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PERSONAL & CONFIDENTIAL

May 17, 2016

Ms. Maria Jimenez  
Insurance and Benefits Manager  
Peace Officers Research Association of California  
4010 Truxel Road  
Sacramento, CA 95834-3725

**Re: Peace Officers Research Association of California Insurance & Benefits Trust  
Health Reserve Analysis – December 31, 2015**

Dear Ms. Jimenez:

Please find enclosed our report that provides our determination of the reserves used to fund long-term disability and life benefits to the full-time employees and covered dependents of Peace Officers Research Association of California Insurance & Benefits Trust (PORAC). For this report, we have estimated the reserves for Incurred But Not Reported (IBNR) claims at December 31, 2015, the reserves for Open Claims at December 31, 2015, and assessed the adequacy of the Trust's assets on the valuation date relative to the liabilities.

We have relied upon data provided by PORAC. We accepted this information without audit and have relied upon the sources for the accuracy of the data; however, we did review the information for reasonableness and consistency. On the basis of this review, we believe the data and information provided to be sufficiently complete and accurate, and that it is appropriate for the purposes intended.

A detailed report of the data, methodology, assumptions, results, recommendations and conclusions follows.

By signing below, I certify that I am a qualified actuary by education and experience to evaluate health reserves and funding practices. I am a Fellow of the Society of Actuaries and a member of the American Academy of Actuaries and certify that all analysis was conducted in accordance with all applicable Actuarial Standards of Practice. All sections of this report are considered an integral part of the actuarial opinion.

Sincerely,

Richard Ward, FSA, FCA, MAAA  
Senior Vice President, West Region Health Practice Leader

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## Executive Summary

Based on the requirements of Assembly Bill No. 1072 passed by the California State Legislature and approved the Governor on October 5, 2015, an independent actuary was engaged for the purpose of evaluating the sufficiency of the Peace Officers Research Association of California Insurance & Benefits Trust (PORAC) Reserve. As PORAC's retained actuarial consultant, Segal Consulting has been contracted for these services. For the past ten years, Segal has evaluated PORAC's liabilities and prepared reserve estimates for budgeting purposes. During this time, PORAC's experience has exhibited consistent behavior.

Claims and enrollment data were provided by PORAC. Data and reports submitted to Segal for this analysis are similar to past reports that have been used to determine the reserves for claims that have not been fully paid (Open Claims) and claims that have been incurred but not reported (IBNR).

Using standard actuarial methodologies and assumptions, reserve levels were determined to sufficiently fund the liability for Open and IBNR claims at December 31, 2015. This total reserve level for both disability and life claims is estimated to be approximately \$2,800,000. We did not account for administrative expenses associated with adjudicating these claims in developing the IBNR or Open Claims Reserve.

PORAC self-insures the LTD for up to 12 months and purchases LTD insurance for disability payments that last longer than 1 year to limit the Trust's exposure to adverse claims experience. The current policy is provided by Standard Life, and will continue into the 2016 plan year.

This analysis does not include any amounts for LTD and life claims incurred after January 1, 2016. It is our understanding of Assembly Bill No. 1072 that the Trust Reserve should be assessed as to whether it can reasonably be expected to satisfy all contractual obligations as of December 31, 2015. This assessment does not include any evaluation of contractual obligations incurred after December 31, 2015 and our analysis did not include this.

During 2015, assets designated to fund disability and life insurance benefits remained well above the estimated liabilities. At December 31, 2015, unaudited assets totaled \$5,805,302, which is approximately 211% of the estimated liabilities. It is our opinion that the program is well funded, with sufficient assets to cover expected liabilities and safeguard against unexpected losses or increases in future years.



## Statement of Actuarial Opinion

### Peace Officers Research Association of California Insurance & Benefits Trust

I, Richard Ward, am a Senior Vice President and the West Region Health Practice Leader for Segal Consulting. Segal Consulting is an employee benefits consulting firm retained by the Board of Trustees of the Peace Officers Research Association of California. Insurance & Benefits Trust with regard to calculation of loss reserves, actuarial liabilities, and related items.

By signing below, I certify that I am a qualified actuary by education and experience to evaluate health reserves and funding practices. I am a Fellow of the Society of Actuaries and a member of the American Academy of Actuaries and certify that all analysis was conducted in accordance with all applicable Actuarial Standards of Practice.

Utilizing the data, assumptions and methods described in this report, our analysis estimates the reserves, actuarial liabilities, and related items listed below.

Disability Incurred But Not Reported Claims Reserve	\$691,467
Disability Open Claims Reserve	\$1,713,925
Life Incurred But Not Reported Claims Reserve	\$40,000
Life Opens Claims Reserve	\$309,521
Total Claims Liability as of December 31, 2015	<hr/> \$2,754,913

We relied upon claim data prepared by Ms. Maria Jimenez, Manager of PORAC Insurance and Benefits Trust. In other respects, our examination included such review of the underlying assumptions and methods used and such tests of the analysis as we considered necessary.

In our opinion, the actuarial liabilities identified above:

- (a) Are in accordance with accepted actuarial standards consistently applied and are fairly stated in accordance with sound actuarial principles;
- (b) Are based on actuarial assumptions relevant to contract provisions and appropriate to the purpose for which the statement was prepared;
- (c) Meet the requirements of the laws of the State of California;
- (d) Make a good and sufficient provision for all unpaid claims and other actuarial liabilities of the organization under the terms of its contracts and agreements;
- (e) Include appropriate provision for all actuarial items that ought to be established.

Actuarial methods, considerations, and analyses used in forming this opinion conform to the relevant Standards of Practice as promulgated from time to time by the Actuarial Standards Board. Those standards form the basis of this statement of opinion.



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## Introduction

Based on the requirements of Assembly Bill No. 1072, passed by the California State Legislature and approved by the Governor on October 5, 2015, Segal Consulting was retained by PORAC for the purpose of evaluating the sufficiency of their health reserve. We have conducted an actuarial valuation of the reserves for health benefits at December 31, 2015, for PORAC.

PORAC provides long-term disability (LTD) and life benefits to its active full-time employees and eligible dependents. These benefits are self-administered and PORAC has established a reserve fund used to pay members for covered health benefits.

PORAC self-insures the LTD for up to 12 months and purchases LTD insurance for disability payments that last longer than 1 year to limit the Trust's exposure to adverse claims experience. The current policy is provided by Standard Life, and will continue into the 2016 plan year.

## Data

Monthly paid claims and annual enrollment data was provided by PORAC for January 1, 2011 through December 31, 2015. Claims data was provided separately for long-term disability and life insurance benefits.

PORAC also provided a report showing all open claims, as well as known and pre-approved future disability benefit payments for 2016 as of February 24, 2016. In addition, we received a report listing all disability benefit payments for January and February 2016.

PORAC identified all life insurance claims incurred in 2015 that were still pending as of December 31, 2015.

While not auditing the data at the source, we did perform reasonability checks and found the data to be reasonable, internally consistent, and appropriate for this analysis.



## Plan Provisions

For LTD claims, the self-funded period covered by PORAC is the initial 12-months of an approved disability. Benefits may be payable beyond 12 months under PORAC's fully-insured LTD plan provided by Standard Insurance Company.

PORAC has an "Own Occupation" definition of disability. To be eligible for LTD benefits, during the Benefit Eligibility Waiting Period and the Own Occupation Period, a member is required to be Totally Disabled from their Own Occupation or Partially Disabled from their Own Occupation.

PORAC defines Total Disability as being unable to perform with reasonable continuity the Substantial And Material Acts necessary to pursue one's Own Occupation and one not working in their Own Occupation as a result of Physical Disease, Injury, Pregnancy, or Mental Disorder.

PORAC defines Partial Disability as not being Totally Disabled and working one's Own Occupation, but, as a result of Physical Disease, Injury, Pregnancy, or Mental Disorder, being unable to earn 80% or more of Indexed Pre-Disability Earnings.

PORAC defines Catastrophic Disability as being eligible for LTD benefits under the eligibles rules of the Plan, being unable to safely and completely perform two or more Activities of Daily Living, and requiring substantial supervision for one's health and safety due to severe cognitive impairment as a result of physical disease or injury. These conditions must be expected to last 90 days or more as certified by a Physician in the appropriate specialty as determined by PORAC.

PORAC offers two types of LTD benefit plans: Premier and Premier Plus. A summary of each plan's benefits as of February 1, 2014 is as follows:

The Premier Plan provides a LTD benefit of 66.7% of the first \$10,500 of monthly Pre-Disability earnings, reduced by applicable deductible income, up to maximum of \$7,000 and minimum of \$200. During the Own Occupation Period, there is a Catastrophic Disability Benefit that pays an additional 33.3% of the first \$10,500 of monthly Pre-Disability earnings, up to maximum of \$3,500. The Catastrophic Disability Benefit is not reduced by applicable deductible income. However, the Catastrophic Disability Benefit will be reduced so that total disability benefits will not exceed 100% of Pre-disability earnings, if applicable.

The Premier Plus Plan provides a LTD benefit of 70% of the first \$12,857 of monthly Pre-Disability earnings, reduced by applicable deductible income, up to maximum of \$9,000 and minimum of \$200. During the Own Occupation Period, there is a Catastrophic Disability Benefit that pays an additional 30% of the first \$12,857 of monthly Pre-Disability earnings, up to maximum of \$3,857. The above eligibility requirements for Catastrophic Disability Benefits apply to the Premier Plus Plan as well.

PORAC also offers Death Benefits to members enrolled in their LTD plans. The Trust self-insures Death Benefits due to a cause other than an accident, such as natural causes, and fully-insures all other causes of death with Reliastar Life Insurance Company.

If a member's death results from any cause other than suicide or an accident, the amount of the Death Benefit will be \$50,000. The member's beneficiary will receive the Death Benefit in the following payment structure: \$20,000 will be paid when the claim is approved and \$15,000 will be paid for each of the next two years within 30 days of the anniversary of the member's death.



## Assumptions and Methodology

The Incurred But Not Reported (IBNR) reserve, at a specified date, is the estimated claims incurred up to that date less the claims that have been incurred and paid to that date. Since the incurred and paid claims are known, the IBNR reserve is directly determined once the incurred claims have been estimated.

The traditional loss development method uses historical claim payment patterns to develop completion factors that are used to estimate incurred claims. The claims incurred in a given month and paid by the end of the experience period are divided by the completion factor to estimate the incurred claims for that month. The IBNR reserve for that month is subsequently determined by subtracting the known incurred and paid claims from the estimated incurred claims. The total IBNR reserve is merely the sum of all the appropriate monthly IBNR reserve estimates.

This method is relatively easy to employ and is effective when the historical claim payment patterns are deemed to be stable enough to estimate current/future claim payment patterns and when several months of claim payments (or run-out) after the incurred month are available. When the run-out for any month is limited, this month is called immature and the associated completion factor is significantly less than one. The resulting incurred claim estimate is unstable. Consequently, a secondary method has traditionally been used to estimate the immature months.

The secondary method for health claims is often an average of historical incurred claims adjusted for claim trend and enrollment between the historical period and the time of interest. One of the shortcomings of this secondary method is that the available claim payment information for the month being estimated is not used. Another problem is that the line of demarcation between mature months and immature months is subjective.

The Bornhuetter-Ferguson Method (BFM) addresses both of these issues by blending the loss development method with the secondary method. The BFM uses the available incurred and paid data and the expected IBNR developed from the secondary method to estimate incurred claims. This method generally provides a more stable estimate than the pure loss development, a more responsive estimate than the secondary method, and a reasonable technique for blending the results of both methods.

IBNR reserve estimates can fluctuate significantly from month to month and are heavily dependent upon the most recent claim payment levels. Simply put, IBNR reserves calculated immediately after a period of unusually high claim payments will be higher than reserves calculated immediately after a period of unusually low claim payments. The reserve is dependent upon the processing speed of the administrator and any changes in the processing speed can significantly impact the actual claims run-out. Factors that can have a material impact on the claims processor's ability to pay claims in a timely manner can include power outages, holidays, work stoppages, changes in claims forms and submission policies, changes in benefit design, etc.

For determination of the Life IBNR reserve, we relied upon PORAC to identify all life insurance claims incurred in 2015 that were still pending as of December 31, 2015. The Life IBNR reserve as of December 31, 2015, is simply the number of claims identified by PORAC multiplied by the payment due to the beneficiary. As of the date of this report, it is believed that all life claims as of December 31, 2015 have been identified.

The Open Claim Reserve, at a specified date, is the estimated known claims incurred up to that date whose benefits have not been fully paid. The methodology for developing an Open Claim Reserve takes

into account known and pre-approved payments for benefits in 2016 for claims incurred by December 31, 2015. It also takes into account the projected period of time during which benefits will be payable, the gross unadjusted benefit amount payable monthly, and an offset for any "Other Income" already received or reasonably expected to be received during the projected benefit period.

To determine PORAC's liability for LTD claims that would still be open as of the last known payment in 2016, we developed a distribution of expected months of continued benefit payments based on the known duration of paid monthly benefit payments. This distribution was constructed using paid LTD claims data from January 1, 2011 through December 31, 2015. Exhibit 4 shows the distribution of expected months of continued LTD benefit payments.

After we calculated the expected months of continued benefit payments for each open claim, we determined the average monthly benefit payment for each open claim, which included deductions for other incomes such as Social Security, retirement benefits, workers compensation, etc. Finally, we took the present value of these monthly benefit payments as of December 31, 2015 utilizing a discount rate of 2.0%. The Open Claim Reserve is simply the summation of all the expected presented values for all open claims.

We did not account for administrative expenses associated with adjudicating these claims in developing the IBNR or Open Claim Reserve.

## Results

Using standard actuarial methodologies and assumptions, PORAC's asset levels were determined to sufficiently fund the liability for disability and life Open and IBNR claims as of December 31, 2015.

The total claims liability is estimated to be \$2,754,913, as detailed in Exhibit 5.

Exhibits 1-4 show the Open Claim and IBNR reserve by benefit coverage, and the detail behind the analysis.

This analysis does not include any amounts for LTD and life claims incurred after January 1, 2016. It is our understanding of Assembly Bill No. 1072 that the Trust Reserve should be assessed as to whether it can reasonably be expected to satisfy all contractual obligations as of December 31, 2015. This assessment does not include any evaluation of contractual obligations incurred after December 31, 2015 and our analysis did not include this.



## Conclusions

During 2015, assets designated to fund disability and life insurance benefits remained well above the estimated liabilities. As of December 31, 2015, unaudited assets totaled \$5,805,302, which is approximately 211% of the estimated liabilities. It is our opinion that the program is well funded, with sufficient assets to cover expected liabilities and safeguard against unexpected losses or cost increases in future years.

Please see Exhibit 5 for a comparison of the assets and liabilities.

## Exhibits

### EXHIBIT 1

#### Peace Officers Research Association of California Insurance & Benefits Trust

Incurred But Not Reported Long-Term Disability Claim Liability as of December 31, 2015

<b>PORAC LTD Claim Completion by Month Exhibit</b>						
<b>Month</b>	<b>Incurred Per Employee</b>	<b>Number of Employees<sup>1</sup></b>	<b>Estimated Incurred<sup>2</sup></b>	<b>Actual Paid</b>	<b>Reserve</b>	<b>Completion Ratio</b>
Jan-2015	\$6.40	21,700	\$138,776	\$136,837	\$1,939	99%
Feb-2015	\$6.74	21,700	\$146,238	\$137,133	\$9,105	94%
Mar-2015	\$6.16	21,700	\$133,574	\$118,218	\$15,357	89%
Apr-2015	\$6.09	21,700	\$132,069	\$108,851	\$23,219	82%
May-2015	\$3.87	21,700	\$84,051	\$63,557	\$20,494	76%
Jun-2015	\$5.84	21,700	\$126,654	\$88,217	\$38,437	70%
Jul-2015	\$3.82	21,700	\$82,887	\$52,192	\$30,696	63%
Aug-2015	\$3.57	21,700	\$77,468	\$42,214	\$35,254	54%
Sep-2015	\$3.02	21,700	\$65,601	\$30,787	\$34,814	47%
Oct-2015	\$8.31	21,700	\$180,405	\$39,079	\$141,327	22%
Nov-2015	\$8.31	21,700	\$180,405	\$19,985	\$160,421	11%
Dec-2015	\$8.31	21,700	<u>\$180,405</u>	<u>\$0</u>	<u>\$180,405</u>	0%
Total			\$1,528,534	\$837,068	\$691,467	
<b>Total</b>					<b>\$691,467</b>	

<sup>1</sup> Annual enrollment was provided for this analysis.

<sup>2</sup> Estimated incurred claims from October 2015 to December 2015 were calculated based on historical experience from February 2014 to September 2015 due to a lack of credible data.

## EXHIBIT 2

### Peace Officers Research Association of California Insurance & Benefits Trust

Open Long-Term Disability Claim Liability as of December 31, 2015

	Total
Known 2016 Benefit Payments	\$717,608
Projected Reserve for Expected Remaining Months of Payments	\$996,317
Total Open Claim Reserve as of 12/31/2015	\$1,713,925



### EXHIBIT 3

#### Peace Officers Research Association of California Insurance & Benefits Trust

Life IBNR and Open Claim Reserve Liability as of December 31, 2015

	Total
Life IBNR Reserve as of 12/31/2015	\$40,000
Life Open Claim Reserve as of 12/31/2015	\$309,521
Total Life Claims Liability as of 12/31/2015	\$349,521

## EXHIBIT 4

### Peace Officers Research Association of California Insurance & Benefits Trust

Distribution of Expected Months of continued Long-Term Disability Benefit Payments based on current Plan of Benefits as of February 1, 2014

Known Duration of LTD Benefit Payments	Expected Months of Continued LTD Benefit Payments	Total Expected Months of LTD Benefit Payments
1	7	8
2	7	9
3	7	10
4	6	10
5	6	11
6	5	11
7	4	11
8	4	12
9	3	12
10	2	12
11	1	12

## EXHIBIT 5

### Peace Officers Research Association of California Insurance & Benefits Trust

Trust Balance compared to Claim Liabilities as of December 31, 2015

	Assets	Liabilities	Ratio of Assets to Liabilities
Life IBNR And Open Claim Reserve		\$349,521	
LTD IBNR and Open Claim Reserve		\$2,405,392	
Trust Balance at December 31, 2015	\$5,805,302	\$2,754,913	211%

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