



Actuarial Review of the Funding Requirements for the Excess General Liability Program

*Outstanding Liabilities as of December 31, 2017 and June 30, 2018
Forecast for Program Year 2018-19*

Presented to
ACCEL

March 20, 2018



Tuesday, March 20, 2018

Authority for California Cities Excess Liability
c/o Alliant Insurance Services
Attn: Mike Simmons, Pool Administrator
100 Pine Street, 11th Floor
San Francisco, California 94111

Re: Actuarial Review of the Funding Requirements for the Excess Liability Program

Dear Mr. Simmons:

As you requested, we have completed our actuarial review of the funding requirements for the Authority for California Cities Excess Liability's (ACCEL, the Authority) excess liability program. Our conclusions are documented in the text and exhibits that follow.

At the undiscounted expected level, we estimate the program's liability for outstanding loss and allocated loss adjustment expenses (ALAE) to be approximately \$32,350,000 as of June 30, 2018. We understand the Authority has chosen to record its liability with recognition of investment income at 2% per year. Discounted for anticipated investment income, we estimate the program's liability for outstanding loss and ALAE will be \$30,086,000 as of that date. Further, we recommend the Authority fund a risk margin for potential adverse experience. Including a margin for adverse experience at the 85% confidence level, the Authority's required funding as of June 30, 2018 is projected to be \$42,060,000.

Historically, ACCEL's outstanding liability has been comprised the liabilities of two separately funded pools:

- The first pool covered the layer from \$500,000 to \$1,000,000 per occurrence (the \$500K pool) and operated during program years 1986-87 to 1989-90. This pool was funded by those members with \$500,000 self-insured retentions during that period. All claims for this pool have been closed and there are no unpaid losses remaining.
- The second pool is for the layer above \$1,000,000 per occurrence (the \$1,000K pool) and is funded by all members.

The tables below shows our estimates of the program's claims liabilities as of December 31, 2017 and June 30, 2018, on both undiscounted and discounted bases for various confidence levels:

**Outstanding Liability as of December 31, 2017
at Various Confidence Levels
\$500K and \$1,000K Pools Combined**

Confidence Level	Undiscounted	Discounted
Expected	\$32,973,000	\$30,936,000
70%	38,051,000	35,700,000
75%	40,293,000	37,803,000
80%	42,898,000	40,247,000
85%	46,097,000	43,249,000
90%	50,383,000	47,269,000
95%	57,407,000	53,859,000

**Outstanding Liability as of June 30, 2018
at Various Confidence Levels
\$500K and \$1,000K pools combined**

Confidence Level	Undiscounted	Discounted
Expected	\$32,350,000	\$30,086,000
70%	37,332,000	34,719,000
75%	39,532,000	36,765,000
80%	42,087,000	39,141,000
85%	45,225,000	42,060,000
90%	49,431,000	45,971,000
95%	56,321,000	52,379,000

Our funding guidelines for the program's outstanding liabilities do not include any provision for reinsurance premiums, claims administration fees, and other administrative costs associated with the ACCEL program.

According to the accounting regulations of the Governmental Accounting Standards Board, unallocated loss adjustment expenses (ULAE) associated with the claims should be recognized as part of the program's claims liability. ULAE is the additional cost to administer all claims to final settlement, which may be years into the future (e.g. claims adjusters' salaries, taxes, etc.). Our undiscounted expected estimate of unpaid ULAE is \$760,000 as of June 30, 2018. This estimate is 3.5% of the sum of all IBNR reserves and half of case reserves as of June 30, 2018.

We present funding recommendations for claims incurred during program year 2018-19 at several confidence levels in the table below. Our recommendations are displayed as rates per \$100 of payroll for various layers. The recommended funding includes anticipated investment income at 2% per year.

Funding Guidelines for Discounted Claims Incurred in 2018-2019

Layer	Expected	75%	80%	85%	90%
\$1M-2M	\$0.216	\$0.275	\$0.296	\$0.322	\$0.357
\$1M-3M	0.341	0.434	0.468	0.509	0.564
\$1M-4M	0.397	0.505	0.544	0.593	0.657
\$1M-5M	0.430	0.547	0.590	0.642	0.711
\$2M-5M	0.215	0.274	0.295	0.321	0.356
\$5M-10M	0.141	0.179	0.193	0.211	0.233
\$6M-10M	0.110	0.140	0.151	0.164	0.182
\$7M-10M	0.079	0.101	0.108	0.118	0.131
\$8M-10M	0.051	0.065	0.070	0.076	0.084
\$9M-10M	0.025	0.032	0.034	0.037	0.041
\$10M-15M	0.118	0.150	0.162	0.176	0.195

The following table details the calculation of our funding guidelines in dollars at various confidence levels for the program’s 2018-19 claims by different layers:

Funding Amount Guidelines for Discounted Claims Incurred in 2018-2019

Layer	Expected	75%	80%	85%	90%
\$1M-2M	\$2,707,000	\$3,447,000	\$3,710,000	\$4,036,000	\$4,475,000
\$1M-3M	4,274,000	5,440,000	5,866,000	6,380,000	7,069,000
\$1M-4M	4,976,000	6,330,000	6,819,000	7,433,000	8,235,000
\$1M-5M	5,390,000	6,856,000	7,395,000	8,047,000	8,912,000
\$2M-5M	2,695,000	3,434,000	3,698,000	4,024,000	4,462,000
\$5M-10M	1,767,000	2,244,000	2,419,000	2,645,000	2,920,000
\$6M-10M	1,379,000	1,755,000	1,893,000	2,056,000	2,281,000
\$7M-10M	990,000	1,266,000	1,354,000	1,479,000	1,642,000
\$8M-10M	639,000	815,000	877,000	953,000	1,053,000
\$9M-10M	313,000	401,000	426,000	464,000	514,000
\$10M-15M	1,479,000	1,880,000	2,031,000	2,206,000	2,444,000

As with the program’s outstanding claims, the Authority should fund a margin for adverse experience in addition to the expected cost of claims. We would recommend funding excess liability programs at the 80% to 90% confidence level.

Additional retention options are shown on pages 51 to 57.

The analysis which made it possible for us to draw our conclusions is based on the data provided by the Authority's program manager Alliant Insurance Services (Alliant). We have accepted all of this information without audit.

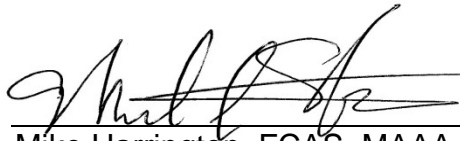
All actuarial estimates of liability claims costs are subject to uncertainty because of the complexity of the process that determines the costs. This is especially true of excess liability claims costs. For this reason, sound management practices suggest that actual funding should be in excess of expected claim activity. We generally recommend funding at the 80% to 90% confidence levels for excess liability programs, after recognition of investment income.

The first section of the attached report outlines the scope of our study, its background, and our conclusions, recommendations, detailed funding recommendations, assumptions, and approach to the project. The entire report has been developed for the internal use of the ACCEL, its auditors, and the representatives of its members. It is not intended for general circulation.

We appreciate the opportunity to be of service to ACCEL in preparing this report. Please feel free to call Mike Harrington at (916) 244-1162, Derek Burkhalter at (916) 244-1167, or David Kim at (916) 244-1166 with any questions you may have concerning this report.

Sincerely,

Bickmore



Mike Harrington, FCAS, MAAA
President, Actuarial Consulting, Bickmore
Fellow, Casualty Actuarial Society
Member, American Academy of Actuaries



Derek Burkhalter, ACAS, MAAA
Manager, Property and Casualty Actuarial Services, Bickmore
Associate, Casualty Actuarial Society
Member, American Academy of Actuaries



David Kim, MA
Senior Actuarial Analyst, Property and Casualty Actuarial Services, Bickmore

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I. BACKGROUND AND PURPOSE OF STUDY

The Authority for California Cities Excess Liability (ACCEL, the Authority) began operations on April 1, 1986. Its purpose is to provide excess liability coverage and to purchase commercial excess insurance on a group basis for California cities. The Authority provides coverage above each member's self-insured retention (SIR), subject to an upper pool limit. Currently the pool covers the layer from \$1,000,000 to \$5,000,000 for each of its members.

The program currently includes twelve members: Anaheim, Bakersfield, Burbank, Modesto, Monterey, Mountain View, Ontario, Palo Alto, Santa Barbara, Santa Cruz, Santa Monica, and Visalia.

ACCEL provided an optional coverage of \$500,000 excess of \$500,000 per occurrence (the \$500K pool) and operated during program years 1986-87 to 1989-90. This pool was funded by those members with \$500,000 self-insured retentions during that period. This coverage is no longer available.

Prior to July 1, 1990, the Authority pooled losses incurred by its members up to \$10,000,000. Effective July 1, 1990, ACCEL created a reinsurance pool within the \$9,000,000 excess of \$1,000,000 layer by purchasing \$5,000,000 excess of \$5,000,000 coverage. On July 1, 1997, ACCEL further reduced its exposure and purchased coverage of \$17,000,000 excess of \$3,000,000 coverage.

Due to favorable market conditions, ACCEL purchased coverage of \$19,000,000 excess of \$1,000,000 effective July 1, 1998. Six members with an SIR of \$500,000 purchased additional coverage of \$500,000 excess of \$500,000. On July 1, 2000, nine members purchased insurance of \$19,500,000 excess of \$500,000 and two members had coverage of \$19,000,000 excess of \$1,000,000. The ACCEL layer was fully insured with these limits through June 30, 2003.

Effective July 1, 2003, ACCEL purchased reinsurance covering \$20,000,000 excess of \$2,000,000 and pooled losses in the layer \$1,000,000 excess of \$1,000,000. All members had an SIR of \$1,000,000. Effective July 1, 2004, ACCEL pooled losses in the layer \$2,000,000 excess of \$1,000,000. ACCEL has pooled losses in the layer \$4,000,000 excess of \$1,000,000 for the period between 2005-06 and 2015-16 years. For the 2016-17 year, ACCEL pooled losses in the layer \$2,000,000 excess of \$1,000,000.

The purpose of this study is to provide a guide to ACCEL in evaluating the adequacy of its established funding for its outstanding claims liabilities as of June 30, 2018 and in determining its contribution level for the 2018-19 fiscal year.

II. CONCLUSIONS AND RECOMMENDATIONS

A. LIABILITY FOR OUTSTANDING CLAIMS

At the undiscounted expected level, we estimate the program's liability for outstanding loss and allocated loss adjustment expenses (ALAE) to be approximately \$32,350,000 as of June 30, 2018. We understand the Authority has chosen to record its liability with recognition of investment income at 2% per year. Discounted for anticipated investment income, we estimate the program's liability for outstanding loss and ALAE will be \$30,086,000 as of that date. Further, we recommend the Authority fund a risk margin for potential adverse experience. Including a margin for adverse experience at the 85% confidence level, the Authority's required funding as of June 30, 2018 is projected to be \$42,060,000.

Historically, ACCEL's outstanding liability has been comprised the liabilities of two separately funded pools:

- The first pool covered the layer from \$500,000 to \$1,000,000 per occurrence (the \$500K pool) and operated during program years 1986-87 to 1989-90. This pool was funded by those members with \$500,000 self-insured retentions during that period. All claims for this pool have been closed and there are no unpaid losses remaining.
- The second pool is for the layer above \$1,000,000 per occurrence (the \$1,000K pool) and is funded by all members.

Our estimates of the program's expected claims liabilities, on both undiscounted and discounted bases, by program year are displayed in the following tables as of December 31, 2017 and June 30, 2018:

Outstanding Liability at the Expected Level as of December 31, 2017 - \$500K pool

Program Year	Undiscounted	Discounted
1986-1987	\$0	\$0
1987-1988	0	0
1988-1989	0	0
1989-1990	0	0
All Years	\$0	\$0

**Outstanding Liability at the Expected Level
as of December 31, 2017 - \$1,000K pool**

Program Year	Undiscounted	Discounted
1986-1987	\$0	\$0
1987-1988	0	0
1988-1989	0	0
1989-1990	0	0
1990-1991	0	0
1991-1992	0	0
1992-1993	0	0
1993-1994	0	0
1994-1995	0	0
1995-1996	0	0
1996-1997	0	0
1997-1998	0	0
1998-2003	0	0
2003-2004	0	0
2004-2005	0	0
2005-2006	0	0
2006-2007	0	0
2007-2008	2,500,000	2,342,500
2008-2009	60,065	56,551
2009-2010	81,000	76,302
2010-2011	118,841	112,245
2011-2012	186,726	177,016
2012-2013	4,517,873	4,303,274
2013-2014	10,348,491	9,856,938
2014-2015	1,642,930	1,554,212
2015-2016	4,941,457	4,620,262
2016-2017	5,750,000	5,287,125
2017-2018	2,826,000	2,549,052
All Years	\$32,973,383	\$30,935,477

Note that the \$1,000K pool has no outstanding liability associated with the 1998-99 through 2002-03 program years. Due to favorable market conditions, ACCEL purchased complete reinsurance for its members during that time.

**Outstanding Liability at the Expected Level
as of June 30, 2018 - \$500K pool**

Program Year	Undiscounted	Discounted
1986-1987	\$0	\$0
1987-1988	0	0
1988-1989	0	0
1989-1990	0	0
All Years	\$0	\$0

**Outstanding Liability at the Expected Level
as of June 30, 2018 - \$1,000K pool**

Program Year	Undiscounted	Discounted
1986-1987	\$0	\$0
1987-1988	0	0
1988-1989	0	0
1989-1990	0	0
1990-1991	0	0
1991-1992	0	0
1992-1993	0	0
1993-1994	0	0
1994-1995	0	0
1995-1996	0	0
1996-1997	0	0
1997-1998	0	0
1998-2003	0	0
2003-2004	0	0
2004-2005	0	0
2005-2006	0	0
2006-2007	0	0
2007-2008	2,260,000	2,128,920
2008-2009	56,101	52,791
2009-2010	70,632	66,606
2010-2011	104,818	99,158
2011-2012	164,132	155,926
2012-2013	3,867,299	3,693,271
2013-2014	8,754,823	8,317,082
2014-2015	1,419,492	1,337,161
2015-2016	4,491,784	4,168,376
2016-2017	5,531,500	5,039,197
2017-2018	5,629,392	5,027,047
All Years	\$32,349,973	\$30,085,535

The tables below shows our estimates of the program's claims liabilities as of December 31, 2017 and June 30, 2018, on both undiscounted and discounted bases for various confidence levels:

**Outstanding Liability as of December 31, 2017
at Various Confidence Levels
\$500K and \$1,000K Pools Combined**

Confidence Level	Undiscounted	Discounted
Expected	\$32,973,000	\$30,936,000
70%	38,051,000	35,700,000
75%	40,293,000	37,803,000
80%	42,898,000	40,247,000
85%	46,097,000	43,249,000
90%	50,383,000	47,269,000
95%	57,407,000	53,859,000

**Outstanding Liability as of June 30, 2018
at Various Confidence Levels
\$500K and \$1,000K Pools Combined**

Confidence Level	Undiscounted	Discounted
Expected	\$32,350,000	\$30,086,000
70%	37,332,000	34,719,000
75%	39,532,000	36,765,000
80%	42,087,000	39,141,000
85%	45,225,000	42,060,000
90%	49,431,000	45,971,000
95%	56,321,000	52,379,000

The estimated program outstanding liabilities shown above do not include any provision for reinsurance premiums, claims administration fees, and other administrative costs associated with the ACCEL program.

According to the accounting regulations of the Governmental Accounting Standards Board, unallocated loss adjustment expenses (ULAE) associated with the claims should be recognized as part of the program's claims liability. ULAE is the additional cost to administer all claims to final settlement, which may be years into the future (e.g. claims adjusters' salaries, taxes, etc.). Our undiscounted expected estimate of unpaid ULAE is \$760,000 as of June 30, 2018. This estimate is 3.5% of the sum of all IBNR reserves and half of case reserves as of June 30, 2018.

B. FUNDING RATES FOR FUTURE CLAIMS

Our funding guidelines are displayed as rates per \$100 of payroll and dollars for various layers. The funding guidelines include anticipated investment income at 2% per year.

Funding Rate Guidelines for Discounted Claims Incurred in 2018-2019

Layer	Expected	75%	80%	85%	90%
\$1M-2M	\$0.216	\$0.275	\$0.296	\$0.322	\$0.357
\$1M-3M	0.341	0.434	0.468	0.509	0.564
\$1M-4M	0.397	0.505	0.544	0.593	0.657
\$1M-5M	0.430	0.547	0.590	0.642	0.711
\$2M-5M	0.215	0.274	0.295	0.321	0.356
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\$6M-10M	0.110	0.140	0.151	0.164	0.182
\$7M-10M	0.079	0.101	0.108	0.118	0.131
\$8M-10M	0.051	0.065	0.070	0.076	0.084
\$9M-10M	0.025	0.032	0.034	0.037	0.041
\$10M-15M	0.118	0.150	0.162	0.176	0.195

Funding Amount Guidelines for Discounted Claims Incurred in 2018-2019

Layer	Expected	75%	80%	85%	90%
\$1M-2M	\$2,707,000	\$3,447,000	\$3,710,000	\$4,036,000	\$4,475,000
\$1M-3M	4,274,000	5,440,000	5,866,000	6,380,000	7,069,000
\$1M-4M	4,976,000	6,330,000	6,819,000	7,433,000	8,235,000
\$1M-5M	5,390,000	6,856,000	7,395,000	8,047,000	8,912,000
\$2M-5M	2,695,000	3,434,000	3,698,000	4,024,000	4,462,000
\$5M-10M	1,767,000	2,244,000	2,419,000	2,645,000	2,920,000
\$6M-10M	1,379,000	1,755,000	1,893,000	2,056,000	2,281,000
\$7M-10M	990,000	1,266,000	1,354,000	1,479,000	1,642,000
\$8M-10M	639,000	815,000	877,000	953,000	1,053,000
\$9M-10M	313,000	401,000	426,000	464,000	514,000
\$10M-15M	1,479,000	1,880,000	2,031,000	2,206,000	2,444,000

The estimated program costs shown above do not include any provision for reinsurance premiums, claims administration fees, and other administrative costs associated with the ACCEL program.

C. FUNDING GUIDELINES

We generally recommend funding of excess liability programs to the 85% confidence level, with a recommended range of the 80% to 90% confidence levels. We generally consider funding to the 75% confidence level to be marginally acceptable, and to the 95% confidence level to be conservative. However, these should only be considered general guidelines, as we also strongly believe that the confidence level to which any future year is funded should be evaluated in light of the relative certainty of the underlying assumptions, the other budgetary constraints of those contributing to the program, and the relative risk it is believed appropriate to assume at a particular point in time. This means formulating both short-term and long-term funding goals, which may be the same in some years and different in others.

In general, we recommend considerable conservatism in refunding excess contributions, especially in light of the hardship imposed upon the members when assessments are necessary. It is always possible to refund excess contributions later, but contributions that appear to be excess that are refunded too soon may prove to be very difficult to re-collect later. For years for which assessments have not yet been levied, we recommend a staggered schedule of returns that begins when a year reaches a certain level of maturity. For example, the Authority might develop a guideline returning excess contributions on a year five to six years old that is funded above the 90% confidence level, on a year seven to nine years old that is funded above the 85% confidence level, and on a year ten or more years old that is funded above the 80% confidence level. Refunds are made at the discretion of the Board.

We understand the program's outstanding loss and loss adjustment expense liabilities are funded at the 85% discounted confidence level. This target applies to the outstanding liabilities in total, not on an individual program year basis. Funding in excess of the 90% discounted confidence level is available for dividends at the Board's discretion.

D. COMPARISON WITH PRIOR RESULTS

The following tables details the changes in our estimates of the Authority's ultimate losses by program year from those of the prior report valued as of 12/31/16:

Comparison with Prior Undiscounted Estimated Ultimate Losses Valued at December 31, 2016

Program Year	Prior Report 12/31/16	Current Report	Change
Prior	\$21,980,000	\$21,965,000	(\$15,000)
2003-2004	3,561,000	3,526,000	(35,000)
2004-2005	8,963,000	9,967,000	1,004,000
2005-2006	4,500,000	4,458,000	(42,000)
2006-2007	672,000	621,000	(51,000)
2007-2008	5,251,000	7,351,000	2,100,000
2008-2009	3,254,000	3,248,000	(6,000)
2009-2010	423,000	81,000	(342,000)
2010-2011	938,000	494,000	(444,000)
2011-2012	1,212,000	189,000	(1,023,000)
2012-2013	2,859,000	7,084,000	4,225,000
2013-2014	1,861,000	12,315,000	10,454,000
2014-2015	7,261,000	8,644,000	1,383,000
2015-2016	4,538,000	5,444,000	906,000
2016-2017	3,946,000	5,750,000	1,804,000
All Years	\$71,219,000	\$91,137,000	\$19,918,000

As shown, overall we have increased our estimates of the program's ultimate losses by \$19,918,000 from those displayed in our prior actuarial report dated April 27, 2017. The increase is mainly due to adverse loss development in the 2004-05, 2007-18 and the latest five program years, offset by favorable loss development in all other years.

At the time of the prior report valued at 12/31/16, we estimated the liability for outstanding claims as of June 30, 2017 to be \$15,958,000 at the discounted, expected level. Our current estimate as of June 30, 2018, is \$30,086,000, an increase in our assessment of the Authority's outstanding liabilities, as shown below:

**Comparison with Prior
\$500K and \$1,000 Pools Combined
Outstanding Claim Liabilities for Loss and ALAE**

	Prior Report at June 30, 2017	Current Report at June 30, 2018	Change
Case Reserves:	\$2,615,000	\$21,292,000	\$18,677,000
IBNR Reserves:	14,679,000	11,058,000	(3,621,000)
Total Reserves:	\$17,294,000	\$32,350,000	\$15,056,000
Offset for Investment Income:	(1,336,000)	(2,264,000)	(928,000)
Total Outstanding Claim Liabilities:	\$15,958,000	\$30,086,000	\$14,128,000

As shown, our estimate of outstanding claims liabilities at the discounted, expected level has increased between June 30, 2017 and June 30, 2018 as reflected in our prior and current reports respectively.

Estimated case reserves have increased significantly since the prior evaluation due to reserve strengthening by the new third-party administrator. The increase is offset somewhat by decrease in our estimate of IBNR reserves. The overall result is an increase of \$15,056,000 in total claim reserves. This increase in reserves leads to a larger offset for investment income. The net change due to the above factors is an overall increase of \$14,128,000 in our estimate of outstanding claim liabilities for loss and ALAE.

The following tables details the changes in our estimates of the Authority's ultimate losses by program year from those of the prior report valued as of 6/30/17:

**Comparison with Prior
Undiscounted Estimated Ultimate Losses
Valued at June 30, 2017**

Program Year	Prior Report 6/30/17	Current Report	Change
Prior	\$21,980,000	\$21,965,000	(\$15,000)
2003-2004	3,551,000	3,526,000	(25,000)
2004-2005	10,021,000	9,967,000	(54,000)
2005-2006	4,497,000	4,458,000	(39,000)
2006-2007	668,000	621,000	(47,000)
2007-2008	7,393,000	7,351,000	(42,000)
2008-2009	3,244,000	3,248,000	4,000
2009-2010	89,000	81,000	(8,000)
2010-2011	499,000	494,000	(5,000)
2011-2012	221,000	189,000	(32,000)
2012-2013	7,182,000	7,084,000	(98,000)
2013-2014	7,913,000	12,315,000	4,402,000
2014-2015	7,653,000	8,644,000	991,000
2015-2016	4,805,000	5,444,000	639,000
2016-2017	5,445,000	5,750,000	305,000
All Years	\$85,161,000	\$91,137,000	\$5,976,000

As shown, overall we have increased our estimates of the program's ultimate losses by \$5,976,000 from those displayed in our prior actuarial report dated June 30, 2017. The increase is mainly due to adverse loss development in the latest four program years.

At the time of the prior report evaluated at 6/30/17, we estimated the liability for outstanding claims as of June 30, 2017 to be \$27,779,000 at the discounted, expected level. Our current estimate as of June 30, 2018, is \$30,086,000, an increase in our assessment of the Authority's outstanding liabilities, as shown below:

**Comparison with Prior
\$500K and \$1,000 Pools Combined
Outstanding Claim Liabilities for Loss and ALAE**

	Prior Report at June 30, 2017	Current Report at June 30, 2018	Change
Case Reserves:	\$22,318,000	\$21,292,000	(\$1,026,000)
IBNR Reserves:	7,599,000	11,058,000	3,459,000
Total Reserves:	\$29,917,000	\$32,350,000	\$2,433,000
Offset for Investment Income:	(2,138,000)	(2,264,000)	(126,000)
Total Outstanding Claim Liabilities:	\$27,779,000	\$30,086,000	\$2,307,000

As shown, our estimate of outstanding claims liabilities at the discounted, expected level has increased between June 30, 2017 and June 30, 2018 as reflected in our prior and current reports respectively.

Estimated case reserves have decreased by \$1,026,000. However, the decrease is offset somewhat by increase in our estimate of IBNR reserves. The overall result is an increase of \$2,433,000 in total claim reserves. This increase in reserves leads to a larger offset for investment income. The net change due to the above factors is an overall increase of \$2,307,000 in our estimate of outstanding claim liabilities for loss and ALAE.

The following table displays a comparison of the Authority's projected funding rates from current and prior reports valued at 12/31/16 by various layers.

**Comparison with Prior
Undiscounted Expected Funding Rates**

Layer	Prior Report 2017-18	Current Report 2018-19	Percent Change
\$1M-2M	\$0.213	\$0.239	12.2%
\$1M-3M	0.338	0.378	11.8%
\$1M-4M	0.394	0.440	11.7%
\$1M-5M	0.426	0.477	12.0%
\$5M-10M	0.139	0.156	12.2%

As you can see, our projected funding rates for the 2018-19 program year have increased for all layers.

E. ASSUMPTIONS AND LIMITATIONS

Any quantitative analysis is developed within a very specific framework of assumptions about conditions in the outside world, and actuarial analysis is no exception. We believe that it is important to review the assumptions we have made in developing the estimates presented in this report. By doing so, we hope you will gain additional perspective on the nature of the uncertainties involved in maintaining an excess pooling program. Our assumptions and some observations about them are as follows:

- Our analysis is based on loss experience, exposure data, and other general and specific information you have provided to us. We have accepted all of this information without audit and relied on its accuracy in preparing our estimates for this report. As always, the accuracy and relevance of our conclusions and recommendations are highly dependent on the accuracy and relevance of the underlying data.
- In ACCEL's case, we were provided a list of claims with incurred losses greater than \$25,000 as of December 31, 2017 from individual member cities. This file included ground up losses and allocated loss adjustment expenses reported separately for each claimant. We were also provided with pool loss runs as of December 31, 2017.
- We were provided with payrolls by City for the 1986-87 through 2015-16 program years. The estimated payroll for 2017-18 and 2018-19 was calculated using a 1.5% trend per year.
- We have assumed that the future development of incurred and paid losses can be reasonably predicted on the basis of the development of such losses in the recent past. We have also assumed that the historical development patterns for a large group of California public entities with a self-insured excess liability program in the aggregate form a reasonable basis of comparison to the patterns from the Authority's data.
- We have assumed that there is a continuing relationship between past and future loss costs and between loss costs and payroll. These assumptions can be tenuous in a changing legal and social environment such as we face today.
- It is not possible to predict future claims costs precisely. Most of the cost of liability claims arises from a small number of incidents involving serious injury. Thus, changes in the circumstances surrounding these claims can have large effects on total costs. Therefore, the actual costs of the covered liability claims could differ significantly from our estimates.
- We cannot predict and have not attempted to predict the impact of future law changes and court rulings on liability claims costs. This is one major reason

why we believe our funding recommendations are reasonable now, but should not be extrapolated into the future.

- At your instruction, we have assumed that funds held for investment will generate an annual return of 2% in the long run.
- We estimate that the costs associated with liability claims in the \$100,000 to \$1,000,000 per occurrence layer are increasing at 4% per year after changes in exposure. It should be noted that actual future investment returns may vary significantly from this assumption, depending upon the prevailing investment market conditions.
- The claims costs we have estimated include indemnity payments and allocated loss adjustment expenses. We have not provided estimates for claims adjustment expenses not allocated to particular cases, reinsurance premiums, and Authority administrative expenses.
- We have assumed that all reinsurance coverage purchased by the Authority will prove to be valid and fully collectible.
- Our funding recommendations do not include provision for catastrophic events not in the program's history, such as earthquakes, flooding, fire or mass civil disorder.

F. OVERALL ANALYTICAL APPROACH

The approach we have taken in developing this analysis is firmly grounded in the Authority's loss and exposure data. Our approach to the problem of estimating the program's ultimate pooled loss costs is a multi-step process. We estimated the cost of the \$100,000 to \$1 million layer. We then constructed a mathematical equation for the distribution of the Authority's losses by size by trending and developing the Authority's individual claims from the 2007-08 through 2017-18 program years.

Next, using the loss distribution, the \$100,000 – \$1,000,000 ultimate loss rate, and our selected loss development patterns, we then estimated the ultimate losses of the excess layers for which the Authority is responsible.

The following actuarial techniques were applied to ACCEL's loss data to estimate the ultimate cost of claims in the \$100,000 - \$1,000,000 layer:

- ◆ Incurred Loss Development
- ◆ Paid Loss Development
- ◆ Bornhuetter-Ferguson Based on Incurred Losses
- ◆ Bornhuetter-Ferguson Based on Paid Losses
- ◆ Frequency Times Severity

Actuarial judgment was used to select among the ultimate losses indicated by the above methods.

The following actuarial techniques were applied to ACCEL's loss data to estimate the ultimate losses in the program's actual pooled layers:

- ◆ Incurred Loss Development
- ◆ Paid Loss Development
- ◆ Bornhuetter-Ferguson

Again, actuarial judgment was used to select among the ultimate losses indicated by the above methods, with heavy emphasis applied to the two methods based on incurred losses.

Authority for California Cities Excess Liability

Projected 2018-19 Funding Guidelines

Layer	Estimated 2018-19 Payroll (A)	Expected Ultimate Losses (B)	Discount Factor (C)	Discounted Expected Ultimate Losses (D)	70% Confidence Level (E)	75% Confidence Level (E)	80% Confidence Level (E)	85% Confidence Level (E)	90% Confidence Level (E)	95% Confidence Level (E)
\$1M-2M	\$12,534,300	\$2,995,698	90.2%	\$2,707,409	\$3,221,315	\$3,446,933	\$3,710,153	\$4,036,045	\$4,474,745	\$5,201,735
\$1M-3M	12,534,300	4,737,965	90.2%	4,274,196	5,076,392	5,439,886	5,866,052	6,379,959	7,069,345	8,197,432
\$1M-4M	12,534,300	5,515,092	90.2%	4,976,117	5,916,190	6,329,822	6,818,659	7,432,840	8,235,035	9,551,137
\$1M-5M	12,534,300	5,978,861	90.2%	5,389,749	6,405,027	6,856,262	7,395,237	8,047,021	8,911,887	10,340,798
\$2M-5M	12,534,300	2,983,163	90.2%	2,694,875	3,208,781	3,434,398	3,697,619	4,023,510	4,462,211	5,176,666
\$5M-10M	12,534,300	1,955,351	90.2%	1,767,336	2,105,762	2,243,640	2,419,120	2,644,737	2,920,492	3,396,795
\$6M-10M	12,534,300	1,529,185	90.2%	1,378,773	1,641,993	1,754,802	1,892,679	2,055,625	2,281,243	2,644,737
\$7M-10M	12,534,300	1,103,018	90.2%	990,210	1,178,224	1,265,964	1,353,704	1,479,047	1,641,993	1,905,214
\$8M-10M	12,534,300	714,455	90.2%	639,249	764,592	814,730	877,401	952,607	1,052,881	1,228,361
\$9M-10M	12,534,300	350,960	90.2%	313,358	376,029	401,098	426,166	463,769	513,906	601,646
\$10M-15M	12,534,300	1,641,993	90.2%	1,479,047	1,754,802	1,880,145	2,030,557	2,206,037	2,444,189	2,832,752

- (A) Provided by ACCEL.
- (B) (A) times funding rates from Exhibit 1, Page 2, (A).
- (C) From Exhibit 3.
- (D) (A) times funding rates from Exhibit 1, Page 2, (C).
- (E) (A) times funding rates from Exhibit 1, Page 2, (D).

Authority for California Cities Excess Liability

Projected 2018-19 Funding Guidelines
Loss Rates per \$100 of Payroll

Layer	Expected Loss Rate Per \$100 of Payroll (A)	Discount Factor (B)	Discounted Expected Loss Rate Per \$100 of Payroll (C)	70% Confidence Level (D)	75% Confidence Level (D)	80% Confidence Level (D)	85% Confidence Level (D)	90% Confidence Level (D)	95% Confidence Level (D)
\$1M-2M	\$0.239	90.2%	\$0.216	\$0.257	\$0.275	\$0.296	\$0.322	\$0.357	\$0.415
\$1M-3M	0.378	90.2%	0.341	0.405	0.434	0.468	0.509	0.564	0.654
\$1M-4M	0.440	90.2%	0.397	0.472	0.505	0.544	0.593	0.657	0.762
\$1M-5M	0.477	90.2%	0.430	0.511	0.547	0.590	0.642	0.711	0.825
\$2M-5M	0.238	90.2%	0.215	0.256	0.274	0.295	0.321	0.356	0.413
\$5M-10M	0.156	90.2%	0.141	0.168	0.179	0.193	0.211	0.233	0.271
\$6M-10M	0.122	90.2%	0.110	0.131	0.140	0.151	0.164	0.182	0.211
\$7M-10M	0.088	90.2%	0.079	0.094	0.101	0.108	0.118	0.131	0.152
\$8M-10M	0.057	90.2%	0.051	0.061	0.065	0.070	0.076	0.084	0.098
\$9M-10M	0.028	90.2%	0.025	0.030	0.032	0.034	0.037	0.041	0.048
\$10M-15M	0.131	90.2%	0.118	0.140	0.150	0.162	0.176	0.195	0.226

Notes:

- (A) From Exhibit 1, Page 3 and members' loss distribution.
- (B) From Exhibit 3.
- (C) (A) * (B)
- (D) (C) times Confidence Level Factor from Exhibit 4.

Authority for California Cities Excess Liability
ACCEL Pooled Layer

Selected Base Loss Rate (\$100K - \$1M Layer)

(A) Estimated based on \$1M Ultimate Less \$100K Ultimate	N/A
(B) Estimated based on \$100K - \$1M Analysis:	\$1.030
(C) Selected Base Loss Rate (\$100K - \$1M Layer):	\$1.030

Authority for California Cities Excess Liability
ACCEL Pooled Layer

Funding Guidelines for Outstanding Losses
as of December 31, 2017 and June 30, 2018

	<u>December 31, 2017</u>	<u>June 30, 2018</u>
(A) Estimated Ultimate Losses Incurred as of:	\$93,964,000	\$96,790,000
(B) Estimated Paid Losses as of:	60,990,000	64,440,000
(C) Estimated Liability for Claims Outstanding as of:	\$32,974,000	\$32,350,000
(D) Outstanding Liability Discount Factor:	93.8%	93.0%
(E) Discounted Outstanding Liability for Claims as of:	\$30,936,000	\$30,086,000
(F) Risk Margin at 85% Confidence Level:	12,313,000	11,974,000
(G) Required Funding at the 85% confidence Level:	\$43,249,000	\$42,060,000

Notes:

- (A) From Appendix A, Page 1, Column (A).
- (B) Provided by ACCEL
- (C) (A) - (B)
- (D) From Exhibit 3
- (E) (C) * (D)
- (F) (E) * Confidence Level Factor from Exhibit 4
- (G) (E) + (F)

Authority for California Cities Excess Liability
ACCEL Pooled Layer

Discount Factors

Accident Year	Age	Paid Loss Development Factor	Payment Pattern	Full Value Reserve	2.0% Discounted Reserve	Discounted Factor
1987-1988	31.0	1.000	0.0%	0.0%	0.0%	100.0%
1988-1989	30.0	1.000	0.0%	0.0%	0.0%	100.0%
1989-1990	29.0	1.000	0.0%	0.0%	0.0%	100.0%
1990-1991	28.0	1.000	0.0%	0.0%	0.0%	100.0%
1991-1992	27.0	1.000	0.0%	0.0%	0.0%	100.0%
1992-1993	26.0	1.000	0.0%	0.0%	0.0%	92.6%
1993-1994	25.0	1.000	0.0%	0.0%	0.0%	83.4%
1994-1995	24.0	1.000	0.0%	0.1%	0.1%	83.4%
1995-1996	23.0	1.001	0.0%	0.1%	0.1%	90.1%
1996-1997	22.0	1.001	0.1%	0.2%	0.2%	95.2%
1997-1998	21.0	1.002	0.1%	0.3%	0.3%	93.6%
1998-1999	20.0	1.003	0.1%	0.4%	0.4%	92.9%
1999-2000	19.0	1.004	0.2%	0.6%	0.6%	93.9%
2000-2001	18.0	1.006	0.3%	0.9%	0.8%	94.2%
2001-2002	17.0	1.009	0.4%	1.3%	1.2%	94.3%
2002-2003	16.0	1.013	0.5%	1.8%	1.7%	94.0%
2003-2004	15.0	1.018	0.2%	2.0%	1.8%	92.8%
2004-2005	14.0	1.020	1.0%	2.9%	2.7%	93.7%
2005-2006	13.0	1.030	0.9%	3.8%	3.6%	93.6%
2006-2007	12.0	1.040	0.9%	4.8%	4.4%	93.2%
2007-2008	11.0	1.050	2.8%	7.6%	7.1%	94.2%
2008-2009	10.0	1.082	2.7%	10.2%	9.6%	94.1%
2009-2010	9.0	1.114	4.3%	14.5%	13.7%	94.3%
2010-2011	8.0	1.170	7.0%	21.6%	20.4%	94.6%
2011-2012	7.0	1.275	12.5%	34.1%	32.4%	95.0%
2012-2013	6.0	1.517	22.0%	56.1%	53.5%	95.5%
2013-2014	5.0	2.276	18.8%	74.9%	71.1%	95.0%
2014-2015	4.0	3.983	16.7%	91.6%	86.3%	94.2%
2015-2016	3.0	11.949	7.5%	99.2%	92.1%	92.8%
2016-2017	2.0	119.490	0.8%	100.0%	91.1%	91.1%
2017-2018	1.0	2,389.800	0.0%	100.0%	89.3%	89.3%

Discount Factor for Future Funding: 0.902

Accident Year	Accident Year Paid Loss Development Factor	Full Value Reserve	2.0% Discounted Reserve	12/31/17 Outstanding Loss	12/31/17 Discounted Factor	12/31/17 Discounted Outstanding Loss	6/30/18 Outstanding Loss	Discounted Factor	6/30/18 Discounted Outstanding Loss
1986-1987	1.000	0.00%	0.00%	0	100.0%	0	0	100.0%	0
1987-1988	1.000	0.00%	0.00%	0	96.3%	0	0	92.6%	0
1988-1989	1.000	0.00%	0.00%	0	88.0%	0	0	83.4%	0
1989-1990	1.000	0.00%	0.00%	0	83.4%	0	0	83.4%	0
1986-1987	1.000	0.00%	0.00%	0	100.0%	0	0	100.0%	0
1987-1988	1.000	0.00%	0.00%	0	96.3%	0	0	92.6%	0
1988-1989	1.000	0.01%	0.01%	0	88.0%	0	0	83.4%	0
1989-1990	1.000	0.02%	0.02%	0	83.4%	0	0	83.4%	0
1990-1991	1.000	0.04%	0.04%	0	86.8%	0	0	90.1%	0
1991-1992	1.001	0.06%	0.06%	0	92.7%	0	0	95.2%	0
1992-1993	1.001	0.10%	0.10%	0	94.4%	0	0	93.6%	0
1993-1994	1.002	0.20%	0.19%	0	93.3%	0	0	92.9%	0
1994-1995	1.003	0.30%	0.29%	0	93.4%	0	0	93.9%	0
1995-1996	1.004	0.40%	0.38%	0	94.1%	0	0	94.2%	0
1996-1997	1.006	0.60%	0.57%	0	94.3%	0	0	94.3%	0
1997-1998	1.009	0.89%	0.85%	0	94.2%	0	0	94.0%	0
2003-2004	1.013	1.28%	1.22%	0	93.4%	0	0	92.8%	0
2004-2005	1.018	1.77%	1.67%	0	93.3%	0	0	93.7%	0
2005-2006	1.020	1.96%	1.83%	0	93.7%	0	0	93.6%	0
2006-2007	1.030	2.91%	2.74%	0	93.4%	0	0	93.2%	0
2007-2008	1.040	3.85%	3.61%	2,500,000	93.7%	2,342,500	2,260,000	94.2%	2,128,920
2008-2009	1.050	4.76%	4.45%	60,065	94.2%	56,551	56,101	94.1%	52,791
2009-2010	1.082	7.58%	7.15%	81,000	94.2%	76,302	70,632	94.3%	66,606
2010-2011	1.170	14.53%	13.89%	118,841	94.5%	112,245	104,818	94.6%	99,158
2011-2012	1.275	21.57%	20.59%	186,726	94.8%	177,016	164,132	95.0%	155,926
2012-2013	1.517	34.08%	32.57%	4,517,873	95.3%	4,303,274	3,867,299	95.5%	3,693,271
2013-2014	2.276	56.06%	53.70%	10,348,491	95.3%	9,856,938	8,754,823	95.0%	8,317,082
2014-2015	3.983	74.89%	71.29%	1,642,930	94.6%	1,554,212	1,419,492	94.2%	1,337,161
2015-2016	11.949	91.63%	86.46%	4,941,457	93.5%	4,620,262	4,491,784	92.8%	4,168,376
2016-2017	119.490	99.16%	92.23%	5,750,000	92.0%	5,287,125	5,531,500	91.1%	5,039,197
2017-2018	2,389.800	99.96%	91.20%	2,826,000	90.2%	2,549,052	5,629,392	89.3%	5,027,047

Total 32,973,383 30,935,477 32,349,973 30,085,535

Discount Factor for Outstanding: 93.8% 93.0%

Authority for California Cities Excess Liability
ACCEL Pooled Layer

Confidence Level Factors

Probability	Projected Funding Factor	Outstanding Liability Factor
95	1.919	1.741
90	1.654	1.528
85	1.493	1.398
80	1.371	1.301
75	1.273	1.222
70	1.189	1.154
65	1.115	1.095
60	1.047	1.040
55	0.985	0.990
50	0.926	0.942
45	0.870	0.896
40	0.814	0.851
35	0.759	0.807
30	0.703	0.761
25	0.644	0.714

Authority for California Cities Excess Liability
ACCEL Pooled Layer

Large Losses in the Pool Layer as of 12/31/17

Member (A)	Date of Loss (B)	Fiscal Year (C)	Status (D)	Paid Losses (E)	Reported Incurred Losses (F)
Burbank	4/1/05	2004-2005	Closed	4,015,000	4,015,000
Santa Monica	9/5/07	2007-2008	Closed	584,023	584,023
Bakersfield	11/24/07	2007-2008	Closed	0	2,500,000
Ontario	3/20/08	2007-2008	Closed	515,035	515,035
Ontario	4/26/08	2007-2008	Closed	1,243,490	1,243,490
Bakersfield	7/10/08	2008-2009	Closed	1,341,307	1,341,307
Anaheim	10/28/08	2008-2009	Closed	857,009	857,009
Burbank	5/15/09	2008-2009	Closed	989,618	989,618
Anaheim	7/21/12	2012-2013	Open	0	1,800,000
Burbank	9/26/12	2012-2013	Closed	1,509,407	1,509,407
Visalia	10/26/12	2012-2013	Closed	0	2,000,000
Santa Monica	11/20/12	2012-2013	Closed	137,133	137,133
Anaheim	1/31/13	2012-2013	Closed	978,765	1,250,000
Bakersfield	9/16/13	2013-2014	Open	0	1,000,000
Santa Monica	9/24/13	2013-2014	Closed	1,966,509	2,000,000
Anaheim	10/11/13	2013-2014	Open	0	3,000,000
Bakersfield	1/28/14	2013-2014	Open	0	4,000,000
Santa Monica	4/10/14	2013-2014	Open	0	1,500,000
Anaheim	9/17/14	2014-2015	Closed	2,930,000	2,930,000
Ontario	11/6/14	2014-2015	Open	0	1,000,000
Modesto	1/12/15	2014-2015	Closed	0	100,000
Burbank	4/28/15	2014-2015	Closed	0	190,000
Anaheim	7/10/15	2015-2016	Closed	502,543	502,543
Bakersfield	8/22/15	2015-2016	Open	0	1,500,000
Mountain View	2/5/16	2015-2016	Open	0	200,000
Bakersfield	4/21/16	2015-2016	Open	0	350,000
Ontario	5/6/16	2015-2016	Open	0	1,000,000
Santa Cruz	10/16/16	2016-2017	Open	0	3,000,000

Authority for California Cities Excess Liability
ACCEL Layer

Outstanding Liability at December 31, 2017

Accident Year	Ultimate Losses (A)	12/31/17 Reported Loss (B)	12/31/17 IBNR (C)	12/31/17 Paid Loss (D)	12/31/17 Case Reserves (E)	12/31/17 Outstanding Loss (F)
1986-1987	0	0	0	0	0	0
1987-1988	500,000	500,000	0	500,000	0	0
1988-1989	0	0	0	0	0	0
1989-1990	0	0	0	0	0	0
Totals	\$500,000	\$500,000	\$0	\$500,000	\$0	\$0
1986-1987	0	0	0	0	0	0
1987-1988	724,542	724,542	0	724,542	0	0
1988-1989	0	0	0	0	0	0
1989-1990	0	0	0	0	0	0
1990-1991	0	0	0	0	0	0
1991-1992	2,501,191	2,501,191	0	2,501,191	0	0
1992-1993	10,538,558	10,538,558	0	10,538,558	0	0
1993-1994	877,168	877,168	0	877,168	0	0
1994-1995	1,439,192	1,439,192	0	1,439,192	0	0
1995-1996	912,141	912,141	0	912,141	0	0
1996-1997	2,388,970	2,388,970	0	2,388,970	0	0
1997-1998	2,083,463	2,083,463	0	2,083,463	0	0
2003-2004	3,526,085	3,526,085	0	3,526,085	0	0
2004-2005	9,967,318	9,967,318	0	9,967,318	0	0
2005-2006	4,457,753	4,457,753	0	4,457,753	0	0
2006-2007	621,098	621,098	0	621,098	0	0
2007-2008	7,351,132	7,351,132	0	4,851,132	2,500,000	2,500,000
2008-2009	3,248,000	3,187,935	60,065	3,187,935	0	60,065
2009-2010	81,000	0	81,000	0	0	81,000
2010-2011	494,000	375,159	118,841	375,159	0	118,841
2011-2012	189,000	2,274	186,726	2,274	0	186,726
2012-2013	7,084,000	6,637,362	446,638	2,566,127	4,071,235	4,517,873
2013-2014	12,315,000	11,500,000	815,000	1,966,509	9,533,491	10,348,491
2014-2015	8,644,000	8,291,070	352,930	7,001,070	1,290,000	1,642,930
2015-2016	5,444,000	3,552,543	1,891,457	502,543	3,050,000	4,941,457
2016-2017	5,750,000	3,000,000	2,750,000	0	3,000,000	5,750,000
2017-2018	2,826,000	0	2,826,000	0	0	2,826,000
Totals	\$93,463,611	\$83,934,954	\$9,528,657	\$60,490,228	\$23,444,726	\$32,973,383
Grand Totals	\$93,963,611	\$84,434,954	\$9,528,657	\$60,990,228	\$23,444,726	\$32,973,383

Notes:

- (A) From Appendix A, Page 3, Column (E).
- (B) Provided by ACCEL
- (C) (A) - (B)
- (D) Provided by ACCEL
- (F) (B) - (D)
- (F) (D) - (A)

Authority for California Cities Excess Liability
ACCEL Layer

Outstanding Liability at June 30, 2018

Accident Year	Ultimate Losses (A)	6/30/2018 Reported Loss (B)	6/30/2018 IBNR (C)	6/30/2018 Paid Loss (D)	6/30/2018 Case Reserves (E)	6/30/2018 Outstanding Loss (F)
1986-1987	0	0	0	0	0	0
1987-1988	500,000	500,000	0	500,000	0	0
1988-1989	0	0	0	0	0	0
1989-1990	0	0	0	0	0	0
Totals	\$500,000	\$500,000	\$0	\$500,000	\$0	\$0
1986-1987	0	0	0	0	0	0
1987-1988	724,542	724,542	0	724,542	0	0
1988-1989	0	0	0	0	0	0
1989-1990	0	0	0	0	0	0
1990-1991	0	0	0	0	0	0
1991-1992	2,501,191	2,501,191	0	2,501,191	0	0
1992-1993	10,538,558	10,538,558	0	10,538,558	0	0
1993-1994	877,168	877,168	0	877,168	0	0
1994-1995	1,439,192	1,439,192	0	1,439,192	0	0
1995-1996	912,141	912,141	0	912,141	0	0
1996-1997	2,388,970	2,388,970	0	2,388,970	0	0
1997-1998	2,083,463	2,083,463	0	2,083,463	0	0
2003-2004	3,526,085	3,526,085	0	3,526,085	0	0
2004-2005	9,967,318	9,967,318	0	9,967,318	0	0
2005-2006	4,457,753	4,457,753	0	4,457,753	0	0
2006-2007	621,098	621,098	0	621,098	0	0
2007-2008	7,351,132	7,351,132	0	5,091,132	2,260,000	2,260,000
2008-2009	3,248,000	3,191,899	56,101	3,191,899	0	56,101
2009-2010	81,000	11,907	69,093	10,368	1,539	70,632
2010-2011	494,000	394,530	99,470	389,182	5,348	104,818
2011-2012	189,000	24,868	164,132	24,868	0	164,132
2012-2013	7,084,000	6,760,634	323,366	3,216,701	3,543,933	3,867,299
2013-2014	12,315,000	11,724,940	590,060	3,560,177	8,164,763	8,754,823
2014-2015	8,644,000	8,395,537	248,463	7,224,508	1,171,029	1,419,492
2015-2016	5,444,000	3,904,354	1,539,646	952,216	2,952,138	4,491,784
2016-2017	5,750,000	3,332,750	2,417,250	218,500	3,114,250	5,531,500
2017-2018	5,652,000	101,736	5,550,264	22,608	79,128	5,629,392
Totals	\$96,289,611	\$85,231,766	\$11,057,844	\$63,939,638	\$21,292,129	\$32,349,973
Grand Totals	\$96,789,611	\$85,731,766	\$11,057,844	\$64,439,638	\$21,292,129	\$32,349,973

Notes:

- (A) From Appendix A, Page 3, Column (E).
- (B) Projected based on Appendix A, Page 4, Column (B).
- (C) (A) - (B)
- (D) Projected based on Appendix A, Page 5, Column (B).
- (F) (B) - (D)
- (F) (D) - (A)

Authority for California Cities Excess Liability
ACCEL Layer

Estimated Ultimate Losses

Accident Year	Reported Loss Development Method (A)	Paid Loss Development Method (B)	Expected Loss Method (C)	Prior Estimate of Ultimate Losses (D)	Selected Estimate of Ultimate Losses (E)
1986-1987	0	0		0	0
1987-1988	500,000	500,000		500,000	500,000
1988-1989	0	0		0	0
1989-1990	0	0		0	0
Totals	\$500,000	\$500,000		\$500,000	\$500,000
1986-1987	0	0		0	0
1987-1988	724,542	724,542		724,542	724,542
1988-1989	0	0		0	0
1989-1990	0	0		0	0
1990-1991	0	0		0	0
1991-1992	2,501,191	2,503,692		2,503,000	2,501,191
1992-1993	10,538,558	10,549,097		10,544,000	10,538,558
1993-1994	877,168	878,045		878,000	877,168
1994-1995	1,439,192	1,440,631		1,440,000	1,439,192
1995-1996	912,141	913,053		913,000	912,141
1996-1997	2,388,970	2,391,359		2,390,000	2,388,970
1997-1998	2,083,463	2,087,630		2,087,000	2,083,463
2003-2004	3,557,804	3,589,492	3,536,000	3,561,000	3,526,085
2004-2005	10,066,991	10,166,664	9,988,000	8,963,000	9,967,318
2005-2006	4,506,788	4,591,486	4,488,000	4,500,000	4,457,753
2006-2007	628,551	645,942	658,000	672,000	621,098
2007-2008	7,446,697	5,093,689	7,393,000	5,251,000	7,351,132
2008-2009	3,235,754	3,449,346	3,242,000	3,254,000	3,248,000
2009-2010	0	0	73,000	423,000	81,000
2010-2011	386,414	438,936	488,000	938,000	494,000
2011-2012	2,365	2,899	157,000	1,212,000	189,000
2012-2013	7,247,999	3,892,815	6,986,000	2,859,000	7,084,000
2013-2014	14,133,500	4,475,774	12,315,000	1,861,000	12,315,000
2014-2015	15,288,733	27,885,262	10,447,000	7,261,000	8,644,000
2015-2016	13,101,779	6,004,887	7,257,000	4,538,000	5,444,000
2016-2017	77,448,000	0	7,087,000	3,946,000	5,750,000
2017-2018	0	0	5,652,000		5,652,000
Totals	\$178,516,600	\$91,725,241	\$79,767,000	\$70,718,542	\$96,289,611
Grand Totals	\$179,016,600	\$92,225,241		\$71,218,542	\$96,789,611

Notes:

- (A) From Appendix A, Page 4, Column (C).
- (B) From Appendix A, Page 5, Column (C).
- (C) From Appendix A, Page 6, Column (K).
- (D) From prior actuarial study.
- (E) Selected based on (A) through (D).

Authority for California Cities Excess Liability
ACCEL Layer

Reported Loss Development

Accident Year	Reported Losses as of 12/31/17 (A)	Reported Loss Development Factor (B)	Estimated Ultimate Losses (C)
1986-1987	0	1.000	0
1987-1988	500,000	1.000	500,000
1988-1989	0	1.000	0
1989-1990	0	1.000	0
Totals	\$500,000		\$500,000
1986-1987	0	1.000	0
1987-1988	724,542	1.000	724,542
1988-1989	0	1.000	0
1989-1990	0	1.000	0
1990-1991	0	1.000	0
1991-1992	2,501,191	1.000	2,501,191
1992-1993	10,538,558	1.000	10,538,558
1993-1994	877,168	1.000	877,168
1994-1995	1,439,192	1.000	1,439,192
1995-1996	912,141	1.000	912,141
1996-1997	2,388,970	1.000	2,388,970
1997-1998	2,083,463	1.000	2,083,463
2003-2004	3,526,085	1.009	3,557,804
2004-2005	9,967,318	1.010	10,066,991
2005-2006	4,457,753	1.011	4,506,788
2006-2007	621,098	1.012	628,551
2007-2008	7,351,132	1.013	7,446,697
2008-2009	3,187,935	1.015	3,235,754
2009-2010	0	1.020	0
2010-2011	375,159	1.030	386,414
2011-2012	2,274	1.040	2,365
2012-2013	6,637,362	1.092	7,247,999
2013-2014	11,500,000	1.229	14,133,500
2014-2015	8,291,070	1.844	15,288,733
2015-2016	3,552,543	3.688	13,101,779
2016-2017	3,000,000	25.816	77,448,000
2017-2018	0	516.320	0
Totals	\$83,934,954		\$178,516,600
Grand Totals	\$84,434,954		\$179,016,600

Notes:

- (A) Provided by ACCEL
- (B) (C) from Appendix B, Page 3.
- (C) (A) x (B).

Authority for California Cities Excess Liability
ACCEL Layer

Paid Loss Development

Accident Year	Paid Losses as of 12/31/17 (A)	Paid Loss Development Factor (B)	Estimated Ultimate Losses (C)
1986-1987	0	1.000	0
1987-1988	500,000	1.000	500,000
1988-1989	0	1.000	0
1989-1990	0	1.000	0
Totals	\$500,000		\$500,000
1986-1987	0	1.000	0
1987-1988	724,542	1.000	724,542
1988-1989	0	1.000	0
1989-1990	0	1.000	0
1990-1991	0	1.000	0
1991-1992	2,501,191	1.001	2,503,692
1992-1993	10,538,558	1.001	10,549,097
1993-1994	877,168	1.001	878,045
1994-1995	1,439,192	1.001	1,440,631
1995-1996	912,141	1.001	913,053
1996-1997	2,388,970	1.001	2,391,359
1997-1998	2,083,463	1.002	2,087,630
2003-2004	3,526,085	1.018	3,589,492
2004-2005	9,967,318	1.020	10,166,664
2005-2006	4,457,753	1.030	4,591,486
2006-2007	621,098	1.040	645,942
2007-2008	4,851,132	1.050	5,093,689
2008-2009	3,187,935	1.082	3,449,346
2009-2010	0	1.114	0
2010-2011	375,159	1.170	438,936
2011-2012	2,274	1.275	2,899
2012-2013	2,566,127	1.517	3,892,815
2013-2014	1,966,509	2.276	4,475,774
2014-2015	7,001,070	3.983	27,885,262
2015-2016	502,543	11.949	6,004,887
2016-2017	0	119.490	0
2017-2018	0	2,389.800	0
Totals	\$60,490,228		\$91,725,241
Grand Totals	\$60,990,228		\$92,225,241

Notes:

- (A) Provided by ACCEL
- (B) (C) from Appendix B, Page 4.
- (C) (A) x (B).

Authority for California Cities Excess Liability
ACCEL Layer

Expected Loss Methods

Program Year	Program Year 2018-2019 \$100K-\$1M Base Rate (A)	Trend Factor Program Year (B)	Program Year \$100K-\$1M Base Rate (C)	Factor to Self-Insured Layer (D)	Program Year Self-Insured Expected Rate (E)	Program Year Payroll (F)	Program Year Preliminary Ultimate Losses (G)	Percent of Ultimate Losses Not Reported (H)	Estimated Program Year IBNR at 12/31/17 (I)	Program Year Reported Losses at 12/31/17 (J)	Program Year Estimated Ultimate Losses (K)
2003-2004	\$1.030	0.555	0.572	0.232	0.133	\$8,308,977	\$1,102,000	0.9%	\$9,825	\$3,526,085	\$3,536,000
2004-2005	1.030	0.577	0.595	0.367	0.218	9,374,402	2,046,000	1.0%	20,257	9,967,318	9,988,000
2005-2006	1.030	0.601	0.619	0.463	0.286	9,850,045	2,821,000	1.1%	30,693	4,457,753	4,488,000
2006-2007	1.030	0.625	0.643	0.463	0.298	10,305,894	3,070,000	1.2%	36,403	621,098	658,000
2007-2008	1.030	0.650	0.669	0.463	0.310	10,609,082	3,286,000	1.3%	42,170	7,351,132	7,393,000
2008-2009	1.030	0.676	0.696	0.463	0.322	11,307,152	3,643,000	1.5%	53,837	3,187,935	3,242,000
2009-2010	1.030	0.703	0.724	0.463	0.335	11,075,957	3,711,000	2.0%	72,765	0	73,000
2010-2011	1.030	0.731	0.753	0.463	0.348	11,097,108	3,867,000	2.9%	112,631	375,159	488,000
2011-2012	1.030	0.760	0.783	0.463	0.362	11,095,468	4,021,000	3.8%	154,654	2,274	157,000
2012-2013	1.030	0.790	0.814	0.463	0.377	10,966,401	4,133,000	8.4%	348,201	6,637,362	6,986,000
2013-2014	1.030	0.822	0.847	0.463	0.392	11,164,240	4,376,000	18.6%	815,382	11,500,000	12,315,000
2014-2015	1.030	0.855	0.880	0.463	0.408	11,556,443	4,711,000	45.8%	2,156,228	8,291,070	10,447,000
2015-2016	1.030	0.889	0.916	0.463	0.424	11,986,752	5,082,000	72.9%	3,704,017	3,552,543	7,257,000
2016-2017	1.030	0.925	0.952	0.367	0.349	12,166,570	4,252,000	96.1%	4,087,296	3,000,000	7,087,000
2017-2018	1.030	0.962	0.990	0.463	0.459	12,349,080	5,663,000	99.8%	5,652,032	0	5,652,000

Authority for California Cities Excess Liability
ACCEL Layer

Expected Loss Rates

Accident Year	Exposure	Ultimate Loss	On-Level Losses	Loss Rate	Loss Rate Trend	Trended Loss Rate
1986-1987	1,008,086	0	0	0.000	2.279	0.000
1987-1988	998,109	500,000	500,000	0.501	2.191	1.098
1988-1989	1,146,083	0	0	0.000	2.107	0.000
1989-1990	1,208,157	0	0	0.000	2.026	0.000
Totals	\$4,360,436	\$500,000	\$500,000	0.115		0.275
1986-1987	3,105,940	0	0	0.000	3.950	0.000
1987-1988	3,670,691	724,542	724,542	0.197	3.798	0.748
1988-1989	4,030,134	0	0	0.000	3.652	0.000
1989-1990	4,399,059	0	0	0.000	3.512	0.000
1990-1991	4,875,491	0	0	0.000	3.377	0.000
1991-1992	5,277,443	2,501,191	2,501,191	0.474	3.247	1.539
1992-1993	5,310,299	10,538,558	10,538,558	1.985	3.122	6.197
1993-1994	5,635,666	877,168	877,168	0.156	3.002	0.468
1994-1995	6,004,411	1,439,192	1,439,192	0.240	2.887	0.693
1995-1996	6,102,690	912,141	912,141	0.149	2.776	0.414
1996-1997	6,502,472	2,388,970	2,388,970	0.367	2.669	0.980
1997-1998	6,972,985	2,083,463	2,083,463	0.299	2.566	0.767
2003-2004	9,103,267	3,526,085	3,526,085	0.387	1.803	0.698
2004-2005	9,374,402	9,967,318	9,967,318	1.063	1.734	1.843
2005-2006	9,850,045	4,457,753	4,457,753	0.453	1.667	0.755
2006-2007	10,305,894	621,098	621,098	0.060	1.603	0.096
2007-2008	10,609,082	7,351,132	7,351,132	0.693	1.541	1.068
2008-2009	11,307,152	3,248,000	3,248,000	0.287	1.482	0.425
2009-2010	11,075,957	81,000	81,000	0.007	1.425	0.010
2010-2011	11,097,108	494,000	494,000	0.045	1.370	0.062
2011-2012	11,095,468	189,000	189,000	0.017	1.317	0.022
2012-2013	10,966,401	7,084,000	7,084,000	0.646	1.266	0.818
2013-2014	11,164,240	12,315,000	12,315,000	1.103	1.217	1.342
2014-2015	11,556,443	8,644,000	8,644,000	0.748	1.170	0.875
2015-2016	11,986,752	5,444,000	5,444,000	0.454	1.125	0.511
2016-2017	12,166,570	5,750,000	5,750,000	0.473	1.082	0.512
2017-2018	12,349,080	5,652,000	5,652,000	0.458	1.040	0.476
Totals	\$225,895,142	\$96,289,611	\$96,289,611	0.426		0.790
86/87-97/98	61,887,280	21,465,225	21,465,225	0.347		0.984
				Selected Trend:	1.040	

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Estimated Loss Rates for the \$100,000 - \$1,000,000 Layer

Accident Year	Estimated Ultimate \$100K - \$1M Losses (C)	Payroll (\$00's) (D)	Loss Trend Factor (E)	Loss Rate at 2017-2018 Level (F)
2008-2009	8,047,000	13,250,743	1.423	0.864
2009-2010	5,544,000	13,783,418	1.369	0.551
2010-2011	3,936,000	13,169,313	1.316	0.393
2011-2012	6,182,000	12,872,645	1.265	0.608
2012-2013	8,935,000	12,560,070	1.217	0.866
2013-2014	14,481,000	12,106,907	1.170	1.399
2014-2015	14,606,000	12,023,886	1.125	1.367
2015-2016	15,391,000	12,145,822	1.082	1.371
2016-2017	15,625,000	12,286,421	1.040	1.323
Average 2008-09 - 2016-17:				0.971
Average 2010-11 - 2016-17:				0.936
Average 2012-13 - 2015-16:				1.047
Prior 2016-2017 Rate :				0.890
Selected 2017-2018 Rate :				0.990
Trend Factor to 2018-2019 :				1.040
Selected 2018-2019 Rate :				\$1.030

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Estimated Ultimate Losses for the \$100,000 to \$1,000,000 Layer

Accident Year	Reported Loss Development Method (A)	Paid Loss Development Method (B)	Exposure Method Based on Reported Losses (C)	Exposure Method Based on Paid Losses (D)	Frequency-Severity Method (E)	Selected Ultimate Limited Losses (F)
2007-2008						
2008-2009	8,046,856	7,354,796	8,048,585	7,392,513	8,047,011	8,047,000
2009-2010	5,544,406	3,972,943	5,546,511	4,095,113	5,544,000	5,544,000
2010-2011	3,936,114	3,927,032	3,935,661	3,928,609	3,936,010	3,936,000
2011-2012	6,221,279	6,142,480	6,216,796	6,147,902	6,181,989	6,182,000
2012-2013	8,887,327	9,470,611	8,983,670	9,629,904	7,780,662	8,935,000
2013-2014	16,989,321	13,878,937	15,699,515	12,045,342	12,731,310	14,481,000
2014-2015	19,032,284	22,603,268	16,380,638	14,606,055	14,317,766	14,606,000
2015-2016	25,847,364	36,837,364	18,881,133	15,390,567	14,500,000	15,391,000
2016-2017	43,719,701	250,040,237	18,670,894	15,624,968	12,864,100	15,625,000
Totals						\$92,747,000

Notes:

- (A) From Appendix B, Page 3, Column (D).
- (B) From Appendix B, Page 4, Column (D).
- (C) Based on results in Appendix B, Page 5.
- (D) Based on results in Appendix B, Page 6.
- (E) Based on results in Appendix B, Page 8.
- (F) Selected averages of (A), (B), (C), (D), and (E).

This exhibit summarizes the results of the actuarial methods we have applied to estimate limited losses for each year. These results are used to select a limited loss rate for future years.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Reported Loss Development

Accident Year (A)	\$100K - \$1M Reported Losses as of 12/31/17 (B)	Reported Loss Development Factor (C)	Ultimate \$100K - \$1M Losses (D)	\$100K - \$1M Reported Losses of 12/31/17 (E)	Reported Loss Development Factor (F)	Ultimate \$100K - \$1M Losses (G)
2007-2008	\$0	1.013	\$0	\$0	1.013	\$0
2008-2009	7,927,937	1.015	8,046,856	7,927,937	1.015	8,046,856
2009-2010	5,435,692	1.020	5,544,406	5,435,692	1.020	5,544,406
2010-2011	3,821,470	1.030	3,936,114	3,821,470	1.030	3,936,114
2011-2012	5,981,999	1.040	6,221,279	5,981,999	1.040	6,221,279
2012-2013	8,138,578	1.092	8,887,327	8,138,578	1.092	8,887,327
2013-2014	13,823,695	1.229	16,989,321	13,823,695	1.229	16,989,321
2014-2015	13,180,252	1.444	19,032,284	13,180,252	1.444	19,032,284
2015-2016	13,770,572	1.877	25,847,364	13,770,572	1.877	25,847,364
2016-2017	9,704,706	4.505	43,719,701	9,704,706	4.505	43,719,701
Totals	\$81,784,901		\$138,224,652	\$81,784,901		\$138,224,652

Notes:

- (A) Years are 7/1 to 6/30.
- (B) Provided by the Authority. These losses exclude amount over the SIR.
- (C) Based upon Industry Loss Development Factors.
- (D) (B) x (C). These estimated losses exclude amount over the SIR.
- (E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
- (F) Based upon Industry Loss Development Factors.
- (G) (E) x (F).

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses and case reserves as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Paid Loss Development

Accident Year (A)	\$100K - \$1M Paid Losses as of 12/31/17 (B)	Paid Loss Development Factor (C)	Ultimate \$100K - \$1M Losses (D)	\$100K - \$1M Paid Losses of 12/31/17 (E)	Paid Loss Development Factor (F)	Ultimate \$100K - \$1M Losses (G)
2007-2008	\$0	1.036	\$0	\$0	1.036	\$0
2008-2009	6,958,180	1.057	7,354,796	6,958,180	1.057	7,354,796
2009-2010	3,668,461	1.083	3,972,943	3,668,461	1.083	3,972,943
2010-2011	3,487,595	1.126	3,927,032	3,487,595	1.126	3,927,032
2011-2012	5,097,494	1.205	6,142,480	5,097,494	1.205	6,142,480
2012-2013	6,833,053	1.386	9,470,611	6,833,053	1.386	9,470,611
2013-2014	7,154,091	1.940	13,878,937	7,154,091	1.940	13,878,937
2014-2015	7,767,446	2.910	22,603,268	7,767,446	2.910	22,603,268
2015-2016	6,329,444	5.820	36,837,364	6,329,444	5.820	36,837,364
2016-2017	4,296,224	58.200	250,040,237	4,296,224	58.200	250,040,237
Totals	\$51,591,988		\$354,227,668	\$51,591,988		\$354,227,668

Notes:

- (A) Years are 7/1 to 6/30.
- (B) Provided by the Authority. These losses exclude amount over the SIR.
- (C) Based upon Industry Loss Development Factors.
- (D) (B) x (C). These estimated losses exclude amount over the SIR.
- (E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
- (F) Based upon Industry Loss Development Factors.
- (G) (E) x (F).

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Exposure and Development Method
Based on Reported Losses

Accident Year	Composite Exposure (A)	Reported Losses as of 12/31/17 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Reported (D)	Program Rate (E)	Incurred but not Reported (IBNR) (F)	Ultimate Program Losses (G)
2007-2008	0		1.013	0.013	\$0.659	\$0	
2008-2009	13,250,743	7,927,937	1.015	0.015	0.607	120,648	8,048,585
2009-2010	13,783,418	5,435,692	1.020	0.020	0.402	110,819	5,546,511
2010-2011	13,169,313	3,821,470	1.030	0.029	0.299	114,191	3,935,661
2011-2012	12,872,645	5,981,999	1.040	0.038	0.480	234,797	6,216,796
2012-2013	12,560,070	8,138,578	1.092	0.084	0.801	845,092	8,983,670
2013-2014	12,106,907	13,823,695	1.229	0.186	0.833	1,875,820	15,699,515
2014-2015	12,023,886	13,180,252	1.444	0.307	0.867	3,200,386	16,380,638
2015-2016	12,145,822	13,770,572	1.877	0.467	0.901	5,110,561	18,881,133
2016-2017	12,286,421	9,704,706	4.505	0.778	0.938	8,966,188	18,670,894
Totals	\$114,199,225	\$81,784,901				\$20,578,502	\$102,363,403

Notes:

- (A) Provided by the Authority.
- (B) Provided by the Authority. These losses exclude amounts incurred above the Authority's SIR for each year.
- (C) From Appendix B, Page 3, Column (F).
- (D) $1 - 1/(C)$.
- (E) From Appendix B, Page 7, Column (H).
- (F) $(A) \times (D) \times (E)$.
- (G) $(B) + (F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unreported will cost what this relationship would suggest.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Exposure and Development Method
Based on Paid Losses

Accident Year	Composite Exposure (A)	Paid Losses as of 12/31/17 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Paid (D)	Program Rate (E)	Incurred but not Paid (F)	Ultimate Program Losses (G)
2006-2007	0		1.028	0.027	\$0.634	\$0	
2007-2008	0		1.036	0.035	0.659	0	
2008-2009	13,250,743	6,958,180	1.057	0.054	0.607	434,333	7,392,513
2009-2010	13,783,418	3,668,461	1.083	0.077	0.402	426,652	4,095,113
2010-2011	13,169,313	3,487,595	1.126	0.112	0.299	441,014	3,928,609
2011-2012	12,872,645	5,097,494	1.205	0.170	0.480	1,050,408	6,147,902
2012-2013	12,560,070	6,833,053	1.386	0.278	0.801	2,796,851	9,629,904
2013-2014	12,106,907	7,154,091	1.940	0.485	0.833	4,891,251	12,045,342
2014-2015	12,023,886	7,767,446	2.910	0.656	0.867	6,838,609	14,606,055
2015-2016	12,145,822	6,329,444	5.820	0.828	0.901	9,061,123	15,390,567
2016-2017	12,286,421	4,296,224	58.200	0.983	0.938	11,328,744	15,624,968
Totals	\$114,199,225	\$51,591,988				\$37,268,985	\$88,860,973

Notes:

- (A) Provided by the Authority.
- (B) Provided by the Authority. These losses exclude amounts paid above the Authority's SIR for each year.
- (C) From Appendix B, Page 4, Column (F).
- (D) $1 - 1/(C)$.
- (E) From Appendix B, Page 7, Column (H).
- (F) $(A) \times (D) \times (E)$.
- (G) $(B) + (F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unreported will cost what this relationship would suggest.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Exposure and Development Method

Accident Year	Composite Exposure (A)	Ultimate \$100K - \$1M Losses (B)	Trend Factor (C)	Trended \$100K - \$1M Losses (D)	Trended \$100K - \$1M Loss Rate (E)	Trended \$100K - \$1M Loss Rate (F)	Factor to SIR (G)	Program Loss Rate (H)
2006-2007	0		1.539			\$0.634	1.000	\$0.634
2007-2008	0		1.480			0.659	1.000	0.659
2008-2009	13,250,743	8,047,000	1.423	11,450,881	0.864	0.607	1.000	0.607
2009-2010	13,783,418	5,544,000	1.369	7,589,736	0.551	0.402	1.000	0.402
2010-2011	13,169,313	3,936,000	1.316	5,179,776	0.393	0.299	1.000	0.299
2011-2012	12,872,645	6,182,000	1.265	7,820,230	0.608	0.480	1.000	0.480
2012-2013	12,560,070	8,887,000	1.217	10,815,479	0.861	0.801	1.000	0.801
2013-2014	12,106,907	16,989,000	1.170	19,877,130	1.642	0.833	1.000	0.833
2014-2015	12,023,886	21,711,000	1.125	24,424,875	2.031	0.867	1.000	0.867
2015-2016	12,145,822	31,614,000	1.082	34,206,348	2.816	0.901	1.000	0.901
2016-2017	12,286,421	31,614,000	1.040	32,878,560	2.676	0.938	1.000	0.938
Total/Avg	\$114,199,225	\$134,524,000		\$154,243,015	\$1.351			
08/09-14/15	89,766,982	71,296,000		87,158,107	\$0.971			

Selected \$100K - \$1M Rate: \$0.975
Prior: \$0.875

Notes:

- (A) Provided by the Authority.
- (B) Selected average of results from Appendices B and B.
- (C) From Appendix E, Column (B).
- (D) (B) x (C).
- (E) (D) / (A).
- (F) Selected \$100K - \$1M Rate / (C). For 2011-2012 and prior (B) / (A).
- (G) Based on a Burr distribution, a mathematical model of claim sizes.
- (H) (F) x (G).

This exhibit shows the calculation of the underlying historical relationship between losses and exposure that is needed to apply the estimation methods shown on pages 1 and 2 of this Appendix.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M An:

Frequency and Severity Method

Accident Year	Ultimate Program Severity (A)	Ultimate Claims (B)	Ultimate Program Losses (C)
2007-2008	\$197,761	0	\$0
2008-2009	259,581	31	8,047,011
2009-2010	168,000	33	5,544,000
2010-2011	151,385	26	3,936,010
2011-2012	187,333	33	6,181,989
2012-2013	228,843	34	7,780,662
2013-2014	235,765	54	12,731,310
2014-2015	242,674	59	14,317,766
2015-2016	250,000	58	14,500,000
2016-2017	257,282	50	12,864,100
Total		378	\$85,902,848

Notes:

- (A) From Appendix B, Page 9, Column (H).
- (B) From Appendix B, Page 9, Column (B).
- (C) (A) x (B).

This exhibit shows the calculation of the estimated ultimate losses for each year based on the observed average frequency and severity of claims.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Frequency and Severity Method

Accident Year	Ultimate	Ultimate Claims (B)	Ultimate	Trend Factor (D)	Trended		Factor to SIR (G)	Program Severity (H)
	\$100K - \$1M Losses (A)		\$100K - \$1M Severity (C)		\$100K - \$1M Severity (E)	\$100K - \$1M Severity (F)		
2007-2008				1.340		\$197,761	1.000	\$197,761
2008-2009	8,047,000	31	259,581	1.301	337,715	259,581	1.000	259,581
2009-2010	5,544,000	33	168,000	1.264	212,352	168,000	1.000	168,000
2010-2011	3,936,000	26	151,385	1.227	185,749	151,385	1.000	151,385
2011-2012	6,182,000	33	187,333	1.192	223,301	187,333	1.000	187,333
2012-2013	8,935,000	34	262,794	1.158	304,315	228,843	1.000	228,843
2013-2014	14,481,000	54	268,167	1.124	301,420	235,765	1.000	235,765
2014-2015	14,606,000	59	247,559	1.092	270,334	242,674	1.000	242,674
2015-2016	15,391,000	58	265,362	1.060	281,284	250,000	1.000	250,000
2016-2017	15,625,000	50	312,500	1.030	321,875	257,282	1.000	257,282

Average \$100K - \$1M Severity: \$270,927
Average 08/09-14/15 \$100K - \$1M Severity: \$262,169
Average 08/09-15/16 \$100K - \$1M Severity: \$264,559

Selected \$100K - \$1M Severity: \$265,000
Prior: \$260,000

Notes:

- (A) Selected average of results from Appendices B, B, and B.
- (B) Appendix B, Page 10, Column (C).
- (C) (A) / (B).
- (D) From Appendix E, Column (J).
- (E) (C) x (D).
- (F) Selected Limited Severity / (D).
- (G) Based on a Burr distribution, a mathematical model of claim sizes.
- (H) (F) x (G).

This exhibit shows the calculation of the historical average cost per claim, or severity. The observed average severity is used in the method shown on page 1 of this Appendix.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Frequency and Severity Method
Projection of Ultimate Claims

Accident Year	Reported Claim Development (A)	Closed Claim Development (B)	Selected Ultimate Claims (C)	Composite Exposure (10,000s) (D)	Claim Frequency (E)	Trend Factor (F)	Trended Claim Frequency (G)
2007-2008	0	0	0			1.105	
2008-2009	31	31	31	1,325.074	0.023	1.094	0.025
2009-2010	33	33	33	1,378.342	0.024	1.083	0.026
2010-2011	26	29	26	1,316.931	0.020	1.072	0.021
2011-2012	33	35	33	1,287.265	0.026	1.062	0.028
2012-2013	34	38	34	1,256.007	0.027	1.051	0.028
2013-2014	54	64	54	1,210.691	0.045	1.041	0.047
2014-2015	59	71	59	1,202.389	0.049	1.030	0.050
2015-2016	58	57	58	1,214.582	0.048	1.020	0.049
2016-2017	84	32	50	1,228.642	0.041	1.010	0.041
Total	412	390	378	11,419.923			0.035

(H) Selected 2017-2018 Frequency: 0.045

Program Year:	2017-2018	2018-2019
(I) Trend Factor:	1.000	1.010
(J) Selected Frequency:	0.045	0.045
(K) Composite Exposure:	1,216.657	1,234.908
(L) Ultimate Claims:	55	56

Notes:

- (A) From Appendix B, Page 11, (C).
- (B) From Appendix B, Page 12, (C).
- (C) Selected from (A) and (B).
- (D) From Appendix N, Page 2, (G).
- (E) (C) / (D).
- (F) From Appendix E.
- (G) (E) x (F).
- (H) The selected frequency of .045 is based on (G).
- (I) From Appendix E.
- (J) (H) x (I).
- (K) From Appendix N, Page 2, (G).
- (L) (J) x (K).

This exhibit summarizes the estimated numbers of claims and shows the estimated frequencies per 10,000 units of composite exposure, Appendix E, page2, Item (G).

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Frequency and Severity Method
Reported Claim Count Development

Accident Year	Claims Reported as of 12/31/2017 (A)	Reported Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
2007-2008	0	1.017	0	
2008-2009	30	1.022	31	0.026
2009-2010	32	1.032	33	0.026
2010-2011	25	1.042	26	0.021
2011-2012	31	1.052	33	0.027
2012-2013	32	1.063	34	0.028
2013-2014	50	1.074	54	0.046
2014-2015	52	1.128	59	0.051
2015-2016	47	1.241	58	0.049
2016-2017	34	2.482	84	0.069
Total	333		412	0.038

Notes:

- (A) Provided by the Authority.
- (B) From Appendix B, Page 15.
- (C) (A) x (B).
- (D) (C) / [Appendix B, Page 10, (D)] x [Appendix B, Page 10, (F)].

This exhibit shows the calculation of estimated ultimate claims for each year based on reported claims as provided by the Authority. These numbers of claims tend to "develop" or change from period to period as more claims are filed. This development tends to follow quantifiable patterns over time.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Frequency and Severity Method
Closed Claim Count Development

Accident Year	Claims Closed as of 12/31/2017 (A)	Closed Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
2007-2008	0	1.061	0	
2008-2009	29	1.082	31	0.026
2009-2010	30	1.109	33	0.026
2010-2011	25	1.164	29	0.024
2011-2012	29	1.222	35	0.029
2012-2013	28	1.344	38	0.032
2013-2014	38	1.680	64	0.055
2014-2015	28	2.520	71	0.061
2015-2016	9	6.300	57	0.048
2016-2017	1	31.500	32	0.026
Total	217		390	0.036

Notes:

- (A) Provided by the Authority.
- (B) From Appendix B, Page 16.
- (C) (A) x (B).
- (D) (C) / [Appendix B, Page 10, (D)] x [Appendix B, Page 10, (F)].

This exhibit shows the calculation of estimated ultimate claims for each year based on closed claims as provided by the Authority. These numbers of closed claims tend to "develop" or change from period to period as more claims are closed. This development tends to follow quantifiable patterns over time.

Authority for California Cities Excess Liability - Liability (\$100K - \$1M Analysis)

Loss Rate Trend

Accident Year	Payroll	Preliminary Ultimate Loss	Untrended Loss Rate	Trended Loss Rate
2008-2009	13,250,743	8,047,000	0.607	0.864
2009-2010	13,783,418	5,544,000	0.402	0.550
2010-2011	13,169,313	3,936,000	0.299	0.393
2011-2012	12,872,645	6,182,000	0.480	0.608
2012-2013	12,560,070	9,027,000	0.719	0.874
2013-2014	12,106,907	14,973,000	1.237	1.447
2014-2015	12,023,886	15,458,000	1.286	1.446
2015-2016	12,145,822	16,135,000	1.328	1.437
2016-2017	12,286,421	16,072,000	1.308	1.360

Exponential Trends

Years	R-square	Fitted Trend
08/09-14/15	0.569	1.212
12/13-16/17	0.584	1.135
10/11-16/17	0.828	1.286
08/09-16/17	0.694	1.192
	Prior Trend:	1.040
	Selected Trend:	1.040

Authority for California Cities Excess Liability

Historical Payroll by Member

Member	1987-88 Payroll (00)	1988-89 Payroll (00)	1989-90 Payroll (00)	1990-91 Payroll (00)	1991-92 Payroll (00)	1992-93 Payroll (00)	1993-94 Payroll (00)	1994-95 Payroll (00)	1995-96 Payroll (00)	1996-97 Payroll (00)	1997-98 Payroll (00)
Anaheim	863,430	945,634	887,693	997,604	1,032,792	1,017,556	1,106,327	1,138,132	1,159,649	1,186,315	1,183,599
Bakersfield	363,542	385,888	427,532	456,470	479,556	490,078	463,172	544,562	558,232	592,428	626,800
Burbank	403,276	435,541	517,034	546,240	570,952	606,092	612,781	633,112	651,359	628,837	665,202
Gardena	126,061	150,116	155,950	167,690	183,626	0	0	0	0	0	0
Modesto	296,655	340,582	340,582	403,120	486,797	492,189	479,750	496,562	535,022	533,981	596,710
Monterey	0	0	150,186	167,555	177,538	176,550	181,500	206,054	212,611	225,039	235,554
Mountain View	0	0	0	0	0	310,326	292,142	307,338	325,808	341,322	360,295
Ontario	280,023	325,401	368,037	425,392	459,269	440,000	517,000	518,010	524,206	574,396	582,744
Palo Alto	385,839	409,895	441,571	469,616	500,629	526,146	552,171	606,885	575,477	607,900	677,305
Santa Barbara	300,236	342,392	355,513	393,889	438,230	421,442	464,065	494,001	496,728	525,742	562,649
Santa Cruz	0	0	0	0	0	0	0	0	0	164,906	327,837
Santa Monica	530,434	556,978	610,936	682,891	758,378	657,800	770,000	856,975	863,634	912,836	943,294
Visalia	121,195	137,709	144,025	165,025	189,676	172,119	196,757	202,780	199,965	208,770	210,996
Total	3,670,691	4,030,134	4,399,059	4,875,491	5,277,443	5,310,299	5,635,666	6,004,411	6,102,690	6,502,472	6,972,985
Member	1998-99 Payroll (00)	1999-00 Payroll (00)	2000-01 Payroll (00)	2001-02 Payroll (00)	2002-03 Payroll (00)	2003-04 Payroll (00)	2004-05 Payroll (00)	2005-06 Payroll (00)	2006-07 Payroll (00)	2007-08 Payroll (00)	2008-09 Payroll (00)
Anaheim	1,221,632	1,347,535	1,393,423	1,497,038	1,571,861	1,686,921	1,702,110	1,874,760	1,933,055	1,936,850	2,133,195
Bakersfield	656,309	672,981	679,346	710,898	746,845	769,039	775,782	828,105	889,657	928,430	916,017
Burbank	0	0	0	0	0	0	963,640	961,084	1,080,588	1,021,641	1,190,705
Gardena	0	0	0	0	0	0	0	0	0	0	0
Modesto	599,204	621,472	656,651	711,909	761,554	745,169	757,072	777,859	808,720	836,950	811,447
Monterey	246,524	262,721	284,379	307,684	320,894	313,632	313,439	315,127	303,985	340,838	362,102
Mountain View	409,155	408,020	434,816	470,177	517,208	479,749	474,925	505,565	558,760	579,550	628,761
Ontario	589,308	605,886	637,469	683,592	692,474	710,686	732,721	783,778	808,309	827,467	855,991
Palo Alto	722,355	727,013	771,366	875,829	907,965	976,695	964,635	910,388	920,271	964,648	980,859
Santa Barbara	587,051	644,650	658,205	688,383	715,412	731,380	739,835	827,558	767,235	826,778	882,947
Santa Cruz	330,666	368,019	383,500	421,614	414,665	404,596	405,476	415,167	494,206	483,045	537,520
Santa Monica	997,024	1,028,662	1,156,953	1,234,923	1,274,089	1,221,506	1,263,241	1,350,510	1,445,204	1,539,768	1,662,386
Visalia	218,084	237,134	256,559	257,861	290,675	269,603	281,525	300,145	295,903	323,116	345,222
Total	6,577,313	6,924,094	7,312,668	7,859,909	8,213,644	8,308,977	9,374,402	9,850,045	10,305,894	10,609,082	11,307,152
Member	2009-10 Payroll (00)	2010-11 Payroll (00)	2011-12 Payroll (00)	2012-13 Payroll (00)	2013-14 Payroll (00)	2014-15 Payroll (00)	2015-16 Payroll (00)	Projected 2016-17 Payroll (00)	Projected 2017-18 Payroll (00)	Projected 2018-19 Payroll (00)	
Anaheim	2,081,250	2,049,763	1,963,200	1,975,427	2,031,900	2,106,346	2,269,090	2,303,130	2,337,680	2,372,750	
Bakersfield	882,235	882,175	913,612	974,793	981,145	1,007,547	1,032,898	1,048,390	1,064,120	1,080,080	
Burbank	1,104,309	1,219,034	1,095,927	1,080,687	1,058,814	1,050,336	1,057,419	1,073,280	1,089,380	1,105,720	
Gardena	0	0	0	0	0	0	0	0	0	0	
Modesto	796,393	741,932	730,670	723,669	721,682	711,912	761,798	773,230	784,830	796,600	
Monterey	375,986	371,980	362,541	361,402	362,125	367,532	374,195	379,810	385,510	391,290	
Mountain View	632,482	629,984	618,793	624,667	633,130	660,314	684,770	695,040	705,470	716,050	
Ontario	836,504	821,292	837,165	724,834	734,451	774,343	825,770	838,160	850,730	863,490	
Palo Alto	1,000,933	992,673	1,041,460	919,927	996,990	1,064,558	981,613	996,340	1,011,290	1,026,460	
Santa Barbara	844,604	828,178	824,422	865,528	881,841	905,611	929,442	943,380	957,530	971,890	
Santa Cruz	506,288	506,381	511,940	521,594	544,821	579,725	607,172	616,280	625,520	634,900	
Santa Monica	1,668,433	1,714,221	1,851,043	1,830,595	1,850,554	1,902,819	2,007,425	2,037,540	2,068,100	2,099,120	
Visalia	346,541	339,496	344,696	363,276	366,787	425,402	455,159	461,990	468,920	475,950	
Total	11,075,957	11,097,108	11,095,468	10,966,401	11,164,240	11,556,443	11,986,752	12,166,570	12,349,080	12,534,300	

Note: Data provided by ACCEL.

Authority for California Cities Excess Liability

ULAE as of June 30, 2018

(A) Selected ULAE Factor	3.5%
(B) Provision for Unpaid ULAE :	
IBNR at 6/30/18	\$11,058,000
Half of Case Reserves at 6/30/18	10,646,000
Computation Base	\$21,704,000
Provision for Unpaid ULAE at 6/30/18	\$760,000

Authority for California Cities Excess Liability
Excess General Liability Program - 2018-19 Rates/Premium
Base Scenario: No Members Excluded From \$1M xs \$1M Layer

Member (A)	2018-19 Payrolls (00) (B)	UNMODIFIED				MODIFIED						
		Discounted	Discounted	Discounted	Discounted	Initial	Initial	Balanced	Balanced	Balanced	Balanced	
		Expected	Expected	Expected	Expected	Discounted	Discounted	Discounted	Discounted	Discounted	Discounted	
		\$1M XS	\$3M XS	\$1M XS	\$3M XS	Selected	\$1M XS	\$3M XS	\$1M XS	\$3M XS	\$1M XS	\$3M XS
		\$1M	\$2M	\$1M	\$2M	Mod	\$1M	\$2M	\$1M	\$2M	\$1M	\$2M
		Premium	Premium	Rate	Rate	Factors	Premium	Premium	Premium	Premium	Rate	Rate
		(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Anaheim	2,372,750	512,514	507,769	0.216	0.214	1.220	625,213	619,425	625,213	619,425	0.263	0.261
Bakersfield	1,080,080	233,297	231,137	0.216	0.214	1.274	297,332	294,579	297,332	294,579	0.275	0.273
Burbank	1,105,720	238,836	236,624	0.216	0.214	0.721	172,298	170,702	172,298	170,702	0.156	0.154
Modesto	796,600	172,066	170,472	0.216	0.214	0.771	132,690	131,461	132,690	131,461	0.167	0.165
Monterey	391,290	84,519	83,736	0.216	0.214	0.865	73,077	72,400	73,077	72,400	0.187	0.185
Mountain View	716,050	154,667	153,235	0.216	0.214	0.790	122,112	120,981	122,112	120,981	0.171	0.169
Ontario	863,490	186,514	184,787	0.216	0.214	1.120	208,924	206,989	208,924	206,989	0.242	0.240
Palo Alto	1,026,460	221,715	219,662	0.216	0.214	0.651	144,418	143,081	144,418	143,081	0.141	0.139
Santa Barbara	971,890	209,928	207,984	0.216	0.214	0.694	145,664	144,315	145,664	144,315	0.150	0.148
Santa Cruz	634,900	137,138	135,869	0.216	0.214	1.094	150,071	148,682	150,071	148,682	0.236	0.234
Santa Monica	2,099,120	453,410	449,212	0.216	0.214	1.164	527,926	523,039	527,926	523,038	0.251	0.249
Visalia	475,950	102,805	101,853	0.216	0.214	1.047	107,683	106,686	107,683	106,686	0.226	0.224
Total	12,534,300	2,707,409	2,682,340	0.216	0.214	1.000	2,707,409	2,682,341	2,707,409	2,682,340	0.216	0.214
Option #1												
POOL A (Anaheim, Bakersfield & Santa Monica)	5,551,950	1,199,221	1,188,118	0.216	0.214		1,450,472	1,437,043	1,450,472	1,437,042	0.261	0.259
POOL B (All Other Members)	6,982,350	1,508,188	1,494,222	0.216	0.214		1,256,937	1,245,298	1,256,937	1,245,298	0.180	0.178
Option #2												
POOL A (\$2M Attachment Members*)	0	0	0	0.000	0.000		0	0	0	0	0.000	0.000
POOL B (\$1M Attachment Members**)	12,534,300	2,707,409	2,682,340	0.216	0.214		2,707,409	2,682,341	2,707,409	2,682,340	0.216	0.214
*N/A												
**All Other Members												

Authority for California Cities Excess Liability

Excess General Liability Program - 2018-19 Rates/Premium
Option #1 Scenario: Santa Monica Excluded From \$1M xs \$1M Layer

Member (A)	2018-19 Payrolls (00) (B)	UNMODIFIED				MODIFIED								
		Discounted Expected \$1M XS \$1M Premium (C)	Discounted Expected \$3M XS \$2M Premium (D)	Discounted Expected \$1M XS \$1M Rate (E)	Discounted Expected \$3M XS \$2M Rate (F)	Selected Mod Factors (G)	Initial Discounted Expected \$1M XS \$1M Premium (H)	Initial Discounted Expected \$3M XS \$2M Premium (I)	Balanced Discounted Expected \$1M XS \$1M Premium (J)	Balanced Discounted Expected \$3M XS \$2M Premium (K)	Balanced Discounted Expected \$1M XS \$1M Rate (L)	Balanced Discounted Expected \$3M XS \$2M Rate (M)		
		Anaheim	2,372,750	512,514	507,769	0.216	0.214	1.220	625,213	619,425	646,590	619,425	0.273	0.261
		Bakersfield	1,080,080	233,297	231,137	0.216	0.214	1.274	297,332	294,579	307,498	294,579	0.285	0.273
Burbank	1,105,720	238,836	236,624	0.216	0.214	0.721	172,298	170,702	178,189	170,702	0.161	0.154		
Modesto	796,600	172,066	170,472	0.216	0.214	0.771	132,690	131,461	137,227	131,461	0.172	0.165		
Monterey	391,290	84,519	83,736	0.216	0.214	0.865	73,077	72,400	75,576	72,400	0.193	0.185		
Mountain View	716,050	154,667	153,235	0.216	0.214	0.790	122,112	120,981	126,287	120,981	0.176	0.169		
Ontario	863,490	186,514	184,787	0.216	0.214	1.120	208,924	206,989	216,067	206,989	0.250	0.240		
Palo Alto	1,026,460	221,715	219,662	0.216	0.214	0.651	144,418	143,081	149,356	143,081	0.146	0.139		
Santa Barbara	971,890	209,928	207,984	0.216	0.214	0.694	145,664	144,315	150,644	144,315	0.155	0.148		
Santa Cruz	634,900	137,138	135,869	0.216	0.214	1.094	150,071	148,682	155,202	148,682	0.244	0.234		
Santa Monica	2,099,120	0	449,212	0.216	0.214	1.164	0	523,039	0	523,038	0.000	0.249		
Visalia	475,950	102,805	101,853	0.216	0.214	1.047	107,683	106,686	111,365	106,686	0.234	0.224		
Total	12,534,300	2,253,999	2,682,340	0.216	0.214	1.000	2,179,482	2,682,341	2,253,999	2,682,340	0.216	0.214		
<u>Option #1</u>														
POOL A (Anaheim, Bakersfield & Santa Monica)	5,551,950	745,811	1,188,118	0.216	0.214		922,545	1,437,043	954,087	1,437,042	0.276	0.259		
POOL B (All Other Members)	6,982,350	1,508,188	1,494,222	0.216	0.214		1,256,937	1,245,298	1,299,912	1,245,298	0.186	0.178		
<u>Option #2</u>														
POOL A (\$2M Attachment Members*)	2,099,120	0	449,212	0.000	0.214		0	523,039	0	523,038	0.000	0.249		
POOL B (\$1M Attachment Members**)	10,435,180	2,253,999	2,233,128	0.216	0.214		2,179,482	2,159,302	2,253,999	2,159,302	0.216	0.207		

*Santa Monica

**All Other Members

Authority for California Cities Excess Liability

Excess General Liability Program - 2018-19 Rates/Premium
Option #2 Scenario: Bakersfield Excluded From \$1M xs \$1M Layer

Member (A)	2018-19 Payrolls (00) (B)	UNMODIFIED				MODIFIED								
		Discounted Expected \$1M XS \$1M Premium (C)	Discounted Expected \$3M XS \$2M Premium (D)	Discounted Expected \$1M XS \$1M Rate (E)	Discounted Expected \$3M XS \$2M Rate (F)	Selected Mod Factors (G)	Initial Discounted Expected \$1M XS \$1M Premium (H)	Initial Discounted Expected \$3M XS \$2M Premium (I)	Balanced Discounted Expected \$1M XS \$1M Premium (J)	Balanced Discounted Expected \$3M XS \$2M Premium (K)	Balanced Discounted Expected \$1M XS \$1M Rate (L)	Balanced Discounted Expected \$3M XS \$2M Rate (M)		
		Anaheim	2,372,750	512,514	507,769	0.216	0.214	1.220	625,213	619,425	641,825	619,425	0.270	0.261
		Bakersfield	1,080,080	0	231,137	0.216	0.214	1.274	0	294,579	0	294,579	0.000	0.273
Burbank	1,105,720	238,836	236,624	0.216	0.214	0.721	172,298	170,702	176,876	170,702	0.160	0.154		
Modesto	796,600	172,066	170,472	0.216	0.214	0.771	132,690	131,461	136,216	131,461	0.171	0.165		
Monterey	391,290	84,519	83,736	0.216	0.214	0.865	73,077	72,400	75,019	72,400	0.192	0.185		
Mountain View	716,050	154,667	153,235	0.216	0.214	0.790	122,112	120,981	125,356	120,981	0.175	0.169		
Ontario	863,490	186,514	184,787	0.216	0.214	1.120	208,924	206,989	214,475	206,989	0.248	0.240		
Palo Alto	1,026,460	221,715	219,662	0.216	0.214	0.651	144,418	143,081	148,255	143,081	0.144	0.139		
Santa Barbara	971,890	209,928	207,984	0.216	0.214	0.694	145,664	144,315	149,534	144,315	0.154	0.148		
Santa Cruz	634,900	137,138	135,869	0.216	0.214	1.094	150,071	148,682	154,058	148,682	0.243	0.234		
Santa Monica	2,099,120	453,410	449,212	0.216	0.214	1.164	527,926	523,039	541,953	523,038	0.258	0.249		
Visalia	475,950	102,805	101,853	0.216	0.214	1.047	107,683	106,686	110,545	106,686	0.232	0.224		
Total	12,534,300	2,474,112	2,682,340	0.216	0.214	1.000	2,410,077	2,682,341	2,474,112	2,682,340	0.216	0.214		
<u>Option #1</u>														
POOL A (Anaheim, Bakersfield & Santa Monica)	5,551,950	965,924	1,188,118	0.216	0.214		1,153,140	1,437,043	1,183,778	1,437,042	0.265	0.259		
POOL B (All Other Members)	6,982,350	1,508,188	1,494,222	0.216	0.214		1,256,937	1,245,298	1,290,334	1,245,298	0.185	0.178		
<u>Option #2</u>														
POOL A (\$2M Attachment Members*)	1,080,080	0	231,137	0.000	0.214		0	294,579	0	294,579	0.000	0.273		
POOL B (\$1M Attachment Members**)	11,454,220	2,474,112	2,451,203	0.216	0.214		2,410,077	2,387,762	2,474,112	2,387,761	0.216	0.208		

*Bakersfield

**All Other Members

Authority for California Cities Excess Liability

Excess General Liability Program - 2018-19 Rates/Premium
Option #3 Scenario: Anaheim Excluded From \$1M xs \$1M Layer

Member (A)	2018-19 Payrolls (00) (B)	UNMODIFIED				MODIFIED								
		Discounted Expected \$1M XS \$1M Premium (C)	Discounted Expected \$3M XS \$2M Premium (D)	Discounted Expected \$1M XS \$1M Rate (E)	Discounted Expected \$3M XS \$2M Rate (F)	Selected Mod Factors (G)	Initial Discounted Expected \$1M XS \$1M Premium (H)	Initial Discounted Expected \$3M XS \$2M Premium (I)	Balanced Discounted Expected \$1M XS \$1M Premium (J)	Balanced Discounted Expected \$3M XS \$2M Premium (K)	Balanced Discounted Expected \$1M XS \$1M Rate (L)	Balanced Discounted Expected \$3M XS \$2M Rate (M)		
		Anaheim	2,372,750	0	507,769	0.216	0.214	1.220	0	619,425	0	619,425	0.000	0.261
		Bakersfield	1,080,080	233,297	231,137	0.216	0.214	1.274	297,332	294,579	313,425	294,579	0.290	0.273
Burbank	1,105,720	238,836	236,624	0.216	0.214	0.721	172,298	170,702	181,624	170,702	0.164	0.154		
Modesto	796,600	172,066	170,472	0.216	0.214	0.771	132,690	131,461	139,872	131,461	0.176	0.165		
Monterey	391,290	84,519	83,736	0.216	0.214	0.865	73,077	72,400	77,033	72,400	0.197	0.185		
Mountain View	716,050	154,667	153,235	0.216	0.214	0.790	122,112	120,981	128,721	120,981	0.180	0.169		
Ontario	863,490	186,514	184,787	0.216	0.214	1.120	208,924	206,989	220,232	206,989	0.255	0.240		
Palo Alto	1,026,460	221,715	219,662	0.216	0.214	0.651	144,418	143,081	152,235	143,081	0.148	0.139		
Santa Barbara	971,890	209,928	207,984	0.216	0.214	0.694	145,664	144,315	153,548	144,315	0.158	0.148		
Santa Cruz	634,900	137,138	135,869	0.216	0.214	1.094	150,071	148,682	158,194	148,682	0.249	0.234		
Santa Monica	2,099,120	453,410	449,212	0.216	0.214	1.164	527,926	523,039	556,501	523,038	0.265	0.249		
Visalia	475,950	102,805	101,853	0.216	0.214	1.047	107,683	106,686	113,512	106,686	0.238	0.224		
Total	12,534,300	2,194,895	2,682,340	0.216	0.214	1.000	2,082,195	2,682,341	2,194,895	2,682,340	0.216	0.214		
<u>Option #1</u>														
POOL A (Anaheim, Bakersfield & Santa Monica)	5,551,950	686,707	1,188,118	0.216	0.214		825,258	1,437,043	869,926	1,437,042	0.274	0.259		
POOL B (All Other Members)	6,982,350	1,508,188	1,494,222	0.216	0.214		1,256,937	1,245,298	1,324,969	1,245,298	0.190	0.178		
<u>Option #2</u>														
POOL A (\$2M Attachment Members*)	2,372,750	0	507,769	0.000	0.214		0	619,425	0	619,425	0.000	0.261		
POOL B (\$1M Attachment Members**)	10,161,550	2,194,895	2,174,571	0.216	0.214		2,082,195	2,062,916	2,194,895	2,062,915	0.216	0.203		

*Anaheim

**All Other Members

Authority for California Cities Excess Liability

Excess General Liability Program - 2018-19 Rates/Premium
Option #4 Scenario: Bakersfield & Santa Monica Excluded From \$1M xs \$1M Layer

Member (A)	2018-19 Payrolls (00) (B)	UNMODIFIED				MODIFIED								
		Discounted Expected \$1M XS \$1M Premium (C)	Discounted Expected \$3M XS \$2M Premium (D)	Discounted Expected \$1M XS \$1M Rate (E)	Discounted Expected \$3M XS \$2M Rate (F)	Selected Mod Factors (G)	Initial Discounted Expected \$1M XS \$1M Premium (H)	Initial Discounted Expected \$3M XS \$2M Premium (I)	Balanced Discounted Expected \$1M XS \$1M Premium (J)	Balanced Discounted Expected \$3M XS \$2M Premium (K)	Balanced Discounted Expected \$1M XS \$1M Rate (L)	Balanced Discounted Expected \$3M XS \$2M Rate (M)		
		Anaheim	2,372,750	512,514	507,769	0.216	0.214	1.220	625,213	619,425	671,237	619,425	0.283	0.261
		Bakersfield	1,080,080	0	231,137	0.216	0.214	1.274	0	294,579	0	294,579	0.000	0.273
Burbank	1,105,720	238,836	236,624	0.216	0.214	0.721	172,298	170,702	184,981	170,702	0.167	0.154		
Modesto	796,600	172,066	170,472	0.216	0.214	0.771	132,690	131,461	142,458	131,461	0.179	0.165		
Monterey	391,290	84,519	83,736	0.216	0.214	0.865	73,077	72,400	78,457	72,400	0.201	0.185		
Mountain View	716,050	154,667	153,235	0.216	0.214	0.790	122,112	120,981	131,101	120,981	0.183	0.169		
Ontario	863,490	186,514	184,787	0.216	0.214	1.120	208,924	206,989	224,303	206,989	0.260	0.240		
Palo Alto	1,026,460	221,715	219,662	0.216	0.214	0.651	144,418	143,081	155,049	143,081	0.151	0.139		
Santa Barbara	971,890	209,928	207,984	0.216	0.214	0.694	145,664	144,315	156,386	144,315	0.161	0.148		
Santa Cruz	634,900	137,138	135,869	0.216	0.214	1.094	150,071	148,682	161,118	148,682	0.254	0.234		
Santa Monica	2,099,120	0	449,212	0.216	0.214	1.164	0	523,039	0	523,038	0.000	0.249		
Visalia	475,950	102,805	101,853	0.216	0.214	1.047	107,683	106,686	115,610	106,686	0.243	0.224		
Total	12,534,300	2,020,702	2,682,340	0.216	0.214	1.000	1,882,151	2,682,341	2,020,702	2,682,340	0.216	0.214		
<u>Option #1</u>														
POOL A (Anaheim, Bakersfield & Santa Monica)	5,551,950	512,514	1,188,118	0.216	0.214		625,213	1,437,043	671,237	1,437,042	0.283	0.259		
POOL B (All Other Members)	6,982,350	1,508,188	1,494,222	0.216	0.214		1,256,937	1,245,298	1,349,465	1,245,298	0.193	0.178		
<u>Option #2</u>														
POOL A (\$2M Attachment Members*)	3,179,200	0	680,349	0.000	0.214		0	817,618	0	817,617	0.000	0.257		
POOL B (\$1M Attachment Members**)	9,355,100	2,020,702	2,001,991	0.216	0.214		1,882,151	1,864,723	2,020,702	1,864,723	0.216	0.199		

*Bakersfield & Santa Monica

**All Other Members

Authority for California Cities Excess Liability

Excess General Liability Program - 2018-19 Rates/Premium
Option #5 Scenario: Anaheim & Santa Monica Excluded From \$1M xs \$1M Layer

Member (A)	2018-19 Payrolls (00) (B)	UNMODIFIED				MODIFIED								
		Discounted Expected \$1M XS \$1M Premium (C)	Discounted Expected \$3M XS \$2M Premium (D)	Discounted Expected \$1M XS \$1M Rate (E)	Discounted Expected \$3M XS \$2M Rate (F)	Selected Mod Factors (G)	Initial Discounted Expected \$1M XS \$1M Premium (H)	Initial Discounted Expected \$3M XS \$2M Premium (I)	Balanced Discounted Expected \$1M XS \$1M Premium (J)	Balanced Discounted Expected \$3M XS \$2M Premium (K)	Balanced Discounted Expected \$1M XS \$1M Rate (L)	Balanced Discounted Expected \$3M XS \$2M Rate (M)		
		Anaheim	2,372,750	0	507,769	0.216	0.214	1.220	0	619,425	0	619,425	0.000	0.261
		Bakersfield	1,080,080	233,297	231,137	0.216	0.214	1.274	297,332	294,579	333,146	294,579	0.308	0.273
Burbank	1,105,720	238,836	236,624	0.216	0.214	0.721	172,298	170,702	193,052	170,702	0.175	0.154		
Modesto	796,600	172,066	170,472	0.216	0.214	0.771	132,690	131,461	148,673	131,461	0.187	0.165		
Monterey	391,290	84,519	83,736	0.216	0.214	0.865	73,077	72,400	81,880	72,400	0.209	0.185		
Mountain View	716,050	154,667	153,235	0.216	0.214	0.790	122,112	120,981	136,821	120,981	0.191	0.169		
Ontario	863,490	186,514	184,787	0.216	0.214	1.120	208,924	206,989	234,089	206,989	0.271	0.240		
Palo Alto	1,026,460	221,715	219,662	0.216	0.214	0.651	144,418	143,081	161,814	143,081	0.158	0.139		
Santa Barbara	971,890	209,928	207,984	0.216	0.214	0.694	145,664	144,315	163,209	144,315	0.168	0.148		
Santa Cruz	634,900	137,138	135,869	0.216	0.214	1.094	150,071	148,682	168,148	148,682	0.265	0.234		
Santa Monica	2,099,120	0	449,212	0.216	0.214	1.164	0	523,039	0	523,038	0.000	0.249		
Visalia	475,950	102,805	101,853	0.216	0.214	1.047	107,683	106,686	120,654	106,686	0.254	0.224		
Total	12,534,300	1,741,485	2,682,340	0.216	0.214	1.000	1,554,269	2,682,341	1,741,485	2,682,340	0.216	0.214		
<u>Option #1</u>														
POOL A (Anaheim, Bakersfield & Santa Monica)	5,551,950	233,297	1,188,118	0.216	0.214		297,332	1,437,043	333,146	1,437,042	0.308	0.259		
POOL B (All Other Members)	6,982,350	1,508,188	1,494,222	0.216	0.214		1,256,937	1,245,298	1,408,339	1,245,298	0.202	0.178		
<u>Option #2</u>														
POOL A (\$2M Attachment Members*)	4,471,870	0	956,981	0.000	0.214		0	1,142,464	0	1,142,463	0.000	0.255		
POOL B (\$1M Attachment Members**)	8,062,430	1,741,485	1,725,359	0.216	0.214		1,554,269	1,539,877	1,741,485	1,539,877	0.216	0.191		

*Anaheim & Santa Monica

**All Other Members

Authority for California Cities Excess Liability

Excess General Liability Program - 2018-19 Rates/Premium
Option #6 Scenario: Anaheim, Bakersfield & Santa Monica Excluded From \$1M xs \$1M Layer

Member (A)	2018-19 Payrolls (00) (B)	UNMODIFIED				MODIFIED								
		Discounted Expected \$1M XS \$1M Premium (C)	Discounted Expected \$3M XS \$2M Premium (D)	Discounted Expected \$1M XS \$1M Rate (E)	Discounted Expected \$3M XS \$2M Rate (F)	Selected Mod Factors (G)	Initial Discounted Expected \$1M XS \$1M Premium (H)	Initial Discounted Expected \$3M XS \$2M Premium (I)	Balanced Discounted Expected \$1M XS \$1M Premium (J)	Balanced Discounted Expected \$3M XS \$2M Premium (K)	Balanced Discounted Expected \$1M XS \$1M Rate (L)	Balanced Discounted Expected \$3M XS \$2M Rate (M)		
		Anaheim	2,372,750	0	507,769	0.216	0.214	1.220	0	619,425	0	619,425	0.000	0.261
		Bakersfield	1,080,080	0	231,137	0.216	0.214	1.274	0	294,579	0	294,579	0.000	0.273
Burbank	1,105,720	238,836	236,624	0.216	0.214	0.721	172,298	170,702	206,739	170,702	0.187	0.154		
Modesto	796,600	172,066	170,472	0.216	0.214	0.771	132,690	131,461	159,214	131,461	0.200	0.165		
Monterey	391,290	84,519	83,736	0.216	0.214	0.865	73,077	72,400	87,685	72,400	0.224	0.185		
Mountain View	716,050	154,667	153,235	0.216	0.214	0.790	122,112	120,981	146,521	120,981	0.205	0.169		
Ontario	863,490	186,514	184,787	0.216	0.214	1.120	208,924	206,989	250,686	206,989	0.290	0.240		
Palo Alto	1,026,460	221,715	219,662	0.216	0.214	0.651	144,418	143,081	173,286	143,081	0.169	0.139		
Santa Barbara	971,890	209,928	207,984	0.216	0.214	0.694	145,664	144,315	174,781	144,315	0.180	0.148		
Santa Cruz	634,900	137,138	135,869	0.216	0.214	1.094	150,071	148,682	180,069	148,682	0.284	0.234		
Santa Monica	2,099,120	0	449,212	0.216	0.214	1.164	0	523,039	0	523,038	0.000	0.249		
Visalia	475,950	102,805	101,853	0.216	0.214	1.047	107,683	106,686	129,208	106,686	0.271	0.224		
Total	12,534,300	1,508,188	2,682,340	0.216	0.214	1.000	1,256,937	2,682,341	1,508,188	2,682,340	0.216	0.214		
<u>Option #1</u>														
POOL A (Anaheim, Bakersfield & Santa Monica)	5,551,950	0	1,188,118	0.000	0.214		0	1,437,043	0	1,437,042	0.000	0.259		
POOL B (All Other Members)	6,982,350	1,508,188	1,494,222	0.216	0.214		1,256,937	1,245,298	1,508,188	1,245,298	0.216	0.178		
<u>Option #2</u>														
POOL A (\$2M Attachment Members*)	5,551,950	0	1,188,118	0.000	0.214		0	1,437,043	0	1,437,042	0.000	0.259		
POOL B (\$1M Attachment Members**)	6,982,350	1,508,188	1,494,222	0.216	0.214		1,256,937	1,245,298	1,508,188	1,245,298	0.216	0.178		

*Anaheim, Bakersfield & Santa Monica

**All Other Members