

## **Contra Costa Water District**

**Actuarial Study of the  
Workers Compensation Program  
as of December 31, 2018  
and Extrapolated to June 30, 2019**

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**April 26, 2019**

April 26, 2019

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Concord, CA 94520

Attn: Ms. Sonja Stanchina  
Risk Manager

**Actuarial Study of the  
Workers Compensation Program  
as of December 31, 2018  
and Extrapolated to June 30, 2019**

This study has been completed for the Contra Costa Water District for the specific objectives listed in the study. It contains the analysis and conclusions of our work.

Each section and appendix of the study is an integral part of the whole. We recommend a review of the entire study prior to reliance upon this study.

No key personnel have a relationship with the Contra Costa Water District that may impair our objectivity.

Please call if you have any questions. Thank you for the opportunity to be of service.

Respectfully submitted,

*Aon Risk Consultants, Inc.*

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## I. Background

The history of the District's self-insured retentions is shown in Table I-1.

**Table I-1**  
**History of Self-Insured Retentions**

<b>Claim Period (1)</b>	<b>Self-Insured Retention (2)</b>
To 06/30/02	Fully insured
07/01/02 to 06/30/03	\$200,000
07/01/03 to 06/30/07	250,000
07/01/07 to 06/30/16	Fully insured
07/01/16 to present	350,000

Note: (2) was provided by the District.

### Data & Analysis

The loss data provided for this study by the District consisted of individual claim detail. The valuation dates of this data were as follows:

- 2002/03: valued as of 4/30/14 (no outstanding losses)
- 2003/04 to 2006/07: valued as of 12/31/18
- 2007/08 to 2010/11: valued as of 4/30/14 (fully insured periods)
- 2011/12 to 2018/19: valued as of 12/31/18

The District also provided updated payroll for 2015/16 through 2019/20; a 3% trend was used for subsequent claim periods.

In conducting this analysis, we relied upon the provided data without audit or independent verification; however, we reviewed it for reasonableness and consistency. Any inaccuracies in quantitative data or qualitative representations could have a significant effect on the results of our review and analysis. Any material discrepancies discovered in the loss data by the District or any other parties should be reported to us immediately, and if warranted, we will make appropriate amendments to the report.

## II. Objectives

The specific objectives of this study are:

1. **Estimate Outstanding Losses.** Estimate outstanding losses (including allocated loss adjustment expenses [ALAE]) as of June 30, 2019.

The estimated outstanding losses are the cost of unpaid claims. The estimated outstanding losses include case reserves, the development of known claims and incurred but not reported (IBNR) claims. ALAE are the direct settlement expenses for specific claims, primarily legal expenses. The amounts are limited to the self-insured retention, as appropriate.

2. **Project Ultimate Limited Losses.** Project ultimate limited losses (including ALAE) for 2019/20 and 2020/21.

The projected ultimate limited losses are the accrual value of losses with accident dates in 2019/20 and 2020/21, regardless of report or payment date. The amounts are limited to the self-insured retention, as appropriate.

3. **Project Losses Paid.** Project losses paid during 2019/20 and 2020/21

The projected losses paid are the claim disbursements of losses paid during 2019/20 and 2020/21, regardless of accident or report date. The amounts are limited to the self-insured retention, as appropriate.

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### III. Conclusions

We have reached the following conclusions:

#### 1. Estimate Outstanding Losses

We estimate outstanding losses as of June 30, 2019 as shown in Table III-1.

**Table III-1**  
**Estimated Outstanding Losses**  
**June 30, 2019**

<b>Confidence Level (1)</b>	<b>Estimated Outstanding Losses (2)</b>	<b>Present Value of Estimated Outstanding Losses (3)</b>
(A) Expected	\$856,481	\$797,466
(B) 70%	942,129	877,213
(C) 90%	1,241,897	1,156,326

Note: (A) is from Exhibit WC-12.  
(B) and (C) are based on (A), a lognormal distribution, and actuarial judgment.

The present value of the estimated outstanding losses is the amount of money, discounted for anticipated investment income, required to meet the estimated outstanding losses. It is calculated based on a 2.0% yield on investments, as directed by the District.

## 2. Project Ultimate Limited Losses

We project ultimate limited losses for 2019/20 and 2020/21 as shown in Tables III-2A and Table III-2B.

**Table III-2A  
Projected Ultimate Limited Losses  
2019/20**

Confidence Level (1)	Projected Payroll (000) (2)	Full Value		Present Value	
		Loss Rate per \$100 of Payroll (3)	Projected Ultimate Losses (4)	Loss Rate per \$100 of Payroll (5)	Projected Ultimate Losses (6)
(A) Expected	\$36,749	\$1.57	\$577,000	\$1.46	\$535,000
(B) 70%	36,749	1.81	664,000	1.67	615,000
(C) 90%	36,749	2.83	1,039,000	2.62	963,000

Note: (A) is from Exhibit WC-10.  
(B) and (C) are based on (A), a lognormal distribution, and actuarial judgment.

**Table III-2B  
Projected Ultimate Limited Losses  
2020/21**

Confidence Level (1)	Projected Payroll (000) (2)	Full Value		Present Value	
		Loss Rate per \$100 of Payroll (3)	Projected Ultimate Losses (4)	Loss Rate per \$100 of Payroll (5)	Projected Ultimate Losses (6)
(A) Expected	\$37,852	\$1.60	\$607,000	\$1.48	\$562,000
(B) 70%	37,852	1.84	698,000	1.71	646,000
(C) 90%	37,852	2.88	1,093,000	2.67	1,012,000

Note: (A) is from Exhibit WC-10.  
(B) and (C) are based on (A), a lognormal distribution, and actuarial judgment.

The present value of the projected ultimate limited losses is the amount of money, discounted for anticipated investment income, required to meet claims. It is calculated based on a 2.0% yield on investments.

### 3. Project Losses Paid

We project losses paid during 2019/20 and 2020/21 as shown in Table III-3.

**Table III-3**  
**Projected Losses Paid**  
**2019/20 and 2020/21**

<b>Item (1)</b>	<b>2019/20 (2)</b>	<b>2020/21 (3)</b>
(A) Projected losses paid	\$334,303	\$400,342

Note: (2) is from Exhibit WC-13.  
(3) is from Exhibit WC-14.

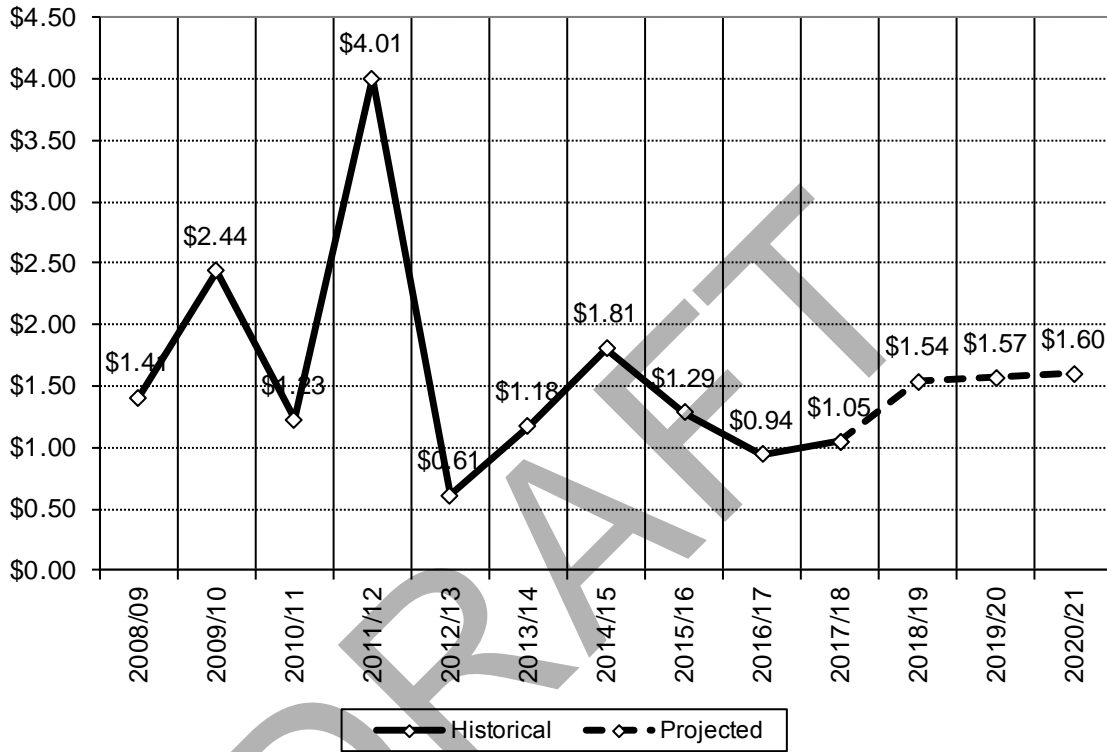
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## Loss Experience Trends

Graphs III-1 and III-2 show loss experience trends for workers compensation as measured by loss rate per \$100 of payroll and frequency and severity, respectively.

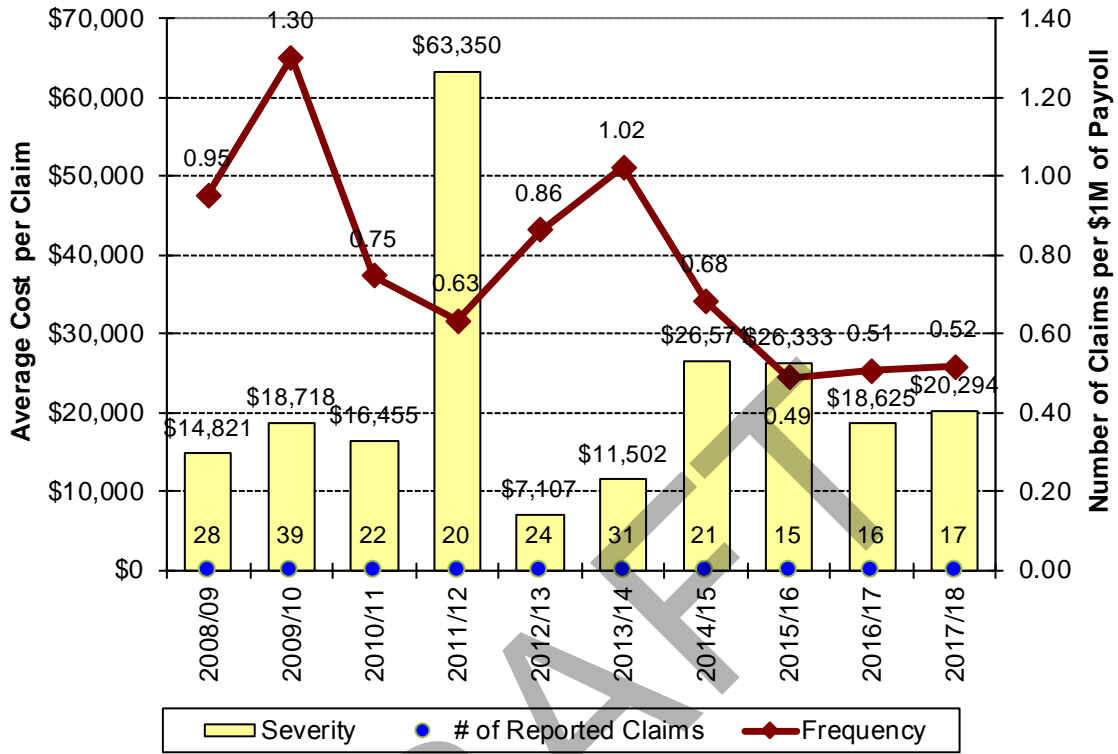
**Graph III-1**  
**Loss Rate per \$100 of Payroll**  
**(Workers Compensation)**



Note: Loss rates are from Exhibit WC-10, columns (4) and (7).

There were 4 claims greater than \$100,000 in 2011/12 totaling \$1.1 million as of December 31, 2018.

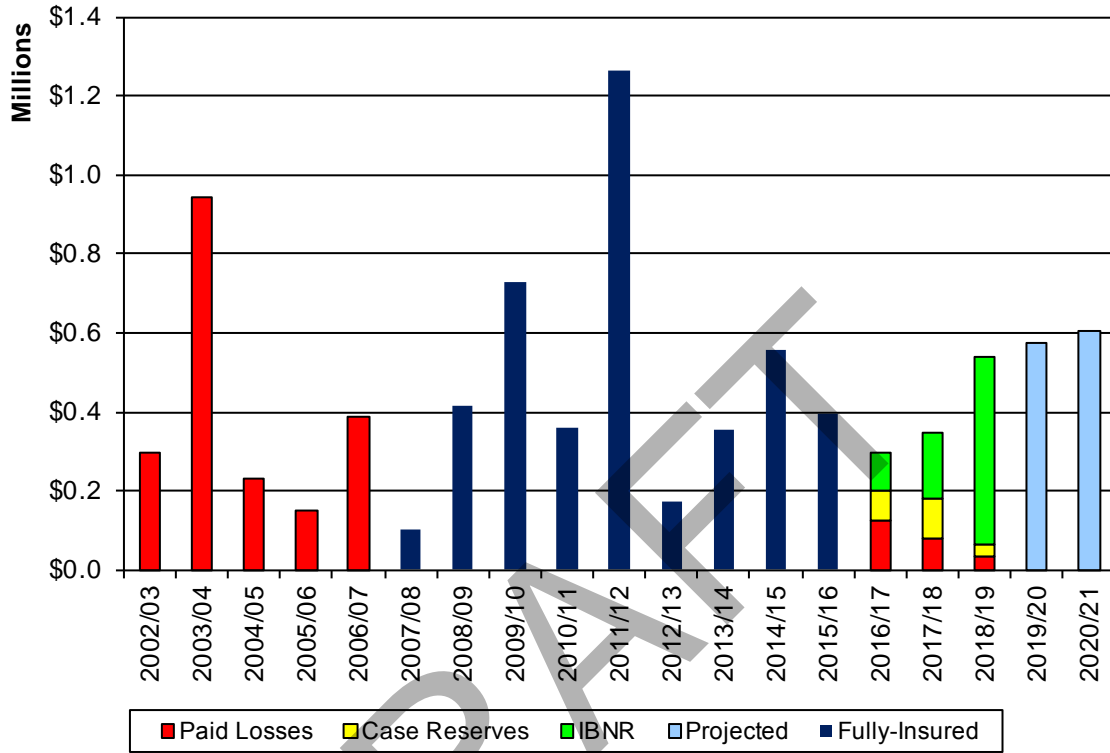
**Graph III-2  
Frequency and Severity  
(Workers Compensation)**



Note: Frequency amounts are from Exhibit WC-8, Section I, column (7).  
Severity amounts are based on the projected claim counts in Exhibit WC-8 and the projected ultimate losses in Exhibit WC-9.

Graph III-3 shows the composition of the projected ultimate limited losses for workers compensation.

**Graph III-3  
Composition of Projected Ultimate Limited Losses**



Note: Amounts through 2017/18 are from Exhibit WC-11.  
Amount for 2018/19 are based on Exhibits WC-10 and WC-11.  
Amounts for 2019/20 and 2020/21 are from Exhibit WC-10.

A list of large claims with limited reported incurred losses greater than \$100,000 as of December 31, 2018 is shown in Exhibit WC-16.

## Conditions and Limitations

It is important to understand the conditions and limitations listed below. Each chapter and section is an integral part of the whole study. If there are questions, please contact Aon for clarification.

- **Data Quality** In conducting this analysis, we relied upon the provided data without audit or independent verification; however, we reviewed it for reasonableness and consistency. Any inaccuracies in quantitative data or qualitative representations could have a significant effect on the results of our review and analysis. Any material discrepancies discovered in the loss data by the organization or any other parties should be reported to us immediately, and if warranted, we will make appropriate amendments to the report.
- **Economic Environment.** Unless otherwise stated, we assumed the current economic conditions will continue in the foreseeable future.
- **Insurance Coverage.** Unless otherwise stated, we assumed no insurance coverage changes (including coverage provided by the organization to others) subsequent to the date this study was prepared. This includes coverage language, self-insured retention, limitations and similar issues.
- **Insurance Solvency.** Unless otherwise stated, we assumed all insurance purchased by the organization is from solvent sources payable in accordance with terms of the coverage document.
- **Interest Rate.** The exhibits specify the annual interest rate used.
- **Methodology.** In this study, different actuarial methods were applied. In some instances, the methods yield significantly disparate results. The estimates, projections and recommendations in this study reflect our judgments as to the best method or combination of methods that are most reliable and reflective of the exposure to loss.
- **Reproduction.** Use of this report is limited to the organization for the specific purpose described in the Introduction section. Other uses are prohibited without an executed release with Aon.

Distribution by the organization is unrestricted. The report should only be distributed in its entirety including all supporting exhibits.

- **Risk and Variability.** Insurance is an inherently risky enterprise. Actual losses may vary significantly from our estimates, projections and recommendations. They may emerge higher or lower.

- **Statutory and Judicial Changes.** Legislatures and judiciaries may change statutes that govern indemnification. This includes benefit levels for workers compensation, immunities and limitations for liability, and other similar issues. Unless otherwise stated, we assumed no statutory changes subsequent to the date this study was prepared.
- **Supplemental Data.** In addition to the data provided by the organization, we supplemented our analysis with data from similar organizations and insurance industry statistics, as we deemed appropriate.
- **Usage.** This study has been prepared for the usage of the organization shown on the transmittal page. It was not prepared for and may not be appropriate for use by other organizations. Other organizations should obtain written permission from Aon prior to use of this study.

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## Glossary of Actuarial Terms

### Actuarial Methods (Most Common)

A major objective of an actuarial study is to statistically project ultimate losses. The following actuarial methods are the most common:

- Developed Paid Losses
- Developed Reported Incurred Losses
- Developed Case Reserves
- Frequency Times Severity Analysis
- Loss Rate Analysis

The following describes each method:

1. **Developed Paid Losses.** Paid losses represent the amounts actually paid to claimants (less excess insurance recoveries). As time goes on, loss payments continue until all claims are closed and there are no remaining payments expected. At this time, the ultimate losses for the claim period are known. This common process is called “paid loss development.”

Paid loss development is an extrapolation of actual dollars paid. It does not depend on case reserve estimates. A potential shortcoming of utilizing this method is that only a small fraction of total payments have been made for the most recent claim periods. Extrapolating ultimate losses based on small amounts of actual payments may be speculative. A second potential shortcoming is that payment patterns can change over time.

2. **Developed Reported Incurred Losses.** Reported incurred losses are paid losses plus case reserves. In most programs, total reported incurred losses underestimate the ultimate losses. Over time, as more information about a body of claims becomes known, they are adjusted either up or down until they are closed. Though many individual claims settle for less than what was estimated, these decreases are generally more than offset by increases in the cost of other claims for which new information has emerged.

The net effect is that total estimated costs are often revised upward over time. This normal process is called “reported incurred loss development.” Actuaries typically review the development patterns of the recent past to make projections of the expected future loss development and, therefore, estimations of ultimate losses.

3. **Developed Case Reserves.** A case reserve is an estimate of the unpaid amount established by claims adjusters for which a particular claim will ultimately be settled or adjudicated. The developed case reserves method is a hybrid of the paid loss development and reported incurred loss development methods. It relies on the historical adequacy of case reserves to predict ultimate losses.

4. **Frequency Times Severity Analysis.** The frequency times severity analysis is an actuarial method that uses a preliminary projection of ultimate losses to project claims severity. The claims severity times the number of claims is a predictor of ultimate losses. The focus of the frequency times severity analysis is that ultimate losses each period are dependent on the number of claims.
5. **Loss Rate Analysis.** The loss rate analysis is based on the historical loss rates per exposure unit (such as payroll, vehicles or property value). The loss rates (projected ultimate losses divided by exposure units) are trended to reflect the effect of claim cost inflation and retention changes. The trended loss rates represent the rates that one would see if all of the claims had been handled in the claim cost environment that will be present in the upcoming period. The trended loss rate times the projected exposure units is a predictor of losses.
6. **Bornhuetter-Ferguson Method (B-F).** The B-F method is an actuarial method that weights a preliminary projection of ultimate losses with projections of ultimate losses determined by other actuarial methods (usually the developed paid losses and developed reported incurred losses methods). For less mature claim periods, the B-F method leans more heavily to the preliminary projection. It gradually converges to the projections of ultimate losses determined by the other actuarial methods as the claim periods mature.

## **Actuary**

A specialist trained in mathematics, statistics, and finance who is responsible for rate, reserve, and dividend calculations and other statistical studies.

## **Allocated Loss Adjustment Expenses**

Allocated loss adjustment expenses (ALAE) are the direct expenses to settle specific claims. These expenses are primarily legal expenses.

Governmental Accounting Standards Board (GASB) Statement No. 10 requires that ALAE be included in financial statements and that they be calculated by actuarial methods.

## **American Academy of Actuaries**

A society concerned with the development of education in the field of actuarial science and with the enhancement of standards in the actuarial field. Members may use the designation MAAA (Member, American Academy of Actuaries).

## **Benefits**

The financial reimbursement and other services provided insureds by insurers under the terms of an insurance contract. An example would be the benefits listed under a life or health insurance policy or benefits as prescribed by a workers compensation law.

## **Casualty Actuarial Society**

A professional society for actuaries in areas of property and casualty insurance work. This society grants the designation of Associate of the Casualty Actuarial Society (ACAS) and Fellow of the Casualty Actuarial Society (FCAS).

## **Claim**

Demand by an individual or entity to recover for a loss.

## **Claims Made**

A policy written on this basis covers only those claims that are made during the policy period. Coverage for prior acts is provided back to what is known as the retroactive date, which is the effective date of the original claims made policy with the same insurer.

## **Composite Rate**

A single rate with a single basis of premium (e.g., payroll or sales). For this single rate the insured is covered for a variety of hazards, such as premises and operations, completed operations, products liability, and automobile. Its primary value is to compute premium simply.

## **Confidence Level**

A confidence level is the statistical certainty that an actuary believes funding will be sufficient. For example, an 80% confidence level means that the actuary believes funding will be sufficient in eight years out of ten.

Confidence levels are determined based on mathematical models. Coverages that are low frequency and high severity (such as excess liability) are subject to greater risk than coverages that are high frequency and low severity (such as automobile physical damage). Therefore, they need a greater margin to attain a given confidence level.

## **Coverage**

The scope of the protection provided under a contract of insurance.

## **Credibility**

Credibility is the belief that the sample data is an accurate reflection of the larger population. Credibility is highest when the sample data is large and the standard deviation (discussed later) of the larger population is low.



## **Dates**

There are at least three milestone dates in a claim. They are the date of injury or accident, the date of report and the date of closure. It is best if each of these dates is recorded. Some organizations may also keep the date a claim becomes a lawsuit, as opposed to a demand. Aon recommends this additional level of detail, especially if the data is to be used for litigation management.

## **Deductible**

The portion of an insured loss to be borne by the insured before he is entitled to recovery from the insurer. Deductibles may be expressed as a dollar amount, percentage or waiting period.

## **Disability**

A condition that curtails a person's ability to carry on his normal pursuits. A disability may be partial or total, and temporary or permanent.

## **Dividend (Policyholder)**

The return of part of the premium paid for a policy issued on a participating basis by either a mutual or a stock insurer.

## **Estimated Outstanding Losses**

Estimated outstanding losses are the cost of claims that have occurred but have not yet been paid. They typically include indemnification and allocated loss adjustment expenses (ALAE), but not unallocated loss adjustment expenses (ULAE).

Estimated outstanding losses are calculated as projected ultimate losses less paid losses. Alternatively, they are the sum of case reserves and incurred but not reported (IBNR) claims.

Estimated outstanding losses are usually the largest single item listed as a liability on the balance sheet of a public entity's financial statement. GASB Statement No. 10 requires they be calculated by actuarial methods. Other common names for estimated outstanding losses are outstanding claims liabilities and unpaid claims.

## **Experience Rating**

A method of adjusting the premium for a risk based on past loss experience for that risk compared to loss experience for an average risk.

## Exposure Data

Exposure data refers to the activities of the organization. For example, payroll is the most common exposure measure for workers compensation. Aon suggests collecting exposure data with the following characteristics:

- **Readily Available.** The exposure data should be easily obtained. It is best if it is a byproduct of other activities, although this is not always possible. If getting data is arduous, it may discourage collection.
- **Vary With Losses.** The exposure data should correlate directly with losses. The ideal situation is where exposure and expected losses move in tandem. The exposure base needs to be fitting to the coverage. For example, the number of employees may vary with property losses (more employees = more office space = more losses), but property value is a clearly superior exposure base for property losses.

## Generally Accepted Accounting Principles (GAAP)

These principles are intended to produce financial results (in the insurance industry) consistent with those of other industries and to assure consistency in financial reporting.

## Incurred But Not Reported

IBNR is comprised of two distinct items: the development of known case reserves (incurred but not enough reported [IBNER] and incurred but not yet reported [IBNYR]).

IBNER are the actuary's estimate of the inadequacy of case reserves. Most claims settle at amounts close to what is set by the claims administrator. Some claims close favorably and some emerge as more expensive. On balance, case reserves tend to be too low (especially for recent years). IBNER is the actuary's estimate of the amount total case reserves will rise upon closure.

IBNYR refers to those claims that have occurred, but have not yet been reported. A classic example is medical malpractice claim reported several years after the medical procedure was performed.

## Insurance Services Office (ISO)

An organization of the property and casualty insurance business designed to gather statistics, promulgate rates, and develop policy forms.

## Investment Income

The return received by entities from their investment portfolios, including interest, dividends and realized capital gains on stocks. Realized capital gains means the profit realized on assets that have actually been sold for more than their purchase price.

## **Limited**

Most programs purchase excess insurance for catastrophic claims. For example, they may purchase coverage for claims above a \$500,000 per occurrence self-insured retention. "Limited" refers to an estimate or projection being limited to the self-insured retention. In contrast, "unlimited" means a loss projection not limited to the self-insured retention.

Other common names for limited are net of excess insurance or capped losses.

## **Loss Development**

The difference between the amount of losses initially estimated by the insurer and the amount reported in an evaluation on a later date. Loss development is typically measured for paid losses, reported incurred losses and claim counts.

## **Manual Rates**

Usually, the published rate for some unit of insurance. An example is in the workers compensation manual, where the rates shown apply to each \$100 of the payroll of the insured, \$100 being the "unit."

## **National Council on Compensation Insurance (NCCI)**

An association of workers compensation insurance companies whose main functions are collecting statistics and calculating rates, establishing policy wording, developing experience and retrospective rating plans, and serving as the filing organization for member companies.

## **Net**

Many pooling programs assign deductibles to members. For example, each member may have a \$5,000 per claim deductible. "Net" refers to a loss estimate or projection that excludes amounts below member deductibles.

## **Occurrence**

An event that results in an insured loss. In some lines of insurance, such as general liability, it is distinguished from accident in that the loss does not have to be sudden and fortuitous and can result from continuous or repeated exposure that results in bodily injury or property damage neither expected nor intended by the insured.

## **Pool**

An organization of entities through which particular types of risks are written with the premiums, losses, and expenses shared in agreed amounts among the members belonging to the organization.

## **Premium**

The price of insurance protection for a specified risk for a specified period of time.

## **Present Value**

The amount of money that future amounts receivable are currently worth. For example, a Life Insurance policy may provide for payments to be made monthly for ten years. The present value of that money would be less than the total amount of the regular periodic payments for 10 years because of the amount of interest that a present lump sum could earn during the term than the payments otherwise would have been made.

## **Probability**

The probability is the likelihood of an event. It is a measure of how likely a value or event is to occur. It can be measured from data by calculating the number of occurrences of the value or event divided by the total number of occurrences. This calculation can be converted to a percentage. For example, tossing a coin has a 50% probability of heads or tails.

## **Projected Losses Paid**

Projected losses paid are the projected claims disbursements in a period, regardless of when the claim occurred. They typically include indemnification and ALAE, but not unallocated loss adjustment expenses (ULAE).

“Projected losses paid” is a cash-flow analysis that can be used in making investment decisions.

## **Projected Ultimate Losses**

Projected ultimate losses are the accrual value of claims. They are the total amount that is expected to be paid in a particular claim period after all claims are closed. Projected ultimate losses are the total loss costs for a particular period. They typically include indemnification and ALAE, but not ULAE.

Other common names for projected ultimate losses are expected losses, ultimate losses and total losses.

## **Rate**

The cost of a given unit of insurance. For example, in life insurance, it is the price of \$1,000 of the face amount. In property insurance, it is the rate per \$100 of value to be insured. The premium is the rate multiplied by the number of units of insurance purchased.

### **Retrospective Rating**

A method for which the final premium is not determined until the end of the coverage period, and is based on the insured's own loss experience for that same period. It is usually subject to a maximum and minimum premium. A plan of this type can be used in various types of insurance, especially workers compensation and liability, and is usually elected by only very large insureds.

### **Salvage**

Property taken over by an entity to reduce its loss. Automobile physical damage losses can be reduced by the sale of recovered vehicles.

### **Schedule Rating**

The application of debits or credits within established ranges for various characteristics of a risk according to an established schedule of items. Under liability and automobile insurance, the schedule rating plan allows credits and debits for various good or bad features of a particular commercial risk. An example in automobile schedule rating would be allowing credits for driver training classes or fleet maintenance programs.

### **Self-Insurance Retention (SIR)**

That portion of a risk or potential loss assumed by an insured. It is often in the form of a per occurrence deductible.

### **Society of Actuaries (SOA)**

A professional society for actuaries in areas of pensions, and life and health insurance work. The SOA grants the designation Associate of the Society of Actuaries (ASA) and Fellow of the Society of Actuaries (FSA).

### **Standard Premium**

Most often used in connection with retrospective rating for Workers Compensation and General Liability Insurance. It is the premium of which the basic premium is a percentage and is developed by applying the regular rates to an insured's payroll.

### **State Fund**

A fund set up by a state government to finance a mandatory insurance system, such as Workers Compensation or non-occupational disability benefits. Such a fund may be monopolistic, i.e., purchasers of the type of insurance required must place it in the state fund; or it may be competitive, i.e., an alternative to private insurance if the purchaser desires to use it.

### **Statutory Accounting Principles (SAP)**

Those principles required by statute that must be followed by an insurance company or other similar entity when submitting its financial statement to the state insurance department. Such principles differ from (GAAP) in some important respects. For one thing SAP requires that expenses must be recorded immediately and cannot be deferred to track with premiums as they are earned and taken into revenue.

### **Unallocated Loss Adjustment Expenses**

Unallocated loss adjustment expenses (ULAE) are the indirect expenses to settle claims. These expenses are primarily administration and claims handling expenses.

GASB Statement No. 10 requires that ULAE be included in financial statements and that they be calculated by actuarial methods.

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**Exhibits**

The attached exhibits detail our analysis.

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Data Summary as of December 31, 2018  
Losses Limited to Self-Insured Retention

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 12/31/18 (4)	Payroll (000) (5)	Reported Claims 12/31/18 (6)	Open Claims 12/31/18 (7)	Limited Paid Losses 12/31/18 (8)	Limited Case Reserves 12/31/18 (9)	Limited Reported Incurred Losses 12/31/18 (10)	
2002/03	+	\$200,000	None	142.0	\$23,183	44	1	\$294,862	\$0	\$294,862
2003/04		250,000	None	186.0	24,757	45	1	942,540	0	942,540
2004/05		250,000	None	174.0	26,020	35	0	231,578	0	231,578
2005/06		250,000	None	162.0	26,505	38	0	151,729	0	151,729
2006/07	+	250,000	None	150.0	27,092	38	0	388,431	0	388,431
2007/08	+	Fully insured	None	82.0	26,721	33	0	101,431	0	101,431
2008/09	+	Fully insured	None	70.0	29,435	28	2	372,509	32,568	405,077
2009/10	+	Fully insured	None	58.0	29,959	39	1	577,498	110,979	688,477
2010/11		Fully insured	None	46.0	29,482	22	1	179,565	123,565	303,130
2011/12		Fully insured	None	90.0	31,611	20	4	1,017,467	217,975	1,235,442
2012/13		Fully insured	None	78.0	27,836	24	0	170,563	0	170,563
2013/14		Fully insured	None	66.0	30,344	31	0	356,566	0	356,566
2014/15		Fully insured	None	54.0	30,856	21	2	365,179	147,577	512,756
2015/16		Fully insured	None	42.0	30,726	15	3	214,572	136,392	350,964
2016/17		350,000	None	30.0	31,559	16	3	125,803	76,255	202,058
2017/18		350,000	None	18.0	32,864	17	4	77,991	103,287	181,277
2018/19		350,000	None	6.0	35,028	11	5	33,877	28,484	62,362
<b>Total</b>						<b>477</b>	<b>27</b>	<b>\$5,602,161</b>	<b>\$977,082</b>	<b>\$6,579,243</b>

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+ indicates claim periods valued as of April 30, 2014; no update was available.

\*\* For 2002/03, there was one open claim #905-364560 capped at its SIR of \$200,000.

\* The specific self-insured retention changes are as follows:

Effective Date	Retention
07/01/97	Fully insured
07/01/02	200,000
07/01/03	250,000
07/01/07	Fully insured
07/01/16	350,000

(8), (9) and (10) are net of the specific self-insured retention and other recoveries.

Data was provided by the District.



Data Summary as of December 31, 2018  
Net Unlimited Losses

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 12/31/18 (4)	Payroll (000) (5)	Reported Claims 12/31/18 (6)	Open Claims 12/31/18 (7)	Net Unlimited Paid Losses 12/31/18 (8)	Net Unlimited Case Reserves 12/31/18 (9)	Net Unlimited Reported Incurred Losses 12/31/18 (10)	
2002/03	+	Unlimited	None	142.0	\$23,183	44	1	\$295,530	\$278,980	\$574,510
2003/04		Unlimited	None	186.0	24,757	45	1	943,413	85,260	1,028,673
2004/05		Unlimited	None	174.0	26,020	35	0	231,578	0	231,578
2005/06		Unlimited	None	162.0	26,505	38	0	151,729	0	151,729
2006/07	+	Unlimited	None	150.0	27,092	38	0	388,431	0	388,431
2007/08	+	Unlimited	None	82.0	26,721	33	0	101,431	0	101,431
2008/09	+	Unlimited	None	70.0	29,435	28	2	372,509	32,568	405,077
2009/10	+	Unlimited	None	58.0	29,959	39	1	577,498	181,667	759,165
2010/11		Unlimited	None	46.0	29,482	22	1	179,565	123,565	303,130
2011/12		Unlimited	None	90.0	31,611	20	4	1,017,467	217,975	1,235,442
2012/13		Unlimited	None	78.0	27,836	24	0	170,563	0	170,563
2013/14		Unlimited	None	66.0	30,344	31	0	356,566	0	356,566
2014/15		Unlimited	None	54.0	30,856	21	2	365,179	147,577	512,756
2015/16		Unlimited	None	42.0	30,726	15	3	214,572	136,392	350,964
2016/17		Unlimited	None	30.0	31,559	16	3	125,803	76,255	202,058
2017/18		Unlimited	None	18.0	32,864	17	4	77,991	103,287	181,277
2018/19		Unlimited	None	6.0	35,028	11	5	33,877	28,484	62,362
<b>Total</b>						<b>477</b>	<b>27</b>	<b>\$5,603,702</b>	<b>\$1,412,010</b>	<b>\$7,015,712</b>

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+ indicates claim periods valued as of April 30, 2014; no update was available.

(8), (9) and (10) are gross of the specific self-insured retention and net of other recoveries.

Data was provided by the District.

Data Summary as of December 31, 2018  
Gross Unlimited Losses

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 12/31/18 (4)	Payroll (000) (5)	Reported Claims 12/31/18 (6)	Open Claims 12/31/18 (7)	Gross Unlimited Paid Losses 12/31/18 (8)	Gross Unlimited Case Reserves 12/31/18 (9)	Gross Unlimited Reported Incurred Losses 12/31/18 (10)	
2002/03	+	Unlimited	None	142.0	\$23,183	44	1	\$295,530	\$278,980	\$574,510
2003/04		Unlimited	None	186.0	24,757	45	1	1,054,383	85,260	1,139,643
2004/05		Unlimited	None	174.0	26,020	35	0	232,652	0	232,652
2005/06		Unlimited	None	162.0	26,505	38	0	152,742	0	152,742
2006/07	+	Unlimited	None	150.0	27,092	38	0	388,431	0	388,431
2007/08	+	Unlimited	None	82.0	26,721	33	0	101,431	0	101,431
2008/09	+	Unlimited	None	70.0	29,435	28	2	372,509	32,568	405,077
2009/10	+	Unlimited	None	58.0	29,959	39	1	577,498	181,667	759,165
2010/11		Unlimited	None	46.0	29,482	22	1	179,565	123,565	303,130
2011/12		Unlimited	None	90.0	31,611	20	4	1,017,637	217,975	1,235,612
2012/13		Unlimited	None	78.0	27,836	24	0	171,115	0	171,115
2013/14		Unlimited	None	66.0	30,344	31	0	357,983	0	357,983
2014/15		Unlimited	None	54.0	30,856	21	2	365,179	147,577	512,756
2015/16		Unlimited	None	42.0	30,726	15	3	214,572	136,392	350,964
2016/17		Unlimited	None	30.0	31,559	16	3	125,803	76,255	202,058
2017/18		Unlimited	None	18.0	32,864	17	4	77,991	103,287	181,277
2018/19		Unlimited	None	6.0	35,028	11	5	33,877	28,484	62,362
<b>Total</b>						<b>477</b>	<b>27</b>	<b>\$5,718,898</b>	<b>\$1,412,010</b>	<b>\$7,130,908</b>

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+ indicates claim periods valued as of April 30, 2014; no update was available.

(8), (9) and (10) are gross of the specific self-insured retention and other recoveries.

Data was provided by the District.

Summary of Percent Losses Paid, Losses Reported and Claims Reported

Months of Development (1)	Percent Losses Paid (2)	Percent Losses Reported (3)	Percent Claims Reported (4)	Months of Development (5)	Percent Losses Paid (6)	Percent Losses Reported (7)	Percent Claims Reported (8)
354.0	99.9%	100.0%	100.0%	358.0	100.0%	100.0%	100.0%
342.0	99.9%	100.0%	100.0%	346.0	99.9%	100.0%	100.0%
330.0	99.9%	100.0%	100.0%	334.0	99.9%	100.0%	100.0%
318.0	99.8%	100.0%	100.0%	322.0	99.9%	100.0%	100.0%
306.0	99.8%	100.0%	100.0%	310.0	99.8%	100.0%	100.0%
294.0	99.7%	100.0%	100.0%	298.0	99.7%	100.0%	100.0%
282.0	99.5%	100.0%	100.0%	286.0	99.6%	100.0%	100.0%
270.0	99.3%	100.0%	100.0%	274.0	99.4%	100.0%	100.0%
258.0	99.0%	100.0%	100.0%	262.0	99.1%	100.0%	100.0%
246.0	98.6%	100.0%	100.0%	250.0	98.8%	100.0%	100.0%
234.0	98.0%	100.0%	100.0%	238.0	98.2%	100.0%	100.0%
222.0	98.0%	100.0%	100.0%	226.0	98.0%	100.0%	100.0%
210.0	97.9%	100.0%	100.0%	214.0	98.0%	100.0%	100.0%
198.0	97.7%	100.0%	100.0%	202.0	97.8%	100.0%	100.0%
186.0	97.5%	100.0%	100.0%	190.0	97.6%	100.0%	100.0%
174.0	97.0%	100.0%	100.0%	178.0	97.1%	100.0%	100.0%
162.0	96.3%	100.0%	100.0%	166.0	96.5%	100.0%	100.0%
150.0	95.3%	100.0%	100.0%	154.0	95.7%	100.0%	100.0%
138.0	93.9%	99.9%	100.0%	142.0	94.4%	99.9%	100.0%
126.0	92.1%	99.7%	100.0%	130.0	92.7%	99.8%	100.0%
114.0	89.8%	99.4%	100.0%	118.0	90.6%	99.5%	100.0%
102.0	87.2%	98.9%	100.0%	106.0	88.1%	99.1%	100.0%
90.0	84.3%	97.9%	100.0%	94.0	85.3%	98.3%	100.0%
78.0	81.0%	96.5%	100.0%	82.0	82.1%	97.0%	100.0%
66.0	77.5%	94.6%	100.0%	70.0	78.7%	95.2%	100.0%
54.0	73.2%	92.3%	100.0%	58.0	74.6%	93.1%	100.0%
42.0	65.3%	87.9%	100.0%	46.0	67.9%	89.4%	100.0%
30.0	54.4%	73.2%	100.0%	34.0	58.1%	78.1%	100.0%
18.0	32.0%	63.7%	99.5%	22.0	39.5%	66.9%	99.7%
6.0	4.6%	15.9%	47.4%	10.0	7.6%	26.5%	79.0%

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(6), (7) and (8) are interpolated, based on (2), (3) and (4), respectively.

CONTRA COSTA WATER DISTRICT  
WORKERS' COMPENSATION

Historical Limited Paid Losses and Limited Paid Loss Development

I. Historical Limited Paid Losses

Claim Period	Months of Development:																
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198
2002/03								\$289,612	\$287,328	\$287,328	\$294,862	\$294,862					
2003/04	+							853,377	861,377	913,507	924,102	921,992	925,998	942,234	942,540	942,540	
2004/05						231,579	231,578	232,652	232,652	231,578	231,578	231,578	231,578	231,578	231,578	231,578	
2005/06					151,729	151,729	152,742	152,742	151,729	151,729	151,729	151,729	151,729	151,729	151,729	151,729	
2006/07					370,784	370,918	375,227	388,309	387,139	388,330	388,431	388,431	388,431				
2007/08	+		96,692		324,565	99,964	101,051	101,416	101,431								
2008/09	+		83,150	137,614	151,414	238,630	372,509										
2009/10	+	29,495	267,825	355,529	466,001	577,498											
2010/11	+	40,808	113,099	154,341	179,565												
2011/12		65	222,153	734,799	707,155	767,890	833,837	887,796	1,017,467								
2012/13		33,373	141,076	134,972	140,524	170,289	170,548	170,563									
2013/14		157,926	143,852	197,895	318,867	356,566	356,566										
2014/15		15,681	73,337	130,069	212,131	365,179											
2015/16		7,852	79,951	174,982	214,572												
2016/17		5,968	73,047	125,803													
2017/18		5,937	77,991														
2018/19		33,877															

II. Limited Paid Loss Development

Claim Period	Months of Development:																
	6-18	18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126	126-138	138-150	150-162	162-174	174-186	186-198	198-Ult
2002/03								0.992	1.000	1.026	1.000						
2003/04								1.028	1.007	1.061	1.012	0.998	1.004	1.018	1.000	1.000	
2004/05								1.005	1.000	0.995	1.000	1.000	1.000	1.000	1.000	1.000	
2005/06					1.000	1.007	1.000	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2006/07					1.000	1.012	1.035	0.997	1.003	1.000	1.000	1.000					
2007/08			1.034	1.142	1.004	1.004	1.000										
2008/09		1.655	1.100	1.576	1.561												
2009/10	9.081	1.327	1.311	1.239													
2010/11	2.772	1.365	1.163														
2011/12	3417.739	3.308	0.962	1.086	1.086	1.065	1.146										
2012/13	4.227	0.957	1.041	1.212	1.002	1.000											
2013/14	0.911	1.376	1.611	1.118	1.000												
2014/15	4.677	1.774	1.631	1.721													
2015/16	10.182	2.189	1.226														
2016/17	12.239	1.722															
2017/18	13.137																
2018/19																	
Average																	
All	386.107	1.741	1.231	1.263	1.093	1.014	1.043	0.998	1.012	1.008	1.000	1.001	1.006	1.000	1.000		
Wtd 3	11.692	1.904	1.482	1.328	1.051			0.622	0.619	0.595	0.590	0.591	1.012				
Last 3	11.853	1.895	1.489	1.351	1.029			0.997	0.999	1.000	1.000	1.000	1.006				
Last 5	9.033	1.624	1.293					0.997	1.001	1.004	1.000						
x-hi,low																	
Similar	3.679	1.817	1.341	1.177	1.103	1.069	1.049	1.036	1.029	1.025	1.021	1.017	1.014	1.012	1.011	1.009	1.008
Previous	5.000	1.400	1.150	1.100	1.060	1.045	1.040	1.035	1.030	1.025	1.020	1.015	1.010	1.007	1.005	1.003	1.002
Selected	7.000	1.700	1.200	1.120	1.060	1.045	1.040	1.035	1.030	1.025	1.020	1.015	1.010	1.007	1.005	1.003	1.002
Cumulative	21.862	3.123	1.837	1.531	1.367	1.290	1.234	1.187	1.146	1.113	1.086	1.065	1.049	1.038	1.031	1.026	1.023
Percent	4.6%	32.0%	54.4%	65.3%	73.2%	77.5%	81.0%	84.3%	87.2%	89.8%	92.1%	93.9%	95.3%	96.3%	97.0%	97.5%	97.7%

+ indicates claim periods with the latest valuation of April 30, 2014; no update was available.

Amounts are limited (net of excess insurance).

Data was provided by the District.

CONTRA COSTA WATER DISTRICT  
WORKERS' COMPENSATION

Historical Limited Reported Incurred Losses and Limited Reported Incurred Loss Development

I. Historical Limited Reported Incurred Losses

Claim Period	Months of Development:																	
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	
2002/03								\$289,612	\$287,328	\$287,328	\$294,862	\$294,862						
2003/04	+							\$216,445	\$216,445	\$216,445	\$216,445	\$216,445						
2004/05						291,592	1,063,129	1,114,322	1,116,445	1,078,558	1,113,291	1,177,638	1,096,775	986,706	971,806	942,540		
2005/06					151,729	151,729	231,578	232,652	232,652	231,578	231,578	231,578	231,578	231,578	231,578			
2006/07					465,827	383,456	375,227	427,360	427,360	427,360	388,431	388,431	388,431					
2007/08	+		120,441	401,840	101,051	101,416	101,431											
2008/09	+		184,130	124,398	288,849	405,077												
2009/10	+	86,284	433,899	548,588	711,446	759,165												
2010/11	+	91,498	185,906	303,096	303,130													
2011/12		19,184	381,805	1,118,788	1,011,725	1,160,826	1,124,123	1,257,484	1,235,442									
2012/13		74,866	184,854	161,213	234,560	170,289	170,791	170,563										
2013/14		209,437	197,782	389,564	557,664	356,566												
2014/15		55,834	219,724	203,957	402,945	512,756												
2015/16		49,772	207,412	275,860	350,964													
2016/17		60,541	212,866	202,058														
2017/18		12,057	181,277															
2018/19		62,362																

II. Limited Reported Incurred Loss Development

Claim Period	Months of Development:																
	6-18	18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126	126-138	138-150	150-162	162-174	174-186	186-198	198-Ult
2002/03								0.992	1.000	1.026	1.000						
2003/04								1.048	1.002	0.966	1.032	1.058	0.931	0.900	0.985	0.970	
2004/05						0.794	1.005	1.000	0.995	1.000	1.000	1.000	1.000	1.000			
2005/06					1.000	1.007	1.000	0.993	1.000	1.000	1.000	1.000	1.000				
2006/07				1.159	0.823	0.979	1.139	1.000	1.000	0.909	1.000	1.000					
2007/08			1.033	0.812	1.004	1.000											
2008/09		1.060	1.480	1.191	1.178												
2009/10	5.029	1.264	1.297	1.067													
2010/11	2.032	1.630	1.000														
2011/12	19.902	2.930	0.904	1.147	0.968	1.119	0.982										
2012/13	2.469	0.872	1.455	0.726	1.003	0.999											
2013/14	0.944	1.970	1.432	0.639	1.000												
2014/15	3.935	0.928	1.976	1.273													
2015/16	4.167	1.330	1.272														
2016/17	3.516	0.949															
2017/18	15.035																
2018/19																	
Average																	
All	6.337	1.437	1.317	1.002	0.997	0.983	1.035	0.997	0.992	0.993	1.012	0.983	0.967	0.992	0.970		
Wtd 3	4.916	1.065	1.509	0.870	0.979			0.541	0.540	0.528	0.516	0.494	0.926				
Last 3	7.573	1.069	1.560	0.879	0.990			0.998	0.998	0.970	1.000	1.000	0.967				
Last 5	3.873	1.069	1.386					0.998	0.998	1.009	1.000						
x-hi,low																	
Similar	2.569	1.343	1.142	1.070	1.039	1.026	1.018	1.013	1.011	1.011	1.008	1.007	1.005	1.004	1.003	1.002	1.001
Previous	3.500	1.150	1.150	1.050	1.030	1.020	1.015	1.010	1.005	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000
Selected	4.000	1.150	1.200	1.050	1.025	1.020	1.015	1.010	1.005	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000
Cumulative	6.281	1.570	1.365	1.138	1.084	1.057	1.036	1.021	1.011	1.006	1.003	1.001	1.000	1.000	1.000	1.000	1.000
Percent	15.9%	63.7%	73.2%	87.9%	92.3%	94.6%	96.5%	97.9%	98.9%	99.4%	99.7%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%

+ indicates claim periods with the latest valuation of April 30, 2014; no update was available.

Amounts are limited (net of excess insurance).

Data was provided by the District.

CONTRA COSTA WATER DISTRICT  
WORKERS' COMPENSATION

Historical Reported Claims and Reported Claim Development

I. Historical Reported Claims

Claim Period	Months of Development:																
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198
2002/03								43	43	43	44	44					
2003/04	+							45	45	45	45	45	45	45	45	45	45
2004/05							35	35	35	35	35	35	35	35	35	35	35
2005/06					38	38	38	38	38	38	38	38	38	38	38	38	38
2006/07				38	38	38	38	38	38	38	38	38	38	38	38	38	38
2007/08	+		33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
2008/09	+		27	28	28	28	28	28	28	28	28	28	28	28	28	28	28
2009/10	+	22	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
2010/11	+	12	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
2011/12		8	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
2012/13		11	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
2013/14		31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31
2014/15		12	20	20	21	21	21	21	21	21	21	21	21	21	21	21	21
2015/16		7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
2016/17		6	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
2017/18		8	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
2018/19		11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11

II. Reported Claim Development

Claim Period	Months of Development:																
	6-18	18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126	126-138	138-150	150-162	162-174	174-186	186-198	198-Ult
2002/03								1.000	1.000	1.023	1.000						
2003/04								1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004/05							1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005/06					1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006/07				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007/08			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008/09		1.037	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009/10	1.773	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2010/11	1.833	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2011/12	2.500	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012/13	2.182	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2013/14	0.968	1.033	1.032	0.969	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014/15	1.667	1.000	1.050	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2015/16	2.143	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2016/17	2.667	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2017/18	2.125	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2018/19																	
Average																	
All	1.984	1.008	1.009	0.996	1.000	1.000	1.000	1.000	1.000	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd 3	2.286	1.000	1.030	0.987	1.000	1.000	1.000	0.941	0.941	0.941	0.941	0.941	1.000	1.000	1.000	1.000	1.000
Last 3	2.312	1.000	1.027	0.990	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Last 5	1.978	1.000	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
x-hi,low																	
Similar	2.131	1.071	1.015	1.009	1.007	1.006	1.005	1.005	1.006	1.004	1.001	1.001	1.001	1.001	1.000	1.000	1.000
Previous	2.000	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	2.100	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	2.111	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Percent	47.4%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

+ indicates claim periods with the latest valuation of April 30, 2014; no update was available.

Data was provided by the District.

CONTRA COSTA WATER DISTRICT  
WORKERS' COMPENSATION

Historical Ratio of Limited Paid Losses and Limited Reported Incurred Losses

Claim Period	Months of Development:																			
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198			
2002/03								100.0%	100.0%	100.0%	100.0%	100.0%	100.0%							
2003/04							78.3%	76.8%	77.2%	84.7%	83.0%	78.3%	84.4%	95.5%	97.0%	100.0%				
2004/05						79.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%					
2005/06					100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%					
2006/07				80.8%	79.6%	96.7%	100.0%	90.9%	90.6%	90.9%	100.0%	100.0%	100.0%							
2007/08			80.3%	80.4%	100.0%	100.0%	100.0%													
2008/09		45.2%	70.5%	52.4%	69.4%	92.0%														
2009/10	34.2%	61.7%	64.8%	65.5%	76.1%															
2010/11	44.6%	60.8%	50.9%	59.2%																
2011/12	0.3%	58.2%	65.7%	69.9%	66.2%	74.2%	70.6%	82.4%												
2012/13	44.6%	76.3%	83.7%	59.9%	100.0%	99.9%	100.0%													
2013/14	75.4%	72.7%	50.8%	57.2%	100.0%	100.0%														
2014/15	28.1%	33.4%	63.8%	52.6%	71.2%															
2015/16	15.8%	38.5%	63.4%	61.1%																
2016/17	9.9%	34.3%	62.3%																	
2017/18	49.2%	43.0%																		
2018/19	54.3%																			
Average																				
All	35.6%	52.4%	65.6%	63.9%	84.7%	92.8%	92.7%	91.7%	93.5%	95.1%	96.6%	95.7%	96.1%	98.5%	98.5%	100.0%				
Last 3	37.8%	38.6%	63.2%	57.0%	90.4%				96.9%	97.0%	100.0%	100.0%	100.0%	98.5%						
Last 5	31.0%	38.6%	63.2%	59.4%					96.9%	97.0%	100.0%	100.0%								
x-hi,low																				
Implicit	28.7%	50.3%	74.3%	74.3%	79.3%	82.0%	84.0%	86.1%	88.2%	90.4%	92.4%	94.0%	95.3%	96.3%	97.0%	97.5%	97.7%	97.9%	98.0%	98.0%

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Developed Limited Paid Losses

Claim Period (1)	Months of Development 12/31/18 (2)	Limited Paid Losses 12/31/18 (3)	Percent Losses Paid (4)	Developed Limited Paid Losses (3)/(4) (5)
2002/03	142.0	\$294,862	94.4%	\$312,348
2003/04	186.0	942,540	97.5%	960,637 *
2004/05	174.0	231,578	97.0%	238,818
2005/06	162.0	151,729	96.3%	157,568
2006/07	150.0	388,431	95.3%	407,411
2007/08	82.0	101,431	82.1%	123,521
2008/09	70.0	372,509	78.7%	473,269
2009/10	58.0	577,498	74.6%	773,915
2010/11	46.0	179,565	67.9%	264,332
2011/12	90.0	1,017,467	84.3%	1,207,279
2012/13	78.0	170,563	81.0%	210,477
2013/14	66.0	356,566	77.5%	459,809
2014/15	54.0	365,179	73.2%	499,170
2015/16	42.0	214,572	65.3%	328,499
2016/17	30.0	125,803	54.4%	231,118
2017/18	18.0	77,991	32.0%	243,576
<b>Total</b>		<b>\$5,568,284</b>		<b>\$6,891,746</b>

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\* - Indicates large claim(s) limited to retention. For details, see Exhibit WC-16.

(3) is from Exhibit WC-1.

(4) is from Exhibit WC-2.



Developed Limited Reported Incurred Losses

Claim Period (1)	Months of Development 12/31/18 (2)	Limited Reported Incurred Losses 12/31/18 (3)	Percent Losses Reported (4)	Developed Limited Reported Incurred Losses (3)/(4) (5)
2002/03	142.0	\$294,862	99.9%	\$295,059
2003/04	186.0	942,540	100.0%	942,540
2004/05	174.0	231,578	100.0%	231,578
2005/06	162.0	151,729	100.0%	151,729
2006/07	150.0	388,431	100.0%	388,431
2007/08	82.0	101,431	97.0%	104,607
2008/09	70.0	405,077	95.2%	425,411
2009/10	58.0	688,477	93.1%	739,887
2010/11	46.0	303,130	89.4%	339,250
2011/12	90.0	1,235,442	97.9%	1,261,573
2012/13	78.0	170,563	96.5%	176,783
2013/14	66.0	356,566	94.6%	376,961
2014/15	54.0	512,756	92.3%	555,637
2015/16	42.0	350,964	87.9%	399,330
2016/17	30.0	202,058	73.2%	275,884
2017/18	18.0	181,277	63.7%	284,637
<b>Total</b>		<b>\$6,516,882</b>		<b>\$6,949,298</b>

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(3) is from Exhibit WC-1.

(4) is from Exhibit WC-2.

Developed Limited Case Reserves

Claim Period (1)	Months of Development 12/31/18 (2)	Percent Losses Paid (3)	Percent Losses Reported (4)	Percent Losses Reserved 12/31/18 [(4)-(3)]/ [100.0%-(3)] (5)	Limited Paid Losses 12/31/18 (6)	Limited Case Reserves 12/31/18 (7)	Developed Limited Case Reserves (6)+(7)/(5) (8)
2002/03	142.0	94.4%	99.9%	98.8%	\$294,862	\$0	\$294,862
2003/04	186.0	97.5%	100.0%	100.0%	942,540	0	942,540
2004/05	174.0	97.0%	100.0%	100.0%	231,578	0	231,578
2005/06	162.0	96.3%	100.0%	100.0%	151,729	0	151,729
2006/07	150.0	95.3%	100.0%	100.0%	388,431	0	388,431
2007/08	82.0	82.1%	97.0%	83.0%	101,431	0	101,431
2008/09	70.0	78.7%	95.2%	77.5%	372,509	32,568	414,505
2009/10	58.0	74.6%	93.1%	72.6%	577,498	110,979	730,315
2010/11	46.0	67.9%	89.4%	66.8%	179,565	123,565	364,545
2011/12	90.0	84.3%	97.9%	86.8%	1,017,467	217,975	1,268,516
2012/13	78.0	81.0%	96.5%	81.4%	170,563	0	170,563
2013/14	66.0	77.5%	94.6%	75.9%	356,566	0	356,566
2014/15	54.0	73.2%	92.3%	71.2%	365,179	147,577	572,306
2015/16	42.0	65.3%	87.9%	65.1%	214,572	136,392	424,159
2016/17	30.0	54.4%	73.2%	41.3%	125,803	76,255	310,554
2017/18	18.0	32.0%	63.7%	46.6%	77,991	103,287	299,713
<b>Total</b>					<b>\$5,568,284</b>	<b>\$948,598</b>	<b>\$7,022,315</b>

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(3) and (4) are from Exhibit WC-2.

(6) and (7) are from Exhibit WC-1.

Preliminary Projected Ultimate Limited Losses to 2017/18

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	Preliminary Projected Ultimate Limited Losses (5)
2002/03	\$312,348	\$295,059	\$294,862	\$294,862
2003/04	960,637	942,540	942,540	942,540
2004/05	238,818	231,578	231,578	231,578
2005/06	157,568	151,729	151,729	151,729
2006/07	407,411	388,431	388,431	388,431
2007/08	123,521	104,607	101,431	101,431
2008/09	473,269	425,411	414,505	414,505
2009/10	773,915	739,887	730,315	730,315
2010/11	264,332	339,250	364,545	362,016
2011/12	1,207,279	1,261,573	1,268,516	1,267,128
2012/13	210,477	176,783	170,563	170,563
2013/14	459,809	376,961	356,566	356,566
2014/15	499,170	555,637	572,306	558,325
2015/16	328,499	399,330	424,159	395,096
2016/17	231,118	275,884	310,554	280,799
2017/18	243,576	284,637	299,713	286,562
<b>Total</b>	<b>\$6,891,746</b>	<b>\$6,949,298</b>	<b>\$7,022,315</b>	<b>\$6,932,445</b>

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(2) is from Exhibit WC-3.

(3) is from Exhibit WC-4.

(4) is from Exhibit WC-5.

(5) is based on (2) to (4) and actuarial judgment.

Bornhuetter - Ferguson Analysis

I. A-priori Loss Rate

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per \$100 of Payroll (2)/(3)/10 (4)	Loss Rate Trend (2018/19 = 1.000) (5)	Trended Limited Loss Rate per \$100 of Payroll (4)X(5) (6)	Projected A-priori Loss Rate per \$100 of Payroll (7)/(5) (8)
2008/09	\$414,505	\$29,435	\$1.41	1.094	\$1.54	\$1.39
2009/10	730,315	29,959	2.44	1.072	2.61	1.41
2010/11	362,016	29,482	1.23	1.057	1.30	1.43
2011/12	1,267,128	31,611	4.01	1.052	4.22	1.44
2012/13	170,563	27,836	0.61	1.059	0.65	1.43
2013/14	356,566	30,344	1.18	1.049	1.23	1.44
2014/15	558,325	30,856	1.81	1.022	1.85	1.48
2015/16	395,096	30,726	1.29	1.001	1.29	1.51
2016/17	280,799	31,559	0.89	1.043	0.93	1.45
2017/18	286,562	32,864	0.87	1.021	0.89	1.48

(7) Projected 2018/19 a-priori loss rate per \$100 of Payroll \$1.52

II. Bornhuetter - Ferguson Analysis Based on Limited Paid Losses

Claim Period (1)	Limited Paid Losses 12/31/18 (2)	Percent Losses Paid (3)	Projected A-priori Loss Rate per \$100 of Payroll (4)	Payroll (000) (5)	B-F Unpaid Losses [100.0%-(3)] X(4)X(5)X10 (6)	B-F Ultimate Limited Paid Losses (2)+(6) (7)
2013/14	\$356,566	77.5%	\$1.44	\$30,344	\$98,377	\$454,943
2014/15	365,179	73.2%	1.48	30,856	122,778	487,957
2015/16	214,572	65.3%	1.51	30,726	161,361	375,933
2016/17	125,803	54.4%	1.45	31,559	209,018	334,821
2017/18	77,991	32.0%	1.48	32,864	331,582	409,573

III. Bornhuetter - Ferguson Analysis Based on Limited Reported Incurred Losses

Claim Period (1)	Limited Reported Incurred Losses 12/31/18 (2)	Percent Losses Reported (3)	Projected A-priori Loss Rate per \$100 of Payroll (4)	Payroll (000) (5)	B-F Unreported Losses [100.0%-(3)] X(4)X(5)X10 (6)	B-F Ultimate Limited Reported Losses (2)+(6) (7)
2013/14	\$356,566	94.6%	\$1.44	\$30,344	\$23,705	\$380,271
2014/15	512,756	92.3%	1.48	30,856	35,299	548,055
2015/16	350,964	87.9%	1.51	30,726	56,353	407,317
2016/17	202,058	73.2%	1.45	31,559	122,747	324,805
2017/18	181,277	63.7%	1.48	32,864	177,119	358,396

Section I, (2) is from Exhibit WC-6.

Section I, (3), Section II, (5) and Section III, (5) are from Exhibit WC-10.

Section I, (5) is from Exhibit WC-15 and adjusted for change in retention.

Section I, (7) is based on Section I, (6) and actuarial judgment.

Sections II and III, (2) are from Exhibit WC-1.

Sections II and III, (3) are from Exhibit WC-2.

Sections II and III, (4) are from Section I, (8).

Frequency Times Severity Analysis

I. Projected Ultimate Claims

Claim Period (1)	Months of Development 12/31/18 (2)	Reported Claims 12/31/18 (3)	Percent Claims Reported (4)	Projected Ultimate Claims (3)/(4) (5)	Payroll (000) (6)	Frequency (per \$1M of Payroll) (5)/(6)X1,000 (7)
2008/09	70.0	28	100.0%	28	\$29,435	0.95
2009/10	58.0	39	100.0%	39	29,959	1.30
2010/11	46.0	22	100.0%	22	29,482	0.75
2011/12	90.0	20	100.0%	20	31,611	0.63
2012/13	78.0	24	100.0%	24	27,836	0.86
2013/14	66.0	31	100.0%	31	30,344	1.02
2014/15	54.0	21	100.0%	21	30,856	0.68
2015/16	42.0	15	100.0%	15	30,726	0.49
2016/17	30.0	16	100.0%	16	31,559	0.51
2017/18	18.0	17	99.5%	17	32,864	0.52

II. Frequency Times Severity

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Projected Ultimate Claims (3)	Average Severity (2)/(3) (4)	Severity Trend (2018/19 = 1.000) (5)	Trended Average Claim Severity (4)X(5) (6)	De-Trended Projected 2018/19 Average Claim Severity (7)/(5) (8)	Frequency Times Severity (3)X(8) (9)
2008/09	\$414,505	28	\$14,804	1.470	\$21,757	\$16,508	\$462,226
2009/10	730,315	39	18,726	1.398	26,183	17,352	676,728
2010/11	362,016	22	16,455	1.339	22,031	18,121	398,668
2011/12	1,267,128	20	63,356	1.294	82,011	18,743	374,864
2012/13	170,563	24	7,107	1.264	8,984	19,192	460,610
2013/14	356,566	31	11,502	1.217	13,994	19,941	618,184
2014/15	558,325	21	26,587	1.151	30,590	21,087	442,818
2015/16	395,096	15	26,340	1.094	28,803	22,187	332,802
2016/17	280,799	16	17,550	1.106	19,412	21,935	350,960
2017/18	286,562	17	16,857	1.052	17,727	23,070	392,193
					(7) Projected 2018/19 average claim severity	\$24,262	

Section I, (3) is from Exhibit WC-1.

Section I, (4) is from Exhibit WC-2.

Section I, (6) is from Exhibit WC-10.

Section II, (2) is from Exhibit WC-6.

Section II, (3) is from Section I, (5).

Section II, (5) is from Exhibit WC-15 and adjusted for change in retention.

Section II, (7) is based on (6) and actuarial judgment.

Projected Ultimate Limited Losses to 2017/18

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	B-F Ultimate Limited Paid Losses (5)	B-F Ultimate Limited Reported Losses (6)	Frequency Times Severity (7)	Projected Ultimate Limited Losses (8)
2002/03	\$312,348	\$295,059	\$294,862				\$294,862
2003/04	960,637	942,540	942,540				942,540
2004/05	238,818	231,578	231,578				231,578
2005/06	157,568	151,729	151,729				151,729
2006/07	407,411	388,431	388,431				388,431
2007/08	123,521	104,607	101,431				101,431
2008/09	473,269	425,411	414,505				415,000
2009/10	773,915	739,887	730,315				730,000
2010/11	264,332	339,250	364,545				362,000
2011/12	1,207,279	1,261,573	1,268,516				1,267,000
2012/13	210,477	176,783	170,563				170,563
2013/14	459,809	376,961	356,566	454,943	380,271	618,184	356,566
2014/15	499,170	555,637	572,306	487,957	548,055	442,818	558,000
2015/16	328,499	399,330	424,159	375,933	407,317	332,802	395,000
2016/17	231,118	275,884	310,554	334,821	324,805	350,960	298,000
2017/18	243,576	284,637	299,713	409,573	358,396	392,193	345,000

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(2) is from Exhibit WC-3.

(3) is from Exhibit WC-4.

(4) is from Exhibit WC-5.

(5) and (6) are from Exhibit WC-7.

(7) is from Exhibit WC-8.

(8) is based on (2) to (7) and actuarial judgment.

Projected Ultimate Limited Losses for 2018/19 and Subsequent

Claim Period (1)	Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per \$100 of Payroll (2)/(3)/10 (4)	Loss Rate Trend (2018/19 = 1.000) (5)	Trended Limited Loss Rate per \$100 of Payroll (4)X(5) (6)
2008/09	\$415,000	\$29,435	\$1.41	1.094	\$1.54
2009/10	730,000	29,959	2.44	1.072	2.61
2010/11	362,000	29,482	1.23	1.057	1.30
2011/12	1,267,000	31,611	4.01	1.052	4.22
2012/13	170,563	27,836	0.61	1.059	0.65
2013/14	356,566	30,344	1.18	1.049	1.23
2014/15	558,000	30,856	1.81	1.022	1.85
2015/16	395,000	30,726	1.29	1.001	1.29
2016/17	298,000	31,559	0.94	1.043	0.98
2017/18	345,000	32,864	1.05	1.021	1.07
<b>Total</b>	<b>\$4,897,129</b>	<b>\$304,671</b>	<b>\$1.61</b>		<b>\$1.67</b>

Claim Period (1)	Projected Limited Loss Rate per \$100 of Payroll (7)	Projected Payroll (000) (8)	Projected Ultimate Limited Losses (7)X(8)X10 (9)	Present Value Factor (10)	Present Value of Projected Limited Loss Rate per \$100 of Payroll (7)X(10) (11)	Present Value of Projected Ultimate Limited Losses (8)X(11)X10 (12)
2018/19	\$1.54	\$35,028	\$540,000	0.93	\$1.43	\$500,000
2019/20	1.57	36,749	577,000	0.93	1.46	535,000
2020/21	1.60	37,852	607,000	0.93	1.48	562,000

(2) is from Exhibit WC-9.

(3) was provided by the District.

(5) is from Exhibit WC-15 and adjusted for change in retention.

(7) 2018/19 is based on (6) and actuarial judgment.  
Other period(s) based on 2018/19 plus the trend in Exhibit WC-15.

(8) to 2019/20 was provided by the District. Other claim periods are based on a 3% trend.

(10) is based on a 2% interest rate and the payout pattern in Exhibit WC-2.

Estimated Outstanding Losses as of December 31, 2018

Claim Period (1)	Limited Paid Losses 12/31/18 (2)	Limited Case Reserves 12/31/18 (3)	Limited Reported Incurred Losses 12/31/18 (4)	Projected Ultimate Limited Losses (5)	Estimated IBNR 12/31/18 (5)-(4) (6)	Estimated Outstanding Losses 12/31/18 (3)+(6) (7)	Present Value Factor (8)	Present Value of Estimated Outstanding Losses 12/31/18 (7)X(8) (9)
2002/03	\$294,862	\$0	\$294,862	\$294,862	\$0	\$0	0.91	\$0
2003/04	942,540	0	942,540	942,540	0	0	0.90	0
2004/05	231,578	0	231,578	231,578	0	0	0.90	0
2005/06	151,729	0	151,729	151,729	0	0	0.90	0
2006/07	388,431	0	388,431	388,431	0	0	0.90	0
2007/08				*** Fully Insured ***				
2008/09				*** Fully Insured ***				
2009/10				*** Fully Insured ***				
2010/11				*** Fully Insured ***				
2011/12				*** Fully Insured ***				
2012/13				*** Fully Insured ***				
2013/14				*** Fully Insured ***				
2014/15				*** Fully Insured ***				
2015/16				*** Fully Insured ***				
2016/17	125,803	76,255	202,058	298,000	95,942	172,197	0.92	157,815
2017/18	77,991	103,287	181,277	345,000	163,723	267,010	0.93	247,087
2018/19	33,877	28,484	62,362	270,000	207,638	236,122	0.94	221,562
<b>Total</b>	<b>\$2,246,811</b>	<b>\$208,026</b>	<b>\$2,454,837</b>	<b>\$2,922,140</b>	<b>\$467,303</b>	<b>\$675,329</b>		<b>\$626,464</b>

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(2), (3) and (4) are net of specific self-insured retention and aggregate retention.

(5) to 2017/18 is from Exhibit WC-9. The amount for 2018/19 is from Exhibit WC-10. (50% of the period).

(8) is based on a 2% interest rate and the payout pattern in Exhibit WC-2.



Projected Losses Paid January 1, 2019 to June 30, 2019

Claim Period (1)	Months of Development 12/31/18 (2)	Percent Losses Paid (3)	Months of Development 6/30/19 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 1/1/19 to 6/30/19 [(5)-(3)]/ [100.0%-(3)] (6)	Estimated Outstanding Losses 12/31/18 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 6/30/19 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 6/30/19 (9)X(10) (11)
2002/03	142.0	94.4%	148.0	95.1%	12.6%	\$0	\$0	\$0	0.90	\$0
2003/04	186.0	97.5%	192.0	97.6%	5.7%	0	0	0	0.90	0
2004/05	174.0	97.0%	180.0	97.2%	8.0%	0	0	0	0.90	0
2005/06	162.0	96.3%	168.0	96.6%	9.1%	0	0	0	0.90	0
2006/07	150.0	95.3%	156.0	95.8%	10.2%	0	0	0	0.90	0
2007/08					*** Fully Insured ***					
2008/09					*** Fully Insured ***					
2009/10					*** Fully Insured ***					
2010/11					*** Fully Insured ***					
2011/12					*** Fully Insured ***					
2012/13					*** Fully Insured ***					
2013/14					*** Fully Insured ***					
2014/15					*** Fully Insured ***					
2015/16					*** Fully Insured ***					
2016/17	30.0	54.4%	36.0	59.9%	11.9%	172,197	20,570	151,627	0.92	138,963
2017/18	18.0	32.0%	24.0	43.2%	16.5%	267,010	44,017	222,993	0.93	206,354
2018/19	6.0	4.6%	12.0	9.1%	4.8%	506,122	24,261	481,861	0.94	452,149
<b>Total</b>						<b>\$945,329</b>	<b>\$88,848</b>	<b>\$856,481</b>		<b>\$797,466</b>

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(3) and (5) are from Exhibit WC-2.

(7) to 2017/18 is from Exhibit WC-11. The amount for 2018/19 is for the full period.

(10) is based on a 2% interest rate and the payout pattern in Exhibit WC-2.

Projected Losses Paid July 1, 2019 to June 30, 2020

Claim Period (1)	Months of Development 6/30/19 (2)	Percent Losses Paid (3)	Months of Development 6/30/20 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 7/1/19 to 6/30/20 [(5)-(3)]/ [100.0%-(3)] (6)	Estimated Outstanding Losses 6/30/19 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 6/30/20 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 6/30/20 (9)X(10) (11)
2002/03	148.0	95.1%	160.0	96.1%	21.0%	\$0	\$0	\$0	0.90	\$0
2003/04	192.0	97.6%	204.0	97.8%	10.2%	0	0	0	0.91	0
2004/05	180.0	97.2%	192.0	97.6%	13.9%	0	0	0	0.90	0
2005/06	168.0	96.6%	180.0	97.2%	17.2%	0	0	0	0.90	0
2006/07	156.0	95.8%	168.0	96.6%	19.5%	0	0	0	0.90	0
2007/08					*** Fully Insured ***					
2008/09					*** Fully Insured ***					
2009/10					*** Fully Insured ***					
2010/11					*** Fully Insured ***					
2011/12					*** Fully Insured ***					
2012/13					*** Fully Insured ***					
2013/14					*** Fully Insured ***					
2014/15					*** Fully Insured ***					
2015/16					*** Fully Insured ***					
2016/17	36.0	59.9%	48.0	69.2%	23.3%	151,627	35,380	116,247	0.91	106,011
2017/18	24.0	43.2%	36.0	59.9%	29.3%	222,993	65,396	157,597	0.92	144,435
2018/19	12.0	9.1%	24.0	43.2%	37.5%	481,861	180,741	301,120	0.93	278,652
2019/20	0.0	0.0%	12.0	9.1%	9.1%	577,000	52,786	524,214	0.94	491,890
Total						\$1,433,481	\$334,303	\$1,099,178		\$1,020,988

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(3) and (5) are from Exhibit WC-2.

(7) to 2018/19 is from Exhibit WC-12, (9). The amount for 2019/20 is from Exhibit WC-10.

(10) is based on a 2% interest rate and the payout pattern in Exhibit WC-2.

Projected Losses Paid July 1, 2020 to June 30, 2021

Claim Period (1)	Months of Development 6/30/20 (2)	Percent Losses Paid (3)	Months of Development 6/30/21 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 7/1/20 to 6/30/21 [(5)-(3)]/ [100.0%-(3)] (6)	Estimated Outstanding Losses 6/30/20 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 6/30/21 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 6/30/21 (9)X(10) (11)
2002/03	160.0	96.1%	172.0	96.9%	18.6%	\$0	\$0	\$0	0.90	\$0
2003/04	204.0	97.8%	216.0	98.0%	6.8%	0	0	0	0.92	0
2004/05	192.0	97.6%	204.0	97.8%	10.2%	0	0	0	0.91	0
2005/06	180.0	97.2%	192.0	97.6%	13.9%	0	0	0	0.90	0
2006/07	168.0	96.6%	180.0	97.2%	17.2%	0	0	0	0.90	0
2007/08					*** Fully Insured ***					
2008/09					*** Fully Insured ***					
2009/10					*** Fully Insured ***					
2010/11					*** Fully Insured ***					
2011/12					*** Fully Insured ***					
2012/13					*** Fully Insured ***					
2013/14					*** Fully Insured ***					
2014/15					*** Fully Insured ***					
2015/16					*** Fully Insured ***					
2016/17	48.0	69.2%	60.0	75.4%	19.9%	116,247	23,104	93,143	0.91	84,797
2017/18	36.0	59.9%	48.0	69.2%	23.3%	157,597	36,773	120,824	0.91	110,185
2018/19	24.0	43.2%	36.0	59.9%	29.3%	301,120	88,308	212,812	0.92	195,038
2019/20	12.0	9.1%	24.0	43.2%	37.5%	524,214	196,627	327,587	0.93	303,144
2020/21	0.0	0.0%	12.0	9.1%	9.1%	607,000	55,530	551,470	0.94	517,465
<b>Total</b>						<b>\$1,706,178</b>	<b>\$400,342</b>	<b>\$1,305,836</b>		<b>\$1,210,629</b>

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(3) and (5) are from Exhibit WC-2.

(7) to 2019/20 is from Exhibit WC-13, (9). The amount for 2020/21 is from Exhibit WC-10.

(10) is based on a 2% interest rate and the payout pattern in Exhibit WC-2.

Loss Rate and Severity Trend

I. Benefit Level Changes

Effective Date (1)	Benefit Level Change (2)	Cumulative Benefit Level Change (3)
01/01/09	1.013	1.013
01/01/10	1.001	1.014
01/01/11	0.987	1.001
01/01/12	0.982	0.983
01/01/13	0.967	0.950
01/01/14	1.012	0.962
01/01/15	1.001	0.963
01/01/16	1.002	0.965
01/01/17	1.000	0.965
01/01/18	1.002	0.967

II. Loss Rate and Severity Trend

Claim Period (1)	Benefit Trend (2018/19 = 1.000) (2)	Residual Trend (2018/19 = 1.000) (3)	Retention Index (2018/19 = 1.000) (4)	Loss Rate Trend (2018/19 = 1.000) (2)X(3)X(4) (5)	Wage Trend (2018/19 = 1.000) (6)	Severity Trend (2018/19 = 1.000) (5)X(6) (7)
2008/09	0.954	1.219	0.940	1.094	1.344	1.470
2009/10	0.954	1.195	0.940	1.072	1.305	1.398
2010/11	0.960	1.172	0.940	1.057	1.267	1.339
2011/12	0.975	1.149	0.940	1.052	1.230	1.294
2012/13	1.000	1.126	0.940	1.059	1.194	1.264
2013/14	1.011	1.104	0.940	1.049	1.159	1.217
2014/15	1.005	1.082	0.940	1.022	1.126	1.151
2015/16	1.003	1.061	0.940	1.001	1.093	1.094
2016/17	1.002	1.040	1.000	1.043	1.061	1.106
2017/18	1.001	1.020	1.000	1.021	1.030	1.052
2018/19	1.000	1.000	1.000	1.000	1.000	1.000
2019/20	1.000	0.980	1.000	0.980	0.971	0.952
2020/21	1.000	0.961	1.000	0.961	0.943	0.906

Section I, (2) and (3) reflect data published by the NCCI.

Section II, (2) is based on Section I, (2).

Section II, (3) is based on 2% trend per actuarial judgment.

Section II, (4) is based on industry statistics and actuarial judgment.

Section II, (6) is based on 3% trend.

List of Large Claims  
Reported Incurred Losses Greater Than \$100,000

Claim Number (1)	Date of Loss (2)	Claim Period (3)	Specific Self-Insured Retention (4)	Unlimited Paid Losses 12/31/18 (5)	Unlimited Case Reserves 12/31/18 (6)	Unlimited Reported Incurred Losses 12/31/18 (7)
SDWA-229757	01/21/04	2003/04	\$250,000	\$116,583	\$0	\$116,583
SDWA-234100	05/20/04	2003/04	250,000	250,873 *	85,260	336,133
SDWA-551197	09/01/11	2011/12	Fully insured	287,395	0	287,395
SDWA-554351	01/24/12	2011/12	Fully insured	137,881	32,180	170,061
SDWA-554399	02/28/12	2011/12	Fully insured	180,819	97,485	278,304
SDWA-555364	04/23/12	2011/12	Fully insured	272,012	71,859	343,871
SDWA-556526	02/19/14	2013/14	Fully insured	127,195	0	127,195
SDWA-556576	03/11/14	2013/14	Fully insured	121,693	0	121,693
SDWA-557122	03/02/15	2014/15	Fully insured	182,140	78,693	260,833
SDWA-558351	01/01/16	2015/16	Fully insured	53,330	58,489	111,818
SDWA-557819	01/13/16	2015/16	Fully insured	56,880	50,141	107,021

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The claim(s) indicated by a '\*' have been limited in development.

Amounts are gross of excess insurance and net of other recoveries.

(1) through (7) were provided by the District.

Size of Loss Distribution

I. Reported Claim Count

Claim Size (1)	Prior * (2)	2014/15 (3)	2015/16 (4)	2016/17 (5)	2017/18 (6)	2018/19 (7)	Total (2)...(7) (8)	Non-Zero Claim Cumulative Total (9)	Non-Zero Claim Cumulative % of Total (10)
0	13	0	2	1	0	1	17		
0.01 - 500	60	3	1	1	4	4	73	73	24.7%
500 - 1,000	31	5	3	2	5	1	47	120	40.7%
1,000 - 2,500	37	3	2	4	2	0	48	168	56.9%
2,500 - 10,000	45	4	2	4	3	4	62	230	78.0%
10,000 - 25,000	12	2	2	1	1	0	18	248	84.1%
25,000 - 50,000	14	1	0	1	0	1	17	265	89.8%
50,000 - 100,000	12	2	1	2	2	0	19	284	96.3%
100,000 - 250,000	4	0	2	0	0	0	6	290	98.3%
250,000 - 500,000	4	1	0	0	0	0	5	295	100.0%
Over 500,000	0	0	0	0	0	0	0	295	100.0%
<b>Total</b>	<b>232</b>	<b>21</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>11</b>	<b>312</b>	<b>295</b>	

II. Total Reported Incurred Losses

Claim Size (1)	Prior * (2)	2014/15 (3)	2015/16 (4)	2016/17 (5)	2017/18 (6)	2018/19 (7)	Total (2)...(7) (8)	Non-Zero Claim Cumulative Total (9)	Non-Zero Claim Cumulative % of Total (10)
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
0.01 - 500	14,819	777	158	351	1,324	916	18,345	18,345	0.4%
500 - 1,000	20,296	3,832	2,236	1,284	3,679	539	31,866	50,211	1.0%
1,000 - 2,500	54,115	5,005	3,767	6,853	2,762	0	72,503	122,714	2.5%
2,500 - 10,000	244,007	17,724	6,187	16,183	13,065	20,475	317,641	440,354	9.0%
10,000 - 25,000	175,393	41,560	28,554	10,485	12,148	0	268,141	708,495	14.5%
25,000 - 50,000	440,561	41,412	0	26,624	0	40,432	549,028	1,257,523	25.7%
50,000 - 100,000	860,281	141,613	91,223	140,277	148,298	0	1,381,693	2,639,216	53.9%
100,000 - 250,000	535,532	0	218,839	0	0	0	754,371	3,393,587	69.3%
250,000 - 500,000	1,245,702	260,833	0	0	0	0	1,506,535	4,900,122	100.0%
Over 500,000	0	0	0	0	0	0	0	4,900,122	100.0%
<b>Total</b>	<b>\$3,590,705</b>	<b>\$512,756</b>	<b>\$350,964</b>	<b>\$202,058</b>	<b>\$181,277</b>	<b>\$62,362</b>	<b>\$4,900,122</b>	<b>\$4,900,122</b>	

\* Prior excludes 2007/08 through 2010/11 and prior to 2003/04.

2018/19 reflects 6.0 months of exposure.

Amounts are gross of excess insurance and net of other recoveries.

Data was provided by the District.