



590 Ygnacio Valley Road, Suite 105
Walnut Creek, California 94596
Telephone: 925/977-6950
www.hfh-consultants.com

Robert D. Hilton, Emeritus
John W. Farnkopf, PE
Laith B. Ezzet, CMC
Rick Simonson
Marva M. Sheehan, CPA
Rob C. Hilton

March 20, 2023

Mr. David Garcia
Solid Waste Program Manager
Nevada County Department of Public Works
950 Maidu Avenue, Suite 170
Nevada City, CA 95959

Subject: Solid Waste Rate Study – Eastern

Dear Mr. Garcia:

HF&H Consultants, LLC (HF&H) is pleased to submit this solid waste rate study report to the County of Nevada (County) for the eastern portion of the County.

BACKGROUND

The Solid Waste Division (Division) of the County's Public Works Department provides solid waste support services in eastern Nevada County by administering the refuse collection franchise and overseeing the Hirschdale Landfill post-closure activities. The refuse franchise was signed with Tahoe Truckee Sierra Disposal (TTSD) in 2019. TTSD is responsible for refuse collection, recycling, and disposal activities within eastern Nevada County. Commercial customers are billed by TTSD at County-approved rates and TTSD retains the revenue, net of fees owed to the County in accordance with the franchise agreement. Residential customers are billed annually on the County tax rolls. The County is responsible for collecting the residential tax roll revenue and remitting the agreed upon compensation to TTSD. A portion of the parcel charge is retained by the County to fund its solid waste-related services (e.g., manage and monitor the franchise agreement with TTSD, maintain the closed landfill site to State specifications) within eastern Nevada County.

The Eastern County parcel charge was established via Section G-IV 8.18 of Chapter IV, Article 8 of the General Code of the County of Nevada and was last amended January 6, 2016 by Ordinance (No. 2403).

The current annual parcel charge (\$311.76 per year) for solid waste services has not been adequate to fully fund solid waste activities within eastern Nevada County. In addition, the franchise agreement with TTSD provides for annual inflationary increases in their compensation. The Division budget has been experiencing annual revenue shortfalls and has seen its reserve fund balance decrease from \$250,000 in FY 2014-15 to \$54,000 by June 30, 2022. The reserve fund balance is projected to decrease by \$20,000 by the end of FY 2022-23 (i.e., June 20, 2023). The decline in the reserve fund is not sufficient for cash-flow purposes, in case of extraordinary cost increases, nor maintain a reasonable reserve for post-closure landfill maintenance, as required by the State. As such, an increase in the County's annual parcel charge in eastern Nevada County is necessary.

Rates are developed to cover costs for the following components:

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- TTSD's compensation to collect, process, and dispose of materials collected from residents.
- County's direct and indirect costs to manage the TTSD franchise agreement and maintain the Hirschdale landfill in accordance with State landfill closure regulations.

Our scope and work to determine the necessary increases to the annual parcel charge, over the next five-year planning period, are summarized in this report. If approved by the Board of Supervisors, Section G-IV 8.18 of Chapter IV, Article 8 of the General Code of the County of Nevada shall be amended by Ordinance to reflect the approved rates. Customers shall be notified in advance of the increases taking effect.

SCOPE OF WORK

To increase rates for these services, the County shall comply with article XIII D, section 6 of the California constitution, which was added by Proposition 218 in 1996. Article XIII D, section 6 requires that: (1) revenues derived from fees or charges for property-related services do not exceed the cost to provide service; (2) revenues derived from fees or charges are not be used for any purpose other than that for which it was imposed; (3) the amount of a fee or charge imposed not exceed the proportional cost of the service attributable to the parcel; (4) no fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property; and, (5) no fee or charge may be imposed for general governmental services. The analysis conducted in support of this study was conducted in consultation with the County and its legal counsel. The annual parcel charge derived in this study meet all the necessary criteria.

The rate study comprised the following steps:

1. Calculate projected revenue at current rates.
2. Calculate the annual revenue requirement (i.e., costs to be funded through the County's solid waste parcel charge).
3. Determine the necessary annual increases in the solid waste parcel charge, while maintaining a reasonable reserve fund balance

FINDINGS AND RECOMMENDATIONS

1. Revenue at Current Rates

The annual charge for solid waste services in the eastern region of the County is \$311.76 per parcel/dwelling unit. Per the County tax rolls for FY 2022-23, there are 862 parcel subject to the annual solid waste parcel charge, which generates \$268,737 in service charge revenue (862 x \$311.76).

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2. Annual Revenue Requirement

Table 1 summarizes the projected revenue requirement to be funded with the annual solid waste parcel charge over the next five years. Costs are increasing from \$289,000 in FY 2022-23 to \$410,000 by FY 2027-28. TTSD costs are projected to increase by 5% over the next two years due to current economic conditions, primarily the increase in fuel. The most significant increase is in FY 2027-28 for outside professional assistance to conduct another five-year rate study (note: Proposition 218 allows adoption of rates a maximum of five years at a time) and to assist the County in negotiations with TTSD. TTSD's current agreement terminates on June 20, 2029. The agreement may be extended by up to three one-year periods, without amendment. The professional assistance would help the County determine whether to extend the agreement, without amendments, or negotiate with TTSD, or another hauler, to provide service through a new, long-term agreement.

Table 1. Annual Revenue Requirement

Annual Operating Expenses	Budget FY 2022-23	Projection FY 2023-24	Projection FY 2024-25	Projection FY 2025-26	Projection FY 2026-27	Projection FY 2027-28
Tahoe Truckee Sierra Disposal (TTSD)	<i>Est. Chg in PPI</i>	5.0%	5.0%	3.5%	3.5%	3.5%
Rate per parcel/dwelling unit (monthly)	\$25.63	\$26.91	\$28.26	\$29.25	\$30.27	\$31.33
Rate per parcel/dwelling (annually)	\$307.56	\$322.94	\$339.08	\$350.95	\$363.24	\$375.95
# of parcels/dwelling units	862	862	862	862	862	862
TTSD Compensation	\$265,117	\$278,373	\$292,291	\$302,521	\$313,110	\$324,068
Solid Waste Division Expenses	<i>Est. Chg in CPI</i>	4.0%	4.0%	3.0%	3.0%	3.0%
Truckee Fire Protection Dist	\$941	\$979	\$1,018	\$1,048	\$1,080	\$1,112
Interfund Reimbursement	\$500	\$520	\$541	\$557	\$574	\$591
Closure/Post Closure Expense	\$2,000	\$2,080	\$2,163	\$2,228	\$2,295	\$2,364
County Overhead Cost Plan (A87)	\$77	\$5,723	\$5,952	\$6,130	\$6,314	\$6,504
Prof. Services: TTSD Agreement Negs	\$0	\$0	\$0	\$0	\$0	\$50,000
Prof. Services: Rate Setting/Prop 218	\$20,000	\$0	\$0	\$0	\$0	\$20,000
Prof. Services - Other	\$630	\$655	\$681	\$702	\$723	\$745
Total County Expenses	\$24,148	\$9,957	\$10,355	\$10,666	\$10,986	\$81,315
Total Operating Expenses	\$289,265	\$288,329	\$302,646	\$313,187	\$324,095	\$405,384

3. Annual Rate Increases

As stated earlier, the Eastern County parcel charge was established by Ordinance No. 2403. The ordinance allows the parcel charge to be increased annually at the rate of inflation (i.e., the annual percentage change in the producer price index (PPI) for solid waste for the previous twelve months ending December, published by the U.S. Bureau of Labor Statistics) to keep up with increasing costs. An analysis was conducted to determine the health of the Eastern County solid waste fund balance if parcel charges were increased by a projected annual increase of 3.0%, which is based on the average annual change in the PPI since 2014. As such, **Table 2** summarizes the projected annual revenue surpluses/(shortfalls) through the five-year planning period, assuming annual increases in the parcel charge of 3.0% over the next five years.

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Table 2. Projected Annual Operating Surplus/(Shortfall) – WITHOUT Rate Increases

	Budget	Projection	Projection	Projection	Projection	Projection	
	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	
1	Annual Operating Expenses						
	TTSD Compensation	\$265,117	\$278,373	\$292,291	\$302,521	\$313,110	\$324,068
2	Total County Expenses	\$24,148	\$9,957	\$10,355	\$10,666	\$10,986	\$81,315
3	Total Operating Expenses (from Table 1)	\$289,265	\$288,329	\$302,646	\$313,187	\$324,095	\$405,384
PROPOSED RATE CALCULATION							
	Annual Revenue Calculation	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
4	Prior Year's Parcel Charge	\$311.76	\$311.76	\$321.11	\$330.75	\$340.67	\$350.89
5	Proposed Rate Increase		3.00%	3.00%	3.00%	3.00%	3.00%
6	Proposed Annual Charge	\$311.76	\$321.11	\$330.75	\$340.67	\$350.89	\$361.42
7	# of Parcels/Dwelling Units	862	862	862	862	862	862
8	Annual Revenue @ CURRENT Rates	\$268,737	\$276,799	\$285,103	\$293,656	\$302,466	\$311,540
9	Total Operating Expenses	(\$289,265)	(\$288,329)	(\$302,646)	(\$313,187)	(\$324,095)	(\$405,384)
10	Op Surplus/(Shortfall) @ Proposed Rates	(\$20,528)	(\$11,530)	(\$17,543)	(\$19,531)	(\$21,629)	(\$93,844)
11	Op Fund Balance (excl. restricted funds)	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
12	Beginning Balance	\$54,053	\$33,525	\$21,995	\$4,452	(\$15,079)	(\$36,708)
13	Annual Operating Surplus/(Shortfall)	(\$20,528)	(\$11,530)	(\$17,543)	(\$19,531)	(\$21,629)	(\$93,844)
14	Operating Fund Ending Balance	\$33,525	\$21,995	\$4,452	(\$15,079)	(\$36,708)	(\$130,552)

As shown in **Table 2**, the solid waste fund balance will be depleted by the end of FY 2025-26 if rates are increased by 3.0% per year. Therefore, rate increases greater than the change in PPI, will be necessary to keep the County's fund balance from being depleted and replenish the reserves to a reasonable level for cash-flow and unexpected expenses.

A reasonable level of reserves in utility rate setting is to have 60-120 days of operating costs in reserve. For these rate setting purposes, we have set a target of 90 days of cash (i.e., 25% of average annual operating expenses) based on future funding needs discussions with County staff. It is not necessary to reach this target all at once. Our strategy is to smooth the rate impact of replenishing reserves over time. **Table 3** summarizes the proposed annual solid waste parcel charges for the five-year planning period. The annual increases are less than \$25 per year. In accordance with Proposition 218, the proposed cost-of-service parcel charges are limited to the next five-year period (FY 2023-24 through FY 2027-28). At the conclusion of the five-year period, once the parcel charges have reached the full cost-of-service (i.e., FY 2027-28), charges shall then increase annually at the rate of inflation (i.e., the annual percentage change in the producer price index (PPI) for solid waste for the previous twelve months ending December, published by the U.S. Bureau of Labor Statistics). If, at that time, the County's costs to manage the solid waste activities within Eastern County exceed the rate of inflation, the County may conduct another five-year cost-of-service study, issue another Proposition 218 notice, and adopt rates higher than the rate of change in the PPI. For present purposes, it is assumed the annual parcel charges will increase by the allowable percentage change in the PPI beginning in FY 2028-29, into perpetuity, unless another cost-of-service study is performed.

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Table 3. Proposed Solid Waste Parcel Charges

Fiscal Year	Annual Charge	Change from Prior Year	
		Annually	Monthly
FY 2022-23 (Current)	\$311.76		
FY 2023-24	\$333.58	\$21.82	\$1.82
FY 2024-25	\$356.93	\$23.35	\$1.95
FY 2025-26	\$378.35	\$21.42	\$1.78
FY 2026-27	\$401.05	\$22.70	\$1.89
FY 2027-28	\$425.11	\$24.06	\$2.01

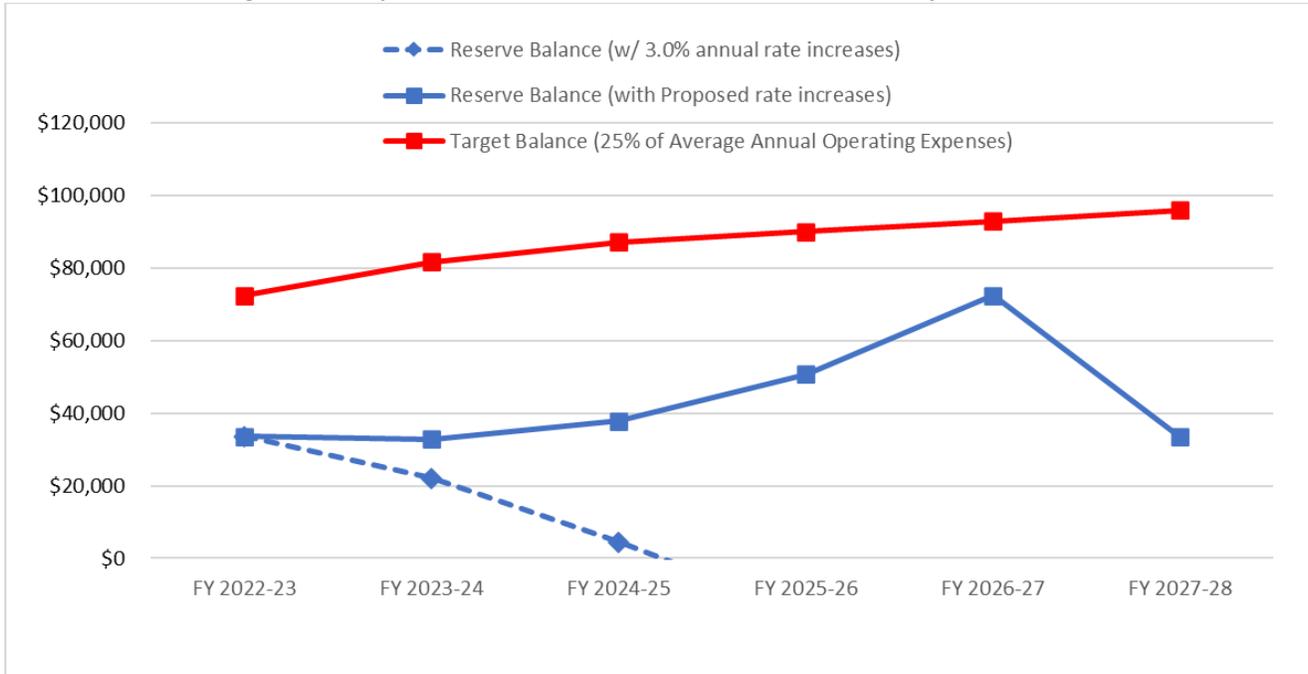
Table 4 summarizes the projected operating reserve fund balance at our proposed rate increases. The proposed annual rate increases (**Table 3 and Table 4, Line 5**) were derived to generate sufficient revenue to cover annual operating costs and to build reserves. To minimize rate shock, we have proposed rate increases that will slowly build reserves over a ten-year period. Therefore, the 90-day cash reserve target will not be reached by the end of the five-year Proposition 218 rate setting period with the rate (**as shown in Table 4, Line 16**). **Attachments A-1 and A-2** to this report include the full ten-year revenue, expense, rate adjustment, and reserve fund balance analyses and illustrates the projected rate increases to reach the target reserve balance. If it is the County's goal to reach the 90-day cash reserve target sooner than FY 2031-32, higher rate increases would be necessary over the five-year Proposition 218 planning period.

Table 4. Projected Year-End Fund Balances – With Proposed Rate Increase

		Proposition 218 - Five-Year Rate Adjustment Period					
Annual Operating Expenses		Budget FY 2022-23	Projection FY 2023-24	Projection FY 2024-25	Projection FY 2025-26	Projection FY 2026-27	Projection FY 2027-28
1	TTSD Compensation	\$265,117	\$278,373	\$292,291	\$302,521	\$313,110	\$324,068
2	Total County Expenses	\$24,148	\$9,957	\$10,355	\$10,666	\$10,986	\$81,315
3	Total Operating Expenses (from Table 1)	\$289,265	\$288,329	\$302,646	\$313,187	\$324,095	\$405,384
Annual Revenue Calculation		FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
4	Prior Year's Parcel Charge	\$311.76	\$311.76	\$333.58	\$356.93	\$378.35	\$401.05
5	Proposed Rate Increase		7.0%	7.0%	6.0%	6.0%	6.0%
6	Proposed Annual Charge	\$311.76	\$333.58	\$356.93	\$378.35	\$401.05	\$425.11
7	# of Parcels/Dwelling Units	862	862	862	862	862	862
8	Annual Revenue @ CURRENT Rates	\$268,737	\$287,549	\$307,677	\$326,138	\$345,706	\$366,448
9	Total Operating Expenses	(\$289,265)	(\$288,329)	(\$302,646)	(\$313,187)	(\$324,095)	(\$405,384)
10	Op Surplus/(Shortfall) @ Proposed Rates	(\$20,528)	(\$781)	\$5,031	\$12,951	\$21,611	(\$38,935)
Op Fund Balance (excl. restricted funds)		FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
11	Beginning Balance	\$54,053	\$33,525	\$32,745	\$37,776	\$50,726	\$72,337
13	Annual Operating Surplus/(Shortfall)	(\$20,528)	(\$781)	\$5,031	\$12,951	\$21,611	(\$38,935)
14	Operating Fund Ending Balance	\$33,525	\$32,745	\$37,776	\$50,726	\$72,337	\$33,401
15	Target Fund Balance @25% of Op Exps	\$72,316	\$81,682	\$87,119	\$89,944	\$92,868	\$95,894
16	Variance (less)/more than target	(\$38,791)	(\$48,937)	(\$49,343)	(\$39,218)	(\$20,531)	(\$62,493)

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Figure 1. Projected Year-End Fund Balance (Eastern County Solid Waste)



* * * *

We appreciate the opportunity to be of continued service to the County. We value our relationship with you and are committed to providing you the highest level of service in the performance of this matter. Should you have any questions, please feel free to call me at (925) 977-6957.

Sincerely,

HF&H CONSULTANTS, LLC

Rick Simonson
 Senior Vice President

ATTACHMENT A-1: TEN-YEAR FINANCIAL ANALYSIS AND PROJECTED RATE INCREASES

		Proposition 218 - Five-Year Rate Adjustment Period										
Annual Operating Expenses		Budget FY 2022-23	Projection FY 2023-24	Projection FY 2024-25	Projection FY 2025-26	Projection FY 2026-27	Projection FY 2027-28	Projection FY 2028-29	Projection FY 2029-30	Projection FY 2030-31	Projection FY 2031-32	Projection FY 2032-33
Tahoe Truckee Sierra Disposal (TTSD) <i>Est. Chg in PPI</i>			5.0%	5.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Rate per parcel/dwelling unit (monthly)	\$25.63	\$26.91	\$28.26	\$29.25	\$30.27	\$31.33	\$32.43	\$33.56	\$34.74	\$35.95	\$37.21	
Rate per parcel/dwelling (annually)	\$307.56	\$322.94	\$339.08	\$350.95	\$363.24	\$375.95	\$389.11	\$402.73	\$416.82	\$431.41	\$446.51	
# of parcels/dwelling units	862	862	862	862	862	862	862	862	862	862	862	862
TTSD Compensation	\$265,117	\$278,373	\$292,291	\$302,521	\$313,110	\$324,068	\$335,411	\$347,150	\$359,300	\$371,876	\$384,892	
Solid Waste Division Expenses <i>Est. Chg in CPI</i>			4.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Truckee Fire Protection Dist	\$941	\$979	\$1,018	\$1,048	\$1,080	\$1,112	\$1,146	\$1,180	\$1,215	\$1,252	\$1,289	
Interfund Reimbursement	\$500	\$520	\$541	\$557	\$574	\$591	\$609	\$627	\$646	\$665	\$685	
Closure/Post Closure Expense	\$2,000	\$2,080	\$2,163	\$2,228	\$2,295	\$2,364	\$2,435	\$2,508	\$2,583	\$2,660	\$2,740	
County Overhead Cost Plan (A87)	\$77	\$5,723	\$5,952	\$6,130	\$6,314	\$6,504	\$6,699	\$6,900	\$7,107	\$7,320	\$7,540	
Prof. Services: TTSD Agreement Negs	\$0	\$0	\$0	\$0	\$0	\$50,000	\$50,000	\$0	\$0	\$0	\$0	
Prof. Services: Rate Setting/Prop 218	\$20,000	\$0	\$0	\$0	\$0	\$20,000	\$0	\$0	\$0	\$0	\$25,000	
Prof. Services - Other	\$630	\$655	\$681	\$702	\$723	\$745	\$767	\$790	\$814	\$838	\$863	
Total County Expenses	\$24,148	\$9,957	\$10,355	\$10,666	\$10,986	\$81,315	\$61,655	\$12,004	\$12,365	\$12,735	\$38,118	
Total Operating Expenses (from Table 1)	\$289,265	\$288,329	\$302,646	\$313,187	\$324,095	\$405,384	\$397,066	\$359,155	\$371,665	\$384,611	\$423,009	
PROPOSED RATE CALCULATION												
Annual Revenue Calculation		FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	FY 2030-31	FY 2031-32	FY 2032-33
Prior Year's Parcel Charge	\$311.76	\$311.76	\$333.58	\$356.93	\$378.35	\$401.05	\$425.11	\$442.12	\$455.38	\$469.04	\$478.42	
Proposed Rate Increase		7.0%	7.0%	6.0%	6.0%	6.0%	4.0%	3.0%	3.0%	2.0%	2.0%	
Proposed Annual Charge	\$311.76	\$333.58	\$356.93	\$378.35	\$401.05	\$425.11	\$442.12	\$455.38	\$469.04	\$478.42	\$487.99	
# of Parcels/Dwelling Units	862	862	862	862	862	862	862	862	862	862	862	862
Annual Revenue @ CURRENT Rates	\$268,737	\$287,549	\$307,677	\$326,138	\$345,706	\$366,448	\$381,106	\$392,540	\$404,316	\$412,402	\$420,650	
Total Operating Expenses	(\$289,265)	(\$288,329)	(\$302,646)	(\$313,187)	(\$324,095)	(\$405,384)	(\$397,066)	(\$359,155)	(\$371,665)	(\$384,611)	(\$423,009)	
Op Surplus/(Shortfall) @ Proposed Rates	(\$20,528)	(\$781)	\$5,031	\$12,951	\$21,611	(\$38,935)	(\$15,959)	\$33,385	\$32,651	\$27,791	(\$2,359)	
Op Fund Balance (excl. restricted funds)												
Op Fund Balance (excl. restricted funds)		FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	FY 2030-31	FY 2031-32	FY 2032-33
Beginning Balance	\$54,053	\$33,525	\$32,745	\$37,776	\$50,726	\$72,337	\$33,401	\$17,442	\$50,827	\$83,478	\$111,268	
Annual Operating Surplus/(Shortfall)	(\$20,528)	(\$781)	\$5,031	\$12,951	\$21,611	(\$38,935)	(\$15,959)	\$33,385	\$32,651	\$27,791	(\$2,359)	
Operating Fund Ending Balance	\$33,525	\$32,745	\$37,776	\$50,726	\$72,337	\$33,401	\$17,442	\$50,827	\$83,478	\$111,268	\$108,909	
Target Fund Balance @25% of Op Exps												
Target Fund Balance @25% of Op Exps	\$72,316	\$81,682	\$87,119	\$89,944	\$92,868	\$95,894	\$96,775	\$96,153	\$98,274	\$100,953	\$105,752	
Variance (less)/more than target	(\$38,791)	(\$48,937)	(\$49,343)	(\$39,218)	(\$20,531)	(\$62,493)	(\$79,333)	(\$45,326)	(\$14,796)	\$10,316	\$3,157	

ATTACHMENT A-2: TEN-YEAR PROJECTED RESERVE FUND BALANCE – WITH RATE INCREASES

