

Contra Costa Water District Retiree Healthcare Plan

**June 30, 2022 Actuarial Funding Valuation
for Calendar Year 2023 Contributions**

December 19, 2022

CONTRA COSTA WATER DISTRICT RETIREE HEALTHCARE PLAN
 June 30, 2022 Actuarial Funding Valuation for 2023 Contributions

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Introduction and Actuarial Certification

Purposes of the valuation

This report presents the results of the June 30, 2022 actuarial funding valuation for the Contra Costa Water District Retiree Healthcare Plan (the Plan). Its primary purposes are:

- to determine the Actuarially Determined Contributions for calendar year 2023
- to evaluate the funded status of the plan.

This report has been prepared solely for the Contra Costa Water District Retiree Healthcare Plan and Contra Costa Water District to summarize the Plan's actuarial funding considerations. Computations for other purposes, such as plan accounting or plan design changes, may differ significantly from the results shown in this report. The Plan's FYE2022 GASB 74/75 disclosure information can be found in a separate report.

This report may not be used for any other purpose, and Van Iwaarden Associates is not responsible for the consequences of any unauthorized use. Its content may not be modified, incorporated into or used in other material, or otherwise provided, in whole or in part, to any other person or entity, without our permission.

Technical Language

The language of this report includes a number of technical terms which have special meanings. The glossary at the end of the report is provided to enhance understanding of these terms; many of them are defined there.

The District's joint and beneficiary benefits in this report are available to a spouse or State of California registered domestic partner (RDP). For ease of reading, a spouse/RDP will often be referred to in this report as a spouse.

Changes from the prior year

Changes to the plan provisions and actuarial assumptions reflected in this valuation are described at the end of each of those sections in this report.

The employee contribution policy was revised after the June 30, 2021 funding valuation report was issued. The 2022 calendar year contribution calculations and rates shown in this report are consistent with the MOUs and Side Letter Agreements that were recently finalized. They do not match the rates shown in the June 30, 2021 funding valuation report.

Summary of valuation results

The plan's funded status increased from 84% to 89% since the prior funding valuation. This increase was primarily due to (1) the actuarial value of assets smoothing of investment losses, (2) updates to healthcare trend rates, and (3) plan experience different than expected. See page 10 for a detailed liability and asset reconciliation.

Introduction and Certification (continued)

Actuarial certification

To the best of our knowledge, this report is complete and accurate and all costs and liabilities under the plan were determined in accordance with generally accepted actuarial principles and practices. Upon receipt of the valuation report, the District should notify us if you disagree with any information contained in the report or if you are aware of any information that would affect the results that has not been communicated to us. The report will be deemed final and acceptable to the District unless you immediately notify us otherwise.

All results in this report have been prepared based on our understanding of the District's OPEB funding policy. Additional contributions to the Trust may be required if actual plan economic and demographic experience do not match actuarial assumptions, or if contributions to the Trust are less than expected.

The undersigned credentialed actuaries are Members of the American Academy of Actuaries and, collectively, meet the Qualification Standards of the Academy to render the actuarial opinion contained herein. We are available to answer questions on the material contained in the report or to provide explanations or further detail, as may be appropriate. We are not aware of any material direct or indirect financial interest or relationship that could create a conflict of interest or impair the objectivity of our work.



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Summary of Results

	June 30, 2022	June 30, 2021
A. Plan participant data		
1. Number of participants		
a. Active employees	292	298
b. Covered retirees and beneficiaries	284	282
c. Total	576	580
2. Projected payroll for contribution year ¹	\$ 37,668,058	\$ 36,192,678
B. Benefit liabilities		
1. Present value of projected benefits	\$ 97,201,072	\$ 98,095,332
2. Actuarial accrued liability (AAL)	72,762,688	72,364,612
3. Total normal cost (calendar year)	3,019,703	3,157,315
C. Value of plan assets		
1. Market value of assets (MVA)	59,384,489	68,577,366
2. Actuarial value of assets (AVA)	64,854,986	60,765,277
3. Investment return, market value basis	-14.3%	27.1%
D. Funded status		
1. Unfunded AAL, on AVA basis (B.2. - C.2.)	\$ 7,907,702	\$ 11,599,335
2. Funded status, AVA basis (C.2. / B.2.)	89.1%	84.0%
3. Funded status, MVA basis (C.1. / B.2.)	81.6%	94.8%
Calendar Year		
E. Contribution rates as a percent of payroll		
	2023	2022
1. Employer	7.56%	7.08%
2. Employee		
a. Local 39 and Confidential	2.30%	2.50%
b. Local 21 and Unrepresented	2.00%	2.20%
F. Actuarially Determined Contribution (ADC)²		
1. Total ADC	\$ 3,656,065	\$ 4,047,518
2. Estimated employee contributions (A.2. x relevant employee % above)	810,413	850,933
3. Actuarially Determined Employer Contribution (ADEC) (1. - 2.)	2,845,652	3,196,585

¹ Projected pay for the calendar year following the valuation date. Payroll differs from pension due to application of the PEPRAs pay limits in the pension valuation.

² The 2022 ADEC does not match the corresponding contribution rate in E.1. The employee contribution policy was revised after the June 30, 2021 funding valuation report was issued.

CONTRA COSTA WATER DISTRICT RETIREE HEALTHCARE PLAN
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Funding History

(amounts in \$000s)

Actuarial Valuation Date	Discount Rate	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll	District Contribution Rate
7/1/2007	8.00%	-	48,374	48,374	0.0%	22,991	210.4%	N/A
7/1/2009	8.00%	6,844	59,586	52,742	11.5%	26,049	202.5%	N/A
7/1/2011	8.00%	12,560	71,409	58,849	17.6%	27,893	211.0%	N/A
7/1/2013	7.50%	19,846	81,131	61,285	24.5%	27,375	223.9%	15.70%
6/30/2014	7.25%	24,508	77,246	52,738	31.7%	27,173	194.1%	18.20%
6/30/2015	7.25%	30,473	76,682	46,209	39.7%	27,700	166.8%	16.00%
6/30/2016	7.25%	35,159	81,052	45,893	43.4%	28,817	159.3%	16.46%
6/30/2017	7.00%	39,866	69,329	29,463	57.5%	30,090	97.9%	11.44%
6/30/2018	7.00%	44,171	68,892	24,721	64.1%	31,566	78.3%	10.12%
6/30/2019	6.50%	48,791	69,069	20,278	70.6%	33,221	61.0%	8.76%
6/30/2020	6.25%	53,235	70,114	16,879	75.9%	34,498	48.9%	7.94%
6/30/2021	6.25%	60,765	72,365	11,600	84.0%	35,614	32.6%	7.08%
6/30/2022	6.25%	64,855	72,763	7,908	89.1%	37,066	21.3%	7.56%

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Reconciliation of Market Value of Assets

	Trust Year Ending	
	June 30, 2022	June 30, 2021
A. Market value of assets at beginning of year	\$ 68,577,366	\$ 52,273,555
B. Contributions		
1. Employer	2,720,777	3,654,474
2. Employee	1,262,944	1,413,554
3. Total	3,983,721	5,068,028
C. Net investment earnings	(9,818,992)	14,399,445
D. Other Additions	-	-
E. Benefit payments ¹	(3,228,169)	(3,061,208)
F. Administrative expenses	(129,437)	(102,454)
G. Market value of assets at end of year (A. + B.3 + C. + D. + E. + F.)	59,384,489	68,577,366
H. Investment return since prior valuation ²	-14.3%	27.1%

¹ Employee contribution refunds and implicit subsidy payments are made from non-Trust District funds.

² Reflects time-weighted cash flows of \$75,317 and \$827,344 for FY2022 and FY2021, respectively.

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Asset Allocation - Market Value of Assets

The June 30, 2022 trust asset allocation is provided by Principal. Details are shown below.

	<u>Market Value</u>	<u>Percentage</u>
Cash & Cash Equivalents	\$ 711,236	1.2%
Investments		
Domestic equity	26,368,205	44.4%
International equity	8,825,510	14.9%
Domestic fixed income ¹	17,512,371	29.5%
International fixed income ¹	2,924,012	4.9%
Real estate	3,037,268	5.1%
Total investments	<u>58,667,365</u>	<u>98.8%</u>
Total Cash & Investments	59,378,602	100.0%
Receivables		
Accrued income	5,887	0.0%
Contribution due from district	-	0.0%
Contribution due from participants	-	0.0%
Total receivables	<u>5,887</u>	<u>0.0%</u>
Total Assets	59,384,489	100.0%

Target Asset Allocation

Contra Costa Water District last revised the asset allocation in May 2021, as shown below.

<u>Asset Class</u>	<u>Target Allocation</u>
Cash	0.00%
Core Fixed Income	28.75%
International Developed Fixed Income	2.50%
International Emerging Fixed Income	2.50%
High Yield Fixed Income	1.25%
US Large Cap Equity	31.50%
US Mid Cap Equity	5.40%
US Small Cap Equity	8.10%
International Developed Equity	12.00%
International Emerging Equity	3.00%
US REITs	5.00%
Total	<u>100.0%</u>

¹ Domestic and international fixed income were adjusted to remove pending trades of \$7,733 and \$9,581, respectively.

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Development of Actuarial Value of Assets

	Trust Year Ending	
	June 30, 2022	June 30, 2021
A. Market value of assets (MVA)		
1. Market value of assets at beginning of year	\$ 68,577,366	\$ 52,273,555
i. Contributions (employee + employer) and other additions	3,983,721	5,068,028
ii. Expected earnings	4,309,696	3,329,810
iii. Benefit payments	(3,228,169)	(3,061,208)
2. Expected market value at end of year	73,642,614	57,610,185
3. Actual market value at end of year	59,384,489	68,577,366
4. Difference between actual MVA & expected MVA	14,258,125	(10,967,181)
B. Investment (gains) and losses¹		
1. Year ending June 30, 2022, June 30, 2021		
i. Variance from expected return: loss or (gain)	14,258,125	(10,967,181)
ii. Portion not yet recognized	80%	80%
iii. Investment return not yet recognized (i. x ii.)	11,406,500	(8,773,745)
2. Year ending June 30, 2021, June 30, 2020		
i. Variance from expected return: loss or (gain)	(10,967,181)	1,550,280
ii. Portion not yet recognized	60%	60%
iii. Investment return not yet recognized (i. x ii.)	(6,580,309)	930,168
3. Year ending June 30, 2020, June 30, 2019		
i. Variance from expected return: loss or (gain)	1,550,280	120,972
ii. Portion not yet recognized	40%	40%
iii. Investment return not yet recognized (i. x ii.)	620,112	48,389
4. Year ending June 30, 2019, June 30, 2018		
i. Variance from expected return: loss or (gain)	120,972	(84,507)
ii. Portion not yet recognized	20%	20%
iii. Investment return not yet recognized (i. x ii.)	24,194	(16,901)
5. Total return not yet recognized (1.iii. + 2.iii. + 3.iii. + 4.iii.)	5,470,497	(7,812,089)
C. Actuarial Value of Assets (A.3. + B.5.)	64,854,986	60,765,277

¹ The Actuarial Value of Assets is based upon a five year smoothing of market assets. This method is intended to reduce contribution rate volatility resulting from investment return fluctuations.

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Summary of Liabilities Used to Determine Contributions

	<u>June 30, 2022</u>	<u>June 30, 2021</u>
A. Actuarial present value of projected benefits¹		
1. Active employees		
a. Implicit subsidy	\$ 9,667,242	\$ 10,187,108
b. Explicit subsidy	44,841,875	46,924,603
c. Total	<u>54,509,117</u>	<u>57,111,711</u>
2. Retirees and beneficiaries		
a. Implicit subsidy	5,881,928	5,449,996
b. Explicit subsidy	36,810,027	35,533,625
c. Total	<u>42,691,955</u>	<u>40,983,621</u>
3. All participants		
a. Implicit subsidy	15,549,170	15,637,104
b. Explicit subsidy	81,651,902	82,458,228
c. Total	<u>97,201,072</u>	<u>98,095,332</u>
B. Actuarial accrued liability²		
1. Active employees		
a. Implicit subsidy	\$ 5,443,535	\$ 5,717,291
b. Explicit subsidy	24,627,198	25,663,700
c. Total	<u>30,070,733</u>	<u>31,380,991</u>
2. Retirees and beneficiaries		
a. Implicit subsidy	5,881,928	5,449,996
b. Explicit subsidy	36,810,027	35,533,625
c. Total	<u>42,691,955</u>	<u>40,983,621</u>
3. All participants		
a. Implicit subsidy	11,325,463	11,167,287
b. Explicit subsidy	61,437,225	61,197,325
c. Total	<u>72,762,688</u>	<u>72,364,612</u>
C. Normal cost³		
1. Implicit subsidy	\$ 513,033	\$ 539,741
2. Explicit subsidy	2,369,029	2,473,661
3. Total	<u>2,882,062</u>	<u>3,013,402</u>
D. Discount rate	6.25%	6.25%

¹ The value of all future benefits to be paid to the current group of members

² The cost allocated to all prior years

³ The cost allocated to the current year.

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Actuarially Determined Contribution

	Contribution Year	
	2023	2022
A. Actuarially Determined Contribution (ADC)		
1. Normal cost ¹		
a. Implicit subsidy	\$ 537,534	\$ 565,518
b. Explicit subsidy	2,247,738	2,320,321
c. Employee contribution refunds	234,431	271,476
d. Total	<u>3,019,703</u>	<u>3,157,315</u>
2. Amortization of unfunded actuarial accrued liability	636,362	890,203
3. Total ADC (1.d. + 2.)	<u>3,656,065</u>	<u>4,047,518</u>
B. Projected payroll for contribution year	\$ 37,668,058	\$ 36,192,678
C. ADC as a percent of payroll		
1. Total normal cost	8.02%	8.72%
2. Amortization of unfunded actuarial accrued liability	1.69%	2.46%
3. Total ADC (1. + 2.)	<u>9.71%</u>	<u>11.18%</u>
D. Employer and Employee ADC		
1. Total ADC (A.3.)	\$ 3,656,065	\$ 4,047,518
2. Estimated employee contributions (B. x relevant employee % below)	810,413	850,933
3. Actuarially Determined Employer Contribution (ADEC) (1. - 2.) ²	2,845,652	3,196,585

Schedule of Unfunded Actuarial Accrued Liability Amortization Bases

UAAL Balance as of June 30, 2022	Number of Remaining Payments	UAAL Payment as of June 30, 2022	UAAL Payment for 2023
\$ 7,907,702	16	\$ 607,356	\$ 636,362

Development of Employee Normal Cost (Explicit Subsidy Only)

	Contribution Year	
	2023	2022 ³
1. Explicit subsidy normal cost	5.97%	6.41%
2. Explicit subsidy normal cost for lifetime surviving spouse benefits ⁴	0.31%	0.35%
3. Normal cost excluding lifetime surviving spouse benefits (1. - 2.)	5.66%	6.06%
4. Preliminary employee normal cost (50% of above)	2.83%	3.03%
5. Additional 0.5% reduction per Side Letter Agreements	0.50%	0.50%
6. Final Local 39 and Confidential employee normal cost (4. - 5., rounded to the nearest 0.1%, 0.2% maximum change from prior year)	2.30%	2.50%
7. Final Local 21 and Unrepresented employee normal cost (6. - 0.3%, 0.2% maximum change from prior year)	2.00%	2.20%

¹ Normal cost is projected from the valuation date to the beginning of the contribution year.

² The ADEC amount does not reflect the actual contribution rate used for 2022 contributions. The employee contribution policy was revised after the June 30, 2021 funding valuation report was issued.

³ 2022 contributions have been revised since the June 30, 2021 funding valuation report based on updated MOUs and Side Letter Agreements.

⁴ Offset is in exchange for a salary COLA reduction.

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Change in Unfunded Actuarial Accrued Liability

	(Gain) Loss		
	Actuarial Accrued Liability ¹ (AAL)	Actuarial Value of Assets ² (AVA)	Unfunded Actuarial Accrued Liability (UAAL = AAL - AVA)
Balance on 6/30/2021	\$ 72,364,612	\$ 60,765,277	\$ 11,599,335
Changes for the year:			
Service cost	3,013,402	-	3,013,402
Interest	4,565,026	-	4,565,026
Differences between expected and actual experience ³	(832,573)	-	(832,573)
Changes of assumptions	(1,672,569)	-	(1,672,569)
Changes of benefit terms	-	-	-
Employee contributions	-	1,262,944	(1,262,944)
Employer contributions	-	2,720,777	(2,720,777)
Net investment income	-	(9,818,992)	9,818,992
Other additions	-	-	-
Benefit payments ⁴	(4,675,210)	(3,228,169)	(1,447,041)
Administrative expense	-	(129,437)	129,437
Return not yet recognized	-	13,282,586	(13,282,586)
Net changes	398,076	4,089,709	(3,691,633)
Balance on 6/30/2022	\$ 72,762,688	\$ 64,854,986	\$ 7,907,702

1 The 6/30/2022 liabilities shown here do not match the District's Fiscal 2022 GASB 74/75 OPEB Accounting report because those results are based on 6/30/2021 census data. The 6/30/2022 results shown here are based on 6/30/2022 census data.

2 The assets disclosed here do not match the District's Fiscal 2022 GASB 74/75 OPEB Accounting report because those results use market values instead of actuarial values.

3 Approximately (\$134K) of the increase/(decrease) is due to estimated retiree claims costs lower than expected. The remaining (\$699K) is from all other sources.

4 Employee contribution refunds and implicit subsidy payments are made from non-Trust District funds.

Assessment and Disclosure of Risk

Actuarial Standard of Practice Number 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions (ASOP 51), requires actuaries to identify and assess certain risks that may affect a plan’s future financial condition. While there's currently no equivalent ASOP for the OPEB plan, we believe similar disclosures are informative for the District's OPEB plan. Some of the primary risks are summarized and defined in the table below.

Risk	Identification/Definition
Investment risk	The potential that investment returns will be different than expected
Asset/liability mismatch risk	The potential that changes in asset values are not matched by changes in liability values
Longevity and other demographic risks	The potential that mortality or other demographic experience will be different than expected
Contribution risk	The potential that employer or member contribution rates are different than what is ultimately required to fund plan benefits
Health plan risk	The potential that future health claims and premiums are different than projected

This report contains basic risk assessment information for the plan. However, we recommend that employers consider additional OPEB risk analyses to better understand OPEB plan volatility and the potential impact on the organization. We would be glad to discuss additional analyses upon request.

Plan Maturity Measures

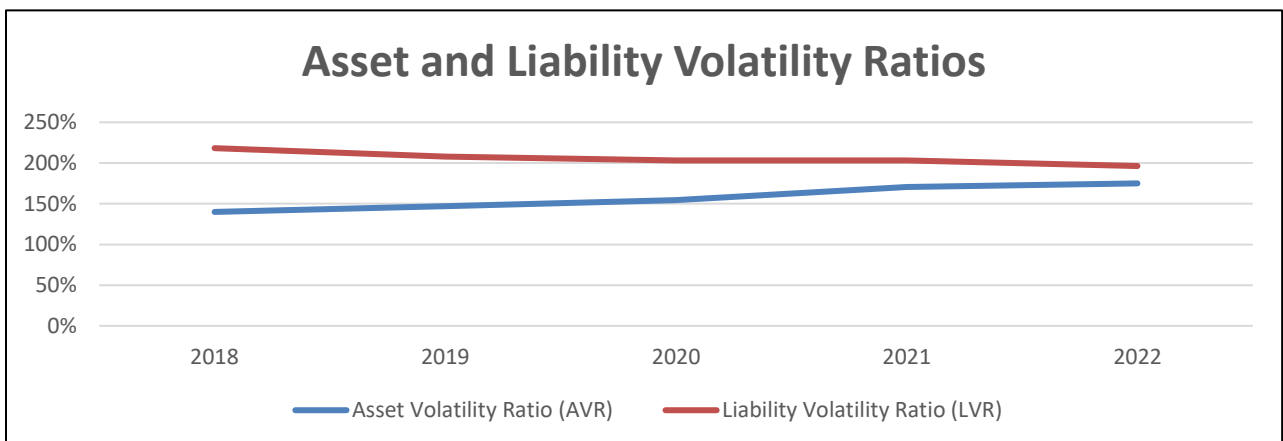
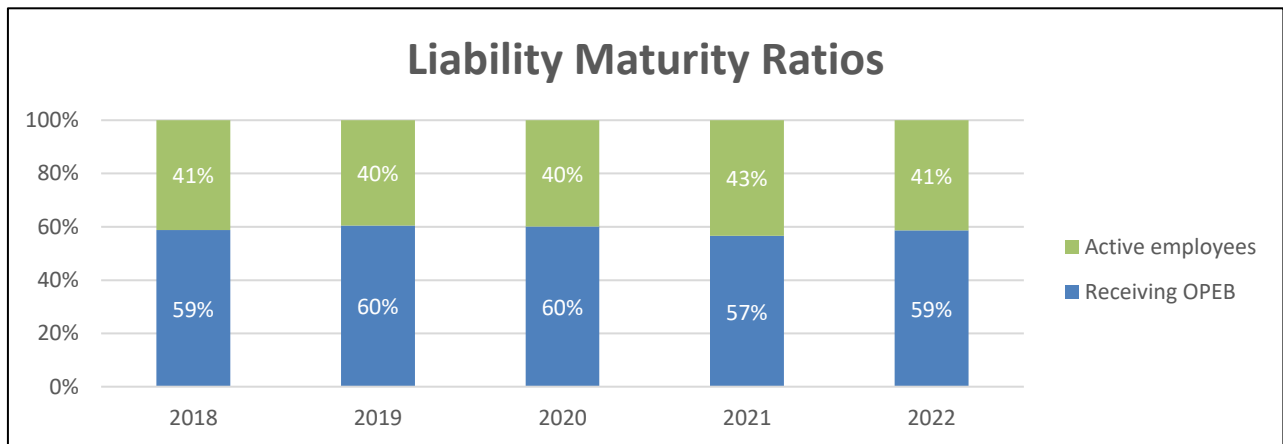
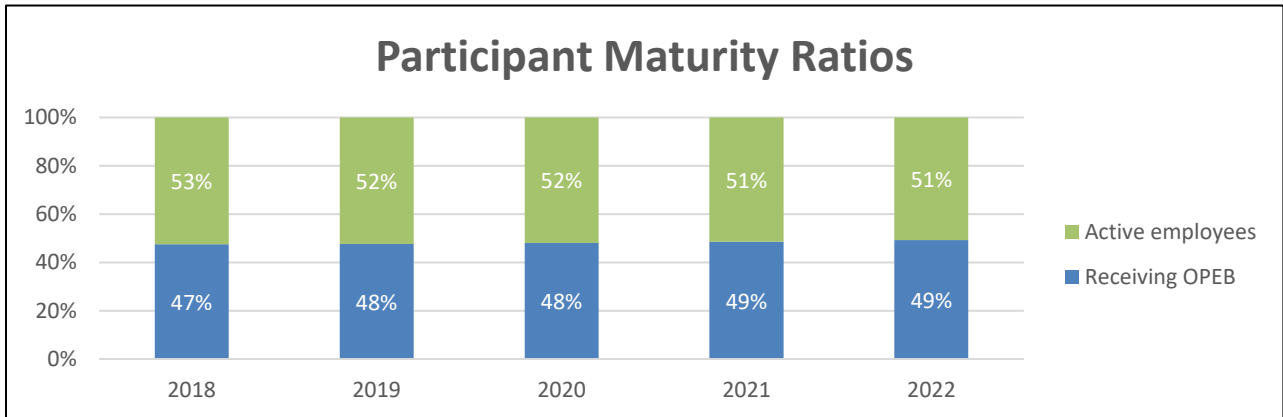
Maturity measures describe how much plan liability is attributable to current employees vs. former employees (e.g., retirees) and the size of plan assets and liabilities relative to overall payroll. These measures include:

Participant Maturity Ratio	Number of retirees divided by total participants
Liability Maturity Ratio	Retiree liability divided by total plan liability
Asset Volatility Ratio	Measures size of plan assets relative to payroll upon which contributions are based
Liability Volatility Ratio	Measures size of plan liabilities relative to payroll upon which contributions are based

Charts illustrating these maturity measures are found on the following page.

Assessment and Disclosure of Risk (continued)

A recent history of maturity measures is shown below.



Observations:

- Updated assumptions had a larger impact on future retirements, reducing the active liabilities as a percent of the plan's totals.
- The declining LVR means that the effect of future liability changes on contribution rates is stabilizing as a percent of payroll.

Assessment and Disclosure of Risk (continued)

The table below provides analysis of some potential plan risks. Please note that the list of risks and the risk assessments shown are not exhaustive. We would be glad to provide a more detailed risk assessment upon request.

Risk	Assessment
Investment risk	If future investment returns are higher or lower than assumed, then future contributions may need to be increased or decreased to compensate.
Asset/liability mismatch risk	Since plan assets are invested in a mix of equity and fixed income securities, there is a risk that changes in assets values are not matched by changes in liability values.
Longevity and other demographic risks	Although most of the plan demographic assumptions reflect best estimates of future plan experience, actual experience will differ from these assumptions. If participant longevity is greater than expected then this would increase plan costs.
Contribution risk	<p>Plan contributions include both payroll-based employer and employee contributions, as well as additional voluntary contributions from the District. The District should contribute at least the ADC each year and request reimbursement for both annual explicit and implicit subsidy costs.</p> <p>The District is currently ahead of the funding schedule due in part to "hyperfunding" of the implicit subsidy liability. The District has historically funded both explicit and implicit costs but only requested reimbursement for annual explicit subsidies.</p>
Health plan risk	Changes in the health care system could suddenly and substantially change plan liabilities. More subtle changes can occur if premium rates change from what we have projected. We recommend continued monitoring of liability changes as we do with each actuarial valuation of the plan.

Summary of Plan Participants

The actuarial valuation was based on June 30, 2022 census data provided by the District. The following exhibits summarize the personnel characteristics of the data used for the valuation.

A. Data Summary¹

	<u>Single</u>	<u>Single+Spouse</u>	<u>Family / Single+Children</u>	<u>Total</u>
1. Benefits-eligible active employees				
Anthem HMO Select	0	1	1	2
Anthem HMO Traditional	0	0	0	0
Blue Shield Access+ HMO	0	0	0	0
Health Net SmartCare	7	2	1	10
Kaiser Permanente	57	26	77	160
PERS Gold	1	0	1	2
PERS Platinum	9	16	21	46
Western Health Advantage ²	0	0	1	1
Total with coverage	<u>74</u>	<u>45</u>	<u>102</u>	<u>221</u>
Total without current coverage				<u>71</u>
Total active employees				292
Average age				46.8
Average service				10.3
2. Benefits-eligible retirees				
Anthem HMO Select	0	1	0	1
Anthem HMO Traditional	0	0	0	0
Blue Shield Access+ HMO	0	0	0	0
Health Net SmartCare	3	4	0	7
Kaiser Permanente	57	67	16	140
PERS Gold	0	0	0	0
PERS Platinum	43	80	12	135
UnitedHealthcare Medicare Advantage	1	0	0	1
Total with coverage	<u>104</u>	<u>152</u>	<u>28</u>	<u>284</u>
Retirees with only non-medical OPEB coverage				<u>0</u>
Total retirees				284
Average age with coverage				69.4
Average service retirement age				58.1
Average disabled retirement age				51.2

¹ Participant count summaries only include medical plans available as of June 30, 2022.

² This medical plan is not available in Contra Costa County. The participant electing this plan resides in a different county.

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Summary of Plan Participants (continued)

B. Data Reconciliation

	<u>Former Employees in District Medical Plans</u>				<u>Total</u>
	<u>Actives</u>	<u>Retirees</u>	<u>Disabled</u>	<u>Beneficiaries</u>	
1. Counts as of June 30, 2021	298	266	4	12	580
a. New Hires	21	0	0	0	21
b. Disabled	0	0	0	0	0
c. Terminated Employment	(11)	0	0	0	(11)
d. Deceased	(1)	(11)	0	(2)	(14)
e. New Beneficiaries	0	0	0	3	3
f. Retired ¹	(15)	13	0	0	(2)
g. Added Coverage	0	0	0	0	0
h. Terminated Coverage	0	(1)	0	0	(1)
2. Counts as of June 30, 2022	292	267	4	13	576

¹ Reconciliation shows all employees who retired during the year. Some employees waived District medical coverage at retirement or elected to receive a refund of their OPEB contributions in lieu of retiree benefits.

Summary of Plan Provisions

A. Plans Available

Medical (Not Medicare Eligible)

Anthem HMO Select
Anthem HMO Traditional
Blue Shield Access+ HMO
Health Net SmartCare
Kaiser Permanente
PERS Gold
PERS Platinum

Medical (Medicare Eligible)

Anthem Medicare Preferred
Blue Shield Medicare Advantage
Kaiser Permanente Senior Advantage
Kaiser Permanente Senior Advantage Summit¹
PERS Gold Medicare Supplement
PERS Platinum Medicare Supplement
UnitedHealthcare Medicare Advantage
UnitedHealthcare Medicare Advantage Edge

B. Covered Groups

All District employees.

¹ This plan is new as of 1/1/2023 and not included in the valuation.

Summary of Plan Provisions (continued)

C. Explicit Subsidy

Eligibility

Retired employees must meet all of these conditions:

1) The retiree must be eligible for service retirement under the District's pension plan. Eligibility varies by pension plan and employee group as follows:

Classic Members

- Clerical/Maintenance¹
 - Age 50 and 10 years of service
- Board of Directors²
 - Age 55 and 10 years of service
- Professional/Supervisory¹, Confidential and Unrepresented
 - Age 50 and 5 years of service

PEPRA Members

- Age 52 with 5 years of service

2) Retirement must commence within 120 days of separation from District employment.

3) Employees hired after September 1, 2011 but before January 1, 2016 are eligible for fully-paid medical premiums after 5 years of District service, assuming they have met all retirement eligibility requirements (including consideration for reciprocity).

4) Employees hired on or after January 1, 2016 must have at least 10 years of District service in order to be eligible for fully-paid medical premiums.

Amount

First level of benefits (PEMHCA minimum required contribution):

Employees who do not meet the vesting requirements for fully-paid medical premiums are eligible for partially-paid medical premiums as follows:

Pursuant to Government Code 22892 of the Public Employees' Medical and Hospital Care Act (PEMHCA), the District-provided contribution is based on the unequal contribution formula. The 2022 District unequal contribution is \$37.25/month, regardless of the retiree's dependent coverage and health plan choice. It equals the "Contribution Percentage" times the PEMHCA minimum required contribution for active employees.

The Contribution Percentage is 25% in 2022 and will increase by 5 percentage points annually until it equals 100% of the PEMHCA minimum required contribution for active employees.

The PEMHCA minimum required contribution for active employees is \$149 per month for 2022 and \$151 per month for 2023. The contribution increases annually by the CPI medical care component.

¹ Clerical/Maintenance members belong to the Local 39 union and Professional/Supervisory members belong to the Local 21 union.

² Only Directors who first served prior to January 1, 1995 are eligible for fully-paid medical premiums.

Summary of Plan Provisions (continued)

C. Explicit Subsidy (continued)

Amount (continued) Second level of benefits (fully-paid medical premiums):

The District pays the full amount of medical premiums for the "core plans".

The non-Medicare core plans are Health Net SmartCare, Kaiser and PERS Platinum. For retirees who select a non-core plan, the District will pay the cost of the non-core plan, up to the highest of the three core plans for the coverage selected (employee, employee plus spouse, family) capped at the Kaiser family premium.

The Medicare core plans are Kaiser and PERS Platinum. For retirees who select a non-core plan, the District will pay the cost of the non-core plan, up to the highest of the two core plans for the coverage selected (employee, employee plus spouse, family).

Duration

The District-provided contribution is continued for the life of the retiree. Upon death of retiree, benefits available to the spouse are as follows:

- Spouses of Clerical/Maintenance retirees who retired before July 1, 2000, Professional/Supervisory retirees who retired before November 9, 2015 and Confidential and Unrepresented retirees who retired before October 3, 2016 receive second level benefits until age 65, provided the surviving spouse is in receipt of a contingent pension benefit. Upon reaching age 65, spouses are eligible to receive the first level benefits for life.
- Spouses of Clerical/Maintenance retirees who retire after July 1, 2000, Professional/Supervisory retirees who retire after November 9, 2015 and Confidential and Unrepresented retirees who retire after October 3, 2016 receive second level benefits for life, provided the surviving spouse is in receipt of a contingent pension benefit. Surviving spouses who do not have a contingent pension benefit are eligible for second level benefits until age 65.

Summary of Plan Provisions (continued)

- D. Employee Contribution** Active employees pay 50% of the normal cost of the OPEB benefit after excluding the actuarially determined implicit subsidy. To determine the final active employee contribution rate, the calculated amount will be reduced by 0.5%. An additional reduction of 0.3% will be applied for Local 21 and Unrepresented employees. The amount of the contribution cannot increase or decrease by more than 0.2% of base salary in any year.
- The contribution will be based on the most recent fiscal year actuarial valuation. Surviving spouse lifetime benefits are excluded in the calculation of employee normal cost in exchange for a salary COLA reduction. See the Contribution Development section of the report for more details.
- Upon termination of employment from the District, other than retirement, employees will receive a refund of all contributions plus 5% interest. Upon death of an active employee, the refund will be paid to a surviving spouse or dependents.
- E. Retiree Premiums** The monthly premiums for health coverage in effect for January 1, 2023 through December 31, 2023, before reflecting any reduction due to subsidies, are based on premiums for CalPERS Region 1. This valuation assumes that PEMHCA administrative fees are paid separately by the District and are not valued as an OPEB cost.
- F. Retiree Contributions** Retirees are required to pay the applicable retiree premiums, less any portion of the premium paid by the District.
- G. Coverage Following Active Employee's Death** Surviving spouses of active employees who were eligible for retirement receive the benefit they would have been eligible for if the employee retired with a contingent pension benefit.
- H. Additional Other Postemployment Benefits (OPEB)** The District provides a retiree life insurance benefit of \$5,000 for life to all retirees except Board of Directors.
- I. Valuation Changes** Since the last valuation the following changes have been made:
- Retiree premiums were updated to current levels.
 - The PEMHCA minimum contribution was updated to its current level.
 - The employee contribution rate was revised based on the MOUs and Side Letter Agreements that were recently finalized.

Summary of Actuarial Methods

- A. Actuarial Cost Method** Liabilities are based on the Entry Age Normal level percent of pay cost method. In this method, the actuarial Present Value of Benefits (PVB) for each individual is allocated as a level percent of pay from entry age (hire age, for most employees) to the last age with any future benefits. The portion of the PVB allocated to the valuation year is called the Normal Cost (NC). The portion of the PVB allocated to past years is called the Actuarial Accrued Liability (AAL).
- B. Amortization Method** The District has chosen to amortize the plan's Unfunded Actuarial Accrued Liability (UAAL) as a level percent of payroll over a fixed closed period ending in 2038. As of the June 30, 2022 valuation date, 16 years remain.
- C. Funding Policy** The District has assets designated for OPEB. These assets are in a qualified irrevocable trust. Quarterly employer contributions to the trust are based on service cost plus amortization of the UAAL, less employee contributions. In addition, contribution amounts equal to employee contributions are paid to the trust each pay period. Monthly benefit payments equal to the explicit subsidy are reimbursed from the trust. Implicit subsidy benefits and employee contribution refunds are paid from the District's general assets.
- D. Asset Valuation Method** The Actuarial Value of Assets (AVA) is equal to the market value of assets (MVA) with investment gains and losses recognized over a five year period.
- E. Data Methods** The District provided census and financial information for the valuation and we have relied on this data in preparing the results in this report. The data was reviewed for reasonableness and consistency, but we have not performed a complete audit.
- To the extent that census data was collected as of a date later than June 30, 2022, we have assumed that it is reasonably representative of the plan census on the valuation date and used it with only minor adjustments.
- F. Covered Payroll** Covered payroll information as of June 30, 2022 was provided by the District.

Summary of Actuarial Methods (continued)

G. Models Used

The results in this report are based on an actuarial valuation model with three components as outlined in Actuarial Standard of Practice No. 56 - Modeling (ASOP 56):

1. Information inputs including the data, assumptions, methods and plan provisions outlined in this report,
2. Processing by ProVal® actuarial modeling software, and
3. Our report template which translates the ProVal® output into valuation results.

The model is intended to convert the information input above to usable actuarial valuation results. We have reviewed the ProVal® software's output for reasonableness, and have independently checked sample one-person output where appropriate, but have otherwise relied on it.

Other models used in this actuarial valuation include:

- Internal per capita claims cost model used to estimate average expected claims costs at different participant ages
- Healthcare trend rate model based on the 2022 "Getzen" model published by the Society of Actuaries
- Expected investment return model based on the Horizon Actuarial Services Survey of Capital Market Assumptions and the fund's asset allocation

Summary of Healthcare Assumptions and Methods

A. Per Capita Claims Costs

Background

When premiums for retirees are determined using a blend of active employee and retiree experience, it creates an implicit subsidy to the retirees. The subsidy is equal to the difference between the retiree's expected true costs (claims and administration fees) and apparent costs (premium charged) of coverage. Actuarial Standard of Practice No. 6 (ASOP 6) effectively requires that most employer groups calculate age-specific costs in the development of the initial per capita claims costs and in the projection of future costs.

In addition, a pooled health plan that covers only retirees may have age-related implicit subsidies because the per capita claims costs for any given retiree might still be implicitly subsidized (positively or negatively) by the amount paid by an employer for retirees of other ages. Per ASOP 6 section 3.7.7(c), exceptions due to benefit plan or subsidy type may exist. These exceptions were considered and, if applicable, are stated below.

Non-Medicare
Eligible

An average risk-adjusted per member cost for each plan is calculated based on CalPERS premiums, gender-specific non-Medicare risk scores (described in the Summary of Actuarial Assumptions), and CalPERS's most recently released membership data. Average per member costs are projected to age 65, and a load is added to account for the average cost of covered children.

Medicare
Eligible

We have assumed that premiums for Medicare-eligible retirees are based on Medicare-eligible retiree experience and equal the expected true cost of retiree coverage.

The Medicare Advantage and Part D plans receive risk-adjusted federal subsidies that are intended to eliminate any subscriber cost difference due to age, gender, or health status. The plans are assumed to have a relatively flat age and gender curve after federal payments. Per ASOP 6 section 3.7.7(c), we have assumed there is no age-based implicit subsidy for these benefits.

To estimate age-related claims costs for the Medicare Supplement plans, we reviewed published data for net Medicare cost curves. We determined that costs paid by a Supplement plan do not vary significantly by age and gender and, when coupled with a Part D plan, the curve becomes even flatter. As a result, we have not valued age-based implicit subsidy for these benefits.

Summary of Healthcare Assumptions and Methods (continued)

B. Healthcare Cost Trend Trend is a forecast of per capita claims cost increases due to factors such as price inflation, per capita income growth (GDP), and new technology. We developed our trend assumption using the 2022 “Getzen” model published by the Society of Actuaries. This model produces a long-term estimate of medical cost trends based on an analysis of historical US healthcare expenditures and industry experts. It assumes that healthcare costs will continue to grow at their historical trends until the economy (GDP) can no longer support the excess growth. At that time, rates revert to an ultimate trend rate which is projected to be supportable by GDP growth rates.

The trend assumption is comprised of three elements: (1) initial short-term rates (up to 5 years), (2) a multi-decade transition period of medium-term rates until projected health care costs reach GDP capacity, and (3) a transition to the ultimate trend rate supported by the GDP assumptions. When applicable, we’ve adjusted the Getzen model’s default inputs to align with our other economic assumptions.

Actual plan sponsor healthcare costs will differ from the trend assumption since we cannot precisely predict the factors affecting trend and annual plan costs in the future. This assumption is merely one estimate among a wide range of possibilities.

Summary of Actuarial Assumptions

A. General Information

Valuation date	June 30, 2022
Census date	June 30, 2022
Benefits valued	Medical coverage and life insurance

B. Economic Assumptions

	<u>June 30, 2022</u>	<u>June 30, 2021</u>
Discount Rate	6.25%	6.25%
Expected long-term rate of return on assets	6.25%	6.25%
General Inflation (CPI-U)	2.25%	2.25%
Wage Inflation (CPI-W)	2.75%	2.75%
Payroll Growth ¹	3.25%	3.25%
CPI Medical Care	3.50%	3.50%

Healthcare Trend Rates Annual increases in per capita claims costs and plan premiums are as follows:

Fiscal Year Ending	Medical Coverage	
	Not Medicare Eligible	Medicare Eligible
2023	6.2%	4.7%
2024	5.7%	4.7%
2025	5.2%	4.7%
2026-2038	4.7%	4.7%
2039-2074	Transition to ultimate rate	Transition to ultimate rate
2075+	3.7%	3.7%

Increases in Explicit Subsidy The PEMHCA minimum required contribution is assumed to increase annually by the CPI medical care component.
 All other subsidies are assumed to increase with healthcare trend rates.

¹ Payroll growth assumption is used to project normal cost and employee payroll from valuation date to the contribution year.

Summary of Actuarial Assumptions (continued)

C. Medical Elections

Current Retirees

- Participation 100% of current retirees are assumed to continue coverage for life.
- Coverage Level Current retirees are assumed to elect dependent coverage based on their current elections. Non-spouse dependent coverage is assumed to cease at retiree age 65.
- Plan Election¹ Current retirees are assumed to continue coverage in their current plan, if available. Current retirees under age 65 electing the Health Net SmartCare plan are assumed to elect a Medicare plan at age 65 based on plan election assumptions for future retirees described on the following page.

Future Retirees²

- Participation First Level of Benefits
40% of future retirees who are only eligible for the first level of benefits are assumed to elect coverage at retirement and continue coverage for life.
Second Level of Benefits
100% of future retirees who are eligible for the second level of benefits are assumed to elect coverage at retirement and continue coverage for life.
- Coverage Level First Level of Benefits
35% of future retirees electing coverage for the first level of benefits are assumed to cover a spouse at retirement. Coverage for non-spouse dependents is not subsidized by the plan.
Second Level of Benefits
70% of future retirees electing coverage for the second level of benefits are assumed to cover a spouse at retirement. 25% of future retirees electing coverage are assumed to cover non-spouse dependents at retirement and continue coverage until retiree turns age 65.

¹ Plan election rates only include medical plans available as of January 1, 2023.

² Includes employees not currently covered by the District's health plans.

Summary of Actuarial Assumptions (continued)

C. Medical Elections (continued)

Future Retirees (continued)

- Plan Election¹ The following table provides the assumed percent electing each plan:

Medical Plan	Not Medicare Eligible	Medicare Eligible (65+)
Anthem HMO Select	0%	0%
Anthem HMO Traditional	0%	0%
Blue Shield Access+ HMO	0%	0%
Health Net SmartCare	10%	N/A
Kaiser Permanente	60%	50%
PERS Gold	0%	0%
PERS Platinum	30%	50%
UnitedHealthcare Medicare Advantage	N/A	0%
UnitedHealthcare Medicare Advantage Edge	N/A	0%

D. Life Insurance
 Elections

100% of current and future retirees are assumed to continue coverage for life.

¹ Plan election rates only include medical plans available as of January 1, 2023.

Summary of Actuarial Assumptions (continued)

E. Demographic Assumptions

Withdrawal Rates are shown in the table below:

Years of Service	Rate
<1	3.0%
1-3	6.0%
4	5.0%
5-6	4.0%
7+	3.0%

Retirement Sample rates are shown in the tables below:

Classic pension plan		PEPRA pension plan	
Age	Rate	Age	Rate
50	3.0%	50	0.0%
55	20.0%	55	5.0%
60	17.0%	60	8.0%
65	40.0%	65	25.0%
70+	100.0%	70	40.0%
		75+	100.0%

Mortality Healthy retirement: Rates are the base PUB-2010 amount-weighted, above-median table. Generational projection using scale MP-2020 was applied to these base rates after 2010.

Disabled: Rates are the base PUB-2010 amount-weighted General Employees table. Generational projection using scale MP-2020 was applied to these base rates after 2010.

Summary of Actuarial Assumptions (continued)

E. Demographic Assumptions (continued)

Disability Rates are based on assumptions for General Tier 3 and Tier 5 members used in the 12/31/2019 CCCERA actuarial valuation.

Salary Increases Wage inflation rate of 2.75% plus a merit scale. Sample rates are shown in the table below:

Years of Service	Clerical	Directors	Other (Entry Age)	
			<40	>=40
1	8.75%	2.75%	8.00%	7.00%
5	6.00%	2.75%	6.50%	5.50%
10	4.50%	2.75%	5.50%	4.00%
15	3.75%	2.75%	5.00%	3.50%
20	3.75%	2.75%	3.50%	3.00%

Spouse Age Difference

- Future retirees Males are assumed to be 2 years older than females.
- Retirees Actual spouse date of birth, if provided. Otherwise, males are assumed to be 2 years older than females.

Medicare Eligibility 100% of current and future retirees under age 65 are assumed to become Medicare eligible at the later of age 65 or retirement. Actual Medicare status was used for retired members.

Pension Benefit Form For surviving spouse coverage requiring a contingent pension benefit, we have assumed 90% of retirees have a contingent pension benefit.

Summary of Actuarial Assumptions (continued)

F. Per Capita Claims Costs

Medical Per capita claims costs were developed using premiums and enrollment information provided by CalPERS. The results contained herein are highly dependent on the accuracy and credibility of this data.

The claims experience was adjusted for aging, plan values, participant status, and coordination with Medicare, if applicable. Sample age 65 monthly costs by plan and gender are shown below. We've also included the plan's premium rates to illustrate the estimated true cost of an age 65 retiree relative to those premiums.

Medical Plan (Not Medicare Eligible)	Single Premium	Age 65 Claims Costs	
		Male	Female
Anthem HMO Select	\$ 1,129	\$ 2,305	\$ 2,214
Anthem HMO Traditional	1,211	2,266	2,177
Blue Shield Access+ HMO	1,035	1,879	1,805
Health Net SmartCare	1,175	2,266	2,178
Kaiser Permanente	914	1,852	1,779
PERS Gold	826	1,850	1,777
PERS Platinum	1,200	2,023	1,943

Individual age/gender based medical costs are calculated using risk scores based on data from "Health Care Costs—From Birth to Death" published by the Society of Actuaries.

G. Claims Not Covered by CalPERS Health Insurance

For retirees who retired prior to March 1, 2017, there are additional claims and administrative fees paid directly by the District. The annual claims costs and administrative fees per retiree are assumed to be \$215 and \$120, respectively. Claims are assumed to increase by healthcare trend, and administrative fees are assumed to increase by inflation.

H. Other Assumptions

Retiree Premiums The assumed annual retiree premiums for the period July 1, 2022 through June 30, 2023 are based on the premiums effective January 1, 2023, and were adjusted to June 30, 2022 with 6 months of healthcare trend.

Summary of Actuarial Assumptions (continued)

I. Assumption Changes Since the last valuation the following changes have been made:

- Healthcare trend rates were reset to reflect updated cost increase expectations.
- Medical per capita claims costs were updated to reflect recent experience, including an adjustment to reflect age/gender based risk scores published by the Society of Actuaries.
- The annual claims costs not covered by health insurance changed from \$250 per retiree to \$215 per retiree. This change was made to reflect recent District experience.
- The annual administrative fees for claims costs not covered by health insurance changed from \$96 per retiree to \$120 per retiree. This change was made to reflect recent District experience.

Selection of Economic Assumptions

The Actuarial Standards Board (ASB) provides coordinated guidance for measuring pension and retiree group benefit obligations through a series of Actuarial Standards of Practice (ASOPs). ASOP No. 27, Selection of Economic Assumptions for Measuring Pension Obligations, requires that the actuary disclose the rationale used in selecting each non-prescribed economic assumption and any changes to non-prescribed economic assumptions.¹

The table below summarizes the rationale for selecting the non-prescribed economic assumptions. The rationale for assumption changes, along with a description of the assumptions themselves, is included in the Actuarial Assumption and Methods section of the report.

Economic Assumptions (non-prescribed)	
Assumption	Rationale for Selecting Assumption
Discount rate and expected return on assets	The expected investment return assumption was selected by the District during the 2016 - 2020 experience study based on their investment advisor's recommendations and an analysis of expected long-term asset class returns applied to the Plan's target asset allocation. We have verified with our own capital market assumption model that their assumption is reasonable. Our model is based on the plan's target asset allocation and a blend of expected asset class returns published in the 2022 Survey of Capital Market Assumptions produced by Horizon Actuarial Services.
General inflation (CPI-U)	Based on analysis of historical CPI-U and 30-year TIPS data, the Federal Open Market Committee target inflation rate, and the Survey of Capital Market Assumptions produced by Horizon Actuarial Services and the District's 2016 - 2020 actuarial experience study.
Wage inflation (CPI-W)	Based on historical CPI-W rates for San Francisco, Oakland, and Hayward area and the District's 2016 - 2020 actuarial experience study.
CPI medical care	Based on a 25-year historical analysis of CPI medical component increases and forward looking expectations.
Payroll growth	Based on a 20-year history of the District's total payroll growth and the District's 2016 - 2020 actuarial experience study.
Healthcare trend rates	Developed using the Society of Actuaries "Getzen" model, with short term rates set annually based on review of recent healthcare trend surveys and relevant client-specific experience. Additional details can be found in the Healthcare Assumptions and Methods section.

¹ ASOP No.6, Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions, specifies that actuaries should comply with ASOP 27 when selecting economic assumptions not covered by ASOP 6.

Selection of Non-Economic Assumptions

The Actuarial Standards Board (ASB) provides coordinated guidance for measuring pension and retiree group benefit obligations through a series of Actuarial Standards of Practice (ASOPs). ASOP No. 35, Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations, requires that the actuary disclose the rationale used in selecting each non-prescribed non-economic assumption and any changes to non-prescribed non-economic assumptions.¹

The table below summarizes the rationale for selecting the non-prescribed non-economic assumptions. The rationale for assumption changes, along with a description of the assumptions themselves, is included in the Actuarial Assumption and Methods section of the report.

Non-Economic Assumptions (non-prescribed)	
Assumption	Rationale for Selecting Assumption
Plan participation, plan election and spouse coverage	Based on review of the District's historical experience and current participant elections and the District's 2016 - 2020 actuarial experience study.
Withdrawal, retirement, mortality, disability incidence, and annual salary increases	Based on the District's 2016 - 2020 actuarial experience study.
Spouse ages	Based on a standard age difference assumption from general industry experience, unless substantial plan-specific data is available.
Medicare eligibility	Based on review of current retiree data. Otherwise, we assume all post-65 retirees are Medicare eligible since there are generally very few retirees not eligible for Medicare.
Per capita claims costs	Rationale and details can be found in the Per Capita Claims Cost section of the Summary of Healthcare Assumptions and Methods.

¹ ASOP No.6, Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions, specifies that actuaries should comply with ASOP 35 when selecting economic assumptions not covered by ASOP 6.

Important Notices

Purpose and Scope of the Valuation

This valuation has been prepared exclusively for the Contra Costa Water District Retiree Healthcare Plan and Contra Costa Water District to summarize the Plan's actuarial funding considerations. It is important to recognize that calculations performed for other purposes (such as plan accounting or termination) may yield significantly different results. The District's FYE2022 GASB 74 and 75 disclosure information can be found in a separate report. This report may not be used for any other purpose, and Van Iwaarden Associates is not responsible for the consequences of any unauthorized use. Its content may not be modified, incorporated into or used in other material, or otherwise provided, in whole or in part, to any other person or entity, without our permission.

Assumptions and Methods

Since modeling all possible future outcomes is not possible or practical, the valuation is based on a single set of data, assumptions, methods, and plan provisions which satisfy current requirements. We may also use estimates or simplifications to model future events in an efficient and cost-effective manner, so long as we believe that these simplifying techniques do not affect the reasonableness of the valuation results.

The District is responsible for the assumptions, methods, and funding policies used to prepare the valuation. The assumptions used in this report are among a wide range of possibilities (each of which may be considered reasonable) but have been chosen as a single "best estimate". A different set of reasonable assumptions would produce different results. This report does not include analysis of the effect of alternative assumptions because that is beyond the limited scope of our engagement. If the District is interested in analyzing the effect of different assumption sets on the valuation results, then we suggest a sensitivity analysis to be performed at a later date.

To the extent that actual plan experience differs from the valuation assumptions, actuarial gains and losses will occur and be amortized over future periods. A summary of the actuarial assumptions and methods used in this valuation are summarized in the Actuarial Basis section of the report.

Actuarial Measurement Changes

An actuarial valuation is only a snapshot of a plan's estimated financial condition at a single point in time. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements.

Actuarial valuations are extremely complex and it's possible that data, computer coding, and mathematical errors could occur during the valuation process. Errors in a valuation discovered after its preparation may be corrected by revising the current valuation or in a subsequent year's valuation.

Important Notices (continued)

Accuracy of Substantive Plan Information and Census Data

For purposes of this valuation, we have assumed that the District has validated our summary of the substantive plan provisions and has provided us with any relevant information regarding interpretation of the plan provisions and changes to the plan terms since the prior valuation.

The District is solely responsible for the validity, accuracy and comprehensiveness of this information. If any data or plan provisions supplied are not accurate and complete, the valuation results may differ significantly.

Impact of Legislative Changes

The legislative and regulatory environments have many implications for OPEB plans. Changes to current rules and implementation of new legislation are difficult to predict but could have a dramatic impact on the value of future plan benefits. These include changes to government medical programs, such as Medicare and the Affordable Care Act. Future changes to these programs will be reflected if/when they become law.

Glossary of Selected Terms

This section provides the definitions of applicable terminology in the actuarial valuation.

Actuarial Accrued Liability (AAL) - the portion of the actuarial present value which is not provided for by future normal costs, determined under the actuarial cost method.

Actuarial Cost Method - the method used, when determining the actuarial accrued liability, for allocating costs between past, current, and future years.

Actuarial Present Value of Benefits - the value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a set of actuarial assumptions.

Discount Rate - the interest rate used to adjust liabilities and obligations for the time value of money.

Explicit Subsidy - OPEB explicitly provided by employer.

Implicit Subsidy or Implicit Rate Subsidy - the difference between the actual and apparent cost of OPEB coverage. The actual cost for retirees is different than the average per-person premium for a blended active/retiree group or a retiree group in a pooled health plan. Plans in which retirees pay the average rate (the apparent cost) may give rise to an implicit rate subsidy: the employer pays the difference between the actual and apparent cost.

Long-Term Expected Investment Return - the average expected asset return expected to be earned by the OPEB investments over time.

Normal Cost - the portion of the actuarial present value which is allocated to the valuation year by the actuarial cost method.

Valuation Date - the date as of which assets and liabilities are measured for this valuation.