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June 24, 2016

San Elijo Joint Powers Authority
2695 Manchester Avenue
Cardiff by the Sea, CA 92007
Attention: Mr. Paul Kinkel, Director of Finance & Administration

Subject: Recycled Water Rate Review and Update

Dear Mr. Kinkel:

The San Elijo Joint Powers Authority (SEJPA) engaged Raftelis Financial Consultants, Inc. (RFC) to conduct a cost of service analysis and calculate recycled water rates in a recycled water rate study (Study). This analysis serves as a review and update of RFC's calculation of rates in Fiscal Year Ending (FYE) 2014 using a Cash Basis approach to calculating the rates.

1. Introduction

The SEJPA owns and operates a recycled water utility, which in September 2000 commenced service to Santa Fe Irrigation District (SFID), the San Dieguito Water District (SDWD), and the City of Del Mar (together the "participating water agencies"). In 2011, SEJPA began providing interruptible service to the Encinitas Ranch Golf Authority (ERGA), as part of a three way agreement between SEJPA, SDWD, and ERGA. In October 2012, SEJPA began providing recycled water service to Olivenhain Municipal Water District (OMWD).

The original recycled water system includes tertiary treatment, transmission, storage, and distribution facilities. In 2013, SEJPA completed construction of an advanced water purification (AWP) facility that reduces the Total Dissolved Solids (TDS) and expands recycled water production by 22 percent. Controlling TDS reduces the hardness of the recycled water, and was instrumental in expanding service to cooling towers and other salt-sensitive uses.

SEJPA's recycled water is used to offset potable water demands, which improves the region's water reliability. SEJPA's recycled water system has the capacity to deliver 3 million gallons per day (mgd) or approximately 1,800 to 2,000 acre-feet per year (AFY). Recycled water sales have been as high as 1,562 AFY; however, FYE 2016's sales have declined to approximately 1,368 AFY. SEJPA attributes this reduction to water conservation messaging in its service area, which has resulted in conservation of both potable and recycled water. Other recycled water suppliers have experienced similar reductions. 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 system design capacity.

SEJPA's agreements with SFID, SDWD, OMWD, and the City of Del Mar include "minimum annual purchase volumes", and the interruptible service agreement with ERGA includes a minimum annual delivery volume. Table 1-1 below lists the minimum purchase commitments for each agency:

Table 1-1 – Minimum Purchase Commitments for SEJPA Recycled Water

Water Purveyors	Minimum Purchase Volume (AFY)					
	FYE 2015	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Santa Fe Irrigation District	450	450	450	450	450	450
City of Del Mar	120	120	120	120	120	120
Olivenhain Water District	25	25	85	100	125	130
San Dieguito Water District	400	400	400	400	400	400
ERGA	200	200	200	200	200	200
Total	**1,195**	**1,195**	**1,255**	**1,270**	**1,295**	**1,300**

Providing direct interruptible service to ERGA's Golf Course storage pond has resulted in operational efficiencies for the SEJPA. In addition, the interruptible service coupled with a large water storage pond at the golf course improves system hydraulics, and allows the SEJPA to serve additional customers. In its supply agreement with OMWD, SEJPA has provided for an "infrastructure credit" or "rent back," as 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 recycled water service to OMWD's customers. In a similar fashion, the SEJPA purchased a recycled water pipeline from SFID with loan payments of $450 per AF sold through the pipeline, which includes interest that varies from 1.0% to 2.5%. Since its construction, approximately 140 AF has been delivered through the SFID pipeline.

The original recycled water sales agreements tied the price of recycled water to 85% of the potable water rate. During FYE 2014 and FYE 2015, the SEJPA decoupled the price of recycled water from the potable water rates, and developed a single unified rate for all uninterruptible service customers. This rate was based on cost of service. The ERGA interruptible contract extends to June 30, 2017 (with an optional 6-year extension), and includes annual rate increases of 5 percent. In addition to the revenue from customers, the SEJPA also receives incentives from the Southern California Metropolitan Water District (MWD) and the San Diego County Water Authority (CWA) to develop recycled water supplies. These incentives are $250 and $200 per AF from MWD and CWA, respectively.

2. Assumptions

The period for this study is for the fiscal years ending June 30, 2017 (FYE 2017) through June 30, 2020 (FYE 2020). Program expenses were based on actual and budgeted expense, and assumptions over the

planning period. The actual expense and assumptions were based on audited financial statements, estimates, current year budget, and discussions with the SEJPA's staff. Assumptions include inflation factors, annual consumption, and payment terms for proposed new debt.

1. Recycled Water Demand

The Study assumes that the recycled water program will experience a modest increase in new water sales over the next four years as a result of new customers within the existing service areas of SDWD, SFID, OMWD, and Del Mar.

Projected usage changes across the Study period were developed with input from the SEJPA and local water districts. As noted earlier, usage reduction in FYE 2016 is due to conservation efforts in response to drought messaging. It is anticipated that usage will return to more typical levels in FYE 2017, and there are new recycled water customers planned for connection during this study period. For example, the SEJPA expects SDWD to add 20 AFY and an additional 40 AFY in FYE's 2017 and 2018 respectively due to the addition of the Encinitas Ranch Homeowners Association and other new sites. OMWD expects to have new recycled demands associated with the Village Park Project, and SFID expects new usage associated with the extension of service along Via de la Valle. **Table 2-1** lists the SEJPA's projected usages for the customer base during the study period. The table also provides the total revenue-generating AF by using ERGA's minimum contracted delivery volume of 200 AFY.

Table 2-1 –Projected Usage

Customer	Usage in Acre Feet					
	FYE 2015	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Santa Fe Irrigation District	524	507	520	540	560	570
City of Del Mar	136	123	130	132	134	136
Olivenhain Water District	144	97	155	210	240	270
San Dieguito Water District	402	400	420	460	470	475
Revenue based on AF	1,206	1,127	1,225	1,342	1,404	1,451
Encinitas Ranch Golf Authority	356	241	300	300	300	300
Total Usage	**1,562**	**1,368**	**1,525**	**1,642**	**1,704**	**1,751**
Less: ERGA Interruptible Supply (over 200 AF)	-156	-41	-100	-100	-100	-100
Total Revenue Generating Usage	**1,406**	**1,327**	**1,425**	**1,542**	**1,604**	**1,651**

2. Inflation

Assumed inflationary factors for operations and maintenance (O&M) costs are shown in **Table 2-2**. In examining program costs, it was determined that the majority of costs do not fluctuate significantly with the change in recycled water produced and delivered by the utility. Such expenses are labeled as "Fixed Costs." The two primary expenses that fluctuate with water production and delivery are power and supplies. Labor expense has a limited fluctuation with production and for the purpose of this study is assumed to be fixed. Increase in SEJPA labor as a result of proposed studies and capital projects is assumed to be included in capital costs. To develop future operating expenses, fixed costs are multiplied by an assumed inflationary factor. Costs that vary with water production are multiplied by both an inflationary factor and by the production percentage increase. **Table 2-2** shows the percentages assumed for each fiscal year.

Table 2-2 –Inflation Factors

Inflation Factors	FYE 2018	FYE 2019	FYE 2020
Fixed Costs	3.00%	3.00%	3.00%
Labor (fixed)	3.75%	3.75%	3.75%
Power & Supplies	4.50%	4.50%	4.50%

3. Operating Expenses

The rate study was based on a review of the utility's O&M expenses. Section 4 discusses debt service and Section 5 outlines reserve requirements. **Table 3-1** below shows the O&M expenses inflated across the study period using the inflation factors described in **Table 2-2** beginning with FYE 2018. For Utilities (Power) and Supplies, these expenses are influenced by both water sales and inflation. Capital Outlay for FYE 2018 is planned at $10,000 is assumed to increase at 3.0% annually.

Table 3-1 – Operating and Maintenance Expenses

Operating Expenses	Actual FYE 2015	Estimate FYE 2016	Estimate FYE 2017	Projected FYE 2018	Projected FYE 2019	Projected FYE 2020
Personnel Costs	$487,628	$541,045	$520,828	$540,359	$560,623	$581,646
Utilities	271,491	286,549	304,000	342,053	370,942	398,326
Contracted Services	179,691	228,076	235,500	242,565	249,842	257,337
Supplies	76,348	95,803	116,609	131,205	142,287	152,791
Repair Parts	26,157	43,861	42,840	44,125	45,449	46,812
Miscellaneous	80,468	68,828	92,808	95,592	98,460	101,414
Permit/Purveyor Fees	26,800	27,398	28,000	28,840	29,705	30,596
Insurance	16,883	17,973	19,511	20,097	20,699	21,320
Capital Outlay		35,337	4,950	10,000	10,300	10,609
Total Operating Expenses	**$1,165,466**	**$1,344,870**	**$1,365,046**	**$1,454,836**	**$1,528,307**	**$1,600,851**

4. Debt Service

4.1 Current Debt

SEJPA's Recycled Water Program currently has three outstanding loans: The State Revolving Fund (SRF), which funded the recycled water infrastructure; the Municipal Finance Corporation Loan, which funded the advanced water purification facility (AWP), and the SFID Pipeline Loan (SFID), which funded the purchase of the recycled water pipeline in the Santa Fe Irrigation District. The SRF Loan final payment will be made in August, 2020 (FYE 2021). The AWP Loan extends through FYE 2032. The SFID loan payment is based on AF conveyed through the pipeline with any remaining loan balance due in FYE 2033.

4.2 Capital Expenses and Proposed Debt

The SEJPA has plans for capital projects during the study period that will be funded by bond issuance, SRF loan, or other means. The largest project is related to the construction of recycled water pipelines estimated at $2.8 million. An additional $2.0 million is planned for other system improvements including treatment, storage, and distribution facilities for a total amount of $4.8 million.

The total debt is estimated to be $5.0 million to cover issuance costs. The Study assumes that this capital expense is incurred by FYE 2018 and debt service payments begin in FYE 2019. The Study assumes a 30-year repayment term, 4 percent interest rate, and a 6.5 percent debt reserve requirement.

Table 4-1 – Capital Debt (Existing and Proposed)

Debt	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
State Revolving Fund Loan	$834,675	$834,675	$834,675	$834,675	$834,675
Municipal Finance Corporation Loan	148,153	148,153	148,153	148,153	148,153
SFID Reimbursement Agreement	15,000	15,000	15,000	15,000	15,000
Total Current Debt Service	997,828	997,828	997,828	997,828	997,828
Proposed Debt Service				287,680	287,680
Total Debt Service	$997,828	$997,828	$997,828	$1,285,508	$1,285,508

5. Reserve Requirements and Goals

There are multiple cash reserves that a utility may utilize. Examples are bond, operating and maintenance, and asset repair and replacement (R&R) reserves.

The SEJPA currently has a bond reserve to satisfy SRF loan requirements in the amount of $630,000, and the proposed debt has an estimated reserve requirement of $325,000 for a total bond reserve of $955,000. These bond reserve funds are intended to be available for system repairs to ensure the delivery and sale of recycled water. These funds are held in the Recycled Water Debt Reserve Fund, and when the loan(s) are paid off, these funds are available for R&R reserve goals.

The Recycled Water Cost of Service Study prepared by GHD, Inc. dated April 2013 suggested a range from $2.6 million to $3.3 million for R&R reserve goal by FYE 2021 with a target goal of $3.0 million. The 2013 Study also provided a R&R reserve target goal of $4.8 million by FYE 2026. The 2016 Cost of Service Study includes the required bond reserve funding as well as providing consideration for the R&R reserve goals recommended in the 2013 Study. Rate calculations (Section 6) provide allowances for R&R funding goals at levels similar to those forecasted in the 2013 Study.

6. Rate Calculation

To determine the recycled water rates, the rates must cover operating expenses, debt service payments, and fund reserves in order for the program to be sustainable. As noted in Section 1, the SEJPA provides both uninterruptible and interruptible recycled water service. To normalize the rate calculation, recycled water sales to ERGA are assumed to be 200 AFY, which is the minimum required delivery per agreement. Furthermore, the Study assumes the SEJPA will qualify for MWD and CWA incentives through FYE 2020.

In developing future rate calculations, funds available for R&R reserve goals were the difference between expenses and revenues received. Three rate scenarios were evaluated to determine the viability to meet expense demand and reserve goal funding needs. Tables 6-1, 6-2, and 6-3 consider future rate increases of 3%, 4%, and 5%, respectively.

Table 6-1 – 3.0% Rate Calculation for Recycled Water with MWD and CWA Incentives

	Estimate FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Operating Expenses	$1,344,870	$1,365,046	$1,454,836	$1,528,307	$1,600,851
Debt Service	997,828	997,828	997,828	1,285,508	1,285,508
Repair & Replacement Goal	53,870	268,082	459,561	284,621	375,980
Total costs to be recovered	$2,396,568	$2,630,956	$2,912,225	$3,098,436	$3,262,339
Total AF for Calculation	1,327	1,425	1,542	1,604	1,651
Cost per AF	$1,806	$1,846	$1,889	$1,931	$1,976
Less: MWD and CWA Incentives	-450	-450	-450	-450	-450
Price per AF to Customers	$1,356	$1,397	$1,439	$1,481	$1,526
Increase Year over Year		**3.0%**	**3.0%**	**3.0%**	**3.0%**

Table 6-2 – 4.0% Rate Calculation for Recycled Water with MWD and CWA Incentives

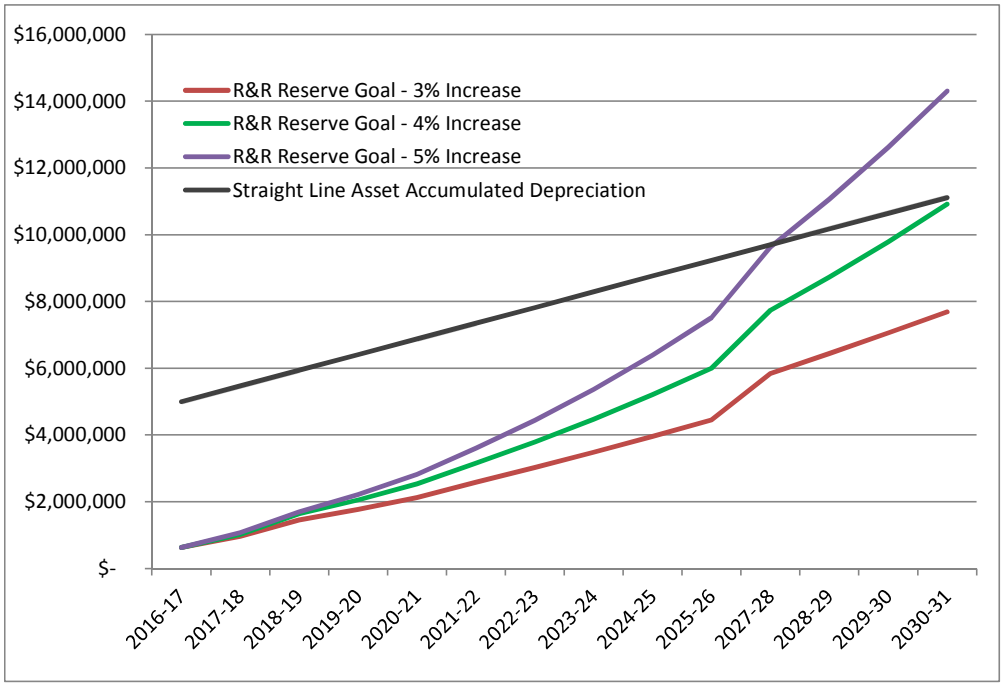
	Estimate FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Operating Expenses	$1,344,870	$1,365,046	$1,454,836	$1,528,307	$1,600,851
Debt Service	997,828	997,828	997,828	1,285,508	1,285,508
Repair & Replacement Goal	53,870	288,638	503,377	354,316	475,306
Total costs to be recovered	$2,396,568	$2,651,512	$2,956,041	$3,168,131	$3,361,665
Total AF for Calculation	1,327	1,425	1,542	1,604	1,651
Cost per AF	$1,806	$1,860	$1,917	$1,975	$2,036
Less: MWD and CWA Incentives	-450	-450	-450	-450	-450
Price per AF to Customers	$1,356	$1,410	$1,467	$1,525	$1,586
Increase Year over Year		**4.0%**	**4.0%**	**4.0%**	**4.0%**

Table 6-3 – 5.0% Rate Calculation for Recycled Water with MWD and CWA Incentives

	Estimate FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Operating Expenses	$1,344,870	$1,365,046	$1,454,836	$1,528,307	$1,600,851
Debt Service	997,828	997,828	997,828	1,285,508	1,285,508
Repair & Replacement Goal	53,870	307,653	545,747	425,820	578,611
Total costs to be recovered	$2,396,568	$2,670,527	$2,998,411	$3,239,635	$3,464,970
Total AF for Calculation	1,327	1,425	1,542	1,604	1,651
Cost per AF	$1,806	$1,874	$1,945	$2,020	$2,098
Less: MWD and CWA Incentives	-450	-450	-450	-450	-450
Price per AF to Customers	$1,356	$1,424	$1,495	$1,570	$1,648
Increase Year over Year		**5.0%**	**5.0%**	**5.0%**	**5.0%**

The 4% rate scenario provides R&R goal reserve funding of $3 million in FY 2023 and $4.8 million by FYE 2025, which is approximately similar to the funding goals stated in the 2013 Study. Based on the three future rate scenarios, the 4% rate provides adequate reserve goal balances at the lowest rate increase.

Graph 6-1 – Projected R&R Reserve Goals – 3%, 4% and 5% Rate Increases



6.1 Uninterruptible Customer Rate ($/AF)

The uninterruptible customer rate is intended to recover the costs associated with providing uninterruptible service. This requirement was determined to be 4.0 percent greater than the prior year's rate. The rate was calculated by dividing the total expenses by the total uninterruptible recycled water AF usage, plus the contractual minimum water AF usage for interruptible service. For FYE 2017 this rate is $1,410 per AF shown in Table 6-2 above.

6.2 Interruptible Customer Rate ($/AF)

The interruptible rate was calculated in RFC's September 2015 Cost of Service Report. The rate will increase by 5 percent for FYE 2017 at which time the agreement expires. The rate structure beginning FYE 2018 used a 4 percent increase. This rate is consistent with the uninterruptible rate and produces adequate results.

7. Cash Fund Balances

To determine whether the proposed rates provide sustainability, Cash Fund Balances were analyzed to confirm adequate cash reserves. The operating cash reserve goal is based on 90 days of operating expense plus one year's debt service. The R&R cash reserve goal includes the Debt Reserve Requirement as discussed in Section 5.

Table 7-1 below shows the estimated cash balances for the Recycled Water Fund:

Table 7-1 – Cash Fund Balances

	Estimate FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Operating Cash Reserve Goal	$741,720	$1,217,877	$1,361,537	$1,667,584	$1,685,721
Debt and R&R Cash Reserve Goal	630,000	630,000	1,020,862	1,643,785	2,056,046
Total Cash	**$1,371,720**	**$1,847,877**	**$2,382,399**	**$3,311,369**	**$3,741,767**

The Operating Cash Reserve Goal falls below 90 days of operating expense for FYE 2016 and 2017; however, the goal is met in FYE 2018 and subsequent years.

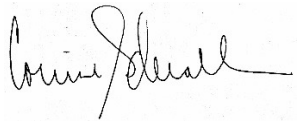
8. Conclusion

Based on the analysis shown in the Study, RFC recommends a 4.0 percent annual increase in rates for both the uninterruptible customers and interruptible customer. Larger rate increases could be justified by the analysis, however customer usage could be impacted by pricing, and the potential reduction in usage could more than offset the revenue increase of the higher rate. This effort also revealed that increasing recycled water sales, without substantial capital investment, provides the greatest benefit to the financial foundation of the utility. Conversely, should future sales decrease, the rates may need to be increased to meet the revenue requirements. The recycled water utility does include safe guards such as minimum purchase contracts with the water districts and ERGA, which provides protection from significant declines in water sales. The utility also receives financial incentives from MWD and CWA that help meet the programs' financial needs. These incentives have an expiration date of FYE 2025, but can be retired early based on certain financial measurements. Based on information provided, it does not appear that these incentives will expire during the review period of this Study. However, this situation should be monitored annually as financial events such as receiving grant funding or significant deviations of the price of recycled water from potable water rates can reduce or eliminate incentives in any year. Loss of incentive funding will erode R&R funding goals and likely require a review of future recycled water rates.

RFC's staff is grateful for the opportunity to work with and the support of SEJPA's staff.

Sincerely,

Raftelis Financial Consultants, Inc.



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