

Monterey Bay Area Self Insurance Authority

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

**BAY ACTUARIAL CONSULTANTS
Moraga, California
March 4, 2022**

Bay Actuarial Consultants

March 4, 2022

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

An Actuarial Review of the Workers' Compensation Program

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Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Introduction

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Introduction

Background & Purpose

The Monterey Bay Area Self Insurance Authority ("MBASIA") self-insures its workers' compensation claims. MBASIA members, instead of MBASIA, currently pay all Section 4850 workers' compensation benefits and a large portion of the temporary disability benefits ("TD") directly. Therefore the Authority itself currently has no liability for unpaid 4850 and only a very small TD liability, which we have estimated conservatively. Because of the way 4850 is handled we provided two sets of recommended contribution rates. The first set would cover all workers' compensation benefits. These rates could be used to compare excess insurance quotes that cover all benefits. The second set of rates covers everything except 4850. These are for projecting the Authority's internal funding requirements. We also included, as management information, a third set of contribution rates. The third set excludes all 4850 and all TD benefits. This report covers the following topics:

- 1) **Projected 2022-23 Losses & Rates of Loss.** It includes a projection of the losses expected to be incurred during 2022-23. It also expresses this as a rate of loss per \$100 of payroll. Rates are based on projected 2022-23 payroll of **\$69,937,594**, a **5.2%** increase over the projected 2021-22 payroll of **\$66,472,778**.
- 2) **Unpaid Losses.** It includes an estimate of the Authority's liability for unpaid losses as of 12/31/21 and a projection to 6/30/22.
- 3) **Discounting.** The projected 2022-23 losses and the Authority's liabilities are discounted at **1.5%** 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*.

Monterey Bay Area Self Insurance Authority

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 2022-23 Losses Excluding 4850

Table I shows the MBASIA's projected losses for 2022-23 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 and do not include 4850 benefits, claims handling fees, or program administration or excess insurance costs. This projection covers every claim with a date of loss between 7/1/22 and 6/30/23.

Table I: Projected 2022-23 Undiscounted Losses (Includes All Benefits Except 4850)						
Probability Level	\$250,000 SIR	\$300,000 SIR	\$350,000 SIR	\$500,000 SIR	\$1,000,000 SIR	Unlimited Retention
Central Estimate	\$4,345,226	\$4,699,131	\$4,987,742	\$5,629,375	\$6,632,532	\$7,613,820
60%	4,554,609	4,927,622	5,231,365	5,904,656	6,949,349	7,957,269
70%	4,971,848	5,401,784	5,754,463	6,544,825	7,796,421	9,036,960
75%	\$5,213,368	5,676,830	6,058,412	6,918,204	8,293,427	9,674,266
80%	5,491,235	5,993,742	6,409,052	7,350,100	8,870,758	10,417,706
90%	6,268,380	6,882,488	7,394,529	8,569,797	10,513,439	12,548,817

We project that 4850 benefits will total **\$250,000** in 2022-23. These are excluded from the projected losses in Table I because those benefits are paid directly by the members and not by the MBASIA. 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. An interest rate of **1.5%** appears reasonable in the current financial environment. Discounting at **1.5%** interest reduces each of the amounts in Table I by between **7.3%** and **9.0%**.

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 2022-23 \$250,000 SIR losses, excluding 4850, will be less than **\$5,213,368**.

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 estimated increase in total covered payroll between 2020-21 and 2021-22 is **5.2%**, so the projected 2022-23 payroll is based on a **5.2%** increase from 2021-22.

We estimate that the actual exposure as measured by total hours worked did not change between 2020-21 and 2021-22. We project a 1.0% increase in hours worked between 2021-22 and 2022-23.

Projected Rates of Loss excluding 4850

Table 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 **1.5%** interest rate. The multiplicative present value factors for **1.5%** interest range between **0.910** and **0.927**.

All rates are based on projected 2022-23 payroll of **\$69,937,594**.

Table II: Projected 2022-23 Discounted Loss Rates (1.5% interest rate – All Benefits Except 4850)						
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	\$5.76	\$6.22	\$6.58	\$7.39	\$8.66	\$9.91
60%	6.04	6.52	6.90	7.75	9.07	10.35
70%	6.59	7.14	7.59	8.59	10.18	11.76
75%	\$6.91	7.51	8.00	9.08	10.83	12.59
80%	7.28	7.93	8.46	9.65	11.58	13.56
90%	8.31	9.10	9.76	11.25	13.72	16.33
21-22 Central Estimate	\$5.97	\$6.41	\$6.77	\$7.55	\$8.73	\$9.63
Change in C.E.	-3.5%	-3.0%	-2.8%	-2.1%	-0.8%	+2.9%

The next to last row in Table I shows last year's projected 2021-22 central estimate rates. The bottom row shows the percentage changes. Last year the interest rate was **1.0%**. The changes would have been slightly smaller had the interest rate not changed.

Projected 2022-23 Total Losses Including 4850

The central estimates in Table III each include the **\$250,000** of 4850 benefits that Table I excludes.

Table III: Projected 2022-23 Undiscounted Losses (Includes All Benefits Including 4850)						
Probability Level	\$250,000 SIR	\$300,000 SIR	\$350,000 SIR	\$500,000 SIR	\$1,000,000 SIR	Unlimited Retention
Central Estimate	\$4,595,226	\$4,949,131	\$5,237,742	\$5,879,375	\$6,882,532	\$7,863,820
60%	4,816,656	5,189,778	5,493,576	6,166,881	7,211,291	8,218,546
70%	5,257,900	5,689,166	6,042,893	6,835,480	8,090,291	9,333,688
75%	5,513,316	5,978,845	6,362,077	7,225,440	8,606,031	9,991,920
80%	5,807,170	6,312,618	6,730,292	7,676,517	9,205,124	10,759,772
90%	6,629,027	7,248,646	7,765,164	8,950,381	10,909,722	12,960,857

Table IV shows projected rates of loss corresponding to Table III.

Table IV: Projected 2022-23 Discounted Loss Rates (1.5% interest rate – Full Rate including 4850)						
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	\$6.09	\$6.55	\$6.91	\$7.72	\$8.98	\$10.23
60%	6.38	6.86	7.25	8.09	9.41	10.69
70%	6.97	7.52	7.98	8.97	10.56	12.14
75%	\$7.31	7.91	8.40	9.48	11.23	13.00
80%	7.70	8.35	8.88	10.08	12.02	14.00
90%	8.79	9.59	10.25	11.75	14.24	16.86
21-22 Central Estimate	\$6.21	\$6.66	\$7.01	\$7.79	\$8.97	\$9.87
Change in C.E.	-1.9%	-1.7%	-1.4%	-0.9%	+0.1%	+3.6%

Rate Changes

The discounted 75% probability rate of **\$7.31** in Table IV is **\$0.05** from last year.

Temporary Disability Benefits Data

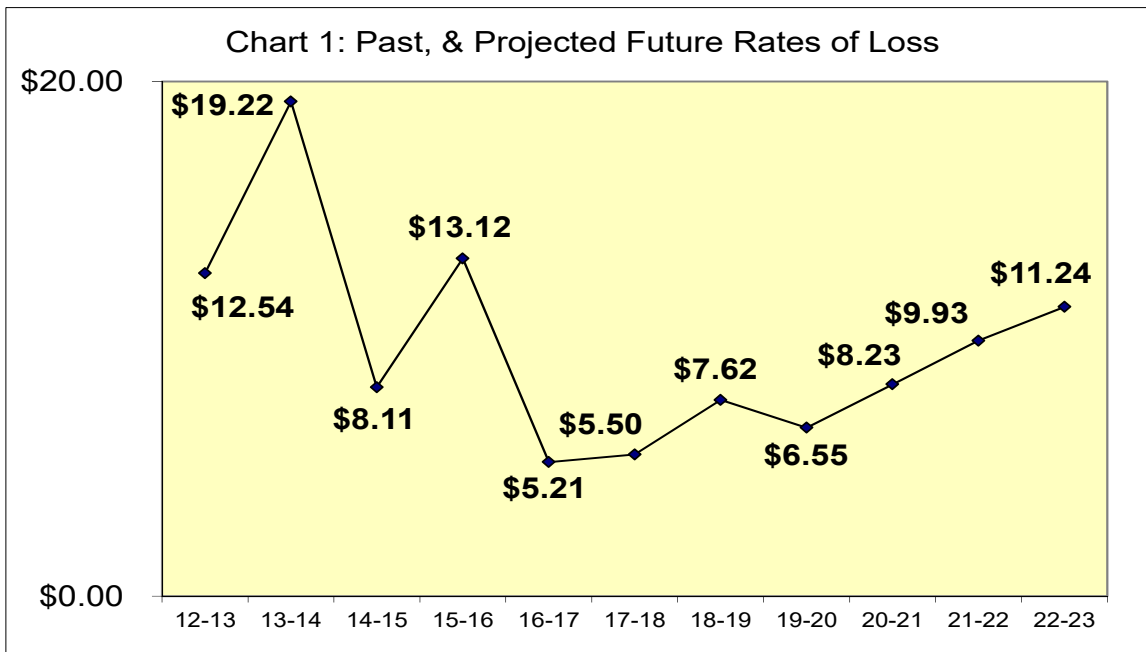
As management information we also provide Table V, which shows rates that exclude all TD and all 4850 benefits. These Table V rates are based on the assumption that TD will cost **\$530,000** in 2022-23 and that 4850 will cost **\$250,000**.

Table V: Projected 2022-23 Discounted Loss Rates (1.5% interest rate – 4850 & TD Excluded)						
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	\$5.06	\$5.51	\$5.88	\$6.69	\$7.97	\$9.22
60%	5.30	5.78	6.17	7.02	8.35	9.63
70%	5.79	6.34	6.79	7.78	9.36	10.94
75%	6.07	6.66	7.15	8.23	9.96	11.71
80%	6.39	7.03	7.56	8.74	10.65	12.61
90%	7.30	8.08	8.72	10.19	12.63	15.19

Only a small but unknown portion of the unpaid TD is a true MBASIA liability, since most TD is paid directly by the cities. The small MBASIA TD liability is estimated very conservatively.

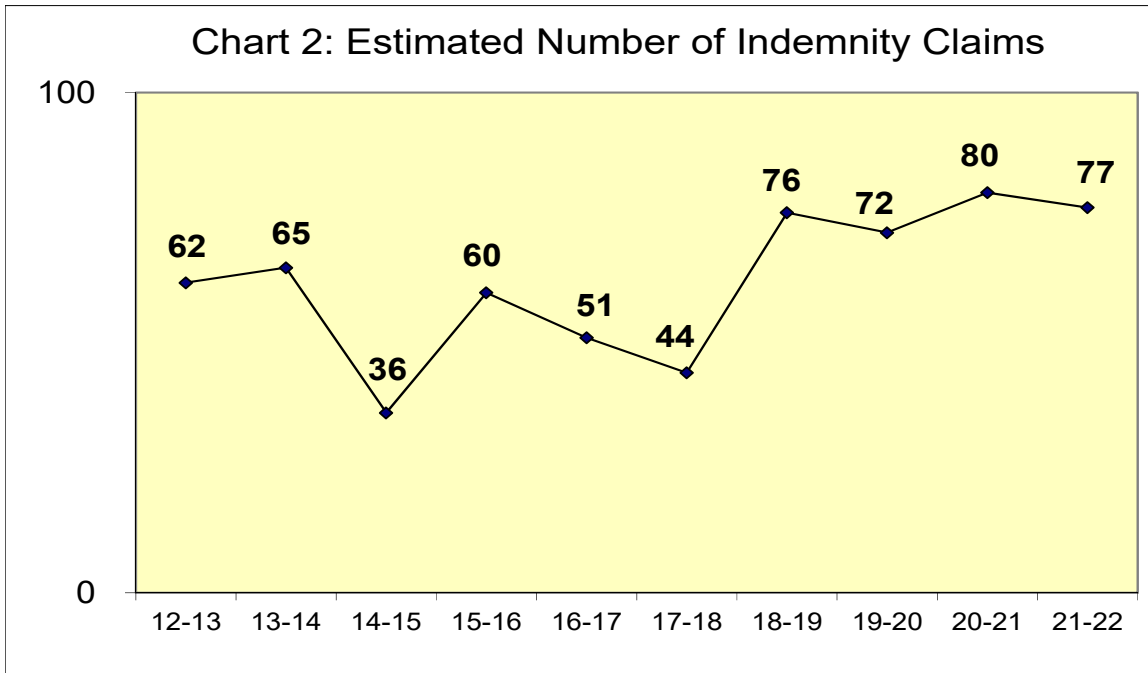
The Authority's Past Rates of Loss

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. **\$11.24** is the undiscounted central estimate unlimited rate for 2022-23. The rates in the chart include all 4850 and all TD.



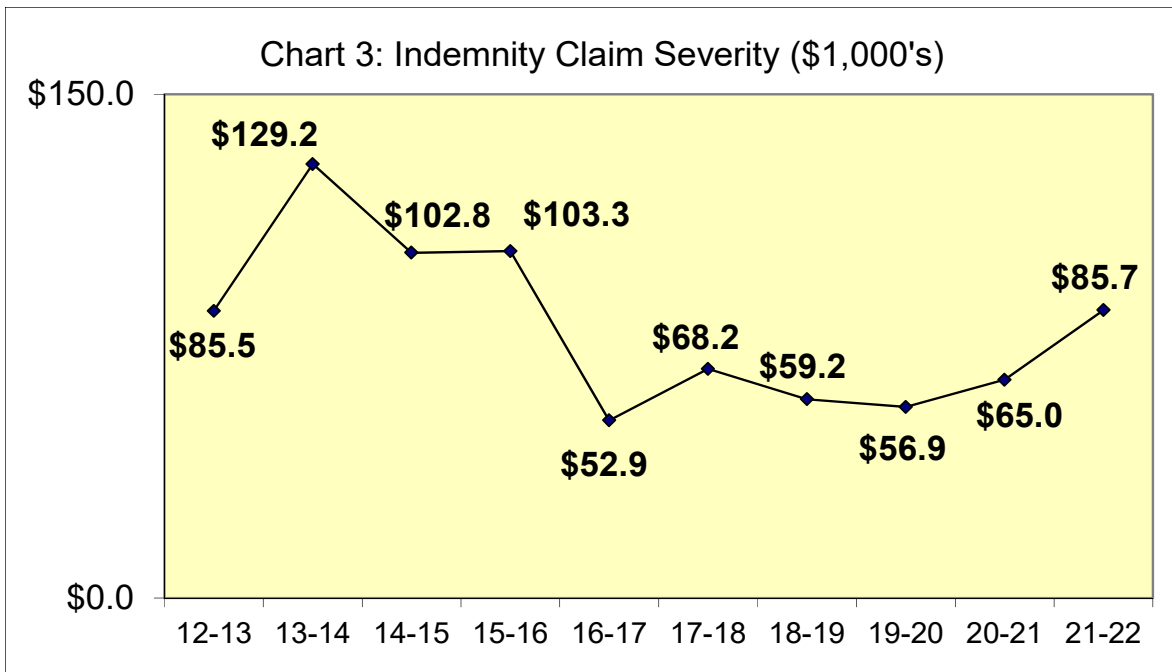
Estimated Number of Indemnity Claims

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. The Chart 3 severities include 4850 and TD.



Liability for Unpaid Losses

In the 2021 report the estimated liability, excluding 4850, was **\$14,453,417** on 12/31/20. The new undiscounted central estimate, as of 12/31/21, is **\$14,599,631**. Table VI reconciles these two amounts.

Table VI: Reconcile 12/31/20 & 12/31/21 Liabilities	
Estimated 12/31/20 Liability	\$15,103,770
Payments in Calendar 2021	-4,097,167
Change in estimates for 12/31/20 and Prior	-606,828
Estimated Losses in Calendar 2021	+4,199,856
Estimated 12/31/21 Liability	\$14,599,631

Table VII shows the new 12/31/21 central estimate of **\$14,599,631** and a range of estimates at different probability levels. The right-hand column shows these estimates discounted at 1.5% interest. The discounted values are about 7.6% lower. This table does not include the unpaid 4850 benefits, which are a very small portion.

Table VII: Estimated Liability for Unpaid Losses @ 12/31/21		
Probability Level	Undiscounted Losses	Discounted at 1.5% Interest
10%	\$12,263,690	\$11,331,650
20%	12,993,672	12,006,153
30%	13,431,661	12,410,854
40%	14,015,646	12,950,457
50%	14,453,635	13,355,159
Central Estimate	\$14,599,631	\$13,490,059
60%	14,891,624	13,759,860
70%	15,475,609	14,299,463
75%	15,767,602	14,569,264
80%	16,059,594	14,839,065
90%	17,081,568	15,783,369

Table VIII shows the projection of the 6/30/22 liability.

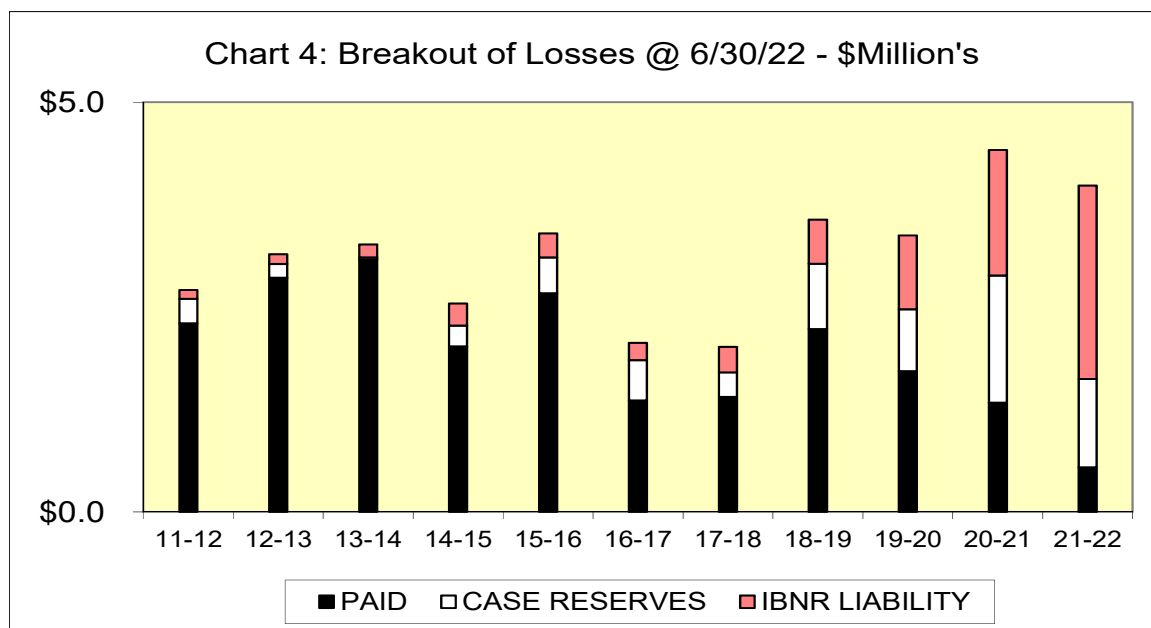
Table VIII: Projected 6/30/22 Liability	
12/31/21 Liability Central Estimate	\$14,599,631
Projected Payments 1/1/22 to 6/30/22	-1,566,899
Projected New Losses 1/1/22 to 6/30/22	+1,991,742
Projected 6/30/22 Central Estimate	\$15,024,474

Table IX shows the projected probability levels for the projected 6/30/22 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 VIII.

Table IX: Projected Estimate of 6/30/22 Liability		
Probability Level	Undiscounted Losses	Discounted at 1.5% Interest
10%	12,620,558	11,661,396
20%	13,371,782	12,355,527
30%	13,822,516	12,772,005
40%	14,423,495	13,327,310
50%	14,874,230	13,743,788
Central Estimate	\$15,024,474	\$13,882,614
60%	15,324,964	14,160,267
70%	15,925,943	14,715,571
75%	16,226,432	14,993,223
80%	16,677,166	15,409,702
90%	17,578,635	16,242,659

Loss Breakout as of 6/30/22

The Authority's liability of **\$15,024,474** is projected to comprise **\$7,465,208** in case reserves for known claims and an IBNR liability of **\$7,559,266**. Chart 4 breaks out the estimated total program year losses for 2011-12 through 2021-22 into their components: losses paid, case reserves, and IBNR liability.



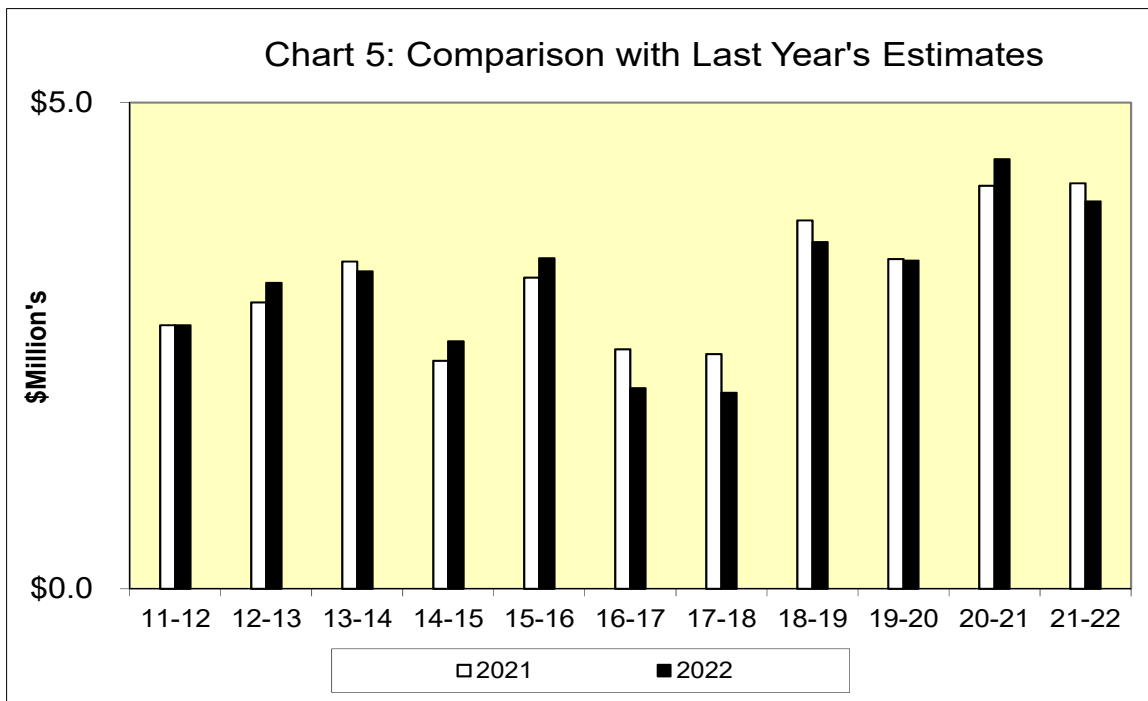
There is **\$1.01** of projected IBNR liability for every **\$1.00** of projected case reserves. Last year this ratio was **\$1.10**.

Short-Term Liability

Short-term liabilities are those expected to be expended within twelve months. The limited 6/30/22 liability comprises **\$2,797,456** in short-term and **\$12,387,180** in long-term liabilities.

Comparison with Last Year's Estimates

Chart 5 compares this year's estimates of the limited ultimate losses with last year's. It shows limited losses excluding 4850/TD benefits. The total change for all years through 2020-21 was a reduction of only **\$370,631**.



Interest Rates

The rates in Tables II, IV, and V and liability estimates in Tables VII and IX are discounted at **1.5%** interest. Table X shows the adjustments to make to use a different interest rate:

Interest Rate	0.0%	1.5%	1.54%	1.56%	2.0%
UNL Rate	+9.9%	+0.0%	-0.2%	-0.3%	-2.7%
250K Rate	+7.9%	+0.0%	-0.2%	-0.3%	-2.4%
6/30/22 Liability	+8.2%	+0.0%	-0.2%	-0.3%	-2.5%

Given currently available market interest rates the Authority could fund the projected 6/30/22 liability by investing in US Treasuries and earn a yield to maturity of about **1.56%**. Funding the projected 2022-23 losses with US Treasuries could yield **1.54%**. Therefore **1.5%** appears to be a reasonable interest rate for this report.

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 12/31/21 and the projected 6/30/22 liability. Summary Exhibit 3 shows the projected rate for the 2022-23 program year, which runs from 7/1/21 to 6/30/22. Summary Exhibit 4 shows the projected unpaid losses as of 6/30/22 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 projected unpaid limited losses as of 6/30/22. Fiscal Year End Exhibit 10 shows limited unpaid losses including 4850 benefits. Fiscal Year End Exhibits 3 and 4 show the projected 2022-23 4850 and TD benefits. Fiscal Year End Exhibit 2 shows the calculation that removes 4850 IBNR from the total IBNR liability. Fiscal Year End Exhibit 1 shows the limited unpaid losses excluding 4850.

Limited Ultimate Loss Exhibits

These exhibits show the estimation of the limited ultimate losses for each program year, including 4850 benefits. 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 2022-23.

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 12/31/21, and the associated loss and claim development factors.

**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 12/31/21
Limited Self-Insured Losses Excluding 4850

(1)	Estimated Unpaid Losses:	\$14,599,631
(2)	Discounted Value of Unpaid Losses: (Assuming 1.5% Interest Rate)	\$13,490,059

Probability Levels

Probability Level <u>(3)</u>	Probability Factor <u>(4)</u>	Undiscounted <u>(5)</u>	Discounted at 1.50% <u>(6)</u>
10%	0.84	\$12,263,690	\$11,331,650
20%	0.89	12,993,672	12,006,153
30%	0.92	13,431,661	12,410,854
40%	0.96	14,015,646	12,950,457
50%	0.99	14,453,635	13,355,159
Central Estimate	1.00	\$14,599,631	\$13,490,059
60%	1.02	14,891,624	13,759,860
70%	1.06	15,475,609	14,299,463
75%	1.08	15,767,602	14,569,264
80%	1.10	16,059,594	14,839,065
90%	1.17	17,081,568	15,783,369

Notes:

- (1) Page 25, Column (6).
- (2) (1), discounted at 1.50% 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 6/30/22 Estimate of Liability
Limited Self-Insured Losses Excluding 4850

(1) Estimated Unpaid Losses: 12/31/21 \$14,599,631

(2) Projected payments over next six months:	\$1,566,899
----------------------------------------------	-------------

(3) Projected new losses over next six months:	\$1,991,742
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(4) Projected Unpaid Losses: 6/30/22	\$15,024,474
---------------------------------------------	---------------------

Probability Level (5)	Projected Estimate of 6/30/22 Probability Factor (6)	Undiscounted (7)	Discounted (8)
10%	0.84	12,620,558	11,661,396
20%	0.89	13,371,782	12,355,527
30%	0.92	13,822,516	12,772,005
40%	0.96	14,423,495	13,327,310
50%	0.99	14,874,230	13,743,788
Central Estimate	1.00	\$15,024,474	\$13,882,614
60%	1.02	15,324,964	14,160,267
70%	1.06	15,925,943	14,715,571
75%	1.08	16,226,432	14,993,223
80%	1.11	16,677,166	15,409,702
90%	1.17	17,578,635	16,242,659

Item (6) relies upon the accuracy of the projections in items (2) & (3).
The assumption is that actual expenditures and actual new losses will match items (2) & (3) exactly.

Notes:

- (1) Page 18, Item (1).
- (2) Projected by BAC.
- (3) Projected by BAC.
- (4) (1) - (2) + (3).
- (5) Projected Probability on 6/30/22.
- (6) 12/31/21 projection of what the estimate will be on 6/30/22.
- (7) (4) x (6).
- (8) (7), discounted at 1.50% interest.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Loss Funding Rate for 2022-23

\$250,000 SIR Loss rate
Limited Losses Including 4850/TD

	<u>Loss Rates</u>
(1) Discounted Loss Rate: (as of 7/1/22, 1.5% interest rate)	\$6.09

Probability Levels		
Probability Level <u>(2)</u>	Probability Factor <u>(3)</u>	Discounted * Rate <u>(4)</u>
20%	0.72	\$4.38
30%	0.80	4.87
40%	0.88	5.36
50%	0.96	5.85
Central Estimate	1.00	\$6.09
60%	1.05	6.39
70%	1.14	6.94
80%	1.26	7.67
90%	1.44	8.77

* Multiply by 1.079 to obtain undiscounted values.

Notes:

- (1) [Page 60, Column (5)] x [Page 68, 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

6/30/22 Summary
Limited Self-Insured Losses Excluding 4850

Program Year	Undiscounted	Discounted	Estimated Ultimate Losses
	Claims Liabilities as of 6/30/22 (1)	(1.5% Interest) Claims Liabilities as of 6/30/22 (2)	
1989-90	\$15,826	\$15,079	\$756,000
1990-91	16,413	15,537	1,270,000
1991-92	13,090	12,314	1,470,000
1992-93	27,436	25,652	1,472,639
1993-94	15,724	14,615	1,138,561
1994-95	76,424	70,627	809,693
1995-96	18,183	16,711	867,727
1996-97	42,637	38,976	1,388,181
1997-98	39,972	36,353	1,082,837
1998-99	92,249	84,027	1,531,420
1999-00	42,863	39,082	1,509,757
2000-01	23,101	21,077	2,629,918
2001-02	49,502	45,180	1,981,203
2002-03	106,930	97,606	2,245,354
2003-04	98,485	89,895	1,943,776
2004-05	85,555	78,082	1,677,710
2005-06	192,660	175,793	1,459,559
2006-07	185,556	169,266	2,947,898
2007-08	201,248	183,525	1,365,596
2008-09	66,342	60,481	1,620,026
2009-10	251,812	229,489	3,120,153
2010-11	399,237	363,728	4,066,773
2011-12	406,676	370,385	2,708,577
2012-13	288,687	266,206	3,145,202
2013-14	186,548	171,291	3,263,657
2014-15	524,344	480,518	2,543,453
2015-16	732,016	670,801	3,399,115
2016-17	701,616	642,676	2,062,724
2017-18	611,573	563,060	2,015,405
2018-19	1,335,580	1,233,304	3,566,595
2019-20	1,655,207	1,534,533	3,373,875
2020-21	3,081,810	2,859,836	4,416,229
2021-22	3,439,173	3,201,701	3,983,485
Total	\$15,024,474	\$13,877,406	\$72,833,099

Notes:

- (1) Page 63, Column (1).
- (2) Page 63, Column (3).
- (3) Page 24, Column (1).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

ULAE Projections and Calculation of Unpaid ULAE

(1) Selected ULAE Ratio: **12.0%**

	<u>Case Reserves with Development</u>	<u>"True" IBNR</u>	<u>Total</u>
(2) ULAE Ratio:	6.0%	12.0%	
(3) Estimated Unpaid Losses as of 12/31/21:	\$25,431,625	\$1,115,523	\$26,547,148
(4) Estimated Unpaid ULAE as of 12/31/21:	\$1,525,898	\$133,863	\$1,659,761
(5) Discounted Unpaid ULAE as of 12/31/21: (1.5% interest rate)			\$1,533,619

We project that the ULAE liability will not change between 12/31/21 & 06/30/22.

Notes:

- (1) Estimated by BAC.
- (2) "50-50 Rule."
- (3) From gross ultimates on Page 45 and gross claims data, assuming 90% of IBNR is development on known claims.
- (4) (2) x (3).
- (5) (4) x [Page 63, 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 6/30/22
Limited Self-Insured Losses Excluding 4850

Program Year	Estimated Ultimate Losses (1)	Limited Paid Losses less 4850 Paid 6/30/22 (2)	Limited Case Reserves less 4850 Case 6/30/22 (3)	Lim Reported less 4850 Reported 6/30/22 (4)	Limited IBNR less 4850 IBNR 6/30/22 (5)	Projected Unpaid Losses excluding 4850 6/30/22 (6)
1989-90	\$756,000	\$740,174	\$237	\$740,411	\$15,589	\$15,826
1990-91	1,270,000	1,253,587	7,353	1,260,941	9,059	16,413
1991-92	1,470,000	1,456,910	7,024	1,463,934	6,066	13,090
1992-93	1,472,639	1,445,203	22,662	1,467,865	4,774	27,436
1993-94	1,138,561	1,122,837	10,346	1,133,183	5,378	15,724
1994-95	809,693	733,269	58,563	791,832	17,861	76,424
1995-96	867,727	849,544	0	849,544	18,183	18,183
1996-97	1,388,181	1,345,544	32,204	1,377,748	10,433	42,637
1997-98	1,082,837	1,042,865	25,556	1,068,420	14,416	39,972
1998-99	1,531,420	1,439,171	79,969	1,519,140	12,280	92,249
1999-00	1,509,757	1,466,894	0	1,466,894	42,863	42,863
2000-01	2,629,918	2,606,817	3,087	2,609,904	20,014	23,101
2001-02	1,981,203	1,931,701	30,814	1,962,515	18,688	49,502
2002-03	2,245,354	2,138,424	69,495	2,207,919	37,435	106,930
2003-04	1,943,776	1,845,291	0	1,845,291	98,485	98,485
2004-05	1,677,710	1,592,156	41,361	1,633,517	44,194	85,555
2005-06	1,459,559	1,266,900	160,457	1,427,357	32,202	192,660
2006-07	2,947,898	2,762,342	105,899	2,868,242	79,657	185,556
2007-08	1,365,596	1,164,349	172,115	1,336,464	29,133	201,248
2008-09	1,620,026	1,553,684	34,294	1,587,978	32,048	66,342
2009-10	3,120,153	2,868,341	110,763	2,979,105	141,048	251,812
2010-11	4,066,773	3,667,535	327,371	3,994,906	71,867	399,237
2011-12	2,708,577	2,301,901	297,976	2,599,877	108,699	406,676
2012-13	3,145,202	2,856,515	170,803	3,027,318	117,884	288,687
2013-14	3,263,657	3,077,109	29,390	3,106,500	157,158	186,548
2014-15	2,543,453	2,019,109	254,765	2,273,874	269,579	524,344
2015-16	3,399,115	2,667,100	438,511	3,105,611	293,505	732,016
2016-17	2,062,724	1,361,108	492,750	1,853,858	208,866	701,616
2017-18	2,015,405	1,403,832	300,357	1,704,188	311,216	611,573
2018-19	3,566,595	2,231,014	796,899	3,027,913	538,682	1,335,580
2019-20	3,373,875	1,718,668	754,947	2,473,614	900,261	1,655,207
2020-21	4,416,229	1,334,419	1,549,667	2,884,085	1,532,143	3,081,810
2021-22	3,983,485	544,312	1,079,572	1,623,884	2,359,600	3,439,173
Total	\$72,833,099	\$57,808,625	\$7,465,208	\$65,273,833	\$7,559,266	\$15,024,474

Notes:

(1) - (6) Page 34 entries - Page 29 entries.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of 12/31/21
Limited Self-Insured Losses - NO 4850

Program Year	Estimated Ultimate Losses (1)	Paid Losses as of 12/31/21 (2)	Case Reserves 12/31/21 (3)	Reported Losses as of 12/31/21 (4)	Estimated IBNR as of 12/31/21 (5)	Estimated Unpaid Losses as of 12/31/21 (6)
1989-90	\$756,000	\$738,804	\$0	\$738,804	\$17,196	\$17,196
1990-91	1,270,000	1,252,313	8,209	1,260,521	9,479	17,687
1991-92	1,470,000	1,455,982	7,015	1,462,997	7,003	14,018
1992-93	1,472,639	1,443,403	23,656	1,467,059	5,580	29,236
1993-94	1,138,561	1,121,870	10,354	1,132,224	6,337	16,691
1994-95	809,693	728,829	61,363	790,192	19,501	80,864
1995-96	867,727	848,537	0	848,537	19,190	19,190
1996-97	1,388,181	1,343,279	33,877	1,377,155	11,026	44,903
1997-98	1,082,837	1,039,236	28,449	1,067,685	15,151	43,601
1998-99	1,531,420	1,430,959	87,613	1,518,572	12,848	100,461
1999-00	1,509,757	1,463,143	0	1,463,143	46,614	46,614
2000-01	2,629,918	2,604,825	4,471	2,609,295	20,623	25,093
2001-02	1,981,203	1,927,485	34,838	1,962,323	18,880	53,718
2002-03	2,245,354	2,129,415	78,504	2,207,919	37,435	115,939
2003-04	1,943,776	1,837,072	0	1,837,072	106,705	106,705
2004-05	1,677,710	1,585,073	46,944	1,632,017	45,694	92,638
2005-06	1,459,559	1,251,062	176,296	1,427,357	32,202	208,498
2006-07	2,947,898	2,747,181	120,482	2,867,664	80,234	200,717
2007-08	1,365,596	1,147,995	188,158	1,336,153	29,443	217,602
2008-09	1,620,026	1,548,319	39,497	1,587,816	32,210	71,707
2009-10	3,120,153	2,848,070	127,476	2,975,546	144,607	272,083
2010-11	4,066,773	3,635,535	351,848	3,987,383	79,389	431,237
2011-12	2,708,577	2,230,995	354,049	2,585,044	123,533	477,582
2012-13	3,145,202	2,837,753	180,143	3,017,895	127,306	307,449
2013-14	3,263,657	3,062,794	29,529	3,092,323	171,334	200,864
2014-15	2,543,453	1,973,088	273,373	2,246,461	296,992	570,365
2015-16	3,399,115	2,604,857	479,243	3,084,100	315,015	794,258
2016-17	2,062,724	1,273,837	552,322	1,826,159	236,565	788,887
2017-18	2,015,405	1,333,050	325,164	1,658,214	357,191	682,355
2018-19	3,566,595	2,062,593	885,277	2,947,870	618,724	1,504,001
2019-20	3,373,875	1,541,379	764,748	2,306,127	1,067,748	1,832,496
2020-21	4,416,229	971,549	1,521,836	2,493,385	1,922,844	3,444,680
2021-22	1,991,742	221,444	584,308	805,752	1,185,990	1,770,298
Total	\$70,841,357	\$56,241,725	\$7,379,041	\$63,620,766	\$7,220,590	\$14,599,631

Notes:

(1) Page 36 minus Page 31.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Calculation of 4850 IBNR

Program Year	Total Case Reserves 12/31/21 (1)	4850 Case Reserves 12/31/21 (2)	4850 Case Reserves Percentage (3)	Total IBNR as of 12/31/21 (4)	4850 IBNR as of 12/31/21 (5)	IBNR Net of 4850 as of 12/31/21 (6)
1989-90	\$0	\$0	0.0%	\$17,196	\$0	\$17,196
1990-91	8,209	0	0.0%	9,479	0	9,479
1991-92	7,015	0	0.0%	7,003	0	7,003
1992-93	23,656	0	0.0%	5,580	0	5,580
1993-94	10,354	0	0.0%	6,337	0	6,337
1994-95	61,363	0	0.0%	19,501	0	19,501
1995-96	0	0	0.0%	19,190	0	19,190
1996-97	33,877	0	0.0%	11,026	0	11,026
1997-98	28,449	0	0.0%	15,151	0	15,151
1998-99	87,613	0	0.0%	12,848	0	12,848
1999-00	0	0	0.0%	46,614	0	46,614
2000-01	4,471	0	0.0%	20,623	0	20,623
2001-02	34,838	0	0.0%	18,880	0	18,880
2002-03	78,504	0	0.0%	37,435	0	37,435
2003-04	0	0	0.0%	106,705	0	106,705
2004-05	46,944	0	0.0%	45,694	0	45,694
2005-06	176,296	0	0.0%	32,202	0	32,202
2006-07	120,482	0	0.0%	80,234	0	80,234
2007-08	188,158	0	0.0%	29,443	0	29,443
2008-09	39,497	0	0.0%	32,210	0	32,210
2009-10	127,476	0	0.0%	144,607	0	144,607
2010-11	351,848	0	0.0%	79,389	0	79,389
2011-12	354,049	0	0.0%	123,533	0	123,533
2012-13	180,143	0	0.0%	127,306	0	127,306
2013-14	29,529	0	0.0%	171,334	0	171,334
2014-15	273,373	0	0.0%	296,992	0	296,992
2015-16	479,243	0	0.0%	315,015	0	315,015
2016-17	552,322	0	0.0%	236,565	0	236,565
2017-18	325,164	0	0.0%	357,191	0	357,191
2018-19	892,167	6,890	0.8%	618,724	0	618,724
2019-20	781,016	16,268	2.1%	1,067,748	1,112	1,066,636
2020-21	1,621,886	100,050	6.2%	1,922,844	17,792	1,905,052
2021-22	666,715	82,407	12.4%	1,185,990	43,977	1,142,013
Total	\$7,584,655	\$205,615		\$7,220,591	\$62,881	\$7,157,710

Notes:

- (1) Page 36, Column (3).
- (2) Provided by Aims.
- (3) (2) / (1).
- (4) Page 36, Column (5).
- (5) (2) x 'IBNR to case reserves' ratio.
Ratio is [(4) / (1)], reduced 70% in 2021-22, 85% in 2020-21, & 95% in 2019-20.
4850 IBNR is \$0 for all other years.
- (6) (4) - (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

4850 as % of Total Losses

Program Year	Ultimate 4850 (1)	Estimated Ultimate Gross Loss (2)	4850 Percentage (3)
2010-11	\$633,227	\$7,700,000	8.2%
2011-12	391,423	3,500,000	11.2%
2012-13	354,798	5,300,000	6.7%
2013-14	636,343	8,400,000	7.6%
2014-15	156,547	3,700,000	4.2%
2015-16	200,885	6,200,000	3.2%
2016-17	137,276	2,700,000	5.1%
2017-18	84,595	3,000,000	2.8%
2018-19	233,405	4,500,000	5.2%
2019-20	226,125	4,100,000	5.5%
2020-21	283,771	5,200,000	5.5%
Average	\$303,490	\$4,936,364	6.1%
16-17 to 20-21	\$247,767	\$4,600,000	5.4%
Projected 2022-23 4850:			
	(4) \$250,000		

(1) Page 32, Column (4).
 (2) Page 45, Column (6).
 (3) (1) / (2).
 (4) Projected by BAC.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

TD as % of Total Losses

Program Year	Ultimate TD (1)	Estimated Ultimate Gross Loss (2)	TD Percentage (3)
2010-11	\$611,881	\$7,700,000	7.9%
2011-12	319,083	3,500,000	9.1%
2012-13	325,457	5,300,000	6.1%
2013-14	659,638	8,400,000	7.9%
2014-15	388,809	3,700,000	10.5%
2015-16	658,334	6,200,000	10.6%
2016-17	248,908	2,700,000	9.2%
2017-18	360,121	3,000,000	12.0%
2018-19	538,301	4,500,000	12.0%
2019-20	562,910	4,100,000	13.7%
2020-21	630,144	5,200,000	12.1%
Average	\$482,144	\$4,936,364	9.8%
17-18 to 20-21	\$522,869	\$4,200,000	12.4%

Projected 2022-23 TD:	
(4)	\$530,000

- (1) Page 33, Column (4).
- (2) Page 45, Column (6).
- (3) (1) / (2).
- (4) Projected by BAC.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Unpaid Losses as of 6/30/22
4850 Only

Program Year	Estimated Ultimate 4850/TD (1)	Projected 4850/TD Paid as of 6/30/22 (2)	Projected 4850/TD Case Reserves as of 6/30/22 (3)	Projected 4850/TD Reported as of 6/30/22 (4)	Projected 4850/TD IBNR as of 6/30/22 (5)	Projected Unpaid Losses excluding 4850/TD 6/30/22 (6)
1989-90	\$0	\$0	\$0	\$0	\$0	\$0
1990-91	0	0	0	0	0	0
1991-92	0	0	0	0	0	0
1992-93	27,361	27,361	0	27,361	0	0
1993-94	51,439	51,439	0	51,439	0	0
1994-95	150,307	150,307	0	150,307	0	0
1995-96	231,273	231,273	0	231,273	0	0
1996-97	181,819	181,819	0	181,819	0	0
1997-98	197,163	197,163	0	197,163	0	0
1998-99	118,580	118,580	0	118,580	0	0
1999-00	137,243	137,243	0	137,243	0	0
2000-01	260,082	260,082	0	260,082	0	0
2001-02	448,797	448,797	0	448,797	0	0
2002-03	454,646	454,646	0	454,646	0	0
2003-04	326,224	326,224	0	326,224	0	0
2004-05	462,290	462,290	0	462,290	0	0
2005-06	290,441	290,441	0	290,441	0	0
2006-07	562,102	562,102	0	562,102	0	0
2007-08	394,404	394,404	0	394,404	0	0
2008-09	529,974	529,974	0	529,974	0	0
2009-10	679,847	679,847	0	679,847	0	0
2010-11	633,227	633,227	0	633,227	0	0
2011-12	391,423	391,423	0	391,423	0	0
2012-13	354,798	354,798	0	354,798	0	0
2013-14	636,343	636,343	0	636,343	0	0
2014-15	156,547	156,547	0	156,547	0	0
2015-16	200,885	200,885	0	200,885	0	0
2016-17	137,276	137,276	0	137,276	0	0
2017-18	84,595	84,595	0	84,595	0	0
2018-19	233,405	229,985	3,420	233,405	0	3,420
2019-20	226,125	214,704	11,421	226,125	0	11,421
2020-21	283,771	226,323	57,448	283,771	0	57,448
2021-22	316,515	146,920	100,256	247,176	69,339	169,595
Total	\$9,158,901	\$8,917,017	\$172,545	\$9,089,562	\$69,340	\$241,884

Notes:

(1) Page 32, Column (4).

(2) Page 30, Column (3).

(3) (4) - (2).

(4) Page 30, Column (6).

(5) (1) - (4).

(6) (1) - (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Paid and Reported Losses between 1/1/22 and 6/30/22
4850 Only

Program Year	Losses Paid as of 12/31/21 (1)	Projected Losses Paid 1/1/22 - 6/30/22 (2)	Projected Losses Paid as of 6/30/22 (3)	Losses Reported as of 12/31/21 (4)	Projected Losses Reported 1/1/22 - 6/30/22 (5)	Projected Losses Reported as of 6/30/22 (6)
1989-90	\$0	\$0	\$0	\$0	\$0	\$0
1990-91	0	0	0	0	0	0
1991-92	0	0	0	0	0	0
1992-93	27,361	0	27,361	27,361	0	27,361
1993-94	51,439	0	51,439	51,439	0	51,439
1994-95	150,307	0	150,307	150,307	0	150,307
1995-96	231,273	0	231,273	231,273	0	231,273
1996-97	181,819	0	181,819	181,819	0	181,819
1997-98	197,163	0	197,163	197,163	0	197,163
1998-99	118,580	0	118,580	118,580	0	118,580
1999-00	137,243	0	137,243	137,243	0	137,243
2000-01	260,082	0	260,082	260,082	0	260,082
2001-02	448,797	0	448,797	448,797	0	448,797
2002-03	454,646	0	454,646	454,646	0	454,646
2003-04	326,224	0	326,224	326,224	0	326,224
2004-05	462,290	0	462,290	462,290	0	462,290
2005-06	290,441	0	290,441	290,441	0	290,441
2006-07	562,102	0	562,102	562,102	0	562,102
2007-08	394,404	0	394,404	394,404	0	394,404
2008-09	529,974	0	529,974	529,974	0	529,974
2009-10	679,847	0	679,847	679,847	0	679,847
2010-11	633,227	0	633,227	633,227	0	633,227
2011-12	391,423	0	391,423	391,423	0	391,423
2012-13	354,798	0	354,798	354,798	0	354,798
2013-14	636,343	0	636,343	636,343	0	636,343
2014-15	156,547	0	156,547	156,547	0	156,547
2015-16	200,885	0	200,885	200,885	0	200,885
2016-17	137,276	0	137,276	137,276	0	137,276
2017-18	84,595	0	84,595	84,595	0	84,595
2018-19	226,515	3,471	229,985	233,405	0	233,405
2019-20	209,857	4,847	214,704	226,125	0	226,125
2020-21	183,722	42,602	226,323	283,771	0	283,771
2021-22	75,851	71,069	146,920	158,258	88,919	247,176
Total	\$8,795,028	\$121,989	\$8,917,017	\$9,000,643	\$88,919	\$9,089,562

Notes:

- (1) Page 32, Column (1).
(2) Projected by BAC.
(3) (1) + (2).

- (4) Provided by Aims.
(5) Projected by BAC.
(6) (4) + (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of 12/31/21
4850 Only

Program Year	Estimated Ultimate 4850 (1)	4850 Paid as of 12/31/21 (2)	4850 Case Reserves as of 12/31/21 (3)	4850 Reported as of 12/31/21 (4)	4850 IBNR as of 12/31/21 (5)	Estimated Unpaid Losses excluding 4850 12/31/21 (6)
1989-90	\$0	\$0	\$0	\$0	\$0	\$0
1990-91	0	0	0	0	0	0
1991-92	0	0	0	0	0	0
1992-93	27,361	27,361	0	27,361	0	0
1993-94	51,439	51,439	0	51,439	0	0
1994-95	150,307	150,307	0	150,307	0	0
1995-96	231,273	231,273	0	231,273	0	0
1996-97	181,819	181,819	0	181,819	0	0
1997-98	197,163	197,163	0	197,163	0	0
1998-99	118,580	118,580	0	118,580	0	0
1999-00	137,243	137,243	0	137,243	0	0
2000-01	260,082	260,082	0	260,082	0	0
2001-02	448,797	448,797	0	448,797	0	0
2002-03	454,646	454,646	0	454,646	0	0
2003-04	326,224	326,224	0	326,224	0	0
2004-05	462,290	462,290	0	462,290	0	0
2005-06	290,441	290,441	0	290,441	0	0
2006-07	562,102	562,102	0	562,102	0	0
2007-08	394,404	394,404	0	394,404	0	0
2008-09	529,974	529,974	0	529,974	0	0
2009-10	679,847	679,847	0	679,847	0	0
2010-11	633,227	633,227	0	633,227	0	0
2011-12	391,423	391,423	0	391,423	0	0
2012-13	354,798	354,798	0	354,798	0	0
2013-14	636,343	636,343	0	636,343	0	0
2014-15	156,547	156,547	0	156,547	0	0
2015-16	200,885	200,885	0	200,885	0	0
2016-17	137,276	137,276	0	137,276	0	0
2017-18	84,595	84,595	0	84,595	0	0
2018-19	233,405	226,515	6,890	233,405	0	6,890
2019-20	226,125	209,857	16,268	226,125	0	16,268
2020-21	283,771	183,722	100,050	283,771	0	100,050
2021-22	158,258	75,851	82,407	158,258	0	82,407
Total	\$9,000,643	\$8,795,028	\$205,615	\$9,000,643		\$205,615

Notes:

- (1) Page 32, Column (4). 2021-22 adjusted for incomplete program year.
- (2) Page 32, Column (1).
- (3) (4) - (2).
- (4) Page 30, Column (4).
- (5) (1) - (4).
- (6) (1) - (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Paid 4850 Loss Development

Program Year	Cumulative Paid Losses as of 12/31/21 (1)	Paid Development Factor as of 12/31/21 (2)	Projected Ultimate Losses (3)	Selected Ultimate Losses (4)
1989-90	\$0	1.000	\$0	\$0
1990-91	0	1.000	0	0
1991-92	0	1.000	0	0
1992-93	27,361	1.000	27,361	27,361
1993-94	51,439	1.000	51,439	51,439
1994-95	150,307	1.000	150,307	150,307
1995-96	231,273	1.000	231,273	231,273
1996-97	181,819	1.000	181,819	181,819
1997-98	197,163	1.000	197,163	197,163
1998-99	118,580	1.000	118,580	118,580
1999-00	137,243	1.000	137,243	137,243
2000-01	260,082	1.000	260,082	260,082
2001-02	448,797	1.000	448,797	448,797
2002-03	454,646	1.000	454,646	454,646
2003-04	326,224	1.000	326,224	326,224
2004-05	462,290	1.000	462,290	462,290
2005-06	290,441	1.000	290,441	290,441
2006-07	562,102	1.000	562,102	562,102
2007-08	394,404	1.000	394,404	394,404
2008-09	529,974	1.000	529,974	529,974
2009-10	679,847	1.000	679,847	679,847
2010-11	633,227	1.000	633,227	633,227
2011-12	391,423	1.000	391,423	391,423
2012-13	354,798	1.000	354,798	354,798
2013-14	636,343	1.000	636,343	636,343
2014-15	156,547	1.000	156,547	156,547
2015-16	200,885	1.025	205,857	200,885
2016-17	137,276	1.025	140,674	137,276
2017-18	84,595	1.030	87,127	84,595
2018-19	226,515	1.019	230,900	233,405
2019-20	209,857	1.008	211,595	226,125
2020-21	183,722	1.101	202,362	283,771
2021-22	75,851	3.499	265,410	316,515
Total	\$8,795,028		\$9,020,254	\$9,158,901

Notes:

- (1) Provided by Aims.
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.
- (4) Selected based upon (3) & case incurred values.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Paid TD Loss Development

Program Year	Cumulative Paid Losses as of 12/31/21 (1)	Paid Development Factor as of 12/31/21 (2)	Projected Ultimate Losses (3)	Selected Ultimate Losses (4)
1989-90	\$238,006	1.000	\$238,006	\$238,006
1990-91	168,259	1.000	168,259	168,259
1991-92	268,489	1.000	268,489	268,489
1992-93	171,461	1.000	171,461	171,461
1993-94	63,926	1.000	63,926	63,926
1994-95	31,068	1.000	31,068	31,068
1995-96	11,580	1.000	11,580	11,580
1996-97	95,869	1.000	95,869	95,869
1997-98	20,370	1.000	20,370	20,370
1998-99	124,288	1.000	124,288	124,288
1999-00	30,385	1.000	30,385	30,385
2000-01	312,939	1.000	312,939	322,667
2001-02	78,920	1.000	78,920	78,920
2002-03	102,049	1.000	102,049	102,049
2003-04	153,993	1.000	153,993	153,993
2004-05	77,378	1.000	77,378	77,378
2005-06	55,431	1.000	55,431	55,431
2006-07	82,299	1.000	82,299	82,299
2007-08	49,814	1.000	49,814	49,814
2008-09	69,542	1.000	69,542	69,542
2009-10	304,478	1.000	304,478	304,478
2010-11	611,881	1.000	611,881	611,881
2011-12	319,083	1.000	319,083	319,083
2012-13	325,457	1.000	325,457	325,457
2013-14	659,638	1.000	659,638	659,638
2014-15	338,334	1.000	338,334	388,809
2015-16	644,302	1.025	660,249	658,334
2016-17	244,469	1.025	250,520	248,908
2017-18	359,990	1.030	370,765	360,121
2018-19	499,821	1.019	509,498	538,301
2019-20	529,338	1.008	533,721	562,910
2020-21	341,811	1.101	376,491	630,144
2021-22	114,582	3.499	400,936	577,118
Total	\$7,499,247		\$7,867,114	\$8,400,973

Notes:

- (1) Provided by Aims.
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.
- (4) Selected based upon (3) & case incurred values.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Unpaid Losses as of 6/30/22
Limited Self-Insured Losses Including 4850/TD

Program Year	Estimated Ultimate Losses (1)	Projected Paid Losses as of 6/30/22 (2)	Projected Case Reserves 6/30/22 (3)	Projected Reported Losses as of 6/30/22 (4)	Projected IBNR as of 6/30/22 (5)	Projected Unpaid Losses as of 6/30/22 (6)
1989-90	\$756,000	\$740,174	\$237	\$740,411	\$15,589	\$15,826
1990-91	1,270,000	1,253,587	7,353	1,260,941	9,059	16,413
1991-92	1,470,000	1,456,910	7,024	1,463,934	6,066	13,090
1992-93	1,500,000	1,472,564	22,662	1,495,226	4,774	27,436
1993-94	1,190,000	1,174,276	10,346	1,184,622	5,378	15,724
1994-95	960,000	883,575	58,563	942,139	17,861	76,425
1995-96	1,099,000	1,080,817	0	1,080,817	18,183	18,183
1996-97	1,570,000	1,527,363	32,204	1,559,567	10,433	42,637
1997-98	1,280,000	1,240,028	25,556	1,265,584	14,416	39,972
1998-99	1,650,000	1,557,751	79,969	1,637,720	12,280	92,249
1999-00	1,647,000	1,604,137	0	1,604,137	42,863	42,863
2000-01	2,890,000	2,866,899	3,087	2,869,986	20,014	23,101
2001-02	2,430,000	2,380,498	30,814	2,411,312	18,688	49,502
2002-03	2,700,000	2,593,070	69,495	2,662,565	37,435	106,930
2003-04	2,270,000	2,171,515	0	2,171,515	98,485	98,485
2004-05	2,140,000	2,054,445	41,361	2,095,806	44,194	85,555
2005-06	1,750,000	1,557,340	160,457	1,717,798	32,202	192,660
2006-07	3,510,000	3,324,444	105,899	3,430,343	79,657	185,556
2007-08	1,760,000	1,558,752	172,115	1,730,867	29,133	201,248
2008-09	2,150,000	2,083,658	34,294	2,117,952	32,048	66,342
2009-10	3,800,000	3,548,188	110,763	3,658,952	141,048	251,812
2010-11	4,700,000	4,300,763	327,371	4,628,133	71,867	399,237
2011-12	3,100,000	2,693,324	297,976	2,991,301	108,699	406,676
2012-13	3,500,000	3,211,313	170,803	3,382,116	117,884	288,687
2013-14	3,900,000	3,713,452	29,390	3,742,842	157,158	186,548
2014-15	2,700,000	2,175,656	254,765	2,430,421	269,579	524,344
2015-16	3,600,000	2,867,984	438,511	3,306,495	293,505	732,016
2016-17	2,200,000	1,498,384	492,750	1,991,134	208,866	701,616
2017-18	2,100,000	1,488,427	300,357	1,788,784	311,216	611,573
2018-19	3,800,000	2,461,000	800,318	3,261,318	538,682	1,339,000
2019-20	3,600,000	1,933,372	766,367	2,699,739	900,261	1,666,628
2020-21	4,700,000	1,560,742	1,607,115	3,167,857	1,532,143	3,139,258
2021-22	4,300,000	691,232	1,179,828	1,871,060	2,428,940	3,608,768
Total	\$81,992,000	\$66,725,641	\$7,637,753	\$74,363,394	\$7,628,606	\$15,266,359

Notes:

- (1) Page 38, Column (6).
- (2) Page 35, Column (3).
- (3) (4) - (2).
- (4) Page 35, Column (6).
- (5) (1) - (4).
- (6) (1) - (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Paid and Reported Losses between 1/1/22 and 6/30/22
Limited Self-Insured Losses Including 4850

Program Year	Losses Paid as of 12/31/21 (1)	Projected Losses Paid 1/1/22 - 6/30/22 (2)	Projected Losses Paid as of 6/30/22 (3)	Losses Reported as of 12/31/21 (4)	Projected Losses Reported 1/1/22 - 6/30/22 (5)	Projected Losses Reported as of 6/30/22 (6)
1989-90	\$738,804	\$1,370	\$740,174	\$738,804	\$1,607	\$740,411
1990-91	1,252,313	1,275	1,253,587	1,260,521	419	1,260,941
1991-92	1,455,982	928	1,456,910	1,462,997	937	1,463,934
1992-93	1,470,764	1,801	1,472,564	1,494,420	806	1,495,226
1993-94	1,173,309	966	1,174,276	1,183,663	959	1,184,622
1994-95	879,136	4,440	883,575	940,499	1,639	942,139
1995-96	1,079,810	1,007	1,080,817	1,079,810	1,007	1,080,817
1996-97	1,525,097	2,265	1,527,363	1,558,974	593	1,559,567
1997-98	1,236,399	3,629	1,240,028	1,264,849	735	1,265,584
1998-99	1,549,539	8,212	1,557,751	1,637,152	568	1,637,720
1999-00	1,600,386	3,751	1,604,137	1,600,386	3,751	1,604,137
2000-01	2,864,907	1,992	2,866,899	2,869,377	608	2,869,986
2001-02	2,376,282	4,216	2,380,498	2,411,120	193	2,411,312
2002-03	2,584,061	9,009	2,593,070	2,662,565	0	2,662,565
2003-04	2,163,295	8,220	2,171,515	2,163,295	8,220	2,171,515
2004-05	2,047,362	7,083	2,054,445	2,094,306	1,500	2,095,806
2005-06	1,541,502	15,838	1,557,340	1,717,798	0	1,717,798
2006-07	3,309,283	15,161	3,324,444	3,429,766	578	3,430,343
2007-08	1,542,398	16,354	1,558,752	1,730,557	311	1,730,867
2008-09	2,078,293	5,365	2,083,658	2,117,790	162	2,117,952
2009-10	3,527,917	20,271	3,548,188	3,655,393	3,558	3,658,952
2010-11	4,268,763	32,000	4,300,763	4,620,611	7,522	4,628,133
2011-12	2,622,418	70,906	2,693,324	2,976,467	14,833	2,991,301
2012-13	3,192,551	18,762	3,211,313	3,372,694	9,423	3,382,116
2013-14	3,699,136	14,316	3,713,452	3,728,666	14,176	3,742,842
2014-15	2,129,635	46,021	2,175,656	2,403,008	27,413	2,430,421
2015-16	2,805,742	62,243	2,867,984	3,284,985	21,511	3,306,495
2016-17	1,411,113	87,271	1,498,384	1,963,435	27,699	1,991,134
2017-18	1,417,645	70,782	1,488,427	1,742,809	45,975	1,788,784
2018-19	2,289,108	171,892	2,461,000	3,181,276	80,043	3,261,318
2019-20	1,751,236	182,136	1,933,372	2,532,252	167,487	2,699,739
2020-21	1,155,270	405,472	1,560,742	2,777,156	390,701	3,167,857
2021-22	297,295	393,937	691,232	964,010	907,051	1,871,060
Total	\$65,036,754	\$1,688,888	\$66,725,641	\$72,621,409	\$1,741,985	\$74,363,394

Notes:

- (1) Page 40, Column (1).
- (2) Projected by BAC.
- (3) (1) + (2).
- (4) Page 39, Column (1).
- (5) Projected by BAC.
- (6) (4) + (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of 12/31/21
Limited Self-Insured Losses Including 4850

Program Year	Estimated Ultimate Losses (1)	Paid Losses as of 12/31/21 (2)	Case Reserves 12/31/21 (3)	Reported Losses as of 12/31/21 (4)	Estimated IBNR as of 12/31/21 (5)	Estimated Unpaid Losses as of 12/31/21 (6)
1989-90	\$756,000	\$738,804	\$0	\$738,804	\$17,196	\$17,196
1990-91	1,270,000	1,252,313	8,209	1,260,521	9,479	17,687
1991-92	1,470,000	1,455,982	7,015	1,462,997	7,003	14,018
1992-93	1,500,000	1,470,764	23,656	1,494,420	5,580	29,236
1993-94	1,190,000	1,173,309	10,354	1,183,663	6,337	16,691
1994-95	960,000	879,136	61,363	940,499	19,501	80,864
1995-96	1,099,000	1,079,810	0	1,079,810	19,190	19,190
1996-97	1,570,000	1,525,097	33,877	1,558,974	11,026	44,903
1997-98	1,280,000	1,236,399	28,449	1,264,849	15,151	43,601
1998-99	1,650,000	1,549,539	87,613	1,637,152	12,848	100,461
1999-00	1,647,000	1,600,386	0	1,600,386	46,614	46,614
2000-01	2,890,000	2,864,907	4,471	2,869,377	20,623	25,093
2001-02	2,430,000	2,376,282	34,838	2,411,120	18,880	53,718
2002-03	2,700,000	2,584,061	78,504	2,662,565	37,435	115,939
2003-04	2,270,000	2,163,295	0	2,163,295	106,705	106,705
2004-05	2,140,000	2,047,362	46,944	2,094,306	45,694	92,638
2005-06	1,750,000	1,541,502	176,296	1,717,798	32,202	208,498
2006-07	3,510,000	3,309,283	120,482	3,429,766	80,234	200,717
2007-08	1,760,000	1,542,398	188,158	1,730,557	29,443	217,602
2008-09	2,150,000	2,078,293	39,497	2,117,790	32,210	71,707
2009-10	3,800,000	3,527,917	127,476	3,655,393	144,607	272,083
2010-11	4,700,000	4,268,763	351,848	4,620,611	79,389	431,237
2011-12	3,100,000	2,622,418	354,049	2,976,467	123,533	477,582
2012-13	3,500,000	3,192,551	180,143	3,372,694	127,306	307,449
2013-14	3,900,000	3,699,136	29,529	3,728,666	171,334	200,864
2014-15	2,700,000	2,129,635	273,373	2,403,008	296,992	570,365
2015-16	3,600,000	2,805,742	479,243	3,284,985	315,015	794,258
2016-17	2,200,000	1,411,113	552,322	1,963,435	236,565	788,887
2017-18	2,100,000	1,417,645	325,164	1,742,809	357,191	682,355
2018-19	3,800,000	2,289,108	892,167	3,181,276	618,724	1,510,892
2019-20	3,600,000	1,751,236	781,016	2,532,252	1,067,748	1,848,764
2020-21	4,700,000	1,155,270	1,621,886	2,777,156	1,922,844	3,544,730
2021-22	2,150,000	297,295	666,715	964,010	1,185,990	1,852,705
Total	\$79,842,000	\$65,036,754	\$7,584,655	\$72,621,409	\$7,220,591	\$14,805,246

Notes:

- (1) Page 38, Column (6).
2021-22 value adjusted for 6 month exposure through 12/31/21.
- (2) Page 40, Column (1).
- (3) (4) - (2).
- (4) Page 39, 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
Including 4850/TD**

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Selected Ultimate Losses
Limited Self-Insured Losses Including 4850

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)
1989-90	\$739,701	\$744,915	\$738,804	\$739,473	\$744,155	\$756,000
1990-91	1,262,428	1,265,453	1,261,916	1,263,008	1,264,749	1,270,000
1991-92	1,465,262	1,471,916	1,464,169	1,465,973	1,472,351	1,470,000
1992-93	1,497,421	1,488,914	1,499,080	1,498,001	1,492,251	1,500,000
1993-94	1,187,262	1,189,433	1,186,645	1,186,669	1,187,335	1,190,000
1994-95	944,131	892,246	962,283	943,741	891,294	960,000
1995-96	1,083,974	1,095,963	1,079,810	1,085,523	1,101,234	1,099,000
1996-97	1,565,295	1,549,307	1,570,763	1,564,476	1,547,106	1,570,000
1997-98	1,270,180	1,257,908	1,274,095	1,269,480	1,256,079	1,280,000
1998-99	1,644,258	1,582,043	1,660,457	1,642,359	1,576,876	1,650,000
1999-00	1,608,450	1,641,975	1,600,386	1,608,966	1,643,286	1,647,000
2000-01	2,885,765	2,950,528	2,870,463	2,893,055	2,979,352	2,890,000
2001-02	2,428,369	2,465,582	2,419,620	2,425,077	2,448,059	2,430,000
2002-03	2,688,962	2,719,691	2,681,798	2,685,944	2,700,958	2,700,000
2003-04	2,205,987	2,370,178	2,163,295	2,206,425	2,360,785	2,270,000
2004-05	2,118,249	2,187,159	2,104,399	2,115,984	2,173,488	2,140,000
2005-06	1,739,407	1,661,480	1,754,467	1,736,465	1,653,506	1,750,000
2006-07	3,474,813	3,604,430	3,452,417	3,475,625	3,598,549	3,510,000
2007-08	1,754,281	1,703,130	1,761,979	1,751,905	1,685,735	1,760,000
2008-09	2,148,435	2,329,260	2,123,833	2,143,466	2,276,365	2,150,000
2009-10	3,713,559	4,025,249	3,673,877	3,736,913	4,159,697	3,800,000
2010-11	4,685,140	4,754,832	4,675,499	4,696,384	4,820,823	4,700,000
2011-12	3,036,034	2,982,185	3,045,153	3,025,275	2,917,706	3,100,000
2012-13	3,492,352	3,827,318	3,419,531	3,467,394	3,654,912	3,500,000
2013-14	3,914,638	4,573,077	3,738,440	3,866,419	4,247,278	3,900,000
2014-15	2,553,100	2,702,312	2,507,983	2,577,506	2,756,643	2,700,000
2015-16	3,519,349	3,805,333	3,447,928	3,489,214	3,607,419	3,600,000
2016-17	2,133,053	2,020,549	2,161,166	2,220,307	2,380,807	2,200,000
2017-18	1,963,638	2,217,789	1,890,108	2,117,412	2,625,072	2,100,000
2018-19	3,765,842	4,105,660	3,663,046	3,726,929	3,845,101	3,800,000
2019-20	3,411,883	4,249,892	3,142,225	3,476,717	3,903,737	3,600,000
2020-21	4,753,501	4,882,988	4,716,931	4,361,105	4,060,445	4,700,000
2021-22	5,613,232	7,413,760	5,158,980	4,210,109	4,060,888	4,300,000
Total	\$82,267,951	\$87,732,455	\$80,871,544	\$80,673,297	\$83,094,044	\$81,992,000

- (1) Page 39, Column (3).
- (2) Page 40, Column (3).
- (3) Page 41, Column (6).
- (4) Page 42, Column (6).
- (5) Page 43, 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 Including 4850

Program Year	Cumulative Reported Losses as of 12/31/21 (1)	Reported Development Factor as of 12/31/21 (2)	Projected Ultimate Losses (3)
1989-90	\$738,804	1.001	\$739,701
1990-91	1,260,521	1.002	1,262,428
1991-92	1,462,997	1.002	1,465,262
1992-93	1,494,420	1.002	1,497,421
1993-94	1,183,663	1.003	1,187,262
1994-95	940,499	1.004	944,131
1995-96	1,079,810	1.004	1,083,974
1996-97	1,558,974	1.004	1,565,295
1997-98	1,264,849	1.004	1,270,180
1998-99	1,637,152	1.004	1,644,258
1999-00	1,600,386	1.005	1,608,450
2000-01	2,869,377	1.006	2,885,765
2001-02	2,411,120	1.007	2,428,369
2002-03	2,662,565	1.010	2,688,962
2003-04	2,163,295	1.020	2,205,987
2004-05	2,094,306	1.011	2,118,249
2005-06	1,717,798	1.013	1,739,407
2006-07	3,429,766	1.013	3,474,813
2007-08	1,730,557	1.014	1,754,281
2008-09	2,117,790	1.014	2,148,435
2009-10	3,655,393	1.016	3,713,559
2010-11	4,620,611	1.014	4,685,140
2011-12	2,976,467	1.020	3,036,034
2012-13	3,372,694	1.035	3,492,352
2013-14	3,728,666	1.050	3,914,638
2014-15	2,403,008	1.062	2,553,100
2015-16	3,284,985	1.071	3,519,349
2016-17	1,963,435	1.086	2,133,053
2017-18	1,742,809	1.127	1,963,638
2018-19	3,181,276	1.184	3,765,842
2019-20	2,532,252	1.347	3,411,883
2020-21	2,777,156	1.712	4,753,501
2021-22	964,010	5.823	5,613,232

Notes:

- (1) Provided by Aims.
- (2) Page 46, 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 Including 4850

Program Year	Cumulative	Paid Development	Projected Ultimate Losses
	Paid Losses as of 12/31/21 (1)	Factor as of 12/31/21 (2)	
1989-90	\$738,804	1.008	\$744,915
1990-91	1,252,313	1.010	1,265,453
1991-92	1,455,982	1.011	1,471,916
1992-93	1,470,764	1.012	1,488,914
1993-94	1,173,309	1.014	1,189,433
1994-95	879,136	1.015	892,246
1995-96	1,079,810	1.015	1,095,963
1996-97	1,525,097	1.016	1,549,307
1997-98	1,236,399	1.017	1,257,908
1998-99	1,549,539	1.021	1,582,043
1999-00	1,600,386	1.026	1,641,975
2000-01	2,864,907	1.030	2,950,528
2001-02	2,376,282	1.038	2,465,582
2002-03	2,584,061	1.052	2,719,691
2003-04	2,163,295	1.096	2,370,178
2004-05	2,047,362	1.068	2,187,159
2005-06	1,541,502	1.078	1,661,480
2006-07	3,309,283	1.089	3,604,430
2007-08	1,542,398	1.104	1,703,130
2008-09	2,078,293	1.121	2,329,260
2009-10	3,527,917	1.141	4,025,249
2010-11	4,268,763	1.114	4,754,832
2011-12	2,622,418	1.137	2,982,185
2012-13	3,192,551	1.199	3,827,318
2013-14	3,699,136	1.236	4,573,077
2014-15	2,129,635	1.269	2,702,312
2015-16	2,805,742	1.356	3,805,333
2016-17	1,411,113	1.432	2,020,549
2017-18	1,417,645	1.564	2,217,789
2018-19	2,289,108	1.794	4,105,660
2019-20	1,751,236	2.427	4,249,892
2020-21	1,155,270	4.227	4,882,988
2021-22	297,295	24.937	7,413,760

Notes:

- (1) Provided by Aims.
- (2) Page 47, 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 Including 4850

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)
1989-90	1.001	1.008	0.173	\$0	\$0	\$738,804
1990-91	1.002	1.010	0.170	8,209	1,395	1,261,916
1991-92	1.002	1.011	0.167	7,015	1,172	1,464,169
1992-93	1.002	1.012	0.197	23,656	4,660	1,499,080
1993-94	1.003	1.014	0.288	10,354	2,982	1,186,645
1994-95	1.004	1.015	0.355	61,363	21,784	962,283
1995-96	1.004	1.015	0.352	0	0	1,079,810
1996-97	1.004	1.016	0.348	33,877	11,789	1,570,763
1997-98	1.004	1.017	0.325	28,449	9,246	1,274,095
1998-99	1.004	1.021	0.266	87,613	23,305	1,660,457
1999-00	1.005	1.026	0.247	0	0	1,600,386
2000-01	1.006	1.030	0.243	4,471	1,086	2,870,463
2001-02	1.007	1.038	0.244	34,838	8,500	2,419,620
2002-03	1.010	1.052	0.245	78,504	19,233	2,681,798
2003-04	1.020	1.096	0.285	0	0	2,163,295
2004-05	1.011	1.068	0.215	46,944	10,093	2,104,399
2005-06	1.013	1.078	0.208	176,296	36,669	1,754,467
2006-07	1.013	1.089	0.188	120,482	22,651	3,452,417
2007-08	1.014	1.104	0.167	188,158	31,422	1,761,979
2008-09	1.014	1.121	0.153	39,497	6,043	2,123,833
2009-10	1.016	1.141	0.145	127,476	18,484	3,673,877
2010-11	1.014	1.114	0.156	351,848	54,888	4,675,499
2011-12	1.020	1.137	0.194	354,049	68,686	3,045,153
2012-13	1.035	1.199	0.260	180,143	46,837	3,419,531
2013-14	1.050	1.236	0.331	29,529	9,774	3,738,440
2014-15	1.062	1.269	0.384	273,373	104,975	2,507,983
2015-16	1.071	1.356	0.340	479,243	162,943	3,447,928
2016-17	1.086	1.432	0.358	552,322	197,731	2,161,166
2017-18	1.127	1.564	0.453	325,164	147,299	1,890,108
2018-19	1.184	1.794	0.540	892,167	481,770	3,663,046
2019-20	1.347	2.427	0.781	781,016	609,973	3,142,225
2020-21	1.712	4.227	1.196	1,621,886	1,939,775	4,716,931
2021-22	5.823	24.937	6.292	666,715	4,194,970	5,158,980

Notes:

- (1) Page 39, Column (2).
- (2) Page 40, Column (2).
- (3) $[(1) - 1.000] \times (2) / [(2) - (1)]$.
- (4) $[\text{Page 39, Column (1)}] - [\text{Page 40, Column (1)}]$.
- (5) $(3) \times (4)$, rounded.
- (6) $(5) + \text{Page 39, Column (1)}$.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Reported Losses
Limited Self-Insured Losses Including 4850

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 12/31/21 (5)	Estimated Ultimate Losses (6)
1989-90	\$668,848	1.001	0.1%	\$669	\$738,804	\$739,473
1990-91	1,243,564	1.002	0.2%	2,487	1,260,521	1,263,008
1991-92	1,488,059	1.002	0.2%	2,976	1,462,997	1,465,973
1992-93	1,790,550	1.002	0.2%	3,581	1,494,420	1,498,001
1993-94	1,001,837	1.003	0.3%	3,006	1,183,663	1,186,669
1994-95	810,528	1.004	0.4%	3,242	940,499	943,741
1995-96	1,428,253	1.004	0.4%	5,713	1,079,810	1,085,523
1996-97	1,375,560	1.004	0.4%	5,502	1,558,974	1,564,476
1997-98	1,157,673	1.004	0.4%	4,631	1,264,849	1,269,480
1998-99	1,301,738	1.004	0.4%	5,207	1,637,152	1,642,359
1999-00	1,716,017	1.005	0.5%	8,580	1,600,386	1,608,966
2000-01	3,946,379	1.006	0.6%	23,678	2,869,377	2,893,055
2001-02	1,993,804	1.007	0.7%	13,957	2,411,120	2,425,077
2002-03	2,337,947	1.010	1.0%	23,379	2,662,565	2,685,944
2003-04	2,270,000	1.020	1.9%	43,130	2,163,295	2,206,425
2004-05	1,970,725	1.011	1.1%	21,678	2,094,306	2,115,984
2005-06	1,555,615	1.013	1.2%	18,667	1,717,798	1,736,465
2006-07	3,527,639	1.013	1.3%	45,859	3,429,766	3,475,625
2007-08	1,524,864	1.014	1.4%	21,348	1,730,557	1,751,905
2008-09	1,834,002	1.014	1.4%	25,676	2,117,790	2,143,466
2009-10	5,095,001	1.016	1.6%	81,520	3,655,393	3,736,913
2010-11	5,412,357	1.014	1.4%	75,773	4,620,611	4,696,384
2011-12	2,440,399	1.020	2.0%	48,808	2,976,467	3,025,275
2012-13	2,785,308	1.035	3.4%	94,700	3,372,694	3,467,394
2013-14	2,869,856	1.050	4.8%	137,753	3,728,666	3,866,419
2014-15	2,957,587	1.062	5.9%	174,498	2,403,008	2,577,506
2015-16	3,048,201	1.071	6.7%	204,229	3,284,985	3,489,214
2016-17	3,210,906	1.086	8.0%	256,872	1,963,435	2,220,307
2017-18	3,344,672	1.127	11.2%	374,603	1,742,809	2,117,412
2018-19	3,520,345	1.184	15.5%	545,653	3,181,276	3,726,929
2019-20	3,660,717	1.347	25.8%	944,465	2,532,252	3,476,717
2020-21	3,807,569	1.712	41.6%	1,583,949	2,777,156	4,361,105
2021-22	3,920,409	5.823	82.8%	3,246,099	964,010	4,210,109

Notes:

- (1) Page 50, Column (4), or Page 45, Column (6), adjusted for SIR.
- (2) Page 39, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 39, Column (1).
- (6) $(4) + (5)$.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Paid Losses
Limited Self-Insured Losses Including 4850

Program Year	<i>A Priori</i> Ultimate Losses (1)	Cumulative Paid Loss Development Factors (2)	Percentage of Losses Not Yet Paid (3)	Expected Unpaid Losses (4)	Losses Paid as of 12/31/21 (5)	Estimated Ultimate Losses (6)
1989-90	\$668,848	1.008	0.8%	\$5,351	\$738,804	\$744,155
1990-91	1,243,564	1.010	1.0%	12,436	1,252,313	1,264,749
1991-92	1,488,059	1.011	1.1%	16,369	1,455,982	1,472,351
1992-93	1,790,550	1.012	1.2%	21,487	1,470,764	1,492,251
1993-94	1,001,837	1.014	1.4%	14,026	1,173,309	1,187,335
1994-95	810,528	1.015	1.5%	12,158	879,136	891,294
1995-96	1,428,253	1.015	1.5%	21,424	1,079,810	1,101,234
1996-97	1,375,560	1.016	1.6%	22,009	1,525,097	1,547,106
1997-98	1,157,673	1.017	1.7%	19,680	1,236,399	1,256,079
1998-99	1,301,738	1.021	2.1%	27,337	1,549,539	1,576,876
1999-00	1,716,017	1.026	2.5%	42,900	1,600,386	1,643,286
2000-01	3,946,379	1.030	2.9%	114,445	2,864,907	2,979,352
2001-02	1,993,804	1.038	3.6%	71,777	2,376,282	2,448,059
2002-03	2,337,947	1.052	5.0%	116,897	2,584,061	2,700,958
2003-04	2,270,000	1.096	8.7%	197,490	2,163,295	2,360,785
2004-05	1,970,725	1.068	6.4%	126,126	2,047,362	2,173,488
2005-06	1,555,615	1.078	7.2%	112,004	1,541,502	1,653,506
2006-07	3,527,639	1.089	8.2%	289,266	3,309,283	3,598,549
2007-08	1,524,864	1.104	9.4%	143,337	1,542,398	1,685,735
2008-09	1,834,002	1.121	10.8%	198,072	2,078,293	2,276,365
2009-10	5,095,001	1.141	12.4%	631,780	3,527,917	4,159,697
2010-11	5,412,357	1.114	10.2%	552,060	4,268,763	4,820,823
2011-12	2,440,399	1.137	12.1%	295,288	2,622,418	2,917,706
2012-13	2,785,308	1.199	16.6%	462,361	3,192,551	3,654,912
2013-14	2,869,856	1.236	19.1%	548,142	3,699,136	4,247,278
2014-15	2,957,587	1.269	21.2%	627,008	2,129,635	2,756,643
2015-16	3,048,201	1.356	26.3%	801,677	2,805,742	3,607,419
2016-17	3,210,906	1.432	30.2%	969,694	1,411,113	2,380,807
2017-18	3,344,672	1.564	36.1%	1,207,427	1,417,645	2,625,072
2018-19	3,520,345	1.794	44.2%	1,555,993	2,289,108	3,845,101
2019-20	3,660,717	2.427	58.8%	2,152,501	1,751,236	3,903,737
2020-21	3,807,569	4.227	76.3%	2,905,175	1,155,270	4,060,445
2021-22	3,920,409	24.937	96.0%	3,763,593	297,295	4,060,888

Notes:

- (1) Page 42, Column (1).
- (2) Page 40, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 40, 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 Including 4850/TD

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)
1989-90	\$753,654	\$765,452	\$751,264			\$786,000
1990-91	1,411,199	1,389,396	1,415,292			1,420,000
1991-92	1,726,417	1,506,787	1,773,672			1,760,000
1992-93	2,134,923	2,064,807	2,153,979			2,150,000
1993-94	1,194,987	1,213,116	1,187,867			1,200,000
1994-95	951,317	910,715	970,444			970,000
1995-96	1,679,565	1,446,366	1,793,545			1,740,000
1996-97	1,706,951	1,717,517	1,701,630			1,710,000
1997-98	1,470,525	1,485,975	1,463,011			1,470,000
1998-99	1,673,713	1,642,945	1,687,417			1,690,000
1999-00	2,276,618	2,380,801	2,235,976			2,282,000
2000-01	5,412,050	5,639,690	5,328,482			5,380,000
2001-02	2,542,932	2,596,890	2,524,806			2,560,000
2002-03	2,715,110	2,808,828	2,687,608			2,740,000
2003-04	2,205,987	2,370,178	2,163,295			2,270,000
2004-05	2,266,164	2,267,035	2,265,950			2,270,000
2005-06	1,790,874	1,725,086	1,805,757			1,800,000
2006-07	4,064,049	4,180,070	4,041,094			4,100,000
2007-08	1,768,489	1,775,604	1,767,248			1,780,000
2008-09	2,164,687	2,432,866	2,124,702			2,150,000
2009-10	5,907,605	6,218,566	5,865,083			6,000,000
2010-11	7,614,355	7,174,711	7,681,841			7,700,000
2011-12	3,401,847	3,549,432	3,375,624			3,500,000
2012-13	5,274,835	5,024,266	5,341,413	\$5,202,508	\$4,985,839	5,300,000
2013-14	8,592,204	9,633,948	8,245,849	8,239,905	4,429,543	8,400,000
2014-15	3,563,669	3,419,280	3,612,954	3,636,730	4,791,175	3,700,000
2015-16	6,123,307	5,028,156	6,433,674	5,966,626	2,737,742	6,200,000
2016-17	2,560,524	2,259,913	2,645,875	2,832,689	4,793,302	2,700,000
2017-18	2,851,330	2,769,597	2,875,045	3,183,108	4,280,034	3,000,000
2018-19	4,329,569	4,753,638	4,199,950	4,554,367	3,879,030	4,500,000
2019-20	3,759,273	4,522,819	3,492,454	4,375,423	7,038,458	4,100,000
2020-21	5,025,636	5,171,005	4,981,299	5,574,749	7,004,706	5,200,000
2021-22	6,128,310	7,985,440	5,643,014	6,506,025	8,176,000	6,600,000
Total	\$107,042,675	\$109,830,895	\$106,237,112			\$109,128,000
12/13-21/22	\$48,208,657	\$50,568,062	\$47,471,527	\$50,072,130	\$52,115,829	\$49,700,000

(1) Page 46, Column (3).

(2) Page 47, Column (3).

(3) Page 48, Column (6).

(4) Page 49, Column (6).

(5) Page 53, Column (4).

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

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Reported Loss Development
Unlimited Losses Including 4850/TD

Program Year	Cumulative Reported Losses as of 12/31/21 (1)	Reported Development Factor as of 12/31/21 (2)	Projected Ultimate Losses (3)
1989-90	\$751,264	1.003	\$753,654
1990-91	1,406,293	1.003	1,411,199
1991-92	1,718,246	1.005	1,726,417
1992-93	2,120,760	1.007	2,134,923
1993-94	1,183,663	1.010	1,194,987
1994-95	940,499	1.012	951,317
1995-96	1,659,254	1.012	1,679,565
1996-97	1,683,845	1.014	1,706,951
1997-98	1,448,502	1.015	1,470,525
1998-99	1,646,239	1.017	1,673,713
1999-00	2,235,976	1.018	2,276,618
2000-01	5,309,431	1.019	5,412,050
2001-02	2,493,720	1.020	2,542,932
2002-03	2,662,565	1.020	2,715,110
2003-04	2,163,295	1.020	2,205,987
2004-05	2,219,886	1.021	2,266,164
2005-06	1,752,400	1.022	1,790,874
2006-07	3,976,795	1.022	4,064,049
2007-08	1,730,557	1.022	1,768,489
2008-09	2,117,790	1.022	2,164,687
2009-10	5,773,051	1.023	5,907,605
2010-11	7,400,849	1.029	7,614,355
2011-12	3,276,719	1.038	3,401,847
2012-13	4,964,389	1.063	5,274,835
2013-14	7,903,703	1.087	8,592,204
2014-15	3,238,319	1.100	3,563,669
2015-16	5,505,765	1.112	6,123,307
2016-17	2,260,330	1.133	2,560,524
2017-18	2,446,513	1.165	2,851,330
2018-19	3,531,013	1.226	4,329,569
2019-20	2,677,025	1.404	3,759,273
2020-21	2,777,156	1.810	5,025,636
2021-22	964,010	6.357	6,128,310
Total	\$93,939,820		\$107,042,675

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 Including 4850/TD

Program Year	Cumulative Paid Losses as of 12/31/21 (1)	Paid Development Factor as of 12/31/21 (2)	Projected Ultimate Losses (3)
1989-90	\$751,264	1.019	\$765,452
1990-91	1,359,421	1.022	1,389,396
1991-92	1,467,450	1.027	1,506,787
1992-93	2,002,122	1.031	2,064,807
1993-94	1,173,309	1.034	1,213,116
1994-95	879,136	1.036	910,715
1995-96	1,394,379	1.037	1,446,366
1996-97	1,649,969	1.041	1,717,517
1997-98	1,420,052	1.046	1,485,975
1998-99	1,558,626	1.054	1,642,945
1999-00	2,235,976	1.065	2,380,801
2000-01	5,260,954	1.072	5,639,690
2001-02	2,408,083	1.078	2,596,890
2002-03	2,584,061	1.087	2,808,828
2003-04	2,163,295	1.096	2,370,178
2004-05	2,047,362	1.107	2,267,035
2005-06	1,541,502	1.119	1,725,086
2006-07	3,689,744	1.133	4,180,070
2007-08	1,542,398	1.151	1,775,604
2008-09	2,078,293	1.171	2,432,866
2009-10	5,208,438	1.194	6,218,566
2010-11	5,890,140	1.218	7,174,711
2011-12	2,831,199	1.254	3,549,432
2012-13	3,874,724	1.297	5,024,266
2013-14	7,139,985	1.349	9,633,948
2014-15	2,452,920	1.394	3,419,280
2015-16	3,332,675	1.509	5,028,156
2016-17	1,411,113	1.602	2,259,913
2017-18	1,597,934	1.733	2,769,597
2018-19	2,417,974	1.966	4,753,638
2019-20	1,765,931	2.561	4,522,819
2020-21	1,155,270	4.476	5,171,005
2021-22	297,295	26.860	7,985,440
Total	\$78,582,997		\$109,830,895

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 Including 4850/TD

Program Year	Reported Development Factor as of 12/31/21 (1)	Paid Development Factor as of 12/31/21 (2)	IBNR to Case Reserves Ratio (3)	Case Reserves 12/31/21 (4)	Estimated IBNR Losses as of 12/31/21 (5)	Estimated Ultimate Losses (6)
1989-90	1.003	1.019	0.206	\$0	\$0	\$751,264
1990-91	1.003	1.022	0.192	46,871	8,999	1,415,292
1991-92	1.005	1.027	0.221	250,796	55,426	1,773,672
1992-93	1.007	1.031	0.280	118,638	33,219	2,153,979
1993-94	1.010	1.034	0.406	10,354	4,204	1,187,867
1994-95	1.012	1.036	0.488	61,363	29,945	970,444
1995-96	1.012	1.037	0.507	264,874	134,291	1,793,545
1996-97	1.014	1.041	0.525	33,877	17,785	1,701,630
1997-98	1.015	1.046	0.510	28,449	14,509	1,463,011
1998-99	1.017	1.054	0.470	87,613	41,178	1,687,417
1999-00	1.018	1.065	0.415	0	0	2,235,976
2000-01	1.019	1.072	0.393	48,476	19,051	5,328,482
2001-02	1.020	1.078	0.363	85,637	31,086	2,524,806
2002-03	1.020	1.087	0.319	78,504	25,043	2,687,608
2003-04	1.020	1.096	0.285	0	0	2,163,295
2004-05	1.021	1.107	0.267	172,524	46,064	2,265,950
2005-06	1.022	1.119	0.253	210,897	53,357	1,805,757
2006-07	1.022	1.133	0.224	287,051	64,299	4,041,094
2007-08	1.022	1.151	0.195	188,158	36,691	1,767,248
2008-09	1.022	1.171	0.175	39,497	6,912	2,124,702
2009-10	1.023	1.194	0.163	564,613	92,032	5,865,083
2010-11	1.029	1.218	0.186	1,510,709	280,992	7,681,841
2011-12	1.038	1.254	0.222	445,520	98,905	3,375,624
2012-13	1.063	1.297	0.346	1,089,665	377,024	5,341,413
2013-14	1.087	1.349	0.448	763,718	342,146	8,245,849
2014-15	1.100	1.394	0.477	785,399	374,635	3,612,954
2015-16	1.112	1.509	0.427	2,173,090	927,909	6,433,674
2016-17	1.133	1.602	0.454	849,217	385,545	2,645,875
2017-18	1.165	1.733	0.505	848,579	428,532	2,875,045
2018-19	1.226	1.966	0.601	1,113,039	668,937	4,199,950
2019-20	1.404	2.561	0.895	911,094	815,429	3,492,454
2020-21	1.810	4.476	1.359	1,621,886	2,204,143	4,981,299
2021-22	6.357	26.860	7.018	666,715	4,679,004	5,643,014
Total				\$15,356,823	\$12,297,292	\$106,237,112

Notes:

- (1) Page 46, Column (2).
- (2) Page 47, Column (2).
- (3) $[(1) - 1.000] \times (2) / [(2) - (1)]$.
- (4) Page 46, Column (1) - Page 47, Column (1).
- (5) (3) x (4), rounded.
- (6) (5) + Page 46, Column (1).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Reported Losses
Unlimited Losses Including 4850/TD

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 12/31/21 (5)	Estimated Ultimate Losses (6)
2012-13	\$4,035,908	1.063	5.9%	\$238,119	\$4,964,389	\$5,202,508
2013-14	4,202,523	1.087	8.0%	336,202	7,903,703	8,239,905
2014-15	4,378,139	1.100	9.1%	398,411	3,238,319	3,636,730
2015-16	4,562,980	1.112	10.1%	460,861	5,505,765	5,966,626
2016-17	4,891,956	1.133	11.7%	572,359	2,260,330	2,832,689
2017-18	5,187,288	1.165	14.2%	736,595	2,446,513	3,183,108
2018-19	5,561,708	1.226	18.4%	1,023,354	3,531,013	4,554,367
2019-20	5,897,215	1.404	28.8%	1,698,398	2,677,025	4,375,423
2020-21	6,258,598	1.810	44.7%	2,797,593	2,777,156	5,574,749
2021-22	6,574,158	6.357	84.3%	5,542,015	964,010	6,506,025

Notes:

- (1) Page 50, Column (4).
- (2) Page 46, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 46, Column (1).
- (6) $(4) + (5)$.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Losses for Bornhuetter-Ferguson
Unlimited Losses Including 4850/TD

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)
2012-13	\$9.89	0.678	\$601,887	\$4,035,908
2013-14	9.89	0.699	607,906	4,202,523
2014-15	9.89	0.721	613,985	4,378,139
2015-16	9.89	0.744	620,125	4,562,980
2016-17	9.89	0.782	632,528	4,891,956
2017-18	9.89	0.821	638,853	5,187,288
2018-19	9.89	0.863	651,630	5,561,708
2019-20	9.89	0.906	658,146	5,897,215
2020-21	9.89	0.952	664,728	6,258,598
2021-22	9.89	1.000	664,728	6,574,158

Notes:

- (1) Page 51, Item (5).
- (2) Estimated by BAC.
- (3) Page 73, 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 Including 4850/TD

Program Year	<i>A Priori</i> Ultimate Losses (1)	Estimated Pure Premium Trend (2)	Trended Payroll (\$00's) (3)	Constant Dollar Loss Rate (4)
2007-08	\$1,771,835	1.686	\$673,142	\$4.44
2008-09	2,289,698	1.644	679,874	5.54
2009-10	6,051,120	1.602	659,478	14.70
2010-11	7,413,046	1.562	639,693	18.10
2011-12	3,468,701	1.523	620,502	8.51
2012-13	5,161,985	1.476	601,887	12.66
2013-14	9,057,024	1.430	607,906	21.31
2014-15	3,499,969	1.387	613,985	7.90
2015-16	5,658,588	1.344	620,125	12.26
2016-17	2,435,983	1.279	632,528	4.93
2017-18	2,818,468	1.218	638,853	5.37
2018-19	4,492,462	1.159	651,630	7.99
2019-20	4,029,667	1.104	658,146	6.76
2020-21	5,067,488	1.050	664,728	8.01
2021-22	6,483,725	1.000	664,728	9.75
Average				\$9.88
07/08-20/21				\$9.89
			(5) Selected A Priori 2021-22 Loss Rate:	\$9.89

Notes:

- (1) Page 52, Column (3).
- (2) Estimated by BAC.
- (3) Page 73, 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 Including 4850/TD

Program Year	Reported Loss Projection (1)	Paid Loss Projection (2)	<i>A Priori</i> Selection (3)
1989-90	\$753,654	\$765,452	\$759,507
1990-91	1,411,199	1,389,396	1,406,293
1991-92	1,726,417	1,506,787	1,718,246
1992-93	2,134,923	2,064,807	2,120,760
1993-94	1,194,987	1,213,116	1,203,943
1994-95	951,317	910,715	940,499
1995-96	1,679,565	1,446,366	1,659,254
1996-97	1,706,951	1,717,517	1,712,164
1997-98	1,470,525	1,485,975	1,478,133
1998-99	1,673,713	1,642,945	1,658,607
1999-00	2,276,618	2,380,801	2,327,544
2000-01	5,412,050	5,639,690	5,523,003
2001-02	2,542,932	2,596,890	2,569,157
2002-03	2,715,110	2,808,828	2,760,473
2003-04	2,205,987	2,370,178	2,285,137
2004-05	2,266,164	2,267,035	2,266,582
2005-06	1,790,874	1,725,086	1,759,472
2006-07	4,064,049	4,180,070	4,119,073
2007-08	1,768,489	1,775,604	1,771,835
2008-09	2,164,687	2,432,866	2,289,698
2009-10	5,907,605	6,218,566	6,051,120
2010-11	7,614,355	7,174,711	7,413,046
2011-12	3,401,847	3,549,432	3,468,701
2012-13	5,274,835	5,024,266	5,161,985
2013-14	8,592,204	9,633,948	9,057,024
2014-15	3,563,669	3,419,280	3,499,969
2015-16	6,123,307	5,028,156	5,658,588
2016-17	2,560,524	2,259,913	2,435,983
2017-18	2,851,330	2,769,597	2,818,468
2018-19	4,329,569	4,753,638	4,492,462
2019-20	3,759,273	4,522,819	4,029,667
2020-21	5,025,636	5,171,005	5,067,488
2021-22	6,128,310	7,985,440	6,483,725
Total	\$107,042,675	\$109,830,895	\$107,967,606

Notes:

- (1) Page 46, Column (3).
- (2) Page 47, 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)
2012-13	\$102,200	0.678	62	\$4,293,362
2013-14	102,200	0.699	65	4,643,876
2014-15	102,200	0.721	36	2,653,574
2015-16	102,200	0.744	60	4,562,904
2016-17	102,200	0.782	51	4,074,307
2017-18	102,200	0.821	44	3,692,578
2018-19	102,200	0.863	76	6,700,143
2019-20	102,200	0.906	72	6,668,013
2020-21	102,200	0.952	80	7,783,007
2021-22	102,200	1.000	77	7,869,400

Notes:

- (1) Page 54, Item (5).
- (2) Estimated by BAC.
- (3) Page 55, 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 Including 4850/TD

Program Year	<i>A Priori</i> Ultimate Losses <u>(1)</u>	Estimated Severity Trend <u>(2)</u>	Selected Claim Count <u>(3)</u>	Trended Claim Severity <u>(4)</u>
2010-11	\$7,413,046	1.562	88	\$131,577
2011-12	3,468,701	1.523	72	73,357
2012-13	5,161,985	1.476	62	122,877
2013-14	9,057,024	1.430	65	199,322
2014-15	3,499,969	1.387	36	134,798
2015-16	5,658,588	1.344	60	126,741
2016-17	2,435,983	1.279	51	61,104
2017-18	2,818,468	1.218	44	78,007
2018-19	4,492,462	1.159	76	68,525
2019-20	4,029,667	1.104	72	61,762
2020-21	5,067,488	1.050	80	66,542
2021-22	6,483,725	1.000	77	84,204
Average				\$100,735
10/11-20/21				\$102,200
			(5) Selected Severity:	\$102,200

Notes:

- (1) Page 52, Column (3).
- (2) Estimated by BAC.
- (3) Page 55, 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)
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	45		45
1996-97	54		54
1997-98	61		61
1998-99	55		55
1999-00	51		51
2000-01	63		63
2001-02	71		71
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	57		57
2010-11	88		88
2011-12	72		72
2012-13	62		62
2013-14	65		65
2014-15	36		36
2015-16	60		60
2016-17	51		51
2017-18	44		44
2018-19	76		76
2019-20	72		72
2020-21	80		80
2021-22	78	77	77
Total	1,992		1,991

Notes:

- (1) Page 56, Column (3).
- (2) Page 57, 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 12/31/21 <u>(1)</u>	Development Factors as of 12/31/21 <u>(2)</u>	Projected Ultimate Indemnity Claims <u>(3)</u>
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	45	1.000	45
1996-97	54	1.000	54
1997-98	61	1.000	61
1998-99	55	1.000	55
1999-00	51	1.000	51
2000-01	63	1.000	63
2001-02	71	1.000	71
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	57	1.000	57
2010-11	88	1.000	88
2011-12	72	1.000	72
2012-13	62	1.000	62
2013-14	65	1.000	65
2014-15	36	1.000	36
2015-16	60	1.001	60
2016-17	51	1.005	51
2017-18	44	1.010	44
2018-19	75	1.015	76
2019-20	70	1.030	72
2020-21	75	1.064	80
2021-22	30	2.595	78
Total	1,936		1,992

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 12/31/21 (5)	Projected Ultimate Claims (6)
2021-22	77	2.595	61.5%	47	30	77

Notes:

- (1) Page 58, Item (6).
- (2) Page 56, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 56, 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>
2012-13	62	\$60.2	1.03
2013-14	65	60.8	1.07
2014-15	36	61.4	0.59
2015-16	60	62.0	0.97
2015-16	60	62.0	0.97
2016-17	51	63.3	0.81
2017-18	44	63.9	0.69
2018-19	76	65.2	1.17
2019-20	72	65.8	1.09
2020-21	80	66.5	1.20
2021-22	78	66.5	1.17
Average			0.98
18/19-20/21			1.15
		(4) Selected Claim Frequency:	1.15
		(5) 2021-22 Trended Payroll (\$Millions):	\$66.5
		(6) 2021-22 A Priori Claim Count:	77

Notes:

- (1) Page 56, Column (3).
- (2) Page 73, Column (3) / 10,000.
- (3) (1) / (2).
- (4) Selected on the basis of (3).
- (5) Page 73, 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 2022-23
Unlimited Losses Including 4850/TD

Program Year	2021-22 Level Loss Rate (1)	Expected Increase for 2022-23 (2)	Trended Payroll (\$00's) (3)	Projected Ultimate Losses (4)	Projected 2022-23 Unlimited Loss Rate (5)
2022-23	\$11.15	1.050	\$671,375	7,863,820	\$11.24
			(6) Projected 4850 :	\$250,000	
			(7) Projected TD :	\$530,000	
	<u>Full Rate</u>	<u>Excluding 4850 Only</u>	<u>Excluding TD Only</u>	<u>Excluding 4850 & TD</u>	
Unlimited	\$11.24	\$10.88	\$10.48	\$10.13	
\$1M Limit:	\$9.84	\$9.48	\$9.08	\$8.72	
\$750K Limit:	\$9.34	\$8.99	\$8.59	\$8.23	
\$500K Limit:	\$8.40	\$8.05	\$7.65	\$7.29	
\$350K Limit:	\$7.49	\$7.13	\$6.73	\$6.37	
\$250K Limit:	\$6.57	\$6.21	\$5.81	\$5.45	

Notes:

- (1) Page 61, Item (11).
- (2) 5.0% Expected Increase Estimated by BAC.
- (3) Page 73, Column (2).
- (4) (1) x (2) x (3), rounded.
- (5) (4) / [Page 73, Column (2)], rounded.
- (6) Page 27, Item (4).
- (7) Page 28, Item (4).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Unlimited Losses Including 4850/TD

Projected Future Loss Rate

Program Year	Estimated Ultimate Losses (1)	Pure Premium Trend (2)	Trended Payroll (\$00's) (3)	Trended Loss Rate (4)
2009-10	\$6,000,000	1.602	\$659,478	\$14.58
2010-11	7,700,000	1.562	639,693	18.80
2011-12	3,500,000	1.523	620,502	8.59
2012-13	5,300,000	1.476	601,887	13.00
2013-14	8,400,000	1.430	607,906	19.77
2014-15	3,700,000	1.387	613,985	8.36
2015-16	6,200,000	1.344	620,125	13.44
2016-17	2,700,000	1.279	632,528	5.46
2017-18	3,000,000	1.218	638,853	5.72
2018-19	4,500,000	1.159	651,630	8.01
2019-20	4,100,000	1.104	658,146	6.87
2020-21	5,200,000	1.050	664,728	8.22

Average \$10.90

(5) Selected Loss Rate: \$11.15

Program Year	Largest Claim (6)	Severity Trend (7)	LDF (8)	Trended Developed Max Claim (9)
2009-10	\$2,617,658	1.602	1.023	\$4,291,834
2010-11	1,497,011	1.562	1.029	2,405,702
2011-12	446,064	1.523	1.038	705,146
2012-13	734,158	1.476	1.063	1,151,271
2013-14	2,499,910	1.430	1.087	3,887,604
2014-15	895,562	1.387	1.100	1,366,456
2015-16	1,526,821	1.344	1.112	2,282,008
2016-17	473,785	1.279	1.133	686,603
2017-18	754,203	1.218	1.165	1,070,440
2018-19	385,344	1.159	1.226	547,740

(10) Factor for Unlimited Retention: 1.000

(11) Unlimited 2021-22 Rate: **\$11.15**

Notes:

- | | |
|--------------------------|--------------------------|
| (1) Page 45, Column (6). | (7) Page 54, Column (2). |
| (2) Page 51, Column (2). | Indexed to 2021-22. |
| (3) Page 73, Column (3). | (8) Page 46, Column (2). |
| (4) (1) x (2) / (3). | (9) (6) x (7) x (8). |
| (5) Based on Column (4). | (10) Estimated by BAC. |
| (6) Provided by Aims. | (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 6/30/22
Assuming a 1.5% Interest Rate

Limited Self-Insured Losses Excluding 4850

Program Year	Projected Unpaid Losses (1)	Discount Factor (2)	Discounted Unpaid Losses (3)
1989-90	\$15,826	0.953	\$15,079
1990-91	16,413	0.947	15,537
1991-92	13,090	0.941	12,314
1992-93	27,436	0.935	25,652
1993-94	15,724	0.929	14,615
1994-95	76,424	0.924	70,627
1995-96	18,183	0.919	16,711
1996-97	42,637	0.914	38,976
1997-98	39,972	0.909	36,353
1998-99	92,249	0.911	84,027
1999-00	42,863	0.912	39,082
2000-01	23,101	0.912	21,077
2001-02	49,502	0.913	45,180
2002-03	106,930	0.913	97,606
2003-04	98,485	0.913	89,895
2004-05	85,555	0.913	78,082
2005-06	192,660	0.912	175,793
2006-07	185,556	0.912	169,266
2007-08	201,248	0.912	183,525
2008-09	66,342	0.912	60,481
2009-10	251,812	0.911	229,489
2010-11	399,237	0.911	363,728
2011-12	406,676	0.911	370,385
2012-13	288,687	0.922	266,206
2013-14	186,548	0.918	171,291
2014-15	524,344	0.916	480,518
2015-16	732,016	0.916	670,801
2016-17	701,616	0.916	642,676
2017-18	611,573	0.921	563,060
2018-19	1,335,580	0.923	1,233,304
2019-20	1,655,207	0.927	1,534,533
2020-21	3,081,810	0.928	2,859,836
2021-22	3,439,173	0.931	3,201,701
Total	\$15,024,474		\$13,877,406

(4) Indicated Discount Factor: 0.924

Notes:

- (1) Page 24, Column (6).
- (2) (3) / (1).
- (3) Based upon a 1.5% interest rate.
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2022-23 Losses as of 7/1/22
Assuming a 1.5% Interest rate

Unlimited Losses Including 4850/TD

Fiscal Year	Projected Loss Payments (1)	Discount Factor (2)	Discounted Value of Payments (3)
2022-23	\$970,239	0.993	\$963,043
2023-24	1,397,400	0.978	1,366,537
2024-25	940,265	0.963	905,910
2025-26	705,816	0.949	669,978
2026-27	559,513	0.935	523,255
2027-28	488,711	0.921	450,287
2028-29	333,023	0.908	302,305
2029-30	301,431	0.894	269,583
2030-31	254,713	0.881	224,435
2031-32	193,165	0.868	167,688
2032-33	174,507	0.855	149,252
2033-34	157,651	0.843	132,843
2034-35	142,423	0.830	118,238
2035-36	128,666	0.818	105,238
2036-37	116,238	0.806	93,668
2037-38	105,011	0.794	83,370
2038-39	94,867	0.782	74,204
2039-40	85,704	0.771	66,046
2040-41	77,426	0.759	58,784
2041-42	69,947	0.748	52,322
2042-43	63,191	0.737	46,569
2043-44	57,087	0.726	41,449
2044-45	51,573	0.715	36,892
2045-46	46,591	0.705	32,836
2046-47	42,091	0.694	29,226
47-48 to 52-53	306,570	0.635	194,634
Total	\$7,863,820		\$7,158,592

(4) Indicated Discount Factor: 0.910

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 1.5% 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 2022-23 Losses as of 7/1/22
Assuming a 1.5% Interest rate

\$1 Million SIR
Limited Self-Insured Losses Including 4850

Fiscal Year	Projected Loss Payments (1)	Discount Factor (2)	Discounted Value of Payments (3)
2022-23	\$850,748	0.993	\$844,439
2023-24	1,226,905	0.978	1,199,808
2024-25	828,207	0.963	797,946
2025-26	620,386	0.949	588,886
2026-27	491,654	0.935	459,793
2027-28	440,516	0.921	405,880
2028-29	302,636	0.908	274,720
2029-30	272,905	0.894	244,071
2030-31	230,185	0.881	202,822
2031-32	175,317	0.868	152,193
2032-33	157,498	0.855	134,705
2033-34	141,535	0.843	119,263
2034-35	126,873	0.830	105,328
2035-36	113,660	0.818	92,965
2036-37	101,771	0.806	82,010
2037-38	91,084	0.794	72,313
2038-39	81,487	0.782	63,738
2039-40	72,876	0.771	56,160
2040-41	65,155	0.759	49,468
2041-42	58,235	0.748	43,561
2042-43	52,038	0.737	38,350
2043-44	46,489	0.726	33,754
2044-45	41,523	0.715	29,703
2045-46	37,079	0.705	26,132
2046-47	33,103	0.694	22,985
47-48 to 52-53	222,670	0.633	140,932
Total	\$6,882,532		\$6,281,925

(4) Indicated Discount Factor: 0.913

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 1.5% 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 2022-23 Losses as of 7/1/22
Assuming a 1.5% Interest rate

\$500,000 SIR
Limited Self-Insured Losses Including 4850

Fiscal Year	Projected Loss Payments <u>(1)</u>	Discount Factor <u>(2)</u>	Discounted Value of Payments <u>(3)</u>
2022-23	\$738,259	0.993	\$732,784
2023-24	1,045,456	0.978	1,022,367
2024-25	712,013	0.963	685,998
2025-26	534,996	0.949	507,831
2026-27	424,080	0.935	396,598
2027-28	379,680	0.921	349,828
2028-29	261,346	0.908	237,239
2029-30	240,856	0.894	215,408
2030-31	202,872	0.881	178,756
2031-32	195,183	0.868	169,439
2032-33	216,567	0.855	185,225
2033-34	117,525	0.843	99,031
2034-35	103,396	0.830	85,837
2035-36	90,855	0.818	74,312
2036-37	79,756	0.806	64,270
2037-38	69,955	0.794	55,538
2038-39	61,315	0.782	47,959
2039-40	53,710	0.771	41,390
2040-41	47,024	0.759	35,702
2041-42	41,151	0.748	30,782
2042-43	35,997	0.737	26,529
2043-44	31,476	0.726	22,854
2044-45	27,513	0.715	19,681
2045-46	24,039	0.705	16,942
2046-47	20,996	0.694	14,579
47-48 to 52-53	123,360	0.629	77,584
Total	\$5,879,375		\$5,394,463

(4) Indicated Discount Factor: 0.918

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 1.5% 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 2022-23 Losses as of 7/1/22
Assuming a 1.5% Interest rate

\$350,000 SIR
Limited Self-Insured Losses Including 4850

Fiscal Year	Projected Loss Payments (1)	Discount Factor (2)	Discounted Value of Payments (3)
2022-23	\$668,745	0.993	\$663,785
2023-24	938,729	0.978	917,997
2024-25	643,013	0.963	619,519
2025-26	570,140	0.949	541,190
2026-27	444,367	0.935	415,571
2027-28	384,698	0.921	354,452
2028-29	197,687	0.908	179,453
2029-30	175,970	0.894	157,378
2030-31	172,940	0.881	152,382
2031-32	131,701	0.868	114,331
2032-33	174,720	0.855	149,434
2033-34	98,438	0.843	82,947
2034-35	85,780	0.830	71,213
2035-36	74,669	0.818	61,073
2036-37	64,940	0.806	52,330
2037-38	56,439	0.794	44,808
2038-39	49,022	0.782	38,344
2039-40	42,560	0.771	32,798
2040-41	36,934	0.759	28,042
2041-42	32,041	0.748	23,967
2042-43	27,786	0.737	20,478
2043-44	24,089	0.726	17,491
2044-45	20,877	0.715	14,934
2045-46	18,087	0.705	12,747
2046-47	15,664	0.694	10,877
47-48 to 52-53	87,703	0.627	55,014
Total	\$5,237,742		\$4,832,555

(4) Indicated Discount Factor: 0.923

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 1.5% 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 2022-23 Losses as of 7/1/22
Assuming a 1.5% Interest rate

\$250,000 SIR
Limited Self-Insured Losses Including 4850

Fiscal Year	Projected Loss Payments (1)	Discount Factor (2)	Discounted Value of Payments (3)
2022-23	\$606,493	0.993	\$601,995
2023-24	850,051	0.978	831,277
2024-25	577,867	0.963	556,754
2025-26	535,570	0.949	508,376
2026-27	387,299	0.935	362,201
2027-28	331,074	0.921	305,044
2028-29	191,650	0.908	173,972
2029-30	167,834	0.894	150,101
2030-31	126,815	0.881	111,740
2031-32	94,822	0.868	82,316
2032-33	189,086	0.855	161,721
2033-34	74,404	0.843	62,695
2034-35	64,298	0.830	53,379
2035-36	55,548	0.818	45,433
2036-37	47,978	0.806	38,662
2037-38	41,436	0.794	32,897
2038-39	35,783	0.782	27,989
2039-40	30,901	0.771	23,813
2040-41	26,685	0.759	20,260
2041-42	23,043	0.748	17,237
2042-43	19,898	0.737	14,664
2043-44	17,181	0.726	12,475
2044-45	14,833	0.715	10,611
2045-46	12,804	0.705	9,024
2046-47	11,050	0.694	7,673
47-48 to 52-53	60,821	0.627	38,123
Total	\$4,595,226		\$4,260,432

(4) Indicated Discount Factor: 0.927

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 1.5% 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 12/31/21 - Unlimited

Program <u>Year</u>	<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	
2014	400	1,704	2,849	3,714	4,357	5,318	11,077	7,843	7,904		
2015	79	822	1,038	1,382	2,353	2,887	3,069	3,238			
2016	464	1,118	1,848	3,145	4,321	4,680	5,506				
2017	278	775	1,300	2,218	2,262	2,260					
2018	161	1,229	1,544	2,272	2,447						
2019	239	1,092	2,742	3,531							
2020	324	1,798	2,677								
2021	1,140	2,777									
2022	964										
	<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	3.582	1.306	1.125	1.150	1.063	1.155	1.003	0.986	1.025	1.025	
REFERENCE	2.839	1.259	1.099	1.052	1.037	1.024	1.011	1.012	1.009	1.007	1.038
SELECTED	3.513	1.289	1.145	1.052	1.029	1.019	1.011	1.012	1.023	1.023	1.038
CUMULATIVE	6.357	1.810	1.404	1.226	1.165	1.133	1.112	1.100	1.087	1.063	1.038

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative Paid Losses (\$000's) as of 12/31/21 - 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	
2014	161	1,145	2,099	2,673	3,320	3,675	4,116	6,780	7,140		
2015	23	475	772	1,150	1,376	1,801	2,161	2,453			
2016	156	751	1,329	2,234	2,558	2,826	3,333				
2017	154	576	854	1,016	1,283	1,411					
2018	71	505	966	1,437	1,598						
2019	86	722	1,488	2,418							
2020	150	828	1,766								
2021	239	1,155									
2022	297										
	<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	5.808	1.637	1.290	1.134	1.127	1.074	1.107	1.043	1.045	1.033	
REFERENCE	3.616	1.678	1.286	1.172	1.122	1.085	1.061	1.050	1.038	1.037	1.254
SELECTED	6.001	1.748	1.303	1.134	1.082	1.061	1.082	1.033	1.041	1.034	1.254
CUMULATIVE	26.860	4.476	2.561	1.966	1.733	1.602	1.509	1.394	1.349	1.297	1.254

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative # of Indemnity Losses Reported as of 12/31/21 - Unlimited

Program	<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	
2013	19	53	56	58	59	59	60	61	61	62		
2014	26	57	58	61	61	64	65	65	65			
2015	9	29	33	33	36	36	36	36				
2016	21	57	60	61	61	61	60					
2017	15	48	49	49	51	51						
2018	16	42	44	44	44							
2019	24	70	73	75								
2020	26	69	70									
2021	48	75										
2022	30											
	<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	2.377	1.036	1.012	1.012	1.088	1.004	1.003	1.000	1.000	1.000	1.002	
SELECTED	2.439	1.033	1.015	1.005	1.005	1.004	1.001	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	2.595	1.064	1.030	1.015	1.010	1.005	1.001	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 2021-22 (\$00's) (3)
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	609,387
1998-99	300,000	212,991	615,481
1999-00	300,000	267,420	621,636
2000-01	300,000	263,274	627,852
2001-02	350,000	297,462	634,131
2002-03	500,000	346,678	640,472
2003-04	10,000,000	401,995	646,877
2004-05	500,000	401,860	653,345
2005-06	500,000	429,640	659,879
2006-07	500,000	428,182	666,478
2007-08	500,000	437,000	673,142
2008-09	500,000	470,000	679,874
2009-10	500,000	455,000	659,478
2010-11	250,000	454,739	639,693
2011-12	250,000	454,479	620,502
2012-13	250,000	422,491	601,887
2013-14	250,000	436,959	607,906
2014-15	250,000	455,957	613,985
2015-16	250,000	472,388	620,125
2016-17	250,000	518,291	632,528
2017-18	250,000	545,055	638,853
2018-19	250,000	590,304	651,630
2019-20	250,000	626,389	658,146
2020-21	250,000	631,796	664,728
2021-22	250,000	664,728	664,728
2022-23	?	699,376	671,375

Notes:

- (1) Provided by MBASIA.
- (2) Provided by MBASIA. 2022-23 estimated by BAC.
- (3) Estimated by BAC.