

Monterey Bay Area Self Insurance Authority

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

DRAFT

**BAY ACTUARIAL CONSULTANTS
Moraga, California
December 6, 2009**

Bay Actuarial Consultants

December 6, 2009

Mr. Michael Simmons
Vice Chairman
Alliant Insurance Services
100 Pine Street, 11th Floor
San Francisco, CA 94111

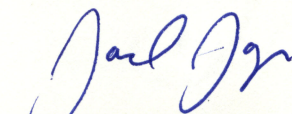
Dear Mr. Simmons:

We are pleased to present Bay Actuarial's Actuarial Review of the Monterey Bay Area Self Insurance Authority's workers' compensation program. This report replaces the report of August 20, 2009. We removed temporary disability ("TD") and Section 4850 benefits from the analysis of the Authority's liability after being informed that these benefits are paid by the members themselves and not by the Authority. We appreciate the opportunity to serve the Authority.

If you have any questions, please call me at (925) 377-5269.

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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Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Introduction

Background & Purpose

The Monterey Bay Area Self Insurance Authority ("MBASIA") self-insures its workers' compensation claims. This report is a revision to our August 20, 2009 report. We were informed that the members, not the Authority, pay the temporary disability ("TD") and Section 4850 of workers' compensation claims directly. Therefore the Authority has no liability for unpaid 4850/TD benefits. This prompted the revision. We are also now supplying two sets of 2009-10 funding rates. The first set includes a provision for 4850/TD benefits and might be useful in evaluating excess insurance options that cover those benefits. The second set of rates excludes 4850/TD and might be useful for projecting the Authority's internal funding requirements. The specific topics covered in this report include the following:

- 1) **Projected 2009-10 Loss Rate.** Projections of the losses expected to be incurred during 2009-10, expressed in terms of rates of loss per \$100 of payroll. There are two sets of rates. The first set includes 4850/TD benefits and the second set doesn't.
- 2) **Unpaid Losses.** We have estimated the Authority's liability for unpaid losses as of June 30, 2009.
- 3) **Discounting.** We have also discounted the projected 2009-10 losses and the liabilities to present value, assuming a 3% interest rate. The discounted estimates take into account the time value of money as workers' compensation costs are disbursed over an extended timeframe.
- 4) **Variability of Estimates.** We have included an analysis of items (1) and (2) above, in terms of "probability levels."

5) Short-Term versus Long-Term. We have broken out the liabilities into their short-term and long-term components.

Conditions & Limitations

This report has been prepared for the Authority's internal use. Copies of this report may be provided to the Authority's auditors. Any other use of this report is not authorized without the prior written permission of Bay Actuarial. In particular, those interested in providing insurance to the Authority must perform their own actuarial analysis and may not rely upon our work.

In this report, we relied upon loss and payroll data provided by JT2 Claims Administrators and the MBASIA. We have not audited this data and are not responsible for its accuracy. With any actuarial analysis, the accuracy and relevance of the conclusions, and the reasonableness of the recommendations, depend upon the accuracy and relevance of the underlying data. Unless otherwise noted, the term "losses" refers to all costs that can be tied to specific claims. These include loss payments, attorney's fees, and other expenses linked to specific claims.

The actuarial projections in this report are estimates. Uncertainty is unavoidable because many of the events that will determine future claims costs have not yet taken place. 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.

Organization of the Report

We have divided the remainder of this report into nine sections: the *Management Summary*, the *Technical Approach* section, the *Summary Exhibits*, the *Fiscal Year End Exhibits*, the *Net 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

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Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Management Summary

WCAB En Banc Decisions

Our workers' compensation estimates this year are overshadowed by events that the claims data that we used to produce the new estimates do not reflect. These events were the handing down of two new Workers' Compensation Appeals Board ("WCAB") *en banc* decisions, *Ogilvie v. City and County of San Francisco*, and *Almaraz v. Environmental Recovery Services / Guzman v. Milpitas Unified School District*. The WCAB consists of seven members appointed by the Governor. An *en banc* decision is decided by all seven commissioners, instead of by a panel of three commissioners, as are most cases. The *Ogilvie* decision permits the diminished future earning capacity portion of the 2005 Permanent Disability Rating Schedule ("PDRS") to be adjusted if it can be demonstrated that the injured workers' wage loss will differ from that provided for in the PDRS. The *Almaraz/Guzman* decision permits each workers' compensation judge to make an impairment award based on medical evidence that is independent of the American Medical Association ("AMA") Guides if he believes an impairment rating based on the AMA Guides would produce an inequitable permanent disability award.

The Workers' Compensation Insurance rating Bureau of California ("WCIRB") in its most recent rate filing raised rates by 5.8% on account of these two decisions. However in their filing they state,

“Although the 5.8% cost increase reflected in the proposed pure premium rates equates to an increase of approximately 22% in permanent disability cost benefits, many system participants believe the impact of these recent WCAB decisions on benefit cost levels will be much greater unless the decisions are overturned or superseded by subsequent legislative enactments. Permanent disability benefit costs prior to the reforms of 2002 through 2004 were approximately 150% greater than the permanent disability benefit costs underlying the January 1, 2009 pure premium rates. If the Ogilvie and Almaraz/Guzman decisions were applied in such a way as to increase permanent disability benefit costs to their pre-reform levels, the overall cost level impact would be 40% (not the 5.8% reflected in this filing). Similarly, if permanent disability benefit costs were to increase to one-half of their pre-reform level, the indicated overall cost level impact of these decisions would be approximately 20%.”

These decisions have produced a great deal of uncertainty about workers' compensation costs going forward. If they are upheld and enforced, they will also increase the cost of open claims incurred in the past. The Authority should be prepared to face higher costs in the future.

Although the WCIRB makes an effort to put some kind of an early number on the potential effects, I don't think it is possible to quantify them reasonably at this time. After the reforms were implemented in 2003 and 2004 it took several years to determine their effectiveness. If these new decisions are upheld it will again take a few years to get a reasonable picture of the dollars and cents effect. It does look, however, very likely that the effect will be substantial.

In what follows we have not included any provision for the potential effect of these decisions.

Projected 2009-10 Loss Rates

Table I shows the MBASIA's projected rates of loss for 2009-10 at various self-insured retentions ("SIR's) ranging between \$150,000 and \$1,000,000, plus unlimited. These rates are discounted at 3% interest and include 4850/TD benefits. Table II is similar except that it excludes 4850/TD benefits. Table IV on page 13 has adjustment factors to change the Table I and II rates to their equivalents at different interest rates. The Table I and II rates do not reflect the full cost of self-insurance because they don't include claims handling fees, administrative costs, or the cost of excess insurance coverage.

Tables I and II show actuarial central estimates and estimates at various probability levels. The higher probability level rates have higher probabilities of being adequate. For example, we estimate that there is a 70% probability that the actual 2009-10 \$500,000 SIR loss rate with and without 4850/TD will be less than **\$7.58** and **\$6.15**, respectively.

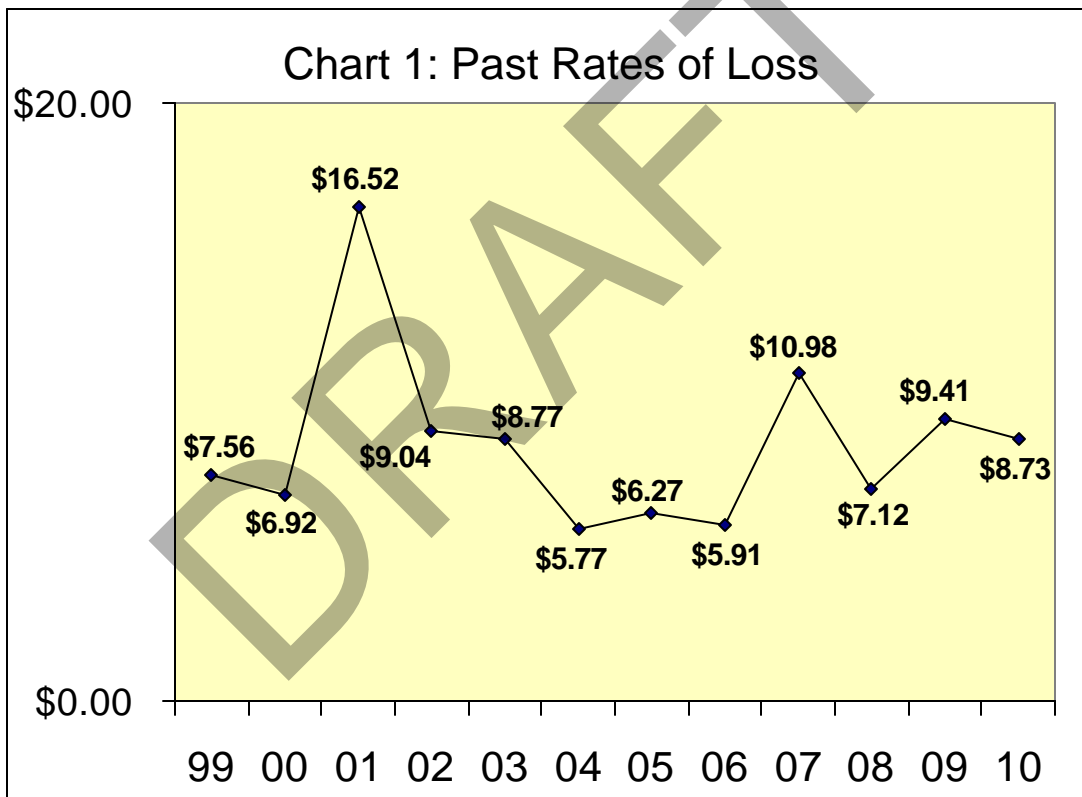
Table I: Projected 2009-10 Discounted Loss Rates						
(3% interest rate – INCLUDES 4850/TD)						
Probability Level	Projected Loss per \$100 of Payroll					
	\$150,000 SIR	\$250,000 SIR	\$500,000 SIR	\$750,000 SIR	\$1,000,000 SIR	Unlimited Retention
50%	4.27	5.31	6.33	6.57	6.70	6.80
Central Estimate	\$4.45	\$5.53	\$6.59	\$6.92	\$7.05	\$7.24
60%	4.63	5.80	6.92	7.27	7.40	7.53
70%	5.07	6.30	\$7.58	7.96	8.11	8.32
80%	5.60	6.97	8.44	8.86	9.10	9.34
90%	6.36	8.02	9.75	10.31	10.58	11.00

Table II: Projected 2009-10 Discounted Loss Rates						
(3% interest rate – EXCLUDES 4850/TD)						
Probability Level	Projected Loss per \$100 of Payroll					
	\$150,000 SIR	\$250,000 SIR	\$500,000 SIR	\$750,000 SIR	\$1,000,000 SIR	Unlimited Retention
50%	3.08	4.12	5.14	5.40	5.53	5.64
Central Estimate	\$3.21	\$4.29	\$5.35	\$5.69	\$5.82	\$6.00
60%	3.34	4.51	5.62	5.97	6.11	6.24
70%	3.66	4.89	\$6.15	6.54	6.69	6.91
80%	4.05	5.41	6.85	7.28	7.51	7.75
90%	4.59	6.22	7.92	8.47	8.73	9.13

The new central estimates represent increases of between 4% and 6% over last year's rates. As we stated above, these projections do not include any provision for the potential effects of the WCAB *en banc* decisions.

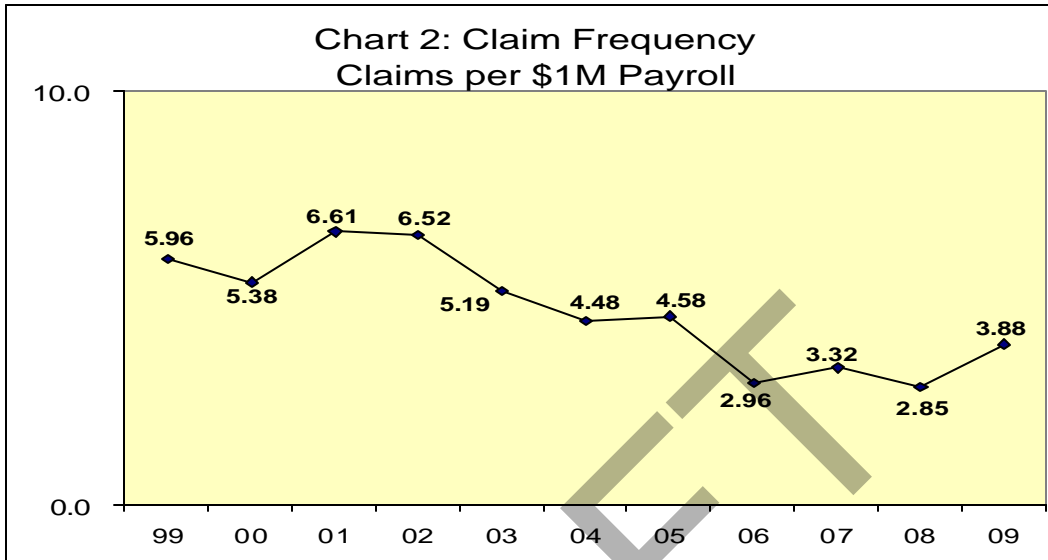
The Authority's Past Rates of Loss

Chart 1 displays 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. **\$8.73** is the undiscounted version of the expected value unlimited rate for 2009-10. Our projection places the 2009-10 rate is in the center of the past rates as shown in Chart 1. Six of the eleven prior rates are lower than **\$8.73** and five are higher. The rates in Chart 1 include 4850/TD.



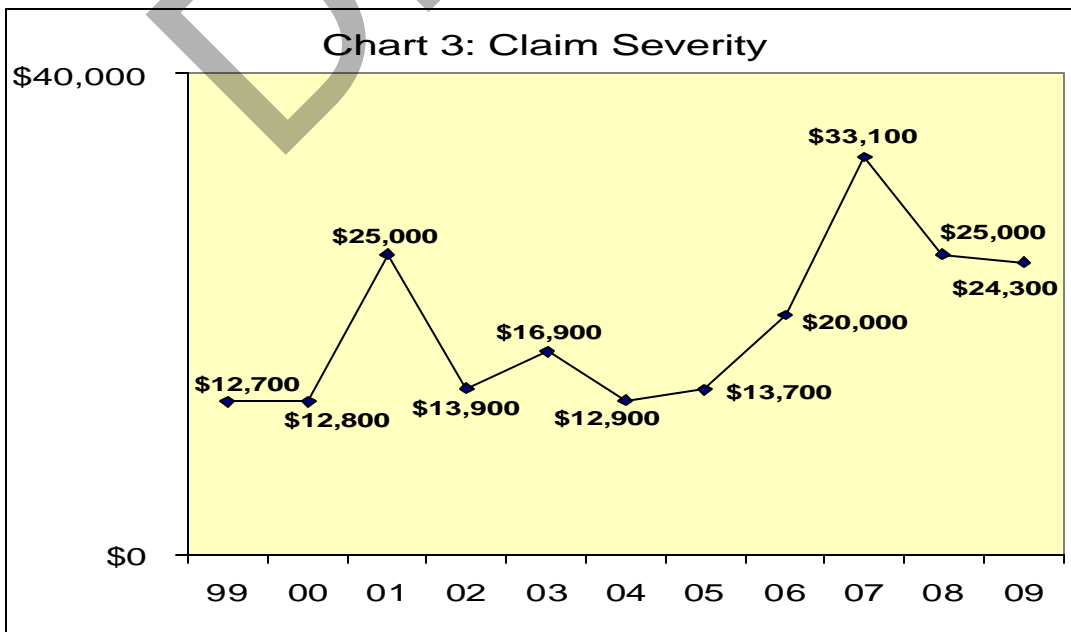
Claim Frequency

Claim “frequency” is the number of claims divided by payroll. Chart 2 displays claim frequency for program years 1998-99 through 2008-09.



Average Claim Size (“Severity”)

In Chart 3 we calculate the average claim size by dividing the estimated annual losses by the number of 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/TD. The trend continues to be poor.



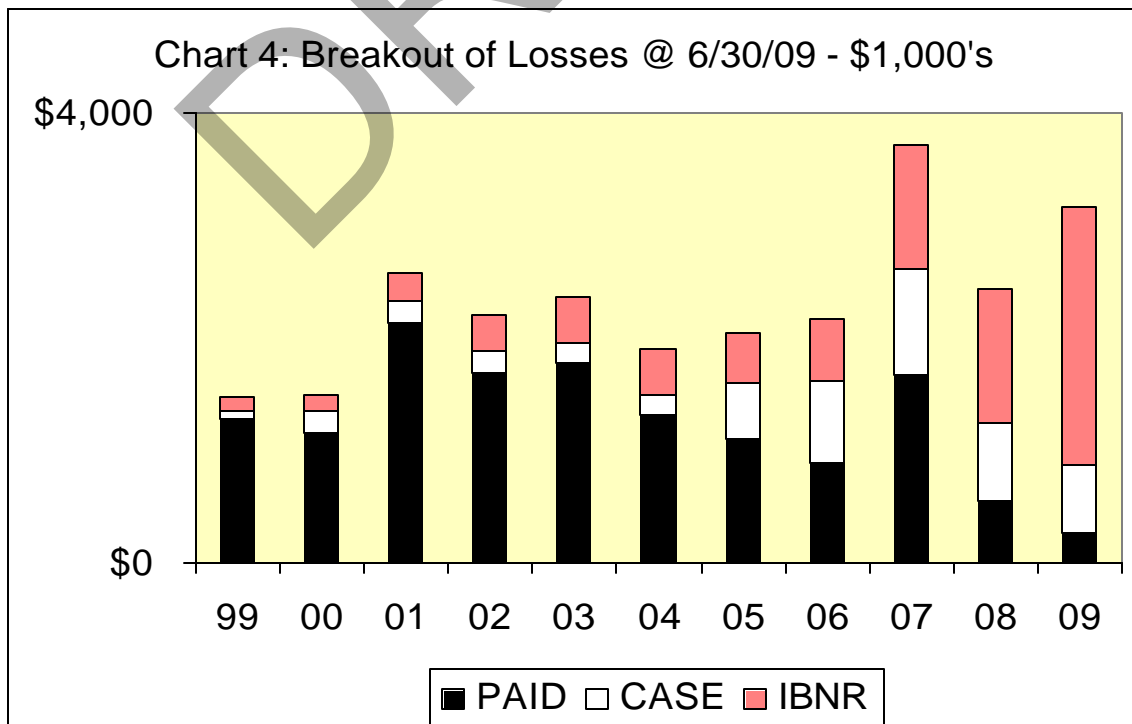
Net Liability for Unpaid Losses @ 6/30/09

We estimate that the net liability for unpaid losses was **\$12,405,000** on June 30, 2009 on an undiscounted basis, or **\$9,891,000** if discounted at 3% interest. Table III shows these liabilities at various probability levels.

Table III: Estimated Liability for Unpaid Losses As of June 30, 2009 - \$1,000's		
Probability Level	Undiscounted Losses	Discounted at 3% Interest Losses
50%	12,157	9,693
Central Estimate	\$12,405	\$9,891
60%	12,777	10,187
70%	13,397	10,682
80%	14,266	11,374
90%	15,630	12,462

Loss Breakout as of 6/30/09

We estimate that the Authority's liability of **\$12,405,000** comprised **\$4,875,000** in case reserves for known claims and an IBNR liability of **\$7,530,000**. Chart 4 breaks out the estimated total program year losses for 1998-99 through 2008-09 into their components: losses paid, case reserves, and IBNR liability.

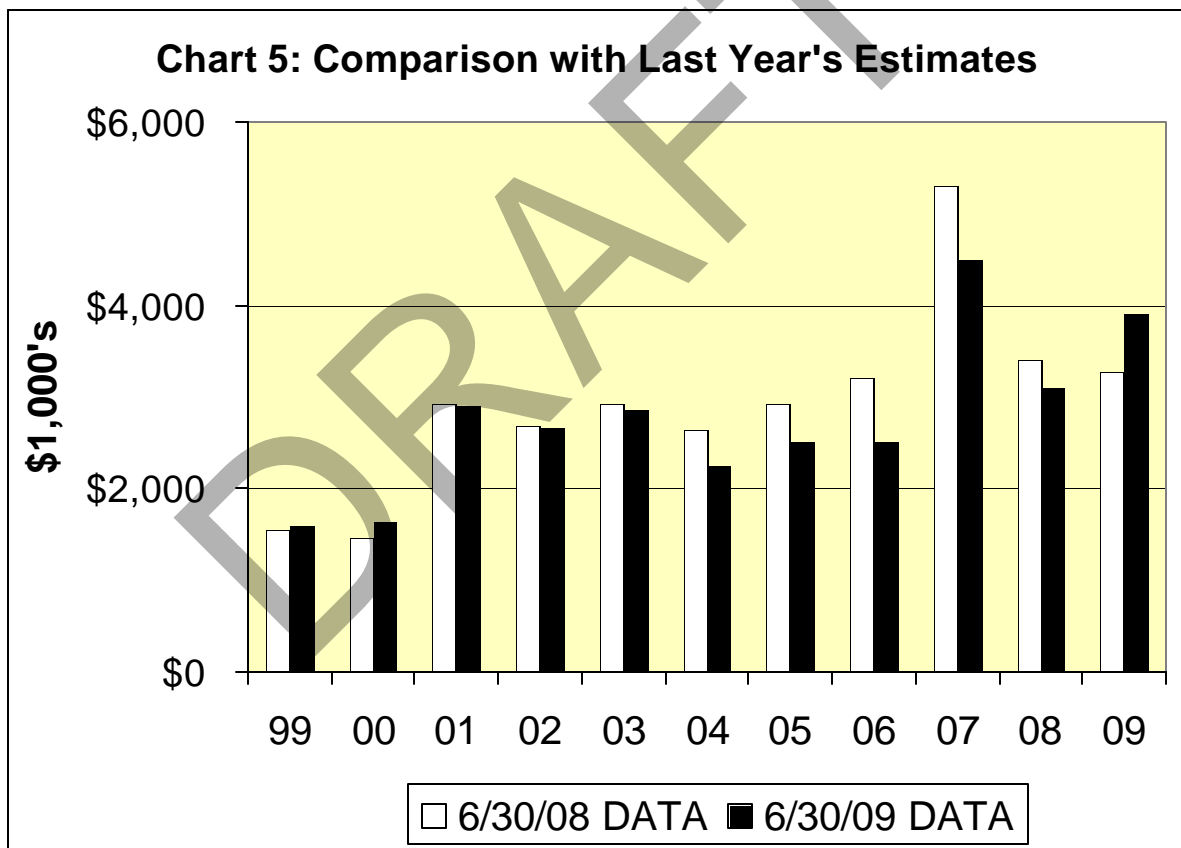


Short-Term Liability

Short-term liabilities are those expected to be expended within twelve months. The net 6/30/09 liability is composed of **\$1,848,000** short-term and **\$10,557,000** long-term.

Comparison with Last Year's Estimates

Chart 5 compares this year's estimates of the net ultimate losses with last year's estimates. Chart 5 shows net losses including 4850/TD benefits, since those benefits were included last year's estimates. There have been downticks in every estimate since 1999-00, except in the recently concluded year, 2008-09.



Alternative Interest Rates

Table IV shows the multiplicative factors that translate the Table I and II rates and the Table III liabilities to their equivalents at interest rates other than 3%.

Table IV: Interest Rate Adjustment Factors						
Interest Rate	0%	1%	2%	3%	4%	5%
UNL Rate	1.206	1.125	1.058	1.000	0.949	0.905
1M SIR Rate	1.206	1.127	1.058	1.000	0.949	0.905
750K SIR Rate	1.205	1.125	1.058	1.000	0.949	0.906
500K SIR Rate	1.203	1.124	1.058	1.000	0.951	0.907
Liabilities	1.255	1.154	1.070	1.000	0.891	1.255

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Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Technical Approach

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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 Exhibit 1 shows the projected net liabilities for unpaid losses as of June 30, 2009. Summary Exhibit 2 shows our projected rate for the 2009-10 program year, which runs from July 1, 2009 to June 30, 2010. These rates include 4850/TD benefits. Summary Exhibit 3 shows the estimated net unpaid losses as of June 30, 2009 by program year on both discounted and non-discounted bases. The net unpaid losses exclude 4850/TD.

Fiscal Year End Exhibits

These exhibits show the estimated unpaid net losses as of June 30, 2009. Fiscal Year End Exhibit 4 shows net unpaid losses including 4850/TD benefits. Fiscal Year End Exhibit 3 shows the percentages of the total losses that derive from 4850/TD. Fiscal Year End Exhibit 2 shows the calculation that removes 4850/TD IBNR from the total IBNR liability. Fiscal Year End Exhibit 1 shows the net unpaid losses net of 4850/TD.

Net Ultimate Loss Exhibits

These exhibits show the estimation of the net ultimate losses for each program year, including 4850/TD benefits. We start with the gross (unlimited) loss estimates and adjust them to a net basis to reflect the 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.

We summarize these results in Loss Projection Exhibit 1.

Future Loss Exhibits

These exhibits show the projection of the projected gross (unlimited) rate for 2009-10, with and without 4850/TD benefits.

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 December 31, 2008, 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

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Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Unpaid Losses as of June 30, 2009
Net Self-Insured Losses Excluding 4850/TD

(1) Projected Unpaid Losses:	\$12,404,967
(2) Discounted Value of Unpaid Losses: (Assuming 3.0% Interest Rate)	\$9,890,708

Probability Levels

Probability Level (3)	Probability Factor (4)	Discounted * Liability (5)
40%	0.93	9,198,358
50%	0.98	9,692,894
Central Estimate	1.00	\$9,890,708
60%	1.03	10,187,429
70%	1.08	10,681,965
80%	1.15	11,374,314
90%	1.26	12,462,292

* Multiply by 1.255 to obtain undiscounted values.

Notes:

- (1) Page 20, Column (1).
- (2) Page 20, Column (2).
- (3) Estimated probability that funding will be adequate.
- (4) Estimated by BAC.
- (5) (2) x (4).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Loss Funding Rate for 2009-10

\$500,000 SIR Loss rate
Net Losses Including 4850/TD

(1) Discounted Loss Rate: Loss Rates
(as of July 1, 2009, 3.0% interest rate) \$6.59

<u>Probability Levels</u>		
Probability Level <u>(2)</u>	Probability Factor <u>(3)</u>	Discounted * Rate <u>(4)</u>
0.20	0.70	\$4.61
0.30	0.79	5.21
0.40	0.87	5.73
0.50	0.96	6.33
Central Estimate	1.00	\$6.59
0.60	1.05	6.92
0.70	1.15	7.58
0.80	1.28	8.44
0.90	1.48	9.75

* Multiply by 1.203 to obtain undiscounted values.

Notes:

- (1) [Page 49, Column (5)] x [Page 56, Item (4)], adjusted for \$500K 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

June 30, 2009 Summary
Net Self-Insured Losses Excluding 4850/TD

Program Year	Undiscounted Value: Claims Liabilities as of 6/30/09 (1)	Discounted Value: Claims Liabilities as of 6/30/09 (2)	Estimated Ultimate Losses (3)
1985-86	\$27,234	\$21,618	\$404,000
1986-87	0	0	751,022
1987-88	0	0	123,540
1988-89	0	0	677,827
1989-90	0	0	696,442
1990-91	74,348	56,211	1,245,033
1991-92	37,944	28,248	1,135,048
1992-93	45,621	33,555	1,259,490
1993-94	52,849	38,308	995,280
1994-95	98,045	70,513	710,576
1995-96	183,378	132,955	839,518
1996-97	84,634	62,398	1,338,181
1997-98	127,360	94,007	978,250
1998-99	183,518	133,695	1,467,298
1999-00	338,152	243,138	1,489,114
2000-01	448,513	321,701	2,568,010
2001-02	503,800	369,805	2,203,275
2002-03	573,389	435,236	2,351,988
2003-04	588,871	455,747	1,898,683
2004-05	927,124	720,316	2,028,978
2005-06	1,272,466	1,008,481	2,165,921
2006-07	2,045,692	1,654,959	3,709,059
2007-08	1,884,057	1,556,753	2,427,749
2008-09	2,907,971	2,453,064	3,167,538
Total	\$12,404,967	\$9,890,708	\$36,631,820

Notes:

- (1) Page 52, Column (1).
- (2) Page 52, Column (3).
- (3) Page 22, Column (1).

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

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

Fiscal Year End Exhibits

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Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of June 30, 2009

Net Self-Insured Losses Excluding 4850/TD

Program Year	Estimated Ultimate Losses (1)	Net Paid Losses less 4850/TD Paid 6/30/09 (2)	Net Case Reserves less 4850/TD Case 6/30/09 (3)	Net Reported less 4850/TD Reported 6/30/09 (4)	Net IBNR less 4850/TD IBNR 6/30/09 (5)	Estimated Unpaid Losses excluding 4850/TD 6/30/09 (6)
1985-86	\$404,000	\$376,766	\$16,315	\$393,081	\$10,919	\$27,234
1986-87	751,022	751,022	0	751,022	0	0
1987-88	123,540	123,539	0	123,539	0	0
1988-89	677,827	677,827	0	677,827	0	0
1989-90	696,442	696,442	0	696,442	0	0
1990-91	1,245,033	1,170,685	46,946	1,217,631	27,402	74,348
1991-92	1,135,048	1,097,103	10,583	1,107,686	27,362	37,944
1992-93	1,259,490	1,213,869	10,223	1,224,091	35,398	45,621
1993-94	995,280	942,431	23,381	965,812	29,468	52,849
1994-95	710,576	612,531	62,066	674,596	35,980	98,045
1995-96	839,518	656,140	151,540	807,680	31,839	183,378
1996-97	1,338,181	1,253,547	26,936	1,280,483	57,698	84,634
1997-98	978,250	850,891	46,357	897,248	81,003	127,360
1998-99	1,467,298	1,283,780	60,496	1,344,277	123,021	183,518
1999-00	1,489,114	1,150,962	202,493	1,353,455	135,659	338,152
2000-01	2,568,010	2,119,496	204,151	2,323,648	244,362	448,513
2001-02	2,203,275	1,699,475	174,694	1,874,169	329,106	503,800
2002-03	2,351,988	1,778,599	174,175	1,952,774	399,215	573,389
2003-04	1,898,683	1,309,812	185,527	1,495,339	403,345	588,871
2004-05	2,028,978	1,101,854	489,590	1,591,443	437,535	927,124
2005-06	2,165,921	893,455	715,780	1,609,235	556,686	1,272,466
2006-07	3,709,059	1,663,367	960,288	2,623,655	1,085,404	2,045,692
2007-08	2,427,749	543,692	705,443	1,249,135	1,178,615	1,884,057
2008-09	3,167,538	259,567	607,861	867,428	2,300,109	2,907,971
Total	\$36,631,820	\$24,226,854	\$4,874,843	\$29,101,696	\$7,530,124	\$12,404,967

Notes:

- (1) (2) + (6).
- (2) Page 25, Column (2) less 4850/TD paid.
- (3) [Page 25, Column (3)] - [Page 23, Column (2)].
- (4) (2) + (3).
- (5) Page 23, Column (6).
- (6) (3) + (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Calculation of 4850/TD IBNR

Program Year	Total Case Reserves 6/30/09 (1)	4850/TD Case Reserves 6/30/09 (2)	4850/TD Case Reserves Percentage (3)	Total IBNR as of 6/30/09 (4)	4850/TD IBNR as of 6/30/09 (5)	IBNR Net of 4850/TD as of 6/30/09 (6)
1985-86	\$16,315	\$0	0.0%	\$10,919	\$0	\$10,919
1986-87	0	0	0.0%	0	0	0
1987-88	0	0	0.0%	0	0	0
1988-89	0	0	0.0%	0	0	0
1989-90	0	0	0.0%	0	0	0
1990-91	46,946	0	0.0%	27,402	0	27,402
1991-92	10,583	0	0.0%	27,362	0	27,362
1992-93	10,223	0	0.0%	35,398	0	35,398
1993-94	23,381	0	0.0%	29,468	0	29,468
1994-95	62,066	0	0.0%	35,980	0	35,980
1995-96	151,540	0	0.0%	31,839	0	31,839
1996-97	26,936	0	0.0%	57,698	0	57,698
1997-98	46,357	0	0.0%	81,003	0	81,003
1998-99	60,496	0	0.0%	123,021	0	123,021
1999-00	202,493	0	0.0%	135,659	0	135,659
2000-01	204,151	0	0.0%	244,362	0	244,362
2001-02	174,694	0	0.0%	329,106	0	329,106
2002-03	174,175	0	0.0%	399,215	0	399,215
2003-04	187,527	2,000	1.1%	403,345	0	403,345
2004-05	499,590	10,000	2.0%	437,535	0	437,535
2005-06	749,844	34,065	4.5%	556,686	0	556,686
2006-07	1,153,852	193,565	16.8%	1,094,585	9,181	1,085,404
2007-08	922,881	217,438	23.6%	1,221,794	43,180	1,178,615
2008-09	864,971	257,110	29.7%	2,525,301	225,191	2,300,109
Total	\$5,589,020	\$714,177	12.8%	\$7,807,676	\$277,552	\$7,530,124

Notes:

- (1) Page 25, Column (3).
- (2) Provided by JT2.
- (3) (2) / (1).
- (4) Page 25, Column (5).
- (5) (2) x 'IBNR to case reserves' ratio.
Ratio is [(4) / (1)], reduced 70% in 2008-09, 85% in 2007-08, & 95% in 2006-07.
4850/TD IBNR is \$0 for all other years.
- (6) (4) - (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

4850/TD as % of Total Losses

Program Year	4850/TD (1)	Estimated Ultimate Gross Loss (2)	4850/TD Percentage (3)
2001-02	\$466,725	\$2,690,000	17.4%
2002-03	498,012	3,040,000	16.4%
2003-04	351,317	2,320,000	15.1%
2004-05	471,022	2,520,000	18.7%
2005-06	334,079	2,540,000	13.2%
2006-07	790,941	4,700,000	16.8%
2007-08	672,251	3,100,000	21.7%
2008-09	732,462	4,100,000	17.9%
Total	\$4,316,809	\$25,010,000	17.3%
01/02 - 06/07	\$2,912,096	\$17,810,000	16.3%

Selected Percentages

Gross Loss:	17.0%
\$1M Limit:	17.5%
\$750K Limit:	17.8%
\$500K Limit:	18.8%
\$250K Limit:	22.4%
\$150K Limit:	27.8%

- (1) [Page 25, Column (1)] - [Page 22, Column (1)].
 (2) Page 34, Column (6).
 (3) (1) / (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of June 30, 2009

Net Self-Insured Losses Including 4850/TD

Program Year	Estimated Ultimate Losses (1)	Paid Losses as of 6/30/09 (2)	Case Reserves 6/30/09 (3)	Reported Losses as of 6/30/09 (4)	Estimated IBNR as of 6/30/09 (5)	Estimated Unpaid Losses as of 6/30/09 (6)
1985-86	\$404,000	\$376,766	\$16,315	\$393,081	\$10,919	\$27,234
1986-87	755,054	755,054	0	755,054	0	0
1987-88	130,919	130,919	0	130,919	0	0
1988-89	693,800	693,800	0	693,800	0	0
1989-90	738,579	738,579	0	738,579	0	0
1990-91	1,310,000	1,235,652	46,946	1,282,598	27,402	74,348
1991-92	1,270,000	1,232,056	10,583	1,242,638	27,362	37,944
1992-93	1,430,000	1,384,379	10,223	1,394,602	35,398	45,621
1993-94	1,110,000	1,057,151	23,381	1,080,532	29,468	52,849
1994-95	870,000	771,955	62,066	834,020	35,980	98,045
1995-96	1,060,000	876,622	151,540	1,028,161	31,839	183,378
1996-97	1,520,000	1,435,366	26,936	1,462,302	57,698	84,634
1997-98	1,180,000	1,052,640	46,357	1,098,997	81,003	127,360
1998-99	1,590,000	1,406,482	60,496	1,466,979	123,021	183,518
1999-00	1,630,000	1,291,848	202,493	1,494,341	135,659	338,152
2000-01	2,900,000	2,451,487	204,151	2,655,638	244,362	448,513
2001-02	2,670,000	2,166,200	174,694	2,340,894	329,106	503,800
2002-03	2,850,000	2,276,611	174,175	2,450,786	399,215	573,389
2003-04	2,250,000	1,659,129	187,527	1,846,655	403,345	590,871
2004-05	2,500,000	1,562,876	499,590	2,062,465	437,535	937,124
2005-06	2,500,000	1,193,470	749,844	1,943,314	556,686	1,306,530
2006-07	4,500,000	2,251,562	1,153,852	3,405,415	1,094,585	2,248,438
2007-08	3,100,000	955,325	922,881	1,878,206	1,221,794	2,144,675
2008-09	3,900,000	509,729	864,971	1,374,699	2,525,301	3,390,271
Total	\$42,862,352	\$29,465,656	\$5,589,020	\$35,054,676	\$7,807,676	\$13,396,696

Notes:

- (1) Page 27, Column (6).
- (2) Page 29, Column (1).
- (3) (4) - (2).
- (4) Page 28, Column (1).
- (5) (1) - (4).
- (6) (3) + (5).

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

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

**Net Loss Exhibits
Including 4850/TD**

DRAFT

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Selected Ultimate Losses
Net Self-Insured Losses Including 4850/TD

Program Year	Net Reported Projection (1)	Net Paid Projection (2)	Net IBNR to Case Reserves Ratio (3)	B-F Net Method Using Reported (4)	B-F Net Method Using Paid (5)	Selected Ultimate Losses (6)
1985-86	\$400,533	\$404,898	\$399,052	\$402,579	\$411,259	\$404,000
1986-87	770,561	817,110	755,054	775,374	832,270	755,054
1987-88	133,825	142,591	130,919	133,799	141,654	130,919
1988-89	710,450	760,734	693,800	709,757	754,854	693,800
1989-90	757,589	815,053	738,579	757,272	808,865	738,579
1990-91	1,317,806	1,375,273	1,299,358	1,320,244	1,377,869	1,310,000
1991-92	1,279,131	1,378,007	1,246,543	1,280,338	1,369,856	1,270,000
1992-93	1,438,472	1,557,795	1,398,456	1,445,162	1,571,450	1,430,000
1993-94	1,116,827	1,195,765	1,089,651	1,117,012	1,189,391	1,110,000
1994-95	864,238	879,866	858,784	864,470	878,965	870,000
1995-96	1,070,079	1,013,749	1,089,989	1,069,501	1,019,722	1,060,000
1996-97	1,534,313	1,695,570	1,474,181	1,541,040	1,691,684	1,520,000
1997-98	1,167,309	1,264,157	1,123,937	1,169,207	1,251,370	1,180,000
1998-99	1,578,142	1,704,957	1,507,693	1,587,305	1,707,297	1,590,000
1999-00	1,619,814	1,580,766	1,643,376	1,655,100	1,673,911	1,630,000
2000-01	2,918,746	3,048,547	2,829,779	2,836,178	2,844,663	2,900,000
2001-02	2,618,325	2,795,829	2,496,197	2,634,313	2,789,024	2,670,000
2002-03	2,802,465	3,124,600	2,600,576	2,882,669	3,212,933	2,850,000
2003-04	2,173,468	2,435,846	2,013,929	2,365,327	2,762,172	2,250,000
2004-05	2,473,293	2,434,221	2,495,110	2,578,043	2,674,785	2,500,000
2005-06	2,424,881	2,089,943	2,589,680	2,537,328	2,474,034	2,500,000
2006-07	4,542,890	4,741,455	4,456,575	4,243,270	4,011,058	4,500,000
2007-08	2,974,452	2,809,610	3,045,650	3,272,614	3,449,388	3,100,000
2008-09	4,005,177	3,455,953	4,276,676	3,737,166	3,576,981	3,900,000
Total	\$42,692,786	\$43,522,295	\$42,253,545	\$42,915,069	\$44,475,453	\$42,862,352

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

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Reported Loss Development
Net Self-Insured Losses Including 4850/TD

Program Year	Cumulative Reported Losses as of 6/30/09 (1)	Reported Development Factor as of 6/30/09 (2)	Projected Ultimate Losses (3)
1985-86	\$393,081	1.019	\$400,533
1986-87	755,054	1.021	770,561
1987-88	130,919	1.022	133,825
1988-89	693,800	1.024	710,450
1989-90	738,579	1.026	757,589
1990-91	1,282,598	1.027	1,317,806
1991-92	1,242,638	1.029	1,279,131
1992-93	1,394,602	1.031	1,438,472
1993-94	1,080,532	1.034	1,116,827
1994-95	834,020	1.036	864,238
1995-96	1,028,161	1.041	1,070,079
1996-97	1,462,302	1.049	1,534,313
1997-98	1,098,997	1.062	1,167,309
1998-99	1,466,979	1.076	1,578,142
1999-00	1,494,341	1.084	1,619,814
2000-01	2,655,638	1.099	2,918,746
2001-02	2,340,894	1.119	2,618,325
2002-03	2,450,786	1.143	2,802,465
2003-04	1,846,655	1.177	2,173,468
2004-05	2,062,465	1.199	2,473,293
2005-06	1,943,314	1.248	2,424,881
2006-07	3,405,415	1.334	4,542,890
2007-08	1,878,206	1.584	2,974,452
2008-09	1,374,699	2.913	4,005,177
Total	\$35,054,676		\$42,692,786

Notes:

- (1) Provided by JT2.
- (2) Page 35, Column (2), tempered for SIR.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Paid Loss Development
Net Self-Insured Losses Including 4850/TD

Program Year	Cumulative Paid Losses as of 6/30/09 (1)	Paid Development Factor as of 6/30/09 (2)	Projected Ultimate Losses (3)
1985-86	\$376,766	1.075	\$404,898
1986-87	755,054	1.082	817,110
1987-88	130,919	1.089	142,591
1988-89	693,800	1.096	760,734
1989-90	738,579	1.104	815,053
1990-91	1,235,652	1.113	1,375,273
1991-92	1,232,056	1.118	1,378,007
1992-93	1,384,379	1.125	1,557,795
1993-94	1,057,151	1.131	1,195,765
1994-95	771,955	1.140	879,866
1995-96	876,622	1.156	1,013,749
1996-97	1,435,366	1.181	1,695,570
1997-98	1,052,640	1.201	1,264,157
1998-99	1,406,482	1.212	1,704,957
1999-00	1,291,848	1.224	1,580,766
2000-01	2,451,487	1.244	3,048,547
2001-02	2,166,200	1.291	2,795,829
2002-03	2,276,611	1.372	3,124,600
2003-04	1,659,129	1.468	2,435,846
2004-05	1,562,876	1.558	2,434,221
2005-06	1,193,470	1.751	2,089,943
2006-07	2,251,562	2.106	4,741,455
2007-08	955,325	2.941	2,809,610
2008-09	509,729	6.780	3,455,953
Total	\$29,465,656		\$43,522,295

Notes:

- (1) Provided by JT2.
- (2) Page 36, Column (2), tempered for SIR.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

IBNR to Case Reserves Ratio Method
Net Self-Insured Losses Including 4850/TD

Program Year	Net Reported LDF (1)	Net Paid LDF (2)	Net IBNR to Case Reserves Ratio (3)	Net Case Reserves (4)	Estimated IBNR Losses as of Reserves (5)	Estimated Ultimate Losses (6)
1985-86	1.019	1.075	0.366	\$16,315	\$5,971	\$399,052
1986-87	1.021	1.082	0.361	0	0	755,054
1987-88	1.022	1.089	0.361	0	0	130,919
1988-89	1.024	1.096	0.363	0	0	693,800
1989-90	1.026	1.104	0.365	0	0	738,579
1990-91	1.027	1.113	0.357	46,946	16,760	1,299,358
1991-92	1.029	1.118	0.369	10,583	3,905	1,246,543
1992-93	1.031	1.125	0.377	10,223	3,854	1,398,456
1993-94	1.034	1.131	0.390	23,381	9,119	1,089,651
1994-95	1.036	1.140	0.399	62,066	24,764	858,784
1995-96	1.041	1.156	0.408	151,540	61,828	1,089,989
1996-97	1.049	1.181	0.441	26,936	11,879	1,474,181
1997-98	1.062	1.201	0.538	46,357	24,940	1,123,937
1998-99	1.076	1.212	0.673	60,496	40,714	1,507,693
1999-00	1.084	1.224	0.736	202,493	149,035	1,643,376
2000-01	1.099	1.244	0.853	204,151	174,141	2,829,779
2001-02	1.119	1.291	0.889	174,694	155,303	2,496,197
2002-03	1.143	1.372	0.860	174,175	149,790	2,600,576
2003-04	1.177	1.468	0.892	187,527	167,274	2,013,929
2004-05	1.199	1.558	0.866	499,590	432,645	2,495,110
2005-06	1.248	1.751	0.862	749,844	646,366	2,589,680
2006-07	1.334	2.106	0.911	1,153,852	1,051,160	4,456,575
2007-08	1.584	2.941	1.265	922,881	1,167,444	3,045,650
2008-09	2.913	6.780	3.355	864,971	2,901,977	4,276,676
Total				\$5,589,020	\$7,198,869	\$42,253,545

Notes:

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

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Reported Losses
Net Self-Insured 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 6/30/09 (5)	Estimated Ultimate Losses (6)
1985-86	\$499,892	1.019	1.9%	\$9,498	\$393,081	\$402,579
1986-87	1,015,997	1.021	2.0%	20,320	755,054	775,374
1987-88	130,919	1.022	2.2%	2,880	130,919	133,799
1988-89	693,800	1.024	2.3%	15,957	693,800	709,757
1989-90	747,728	1.026	2.5%	18,693	738,579	757,272
1990-91	1,394,289	1.027	2.7%	37,646	1,282,598	1,320,244
1991-92	1,300,000	1.029	2.9%	37,700	1,242,638	1,280,338
1992-93	1,685,320	1.031	3.0%	50,560	1,394,602	1,445,162
1993-94	1,140,000	1.034	3.2%	36,480	1,080,532	1,117,012
1994-95	870,000	1.036	3.5%	30,450	834,020	864,470
1995-96	1,060,000	1.041	3.9%	41,340	1,028,161	1,069,501
1996-97	1,675,284	1.049	4.7%	78,738	1,462,302	1,541,040
1997-98	1,190,000	1.062	5.9%	70,210	1,098,997	1,169,207
1998-99	1,718,942	1.076	7.0%	120,326	1,466,979	1,587,305
1999-00	2,087,776	1.084	7.7%	160,759	1,494,341	1,655,100
2000-01	2,006,002	1.099	9.0%	180,540	2,655,638	2,836,178
2001-02	2,768,106	1.119	10.6%	293,419	2,340,894	2,634,313
2002-03	3,455,063	1.143	12.5%	431,883	2,450,786	2,882,669
2003-04	3,457,815	1.177	15.0%	518,672	1,846,655	2,365,327
2004-05	3,105,892	1.199	16.6%	515,578	2,062,465	2,578,043
2005-06	2,984,997	1.248	19.9%	594,014	1,943,314	2,537,328
2006-07	3,351,421	1.334	25.0%	837,855	3,405,415	4,243,270
2007-08	3,778,884	1.584	36.9%	1,394,408	1,878,206	3,272,614
2008-09	3,595,841	2.913	65.7%	2,362,467	1,374,699	3,737,166
Total	\$45,713,968			\$7,860,393	\$35,054,676	\$42,915,069

Notes:

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

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Paid Losses
Net Self-Insured Losses Including 4850/TD

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 6/30/09 (5)	Estimated Ultimate Losses (6)
1985-86	\$499,892	1.075	6.9%	\$34,493	\$376,766	\$411,259
1986-87	1,015,997	1.082	7.6%	77,216	755,054	832,270
1987-88	130,919	1.089	8.2%	10,735	130,919	141,654
1988-89	693,800	1.096	8.8%	61,054	693,800	754,854
1989-90	747,728	1.104	9.4%	70,286	738,579	808,865
1990-91	1,394,289	1.113	10.2%	142,217	1,235,652	1,377,869
1991-92	1,300,000	1.118	10.6%	137,800	1,232,056	1,369,856
1992-93	1,685,320	1.125	11.1%	187,071	1,384,379	1,571,450
1993-94	1,140,000	1.131	11.6%	132,240	1,057,151	1,189,391
1994-95	870,000	1.140	12.3%	107,010	771,955	878,965
1995-96	1,060,000	1.156	13.5%	143,100	876,622	1,019,722
1996-97	1,675,284	1.181	15.3%	256,318	1,435,366	1,691,684
1997-98	1,190,000	1.201	16.7%	198,730	1,052,640	1,251,370
1998-99	1,718,942	1.212	17.5%	300,815	1,406,482	1,707,297
1999-00	2,087,776	1.224	18.3%	382,063	1,291,848	1,673,911
2000-01	2,006,002	1.244	19.6%	393,176	2,451,487	2,844,663
2001-02	2,768,106	1.291	22.5%	622,824	2,166,200	2,789,024
2002-03	3,455,063	1.372	27.1%	936,322	2,276,611	3,212,933
2003-04	3,457,815	1.468	31.9%	1,103,043	1,659,129	2,762,172
2004-05	3,105,892	1.558	35.8%	1,111,909	1,562,876	2,674,785
2005-06	2,984,997	1.751	42.9%	1,280,564	1,193,470	2,474,034
2006-07	3,351,421	2.106	52.5%	1,759,496	2,251,562	4,011,058
2007-08	3,778,884	2.941	66.0%	2,494,063	955,325	3,449,388
2008-09	3,595,841	6.780	85.3%	3,067,252	509,729	3,576,981
Total	\$45,713,968			\$15,009,797	\$29,465,656	\$44,475,453

Notes:

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

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

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

Gross Loss Exhibits

DRAFT

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)
1985-86	\$520,075	\$524,856	\$518,553			\$520,000
1986-87	1,059,999	1,075,223	1,055,170			1,060,000
1987-88	133,825	143,014	130,919			130,919
1988-89	710,450	763,161	693,800			693,800
1989-90	770,369	832,042	751,039			751,039
1990-91	1,393,266	1,454,147	1,374,349			1,410,000
1991-92	1,279,131	1,384,885	1,246,331			1,300,000
1992-93	1,717,969	1,865,800	1,671,333			1,750,000
1993-94	1,116,827	1,201,540	1,089,206			1,140,000
1994-95	864,238	884,187	857,605			870,000
1995-96	1,070,079	1,019,463	1,086,958			1,060,000
1996-97	1,672,824	1,850,539	1,610,470			1,710,000
1997-98	1,167,446	1,275,290	1,122,454			1,190,000
1998-99	1,588,977	1,735,146	1,514,172	\$1,599,668	\$1,701,104	1,610,000
1999-00	1,862,250	1,622,894	2,006,590	1,890,191	2,059,403	1,850,000
2000-01	4,458,650	3,811,830	4,901,910	4,235,386	2,646,243	4,350,000
2001-02	2,670,907	2,850,579	2,547,882	2,691,169	3,635,618	2,690,000
2002-03	2,820,975	3,159,933	2,604,931	2,903,399	3,734,264	3,040,000
2003-04	2,173,468	2,435,846	2,013,929	2,365,327	3,419,500	2,320,000
2004-05	2,497,204	2,479,997	2,506,600	2,602,890	3,331,922	2,520,000
2005-06	2,453,008	2,142,305	2,606,176	2,568,621	2,208,927	2,540,000
2006-07	4,731,612	4,903,004	4,656,965	4,401,127	3,042,258	4,700,000
2007-08	3,052,936	2,942,366	3,100,100	3,333,076	3,011,429	3,100,000
2008-09	4,212,220	3,687,848	4,471,295	3,894,254	4,309,500	4,100,000
Total	\$45,998,705	\$46,045,895	\$46,138,739			\$46,405,758
98/99-08/09	\$32,522,207	\$31,771,748	\$32,930,551	\$32,485,109	\$33,100,168	\$32,820,000

- (1) Page 35, Column (3).
(2) Page 36, Column (3).
(3) Page 37, Column (6).
(4) Page 38, Column (6).
(5) Page 42, Column (4).
(6) Selected on the basis of (1) - (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Reported Loss Development
Unlimited Losses Including 4850/TD

Program Year	Cumulative Reported Losses as of 6/30/09 (1)	Reported Development Factor as of 6/30/09 (2)	Projected Ultimate Losses (3)
1985-86	\$510,390	1.019	\$520,075
1986-87	1,038,668	1.021	1,059,999
1987-88	130,919	1.022	133,825
1988-89	693,800	1.024	710,450
1989-90	751,039	1.026	770,369
1990-91	1,356,041	1.027	1,393,266
1991-92	1,242,638	1.029	1,279,131
1992-93	1,665,574	1.031	1,717,969
1993-94	1,080,532	1.034	1,116,827
1994-95	834,020	1.036	864,238
1995-96	1,028,161	1.041	1,070,079
1996-97	1,594,236	1.049	1,672,824
1997-98	1,098,997	1.062	1,167,446
1998-99	1,476,173	1.076	1,588,977
1999-00	1,707,770	1.090	1,862,250
2000-01	4,025,177	1.108	4,458,650
2001-02	2,366,874	1.128	2,670,907
2002-03	2,450,786	1.151	2,820,975
2003-04	1,846,655	1.177	2,173,468
2004-05	2,062,465	1.211	2,497,204
2005-06	1,943,314	1.262	2,453,008
2006-07	3,490,184	1.356	4,731,612
2007-08	1,878,206	1.625	3,052,936
2008-09	1,374,699	3.064	4,212,220
Total	\$37,647,320		\$45,998,705

Notes:

- (1) Provided by JT2.
- (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 6/30/09 (1)	Paid Development Factor as of 6/30/09 (2)	Projected Ultimate Losses (3)
1985-86	\$486,796	1.078	\$524,856
1986-87	990,836	1.085	1,075,223
1987-88	130,919	1.092	143,014
1988-89	693,800	1.100	763,161
1989-90	751,039	1.108	832,042
1990-91	1,303,127	1.116	1,454,147
1991-92	1,232,056	1.124	1,384,885
1992-93	1,649,444	1.131	1,865,800
1993-94	1,057,151	1.137	1,201,540
1994-95	771,955	1.145	884,187
1995-96	876,622	1.163	1,019,463
1996-97	1,555,306	1.190	1,850,539
1997-98	1,052,640	1.212	1,275,290
1998-99	1,415,569	1.226	1,735,146
1999-00	1,308,278	1.240	1,622,894
2000-01	3,013,951	1.265	3,811,830
2001-02	2,166,200	1.316	2,850,579
2002-03	2,276,611	1.388	3,159,933
2003-04	1,659,129	1.468	2,435,846
2004-05	1,562,876	1.587	2,479,997
2005-06	1,193,470	1.795	2,142,305
2006-07	2,251,562	2.178	4,903,004
2007-08	955,325	3.080	2,942,366
2008-09	509,729	7.235	3,687,848
Total	\$30,864,388		\$46,045,895

Notes:

- (1) Provided by JT2.
- (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 6/30/09 (1)	Paid Development Factor as of 6/30/09 (2)	IBNR to Case Reserves Ratio (3)	Case Reserves 6/30/09 (4)	Estimated IBNR Losses as of 6/30/09 (5)	Estimated Ultimate Losses (6)
1985-86	1.019	1.078	0.346	\$23,594	\$8,163	\$518,553
1986-87	1.021	1.085	0.345	47,832	16,502	1,055,170
1987-88	1.022	1.092	0.345	0	0	130,919
1988-89	1.024	1.100	0.347	0	0	693,800
1989-90	1.026	1.108	0.347	0	0	751,039
1990-91	1.027	1.116	0.346	52,915	18,308	1,374,349
1991-92	1.029	1.124	0.349	10,583	3,693	1,246,331
1992-93	1.031	1.131	0.357	16,131	5,759	1,671,333
1993-94	1.034	1.137	0.371	23,381	8,674	1,089,206
1994-95	1.036	1.145	0.380	62,066	23,585	857,605
1995-96	1.041	1.163	0.388	151,540	58,797	1,086,958
1996-97	1.049	1.190	0.417	38,930	16,234	1,610,470
1997-98	1.062	1.212	0.506	46,357	23,457	1,122,454
1998-99	1.076	1.226	0.627	60,605	37,999	1,514,172
1999-00	1.090	1.240	0.748	399,492	298,820	2,006,590
2000-01	1.108	1.265	0.867	1,011,226	876,733	4,901,910
2001-02	1.128	1.316	0.902	200,674	181,008	2,547,882
2002-03	1.151	1.388	0.885	174,175	154,145	2,604,931
2003-04	1.177	1.468	0.892	187,527	167,274	2,013,929
2004-05	1.211	1.587	0.889	499,590	444,135	2,506,600
2005-06	1.262	1.795	0.884	749,844	662,862	2,606,176
2006-07	1.356	2.178	0.942	1,238,621	1,166,781	4,656,965
2007-08	1.625	3.080	1.324	922,881	1,221,894	3,100,100
2008-09	3.064	7.235	3.580	864,971	3,096,596	4,471,295
Total				\$6,782,932	\$8,491,419	\$46,138,739

Notes:

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

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Reported Losses
Unlimited Losses 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 6/30/09 (5)	Estimated Ultimate Losses (6)
1998-99	\$1,739,373	1.076	7.1%	\$123,495	\$1,476,173	\$1,599,668
1999-00	2,197,841	1.090	8.3%	182,421	1,707,770	1,890,191
2000-01	2,167,104	1.108	9.7%	210,209	4,025,177	4,235,386
2001-02	2,844,697	1.128	11.4%	324,295	2,366,874	2,691,169
2002-03	3,455,063	1.151	13.1%	452,613	2,450,786	2,903,399
2003-04	3,457,815	1.177	15.0%	518,672	1,846,655	2,365,327
2004-05	3,105,892	1.211	17.4%	540,425	2,062,465	2,602,890
2005-06	3,006,284	1.262	20.8%	625,307	1,943,314	2,568,621
2006-07	3,476,882	1.356	26.2%	910,943	3,490,184	4,401,127
2007-08	3,778,884	1.625	38.5%	1,454,870	1,878,206	3,333,076
2008-09	3,738,212	3.064	67.4%	2,519,555	1,374,699	3,894,254
	\$32,968,047			\$7,862,805	\$24,622,304	\$32,485,109

Notes:

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

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Losses for Bornhuetter-Ferguson
Unlimited Losses 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)
1998-99	\$8.58	0.643	\$315,279	\$1,739,373
1999-00	8.58	0.673	380,622	2,197,841
2000-01	8.58	0.701	360,308	2,167,104
2001-02	8.58	0.847	391,440	2,844,697
2002-03	8.58	0.918	438,658	3,455,063
2003-04	8.58	0.824	489,088	3,457,815
2004-05	8.58	0.770	470,120	3,105,892
2005-06	8.58	0.725	483,287	3,006,284
2006-07	8.58	0.875	463,121	3,476,882
2007-08	8.58	0.972	453,117	3,778,884
2008-09	8.58	1.000	435,689	3,738,212
Total			\$4,680,728	\$32,968,047

Notes:

- (1) Page 40, Item (5).
- (2) Estimated by BAC.
- (3) Page 61, 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)
1998-99	\$1,657,320	1.556	\$315,279	8.18
1999-00	1,750,275	1.487	380,622	6.84
2000-01	4,156,647	1.426	360,308	16.46
2001-02	2,753,853	1.181	391,440	8.31
2002-03	2,974,638	1.089	438,658	7.38
2003-04	2,290,216	1.213	489,088	5.68
2004-05	2,489,757	1.299	470,120	6.88
2005-06	2,324,727	1.380	483,287	6.64
2006-07	4,797,373	1.143	463,121	11.84
2007-08	3,014,741	1.029	453,117	6.85
2008-09	4,056,212	1.000	435,689	9.31
Total	\$32,265,759		\$4,680,728	8.58
98/99-07/08	\$28,209,547		\$4,245,039	8.51
			(5) Selected A Priori 2008-09 Loss Rate:	8.58

Notes:

- (1) Page 41, Column (3).
- (2) Estimated by BAC.
- (3) Page 61, 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 <u>(1)</u>	Paid Loss Projection <u>(2)</u>	<i>A Priori</i> Selection <u>(3)</u>
1985-86	\$520,075	\$524,856	\$522,398
1986-87	1,059,999	1,075,223	1,067,377
1987-88	133,825	143,014	138,267
1988-89	710,450	763,161	735,863
1989-90	770,369	832,042	800,019
1990-91	1,393,266	1,454,147	1,422,451
1991-92	1,279,131	1,384,885	1,329,683
1992-93	1,717,969	1,865,800	1,788,476
1993-94	1,116,827	1,201,540	1,157,173
1994-95	864,238	884,187	873,713
1995-96	1,070,079	1,019,463	1,046,174
1996-97	1,672,824	1,850,539	1,756,105
1997-98	1,167,446	1,275,290	1,217,829
1998-99	1,588,977	1,735,146	1,657,320
1999-00	1,862,250	1,622,894	1,750,275
2000-01	4,458,650	3,811,830	4,156,647
2001-02	2,670,907	2,850,579	2,753,853
2002-03	2,820,975	3,159,933	2,974,638
2003-04	2,173,468	2,435,846	2,290,216
2004-05	2,497,204	2,479,997	2,489,757
2005-06	2,453,008	2,142,305	2,324,727
2006-07	4,731,612	4,903,004	4,797,373
2007-08	3,052,936	2,942,366	3,014,741
2008-09	4,212,220	3,687,848	4,056,212
Total	\$45,998,705	\$46,045,895	\$46,121,287

Notes:

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

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Frequency Times Severity Method

Program Year	Selected Claim Severity (1)	Factor to Remove Trend (2)	Selected Ultimate Claims (3)	Estimated Ultimate Losses (4)
1998-99	\$25,500	0.525	127	\$1,701,104
1999-00	25,500	0.561	144	2,059,403
2000-01	25,500	0.596	174	2,646,243
2001-02	25,500	0.735	194	3,635,618
2002-03	25,500	0.814	180	3,734,264
2003-04	25,500	0.745	180	3,419,500
2004-05	25,500	0.710	184	3,331,922
2005-06	25,500	0.682	127	2,208,927
2006-07	25,500	0.840	142	3,042,258
2007-08	25,500	0.952	124	3,011,429
2008-09	25,500	1.000	169	4,309,500
Total				\$33,100,168

Notes:

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

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 (1)	Estimated Severity Trend (2)	Selected Claim Count (3)	Trended Claim Severity (4)
1998-99	\$1,657,320	1.904	127	\$24,844
1999-00	1,750,275	1.783	144	21,672
2000-01	4,156,647	1.677	174	40,055
2001-02	2,753,853	1.361	194	19,315
2002-03	2,974,638	1.229	180	20,313
2003-04	2,290,216	1.342	180	17,079
2004-05	2,489,757	1.408	184	19,055
2005-06	2,324,727	1.466	127	26,837
2006-07	4,797,373	1.190	142	40,211
2007-08	3,014,741	1.050	124	25,528
2008-09	4,056,212	1.000	169	24,001
Total	\$32,265,759		1,745	\$25,355
98/99-07/08	\$28,209,547		1,576	\$25,500
			(5) Selected Severity:	\$25,500

Notes:

- (1) Page 41, Column (3).
- (2) Estimated by BAC.
- (3) Page 44, Column (3).
- (4) $(1) \times (2) / (3)$.
- (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)
1985-86	9		9
1986-87	12		12
1987-88	11		11
1988-89	34		34
1989-90	81		81
1990-91	163		163
1991-92	149		149
1992-93	107		107
1993-94	127		127
1994-95	137		137
1995-96	136		136
1996-97	122		122
1997-98	136		136
1998-99	127		127
1999-00	144		144
2000-01	174		174
2001-02	194		194
2002-03	180		180
2003-04	180		180
2004-05	184		184
2005-06	127		127
2006-07	142		142
2007-08	124		124
2008-09	172	169	169
Total	2,972		2,969

Notes:

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

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projection of Ultimate Claim Counts
Projection of Reported Claims

Program Year	Total Claims Reported 6/30/09 (1)	Development Factors as of 6/30/09 (2)	Projected Ultimate Claims (3)
1985-86	9	1.000	9
1986-87	12	1.000	12
1987-88	11	1.000	11
1988-89	34	1.000	34
1989-90	81	1.000	81
1990-91	163	1.000	163
1991-92	149	1.000	149
1992-93	107	1.000	107
1993-94	127	1.000	127
1994-95	137	1.000	137
1995-96	136	1.000	136
1996-97	122	1.000	122
1997-98	136	1.001	136
1998-99	127	1.001	127
1999-00	144	1.002	144
2000-01	173	1.003	174
2001-02	193	1.004	194
2002-03	179	1.004	180
2003-04	179	1.006	180
2004-05	182	1.009	184
2005-06	126	1.010	127
2006-07	140	1.012	142
2007-08	122	1.019	124
2008-09	156	1.100	172
Total	2,945		2,972

Notes:

- (1) Provided by JT2.
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projection of Ultimate Claim Counts
Bornhuetter-Ferguson Method

<u>Program Year</u>	<u>A Priori Claim Count (1)</u>	<u>Claim Development Factor (2)</u>	<u>Estimated Percentage of Claims Unreported (3)</u>	<u>Estimated Unreported Claims (4)</u>	<u>Reported Claims as of 6/30/09 (5)</u>	<u>Projected Ultimate Claims (6)</u>
2008-09	140	1.100	9.1%	13	156	169

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Notes:

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

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Calculation of Expected Claim Counts
A Priori Claim Count

Program Year	Projected Ultimate Claim Counts (1)	Trended Payroll (\$Millions) (2)	Indicated Claim Frequency (3)
2001-02	194	\$39.1	4.96
2002-03	180	43.9	4.10
2003-04	180	48.9	3.68
2004-05	184	47.0	3.91
2005-06	127	48.3	2.63
2006-07	142	46.3	3.07
2007-08	124	45.3	2.74
2008-09	172	43.6	3.95
Total	1,303	\$362.5	3.63
03/04-07/08	757	\$235.9	3.20
	(4) Selected Claim Frequency:		3.20
	(5) 2008-09 Trended Payroll (\$Millions):		\$43.6
	(6) 2008-09 A Priori Claim Count:		140

Notes:

- (1) Page 45, Column (3).
- (2) Page 61, Column (3) / 10,000.
- (3) (1) / (2).
- (4) Selected on the basis of (3).
- (5) Page 61, 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

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Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Ultimate Unlimited Loss Rate for 2009-10
Unlimited Losses Including 4850/TD

Program Year	2008-09 Level Loss Rate (1)	Expected Increase for 2009-10 (2)	Untrended Payroll (\$00's) (3)	Projected Ultimate Losses (4)	Projected 2009-10 Unlimited Loss Rate (5)
2009-10	\$8.82	0.989	\$453,117	\$3,955,708	\$8.73
				(6) 4850 percentage:	17.0%
				(7) Gross Rate ex 4850 :	\$7.24
				(8) 1M Limit Rate ex 4850 :	\$7.02
				(9) 750K Limit Rate ex 4850 :	\$6.85
				(10) 500K Limit Rate ex 4850 :	\$6.44
				(11) 250K Limit Rate ex 4850 :	\$5.17
				(12) 150K Limit Rate ex 4850 :	\$3.86

Notes:

- (1) Page 50, Item (11).
- (2) -1.1% Expected Increase Estimated by BAC.
- (3) Page 61, Column (2).
- (4) (1) x (2) x (3), rounded.
- (5) (4) / (3), rounded.
- (6) Page 24, Column (3).
- (7) [1.00 - (6)] x Unlimited Loss Rate.
- (8) - (12) Unlimited Loss Rate adjusted for Stated Limit & Percentages on Page 24.

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)
1998-99	\$1,610,000	1.556	\$315,279	\$7.94
1999-00	1,850,000	1.487	380,622	7.23
2000-01	4,350,000	1.426	360,308	17.22
2001-02	2,690,000	1.181	391,440	8.12
2002-03	3,040,000	1.089	438,658	7.55
2003-04	2,320,000	1.213	489,088	5.76
2004-05	2,520,000	1.299	470,120	6.96
2005-06	2,540,000	1.380	483,287	7.25
2006-07	4,700,000	1.143	463,121	11.60
2007-08	3,100,000	1.029	453,117	7.04
2008-09	4,100,000	1.000	435,689	9.41
Total	\$32,820,000		\$4,680,728	\$8.73
98/99-07/08	\$28,720,000		\$4,245,039	\$8.67
(5) Selected Loss Rate:				\$8.73

Program Year	Largest Claim (6)	Severity Trend (7)	LDF (8)	Trended Developed Max Claim (9)
1999-00	\$494,932	1.783	1.090	\$962,311
2000-01	760,805	1.677	1.108	1,413,030
2001-02	375,980	1.361	1.128	577,315
2002-03	346,154	1.229	1.151	489,746
2003-04	248,901	1.342	1.177	393,228
2004-05	390,493	1.408	1.211	665,800
2005-06	453,688	1.466	1.262	839,606
2006-07	584,769	1.190	1.356	943,578

(10) Factor for Unlimited Retention: 1.010

(11) Unlimited 2008-09 Rate: **\$8.82**

Notes:

- (1) Page 34, Column (6).
- (2) Page 40, Column (2).
- (3) Page 61, Column (3).
- (4) (1) x (2) / (3).
- (5) Based on Column (4).
- (6) Provided by JT2.
- (7) Page 43, Column (2). Indexed to 2008-09.
- (8) Page 35, Column (2).
- (9) (6) x (7) x (8).
- (10) Estimated by BAC.
- (11) (5) x (10).

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

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

Discounting Exhibits

DRAFT

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of Unpaid Losses as of June 30, 2009
Assuming a 3.0% Interest Rate

Net Self-Insured Losses Excluding 4850/TD

Program Year	Projected Unpaid Losses (1)	Discount Factor (2)	Discounted Unpaid Losses (3)
1985-86	\$27,234	0.794	\$21,618
1986-87	0	0.779	0
1987-88	0	0.773	0
1988-89	0	0.767	0
1989-90	0	0.759	0
1990-91	74,348	0.756	56,211
1991-92	37,944	0.744	28,248
1992-93	45,621	0.736	33,555
1993-94	52,849	0.725	38,308
1994-95	98,045	0.719	70,513
1995-96	183,378	0.725	132,955
1996-97	84,634	0.737	62,398
1997-98	127,360	0.738	94,007
1998-99	183,518	0.729	133,695
1999-00	338,152	0.719	243,138
2000-01	448,513	0.717	321,701
2001-02	503,800	0.734	369,805
2002-03	573,389	0.759	435,236
2003-04	588,871	0.774	455,747
2004-05	927,124	0.777	720,316
2005-06	1,272,466	0.793	1,008,481
2006-07	2,045,692	0.809	1,654,959
2007-08	1,884,057	0.826	1,556,753
2008-09	2,907,971	0.844	2,453,064
Total	\$12,404,967		\$9,890,708

(4) Indicated Discount Factor: 0.797

Notes:

- (1) Page 22, Column (6).
- (2) (3) / (1).
- (3) Based upon a 3.0% interest rate.
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2009-10 Losses as of July 1, 2009
Assuming a 3.0% Interest rate

Unlimited Losses Including 4850/TD

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2009-10	\$528,491	0.985	\$520,738
2010-11	665,725	0.957	636,853
2011-12	479,876	0.929	445,693
2012-13	353,783	0.902	319,012
2013-14	269,309	0.875	235,767
2014-15	198,859	0.850	169,021
2015-16	153,894	0.825	126,993
2016-17	130,695	0.801	104,708
2017-18	112,610	0.778	87,592
2018-19	107,316	0.755	81,042
2019-20	108,284	0.733	79,391
2020-21	104,225	0.712	74,190
2021-22	94,842	0.691	65,544
2022-23	80,911	0.671	54,288
2023-24	49,720	0.651	32,389
2024-25	27,690	0.632	17,512
2025-26	27,191	0.614	16,696
2026-27	25,709	0.596	15,326
2027-28	25,715	0.579	14,883
2028-29	25,709	0.562	14,446
2029-30	25,715	0.546	14,029
2030-31	25,211	0.530	13,353
2031-32	23,734	0.514	12,205
2032-33	33,592	0.499	16,771
2033-34	13,378	0.485	6,485
34-35 to 48-49	263,521	0.393	103,494
Total	\$3,955,708		\$3,278,421

(4) Indicated Discount Factor: 0.829

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.0% 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 2009-10 Losses as of July 1, 2009
Assuming a 3.0% Interest rate

\$1 Million SIR
Net Self-Insured Losses Including 4850/TD

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2009-10	\$519,043	0.985	\$511,428
2010-11	650,382	0.957	622,175
2011-12	466,684	0.929	433,441
2012-13	343,281	0.902	309,542
2013-14	262,606	0.875	229,899
2014-15	193,590	0.850	164,543
2015-16	149,764	0.825	123,585
2016-17	127,151	0.801	101,869
2017-18	109,776	0.778	85,387
2018-19	102,663	0.755	77,528
2019-20	104,408	0.733	76,550
2020-21	101,269	0.712	72,086
2021-22	92,408	0.691	63,863
2022-23	78,835	0.671	52,895
2023-24	48,444	0.651	31,557
2024-25	26,979	0.632	17,063
2025-26	26,494	0.614	16,268
2026-27	25,049	0.596	14,933
2027-28	25,056	0.579	14,502
2028-29	25,049	0.562	14,075
2029-30	25,055	0.546	13,669
2030-31	24,564	0.530	13,010
2031-32	23,125	0.514	11,892
2032-33	32,730	0.499	16,341
2033-34	13,035	0.485	6,318
34-35 to 48-49	256,759	0.393	100,838
Total	\$3,854,200		\$3,195,257

(4) Indicated Discount Factor: 0.829

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.0% 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 2009-10 Losses as of July 1, 2009
Assuming a 3.0% Interest rate

\$750,000 SIR

Net Self-Insured Losses Including 4850/TD

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2009-10	\$518,899	0.985	\$511,286
2010-11	643,260	0.957	615,362
2011-12	457,293	0.929	424,719
2012-13	334,037	0.902	301,206
2013-14	256,427	0.875	224,489
2014-15	189,541	0.850	161,101
2015-16	145,080	0.825	119,719
2016-17	123,283	0.801	98,769
2017-18	105,318	0.778	81,919
2018-19	99,795	0.755	75,363
2019-20	100,310	0.733	73,545
2020-21	98,039	0.712	69,786
2021-22	89,956	0.691	62,168
2022-23	75,608	0.671	50,730
2023-24	47,493	0.651	30,938
2024-25	26,445	0.632	16,725
2025-26	25,972	0.614	15,947
2026-27	24,556	0.596	14,639
2027-28	24,562	0.579	14,216
2028-29	24,556	0.562	13,798
2029-30	24,562	0.546	13,400
2030-31	24,080	0.530	12,754
2031-32	22,670	0.514	11,658
2032-33	32,086	0.499	16,019
2033-34	12,778	0.485	6,194
34-35 to 48-49	251,703	0.393	98,852
Total	\$3,778,309		\$3,135,302

(4) Indicated Discount Factor: 0.830

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.0% 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 2009-10 Losses as of July 1, 2009
Assuming a 3.0% Interest rate

\$500,000 SIR

Net Self-Insured Losses Including 4850/TD

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2009-10	\$512,121	0.985	\$504,608
2010-11	624,982	0.957	597,877
2011-12	437,931	0.929	406,736
2012-13	316,678	0.902	285,554
2013-14	238,164	0.875	208,502
2014-15	174,204	0.850	148,065
2015-16	133,628	0.825	110,269
2016-17	109,150	0.801	87,447
2017-18	95,911	0.778	74,602
2018-19	94,251	0.755	71,176
2019-20	90,119	0.733	66,073
2020-21	92,312	0.712	65,710
2021-22	85,322	0.691	58,965
2022-23	72,803	0.671	48,848
2023-24	45,853	0.651	29,869
2024-25	25,042	0.632	15,838
2025-26	22,735	0.614	13,960
2026-27	23,338	0.596	13,913
2027-28	23,343	0.579	13,511
2028-29	23,338	0.562	13,114
2029-30	23,343	0.546	12,735
2030-31	22,885	0.530	12,121
2031-32	21,545	0.514	11,079
2032-33	30,494	0.499	15,224
2033-34	12,144	0.485	5,887
34-35 to 48-49	239,216	0.393	93,948
Total	\$3,590,854		\$2,985,631

(4) Indicated Discount Factor: 0.831

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.0% 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

DRAFT

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative Reported Losses (\$000's) as of December 31, 2008 - Unlimited

Program	Months of Development																											
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234	246	258	270	282	294	306	318	330
1986																		319	347	447	461	721	513	510				
1987																		785	785	783	1,035	1,034	1,034	1,039				
1988																	131	131	131	131	131	131	131					
1989															680	686	686	686	686	694	694	694						
1990														674	710	785	785	753	751	751								
1991													1,188	1,188	1,211	1,211	1,212	1,213	1,306									
1992												1,108	1,205	1,238	1,251	1,246	1,242	1,243										
1993											1,637	1,678	1,662	1,663	1,668	1,665	1,666											
1994									1,070	1,053	1,074	1,086	1,071	1,052	1,052													
1995								746	747	767	768	768	769	769														
1996								841	838	849	855	860	848	849														
1997								1,502	1,656	1,665	1,676	1,682	1,669	1,579														
1998						1,124	1,054	1,035	1,027	1,028	1,086	1,099																
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																		
2001			1,697	2,579	2,857	2,668	3,101	3,477	3,769																			
2002		1,239	1,886	2,196	2,336	2,291	2,328	2,367																				
2003	644	2,163	2,625	2,510	2,494	2,445	2,452																					
2004	676	1,643	1,676	1,757	1,803	1,906																						
2005	882	1,861	1,899	2,025	2,284																							
2006	507	1,453	1,896	2,268																								
2007	696	3,220	4,322																									
2008	317	1,879																										
2009	488																											
	<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>138-150</u>	<u>150-162</u>	<u>162-174</u>	<u>174-186</u>	<u>186-198</u>	<u>198-210</u>	<u>210-222</u>	<u>222-234</u>	<u>234-246</u>	<u>246-258</u>	<u>258-270</u>	<u>270-282</u>	<u>282-294</u>	<u>294-306</u>	<u>306-318</u>	<u>318-330</u>	
ALL YR VOL	3.283	1.235	1.142	1.072	0.996	1.035	1.056	1.058	1.027	1.012	1.010	0.999	1.003	1.009	1.011	0.999	0.994	1.032	1.130	1.006	1.160	0.884	0.995					
REFERENCE	3.161	1.351	1.099	1.053	1.033	1.025	1.021	1.019	1.018	1.014	1.012	1.014	1.011	1.006	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.020	
SELECTED	3.161	1.351	1.099	1.053	1.033	1.025	1.021	1.019	1.018	1.014	1.012	1.014	1.011	1.006	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.020	
CUMULATIVE	6.083	1.924	1.424	1.296	1.231	1.191	1.163	1.139	1.118	1.098	1.083	1.070	1.055	1.044	1.038	1.035	1.033	1.030	1.028	1.027	1.025	1.023	1.021	1.020				
06/30/09 FACTOR	3.064	1.625	1.356	1.262	1.211	1.177	1.151	1.128	1.108	1.090	1.076	1.062	1.049	1.041	1.036	1.034	1.031	1.029	1.027	1.026	1.024	1.022	1.021	1.019				

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative Paid Losses (\$000's) as of December 31, 2008 - Unlimited

Program	Months of Development																							
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234	246	258	270	282
1986																		295	315	347	382	490	483	485
1987																	752	760	776	972	980	984	988	
1988																131	131	131	131	131	131	131	131	
1989															680	686	686	686	694	694	694			
1990														666	701	748	750	750	751	751				
1991													1,153	1,162	1,171	1,180	1,188	1,199	1,289					
1992												1,098	1,121	1,166	1,199	1,219	1,224	1,229						
1993											1,571	1,602	1,611	1,619	1,629	1,637	1,645							
1994									1,022	1,027	1,037	1,050	1,052	1,052	1,052	1,052								
1995								738	743	747	751	754	756	766										
1996								838	838	839	843	846	848	849										
1997							1,345	1,420	1,467	1,505	1,522	1,537	1,553											
1998						882	932	968	989	999	1,011	1,042												
1999					988	1,102	1,168	1,232	1,338	1,361	1,382													
2000			688	774	846	931	1,029	1,136	1,254															
2001			863	1,708	2,057	2,279	2,518	2,758	2,905															
2002		654	1,162	1,499	1,859	2,047	2,128	2,155																
2003	238	991	1,485	1,906	2,111	2,271	2,276																	
2004	116	726	1,078	1,264	1,557	1,653																		
2005	229	1,059	1,332	1,459	1,532																			
2006	123	646	1,005	1,124																				
2007	224	1,357	2,048																					
2008	65	797																						
2009	156																							
	<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>138-150</u>	<u>150-162</u>	<u>162-174</u>	<u>174-186</u>	<u>186-198</u>	<u>198-210</u>	<u>210-222</u>	<u>222-234</u>	<u>234-246</u>	<u>246-258</u>	<u>258-270</u>	<u>270-282</u>	<u>282-UII</u>
ALL YR VOL	5.603	1.493	1.294	1.160	1.091	1.058	1.058	1.052	1.030	1.010	1.014	1.009	1.010	1.015	1.014	1.004	1.005	1.035	1.085	1.021	1.075	0.998	1.004	
REFERENCE	3.427	1.647	1.287	1.167	1.108	1.073	1.055	1.045	1.039	1.037	1.035	1.031	1.027	1.019	1.011	1.008	1.008	1.007	1.007	1.007	1.007	1.007	1.007	1.082
SELECTED	5.603	1.647	1.287	1.160	1.108	1.058	1.058	1.052	1.030	1.010	1.014	1.009	1.027	1.019	1.011	1.004	1.005	1.007	1.007	1.007	1.007	1.007	1.007	1.082
CUMULATIVE	23.058	4.115	2.499	1.942	1.674	1.511	1.428	1.351	1.284	1.247	1.235	1.217	1.206	1.174	1.152	1.139	1.134	1.128	1.120	1.112	1.104	1.096	1.089	1.082
06/30/09 FACTOR	7.235	3.080	2.178	1.795	1.587	1.468	1.388	1.316	1.265	1.240	1.226	1.212	1.190	1.163	1.145	1.137	1.131	1.124	1.116	1.108	1.100	1.092	1.085	1.078

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative Number of Reported Losses as of December 31, 2008

Program	Months of Development																							
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234	246	258	270	282
1986																		9	9	9	9	9	9	9
1987																		12	12	12	12	12	12	12
1988																11	11	11	11	11	11	11	11	
1989														34	34	34	34	34	34	34	34	34	34	
1990													81	81	81	81	81	81	81	81	81	81	81	
1991													163	163	163	163	163	163	163	163	163	163	163	
1992												149	149	149	149	149	149	149	149	149	149	149	149	
1993											107	107	107	107	107	107	107	107	107	107	107	107	107	
1994									126	126	126	127	127	127	127	127	127	127	127	127	127	127	127	
1995									137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	
1996									134	134	135	136	136	136	136	136	136	136	136	136	136	136	136	
1997									122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	
1998									135	136	136	136	136	136	136	136	136	136	136	136	136	136	136	
1999									127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	
2000									142	143	142	144	144	144	144	144	144	144	144	144	144	144	144	
2001									172	173	173	173	173	173	173	173	173	173	173	173	173	173	173	
2002									189	193	193	193	193	193	193	193	193	193	193	193	193	193	193	
2003									83	174	177	177	177	178	179	179	179	179	179	179	179	179	179	
2004									98	177	177	178	178	178	179	179	179	179	179	179	179	179	179	
2005									92	181	181	181	182	182	182	182	182	182	182	182	182	182	182	
2006									52	123	125	126	126	126	126	126	126	126	126	126	126	126	126	
2007									72	140	140	140	140	140	140	140	140	140	140	140	140	140	140	
2008									56	121	121	121	121	121	121	121	121	121	121	121	121	121	121	
2009									69	140	140	140	140	140	140	140	140	140	140	140	140	140	140	
	<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>138-150</u>	<u>150-162</u>	<u>162-174</u>	<u>174-186</u>	<u>186-198</u>	<u>198-210</u>	<u>210-222</u>	<u>222-234</u>	<u>234-246</u>	<u>246-258</u>	<u>258-270</u>	<u>270-282</u>	<u>282-111</u>
ALL YR VOL	2.022	1.009	1.003	1.002	1.001	1.004	1.000	1.000	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	2.022	1.009	1.003	1.002	1.001	1.004	1.000	1.000	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	2.069	1.023	1.014	1.011	1.009	1.008	1.004	1.004	1.004	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
06/30/08 FACTOR	1.100	1.019	1.012	1.010	1.009	1.006	1.004	1.004	1.003	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	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 2008-09 (\$00's) (3)
1985-86	\$150,000	\$0	\$0
1986-87	200,000	0	0
1987-88	250,000	0	0
1988-89	250,000	0	0
1989-90	250,000	0	0
1990-91	300,000	0	0
1991-92	250,000	0	0
1992-93	250,000	168,330	315,279
1993-94	275,000	175,063	315,279
1994-95	300,000	182,066	315,279
1995-96	300,000	189,348	315,279
1996-97	300,000	196,922	315,279
1997-98	300,000	204,799	315,279
1998-99	300,000	212,991	315,279
1999-00	300,000	267,420	380,622
2000-01	300,000	263,274	360,308
2001-02	350,000	297,462	391,440
2002-03	500,000	346,678	438,658
2003-04	NO XS	401,995	489,088
2004-05	500,000	401,860	470,120
2005-06	500,000	429,640	483,287
2006-07	500,000	428,182	463,121
2007-08	500,000	435,689	453,117
2008-09	500,000	435,689	435,689
2009-10	?	453,117	435,689

Notes:

- (1) Provided by MBASIA.
- (2) Provided by MBASIA. 2009-10 estimated by BAC. 1997-98 & prior estimated by BAC.
- (3) 4.0% trend to 2008-09.