An Actuarial Review of the Property & Liability Self-Insurance Program

**BAY ACTUARIAL CONSULTANTS** 

Moraga, California January 21, 2022

## **Bay Actuarial Consultants**

January 21, 2022

Board of Directors
West San Gabriel Liability & Property Joint Powers Authority
c/o Ms. Lilian VanVieldt
JPA Manager
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Newport Beach, CA 92660

#### To the Board:

We are pleased to present Bay Actuarial's 2022 actuarial review of the West San Gabriel Liability & Property Joint Powers Authority's property and liability program. We appreciate the opportunity to serve the Authority.

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

Respectfully,

**BAY ACTUARIAL CONSULTANTS** 

Jack Joyce, FCAS, MAAA

Principal

## An Actuarial Review of the Property & Liability Self-Insurance Program

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## An Actuarial Review of the Property & Liability Self-Insurance Program

Introduction

## An Actuarial Review of the Property & Liability Self-Insurance Program

#### Introduction

#### **Background & Purpose**

The West San Gabriel Liability & Property Joint Powers Authority self-insures its members' auto liability, general liability and property losses, up to a limit of \$50,000 per loss. The portion of any loss that exceeds \$50,000 is covered by commercial "excess" insurance. Beginning 7/1/21 the excess coverage for sexual assault/molestation claims is on a claims-made basis, so the Authority now has a "tail liability" for the gap between claims-made and occurrence coverage. See page 16.

All of the members pay a \$10,000 property deductible. All except Arcadia and Glendale pay a \$10,000 liability deductible. Those two members pay a \$25,000 liability deductible. The Authority asked Bay Actuarial Consultants to provide an actuarial report on program, using data evaluated as of 12/31/21. This report covers the following topics:

- 1) Projected 2022-23 Losses. It includes a projection of the losses that will be incurred during 2020-21 and a recommended level of funding. The funding is expressed as a total dollar amount and also as a contribution rate per ADA and per \$1,000 of TIV.
- 2) Liability for Unpaid Losses. It includes an estimate of the liability for unpaid losses as of 12/31/21 and a projection to 6/30/22. We also recommend levels of funding to finance this liability at the actuarial central estimate and at various "probability levels."

#### **Conditions & Limitations**

This report is for the Authority's internal use. It may provide a copy to its financial auditors. Bay Actuarial Consultants does not authorize any other use.

Alliant Insurance Services provided the data. We did not audit this data and are not responsible for its accuracy. In any actuarial analysis the accuracy and relevance of the conclusions and the reasonableness of the recommendations depend upon the accuracy and relevance of the underlying data.

The term "losses" refers to all costs that can be tied to a specific claim. These include indemnity payments, attorney's fees, and other expenses linked to a specific claim. We did not estimate the costs of JPA management or claims handling fees ("ULAE").

We assumed that the Authority will continue to purchase "excess" coverage attaching at \$50,000 per loss in 2022-23.

The actuarial projections in this report are uncertain. Uncertainty is unavoidable because many of events that will determine the actual claims costs will take place in the future. These future events include the outcomes of claims litigation and the amounts of future claims settlements, potential changes in the law and its interpretation, future rates of inflation, and the number and severity of the losses that will occur in 2022-23. These projections are based upon the Authority's past claims experience. We did not anticipate any extraordinary changes in the various factors that might affect the future cost of claims. We used actuarial methods that should produce reasonable results given current information. There is no guarantee, express or implied, that losses will develop as projected in this report.

#### Structure of the Report

The rest of this report comprises nine sections:

- o the Management Summary,
- o the Technical Approach section,
- the Property & Liability Summary,
- the Liability Summary,
- the Property Summary,
- the Liability Exhibits,
- the Property Exhibits,
- o the Deductibles Exhibits,
- o and the Claims Data Section.

The Management Summary provides an overview of the results. The Technical Approach section explains the assumptions and details. The Combined Property & Liability Summary shows detailed results. The Liability Summary and the Property Summary provide summary exhibits for these two programs individually. The Liability Exhibits, the Property Exhibits, the Deductibles Exhibits, and the Claims Data Section document the calculations.

An Actuarial Review of the Property & Liability Self-Insurance Program

**Management Summary** 

## An Actuarial Review of the Property & Liability Self-Insurance Program

### **Management Summary**

### **Projected 2022-23 Retained Losses – Net of Deductibles**

We project that the Authority will incur "net" losses of \$526,417 from claims that will occur during 2022-23, assuming that it continues to retain \$50,000 per loss. "Net" losses do not include the amounts that will be paid directly by the members via their deductibles of either \$10,000 or \$25,000 per loss. About 43% of the Authority's retained losses are paid by the members through these deductibles, so they are a very significant item. Arcadia and Glendale pay a \$25,000 deductible on liability losses. All other members pay \$10,000 per loss. Everyone pays a \$10,000 property deductible. Table 1 breaks out the 2021-22 projected losses between liability and property.

Table 1: Projected 2022-23 Losses \$50K Retention - Net of \$10K or \$25K Deductible

Probability Level	Liability Losses	Property Losses	Total Losses
Central Estimate	\$430,808	\$107,610	\$538,418
70%	484,659	121,061	\$605,720
80%	527,309	131,715	659,024
90%	590,207	147,426	737,633

**\$538,418** is the "actuarial central estimate." It is the "best estimate" of the actual costs. There is roughly a 46% probability that the actual costs will turn out to be higher and 54% that they will be lower. In the past the Group has funded at the 70% probability level. This amount is **\$605,720** according to the table.

These projections are converted into *rates of loss* by dividing by the projected exposure. The projected exposure is **81,758** of Average Daily Attendance ("ADA") in the liability program and **\$3,612.049 million** of Total Insured Value ("TIV") in the property program. Projected ADA is down 3.4% from 2021-22 and projected TIV is 8.5% higher.

The projected rates of loss are discounted to present value by multiplying by "present value factors." Assuming a 1.0% interest rate the present value factors are 0.975 for liability and 0.990 for property.

Tables 2 and 3 show the projected loss funding rates for the liability and property programs at the \$50,000 retention. The benchmark 70% probability funding rates are **highlighted**.

Table 2: Projected 2022-23 Liability Funding Rates per ADA \$50,000 Retention, Discounted at 1.0% Interest

Probability	Gross of	Net of \$10K	Net of \$25K
Level	<b>Deductibles</b>	<b>Deductible</b>	Deductible
Central Estimate	\$8.95	\$6.19	\$3.53
70%	9.96	\$6.95	\$3.99
80%	10.74	7.54	4.35
90%	11.87	8.40	4.90

Table 3: Projected 2022-23 Property Funding Rates per \$1,000 TIV \$50,000 Retention, Discounted at 1.0% Interest

Probability	Gross of	Net of \$10K
Level	<b>Deductibles</b>	Deductible
Central Estimate	4.85¢	2.95¢
70%	5.40¢	3.31¢
80%	5.82¢	3.59¢
90%	6.43¢	4.00¢

The recommended \$10,000 deductible funding rates are **\$6.95** per ADA and **3.31¢** per \$1,000 of TIV. The \$25,000 deductible liability rate is \$3.99. In the last actuarial study, from 1/19/21, the \$10,000 deductible rates were \$6.63 per ADA and 3.23¢ per \$1,000 of TIV assuming 1.0& interest. Last year's \$25,000 deductible rate was \$3.78 at 1.0% interest. Therefore the new recommendations correspond to increases of <u>4.8% and 5.6%</u>. The property rate is up <u>2.5%</u>. These loss funding rates do not include the cost of claims handling or "excess" coverage.

### Funding Rates at \$75K, \$100K, \$150K, and \$250K Retentions

We continue to provide estimated funding rates at alternative retentions of \$75,000, \$100,000, \$150,000, and \$250,000. The rates in Tables 2 and 3 were calculated at the \$50,000 retention.

Table 4: Projected 2022-23 Liability Funding Rates per ADA \$75,000 Retention, Discounted at 1.0% Interest

Probability	Gross of	Net of \$10K	Net of \$25K
Level	<b>Deductibles</b>	<b>Deductible</b>	Deductible
Central Estimate	\$11.56	\$8.87	\$6.27
70%	13.34	\$10.06	\$7.17
80%	14.56	11.02	7.92
90%	16.36	12.44	9.03

Table 5: Projected 2022-23 Property Funding Rates per \$1,000 TIV \$75,000 Retention, Discounted at 1.0% Interest

Probability	Gross of	Net of \$10K
Level	Deductibles	Deductible
Central Estimate	5.77¢	3.89¢
70%	6.66¢	4.41¢
80%	7.27¢	4.83¢
90%	8.17¢	5.46¢

Table 6: Projected 2022-23 Liability Funding Rates per ADA \$100,000 Retention, Discounted at 1.0% Interest

Probability	<b>Gross of</b>	Net of \$10K	Net of \$25K
Level	<b>Deductibles</b>	Deductible	Deductible
Central Estimate	\$13.92	\$11.23	\$8.63
70%	15.73	\$12.80	\$9.91
80%	17.18	14.07	10.98
90%	19.32	15.97	12.60

Table 7: Projected 2022-23 Property Funding Rates per \$1,000 TIV \$100,000 Retention, Discounted at 1.0% Interest

Probability	Gross of	Net of \$10K
Level	<b>Deductibles</b>	Deductible
Central Estimate	6.51¢	4.63¢
70%	7.36¢	5.27¢
80%	8.03¢	5.80¢
90%	9.03¢	6.58¢

Table 8: Projected 2022-23 Liability Funding Rates per ADA \$150,000 Retention, Discounted at 1.0% Interest

Probability	Gross of	Net of \$10K	Net of \$25K
Level	<b>Deductibles</b>	Deductible	Deductible
Central Estimate	\$17.69	\$15.00	\$12.40
70%	20.02	\$17.10	\$14.22
80%	21.89	18.81	15.75
90%	24.67	21.37	18.03

Table 9: Projected 2022-23 Liability Funding Rates per ADA \$250,000 Retention, Discounted at 1.0% Interest

Probability	Gross of	Net of \$10K	Net of \$25K
Level	<b>Deductibles</b>	Deductible	<b>Deductible</b>
Central Estimate	\$22.64	\$19.95	\$17.35
70%	25.57	\$22.65	\$19.80
80%	27.90	24.84	21.81
90%	31.37	28.10	24.81

## **Covid 19 Effect on 2022-23 Loss Projection**

There were far fewer liability claims during the pandemic as schools were locked down so the losses incurred during 2019-20 and 2020-21 were very low. We do not believe that this low level of loss will continue so the claims experience of these two program years was not used in projecting the 2022-23 losses.

## Estimated Liability for Unpaid Losses as of 12/31/21

Table 10 shows the estimated liability for unpaid self-insured losses as of 12/31/21. Table 11 shows the projection to 6/30/22.

Table 10: Estimated Liability for Unpaid Losses as of 12/31/21

	Undiscounted		Discounte	ed @ 1.0%
Probability	Gross of	Net of	Gross of	Net of
Level	Deductibles	Deductibles	Deductibles	Deductibles
10%	\$1,350,424	\$1,096,714	\$1,334,004	\$1,083,379
20%	1,396,991	1,134,102	1,380,004	1,120,312
30%	1,443,557	1,171,490	1,426,005	1,157,246
40%	1,490,123	1,196,415	1,472,005	1,181,868
50%	1,536,690	1,233,803	1,518,005	1,218,801
<b>Central Estimate</b>	\$1,552,212	\$1,246,266	\$1,533,338	\$1,231,112
60%	1,583,256	1,271,191	1,564,005	1,255,735
70%	1,629,822	1,308,579	1,610,005	1,292,668
80%	1,691,911	1,345,967	1,671,339	1,329,601
90%	1,785,044	1,420,743	1,763,339	1,403,468

Table 11: Projected 6/30/22 Liability

	Gross of Ded.	Net of Ded.
12/31/21 Liability Central Estimate	\$1,552,212	\$1,246,266
Projected Payments 1/1/22 to 6/30/22	-533,195	-398,905
Projected New Losses 1/1/22 to 6/30/22	+484,281	+313,959
Projected 6/30/22 Central Estimate	\$1,503,298	\$1,161,120

Table 12 repeats the undiscounted projection from Table 11 and adds the corresponding discounted projections.

Table 12: Projected Liability for Unpaid Losses as of 6/30/22

	Undisc	counted	Discounted @ 1.0% Interest		
Probability Level	Gross of Deductibles	Net of Deductibles	Gross of Deductibles	Net of Deductibles	
<b>Central Estimate</b>	\$1,503,298	\$1,161,320	\$1,485,019	\$1,147,199	

### Reconciling the 12/31/20 Liability

Table 13 reconciles last year's estimate of the 12/31/20 liability, which was \$1,323,785 net of deductibles, with the new estimate of the 12/31/21 liability. The new central estimate of the undiscounted liability, net of deductibles, was \$1,246,266 on 12/31/21 (Tables 10 and 11).

**Table 13: Reconciliation** 

Reconcile 12/31/20 & 12/31/21 Liabilities					
Estimated 12/31/20 Liability	\$1,323,785				
Payments during 2021	-555,821				
Change in estimates for 12/30/20 and Prior	-62,918				
Estimated Losses – Calendar Year 2021	+541,220				
Estimated 12/31/21 Liability	\$1,246,266				

Chart 1 shows the estimated ultimate losses in terms of losses paid, case reserves, and IBNR liability for program years 2014-15 through 2021-22. The effect of the pandemic is evident. The black and hash-marked areas under the columns sum to the projected liability of \$1,246,266.

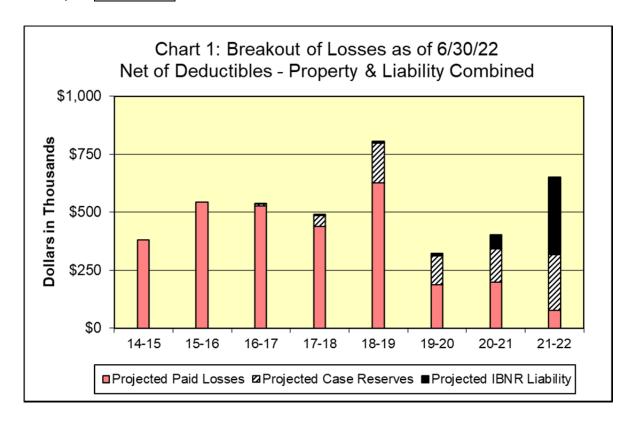
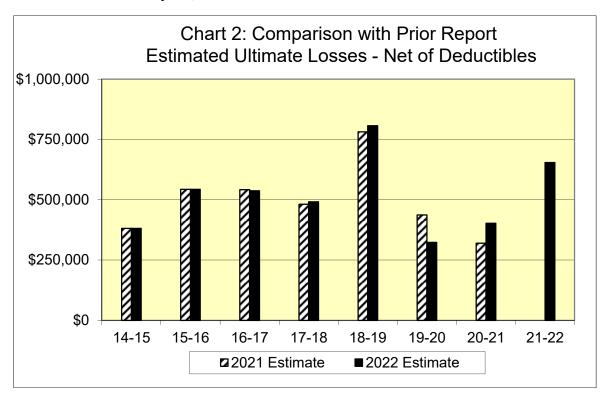


Chart 2 shows the changes in the ultimate loss estimates by program year. While some projections rose and others fell, the total net change for program years 20-21 and prior was a reduction of only **\$2,305**.



## Claim Frequency and Severity - Liability Claims

Chart 3 shows claim frequency. The reduction in the number of claims during the pandemic is evident here.

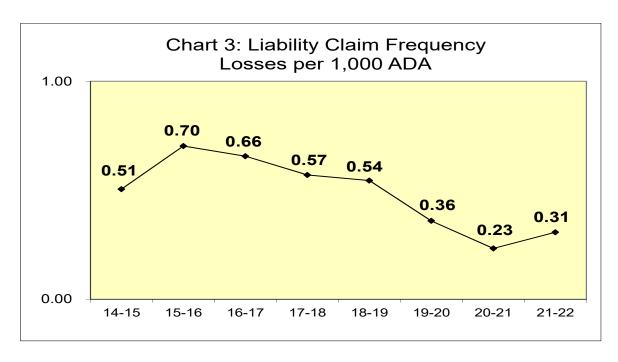
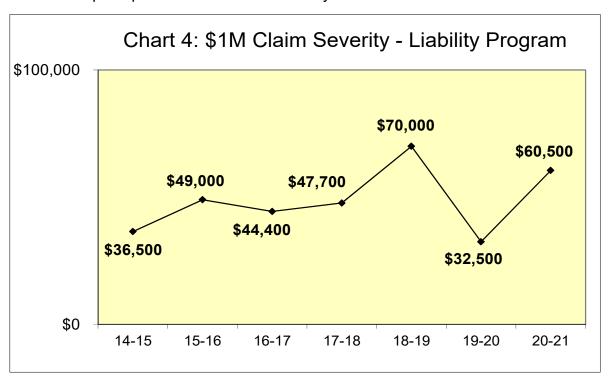
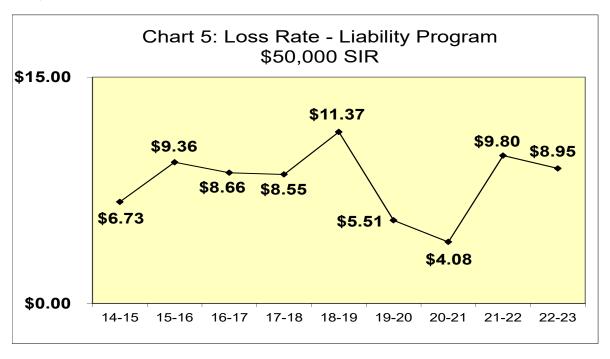


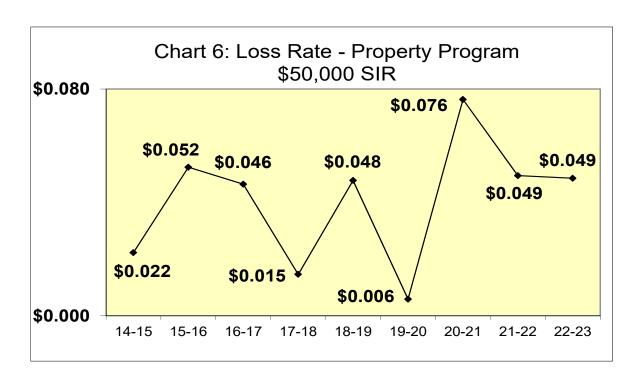
Chart 4 shows claim severity (average claim amount) with claims capped at a maximum of \$1 million per loss. Capping losses at \$1 million rather than at the \$50,000 SIR shows a more complete picture of the actual severity trend.



#### **Past Rates of Loss**

The following charts show how the Authority's basic loss costs have changed over time. Chart 5 shows the past history in the liability program (loss per ADA), and chart 6 shows the property program's history (loss per \$1,000 of TIV). All rates are gross of the \$10,000 deductible.





#### **Different Deductibles**

All of the net of deductible rates in Tables 2 through 9 were calculated at the \$10,000 deductible. The following two tables provide the information that is necessary to obtain the corresponding rates at \$5,000, \$25,000, \$50,000, \$75,000, and \$100,000 deductibles. To use these tables, multiply the appropriate gross rate by the factor in the table. For example, to produce the 70% probability level discounted liability rate at \$5,000 deductible and \$100,000 retention multiply the gross \$100,000 retention discounted rate (\$15.73 in Table 6) by 0.886 (Table 11 entry), yielding \$13.94.

Table 11: <u>Liability Program</u> Factors for Alternative Deductibles For Application to Gross Rates for 2022-23

	Retention					
Deductible	\$50K	\$75K	\$100K	\$150K	\$250K	
\$5k	0.817	0.862	0.886	0.910	0.930	
\$10k	0.692	0.767	0.807	0.848	0.881	
\$25k	0.394	0.542	0.620	0.701	0.766	
\$50k	0.000	0.245	0.373	0.507	0.614	
\$75k	N/A	0.000	0.170	0.347	0.489	
\$100k	N/A	N/A	0.000	0.213	0.385	

Table 12: <u>Property Program</u> Factors for Alternative Deductibles For Application to Gross Rates for 2022-23

	Retention					
Deductible	\$50K	\$75K	\$100K			
\$5k	0.770	0.809	0.831			
\$10k	0.608	0.674	0.711			
\$25k	0.303	0.420	0.486			
\$50k	0.000	0.168	0.262			
\$75k	N/A	0.000	0.114			
\$100k	N/A	N/A	0.000			

#### **Different Interest Rates**

The discounted liabilities and rates in this report were calculated using a **1.0%** interest rate. The following table provides multiplicative factors for adjusting them for different interest rates:

**Table 13: Interest Rate Adjustment Factors** 

Interest Rate	0.0%	0.69%	1.0%	1.10%
Liability Rates	1.026	1.008	1.000	0.998
Property Rates	1.010	1.003	1.000	0.999
6/30/22 Liability	1.012	1.004	1.000	0.999

Given currently available market interest rates the Authority could fund the 2021-22 program losses by investing in US Treasuries. The yield to maturity on this investment would be 1.10%. Investing in high quality corporate bonds could generate a slightly higher yield. Funding the 12/31/21 liability by investing in US Treasuries could generate a yield to maturity of 0.69%.

#### **IBNR Claim**

On 4/7/21 the Authority received notice of a sexual assault/molestation claim with a date of loss of 7/1/07. This claim is currently evaluated at \$717,609. The Authority had already paid its full \$50,000 retention so the resolution is now the reponsibility of the excess insurer.

### **Claims-Made Tail Liability**

Starting 7/1/21 the Authority's excess coverage for sexual assault/molestation ("SAM") claims is on a claims-made basis instead of the old occurrence basis. This means that any SAM claims that occur in 21-22 but are not reported until after 21-22 are not covered by the existing excess insurance. They may be covered by future excess policies but there is no current coverage for this exposure. Therefore the Authority will have a "tail-liability" for late reported SAM claims on 6/30/22.

We estimate that about 20% of liability costs are SAM related and that about 20% of SAM claims are reported not reported during the year of occurrence. Therefore the tail liability as of 6/30/22 is about 4% (20% x 20%) of the unlimited cost (no SIR) of the 2021-22 liability claims. We estimate the portion of the 21-22 liability claims that will be above the retained \$50,000 per occurrence limit at \$4.4 million. The estimated tail liability is 4% of this, or **\$176,000**.

# An Actuarial Review of the Property & Liability Self-Insurance Program

**Technical Approach** 

## An Actuarial Review of the Property & Liability Self-Insurance Program

#### **Technical Approach**

This section describes the actuarial calculations.

#### **Combined Summary**

Parts 1 and 2 provide an overall summary of the results. They show the estimated gross and net liabilities for losses as of 12/31/21 and projected losses for the 2022-23 program year. These estimates represent the sum of the totals from the *Property Summary* and the *Liability Summary*.

All estimates are shown 1) on a nominal value basis, 2) discounted for investment income, and 3) discounted for investment income at a range of probability levels.

Part 3 of the Summary breaks down the liabilities and the losses between the Members and the Program. The information is displayed on both a nominal (undiscounted) basis and on a discounted value basis. Parts 4 through 7 break out the liabilities between case reserves and the IBNR liability.

#### **Liability Summary**

These exhibits summarize the findings for the Liability Program alone. Part 1 shows the projected gross liability for unpaid losses as of 6/30/22. Part 2 details the projection of losses for 2021-22.

#### **Property Summary**

These exhibits summarize the statistics on the Property Program. The format is identical to that of the Liability Summary.

#### **Liability Exhibits**

#### Exhibit 1

Part 1 shows the calculation of the projected gross liability for unpaid losses as of 6/30622. The liability is calculated as the sum of the case reserves and an estimated incurred-but-not-reported (IBNR) liability. We project both losses paid and losses reported to 6/30/22 using our estimates of the ultimate losses and the observed reporting and payment patterns. Part 2 shows this calculation.

#### Exhibit 2

This exhibit shows the results (and the calculations) of the various actuarial projection methods and our estimates of what the total gross losses will be for each program year once all the claims are settled.

There are five different actuarial methods. Each method involves a specific set of assumptions regarding the claims process. Using several different methods increases the overall reasonableness of the results.

The five standard actuarial methods were the:

- 1) Reported loss projection method,
- 2) Paid loss projection method,
- 3) IBNR to case reserves ratio projection method,
- Bornhuetter-Ferguson method using reported losses, and
- 5) Frequency times severity method.

For liability claims, the total value of the aggregate case reserves usually understates the ultimate cost of the corresponding claims. Although some claims will settle for less than their current case reserves, these savings are usually more than offset by larger future increases in the case reserves for claims that have been underestimated. The result is that the estimated total cost of the claims incurred in a given year, when computed as the sum of the case reserves and paid claims, rises over time. This is known as *loss development*. In applying the *reported loss projection method* (Part 2), we have assumed that future loss development can be reasonably predicted by analyzing past loss development.

The paid loss projection method (Part 3) is similar. It has the advantage of not being based on the subjective judgments of claims administrators, as well as the disadvantage that the projections are more sensitive to random variations in experience.

The *IBNR to case reserves ratio method* (Part 4) estimates dollars of IBNR per dollar of case reserve, and often produces a reasonable result when the other methods fail to produce realistic outcomes.

The Bornhuetter-Ferguson method using reported losses (Part 5) uses assumptions about the underlying relationship between losses and Average Daily Attendance (ADA). They are based on the assumption that future loss payments or future loss reports can be estimated from this underlying relationship. For example, if we estimate that 46% of all losses for a given program year have been reported and that the loss rate is \$10 per ADA, then we would estimate the unreported losses as 54% times \$10 times the ADA for that year. This estimate of the unreported losses is then added to the losses that have been reported to produce an estimate of the total losses.

In the *frequency times severity method* (Part 9) we estimate an average claim size for each program year. We multiply the average claim amount, or *severity*, by the projected ultimate number of claims (Exhibit 3) to produce an estimate of the total losses.

#### Exhibit 3

Two actuarial methods are used to project the ultimate number of claims: a *Reported Claim Count Projection Method* (Part 2), analogous to the projection methods for losses, and a *Bornhuetter-Ferguson Method using the reported claim counts* (Part 3), corresponding to the Bornhuetter-Ferguson method using reported losses. Part 1 shows our selection of the ultimate claim counts based on these two techniques.

#### Exhibit 4

These exhibits document our projection of the 2022-23 gross and net losses. This projection is based upon the assumption that the Authority's self-insured retention will remain at \$50,000 for liability claims. First we selected loss rate for application in future years. A loss rate is simply the expected ratio of ultimate losses to average daily attendance (ADA) for a given accident period. We estimated the loss rate on the basis of the past experience, adjusted for inflation and for the changes in the Authority's retention. We then applied the selected rate to the projected ADA for 2022-23, after adjusting for inflation. This calculation is shown on Part 1.

#### Exhibit 5

These exhibits show the discounting calculations for gross unpaid losses as of 6/30/22, and for losses expected to be incurred during 2022-23. The calculations are based on the observed claims payment pattern and a 1.0% interest rate.

#### Exhibit 6

This exhibit contains historical statistics on ADA's, self-insured retentions, and deductibles.

#### **Property Exhibits**

#### Exhibit 1

Part 1 shows the projection of the gross liability for unpaid losses as of 6/30/22. As in the Liability exhibits, this is calculated as the sum of case basis reserves and the estimated IBNR liability. Part 2 details the projections of losses paid and reported to June 30, 2021. These are losses gross of member deductibles.

#### Exhibit 2

Exhibit 2 documents our estimation of ultimate losses. Due to the short-tailed nature of property claims, we use only the Bornhuetter-Ferguson method to estimate ultimate losses.

#### Exhibit 3

These exhibits show the estimation of the 2022-23 rate.

#### Exhibit 4

This exhibit contains historical claims information and lists the TIV for each program year.

#### **Deductibles Exhibits**

#### Exhibit 1

This exhibit shows the projected member deductibles paid and incurred as of 6/30/22.

#### Exhibit 2

This exhibit projects paid and reported deductibles to 6/30/22.

#### Exhibit 3

This exhibit shows the calculation of ultimate member deductibles.

#### **Claims Data Section**

These exhibits document the selection and derivation of development factors used in the report. There are three triangles: reported Losses, paid Losses, and reported Claims.

## West San Gabriel Liability & Property JPA

An Actuarial Review of the Property & Liability Self-Insurance Program

**Property & Liability Summary** 

#### Estimated Unpaid Losses as of 12/31/21

Gross Net of Deductibles S1,552,212 \$1,246,266 \$1,533,338 \$1,231,112

(1) Projected Unpaid Losses:

(2) Discounted Unpaid Losses: (Assuming a 1.00% interest rate)

	Undisco	ounted	Discounted		
	Gross	Net	Gross	Net	
Probability	of	of	of	of	
Level	Deductibles	Deductibles	Deductibles	Deductibles	
(3)	(4)	(5)	(6)	(7)	
10%	\$1,350,424	\$1,096,714	\$1,334,004	\$1,083,379	
20%	1,396,991	1,134,102	1,380,004	1,120,312	
30%	1,443,557	1,171,490	1,426,005	1,157,246	
40%	1,490,123	1,196,415	1,472,005	1,181,868	
50%	1,536,690	1,233,803	1,518,005	1,218,801	
Central Estimate	\$1,552,212	\$1,246,266	\$1,533,338	\$1,231,112	
60%	1,583,256	1,271,191	1,564,005	1,255,735	
70%	1,629,822	1,308,579	1,610,005	1,292,668	
80%	1,691,911	1,345,967	1,671,339	1,329,601	
90%	1,785,044	1,420,743	1,763,339	1,403,468	

- (1) Column 1: [ Page 27, Column (6) ]. Column 2: [ Page 29, Column (6) ].
- (2) Discounted at 1.00% Interest.
- (3) Estimated Probability that funding will be adequate.
- (4) (7) Estimated by BAC.

### Projected Losses for the 2022-23 Program Year @ 50K SIR

	Gross of	Net of
	<u>Deductibles</u>	<u>Deductibles</u>
(1) Projected Ultimate Losses:	\$927,527	\$538,418
(2) Discounted Value of Losses: (Assuming a 1.00% interest rate)	\$907,314	\$526,555

	Gross	Net
Probability	of	of
Level	Deductibles	Deductibles
(3)	(4)	(5)
Central Estimate	\$927,527	\$538,418
70%	1,032,656	605,720
80%	1,112,778	659,024
90%	1,230,489	737,633

Undis	counted	<u>Discounted Value</u>			
Gross	Net	Gross	Net		
of	of	of	of		
Deductibles	Deductibles	Deductibles	Deductibles		
(4)	(5)	<u>(6)</u>	(7)		
\$927,527	\$538,418	\$907,314	\$526,555		
1,032,656	605,720	1,010,153	592,375		
1,112,778	659,024	1,088,528	644,504		
1,230,489	737,633	1,203,674	721,381		

- (1) [Page 32, Item (1)] + [Page 35, Item (1)].
- (2) [ Page 32, Item (2) ] + [ Page 35, Item (2) ].
- (3) Estimated Probability that funding will be adequate.
- (4) (7) Estimated by BAC.

#### Projected Unpaid Losses by Member and Program

<u>Undiscounted</u>			Discounted (1.00% interest)			Estimated Ultimate Losses			
	Claims Liabilities			Claims Liabilities			Estimated Gross		
Program Year	as of 6/30/22	Members' Portion	Program's Portion	as of 6/30/22	Members' Portion	Program's Portion	Ultimate Losses	Members' Portion	Program's Portion
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2011-12	\$0	\$0	\$0	\$0	\$0	\$0	\$680,228	\$191,213	\$489,014
2012-13	0	0	0	0	0	0	794,027	256,631	537,396
2013-14	0	0	0	0	0	0	742,669	231,537	511,132
2014-15	434	0	434	432	0	432	570,091	188,475	381,616
2015-16	0	0	0	0	0	0	838,732	295,757	542,975
2016-17	10,624	0	10,624	10,487	0	10,487	775,159	238,492	536,667
2017-18	60,554	8,572	51,982	59,947	8,486	51,461	699,065	207,559	491,506
2018-19	187,233	7,414	179,819	185,808	7,358	178,450	1,081,521	275,057	806,464
2019-20	157,891	20,467	137,424	156,453	20,280	136,173	477,420	154,389	323,031
2020-21	260,155	54,676	205,479	257,470	54,112	203,358	592,796	190,394	402,402
2021-22	826,407	250,850	575,557	813,887	247,049	566,838	994,623	340,645	653,978
Total	\$1,503,298	\$341,978	\$1,161,320	\$1,484,484	\$337,285	\$1,147,199	\$8,246,329	\$2,570,148	\$5,676,182

- (1) [ Page 37, Column (6) ] + [ Page 60, Column (6) ].
- (2) Page 67, Column (6).
- (3) (1) (2).
- (4) [Page 31, Column (2)] + [Page 34, Column (2)].
- (5) Estimated by BAC.
- (6) (4) (5).
- (7) [Page 31, Column (3)] + [Page 34, Column (3)]. (8) Page 67, Column (1).
- (9) (7) (8).

#### Projected Unpaid Losses as of 6/30/22 Gross of Member Deductibles - Limited to the SIR

		Projected	Projected	Projected	Projected	Projected
	Estimated	Paid	Case	Reported	IBNR	Unpaid
Program	Ultimate	Losses as of	Reserves	Losses as of	as of	Losses as of
Year	Losses	6/30/22	6/30/22	6/30/22	6/30/22	6/30/22
	(1)	(2)	(3)	(4)	(5)	(6)
2011-12	\$680,228	\$680,228	\$0	\$680,228	\$0	\$0
2012-13	794,027	794,027	0	794,027	0	0
2013-14	742,669	742,669	0	742,669	0	0
2014-15	570,091	569,657	434	570,091	0	434
2015-16	838,732	838,732	0	838,732	0	0
2016-17	775,159	764,534	8,710	773,244	1,914	10,624
2017-18	699,065	638,511	54,332	692,843	6,222	60,554
2018-19	1,081,521	894,287	178,589	1,072,877	8,644	187,233
2019-20	477,420	319,529	146,632	466,161	11,259	157,891
2020-21	592,796	332,641	191,606	524,247	68,549	260,155
2021-22	994,623	168,216	357,727	525,944	468,679	826,407
Total	\$8,246,329	\$6,743,031	\$938,031	\$7,681,062	\$565,267	\$1,503,298

Notes:

(1) - (6) Sum of Page 37 + Page 60 entries.

#### Estimated Unpaid Losses as of 12/31/21 Gross of Member Deductibles - Limited to the SIR

Program Year	Estimated Ultimate Losses(1)	Paid Losses as of 12/31/21 (2)	Case Reserves 12/31/21 (3)	Reported Losses as of 12/31/21(4)	Estimated IBNR as of 12/31/21(5)	Estimated Unpaid Losses as of 12/31/21 (6)
2011-12	\$680,228	\$680,228	\$0	\$680,228	\$0	\$0
2012-13	794,027	794,027	0	794,027	0	0
2013-14	742,669	737,188	3,563	740,750	1,919	5,481
2014-15	570,091	569,360	726	570,086	5	731
2015-16	838,732	838,732	0	838,732	0	0
2016-17	775,159	760,930	10,368	771,298	3,860	14,229
2017-18	699,065	599,914	87,487	687,400	11,664	99,151
2018-19	1,081,521	767,817	303,804	1,071,621	9,899	313,704
2019-20	477,420	223,677	236,733	460,409	17,011	253,744
2020-21	592,796	230,992	223,694	454,686	138,110	361,804
2021-22	510,342	6,973	148,200	155,173	355,169	503,369
Total	\$7,762,048	\$6,209,836	\$1,014,575	\$7,224,411	\$537,637	\$1,552,212

Notes:

(1) - (6) Sum of Page 39 + Page 62 entries.

## Projected Unpaid Losses as of 6/30/22 Net of Member Deductibles - Limited to the SIR

Program	Estimated Ultimate	Projected Paid Losses as of	Projected Case Reserves	Projected Reported Losses as of	Projected IBNR as of	Projected Unpaid Losses as of
Year	Losses	6/30/22	6/30/22	6/30/22	6/30/22	6/30/22
	(1)	(2)	(3)	(4)	(5)	(6)
2011-12	\$489,014	\$489,014	\$0	\$489,014	\$0	\$0
2012-13	537,396	537,396	0	537,396	0	0
2013-14	511,132	511,132	0	511,132	0	0
2014-15	381,616	381,182	434	381,616	0	434
2015-16	542,975	542,975	0	542,975	0	0
2016-17	536,667	526,042	8,710	534,753	1,914	10,624
2017-18	491,506	439,524	45,760	485,284	6,222	51,982
2018-19	806,464	626,645	171,427	798,072	8,392	179,819
2019-20	323,031	185,607	126,473	312,080	10,951	137,424
2020-21	402,402	196,924	145,678	342,601	59,801	205,479
2021-22	653,978	78,421	240,438	318,859	335,120	575,557
Total	\$5,676,182	\$4,514,862	\$738,920	\$5,253,782	\$422,399	\$1,161,320

Notes:

(1) - (6) Sum of Page 29 + entries.

### Estimated Unpaid Losses as of 12/31/21 Net of Member Deductibles - Limited to the SIR

Program Year	Estimated Ultimate Losses(1)	Paid Losses as of 12/31/21 (2)	Case Reserves 12/31/21(3)	Reported Losses as of 12/31/21(4)	Estimated IBNR as of 12/31/21 (5)	Estimated Unpaid Losses as of 12/31/21 (6)
2011-12	\$489,014	\$489,014	\$0	\$489,014	\$0	\$0
2012-13	537,396	537,396	0	537,396	0	0
2013-14	511,132	509,214	0	509,214	1,919	1,919
2014-15	381,616	381,611	0	381,611	5	5
2015-16	542,975	542,975	0	542,975	0	0
2016-17	536,667	522,438	10,368	532,807	3,860	14,229
2017-18	491,506	403,472	76,369	479,841	11,664	88,033
2018-19	806,464	505,241	291,585	796,827	9,637	301,222
2019-20	323,031	101,270	205,257	306,527	16,504	221,761
2020-21	402,402	123,324	158,034	281,359	121,044	279,078
2021-22	340,020	0	90,234	90,234	249,786	340,020
Total	\$5,362,223	\$4,115,957	\$831,847	\$4,947,805	\$414,418	\$1,246,266

Notes:

(1) - (6) Sum of Page 27 - Page 69 entries.

## West San Gabriel Liability & Property JPA

## An Actuarial Review of the Property & Liability Self-Insurance Program

**Liability Summary** 

### West San Gabriel Liability & Property JPA Liability Program

#### Projected Unpaid Losses as of 06/30/22 **Gross of Deductibles**

	Discounted			
	Undiscounted Claims	(1.00% interest) Claims	Estimated	
	Liabilities	Liabilities	Gross	
Program Year	as of 6/30/22 (1)	as of 6/30/22 (2)	Ultimate Losses (3)	
2011-12	\$0	\$0	\$459,120	
2012-13	0	0	793,546	
2013-14	0	0	730,000	
2014-15	434	432	520,000	
2015-16	0	0	719,047	
2016-17	10,624	10,487	660,000	
2017-18	60,554	59,947	660,000	
2018-19	162,477	161,052	940,000	
2019-20	157,891	156,453	460,000	
2020-21	218,854	216,375	350,000	
2021-22	740,547	728,466	830,000	
Total	\$1,351,382	\$1,333,212	\$7,121,713	

- (1) Page 37, Column (6).(2) Page 56, Column (3).(3) Page 40, Column (6).

#### West San Gabriel Liability & Property JPA Liability Program

Projected Losses for the 2022-23 Program Year

Gross	Net	
of	of	
Member	Member	
Deductibles	Deductibles	

- (1) Projected Losses:
- (2) Discounted Value of Projected Losses: (as of 7/1/22, 1.00% interest rate)

\$750,537	\$430,808
\$732,121	\$420,038

#### Notes:

(1) Page 54, Column (3).

Net Column: Page 54, Item (5).

(2) Page 57, Column (3).

Net Column: Page 57, Item (4) x [Page 54, Item (4)].

## West San Gabriel Liability & Property JPA

## Actuarial Analysis of the Property & Liability Self-Insurance Program

**Property Summary** 

## West San Gabriel Liability & Property JPA Property Program

## Projected Unpaid Losses - Gross Individual Losses Limited to SIR

	Undiscounted	Discounted	
	Claims	Claims	
	Liabilities	Liabilities	Estimated
Program	as of	as of	Ultimate
Year	6/30/22	6/30/22	Losses
	<u>(1)</u>	(2)	(3)
2011-12	\$0	\$0	\$221,107
2012-13	0	0	481
2013-14	0	0	12,669
2014-15	0	0	50,091
2015-16	0	0	119,685
2016-17	0	0	115,159
2017-18	0	0	39,065
2018-19	24,756	24,756	141,521
2019-20	0	0	17,420
2020-21	41,300	41,095	242,796
2021-22	85,860	85,421	164,623
Total	\$151,916	\$151,272	\$1,124,616

- (1) Page 60, Column (6).
- (2) Estimated assuming 1.00% interest.
- (3) Page 63, Column (6).

Projected Losses for the 2022-23 Program Year

Gross	Net
of	of
Member	Member
Deductibles	Deductibles

- (1) Projected Losses:
- (2) Discounted Value of Losses: (as of 7/1/22, 1.00% interest rate)

\$176,990	\$107,610
\$175,193	\$106,518

#### Notes:

(1) Page 64, Item (6).

Net Column: Page 64, Item (8).

(2) Estimated by BAC.

Net Column: Estimated by BAC.

## West San Gabriel Liability & Property JPA

# An Actuarial Review of the Property & Liability Self-Insurance Program

**Liability Exhibits** 

### Projected Unpaid Losses as of 6/30/22 Gross of Member Deductibles - Limited to the Effective SIR

Program Year	Estimated Ultimate Losses	Projected Paid Losses as of 6/30/22	Projected Case Reserves 6/30/22	Projected Reported Losses as of 6/30/22	Projected IBNR Losses as of 6/30/22	Projected Unpaid Losses as of 6/30/22
	(1)	(2)	(3)	(4)	(5)	(6)
2011-12	\$459,120	\$459,120	\$0	\$459,120	\$0	\$0
2012-13	793,546	793,546	0	793,546	0	0
2013-14	730,000	730,000	0	730,000	0	0
2014-15	520,000	519,566	434	520,000	0	434
2015-16	719,047	719,047	0	719,047	0	0
2016-17	660,000	649,376	8,710	658,086	1,914	10,624
2017-18	660,000	599,446	54,332	653,778	6,222	60,554
2018-19	940,000	777,523	153,833	931,356	8,644	162,477
2019-20	460,000	302,109	146,632	448,741	11,259	157,891
2020-21	350,000	131,146	151,281	282,427	67,573	218,854
2021-22	830,000	89,453	302,243	391,696	438,304	740,547
Total	\$7,121,713	\$5,770,331	\$817,465	\$6,587,796	\$533,917	\$1,351,382

- (1) Page 40, Column (6).
- (2) Page 38, Column (3).
- (3) (4) (2).
- (4) Page 38, Column (6).
- (5) (1) (4).
- (6) (1) (2).

### Projected Losses Paid and Reported between 1/1/22 and 6/30/22 Individual Losses Limited to SIR

		Projected	Projected		Projected	Projected
	Losses	Losses	Losses	Losses	Losses	Losses
	Paid	Paid	Paid	Reported	Reported	Reported
Program	as of	1/1/22 -	as of	as of	1/1/22 -	as of
Year	12/31/21	6/30/22	6/30/22	12/31/21	6/30/22	6/30/22
	(1)	(2)	(3)	(4)	<u>(5)</u>	<u>(6)</u>
2011-12	\$459,120	\$0	\$459,120	\$459,120	\$0	\$459,120
2012-13	793,546	0	793,546	793,546	0	793,546
2013-14	724,519	5,481	730,000	728,081	1,919	730,000
2014-15	519,269	296	519,566	519,995	5	520,000
2015-16	719,047	0	719,047	719,047	0	719,047
2016-17	645,771	3,604	649,376	656,140	1,946	658,086
2017-18	560,849	38,598	599,446	648,336	5,442	653,778
2018-19	676,246	101,277	777,523	930,101	1,255	931,356
2019-20	206,256	95,853	302,109	442,989	5,752	448,741
2020-21	59,117	72,029	131,146	213,868	68,558	282,427
2021-22	6,631	82,822	89,453	59,831	331,865	391,696
Total	\$5,370,372	\$399,959	\$5,770,331	\$6,171,054	\$416,742	\$6,587,796

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

### Estimated Unpaid Losses as of 12/31/21 Gross of Member Deductibles - Limited to the Effective SIR

Program Year	Estimated Ultimate Losses(1)	Paid Losses as of 12/31/21 (2)	Case Reserves 12/31/21 (3)	Reported Losses as of 12/31/21 (4)	Estimated IBNR Losses as of 12/31/21(5)	Estimated Unpaid Losses as of 12/31/21 (6)
0044.40	0.450,400	<b>4450.400</b>		<b>\$450.400</b>		40
2011-12	\$459,120	\$459,120	\$0	\$459,120	\$0	\$0
2012-13	793,546	793,546	0	793,546	0	0
2013-14	730,000	724,519	3,563	728,081	1,919	5,481
2014-15	520,000	519,269	726	519,995	5	731
2015-16	719,047	719,047	0	719,047	0	0
2016-17	660,000	645,771	10,368	656,140	3,860	14,229
2017-18	660,000	560,849	87,487	648,336	11,664	99,151
2018-19	940,000	676,246	253,854	930,101	9,899	263,754
2019-20	460,000	206,256	236,733	442,989	17,011	253,744
2020-21	350.000	59,117	154,751	213,868	136,132	290,883
2021-22	415,000	6,631	53,200	59,831	355,169	408,369
Total	\$6,706,713	\$5,370,372	\$800,682	\$6,171,054	\$535,659	\$1,336,341

- (1) Page 40, Column (6). 2021-22 at 50% for incomplete year.
- (2) Page 42, Column (1).
- (3) (4) (2).
- (4) Page 41, Column (1).
- (5) (1) (4). (6) (1) (2).

## Estimated Ultimate Losses Individual Losses Limited to SIR

				B-F		
			IBNR to	Method	Frequency	Selected
Program	Reported	Paid	Case Reserves	Using	Times	Ultimate
Year	Projection	Projection	Ratio	Reported	Severity	Losses
	(1)	(2)	(3)	(4)	(5)	(6)
2011-12	\$459,120	\$459,120	\$459,120	\$459,120	\$530,751	\$459,120
2012-13	793,546	793,552	793,546	793,546	677,572	793,546
2013-14	728,081	724,929	728,081	728,081	772,750	730,000
2014-15	519,995	520,774	519,995	519,995	556,764	520,000
2015-16	719,047	722,230	719,047	719,047	783,270	719,047
2016-17	656,309	651,538	656,451	656,140	736,900	660,000
2017-18	650,575	582,962	657,085	650,341	658,856	660,000
2018-19	934,398	792,645	938,224	933,738	684,675	940,000
2019-20	449,234	395,118	450,091	453,438	463,770	460,000
2020-21	284,764	442,656	276,233	408,095	314,140	350,000
2021-22	888,790	1,193,856	863,197	781,845	410,878	830,000
Total	\$7,083,859	\$7,279,380	\$7,061,070	\$7,103,386	\$6,590,326	\$7,121,713

- (1) Page 41, Column (3).
- (2) Page 42, Column (3).
- (3) Page 43, Column (6).
- (4) Page 44, Column (6).
- (5) Page 48, Column (5).
- (6) Selected on the basis of (1) (5).

## Reported Loss Projection Method Individual Losses Limited to SIR

		Reported	
	Cumulative	Development	
	Reported	Factor	Projected
Program	Losses as of	as of	Ultimate
Year	12/31/21	12/31/21	Losses
	(1)	(2)	(3)
2011-12	\$459,120	1.000	\$459,120
2012-13	793,546	1.000	793,546
2013-14	728,081	1.000	728,081
2014-15	519,995	1.000	519,995
2015-16	719,047	1.000	719,047
2016-17	656,140	1.000	656,309
2017-18	648,336	1.003	650,575
2018-19	930,101	1.005	934,398
2019-20	442,989	1.014	449,234
2020-21	213,868	1.331	284,764
2021-22	59,831	14.855	888,790

- (1) Provided by Alliant Insurance Services.
- (2) Page 72.
- (3) (1) x (2), rounded.

## Paid Loss Projection Method Individual Losses Limited to SIR

_	Cumulative Paid	Paid Development Factor	Projected
Program	Losses as of	as of	Ultimate
Year	12/31/21	12/31/21	Losses
	(1)	(2)	(3)
2011-12	\$459,120	1.000	\$459,120
2012-13	793,546	1.000	793,552
2013-14	724,519	1.001	724,929
2014-15	519,269	1.003	520,774
2015-16	719,047	1.004	722,230
2016-17	645,771	1.009	651,538
2017-18	560,849	1.039	582,962
2018-19	676,246	1.172	792,645
2019-20	206,256	1.916	395,118
2020-21	59,117	7.488	442,656
2021-22	6,631	180.034	1,193,856

- (1) Provided by Alliant Insurance Services.
- (2) Page 73.
- (3) (1) x (2), rounded.

## IBNR to Case Reserves Ratio Method Individual Losses Limited to SIR

	Reported	Paid				
	Development	Development	IBNR	Case	Estimated	
	Factor	Factor	to Case	Reserves	IBNR	Estimated
Program	as of	as of	Reserves	as of	Losses as of	Ultimate
Year	12/31/21	12/31/21	Ratio	12/31/21	12/31/21	Losses
	(1)	(2)	(3)	(4)	(5)	(6)
2011-12	1.000	1.000	0.000	\$0	\$0	\$459,120
2012-13	1.000	1.000	0.000	0	0	793,546
2013-14	1.000	1.001	0.000	3,563	0	728,081
2014-15	1.000	1.003	0.000	726	0	519,995
2015-16	1.000	1.004	0.000	0	0	719,047
2016-17	1.000	1.009	0.030	10,368	311	656,451
2017-18	1.003	1.039	0.100	87,487	8,749	657,085
2018-19	1.005	1.172	0.032	253,854	8,123	938,224
2019-20	1.014	1.916	0.030	236,733	7,102	450,091
2020-21	1.331	7.488	0.403	154,751	62,365	276,233
2021-22	14.855	180.034	15.101	53,200	803,366	863,197
Total				\$800,682	\$890,016	\$7,061,070

- (1) Page 41, Column (2).
- (2) Page 42, Column (2).
- (3) [(1) 1.000] x (2) / [(2) (1)].
- (4) [Page 41, Column (1)] [Page 42, Column (1)].
- (5) (3) x (4), rounded.
- (6) (5) + Page 41, Column (1).

### Bornhuetter-Ferguson Method Using Reported Losses Individual Losses Limited to SIR

Program Year	A Priori Ultimate Losses (1)	Cumulative Reported Loss Development Factors (2)	Percentage of Losses Not Yet Reported (3)	Expected Unreported Losses (4)	Losses Reported as of 12/31/21 (5)	Estimated Ultimate Losses (6)
2011-12	\$600,543	1.000	0.0%	\$0	\$459,120	\$459,120
2012-13	612,853	1.000	0.0%	0	793,546	793,546
2013-14	631,321	1.000	0.0%	0	728,081	728,081
2014-15	637,435	1.000	0.0%	0	519,995	519,995
2015-16	644,375	1.000	0.0%	0	719,047	719,047
2016-17	649,359	1.000	0.0%	0	656,140	656,140
2017-18	668,302	1.003	0.3%	2,005	648,336	650,341
2018-19	727,366	1.005	0.5%	3,637	930,101	933,738
2019-20	746,374	1.014	1.4%	10,449	442,989	453,438
2020-21	780,030	1.331	24.9%	194,227	213,868	408,095
2021-22	773,863	14.855	93.3%	722,014	59,831	781,845

- (1) Page 45, Column (5).
- (2) Page 41, Column (2). (3) 100% [ 1.000 / (2) ].
- (4) (1) x (3).
- (5) Page 41, Column (1).
- (6) (4) + (5).

### A Priori Losses for Bornhuetter-Ferguson Method Individual Losses Limited to SIR

		Factor from			
	Selected Limited	\$50,000 Retention		Average Daily	Expected
Program	Loss	at 2022-23	Detrended	Attendance	Ultimate
Year ———	Rate (1)	Cost Levels(2)	Loss Rate (3)	(ADA) (4)	Losses (5)
2011-12	\$9.19	0.856	\$7.870	76,308	\$600,543
2012-13	9.19	0.870	7.996	76,645	612,853
2013-14	9.19	0.884	8.125	77,701	631,321
2014-15	9.19	0.898	8.255	77,218	637,435
2015-16	9.19	0.912	8.388	76,821	644,375
2016-17	9.19	0.927	8.523	76,189	649,359
2017-18	9.19	0.942	8.659	77,180	668,302
2018-19	9.19	0.957	8.798	82,674	727,366
2019-20	9.19	0.972	8.940	83,487	746,374
2020-21	9.19	0.988	9.083	85,878	780,030
2021-22	9.19	0.994	9.139	84,677	773,863

- (1) Page 46, Item (6).
- (2) Estimated by BAC.
- (3) (1) x (2).
- (4) Page 58, Column (1).
- (5) (3) x (4).

### A Priori Losses for Bornhuetter-Ferguson Method Individual Losses Limited to \$50,000

Program Year	A Priori Ultimate Losses(1)	Factor to 2022-23 Cost Level(2)	Constant \$ A Priori Losses(3)	Average Daily Attendance (ADA)(4)	Indicated Loss Rate (5)
2011-12 2012-13 2013-14 2014-15 2015-16 2016-17 2017-18 2018-19 2019-20 2020-21 2021-22 Average	\$459,120 793,549 728,081 520,384 720,635 656,140 648,336 930,101 442,989 308,602 912,043	1.168 1.150 1.132 1.114 1.096 1.079 1.062 1.045 1.029 1.012	\$536,395 912,460 823,952 579,599 789,953 707,887 688,414 971,989 455,624 312,388 917,620	76,308 76,645 77,701 77,218 76,821 76,189 77,180 82,674 83,487 85,878 84,677	\$7.03 11.91 10.60 7.51 10.28 9.29 8.92 11.76 5.46 3.64 10.84
11/12-19/20					\$9.19
			(6) Selected	2022-23 Loss Rate:	\$9.19

- (1) Page 47, Column (3).
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.
- (4) Page 58, Column (1).
- (5) (3)/(4).
- (6) Selected on the basis of (5).

## A Priori Ultimate losses Individual Losses Limited to SIR

	Reported	Paid	
Program	Loss	Loss	A Priori
Year	Projection	Projection	Selection
	(1)	(2)	(3)
2011-12	\$459,120	\$459,120	\$459,120
2012-13	793,546	793,552	793,549
2013-14	728,081	724,929	728,081
2014-15	519,995	520,774	520,384
2015-16	719,047	722,230	720,635
2016-17	656,309	651,538	656,140
2017-18	650,575	582,962	648,336
2018-19	934,398	792,645	930,101
2019-20	449,234	395,118	442,989
2020-21	284,764	442,656	308,602
2021-22	888,790	1,193,856	912,043
Total	\$7,083,859	\$7,279,380	\$7,119,980

- (1) Page 41, Column (3).
- (2) Page 42, Column (3).
- (3) Selected on the basis of (1) and (2).

## Frequency Times Severity Method Individual Losses Limited to SIR

	Selected	Factor		Estimated	
	2022-23	to Remove		Ultimate	Estimated
Program	Loss	Severity	De-Trended	Loss	Ultimate
Year	Severity	Trend	Severity	Count	Losses
	(1)	(2)	(3)	(4)	(5)
2011-12	\$15,900	0.856	\$13,609	39	\$530,751
2012-13	15,900	0.870	13,828	49	677,572
2013-14	15,900	0.884	14,050	55	772,750
2014-15	15,900	0.898	14,276	39	556,764
2015-16	15,900	0.912	14,505	54	783,270
2016-17	15,900	0.927	14,738	50	736,900
2017-18	15,900	0.942	14,974	44	658,856
2018-19	15,900	0.957	15,215	45	684,675
2019-20	15,900	0.972	15,459	30	463,770
2020-21	15,900	0.988	15,707	20	314,140
2021-22	15,900	0.994	15,803	26	410,878

- (1) Page 49, Item (5).
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.
- (4) Page 50, Column (3).
- (5) (3) x (4).

### Calculation of Expected Loss Severity Frequency Times Severity Method

Program Year	A Priori Ultimate Losses (1)	Severity Trend Factor to 2022-23 (2)	Estimated Ultimate Claim Counts (3)	Constant \$ 2022-23 Claim Severity (4)
	<del></del> _		<del></del>	
2011-12	\$459,120	1.168	39	\$13,754
2012-13	793,549	1.150	49	18,622
2013-14	728,081	1.132	55	14,981
2014-15	520,384	1.114	39	14,862
2015-16	720,635	1.096	54	14,629
2016-17	656,140	1.079	50	14,158
2017-18	648,336	1.062	44	15,646
2018-19	930,101	1.045	45	21,600
2019-20	442,989	1.029	30	15,187
2020-21	308,602	1.012	20	15,619
2021-22	912,043	1.006	26	35,293
Average				\$17,668
11/12-20/21				\$15,906
	(5) Selecte	ed SIR Limited 2	2022-23 Severity:	\$15,900

- (1) Page 47, Column (3).
- (2) Estimated by BAC.
- (3) Page 50, Column (3).
- (4) [(1) x (2)] / (3).
- (5) Selected on the basis of (4).

### Selected Loss Counts

	Reported	Bornhuetter-	Selected
Program	Loss Count	Ferguson	Loss
Year	Projection	Method	Count
	(1)	(2)	(3)
2011-12	39		39
2012-13	49		49
2013-14	55		55
2014-15	39		39
2015-16	54		54
2016-17	50		50
2017-18	44		44
2018-19	45		45
2019-20	30		30
2020-21	20		20
2021-22	30	26	26
Total	455		451

- (1) Page 51, Column (3).
- (2) Page 52, Column (6).
- (3) Selected on the basis of (1) and (2).

## Projection of Ultimate Loss Counts Reported Loss Count Development Method

	Total	Development	Projected
	Losses	Factors	Ultimate
Program	Reported	as of	Loss
Year	12/31/21	12/31/21	Count
	(1)	(2)	(3)
2011-12	39	1.000	39
2012-13	49	1.000	49
2013-14	55	1.000	55
2014-15	39	1.000	39
2015-16	54	1.000	54
2016-17	50	1.000	50
2017-18	44	1.000	44
2018-19	45	1.002	45
2019-20	29	1.018	30
2020-21	19	1.077	20
2021-22	6	5.082	30

- (1) Provided by Alliant Insurance Services.
- (2) Page 74.
- (3) (1) x (2), rounded.

### Projection of Ultimate Loss Counts Method 2: Bornhuetter-Ferguson Method

	A Priori	Claim	Percentage	Estimated	Claims	Projected
Program	Claim	Development	of Claims	Unreported	as of	Ultimate
Year	Count	Factor	Unreported	Claims	12/31/21	Claims
	(1)	(2)	(3)	(4)	(5)	(6)
2021-22	25	5.082	80.3%	20	6	26

- (1) Page 53, Item (6).
- (2) Page 51, Column (2).
- (3) 100% [1.000 / (2)].
- (4) (1) x (3).
- (5) Page 51, Column (1).
- (6) (4) + (5).

### Projection of Ultimate Loss Counts Bornhuetter-Ferguson Method Calculation of Expected 2021-22 Loss Counts

	Projected Ultimate	Average Daily	Indicated
Program	Loss	Attendance	Loss
Year	Counts	(ADA)	Frequency
	<u>(1)</u>	(2)	(3)
2011-12	39	76,308	5.1
2011-12	49	76,645	6.4
2012-10	55	77,701	7.1
2014-15	39	77,218	5.1
2015-16	54	76,821	7.0
2016-17	50	76,189	6.6
2017-18	44	77,180	5.7
2018-19	45	82,674	5.4
2019-20	30	83,487	3.6
2020-21	20	85,878	2.3
2021-22	30	84,677	3.5
Average			5.3
19/20-20/21			3.0
	(4) Selected (	Claim Frequency:	3.0
	(5	5) 2021-22 ADA:	84,677
	(6) 2021-22 Expe	cted Loss Count:	25

- (1) Page 51, Column (3).
- (2) Page 58, Column (1).
- (3) (1) x 10,000 / (2).(4) Selected on the basis of (3).
- (5) Page 58, Column (1).
- (6) (4) x (5) / 10,000.

## Projected 2022-23 Ultimate Losses Individual Losses Limited to SIR

		Projected	Projected
	2022-23	Average Daily	Gross
Program	Level	Attendance	Ultimate
Year	Loss Rate	(ADA)	Losses
	(1)	(2)	(3)
2022-23	\$9.18	81,758	\$750,537

(4) Ratio of Net Losses to Gross Losses: 57.4%

(5) Projected Net Losses: \$430,808

(6) Projected Net Loss Rate: \$5.27

- (1) Page 55, Item (6).
- (2) Projected by BAC.
- (3) (1) x (2), rounded.
- (4) Projected by BAC.
- (5) (3) x (4), rounded.
- (6) (5) / (2), rounded.

### Projected 2022-23 Loss Rate

Program Year	Estimated Ultimate Losses(1)	Pure Premium Trend (2)	Trended Losses (3)	Average Daily Attendance (ADA)(4)	Indicated Loss Rate (5)
2011-12 2012-13 2013-14 2014-15 2015-16 2016-17 2017-18 2018-19 2019-20 2020-21 2021-22 Average	\$459,120 793,546 730,000 520,000 719,047 660,000 660,000 940,000 460,000 350,000 830,000	1.168 1.150 1.132 1.114 1.096 1.079 1.062 1.045 1.029 1.012	\$536,395 912,457 826,123 579,172 788,212 712,052 700,799 982,334 473,120 354,294 835,075	76,308 76,645 77,701 77,218 76,821 76,189 77,180 82,674 83,487 85,878 84,677	\$7.03 11.90 10.63 7.50 10.26 9.35 9.08 11.88 5.67 4.13 9.86
11/12-18/19	(6) Select	ed 2022-23 Level L	oss Rate - Limited	to \$50,000 per Loss:	\$9.70 \$9.18

- (1) Page 40, Column (6).
- (2) Estimated by BAC.
- (3) (1) x (2).
- (4) Page 58, Column (1).
- (5) (3) / (4).
- (6) Estimated by BAC.

### Discounted Value of Unpaid Losses as of 6/30/22 Assuming a 1.00% Interest Rate

	Projected		Discounted
Program	Unpaid	Discount	Unpaid
Year	Losses	Factor	Losses
	(1)	(2)	(3)
2011-12	\$0	1.000	\$0
2012-13	0	0.995	0
2013-14	0	1.000	0
2014-15	434	0.995	432
2015-16	0	0.990	0
2016-17	10,624	0.987	10,487
2017-18	60,554	0.990	59,947
2018-19	162,477	0.991	161,052
2019-20	157,891	0.991	156,453
2020-21	218,854	0.989	216,375
2021-22	740,547	0.984	728,466
Total	\$1,351,382		\$1,333,212

(4) Indicated Discount Factor: 0.987

- (1) Page 37, Column (6).
- (2) Estimated by BAC.
- (3) (1) x (2).
- (4) [Sum of Column (3)]/[Sum of Column (1)].

### Discounted Value of 2022-23 Losses as of 7/1/22 Assuming a 1.00% Interest rate

	Projected		Discounted
Program	Loss	Discount	Value of
Year	Payments	Factor	Payments
	(1)	(2)	(3)
2022.22	¢54.420	0.005	<b>#E2.062</b>
2022-23	\$54,132	0.995	\$53,863
2023-24	207,131	0.985	204,062
2024-25	266,044	0.975	259,508
2025-26	155,335	0.966	150,018
2026-27	50,508	0.956	48,296
2027-28	12,427	0.947	11,765
2028-29	2,226	0.937	2,087
2029-30	1,445	0.928	1,341
2030-31	1,289	0.919	1,184
2031-32	-3	0.910	-3
Total	\$750,534		\$732,121

(4) Indicated Discount Factor: 0.975

- (1) Based upon the observed payment pattern.
- (2) Based upon a 1.00% interest rate. Assumes mid-year payments.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

## **Program Information**

	Average Daily	Self-Insured	
Program	Attendance	Retention	Deductible
Year	(ADA)	(SIR)	Level
	(1)	(2)	(3)
2011-12	76,308	\$50,000	\$10,000
2012-13	76,645	50,000	10,000
2013-14	77,701	50,000	10,000
2014-15	77,218	50,000	10,000
2015-16	76,821	50,000	10,000
2016-17	76,189	50,000	10,000
2017-18	77,180	50,000	10,000
2018-19	82,674	50,000	10,000
2019-20	83,487	50,000	10,000
2020-21	85,878	50,000	10,000/25,000
2021-22	84,677	50,000	10,000/25,000
2022-23	81,758	?	?

#### Notes:

(1) - (3) Provided by Alliant Insurance Services. Arcadia & Glendale commenced \$25,000 deductible on 7/1/20.

## West San Gabriel Liability & Property JPA

# An Actuarial Review of the Property & Liability Self-Insurance Program

**Property Exhibits** 

## Projected Unpaid Losses as of 6/30/22 Individual Losses Limited to SIR

Program Year	Estimated Ultimate Losses (1)	Projected Losses Paid as of 6/30/22 (2)	Projected Case Reserves as of 6/30/22 (3)	Projected Losses Reported as of 6/30/22 (4)	Projected IBNR as of 6/30/22 (5)	Projected Losses Unpaid as of 6/30/22 (6)
2011-12	\$221,107	\$221,107	\$0	\$221,107	\$0	\$0
2012-13	481	481	0	481	0	0
2013-14	12,669	12,669	0	12,669	0	0
2014-15	50,091	50,091	0	50,091	0	0
2015-16	119,685	119,685	0	119,685	0	0
2016-17	115,159	115,159	0	115,159	0	0
2017-18	39,065	39,065	0	39,065	0	0
2018-19	141,521	116,764	24,756	141,521	0	24,756
2019-20	17,420	17,420	0	17,420	0	0
2020-21	242,796	201,496	40,325	241,820	976	41,300
2021-22	164,623	78,763	55,485	134,248	30,375	85,860
Total	\$1,124,616	\$972,700	\$120,566	\$1,093,266	\$31,351	\$151,916

- (1) Page 63, Column (6).
- (2) Page 61, Column (3).
- (3) (4) (2).
- (4) Page 61, Column (6).
- (5) (1) (4).
- (6) (3) + (5).

### Projected Losses Paid and Reported as of June 30, 2022 Individual Losses Limited to SIR

Program Year	Losses Paid as of 12/31/21 (1)	Projected Payments 1/1/22 - 6/30/22 (2)	Projected Losses Paid as of 6/30/22 (3)	Losses Reported as of 12/31/21 (4)	Projected Losses Reported 1/1/22 - 6/30/22 (5)	Projected Losses Reported as of 6/30/22 (6)
2011-12	\$221,107	\$0	\$221,107	\$221,107	\$0	\$221,107
2012-13	481	0	481	481	0	481
2013-14	12,669	0	12,669	12,669	0	12,669
2014-15	50,091	0	50,091	50,091	0	50,091
2015-16	119,685	0	119,685	119,685	0	119,685
2016-17	115,159	0	115,159	115,159	0	115,159
2017-18	39,065	0	39,065	39,065	0	39,065
2018-19	91,571	25,194	116,764	141,521	0	141,521
2019-20	17,420	0	17,420	17,420	0	17,420
2020-21	171,875	29,620	201,496	240,818	1,002	241,820
2021-22	342	78,421	78,763	95,342	38,906	134,248
Total	\$839,465	\$133,235	\$972,700	\$1,053,357	\$39,908	\$1,093,266

- (1) Page 62, Column (2).
- (2) Based upon the observed payment pattern.
- (3) (1) + (2).
- (4) Page 62, Column (4).
- (5) Based upon the observed reporting pattern.
- (6) (4) + (5).

## Estimated Unpaid Losses as of 12/31/21 Individual Losses Limited to SIR

Program Year	Estimated Ultimate Losses(1)	Losses Paid as of 12/31/21 (2)	Case Reserves as of 12/31/21 (3)	Losses Reported as of 12/31/21 (4)	Estimated IBNR as of 12/31/21 (5)	Estimated Losses Unpaid as of 12/31/21 (6)
2011-12	\$221,107	\$221,107	\$0	\$221,107	\$0	\$0
2012-13	481	481	0	481	0	0
2013-14	12,669	12,669	0	12,669	0	0
2014-15	50,091	50,091	0	50,091	0	0
2015-16	119,685	119,685	0	119,685	0	0
2016-17	115,159	115,159	0	115,159	0	0
2017-18	39,065	39,065	0	39,065	0	0
2018-19	141,521	91,571	49,950	141,521	0	49,950
2019-20	17,420	17,420	0	17,420	0	0
2020-21	242,796	171,875	68,943	240,818	1,978	70,921
2021-22	95,342	342	95,000	95,342	0	95,000
Total	\$1,055,335	\$839,465	\$213,893	\$1,053,357	\$1,978	\$215,871

- (1) Page 63, Column (6). 2021-22 adjusted for partial year.
- (2) Provided by Alliant Insurance Services.
- (3) (4) (2).
- (4) Page 63, Column (5).
- (5) (1) (4).
- (6) (1) (2).

## Estimated Ultimate Losses - Gross of Member Deductibles Individual Losses Limited to SIR

	Adjusted					
	Total	Expected	Estimated		Reported	
	Insured	Loss Rate	Percentage	Estimated	Losses	Estimated
Program	Value	per	of Losses	Unreported	as of	Ultimate
Year	(\$000's)	\$1,000 TIV	Unreported	Losses	12/31/21	Losses
	(1)	(2)	(3)	(4)	(5)	<u>(6)</u>
2011-12	\$3,371,274	\$0.066	0.0%	\$0	\$221,107	\$221,107
2012-13	3,386,166	0.000	0.0%	0	481	481
2013-14	3,432,820	0.004	0.0%	0	12,669	12,669
2014-15	3,411,481	0.015	0.0%	0	50,091	50,091
2015-16	3,393,942	0.035	0.0%	0	119,685	119,685
2016-17	3,366,020	0.034	0.0%	0	115,159	115,159
2017-18	3,409,803	0.011	0.0%	0	39,065	39,065
2018-19	3,652,527	0.039	0.0%	0	141,521	141,521
2019-20	3,688,445	0.005	0.0%	0	17,420	17,420
2020-21	3,794,079	0.024	2.2%	1,978	240,818	242,796
2021-22	3,741,019	0.029	64.8%	69,281	95,342	164,623
Total	\$38,647,577			\$71,259	\$1,053,357	\$1,124,616

- (1) Page 65, Column (2).
- (2) Estimated by BAC based on loss data.
- (3) Estimated by BAC.
- (4) (1) x (2) x (3).
- (5) Provided by Alliant Insurance Services.
- (6) (4) + (5).

### Projected Loss Rate and Losses for 2022-23 Individual Losses Limited to SIR

	Estimated	Adjusted	
	Ultimate	Total	
	Losses @ 50K	Insured	Indicated
Program	Retention	Value	Loss
Year	(2022-23 \$)	(\$000's)	Rate
	(1)	(2)	(3)
2011-12	\$240,271	\$3,371,274	\$0.071
2012-13	518	3,386,166	0.000
2013-14	13,561	3,432,820	0.004
2014-15	53,212	3,411,481	0.016
2015-16	126,186	3,393,942	0.037
2016-17	120,500	3,366,020	0.036
2017-18	40,569	3,409,803	0.012
2018-19	145,863	3,652,527	0.040
2019-20	17,820	3,688,445	0.005
2020-21	246,493	3,794,079	0.065
2021-22	165,872	3,741,019	0.044
Total	\$1,170,864	\$38,647,577	\$0.030
(4) Sel	ected 2022-23 Rate	@ 50K Retention:	\$0.049
	(5) Projected 202	2-23 TIV (\$000's):	\$3,612,049
	(6) Projected 2022	-23 Gross Losses:	\$176,990
	(7) Ratio of Ne	t to Gross Losses:	60.8%
	(8) Projected 202	22-23 Net Losses:	\$107,610

- (1) Page 63, Column (6). adjusted to 2022-23 cost level.
- (2) Page 63, Column (1).
- (3) (1)/(2).
- (4) Selected on the basis of (3).
- (5) Estimated by BAC from program history.
- (6) (4) x (5), rounded.
- (7) Estimated by BAC.
- (8) (6) x (7), rounded.

## Historical Summary

		Adjusted		
	Total	Total		
	Insured	Insured	Self-Insured	
Program	Value	Value	Retention	Member
Year	(\$000's)	(\$000's)	(SIR)	Deductible
	(1)	(2)	(3)	(4)
2011-12	\$2,031,496	\$3,371,274	\$50,000	\$10,000
2012-13	2,087,003	3,386,166	50,000	10,000
2013-14	2,167,818	3,432,820	50,000	10,000
2014-15	2,248,418	3,411,481	50,000	10,000
2015-16	2,283,912	3,393,942	50,000	10,000
2016-17	2,481,224	3,366,020	50,000	10,000
2017-18	2,674,794	3,409,803	50,000	10,000
2018-19	2,965,139	3,652,527	50,000	10,000
2019-20	2,965,139	3,688,445	50,000	10,000
2020-21	3,181,996	3,794,079	50,000	10,000
2021-22	3,329,502	3,741,019	50,000	10,000
2022-23	3,612,049	3,612,049	?	?

<sup>(1), (3), &</sup>amp; (4) Provided by Alliant Insurance Services.

<sup>(2) 2022-23</sup> TIV adjusted in proportion to past ADA.

## West San Gabriel Liability & Property JPA

# An Actuarial Review of the Property & Liability Self-Insurance Program

**Deductibles Exhibits** 

### West San Gabriel Liability & Property JPA **Deductibles**

## Projected Unpaid Deductibles as of 6/30/22

Program Year	Estimated Ultimate Deductibles(1)	Projected Deductibles Paid as of 6/30/22 (2)	Projected Deductible Reserves as of 6/30/22 (3)	Projected Deductibles Reported as of 6/30/22(4)	Projected Deductibles IBNR as of 6/30/22(5)	Projected Deductibles Unpaid as of 6/30/22 (6)
2011-12	\$191,213	\$191,213	\$0	\$191,213	\$0	\$0
2012-13	256,631	256,631	0	256,631	0	0
2013-14	231,537	231,537	0	231,537	0	0
2014-15	188,475	188,475	0	188,475	0	0
2015-16	295,757	295,757	0	295,757	0	0
2016-17	238,492	238,492	0	238,492	0	0
2017-18	207,559	198,987	8,572	207,559	0	8,572
2018-19	275,057	267,643	7,162	274,805	252	7,414
2019-20	154,389	133,922	20,159	154,081	308	20,467
2020-21	190,394	135,718	45,928	181,646	8,748	54,676
2021-22	340,645	89,795	117,290	207,085	133,560	250,850
Total	\$2,570,148	\$2,228,170	\$199,110	\$2,427,280	\$142,868	\$341,978

- (1) Page 70, Column (6).
- (2) Page 68, Column (3).
- (3) (4) (2).(4) Page 68, Column (6).
- (5) (1) (4).
- (6) (3) + (5).

### West San Gabriel Liability & Property JPA **Deductibles**

## Projected Deductibles Paid and Reported as of 6/30/22

Program Year	Deductibles Paid as of 12/31/21 (1)	Projected Payments 1/1/22 - 6/30/22(2)	Projected Deductibles Paid as of 6/30/22 (3)	Deductibles Reported as of 12/31/21 (4)	Projected Reported 1/1/22 - 6/30/22 (5)	Projected Deductibles Reported as of 6/30/22 (6)
2011-12	\$191,213	\$0	\$191,213	\$191,213	\$0	\$191,213
2012-13	256,631	0	256,631	256,631	0	256,631
2013-14	227,974	3,563	231,537	231,537	0	231,537
2014-15	187,749	726	188,475	188,475	0	188,475
2015-16	295,757	0	295,757	295,757	0	295,757
2016-17	238,492	0	238,492	238,492	0	238,492
2017-18	196,441	2,546	198,987	207,559	0	207,559
2018-19	262,576	5,067	267,643	274,795	10	274,805
2019-20	122,406	11,516	133,922	153,882	199	154,081
2020-21	107,668	28,050	135,718	173,328	8,318	181,646
2021-22	6,973	82,822	89,795	64,939	142,146	207,085
Total	\$2,093,879	\$134,290	\$2,228,170	\$2,276,607	\$150,673	\$2,427,280

- (1) Provided by Alliant Insurance Services.
- (2) Based upon the observed payment pattern.
- (3) (1) + (2).(4) Page 70, Column (5).
- (5) Based upon the observed reporting pattern.
- (6) (4) + (5).

## West San Gabriel Liability & Property JPA Deductibles

## Estimated Unpaid Deductibles as of 12/31/21

Program Year	Estimated Ultimate Deductibles(1)	Deductibles Paid as of 12/31/21 (2)	Deductible Reserves as of 12/31/21 (3)	Deductibles Reported as of 12/31/21 (4)	Estimated Deductibles IBNR as of 12/31/21(5)	Estimated Deductibles Unpaid as of 12/31/21 (6)
2011-12	\$191,213	\$191,213	\$0	\$191,213	\$0	\$0
2012-13	256,631	256,631	0	256,631	0	0
2013-14	231,537	227,974	3,563	231,537	0	3,563
2014-15	188,475	187,749	726	188,475	0	726
2015-16	295,757	295,757	0	295,757	0	0
2016-17	238,492	238,492	0	238,492	0	0
2017-18	207,559	196,441	11,118	207,559	0	11,118
2018-19	275,057	262,576	12,219	274,795	262	12,481
2019-20	154,389	122,406	31,476	153,882	507	31,983
2020-21	190,394	107,668	65,660	173,328	17,066	82,726
2021-22	170,322	6,973	57,966	64,939	105,384	163,349
Total	\$2,399,825	\$2,093,879	\$182,727	\$2,276,607	\$123,219	\$305,946

- (1) Page 70, Column (6). 2021-22 at 50% for incomplete year.
- (2) Provided by Alliant Insurance Services.
- (3) (4) (2).
- (4) Page 70, Column (5).
- (5) (1) (4).
- (6) (1) (2).

### West San Gabriel Liability & Property JPA **Deductibles**

### Estimated Ultimate Losses Limited to Member Deductibles

Program Year	Estimated Gross Ultimate Losses(1)	Expected Percentage of Losses Below Deductible (2)	Estimated Deductible Percentage Unreported(3)	Estimated Unreported Deductibles(4)	Reported Deductibles as of 12/31/21(5)	Estimated Ultimate Losses Below Deductible (6)
2011-12	\$680,228	34.4%	0.0%	\$0	\$191,213	\$191,213
2012-13	794,027	31.8%	0.0%	0	256,631	256,631
2013-14	742,669	31.8%	0.0%	0	231,537	231,537
2014-15	570,091	32.2%	0.0%	0	188,475	188,475
2015-16	838,732	32.5%	0.0%	0	295,757	295,757
2016-17	775,159	32.5%	0.0%	0	238,492	238,492
2017-18	699,065	31.6%	0.0%	0	207,559	207,559
2018-19	1,081,521	32.1%	0.1%	262	274,795	275,057
2019-20	477,420	31.2%	0.3%	507	153,882	154,389
2020-21	592,796	41.2%	7.0%	17,066	173,328	190,394
2021-22	994,623	42.0%	65.9%	275,706	64,939	340,645
Total	\$8,246,329			\$293,541	\$2,276,607	\$2,570,148

- (1) Page 26, Column (1).
- (2) Estimated by BAC.
- (3) Estimated by BAC.(4) (1) x (2) x (3).
- (5) Estimated by BAC using Alliant Insurance Services data.
- (6) (4) + (5).

## West San Gabriel Liability & Property JPA

# Actuarial Analysis of the Property & Liability Self-Insurance Program

**Claims Data Section** 

### Cumulative Reported Losses (\$000's) - \$50K Limit

	Months of Development										
Program <u>Year</u> 1999	<u>6</u>	<u>18</u>	<u>30</u> 332	<u>42</u> 289	<u>54</u> 284	<u>66</u> 270	<u>78</u> 270	<u>90</u> 270	<u>102</u> 270	<u>114</u> 270	<u>126</u> 270
2000		276	289	262	262	272	272	272	272	263	263
2001	60	347	292	282	271	278	278	278	278	278	278
2002	110	307	349	311	297	297	297	297	297	297	297
2003	97	549	434	397	412	452	462	462	462	462	462
2004	126	416	588	619	530	521	521	505	521	505	505
2005	77	533	565	605	601	603	603	603	602	606	627
2006	86	376	522	589	574	563	565	565	565	566	565
2007	92	355	267	251	266	289	288	293	293	293	293
2008	77	480	429	399	394	401	393	390	390	390	390
2009	210	527	695	743	747	761	753	753	753	753	753
2010	69	536	492	371	360	362	362	362	362	362	362
2011 2012	30 35	406 326	416 482	425 483	434 462	438 459	438 459	438 459	488	488	488 459
2012	35 46	326 446	402 808	463 810	798	459 799	459 794	459 794	459 794	459 794	459
2013	46 45	643	761	758	790 760	799 711	794 727	79 <del>4</del> 728	794 728	7 94	
2015	45	307	484	513	520	520	520	520	720		
2016	162	654	764	722	719	717	719	020			
2017	57	639	673	650	663	656					
2018	24	341	487	648	648						
2019	23	587	902	930							
2020	74	350	443								
2021	16	214									
2022	60										
	<u>6 - 18</u>	<u> 18 - 30</u>	<u>30 - 42</u>	<u>42 - 54</u>	<u>54 - 66</u>	<u>66 - 78</u>	<u>78 - 90</u>	<u>90 - 102</u>	<u>102 - 114</u>	<u>114 - 126</u>	<u> 126 - Ult.</u>
ALL YR VOL	5.977	1.185	1.003	0.988	1.002	1.001	0.998	1.009	0.997	1.003	
3 YR VOL	10.211	1.433	1.080	1.005	0.995	1.009	1.000	1.000	1.000	1.000	
REFERENCE	2.819	1.135	1.017	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000
SELECT	11.157	1.313	1.009	1.001	1.003	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	14.855	1.331	1.014	1.005	1.003	1.000	1.000	1.000	1.000	1.000	1.000

## Cumulative Paid Losses (\$000's) - \$50k Limit

				, <del>-</del>		Months of	Developme	ent			
Program											
<u>Year</u>	<u>6</u>	<u>18</u>	<u>30</u>	<u>42</u>	<u>54</u>	<u>66</u>	<u>78</u>	<u>90</u>	<u>102</u>	<u>114</u>	<u>126</u>
1999			251	283	284	270	270	270	270	270	270
2000		43	169	218	262	262	262	263	263	263	263
2001	2	83	232	268	269	278	278	278	278	278	278
2002	13	83	256	297	297	297	297	297	297	297	297
2003	14	138	318	384	412	426	454	462	462	462	462
2004	10	99	318	548	526	521	521	505	521	505	505
2005	11	182	465	576	596	603	603	603	602	606	627
2006	24	119	282	490	538	563	565	565	565	566	565
2007	42	109	187	245	260	288	288	293	293	293	293
2008	12	181	301	365	389	389	390	390	390	390	390
2009	22	141	410	684	724	751	753	753	753	753	753
2010	12	94	256	351	360	362	362	362	362	362	362
2011	13	64	319	360	390	438	438	438	468	488	488
2012	2	44	260	358	459	459	459	459	459	459	459
2013	10	76	437	702	777	778	794	794	794	794	
2014	5	63	326	578	707	708	724	725	725		
2015	3	63	211	440	519	519	519	519			
2016	8	108	408	643	717	717	719				
2017	19	140	305	521	623	646					
2018	6	100	238	492	561						
2019 2020	4 2	66 75	333 206	676							
2021	0	59	200								
2022	7	39									
ZUZZ	•										
	<u>6 - 18</u>	<u>18 - 30</u>	<u>30 - 42</u>	<u>42 - 54</u>	<u>54 - 66</u>	<u>66 - 78</u>	<u>78 - 90</u>	<u>90 - 102</u>	<u>102 - 114</u>	<u>114 - 126</u>	<u>126 - Ult.</u>
ALL YR VOL	8.864	3.011	1.509	1.098	1.018	1.008	1.000	1.006	1.001	1.003	
3 YR VOL	28.893	3.235	1.929	1.148	1.013	1.009	1.000	1.000	1.012	1.000	
REFERENCE	4.482	2.102	1.506	1.181	1.047	1.020	1.005	1.007	1.000	1.000	1.000
SELECT	24.044	3.909	1.634	1.128	1.030	1.004	1.002	1.002	1.001	1.000	1.000
CUMULATIVE	180.034	7.488	1.916	1.172	1.039	1.009	1.004	1.003	1.001	1.000	1.000

## Cumulative Reported Claim Occurrences - Excludes \$0 Value Losses

				Months of Development							
Program <u>Year</u> 2010 2011	<u>6</u> 8 7	<u>18</u> 45 31	30 46 32	<u>42</u> 46 32	<u>54</u> 46 32	<u>66</u> 46 32	<u>78</u> 46 32	90 46 32	102 46 33	<u>114</u> 46 33	<u>126</u> 46 33
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022	5 11 11 9 16 8 7 8 6 3 6	36 43 52 36 50 47 40 39 29	39 47 55 39 53 48 44 42 29	39 48 55 39 54 49 45	40 48 55 39 54 50 44	40 48 55 39 54 50	40 48 55 39 54	40 48 55 39	40 49 55	40 49	39
	<u>6 - 18</u>	<u>18 - 30</u>	<u>30 - 42</u>	<u>42 - 54</u>	<u>54 - 66</u>	<u>66 - 78</u>	<u>78 - 90</u>	<u>90 - 102</u>	<u> 102 - 114</u>	<u>114 - 126</u>	<u>126 - Ult.</u>
ALL YR VOL	4.717	1.058	1.016	1.002	1.000	1.000	1.000	1.009	1.000	0.992	
3 YR VOL	5.118	1.065	1.037	1.000	1.000	1.000	1.000	1.007	1.000		
SELECT	4.717	1.058	1.016	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	5.082	1.077	1.018	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000