East Bay Municipal Utility District Employees' Retirement System

Health Insurance Benefit Valuation

Review of Contribution Rates and Funding Status as of June 30, 2024

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Segal

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January 14, 2025

Ms. Sophia Skoda
Director of Finance
East Bay Municipal Utility District
375 Eleventh Street
Oakland, California 94607-4240

Dear Sophia:

We are pleased to submit our Health Insurance Benefit (HIB) Valuation as of June 30, 2024 for the prefunded $450 ($550 for a retiree with a spouse or EBMUD domestic partner) monthly health insurance subsidy. The Governmental Accounting Standards Board (GASB) requires employers, such as EBMUD, that pool health insurance premium rates for actives and retirees under age 65 to also calculate the liability associated with such pooled premiums for retirees under age 65 on an accrual basis. While that liability referred to as the implicit subsidy has to be disclosed, it is not required to be prefunded. The contribution rate developed in this report only includes the prefunding requirement for the $450/$550 benefit. The obligation required for financial disclosure purposes under GASB Statements No. 74 (plan reporting) and 75 (employer reporting) will be provided in separate reports.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the East Bay Municipal Utility District (EBMUD), based upon information provided by EBMUD.

This valuation is based on financial statements and census data furnished by East Bay Municipal Utility District Employees' Retirement System (EBMUDERS). Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, EA and Mehdi Riazi, FSA, MAAA, FCA, EA. The health care trend and other related medical assumptions have been reviewed by Mary Kirby, FSA, MAAA, FCA. We, the undersigned, are members of the American Academy of Actuaries and we meet the qualification requirements to render the actuarial opinion contained herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. The assumptions used in this valuation were those adopted by the Retirement Board based on the results of the recent Actuarial Experience Study (Segal report dated November 13, 2024). We have also applied the medical trend assumptions as recommended in our letter dated November 14, 2024. In our opinion, the combined effect of these assumptions is expected to have no significant bias.

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

Andy Yeung

Mehdi Riazi

Mary Kirby

Andy Yeung, ASA, MAAA, FCA, EA Vice President and Actuary	Mehdi Riazi, FSA, MAAA, FCA, EA Vice President and Actuary	Mary Kirby, FSA, MAAA, FCA Senior Vice President and Chief Health Actuary

TTT/jl

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Section 1: Actuarial Valuation Summary

Contribution recommendations and funding status

1. The funded ratio measured on a valuation value of assets basis increased from 47.7% as of June 30, 2023 to 51.8% as of June 30, 2024. The funded ratio increased from 46.5% to 53.0% if measured on a market value of assets basis. The Unfunded Actuarial Accrued Liability (UAAL) decreased from $68.86 million as of June 30, 2023 to $64.92 million as of June 30, 2024, on a valuation value of asset basis. This valuation reflects the various assumptions that were adopted by the Retirement Board based on the results of the recent Actuarial Experience Study (Segal report dated November 13, 2024) for experience during the period July 1, 2020 through June 30,2024. We have also applied the medical trend assumptions as recommended in our letter dated November 14, 2024. The new actuarial assumptions produced a relatively small increase in liabilities of $1.4 million and an increase in the employer's contribution rate of 0.04% of payroll. Overall, the results of the June 30, 2024 valuation were consistent with the June 30, 2023 valuation results. On a net basis, the increase to the funded ratio and the reduction to the UAAL were both in-line with the expected changes based on the plan's funding policy, as contributions continue to pay down the UAAL.
2. The recommended aggregate employer contribution rate is 4.31% based on the June 30, 2024 valuation. The new rate is 0.03% lower than the 4.34% aggregate rate developed in the June 30, 2023 valuation. The decrease in the contribution rate was mainly attributable to higher payroll growth than expected. Note, the 4.34% aggregate/blended rate has been restated based on projected June 30, 2024 payrolls, which is why it is slightly lower than the 4.35% aggregate rate shown in the June 30, 2023 valuation. We have maintained the allocation of 0.09% of the member contribution to the HIB plan used in last year's valuation.
3. As indicated in Section 2, Subsection B of this report, the total unrecognized investment gain as of June 30, 2024 is $55.8 million for the assets for the pension and HIB plans (in the previous valuation, this item was a deferred loss of $59.2 million). This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. This implies that earning the assumed rate of investment return of 6.75% per year (net of expenses) on a market value basis will produce investment gains on the actuarial value of assets after June 30, 2024.

   The deferred gains of $55.8 million represent 2.2% of the market value of assets as of June 30, 2024. Unless offset by future investment losses or other unfavorable experience, the recognition of the $55.8 million market gains is expected to have an impact on the System's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:

   - If the HIB plan portion of the deferred gains were recognized immediately and entirely in the valuation value of assets, the funded percentage would increase from 51.8% to 53.0%.
   - If the HIB plan portion of the deferred gains were recognized immediately and entirely in the valuation value of assets, the aggregate recommended employer rate would decrease from 4.31% to about 4.27% of payroll.

Section 1: Actuarial Valuation Summary

4. This report assumes the HIB subsidy limit will remain at the current levels of $450/$550. Future increases in the HIB subsidy limit will increase the cost of the plan as a percent of pay.
5. The following tables summarizes the contribution rate recommendations for the employer and the employee:

Employer	June 30, 2024 Total Rate[1]	June 30, 2024 Estimated Annual Amount[2]	June 30, 2023 Total Rate[1]	June 30, 2023 Estimated Annual Amount[2]
1955/1980 Plan	4.43%	$5,440,000	4.43%	$5,444,000
2013 Tier	4.22%	6,351,000	4.27%	6,428,000
Combined	**4.31%**	**$11,791,000**	**4.34%**	**$11,872,000**

Member	June 30, 2024 Total Rate[1]	June 30, 2024 Estimated Annual Amount[2]	June 30, 2023 Total Rate[1]	June 30, 2023 Estimated Annual Amount[2]
1955/1980 Plan	0.09%	$111,000	0.09%	$111,000
2013 Tier	0.09%	135,000	0.09%	135,000
Combined	**0.09%**	**$246,000**	**0.09%**	**$246,000**

6. The following table compares the valuation value of assets and liabilities for the Health Insurance Benefit as of June 30, 2024 and June 30, 2023:

	June 30, 2024	June 30, 2023
1. Valuation Value of Assets	$69,836,226	$62,769,259
2. Actuarial Accrued Liabilities:		
a. Current Recipients	100,354,837	97,330,438
b. Future Recipients	34,401,641	34,297,017
c. Total	$134,756,478	$131,627,455
3. Liabilities minus Valuation Value of Assets: (2) – (1)	$64,920,252	$68,858,196
4. Funding Ratio (1) ÷ (2)	51.82%	47.69%

[1] Payable at the end of each pay period.
[2] Based on June 30, 2024 projected annual payroll of:

1955/1980 Plan	$122,880,363
2013 Tier	150,547,943
Combined	$273,428,306

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of an OPEB plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinates with Medicare. If so, changes in the Medicare law or administration may change the plan's costs without any change in the terms of the plan itself. It is important for the System to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by the System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a “perfect” result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	This valuation is based on the market value of assets as of the valuation date, as provided by the System. For funding purposes, the System uses an “Actuarial Value of Assets” that differs from the market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement, and then develops short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discount to a present value based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

Input Item	Description
Models	Segal results are based on proprietary actuarial modeling software. The valuation models generate a comprehensive set of liability and cost calculations that are presented to meet actuarial standards and client requirements. Our Actuarial Technology and Systems unit, comprising both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary. Our claims costs assumptions are based on proprietary modeling software as well as models that were developed by others. These models generate per capita claims cost calculations that are used in our valuation software. Our Health Technical Services Unit, comprised of actuaries and programmers, is responsible for the initial development and maintenance of our health models. They are also responsible for testing models that we purchase from other vendors for reasonableness. The client team inputs the paid claims, enrollments, plan provisions and assumptions into these models and reviews the results for reasonableness, under the supervision of the responsible actuary.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared for use by the Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- If the Board is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- Sections of this report include actuarial results that are not rounded, but that does not imply precision.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience, health care trend, and investment losses, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the System upon delivery and review. The System should notify Segal immediately of any questions or concerns about the final content.

Section 2: Actuarial Valuation Results

A. Introduction

Pursuant to Section 36 of the Ordinance, the Retirement Board is authorized to administer a Health Insurance Benefit (HIB) through an IRC Section 401(h) account. The HIB may be used for the payment of sickness, accident, hospitalization, and medical expenses as permitted under the IRC and as authorized by the Retirement Board. In particular, the Retirement Board has authorized the use of the HIB towards the payment of medical insurance premiums.

This report does not provide information required for disclosure under GASB Statements 74 and 75. Such information will be provided in separate reports.

In this valuation, we have used a layered amortization approach to determine the contribution rate to fund the Unfunded Actuarial Accrued Liability (UAAL).

Plan changes, assumption changes and experience gains/losses prior to July 1, 2011 are amortized over separate decreasing 30-year amortization periods. On or after July 1, 2011, through June 30, 2021, plan changes are amortized over separate decreasing 15-year periods; assumption changes from the experience study are amortized over separate decreasing 25-year periods; and experience gains/losses (including year-to-year health assumption changes) are amortized over separate decreasing 20-year periods. On or after July 1, 2021, assumption changes from the experience study or interim review of the economic assumptions are amortized over 20 years. The above payments would continue to be expressed as a level percent of a growing payroll base.

The cost of the HIB is funded by both employer and employee contributions. The contribution rates for the employer are calculated to provide for the ongoing normal cost, plus any amounts necessary to fund any shortfall between the valuation value of assets and the actuarial accrued liabilities.

A summary of the Health Insurance Benefit provisions is displayed in Section 4, Exhibit 2.

B. Determination of actuarial value of assets

To minimize volatility in the calculation of the Actuarially Determined Contribution, the Board has approved an asset valuation method that gradually adjusts to market value over a five-year period. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Determination of Actuarial Value of Assets for Year Ended June 30, 2024 (for Pension and HIB plans)

	Items		Actual Return	Expected Return	Investment Gain / (Loss)	Percent Deferred	Return
1.	**Market value of assets**						
	a.	**Pension plan**					**$2,445,611,000**
	b.	**HIB plan**					**71,420,000**
	c.	**Total**					**$2,517,031,000**
2.	Calculation of unrecognized return						
	a.	Year ended June 30, 2020	$39,376,000	$127,791,930	$(88,415,930)	0%	$0
	b.	Year ended June 30, 2021	491,625,000	129,314,710	362,310,290	20%	72,462,058
	c.	Year ended June 30, 2022	(253,930,000)	162,455,125	(416,385,125)	40%	(166,554,050)
	d.	Year ended June 30, 2023	217,559,000	138,262,646	79,296,354	60%	47,577,813
	e.	Year ended June 30, 2024	279,545,000	151,631,764	127,913,236	80%	102,330,589
	f.	Total unrecognized return[1]					$55,816,410
3.	**Preliminary actuarial value: (1c) - (2f)**						**$2,461,214,590**
4.	Adjustment to be within 30% corridor of market value						0
5.	**Final actuarial value of assets for pension and HIB plans: (3) + (4)**						**$2,461,214,590**
6.	Actuarial value as a percentage of market value: (5) ÷ (1c)						97.8%
7.	**Valuation value of HIB plan assets: (1b) x (5) ÷ (1c)**						**$69,836,226**

[1] Deferred return as of June 30, 2024 that will be recognized in each of the next four years (amounts may not total exactly due to rounding):

(a) Amount recognized on June 30, 2025	$30,626,951
(b) Amount recognized on June 30, 2026	(41,835,107)
(c) Amount recognized on June 30, 2027	41,441,918
(d) Amount recognized on June 30, 2028	25,582,647
(e) Total unrecognized return as of June 30, 2024	$55,816,410

C. Funding status

The funding of the Health Insurance Benefit comes from the following sources:

1. The valuation value of HIB assets, which equals $69,836,226 as of June 30, 2024;
2. Contributions from the employer; and
3. Contributions from the employees.

The following table provides the funding status of the Health Insurance Benefit as of June 30, 2024 and June 30, 2023:

Item	June 30, 2024	June 30, 2023
1. Valuation Value of Assets	$69,836,226	$62,769,259
2. Actuarial Accrued Liabilities:		
• Current Recipients	100,354,837	97,330,438
• Future Recipients	34,401,641	34,297,017
• Total	$134,756,478	$131,627,455
3. Liabilities minus Valuation Value of Assets: (2) – (1)	$64,920,252	$68,858,196
4. Funding Ratio (1) ÷ (2)	51.82%	47.69%

The contribution requirements are determined based on the Entry Age Funding Method. The excess of the actuarial accrued liability over assets (Item 3 in the above table) is amortized as a level percentage of payroll for current active members. The employer contribution rates are derived on the following page.

D. Recommended contribution

The amount of annual contribution required to fund the HIB is comprised of a net employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the contribution rate of 4.31% of payroll for this year's valuation compared to 4.34% of payroll recommended for last year's valuation. The 4.34% aggregate rate from June 30, 2023 has been restated based on projected June 30, 2024 payrolls, which is why it is slightly lower than the 4.35% aggregate rate shown in the June 30, 2023 valuation.

Recommended Contribution (% of Payroll) Calculated as of June 30

Item	2024 1955/1980 Plan	2024 2013 Tier	2024 Combined[1]	2023 1955/1980 Plan	2023 2013 Tier	2023 Combined[1]
1. Total Normal Cost	0.97%	0.76%	0.85%	0.95%	0.79%	0.86%
2. Expected employee contributions	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%
3. Employer normal cost: (1) - (2)	**0.88%**	**0.67%**	**0.76%**	**0.86%**	**0.70%**	**0.77%**
4. Unfunded actuarial accrued liability	3.55%	3.55%	3.55%	3.57%	3.57%	3.57%
5. Total recommended contribution, end of each pay period	**4.43%**	**4.22%**	**4.31%**	**4.43%**	**4.27%**	**4.34%**

[1] Based on June 30, 2024 projected annual payroll of:

1955/1980 Plan	$122,880,363
2013 Tier	150,547,943
Combined	$273,428,306

E. Reconciliation of recommended employer contribution

The chart below details the changes in the recommended employer contribution from the prior valuation to the current year's valuation. The 4.34% aggregate rate from June 30, 2023 has been restated based on projected June 30, 2024 payrolls, which is why it is slightly lower than the 4.35% aggregate rate shown in the June 30, 2023 valuation.

Item	Contribution Rate
Average Recommended Employer Contribution Rate as of June 30, 2023	**4.34%**
Effect of actuarial experience during fiscal 2023/2024	
1. Effect of investment gain/loss (after smoothing)[1]	0.00%
2. Effect of higher than expected growth in total payroll to amortize the prior years' UAAL	(0.06)%
3. Effect of one-year lag in implementing contribution rates	(0.02)%
4. Effect of assumption changes	0.04%
5. Effect of demographic experience, including change to average HIB subsidy paid and HIB subsidy trend assumptions	0.01%
Total change	(0.03)%
Average Recommended Employer Contribution Rate as of June 30, 2024	**4.31%**

[1] The rate of return on the valuation value of assets was 6.90% for the OPEB and 7.15% for the Pension plans. While the 6.90% return was greater than the 6.75% net investment return assumption, the gain was not sufficient to reduce the employer's contribution rate by 0.01% of payroll.

F. Table of amortization bases

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Type	Date Established	Initial Years	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment[1]
Initial HIB Base	6/30/1997	30	$15,829,000	$6,728,135	3	$2,323,373
Combined Base	6/30/1998	30	(195,000)	(104,236)	4	(27,473)
Combined Base	6/30/1999	30	6,467,754	4,076,666	5	874,664
Combined Base	6/30/2000	30	5,543,694	3,955,952	6	719,642
Combined Base	6/30/2001	30	794,097	623,805	7	98,954
Combined Base	6/30/2002	30	18,413,242	15,600,252	8	2,202,633
Combined Base	6/30/2003	30	6,628,441	5,962,885	9	761,179
Combined Base	6/30/2004	30	1,942,176	1,878,459	10	219,483
Combined Base	6/30/2005	30	8,019,739	7,690,871	11	830,736
Combined Base	6/30/2006	30	(1,769,952)	(1,786,324)	12	(179,843)
Experience Loss	6/30/2007	30	2,878,105	2,971,577	13	280,768
Combined Base	6/30/2008	30	12,125,015	12,732,764	14	1,135,640
Combined Base	6/30/2009	30	(1,240,538)	(1,318,393)	15	(111,557)
Combined Base	6/30/2010	30	463,026	495,860	16	39,979
Combined Base	6/30/2011	30	(60,151)	(64,711)	17	(4,990)
Experience Gain	6/30/2012	20	(1,251,821)	(910,613)	8	(128,571)
Assumption Changes	6/30/2012	25	3,374,832	3,170,751	13	299,586
Experience Gain	6/30/2013	20	(1,155,658)	(895,478)	9	(114,310)
Experience Loss	6/30/2014	20	21,287	17,356	10	2,028
Assumption Changes	6/30/2014	25	2,555,790	2,487,185	15	210,455
Experience Gain	6/30/2015	20	(810,969)	(690,447)	11	(74,579)

[1] Beginning of year payment, reflecting level percentage of payroll.

Section 2: Actuarial Valuation Results

Type	Date Established	Initial Years	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment[1]
Assumption Changes	6/30/2016	25	$2,459,846	$2,448,190	17	$188,798
Experience Gain	6/30/2016	20	(1,569,600)	(1,384,110)	12	(139,349)
Assumption Changes	6/30/2017	25	(403,768)	(404,594)	18	(29,944)
Experience Gain	6/30/2017	20	(664,072)	(602,921)	13	(56,967)
Experience Gain	6/30/2018	20	(2,295,237)	(2,133,059)	14	(190,248)
Assumption Changes	6/30/2018	25	2,931,560	2,948,755	19	210,069
Experience Gain	6/30/2019	20	(504,689)	(478,841)	15	(40,518)
Assumption Changes	6/30/2020	25	1,899,682	1,919,725	21	127,700
Experience Gain	6/30/2020	20	(542,065)	(522,780)	16	(42,150)
Experience Gain	6/30/2021	20	(6,818,716)	(6,659,133)	17	(513,535)
Assumption Changes	6/30/2022	20	3,202,074	3,155,976	18	233,573
Experience Loss	6/30/2022	20	2,976,293	2,933,446	18	217,104
Experience Loss	6/30/2023	20	1,323	1,315	19	94
Assumption Changes	6/30/2024	20	1,350,349	1,350,349	20	92,846
Experience Gain	6/30/2024	20	(274,382)[1]	(274,382)	20	(18,866)
Total				**$64,920,252**		**$9,396,404**

Note: The equivalent single amortization period is about 8 years.

[1] The 2024 experience gain of $274,382 or 0.2% of AAL was the result of gains due to (1) contributions being higher than expected, (2) actual FYE24 benefit payments being lower than expected, and (3) new starting costs and trends. The impact of these gains was mostly offset by a demographic loss of roughly 0.8% of AAL.

Section 3: Supplemental Information

Exhibit A: Summary of participant data

Participants	June 30, 2024	June 30, 2023
Retired Members		
• Number	1,693	1,653
• Average age	71.6	71.1
Surviving Spouses		
• Number	222	217
• Average age	79.1	78.9
Eligible for Deferred Benefit		
• Number[1]	407	381
• Average age	48.0	48.4
Active Participants		
• Number	1,974	1,955
• Average age	46.9	47.1
• Average years of service	10.9	11.0
• Average expected retirement age	63.4	62.4

[1] Includes inactive members due a refund of Pension Plan member contributions.

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions and methods

Rationale for Assumptions and Methods:

The information and analysis used in selecting each assumption and method that has a significant effect on this actuarial valuation is shown in the July 1, 2020 through June 30, 2024 Actuarial Experience Study report dated November 13, 2024, the Retiree Health assumptions letter dated November 14, 2024, and the Actuarial Funding Policy review letter dated September 14, 2022. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both tiers.

Economic Assumptions:

Net Investment Return

6.75%, net of investment and administrative expenses.

Inflation

2.50%

Across the Board Salary Increases

0.50%

Payroll Growth

Inflation of 2.50% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.

Salary Increases

The annual rate of compensation Increase includes inflation at 2.50%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotional increases:

Years of Service	1955/1980 Plan Rates (%)	2013 Tier Rates (%)
Less than 1	6.25	6.50
1 – 2	6.00	6.25
2 – 3	5.00	5.25
3 – 4	3.75	4.25
4 – 5	2.50	2.75
5 – 6	1.50	1.75
6 – 7	1.25	1.25
7 – 8	1.25	1.25
8 – 9	1.25	1.25
9 – 10	1.25	1.25
10 – 11	1.00	1.00
11 – 12	1.00	1.00
12 – 13	0.75	0.75
13 – 14	0.75	0.75
14 – 15	0.75	0.75
15 & Over	0.75	0.75

Demographic Assumptions:

Mortality

- **Pre-Retirement:**
  - Pub-2010 General Employee Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Post-Retirement Healthy Members:**
  - Pub-2010 General Healthy Retiree Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Post-Retirement Disabled Members:**
  - Pub-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Beneficiaries:**
  - In pay status at time of valuation: Pub-2010 Contingent Survivor Headcount-Weighted Above-Median Mortality Tables with rates increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
  - If not in pay status at time of valuation: same tables as for Post-retirement Healthy Members.

The Pub-2010 mortality tables and adjustments as shown above, with generational projection to the ages of members as of the measurement date, reasonably reflect the mortality experience of the Plan as of the measurement date. The additional generational projection is a provision made to reflect future mortality improvement.

Retirement

Age	1955/1980 Plan Unreduced Pension[1] Rates (%)	1955/1980 Plan Reduced Pension Rates (%)	2013 Tier Rates (%)
52	0.00	0.00	2.00
53	0.00	0.00	2.00
54	50.00	7.00	2.00
55	16.00	7.00	3.00
56	16.00	7.00	3.00
57	16.00	8.00	4.00
58	16.00	8.00	4.00
59	16.00	8.00	6.00
60	16.00	10.00	6.00
61	16.00	10.00	6.00
62	20.00	N/A[2]	10.00
63	20.00	N/A	10.00
64	20.00	N/A	10.00
65	20.00	N/A	20.00
66	24.00	N/A	20.00
67	24.00	N/A	20.00
68	24.00	N/A	20.00
69	24.00	N/A	20.00
70	40.00	N/A	35.00
71	40.00	N/A	35.00
72	40.00	N/A	35.00
73	40.00	N/A	35.00
74	40.00	N/A	35.00
75 & Over	100.00	N/A	100.00

[1] For example, a 1955/1980 Plan member age 54 with 30 or more years of service would be eligible for an unreduced pension benefit.
[2] For ages 62 and over, all 1955/1980 Plan members who are eligible for retirement are eligible for an unreduced pension benefit.

Disability Incidence

Disability rates are applicable after eight years of service.

Age	Rate (%)
25	0.000
30	0.006
35	0.016
40	0.080
45	0.126
50	0.136
55	0.146
60	0.156
65	0.166
70	0.170

Termination

Years of Service	1955/1980 Plan Rates (%)	2013 Tier Rates (%)
Less than 1	11.30	8.00
1 – 2	6.00	4.00
2 – 3	6.00	3.75
3 – 4	3.00	3.25
4 – 5	3.00	3.00
5 – 6	2.50	2.70
6 – 7	2.50	2.60
7 – 8	2.50	2.50
8 – 9	2.50	2.30
9 – 10	1.80	2.20
10 – 11	1.80	2.10
11 – 12	1.80	2.00
12 – 13	1.80	1.90
13 – 14	1.80	1.80
14 – 15	1.60	1.70
15 & Over	1.60	1.60

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is assumed).

Section 4: Actuarial Valuation Basis

Unknown Data for Participants

Same as those exhibited by members are similar known characteristics. If not specified, members are assumed to be male.

Retirement Age for Inactive Vested Participants

59

Percent Married/Domestic Partnership

For all active and inactive vested participants: 75% of male members and 50% of female members are assumed to elect spouse/domestic partner HIB coverage at retirement.

For retired participants: Actual data included in census.

Based on past practice this is not necessarily the same as the percent married/domestic partnership assumption used in the pension valuation. Some of those members may not elect HIB spouse/domestic partner coverage upon retirement due to the additional cost to the member.

Age of Spouse/Domestic Partner

For all active and inactive vested participants, male participants are assumed to have a female spouse who is 2 years younger than the participant and female participants are assumed to have a male spouse who is 2 years older than the participant.

Future Benefit Accruals

1.0 year of service per year.

We have not applied the 0.040 years of additional service for each year of employment, applied in the pension valuation to anticipate conversion of unused sick leave, based on our understanding of the HIB plan provisions.

Actuarial Funding Policy:

Actuarial Cost Method

Entry Age Cost Method. Entry Age is the age at the member's hire date. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation. The Normal Cost is calculated on an individual basis where the Entry Age Normal Cost is calculated as the sum of the individual Normal Costs.

Actuarial Value of Assets

Market value of assets (MVA) less unrecognized returns in each of the last five years. Unrecognized returns are equal to the difference between the actual market returns and the expected returns on the market value, and are recognized over a five-year period. The actuarial value of assets (AVA) is limited by a 30% corridor; the AVA cannot be less than 70% of MVA, nor greater than 130% of MVA.

Valuation Value of Assets

The proportion of the Actuarial Value of Assets allocated to the HIB plan, based on the proportion of the MVA attributable to the HIB plan.

Amortization Method

Level percent of payroll

Remaining Amortization Period

Plan changes, assumption changes, and experience gains/losses prior to July 1, 2011 are amortized over separate decreasing 30-year amortization periods. On or after July 1, 2011, through June 30, 2021, plan changes are amortized over separate decreasing 15-year periods; assumption changes are amortized over separate decreasing 25-year periods; and experience gains/losses and retiree health assumption changes are amortized over separate decreasing 20-year periods. On or after July 1, 2021, assumption changes from the experience study or interim review of the economic assumptions are amortized over 20 years.

Retiree Health Assumptions

Participation

95% of future eligible retirees are assumed to enroll in the HIB plan.
All current pensioners and beneficiaries with a retiree health insurance cash subsidy were valued.
For deferred vested members, we assume an election equal to 65% of the future retiree election percent.

Average HIB Subsidy

The enrollment percent of 70% is used to estimate the proportion of future retirees expected to participate in the EBMUD medical insurance plans (Kaiser, Blue Cross, Sutter Health Plus<65, and UHC Medicare Advantage PPO 65+). The difference between the 95% of all future retirees expected to be provided with an HIB subsidy and 70% (i.e. 25%) is what we used to anticipate future retirees who receive reimbursement for medical expenses through the HIB plan without being enrolled in an EBMUD medical insurance plan. The HIB subsidy may be used to defray any other allowed health benefits (e.g., Medicare Part B premiums, dental costs) in addition to medical premiums. For current retirees, we have used the HIB on record. For the expected 95% future retirees who received an HIB, we have assumed, based on the average HIB on record for current retirees at 100% vesting level, that:

- Retirees at 100% vesting level under age 65 with single HIB coverage will receive an average $439 monthly benefit as of July 1, 2024,
- Retirees at 100% vesting level under age 65 with spouse HIB coverage will receive an average $520 monthly benefit as of July 1, 2024,
- Retirees at 100% vesting level age 65 and over with single HIB coverage will receive an average $439 monthly benefit as of July 1, 2024, and
- Retirees at 100% vesting level age 65 and over with spouse HIB coverage will receive an average $539 monthly benefit as of July 1, 2024.

The maximum (100% vesting level) monthly HIB subsidy is $450 for a retiree with single coverage and $550 for a retiree with spouse/domestic partner coverage.

Projected HIB Subsidy Increase

We have projected the HIB medical benefit to increase with medical trend until it reaches the limits described in the Summary of Plan Provisions. The benefit limits are projected to remain unchanged at the current levels of $450/$550.

Health Care Cost Trend Rates

Trend is to be applied to premium for shown fiscal year to calculate next fiscal year’s projected premium.

First Fiscal Year (July 1, 2024 through June 30, 2025):

Plan	Anthem Blue Cross PPO, Under Age 65	Sutter Health Plus HMO, Under Age 65	Kaiser HMO Under Age 65	Kaiser Senior Advantage	UHC Medicare Advantage PPO
Trend rate to be applied to 2024-2025 Fiscal Year premium	8.56%	10.50%	5.81%	9.08%	14.69%

The fiscal year trend rates are based on the following calendar year trend rates:

Approximate Trends for Fiscal Year	Non-Medicare Trend Rate (%)	Medicare Trend Rate (%)	Trend Rates Applied to Premium for Calendar Year	Non-Medicare Trend Rate (%)	Medicare Trend Rate (%)
2025-2026	7.125	6.875	2025	7.25	7.00
2026-2027	6.875	6.625	2026	7.00	6.75
2027-2028	6.625	6.375	2027	6.75	6.50
2028-2029	6.375	6.125	2028	6.50	6.25
2029-2030	6.125	5.875	2029	6.25	6.00
2030-2031	5.875	5.625	2030	6.00	5.75
2031-2032	5.625	5.375	2031	5.75	5.50
2032-2033	5.375	5.125	2032	5.50	5.25
2033-2034	5.125	4.875	2033	5.25	5.00
2034-2035	4.875	4.625	2034	5.00	4.75
2035-2036	4.625	4.500	2035	4.75	4.50
2036 and later	4.500	4.500	2036	4.50	4.50

Medical Carrier Election

Medical Carrier	Election (%)
Non-Medicare Medical Carrier	
• Kaiser HMO	70
• Anthem Blue Cross PPO	25
• Sutter Health Plus HMO	5
Medicare Medical Carrier	
• Kaiser Senior Advantage HMO (High Option)	67
• UHC Medicare Advantage PPO	33

Assumption Changes Since Prior Valuation:

The following assumptions were changed since the prior valuation:

- Salary scales, retirement rates, termination rates, disability rates, and mortality rates were updated per the 2024 experience study.
- The percentage of male participants who elect HIB coverage for their spouses/domestic partners was increased from 70% to 75%, while that for female participants was increased from 35% to 50%.
- The spouse age difference for male participants and their female spouses/domestic partners was decreased from 3 years to 2.
- The participation election for current vested terminated participants was increased from 50% to 65%.
- The average HIB subsidy for future retirees was updated.
- The future trend for projecting medical costs below the subsidy limit were updated.

Collectively, these assumption changes increased the Actuarial Accrued Liability by 0.94%.

Per the plan's funding policy, the impact of the year-to-year retiree healthcare assumption changes (such as updates to the average HIB subsidy and future trend assumptions) are amortized as part of the annual experience gain/loss.

Exhibit 2: Summary of plan

This exhibit summarizes the major benefit provisions as included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Normal or Unreduced Retirement Eligibility:

- **1955/1980 Plan**
  - Age 65;
  - Age 62 with 5 years of service;
  - Age 59 with 20 years of service;
  - Age 54 with 30 years of service;
  - Other combinations of age and service between ages 54 and 59.
- **2013 Tier**
  - Age 67 with 5 years of service (for unreduced benefit)

Early Retirement Eligibility:

- **1955/1980 Plan**
  - Age 54 with 5 years of service.
- **2013 Tier**
  - Age 52 with 5 years of service.

Covered Members:

All members with at least 5 years of service.

Member Contribution Rate:

0.09%

Employer Contribution Rate:

100% of total cost net of the 0.09% rate paid by the employee.

Benefit Formula:

For members entering the System prior to July 1, 1996, a monthly allowance of up to $450 ($550 for married retirees and retirees with EBMUD domestic partners) is paid to retirees with at least five years of full-time service to reimburse member-paid medical expenses.

For members entering the System after June 30, 1996, the members shall receive the full monthly allowance multiplied by the applicable percentage below based on years of full-time service.

Effective January 1, 1999, retired members who had separated from the District prior to their retirement and who had at least five years of service also become eligible for the post-employment healthcare benefits based on the same vesting schedule.

Years of Full-time Service	Percent of HIB
Less than 5	0%
5-9	25%
10-14	50%
15-19	75%
20 or more	100%

An eligible surviving spouse/domestic partner may receive a Health Insurance Benefit of up to $450 per month.

Changes in Plan Provisions:

None since the prior valuation.

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