

**WESTERN STATES OFFICE AND  
PROFESSIONAL EMPLOYEES PENSION FUND  
THIRD SUSPENSION APPLICATION**

**Exhibit 18**

# Western States Office and Professional Employees Pension Plan

---

## Actuarial Valuation

As of January 1, 2016



**RAEL & LETSON**  
CONSULTANTS AND ACTUARIES

July 2016

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

July 14, 2016

Board of Trustees  
Western States Office and Professional Employees Pension Plan

Dear Trustees:

Following is our report on the actuarial valuation of the Pension Plan as of January 1, 2016. Here is a summary of the valuation results:

1. The Plan has an Unfunded Accrued Liability of \$187.0 million as of January 1, 2016.
2. Net investment income was \$21.2 million for an annual rate of return of 6.22% (based on the Actuarial Value of Assets). The Market Value rate of return was 0.63%. Both returns are net of all expenses.
3. The Plan experienced an actuarial loss of \$0.5 million during 2015. The Plan's 2015 net actuarial loss due to asset performance was \$3.5 million. On the liability side, a gain of \$3.0 million was realized during the 2015 Plan Year.
4. Based on the Pension Protection Act of 2006 (PPA) and the Plan's interest assumption of 7.25%, the funded ratio for the 2016 Plan Year provided in notices to be distributed during April 2017 is 65.0%.
5. As of January 1, 2016, the favorable credit balance in the Funding Standard Account was \$50.7 million, a decrease of \$13.8 million from the prior year. The credit balance reflects the 5-year amortization extension which was approved by the IRS in 2009. As of December 31, 2016, the credit balance is projected to be \$34.5 million. As a result, contributions are expected to meet minimum funding requirements for the 2016 Plan Year.
6. As of January 1, 2016, the Plan was certified under the PPA, as modified by the Multiemployer Pension Reform Act of 2014 (MPRA), as being in critical and declining status. The Plan is projected to be insolvent by the end of 2035.

7. The projected employer contributions exceed the estimated cost of benefits to be earned during 2016 by about \$9.1 million. Based on asset and liability measures on the valuation date, this excess is insufficient for funding the projected Unfunded Accrued Liability over a reasonable period. Without future investment return gains, Board and/or bargaining corrective action may be needed in the future to fund the projected unfunded liability over a reasonable period.
8. Contributions for 2016 are projected to be fully deductible as they will fall within the maximum limits set by the IRS.
9. As of December 31, 2015, there is an unfunded vested benefit liability of \$219.1 million for withdrawal liability purposes. Pursuant to the IRC, the determination of the unfunded vested benefit liability disregards certain benefit reductions implemented as part of the Rehabilitation Plan. Additional information is provided in Section V.

Paul Graf, A.S.A., E.A., M.A.A.A.

cc: Kim Gould  
Joe Reinhart, Esq.  
Alex Miller

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### TABLE OF CONTENTS

	<u>Page</u>
Valuation Highlights .....	1
Section I Discussion of Assets and Liabilities.....	2
Section II Actuarial Gain/(Loss) Analysis .....	4
Section III Changes Since Last Valuation and Other Plan Items .....	10
Section IV Projection of Employer Contributions and Costs .....	11
Section V Withdrawal Liability .....	12
Section VI Comments and Certification .....	13
Section VII Appendices .....	15
Appendix A Participant Counts and Statistics .....	16
Appendix B Actuarial Methods and Assumptions.....	21
Appendix C Summary of Principal Plan Provisions .....	24
Appendix D Plan Assets .....	26
Appendix E Funding Standard Account (for Schedule MB) .....	30
Appendix F Current Liability (for Schedule MB) .....	34
Appendix G Maximum Deductible Contribution .....	35
Appendix H Auditor Information (FASB ASC 960) .....	36
Appendix I Determination of Vested Benefit Liabilities for Withdrawal Liability Purposes .....	37
Appendix J Funding Standard Account (No Amortization Extension) .....	38
Appendix K Historical Information .....	42

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### VALUATION HIGHLIGHTS

#### PLAN HISTORY

There were 130 active terminations from vested status and 60 active terminations from non-vested status during the 2015 Plan Year.

Total employer contributions increased by approximately \$1.4 million in 2015.

The funded ratio on a Market Value of Assets basis decreased from 66.8% to 62.5%

The Western States Office and Professional Employees Pension Plan became effective in 1959 as a result of collective bargaining between Locals 29 and 11 of OPEIU and Pacific Intermountain Express. The Plan was last restated effective October 15, 2014, last amended effective September 1, 2015, and received a favorable determination letter in February 2016.

#### VALUATION HIGHLIGHTS

	January 1, 2015	January 1, 2016	Change
Number of Participants:			
Actives	1,000	868	(132)
Non-Vested Inactives <sup>1</sup>	406	376	(30)
Vested Inactives	2,957	2,939	(18)
Retirees and Beneficiaries <sup>2</sup>	<u>3,704</u>	<u>3,744</u>	<u>40</u>
<b>Total Participants</b>	<b>8,067</b>	<b>7,927</b>	<b>(140)</b>
Employer Contributions	\$ 10,411,438	\$ 11,811,952	\$ 1,400,514
Market Value of Assets	\$ 359,268,671	\$ 334,210,200	\$ (25,058,471)
Actuarial Value of Assets	\$ 353,925,354	\$ 347,859,875	\$ (6,065,479)
Actuarial Accrued Liability	\$ 537,887,774	\$ 534,860,955	\$ (3,026,819)
Unfunded Accrued Liability	\$ 183,962,420	\$ 187,001,080	\$ 3,038,660
PPA Funded Percentage	65.8%	65.0%	(0.8)%
Credit Balance	\$ 64,531,758	\$ 50,699,080	\$ (13,832,678)
Unfunded Vested Benefits (Withdrawal Liability)	\$ 198,146,878	\$ 219,085,340	\$ 20,938,461

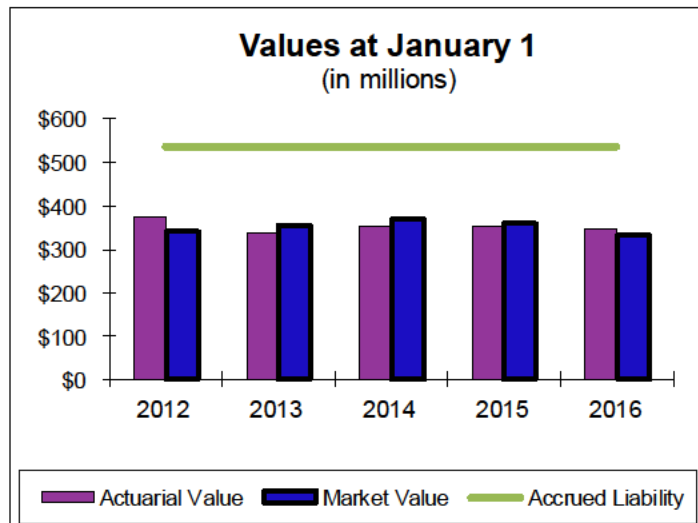
<sup>1</sup> These are non-vested inactive participants who have not incurred a permanent break-in-service.

<sup>2</sup> Includes 16 Alternate Payees as of January 1, 2015 and 17 Alternate Payees as of January 1, 2016.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION I DISCUSSION OF ASSETS AND LIABILITIES



The PPA Funded Percentage decreased from 65.8% at January 1, 2015 to 65.0% at January 1, 2016.

The Actuarial Value of Assets is \$13.6 million more than the Market Value of Assets as of January 1, 2016.

#### ASSETS

A. Cash and Cash Equivalents	\$ 981,358
B. Marketable Securities	329,612,307
C. Net Receivables, Payables and Prepaid Expenses	3,616,535
<b>D. Market Value of Assets (A + B + C)</b>	<b>\$ 334,210,200</b>
E. Actuarial Adjustment (Appendix D)	13,649,675
<b>F. Total Assets at Actuarial Value (D + E)</b>	<b>\$ 347,859,875</b>

#### LIABILITIES

##### Funding

G. Actives	\$ 60,550,949
H. Vested Inactives	119,833,187
I. Retirees and Beneficiaries	354,476,819
<b>J. Actuarial Accrued Liability (G + H + I)</b>	<b>\$ 534,860,955</b>
<b>K. Unfunded Accrued Liability (J - F)</b>	<b>\$ 187,001,080</b>

##### PPA (Statutory)

L. Actives	\$ 60,550,949
M. Vested Inactives	119,833,187
N. Retirees and Beneficiaries	354,476,819
<b>O. Actuarial Accrued Liability (L + M + N)</b>	<b>\$ 534,860,955</b>
<b>P. PPA Funded Percentage (F / O)</b>	<b>65.0 %</b>

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION I DISCUSSION OF ASSETS AND LIABILITIES (CONTINUED)

The financial status of the Plan provides us with the means of measuring the actuarial position of the Trust as of January 1, 2016.

#### ASSETS

The total Market Value of Assets as of January 1, 2016 is \$334,210,200. Information regarding assets was taken from the draft audit report provided by Hemming Morse, LLP. Results are not expected to change with the final audit.

We have utilized an asset valuation method that recognizes net investment income on Trust assets that is more or less than 7.25% per year over a five-year period. The value of Trust assets based on this method is \$347,859,875, which represents 104.1% of the Market Value of Assets. This method is intended to dampen the volatility associated with year to year changes in the market value of Trust assets, while at the same time systematically recognizing overall investment performance over the long term. The derivation of the Actuarial Value of Assets is shown in Appendix D.

Contributions receivable from Employers for hours worked in the 2015 Plan Year but received after December 31, 2015 are included with net receivables.

#### LIABILITIES

The liabilities are listed separately for pensioners and for active and inactive benefits earned by non-retired participants. The \$354,476,819 liability for pensioners represents the estimated amount required as of the valuation date to pay all benefits as they come due in the future. The Actuarial Accrued Liability is the sum of the separate liability amounts and is equal to \$534,860,955.

#### UNFUNDED ACCRUED LIABILITIES

The liabilities of the Plan exceed the Actuarial Value of Assets by \$187,001,080. This amount is known as the Unfunded Accrued Liability, which is amortized by the excess of contributions received over the cost of each future year's accumulation of benefits. If the Market Value of Assets is used, the Unfunded Accrued Liability is equal to \$200,650,755. As shown in Section IV, the current excess of contributions over benefit accruals is about \$9.1 million and is not sufficient to pay down the Unfunded Accrued Liability on both an Actuarial Value of Assets basis and a Market Value of Assets basis assuming all future actuarial assumptions are realized. Without future investment return gains, Board and/or bargaining corrective action may be needed in the future to fund the projected Unfunded Accrued Liability over a reasonable period. Note that the Rehabilitation Plan was updated in 2012 to include reasonable measures to forestall possible insolvency.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS

#### ACTUARIAL VALUATION

An actuarial valuation is a snapshot of asset and liability measures of the pension fund. It is used to estimate the amount of funds needed to guarantee the future payment of retirement, termination, disability and death benefits to Plan participants based on Plan benefits in effect on the valuation date. The valuation is based on the actual service rendered by these participants prior to the valuation date and on a set of actuarial assumptions and methods. These assumptions have been selected by the Actuary while the methods have been adopted by the Trustees upon the recommendation of the Actuary. Both are described in Appendix B.

#### Actuarial Experience

In the paragraphs below, we have outlined the experience over the 2015 Plan Year and have also shown experience for the previous 4 plan years. This information will provide an ongoing review of the appropriateness of each actuarial assumption.

#### Development of Gain / (Loss)

To the extent that actual experience during the year is different than what was expected, gains or losses are realized. The following exhibit develops the total gain or loss for the Plan Year:

A. Unfunded Accrued Liability on January 1, 2015	\$	183,962,420
B. Normal Cost		1,337,905
C. Contributions for 2015		(11,811,952)
D. Interest on A, B and C		<u>13,006,091</u>
E. Expected Unfunded Accrued Liability on January 1, 2016 (A + B + C + D)	\$	186,494,464
F. Actual Unfunded Accrued Liability on January 1, 2016	\$	<u>187,001,080</u>
G. Net Actuarial Gain/(Loss) (E - F)	\$	<u>(506,616)</u>



# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### Net Investment Return - 7.25% per annum, net of all expenses

The net investment yield on the Actuarial Value of Assets during the Plan Year was 6.22%. Appendix D shows the details of the actual investment income calculation.

INCOME	DOLLAR AMOUNT	YIELD
A. Gross Investment Income	\$ 24,183,601	7.11 %
B. Operating Expenses	(1,320,872)	(0.39)
C. Investment Expenses	(1,694,169)	(0.50)
D. Net Investment Income (A + B + C)	\$ 21,168,560	6.22 %
E. Expected Investment Income	24,672,354	7.25
F. Investment Loss (D - E)	\$ (3,503,794)	(1.03) %

NET YIELD ON		
YEAR	ACTUARIAL VALUE <sup>1</sup>	MARKET VALUE <sup>2</sup>
2011	(2.74) %	1.50 %
2012	(1.99)	11.53
2013	11.24	12.97
2014	9.07	4.47
2015	6.22	0.63

<sup>1</sup> The 5-year geometric average return on the Actuarial Value of Assets is 4.20%, and the 10-year geometric average return is 3.71%.

<sup>2</sup> The 5-year geometric average return on the Market Value of Assets is 6.10%, and the 10-year geometric average return is 3.39%.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### **Mortality - 1983 GAM F Mortality Table for healthy lives, and 1983 GAM F Mortality Table 17-year set-forward (until age 62) for disabled lives**

We compared the mortality experienced by the Plan during the 2015 Plan Year with that expected according to the above tables. During the Plan Year, there were 131 deaths with an average age of 80.0 with 24 continuing beneficiaries. This compares to 128 deaths with an average age of 81.2 with 18 continuing beneficiaries in the prior year. The liability released during the year was more than anticipated, resulting in a **gain of \$1,762,830**.

YEAR	GAIN/(LOSS)
2011	\$ 819,175
2012	(646,955)
2013	(21,395)
2014	665,209
2015	1,762,830
5-Year Total	\$ 2,578,864

For valuation dates on or after July 1, 2011, actuaries are required to separately consider an assumption for mortality improvement. Recent studies have shown that mortality for the general population has improved at a fairly consistent rate (1% per year). Whether it will continue at this rate is controversial. Failure to fully reflect mortality improvement will result in an undervaluation of the Plan's liabilities and corrective action in the future.

We believe the current assumption (with no specific margin for future improvements in mortality) reasonably reflects anticipated mortality experience for the Plan. We will continue to monitor the appropriateness of this assumption on an annual basis.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### Turnover – Table T-7, The Actuary's Pension Handbook (Crocker-Sarason-Straight)

If a participant terminates prior to acquiring vested rights in their benefits or prior to retirement, then all or part of the liability accumulated for their benefit is released. This is offset by the liability for inactives who return to active status. During 2015, there were 130 active terminations from vested status and 60 terminations from non-vested status, offset by 5 rehired participants. This compares to 565 active terminations from vested status and 177 terminations from non-vested status, offset by 8 rehired participants in the prior year. The combined net turnover **loss** for the year was **\$227,227**.

YEAR	GAIN/(LOSS)
2011	\$ (183,334)
2012	(157,632)
2013	52,665
2014	(509,163)
2015	(227,227)
5-Year Total	\$ (1,024,691)

#### Retirement

We assume that participants will retire in accordance with an explicit set of retirement rates as described in Appendix B. A gain to the Fund results if a participant delays retirement. During the 2015 Plan Year, there were 140 healthy retirements with an average age of 64.4 and an average benefit of \$573. This compares to 202 healthy retirements with an average age of 62.2 and an average benefit of \$634 for the prior year. The net result of this experience was a **gain** of **\$1,615,254**.

YEAR	GAIN/(LOSS)
2011	\$ 650,964
2012	1,757,478
2013	1,943,164
2014	2,462,900
2015	1,615,254
5-Year Total	\$ 8,429,760

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### Disability – 1952 Society of Actuaries Table, Period 2, Benefit 5

During the 2015 Plan Year, there were no disability retirements. The actuarial **loss** attributable to disabilities was **\$95,159**.

YEAR	GAIN/(LOSS)
2011	\$ (4,920)
2012	(127,345)
2013	(136,510)
2014	(94,877)
2015	(95,159)
5-Year Total	\$ (458,811)

#### Miscellaneous

Each year there are miscellaneous gains and losses due to data adjustments, corrections, new entrants and actual versus expected hours. The miscellaneous items in 2015 resulted in a net **loss** of **\$58,520**.

YEAR	GAIN/(LOSS)
2011	\$ (372,466)
2012	(407,394)
2013	(344,116)
2014	(404,437)
2015	(58,520)
5-Year Total	\$ (1,586,933)

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### SUMMARY OF GAINS AND LOSSES

The following shows a summary of the gains and losses from various sources:

##### SUMMARY OF 2015 GAIN/(LOSS) AMOUNTS

SOURCE	GAIN/(LOSS)
Investment Income	\$ (3,503,794)
Mortality	1,762,830
Turnover	(227,227)
Retirement	1,615,254
Disability	(95,159)
Miscellaneous	(58,520)
<b>Total Experience Loss</b>	<b>\$ (506,616)</b>

Fluctuations in experience for all assumptions are to be expected from year to year. It is the net result over a period of time that must be viewed to determine the validity of the assumptions used.

##### FIVE-YEAR SUMMARY OF GAIN/(LOSS) AMOUNTS

YEAR	ASSETS	LIABILITIES	TOTAL
2011	\$ (40,088,460)	\$ 909,419	\$ (39,179,041)
2012	(33,450,978)	418,152	(33,032,826)
2013	13,070,644	1,493,808	14,564,452
2014	6,155,370	2,119,632	8,275,002
2015	(3,503,794)	2,997,178	(506,616)
<b>5-Year Total</b>	<b>\$ (57,817,218)</b>	<b>\$ 7,938,189</b>	<b>\$ (49,879,029)</b>

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

---

### SECTION III CHANGES SINCE LAST VALUATION AND OTHER PLAN ITEMS

#### CHANGES IN PLAN PROVISIONS

The Board of Trustees modified the postponed retirement benefit effective for annuity starting dates on or after September 1, 2015. Participants who postpone their retirement beyond their Normal Retirement Age and do not continue working for a contributing employer will receive a benefit determined under (a) below. Participants who postpone their retirement beyond their Normal Retirement Age and continue working for a contributing employer will receive the greater of (a) or (b) below.

- (a) Normal Retirement Benefit increased at the rate of  $\frac{1}{2}$  of 1% for each full month retirement is postponed.
- (b) Accrued benefit as of the participant's postponed retirement date.

#### CHANGES IN VALUATION METHODOLOGY AND ASSUMPTIONS

The current liability interest and mortality assumptions were updated as prescribed by IRS regulations. Refer to Appendix B for a description of these changes

No other changes to valuation methodology and assumptions have been made since the prior valuation as of January 1, 2015.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION IV PROJECTION OF EMPLOYER CONTRIBUTIONS AND COSTS

The following is an estimate of Employer contributions and costs for the 2016 Plan Year based on expected contributions, including base, surcharge, and supplemental contributions as well as expected withdrawal liability payments, and actual hours worked during 2015 adjusted for known withdrawals to date. The difference between the Employer contributions and the cost of benefits is the excess (if any) that can be used to pay down the Unfunded Actuarial Liability.

A. Employer Contributions	\$ 10,525,000
B. Estimated Cost of Benefits	1,482,000
C. Available for Funding <sup>1</sup> (A - B)	\$ 9,043,000

<sup>1</sup> Mid-year

The projected Employer contributions exceed the estimated cost of benefits to be earned during 2016 by about \$9.1 million, but the interest on the current Unfunded Accrued Liability at 7.25% is \$13.6 million. Based on asset and liability measures on the valuation date, this excess of about \$9.1 million is not sufficient to pay down the Unfunded Accrued Liability on an Actuarial Value of Assets basis and a Market Value of Assets basis assuming all future actuarial assumptions are realized. Without future investment return gains, Board and/or bargaining corrective action may be needed in the future to fund the projected Unfunded Accrued Liability over a reasonable period.

	Actuarial Value Basis	Market Value Basis
Unfunded Accrued Liability (UAL)	\$ 187,001,080	\$ 200,650,755
Amount Available for Funding <sup>2</sup>	8,737,351	8,737,351
Period to Pay off UAL	Cannot Pay Off	Cannot Pay Off

<sup>2</sup> Beginning of year

The Trustees originally adopted a Rehabilitation Plan on October 16, 2009, which was updated in 2012 to include reasonable measures to forestall possible insolvency. The Plan is now in critical and declining status and is projected to be insolvent in 2035.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION V WITHDRAWAL LIABILITY

Withdrawal liability assessments, if any, are based on the amount of “Unfunded Vested Benefits” (UVB) and an employer’s contribution history. For this purpose, benefits in which a participant is not immediately vested are excluded from the determination of vested benefits – this includes disability and death benefits other than the Qualified Pre-retirement Survivor Annuity (QPSA). Assets are based on the Market Value of Assets for withdrawal liability purposes.

The simplified method was adopted to comply with the PPA’s requirement for Red Zone plans to disregard any reduction in protected benefits when determining the UVB for withdrawal liability – this includes early retirement subsidies, including those for the Rule of 80, and the 60-month guarantee in life annuity. Please refer to Appendix I for development of the Vested Benefit Liabilities. The resulting UVB as of December 31, 2015 is as follows:

A positive Unfunded Vested Benefits value means that Employers who withdraw in the 2016 Plan Year may be subject to a withdrawal liability assessment.

WITHDRAWAL LIABILITY	
A. Vested Benefit Liabilities Earned to Date	\$ 553,295,540
B. Market Value of Assets	334,210,200
C. UVB as of December 31, 2015 (A - B, not less than \$0)	\$ 219,085,340



# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

---

### SECTION VI COMMENTS AND CERTIFICATION

This is to certify that we have completed an actuarial valuation of the Plan as of January 1, 2016 in accordance with generally accepted actuarial principles and practices, including Actuarial Standards of Practice (ASOP) Nos. 4, 23, 27, 35, 41, and 44. This report has been prepared for the Board of Trustees of the Western States Office and Professional Employees Pension Plan to provide information on the Plan's funded status, to review the recent experience under the Plan, and to supply figures needed by the auditor.

This report on the results of the valuation was based on the assumption that the Plan is qualified under the Internal Revenue Code and on information supplied by the auditor with respect to contributions and assets and by the Plan Administrator with respect to participant data. We have not verified and customarily would not verify such information, but we have no reason to doubt its substantial accuracy.

To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate and, in our opinion, the individual assumptions used: (a) are reasonably related to the experience of the Plan and to reasonable expectations; and (b) represent our best estimate of anticipated experience under the Plan.

We are not aware of any events, subsequent to January 1, 2016, that would have a material effect on the actuarial findings presented in this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (for instance, the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the assignment, we did not perform analysis of the potential range of such future measurements.

In preparation of this report and the actuarial findings contained herein, there has been no conflict of interest between any relevant parties; no findings for which we, the actuaries, do not assume responsibility; and no deviation from ASOP Nos. 4, 23, 27, 35, 41, and 44.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### SECTION VI COMMENTS AND CERTIFICATION (CONTINUED)

All information pertaining to the findings presented in this report is contained within this report and should not be relied upon for any other purpose than as stated above.

The Pension Protection Act of 2006 (PPA) became effective for this Plan on January 1, 2008, and the Multiemployer Pension Reform Act of 2014 (MPRA) became effective for this Plan on January 1, 2015. In accordance with Internal Revenue Code Section 432(b), the Plan was certified to be in critical and declining status as of the beginning of the 2016 Plan Year. The Plan was initially certified to be in critical status for the 2009 Plan Year. In response, the Board of Trustees adopted a Rehabilitation Plan on October 16, 2009, which complies with Internal Revenue Code Section 432(e). It was updated in 2012 to include reasonable measures to forestall possible insolvency. The Plan's rehabilitation period began on January 1, 2012. We will update the Plan's status and the adopted Rehabilitation Plan, if necessary, near the beginning of the following plan year based on investment results for 2016.

We have determined that the projected contributions for the 2016 Plan Year will meet the minimum funding requirements of ERISA and will be fully deductible by the Employers.

We, Paul Graf and Wendy Londa, are actuaries for Rael & Letson. We are members of the American Academy of Actuaries and each meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

**Certified by:** [REDACTED] A.S.A., E.A., M.A.A.A.  
Enrolled Actuary No. 14-05267

**Reviewed by:** [REDACTED] S.A., E.A., F.C.A., M.A.A.A.  
Wendy Londa  
Enrolled Actuary No. 14-07600

**Prepared by:** [REDACTED] S.A., M.A.A.A.  
Winnie Ngan

# **Western States Office and Professional Employees Pension Plan**

## **Actuarial Valuation as of January 1, 2016**

---

## **SECTION VII APPENDICES**

<b>Appendix A</b>	<b>Participant Counts and Statistics</b>
<b>Appendix B</b>	<b>Actuarial Methods and Assumptions</b>
<b>Appendix C</b>	<b>Summary of Principal Plan Provisions</b>
<b>Appendix D</b>	<b>Plan Assets</b>
<b>Appendix E</b>	<b>Funding Standard Account (for Schedule MB)</b>
<b>Appendix F</b>	<b>Current Liability (for Schedule MB)</b>
<b>Appendix G</b>	<b>Maximum Deductible Contribution</b>
<b>Appendix H</b>	<b>Auditor Information (FASB ASC 960)</b>
<b>Appendix I</b>	<b>Determination of Vested Benefit Liabilities for Withdrawal Liability Purposes</b>
<b>Appendix J</b>	<b>Funding Standard Account (No Amortization Extension)</b>
<b>Appendix K</b>	<b>Historical Information</b>

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS

PARTICIPANT STATISTICS				
	January 1, 2015	January 1, 2016	Change	Percent Change
<b>Actives:</b>				
Number	1,000	868	(132)	(13.2)%
Averages:				
Age	48.1	48.3	0.2	0.4%
Years of Credited Service	12.2	12.4	0.2	1.6%
Hours	1,736	1,781	45	2.6%
<b>Non-Vested Inactives</b>				
Number	406	376	(30)	(7.4)%
Averages:				
Age	40.6	40.9	0.3	0.7%
Years of Credited Service	2.1	2.3	0.2	9.5%
Monthly Benefit	\$ 50	\$ 53	\$ 3	6.0%
<b>Vested Inactives:</b>				
Number	2,957	2,939	(18)	(0.6)%
Averages:				
Age	51.6	51.8	0.2	0.4%
Years of Credited Service	11.9	11.9	0.0	0.0%
Monthly Benefit	\$ 538	\$ 558	\$ 20	3.7%
<b>Retirees and Beneficiaries:</b>				
Number:				
Healthy Retirees	3,470	3,502	32	0.9%
Disabled Retirees	35	31	(4)	(11.4)%
Beneficiaries <sup>1</sup>	<u>199</u>	<u>211</u>	<u>12</u>	6.0%
Total	3,704	3,744	40	1.1%
Averages:				
Age	71.7	72.1	0.4	0.6%
Monthly Benefit	\$ 869	\$ 860	\$ (9)	(1.0)%

<sup>1</sup> Includes 16 Alternate Payees as of January 1, 2015 and 17 Alternate Payees as of January 1, 2016.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS (CONTINUED)

PARTICIPANT RECONCILIATION					
	ACTIVES	NON-VESTED INACTIVES	VESTED INACTIVES	RETIREES AND BENEFICIARIES	TOTAL
<b>Total as of January 1, 2015</b>	<b>1,000</b>	<b>406</b>	<b>2,957</b>	<b>3,704</b>	<b>8,067</b>
New Entrants	72	0	0	0	72
Vested Terminations	(130)	0	130	0	0
Non-Vested Terminations <sup>1</sup>	(60)	62	0	0	2
Returned to Work	5	(2)	(3)	0	0
Healthy Retirements <sup>2</sup>	(17)	(1)	(122)	140	0
Disabled Retirements	0	0	0	0	0
Deaths in Year	(1)	0	(8)	(122)	(131)
Benefit Period Expired	0	0	0	0	0
New Beneficiaries	0	0	3	21	24
New Alternate Payees	0	0	0	1	1
Lump Sum	0	0	(10)	(1)	(11)
Permanent Break In Service	0	(90)	0	0	(90)
Data Corrections	(1)	1	(8)	1	(7)
Net Change	(132)	(30)	(18)	40	(140)
<b>Total as of January 1, 2016</b>	<b>868</b>	<b>376</b>	<b>2,939</b>	<b>3,744</b>	<b>7,927</b>

<sup>1</sup> Includes two participants who were hired and terminated in the 2015 Plan Year.

<sup>2</sup> Includes 1 healthy retirement under the Special Eligibility Rule.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS (CONTINUED)

DISTRIBUTION OF ACTIVE PARTICIPANTS BY AGE AND VESTING SERVICE (FOR 2016 SCHEDULE MB)											
AGE GROUP	YEARS OF VESTING SERVICE										TOTAL
	< 1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 +	
Under 25	0	13	0	0	0	0	0	0	0	0	13
25 - 29	0	42	12	0	0	0	0	0	0	0	54
30 - 34	0	38	34	8	1	0	0	0	0	0	81
35 - 39	0	25	31	10	19	0	0	0	0	0	85
40 - 44	0	20	19	17	19	5	0	0	0	0	80
45 - 49	0	21	20	19	27	13	8	2	0	0	110
50 - 54	0	15	22	24	30	16	14	6	1	0	128
55 - 59	0	22	28	19	30	18	15	7	4	1	144
60 - 64	0	8	17	27	14	21	13	5	9	2	116
65 - 69	0	6	7	10	8	8	5	5	2	1	52
70 and Over	0	1	1	1	1	1	0	0	0	0	5
<b>Total</b>	0	211	191	135	149	82	55	25	16	4	868

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS (CONTINUED)

DISTRIBUTION OF NON-RETIRED PARTICIPANTS BY AGE						
AGE GROUP	ACTIVES			INACTIVES		
	NON-VESTED	VESTED	TOTAL ACTIVES	NON-VESTED	VESTED	TOTAL INACTIVES
Under 25	13	0	13	4	0	4
25 - 29	42	12	54	59	14	73
30 - 34	38	43	81	84	75	159
35 - 39	25	60	85	54	165	219
40 - 44	20	60	80	37	294	331
45 - 49	21	89	110	45	526	571
50 - 54	15	113	128	37	622	659
55 - 59	22	122	144	31	723	754
60 - 64	8	108	116	11	420	431
65 - 69	6	46	52	11	85	96
70 and Over	1	4	5	3	15	18
Total	211	657	868	376	2,939	3,315
Average Age	39.8	51.1	48.3	40.9	51.8	50.6
Average Accrued Benefit	\$ 80	\$ 1,200	\$ 928	\$ 53	\$ 558	\$ 501

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS (CONTINUED)

#### DISTRIBUTION OF RETIREES AND BENEFICIARIES IN PAY STATUS BY AGE

AGE GROUP	CONTINUING HEALTHY RETIREEES	NEW HEALTHY RETIREEES	CONTINUING DISABLED RETIREEES	NEW DISABLED RETIREEES	CONTINUING BENEFICIARIES <sup>1</sup>	NEW BENEFICIARIES <sup>1</sup>	GRAND TOTAL
Under 50	2	0	4	0	10	1	17
50 - 54	3	0	4	0	6	0	13
55 - 59	90	25	5	0	7	2	129
60 - 64	476	41	14	0	18	3	552
65 - 69	915	57	4	0	26	4	1,006
70 - 74	698	13	0	0	24	6	741
75 - 79	525	0	0	0	33	2	560
80 - 84	286	2	0	0	20	2	310
85 and Over	367	2	0	0	45	2	416
<b>Total</b>	<b>3,362</b>	<b>140</b>	<b>31</b>	<b>0</b>	<b>189</b>	<b>22</b>	<b>3,744</b>
Average Age	72.5	64.4	57.6	0.0	73.7	69.8	72.1
Average Monthly Benefit	\$ 901	\$ 573	\$ 679	\$ 0	\$ 420	\$ 496	\$ 860

<sup>1</sup> Includes 16 continuing Alternate Payees and 1 new Alternate Payee.



# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX B ACTUARIAL METHODS AND ASSUMPTIONS

METHODOLOGY:	
Asset Valuation	Assets are valued according to a method which recognizes 20% of each year's excess (or deficiency) of actual investment return on the Market Value of Assets over the expected return on the Market Value of Assets in the year the excess (or deficiency) occurs. An additional 20% of the excess (or deficiency) is recognized in each of the succeeding four years until it is totally recognized. In no event will the Actuarial Value of Assets be less than 80% or more than 120% of the Market Value of Assets.
Actuarial Cost Method	<p><b><u>Unit Credit Cost Method</u></b></p> <p>Under this method, we determine the present value of all benefits earned through the valuation date. An individual's normal cost is the present value of the benefit expected to be earned in the valuation year. The total accrued liability is the sum of the individual present values for all participants. The Unfunded Accrued Liability is the difference between the accrued liability and the assets of the Trust. If the assets exceed the accrued liability, the Plan is in a surplus position. This method requires that each year's contributions be applied first to the normal cost, and the balance of the contributions applied to amortize the Unfunded Accrued Liability. The normal cost is adjusted at the close of the Plan Year to reflect the actual level of Contributions received during that Plan Year.</p>
Withdrawal Liability Basis	The present value of accrued vested benefits for withdrawal liability determination uses an interest rate of 7.25% along with all other valuation assumptions. Assets for this purpose are based on the Market Value of Assets. Adjustable benefits are recognized using the Simplified Method pursuant to PBGC Technical Update 10-3.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX B ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

ASSUMPTIONS:	
Interest Discount Rate	7.25% for funding and FASB ASC 960, 7.25% for withdrawal liability, and 3.28% for current liability.
Assumed Rate of Return on Investments	7.25% compounded annually, net of all expenses.
Derivation of Net Investment Return and Discount Rate for FASB ASC 960 Accounting:	The expected return assumptions are established based on a long run outlook and are based on past experience, future expectations and professional judgement. We have modeled the assumptions based on average long-term future expected returns and their respective capital market assumptions as provided by several investment professionals. Based on the inputs of the Plan's specific target asset allocation, we have established the reasonability of the Plan's assumption.
Operating Expenses	Assumed covered by investment earnings.
Mortality	<p>Healthy Lives: 1983 GAMF Mortality Table</p> <p>Disabled Lives: 1983 GAMF Mortality Table with ages set forward 17 years until age 62</p> <p>Current Liability: RP-2000 Mortality Tables (static, separate for annuitants and non-annuitants), projected forward to the valuation year plus seven years for annuitants and 15 years for non-annuitants, as prescribed by IRS regulations.</p>
Mortality Improvement	The current mortality assumption, with no mortality improvement, is assumed to be reasonable at this time.
Turnover	Table T-7 of <u>The Actuary's Pension Handbook</u> . Non-vested participants are assumed to earn one year of vesting credit annually until vested.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX B ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

ASSUMPTIONS:																			
Retirement Rates	<p>Active participants are assumed to retire based on the following rate table:</p> <table> <tr> <th>Age</th><th>Rate of Retirement</th></tr> <tr> <td>55</td><td>20%</td></tr> <tr> <td>56</td><td>15%</td></tr> <tr> <td>57-59</td><td>12%</td></tr> <tr> <td>60</td><td>15%</td></tr> <tr> <td>61</td><td>20%</td></tr> <tr> <td>62</td><td>40%</td></tr> <tr> <td>63-70</td><td>35%</td></tr> <tr> <td>71+</td><td>100%</td></tr> </table> <p>Inactive vested participants are assumed to retire at age 62.</p>	Age	Rate of Retirement	55	20%	56	15%	57-59	12%	60	15%	61	20%	62	40%	63-70	35%	71+	100%
Age	Rate of Retirement																		
55	20%																		
56	15%																		
57-59	12%																		
60	15%																		
61	20%																		
62	40%																		
63-70	35%																		
71+	100%																		
Disablement	1952 Society of Actuaries Table, Period 2, Benefit 5.																		
Form of Benefit	For those not yet in pay status, all participants are assumed to elect a Life Annuity.																		
Marital Status	80% of non-retired participants are assumed to be married. Spouses are assumed to be the same age as participants in the population.																		
Active Participant	Worked at least 200 hours in covered employment.																		
Future Employment	Each active participant is assumed to work the same amount of hours worked in the prior plan year.																		
Missing Data	If not specified, participants are assumed to be female and the same age as the average of participants with the same status code.																		

CHANGES SINCE PRIOR VALUATION	The current liability interest rate was changed from 3.51% to 3.28% due to a change in the allowable interest rate range, and the current liability mortality table was updated as required.
-------------------------------	--

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX C SUMMARY OF PRINCIPAL PLAN PROVISIONS

The Western States Office and Professional Employees Pension Plan was established on 1959. It has been amended from time to time since that date. The most recent restatement of the Plan is effective October 15, 2014. The principal provisions of the Plan as of January 1, 2016 are summarized below.

NORMAL RETIREMENT	
Eligibility	Age 65 and vested. Special eligibility if age 65 with 2 years of Vesting Credit (one immediately prior to retirement) and at least a \$10.00 Total Service Benefit.
Monthly Benefit	Service after 2009: 0.75% of Employer Contributions. 2004 - 2009: 1.8% of Employer Contributions. 2003 Service: 2.2% of Employer Contributions up to \$6,240, plus 1.8% of excess. 2001 - 2002 Service: 3.2% of Employer Contributions up to \$6,240 each year; plus 1.8% of excess. 1997 - 2000 Service: 3.65% of Employer Contributions up to \$6,240 each year, plus 1.8% of excess. Prior to 1997: 3.65% of Employer Contributions. Past Service: \$8.20 per year of past service (maximum 15 years).
EARLY RETIREMENT	
Eligibility	Age 55 and vested.
Monthly Benefit	Normal Retirement Benefit actuarially reduced from age 62 for benefits earned before January 1, 2010 and from age 65 for benefits earned on or after January 1, 2010.
POSTPONED RETIREMENT	
Eligibility	After Normal Retirement Age.
Monthly Benefit	Normal Retirement Benefit increased 6% per year ( $\frac{1}{2}\%$ per month) past age 62 for benefits earned before January 1, 2010 and past age 65 for benefits earned on or after January 1, 2010. Effective for annuity starting dates on or after September 1, 2015, participants who continue working for a contributing employer will receive <u>the greater of</u> (a) or (b) below: (a) Normal Retirement Benefit increased $\frac{1}{2}$ of 1% for each full month retirement is postponed. (b) Accrued benefit as of the participant's postponed retirement date.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX C SUMMARY OF PRINCIPAL PLAN PROVISIONS (CONTINUED)

DISABILITY RETIREMENT (Effective January 1, 2010)	
Eligibility	Vested with at least 200 hours in year prior to onset of Total and Permanent Disability.
Monthly Benefit	50% of Normal Retirement Benefit payable until age 55.
PRE-RETIREMENT DEATH BENEFIT (Effective January 1, 2010)	
Eligibility	Vested at time of death.
Monthly Benefit	Married: 50% Spousal Joint and Survivor Annuity (reduced for Early Retirement and for joint lives). All Others: Lump sum payment of \$500 per year of service (maximum of \$5,000 total).
FORMS OF ANNUITY PAYMENTS	
Normal Form	For Married Participants: An actuarially reduced benefit payable as a 50% Spousal Joint and Survivor Annuity. For Unmarried Participants: A life annuity.
Optional Forms	Straight Life Annuity 50%, 66-2/3% or 100% Spousal Joint and Survivor Annuity 50%, 66-2/3% or 100% Spousal Joint and Survivor Annuity with Pop-up 50%, 66-2/3% or 100% Non-Spousal Joint and Survivor Annuity Lump Sum if present value of accrued benefit $\leq$ \$5,000
OTHER	
Vesting Service	A Participant will receive one year of Vesting Credit if 200 or more hours are worked in a plan year.
Break in Service Rules	A one-year break in service is incurred if a Participant works less than 200 hours in a plan year.
CHANGES SINCE PRIOR VALUATION	<p>Postponed Retirement – effective September 1, 2015, participants working for a contributing employer after Normal Retirement Age receive the greater of:</p> <p>(a) Normal Retirement Benefit increased <math>\frac{1}{2}</math> of 1% for each full month retirement is postponed, <b>OR</b></p> <p>(b) Accrued benefit as of the postponed retirement date (Normal Retirement Benefit increased by benefits earned after Normal Retirement Age).</p>

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX D PLAN ASSETS

SUMMARY OF MARKET VALUE OF ASSETS		
Assets as of December 31, 2015	Market Value	Percent of Total
Cash and Cash Equivalents	\$ 981,358	0.3%
Partnership / Joint Venture Interests	105,255,477	31.5%
Value of Interest in Common / Collective Trusts	154,750,845	46.3%
Value of Interest in 103-12 Investment Entities	24,439,430	7.3%
Other Assets	45,166,555	13.5%
Net Receivables, Payables and Prepaid Expenses	3,616,535	1.1%
Total Assets	\$ 334,210,200	100.0%

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX D PLAN ASSETS (CONTINUED)

#### SUMMARY OF RECEIPTS AND DISBURSEMENTS

	Market Value 2014	Market Value 2015	Actuarial Value 2014	Actuarial Value 2015
<b>Assets (Beginning of Year)</b>	\$ 371,333,873	\$ 359,268,671	\$ 351,347,913	\$ 353,925,354
<b>Receipts During Year</b>				
Contributions <sup>1</sup>	\$ 10,411,438	\$ 11,811,952	\$ 10,411,438	\$ 11,811,952
Investment Income (Net of Investment and Operating Expenses)	15,969,204	2,175,568	30,611,847	21,168,560
Subtotal Receipts	\$ 26,380,642	\$ 13,987,520	\$ 41,023,285	\$ 32,980,512
<b>Disbursements During Year</b>				
Benefit Payments	\$ (38,445,844)	\$ (39,045,991)	\$ (38,445,844)	\$ (39,045,991)
Subtotal Disbursements	\$ (38,445,844)	\$ (39,045,991)	\$ (38,445,844)	\$ (39,045,991)
<b>Assets (End of Year)</b>	\$ 359,268,671	\$ 334,210,200	\$ 353,925,354	\$ 347,859,875
<b>Net Yield on Value of Assets</b>	4.47 %	0.63 %	9.07 %	6.22 %

<sup>1</sup> Includes \$5,064,945 of base contributions, \$3,673,084 of supplemental contributions, \$103,387 of surcharge contributions and \$1,570,022 of withdrawal liability payments in 2014, and \$4,883,040 of base contributions, \$3,509,909 of supplemental contributions, \$81,811 of surcharge contributions and \$3,337,192 of withdrawal liability payments in 2015.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX D PLAN ASSETS (CONTINUED)

DETERMINATION OF NET INVESTMENT EARNINGS ON MARKET VALUE OF ASSETS	
1. Expected Net Investment Income	
A. Market Value of Assets	\$ 359,268,671
B. Contributions	11,811,952
C. Benefit Payments	(39,045,991)
D. Expected Net Investment Income	\$ 25,059,745
2. Market Value Earnings	
A. Interest and Dividends	\$ 1,904,728
B. Realized and Unrealized Gains/(Losses)	3,246,089
C. Investment Expenses	(1,694,169)
D. Operational Expenses	(1,320,872)
E. Other Income	39,792
F. Total Market Value Earnings (A + B + C + D + E)	\$ 2,175,568
3. Excess/(Deficit) of Market Value Earnings Over Expected Investment Earnings (2F - 1D)	(22,884,177)
4. Current Year Recognition of Excess/(Deficit) Earnings (Calculated on Next Page)	(3,891,185)
5. Net Investment Earnings (1D + 4)	21,168,560
6. Recognition of Assets in Excess of the Corridor	0
7. Total Net Investment Earnings (5 + 6)	\$ 21,168,560



# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX D PLAN ASSETS (CONTINUED)

#### DETERMINATION OF ACTUARIAL VALUE OF ASSETS

PLAN YEAR ENDED DECEMBER 31	EXCESS/(DEFICIT) EARNINGS	AMOUNT OF EXCESS/(DEFICIT) EARNINGS RECOGNIZED OR TO BE RECOGNIZED		
		PRIOR YEARS	CURRENT YEAR	FUTURE YEARS
2015	\$ (22,884,177)	\$ 0	\$ (4,576,835)	\$ (18,307,342)
2014	(9,936,255)	(1,987,251)	(1,987,251)	(5,961,753)
2013	19,488,943	7,795,578	3,897,789	7,795,576
2012	14,119,228	8,471,538	2,823,846	2,823,844
2011	(20,243,674)	(16,194,940)	(4,048,734)	0
Total	\$ (19,455,935)	\$ (1,915,075)	\$ (3,891,185)	\$ (13,649,675)
A. Market Value of Assets as of January 1, 2016				\$ 334,210,200
B. Amount of Excess/(Deficit) Earnings to be Recognized in Future Years				(13,649,675)
C. Preliminary Actuarial Value of Assets as of January 1, 2016 (A - B)				\$ 347,859,875
D. Recognition of Assets in Excess of the 20% Corridor				0
E. Actuarial Value of Assets as of January 1, 2016 (C + D)				\$ 347,859,875

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX E FUNDING STANDARD ACCOUNT (FOR SCHEDULE MB)

FUNDING STANDARD ACCOUNT <sup>1</sup>		
	2015	2016 (Estimated)
1. Credit Balance on January 1	\$ 64,531,758	\$ 50,699,080
2. Charges		
A. Normal Cost (Beginning of Year)	\$ 1,337,905	\$ 1,432,000
B. Amortization Charges <sup>1</sup>	35,886,283	35,938,969
C. Interest on 2A and 2B	2,698,754	2,709,395
D. Subtotal Charges (A + B + C)	\$ 39,922,942	\$ 40,080,364
3. Credits		
A. Employer Contributions for Year	\$ 11,811,952	\$ 10,625,000
B. Amortization Credits	8,551,586	8,551,586
C. Interest on 1, 3A and 3B	5,726,726	4,680,830
D. Subtotal Credits (A + B + C)	\$ 26,090,264	\$ 23,857,416
4. Credit Balance on December 31 (1 - 2D + 3D)	\$ 50,699,080	\$ 34,476,132

<sup>1</sup> Incorporates the 5-year extension of charge bases effective January 1, 2009.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX E FUNDING STANDARD ACCOUNT (FOR SCHEDULE MB) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (As of January 1, 2016)

Charges	Amortization Period			Balances		Beginning-of-Year Payment
	Date Established	Initial Period	Remaining Period	Initial	Remaining	
Initial Liability	1/1/1976	45.00	5.00	\$ 13,447,933	\$ 2,840,781	\$ 650,335
Actuarial Assumption	1/1/1978	43.00	5.00	1,960,033	420,443	96,252
Plan Amendment	1/1/1980	45.00	9.00	395,897	156,392	22,619
Plan Amendment	1/1/1981	45.00	10.00	3,609,259	1,575,395	211,562
Plan Amendment	1/1/1983	35.00	2.00	7,215,979	559,496	289,534
Plan Amendment	1/1/1984	35.00	3.00	3,740,561	472,385	168,603
Plan Amendment	1/1/1985	35.00	4.00	3,177,239	563,537	156,003
Plan Amendment	1/1/1986	35.00	5.00	3,832,226	877,718	200,933
Plan Amendment	1/1/1987	35.00	6.00	4,466,400	1,251,413	246,686
Plan Amendment	1/1/1988	35.00	7.00	7,521,437	2,482,913	433,319
Plan Amendment	1/1/1989	35.00	8.00	6,238,198	2,360,371	372,143
Plan Amendment	1/1/1990	35.00	9.00	1,991,358	845,349	122,268
Plan Amendment+Act Assump	1/1/1991	35.00	10.00	3,867,632	1,812,073	243,346
Plan Amendment	1/1/1992	35.00	11.00	2,315,769	1,181,854	148,790
Plan Amendment	1/1/1993	35.00	12.00	8,009,694	4,405,168	524,040
Plan Amendment+Act Assump	1/1/1994	35.00	13.00	5,816,782	3,416,976	386,626
Plan Amendment	1/1/1995	35.00	14.00	3,954,934	2,462,992	266,543
Actuarial Assumption	1/1/1996	35.00	15.00	2,334,000	1,531,193	159,236
Plan Amendment	1/1/1996	35.00	15.00	19,722,004	12,938,350	1,345,523
Plan Amendment	1/1/1997	35.00	16.00	12,051,000	8,283,032	831,144
Plan Amendment	1/1/1998	35.00	17.00	12,834,000	9,198,580	893,747
Actuarial Assumption	1/1/1998	35.00	17.00	5,651,596	4,050,694	393,572
Actuarial Assumption	1/1/1999	35.00	18.00	500,000	372,174	35,122
Plan Amendment	1/1/1999	35.00	18.00	21,615,699	16,089,326	1,518,376
Plan Amendment	1/1/2000	35.00	19.00	7,937,933	6,113,977	561,942

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX E FUNDING STANDARD ACCOUNT (FOR SCHEDULE MB) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (As of January 1, 2016) (CONTINUED)

Charges	Amortization Period			Balances		Beginning-of-Year Payment
	Date	Initial	Remaining	Initial	Remaining	
	Established	Period	Period			
Actuarial Assumption	1/1/2000	35.00	19.00	\$ 4,389,753	\$ 3,381,085	\$ 310,759
Plan Amendment	1/1/2001	35.00	20.00	12,746,807	10,127,202	908,708
Plan Amendment	1/1/2002	35.00	21.00	2,268,072	1,853,521	162,714
Plan Amendment	1/1/2003	35.00	22.00	2,964,980	2,486,157	213,933
Experience Loss	1/1/2003	20.00	7.00	12,151,612	5,417,832	945,524
Experience Loss	1/1/2004	20.00	8.00	23,109,456	11,804,205	1,861,090
Experience Loss	1/1/2005	20.00	9.00	12,406,469	7,109,855	1,028,346
Plan Amendment	1/1/2005	35.00	24.00	1,000,895	877,852	72,938
Actuarial Assumption	1/1/2005	35.00	24.00	1,063,519	932,771	77,502
Experience Loss	1/1/2006	20.00	10.00	6,485,444	4,102,016	550,865
Plan Amendment	1/1/2006	35.00	25.00	1,459,383	1,305,416	106,809
Plan Amendment	1/1/2007	35.00	26.00	1,475,698	1,344,061	108,429
Plan Amendment	1/1/2008	20.00	12.00	1,383,243	1,027,001	122,173
Experience Loss	1/1/2009	20.00	13.00	123,105,349	97,625,335	11,046,176
Experience Loss	1/1/2011	15.00	10.00	5,600,066	4,336,688	582,379
Experience Loss	1/1/2012	15.00	11.00	39,179,040	32,363,677	4,074,425
Experience Loss	1/1/2013	15.00	12.00	33,032,826	28,877,326	3,435,249
Experience Loss	1/1/2016	15.00	15.00	506,616	506,616	52,686
Total Charges					\$ 301,741,198	\$ 35,938,969

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX E FUNDING STANDARD ACCOUNT (FOR SCHEDULE MB) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (As of January 1, 2016) (CONTINUED)

Credits	Amortization Period			Balances		Beginning-of-Year Payment
	Date Established	Initial Period	Remaining Period	Initial	Remaining	
Experience Gain	1/1/2010	15.00	9.00	\$ (27,345,881)	\$ (19,661,928)	\$ (2,843,835)
Plan Amendment	1/1/2010	15.00	9.00	(32,045,400)	(23,040,921)	(3,332,562)
Experience Gain	1/1/2014	15.00	13.00	(14,564,452)	(13,386,199)	(1,514,630)
Experience Gain	1/1/2015	15.00	14.00	(8,275,002)	(7,951,990)	(860,559)
<b>Total Credits</b>					<b>\$ (64,041,038)</b>	<b>\$ (8,551,586)</b>

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX F CURRENT LIABILITY (FOR SCHEDULE MB)

CURRENT LIABILITY (FOR 2016 SCHEDULE MB)	
	January 1, 2016
A. Retirees and Beneficiaries	\$ 481,304,744
B. Vested Inactive Participants	227,659,065
C. Active Participants	
1. Non-Vested	\$ 1,027,549
2. Vested	105,815,526
3. Sub-total (1 + 2)	\$ 106,843,075
D. Total Current Liability (A + B + C3)	\$ 815,806,884
E. Market Value of Assets	334,210,200
F. Funded Ratio Using Market Value of Assets (E / D)	40.97%
G. Expected Increase in Current Liability	\$ 2,827,799
H. Expected Release from Current Liability <sup>1</sup>	41,017,738
I. Expected Disbursements <sup>1</sup>	41,017,738
J. Current Liability Interest Rate	3.28%

<sup>1</sup> Actual disbursements during the 2016 Plan Year will be used in the 2016 Schedule MB.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX G MAXIMUM DEDUCTIBLE CONTRIBUTION

MAXIMUM DEDUCTIBLE CONTRIBUTION	
A. Normal Cost	\$ 1,432,000
B. 10-Year Amortization of Unfunded Accrued Liability	25,112,596
C. Interest to End of Plan Year	1,924,483
D. Preliminary Max (A + B + C)	\$ 28,469,079
E. Full Funding Limitation	
1. ERISA	\$ 216,733,755
2. RPA Full Funding Limit Override	392,841,026
3. Greater of E1 or E2	392,841,026
F. Regular Maximum Deductible Contribution (lesser of D and E3)	28,469,079
G. Minimum Required Contribution, End of Year	0
H. 140% of Current Liability Basis	
1. Current Liability, Projected to End of Year	\$ 803,795,679
2. Actuarial Value of Assets Projected to End of Year	330,575,085
3. Excess of 140% of Current Liability over Actuarial Value of Assets at End of Year (140% x H1 - H2)	\$ 794,738,866
<b>I. Maximum Deductible Contribution (greater of F, G and H3)</b>	<b>\$ 794,738,866</b>

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX H AUDITOR INFORMATION (FASB ASC 960)

RECONCILIATION OF ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS		
	2014	2015
Actuarial Present Value of Accumulated Plan Benefits at Beginning of Year (January 1)	\$ 538,956,405	\$ 537,887,774
Increase/(Decrease) during the Year Attributable to:		
Benefits Accumulated and Actuarial Experience	\$ (303,465)	\$ (1,562,274)
Plan Amendments	0	0
Actuarial Assumption Changes	0	0
Increase for Interest	37,680,678	37,581,446
Benefits Paid	(38,445,844)	(39,045,991)
Net Increase/(Decrease)	\$ (1,068,631)	\$ (3,026,819)
Actuarial Present Value of Accumulated Plan Benefits at End of Year (December 31)	\$ 537,887,774	\$ 534,860,955
ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS		
	2014	2015
Actuarial Present Value of Accrued Benefits		
Vested Benefits		
Participants Currently Receiving Benefits	\$ 359,184,949	\$ 354,476,819
Other Participants	177,945,394	179,801,794
Total Vested Benefits	\$ 537,130,343	\$ 534,278,613
Non-Vested Benefits	757,431	582,342
Actuarial Present Value of Accumulated Plan Benefits at End of Year (December 31)	\$ 537,887,774	\$ 534,860,955



# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX I DETERMINATION OF VESTED BENEFIT LIABILITIES FOR WITHDRAWAL LIABILITY PURPOSES

DETERMINATION OF VESTED BENEFIT LIABILITIES FOR WITHDRAWAL LIABILITY PURPOSES		
	December 31, 2014	December 31, 2015
1. Vested Benefit Liabilities Earned to Date	\$ 537,130,343	\$ 534,278,613
2. PBGC 10-3 Base <sup>1</sup>	20,285,206	19,016,927
3. Vested Benefit Liabilities (1 + 2)	\$ 557,415,549	\$ 553,295,540

<sup>1</sup> PBGC Technical Update 10-3 describes the simplified method for plans in the Red Zone to disregard certain adjustable benefits in determining withdrawal liability. This involves the establishment of a base equal to the reduction in these adjustable benefits, which is then amortized over 15 years. The PBGC 10-3 base is the outstanding balance as of the applicable date.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX J FUNDING STANDARD ACCOUNT (NO AMORTIZATION EXTENSION)

FUNDING STANDARD ACCOUNT (No Amortization Extension) <sup>1</sup>		
	2015	2016 (Estimated)
1. Credit Balance on January 1	\$ 24,189,702	\$ 2,778,626
2. Charges		
A. Normal Cost (Beginning of Year)	\$ 1,337,905	\$ 1,432,000
B. Amortization Charges	40,225,303	38,887,920
C. Interest on 2A and 2B	3,013,333	2,923,194
D. Subtotal Charges (A + B + C)	\$ 44,576,541	\$ 43,243,114
3. Credits		
A. Employer Contributions for Year	\$ 11,811,952	\$ 10,625,000
B. Amortization Credits	8,551,586	8,551,586
C. Interest on 1, 3A and 3B	2,801,927	1,206,597
D. Subtotal Credits (A + B + C)	\$ 23,165,465	\$ 20,383,183
4. Credit Balance / (Funding Deficiency) on December 31 (1 - 2D + 3D)	\$ 2,778,626	\$ (20,081,305)

<sup>1</sup> This is the Funding Standard Account used to determine if the Plan falls into the Red Zone.

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX J FUNDING STANDARD ACCOUNT (NO AMORTIZATION EXTENSION) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (No Amortization Extension) (As of January 1, 2016)

Charges	Amortization Period			Balances		Beginning-of-Year Payment
	Date Established	Initial Period	Remaining Period	Initial	Remaining	
Plan Amendment	1/1/1980	40.00	4.00	\$ 395,897	\$ 102,516	\$ 28,380
Plan Amendment	1/1/1981	40.00	5.00	3,609,259	1,131,477	259,026
Plan Amendment	1/1/1987	30.00	1.00	4,466,400	343,733	343,733
Plan Amendment	1/1/1988	30.00	2.00	7,521,437	1,119,124	579,138
Plan Amendment	1/1/1989	30.00	3.00	6,238,198	1,346,410	480,558
Plan Amendment	1/1/1990	30.00	4.00	1,991,358	554,148	153,404
Plan Amendment+Act Assump	1/1/1991	30.00	5.00	3,867,632	1,301,464	297,941
Plan Amendment	1/1/1992	30.00	6.00	2,315,769	904,976	178,395
Plan Amendment	1/1/1993	30.00	7.00	8,009,694	3,535,527	617,024
Plan Amendment+Act Assump	1/1/1994	30.00	8.00	5,816,782	2,842,094	448,093
Plan Amendment	1/1/1995	30.00	9.00	3,954,934	2,106,430	304,667
Actuarial Assumption	1/1/1996	30.00	10.00	2,334,000	1,338,875	179,799
Plan Amendment	1/1/1996	30.00	10.00	19,722,004	11,313,299	1,519,277
Plan Amendment	1/1/1997	30.00	11.00	12,051,000	7,373,959	928,344
Plan Amendment	1/1/1998	30.00	12.00	12,834,000	8,310,880	988,662
Actuarial Assumption	1/1/1998	30.00	12.00	5,651,596	3,659,783	435,369
Actuarial Assumption	1/1/1999	30.00	13.00	500,000	340,416	38,517
Plan Amendment	1/1/1999	30.00	13.00	21,615,699	14,716,536	1,665,157
Plan Amendment	1/1/2000	30.00	14.00	7,937,933	5,650,525	611,495
Actuarial Assumption	1/1/2000	30.00	14.00	4,389,753	3,124,790	338,162
Plan Amendment	1/1/2001	30.00	15.00	12,746,807	9,442,241	981,945
Plan Amendment	1/1/2002	30.00	16.00	2,268,072	1,741,233	174,720
Plan Amendment	1/1/2003	30.00	17.00	2,964,980	2,350,790	228,407
Experience Loss	1/1/2003	15.00	2.00	12,151,612	2,441,989	1,263,707
Experience Loss	1/1/2004	15.00	3.00	23,109,456	6,733,409	2,403,269

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX J FUNDING STANDARD ACCOUNT (NO AMORTIZATION EXTENSION) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (No Amortization Extension) (As of January 1, 2016) (CONTINUED)

Charges	Amortization Period			Balances		Beginning-of-Year Payment
	Date	Initial	Remaining	Initial	Remaining	
	Established	Period	Period			
Experience Loss	1/1/2005	15.00	4.00	\$ 12,406,469	\$ 4,660,729	\$ 1,290,211
Plan Amendment	1/1/2005	30.00	19.00	1,000,895	838,890	77,104
Actuarial Assumption	1/1/2005	30.00	19.00	1,063,519	891,376	81,928
Experience Loss	1/1/2006	15.00	5.00	6,485,444	2,946,135	674,454
Plan Amendment	1/1/2006	30.00	20.00	1,459,383	1,252,908	112,423
Plan Amendment	1/1/2007	30.00	21.00	1,475,698	1,294,950	113,680
Plan Amendment	1/1/2008	15.00	7.00	1,383,243	824,262	143,850
Experience Loss	1/1/2009	15.00	8.00	123,105,349	81,200,562	12,802,342
Experience Loss	1/1/2011	15.00	10.00	5,600,066	4,336,687	582,379
Experience Loss	1/1/2012	15.00	11.00	39,179,040	32,363,681	4,074,425
Experience Loss	1/1/2013	15.00	12.00	33,032,826	28,877,324	3,435,249
Experience Loss	1/1/2016	15.00	15.00	506,616	506,616	52,686
Total Charges					\$ 253,820,744	\$ 38,887,920

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX J FUNDING STANDARD ACCOUNT (NO AMORTIZATION EXTENSION) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (No Amortization Extension) (As of January 1, 2016) (CONTINUED)

Credits	Amortization Period			Balances		Beginning-of-Year Payment
	Date Established	Initial Period	Remaining Period	Initial	Remaining	
Experience Gain	1/1/2010	15.00	9.00	\$ (27,345,881)	\$ (19,661,928)	\$ (2,843,835)
Plan Amendment	1/1/2010	15.00	9.00	(32,045,400)	(23,040,921)	(3,332,562)
Experience Gain	1/1/2014	15.00	13.00	(14,564,452)	(13,386,199)	(1,514,630)
Experience Gain	1/1/2015	15.00	14.00	(8,275,002)	(7,951,990)	(860,559)
<b>Total Credits</b>					<b>\$ (64,041,038)</b>	<b>\$ (8,551,586)</b>

# Western States Office and Professional Employees Pension Plan

## Actuarial Valuation as of January 1, 2016

### APPENDIX K HISTORICAL INFORMATION

HISTORICAL CONTRIBUTIONS AND BENEFIT PAYMENTS		
Plan Year	Contributions	Benefit Payments
2000	\$ 9,366,427	\$ 18,819,097
2001	9,660,131	20,927,583
2002	9,277,458	20,835,583
2003	7,854,003	24,206,237
2004	6,935,726	26,487,895
2005	7,357,903	28,371,211
2006	7,399,605	29,919,215
2007	7,678,247	32,970,957
2008	8,277,807	32,853,989
2009	8,004,785	34,155,460
2010	8,489,009	37,136,630
2011	8,630,961	37,224,104
2012	9,797,048	37,280,366
2013	11,044,341	37,690,222
2014	10,411,438	38,445,844
2015	11,811,952	39,045,991

# Western States Office & Professional Employees Plan

---

## Actuarial Valuation

As of January 1, 2017



**RAEL & LETSON**  
CONSULTANTS AND ACTUARIES

• San Mateo, CA • Pasadena, CA • Seattle, WA • Portland, OR • Honolulu, HI

**October 2017**

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

October 19, 2017

Board of Trustees  
Western States Office & Professional Employees Plan

Dear Trustees:

Following is our report on the actuarial valuation of the Pension Plan as of January 1, 2017. Here is a summary of the valuation results:

1. The Plan has an Unfunded Accrued Liability of \$184.6 million as of January 1, 2017.
2. Net investment income was \$22.9 million for an annual rate of return of 6.84% (based on the Actuarial Value of Assets). The Market Value rate of return was 6.44%. Both returns are net of all expenses.
3. The Plan experienced an actuarial loss of \$1.0 million during 2016. The Plan's 2016 net actuarial loss due to asset performance was \$1.4 million. On the liability side, a gain of \$0.3 million was realized during the 2016 Plan Year.
4. Based on the Pension Protection Act of 2006 (PPA) and the Plan's interest assumption of 7.25%, the funded ratio for the 2017 Plan Year provided in notices to be distributed during April 2018 is 65.0%.
5. As of January 1, 2017, the favorable credit balance in the Funding Standard Account was \$35.3 million, a decrease of \$15.4 million from the prior year. The credit balance reflects the 5-year amortization extension which was approved by the IRS in 2009. As of December 31, 2017, the credit balance is projected to be \$17.2 million. As a result, contributions are expected to meet minimum funding requirements for the 2017 Plan Year.

6. As of January 1, 2017, the Plan was certified under the PPA, as modified by the Multiemployer Pension Reform Act of 2014 (MPRA), as being in critical and declining status. That certification indicated that the Plan is projected to be insolvent by the end of the 2034 Plan Year.
7. The projected employer contributions exceed the estimated cost of benefits to be earned during 2017 by about \$7.7 million. Based on asset and liability measures on the valuation date, this excess is insufficient for funding the projected Unfunded Accrued Liability over a reasonable period. Without future investment return gains, Board and/or bargaining corrective action may be needed in the future to fund the projected unfunded liability over a reasonable period.
8. Contributions for 2017 are projected to be fully deductible as they will fall within the maximum limits set by the IRS.
9. As of December 31, 2016, there is an unfunded vested benefit liability of \$224.1 million for withdrawal liability purposes. Pursuant to the IRC, the determination of the unfunded vested benefit liability disregards certain benefit reductions implemented as part of the Rehabilitation Plan. Additional information is provided in Section V.

Sincerely,

Paul Graf, ASA, EA, MAAA

cc: Kim Gould  
Joe Reinhart, Esq.  
Alex Miller



# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### TABLE OF CONTENTS

	<u>Page</u>
<b>Valuation Highlights .....</b>	<b>1</b>
<b>Section I Discussion of Assets and Liabilities.....</b>	<b>2</b>
<b>Section II Actuarial Gain/(Loss) Analysis .....</b>	<b>4</b>
<b>Section III Changes Since Last Valuation and Other Plan Items .....</b>	<b>10</b>
<b>Section IV Projection of Employer Contributions and Costs .....</b>	<b>11</b>
<b>Section V Withdrawal Liability .....</b>	<b>12</b>
<b>Section VI Comments and Certification .....</b>	<b>13</b>
<b>Section VII Appendices .....</b>	<b>15</b>
Appendix A Participant Counts and Statistics .....	16
Appendix B Actuarial Methods and Assumptions.....	21
Appendix C Summary of Principal Plan Provisions .....	25
Appendix D Plan Assets .....	27
Appendix E Funding Standard Account (for Schedule MB) .....	31
Appendix F Current Liability (for Schedule MB) .....	35
Appendix G Maximum Deductible Contribution .....	36
Appendix H Auditor Information (FASB ASC 960) .....	37
Appendix I Determination of Vested Benefit Liabilities for Withdrawal Liability Purposes.....	38
Appendix J Funding Standard Account (No Amortization Extension) .....	39
Appendix K Historical Information .....	43

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### VALUATION HIGHLIGHTS

#### PLAN HISTORY

There were 53 active terminations from vested status and 49 active terminations from non-vested status during the 2016 Plan Year.

Total employer contributions decreased by approximately \$0.6 million in 2016.

The Western States Office & Professional Employees Plan became effective in 1959 as a result of collective bargaining between Locals 29 and 11 of OPEIU and Pacific Intermountain Express. The Plan was last restated effective January 1, 2017, and received a favorable determination letter in February 2016.

#### VALUATION HIGHLIGHTS

	January 1, 2016	January 1, 2017	Change
Number of Participants:			
Actives	868	809	(59)
Non-Vested Inactives <sup>1</sup>	376	359	(17)
Vested Inactives	2,939	2,827	(112)
Retirees and Beneficiaries <sup>2</sup>	<u>3,744</u>	<u>3,845</u>	<u>101</u>
<b>Total Participants</b>	<b>7,927</b>	<b>7,840</b>	<b>(87)</b>
Employer Contributions	\$ 11,811,952	\$ 11,250,910	\$ (561,042)
Market Value of Assets (MVA)	\$ 334,210,200	\$ 326,919,954	\$ (7,290,246)
Actuarial Value of Assets	\$ 347,859,875	\$ 342,812,133	\$ (5,047,742)
Actuarial Accrued Liability	\$ 534,860,955	\$ 527,455,968	\$ (7,404,987)
<b>Unfunded Accrued Liability</b>	<b>\$ 187,001,080</b>	<b>\$ 184,643,835</b>	<b>\$ (2,357,245)</b>
PPA Funded Percentage	65.0%	65.0%	0.0%
MVA Funded Percentage	62.5%	62.0%	(0.5)%
Credit Balance	\$ 50,699,080	\$ 35,343,447	\$ (15,355,633)
<b>Unfunded Vested Benefits (Withdrawal Liability)</b>	<b>\$ 219,085,340</b>	<b>\$ 224,055,799</b>	<b>\$ 4,970,459</b>

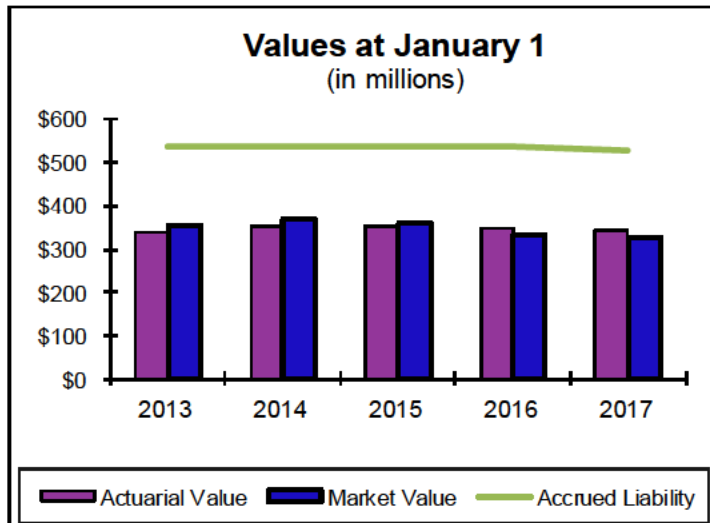
<sup>1</sup> These are non-vested inactive participants who have not incurred a permanent break-in-service.

<sup>2</sup> Includes 17 Alternate Payees as of January 1, 2016 and 18 Alternate Payees as of January 1, 2017.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION I DISCUSSION OF ASSETS AND LIABILITIES



The PPA Funded Percentage remained level from 65.0% at January 1, 2016 to 65.0% at January 1, 2017.

The Actuarial Value of Assets is \$15.9 million more than the Market Value of Assets as of January 1, 2017.

#### ASSETS

A. Cash and Cash Equivalents	\$ 2,887,426
B. Marketable Securities	320,499,774
C. Net Receivables, Payables and Prepaid Expenses	3,532,754
<b>D. Market Value of Assets (A + B + C)</b>	<b>\$ 326,919,954</b>
E. Actuarial Adjustment (Appendix D)	15,892,179
<b>F. Total Assets at Actuarial Value (D + E)</b>	<b>\$ 342,812,133</b>

#### LIABILITIES

##### Funding

G. Actives	\$ 55,572,171
I. Vested Inactives	110,897,213
J. Retirees and Beneficiaries	360,986,584
K. Actuarial Accrued Liability (G + H + I + J)	\$ 527,455,968
<b>L. Unfunded Accrued Liability (K - F)</b>	<b>\$ 184,643,835</b>

##### PPA (Statutory)

M. Actives	\$ 55,572,171
O. Vested Inactives	110,897,213
P. Retirees and Beneficiaries	360,986,584
Q. Actuarial Accrued Liability (M + N + O + P)	\$ 527,455,968
<b>R. PPA Funded Percentage (F / Q)</b>	<b>65.0 %</b>

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION I DISCUSSION OF ASSETS AND LIABILITIES (CONTINUED)

The financial status of the Plan provides us with the means of measuring the actuarial position of the Trust as of January 1, 2017.

#### ASSETS

The total Market Value of Assets as of January 1, 2017 is \$326,919,954. Information regarding assets was taken from the final audit report provided by Hemming Morse, LLP.

We have utilized an asset valuation method that recognizes net investment income on Trust assets that is more or less than 7.25% per year over a five-year period. The value of Trust assets based on this method is \$342,812,133, which represents 104.9% of the Market Value of Assets. This method is intended to dampen the volatility associated with year to year changes in the market value of Trust assets, while at the same time systematically recognizing overall investment performance over the long term. The derivation of the Actuarial Value of Assets is shown in Appendix D.

Contributions receivable from Employers for hours worked in the 2016 Plan Year but received after December 31, 2016 are included with net receivables.

#### LIABILITIES

The liabilities are listed separately for pensioners and for active and inactive benefits earned by non-retired participants. The \$360,986,584 liability for pensioners represents the estimated amount required as of the valuation date to pay all benefits as they come due in the future. The Actuarial Accrued Liability is the sum of the separate liability amounts and is equal to \$527,455,968.

#### UNFUNDED ACCRUED LIABILITIES

The liabilities of the Plan exceed the Actuarial Value of Assets by \$184,643,835. This amount is known as the Unfunded Accrued Liability, which is amortized by the excess of contributions received over the cost of each future year's accumulation of benefits. If the Market Value of Assets is used, the Unfunded Accrued Liability is equal to \$200,536,014. As shown in Section IV, the current excess of contributions over benefit accruals is about \$7.7 million and is not sufficient to pay down the Unfunded Accrued Liability on both an Actuarial Value of Assets basis and a Market Value of Assets basis assuming all future actuarial assumptions are realized. Without future investment return gains, Board and/or bargaining corrective action may be needed in the future to fund the projected Unfunded Accrued Liability over a reasonable period. Note that the Rehabilitation Plan was updated in 2012 to include reasonable measures to forestall possible insolvency.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS

#### ACTUARIAL VALUATION

An actuarial valuation is a snapshot of asset and liability measures of the pension fund. It is used to estimate the amount of funds needed to help assure the future payment of retirement, termination, disability and death benefits to Plan participants based on Plan benefits in effect on the valuation date. The valuation is based on the actual service rendered by these participants prior to the valuation date and on a set of actuarial assumptions and methods. These assumptions have been selected by the Actuary while the methods have been adopted by the Trustees upon the recommendation of the Actuary. Both are described in Appendix B.

#### Actuarial Experience

In the paragraphs below, we have outlined the experience over the 2016 Plan Year and have also shown experience for the previous 4 Plan Years. This information will provide an ongoing review of the appropriateness of each actuarial assumption.

#### Development of Gain / (Loss)

To the extent that actual experience during the year is different than what was expected, gains or losses are realized. The following exhibit develops the total gain or loss for the Plan Year:

A. Unfunded Accrued Liability on January 1, 2016	\$	187,001,080
B. Normal Cost		1,228,069
C. Contributions for 2016		(11,250,910)
D. Interest on A, B and C		13,238,768
E. Assumption Change		<u>(6,594,691)</u>
F. Expected Unfunded Accrued Liability on January 1, 2017 (A + B + C + D + E)	\$	183,622,316
G. Actual Unfunded Accrued Liability on January 1, 2017	\$	<u>184,643,835</u>
H. Net Actuarial Gain/(Loss) (F - G)	\$	<u>(1,021,519)</u>

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### Net Investment Return – 7.25% per annum, net of all expenses

The net investment yield on the Actuarial Value of Assets during the Plan Year was 6.84%. Appendix D shows the details of the actual investment income calculation.

INCOME	DOLLAR AMOUNT	YIELD
A. Gross Investment Income	\$ 26,177,772	7.84 %
B. Operating Expenses	(1,525,874)	(0.46)
C. Investment Expenses	(1,796,828)	(0.54)
D. Net Investment Income (A + B + C)	\$ 22,855,070	6.84 %
E. Expected Investment Income	24,208,364	7.25
F. Investment Loss (D - E)	\$ (1,353,294)	(0.41) %

NET YIELD ON		
YEAR	ACTUARIAL VALUE <sup>1</sup>	MARKET VALUE <sup>2</sup>
2012	(1.99) %	11.53 %
2013	11.24	12.97
2014	9.07	4.47
2015	6.22	0.63
2016	6.84	6.44

<sup>1</sup> The 5-year geometric average return on the Actuarial Value of Assets is 6.18%, and the 10-year geometric average return is 3.62%.

<sup>2</sup> The 5-year geometric average return on the Market Value of Assets is 7.11%, and the 10-year geometric average return is 2.92%.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### **Mortality – 1983 GAM F Mortality Table for healthy lives, and 1983 F Mortality Table 17-year set-forward (until age 62) for disabled lives**

We compared the mortality experienced by the Plan during the 2016 Plan Year with that expected according to the above tables. During the Plan Year, there were 111 deaths with an average age of 80.9 and average monthly benefit for those in pay status of \$618 with 22 continuing beneficiaries. This compares to 131 deaths with an average age of 79.7 and average monthly benefit for those in pay status of \$728 with 24 continuing beneficiaries in the prior year. The liability released during the year was less than anticipated, resulting in a **loss of \$1,248,878**.

YEAR	GAIN/(LOSS)
2012	\$ (646,955)
2013	(21,395)
2014	665,209
2015	1,762,830
2016	(1,248,878)
5-Year Total	\$ 510,811

For valuation dates on or after July 1, 2011, actuaries are required to separately consider an assumption for mortality improvement. Recent studies have shown that mortality for the general population has improved at a fairly consistent rate (1% per year). Whether it will continue at this rate is controversial. Failure to fully reflect mortality improvement will result in an undervaluation of the Plan's liabilities and corrective action in the future.

Effective January 1, 2017, the mortality assumptions have been updated to the RP-2014 Blue Collar Mortality Table for males and females, adjusted backward to 2006 using MP-2014, then projected forward from 2006 with Fully Generational Mortality Improvement under MP-2016 for healthy lives, and to the RP-2014 Disabled Retiree Mortality Table for males and females adjusted backward to 2006 using MP-2014, then projected forward from 2006 with Fully Generational Mortality Improvement under MP-2016 for disabled lives. We believe these assumptions reasonably reflect anticipated mortality experience for the Plan. We will continue to monitor the appropriateness of these assumptions on an annual basis.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### Turnover – Table T-7, The Actuary's Pension Handbook (Crocker-Sarason-Straight)

If a participant terminates prior to acquiring vested rights in their benefits or prior to retirement, then all or part of the liability accumulated for their benefit is released. This is offset by the liability for inactives who return to active status. During 2016, there were 53 active terminations from vested status and 49 terminations from non-vested status, offset by 2 rehired participants. This compares to 130 active terminations from vested status and 60 terminations from non-vested status, offset by 5 rehired participants in the prior year. The combined net turnover **gain** for the year was **\$175,220**.

YEAR	GAIN/(LOSS)
2012	\$ (157,632)
2013	52,665
2014	(509,163)
2015	(227,227)
2016	175,220
5-Year Total	\$ (666,137)

#### Retirement

We assume that participants will retire in accordance with an explicit set of retirement rates as described in Appendix B. A gain to the Fund results if a participant delays retirement. During the 2016 Plan Year, there were 177 healthy retirements with an average age of 62.7 and an average monthly benefit of \$771. This compares to 140 healthy retirements with an average age of 64.4 and an average monthly benefit of \$573 in the prior year. The net result of this experience was a **gain** of **\$1,647,552**.

YEAR	GAIN/(LOSS)
2012	\$ 1,757,478
2013	1,943,164
2014	2,462,900
2015	1,615,254
2016	1,647,552
5-Year Total	\$ 9,426,348



# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### Disability – 1952 Society of Actuaries Table, Period 2, Benefit 5

During the 2016 Plan Year, there was 1 disability retirement with an age of 54.0 and an average monthly benefit of \$1,715. This compares to no disability retirements in the prior year. The actuarial **loss** attributable to disabilities was **\$92,794**.

YEAR	GAIN/(LOSS)
2012	\$ (127,345)
2013	(136,510)
2014	(94,877)
2015	(95,159)
2016	(92,794)
5-Year Total	\$ (546,685)

#### Miscellaneous

Each year there are miscellaneous gains and losses due to data adjustments, corrections, new entrants and actual versus expected hours. The miscellaneous items in 2016 resulted in a net **loss** of **\$149,325**.

YEAR	GAIN/(LOSS)
2012	\$ (407,394)
2013	(344,116)
2014	(404,437)
2015	(58,520)
2016	(149,325)
5-Year Total	\$ (1,363,792)

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION II ACTUARIAL GAIN/(LOSS) ANALYSIS (CONTINUED)

#### SUMMARY OF GAINS AND LOSSES

The following shows a summary of the gains and losses from various sources:

SUMMARY OF 2016 GAIN/(LOSS) AMOUNTS	
SOURCE	GAIN/(LOSS)
Investment Income	\$ (1,353,294)
Mortality	(1,248,878)
Turnover	175,220
Retirement	1,647,552
Disability	(92,794)
Miscellaneous	(149,325)
<b>Total Experience Loss</b>	<b>\$ (1,021,519)</b>

Fluctuations in experience for all assumptions are to be expected from year to year. It is the net result over a period of time that must be viewed to determine the validity of the assumptions used.

FIVE-YEAR SUMMARY OF GAIN/(LOSS) AMOUNTS			
YEAR	ASSETS	LIABILITIES	TOTAL
2012	\$ (33,450,978)	\$ 418,152	\$ (33,032,826)
2013	13,070,644	1,493,808	14,564,452
2014	6,155,370	2,119,632	8,275,002
2015	(3,503,794)	2,997,178	(506,616)
2016	(1,353,294)	331,775	(1,021,519)
<b>5-Year Total</b>	<b>\$ (19,082,052)</b>	<b>\$ 7,360,545</b>	<b>\$ (11,721,507)</b>

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION III CHANGES SINCE LAST VALUATION AND OTHER PLAN ITEMS

#### CHANGES IN PLAN PROVISIONS AND VALUATION METHODOLOGY

No changes to Plan provisions or valuation methodology have been made since the prior valuation as of January 1, 2016.

#### MANDATED CHANGES TO PLAN ASSUMPTIONS

The current liability interest and mortality assumptions were updated as prescribed by IRS regulations. Refer to Appendix B for a description of these changes.

#### OTHER CHANGES TO PLAN ASSUMPTIONS

The Plan's actuarial assumptions for mortality, retirement for vested inactives, form of benefit election, spousal age difference and operating expenses were revised to reflect historical experience and the actuary's opinion on reasonable expectations for future experience.

The following changes were made to the Plan's assumptions:

1. *Healthy Mortality*: Updated from 1983 GAM (F) Mortality Table to **RP2014 Blue Collar Mortality Table for males and females adjusted backward to 2006 using MP-2014, then projected forward from 2006 with Fully Generational Mortality Improvement under MP-2016.**
2. *Disabled Mortality*: Updated from 1983 GAM(F) Mortality Table with ages set forward 17 years until age 62 to **RP2014 Disabled Retiree Mortality Table for males and females adjusted backward to 2006 using MP-2014, then projected forward from 2006 with Fully Generational Mortality Improvement under MP-2016.**
3. *Retirement age for Vested Inactive Participants*: Updated from age 62 to a **varied rate table based on age**. Refer to Appendix B for additional details.
4. *Form of Benefit Payment Election (non-retired participants)*: Updated from 100% assumed to elect a single life annuity to **55% assumed to elect a single life annuity and 45% assumed to elect a 50% Joint and Survivor Annuity.**
5. *Spousal Age Difference*: Updated from spouse assumed to be the same age as the participant to **the spouse assumed to be one year younger than the participant.**
6. *Operating Expenses*: Updated from assumed covered by investment earnings to **\$1,400,000, payable mid-year (or \$1,352,681 as of the beginning of the year) for 2017.**

The overall impact of these assumption changes was a decrease in liabilities of approximately \$6.6 million and an increase in normal cost (including operating expenses) of approximately \$1.2 million as of January 1, 2017.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION IV PROJECTION OF EMPLOYER CONTRIBUTIONS AND COSTS

The following is an estimate of Employer contributions and costs for the 2017 Plan Year based on expected contributions, including base, surcharge, and supplemental contributions as well as expected withdrawal liability payments, and actual hours worked during 2016 adjusted for known withdrawals to date. The difference between the Employer contributions and the cost of benefits is the excess (if any) that can be used to pay down the Unfunded Accrued Liability.

A. Employer Contributions	\$ 10,110,000
B. Estimated Cost of Benefits <sup>1</sup>	2,375,000
C. Available for Funding <sup>2</sup> (A - B)	\$ 7,735,000

<sup>1</sup> Includes \$1.4 million for anticipated operating expenses.

<sup>2</sup> Mid-year.

The projected Employer contributions exceed the estimated cost of benefits to be earned during 2017 by about \$7.7 million, but the interest on the current Unfunded Accrued Liability at 7.25% is \$13.4 million. Based on asset and liability measures on the valuation date, this excess of about \$7.7 million is not sufficient to pay down the Unfunded Accrued Liability on both an Actuarial Value of Assets basis and a Market Value of Assets basis assuming all future actuarial assumptions are realized. Without future investment return gains, Board and/or bargaining corrective action may be needed in the future to fund the projected Unfunded Accrued Liability over a reasonable period.

	Actuarial Value Basis	Market Value Basis
Unfunded Accrued Liability (UAL)	\$ 184,643,835	\$ 200,536,014
Amount Available for Funding <sup>3</sup>	7,473,561	7,473,561
Period to Pay off UAL	Cannot Pay Off	Cannot Pay Off

<sup>3</sup> Beginning of year.

The Trustees originally adopted a Rehabilitation Plan on October 16, 2009, which was updated in 2012 to include reasonable measures to forestall possible insolvency. The Plan was first certified in critical and declining status for the 2016 Plan Year with a projected insolvency date in 2035. Based on the results of the January 1, 2017 valuation, including all assumption changes, the Plan is now projected to become insolvent in 2033.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION V WITHDRAWAL LIABILITY

Withdrawal liability assessments, if any, are based on the amount of “Unfunded Vested Benefits” (UVB) and an employer’s contribution history. For this purpose, benefits in which a participant is not immediately vested are excluded from the determination of vested benefits – this includes disability and death benefits other than the Qualified Pre-retirement Survivor Annuity (QPSA). Assets are based on the Market Value of Assets for withdrawal liability purposes.

The simplified method was adopted to comply with the PPA’s requirement for Red Zone plans to disregard any reduction in protected benefits when determining the UVB for withdrawal liability – this includes early retirement subsidies, including those for the Rule of 80, and the 60-month guarantee in life annuity. Please refer to Appendix I for development of the Vested Benefit Liabilities. The resulting UVB as of December 31, 2016 is as follows:

A positive Unfunded Vested Benefits value means that Employers who withdraw in the 2017 Plan Year may be subject to a withdrawal liability assessment.

WITHDRAWAL LIABILITY	
A. Vested Benefit Liabilities Earned to Date <sup>1</sup>	\$ 550,975,753
B. Market Value of Assets	326,919,954
C. UVB as of December 31, 2016 (A - B, not less than \$0)	\$ 224,055,799

<sup>1</sup> Value at December 31, 2016, which does not include the January 1, 2017 assumption changes. These changes will be reflected in the December 31, 2017 Vested Benefit Liabilities.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

---

### SECTION VI COMMENTS AND CERTIFICATION

This is to certify that we have completed an actuarial valuation of the Plan as of January 1, 2017 in accordance with generally accepted actuarial principles and practices, including Actuarial Standards of Practice (ASOP) Nos. 4, 23, 27, 35, 41, and 44. This report has been prepared for the Board of Trustees of the Western States Office & Professional Employees Plan to provide information on the Plan's funded status, to review the recent experience under the Plan, and to supply figures needed by the auditor.

This report on the results of the valuation was based on the assumption that the Plan is qualified under the Internal Revenue Code and on information supplied by the auditor with respect to contributions and assets and by the Plan Administrator with respect to participant data. We have not verified and customarily would not verify such information, but we have no reason to doubt its substantial accuracy.

To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate and, in our opinion, the individual assumptions used: (a) are reasonably related to the experience of the Plan and to reasonable expectations; and (b) represent our best estimate of anticipated experience under the Plan.

We are not aware of any events, subsequent to January 1, 2017, that would have a material effect on the actuarial findings presented in this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (for instance, the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the assignment, we did not perform analysis of the potential range of such future measurements.

In preparation of this report and the actuarial findings contained herein, there has been no conflict of interest between any relevant parties; no findings for which we, the actuaries, do not assume responsibility; and no deviation from ASOP Nos. 4, 23, 27, 35, 41, and 44.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### SECTION VI COMMENTS AND CERTIFICATION *(CONTINUED)*

All information pertaining to the findings presented in this report is contained within this report and should not be relied upon for any other purpose than as stated above.

The Pension Protection Act of 2006 (PPA) became effective for this Plan on January 1, 2008, and the Multiemployer Pension Reform Act of 2014 (MPRA) became effective for this Plan on January 1, 2015. In accordance with Internal Revenue Code Section 432(b), the Plan was certified to be in critical and declining status as of the beginning of the 2017 Plan Year. The Plan was initially certified to be in critical status for the 2009 Plan Year. In response, the Board of Trustees adopted a Rehabilitation Plan on October 16, 2009, which complies with Internal Revenue Code Section 432(e). It was updated in 2012 to include reasonable measures to forestall possible insolvency. The Plan's rehabilitation period began on January 1, 2012. We will update the Plan's status and the adopted Rehabilitation Plan, if necessary, near the beginning of the following plan year based on investment results for 2017.

We have determined that the projected contributions for the 2017 Plan Year will meet the minimum funding requirements of ERISA and will be fully deductible by the Employers.

We, Paul Graf and Wendy Londa, are actuaries for Rael & Letson. We are members of the American Academy of Actuaries and each meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

**Certified by:** \_\_\_\_\_ S.A., E.A., M.A.A.A.  
Enrolled Actuary No. 17-05627

**Reviewed by:** \_\_\_\_\_ S.A., E.A., F.C.A M.A.A.A.  
Wendy Londa  
Enrolled Actuary No. 17-07600

**Prepared by:** \_\_\_\_\_ A.S.A., M.A.A.A.  
Winnie Ngan

## **SECTION VII APPENDICES**

<b>Appendix A</b>	<b>Participant Counts and Statistics</b>
<b>Appendix B</b>	<b>Actuarial Methods and Assumptions</b>
<b>Appendix C</b>	<b>Summary of Principal Plan Provisions</b>
<b>Appendix D</b>	<b>Plan Assets</b>
<b>Appendix E</b>	<b>Funding Standard Account (for Schedule MB)</b>
<b>Appendix F</b>	<b>Current Liability (for Schedule MB)</b>
<b>Appendix G</b>	<b>Maximum Deductible Contribution</b>
<b>Appendix H</b>	<b>Auditor Information (FASB ASC 960)</b>
<b>Appendix I</b>	<b>Determination of Vested Benefit Liabilities for Withdrawal Liability Purposes</b>
<b>Appendix J</b>	<b>Funding Standard Account (No Amortization Extension)</b>
<b>Appendix K</b>	<b>Historical Information</b>



# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS

PARTICIPANT STATISTICS				
	January 1, 2016	January 1, 2017	Change	Percent Change
<b>Actives:</b>				
Number	868	809	(59)	(6.8)%
Averages:				
Age	48.3	48.6	0.3	0.6%
Years of Credited Service	12.4	12.5	0.1	0.8%
Hours	1,781	1,628	(153)	(8.6)%
<b>Non-Vested Inactives</b>				
Number	376	359	(17)	(4.5)%
Averages:				
Age	40.9	41.4	0.5	1.2%
Years of Credited Service	2.3	2.1	(0.2)	(8.7)%
Accrued Benefit	\$ 53	\$ 51	\$ (2)	(3.8)%
<b>Vested Inactives:</b>				
Number	2,939	2,827	(112)	(3.8)%
Averages:				
Age	51.8	52.2	0.4	0.8%
Years of Credited Service	11.9	11.8	(0.1)	(0.8)%
Vested Accrued Benefit	\$ 558	\$ 562	\$ 4	0.7%
<b>Retirees and Beneficiaries:</b>				
Number:				
Healthy Retirees	3,502	3,512	10	0.3%
Disabled Retirees	31	107	76	245.2%
Beneficiaries <sup>1</sup>	<u>211</u>	<u>226</u>	<u>15</u>	7.1%
Total	3,744	3,845	101	2.7%
Averages:				
Age	72.1	72.3	0.2	0.3%
Monthly Benefit	\$ 860	\$ 860	\$ 0	0.0%

<sup>1</sup> Includes 17 Alternate Payees as of January 1, 2016 and 18 Alternate Payees as of January 1, 2017.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS (CONTINUED)

PARTICIPANT RECONCILIATION					
	ACTIVES	NON-VESTED INACTIVES	VESTED INACTIVES	RETIREES AND BENEFICIARIES	TOTAL
<b>Total as of January 1, 2016</b>	<b>868</b>	<b>376</b>	<b>2,939</b>	<b>3,744</b>	<b>7,927</b>
New Entrants	77	0	0	0	77
Vested Terminations <sup>1</sup>	(53)	0	53	0	0
Non-Vested Terminations	(49)	49	0	0	0
Returned to Work	2	0	(2)	0	0
Healthy Retirements	(34)	0	(143)	177	0
Disabled Retirements	(1)	0	0	1	0
Deaths in Year	(1)	0	(6)	(104)	(111)
Benefit Period Expired	0	0	0	0	0
New Beneficiaries	0	0	0	22	22
New Alternate Payees	0	0	0	2	2
Lump Sum	0	0	(6)	0	(6)
Permanent Break in Service	0	(73)	0	0	(73)
Data Corrections	0	7	(8)	3	2
Net Change	(59)	(17)	(112)	101	(87)
<b>Total as of January 1, 2017</b>	<b>809</b>	<b>359</b>	<b>2,827</b>	<b>3,845</b>	<b>7,840</b>

<sup>1</sup> Includes one participant who was vested under Special Eligibility Rule.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS (CONTINUED)

DISTRIBUTION OF ACTIVE PARTICIPANTS BY AGE AND CREDITED SERVICE (FOR 2017 SCHEDULE MB)											
AGE GROUP	YEARS OF CREDITED SERVICE										TOTAL
	< 1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 +	
Under 25	0	12	0	0	0	0	0	0	0	0	12
25 - 29	0	39	6	1	0	0	0	0	0	0	46
30 - 34	0	33	29	9	0	0	0	0	0	0	71
35 - 39	0	34	26	12	13	0	0	0	0	0	85
40 - 44	0	17	17	16	23	6	0	0	0	0	79
45 - 49	0	20	20	15	23	9	7	0	0	0	94
50 - 54	0	14	15	24	23	17	13	10	0	0	116
55 - 59	0	20	20	16	24	22	13	8	2	0	125
60 - 64	0	12	21	25	20	15	13	7	7	4	124
65 - 69	0	4	6	11	5	10	2	4	4	1	47
70 and Over	0	2	1	1	2	2	0	1	1	0	10
<b>Total</b>	0	207	161	130	133	81	48	30	14	5	809

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS (CONTINUED)

DISTRIBUTION OF NON-RETIRED PARTICIPANTS BY AGE						
AGE GROUP	ACTIVES			INACTIVES		
	NON-VESTED	VESTED	TOTAL ACTIVES	NON-VESTED	VESTED	TOTAL INACTIVES
Under 25	12	0	12	5	0	5
25 - 29	39	7	46	44	9	53
30 - 34	33	38	71	78	64	142
35 - 39	34	51	85	65	151	216
40 - 44	17	62	79	33	271	304
45 - 49	20	74	94	37	497	534
50 - 54	14	102	116	36	592	628
55 - 59	20	105	125	40	709	749
60 - 64	12	112	124	11	427	438
65 - 69	4	43	47	10	90	100
70 and Over	2	8	10	0	17	17
<b>Total</b>	207	602	809	359	2,827	3,186
Average Age	40.2	51.5	48.6	41.4	52.2	51.0
Average Accrued Benefit	\$ 67	\$ 1,192	\$ 904	\$ 51	\$ 562	\$ 504

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX A PARTICIPANT COUNTS AND STATISTICS (CONTINUED)

#### DISTRIBUTION OF RETIREES AND BENEFICIARIES BY AGE

AGE GROUP	CONTINUING HEALTHY RETIREEES	NEW HEALTHY RETIREEES	CONTINUING DISABLED RETIREEES	NEW DISABLED RETIREEES	CONTINUING BENEFICIARIES <sup>1</sup>	NEW BENEFICIARIES <sup>1</sup>	GRAND TOTAL
Under 50	0	0	5	0	10	1	16
50 - 54	0	0	6	1	5	2	14
55 - 59	76	29	12	0	7	4	128
60 - 64	357	86	31	0	20	2	496
65 - 69	858	56	24	0	24	2	964
70 - 74	839	6	12	0	31	3	891
75 - 79	541	0	3	0	36	3	583
80 - 84	316	0	4	0	25	5	350
85 and Over	348	0	9	0	44	2	403
<b>Total</b>	<b>3,335</b>	<b>177</b>	<b>106</b>	<b>1</b>	<b>202</b>	<b>24</b>	<b>3,845</b>
Average Age	73.0	62.7	65.9	54.0	73.8	69.5	72.3
Average Monthly Benefit	\$ 890	\$ 771	\$ 931	\$ 1,715	\$ 442	\$ 524	\$ 860

<sup>1</sup> Includes 16 continuing Alternate Payees and 2 new Alternate Payees.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX B ACTUARIAL METHODS AND ASSUMPTIONS

METHODOLOGY:	
Asset Valuation Method	Assets are valued according to a method which recognizes 20% of each year's excess (or deficiency) of actual investment return on the Market Value of Assets over the expected return on the Market Value of Assets in the year the excess (or deficiency) occurs. An additional 20% of the excess (or deficiency) is recognized in each of the succeeding four years until it is totally recognized. In no event will the Actuarial Value of Assets be less than 80% or more than 120% of the Market Value of Assets.
Actuarial Cost Method	<p><b><u>Unit Credit Cost Method</u></b></p> <p>Under this method, we determine the present value of all benefits earned through the valuation date. An individual's normal cost is the present value of the benefit expected to be earned in the valuation year. The total accrued liability is the sum of the individual present values for all participants. The Unfunded Accrued Liability is the difference between the accrued liability and the assets of the Trust. If the assets exceed the accrued liability, the Plan is in a surplus position. This method requires that each year's contributions be applied first to the normal cost, and the balance of the contributions applied to amortize the Unfunded Accrued Liability. The normal cost is adjusted at the close of the Plan Year to reflect the actual level of Contributions received during that Plan Year</p>
Withdrawal Liability Basis	The present value of accrued vested benefits for withdrawal liability determination uses an interest rate of 7.25% along with all other valuation assumptions. The simplified method issued by the Pension Benefit Guaranty Corporation is used to account for the protected benefits that were reduced in accordance with the Plan's critical status and subsequent Rehabilitation Plan. Assets for this purpose are based on the Market Value of Assets.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX B ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

ASSUMPTIONS:	
Interest Discount Rate	7.25% for funding and FASB ASC 960, 7.25% for withdrawal liability, and 3.05% for current liability.
Assumed Rate of Return on Investments	7.25% compounded annually, net of investment expenses. (Prior to January 1, 2017: 7.25% compounded annually, net of all expenses.)
Derivation of Net Investment Return and Discount Rate for FASB ASC 960 Accounting:	The expected return assumptions are established based on a long run outlook and are based on past experience, future expectations and professional judgement. We have modeled the assumptions based on average long-term future expected returns and their respective capital market assumptions as provided by several investment professionals. Based on the inputs of the Plan's specific target asset allocation, we have established the reasonability of the Plan's assumption.
Operating Expenses	A total annual amount of \$1,400,000 paid in monthly installments (\$1,352,681 at beginning of year). (Prior to January 1, 2017: assumed covered by investment earnings.)
Mortality	<p>Healthy Lives: RP-2014 Blue Collar Mortality Table for males and females, adjusted backward to 2006 using MP-2014, then projected forward from 2006 with Fully Generational Mortality Improvement under MP-2016. (Prior to January 1, 2017: 1983 GAM (F) Mortality Table.)</p> <p>Disabled Lives: RP-2014 Disabled Retiree Mortality Table for males and females, adjusted backward to 2006 using MP-2014, then projected forward from 2006 with Fully Generational Mortality Improvement under MP-2016. (Prior to January 1, 2017: 1983 GAM (F) Mortality Table with ages set forward 17 years until age 62.)</p> <p>Current Liability: RP-2000 Mortality Tables (static, separate for annuitants and non-annuitants), projected forward to the valuation year plus seven years for annuitants and 15 years for non-annuitants, as prescribed by IRS regulations.</p>
Mortality Improvement	Effective January 1, 2017, the mortality assumption has been updated to reflect full generational mortality improvements using the MP-2016 scaling factors.
Turnover	Table T-7 (Less 51 GAT) of The <u>Actuary's Pension Handbook</u> . Non-Vested Participants are assumed to earn one year of vesting credit annually until vested.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX B ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

ASSUMPTIONS:																															
Retirement Rates	<p>Active participants are assumed to retire based on the following rate table:</p> <table> <tr> <th><u>Age</u></th><th><u>Rate of Retirement</u></th></tr> <tr> <td>55</td><td>20%</td></tr> <tr> <td>56</td><td>15%</td></tr> <tr> <td>57-59</td><td>12%</td></tr> <tr> <td>60</td><td>15%</td></tr> <tr> <td>61</td><td>20%</td></tr> <tr> <td>62</td><td>40%</td></tr> <tr> <td>63-70</td><td>35%</td></tr> <tr> <td>71+</td><td>100%</td></tr> </table> <p>Vested inactive participants are assumed to retire based on the following rate table:</p> <table> <tr> <th><u>Age</u></th><th><u>Rate of Retirement</u></th></tr> <tr> <td>55</td><td>15%</td></tr> <tr> <td>56-61</td><td>5%</td></tr> <tr> <td>62</td><td>18%</td></tr> <tr> <td>63-64</td><td>3%</td></tr> <tr> <td>65+</td><td>100%</td></tr> </table> <p>(Prior to January 1, 2017: Vested inactive participants are assumed to retire at age 62.)</p>	<u>Age</u>	<u>Rate of Retirement</u>	55	20%	56	15%	57-59	12%	60	15%	61	20%	62	40%	63-70	35%	71+	100%	<u>Age</u>	<u>Rate of Retirement</u>	55	15%	56-61	5%	62	18%	63-64	3%	65+	100%
<u>Age</u>	<u>Rate of Retirement</u>																														
55	20%																														
56	15%																														
57-59	12%																														
60	15%																														
61	20%																														
62	40%																														
63-70	35%																														
71+	100%																														
<u>Age</u>	<u>Rate of Retirement</u>																														
55	15%																														
56-61	5%																														
62	18%																														
63-64	3%																														
65+	100%																														
Disablement	1952 Society of Actuaries Table, Period 2, Benefit 5.																														
Form of Benefit	For those not yet in pay status, 55% of participants are assumed to elect a Life Annuity and 45% of participants are assumed to elect a 50% Joint and Survivor Annuity. (Prior to January 1, 2017: All non-retired participants are assumed to elect a Life Annuity.)																														
Marital Status	80% of non-retired male participants and 75% of non-retired female participants are assumed to be married. Females are assumed to be one years younger than their spouses. (Prior to January 1, 2017: Spouses are assumed to be the same age as participants.)																														
Active Participant	Worked at least 200 hours in covered employment.																														
Future Employment	Each active participant is assumed to work the same amount of hours worked in the prior plan year.																														



# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX B ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

ASSUMPTIONS:	
Missing Data	If not specified, participants are assumed to be female and the same age as the average of participants with the same status code.
Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations	The demographic and other noneconomic assumptions are established based on a long-term outlook and are based on past actuarial experience, future expectations and professional judgement. We believe the current demographic and other noneconomic assumptions reasonably reflect anticipated experience for the Plan.
CHANGES SINCE PRIOR VALUATION	<p>The current liability interest rate was changed from 3.28% to 3.05% due to a change in the allowable interest rate range, and the current liability mortality table was updated as required.</p> <p>The following assumption changes have been made to better reflect future anticipated experience:</p> <ol style="list-style-type: none"> <li>1. Mortality tables have been updated to RP-2014 Blue Collar Mortality Table for males and females adjusted backward to 2006 using MP-2014, then projected forward from 2006 with Fully Generational Mortality Improvement under MP-2016 for healthy lives and to RP-2014 Disabled Retiree Mortality Table for males and females adjusted backward to 2006 using MP-2014, then projected forward from 2006 with Fully Generational Mortality Improvement under MP-2016 for disabled lives.</li> <li>2. Assumed retirement age for vested inactive participants has been changed to a varied rate table based on age.</li> <li>3. Form of benefit elected has been updated to reflect 55% of participants assumed to elect a Life Annuity and 45% assumed to elect a 50% Joint and Survivor Annuity.</li> <li>4. The spousal age difference has been updated to one year younger than the participant.</li> </ol> <p>A separate operating expense assumption of \$1,400,000 payable monthly (\$1,352,681 payable at the beginning of the year) has been established. The investment return assumption is now 7.25%, net of investment expenses only.</p> <p>Accruing and supplemental/surcharge contributions for 18 employers known to have withdrawn during 2016 have been removed from future expected contributions and costs, and quarterly withdrawal liability payments have been added to future expected contributions. No withdrawal liability payments are expected from ATPA due to its recent bankruptcy filing.</p>

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX C SUMMARY OF PRINCIPAL PLAN PROVISIONS

The Western States Office & Professional Employees Plan was established on 1959. It has been amended from time to time since that date. The most recent restatement of the Plan is effective January 1, 2017. The principal provisions of the Plan as of January 1, 2017 are summarized below.

NORMAL RETIREMENT	
Eligibility	Age 65 and vested. Special eligibility if age 65 with 2 years of Vesting Credit (one immediately prior to retirement) and at least a \$10.00 Total Service Benefit.
Monthly Benefit	<p>Service after 2009: 0.75% of Employer Contributions.</p> <p>2004 - 2009: 1.8% of Employer Contributions.</p> <p>2003 Service: 2.2% of Employer Contributions up to \$6,240, plus 1.8% of excess.</p> <p>2001 - 2002 Service: 3.2% of Employer Contributions up to \$6,240 each year; plus 1.8% of excess.</p> <p>1997 - 2000 Service: 3.65% of Employer Contributions up to \$6,240 each year, plus 1.8% of excess.</p> <p>Prior to 1997: 3.65% of Employer Contributions.</p> <p>Past Service: \$8.20 per year of past service (maximum 15 years).</p>
EARLY RETIREMENT	
Eligibility	Age 55 and vested.
Monthly Benefit	Normal Retirement Benefit actuarially reduced from age 62 for benefits earned before January 1, 2010 and from age 65 for benefits earned on or after January 1, 2010.
POSTPONED RETIREMENT	
Eligibility	After Normal Retirement Age.
Monthly Benefit	<p>Normal Retirement Benefit increased 6% per year (<math>\frac{1}{2}\%</math> per month) past age 62 for benefits earned before January 1, 2010 and past age 65 for benefits earned on or after January 1, 2010.</p> <p>Effective for annuity starting dates on or after September 1, 2015, participants who continue working for a contributing employer will receive <u>the greater of</u> (a) or (b) below:</p> <p>(a) Normal Retirement Benefit increased <math>\frac{1}{2}</math> of 1% for each full month retirement is postponed.</p> <p>(b) Accrued benefit as of the participant's postponed retirement date.</p>

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX C SUMMARY OF PRINCIPAL PLAN PROVISIONS (CONTINUED)

DISABILITY RETIREMENT (Effective January 1, 2010)	
Eligibility	Vested with at least 200 hours in year prior to onset of Total and Permanent Disability.
Monthly Benefit	50% of Normal Retirement Benefit payable until age 55.
PRE-RETIREMENT DEATH BENEFIT (Effective January 1, 2010)	
Eligibility	Vested at time of death.
Monthly Benefit	Married: 50% Spousal Joint and Survivor Annuity (reduced for Early Retirement and for joint lives). All Others: Lump sum payment of \$500 per year of service (maximum of \$5,000 total).
FORMS OF ANNUITY PAYMENTS	
Normal Form	For Married Participants: An actuarially reduced benefit payable as a 50% Spousal Joint and Survivor Annuity. For Unmarried Participants: A life annuity.
Optional Forms	Straight Life Annuity 50%, 66-2/3% or 100% Spousal Joint and Survivor Annuity 50%, 66-2/3% or 100% Spousal Joint and Survivor Annuity with Pop-up 50%, 66-2/3% or 100% Non-Spousal Joint and Survivor Annuity Lump Sum if present value of accrued benefit $\leq$ \$5,000
OTHER	
Vesting Service	A Participant will receive one year of Vesting Credit if 200 or more hours are worked in a plan year.
Break in Service Rules	A one-year break in service is incurred if a Participant works less than 200 hours in a plan year.
CHANGES SINCE PRIOR VALUATION	None.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX D PLAN ASSETS

SUMMARY OF MARKET VALUE OF ASSETS		
Assets as of December 31, 2016	Market Value	Percent of Total
Cash and Cash Equivalents	\$ 2,887,426	0.9%
Partnership / Joint Venture Interests	45,342,595	13.9%
Value of Interest in Common / Collective Trusts	200,652,274	61.3%
Value of Interest in 103-12 Investment Entities	48,644,555	14.9%
Value of Interest in Registered Investment Companies (e.g. mutual funds)	12,748,047	3.9%
Other Assets	13,112,303	4.0%
Net Receivables, Payables and Prepaid Expenses	3,532,754	1.1%
Total Assets	\$ 326,919,954	100.0%

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX D PLAN ASSETS (CONTINUED)

#### SUMMARY OF RECEIPTS AND DISBURSEMENTS

	Market Value 2015	Market Value 2016	Actuarial Value 2015	Actuarial Value 2016
<b>Assets (Beginning of Year)</b>	\$ 359,268,671	\$ 334,210,200	\$ 353,925,354	\$ 347,859,875
<b>Receipts During Year</b>				
Contributions <sup>1</sup>	\$ 11,811,952	\$ 11,250,910	\$ 11,811,952	\$ 11,250,910
Investment Income (Net of Investment and Operating Expenses)	<u>2,175,568</u>	<u>20,612,566</u>	<u>21,168,560</u>	<u>22,855,070</u>
Subtotal Receipts	\$ 13,987,520	\$ 31,863,476	\$ 32,980,512	\$ 34,105,980
<b>Disbursements During Year</b>				
Benefit Payments	<u>\$ (39,045,991)</u>	<u>\$ (39,153,722)</u>	<u>\$ (39,045,991)</u>	<u>\$ (39,153,722)</u>
Subtotal Disbursements	\$ (39,045,991)	\$ (39,153,722)	\$ (39,045,991)	\$ (39,153,722)
<b>Assets (End of Year)</b>	\$ 334,210,200	\$ 326,919,954	\$ 347,859,875	\$ 342,812,133
<b>Net Yield on Value of Assets</b>	0.63 %	6.44 %	6.22 %	6.84 %

<sup>1</sup> Includes \$4,883,040 of base contributions, \$3,509,909 of supplemental contributions, \$81,811 of surcharge contributions and \$3,337,192 of withdrawal liability payments in 2015, and \$4,318,217 of base contributions, \$3,016,465 of supplemental contributions, \$43,983 of surcharge contributions and \$3,872,245 of withdrawal liability payments in 2016.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX D PLAN ASSETS (CONTINUED)

#### DETERMINATION OF NET INVESTMENT EARNINGS ON MARKET VALUE OF ASSETS

1. Expected Net Investment Income	
A. Market Value of Assets	\$ 334,210,200
B. Contributions	11,250,910
C. Benefit Payments	(39,153,722)
D. Expected Net Investment Income <sup>1</sup>	\$ 23,218,763
2. Market Value Earnings	
A. Interest and Dividends	\$ 1,584,823
B. Realized and Unrealized Gains/(Losses)	22,339,020
C. Investment Expenses	(1,796,828)
D. Operational Expenses	(1,525,874)
E. Other Income	11,425
F. Total Market Value Earnings (A + B + C + D + E)	\$ 20,612,566
3. Excess/(Deficit) of Market Value Earnings Over Expected Investment Earnings (2F - 1D)	(2,606,197)
4. Current Year Recognition of Excess/(Deficit) Earnings (Calculated on Next Page)	(363,693)
5. Net Investment Earnings (1D + 4)	22,855,070
6. Recognition of Assets in Excess of the Corridor	0
7. Total Net Investment Earnings (5 + 6)	\$ 22,855,070

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX D PLAN ASSETS (CONTINUED)

#### DETERMINATION OF ACTUARIAL VALUE OF ASSETS

PLAN YEAR ENDED DECEMBER 31	EXCESS/(DEFICIT) EARNINGS	AMOUNT OF EXCESS/(DEFICIT) EARNINGS RECOGNIZED OR TO BE RECOGNIZED		
		PRIOR YEARS	CURRENT YEAR	FUTURE YEARS
2016	\$ (2,606,197)	\$ 0	\$ (521,239)	\$ (2,084,958)
2015	(22,884,177)	(4,576,835)	(4,576,835)	(13,730,507)
2014	(9,936,255)	(3,974,502)	(1,987,252)	(3,974,501)
2013	19,488,943	11,693,367	3,897,789	3,897,787
2012	14,119,228	11,295,384	2,823,844	0
Total	\$ (1,818,458)	\$ 14,437,414	\$ (363,693)	\$ (15,892,179)
A. Market Value of Assets as of January 1, 2017				\$ 326,919,954
B. Amount of Excess/(Deficit) Earnings to be Recognized in Future Years				(15,892,179)
C. Preliminary Actuarial Value of Assets as of January 1, 2017 (A - B)				\$ 342,812,133
D. Recognition of Assets in Excess of the 20% Corridor				0
E. Actuarial Value of Assets as of January 1, 2017 (C + D)				\$ 342,812,133

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX E FUNDING STANDARD ACCOUNT (FOR SCHEDULE MB)

#### FUNDING STANDARD ACCOUNT<sup>1</sup>

	2016	2017 (Estimated)
1. Credit Balance on January 1	\$ 50,699,080	\$ 35,343,447
2. Charges		
A. Normal Cost (Beginning of Year)	\$ 1,228,069	\$ 2,295,000
B. Amortization Charges	35,938,969	36,045,202
C. Interest on 2A and 2B	2,694,610	2,779,665
D. Subtotal Charges (A + B + C)	\$ 39,861,648	\$ 41,119,867
3. Credits		
A. Employer Contributions for Year <sup>2</sup>	\$ 11,250,910	\$ 10,110,000
B. Amortization Credits	8,551,586	9,237,401
C. Interest on 1, 3A and 3B	4,703,519	3,598,599
D. Subtotal Credits (A + B + C)	\$ 24,506,015	\$ 22,946,000
4. Credit Balance on December 31 (1 - 2D + 3D)	\$ 35,343,447	\$ 17,169,580

<sup>1</sup> Incorporates the 5-year extension of charge bases effective January 1, 2009.

<sup>2</sup> 2017 estimated contributions reflect one quarterly payment for the 2016 withdrawn Employers.



# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX E FUNDING STANDARD ACCOUNT (FOR SCHEDULE MB) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (As of January 1, 2017)

Charges	Amortization Period			Balances		Beginning-of-Year Payment
	Date Established	Initial Period	Remaining Period	Initial	Remaining	
Initial Liability	1/1/1976	45.00	4.00	\$ 13,447,933	\$ 2,349,253	\$ 650,335
Actuarial Assumption	1/1/1978	43.00	4.00	1,960,033	347,695	96,252
Plan Amendment	1/1/1980	45.00	8.00	395,897	143,472	22,619
Plan Amendment	1/1/1981	45.00	9.00	3,609,259	1,462,711	211,562
Plan Amendment	1/1/1983	35.00	1.00	7,215,979	289,534	289,534
Plan Amendment	1/1/1984	35.00	2.00	3,740,561	325,806	168,603
Plan Amendment	1/1/1985	35.00	3.00	3,177,239	437,080	156,003
Plan Amendment	1/1/1986	35.00	4.00	3,832,226	725,852	200,933
Plan Amendment	1/1/1987	35.00	5.00	4,466,400	1,077,570	246,686
Plan Amendment	1/1/1988	35.00	6.00	7,521,437	2,198,190	433,319
Plan Amendment	1/1/1989	35.00	7.00	6,238,198	2,132,375	372,143
Plan Amendment	1/1/1990	35.00	8.00	1,991,358	775,504	122,268
Plan Amendment+Act Assump	1/1/1991	35.00	9.00	3,867,632	1,682,460	243,346
Plan Amendment	1/1/1992	35.00	10.00	2,315,769	1,107,961	148,790
Plan Amendment	1/1/1993	35.00	11.00	8,009,694	4,162,510	524,040
Plan Amendment+Act Assump	1/1/1994	35.00	12.00	5,816,782	3,250,050	386,626
Plan Amendment	1/1/1995	35.00	13.00	3,954,934	2,355,692	266,543
Actuarial Assumption	1/1/1996	35.00	14.00	2,334,000	1,471,424	159,236
Plan Amendment	1/1/1996	35.00	14.00	19,722,004	12,433,307	1,345,523
Plan Amendment	1/1/1997	35.00	15.00	12,051,000	7,992,150	831,144
Plan Amendment	1/1/1998	35.00	16.00	12,834,000	8,906,933	893,747
Actuarial Assumption	1/1/1998	35.00	16.00	5,651,596	3,922,263	393,572
Actuarial Assumption	1/1/1999	35.00	17.00	500,000	361,488	35,122
Plan Amendment	1/1/1999	35.00	17.00	21,615,699	15,627,344	1,518,376
Plan Amendment	1/1/2000	35.00	18.00	7,937,933	5,954,558	561,942

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX E FUNDING STANDARD ACCOUNT (FOR SCHEDULE MB) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (As of January 1, 2017) (CONTINUED)

Charges	Amortization Period			Balances		Beginning-of-Year Payment
	Date	Initial	Remaining	Initial	Remaining	
	Established	Period	Period			
Actuarial Assumption	1/1/2000	35.00	18.00	\$ 4,389,753	\$ 3,292,925	\$ 310,759
Plan Amendment	1/1/2001	35.00	19.00	12,746,807	9,886,835	908,708
Plan Amendment	1/1/2002	35.00	20.00	2,268,072	1,813,391	162,714
Plan Amendment	1/1/2003	35.00	21.00	2,964,980	2,436,960	213,933
Experience Loss	1/1/2003	20.00	6.00	12,151,612	4,796,550	945,524
Experience Loss	1/1/2004	20.00	7.00	23,109,456	10,663,991	1,861,090
Experience Loss	1/1/2005	20.00	8.00	12,406,469	6,522,418	1,028,346
Plan Amendment	1/1/2005	35.00	23.00	1,000,895	863,270	72,938
Actuarial Assumption	1/1/2005	35.00	23.00	1,063,519	917,276	77,502
Experience Loss	1/1/2006	20.00	9.00	6,485,444	3,808,609	550,865
Plan Amendment	1/1/2006	35.00	24.00	1,459,383	1,285,506	106,809
Plan Amendment	1/1/2007	35.00	25.00	1,475,698	1,325,215	108,429
Plan Amendment	1/1/2008	20.00	11.00	1,383,243	970,428	122,173
Experience Loss	1/1/2009	20.00	12.00	123,105,349	92,856,149	11,046,176
Experience Loss	1/1/2011	15.00	9.00	5,600,066	4,026,496	582,379
Experience Loss	1/1/2012	15.00	10.00	39,179,040	30,340,223	4,074,425
Experience Loss	1/1/2013	15.00	11.00	33,032,826	27,286,628	3,435,249
Experience Loss	1/1/2016	15.00	14.00	506,616	486,840	52,686
Experience Loss	1/1/2017	15.00	15.00	1,021,519	1,021,519	106,233
Total Charges					\$ 286,094,411	\$ 36,045,202

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX E FUNDING STANDARD ACCOUNT (FOR SCHEDULE MB) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (As of January 1, 2017) (CONTINUED)

Credits	Amortization Period			Balances		Beginning-of-Year Payment
	Date Established	Initial Period	Remaining Period	Initial	Remaining	
Experience Gain	1/1/2010	15.00	8.00	\$ (27,345,881)	\$ (18,037,405)	\$ (2,843,835)
Plan Amendment	1/1/2010	15.00	8.00	(32,045,400)	(21,137,215)	(3,332,562)
Experience Gain	1/1/2014	15.00	12.00	(14,564,452)	(12,732,258)	(1,514,630)
Experience Gain	1/1/2015	15.00	13.00	(8,275,002)	(7,605,560)	(860,559)
Assumption Change	1/1/2017	15.00	15.00	(6,594,691)	(6,594,691)	(685,815)
<b>Total Credits</b>					<b>\$ (66,107,129)</b>	<b>\$ (9,237,401)</b>

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX F CURRENT LIABILITY (FOR SCHEDULE MB)

CURRENT LIABILITY (FOR 2017 SCHEDULE MB)	
	January 1, 2017
A. Retirees and Beneficiaries	\$ 498,873,239
B. Vested Inactive Participants	221,276,838
C. Active Participants	
1. Non-Vested	\$ 1,227,650
2. Vested	99,704,019
3. Sub-total (1 + 2)	\$ 100,931,669
D. Total Current Liability (A + B + C3)	\$ 821,081,746
E. Market Value of Assets	326,919,954
F. Funded Ratio Using Market Value of Assets (E / D)	39.82%
G. Expected Increase in Current Liability	\$ 1,981,554
H. Expected Release from Current Liability	41,174,289
I. Expected Disbursements <sup>1</sup>	41,174,289
J. Current Liability Interest Rate	3.05%

<sup>1</sup> Actual disbursements during the 2017 Plan Year will be used in the 2017 Schedule MB.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX G MAXIMUM DEDUCTIBLE CONTRIBUTION

MAXIMUM DEDUCTIBLE CONTRIBUTION	
A. Normal Cost	\$ 2,295,000
B. 10-Year Amortization of Unfunded Accrued Liability	24,796,039
C. Interest to End of Plan Year	1,964,100
D. Preliminary Max (A + B + C)	\$ 29,055,139
E. Full Funding Limitation	
1. ERISA	\$ 217,535,920
2. RPA Full Funding Limit Override	402,180,089
3. Greater of E1 or E2	402,180,089
F. Regular Maximum Deductible Contribution (lesser of D and E3)	29,055,139
G. Minimum Required Contribution, End of Year	0
H. 140% of Current Liability Basis	
1. Current Liability, Projected to End of Year	\$ 806,364,993
2. Actuarial Value of Assets Projected to End of Year	323,548,405
3. Excess of 140% of Current Liability over Actuarial Value of Assets at End of Year (140% x H1 - H2)	\$ 805,362,585
<b>I. Maximum Deductible Contribution (greater of F, G and H3)</b>	<b>\$ 805,362,585</b>

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX H AUDITOR INFORMATION (FASB ASC 960)

RECONCILIATION OF ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS		
	2015	2016
Actuarial Present Value of Accumulated Plan Benefits at Beginning of Year (January 1)	\$ 537,887,774	\$ 534,860,955
Increase/(Decrease) during the Year Attributable to:		
Benefits Accumulated and Actuarial Experience	\$ (1,562,274)	\$ 985,329
Plan Amendments	0	0
Actuarial Assumption Changes	0	0
Increase for Interest	37,581,446	37,358,097
Benefits Paid	(39,045,991)	(39,153,722)
Net Increase/(Decrease)	\$ (3,026,819)	\$ (810,296)
Actuarial Present Value of Accumulated Plan Benefits at End of Year (December 31)	\$ 534,860,955	\$ 534,050,659

ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS		
	2015	2016
Actuarial Present Value of Accrued Benefits		
Vested Benefits		
Participants Currently Receiving Benefits	\$ 354,476,819	\$ 360,262,305
Other Participants	179,801,794	173,056,751
Total Vested Benefits	\$ 534,278,613	\$ 533,319,056
Non-Vested Benefits	582,342	731,603
Actuarial Present Value of Accumulated Plan Benefits at End of Year (December 31)	\$ 534,860,955	\$ 534,050,659

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX I DETERMINATION OF VESTED BENEFIT LIABILITIES FOR WITHDRAWAL LIABILITY PURPOSES

DETERMINATION OF VESTED BENEFIT LIABILITIES FOR WITHDRAWAL LIABILITY PURPOSES		
	December 31, 2015	December 31, 2016
1. Vested Benefit Liabilities Earned to Date	\$ 534,278,613	\$ 533,319,056
2. PBGC 10-3 Base	19,016,927	17,656,697
3. Vested Benefit Liabilities (1 + 2)	\$ 553,295,540	\$ 550,975,753

<sup>1</sup> PBGC Technical Update 10-3 describes the simplified method for plans in the Red Zone to disregard certain adjustable benefits in determining withdrawal liability. This involves the establishment of a base equal to the reduction in these adjustable benefits, which is then amortized over 15 years. The PBGC 10-3 base is the outstanding balance as of the applicable date.

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX J FUNDING STANDARD ACCOUNT (NO AMORTIZATION EXTENSION)

FUNDING STANDARD ACCOUNT (No Amortization Extension) <sup>1</sup>		
	2016	2017 (Estimated)
1. Credit Balance / (Funding Deficiency) on January 1	\$ 2,778,626	\$ (19,213,990)
2. Charges		
A. Normal Cost (Beginning of Year)	\$ 1,228,069	\$ 2,295,000
B. Amortization Charges	38,887,920	38,650,417
C. Interest on 2A and 2B / 1, 2A and 2B	2,908,409	4,361,557
D. Subtotal Charges (A + B + C)	\$ 43,024,398	\$ 45,306,974
3. Credits		
A. Employer Contributions for Year <sup>2</sup>	\$ 11,250,910	\$ 10,110,000
B. Amortization Credits	8,551,586	9,237,401
C. Interest on 1, 3A and 3B / 3A and 3B	1,229,286	1,036,199
D. Subtotal Credits (A + B + C)	\$ 21,031,782	\$ 20,383,600
4. Funding Deficiency on December 31 (1 - 2D + 3D)	\$ (19,213,990)	\$ (44,137,364)

<sup>1</sup> This is the Funding Standard Account used to determine if the Plan falls into the Red Zone.

<sup>2</sup> 2017 estimated contributions reflect one quarterly payment for the 2016 withdrawn Employers.



# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX J FUNDING STANDARD ACCOUNT (NO AMORTIZATION EXTENSION) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (No Amortization Extension) (As of January 1, 2017)

Charges	Amortization Period			Balances		Beginning-of-Year Payment
	Date Established	Initial Period	Remaining Period	Initial	Remaining	
Plan Amendment	1/1/1980	40.00	3.00	\$ 395,897	\$ 79,511	\$ 28,380
Plan Amendment	1/1/1981	40.00	4.00	3,609,259	935,704	259,026
Plan Amendment	1/1/1988	30.00	1.00	7,521,437	579,135	579,135
Plan Amendment	1/1/1989	30.00	2.00	6,238,198	928,626	480,558
Plan Amendment	1/1/1990	30.00	3.00	1,991,358	429,798	153,404
Plan Amendment+Act Assump	1/1/1991	30.00	4.00	3,867,632	1,076,278	297,941
Plan Amendment	1/1/1992	30.00	5.00	2,315,769	779,258	178,395
Plan Amendment	1/1/1993	30.00	6.00	8,009,694	3,130,094	617,024
Plan Amendment+Act Assump	1/1/1994	30.00	7.00	5,816,782	2,567,566	448,093
Plan Amendment	1/1/1995	30.00	8.00	3,954,934	1,932,391	304,667
Actuarial Assumption	1/1/1996	30.00	9.00	2,334,000	1,243,109	179,799
Plan Amendment	1/1/1996	30.00	9.00	19,722,004	10,504,089	1,519,277
Plan Amendment	1/1/1997	30.00	10.00	12,051,000	6,912,922	928,344
Plan Amendment	1/1/1998	30.00	11.00	12,834,000	7,853,079	988,662
Actuarial Assumption	1/1/1998	30.00	11.00	5,651,596	3,458,184	435,369
Actuarial Assumption	1/1/1999	30.00	12.00	500,000	323,787	38,517
Plan Amendment	1/1/1999	30.00	12.00	21,615,699	13,997,604	1,665,157
Plan Amendment	1/1/2000	30.00	13.00	7,937,933	5,404,360	611,495
Actuarial Assumption	1/1/2000	30.00	13.00	4,389,753	2,988,659	338,162
Plan Amendment	1/1/2001	30.00	14.00	12,746,807	9,073,667	981,945
Plan Amendment	1/1/2002	30.00	15.00	2,268,072	1,680,085	174,720
Plan Amendment	1/1/2003	30.00	16.00	2,964,980	2,276,256	228,407
Experience Loss	1/1/2003	15.00	1.00	12,151,612	1,263,707	1,263,707
Experience Loss	1/1/2004	15.00	2.00	23,109,456	4,644,075	2,403,269
Experience Loss	1/1/2005	15.00	3.00	12,406,469	3,614,881	1,290,211

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX J FUNDING STANDARD ACCOUNT (NO AMORTIZATION EXTENSION) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (No Amortization Extension) (As of January 1, 2017) (CONTINUED)

Charges	Amortization Period			Balances		Beginning-of-Year Payment
	Date	Initial	Remaining	Initial	Remaining	
	Established	Period	Period			
Plan Amendment	1/1/2005	30.00	18.00	\$ 1,000,895	\$ 817,015	\$ 77,104
Actuarial Assumption	1/1/2005	30.00	18.00	1,063,519	868,133	81,928
Experience Loss	1/1/2006	15.00	4.00	6,485,444	2,436,378	674,454
Plan Amendment	1/1/2006	30.00	19.00	1,459,383	1,223,170	112,423
Plan Amendment	1/1/2007	30.00	20.00	1,475,698	1,266,912	113,680
Plan Amendment	1/1/2008	15.00	6.00	1,383,243	729,742	143,850
Experience Loss	1/1/2009	15.00	7.00	123,105,349	73,357,092	12,802,342
Experience Loss	1/1/2011	15.00	9.00	5,600,066	4,026,495	582,379
Experience Loss	1/1/2012	15.00	10.00	39,179,040	30,340,228	4,074,425
Experience Loss	1/1/2013	15.00	11.00	33,032,826	27,286,625	3,435,249
Experience Loss	1/1/2016	15.00	14.00	506,616	486,840	52,686
Experience Loss	1/1/2017	15.00	15.00	1,021,519	1,021,519	106,233
Total Charges					\$ 231,536,974	\$ 38,650,417

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX J FUNDING STANDARD ACCOUNT (NO AMORTIZATION EXTENSION) (CONTINUED)

#### FUNDING STANDARD ACCOUNT AMORTIZATION BASES (No Amortization Extension) (As of January 1, 2017) (CONTINUED)

Credits	Amortization Period			Balances		Beginning-of-Year Payment
	Date Established	Initial Period	Remaining Period	Initial	Remaining	
Experience Gain	1/1/2010	15.00	8.00	\$ (27,345,881)	\$ (18,037,405)	\$ (2,843,835)
Plan Amendment	1/1/2010	15.00	8.00	(32,045,400)	(21,137,215)	(3,332,562)
Experience Gain	1/1/2014	15.00	12.00	(14,564,452)	(12,732,258)	(1,514,630)
Experience Gain	1/1/2015	15.00	13.00	(8,275,002)	(7,605,560)	(860,559)
Assumption Change	1/1/2017	15.00	15.00	(6,594,691)	(6,594,691)	(685,815)
<b>Total Credits</b>					<b>\$ (66,107,129)</b>	<b>\$ (9,237,401)</b>

# Western States Office & Professional Employees Plan

## Actuarial Valuation as of January 1, 2017

### APPENDIX K HISTORICAL INFORMATION

HISTORICAL CONTRIBUTIONS AND BENEFIT PAYMENTS		
Plan Year	Contributions	Benefit Payments
2000	\$ 9,366,427	\$ 18,819,097
2001	9,660,131	20,927,583
2002	9,277,458	20,835,583
2003	7,854,003	24,206,237
2004	6,935,726	26,487,895
2005	7,357,903	28,371,211
2006	7,399,605	29,919,215
2007	7,678,247	32,970,957
2008	8,277,807	32,853,989
2009	8,004,785	34,155,460
2010	8,489,009	37,136,630
2011	8,630,961	37,224,104
2012	9,797,048	37,280,366
2013	11,044,341	37,690,222
2014	10,411,438	38,445,844
2015	11,811,952	39,045,991
2016	11,250,910	39,153,722