis. Within the

SDWD service area, SEJPA, SDWD and the Golf Course agreed that SEJPA would provide direct service to the Golf Course and that SDWD's minimum purchase volume would be reduced by 275 acre feet per year to compensate for the loss of this customer. Providing direct interruptible service to the Golf Course's storage ponds has resulted in operational efficiencies and some increase in financial program incentives to the SEJPA. Also, the interruptible service coupled with the large water storage ponds at the golf course has allowed the SEJPA to serve more customers on that distribution system. In its supply agreement with OMWD, SEJPA has provided for an "infrastructure credit" or "rent back", because OWMD has constructed the recycled water distribution infrastructure within its service area. Without this infrastructure (valued at approximately $3 million), the SEJPA could not provide water service to the end customers.

1.1 Goals for the Cost of Service Study

The primarily goals of this cost of service study 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 under a range of planning scenarios
- analyze the financial impacts of decoupling all wholesale agreements from the potable water rate structure
- describe the policy decisions that are necessary to implement reserve funds and a cost-of-service revenue model.

2. Current Fiscal Model

SEJPA is in the twelfth year of operating its recycled water system and has developed a fiscal model that allows it to both track the past performance of the utility and forecast its future performance. The fiscal model accounts for both expenditures and revenues and allows SEJPA to track its fund balance and available reserves. The model indicates that the system currently has an unrestricted fund balance of approximately $2.2 million, and an additional $630,000 in a dedicated repair and replacement reserve required by the State Revolving Fund (SRF) program, based on Fiscal Year 2012-13 budget projections for revenue and expenditures.

This section describes the current program expenditures and revenues and describes the trends in the recycled water fund balance.

2.1 Expenditure Pattern

Historically, SEJPA has managed two major categories of expenditure: debt service, which includes its SRF loan and a recent loan secured for its AWT project, and operational costs which include fixed and variable items.

Debt service and fixed operational costs are required program expenditures, regardless of the volume of recycled water sold. Variable operational costs include chemicals, utilities, and other supplies and services that increase and decrease with the volume of recycled water delivered. Within its annual budgets, SEJPA has, from time to time, budgeted for contingencies and capital expenditures from its Fund Balance which functions as an “unrestricted” reserve. For example, some of the costs of the AWT Project have been advanced from unrestricted reserves. These types of expenditures are also considered variable costs because these types of costs can be modified from year to year.

Table 1 presents the past expenditure pattern for Fiscal Years 2008-09 through 2011-12 and the estimated pattern for Fiscal Year 2012-13. The table illustrates that with the new loan for the AWT Project, approximately one half of the recycled water program’s costs are associated with debt service and approximately 85% of the program costs are fixed.

Table 1 – Operational Program Expenditure Pattern

Budget Item	FY 2008-09 Budget	% of Total	FY 2009-10 Budget	% of Total	FY 2010-11 Budget	% of Total	FY 2011-12 Budget	% of Total	FY 2012-13 Budget	% of Total
Debt Service										
SRF Loan	$ 834,675		$ 834,675		$ 834,675		$ 834,675		$ 834,675	
AWT Loan	$ -		$ -		$ -		$ 74,077		$ 148,153	
Subtotal Debt Service	$ 834,675	51%	$ 834,675	49%	$ 834,675	54%	$ 908,752	55%	$ 982,828	50%
Fixed Operations	$ 549,028	34%	$ 639,791	38%	$ 464,092	30%	$ 468,235	28%	$ 705,790	36%
Chemicals	$ 74,047	5%	$ 66,482	4%	$ 78,442	5%	$ 78,580	5%	$ 64,000	3%
Utilities	$ 148,887	9%	$ 144,162	8%	$ 163,530	11%	$ 185,000	11%	$ 199,610	10%
Capital Outlay	$ 26,214	2%	$ 11,210	1%	$ 14,917	1%	$ 18,522	1%	$ 8,000	0%
Total Expenditures	$ 1,632,851	100%	$ 1,696,320	100%	$ 1,555,656	100%	$ 1,659,089	100%	$ 1,960,228	100%

Note: FY 2012-13 Expenditures are budget estimates

Sources:

SRF Loan: Exhibit F - SRF Loan Repayment Scheduled dated 11-July-03

AWT Loan: Exhibit A - Schedule of Loan Repayments, undated

Capital Projects: July 11-12 Financial Model -gl, Capital Projects

Demineralization Project: Fixed Operations Costs: July 11-12 Financial Model -gl, Demineralization Project

SEJPA's Fund Balance provides it with financial flexibility. The current recycled water utility Fund Balance is sufficient to cover slightly more than one year of operating and debt service expenses. This is highly desirable because much of the utility's costs are fixed and there is a potential risk of variable future revenues. However, the utility only has $630,000 in a dedicated repair and replacement fund. This reserve balance is low compared to the approximately $21 million in infrastructure assets owned by the utility. Developing a robust repair and replacement reserve is desirable for supporting necessary capital expenditures as the system ages.

2.2 Revenue Recovery Pattern

SEJPA's program has two major sources of revenue: incentive funding and recycled water sales. From time to time, SEJPA also receives grants and interest on its Fund Balance but these are not predictable sources of revenue. This section provides a detailed description of each source of revenue available to SEJPA.

2.2.1 Incentive Funding

Metropolitan and the County Water Authority each provide incentive payments to SEJPA. Both programs extend through Fiscal Year 2025-26, however, the County Water Authority's incentive program includes provisions for "early expiration," as described below and it is likely that SEJPA's incentives will expire before FY 2025-26.

Incentives from both programs are paid based on the volume of water delivered, so in years where recycled water sales are low, SEJPA receives lower incentive payments. Over its twelve year history, SEJPA has received annual incentive payments varying from a low of approximately $370,000 to a high of approximately $678,000 (which included retroactive incentives from the County Water Authority). The variable incentive payments are a reflection of the variable recycled water deliveries made by the system. Both incentive programs are described in greater detail below.

The Local Resources Program (Metropolitan): Metropolitan's program provides incentives from $0 to $250 per acre foot. The incentive payment is calculated as the difference between a recycled water agency's annual cost per acre foot for producing recycled water, including capital, operations and maintenance and annualized replacement costs, and the cost of purchasing an equivalent acre foot of supply from Metropolitan. If this difference exceeds the maximum annual payment of $250 per acre foot, the deferred cost may be carried over into the following year's calculation.

The Local Water Supply Development Program (County Water Authority): The County Water Authority's Local Water Supply Development Program provides additional incentives from $0 to $200 per acre foot delivered by SEJPA and takes into account the financial need of the program. Therefore, SEJPA only qualifies for incentives during the period when its recycled water program has operating or capital losses. Losses accrue cumulatively and can be carried forward from year to year as deferred credits. At the end of Fiscal Year 2011-12, SEJPA had approximately $2.3 million in deferred County Water Authority credits, which can be applied to the program moving forward.

The County Water Authority's incentive payments are calculated as the difference between a recycled water agency's annual cost per acre foot (after the Metropolitan incentive is applied) and the larger of the agency's recycled water rate or 85% of the equivalent potable water rate. While the County Water Authority acknowledges that recycled water suppliers may elect to sell recycled water for less than 85% of the potable water rate, incentive payments will not cover this revenue gap. If the recycler chooses to sell the water at a lower cost, then the incentive analysis is based on a hypothetical revenue stream using 85% of the potable water rate.

Because of the differences in the Metropolitan and County Water Authority programs, it is possible for an agency to receive payments from Metropolitan's program but to not qualify for the County Water Authority's program.

2.2.2 Recycled Water Sales Agreements

SEJPA has wholesale agreements with SFID, SDWD, the City of Del Mar, the Encinitas Ranch Golf Course, and OMWD. These agreements outline the business arrangement between the entities, including minimum purchase volumes, water quality requirements, the recycled water rate, and provisions for escalating the rate over time. These agreements are described in detail below.

At program inception, SFID, SDWD and City of Del Mar agreed to purchase a minimum volume of water. Together the minimum purchases total 1,243 ACRE FOOT or about 78% of the initial system capacity. In the past several years, total recycled water deliveries have been less than the sum of the minimum purchase agreements. While SFID, SDWD and the City of Del Mar each pay for their minimum purchase volume, which helps maintain SEJPA's revenue, the reduced sales have impacted SEJPA's ability to access incentive funding. The more recent interruptible supply agreements, negotiated with Encinitas Ranch Golf Course and OMWD, help increase the volume of actual recycled water deliveries, making better use of system capacity and allowing SEJPA to access additional incentive funding.

The City of Del Mar: The City of Del Mar (Del Mar) delivers recycled water to the 22nd Agricultural District Association. Del Mar's agreement with SEJPA, expires in 2020 and commits it to a minimum purchase volume of 150 acre feet per year but it typically uses 80 acre feet annually. The agreement sets the price of recycled water at 85% of the "domestic water rate per acre foot." The "domestic water rate per acre foot" is defined in the agreement as the lowest of the total domestic potable water rates for non-residential class charged per acre foot by the San Dieguito Water District, the Santa Fe Irrigation District or the City of Del Mar. Table 2 compares these rates and illustrates that currently Del Mar's recycled water rate would be set at 85% of $2.80 per hundred cubic feet (HCF), which is the agricultural water rate charged by SDWD. This rate is $2.38 per HCF or approximately $1,037 per acre foot for the minimum purchase volume of 150 acre feet. SEJPA anticipates receiving $155,550 in revenue from the City in FY 2012-13 ($1,037 per acre foot x 150 acre feet). When this revenue is divided by City's actual use of 80 acre feet, its effective recycled water rate is closer to $1,950 per acre foot.

Table 2 – "Domestic Water Rate" Comparison for Calculating Del Mar Recycled Water Rate (all rates in HCF)

Rate Class	Del Mar	SFID	SDWD
Non-residential	$3.62	$3.50	
Irrigation		$3.81	
Agricultural		$3.57	$2.80
Temporary Construction		$4.14	$3.98
Fire Lines		$4.14	$3.98
Commercial, Public and Government			$3.16
Landscaping & Excess Use			$3.98

Santa Fe Irrigation District: SFID's agreement with SEJPA expires in 2016 and includes a minimum purchase volume of 450 acre feet per year, which SFID meets or exceeds. SFID has experienced rapid water rate increases and in 2011, SEJPA and SFID entered an agreement that decoupled the recycled water rate from the potable water rate and limited the increase in recycled water rates to 5% per year for 2 years. Recently, SEJPA's Board of Directors approved a 0% rate increase for SFID for the calendar year 2013. The current recycled water rate is $3.01 per HCF, which translates to a rate of approximately $1,310 per acre foot delivered, or 74.5% of the applicable potable water rate. Review of recent sales data indicates that recycled water customers within SFID's service area pay $3.19 per HCF, or 79.5% of the applicable potable water rate.

San Dieguito Water District: SDWD's agreement with SEJPA expires in 2017 and originally included a minimum purchase volume of 700 acre feet per year. SDWD struggled to consistently meet the minimum purchase volume. As a result, when SEJPA entered into the interruptible supply agreement with the Encinitas Ranch Golf Course, described below, it also reduced SDWD's minimum purchase volume to 425 acre feet. During years when SDWD does not meet the minimum purchase volume, SDWD pays for 425 acre feet at 85% of their middle potable water price rate. SDWD currently retails recycled water rate at 85% of its potable water rate, which varies from $2.38 per HCF for agricultural use up to $3.38 per HCF for landscaping use. Review of recent sales data indicates that most recycled water customers within the SDWD service area pay $3.38 per HCF or 85% of the applicable potable water rate.

Encinitas Ranch Golf Course: In 2011, SEJPA entered into a six year interruptible service agreement with the Golf Course. The agreement provides the SEJPA full access to the Golf Course storage ponds which allows the SEJPA to fill the ponds during low demand periods thus allowing the utility to serve more customers. The Golf Course is also responsible for pressurizing their irrigation system which is a cost savings to the SEJPA. For FY 2012-13, the agreement allows the Golf Course to purchase 200 acre feet of recycled water annually for a lump sum payment $204,750, which escalates at 5% annually. This is roughly equivalent to a price of $1,023 per acre foot or $2.35 per HCF assuming a purchase of 200 acre feet. The

agreement also allows the Golf Course to receive any recycled water beyond the 200 acre foot commitment that would otherwise be discharged to the ocean.

Because the Golf Course purchases recycled water that would otherwise not be used, this arrangement allows SEJPA to avoid some ocean discharge costs and to qualify for additional incentive funding from Metropolitan and the County Water Authority, which is worth up to $450 per acre foot annually. However, the County Water Authority's incentive payments are calculated based on 85% of SDWD's equivalent potable water rate of $3.98 per HCF, not the rate paid by the Golf Course. This means that in the future, the County Water Authority incentive payments will be calculated based on an "assumed" revenue profile for Encinitas Ranch Golf Course, which is somewhat higher than the actual revenues received by SEJPA.

Olivenhain Municipal Water District: In 2012, SEJPA entered into a 20 year interruptible service agreement with OMWD that allows OMWD to purchase recycled water at a rate of $1,193 per acre foot, which is approximately 85% of OMWD's potable water price. Also, SEJPA provides OMWD with a $450 per acre foot rental payment for infrastructure constructed by OMWD that allows SEJPA's recycled water to be delivered into OMWD's service area. The agreement provides for the base recycled water rate to increase between 2% and 5% per year. There is 25 acre foot per year minimum purchase clause and OMWD anticipates using between 50 and 100 acre feet annually. Furthermore, it appears that recycled water sales to OMWD will qualify for incentive payments by Metropolitan and the Authority.

2.2.3 Summary of Program Revenue

Table 3 summarizes the SEJPA's estimated program revenue for Fiscal Year 2012-13. The table highlights that recycled water rates are somewhat variable among the customers, reflecting the fact that the County Water Authority's incentive program encourages indexing to 85% of the potable water rate. The table also illustrates that the program is not operating at full capacity. Because the program expenses are largely fixed and because the incentive payments are indexed to actual deliveries, expanding system deliveries could help reduce the revenue requirements for any particular customer or participating water agency.

Table 3 – Estimated Fiscal Year 2012-13 Program Revenue

	Recycled Water Wholesale Rate	Minimum Purchase Volume (AF)	Estimated Actual Purchases (AF)	Estimated Total Revenue
City of Del Mar	$1,037/AF	150	80	$155,509
Santa Fe Irrigation District	$1,310/AF	450	510	$668,690
San Dieguito Water District	$1,170/AF	425	320	$498,000
Encinitas Ranch Golf Course	$204,750 lump sum	200	250	$204,750
Olivenhain Municipal Water District	$1,193/AF	25	35	$26,005
Totals		1,250	1,195	$1,552,954
Metropolitan Incentive (paid on actual purchases)	$250/AF		1,195	$298,750
County Water Authority Incentive (paid on actual purchases)	$200/AF		1,195	$239,000
			TOTAL	2,090,704

2.3 Current Fund Balance and Cost of Service

A fund balance model has been developed that allows SEJPA to understand the relationship between expenditures and revenue over time. The model includes historic data on revenue and expenditures and tracks the recycled water fund balance, allowing SEJPA to understand the balance between its expenditures and revenues and confirm that it is maintaining the required SRF reserve. Figure 1 illustrates the fund balance profile for the past four years and the projected profile through FY 2013-14, including the SRF repair and replacement reserve of $630,000 and the remaining “unrestricted” balance. The figure illustrates that the balance has demonstrated consistent but slow growth from FY 2008-09 to FY 2012-13, when SEJPA withdrew $2 million to fund the construction of the AWT Facility. Based on the projected revenue stream, the Fund Balance will continue to grow in the future.

Figure 1 – Recycled Water Fund Balance Profile

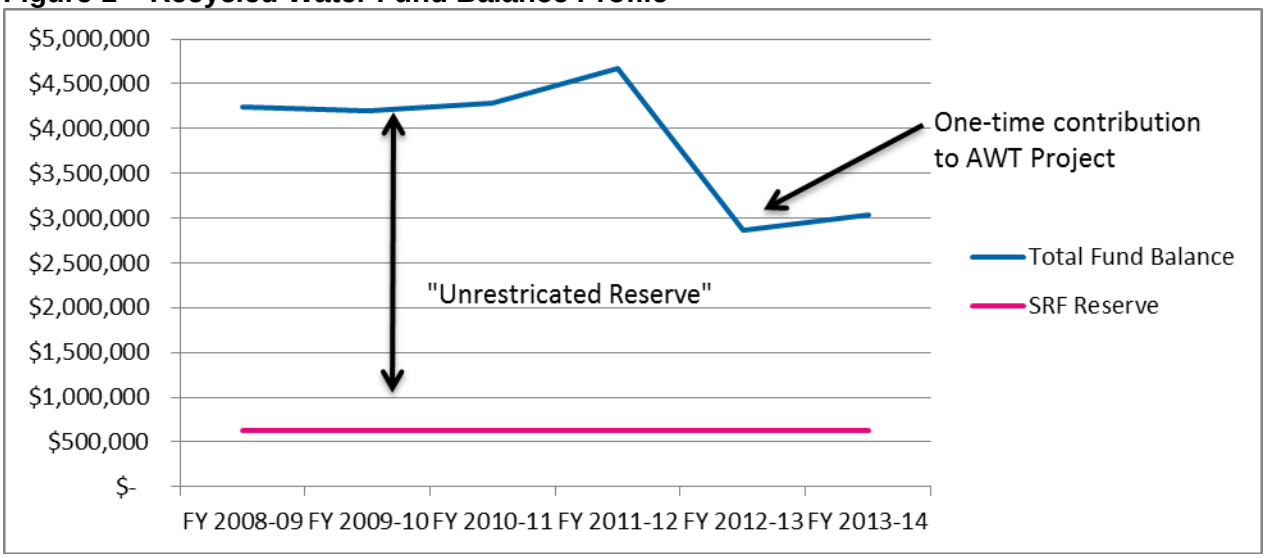


Table 4 provides additional detail on the performance of the recycled water utility and the "cost of delivery" over the past four years. The table illustrates that SEJPA's current cost of delivery is $1,640 per acre foot, which is higher than any of the recycled water rates established by SEJPA's various agreements. While this difference has allowed SEJPA to regularly qualify for the incentive payments, it highlights the fact that the recycled water utility would not be self-sustaining without incentive payments. It is also important to note that the current expenditure program does not include an allowance for depreciation or a contribution to a repair and replacement reserve. Because depreciation is currently "unfunded", the figures in Table 4 are not the full cost of service for SEJPA's recycled water utility.

Table 4 - Summary of Financial Trends FY 2007-08 through 2011-12

	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13 (Estimated)
Revenues					
Recycled Water Sales	$ 1,412,478	$ 1,421,461	$ 1,530,480	$ 1,508,500	$ 1,552,953
Incentive Revenue	$ 677,706	$ 522,135	$ 454,950	$ 508,500	$ 537,750
"Other" Revenues (includes note & grants)	$ -	$ 28,055	$ 13,582	$ 2,025,484	$ 790,000
Total Revenue	**$ 2,090,184**	**$ 1,971,651**	**$ 1,999,012**	**$ 4,042,484**	**$ 2,880,703**
Total Expenditures	**$ 1,632,851**	**$ 1,696,320**	**$ 1,555,656**	**$ 1,659,089**	**$ 1,960,228**
Annual Cash Flow	$ 457,333	$ 275,331	$ 443,356	$ 2,383,395	$ 920,475
Cost per AF w/ incentives	$ 723	$ 1,011	$ 1,082	$ 995	$ 1,423
Cost per AF w/o incentives	$ 1,236	$ 1,461	$ 1,530	$ 1,435	$ 1,873

Note: AWT Loan ($2 million) FY 2011-12; and IRWM Grant Commitment, estimated at $790,000, FY 2012-13.

3. Future Fiscal Scenarios

As noted above, SEJPA has developed a fiscal model that allows it to project future performance of the utility. The program's future financial performance is tied to three key time periods:

- Fiscal Year 2016-17 when the current agreements with several of the participating water agencies expire and the business arrangement between SEJPA and its current partners is renegotiated
- Fiscal Year 2021-22 which is the first year after the payoff of the State Revolving Fund Loan, when debt service demands on the program are reduced
- Fiscal Year 2025-26 when the financial incentive programs from the County Water Authority and Metropolitan expire, which increases the cash flow demands on the program.

The program's future sustainability depends on SEJPA's ability to effectively implement a fiscal strategy that covers its cost of service, including repair and replacement costs. The payoff of the SRF loan offers SEJPA the opportunity to reprogram revenues, which had been dedicated to debt service, to other uses. The expiration of the incentive programs requires that SEJPA develop a revenue recovery model that will fully cover its costs. The expiration of the current agreements with participating water agencies provides all parties with an opportunity to restructure the current business arrangements to support a more sustainable utility.

SEJPA has some time to manage the transition of its recycled water program and this analysis is intended to assist with planning the transition. This analysis includes three future scenarios which are intended to "bookend" potential utility performance. The scenarios include varied assumptions about recycled water deliveries and consistent assumptions about program expenditures, because expenditures are largely fixed. The "cost of service" recycled water rate can then be estimated for each delivery scenario. No individual scenario is intended to be "predictive"; rather the range of scenarios is intended to assist SEJPA in understanding the potential effects of changes in the recycled water delivery pattern.

By evaluating a range of scenarios, SEJPA will have a planning tool against which it can gauge future system performance and it can begin developing the policies and agreements that will allow for a successful transition.

3.1 Recycled Water Delivery Scenarios

SEJPA's revenue is fundamentally tied to the volume of recycled water delivered. Because the majority of SEJPA's costs are fixed, higher deliveries allow SEJPA to cover its costs with lower recycled water rates. SEJPA has requested that this analysis review the three recycled water delivery rates described below.

- Status Quo: this scenario assumes recycled water deliveries increase from 1,195 acre feet annually in Fiscal Year 2012-13 to 1,240 acre feet annually in Fiscal Year 2018-19. The increase is associated with use developing in the OMWD service area.
- Ten Percent Increase or 1,335 AFY by 2019 Scenario: this scenario assumes recycled water deliveries increase from 1,195 acre feet annually in Fiscal Year 2012-13 to 1,335 acre feet annually in Fiscal Year 2018-19. In addition to developing use within the OMWD service area, this scenario assumes a 10% increase (2% per year) within the SFID, SDWD and City of Del Mar service areas.
- Twenty Percent Increase or 1,437 AFY by 2019 Scenario: this scenario assumes recycled water deliveries increase from 1,195 acre feet annually in Fiscal Year 2012-13 to 1,437 acre feet annually in Fiscal Year 2018-19. In addition to developing use within the OMWD service area, this scenario assumes a 20% increase (4% per year) within the SFID, SDWD and City of Del Mar service areas.

3.2 Future Expenditure Pattern

SEJPA's future expenditure program has been modeled to reflect full cost recovery for the recycled water system. The specific assumptions for expenditures are described below.

3.2.1 Debt Service

SEJPA currently has two debt service payments. The payment for its SRF loan, which financed the initial construction of its system, is $834,000 per year and will be paid off in Fiscal Year 2020-21. The payment for the note, which financed the construction of the AWT project, is $148,000 and it will be paid off in Fiscal Year 2030-31.

3.2.2 Operations and Maintenance

The fund balance model assumes that SEJPA's operational costs will increase at 3% per year. The model also assumes that operational costs will increase by $200 per acre-foot for each additional acre-foot delivered. This assumption is designed to account for the additional energy and chemical costs associated with increased recycled water production.

3.2.3 Debt Service Reserve

SEJPA is currently not required to maintain a "debt service reserve" for either its SRF loan or AWT note. However, because debt service is required to be paid, regardless of recycled water sales, the fiscal model assumes that the operational reserve, described below, will be established to include the costs of debt service. As SEJPA retires its debt, the operational reserve requirement will be reduced accordingly.

3.2.4 Operational Reserve

For future planning, this analysis assumes that SEJPA will maintain one year of operational costs, including debt service costs, in an operational reserve to allow it to manage its high

percentage of “fixed costs” in the face of fluctuating revenue from water sales. Based on the current balance in the Recycled Water Program Fund, estimated at $2.2 million, there is adequate funding here to create the proposed operational reserve. Creating the operational reserve provides purpose and transparency for the funds within the reserve.

3.2.5 Capital Reserve

A core principal of utility management is to maintain a repair and replacement reserve that allows the utility to undertaken necessary capital projects and maintain its asset base over the long term. SEJPA’s recycled water utility is relatively new. To date, the utility has established a $630,000 repair and replacement reserve as required by its SRF loan and has included small capital outlay and improvement projects in its annual budget. It has managed one major upgrade project, the AWT project, through a combination of grants, additional bonded debt and drawing upon unrestricted reserves. However the recycled water utility does not annually budget for depreciation of its assets and it does not have a dedicated capital reserve that would allow it to undertake projects necessary to maintain existing facilities or expand facilities to support increased recycled water deliveries within its service area.

Long term, as the utility looks to understand its full cost of service, it is important that it include the investment necessary to maintain its assets, acknowledging that incentive payments will not always be available to help offset utility systems cost. SEJPA’s Board of Directors has acknowledged the importance of planning for asset management and when it approved the OMWD agreement, the Board directed that at least one-half of the annual revenue received from OMWD be dedicated to a repair and reserve fund for SEJPA’s infrastructure.

One strategy for managing repair and replacement of the recycled water system is to fully fund depreciation of the system. SEJPA’s existing recycled water infrastructure had an initial cost of approximately $16.8 million, which if depreciated over a 50 year life, would result in an annual depreciation expense of $337,334. When the new AWT facilities come on line, SEJPA’s calculated annual depreciation rate increases to $451,734, again based on a 50 year facility life. If SEJPA had been fully funding depreciation, its repair and replacement reserve would currently be approximately $3.7 million, which exceeds the value of the current fund balance.

Practically, there are a number of ways to manage repair and replacement of utility system assets. Bond financing, low interest loans and grants are all mechanisms for funding capital projects within the system, without placing the full burden of depreciation on current rate payers. In addition, utility system assets can provide service beyond the term of their useful life, allowing system replacement to be funded over a longer term. Finally, in SEJPA’s case, the life of its asset base is generally longer than the term of its two loans. This affords the utility the ability to “reprogram” the expenditures currently dedicated to debt service, to a capital reserve as its debt is retired, effectively increasing its capital reserve contribution as its assets age.

Acknowledging these practical realities, SEJPA utilized its fiscal model to help it determine “milestone” capital reserve goals that would allow it accrue a capital reserve with a value close to the depreciated value of its assets in Fiscal Year 2030-31, when its debt is retired. This initial analysis suggests that SEJPA should budget for a capital reserve of approximately $3.0 million in Fiscal Year 2020-21, a key program milestone after which its SRF loan is paid off. The

analysis also suggests that SEJPA should budget for a capital reserve of approximately $4.8 million in Fiscal Year 2025-26, another key program milestone after which the last of the incentive funding expires. These repair and replacement goals reflect a practical strategy for managing replacement of assets, given the current fiscal status of the system.

3.2.6 Repaying SEJPA Member Agencies

In order to undertake the initial water recycling program, SEJPA's member agencies made an investment of approximately $5.2 million, which was advanced to the recycled water utility interest free.

Some of this investment was funded from sewer connection fees collected from new sewer connections to the Cardiff Sanitation District and the Solana Beach Sanitation District beginning around 1982. These connections fees were approved by Cardiff Sanitation District through the passage of the 1982 Proposition M, and approved at Board level by the Solana Beach Sanitation District. The fee amount was $1,000 per Equivalent Dwelling Unit (EDU) with the funds being specifically directed for the construction of a recycled water facility. These dedicated funds were appropriately invested in the recycled water utility and should not be repaid to the member agencies. SEJPA is working with the member agencies to determine the actual value of the funds collected.

For the purpose of modeling, this cost of service analysis assumes that the amount of repayment actually due to member agencies is $4 million. This analysis assumes that SEJPA will repay this amount at a rate of $800,000 per year for five years beginning in Fiscal Year 2021-22, when its SRF debt is retired. Upon determination of the actual value of the connection fees appropriately invested in the recycled water utility, SEJPA will update the fiscal model to reflect the appropriate repayment balance.

While the model provides a budgetary guide for how SEJPA will go about its goal of repaying its member agencies, actual repayments will be based on available recycled water utility cash flow and will be net any revenue collected by the member agencies for the specific purpose of constructing a recycled water system.

3.3 Cost of Service at Various Delivery Scenarios

SEJPA's cost of delivering service is the fundamental parameter to consider when evaluating both current recycled water rates and the costs and benefits of connecting new customers. Because so much of SEJPA's budgeted costs are fixed, the opportunity to reduce the cost of service to any individual customer is contingent upon increasing the volume of recycled water deliveries.

As described above, a range of assumptions have been made about future recycled water use in order to analyze the impacts of various growth scenarios on future recycled water rates. These assumptions are intended to allow for a reasonable projection of future performance. Table 5 summarizes the assumptions that are included in the fund balance model for each scenario. The figures in Table 5 provide a guide against which SEJPA can track its future utility performance.

Table 5 – Summary of Assumptions in the Fiscal Model

	Minimum Purchase Volume	Actual Purchase Volume		Starting Recycled Water Rate (FY 2012-13)	
	AFY	AFY			
		FY 2012-13	FY 2018-19	$ HCF	$ AF
Status Quo Scenario					
City of Del Mar	150	80	80	$2.38	$1,037
Santa Fe Irrigation District	450	510	510	$3.01	$1,310
San Dieguito Water District	425	320	320	$2.69	$1,170
Encinitas Ranch Golf Course	NA	250	250	NA	$204,750 lump sum
Olivenhain Municipal Water District	25	35	80	$2.74	$1,193
1,335 AFY Scenario					
City of Del Mar	150	80	88	$2.38	$1,037
Santa Fe Irrigation District	450	510	563	$3.01	$1,310
San Dieguito Water District	425	320	353	$2.69	$1,170
Encinitas Ranch Golf Course	NA	250	250	NA	$204,750 lump sum
Olivenhain Municipal Water District	25	35	80	$2.74	$1,193
1,437 AFY Scenario					
City of Del Mar	150	80	97	$2.38	$1,037
Santa Fe Irrigation District	450	510	620	$3.01	$1,310
San Dieguito Water District	425	320	390	$2.69	$1,170
Encinitas Ranch Golf Course	NA	250	250	NA	$204,750 lump sum
Olivenhain Municipal Water District	25	35	80	$2.74	$1,193
Note: SDWD's minimum purchase volume has been adjusted down to reflect Encinitas Ranch Golf Course purchases					

In addition to assumptions about recycled water use patterns and starting rates, the model includes the following assumptions:

- Metropolitan incentives are received on the volume of water delivered until Fiscal Year 2025-26
- County Water Authority incentives are calculated based on the expenditure and revenue pattern for each scenario until Fiscal Year 2025-26 and generally expire before Fiscal Year 2020-21
- The operational reserve will be set at each years' expenditures including debt service
- Remaining fund balance reserves will be placed in a capital reserve.

3.3.1 Status Quo

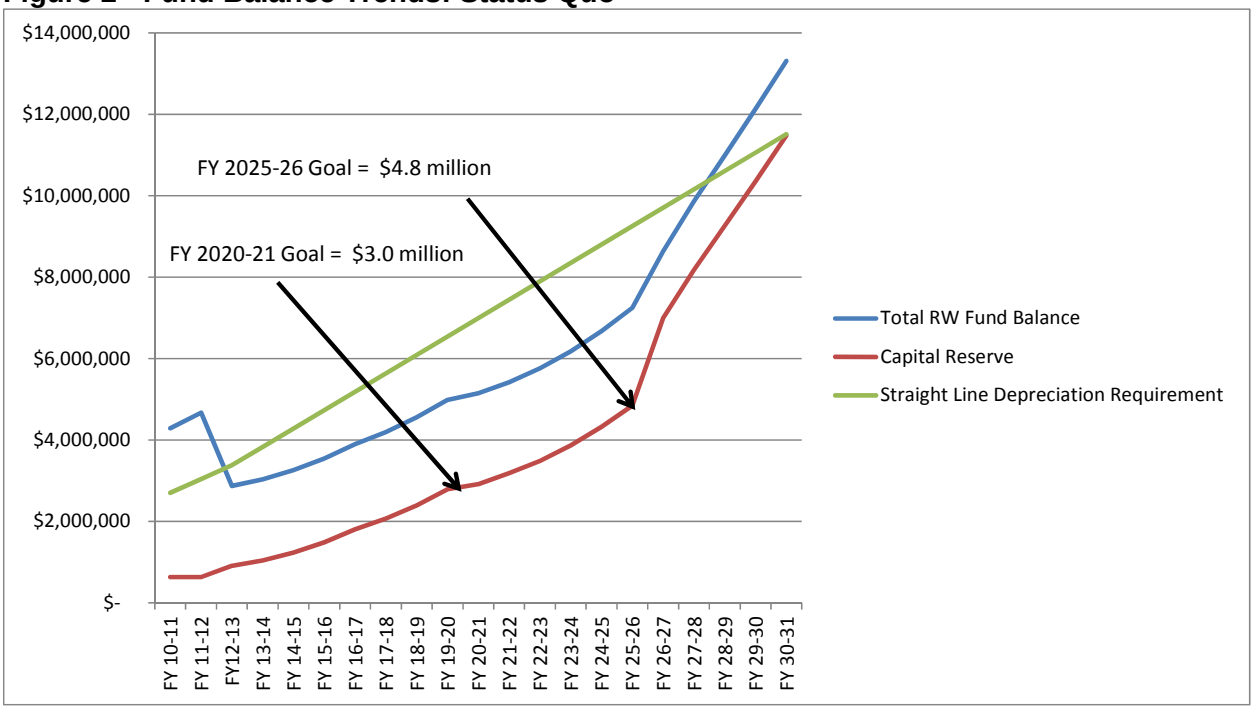
Under this scenario, SEJPA is able to meet its goals for repaying its member agencies and establishing a capital reserve program. In Fiscal Year 2020-21, the total fund balance is estimated at $5.1 million with $2.9 million in a dedicated capital reserve, very close to the goal of $3.0 million. By Fiscal Year 2025-26, the total fund balance is $7.2 million with $4.8 million in a dedicated capital reserve, which is equivalent to the goal. This is illustrated in Figure 2.

In this scenario, recycled water rates for the participating agencies are $4.24 per HCF (or $1,845 per acre foot) in Fiscal Year 2020-21. This is generally achieved by a series of 5% annual rate increases, although the model assumes slightly higher one-time increases when the minimum purchase volumes expire for SDWD and Del Mar. In both cases, the increase in unit rate is balanced by the reduction in purchase volume so that the overall revenue requirement from the participating agencies does not increase. By comparison the current potable water landscape rate is $3.98 per HCF in the SDWD and $4.04 per HCF in the SFID service area, suggesting the potable water rates would need to increase by about 4% per year in order to allow recycled water to continue to sell at a 15% discount.

By Fiscal Year 2025-26, recycled water rates for the participating agencies would be $5.35 per HCF or $2,335 per acre foot, which is again generally achieved by a series of 5% annual rate increases. Rate increases are modest after this point.

The analysis suggests that in order for SEJPA to achieve its capital reserve goals, under a Status Quo scenario, potable water rates will need to continue to increase in order for recycled water to remain price competitive. If potable water rates do not continue to increase, SEJPA may not be able to keep its product "price competitive" while still achieving its milestone capital reserve goals, in which case the actual capital reserve may be less than the initial "goal".

Figure 2 - Fund Balance Trends: Status Quo



3.3.2 Ten Percent Increase Scenario (1,335 AFY by FY 2018-19)

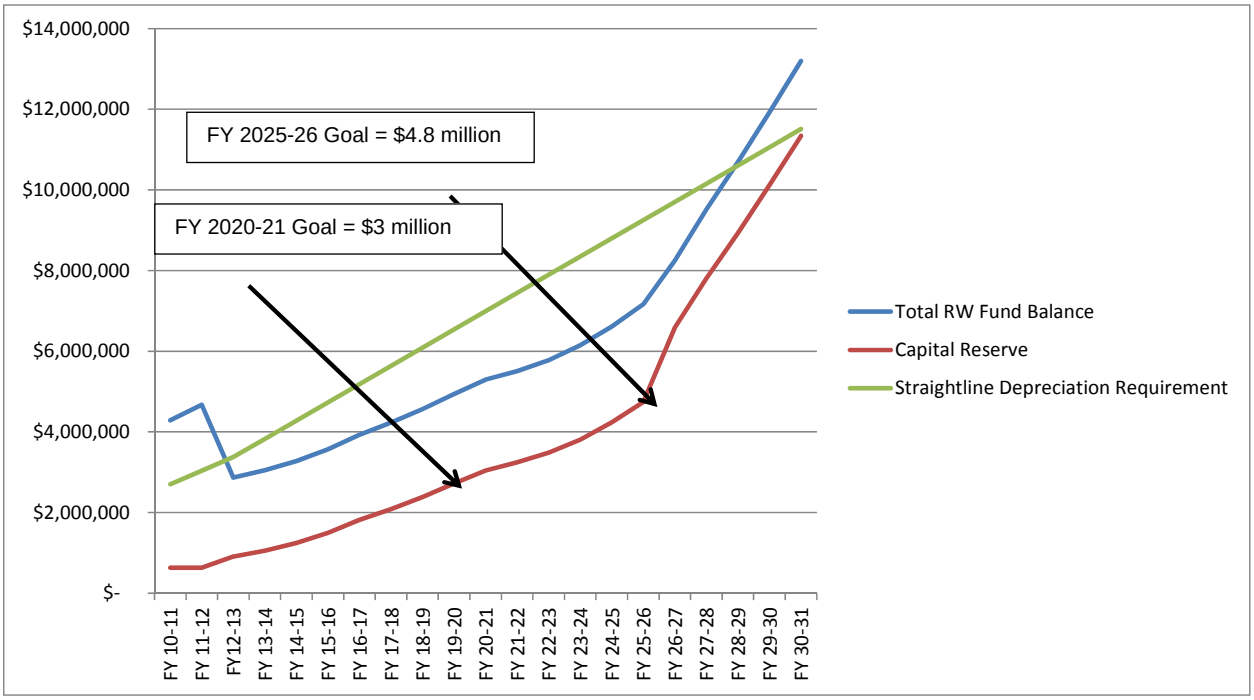
Under this scenario, SEJPA is able to meet its goals for repaying its member agencies and establishing a capital reserve program. In Fiscal Year 2020-21, the total fund balance is $5.3 million with $3.0 million in a dedicated capital reserve, which achieves the goal of $3.0 million. By Fiscal Year 2025-26, the total fund balance is $7.2 million with $4.8 million in a dedicated capital reserve, which achieves the goal. This is illustrated in Figure 3.

In this scenario, recycled water rates for the participating agencies are $3.66 per HCF (or $1,596 per acre foot) in Fiscal Year 2020-21. This is generally achieved by a series of 3% to 5% annual rate increases, although the model assumes slightly higher one-time increases when the minimum purchase volume expires for Del Mar (in the SDWD service area, the planned growth minimizes the need for any one-time increase). As with the Status Quo scenario, the increase in unit rate is balanced by the reduction in purchase volume so that the overall revenue requirement does not increase. By comparison the current potable water landscape rate is $3.98 per HCF in the SDWD and $4.04 per HCF in the SFID service area, suggesting that with growth in the participating water agencies service area, recycled water's price could remain competitive even without regular increases in water rates.

By Fiscal Year 2025-26, recycled water rates for the participating agencies would be $4.86 per HCF or $2,116 per acre foot, which is generally achieved by a series of 6% annual rate increases. Rate increases are modest after this point.

The analysis suggests that in the 1,300 AFY Scenario, SEJPA's ability to achieve its capital reserve goals is less dependent on concomitant potable water rate increases to keep its product price competitive.

Figure 3 - Fund Balance Trends – 1,335 AFY Scenario



3.3.3 Twenty Percent Increase Scenario (1,437 AFY by FY 2018-19)

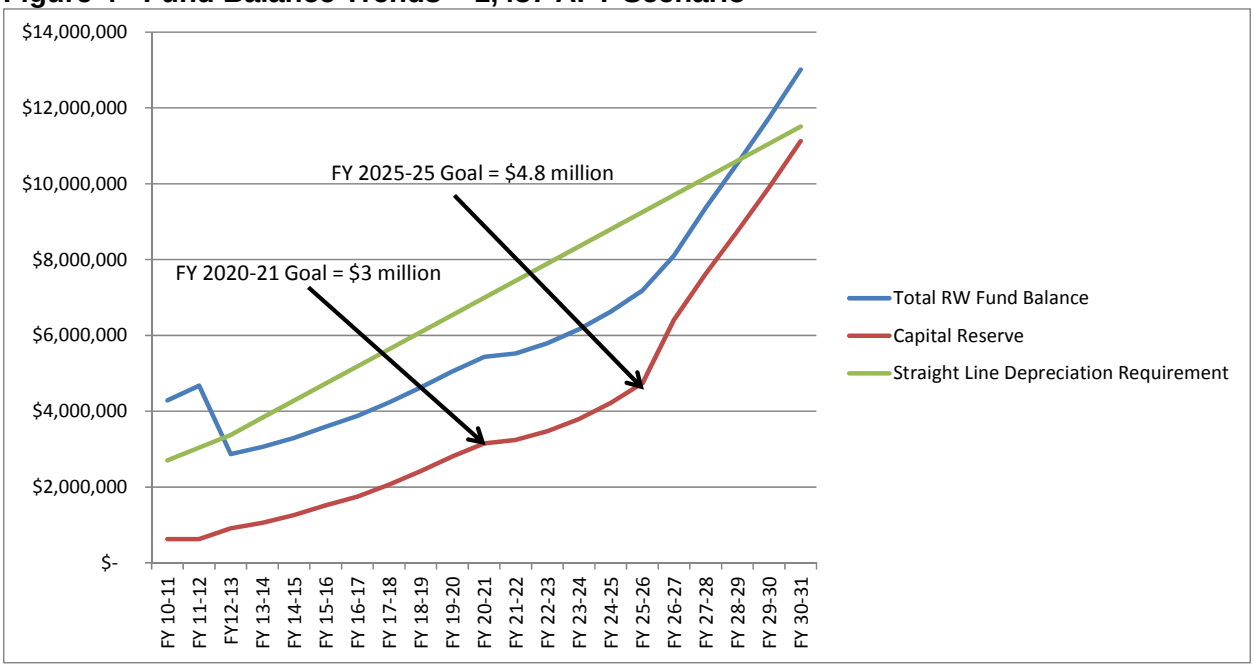
Under this scenario, SEJPA is able to meet its goals for repaying its member agencies and establishing a capital reserve program. In Fiscal Year 2020-21, the total fund balance is $5.4 million with $3.2 million in a dedicated capital reserve, which achieves the goal of $3.0 million. By Fiscal Year 2025-26, the total fund balance is $7.2 million with $4.8 million in a dedicated capital reserve, which achieves the goal. This is illustrated in Figure 4.

In this scenario, recycled water rates for the participating agencies are $3.32 per HCF or ($1,447 per acre foot) in Fiscal Year 2020-21. This is generally achieved by a series of 1% to 5% annual rate increases, although the model assumes slightly higher one-time increases when the minimum purchase volume expires for Del Mar (in the SDWD service area, the planned growth minimizes the need for any one-time increase). As with the other scenarios, the increase in unit rate is balanced by the reduction in purchase volume so that the overall revenue requirement does not increase. By comparison the current potable water landscape rate is $3.98 per HCF in the SDWD and $4.04 per HCF in the SFID service area, suggesting that with growth in the participating water agencies service area, recycled water's price could remain competitive even without regular increases in water rates.

By Fiscal Year 2025-26, recycled water rates for the participating agencies would be $4.45 per HCF or $1,935 per acre foot, which is generally achieved by a series of 6% annual rate increases. Rate increases are modest after this point.

While this modeled scenario predicts a series of 1% rate increases followed by 6% increases in order to meet the targets for the capital reserve fund balance, it is likely that SEJPA would implement higher rates increases (3% to 5%) early in the planning period and reduced rate increases later in the planning period, as it becomes clear that recycled water sales are really increasing. This strategy provides for a smoother transition of rate increases and a better ability to manage revenue needs to the actual growth trajectory of the recycled water utility.

Figure 4 - Fund Balance Trends – 1,437 AFY Scenario



3.3.4 Scenario Comparisons

Each of the scenarios considered allows SEJPA to cover its costs, meet its capital reserve goals and repay its member agencies. However, each scenario results in differences in the “cost of service” and the recycled water rates required to meet the revenue goals.

Table 6 below, compares these various factors for each scenario at the end of Fiscal Year 2020-21 and Fiscal Year 2025-26. In general, the scenarios that result in growth in recycled water deliveries result in a lower predicted cost of service and are less reliant on incentives for financial viability.

Table 6 - Scenario Comparison

	Fiscal Year 2021-22		
	Status Quo	**1,300 AFY**	**1,400 AFY**
Cost of Service			
with incentives	$ 1,654	$ 1,481	$ 1,372
without incentives	$ 1,904	$ 1,931	$ 1,822
Capital Reserve Fund Balance	$ 2,914,979	$ 3,043,169	$ 3,152,111
Total Fund Balance	$ 5,146,497	$ 5,296,640	$ 5,429,346
Recycled Water Rates			
Participating Water Agencies	$ 1,845	$ 1,596	$ 1,447
"Interuptible" Golf Course Rate	$ 1,210	$ 1,210	$ 1,210
"Interuptible" Municipal Rate	$ 1,313	$ 1,313	$ 1,313
Fiscal Year 2025-26			
"Cost of Service"	**Status Quo**	**1,300 AFY**	**1,400 AFY**
with incentives	$ 2,104	$ 1,960	$ 1,831
without incentives	$ 2,354	$ 2,195	$ 2,067
Capital Reserve Fund Balance	$ 4,846,906	$ 4,742,665	$ 4,738,251
Total Fund Balance	$ 7,242,632	$ 7,163,842	$ 7,186,977
Recycled Water Rates			
Particpating Agencies	$ 2,332	$ 2,116	$ 1,936
"Interuptible" Golf Course	$ 1,544	$ 1,544	$ 1,544
"Interuptible" Municipal Rate	$ 1,778	$ 1,800	$ 1,800

4. Summary Conclusions and Next Steps

SEJPA is currently managing a viable recycled water utility with its revenue coming from a combination of recycled water sales, under minimum purchase agreements, and incentives from Metropolitan and the County Water Authority. This study examined three different future scenarios for SEJPA including different future program growth rates and different future revenue structures. This study indicates that all of these future scenarios are potentially sustainable. However, this study indicates that growing the recycled water utility from current deliveries of approximately 1,100 acre feet per year to future deliveries of 1,400 acre feet per year or more will result in the lowest future recycled water costs and the best opportunities to manage future water rate increases.

4.1 Next Steps

This initial analysis has been based on a series of assumptions in order allow a range of options to be evaluated at a relatively limited cost. This analysis is not a substitute for a true rate analysis or a detailed asset management plan, but it provides SEJPA with some initial guidance on developing its future strategy. In order to continue to move towards a long-term, self-sustaining utility, SEJPA will want to consider the "next steps" detailed below.

1. Adopt Operational Reserve and Capital Reserve Policies. This analysis assumes that SEJPA will keep a portion of its reserves, equal to one year's expenses, in an Operational Reserve in order to manage cash flow for the utility, Such a reserve policy provides fund liquidity to manage future cash flow risk associated with a program that has relatively high fixed expenses as compared to the total operating program costs and the potential for varying revenues due to consumer purchasing habits. This analysis also assumes that program revenue above the Operational Reserve requirements will be dedicated to a Capital Reserve. While these are reasonable assumptions for the purpose of evaluating scenarios, formal policies will enhance the transparency of SEJPA's program to member agencies, participating water agencies and other partners. It will also help the Board and staff regularly evaluate the fiscal health of the program.
2. Develop a refined, current market assessment. This analysis makes assumptions about the recycled water demand and concludes that an expanded utility is more viable over time. In order to grow the utility, SEJPA will need to work with its members, its participating agencies and other interested parties to understand where 200 to 350 acre feet per year of new demand can be committed to the system over the next five to seven years.
3. Refine the Fiscal Model. This analysis sets Fiscal Year 2020-21 and Fiscal Year 2025-26 Capital Reserve Fund goals and then develops rate projections based on recycled water deliveries. One scenario, the Status Quo scenario, requires potable water rates to increase along with recycled water rates in order for SEJPA to meet its reserve goals and still provide a viably priced commodity. The other two scenarios, which assume

growth in the recycled water market, appear more viable even if potable water rates remain flat. When more detailed information is available on new customers, connection timing and rate preferences, the fiscal model can and should be updated and used to refine the strategy for expansion and confirm that long term goals can be met.

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