*Spokane River–Riverside State Park, Bowl and Pitcher Area*

# I. Summary of Key Results

# Intended Use

The purpose of this report is to develop contribution rates required to fund the Washington State retirement systems for the 2017-2019 biennium based on a June 30, 2015, measurement date and based on the funding policy described in this section. This report provides information on the contribution rates, funding progress, and developments in the plans over the past year. This report also discloses the data, assumptions, and methods we used to develop the contribution rates. This report is not intended to satisfy the accounting requirements under the Governmental Accounting Standards Board (GASB) rules.

# Contribution Rates

The Office of the State Actuary (OSA) determined the member and employer contribution rates as a percentage of salary. The summary table below shows contribution rates based on the 2015 valuation along with rates from the previous valuation. The **Actuarial Exhibits** section of this report shows how we developed these rates.

No member or employer/state contributions are required for the Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) Plan 1 when the plan remains fully funded. See RCW 41.26.080(2).

**Contribution Rates**

| | Plan 1 | | Plan 2/3 | |
|---|---|---|---|---|
| | 2015 | 2014 | 2015 | 2014 |
| **PERS** | | | | |
| Member* | 6.00% | 6.00% | 7.92% | 7.26% |
| Total Employer | 13.25% | 12.48% | 13.25% | 12.48% |
| **TRS** | | | | |
| Member* | 6.00% | 6.00% | 7.48% | 6.92% |
| Total Employer | 15.85% | 14.78% | 15.85% | 14.78% |
| **SERS** | | | | |
| Member* | N/A | N/A | 7.80% | 6.96% |
| Total Employer | N/A | N/A | 14.02% | 13.07% |
| **PSERS** | | | | |
| Member | N/A | N/A | 6.98% | 6.81% |
| Total Employer | N/A | N/A | 12.20% | 11.92% |
| **LEOFF** | | | | |
| Member | 0.00% | 0.00% | 7.88% | 7.91% |
| Employer | 0.00% | 0.00% | 4.73% | 4.74% |
| State | 0.00% | 0.00% | 3.15% | 3.17% |
| **WSPRS** | | | | |
| Member | 7.34% | 7.34% | 7.34% | 7.34% |
| Employer (State) | 14.90% | 10.82% | 14.90% | 10.82% |

*Employer rates exclude administrative expense rate.*
**Plan 3 members do not contribute to the defined benefit plan.*

Minimum employer contribution rates adopted by the Legislature for the Public Employees' Retirement System (PERS) Plan 1 and the Teachers' Retirement System (TRS) Plan 1 became effective at the beginning of the 2015-17 Biennium.

# Contribution Rate-Setting Cycle

Under current Washington State law, in July of even-numbered years, the Pension Funding Council (PFC) reviews the basic contribution rates calculated by OSA based on an actuarial valuation performed on asset, participant, and plan information compiled in odd-numbered years. In calculating basic contribution rates, OSA applies the statutory funding policies described in this section.

The PFC may adopt changes to contribution rates by an affirmative vote of at least four members. The basic rates adopted by the PFC will remain in place for the ensuing biennium, subject to revision by the Legislature. The LEOFF 2 Board performs these duties for LEOFF 2 under the same cycle.

RCW 41.45.070 requires that a temporary and supplemental contribution rate increase be charged to fund the cost of benefit enhancements enacted following the adoption of the basic rates. Supplemental contribution rates are included in the basic rates at the beginning of the next contribution rate-setting cycle.

# Funding Policy

Washington State relies on systematic actuarial funding to finance the on-going cost of the state retirement systems. Under this financing approach, we reduce the cost of future pension payments by the expected long-term return on invested contributions.

The state's funding policy is found in Chapter 41.45 RCW — Actuarial Funding of State Retirement Systems. It includes the following goals — to:

- Provide a dependable and systematic process for funding the benefits to members and retirees of the Washington State retirement systems.
- Fully fund the retirement system Plans 2 and 3, and Washington State Patrol Retirement System (WSPRS), as provided by law.
- Fully amortize the total cost of LEOFF Plan 1 not later than June 30, 2024.
- Fully amortize the Unfunded Actuarial Accrued Liability (UAAL) in PERS Plan 1 and TRS Plan 1 within a rolling ten-year period using methods and assumptions that balance needs for increased benefit security, decreased contribution rate volatility, and affordability of pension contribution rates.
- Establish long-term employer contribution rates that will remain a relatively predictable proportion of future state budgets.
- Fund, to the extent feasible, all benefits for Plans 2 and 3 members over the working lives of those members so that the taxpayers who receive the benefit of those members' service pay the cost of those benefits.

Based on the funding policy, the same contribution rate is charged to employers within each system regardless of the plan in which employees hold membership (except for LEOFF). In addition, all benefit increases that become effective after June 30, 2009, for PERS Plan 1 and TRS Plan 1 members, are funded over a fixed ten-year period.

*Big Heart Lake, Alpine Lakes Wilderness–near Skykomish*

If all actuarial assumptions are realized and all future contributions required under this funding policy are made, we expect the funding policy to accumulate sufficient assets to provide for all future benefits for current members when due.

The Washington State Investment Board (WSIB) directs the investment of retirement system contributions. RCW 43.33A.110 requires WSIB to maximize investment returns at a prudent level of risk.

# Comments on 2015 Results

Many factors can influence how actuarial valuation results change from one measurement date to the next. Those factors include changes in the covered population, changes in plan provisions, assumptions, and methods, and experience that varies from our expectations.

For this valuation, one assumption change explains most of the change from last year's report. Consistent with state law, we lowered the long-term assumed rate of investment return from 7.8 to 7.7 percent for all systems except LEOFF 2, which remains at 7.5 percent. This assumption change led to lower funded status and higher calculated contribution rates than calculated last valuation.

We observed no significant changes in the covered population. We also made no significant changes to our actuarial methods. Plan provisions changed for some survivors of LEOFF and WSPRS members; otherwise, plan provisions were unchanged.

In terms of annual plan experience, the actual rate of investment return on the Market Value of Assets was 4.93 percent and below the assumed rate. With the exception of PSERS, the rate of investment return on the actuarial (or smoothed) value of assets was lower than expected for the plan year. SERS 2/3 and LEOFF 2 salaries grew more than expected; all others increased less than expected.

Detailed gain and loss information by system can be found in the **Actuarial Exhibits** section of this report. Please see the **Actuarial Certification Letter** for additional comments on the valuation results.

## Actuarial Liabilities

The next table summarizes key measures of actuarial liability along with the liabilities from last year's valuation. The Future Value of Fully Projected Benefits represents the total expected value of all future benefit payments for all members of all systems as of the valuation date. The Present Value of Fully Projected Benefits represents today's value of the Future Value of Fully Projected Benefits when we discount future benefit payments with the valuation interest rate. In other words, if we invest the Present Value of Fully Projected Benefits as a lump sum amount at the valuation date and earn the valuation interest rate each year, there would be enough money to pay all expected future benefit payments for current members.

**Actuarial Liabilities**

| *(Dollars in Millions)* | 2015 | 2014 |
|---|---|---|
| **All Systems** | | |
| Future Value of Fully Projected Benefits | $616,416 | $587,020 |
| Present Value of Fully Projected Benefits | 99,441 | 93,654 |
| Accrued Liability* | 83,477 | 78,800 |
| Unfunded Actuarial Accrued Liability** | $7,214 | $6,500 |
| Valuation Interest Rate*** | 7.70% | 7.80% |

**Calculated using Entry Age Normal (EAN) cost method.*
***For PERS 1, TRS 1, and LEOFF 1.*
****7.50% in LEOFF 2.*

The Actuarial Accrued Liability identifies the portion of the present value of future benefits that has been accrued as of the valuation date based on the Entry Age Normal (EAN) actuarial cost method. The UAAL represents the excess, if any, of the Actuarial Accrued Liability at the valuation date over the Actuarial Value of Assets. In other words, the UAAL equals the actuarial accrued liability earned at the valuation date not covered by current actuarial assets.

See the **Actuarial Exhibits** section of this report for a summary of actuarial liabilities by system and plan, and our website for Projected Benefit Payments by year for each system and plan. Also, see the Glossary on our website for brief explanations of the actuarial terms.

## Assets

The following table shows the combined Market Value of Assets and Actuarial (or smoothed) Value of Assets along with approximate rates of investment return.

To limit the volatility in contribution rates and funded status due to short-term market fluctuations, we smooth (or defer recognition of) the difference between actual and expected annual investment returns over a period not to exceed eight years. The Actuarial Value of Assets equals the Market Value of Assets less the Total Deferred Investment Gains and (Losses) at the valuation date. The Actuarial Value of Assets can never be less than 70 percent or greater than 130 percent of the Market Value of Assets.

See the **Actuarial Exhibits** section of this report for a summary of assets by system and plan, and for the development of the Actuarial Value of Assets.

**Assets**

| *(Dollars in Millions)* | 2015 | 2014 |
|---|---|---|
| **All Systems** | | |
| Market Value of Assets | $74,490 | $72,553 |
| Actuarial Value of Assets | 71,460 | 68,777 |
| Contributions* | 2,301 | 2,193 |
| Disbursements | 3,695 | 3,504 |
| Investment Return | 3,276 | 11,597 |
| Other** | $56 | $54 |
| Rate of Return on Assets*** | 4.93% | 18.89% |

**Employee and Employer.*
***Includes transfers, restorations, payables, etc.*
****This is the time-weighted rate of return on the Market Value of Assets, net of expenses. The Actuarial Value of Assets is used in determining contribution rates. WSIB revised the asset return during the 2014 valuation.*

# Funded Status

| Funded Status | | |
|---|---|---|
| *(Dollars in Millions)* | **2015** | **2014** |
| **All Systems** | | |
| a. Accrued Liability* | $83,477 | $78,800 |
| b. Market Value of Assets** | 74,476 | 72,553 |
| c. Deferred Gains/(Losses) | 3,016 | 3,776 |
| d. Actuarial Value of Assets (b-c) | 71,460 | 68,777 |
| Unfunded Liability (a-d) | $12,017 | $10,023 |
| Funded Ratio (d/a) | 86% | 87% |

*Note: Totals may not agree due to rounding.*

**Liabilities valued using Entry Age Normal cost method.*

***2015 Market Value of Assets reduced by a $15.799 million payable to the LEOFF 2 Benefit Improvement Account due by 6/30/2016, discounted to 6/30/2015 at 7.5% (C 4 L 15).*

The funded status helps readers evaluate the health of a pension plan. A history of funded status measured consistently over a defined period helps readers evaluate a plan's funding progress over time. The funded status represents the portion of the actuarial accrued liability covered by today's actuarial assets. A plan with a 100 percent funded status has one dollar in actuarial assets for each dollar of accrued liability at the valuation date. A plan with a funded status of at least 100 percent is generally considered to be on target with its financing plan. However, a plan more/less than 100 percent funded is not automatically considered over-funded/at-risk.

In this report, we present funded status based on the EAN cost method only. Prior reports included funded status results based on the Projected Unit Credit (PUC) cost method.

The table above displays the funded status for all the systems combined. We provide this table for summarization purposes only. Assets from an individual qualified retirement plan may not be used to fund benefits from another plan. See the **Actuarial Exhibits** section of this report for the funded status by system and plan.

# Participant Data

The next table summarizes participant data used in the actuarial valuation for the plan year ending June 30, 2015, along with information from last year's valuation. See the **Participant Data** section of this report for participant data summarized by system and plan.

| Participant Data | | |
|---|---|---|
| **All Systems** | **2015** | **2014** |
| **Active Members** | | |
| Number | 301,260 | 296,293 |
| Total Salaries (in Millions) | $17,823 | $17,211 |
| Average Annual Salary | $59,160 | $58,087 |
| Average Attained Age | 47.3 | 47.6 |
| Average Service | 12.0 | 12.2 |
| **Retirees and Beneficiaries** | | |
| Number | 163,788 | 156,992 |
| Average Annual Benefit | $22,187 | $21,941 |
| **Terminated Members** | | |
| Number Vested | 57,981 | 55,426 |
| Number "Non-Vested" | 125,114 | 120,732 |

# Key Assumptions

This table displays key economic assumptions used in the actuarial valuation. With this valuation, we lowered the assumed valuation interest rate from 7.8 percent to 7.7 percent for all plans except LEOFF 2, which remains at 7.5 percent.

| Key Assumptions | |
|---|---|
| **All Systems** | |
| Valuation Interest Rate* | 7.70% |
| Salary Increase | 3.75% |
| Inflation | 3.00% |
| Growth in Membership** | 0.95% |

**7.50% in LEOFF 2.*

***0.80% in TRS; 1.25% in LEOFF. Used for the amortization of PERS 1, TRS 1, and LEOFF 1 UAAL only.*