



ALAMEDA COUNTY FIRE DEPARTMENT RETIREE HEALTHCARE PLAN



City of Emeryville

Illustration of Methodology and Sample Calculations for Withdrawal Liability

Based on the June 30, 2023 Actuarial Valuation

Doug Pryor
Cathy Wandro
Katherine Moore
Foster & Foster, Inc.

February 27, 2024

<u>Topic</u>	<u>Page</u>
Background	1
Definition of Terms	2
Withdrawal Methodology	3
Illustration of Calculation	4
Actuarial Assumptions	7



- City of Emeryville joined ACFD on 7/1/2012
- Initial Emeryville Side Fund established based on 19 actives: \$1,335,232
- Employees of Emeryville needed a minimum of 5 years ACFD service to be eligible for an OPEB benefit from ACFD
- The following withdrawal illustration is based on the ACFD June 30, 2023 OPEB valuation



February 27, 2024

1

**DEFINITION OF TERMS**

- **Side Fund**
 - Initial Side Fund = Liability for benefits based on past service when joining ACFD, using current actuarial methods & assumptions
 - Side Fund EOY = (Side Fund BOY) + (Allocated Normal Costs) – (Allocated Benefit Payments) + (Allocated (Gains)/Losses) + (Interest to EOY)
- **Net Withdrawal Liability**
 - Withdrawing agency's share of pooled retiree healthcare benefits remaining with ACFD at termination of contract
 - = (Side Fund Balance at Termination) less (Withdrawal Allowance)
 - Withdrawal Allowance is estimated reduction in ACFD active liability due to agency leaving ACFD
 - Net Withdrawal Liability calculated using a "walk-away" discount rate with no future agency participation or using the OPEB actuarial valuation full pre-funding discount rate with continued agency participation in future plan gains and losses
- **"Walk-Away" Discount Rate**
 - A rate dependent on actual market rates of return for risk-free securities on date of termination. Based on "walk-away" discount rate as defined in contract with ACFD.
 - For illustrative purposes in this exhibit, the 20-year U.S. Treasury yield rate as of 6/30/23 is used.
- **Actuarial Accrued Liability (AAL)**
 - Liability for benefits "earned" for or attributed to past service using actuarial methods and assumptions
- **Normal Cost (NC)**
 - Value of benefits "earned" during or attributed to the current year



February 27, 2024

2



WITHDRAWAL METHODOLOGY

■ **Methodology involves pro-rating the ACFD active AAL based on headcounts**

Step 1 - Estimate % of ACFD actives assumed to leave when agency withdraws:

- 100% of agency’s allocated FTE positions (based on historical allocations)
- % of agency’s allocated shared positions (based on historical allocations):
 - 75% Safety
 - 25% Non-Safety
- Separate %’s calculated for Safety vs Non-Safety

Step 2 - Multiply %’s calculated in Step 1 by ACFD active AAL to estimate liability reduction for withdrawing agency:

- Safety % x Safety Active AAL
- Non-Safety % x Non-Safety Active AAL
- Total is estimated ACFD liability reduction for withdrawing agency

Step 3 - Subtract proportionate liability calculated in Step 2 from side fund balance to determine Net Withdrawal Liability:

- Illustrative discount rate for ongoing liability participating in future gains and losses: 6.25% (June 30, 2023 OPEB valuation full pre-funding discount rate)
- Illustrative “walk-away” discount rate: 4.06% (20-year Treasury on 6/30/23)



ILLUSTRATION OF CALCULATION

Estimated Net Withdrawal Liability Calculation on June 30, 2023¹

Step 1 – Estimate % of ACFD Actives Assumed to Leave when City Withdraws

	Total ACFD (Excl. Dispatch)	City of Emeryville
(1) 2023/24 Allocation %	100%	5.88%
(2) 6/30/23 Actives		
a) FTE Safety	312.0	19.0
b) FTE Non-Safety	19.0	1.0
c) Shared Safety [(City 1)*(ACFD 2c)]	16.0	0.9
d) Shared Non-Safety [(City 1)*(ACFD 2d)]	19.0	1.1
(3) % of ACFD positions allocated to City assumed withdrawing		
a) FTE	n/a	100%
b) Shared – Safety/Non-Safety	n/a	75%/25%
(4) % of ACFD actives assumed withdrawing		
a) Safety [(City 2a*3a+2c*3b)÷(ACFD 2a+2c)]	n/a	6.00%
b) Non-Safety [(City 2b*3a+2d*3b)÷(ACFD 2b+2d)]	n/a	3.36%

¹ For illustration of methodology only.



ILLUSTRATION OF CALCULATION

Exhibit 8

Estimated Net Withdrawal Liability Calculation on June 30, 2023² (Continued)

Step 2 – Estimate AAL Reduction for Withdrawing City (Amounts in \$000s)

	Total ACFD (Excl. Dispatch)	City of Emeryville
(5) Allocated Withdrawing City Active AAL		
a) Safety [(City 4a) * (ACFD 5a)]	\$ 53,779	\$ 3,227
b) Non-Safety [(City 4b) * (ACFD 5b)]	<u>2,353</u>	<u>79</u>
c) Total Withdrawing Active AAL at 6.25%	56,132	3,306

² For illustration of methodology only. 6.25% and 4.06% discount rates are used for illustrative purposes only.



February 27, 2024

5



ILLUSTRATION OF CALCULATION

Estimated Net Withdrawal Liability Calculation on June 30, 2023³ (Continued)

Step 3 – Calculate Net Withdrawal Liability for Withdrawing City (Amounts in \$000s)

	Total ACFD (Excl. Dispatch)	City of Emeryville
(6) 6/30/23 Side Fund Balances	\$ 120,307	\$ 3,233
(7) Withdrawal Allowance at 6.25% (City 5c)	n/a	<u>3,306</u>
(8) Net Withdrawal Liability at 6.25% [(City 6) – (City 7), not less than zero]	n/a	0
(9) ACFD Active AAL at 4.06%	76,684	n/a
(10) “Walk-Away” Liability at 4.06% [(City 8) * (ACFD 9) ÷ (ACFD 5c)]	n/a	0

³ For illustration of methodology only. 6.25% and 4.06% discount rates are used for illustrative purposes only.



February 27, 2024

6



ACTUARIAL ASSUMPTIONS

Assumption	Same as June 30, 2023 OPEB Valuation
<ul style="list-style-type: none"> ■ Discount Rate 	<ul style="list-style-type: none"> ■ Illustrative “walk-away” discount rate: 4.06% (20-year U.S. Treasury yield rate as of 6/30/23) ■ Illustrative discount rate for ongoing participation in future gains and losses: 6.25%
<ul style="list-style-type: none"> ■ Inflation 	<ul style="list-style-type: none"> ■ 2.50%
<ul style="list-style-type: none"> ■ Payroll Increases 	<ul style="list-style-type: none"> ■ Aggregate increase – 2.75%
<ul style="list-style-type: none"> ■ Demographic Assumptions 	<ul style="list-style-type: none"> ■ CalPERS 2000-2019 Experience Study (Mortality, Retirement, Termination, Disability) ■ Mortality projected fully generational MP-2021
<ul style="list-style-type: none"> ■ Healthcare Trend 	<ul style="list-style-type: none"> ■ Actual 2023 and 2024 PEMHCA premiums used ■ Non-Medicare: 8.50% for 2025, decreasing to an ultimate rate of 3.45% in 2076 ■ Medicare: 7.50% for 2025, decreasing to an ultimate rate of 3.45% in 2076 (For Kaiser Medicare: 6.25% for 2025, decreasing to an ultimate rate of 3.45% in 2076)



February 27, 2024



ACTUARIAL ASSUMPTIONS

<ul style="list-style-type: none"> ■ Participation at Retirement 	<ul style="list-style-type: none"> ■ Hired before April 1, 2009 – 100% if currently covered, 90% if currently waived ■ Hired on or after April 1, 2009: 60% if less than 10 years of service, 90% for 10-14, 95% for 15-19, and 100% for 20+
---	--



February 27, 2024



