

Marinwood Community Services District

GASB 75 Disclosures for Fiscal Year Ending June 30, 2022
Based on OPEB Valuation as of June 30, 2021

CONTACT

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GovInvest
The Financial Forecasting Authority

Table of Contents

Actuarial Certification.....	1
Section 1: Executive Summary.....	3
Section 2: Financial Disclosures.....	7
Section 3: Asset Information.....	14
Section 4: Actuarially Determined Contribution.....	16
Section 5: Projected Benefit Payments.....	17
Section 6: Substantive Plan Provisions.....	19
Section 7: Actuarial Methods and Assumptions.....	21
Section 8: Participant Summary.....	28
Appendix - Sample Decrement Rates.....	31
Appendix - Glossary.....	39

Actuarial Certification

Mr. Eric Dreikosen
Marinwood Community Services District
775 Miller Creek Road
San Rafael, CA 94903

GovInvest has been engaged by Marinwood Community Services District to complete an actuarial valuation of the Marinwood Community Services District OPEB Plan as of June 30, 2021 which will be used as the basis of the financial accounting disclosure for fiscal year ending 6/30/2022 in accordance with GASB Statement No. 75 (Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions).

The purpose of this report is to provide the District with recommended contributions as well as required information needed for financial statement disclosure purposes. The use of this report for any other purpose may not be appropriate. The content of this report may not be modified, reproduced, or provided to third parties, either in whole or in part, without our permission. GovInvest is not responsible for usage, inference, or misinterpretation of this report by third parties.

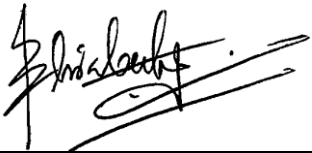
Results presented in this report are based on the census data, substantive plan provisions, and healthcare cost information provided by the District and/or their benefit consultants. All information provided has been reviewed for reasonableness and clarifications or corrections have been requested where appropriate. We have not audited the information at the source, and therefore, do not accept responsibility for the accuracy or completeness of the data on which the information is based. Assumptions made related to missing data have been identified in this report. We are satisfied that the information provided is suitable and sufficient for the purpose of the measurement.

The valuation results were prepared using leased actuarial modeling software that produces results consistent with the purpose of this valuation and meet applicable regulatory requirements. The vendor is responsible for the development, maintenance, and improvement of these models. The models include comprehensive technical documentations that outline how the calculations are performed along with sample life outputs that allow the users to confirm with high degree of accuracy how the programmed benefit is applied to an individual with the proposed decrements and other assumptions. The actuarial team loads the participant data, programs the benefit provisions and proposed assumptions into the model and review sample life outputs and results under the supervision of credentialed actuaries who are proficient users of the software. We are not aware of any material limitations in the model nor any material inconsistencies in the assumptions used within the model.

The discount rate, other economic, and demographic assumptions have been selected by the District with our recommendations and concurrence. We believe each assumption is reasonable based on its own merits and in combination represent reasonable expected experience of the Plan. All calculations have been completed in accordance with generally accepted actuarial principles and practices.

Future actuarial measurements may differ significantly from current measurements due to factors such as actual plan experience that differs from that anticipated by the economic and demographic assumptions as well as changes in future assumptions, substantive plan provisions, and/or applicable law. We have not analyzed the potential range of such differences due to the limited scope of our engagement. To our knowledge, there are no significant events prior to the current year's Measurement Date or as of the date of this report that may materially affect the results presented herein.

The undersigned meets the General Qualification Standards of the American Academy of Actuaries for the purpose of issuing Statement of Actuarial Opinion in the United States. Neither GovInvest nor any of its employees have any relationship with the Plan Sponsor that could impair or appear to impair the objectivity of this report.



Evi Laksana, ASA, MAAA
August 5, 2022

Section 1: Executive Summary

This is our first valuation of these benefits. Liability, expense, deferred inflows and outflows, and recommended contributions prior to June 30, 2021 were determined by Nicolay Consulting. We have relied on these results without audit.

Marinwood Community Services District (the "District") sponsors a single-employer defined benefit OPEB plan that provides medical and prescription drug coverage at retirement. Employees may continue health coverage with the District at retirement for themselves, their spouses, and dependents for life once they meet certain eligibility requirements and as long as required contributions are made.

The results presented in this report are based on the June 30, 2021 valuation with liabilities and assets measured as of June 30, 2021, for use in the District's accrual-based financial statement for the fiscal year ending June 30, 2022. The District has elected to use the GASB 75 "lookback" method where assets and liabilities are measured as of the prior fiscal year-end but applied to the current fiscal year. The June 30, 2021 valuation uses census data of (a) active employees who will be eligible to receive benefits in the future and (b) existing retirees who are currently receiving these benefits as of June 30, 2021, as well as healthcare cost information effective on January 1, 2021 provided by the Plan Sponsor and/or their healthcare consultant.

The actuarial valuation is based on substantive plan provisions outlined in Section 6. The valuation requires assumptions which are listed in Section 7. Results from the June 30, 2021 valuation may be rolled-forward for use in the Plan Sponsor's accrual-based financial statement disclosure for the fiscal year ending June 30, 2023 assuming that there are no material changes to the substantive plan provisions and/or the covered population.

The Plan Sponsor's next full valuation is as of June 30, 2023 with liabilities and assets measured as of June 30, 2023 for reporting in the Plan Sponsor's accrual-based financial statements for the fiscal year ending June 30, 2024.

Changes Since Prior Valuation

The District's Net OPEB Liability has increased from \$4,392,194 as of June 30, 2020 to \$5,476,705 as of June 30, 2021, which is attributable to a combination of the following factors:

1. Better actual asset performance compared to expected.
2. Less favorable actual demographic experience that is offset by lower healthcare cost increase than expected for a net liability decrease.
3. Assumption changes as outlined in Section 7 that produces a net liability increase.

Summary of Results

Presented below is the summary of results for the current fiscal year compared to the prior fiscal year.

Fiscal Years	2021/22	2020/21
Valuation Date (VD)	June 30, 2021	June 30, 2019
Measurement Date (MD)	June 30, 2021	June 30, 2020
Membership Data as of Valuation Date		
Inactive employees or beneficiaries currently receiving benefits	17	17
Inactive employees entitled to but not yet receiving benefits	0	0
Active employees	17	17
Total membership	34	34
Discount Rate at Measurement Date		
Municipal Bond Index Rate	2.16%	2.21%
Long-term Expected Asset Return	6.00%	6.50%
Year in which Fiduciary Net Position is projected to be depleted	2057	N/A
Single Equivalent Discount Rate (SEDR)	4.35%	6.50%
Net OPEB Liability as of Measurement Date		
Total OPEB Liability (TOL)	\$ 5,921,852	\$ 4,674,208
Fiduciary Net Position (FNP)	(445,147)	(282,014)
Net OPEB Liability (NOL = TOL - FNP)	\$ 5,476,705	\$ 4,392,194
Funded Status (FNP / TOL)	7.5%	6.0%

Fiscal Years	2021/22	2020/21
OPEB Expense / (Income) by Fiscal Year	\$ (34,078)	\$ (189,398)
Balance of unamortized Deferred Inflows at MD	\$ (2,502,276)	\$ (2,999,482)
Balance of unamortized Deferred Outflows at MD	\$ 1,462,717	\$ 513,428
Actuarially Determined Contribution by Fiscal Year¹	\$ 448,081	\$ 418,799

¹ Actuarially Determined Contributions (ADCs) for FY 2020/21 and FY 2021/22 are as shown in the Marinwood Community Services District OPEB Plan Actuarial Valuation as of June 30, 2019 prepared by Nicolay Consulting dated 7/17/2020. They are projected from June 30, 2019 valuation assuming that the District funds according to their funding policy, the Fund earns 6.50% per year, the discount rate remains at 6.50%, the Normal Cost component of the ADC increases by 5.00% per year throughout the projection period, and mid-year benefit cash flows in the Trust.

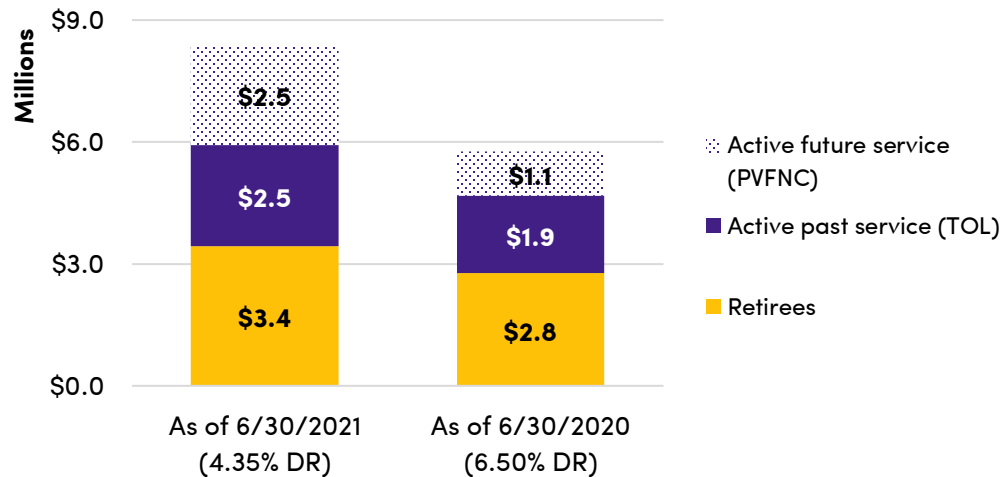
Below is a breakdown of the OPEB liability allocated to past and current service as of the Measurement Date compared to the prior Measurement Date. The liability below includes explicit subsidy (if any) and implicit subsidy. Refer to the Substantive Plan Provisions section for complete information on the District benefit provisions.

Present Value of Future Benefits (PVFB)	As of June 30, 2021	As of June 30, 2020
Active employees	\$ 4,950,004	\$ 2,994,046
Retired employees	3,434,879	2,769,193
Total PVFB	\$ 8,384,883	\$ 5,763,239

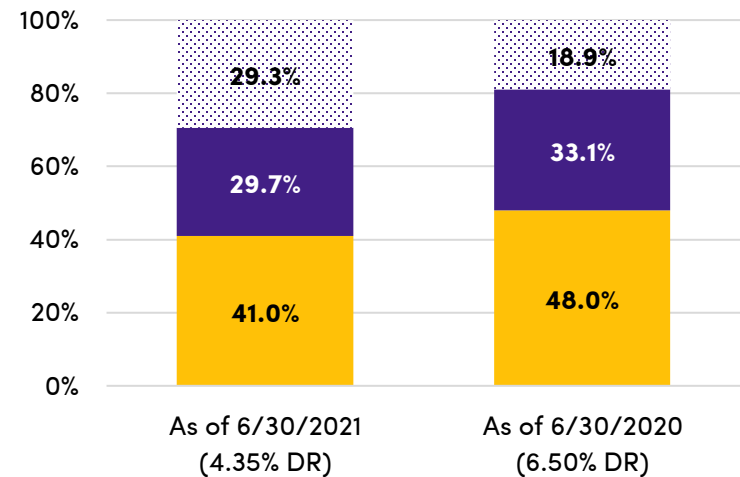
Total OPEB Liability (TOL)	As of June 30, 2021	As of June 30, 2020
Active employees	\$ 2,486,973	\$ 1,905,015
Retired employees	3,434,879	2,769,193
Total TOL	\$ 5,921,852	\$ 4,674,208

	As of June 30, 2021	As of June 30, 2020
Discount Rate	4.35%	6.50%

OPEB Liability Breakdown (\$)



OPEB Liability Breakdown (%)



Section 2: Financial Disclosures

This section provides the necessary accounting disclosures for the District’s financial reports as shown in the following tables:

- Table 1: Plan Demographics
- Table 2: Brief Summary of Assumptions
- Table 3: OPEB Expense
- Table 4: Net OPEB Liability Sensitivity (Discount Rate)
- Table 5: Net OPEB Liability Sensitivity (Healthcare Trend Rates)
- Table 6: Historical Deferred Inflows and Outflows
- Table 7: Unamortized Balance of Deferred Inflows and Outflows
- Table 8: Schedule of Future Amortization of Deferred Inflows and Outflows

Summary of Membership and Assumptions

The table below shows the number of employees covered by the benefit terms as of June 30, 2021.

Table 1 - Plan Demographics

Inactive employees or beneficiaries currently receiving benefits	17
Inactive employees entitled to but not yet receiving benefits	0
Active employees	17
Total membership	34

The Total OPEB Liability (TOL) as of June 30, 2021 was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified. For a complete list of assumptions, refer to Section 7.

Table 2 - Brief Summary of Assumptions

Inflation	2.50%
Payroll growth	2.80% wage inflation based on CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021
Investment rate of return	6.00%
Discount rate	4.35% ²
Healthcare trend rates	Based on 2021 Getzen model that reflects actual premium increases from 2021 to 2022 ³ followed by 5.75% (non-Medicare) / 5.40% (Medicare) in 2022, decreasing gradually to an ultimate rate of 4.04% (non-Medicare) / 4.00% (Medicare)

² The Trust is expected to be depleted by the year ending 2057 based on the assumption that the District will continue to pay for benefit payments from outside of the Trust plus \$100,000 additional pre-funding contribution (based on the District’s contribution in the last three fiscal years).

³ Actual premium increases from 2021 to 2022 used in the valuation are as follows: (a) Actives: 5.85% non-Medicare / -5.76% Medicare and (b) Retirees: 7.72% non-Medicare / -2.91% Medicare.

OPEB Expense

The table below shows a comparison of the OPEB Expense recognized by the District for the current and prior fiscal years.

Table 3 - OPEB Expense

Fiscal Years	2021/22	2020/21
SEDR as of beginning of year	6.50%	6.50%
SEDR as of end of year	4.35%	6.50%
Service Cost	\$ 101,946	\$ 97,092
Interest on TOL and Service Cost	302,846	291,210
Changes of benefit terms	0	0
Projected earnings on OPEB Plan investments	(21,526)	(14,320)
OPEB Plan administrative expenses net of all revenues	118	105
Current period recognition of Deferred Inflows / Outflows of Resources		
Difference between expected and actual experience in the TOL	\$ 21,042	\$ 32,000
Changes of assumptions or other inputs	(430,235)	(595,561)
Net difference between the projected and actual earnings on OPEB Plan investments	(8,269)	76
Other	0	0
Total current period recognition	\$ (417,462)	\$ (563,485)
OPEB Expense	\$ (34,078)	\$ (189,398)

Schedule of Changes in Net OPEB Liability

Fiscal Year Ending June 30	2022	2021	2020	2019	2018
Measurement Period Ending June 30	2021	2020	2019	2018	2017
Total OPEB Liability (TOL)					
Service Cost	\$ 101,946	\$ 97,092	\$ 104,223	\$ 209,502	\$ 309,038
Interest on TOL and Service Cost	302,846	291,210	292,697	235,360	246,845
Changes of benefit terms	0	0	0	0	0
Difference between expected & actual experience	(76,706)	13,169	154,672	3,936	86,138
Changes of assumptions or other inputs	1,157,284	0	(353,132)	(2,212,829)	(2,465,364)
Benefit payments	(237,726) ⁴	(217,213)	(211,322)	(194,225)	(134,602)
Net change in TOL	\$ 1,247,644	\$ 184,258	\$ (12,862)	\$ (1,958,256)	\$ (1,957,945)
TOL – beginning	\$ 4,674,208	\$ 4,489,950	\$ 4,502,812	\$ 6,461,068	\$ 8,419,013
TOL – ending	\$ 5,921,852	\$ 4,674,208	\$ 4,489,950	\$ 4,502,812	\$ 6,461,068
Plan Fiduciary Net Position (FNP)					
Contributions – employer	\$ 337,726	\$ 317,213	\$ 311,322	\$ 254,225	\$ 134,602
Contributions – employees	0	0	0	0	0
Benefit payments	(237,726)	(217,213)	(211,322)	(194,225)	(134,602)
Net investment income	63,251	10,969	10,363	826	0
Trust administrative expenses	(118)	(105)	(23)	(16)	0
Net change in Plan FNP	\$ 163,133	\$ 110,864	\$ 110,340	\$ 60,810	\$ 0
FNP – beginning	\$ 282,014	\$ 171,150	\$ 60,810	\$ 0	\$ 0
FNP – ending	\$ 445,147	\$ 282,014	\$ 171,150	\$ 60,810	\$ 0
Net OPEB Liability – ending	\$ 5,476,705	\$ 4,392,194	\$ 4,318,800	\$ 4,442,002	\$ 6,461,068
FNP as % of TOL	7.5%	6.0%	3.8%	1.4%	0.0%
Covered-employee payroll – measurement period	\$ 1,377,552	\$ 1,296,259	\$ N/A	\$ N/A	\$ N/A
NOL as % of covered payroll	397.6%	338.8%	N/A	N/A	N/A

⁴ Based on explicit benefit payment of \$192,084 and estimated implicit subsidy payment of \$45,642.

Schedule of Employer Contribution

Fiscal Year Ending	2022	2021	2020	2019
Actuarially Determined Contribution (ADC)	\$ 448,081	\$ 418,799	\$ 414,936	\$ 531,502
Contributions in relation to the ADC	\$ 327,906	\$ 317,213	\$ 311,322	\$ 254,225
Contribution deficiency / (excess)	\$ 120,175	\$ 101,586	\$ 103,614	\$ 277,277
Covered-employee payroll – employer fiscal year	\$ 1,322,934	\$ 1,377,552	\$ 1,296,259	\$ N/A
Contributions as a % of covered-employee payroll	24.8%	23.0%	24.0%	N/A

Net OPEB Liability Sensitivity

The following presents the Net OPEB Liability of the District, as well as what the District's Net OPEB Liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount rate as of June 30, 2021.

Table 4 - Net OPEB Liability Sensitivity (Discount Rate)

	1% Decrease (3.35%)	Discount Rate (4.35%)	1% Increase (5.35%)
Net OPEB Liability / (Asset)	\$ 6,392,087	\$ 5,476,705	\$ 4,733,891

The following presents the Net OPEB Liability of the District, as well as what the District's Net OPEB Liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates as of June 30, 2021.

Table 5 - Net OPEB Liability Sensitivity (Healthcare Trend Rates)

	1% Decrease	Healthcare Trend Rates ⁵	1% Increase
Net OPEB Liability / (Asset)	\$ 4,642,517	\$ 5,476,705	\$ 6,532,841

⁵ Comparison of Baseline, 1% Decrease and 1% Increase in healthcare trend rates assumptions are as shown below:

Groups	1% Decrease	Baseline	1% Increase
Active	4.85% non-Medicare / -6.76% Medicare decreasing to 3.04% non-Medicare / 3.00% ultimate rates	5.85% non-Medicare / -5.76% Medicare decreasing to 4.04% non-Medicare / 4.00% ultimate rates	6.85% non-Medicare / -4.76% Medicare decreasing to 5.04% non-Medicare / 5.00% ultimate rates
Retiree	6.72% non-Medicare / -3.91% Medicare decreasing to 3.04% non-Medicare / 3.00% ultimate rates	7.72% non-Medicare / -2.91% Medicare decreasing to 4.04% non-Medicare / 4.00% ultimate rates	8.72% non-Medicare / -1.91% Medicare decreasing to 5.04% non-Medicare / 5.00% ultimate rates

Deferred Inflows and Deferred Outflows of Resources Related to OPEB

The tables below show changes in the Net OPEB Liability that have not been included in the OPEB expense for the following items:

1. Differences between expected and actual experience of the OPEB plan
2. Changes in assumptions
3. Differences between projected and actual earnings on the OPEB plan investments

The initial amortization base for the first two items above are amortized linearly over the average expected remaining service lives of active and inactive employees. The difference between projected and actual earnings on the OPEB plan investments is amortized linearly over five years.

Table 6 - Historical Deferred Inflows and Outflows

Differences between expected and actual experience

Measurement Period Ending	Fiscal Year Ending	Initial Balance	Initial Amortization Period	Annual Recognition	Recognized in OPEB Expense through June 30, 2021	Unamortized Balance as of June 30, 2021
6/30/2017	6/30/2018	\$ 86,138	8.50	\$ 10,139	\$ 50,695	\$ 35,443
6/30/2018	6/30/2019	\$ 3,936	8.50	\$ 463	\$ 1,852	\$ 2,084
6/30/2019	6/30/2020	\$ 154,672	7.84	\$ 19,719	\$ 59,157	\$ 95,515
6/30/2020	6/30/2021	\$ 13,169	7.84	\$ 1,679	\$ 3,358	\$ 9,811
6/30/2021	6/30/2022	\$ (76,706)	7.00	\$ (10,958)	\$ (10,958)	\$ (65,748)

Changes in assumptions or other inputs

Measurement Period Ending	Fiscal Year Ending	Initial Balance	Initial Amortization Period	Annual Recognition	Recognized in OPEB Expense through June 30, 2021	Unamortized Balance as of June 30, 2021
6/30/2017	6/30/2018	\$ (2,465,364)	8.50	\$ (290,179)	\$ (1,450,895)	\$ (1,014,469)
6/30/2018	6/30/2019	\$ (2,212,829)	8.50	\$ (260,363)	\$ (1,041,452)	\$ (1,171,377)
6/30/2019	6/30/2020	\$ (353,132)	7.84	\$ (45,019)	\$ (135,057)	\$ (218,075)
6/30/2020	6/30/2021	\$ 0	7.84	\$ 0	\$ 0	\$ 0
6/30/2021	6/30/2022	\$ 1,157,284	7.00	\$ 165,326	\$ 165,326	\$ 991,958

Differences between projected and actual earnings on OPEB plan investments

Measurement Period Ending	Fiscal Year Ending	Initial Balance	Initial Amortization Period	Annual Recognition	Recognized in OPEB Expense through June 30, 2021	Unamortized Balance as of June 30, 2021
6/30/2017	6/30/2018	\$ 0	N/A	\$ 0	\$ 0	\$ 0
6/30/2018	6/30/2019	\$ 239	5.00	\$ 48	\$ 192	\$ 47
6/30/2019	6/30/2020	\$ (3,212)	5.00	\$ (642)	\$ (1,926)	\$ (1,286)
6/30/2020	6/30/2021	\$ 3,352	5.00	\$ 670	\$ 1,340	\$ 2,012
6/30/2021	6/30/2022	\$ (41,725)	5.00	\$ (8,345)	\$ (8,345)	\$ (33,380)

The table below shows the unamortized balance of Deferred Inflows and Outflows of Resources as of June 30, 2021 for financial statement disclosure for the fiscal year ending June 30, 2022.

Table 7 - Unamortized Balance of Deferred Inflows and Outflows

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 142,853	\$ (65,748)
Changes in assumptions or other inputs	991,958	(2,403,921)
Net difference between projected and actual earnings on OPEB plan investments	0	(32,607)
Employer contribution subsequent to the Measurement Date	327,906 ⁶	0
Total	\$ 1,462,717	\$ (2,502,276)

Schedule of future annual amortizations of Deferred Inflows and Outflows that will be recognized in future OPEB expense is as shown below.

Table 8 - Schedule of Future Deferred Inflows and Outflows Amortization

Measurement Period Ending	Amounts
2022	\$ (417,463)
2023	\$ (417,512)
2024	\$ (416,866)
2025	\$ (276,404)
2026	\$ 4,994
Thereafter	\$ 155,786

⁶ Based on expected benefit payment of \$222,706 plus estimated District contribution of \$100,000 based on the District's contribution in the last three fiscal years.

Section 3: Asset Information

Funding Policy

The District has an OPEB Trust that is invested in the California Employees' Retiree Benefit Trust (CERBT) Strategy 2, which is a qualified irrevocable trust. The District intends to make annual OPEB Trust contributions of at least \$60,000⁷ and pay for the retiree health benefit expenses from the District's general assets.

Asset Breakdown⁸

As of	June 30, 2021	June 30, 2020
Assets		
Cash and cash equivalents	\$ 0	\$ 0
Investments		
Fixed income	\$ 178,059	\$ 112,806
Equities	191,413	121,266
Treasury Inflation-Protected Securities (TIPS)	22,257	14,101
Real Estate Investment Trusts (REITs)	35,612	22,561
Commodities	17,806	11,280
Total investments	<u>\$ 445,147</u>	<u>\$ 282,014</u>
Total assets	\$ 445,147	\$ 282,014
Liabilities		
Accounts payable	<u>\$ 0</u>	<u>\$ 0</u>
Total liabilities	\$ 0	\$ 0
Net asset available for benefits	\$ 445,147	\$ 282,014

⁷ The District has contributed \$100,000 to the Trust in the most recent four fiscal years (FY 2018/19 to FY 2021/22).

⁸ Asset breakdown by investment class is based on the target allocation for CERBT Strategy 2 for both measurement periods.

Reconciliation of Assets

Measurement Periods	2020/21	2019/20
Additions		
Contributions received		
Employer	\$ 337,726	\$ 317,213
Employees	0	0
Total contributions	\$ 337,726	\$ 317,213
Investment income		
Interest and dividend	\$ 0	\$ 0
Net increase/(decrease) in fair value of investments	63,251	10,969
Accrued income	0	0
Investment expense	0	0
Net investment income	\$ 63,251	\$ 10,969
Total additions	\$ 400,977	\$ 328,182
Deductions		
Benefit payments net of retiree contributions	\$ (237,726)	\$ (217,213)
Administrative expenses	(118)	(105)
Total deductions	\$ (237,844)	\$ (217,318)
Change in net position	\$ 163,133	\$ 110,864
Net position – beginning of year	\$ 282,014	\$ 171,150
Net position – end of year	\$ 445,147	\$ 282,014

Section 4: Actuarially Determined Contribution

Actuarially Determined Contribution (ADC) is the recommended contribution that, if paid on an ongoing basis, is expected to provide sufficient resources to fund (a) future normal cost (cost for new service) and (b) the amortized unfunded liabilities (cost for past service). There is no requirement to fund OPEB benefit under GASB 75 and it is up to the Plan Sponsor's discretion to determine the OPEB contributions based on their fiscal situation.

Contribution Years	FY 2022/23	FY 2023/24
Funding discount rate	6.00%	6.00%
Amortization method	Level % of Pay	Level % of Pay
Payroll growth	2.80%	2.80%
Amortization period	16 years	15 years
Actuarial Accrued Liability (AAL) – beginning of year ⁹	\$ 5,366,259	\$ 5,598,009
Actuarial Value of Assets (AVA) – beginning of year ¹⁰	(574,583)	(711,719)
Unfunded AAL (UAAL) – beginning of year	\$ 4,791,676	\$ 4,886,290
Normal Cost – end of year	\$ 143,963	\$ 144,581
Amortization of UAAL – beginning of year	373,152	400,198
Interest adjustment to amortization of UAAL for end of year payment	22,389	24,012
Trust administrative expenses	287	356
Actuarially Determined Contribution (ADC)	\$ 539,791	\$ 569,147

⁹ Fiscal years 2022/23 and 2023/24 AALs as of beginning of year is based on June 30, 2021 OPEB valuation projected to June 30, 2022 and 2023 on a "no gain/loss" basis.

¹⁰ Fiscal years 2022/23 and 2023/24 AVA as of beginning of year is projected from June 30, 2021 market value of asset assuming 6.00% investment income and District contribution equals to the expected benefit payment plus \$100,000 (\$327,906 for FY 2021/22 and \$335,757 for FY 2022/23 total District contribution) and 0.05% Trust administrative expenses applied to beginning of year Trust balance.

Section 5: Projected Benefit Payments

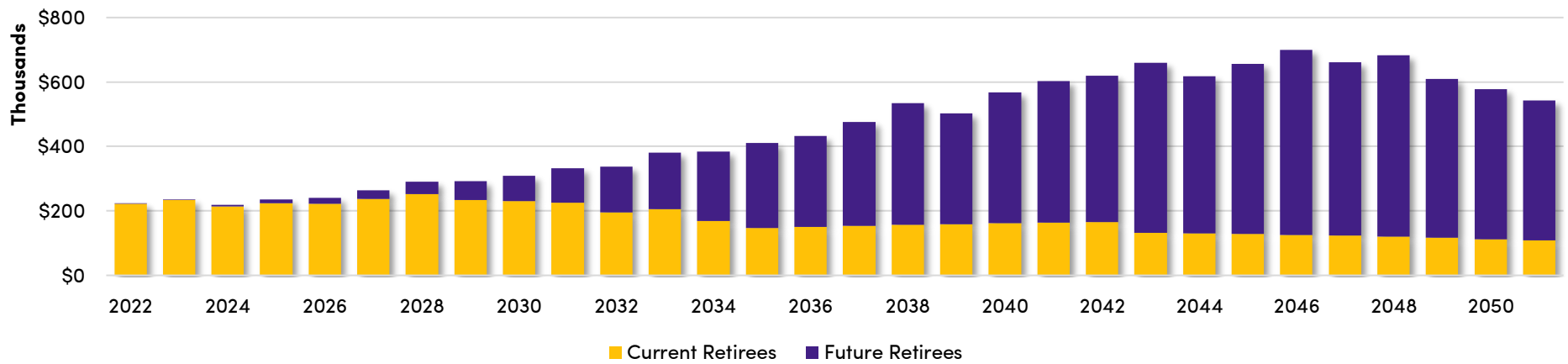
The below table shows the projected benefit payments for the next 30 years for a closed group of participants (both active employees and existing retirees) who are included in the census data as of the June 30, 2021. This exhibit is provided for informational purposes only and is not a required disclosure under GASB 75. Projected benefit payments below include both explicit (if any) and implicit subsidies (as applicable).

FYE	Future Retirees	Current Retirees	Total ¹¹
2022	\$ 683	\$ 227,223	\$ 227,906
2023	\$ 1,627	\$ 234,227	\$ 235,854
2024	\$ 6,254	\$ 213,220	\$ 219,474
2025	\$ 11,745	\$ 223,340	\$ 235,085
2026	\$ 18,853	\$ 221,438	\$ 240,291
2027	\$ 27,293	\$ 236,879	\$ 264,172
2028	\$ 37,640	\$ 253,026	\$ 290,666
2029	\$ 57,302	\$ 234,514	\$ 291,816
2030	\$ 78,956	\$ 230,354	\$ 309,310
2031	\$ 106,085	\$ 226,209	\$ 332,294

FYE	Future Retirees	Current Retirees	Total
2032	\$ 140,713	\$ 195,985	\$ 336,698
2033	\$ 175,642	\$ 204,815	\$ 380,457
2034	\$ 215,693	\$ 167,941	\$ 383,634
2035	\$ 263,750	\$ 147,652	\$ 411,402
2036	\$ 281,317	\$ 150,787	\$ 432,104
2037	\$ 321,441	\$ 153,736	\$ 475,177
2038	\$ 377,992	\$ 156,478	\$ 534,470
2039	\$ 344,110	\$ 159,110	\$ 503,220
2040	\$ 406,730	\$ 161,608	\$ 568,338
2041	\$ 440,081	\$ 163,266	\$ 603,347

FYE	Future Retirees	Current Retirees	Total
2042	\$ 454,515	\$ 164,697	\$ 619,212
2043	\$ 526,244	\$ 132,533	\$ 658,777
2044	\$ 486,251	\$ 130,845	\$ 617,096
2045	\$ 526,988	\$ 128,730	\$ 655,718
2046	\$ 573,163	\$ 126,174	\$ 699,337
2047	\$ 538,220	\$ 123,219	\$ 661,439
2048	\$ 563,636	\$ 119,910	\$ 683,546
2049	\$ 493,121	\$ 116,264	\$ 609,385
2050	\$ 465,187	\$ 112,283	\$ 577,470
2051	\$ 435,499	\$ 107,989	\$ 543,488

Projected Benefit Payments

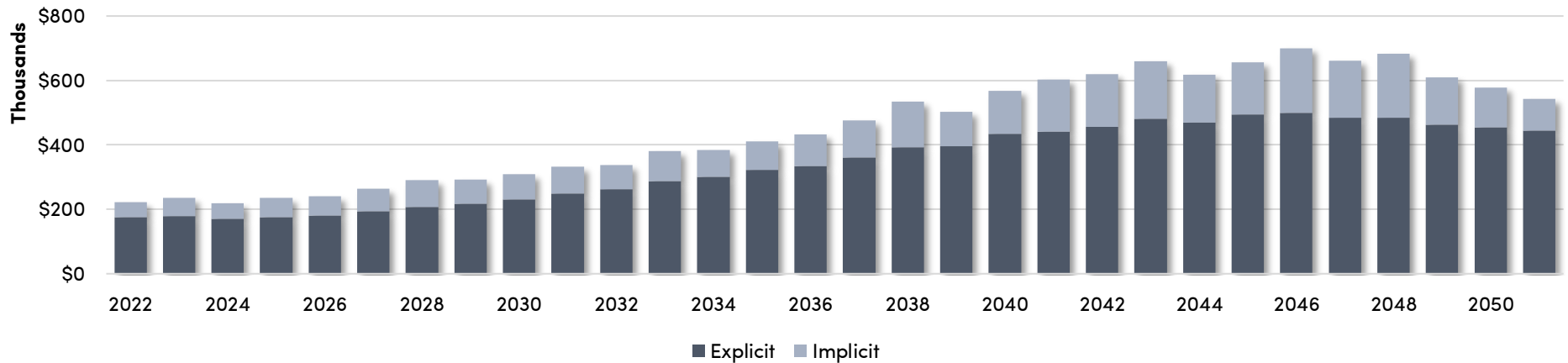


¹¹ Total benefit payment for FYE 6/30/2022 is based on explicit benefit payment of \$180,854 and estimated implicit subsidy payment of \$47,052. The benefit payment split between future and existing retirees has been estimated by our valuation software.

The following table splits the projected benefit payments for the next 30 years between the explicit and implicit subsidies for a closed group of participants (both active employees and existing retirees) who are included in the census data as of June 30, 2021.

FYE	Explicit ¹²	Implicit	Total	FYE	Explicit	Implicit	Total	FYE	Explicit	Implicit	Total
2022	\$ 180,854	\$ 47,052	\$ 227,906	2032	\$ 262,004	\$ 74,694	\$ 336,698	2042	\$ 456,541	\$ 162,671	\$ 619,212
2023	\$ 178,301	\$ 57,553	\$ 235,854	2033	\$ 286,499	\$ 93,958	\$ 380,457	2043	\$ 480,548	\$ 178,229	\$ 658,777
2024	\$ 170,316	\$ 49,158	\$ 219,474	2034	\$ 299,897	\$ 83,737	\$ 383,634	2044	\$ 469,487	\$ 147,609	\$ 617,096
2025	\$ 175,654	\$ 59,431	\$ 235,085	2035	\$ 323,120	\$ 88,282	\$ 411,402	2045	\$ 494,079	\$ 161,639	\$ 655,718
2026	\$ 181,197	\$ 59,094	\$ 240,291	2036	\$ 334,030	\$ 98,074	\$ 432,104	2046	\$ 499,806	\$ 199,531	\$ 699,337
2027	\$ 193,353	\$ 70,819	\$ 264,172	2037	\$ 360,136	\$ 115,041	\$ 475,177	2047	\$ 483,983	\$ 177,456	\$ 661,439
2028	\$ 206,621	\$ 84,045	\$ 290,666	2038	\$ 392,838	\$ 141,632	\$ 534,470	2048	\$ 484,676	\$ 198,870	\$ 683,546
2029	\$ 216,868	\$ 74,948	\$ 291,816	2039	\$ 396,086	\$ 107,134	\$ 503,220	2049	\$ 462,212	\$ 147,173	\$ 609,385
2030	\$ 230,779	\$ 78,531	\$ 309,310	2040	\$ 433,464	\$ 134,874	\$ 568,338	2050	\$ 453,385	\$ 124,085	\$ 577,470
2031	\$ 248,182	\$ 84,112	\$ 332,294	2041	\$ 441,659	\$ 161,688	\$ 603,347	2051	\$ 444,577	\$ 98,911	\$ 543,488

Projected Benefit Payments (Explicit/Implicit)



¹² Explicit benefit payment for FYE 6/30/2022 is based on the actual retiree healthcare expenses paid by the District.

Section 6: Substantive Plan Provisions

Changes Since Prior Valuation

There are no plan provision changes since the last full valuation.

Eligibility

Employees are eligible for lifetime retiree health benefits once they retire within 120 days from date of separation and the retiree must be receiving benefits from California Public Employees Retirement System (CalPERS). The earliest service retirement eligibility requirements under CalPERS are as follows:

Membership Date	Requirements
Before 1/1/2013	Age 50 with 5 years of CalPERS service ¹³
On/after 1/1/2013	Age 52 with 5 years of CalPERS service ¹³

CalPERS eligibility requirements for disability benefits are as follows:

- Ordinary Disability: five years of service
- Line of Duty Disability: no age or service requirement

Spouse Benefits

Employees are allowed to elect spousal and dependent children coverage at retirement. Dependent children must be enrolled at the date of retirement to be eligible for plan benefits. Retiree medical coverage continues to surviving spouses and enrolled dependent children upon death of retirees as long as the required contributions are made and the retiree chooses the option for their surviving spouse to continue receiving a retirement benefit.

A surviving spouse of an active employee who has met the minimum age and service eligibility requirements may participate in the plan if they have not remarried.

Ancillary Benefits

There is no District-subsidized dental, vision, life insurance, or Medicare Part B reimbursement at retirement.

Employer Subsidy

The District contributes up to 90% of the CalPERS Region 1 “pre-age 65” Kaiser premium rates for the applicable family status, and 80% for fire employees. Retirees that waive coverage will not be eligible to re-enroll into the plan at any time in the future.

¹³ Note that service includes service across all CalPERS employers and with other retirement systems with which CalPERS has reciprocity agreements.

Retiree Contributions

Retirees are required to contribute the portion of premium rates not covered by the Employer Subsidy.

Premium Rates

The monthly premium rates used in the valuation effective on January 1, 2021 are as shown below.

Regions	Pre-Medicare Plans	Single	2-Party	Family
Region 1	Kaiser Permanente	\$ 813.64	\$ 1,627.28	\$ 2,115.46
	PERS Choice	\$ 935.84	\$ 1,871.68	\$ 2,433.18
Out of State	PERS Choice	\$ 760.17	\$ 1,520.34	\$ 1,976.44

Medicare Plans	Single	2-Party	Family
Kaiser Permanente Senior Advantage	\$ 324.48	\$ 648.96	\$ 973.44
PERS Choice Medicare Supplement	\$ 349.97	\$ 699.94	\$ 1,049.91
PERS Care Medicare Supplement	\$ 381.25	\$ 762.50	\$ 1,143.75

Section 7: Actuarial Methods and Assumptions

Changes Since Prior Valuation

The following assumptions have been updated since the prior valuation:

1. Single Equivalent Discount Rate (SEDR) has been reduced from 6.50% as of June 30, 2020 to 4.35% as of June 30, 2021, which caused a significant increase in the liability. This is based on the updated cross-over test where the Trust is expected to be depleted by the year ending 2057. The cross-over test assumes that the long-term expected rate of return of the Trust is 6.00% (6.50% in the prior valuation) and the District will pay for retiree health benefit expenses from the District's general assets and make an additional \$100,000 pre-funding contributions in perpetuity.
2. Payroll growth, mortality, termination, and retirement rates assumptions have been updated from CalPERS Experience Study and Review of Actuarial Assumptions published in December 2017 to the most recent study published in November 2021. The net impact of these changes is a decrease in the liability.
3. Disability decrement was not explicitly assumed for Miscellaneous employees in the prior valuation. In this year's valuation, Miscellaneous employees are assumed to become disabled according to the disability assumption shown in the CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021. Safety employees' disability assumption has also been updated from the December 2017 study to November 2021 study. Both changes caused a slight increase in the liability.
4. Health care trend rates have been updated from 6.55% (non-Medicare) / 4.35% (Medicare) that decrease gradually to an ultimate rate of 4.25% to Getzen 2021 table that reflects actual premium increases from 2021 to 2022¹⁴ followed by 5.75% (non-Medicare) / 5.40% (Medicare) in 2022 that decrease gradually to an ultimate rate of 4.04% (non-Medicare) / 4.00% (Medicare) in 2075. The net impact of these changes is an increase in the liability.
5. Active employees who elect spousal coverage were assumed to elect spousal coverage at retirement. This was equivalent to 64.7% spousal election assumption. In this year's valuation, we have assumed that 65% of male and 50% of female employees will elect spousal coverage at retirement, which is equivalent to 62.4% spousal election assumption. This change caused a decrease in the liability.
6. Liability was valued for the youngest dependent who was assumed to be 40 years younger than the retiree in the prior valuation. In this year's valuation, actual age of the youngest dependent for existing retirees is used in the valuation. For future retirees, the youngest dependent is now assumed to be 36 years younger than the retiree. This change caused a decrease in the liability.

¹⁴ Actual premium increases from 2021 to 2022 used in the valuation are as follows: (a) Actives: 5.85% non-Medicare / -5.76% Medicare and (b) Retirees: 7.72% non-Medicare / -2.91% Medicare.

Valuation Date	June 30, 2021
Measurement Date	June 30, 2021
Reporting Period	Fiscal year ending June 30, 2022
Discount Rate	<p>For accounting disclosure: 4.35% as of June 30, 2021 and 6.50% as of June 30, 2020</p> <p>For funding purposes (in calculating the Actuarially Determined Contribution): 6.00% as of June 30, 2021 and 6.50% as of June 30, 2020</p> <p>Refer to the Discussion of Discount Rate section for additional information on the discount rate setting.</p>
Actuarial Cost Method	<p>Entry Age Normal Level Percentage of Pay; a method that allocates the actuarial present value of the projected benefits of each individual on a level basis over the earnings of the individual between entry age and assumed exit age(s).</p> <ul style="list-style-type: none"> • The portion allocated to a valuation year is called the Normal Cost. • The portion allocated to past periods is called the Actuarial Accrued Liability (AAL) or Total OPEB Liability (TOL).
Payroll Growth	2.80% wage inflation based on CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021 for Public Agency Miscellaneous and Fire members.
Mortality	Based on CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021 for Public Agency Miscellaneous and Fire members.
Termination	Based on CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021 for Public Agency Miscellaneous and Fire members. Refer to the Appendix for sample rates.
Disability	Based on CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021 for Public Agency Miscellaneous and Fire members. Refer to the Appendix for sample rates.
Retirement	Based on CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021 for Public Agency Miscellaneous and Fire members. Refer to the Appendix for sample rates.

Participation Rate

100% of active employees are assumed to elect health coverage with the District at retirement.

Existing retirees who are currently enrolled in the District’s health plans are assumed to continue coverage until death. Upon retiree’s death, surviving spouses are assumed to continue coverage in the District’s health plans (all of them are assumed to receive contingent pension benefit).

Health Plan Election

Employees are assumed to elect the same health plan option they are currently enrolled in at retirement prior to Medicare eligibility. Upon Medicare eligibility, the pre-Medicare to Medicare health plan mapping assumed is as shown below.

Pre-Medicare Plans	Medicare Plans
Kaiser Permanente	Kaiser Permanente Senior Advantage
PERS Choice	PERS Choice Medicare Supplement ¹⁵
PERS Care	PERS Care Medicare Supplement ¹⁵

Existing retirees are assumed to remain in the same health plan option they are currently enrolled in for life, except for those who are under the age of 65 as of the valuation date. The assumed Medicare plan option election for these retirees is according to the above table.

Spousal Election

For future retirees, 65% of male and 50% of female employees are assumed to elect spousal coverage at retirement. Husbands are assumed to be three years older than wives. For existing retirees, spousal coverage and age is based on actual data.

Dependent Election

Future retirees who currently elect dependent coverage is assumed to elect dependent coverage at retirement. Actual age for the youngest dependent is used for existing retirees. For future retirees, the youngest dependent is assumed to be 36 years younger than the retiree. Dependent coverage ends at age 26.

Medicare Eligibility

All future and existing retirees (including disabled retirees) are assumed to be eligible for Medicare at age 65.

¹⁵ PERS Choice Medicare Supplement and PERS Care Medicare Supplement plans will be mapped to PERS Platinum Medicare Supplement plan in 2022.

Per Capita Costs

The valuation projects health care costs for employees who remain enrolled in the District's benefit plans after retirement. In accordance with Actuarial Standards of Practice No. 6 (ASOP 6), the actuarial development of health care costs should preferably use the health plan experience that is considered the best predictor of future claims experience assuming it is sufficiently credible. In the absence of credible health plan experience data, the actuary may use other methods such as premiums and normative databases to develop the per capita costs.

As medical/prescription drug costs generally vary by age, age-specific costs should be used in the development of initial per capita costs and projection of future benefit costs, except in very limited circumstances defined in ASOP 6 Section 3.7.7(c). The development of the age-specific costs should be based on the demographics of the group being valued and the group's total expected claims or premiums.

Retiree healthcare costs are, on average, significantly higher than active employees and if the District charges blended premium rates (determined using active employees and retiree claims experience) to the retirees, the District is providing an implicit subsidy for these retirees. Under GASB 75, the implicit subsidy must be included in the post-employment medical benefit obligation. Separate costs should be developed for Medicare-eligible participants due to Medicare being the primary payer for these retirees, which leads to a reduction to the Plan Sponsor's health plan costs.

In developing the per capita costs, we have used CalPERS health plan premium rates effective on January 1, 2021 and aging factors and subscriber enrollments for HMO and PPO plans combined as published in the CalPERS Health Plan (PEMHCA) Implicit Subsidy Data for Calendar 2019.

Per Capita Costs (Cont'd) The following table shows the sample per capita costs at select ages for calendar year 2021 used in the valuation. These costs are assumed to increase with health care trend rates. Separate costs were developed for active employees and retirees based on weighted average premium rates for active employees and retirees separately.

Age	Active Employees		Retired Employees	
	Male	Female	Male	Female
40	\$5,545	\$8,495	\$5,574	\$8,539
45	\$7,200	\$9,760	\$7,238	\$9,810
50	\$9,534	\$11,246	\$9,583	\$11,304
55	\$12,417	\$12,766	\$12,481	\$12,833
60	\$16,031	\$14,943	\$16,114	\$15,021
64	\$19,013	\$16,702	\$19,112	\$16,789

We have assumed that CalPERS health premiums for Medicare eligible retirees are based on Medicare eligible retiree claims experience and represent the expected true cost of retiree coverage. As such, we have assumed there is no implicit subsidy for Medicare retirees. The annual costs used on/after age 65 are \$3,912 for active employees and \$4,028 for retirees. These costs are assumed to increase with health care trend rates.

Trend Rates

Historically, health care costs have increased more rapidly than the rate of inflation. In estimating the value of retiree health benefits, assumptions must be made on future increases in healthcare costs. The health care trend rates assumption used in this valuation is based on the Getzen Model of Long-Run Medical Cost Trends, which was first designed by T.E. Getzen for the Society of Actuaries (SOA) in 2007. The model is designed to make long-run forecasts and typically used to select medical trend assumptions for retiree medical valuations to present liabilities disclosed under the appropriate accounting standards, or to determine contributions under a funding policy. The long-run baseline projection and input variables were developed under the guidance of the SOA Project Oversight Group. The model is updated annually along with updated documentation and recommended input variables by the author of the model.

Trend Rates (Cont'd)

The baseline assumptions used in the Getzen model is as shown in the table below.

Inflation Rate	2.5%
Real GDP Per Capita Growth	1.5%
Excess Medical Cost Growth	1.1%
Health Share of GDP Resistance Point	25.0%
Year for Limiting Cost Growth to GDP Growth	2075

The output of the Getzen Model of Long-Run Medical Cost Trend Model used in the valuation is as shown below.

Year	Non-Medicare	Medicare	Year	Non-Medicare	Medicare
2021	Actual*	Actual*	2035	5.18%	4.10%
2022	5.75%	5.40%	2040	5.18%	4.00%
2023	5.50%	5.30%	2050	5.18%	4.00%
2024	5.40%	5.20%	2060	4.83%	4.00%
2025	5.36%	5.10%	2070	4.38%	4.00%
2030	5.18%	4.60%	2075+	4.04%	4.00%

* Actual premium increases from 2021 to 2022 used in the valuation are 5.85% (non-Medicare) / -5.76% (Medicare) for active employees and 7.72% (non-Medicare) / -2.91% (Medicare) for retirees.

Employer subsidy that is based on the Kaiser premium rate is assumed to increase according to the same health care trend rates shown above. The actual employer subsidy increase from 2021 to 2022 used in the valuation is 5.34%.

Discussion of Discount Rates

Under GASB 75, the discount rate used in valuing OPEB liabilities as of the Measurement Date is a single rate that reflects:

1. The long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments, to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are expected to be invested using a strategy that will achieve that return.
2. A yield or index rate for 20-year tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale), when the conditions in (1) above are not met.

For the current year's valuation:

1. The expected long-term real rate of return of the OPEB Trust is 6.00% as of June 30, 2021. This rate of return was determined using a building-block method in which best-estimate ranges of expected future real rates of return net of investment expense are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future rates of return by the target allocation percentage. The Plan Sponsor's expected future real rates of return by asset class is as shown below.¹⁶
2. The municipal bond index as of the prior and current Measurement Dates are as shown below:

Index	June 30, 2021	June 30, 2020
Bond Buyer 20-Bond General Obligation Index	2.16%	2.21%

3. The final equivalent single discount rate used for accounting disclosure is 4.35% with the expectation that the District will continue to pay for benefit payments from outside of the Trust and contribute \$100,000 annually to the Trust in perpetuity. Under this Funding Policy, the OPEB Trust is not expected to be depleted in the future.

The discount rate used to calculate the Actuarially Determined Contribution for recommended funding contribution is 6.00%.

Asset Classes	Target Allocation	Expected L/T Real Rates of Return ¹⁷
Equity	40%	4.42%
Fixed Income	43%	1.00%
TIPS	5%	0.15%
Real Estate	8%	3.98%
Commodities	4%	1.73%
Total	100%	3.36%

¹⁶ The assumed inflation rate of 2.50% is added to the weighted expected future real rate of return to obtain the assumed discount rate. Expected long-term real rates of return in the table above are based on the 2021 Survey of Capital Market Assumptions produced by Horizon Actuarial Services.

¹⁷ Portfolio total expected return is 5.86%, which is the weighted average of arithmetic asset class returns, with adjustment to reflect geometric averages plus 0.14% adjustment for rounding purposes. It is not equal to the weighted average of the asset class geometric returns shown above.

Section 8: Participant Summary

Active Employees

All active employees are enrolled in Region 1 health plans.

Actives with Health Coverage	Single	2-Party	Family	Total	Avg. Age	Avg. Svc	Total Salary
Kaiser Permanente	3	1	12	16	41.9	12.8	\$ N/A
PERS Choice			1	1	35.8	3.6	\$ N/A
Total actives with health coverage	3	1	13	17	41.6	12.3	\$ N/A

There are no active employees who currently waived coverage.

Age	Years of Service with the District										Total
	<1	1 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40+	
<25											0
25 – 29											0
30 – 34	1		1								2
35 – 39		2	2	1							5
40 – 44					4		1				5
45 – 49		1	1		2						4
50 – 54							1				1
55 – 59											0
60 – 64											0
65+											0
Total	1	3	4	1	6	0	2	0	0	0	17

Retired Employees

Retirees with Health Coverage	Single	2-Party	Family	Total	Avg. Age
Kaiser Permanente	4	5	3	12	69.0
PERS Care	2			2	73.4
PERS Choice	1	1	1	3	61.1
Total retirees with health coverage	7	6	4	17	68.2

Enrollments above include retirees enrolled in the corresponding Medicare plans or those with split enrollment in pre-Medicare and Medicare plans.

Age	Retirees
<50	
50 – 54	2
55 – 59	2
60 – 64	3
65 – 69	5
70 – 74	2
75 – 79	
80 – 84	1
85 – 89	1
90+	1
Total	17

Comparison of Participant Summary

Below is a comparison of participant summary included in the current valuation and the prior full valuation.

	As of June 30, 2021	As of June 30, 2019
Number of Participants		
Active employees	17	17
Retired employees ¹⁸	17	17
Total	34	34
Averages		
Active average age	41.6	40.8
Active average service	12.3	10.5
Inactive average age	68.2	68.4

¹⁸ The enrollments above include retirees only and exclude spouses and/or dependents who are covered under the District's health plans.

Appendix – Sample Decrement Rates

Mortality Rates

Mortality rates used in the valuation are based on the CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021 for Public Agency Miscellaneous, Police and Fire members. Sample pre-retirement, post-retirement non-disabled, and post-retirement disabled base mortality rates for Miscellaneous, Police, and Fire members are as shown below. These rates are projected fully generationally using 80% of MP-2020 mortality improvement scale.

Attained Ages	Pre-Retirement ¹⁹				Post-Retirement Non-Disabled				Post-Retirement Disabled ²⁰			
	Miscellaneous		Fire/Police/CPO		Miscellaneous		Fire/Police/CPO		Miscellaneous		Fire/Police/CPO	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	0.00039	0.00014	0.00042	0.00016	0.00039	0.00014	0.00146	0.00053	0.00411	0.00233	0.00039	0.00014
25	0.00033	0.00013	0.00038	0.00020	0.00033	0.00013	0.00154	0.00069	0.00336	0.00187	0.00033	0.00013
30	0.00044	0.00019	0.00047	0.00028	0.00044	0.00019	0.00182	0.00099	0.00452	0.00301	0.00044	0.00019
35	0.00058	0.00029	0.00053	0.00038	0.00058	0.00029	0.00208	0.00136	0.00603	0.00504	0.00058	0.00029
40	0.00075	0.00039	0.00061	0.00047	0.00075	0.00039	0.00244	0.00177	0.00779	0.00730	0.00075	0.00039
45	0.00093	0.00054	0.00073	0.00059	0.00093	0.00054	0.00314	0.00227	0.01120	0.01019	0.00093	0.00054
50	0.00134	0.00081	0.00102	0.00081	0.00271	0.00199	0.00437	0.00311	0.01727	0.01439	0.00271	0.00199
55	0.00198	0.00123	0.00153	0.00118	0.00391	0.00325	0.00623	0.00550	0.02217	0.01734	0.00391	0.00325
60	0.00287	0.00179	0.00246	0.00168	0.00575	0.00455	0.00935	0.00868	0.02681	0.01962	0.00575	0.00455
65	0.00403	0.00250	0.00384	0.00216	0.00856	0.00612	0.01393	0.01190	0.03332	0.02276	0.00856	0.00612
70	0.00594	0.00404	0.00673	0.00398	0.01340	0.00996	0.02189	0.01858	0.04056	0.02910	0.01340	0.00996
75	0.00933	0.00688	0.01221	0.00777	0.02400	0.01783	0.03498	0.03134	0.05465	0.04160	0.02400	0.01783
80	0.01515	0.01149	0.02252	0.01567	0.04380	0.03403	0.05932	0.05183	0.08044	0.06112	0.04380	0.03403
85	0.00000	0.00000	0.00000	0.00000	0.08274	0.06166	0.10244	0.08045	0.11695	0.09385	0.08274	0.06166
90	0.00000	0.00000	0.00000	0.00000	0.14539	0.11086	0.16739	0.12434	0.16770	0.14396	0.14539	0.11086

¹⁹ Pre-Retirement rates for all groups are based on the sum of non-industrial death and industrial death rates.

²⁰ Post-Retirement Disabled rates are based on non-industrially disabled rates for Miscellaneous participants and industrially disabled rates for Fire/Police/CPO participants.

Disability Rates

The disability rates used in the valuation are based on the CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021 for Public Agency Miscellaneous and Fire members. Sample rates are as shown below.

Attained Ages	Miscellaneous		Fire
	Male	Female	Unisex
20	0.000070	0.000040	0.000130
25	0.000070	0.000090	0.000270
30	0.000170	0.000330	0.000640
35	0.000350	0.000650	0.001270
40	0.000910	0.001190	0.002330
45	0.001490	0.001850	0.004140
50	0.001540	0.001930	0.021190
55	0.001390	0.001290	0.031220
60	0.001240	0.000940	0.044310

Termination Rates

This assumption is used to project terminations (voluntary and involuntary) prior to meeting the minimum eligibility requirements to retire. The rates are based on the CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021 for Public Agency Miscellaneous and Fire members. Sample rates for Miscellaneous members are as shown below.

Service	Miscellaneous (Male)							Miscellaneous (Female)						
	Entry Ages													
	20	25	30	35	40	45	50	20	25	30	35	40	45	50
0	0.1851	0.1769	0.1631	0.1493	0.1490	0.1487	0.1509	0.1944	0.1899	0.1824	0.1749	0.1731	0.1713	0.1741
2	0.1218	0.1125	0.0970	0.0815	0.0771	0.0726	0.0750	0.1381	0.1307	0.1183	0.1058	0.0998	0.0938	0.0941
4	0.0672	0.0616	0.0524	0.0431	0.0392	0.0352	0.0366	0.0801	0.0752	0.0670	0.0587	0.0523	0.0459	0.0457
6	0.0669	0.0641	0.0575	0.0509	0.0453	0.0397	0.0383	0.0869	0.0847	0.0757	0.0666	0.0580	0.0494	0.0464
8	0.0470	0.0453	0.0410	0.0366	0.0311	0.0255	0.0218	0.0613	0.0601	0.0545	0.0488	0.0394	0.0299	0.0294
10	0.0377	0.0366	0.0337	0.0309	0.0245	0.0181	0.0032	0.0502	0.0491	0.0446	0.0401	0.0308	0.0215	0.0046
12	0.0307	0.0300	0.0282	0.0263	0.0200	0.0137	0.0027	0.0423	0.0413	0.0368	0.0322	0.0244	0.0165	0.0037
14	0.0251	0.0246	0.0226	0.0207	0.0156	0.0014	0.0017	0.0352	0.0343	0.0292	0.0241	0.0181	0.0019	0.0023
16	0.0173	0.0173	0.0152	0.0132	0.0101	0.0000	0.0000	0.0235	0.0235	0.0193	0.0151	0.0112	0.0000	0.0000
18	0.0159	0.0159	0.0129	0.0100	0.0067	0.0000	0.0000	0.0202	0.0202	0.0158	0.0113	0.0075	0.0000	0.0000
20	0.0141	0.0141	0.0110	0.0079	0.0000	0.0000	0.0000	0.0175	0.0175	0.0131	0.0087	0.0000	0.0000	0.0000

Termination Rates (Continued)

Sample rates for Fire members are as shown below.

Service	Fire (Male)							Fire (Female)						
	Entry Ages													
	20	25	30	35	40	45	50	20	25	30	35	40	45	50
0	0.1022	0.1022	0.1022	0.1022	0.1022	0.1022	0.1022	0.1317	0.1317	0.1317	0.1317	0.1317	0.1317	0.1317
2	0.0441	0.0441	0.0441	0.0441	0.0441	0.0441	0.0441	0.0743	0.0743	0.0743	0.0743	0.0743	0.0743	0.0743
4	0.0161	0.0161	0.0161	0.0161	0.0161	0.0161	0.0161	0.0349	0.0349	0.0349	0.0349	0.0349	0.0349	0.0349
6	0.0136	0.0136	0.0136	0.0136	0.0136	0.0136	0.0052	0.0327	0.0327	0.0327	0.0327	0.0327	0.0327	0.0117
8	0.0096	0.0096	0.0096	0.0096	0.0096	0.0096	0.0022	0.0200	0.0200	0.0200	0.0200	0.0200	0.0200	0.0014
10	0.0081	0.0081	0.0081	0.0081	0.0081	0.0015	0.0015	0.0164	0.0164	0.0164	0.0164	0.0164	0.0000	0.0000
12	0.0069	0.0069	0.0069	0.0069	0.0069	0.0011	0.0011	0.0145	0.0145	0.0145	0.0145	0.0145	0.0000	0.0000
14	0.0059	0.0059	0.0059	0.0059	0.0008	0.0008	0.0008	0.0128	0.0128	0.0128	0.0128	0.0000	0.0000	0.0000
16	0.0045	0.0045	0.0045	0.0045	0.0000	0.0000	0.0000	0.0113	0.0113	0.0113	0.0113	0.0000	0.0000	0.0000
18	0.0040	0.0040	0.0040	0.0040	0.0000	0.0000	0.0000	0.0100	0.0100	0.0100	0.0100	0.0000	0.0000	0.0000
20	0.0035	0.0035	0.0035	0.0000	0.0000	0.0000	0.0000	0.0088	0.0088	0.0088	0.0000	0.0000	0.0000	0.0000

Retirement Rates

Retirement rates used in the valuation are based on the CalPERS Experience Study and Review of Actuarial Assumptions published in November 2021 for Public Agency Miscellaneous and Fire members. Sample rates are as shown below.

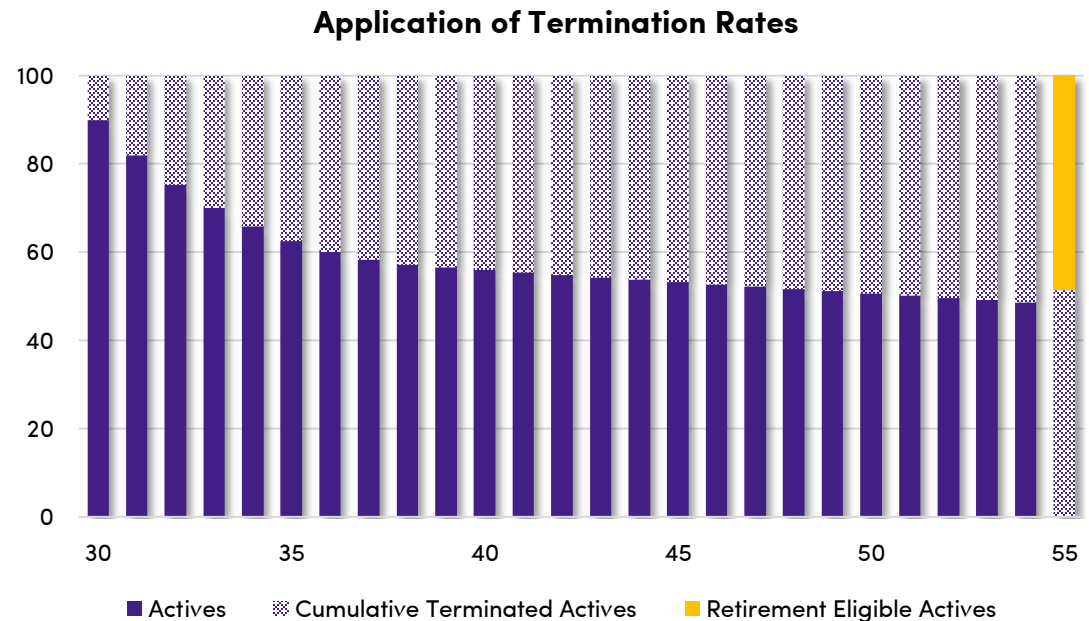
Service	Miscellaneous 2% at 60						Miscellaneous 2% at 62					
	Attained Ages											
	50	55	60	65	70	75	50	55	60	65	70	75
5	0.0100	0.0120	0.0630	0.1380	0.2000	1.0000	0.0000	0.0100	0.0310	0.1080	0.1200	1.0000
10	0.0110	0.0160	0.0690	0.1600	0.2000	1.0000	0.0000	0.0190	0.0510	0.1410	0.1560	1.0000
15	0.0140	0.0240	0.0740	0.2140	0.2000	1.0000	0.0000	0.0280	0.0710	0.1730	0.1930	1.0000
20	0.0140	0.0320	0.0900	0.2160	0.2000	1.0000	0.0000	0.0360	0.0910	0.2060	0.2290	1.0000
25	0.0170	0.0360	0.1370	0.2370	0.2000	1.0000	0.0000	0.0610	0.1110	0.2390	0.2650	1.0000
30	0.0170	0.0360	0.1160	0.2830	0.2000	1.0000	0.0000	0.0960	0.1380	0.3000	0.3330	1.0000
35	0.0170	0.0360	0.1250	0.3130	0.2000	1.0000	0.0000	0.1520	0.1830	0.3480	0.3870	1.0000
40	0.0000	0.0360	0.1250	0.3130	0.2000	1.0000	0.0000	0.1800	0.2040	0.3600	0.4000	1.0000

Service	Fire 3% at 50				Fire 2.7% at 57			
	Attained Ages							
	50	55	60	65	50	55	60	65
5	0.0950	0.0420	0.0560	1.0000	0.0070	0.0820	0.1140	1.0000
10	0.0480	0.0430	0.0440	1.0000	0.0070	0.0820	0.1140	1.0000
15	0.0530	0.0490	0.0610	1.0000	0.0070	0.0820	0.1140	1.0000
20	0.0930	0.0850	0.1310	1.0000	0.0070	0.0820	0.1140	1.0000
25	0.1340	0.1320	0.1860	1.0000	0.0100	0.1270	0.1750	1.0000
30	0.1750	0.2150	0.2330	1.0000	0.0150	0.1900	0.2620	1.0000
35	0.1960	0.2720	0.2620	1.0000	0.0170	0.2140	0.2950	1.0000
40	0.0000	0.2720	0.2620	1.0000	0.0000	0.2200	0.3030	1.0000

Decrements Illustration

The table below illustrates how decrements are applied in the valuation and how the decrements affect the liabilities valued. Assuming the Plan Sponsor has 100 employees aged 30 as of the valuation date, only 48.6 employees will be projected to be employed at age 55 (assumed retirement eligibility age) using the assumed illustrative termination rates.

Age	# Actives BOY	Annual Termination %	# Terminated Actives / Year
30	100.0	10%	10.0
31	90.0	9%	8.1
32	81.9	8%	6.6
33	75.3	7%	5.3
34	70.1	6%	4.2
35	65.9	5%	3.3
36	62.6	4%	2.5
37	60.1	3%	1.8
38	58.3	2%	1.2
39	57.1	1%	0.6
40	56.5	1%	0.6
41	56.0	1%	0.6
42	55.4	1%	0.6
43	54.9	1%	0.5
44	54.3	1%	0.5
45	53.8	1%	0.5
46	53.2	1%	0.5
47	52.7	1%	0.5
48	52.2	1%	0.5
49	51.6	1%	0.5
50	51.1	1%	0.5
51	50.6	1%	0.5
52	50.1	1%	0.5
53	49.6	1%	0.5
54	49.1	1%	0.5
55	48.6	0%	0.0



Notes:

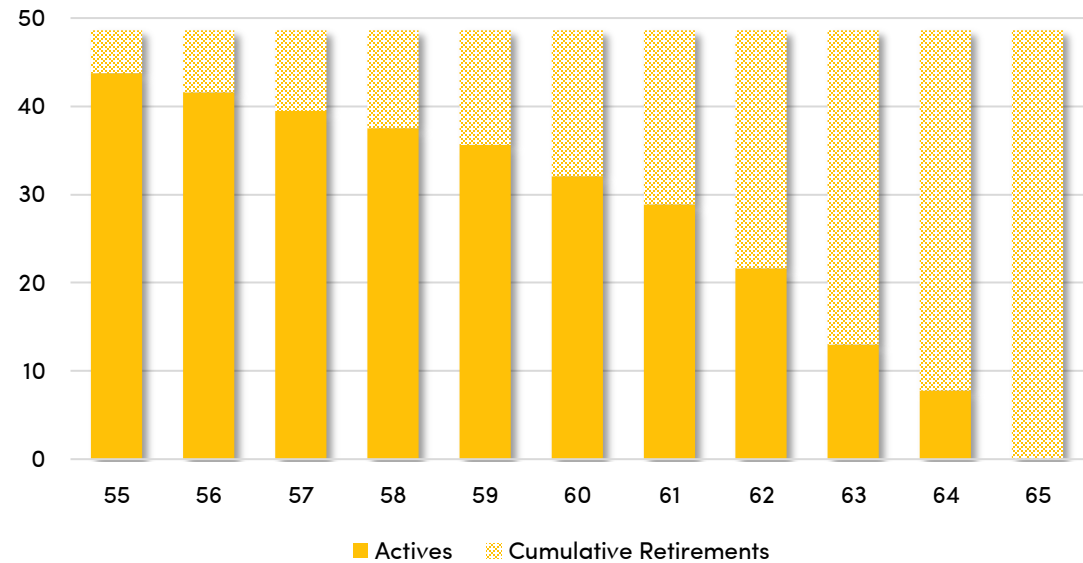
1. The annual termination percentages shown in the table are for illustrative purposes only, not the actual termination rates used in the valuation.
2. For simplification, only termination decrement is assumed to be applicable while actively employed. Actuarial valuation typically applies pre-retirement death decrement during employment as well.

Decrements Illustration (Continued)

The table below illustrates the number of active employees assumed to retire at each age based on the illustrative retirement rates.

Age	# Actives BOY	Annual Retirement %	# Retirements / Year
55	48.6	10%	4.9
56	43.8	5%	2.2
57	41.6	5%	2.1
58	39.5	5%	2.0
59	37.5	5%	1.9
60	35.6	10%	3.6
61	32.1	10%	3.2
62	28.9	25%	7.2
63	21.7	40%	8.7
64	13.0	40%	5.2
65	7.8	100%	7.8

Application of Retirement Rates



Notes:

1. The annual retirement percentages shown in the table are for illustrative purposes only, not the actual retirement rates used in the valuation.
2. For simplification, only retirement decrement is assumed to be applicable once the employee is retirement eligible. Actuarial valuation typically applies pre-retirement death decrement once an employee is eligible to retire.
3. The illustration above assumes that all active employees who are projected to be employed at age 55 elect health coverage with the Plan Sponsor at retirement.

| Appendix – Glossary

1. **Active Employees** – Individuals employed at the end of the reporting or measurement period, as applicable.
2. **Actuarial Cost Method** – A method to allocate the Actuarial Present Value of Future Benefits into portions attributed to past service (Total OPEB Liability) and future service (Normal Cost).
3. **Actuarial Present Value of Future Benefits** – Projected benefit payments estimated to be payable through the OPEB plan to current active and inactive employees as a result of their past service and their expected future service, discounted to reflect the expected effects of time value (present value) of money and the probabilities of payment (which is contingent on events such as death, termination, retirement, etc). In other words, this is the amount that would have been invested as of the Valuation Date so that it is sufficient to pay for benefit payments when due.
4. **Deferred Inflows** – Gains in the Total OPEB Liability and Fiduciary Net Position (for funded plan only) due to be recognized in the future.
5. **Deferred Outflows** – Losses in the Total OPEB Liability and Fiduciary Net Position (for funded plan only) due to be recognized in the future.
6. **Defined Benefit OPEB** – OPEB for which the benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The OPEB may be stated as (a) a specified dollar amount; (b) an amount that is calculated
7. **Entry Age Actuarial Cost Method** – A method that allocates the actuarial present value of the projected benefits of each individual on a level basis over the earnings or service of the individual between entry age and assumed exit age(s).
 - The portion allocated to a valuation year is called the Normal Cost.
 - The portion allocated to past periods is called the Total OPEB Liability.
 - The portion allocated to future periods after the valuation year is called the present value of future normal costs.
8. **Fiduciary Net Position** – OPEB plan assets in a secure Trust that meet the following criteria:
 - Contributions from employers to the OPEB plan and earnings on those contributions are irrevocable.
 - OPEB plan assets are dedicated to providing OPEB to plan members in accordance with the benefit terms.
 - OPEB Plan assets are legally protected from the creditors of employers, OPEB plan administrator, and creditors of the plan members.
9. **Funded Ratio** – The value of the asset expressed as a percentage of the Total OPEB Liability.

10. **Healthcare Cost Trend Rates** – The rates of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.
11. **Inactive Employees** – Individuals no longer employed by an employer in the OEPB plan or the beneficiaries of those individuals. Inactive employees also include individuals who have accumulated benefits under the terms of an OPEB plan but are not yet receiving benefit payments and individuals currently receiving benefits.
12. **Net OPEB Liability** – The difference between the Total OPEB Liability and the Fiduciary Net Position.
13. **Payroll Growth** – An actuarial assumption on the rate of future increase in the total coverage payroll attributable to wage inflation and productivity increase; used in the Actuarial Cost Method to determine the Total OPEB Liability.
14. **Plan Members** – Individuals covered by the terms of the OPEB plan, which would typically include employees in active service, terminated employees who have terminated service but are not yet receiving benefit payments, and retired employees who are currently receiving benefits.
15. **Other Postemployment Benefits (OPEB)** – Benefits such as death benefits, life insurance, disability, and long-term care, as well as healthcare benefits (medical, prescription drug, dental, vision, and other health-related benefits), that are paid in the period after employment and that are provided separately from a pension plan regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payments for sick leave.
16. **Service Cost (Normal Cost)** – The portion of actuarial present value of projected benefit payments that are attributed to a 12-month period after a valuation date as determined by the Actuarial Cost Method.
17. **Total OPEB Liability** – The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service as of the valuation date as determined by the Actuarial Cost Method.



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