

Monterey Bay Area Self Insurance Authority

**An Actuarial Review of the
Workers' Compensation Program**

**BAY ACTUARIAL CONSULTANTS
Moraga, California
March 4, 2024**

Bay Actuarial Consultants

March 4, 2024

Mr. Conor Boughey, ARM
Vice President
Alliant Insurance Services
560 Mission Street, 6th Floor
San Francisco, CA 94105


Dear Mr. Boughey:

We are pleased to present Bay Actuarial's Actuarial Review of the Monterey Bay Area Self Insurance Authority's workers' compensation program. We appreciate the opportunity to serve the Authority.

Please call me at (925) 377-5269 if you have any questions.

Respectfully,

BAY ACTUARIAL CONSULTANTS



Jack Joyce, FCAS, MAAA
Principal

Monterey Bay Area Self Insurance Authority

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Monterey Bay Area Self Insurance Authority

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Introduction

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Introduction

Background & Purpose

The Monterey Bay Area Self Insurance Authority ("MBASIA") self-insures its workers' compensation claims. MBASIA's member cities, rather than MBASIA itself, pay all Section 4850 workers' compensation benefits and a very large portion of the temporary disability benefits ("TD") directly. Therefore MBASIA itself has no liability for either unpaid 4850 or the TD benefits that the cities will pay directly in the future. In addition, the 2024-25 rates of loss projected in this report will cover only those benefits that MBASIA provides, and not those paid directly by the member cities.

This is the first time that we received claims data that fully separates the losses paid by MBASIA from those paid directly by the members. This facilitates a less complicated and clearer actuarial analysis. This report covers:

- 1) **Projected 2024-25 Losses & Rates of Loss.** It includes a projection of the losses expected to be incurred during 2024-25 and expresses them as rates of loss per \$100 of payroll. Rates are based on projected 2024-25 payroll of **\$88,062,647**, a flat **5.0%** increase over the projected 2023-24 payroll of **\$83,869,187**.
- 2) **Unpaid Losses.** It includes an estimate of the Authority's liability for unpaid losses as of 12/31/23 and a projection to 6/30/24.
- 3) **Discounting.** The projected 2024-25 losses and the Authority's liabilities are discounted at **3.5%** interest. Discounting takes the time value of money into account, since workers' compensation costs are when accidents occur but the corresponding costs are paid out over an extended timeframe.
- 4) **Quantification of Uncertainty.** It includes an analysis of the rates of loss and of the liability in terms of "probability levels."

5) Short-Term versus Long-Term. The liabilities are broken into their short-term and long-term components.

Conditions & Limitations

This report is for the Authority's internal use. The Authority may provide a copy to its financial auditors. Bay Actuarial does not authorize any other use. In particular, those interested in providing insurance to the Authority must perform their own actuarial analysis and may not rely upon our work.

Risk Management Services Company and MBASIA provided the loss and payroll data. We did not audit this data and are not responsible for its accuracy. The accuracy and relevance of the conclusions and the reasonableness of the recommendations depend upon the accuracy of the underlying data. We use the term "losses" to refer to all costs that can be tied to a specific claim. These include loss payments, attorney's fees, and other expenses linked to a specific claim.

The actuarial projections in this report are estimates. Uncertainty is unavoidable because many of the events that will determine actual claims costs will take place in the future. These events include, but are not limited to, future legislation or ballot initiatives that may change statutory benefit levels or the workers' compensation laws, changes in the rate of inflation, and the outcomes of future administrative proceedings and litigation. Our projections are based upon the Authority's historical experience. We did not anticipate any extraordinary changes in the various factors that might affect the future cost of claims. We used actuarial methods that should produce reasonable results given current information. There is no guarantee, express or implied, that losses will develop as projected in this report.

Structure of the Report

The rest of this report comprises nine sections: the *Management Summary*, the *Technical Approach* section, the *Summary Exhibits*, the *Fiscal Year End Exhibits*, the *Limited Ultimate Loss Exhibits*, the *Gross Loss Exhibits*, the *Future Loss Exhibits*, the *Discounting Exhibits*, and the *Claims Data Exhibits*.

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An Actuarial Review of the Workers' Compensation Program

Management Summary

Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Management Summary

Projected 2024-25 Losses

Table I shows the MBASIA's projected losses for 2024-25 at various self-insured retentions ("SIR's) ranging between \$250,000 and \$1,000,000. These amounts are not discounted for the time value of money. They do not include 4850 benefits or the TD paid by members, claims handling fees, or program administration or excess insurance costs. This projection covers every claim with a date of loss between 7/1/24 and 6/30/25.

Table I: Projected 2024-25 Undiscounted Losses (All Benefits Except 4850 & TD Paid by Members)						
Probability Level	\$250,000 SIR	\$300,000 SIR	\$350,000 SIR	\$500,000 SIR	\$1,000,000 SIR	Unlimited Retention
Central Estimate	\$3,436,614	\$3,712,946	\$3,938,206	\$4,431,295	\$5,104,174	\$5,810,172
60%	3,602,042	3,893,697	4,130,829	4,646,919	5,340,200	6,042,633
70%	3,930,481	4,271,511	4,551,980	5,173,562	6,038,110	6,962,942
75%	\$4,120,562	4,490,748	4,796,908	5,481,397	6,449,174	7,510,047
80%	4,339,217	4,743,423	5,079,639	5,838,031	6,927,966	8,151,444
90%	4,950,606	5,452,353	5,875,153	6,847,966	8,296,789	10,006,053

Claim payments can stretch out for many years beyond the date of a loss so projections like this are typically "discounted" to reflect the time value of money. A **3.5%** interest is currently reasonable and conservative. At this interest rate the amount of discount on the \$250,000 central estimate losses would be **\$453,633**, **13.2%** of the **\$3,436,614** total.

The table shows "actuarial central estimates" plus estimates at higher probability levels. For example, we estimate that there is a 75% probability that the actual 2024-25 \$250,000 SIR losses, excluding 4850, will be less than **\$4,120,562**.

Loss projections like those in this table move in tandem with the actual exposure to loss. Exposure is best measured by total number of hours worked by covered employees. This statistic, hours worked, is rarely available to us so we use what is available, the total covered payroll, instead. The projected 2024-25 payroll assumes a **5.0%** increase from 2023-24.

Projected Rates of Loss

Tables II shows MBASIA's projected rates of loss per \$100 of covered payroll. It was constructed by dividing the Table I total loss projections by the projected payroll and then discounting to present value at a **3.5%** interest rate. The multiplicative present value factors for **3.5%** interest range between **0.847** for unlimited and **0.868** at the \$250,000 SIR. All rates are based on projected 2024-25 payroll of **\$88,062,647**.

Table II: Projected 2024-25 Discounted Loss Rates (3.5% interest rate – All Benefits Except 4850 & Member Paid TD)						
Probability Level	Projected Loss per \$100 of Payroll					
	\$250,000 SIR	\$300,000 SIR	\$350,000 SIR	\$500,000 SIR	\$1,000,000 SIR	Unlimited Retention
Central Estimate	\$3.39	\$3.65	\$3.85	\$4.31	\$4.92	\$5.59
60%	3.55	3.82	4.04	4.52	5.15	5.81
70%	3.87	4.20	4.46	5.03	5.82	6.70
75%	\$4.06	4.41	4.70	5.33	6.22	7.22
80%	4.28	4.66	4.97	5.68	6.68	7.84
90%	4.88	5.36	5.75	6.66	8.00	9.62

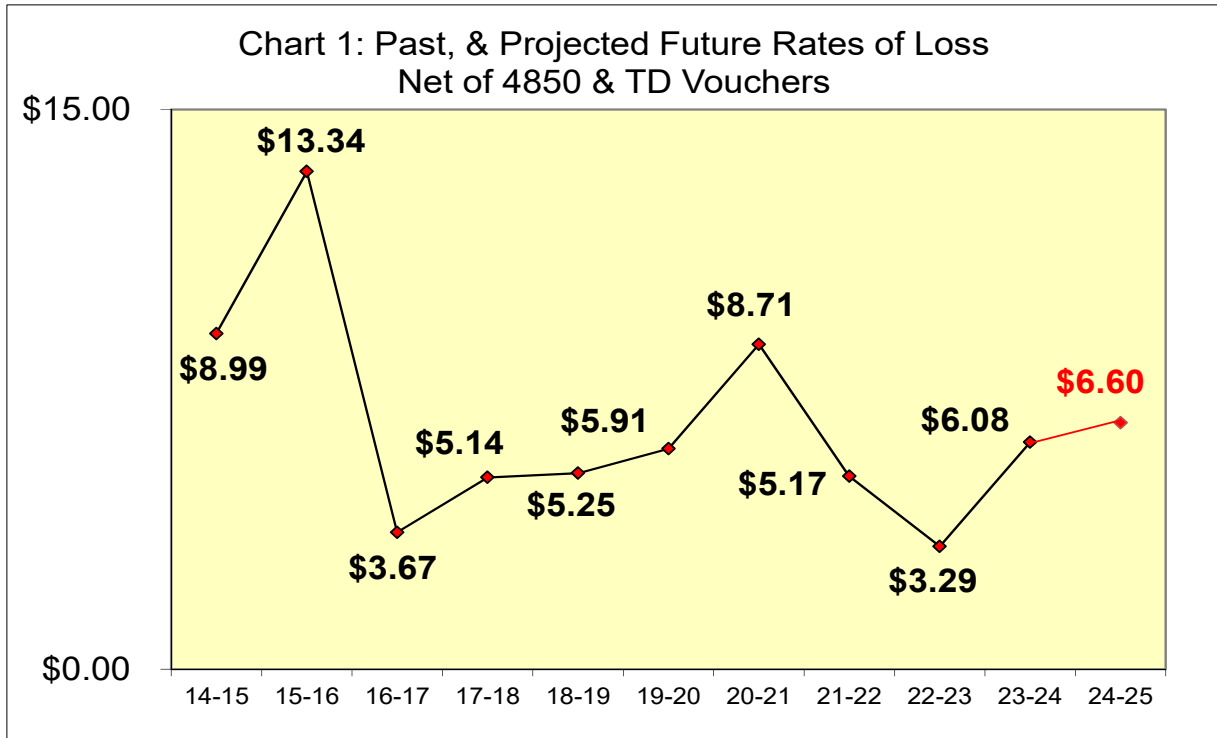
The new 12/31/23 claims data indicated that the 4850 and TD losses paid by the members directly are a very large portion of the total losses paid. Table III illustrates this. These are cumulative paid loss totals by program year.

Table III: 4850 & TD Voucher Payments				
Program Year	4850 Paid	TD Vouchers Paid	Total Loss Paid	TD & 4850 %
2013-14	\$582,092	\$510,345	\$8,132,610	13.4%
2014-15	125,157	283,851	2,804,091	14.6%
2015-16	200,885	532,332	4,693,847	15.6%
2016-17	137,276	244,363	1,836,709	20.8%
2017-18	71,067	269,768	2,314,365	14.7%
2018-19	243,850	475,825	3,030,964	23.7%
2019-20	211,220	589,071	2,545,750	31.4%
2020-21	493,201	846,273	4,096,082	32.7%
2021-22	476,265	751,455	2,443,649	50.2%
2022-23	169,961	470,237	1,216,971	52.6%
2023-24	32,800	40,228	107,230	68.1%
21-22 to 23-24	\$679,026	\$1,261,921	\$3,767,850	51.5%

Over half of all payments since 7/1/21 have been 4850 and TD paid by the cities and not by MBASIA.

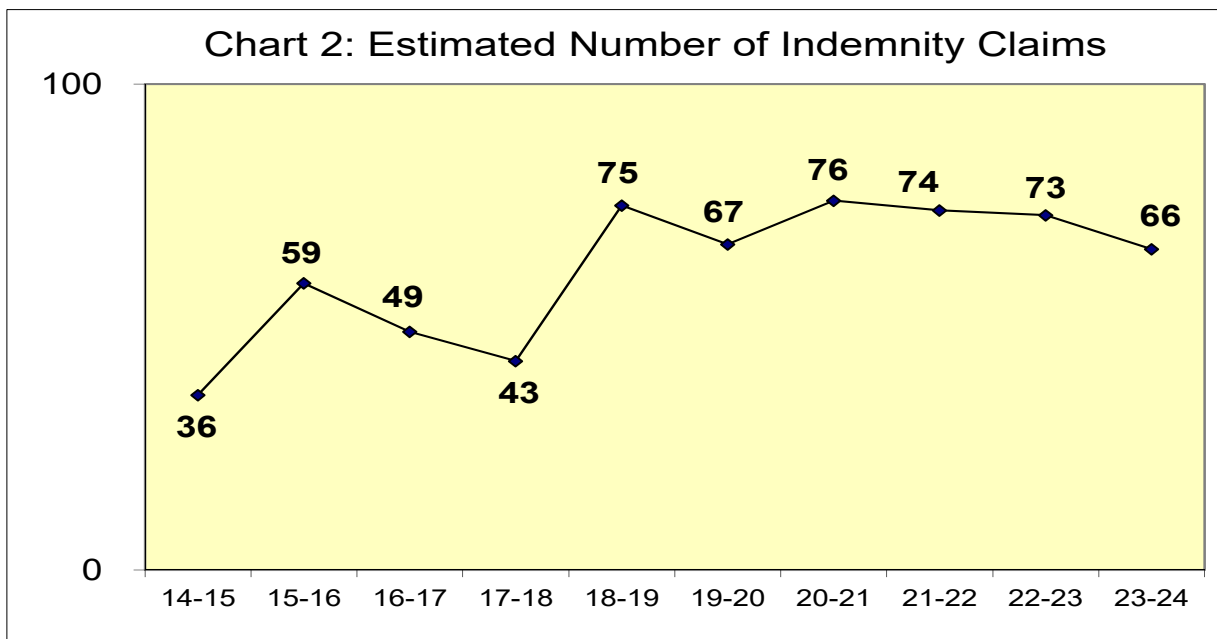
The Authority's Past Rates of Loss

Chart 1 shows the Authority's estimated past unlimited, undiscounted loss rates (no reduction for losses ceded to excess insurers). The loss rate is ultimate total loss per \$100 of payroll. **\$6.60** is the undiscounted central estimate unlimited rate for 2024-25. The rates in the chart show only the losses that MBASIA pays.



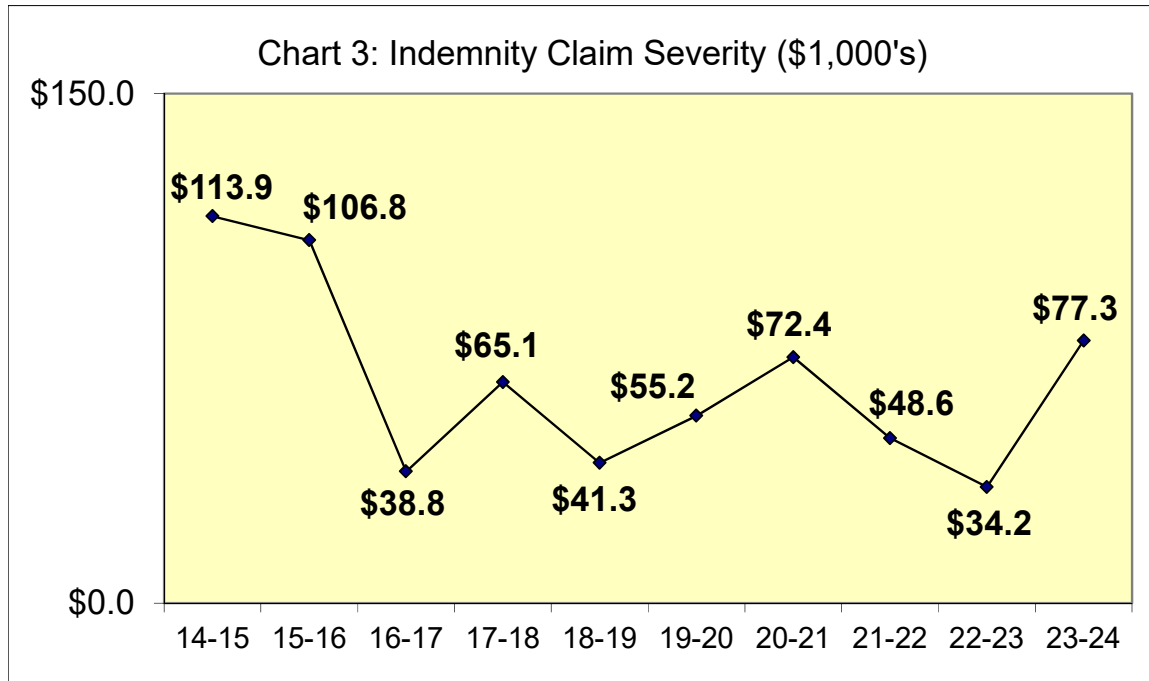
Estimated Number of Indemnity Claims

Claim frequency is an important diagnostic statistic. Chart 2 shows the estimated number of indemnity claims incurred over the last ten years.



Average Claim Amount (“Severity”)

Chart 3 shows the average indemnity claim amount, calculated by dividing the estimated annual losses by the number of indemnity claims. The values in this chart are based on unlimited loss data, so they include the portions of claims are ceded to excess insurers.



Liability for Unpaid Losses

We estimate that the liability for unpaid losses, excluding the ULAE liability, was **\$12,064,970** on 12/31/23 and project that it will be **\$12,042,392** on 6/30/24. Table IV shows the projection from 12/31/23 to 6/30/24.

Table IV: Projected 6/30/24 Liability	
12/31/23 Liability Central Estimate	\$12,064,970
Projected Payments 1/1/24 to 6/30/24	-1,622,578
Projected New Losses 1/1/24 to 6/30/24	+1,600,000
Projected 6/30/24 Central Estimate	\$12,042,392

Table V shows the 12/31/23 central estimate of **\$12,064,970** and a range of estimates at different probability levels. The right-hand column shows these estimates discounted at **3.5%** interest.

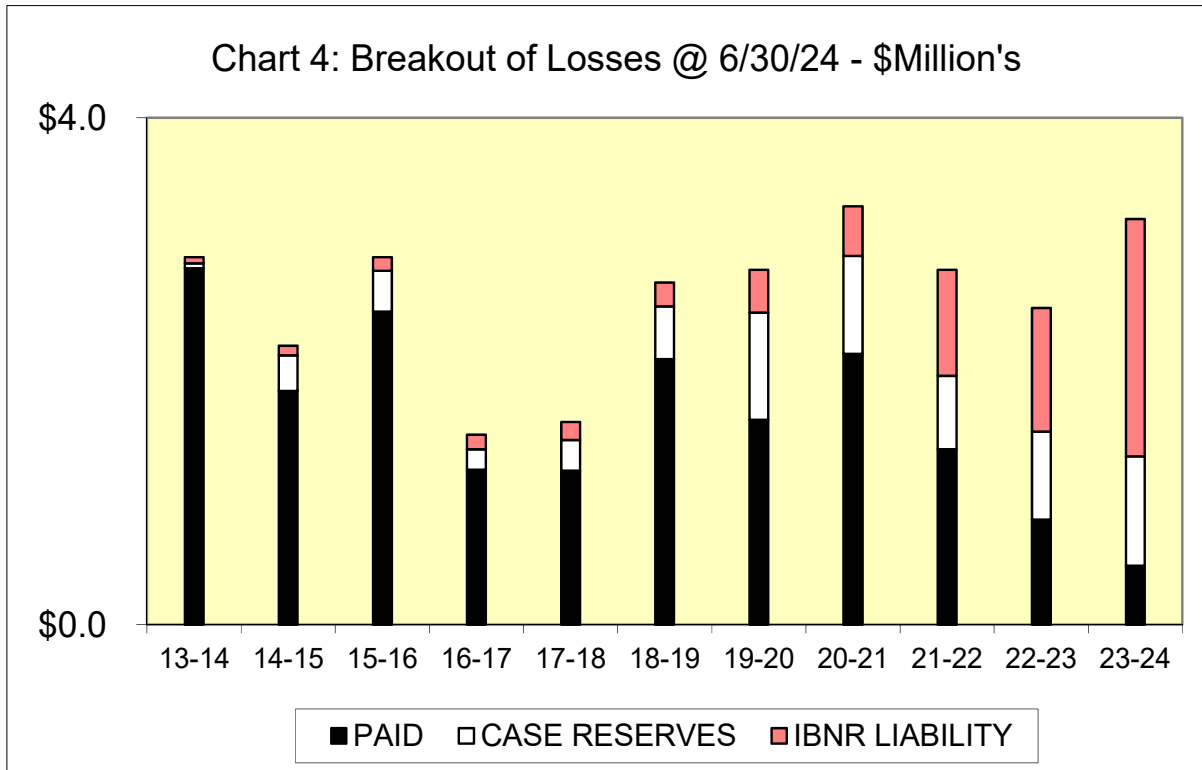
Table V: Estimated Liability for Unpaid Losses @ 12/31/23		
Probability Level	Undiscounted Losses	Discounted at 3.5% Interest
10%	10,255,225	8,747,706
20%	10,858,473	9,262,277
30%	11,220,422	9,571,020
40%	11,582,371	9,879,763
50%	11,944,320	10,188,505
Central Estimate	\$12,064,970	\$10,291,419
60%	12,306,269	10,497,248
70%	12,788,868	10,908,905
75%	13,030,168	11,114,733
80%	13,271,467	11,320,561
90%	13,995,365	11,938,047
95%	14,719,263	12,555,532
98%	15,443,162	13,173,017

Table VI shows the projected probability levels for the projected 6/30/24 liability. These probability levels are based on the assumption that the claims payments over the next six months and the new losses that will occur will match the projections shown in Table IV.

Table VI: Projected Estimate of 6/30/24 Liability		
Probability Level	Undiscounted Losses	Discounted at 3.5% Interest
10%	10,236,033	8,731,336
20%	10,838,153	9,244,944
30%	11,199,424	9,553,109
40%	11,560,696	9,861,274
50%	11,921,968	10,169,439
Central Estimate	\$12,042,392	\$10,272,160
60%	12,283,240	10,477,603
70%	12,764,935	10,888,490
75%	12,885,359	10,991,211
80%	13,246,631	11,299,376
90%	13,969,174	11,915,706
95%	14,691,718	12,532,035
98%	15,414,261	13,148,365

Loss Breakout as of 6/30/24

The Authority's liability of **\$12,042,392** is projected to comprise **\$6,397,963** in case reserves for known claims and an IBNR liability of **\$5,644,429**. Chart 4 breaks out the estimated total program year losses for 2013-14 through 2023-24 into their components: losses paid, case reserves, and IBNR liability.



There is **\$0.88** of projected IBNR liability for every **\$1.00** of projected case reserves.

Short-Term Liability

Short-term liabilities are those expected to be expended within twelve months. The limited 6/30/24 liability comprises **\$2,508,728** in short-term and **\$9,533,663** in long-term liabilities.

ULAE Liability

We estimate that the liability for future claims handling services on the self-insured losses (unallocated loss adjustment expenses, or "ULAE") will be **\$1,534,016** on 6/30/24. This ULAE liability covers the future cost of handling the self-insured claims that were incurred as of 6/30/24.

Interest Rates

The rates in Table II and liability estimates in Tables V and VI are discounted at **3.5%** interest. Table VII shows some possible adjustments.

Table VII: Interest Rate Adjustments						
Interest Rate	0.0%	2.5%	3.0%	3.5%	4.09%	4.12%
UNL Rate	+18.1%	+4.4%	+2.1%	+0.0%	-2.4%	-2.5%
250K Rate	+15.2%	+3.8%	+1.8%	+0.0%	-2.1%	-2.2%
6/30/24 Liability	+17.2%	+4.2%	+2.0%	+0.0%	-2.3%	-2.5%

The timing and amounts of the projected future loss payments are one of the products of the actuarial analysis. If that information is combined with information that the US Treasury publishes on interest rates, one can evaluate the reasonableness of the **3.5%** interest rate assumed in this report.

Matching the projected future claims payments with zero coupon US Treasury bonds as of 1/31/24 produced an overall interest rate of **4.09%** for the 6/30/24 liability and of **4.12%** for the projected 2024-25 rate of loss. Therefore, as of 1/31/24, **3.5%** was reasonable and conservative. Those **4.09%** and **4.12%** yields to maturity could have been “locked in” on 1/31/24.

Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Technical Approach

Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Technical Approach

This section describes the actuarial calculations.

Exhibits

Summary Exhibits

These exhibits summarize the analysis and conclusions. Summary Exhibits 1 and 2 show the liability for unpaid losses as of 12/31/23 and the projected 6/30/24 liability. Summary Exhibit 3 shows the projected rate for the 2024-25 program year, which runs from 7/1/24 to 6/30/25. Summary Exhibit 4 shows the projected unpaid losses as of 6/30/24 by program year on both discounted and non-discounted bases. Summary Exhibit 5 shows the projected ULAE liability.

Fiscal Year End Exhibits

These exhibits show the estimated unpaid limited losses as of 12/31/23 and the projection to 6/30/24.

Limited Ultimate Loss Exhibits

These exhibits show the estimation of the limited ultimate losses for each program year. We start with the gross (unlimited) loss estimates and adjust them to a limited basis to reflect the expected effect of excess insurance.

Gross Loss Exhibits

These exhibits show the various actuarial projection methods and summarize the results for each program year.

We use five different actuarial methods:

- 1) Reported loss projection method;

- 2) Paid loss projection method;
- 3) IBNR to Case Reserves Ratio method;
- 4) Bornhuetter-Ferguson method using reported losses; and
- 5) Frequency times Severity method.

Gross Loss Exhibit 1 summarizes these results.

Future Loss Exhibits

These exhibits show the projection of the projected gross (unlimited) rate for 2024-25.

Discounting Exhibits

These exhibits show the discounting of the remaining unpaid losses and the projected future loss rate. They also include the Program Information Exhibit.

Claims Data Exhibits

These exhibits show the reported loss, paid loss, and claim count triangles as of 12/31/23, and the associated loss and claim development factors. This data includes all workers' compensation benefits delivered to claimants, whether provided by MBASIA or directly by the member cities themselves.

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Summary Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of 12/31/23
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

(1) Estimated Unpaid Losses:	\$12,064,970
(2) Discounted Value of Unpaid Losses: (Assuming 3.5% Interest Rate)	\$10,291,419

Probability Levels			
Probability Level (3)	Probability Factor (4)	Undiscounted (5)	Discounted at 3.50% (6)
10%	0.85	\$10,255,225	\$8,747,706
20%	0.90	10,858,473	9,262,277
30%	0.93	11,220,422	9,571,020
40%	0.96	11,582,371	9,879,763
50%	0.99	11,944,320	10,188,505
Central Estimate	1.00	\$12,064,970	\$10,291,419
60%	1.02	12,306,269	10,497,248
70%	1.06	12,788,868	10,908,905
75%	1.08	13,030,168	11,114,733
80%	1.10	13,271,467	11,320,561
90%	1.16	13,995,365	11,938,047
95%	1.22	14,719,263	12,555,532
98%	1.28	15,443,162	13,173,017

Notes:

- (1) Page 25, Column (6).
- (2) (1), discounted at 3.50% interest.
- (3) Estimated probability that funding will be adequate.
- (4) Estimated by BAC.
- (5) (1) x (4).
- (6) (2) x (4).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected 6/30/24 Estimate of Liability
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

(1) Estimated Unpaid Losses: 12/31/23 \$12,064,970

(2) Projected payments over next six months:	\$1,622,578
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(3) Projected new losses over next six months:	\$1,600,000
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(4) Projected Unpaid Losses: 6/30/24	\$12,042,392
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Probability Level (5)	Projected Estimate of 6/30/24 Probability Factor (6)	Undiscounted (7)	Discounted (8)
10%	0.85	10,236,033	8,731,336
20%	0.90	10,838,153	9,244,944
30%	0.93	11,199,424	9,553,109
40%	0.96	11,560,696	9,861,274
50%	0.99	11,921,968	10,169,439
Central Estimate	1.00	\$12,042,392	\$10,272,160
60%	1.02	12,283,240	10,477,603
70%	1.06	12,764,935	10,888,490
75%	1.07	12,885,359	10,991,211
80%	1.10	13,246,631	11,299,376
90%	1.16	13,969,174	11,915,706
95%	1.22	14,691,718	12,532,035
98%	1.28	15,414,261	13,148,365

Items (7) & (8) are useful to the extent that the projections in items (2) & (3) turn out to be accurate. Actual expenditures and actual new loss occurrences must match items (2) & (3).

Notes:

- (1) Page 17, Item (1).
- (2) Projected by BAC.
- (3) Projected by BAC.
- (4) (1) - (2) + (3).
- (5) Projected Probability on 6/30/24.
- (6) 12/31/23 projection of what the estimate will be on 6/30/24.
- (7) (4) x (6).
- (8) (7), discounted at 3.50% interest.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Loss Funding Rate for 2024-25

\$250,000 SIR Loss rate
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

	<u>Loss Rates</u>
(1) Discounted Loss Rate: (as of 7/1/24, 3.5% interest rate)	\$3.39

Probability Levels		
Probability Level (2)	Probability Factor (3)	Discounted * Rate (4)
20%	0.72	\$2.44
30%	0.80	2.71
40%	0.88	2.98
50%	0.96	3.25
Central Estimate	1.00	\$3.39
60%	1.05	3.56
70%	1.14	3.86
80%	1.26	4.27
90%	1.44	4.88
* Multiply by 1.152 to obtain undiscounted values.		

Notes:

- (1) [Page 49, Column (5)] x [Page 57, Item (4)], adjusted for \$250K SIR.
- (2) Estimated probability that funding will be adequate.
- (3) Estimated by BAC.
- (4) (1) x (3).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

6/30/24 Summary
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	Undiscounted	Discounted	Estimated Ultimate Losses (3)
	Claims Liabilities as of 6/30/24 (1)	(3.5% Interest) Claims Liabilities as of 6/30/24 (2)	
1988-89	\$22,621	\$20,755	\$740,000
1989-90	2,952	2,658	742,000
1990-91	19,940	17,666	1,280,000
1991-92	12,623	10,815	1,470,000
1992-93	16,497	13,731	1,460,000
1993-94	33,682	27,154	1,160,000
1994-95	89,892	70,607	840,000
1995-96	7,022	5,408	856,000
1996-97	40,154	30,951	1,390,000
1997-98	65,156	50,413	1,140,000
1998-99	56,022	44,012	1,510,000
1999-00	14,805	11,726	1,479,000
2000-01	13,907	11,020	2,620,000
2001-02	51,080	40,810	1,990,000
2002-03	59,485	48,012	2,040,000
2003-04	30,961	25,040	1,871,000
2004-05	18,686	15,207	1,620,000
2005-06	170,014	139,162	1,450,000
2006-07	128,230	105,325	2,930,000
2007-08	150,306	123,290	1,430,000
2008-09	38,875	32,068	1,583,000
2009-10	284,477	235,196	3,100,000
2010-11	48,422	40,282	3,500,000
2011-12	211,723	176,940	2,200,000
2012-13	147,442	123,363	2,800,000
2013-14	87,576	73,285	2,900,000
2014-15	355,818	295,401	2,200,000
2015-16	430,922	357,080	2,900,000
2016-17	277,207	229,902	1,500,000
2017-18	384,799	320,398	1,600,000
2018-19	604,779	506,135	2,700,000
2019-20	1,182,932	1,003,031	2,800,000
2020-21	1,161,951	992,632	3,300,000
2021-22	1,416,838	1,224,755	2,800,000
2022-23	1,670,475	1,452,434	2,500,000
2023-24	2,734,120	2,391,252	3,200,000
Total	\$12,042,392	\$10,267,916	

Notes:

- (1) Page 52, Column (1).
- (2) Page 52, Column (3).
- (3) Page 27, Column (6).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

ULAE Projections and Calculation of Unpaid ULAE

(1) Selected ULAE Ratio: **13.0%**

	<u>Case Reserves with Development</u>	<u>"True" IBNR</u>	<u>Total</u>
(2) ULAE Ratio:	6.5%	13.0%	
(3) Estimated Unpaid Losses as of 12/31/23:	\$21,800,806	\$899,725	\$22,700,531
(4) Estimated Unpaid ULAE as of 12/31/23:	\$1,417,052	\$116,964	\$1,534,016
(5) Discounted Unpaid ULAE as of 12/31/23: (3.5% interest rate)			\$1,308,516

We project that the ULAE liability will not change between 12/31/23 & 06/30/24.

Notes:

- (1) Estimated by BAC.
- (2) "50-50 Rule."
- (3) From gross ultimates on Page 34 and gross claims data, assuming 90% of IBNR is development on known claims.
- (4) (2) x (3).
- (5) (4) x [Page 52, Item (4)].

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Fiscal Year End Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Unpaid Losses as of 6/30/24
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	Estimated Ultimate Losses (1)	Projected Paid Losses as of 6/30/24 (2)	Projected Case Reserves 6/30/24 (3)	Projected Reported Losses as of 6/30/24 (4)	Projected IBNR as of 6/30/24 (5)	Projected Unpaid Losses as of 6/30/24 (6)
1988-89	\$740,000	\$717,379	\$16,283	\$733,662	\$6,338	\$22,621
1989-90	742,000	739,048	36	739,084	2,916	2,952
1990-91	1,280,000	1,260,060	11,970	1,272,030	7,970	19,940
1991-92	1,470,000	1,457,377	8,376	1,465,753	4,247	12,623
1992-93	1,460,000	1,443,503	3,443	1,446,946	13,054	16,497
1993-94	1,160,000	1,126,318	22,315	1,148,633	11,367	33,682
1994-95	840,000	750,108	79,570	829,678	10,322	89,892
1995-96	856,000	848,978	0	848,978	7,022	7,022
1996-97	1,390,000	1,349,846	28,163	1,378,009	11,991	40,154
1997-98	1,140,000	1,074,844	58,149	1,132,993	7,007	65,156
1998-99	1,510,000	1,453,978	50,656	1,504,635	5,365	56,022
1999-00	1,479,000	1,464,195	0	1,464,195	14,805	14,805
2000-01	2,620,000	2,606,093	3,231	2,609,324	10,676	13,907
2001-02	1,990,000	1,938,920	44,558	1,983,478	6,522	51,080
2002-03	2,040,000	1,980,515	45,633	2,026,148	13,852	59,485
2003-04	1,871,000	1,840,039	0	1,840,039	30,961	30,961
2004-05	1,620,000	1,601,314	2,829	1,604,143	15,857	18,686
2005-06	1,450,000	1,279,986	153,507	1,433,494	16,506	170,014
2006-07	2,930,000	2,801,770	107,979	2,909,749	20,251	128,230
2007-08	1,430,000	1,279,694	133,110	1,412,803	17,197	150,306
2008-09	1,583,000	1,544,125	0	1,544,125	38,875	38,875
2009-10	3,100,000	2,815,523	208,848	3,024,371	75,629	284,477
2010-11	3,500,000	3,451,578	17,260	3,468,838	31,162	48,422
2011-12	2,200,000	1,988,277	143,741	2,132,018	67,982	211,723
2012-13	2,800,000	2,652,558	41,167	2,693,725	106,275	147,442
2013-14	2,900,000	2,812,424	39,750	2,852,174	47,826	87,576
2014-15	2,200,000	1,844,182	281,062	2,125,244	74,756	355,818
2015-16	2,900,000	2,469,078	322,893	2,791,972	108,028	430,922
2016-17	1,500,000	1,222,793	160,863	1,383,656	116,344	277,207
2017-18	1,600,000	1,215,201	242,173	1,457,374	142,626	384,799
2018-19	2,700,000	2,095,221	417,053	2,512,274	187,726	604,779
2019-20	2,800,000	1,617,068	846,517	2,463,586	336,414	1,182,932
2020-21	3,300,000	2,138,049	771,358	2,909,407	390,593	1,161,951
2021-22	2,800,000	1,383,162	579,731	1,962,894	837,106	1,416,838
2022-23	2,500,000	829,525	694,529	1,524,054	975,946	1,670,475
2023-24	3,200,000	465,880	861,206	1,327,086	1,872,914	2,734,120
Total	\$71,601,000	\$59,558,608	\$6,397,962	\$65,956,571	\$5,644,429	\$12,042,392

Notes:

(1) Page 27, Column (6).

(2) Page 24, Column (3).

(3) (4) - (2).

(4) Page 24, Column (6).

(5) (1) - (4).

(6) (1) - (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Paid and Reported Losses between 1/1/24 and 6/30/24
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	Losses Paid as of 12/31/23 <u>(1)</u>	Projected Losses Paid 1/1/24 - 6/30/24 <u>(2)</u>	Projected Losses Paid as of 6/30/24 <u>(3)</u>	Losses Reported as of 12/31/23 <u>(4)</u>	Projected Losses Reported 1/1/24 - 6/30/24 <u>(5)</u>	Projected Losses Reported as of 6/30/24 <u>(6)</u>
1988-89	\$715,476	\$1,903	\$717,379	\$732,954	\$707	\$733,662
1989-90	738,804	244	739,048	738,804	280	739,084
1990-91	1,260,000	60	1,260,060	1,271,517	514	1,272,030
1991-92	1,457,185	192	1,457,377	1,465,753	1	1,465,753
1992-93	1,443,411	92	1,443,503	1,446,944	2	1,446,946
1993-94	1,125,761	557	1,126,318	1,148,135	498	1,148,633
1994-95	747,721	2,387	750,108	829,261	416	829,678
1995-96	848,537	441	848,978	848,537	441	848,978
1996-97	1,347,065	2,780	1,349,846	1,378,009	0	1,378,009
1997-98	1,068,560	6,283	1,074,844	1,132,656	337	1,132,993
1998-99	1,449,136	4,842	1,453,978	1,504,629	6	1,504,635
1999-00	1,463,143	1,053	1,464,195	1,463,143	1,053	1,464,195
2000-01	2,604,833	1,259	2,606,093	2,609,304	20	2,609,324
2001-02	1,933,806	5,114	1,938,920	1,983,466	12	1,983,478
2002-03	1,975,582	4,932	1,980,515	2,026,122	26	2,026,148
2003-04	1,837,072	2,967	1,840,039	1,837,072	2,967	1,840,039
2004-05	1,599,485	1,829	1,601,314	1,604,114	29	1,604,143
2005-06	1,263,943	16,043	1,279,986	1,433,463	30	1,433,494
2006-07	2,791,277	10,493	2,801,770	2,909,712	37	2,909,749
2007-08	1,264,328	15,365	1,279,694	1,412,772	31	1,412,803
2008-09	1,540,425	3,699	1,544,125	1,540,425	3,699	1,544,125
2009-10	2,784,445	31,078	2,815,523	3,023,249	1,122	3,024,371
2010-11	3,446,339	5,239	3,451,578	3,467,120	1,718	3,468,838
2011-12	1,967,186	21,091	1,988,277	2,127,071	4,947	2,132,018
2012-13	2,638,273	14,285	2,652,558	2,688,593	5,131	2,693,725
2013-14	2,806,230	6,195	2,812,424	2,845,540	6,634	2,852,174
2014-15	1,813,754	30,429	1,844,182	2,116,730	8,514	2,125,244
2015-16	2,429,014	40,064	2,469,078	2,782,912	9,060	2,791,972
2016-17	1,194,131	28,662	1,222,793	1,375,723	7,933	1,383,656
2017-18	1,172,931	42,270	1,215,201	1,447,209	10,165	1,457,374
2018-19	2,008,577	86,645	2,095,221	2,480,362	31,912	2,512,274
2019-20	1,459,169	157,900	1,617,068	2,403,728	59,857	2,463,586
2020-21	1,952,445	185,604	2,138,049	2,837,756	71,650	2,909,407
2021-22	1,177,011	206,152	1,383,162	1,768,595	194,299	1,962,894
2022-23	576,773	252,752	829,525	1,222,072	301,982	1,524,054
2023-24	34,202	431,678	465,880	419,467	907,619	1,327,086
Total	\$57,936,030	\$1,622,578	\$59,558,608	\$64,322,920	\$1,633,651	\$65,956,571

Notes:

- (1) Page 29, Column (1).
(2) Projected by BAC.
(3) (1) + (2).

- (4) Page 28, Column (1).
(5) Projected by BAC.
(6) (4) + (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of 12/31/23
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	Estimated Ultimate Losses (1)	Paid Losses as of 12/31/23 (2)	Case Reserves 12/31/23 (3)	Reported Losses as of 12/31/23 (4)	Estimated IBNR as of 12/31/23 (5)	Estimated Unpaid Losses as of 12/31/23 (6)
1988-89	\$740,000	\$715,476	\$17,479	\$732,954	\$7,046	\$24,524
1989-90	742,000	738,804	0	738,804	3,196	3,196
1990-91	1,280,000	1,260,000	11,517	1,271,517	8,483	20,000
1991-92	1,470,000	1,457,185	8,568	1,465,753	4,247	12,815
1992-93	1,460,000	1,443,411	3,533	1,446,944	13,056	16,589
1993-94	1,160,000	1,125,761	22,373	1,148,135	11,865	34,239
1994-95	840,000	747,721	81,540	829,261	10,739	92,279
1995-96	856,000	848,537	0	848,537	7,463	7,463
1996-97	1,390,000	1,347,065	30,943	1,378,009	11,991	42,935
1997-98	1,140,000	1,068,560	64,095	1,132,656	7,344	71,440
1998-99	1,510,000	1,449,136	55,492	1,504,629	5,371	60,864
1999-00	1,479,000	1,463,143	0	1,463,143	15,857	15,857
2000-01	2,620,000	2,604,833	4,471	2,609,304	10,696	15,167
2001-02	1,990,000	1,933,806	49,660	1,983,466	6,534	56,194
2002-03	2,040,000	1,975,582	50,540	2,026,122	13,878	64,418
2003-04	1,871,000	1,837,072	0	1,837,072	33,928	33,928
2004-05	1,620,000	1,599,485	4,629	1,604,114	15,886	20,515
2005-06	1,450,000	1,263,943	169,520	1,433,463	16,537	186,057
2006-07	2,930,000	2,791,277	118,434	2,909,712	20,288	138,723
2007-08	1,430,000	1,264,328	148,444	1,412,772	17,228	165,672
2008-09	1,583,000	1,540,425	0	1,540,425	42,575	42,575
2009-10	3,100,000	2,784,445	238,804	3,023,249	76,751	315,555
2010-11	3,500,000	3,446,339	20,781	3,467,120	32,880	53,661
2011-12	2,200,000	1,967,186	159,886	2,127,071	72,929	232,814
2012-13	2,800,000	2,638,273	50,321	2,688,593	111,407	161,727
2013-14	2,900,000	2,806,230	39,311	2,845,540	54,460	93,770
2014-15	2,200,000	1,813,754	302,976	2,116,730	83,270	386,246
2015-16	2,900,000	2,429,014	353,898	2,782,912	117,088	470,986
2016-17	1,500,000	1,194,131	181,592	1,375,723	124,277	305,869
2017-18	1,600,000	1,172,931	274,278	1,447,209	152,791	427,069
2018-19	2,700,000	2,008,577	471,785	2,480,362	219,638	691,423
2019-20	2,800,000	1,459,169	944,560	2,403,728	396,272	1,340,832
2020-21	3,300,000	1,952,445	885,312	2,837,756	462,244	1,347,555
2021-22	2,800,000	1,177,011	591,584	1,768,595	1,031,405	1,622,989
2022-23	2,500,000	576,773	645,299	1,222,072	1,277,928	1,923,227
2023-24	1,600,000	34,202	385,265	419,467	1,180,533	1,565,798
Total	\$70,001,000	\$57,936,030	\$6,386,890	\$64,322,920	\$5,678,080	\$12,064,970

Notes:

- (1) Page 27, Column (6).
2023-24 value adjusted for 6 month
exposure through 12/31/23.
- (2) Page 29, Column (1).
- (3) (4) - (2).
- (4) Page 28, Column (1).
- (5) (1) - (4).
- (6) (3) + (5).

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Limited Loss Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Selected Ultimate Losses
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	Limited Reported Projection (1)	Limited Paid Projection (2)	Lim IBNR to Case Reserves Ratio (3)	B-F Limited Method Using Reported (4)	B-F Limited Method Using Paid (5)	Selected Ultimate Losses (6)
1988-89	\$735,294	\$718,142	\$837,686	\$734,800	\$717,937	\$740,000
1989-90	741,231	741,796	738,804	740,678	741,303	742,000
1990-91	1,276,683	1,266,194	1,326,626	1,276,298	1,265,976	1,280,000
1991-92	1,469,698	1,463,652	1,479,016	1,469,947	1,462,777	1,470,000
1992-93	1,450,250	1,449,947	1,450,559	1,450,280	1,451,750	1,460,000
1993-94	1,151,155	1,131,495	1,172,164	1,150,923	1,130,408	1,160,000
1994-95	831,782	752,145	915,939	831,428	752,056	840,000
1995-96	850,837	853,807	848,537	852,082	855,626	856,000
1996-97	1,381,338	1,356,545	1,394,285	1,380,352	1,355,265	1,390,000
1997-98	1,135,343	1,077,347	1,158,871	1,134,660	1,076,574	1,140,000
1998-99	1,508,105	1,463,239	1,522,054	1,506,877	1,460,378	1,510,000
1999-00	1,466,156	1,479,628	1,463,143	1,466,161	1,479,743	1,479,000
2000-01	2,615,073	2,639,013	2,610,220	2,616,503	2,651,629	2,620,000
2001-02	1,988,226	1,962,797	1,993,050	1,986,377	1,955,641	1,990,000
2002-03	2,035,536	2,027,786	2,037,190	2,034,434	2,018,804	2,040,000
2003-04	1,855,081	1,929,674	1,837,072	1,855,782	1,926,880	1,871,000
2004-05	1,612,120	1,655,316	1,604,915	1,611,626	1,650,564	1,620,000
2005-06	1,440,971	1,314,940	1,459,739	1,439,696	1,312,561	1,450,000
2006-07	2,925,703	2,919,707	2,926,530	2,924,661	2,922,825	2,930,000
2007-08	1,420,920	1,331,263	1,431,921	1,420,026	1,324,780	1,430,000
2008-09	1,549,749	1,635,376	1,540,425	1,548,353	1,617,062	1,583,000
2009-10	3,042,184	2,985,996	3,047,607	3,048,086	3,061,796	3,100,000
2010-11	3,479,115	3,659,387	3,468,429	3,479,037	3,676,730	3,500,000
2011-12	2,136,510	2,116,069	2,137,783	2,133,774	2,084,483	2,200,000
2012-13	2,703,157	2,881,052	2,692,015	2,702,553	2,872,802	2,800,000
2013-14	2,868,179	3,118,006	2,848,921	2,886,707	3,320,814	2,900,000
2014-15	2,144,034	2,072,050	2,151,269	2,151,404	2,147,162	2,200,000
2015-16	2,885,537	2,869,822	2,889,435	2,882,027	2,853,004	2,900,000
2016-17	1,435,386	1,439,906	1,434,196	1,496,271	1,684,933	1,500,000
2017-18	1,537,917	1,472,717	1,559,114	1,626,774	1,793,800	1,600,000
2018-19	2,592,923	2,706,501	2,575,663	2,615,650	2,820,308	2,700,000
2019-20	2,673,641	2,181,824	2,817,445	2,728,777	2,524,427	2,800,000
2020-21	3,264,306	3,286,187	3,258,279	3,268,795	3,288,337	3,300,000
2021-22	2,450,392	2,846,886	2,302,204	2,695,059	3,133,250	2,800,000
2022-23	1,777,910	2,422,599	1,671,200	2,288,664	3,173,397	2,500,000
2023-24	1,995,709	961,995	2,162,022	3,173,429	3,394,733	3,200,000
Total	\$68,428,151	\$68,190,806	\$68,764,329	\$70,608,952	\$72,960,515	\$71,601,000

Notes:

- (1) Page 28, Column (3).
- (2) Page 29, Column (3).
- (3) Page 30, Column (6).
- (4) Page 31, Column (6).
- (5) Page 32, Column (6).
- (6) Selected on the basis of (1) - (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Reported Loss Development
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	Cumulative Reported Losses as of 12/31/23 (1)	Reported Development Factor as of 12/31/23 (2)	Projected Ultimate Losses (3)
1988-89	\$732,954	1.003	\$735,294
1989-90	738,804	1.003	741,231
1990-91	1,271,517	1.004	1,276,683
1991-92	1,465,753	1.003	1,469,698
1992-93	1,446,944	1.002	1,450,250
1993-94	1,148,135	1.003	1,151,155
1994-95	829,261	1.003	831,782
1995-96	848,537	1.003	850,837
1996-97	1,378,009	1.002	1,381,338
1997-98	1,132,656	1.002	1,135,343
1998-99	1,504,629	1.002	1,508,105
1999-00	1,463,143	1.002	1,466,156
2000-01	2,609,304	1.002	2,615,073
2001-02	1,983,466	1.002	1,988,226
2002-03	2,026,122	1.005	2,035,536
2003-04	1,837,072	1.010	1,855,081
2004-05	1,604,114	1.005	1,612,120
2005-06	1,433,463	1.005	1,440,971
2006-07	2,909,712	1.005	2,925,703
2007-08	1,412,772	1.006	1,420,920
2008-09	1,540,425	1.006	1,549,749
2009-10	3,023,249	1.006	3,042,184
2010-11	3,467,120	1.003	3,479,115
2011-12	2,127,071	1.004	2,136,510
2012-13	2,688,593	1.005	2,703,157
2013-14	2,845,540	1.008	2,868,179
2014-15	2,116,730	1.013	2,144,034
2015-16	2,782,912	1.037	2,885,537
2016-17	1,375,723	1.043	1,435,386
2017-18	1,447,209	1.063	1,537,917
2018-19	2,480,362	1.045	2,592,923
2019-20	2,403,728	1.112	2,673,641
2020-21	2,837,756	1.150	3,264,306
2021-22	1,768,595	1.386	2,450,392
2022-23	1,222,072	1.455	1,777,910
2023-24	419,467	4.758	1,995,709

Notes:

- (1) Provided by Aims.
- (2) Page 35, Column (2), tempered for SIR.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Paid Loss Development
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	Cumulative Paid Losses as of 12/31/23 (1)	Paid Development Factor as of 12/31/23 (2)	Projected Ultimate Losses (3)
1988-89	\$715,476	1.004	\$718,142
1989-90	738,804	1.004	741,796
1990-91	1,260,000	1.005	1,266,194
1991-92	1,457,185	1.004	1,463,652
1992-93	1,443,411	1.005	1,449,947
1993-94	1,125,761	1.005	1,131,495
1994-95	747,721	1.006	752,145
1995-96	848,537	1.006	853,807
1996-97	1,347,065	1.007	1,356,545
1997-98	1,068,560	1.008	1,077,347
1998-99	1,449,136	1.010	1,463,239
1999-00	1,463,143	1.011	1,479,628
2000-01	2,604,833	1.013	2,639,013
2001-02	1,933,806	1.015	1,962,797
2002-03	1,975,582	1.026	2,027,786
2003-04	1,837,072	1.050	1,929,674
2004-05	1,599,485	1.035	1,655,316
2005-06	1,263,943	1.040	1,314,940
2006-07	2,791,277	1.046	2,919,707
2007-08	1,264,328	1.053	1,331,263
2008-09	1,540,425	1.062	1,635,376
2009-10	2,784,445	1.072	2,985,996
2010-11	3,446,339	1.062	3,659,387
2011-12	1,967,186	1.076	2,116,069
2012-13	2,638,273	1.092	2,881,052
2013-14	2,806,230	1.111	3,118,006
2014-15	1,813,754	1.142	2,072,050
2015-16	2,429,014	1.181	2,869,822
2016-17	1,194,131	1.206	1,439,906
2017-18	1,172,931	1.256	1,472,717
2018-19	2,008,577	1.347	2,706,501
2019-20	1,459,169	1.495	2,181,824
2020-21	1,952,445	1.683	3,286,187
2021-22	1,177,011	2.419	2,846,886
2022-23	576,773	4.200	2,422,599
2023-24	34,202	28.127	961,995

Notes:

- (1) Provided by Aims.
- (2) Page 36, Column (2), tempered for SIR.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

IBNR to Case Reserves Ratio Method
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	Limited Reported LDF (1)	Limited Paid LDF (2)	Limited IBNR to Case Reserves Ratio (3)	Limited Case Reserves (4)	Estimated IBNR as of Reserves (5)	Estimated Ultimate Losses (6)
1988-89	1.003	1.004	5.992	\$17,479	\$104,732	\$837,686
1989-90	1.003	1.004	4.312	0	0	738,804
1990-91	1.004	1.005	4.785	11,517	55,109	1,326,626
1991-92	1.003	1.004	1.548	8,568	13,263	1,479,016
1992-93	1.002	1.005	1.023	3,533	3,615	1,450,559
1993-94	1.003	1.005	1.074	22,373	24,029	1,172,164
1994-95	1.003	1.006	1.063	81,540	86,678	915,939
1995-96	1.003	1.006	0.779	0	0	848,537
1996-97	1.002	1.007	0.526	30,943	16,276	1,394,285
1997-98	1.002	1.008	0.409	64,095	26,215	1,158,871
1998-99	1.002	1.010	0.314	55,492	17,425	1,522,054
1999-00	1.002	1.011	0.226	0	0	1,463,143
2000-01	1.002	1.013	0.205	4,471	916	2,610,220
2001-02	1.002	1.015	0.193	49,660	9,584	1,993,050
2002-03	1.005	1.026	0.219	50,540	11,068	2,037,190
2003-04	1.010	1.050	0.254	0	0	1,837,072
2004-05	1.005	1.035	0.173	4,629	801	1,604,915
2005-06	1.005	1.040	0.155	169,520	26,276	1,459,739
2006-07	1.005	1.046	0.142	118,434	16,818	2,926,530
2007-08	1.006	1.053	0.129	148,444	19,149	1,431,921
2008-09	1.006	1.062	0.116	0	0	1,540,425
2009-10	1.006	1.072	0.102	238,804	24,358	3,047,607
2010-11	1.003	1.062	0.063	20,781	1,309	3,468,429
2011-12	1.004	1.076	0.067	159,886	10,712	2,137,783
2012-13	1.005	1.092	0.068	50,321	3,422	2,692,015
2013-14	1.008	1.111	0.086	39,311	3,381	2,848,921
2014-15	1.013	1.142	0.114	302,976	34,539	2,151,269
2015-16	1.037	1.181	0.301	353,898	106,523	2,889,435
2016-17	1.043	1.206	0.322	181,592	58,473	1,434,196
2017-18	1.063	1.256	0.408	274,278	111,905	1,559,114
2018-19	1.045	1.347	0.202	471,785	95,301	2,575,663
2019-20	1.112	1.495	0.438	944,560	413,717	2,817,445
2020-21	1.150	1.683	0.475	885,312	420,523	3,258,279
2021-22	1.386	2.419	0.902	591,584	533,609	2,302,204
2022-23	1.455	4.200	0.696	645,299	449,128	1,671,200
2023-24	4.758	28.127	4.523	385,265	1,742,555	2,162,022

Notes:

- (1) Page 28, Column (2).
- (2) Page 29, Column (2).
- (3) $[(1) - 1.000] \times (2) / [(2) - (1)]$.
- (4) $[\text{Page 28, Column (1)}] - [\text{Page 29, Column (1)}]$.
- (5) (3) x (4), rounded.
- (6) (5) + Page 28, Column (1).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Reported Losses
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	<i>A Priori</i> Ultimate Losses (1)	Cumulative Reported Loss Development Factors (2)	Percentage of Losses Not Yet Reported (3)	Expected Unreported Losses (4)	Losses Reported as of 12/31/23 (5)	Estimated Ultimate Losses (6)
1988-89	\$615,208	1.003	0.3%	\$1,846	\$732,954	\$734,800
1989-90	624,720	1.003	0.3%	1,874	738,804	740,678
1990-91	1,195,168	1.004	0.4%	4,781	1,271,517	1,276,298
1991-92	1,398,040	1.003	0.3%	4,194	1,465,753	1,469,947
1992-93	1,667,807	1.002	0.2%	3,336	1,446,944	1,450,280
1993-94	929,395	1.003	0.3%	2,788	1,148,135	1,150,923
1994-95	722,485	1.003	0.3%	2,167	829,261	831,428
1995-96	1,181,519	1.003	0.3%	3,545	848,537	852,082
1996-97	1,171,411	1.002	0.2%	2,343	1,378,009	1,380,352
1997-98	1,001,783	1.002	0.2%	2,004	1,132,656	1,134,660
1998-99	1,124,233	1.002	0.2%	2,248	1,504,629	1,506,877
1999-00	1,509,099	1.002	0.2%	3,018	1,463,143	1,466,161
2000-01	3,599,666	1.002	0.2%	7,199	2,609,304	2,616,503
2001-02	1,455,652	1.002	0.2%	2,911	1,983,466	1,986,377
2002-03	1,662,382	1.005	0.5%	8,312	2,026,122	2,034,434
2003-04	1,871,000	1.010	1.0%	18,710	1,837,072	1,855,782
2004-05	1,502,331	1.005	0.5%	7,512	1,604,114	1,611,626
2005-06	1,246,620	1.005	0.5%	6,233	1,433,463	1,439,696
2006-07	2,989,737	1.005	0.5%	14,949	2,909,712	2,924,661
2007-08	1,209,041	1.006	0.6%	7,254	1,412,772	1,420,026
2008-09	1,321,333	1.006	0.6%	7,928	1,540,425	1,548,353
2009-10	4,139,570	1.006	0.6%	24,837	3,023,249	3,048,086
2010-11	3,972,263	1.003	0.3%	11,917	3,467,120	3,479,037
2011-12	1,675,675	1.004	0.4%	6,703	2,127,071	2,133,774
2012-13	2,792,010	1.005	0.5%	13,960	2,688,593	2,702,553
2013-14	5,145,840	1.008	0.8%	41,167	2,845,540	2,886,707
2014-15	2,667,267	1.013	1.3%	34,674	2,116,730	2,151,404
2015-16	2,753,181	1.037	3.6%	99,115	2,782,912	2,882,027
2016-17	2,870,184	1.043	4.2%	120,548	1,375,723	1,496,271
2017-18	3,043,474	1.063	5.9%	179,565	1,447,209	1,626,774
2018-19	3,146,244	1.045	4.3%	135,288	2,480,362	2,615,650
2019-20	3,218,303	1.112	10.1%	325,049	2,403,728	2,728,777
2020-21	3,290,373	1.150	13.1%	431,039	2,837,756	3,268,795
2021-22	3,332,605	1.386	27.8%	926,464	1,768,595	2,695,059
2022-23	3,407,643	1.455	31.3%	1,066,592	1,222,072	2,288,664
2023-24	3,486,028	4.758	79.0%	2,753,962	419,467	3,173,429

Notes:

- (1) Page 39, Column (4), or Page 34, Column (6), adjusted for SIR.
- (2) Page 28, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 28, Column (1).
- (6) $(4) + (5)$.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Paid Losses
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	A Priori Ultimate Losses (1)	Cumulative Paid Loss Development Factors (2)	Percentage of Losses Not Yet Paid (3)	Expected Unpaid Losses (4)	Losses Paid as of 12/31/23 (5)	Estimated Ultimate Losses (6)
1988-89	\$615,208	1.004	0.4%	\$2,461	\$715,476	\$717,937
1989-90	624,720	1.004	0.4%	2,499	738,804	741,303
1990-91	1,195,168	1.005	0.5%	5,976	1,260,000	1,265,976
1991-92	1,398,040	1.004	0.4%	5,592	1,457,185	1,462,777
1992-93	1,667,807	1.005	0.5%	8,339	1,443,411	1,451,750
1993-94	929,395	1.005	0.5%	4,647	1,125,761	1,130,408
1994-95	722,485	1.006	0.6%	4,335	747,721	752,056
1995-96	1,181,519	1.006	0.6%	7,089	848,537	855,626
1996-97	1,171,411	1.007	0.7%	8,200	1,347,065	1,355,265
1997-98	1,001,783	1.008	0.8%	8,014	1,068,560	1,076,574
1998-99	1,124,233	1.010	1.0%	11,242	1,449,136	1,460,378
1999-00	1,509,099	1.011	1.1%	16,600	1,463,143	1,479,743
2000-01	3,599,666	1.013	1.3%	46,796	2,604,833	2,651,629
2001-02	1,455,652	1.015	1.5%	21,835	1,933,806	1,955,641
2002-03	1,662,382	1.026	2.6%	43,222	1,975,582	2,018,804
2003-04	1,871,000	1.050	4.8%	89,808	1,837,072	1,926,880
2004-05	1,502,331	1.035	3.4%	51,079	1,599,485	1,650,564
2005-06	1,246,620	1.040	3.9%	48,618	1,263,943	1,312,561
2006-07	2,989,737	1.046	4.4%	131,548	2,791,277	2,922,825
2007-08	1,209,041	1.053	5.0%	60,452	1,264,328	1,324,780
2008-09	1,321,333	1.062	5.8%	76,637	1,540,425	1,617,062
2009-10	4,139,570	1.072	6.7%	277,351	2,784,445	3,061,796
2010-11	3,972,263	1.062	5.8%	230,391	3,446,339	3,676,730
2011-12	1,675,675	1.076	7.0%	117,297	1,967,186	2,084,483
2012-13	2,792,010	1.092	8.4%	234,529	2,638,273	2,872,802
2013-14	5,145,840	1.111	10.0%	514,584	2,806,230	3,320,814
2014-15	2,667,267	1.142	12.5%	333,408	1,813,754	2,147,162
2015-16	2,753,181	1.181	15.4%	423,990	2,429,014	2,853,004
2016-17	2,870,184	1.206	17.1%	490,802	1,194,131	1,684,933
2017-18	3,043,474	1.256	20.4%	620,869	1,172,931	1,793,800
2018-19	3,146,244	1.347	25.8%	811,731	2,008,577	2,820,308
2019-20	3,218,303	1.495	33.1%	1,065,258	1,459,169	2,524,427
2020-21	3,290,373	1.683	40.6%	1,335,892	1,952,445	3,288,337
2021-22	3,332,605	2.419	58.7%	1,956,239	1,177,011	3,133,250
2022-23	3,407,643	4.200	76.2%	2,596,624	576,773	3,173,397
2023-24	3,486,028	28.127	96.4%	3,360,531	34,202	3,394,733

Notes:

- (1) Page 31, Column (1).
- (2) Page 29, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 29, Column (2).
- (6) $(4) + (5)$.

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Gross Loss Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Selected Ultimate Losses
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	Reported Projection (1)	Paid Projection (2)	IBNR to Case Reserves Ratio (3)	B-F Method Using Reported (4)	Frequency Times Severity (5)	Selected Ultimate Losses (6)
1988-89	\$736,787	\$719,639	\$888,497			\$740,000
1989-90	756,028	756,574	751,264			754,000
1990-91	1,396,324	1,379,089	1,493,597			1,400,000
1991-92	1,718,133	1,501,083	2,355,517			1,720,000
1992-93	2,088,261	2,006,434	2,243,171			2,090,000
1993-94	1,157,192	1,139,972	1,185,901			1,160,000
1994-95	876,741	758,735	1,040,248			900,000
1995-96	1,488,361	1,183,177	1,799,865			1,500,000
1996-97	1,515,738	1,500,190	1,528,254			1,520,000
1997-98	1,328,717	1,280,298	1,363,804			1,330,000
1998-99	1,529,304	1,496,928	1,549,841			1,530,000
1999-00	2,120,347	2,163,230	2,098,733			2,114,000
2000-01	5,198,338	5,324,864	5,147,217			5,200,000
2001-02	2,049,601	2,048,087	2,050,109			2,050,000
2002-03	2,046,487	2,065,711	2,041,031			2,060,000
2003-04	1,855,081	1,929,674	1,837,072			1,871,000
2004-05	1,775,152	1,689,741	1,793,090			1,790,000
2005-06	1,447,516	1,343,719	1,466,519			1,460,000
2006-07	3,522,642	3,403,804	3,542,040			3,540,000
2007-08	1,426,622	1,362,373	1,435,929			1,440,000
2008-09	1,555,527	1,675,007	1,540,425			1,583,000
2009-10	5,011,957	4,926,722	5,021,351			4,990,000
2010-11	5,863,608	5,691,597	5,882,365			5,880,000
2011-12	2,483,497	2,556,798	2,475,408			2,510,000
2012-13	4,045,746	3,918,096	4,059,185			4,060,000
2013-14	7,307,598	8,219,643	7,189,981			7,580,000
2014-15	4,012,634	2,892,781	4,186,844	\$4,010,758	\$2,117,022	4,100,000
2015-16	6,356,607	4,976,571	6,897,701	6,206,838	3,593,262	6,300,000
2016-17	1,762,400	1,866,857	1,723,463	1,949,036	3,090,630	1,900,000
2017-18	2,700,813	2,643,654	2,724,560	2,893,052	2,943,498	2,800,000
2018-19	2,980,006	3,343,370	2,918,447	3,105,169	5,248,064	3,100,000
2019-20	3,493,806	2,800,411	3,714,748	3,707,854	4,792,425	3,700,000
2020-21	5,463,379	4,975,028	5,612,670	5,445,485	5,556,953	5,500,000
2021-22	3,186,557	3,096,807	3,223,653	3,894,849	5,530,921	3,600,000
2022-23	1,838,377	2,534,540	1,717,016	3,115,610	5,577,393	2,500,000
2023-24	2,105,138	1,007,726	2,285,692	5,095,140	5,154,600	5,100,000
Total	\$96,201,022	\$92,178,930	\$98,785,205			\$101,372,000
14/15-23/24	\$33,899,717	\$30,137,745	\$35,004,793	\$39,423,790	\$43,604,768	\$38,600,000

(1) Page 35, Column (3).

(2) Page 36, Column (3).

(3) Page 37, Column (6).

(4) Page 38, Column (6).

(5) Page 42, Column (4).

(6) Selected on the basis of (1) - (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Reported Loss Development
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	Cumulative Reported Losses as of 12/31/23 (1)	Reported Development Factor as of 12/31/23 (2)	Projected Ultimate Losses (3)
1988-89	\$732,954	1.005	\$736,787
1989-90	751,264	1.006	756,028
1990-91	1,386,316	1.007	1,396,324
1991-92	1,705,815	1.007	1,718,133
1992-93	2,073,285	1.007	2,088,261
1993-94	1,148,135	1.008	1,157,192
1994-95	869,303	1.009	876,741
1995-96	1,475,734	1.009	1,488,361
1996-97	1,502,880	1.009	1,515,738
1997-98	1,316,309	1.009	1,328,717
1998-99	1,513,715	1.010	1,529,304
1999-00	2,098,733	1.010	2,120,347
2000-01	5,145,348	1.010	5,198,338
2001-02	2,028,708	1.010	2,049,601
2002-03	2,026,122	1.010	2,046,487
2003-04	1,837,072	1.010	1,855,081
2004-05	1,757,918	1.010	1,775,152
2005-06	1,433,463	1.010	1,447,516
2006-07	3,488,443	1.010	3,522,642
2007-08	1,412,772	1.010	1,426,622
2008-09	1,540,425	1.010	1,555,527
2009-10	4,963,970	1.010	5,011,957
2010-11	5,798,153	1.011	5,863,608
2011-12	2,451,439	1.013	2,483,497
2012-13	3,988,240	1.014	4,045,746
2013-14	7,170,441	1.019	7,307,598
2014-15	3,903,299	1.028	4,012,634
2015-16	5,927,858	1.072	6,356,607
2016-17	1,636,662	1.077	1,762,400
2017-18	2,454,651	1.100	2,700,813
2018-19	2,798,575	1.065	2,980,006
2019-20	3,048,761	1.146	3,493,806
2020-21	4,599,229	1.188	5,463,379
2021-22	2,197,221	1.450	3,186,557
2022-23	1,222,072	1.504	1,838,377
2023-24	419,467	5.019	2,105,138
Total	\$89,824,749		\$96,201,022

Notes:

- (1) Provided by Aims.
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Paid Loss Projection
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	Cumulative Paid Losses as of 12/31/23 (1)	Paid Development Factor as of 12/31/23 (2)	Projected Ultimate Losses (3)
1988-89	\$715,476	1.006	\$719,639
1989-90	751,264	1.007	756,574
1990-91	1,367,469	1.008	1,379,089
1991-92	1,486,691	1.010	1,501,083
1992-93	1,984,525	1.011	2,006,434
1993-94	1,125,761	1.013	1,139,972
1994-95	747,721	1.015	758,735
1995-96	1,163,470	1.017	1,183,177
1996-97	1,471,937	1.019	1,500,190
1997-98	1,252,214	1.022	1,280,298
1998-99	1,458,223	1.027	1,496,928
1999-00	2,098,733	1.031	2,163,230
2000-01	5,140,877	1.036	5,324,864
2001-02	1,967,032	1.041	2,048,087
2002-03	1,975,582	1.046	2,065,711
2003-04	1,837,072	1.050	1,929,674
2004-05	1,599,485	1.056	1,689,741
2005-06	1,263,943	1.063	1,343,719
2006-07	3,182,171	1.070	3,403,804
2007-08	1,264,328	1.078	1,362,373
2008-09	1,540,425	1.087	1,675,007
2009-10	4,481,776	1.099	4,926,722
2010-11	5,107,889	1.114	5,691,597
2011-12	2,261,206	1.131	2,556,798
2012-13	3,411,455	1.149	3,918,096
2013-14	7,040,174	1.168	8,219,643
2014-15	2,395,082	1.208	2,892,781
2015-16	3,960,631	1.257	4,976,571
2016-17	1,455,070	1.283	1,866,857
2017-18	1,973,530	1.340	2,643,654
2018-19	2,311,289	1.447	3,343,370
2019-20	1,745,460	1.604	2,800,411
2020-21	2,756,608	1.805	4,975,028
2021-22	1,215,928	2.547	3,096,807
2022-23	576,773	4.394	2,534,540
2023-24	34,202	29.464	1,007,726
Total	\$76,121,469		\$92,178,930

Notes:

- (1) Provided by Aims.
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

IBNR to Case Reserves Ratio Method
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	Reported Development Factor as of 12/31/23 (1)	Paid Development Factor as of 12/31/23 (2)	IBNR to Case Reserves Ratio (3)	Case Reserves 12/31/23 (4)	Estimated IBNR Losses as of 12/31/23 (5)	Estimated Ultimate Losses (6)
1988-89	1.005	1.006	8.899	\$17,479	\$155,543	\$888,497
1989-90	1.006	1.007	8.792	0	0	751,264
1990-91	1.007	1.008	5.692	18,848	107,281	1,493,597
1991-92	1.007	1.010	2.965	219,124	649,702	2,355,517
1992-93	1.007	1.011	1.914	88,760	169,886	2,243,171
1993-94	1.008	1.013	1.688	22,373	37,766	1,185,901
1994-95	1.009	1.015	1.406	121,583	170,945	1,040,248
1995-96	1.009	1.017	1.038	312,265	324,131	1,799,865
1996-97	1.009	1.019	0.820	30,943	25,374	1,528,254
1997-98	1.009	1.022	0.741	64,095	47,495	1,363,804
1998-99	1.010	1.027	0.651	55,492	36,126	1,549,841
1999-00	1.010	1.031	0.520	0	0	2,098,733
2000-01	1.010	1.036	0.418	4,471	1,869	5,147,217
2001-02	1.010	1.041	0.347	61,675	21,401	2,050,109
2002-03	1.010	1.046	0.295	50,540	14,909	2,041,031
2003-04	1.010	1.050	0.254	0	0	1,837,072
2004-05	1.010	1.056	0.222	158,433	35,172	1,793,090
2005-06	1.010	1.063	0.195	169,520	33,056	1,466,519
2006-07	1.010	1.070	0.175	306,271	53,597	3,542,040
2007-08	1.010	1.078	0.156	148,444	23,157	1,435,929
2008-09	1.010	1.087	0.137	0	0	1,540,425
2009-10	1.010	1.099	0.119	482,193	57,381	5,021,351
2010-11	1.011	1.114	0.122	690,264	84,212	5,882,365
2011-12	1.013	1.131	0.126	190,233	23,969	2,475,408
2012-13	1.014	1.149	0.123	576,785	70,945	4,059,185
2013-14	1.019	1.168	0.150	130,267	19,540	7,189,981
2014-15	1.028	1.208	0.188	1,508,217	283,545	4,186,844
2015-16	1.072	1.257	0.493	1,967,227	969,843	6,897,701
2016-17	1.077	1.283	0.478	181,592	86,801	1,723,463
2017-18	1.100	1.340	0.561	481,121	269,909	2,724,560
2018-19	1.065	1.447	0.246	487,286	119,872	2,918,447
2019-20	1.146	1.604	0.511	1,303,301	665,987	3,714,748
2020-21	1.188	1.805	0.550	1,842,621	1,013,441	5,612,670
2021-22	1.450	2.547	1.046	981,293	1,026,432	3,223,653
2022-23	1.504	4.394	0.767	645,299	494,944	1,717,016
2023-24	5.019	29.464	4.844	385,265	1,866,225	2,285,692
Total				\$13,703,280	\$8,960,456	\$98,785,205

Notes:

- (1) Page 35, Column (2).
(2) Page 36, Column (2).
(3) $[(1) - 1.000] \times (2) / [(2) - (1)]$.
(4) Page 35, Column (1) - Page 36, Column (1).
(5) (3) x (4), rounded.
(6) (5) + Page 35, Column (1).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Reported Losses
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	<i>A Priori</i> Ultimate Losses (1)	Cumulative Reported Loss Development Factors (2)	Percentage of Losses Not Yet Reported (3)	Expected Unreported Losses (4)	Losses Reported as of 12/31/23 (5)	Estimated Ultimate Losses (6)
2014-15	\$3,979,954	1.028	2.7%	\$107,459	\$3,903,299	\$4,010,758
2015-16	4,163,888	1.072	6.7%	278,980	5,927,858	6,206,838
2016-17	4,399,628	1.077	7.1%	312,374	1,636,662	1,949,036
2017-18	4,817,593	1.100	9.1%	438,401	2,454,651	2,893,052
2018-19	5,026,135	1.065	6.1%	306,594	2,798,575	3,105,169
2019-20	5,189,709	1.146	12.7%	659,093	3,048,761	3,707,854
2020-21	5,356,052	1.188	15.8%	846,256	4,599,229	5,445,485
2021-22	5,476,220	1.450	31.0%	1,697,628	2,197,221	3,894,849
2022-23	5,652,351	1.504	33.5%	1,893,538	1,222,072	3,115,610
2023-24	5,837,295	5.019	80.1%	4,675,673	419,467	5,095,140

Notes:

- (1) Page 39, Column (4).
- (2) Page 35, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 35, Column (1).
- (6) $(4) + (5)$.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Losses for Bornhuetter-Ferguson
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	<i>A Priori</i> Loss Rate (1)	Factor to Remove Trend (2)	Trended Payroll (\$00's) (3)	<i>A Priori</i> Ultimate Losses (4)
2014-15	\$6.96	0.753	\$759,406	\$3,979,954
2015-16	6.96	0.780	767,000	4,163,888
2016-17	6.96	0.808	782,340	4,399,628
2017-18	6.96	0.876	790,163	4,817,593
2018-19	6.96	0.896	805,966	5,026,135
2019-20	6.96	0.916	814,026	5,189,709
2020-21	6.96	0.936	822,166	5,356,052
2021-22	6.96	0.957	822,166	5,476,220
2022-23	6.96	0.978	830,388	5,652,351
2023-24	6.96	1.000	838,692	5,837,295

Notes:

- (1) Page 40, Item (5).
- (2) Estimated by BAC.
- (3) Page 62, Column (3).
- (4) (1) x (2) x (3).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Loss Rate for Bornhuetter-Ferguson Method
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	<i>A Priori</i> Ultimate Losses (1)	Estimated Pure Premium Trend (2)	Trended Payroll (\$00's) (3)	Constant Dollar Loss Rate (4)
2009-10	\$4,971,150	1.401	\$815,673	\$8.54
2010-11	5,798,153	1.357	791,202	9.95
2011-12	2,518,136	1.315	767,466	4.31
2012-13	3,988,240	1.424	744,442	7.63
2013-14	7,732,671	1.375	751,887	14.15
2014-15	3,903,299	1.328	759,406	6.83
2015-16	5,927,858	1.282	767,000	9.91
2016-17	1,810,065	1.238	782,340	2.86
2017-18	2,675,037	1.141	790,163	3.86
2018-19	3,134,074	1.116	805,966	4.34
2019-20	3,204,895	1.092	814,026	4.30
2020-21	5,269,535	1.068	822,166	6.85
2021-22	3,153,993	1.045	822,166	4.01
2022-23	2,015,917	1.022	830,388	2.48
2023-24	1,945,421	1.000	838,692	2.32
Average				\$6.16
09/10-22/23				\$6.43
			(5) Selected A Priori 2023-24 Loss Rate:	\$6.96

Notes:

- (1) Page 41, Column (3).
- (2) Estimated by BAC.
- (3) Page 62, Column (3).
- (4) $(1) \times (2) / (3)$.
- (5) Selected on the basis of (4).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Ultimate Losses
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	Reported Loss Projection <u>(1)</u>	Paid Loss Projection <u>(2)</u>	<i>A Priori</i> Selection <u>(3)</u>
1988-89	\$736,787	\$719,639	\$732,954
1989-90	756,028	756,574	756,301
1990-91	1,396,324	1,379,089	1,387,712
1991-92	1,718,133	1,501,083	1,705,815
1992-93	2,088,261	2,006,434	2,073,285
1993-94	1,157,192	1,139,972	1,148,602
1994-95	876,741	758,735	869,303
1995-96	1,488,361	1,183,177	1,475,734
1996-97	1,515,738	1,500,190	1,508,005
1997-98	1,328,717	1,280,298	1,316,309
1998-99	1,529,304	1,496,928	1,513,715
1999-00	2,120,347	2,163,230	2,141,574
2000-01	5,198,338	5,324,864	5,260,813
2001-02	2,049,601	2,048,087	2,048,855
2002-03	2,046,487	2,065,711	2,055,933
2003-04	1,855,081	1,929,674	1,891,642
2004-05	1,775,152	1,689,741	1,757,918
2005-06	1,447,516	1,343,719	1,433,463
2006-07	3,522,642	3,403,804	3,488,443
2007-08	1,426,622	1,362,373	1,412,772
2008-09	1,555,527	1,675,007	1,613,058
2009-10	5,011,957	4,926,722	4,971,150
2010-11	5,863,608	5,691,597	5,798,153
2011-12	2,483,497	2,556,798	2,518,136
2012-13	4,045,746	3,918,096	3,988,240
2013-14	7,307,598	8,219,643	7,732,671
2014-15	4,012,634	2,892,781	3,903,299
2015-16	6,356,607	4,976,571	5,927,858
2016-17	1,762,400	1,866,857	1,810,065
2017-18	2,700,813	2,643,654	2,675,037
2018-19	2,980,006	3,343,370	3,134,074
2019-20	3,493,806	2,800,411	3,204,895
2020-21	5,463,379	4,975,028	5,269,535
2021-22	3,186,557	3,096,807	3,153,993
2022-23	1,838,377	2,534,540	2,015,917
2023-24	2,105,138	1,007,726	1,945,421
Total	\$96,201,022	\$92,178,930	\$95,640,650

Notes:

- (1) Page 35, Column (3).
- (2) Page 36, Column (3).
- (3) Selected on the basis of (1) and (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Frequency Times Severity Method

Program Year	Selected Claim Severity (1)	Factor to Remove Trend (2)	Selected Ultimate Claims (3)	Estimated Ultimate Losses (4)
2014-15	\$78,100	0.753	36	\$2,117,022
2015-16	78,100	0.780	59	3,593,262
2016-17	78,100	0.808	49	3,090,630
2017-18	78,100	0.876	43	2,943,498
2018-19	78,100	0.896	75	5,248,064
2019-20	78,100	0.916	67	4,792,425
2020-21	78,100	0.936	76	5,556,953
2021-22	78,100	0.957	74	5,530,921
2022-23	78,100	0.978	73	5,577,393
2023-24	78,100	1.000	66	5,154,600

Notes:

- (1) Page 43, Item (5).
- (2) Estimated by BAC.
- (3) Page 44, Column (3).
- (4) (1) x (2) x (3).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Calculation of Expected Claim Severity
Frequency Times Severity Method
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	<i>A Priori</i> Ultimate Losses (1)	Estimated Severity Trend (2)	Selected Claim Count (3)	Trended Claim Severity (4)
2011-12	\$2,518,136	1.315	71	\$46,630
2012-13	3,988,240	1.424	62	91,632
2013-14	7,732,671	1.375	65	163,628
2014-15	3,903,299	1.328	36	143,998
2015-16	5,927,858	1.282	59	128,843
2016-17	1,810,065	1.238	49	45,740
2017-18	2,675,037	1.141	43	70,977
2018-19	3,134,074	1.116	75	46,640
2019-20	3,204,895	1.092	67	52,229
2020-21	5,269,535	1.068	76	74,060
2021-22	3,153,993	1.045	74	44,536
2022-23	2,015,917	1.022	73	28,229
Average				\$78,095
			(5) Selected Severity:	\$78,100

Notes:

- (1) Page 41, Column (3).
- (2) Estimated by BAC.
- (3) Page 44, Column (3).
- (4) (1) x (2) / (3).
- (5) Selected on the basis of (4).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Selected Claim Counts

Program Year	Reported Claim Count Projection (1)	Bornhuetter- Ferguson Method (2)	Selected Claim Count (3)
1988-89	22		22
1989-90	40		40
1990-91	49		49
1991-92	46		46
1992-93	37		37
1993-94	50		50
1994-95	45		45
1995-96	44		44
1996-97	52		52
1997-98	60		60
1998-99	54		54
1999-00	51		51
2000-01	63		63
2001-02	70		70
2002-03	75		75
2003-04	74		74
2004-05	67		67
2005-06	53		53
2006-07	76		76
2007-08	59		59
2008-09	80		80
2009-10	58		58
2010-11	88		88
2011-12	71		71
2012-13	62		62
2013-14	65		65
2014-15	36		36
2015-16	59		59
2016-17	49		49
2017-18	43		43
2018-19	75		75
2019-20	67		67
2020-21	76		76
2021-22	74		74
2022-23	73		73
2023-24	48	66	66

Notes:

- (1) Page 45, Column (3).
- (2) Page 46, Column (6).
- (3) Selected on the basis of (1) and (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projection of Ultimate # of Indemnity Claims

Program Year	Total Indemnity Claims Reported 12/31/23 <u>(1)</u>	Development Factors as of 12/31/23 <u>(2)</u>	Projected Ultimate Indemnity Claims <u>(3)</u>
1988-89	22	1.000	22
1989-90	40	1.000	40
1990-91	49	1.000	49
1991-92	46	1.000	46
1992-93	37	1.000	37
1993-94	50	1.000	50
1994-95	45	1.000	45
1995-96	44	1.000	44
1996-97	52	1.000	52
1997-98	60	1.000	60
1998-99	54	1.000	54
1999-00	51	1.000	51
2000-01	63	1.000	63
2001-02	70	1.000	70
2002-03	75	1.000	75
2003-04	74	1.000	74
2004-05	67	1.000	67
2005-06	53	1.000	53
2006-07	76	1.000	76
2007-08	59	1.000	59
2008-09	80	1.000	80
2009-10	58	1.000	58
2010-11	88	1.000	88
2011-12	71	1.000	71
2012-13	62	1.000	62
2013-14	65	1.000	65
2014-15	36	1.000	36
2015-16	59	1.000	59
2016-17	49	1.000	49
2017-18	43	0.999	43
2018-19	75	1.006	75
2019-20	66	1.019	67
2020-21	74	1.024	76
2021-22	72	1.027	74
2022-23	69	1.059	73
2023-24	16	3.001	48
Total	2,070		2,111

Notes:

- (1) Provided by Aims.
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projection of Ultimate # of Indemnity Claims
Bornhuetter-Ferguson Method

Program Year	A Priori Claim Count (1)	Claim Development Factor (2)	Estimated Percentage of Claims Unreported (3)	Estimated Unreported Claims (4)	Reported Claims as of 12/31/23 (5)	Projected Ultimate Claims (6)
2023-24	75	3.001	66.7%	50	16	66

Notes:

- (1) Page 47, Item (6).
- (2) Page 45, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 45, Column (1).
- (6) $(4) + (5)$.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Calculation of Expected Claim Counts
A Priori Claim Count

Program Year	Projected Ultimate Claim Counts <u>(1)</u>	Trended Payroll (\$Millions) <u>(2)</u>	Indicated Claim Frequency <u>(3)</u>
2014-15	36	\$75.9	0.47
2015-16	59	76.7	0.77
2016-17	49	78.2	0.63
2017-18	43	79.0	0.54
2017-18	43	79.0	0.54
2018-19	75	80.6	0.93
2019-20	67	81.4	0.82
2020-21	76	82.2	0.92
2021-22	74	82.2	0.90
2022-23	73	83.0	0.88
2023-24	48	83.9	0.57
Average			0.73
18/19-22/23			0.89
		(4) Selected Claim Frequency:	0.89
		(5) 2023-24 Trended Payroll (\$Millions):	\$83.9
		(6) 2023-24 A Priori Claim Count:	75

Notes:

- (1) Page 45, Column (3).
- (2) Page 62, Column (3) / 10,000.
- (3) (1) / (2).
- (4) Selected on the basis of (3).
- (5) Page 62, Column (3) / 10,000.
- (6) (4) x (5).

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Future Loss Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Ultimate Unlimited Loss Rate for 2024-25
Unlimited Losses Excluding 4850 & TD Vouchers

Program Year	2023-24 Level Loss Rate <u>(1)</u>	Expected Increase for 2024-25 <u>(2)</u>	Trended Payroll (\$00's) <u>(3)</u>	Projected Ultimate Losses <u>(4)</u>	Projected 2024-25 Unlimited Loss Rate <u>(5)</u>
2024-25	\$6.71	1.022	\$847,079	5,810,172	\$6.60

	Full Rate
Unlimited	\$6.60
\$1M Limit:	\$5.80
\$750K Limit:	\$5.52
\$500K Limit:	\$5.03
\$350K Limit:	\$4.47
\$250K Limit:	\$3.90

Notes:

- (1) Page 50, Item (11).
- (2) 2.2% Expected Increase Estimated by BAC.
- (3) Page 62, Column (2).
- (4) (1) x (2) x (3), rounded.
- (5) (4) / [Page 62, Column (2)], rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Unlimited Losses Excluding 4850 & TD Vouchers

Projected Future Loss Rate

Program Year	Estimated Ultimate Losses (1)	Pure Premium Trend (2)	Trended Payroll (\$00's) (3)	Trended Loss Rate (4)
2011-12	\$2,510,000	1.315	\$767,466	\$4.30
2012-13	4,060,000	1.424	744,442	7.77
2013-14	7,580,000	1.375	751,887	13.87
2014-15	4,100,000	1.328	759,406	7.17
2015-16	6,300,000	1.282	767,000	10.53
2016-17	1,900,000	1.238	782,340	3.01
2017-18	2,800,000	1.141	790,163	4.04
2018-19	3,100,000	1.116	805,966	4.29
2019-20	3,700,000	1.092	814,026	4.96
2020-21	5,500,000	1.068	822,166	7.15
2021-22	3,600,000	1.045	822,166	4.58
2022-23	2,500,000	1.022	830,388	3.08

Average

\$6.23

(5) Selected Loss Rate: \$6.71

Program Year	Largest Claim (6)	Severity Trend (7)	LDF (8)	Trended Developed Max Claim (9)
2011-12	\$470,180	1.315	1.013	\$626,249
2012-13	689,234	1.424	1.014	995,955
2013-14	2,499,910	1.375	1.019	3,504,251
2014-15	1,496,974	1.328	1.028	2,043,808
2015-16	1,809,889	1.282	1.072	2,488,820
2016-17	433,197	1.238	1.077	577,605
2017-18	1,057,941	1.141	1.100	1,328,073
2018-19	400,380	1.116	1.065	475,846
2019-20	531,235	1.092	1.146	664,710
2020-21	1,837,915	1.068	1.188	2,332,006

(10) Factor for Unlimited Retention: 1.000

(11) Unlimited 2023-24 Rate: **\$6.71**

Notes:

- (1) Page 34, Column (6).
- (2) Page 40, Column (2).
- (3) Page 62, Column (3).
- (4) (1) x (2) / (3).
- (5) Based on Column (4).
- (6) Provided by Aims.
- (7) Page 43, Column (2). Indexed to 2023-24.
- (8) Page 35, Column (2).
- (9) (6) x (7) x (8).
- (10) Estimated by BAC.
- (11) (5) x (10).

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Discounting Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of Unpaid Losses as of 6/30/24
Assuming a 3.5% Interest Rate
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Program Year	Projected Unpaid Losses (1)	Discount Factor (2)	Discounted Unpaid Losses (3)
1988-89	\$22,621	0.918	\$20,755
1989-90	2,952	0.900	2,658
1990-91	19,940	0.886	17,666
1991-92	12,623	0.857	10,815
1992-93	16,497	0.832	13,731
1993-94	33,682	0.806	27,154
1994-95	89,892	0.785	70,607
1995-96	7,022	0.770	5,408
1996-97	40,154	0.771	30,951
1997-98	65,156	0.774	50,413
1998-99	56,022	0.786	44,012
1999-00	14,805	0.792	11,726
2000-01	13,907	0.792	11,020
2001-02	51,080	0.799	40,810
2002-03	59,485	0.807	48,012
2003-04	30,961	0.809	25,040
2004-05	18,686	0.814	15,207
2005-06	170,014	0.819	139,162
2006-07	128,230	0.821	105,325
2007-08	150,306	0.820	123,290
2008-09	38,875	0.825	32,068
2009-10	284,477	0.827	235,196
2010-11	48,422	0.832	40,282
2011-12	211,723	0.836	176,940
2012-13	147,442	0.837	123,363
2013-14	87,576	0.837	73,285
2014-15	355,818	0.830	295,401
2015-16	430,922	0.829	357,080
2016-17	277,207	0.829	229,902
2017-18	384,799	0.833	320,398
2018-19	604,779	0.837	506,135
2019-20	1,182,932	0.848	1,003,031
2020-21	1,161,951	0.854	992,632
2021-22	1,416,838	0.864	1,224,755
2022-23	1,670,475	0.869	1,452,434
2023-24	2,734,120	0.875	2,391,252
Total	\$12,042,392		\$10,267,916

(4) Indicated Discount Factor: 0.853

Notes:

- (1) Page 23, Column (6).
- (2) (3) / (1).
- (3) Based upon a 3.5% interest rate.
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2024-25 Losses as of 7/1/24
Assuming a 3.5% Interest rate

Unlimited Losses Excluding 4850 & TD Vouchers

Fiscal Year	Projected Loss Payments (1)	Discount Factor (2)	Discounted Value of Payments (3)
2024-25	\$924,541	0.983	\$908,774
2025-26	1,130,567	0.950	1,073,707
2026-27	806,163	0.918	739,728
2027-28	599,798	0.887	531,758
2028-29	433,243	0.857	371,108
2029-30	353,625	0.828	292,665
2030-31	236,035	0.800	188,740
2031-32	186,792	0.773	144,313
2032-33	148,928	0.746	111,169
2033-34	115,626	0.721	83,391
2034-35	81,969	0.697	57,119
2035-36	82,872	0.673	55,795
2036-37	76,343	0.650	49,661
2037-38	75,358	0.628	47,363
2038-39	66,966	0.607	40,665
2039-40	48,931	0.587	28,708
2040-41	48,460	0.567	27,471
2041-42	31,229	0.548	17,104
2042-43	35,505	0.529	18,789
2043-44	33,704	0.511	17,232
2044-45	29,354	0.494	14,501
2045-46	21,300	0.477	10,166
2046-47	25,813	0.461	11,904
2047-48	32,544	0.446	14,500
2048-49	22,527	0.430	9,698
49-50 to	161,979	0.350	56,734
Total	\$5,810,172		\$4,922,763

(4) Indicated Discount Factor: 0.847

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.5% interest rate.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2024-25 Losses as of 7/1/24
Assuming a 3.5% Interest rate

\$1 Million SIR
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Fiscal Year	Projected Loss Payments (1)	Discount Factor (2)	Discounted Value of Payments (3)
2024-25	\$812,199	0.983	\$798,348
2025-26	993,191	0.950	943,240
2026-27	708,206	0.918	649,843
2027-28	532,476	0.887	472,073
2028-29	385,256	0.857	330,003
2029-30	303,478	0.828	251,163
2030-31	208,389	0.800	166,634
2031-32	164,876	0.773	127,381
2032-33	131,417	0.746	98,097
2033-34	102,037	0.721	73,591
2034-35	72,449	0.697	50,485
2035-36	78,456	0.673	52,822
2036-37	71,518	0.650	46,522
2037-38	69,392	0.628	43,613
2038-39	61,044	0.607	37,069
2039-40	44,899	0.587	26,343
2040-41	43,630	0.567	24,733
2041-42	28,778	0.548	15,762
2042-43	31,634	0.529	16,740
2043-44	29,555	0.511	15,111
2044-45	25,530	0.494	12,612
2045-46	18,758	0.477	8,953
2046-47	21,821	0.461	10,063
2047-48	24,876	0.446	11,084
2048-49	17,197	0.430	7,403
49-50 to	123,111	0.349	42,950
Total	\$5,104,174		\$4,332,638

(4) Indicated Discount Factor: 0.849

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.5% interest rate.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2024-25 Losses as of 7/1/24
Assuming a 3.5% Interest rate

\$500,000 SIR
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Fiscal Year	Projected Loss Payments (1)	Discount Factor (2)	Discounted Value of Payments (3)
2024-25	\$712,502	0.983	\$700,351
2025-26	871,701	0.950	827,860
2026-27	637,611	0.918	585,066
2027-28	476,542	0.887	422,484
2028-29	333,393	0.857	285,578
2029-30	269,792	0.828	223,283
2030-31	198,173	0.800	158,464
2031-32	149,477	0.773	115,484
2032-33	118,441	0.746	88,412
2033-34	88,931	0.721	64,138
2034-35	60,034	0.697	41,833
2035-36	68,299	0.673	45,983
2036-37	60,776	0.650	39,535
2037-38	57,001	0.628	35,825
2038-39	48,994	0.607	29,751
2039-40	36,112	0.587	21,187
2040-41	33,882	0.567	19,207
2041-42	22,923	0.548	12,555
2042-43	23,869	0.529	12,631
2043-44	21,648	0.511	11,069
2044-45	18,358	0.494	9,069
2045-46	13,631	0.477	6,506
2046-47	14,876	0.461	6,860
2047-48	14,344	0.446	6,391
2048-49	9,887	0.430	4,256
49-50 to	70,099	0.339	23,785
Total	\$4,431,295		\$3,797,563

(4) Indicated Discount Factor: 0.857

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.5% interest rate.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2024-25 Losses as of 7/1/24
Assuming a 3.5% Interest rate

\$350,000 SIR
Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Fiscal Year	Projected Loss Payments (1)	Discount Factor (2)	Discounted Value of Payments (3)
2024-25	\$639,010	0.983	\$628,113
2025-26	779,054	0.950	739,872
2026-27	558,841	0.918	512,787
2027-28	460,731	0.887	408,466
2028-29	293,456	0.857	251,369
2029-30	260,063	0.828	215,232
2030-31	156,894	0.800	125,456
2031-32	122,815	0.773	94,885
2032-33	125,979	0.746	94,038
2033-34	67,322	0.721	48,554
2034-35	47,595	0.697	33,166
2035-36	66,759	0.673	44,947
2036-37	57,720	0.650	37,547
2037-38	52,043	0.628	32,709
2038-39	43,460	0.607	26,391
2039-40	31,903	0.587	18,718
2040-41	28,713	0.567	16,276
2041-42	19,743	0.548	10,813
2042-43	19,368	0.529	10,249
2043-44	16,932	0.511	8,657
2044-45	13,991	0.494	6,911
2045-46	10,398	0.477	4,963
2046-47	10,588	0.461	4,883
2047-48	8,390	0.446	3,738
2048-49	5,772	0.430	2,485
49-50 to	40,666	0.332	13,511
Total	\$3,938,206		\$3,394,736

(4) Indicated Discount Factor: 0.862

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.5% interest rate.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2024-25 Losses as of 7/1/24
Assuming a 3.5% Interest rate

\$250,000 SIR

Limited Self-Insured Losses Excluding 4850 & TD Vouchers

Fiscal Year	Projected Loss Payments (1)	Discount Factor (2)	Discounted Value of Payments (3)
2024-25	\$569,338	0.983	\$559,629
2025-26	692,864	0.950	658,018
2026-27	504,457	0.918	462,885
2027-28	413,761	0.887	366,825
2028-29	268,843	0.857	230,286
2029-30	222,704	0.828	184,313
2030-31	138,881	0.800	111,053
2031-32	107,931	0.773	83,386
2032-33	81,600	0.746	60,911
2033-34	63,968	0.721	46,135
2034-35	46,274	0.697	32,245
2035-36	53,086	0.673	35,741
2036-37	45,464	0.650	29,574
2037-38	40,556	0.628	25,489
2038-39	33,578	0.607	20,390
2039-40	24,548	0.587	14,403
2040-41	21,885	0.567	12,406
2041-42	15,045	0.548	8,240
2042-43	14,592	0.529	7,722
2043-44	12,656	0.511	6,471
2044-45	10,395	0.494	5,135
2045-46	7,711	0.477	3,681
2046-47	7,757	0.461	3,577
2047-48	5,938	0.446	2,646
2048-49	4,083	0.430	1,757
49-50 to	28,697	0.335	9,618
Total	\$3,436,614		\$2,982,536

(4) Indicated Discount Factor: 0.868

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.5% interest rate.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Claims Data Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative Reported Losses (\$000's) as of 12/31/22 - Unlimited

Program Year	<u>Months of Development</u>										
	<u>6</u>	<u>18</u>	<u>30</u>	<u>42</u>	<u>54</u>	<u>66</u>	<u>78</u>	<u>90</u>	<u>102</u>	<u>114</u>	<u>126</u>
1994										1,070	1,053
1995									746	747	767
1996								841	838	849	855
1997							1,502	1,656	1,665	1,676	1,682
1998						1,124	1,054	1,035	1,027	1,028	1,086
1999					1,161	1,279	1,290	1,286	1,356	1,441	1,451
2000				1,082	1,243	1,263	1,230	1,277	1,471	1,557	1,970
2001			1,697	2,579	2,857	2,668	3,101	3,477	3,769	4,114	4,088
2002		1,239	1,886	2,196	2,336	2,291	2,328	2,367	2,375	2,354	2,361
2003	644	2,163	2,625	2,510	2,494	2,445	2,452	2,452	2,440	2,440	2,415
2004	676	1,643	1,676	1,757	1,803	1,906	1,862	1,788	1,781	1,852	1,998
2005	882	1,861	1,899	2,025	2,284	1,955	2,133	2,183	2,166	2,146	2,257
2006	507	1,453	1,896	2,268	1,889	1,664	1,672	1,683	1,644	1,320	1,331
2007	696	3,220	4,322	3,231	3,180	3,579	3,866	3,789	3,785	3,789	3,832
2008	317	1,879	1,778	1,423	1,428	1,526	1,620	2,071	1,772	1,820	1,882
2009	488	1,618	2,060	1,916	1,940	2,331	2,207	2,334	2,203	2,196	2,227
2010	657	2,758	3,500	3,588	5,609	5,938	6,019	6,056	5,641	5,691	5,728
2011	1,155	4,758	4,564	4,256	5,135	5,490	5,466	7,107	6,557	6,906	7,016
2012	586	1,659	2,086	2,501	2,742	2,972	3,170	3,349	3,137	3,121	3,277
2013	266	1,347	2,301	2,538	2,916	3,165	3,810	4,108	4,404	4,964	4,635
2014	400	1,704	2,849	3,714	4,357	5,318	11,077	7,843	7,904	8,201	8,263
2015	79	822	1,038	1,382	2,353	2,887	3,069	3,238	3,800	4,312	
2016	464	1,118	1,848	3,145	4,321	4,680	5,506	6,278	6,661		
2017	278	775	1,300	2,218	2,262	2,260	2,525	2,018			
2018	161	1,229	1,544	2,272	2,447	3,561	2,795				
2019	239	1,092	2,742	3,531	3,510	3,518					
2020	324	1,798	2,677	3,650	3,849						
2021	1,140	2,777	3,562	5,939							
2022	964	2,861	3,425								
2023	789	1,862									
2024	492										
	<u>6 - 18</u>	<u>18 - 30</u>	<u>30 - 42</u>	<u>42 - 54</u>	<u>54 - 66</u>	<u>66 - 78</u>	<u>78 - 90</u>	<u>90 - 102</u>	<u>102 - 114</u>	<u>114 - 126</u>	<u>126 - Ult.</u>
ALL YR VOL	3.449	1.297	1.176	1.133	1.076	1.132	1.006	1.003	1.034	1.015	
REFERENCE	2.778	1.205	1.075	1.037	1.024	1.016	1.005	1.004	1.004	1.005	1.019
SELECTED	3.336	1.037	1.221	1.037	1.076	0.968	1.022	1.004	1.043	1.009	1.019
CUMULATIVE	5.019	1.504	1.450	1.188	1.146	1.065	1.100	1.077	1.072	1.028	1.019

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative Paid Losses (\$000's) as of 12/31/22 - Unlimited

Program Year	<u>Months of Development</u>										
	<u>6</u>	<u>18</u>	<u>30</u>	<u>42</u>	<u>54</u>	<u>66</u>	<u>78</u>	<u>90</u>	<u>102</u>	<u>114</u>	<u>126</u>
1994										1,022	1,027
1995									738	743	747
1996								838	838	839	843
1997							1,345	1,420	1,467	1,505	1,522
1998						882	932	968	989	999	1,011
1999					988	1,102	1,188	1,232	1,338	1,361	1,382
2000				688	774	846	931	1,029	1,136	1,254	1,684
2001			863	1,708	2,057	2,279	2,518	2,758	2,905	3,162	3,385
2002		654	1,162	1,499	1,859	2,047	2,128	2,155	2,183	2,213	2,248
2003	238	991	1,485	1,906	2,111	2,271	2,276	2,279	2,282	2,379	2,381
2004	116	726	1,078	1,264	1,557	1,653	1,667	1,693	1,742	1,764	1,998
2005	229	1,059	1,332	1,459	1,532	1,585	1,714	1,819	1,842	1,866	1,894
2006	123	646	1,005	1,124	1,211	1,254	1,262	1,269	1,272	1,275	1,277
2007	224	1,357	2,048	2,507	2,751	3,107	3,160	3,248	3,329	3,355	3,375
2008	65	797	1,117	1,190	1,236	1,294	1,369	1,511	1,546	1,608	1,644
2009	156	891	1,433	1,593	1,719	1,820	1,831	1,988	1,996	2,036	2,078
2010	174	1,675	2,265	2,775	3,033	4,299	4,410	4,544	4,869	5,034	5,066
2011	376	2,001	3,230	3,761	3,999	4,420	4,640	4,839	5,166	5,364	5,461
2012	192	728	1,366	1,855	2,059	2,215	2,375	2,491	2,589	2,746	2,831
2013	136	805	1,579	1,865	2,181	2,467	2,945	3,075	3,290	3,875	3,987
2014	161	1,145	2,099	2,673	3,320	3,675	4,116	6,780	7,140	7,441	8,133
2015	23	475	772	1,150	1,376	1,801	2,161	2,453	2,709	2,804	
2016	156	751	1,329	2,234	2,558	2,826	3,333	3,619	4,694		
2017	154	576	854	1,016	1,283	1,411	1,873	1,837			
2018	71	505	966	1,437	1,598	1,781	2,314				
2019	86	722	1,488	2,418	2,863	3,031					
2020	150	828	1,766	2,248	2,546						
2021	239	1,155	2,346	4,096							
2022	297	1,713	2,444								
2023	339	1,217									
2024	107										
	<u>6 - 18</u>	<u>18 - 30</u>	<u>30 - 42</u>	<u>42 - 54</u>	<u>54 - 66</u>	<u>66 - 78</u>	<u>78 - 90</u>	<u>90 - 102</u>	<u>102 - 114</u>	<u>114 - 126</u>	<u>126 - Ult.</u>
ALL YR VOL	5.601	1.642	1.323	1.137	1.122	1.091	1.100	1.064	1.044	1.041	
REFERENCE	3.418	1.629	1.282	1.162	1.106	1.072	1.048	1.037	1.028	1.020	1.168
SELECTED	6.705	1.725	1.411	1.125	1.109	1.080	1.044	1.021	1.040	1.034	1.168
CUMULATIVE	29.464	4.394	2.547	1.805	1.604	1.447	1.340	1.283	1.257	1.208	1.168

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative # of Indemnity Losses Reported as of 12/31/22 - Unlimited

Program Year	<u>Months of Development</u>											
	<u>6</u>	<u>18</u>	<u>30</u>	<u>42</u>	<u>54</u>	<u>66</u>	<u>78</u>	<u>90</u>	<u>102</u>	<u>114</u>	<u>126</u>	<u>138</u>
2006		52	53	54	54	53	53	53	53	53	53	54
2007	32	69	74	74	74	74	75	75	75	75	75	76
2008	22	56	58	59	59	60	60	60	60	60	60	59
2009	30	78	79	78	78	79	79	80	80	80	80	80
2010	25	53	55	56	56	56	57	57	57	57	57	57
2011	44	86	87	86	87	88	88	88	88	88	88	88
2012	25	66	68	69	71	73	73	73	73	72	72	72
2013	19	53	56	58	59	59	60	61	61	62	62	62
2014	26	57	58	61	61	64	65	65	65	64	65	
2015	9	29	33	33	36	36	36	36	36	36		
2016	21	57	60	61	61	61	60	60	60			
2017	15	48	49	49	51	51	51	50				
2018	16	42	44	44	44	44	44					
2019	24	70	73	75	75	75						
2020	26	69	70	69	69							
2021	48	75	74	75								
2022	30	89	91									
2023	33	72										
2024	16											
	<u>6 - 18</u>	<u>18 - 30</u>	<u>30 - 42</u>	<u>42 - 54</u>	<u>54 - 66</u>	<u>66 - 78</u>	<u>78 - 90</u>	<u>90 - 102</u>	<u>102 - 114</u>	<u>114 - 126</u>	<u>126 - 138</u>	<u>138 - Ult.</u>
ALL YR VOL	2.402	1.031	1.010	1.010	1.008	1.004	1.077	1.000	0.998	1.002	1.002	
SELECTED	2.835	1.031	1.004	1.005	1.013	1.007	0.999	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	3.001	1.059	1.027	1.024	1.019	1.006	0.999	1.000	1.000	1.000	1.000	1.000

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Program Information

Program Year	Self-Insured Retention (SIR) (1)	Payroll (\$00's) (2)	Payroll Trended to 2023-24 (\$00's) (3)
1988-89	\$250,000	\$0	\$0
1989-90	250,000	0	0
1990-91	300,000	0	0
1991-92	250,000	0	0
1992-93	250,000	0	0
1993-94	275,000	0	0
1994-95	300,000	0	0
1995-96	300,000	0	0
1996-97	300,000	0	0
1997-98	300,000	204,799	753,718
1998-99	300,000	212,991	761,255
1999-00	300,000	267,420	768,868
2000-01	300,000	263,274	776,557
2001-02	350,000	297,462	784,322
2002-03	500,000	346,678	792,165
2003-04	10,000,000	401,995	800,087
2004-05	500,000	401,860	808,088
2005-06	500,000	429,640	816,169
2006-07	500,000	428,182	824,331
2007-08	500,000	437,000	832,574
2008-09	500,000	470,000	840,900
2009-10	500,000	455,000	815,673
2010-11	250,000	454,739	791,202
2011-12	250,000	454,479	767,466
2012-13	250,000	422,491	744,442
2013-14	250,000	436,959	751,887
2014-15	250,000	455,957	759,406
2015-16	250,000	472,388	767,000
2016-17	250,000	518,291	782,340
2017-18	250,000	545,055	790,163
2018-19	250,000	590,304	805,966
2019-20	250,000	626,389	814,026
2020-21	250,000	631,796	822,166
2021-22	250,000	696,371	822,166
2022-23	250,000	760,368	830,388
2023-24	250,000	838,692	838,692
2024-25	?	880,626	847,079

Notes:

- (1) Provided by MBASIA.
- (2) Provided by MBASIA. 2024-25 projected by BAC.
- (3) Estimated by BAC.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

4850 as % of Total Losses

Program Year	4850 Paid (1)	TD Vouchers Paid (2)	Total Paid Including TD & 4850 (3)	4850 & TD Vouchers Percentage
2009-10	\$679,847	\$200,169	\$5,361,793	16.4%
2010-11	633,227	345,399	6,086,515	16.1%
2011-12	391,423	238,861	2,891,490	21.8%
2012-13	354,798	285,838	4,052,092	15.8%
2013-14	582,092	510,345	8,132,610	13.4%
2014-15	125,157	283,851	2,804,091	14.6%
2015-16	200,885	532,332	4,693,847	15.6%
2016-17	137,276	244,363	1,836,709	20.8%
2017-18	71,067	269,768	2,314,365	14.7%
2018-19	243,850	475,825	3,030,964	23.7%
2019-20	211,220	589,071	2,545,750	31.4%
2020-21	493,201	846,273	4,096,082	32.7%
2021-22	476,265	751,455	2,443,649	50.2%
2022-23	169,961	470,237	1,216,971	52.6%
2023-24	32,800	40,228	107,230	68.1%
Total	\$4,803,070	\$6,084,016	\$51,614,157	21.1%

(1) Provided by Aims.

(2) Provided by Aims.

(3) Provided by Aims.

(4) $[(1) + (2)] / (3)$.