

# Promoting Individual Savings for Retirement

Final Proposal December 18, 2013

# **Board Directions**

At the November 20, 2013 Board meeting the Board directed staff to prepare final proposals on the following options:

- Option 1: Authorize LEOFF Plan 2 annuitization of savings.
- Option 3: Require Offering DRS's Deferred Compensation Program to LEOFF Members.
- Option 4: Write to DRS requesting development of Roth IRA option.



# Option 1

Authorize LEOFF Plan 2 to annuitize rollovers of tax deferred savings.

- Bill Draft setting up program identical to current Plan 3 annuitization option submitted to DRS.
- OSA draft fiscal note: No cost.
- Motion required.



# **Option 3**

# Require LEOFF Employers to Offer DRS's Deferred Compensation Program to LEOFF Members.

- Draft Legislation submitted to DRS and OSA for review.
- City and County Employers concerned about mandate.
  - Potential conflict with exclusivity agreements
- Motion required.





# **Option 4**

Write to DRS requesting Implementation of new option authorizing Roth contributions and/or conversions within DRS's 457 plan.

- Draft letter included as Appendix G to final report.
- Motion required.



# **Any Questions?**

# Contact:

Paul Neal Senior Legal Counsel 360.586.2327 paul.neal@leoff.wa.gov

> 2100 Evergreen Park Dr, Olympia, WA 98502 PO Box 40918 Olympia, WA 98504 360.586.2320 or www.leoff.wa.gov





# DECEMBER 18, 2013 PROMOTING INDIVIDUAL SAVINGS FOR RETIREMENT

#### FINAL PROPOSAL By Paul Neal Senior Legal Counsel 360-586-2327 paul.neal@leoff.wa.gov

# ISSUE

Members are not able to take advantage of a recent IRS ruling which provides new options for managing savings in retirement.

# **PROPOSAL SUMMARY<sup>1</sup>**

At the November 20<sup>th</sup> meeting the Board directed staff to prepare proposals on:

- Option 1: Authorize LEOFF Plan 2 to annuitize roll-overs of tax deferred savings;
- Option 3: Require LEOFF Employers to Offer DRS's Deferred Compensation Program to LEOFF Members; and
- Option 4: Encourage DRS to offer a Roth option as part of its 457 deferred compensation plan.

Those options are being presented for Board action at the December 18<sup>th</sup> meeting.

#### **MEMBERS IMPACTED**

New options encouraging member's retirement savings as part of LEOFF Plan 2 would be available to all 16,720 active LEOFF Plan 2 members<sup>2</sup>.

#### **OVERVIEW**

The LEOFF Plan 2 defined benefit Plan, the first leg of the three-legged retirement stool, provides a defined lifetime payout that does not vary with investment return. Retirees must devise their own distribution strategy for the second leg of the stool, individual retirement savings. Members can reduce the risk of outliving their assets if they convert at least some of those assets into a lifetime annuity.

<sup>&</sup>lt;sup>1</sup> The Board initially considered this issue at the August 28, 2013 Board meeting. At the September follow-up the Board looked at three options and requested additional information on: Annuitization of additional amounts rolled over into LEOFF Plan 2; and requiring LEOFF employers to participate in DRS's 457 plan. Staff also researched authorized "Roth" accumulations in governmental 457 plans.

<sup>&</sup>lt;sup>2</sup> Membership number as of June 30, 2012; Office of the State Actuary 2011 LEOFF Plan 2 Valuation Report.



LEOFF Plan 2 members may purchase an additional monthly benefit through the LEOFF Plan 2 trust fund by buying up to 5 years of additional service credit at the time retirement. Under current law, only Plan 3 members (TRS, PERS & SERS<sup>3</sup>) can convert contributions to an annuity from their retirement system.

Leveraging the existing LEOFF Plan 2 infrastructure to authorize accumulation of savings and/or converting that account to a monthly benefit through the LEOFF Plan 2 trust fund would provide a cost-effective mechanism to encourage retirement savings. This can be particularly important for LEOFF Plan 2 members since many do not participate in social security through their employer.

This report examines federal laws encouraging retirement savings, the costs of savings for retirement, different mechanisms for annuitizing retirement savings, a recent IRS ruling authorizing annuitizing retirement savings through LEOFF Plan 2, and provides options for further action.

# **BACKGROUND INFORMATION & POLICY ISSUES**

The LEOFF Plan 2 Retirement Board began studying ways to encourage increased retirement savings during the 2004 Interim. The Board recommended legislation allowing purchase of up to five years of service credit at retirement. The Legislature passed that recommendation in 2005 (HB 1269).

That same year the Department of Retirement Systems (DRS) began offering annuities through the Plan 3 programs. The Purchase of Annuity topic was studied by the Board during the 2006, 2007, 2008 and 2009 Interims reaching the Final Proposal stage in 2006, 2008 and 2009, but no legislation was recommended. The topic was deferred for joint consideration with the Select Committee on Pension Policy (SCPP) for the 2009 Interim. No further action was taken. The paradox is that investors recognize that their retirement savings will need to last longer than ever before but they aren't making plans to ensure they will actually have the money they need. There tends to be a false sense of security when it comes to Planning for retirement. We hope that the money will somehow be there when we need it but we're not taking the action required to ensure it is. This is a serious problem, and addressing it must become an urgent priority.

> Noel Archard, Head of BlackRock Canada. July 2013

#### SAVING FOR RETIREMENT

#### **Federal Law Encouraging Retirement Savings**

<sup>&</sup>lt;sup>3</sup> Teachers' Retirement System (TRS); Public Employees' Retirement System (PERS); School Employees' Retirement System (SERS).



The federal tax code encourages individuals to save for, and invest in, retirement:

- Qualified deferred compensation plans, such as the IRS §457 plan offered through the Department of Retirement Systems (DRS) deferred compensation program, permit an individual to authorize pre-tax salary deductions for deposit into a personal investment account. Many LEOFF Plan 2 employers offer these types of plans to employees. Upon separation from employment a member may leave the funds invested or select a distribution option.
- Members may transfer funds between government defined benefit pension Plans like LEOFF Plan 2 and deferred compensation accounts such as 457, 403(b), and 401(k) Plans. This helps members manage retirement savings as they change employers.
- Purchase of up to five years of service credit or "air-time" was authorized in the Federal Pension Protection Act.
- A recent IRS revenue ruling<sup>4</sup> allows members with funds in a deferred compensation account maintained by an employer to roll the funds over into their defined benefit plan and convert those funds to an annuity from the defined benefit Plan.
- The Small Business Jobs act of 2010 authorized governmental 457 plans to include a Roth option.

Using these federal provisions, some state and local government pension plans allow member fund transfers, including funds from tax-deferred accounts, into the primary defined benefit plans to purchase additional service credit or an annuity.

# THE COST OF SAVING - DEFERRED COMPENSATION FEES

DRS operates a deferred compensation program under 26 U.S.C. §457, commonly called a "457 Plan". Washington's political subdivisions may participate in DRS's 457 Plan, or use another administrator, such as ICMA-RC. Administrative fees vary significantly. Comparing private administrator fees to DRS's annual .13% fee can be challenging since private administrators tend to use variable fee schedules rather than the flat fee charged by DRS, as demonstrated by the fee comparison table included as Appendix A.

The average net annual fee of the private 457 plan administrators examined in Appendix A is 1.29%, nearly 10 times the .13% charged by DRS. DRS's lower fees facilitate a larger accumulation from the same member contributions<sup>5</sup>:

<sup>&</sup>lt;sup>4</sup> Internal Revenue Bulletin 2012-8; issued February 21, 2012.

<sup>&</sup>lt;sup>5</sup> The comparison assumes \$3,602 per year contribution for 15 years, earning interest at LEOFF PLAN 2's assumed rate of 7.5%, less annual fees.





# ANNUITIZING ASSETS

Annuities can convert retirement savings into a guaranteed monthly income (this process is called annuitization) for a specified period of time. A life annuity provides that income for the member's lifespan in exchange for a lump-sum dollar amount paid up front. Deferred compensation plans do not normally allow for the distribution of assets in the form of an annuity directly from the fund. LEOFF Plan 2 members wishing to annuitize their retirement savings must purchase the annuity through an insurance company.

The price/value of the annuity depends in part upon the features selected by the purchaser. The terms and conditions of an annuity contract specify features such as whether the annuity will be for a single life or a joint annuity (like a survivor benefit feature), the payment frequency, adjustments for cost of living, and death provisions. Different methods for annuitizing assets are listed below, though not all are currently available to LEOFF Plan 2 members.

#### **Trust Fund Annuity Purchase**

TRS Plan 3, SERS Plan 3, and PERS Plan 3 members and survivors may convert some or all of the funds from their Plan 3 member account to a life annuity, RCW 41.50.088. The features and options of the Plan 3 annuities administered by DRS are detailed in Appendix B. This option is not available to LEOFF Plan 2 members.

DRS calculates the annuity that can be purchased for a given lump sum using an age based actuarial table to compute the monthly benefit per \$1.00 of accumulation for defined benefits. There is no limit on the amount of funds in the member account that can be converted to an annuity.



RCW 41.32.067 also allows TRS Plan 1, 2 and 3 members to purchase additional benefits through a member reserve contribution which is actuarially converted to a monthly benefit at the time of retirement. The statute was passed to provide teachers with out-of-state service credit a mechanism for transferring contributions from a prior system into TRS<sup>6</sup>.

#### Service Credit Purchase

LEOFF Plan 2 members can annuitize retirement savings by purchasing up to five years of additional service credit at the time of retirement. To purchase service credit under this option the member pays the actuarial present value of the resulting increase in the member's benefit. A member may pay all or part of the cost of the additional service credit with an eligible transfer from a qualified retirement plan. For more information on the history and methodology for calculating service credit purchases, see Appendix C.

The federal 5-year "air time" limit works out to a maximum of \$86,484 that could be converted to a monthly benefit by the average LEOFF Plan 2 member<sup>7</sup>, see Appendix C. This is a key difference between a Plan 3 annuity conversion and a service credit purchase: the Plan 3 conversion does not have a maximum amount limit.

#### **Commercial Market Annuity**

Retirement savings can be annuitized by purchasing an annuity policy through insurance agents, financial planners, banks and life insurance carriers. However, only life insurance companies issue policies. Generally, commercial market annuities do not offer all the same features as the Plan 3 trust fund annuity and do not provide as favorable a payout. A primary reason for the payout difference is the different interest rate used to calculate the value of the annuity. Private insurers use a lower interest rate, due in part to the inclusion of a reasonable profit:

[A] private insurer will provide the annuity based on an interest rate of about 4 percent, whereas DRS will provide the annuity based on an interest rate of about 8%.<sup>8</sup>.

The interest rate differential drives a significant difference in payout amounts between private annuity contracts and contributions annuitized through the trust fund. Five different insurance companies quoted the monthly annuity with a 3% annual COLA they would provide the average LEOFF Plan 2 retiree<sup>6</sup> for \$100,000:

<sup>&</sup>lt;sup>6</sup> See Laws of 1991 c 278 § 2.]

<sup>&</sup>lt;sup>7</sup> Age 56 with 17 years of service credit and a final average salary of \$5000 per month.

<sup>&</sup>lt;sup>8</sup> 2010 State Actuary 2010 fiscal note on the Board's purchase of annuity proposal.



Insurance Company	Quote
American General	\$389
Aviva	\$402
Fidelity & Guaranty Life	\$421
Genworth Life Insurance	\$406
Integrity Life Insurance	\$400
Average	\$404

If that same average LEOFF Plan 2 member were able to leverage the institutional advantages of the retirement system by annuitizing \$100,000 within the LEOFF Plan 2 system, the payout would be \$578.14<sup>9</sup>. That's a 43% increase over the average commercial quote, or \$174 more per month for life.

The chart below uses the 15 year accumulations calculated in figure 1 and estimates the annuity those accumulations would purchase from either an insurance company or the LEOFF Plan 2 trust fund.



Current state law does not allow annuitization of retirement savings through the LEOFF Plan 2 trust fund. A recent IRS ruling gives the green light to such a program.

<sup>&</sup>lt;sup>9</sup> \$100,000 x .0057814 (conversion factor from DRS table for 56 year-old LEOFF member) = \$578.14 monthly life annuity



#### **NEWLY AVAILABLE ALTERNATIVES:**

#### Annuitization through 401(a) plan

Federal tax law allows public defined benefit plans to add a member savings account within the plan, sometimes referred to as a companion account or "sidecar". Contributions to the employee savings account may be made by the employer or the employee and may be either pre-tax or after tax depending on plan design.

Under the recent IRS ruling cited above, a retirement savings account can be annuitized within the 401(a) defined benefit plan to obtain an additional monthly benefit paid through the trust fund. This can be done either through a employee savings account administered within the 401(a) plan or by rolling over retirement savings from another plan such as a 457 plan.

A "sidecar" plan administered through LEOFF Plan 2 could leverage the institutional advantages available to active members as participants in an existing state-administered Plan. Those advantages include the lower fees charged by DRS to administer the savings plan, and the more favorable annuity payout when purchased through the existing LEOFF Plan 2 trust fund.

#### Potential Risks

The purchase of an annuity through the LEOFF Plan 2 trust fund would not have a cost to the system<sup>10</sup> under current actuarial assumptions. There is, however, a potential risk to the fund if those assumptions change or actual experience falls below assumed levels. When an annuity is purchased, the member locks in the actuarial assumptions in place at that time. A subsequent change in assumptions may knock the annuity out of actuarial equivalency.

For instance, the Actuary's 2010 fiscal note assumed a trust fund annuity would be calculated using the fund's 8% interest assumption. The Board has since reduced that assumption to 7.5%. An annuity locked in with an 8% interest assumption would be "too high" under a 7.5% assumption, causing a \$12,980 actuarial loss to the fund<sup>9</sup>.

#### **Roth Contributions**

The original 457 plan design allows employees to deduct contributions from their salary pretax. The amounts are taxed at the time of distribution. A Roth<sup>11</sup> plan reverses that system by taxing contributions, but then disbursing contributions and earnings tax free after retirement.

Governmental 457 plans were not originally allowed to offer a Roth option. The Small Business Jobs Act of 2010 authorizes government sponsored 457 plans to offer designated Roth accounts. Federal law now allows governmental 457 plans to permit participants to:

<sup>&</sup>lt;sup>10</sup> See OSA fiscal note on 2010 annuity purchase proposal, Appendix C.

<sup>&</sup>lt;sup>11</sup> Named after Senator William Roth of Delaware, the chief legislative sponsor of the original legislation in the Taxpayer Relief Act of 1997 (Public Law 105-34).



• Designate a Roth elective deferral account within the plan; and/or

• Convert conventional pre-tax contributions into Roth contributions within the same plan. Participants wishing to convert existing contributions would have to pay taxes on amounts converted at the time of conversion.

Participants in DRS's 457(b) plans cannot take advantage of in-plan conversions/rollovers to designated Roth accounts unless DRS formally adopts those options in their plan document. DRS has the authority to do this under current law, though they are not required to.

# **POLICY OPTIONS**

The specifics of options available to the Board are in many ways a function of federal tax laws. DRS has received some guidance from the law firm of Ice Miller as of this writing. The LEOFF Plan 2 Board staff had additional questions which are still pending at this time. The options presented below, while accurate in broad strokes, may have to be modified in subsequent presentations depending on future tax law guidance. Additionally, option 1 could be combined with either option 2 or option 3.

# Option 1: Propose Legislation authorizing LEOFF Plan 2 to accept roll-overs of tax deferred savings and annuitize those amounts through the plan upon retirement.

Under this option the Board would direct staff to develop legislation authorizing DRS to accept roll-overs from LEOFF Plan 2 members for annuitization at the time of retirement. Further guidance is required to determine what types of roll-overs are allowable under federal tax laws and what limitations, if any, there are on annuitization of rolled over amounts.

# Option 2: Propose Legislation establishing a 410(a) savings plan within LEOFF 2 to accept contributions from LEOFF Plan 2 members.

Under this option the Board would direct staff to develop legislation establishing a "sidecar" savings plan within LEOFF Plan 2 that could accept member contributions for distribution following retirement. Preliminary research indicates that this vehicle would be less flexible that a 457 plan such as that administered by DRS's Deferred Compensation Program. Member contributions may be required to follow the same rules as Plan 3 contributions. A member could be required to select a rate upon enrollment. Like the Plan 3 contribution rates, once selected the rate could not be changed except upon change of employment. Voluntary member contributions, which could apparently fluctuate, would be after-tax.



# Option 3: Require LEOFF Employers to Offer DRS's Deferred Compensation Program to LEOFF Members.

This option provides a more flexible plan than the 401(a) option. The Board would propose legislation requiring all LEOFF Plan 2 employers to offer the state administered 457 plan. This would ensure that LEOFF Plan 2 members can avail themselves of a plan with the lowest possible administrative fees.

# SUPPLEMENTAL POLICY OPTION INFORMATION

The Board requested additional consideration of options 1 and 3. A fourth option has been developed based on the additional information about Roth plans.

#### Option 1:

Staff has confirmed that the IRS will permit rollovers from any authorized tax-deferred savings plan (457, 403(b), 401(a)) into LEOFF 2 for purposes of purchasing an annuity. Further, there are no IRS limits on the amount that may be rolled over and annuitized, except that the total payout cannot exceed the IRS's section 415 limits on maximum allowable benefit.

#### Option 3:

Staff has drafted proposed legislation that is currently being reviewed by DRS for comments. DRS Director Marcy Frost has asked the Select Committee on Pension Policy to consider a similar directive for all Washington Public Employers. Additional data from DRS identifies Washington political subdivision that do not offer the State administered 457 plan:





#### **Option 4:** Roth Contributions to Governmental 457 plan.

The Board may wish to take action on the Roth option:

#### **Option 4(a): Amend Deferred Compensation Statute to Require Roth Option.**

Submit legislation requiring DRS to develop a Roth option as part of its deferred compensation plan. The Board may want to direct staff to work with DRS on bill language.

#### Option 4(b): Ask DRS to Offer a Roth Option

If the Board wished DRS to develop a Roth option without a bill, it may be sufficient to send a letter from the Board to DRS requesting them to take action.

#### **Option 4(c):** Take No Action at this Time

The Board could decline to take any action on the Roth option at this time.



#### SUPPORTING INFORMATION

Appendix A: Deferred Compensation Fee Comparison
Appendix B: Plan 3 annuity purchase option features
Appendix C: Service Credit Purchase history and example
Appendix D: OSA draft fiscal note - 2009
Appendix E: Bill Draft re: annuitization of savings
Appendix F: Bill Draft re: Required participation in DRS 457 plan
Appendix G: Letter to DRS re: offering Roth option
Appendix H: OSA draft fiscal note -2013



Appendix A

# **DEFERRED COMPENSATION FEE ANALYSIS**

An approximation of annual fees for private administration of a 457 deferred compensation plan was derived by working from a table developed by The City of Duluth in 2013 to allow employees to compare costs of 4 different 457 Plan administrator. Fees were highly variable. Board staff averaged the fees of each provider and then averaged those to derive a net average estimated annual fee. Given the small sample and the assumptions that had to be made in averaging, this is a "ball park" figure provided solely for purposes of comparison.

	Hartford Life Deferred Compensation Plan		Corporation Deferred Compensation Plan		Minnesota State Deferred Compensation Plan MNDCP – (Great West)		NationwideDeferred Compensation Program	
	Original data	Average fee	Original data	Average fee	Original data	Average fee	-	Average fee
Annual	No	0 %	No.	0%	No	0%	No.	0%
Account								
Fees								
Daily	75 - 90 bps	.825 %	0.55%	.55%	0.10% annual	.1%	0.50% annual	.375%
Asset-			administration		administrative		administrative	
Based			fees on all		fee, charged		fee on all	
Charges			assets;		only on the		variable fund	
			additional		first \$100,000		assets. 0.25%	
			0.15% fee on		in an individual		annual	
			assets in non-		account.		administrative	
			proprietary				fee on fixed	
			funds.				account option.	
Fund	Varies by	1.21%	Fund expenses	.93%	Fund expenses	.47%	Fund expenses	.7%
Operating	investment		range from		range from		range from	
Expenses	option, from		0.46% to		0.01% to		0.00% to 1.40%.	
	0.0% to 2.42%		1.40%		0.93%.			
Net fee	2.035% 1.48%		1	.57%		1.075%		
estimate								
Average								
for all								
plans	1.29%							



#### **APPENDIX B**

# CURRENT ANNUITY PURCHASE FEATURES

The purchase of annuity currently administered by DRS through the Plan 3 programs includes the following features:

WSIB	WSIB Investment Program Annuity Features and Options					
Contract Provider	Washington State					
Minimum Purchase Price	\$25,000					
Annuity Payment Frequency	Monthly					
Rescission Period	15 calendar days from date of purchase					
Single Life Annuity	• Provides regular payment for as long as annuitant lives.					
	Automatic 3% Annual Cost of Living Adjustment (COLA)					
	Conversion option to Joint Life Annuity					
	Balance Refund					
Joint Life Annuity	• Provides regular payment for as long as member or joint annuitant is					
	alive.					
	• Joint annuitant survivorship options: 100%, 66 2/3%, or 50%					
	Automatic 3% Annual COLA					
	Monthly payment pops-up to Single Life Annuity amount if joint					
	annuitant predeceases member.					
	Balance Refund					

*Annuitant* – The member/owner who purchases the annuity; the payee who receives lifetime monthly payments.

**Balance Refund** – Any remaining balance equal to the original purchase price minus the total of all annuity payments made to the single or joint annuitants, may be refunded to the specified beneficiary.

**Conversion Option** – If a single life annuity is purchased and then a subsequent marriage occurs, a one-time opportunity is available to convert to a joint life annuity with the new spouse as the joint annuitant. If a joint annuity is purchased with someone other than a spouse named as the joint annuitant, the annuity may be converted to a single life annuity after payments have begun.

*Joint Annuitant* – The person designated to receive an ongoing payment in the event of the annuitant's death.

*Pop-up* – An increase from a joint annuity payment amount to the full single life annuity amount if the annuitant outlives the joint annuitant.

*Rescission Period* – A period of time (typically 7 to 15 days) during which the terms of the contract may be canceled or altered



# **APPENDIX C**

# SERVICE CREDIT PURCHASE

Since the inception of the service credit purchase of "air time" benefit (2005), 214 service credit purchase billings have been requested from DRS and paid in full. The average cost of all billings was \$118,876.

Year Paid	2006	2007	2008	2009	2010	2011	2012	2013	Grand Total
Number of SC Bills Paid	6	10	11	15	30	42	57	43	214
of PSC Bill	\$106, <mark>8</mark> 53	\$102,102	\$85,391	\$99,161	\$119,527	\$123,924	\$120,245	\$132,699	\$118,876



# **APPENDIX D**

# OSA FISCAL NOTE OF 2010 ANNUITY PURCHASE PROPOSAL

# DRAFT ACTUARY'S FISCAL NOTE

RESPONDING AGENCY	CODE:	DATE:	PROPOSAL [NAME or Z-NUMBER]:
Office of the State Actuary	035	12/07/09	LEOFF 2 Annuity Purchase

#### WHAT THE READER SHOULD KNOW

The Office of the State Actuary ("we") prepared this draft fiscal note based on our understanding of the proposal as of the date shown above. We intend this draft fiscal note to be used by the Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) Plan 2 Board throughout the 2009 Interim only. If a legislator introduces this proposal as a bill during the next Legislative Session, we will prepare a final fiscal note based on that bill language. The actuarial results shown in this draft fiscal note may change when we prepare our final version for the Legislature.

We advise readers of this draft fiscal note to seek professional guidance as to its content and interpretation, and not to rely upon this communication without such guidance. Please read the analysis shown in this draft fiscal note as a whole. Distribution of, or reliance on, only parts of this draft fiscal note could result in its misuse, and may mislead others.

#### SUMMARY OF RESULTS

This proposal would authorize the Department of Retirement Systems (DRS) to provide optional actuarially equivalent annuity purchases from the Law Enforcement Officers' and Fire Fighters' (LEOFF) Plan 2 retirement fund to LEOFF Plan 2 members and survivors.

This proposal does not impact the expected actuarial funding of the system. Please see the body of this draft fiscal note for a detailed explanation.

#### WHAT IS THE PROPOSED CHANGE?

#### Summary Of Change

This proposal impacts the LEOFF Plan 2 by authorizing DRS to provide optional actuarially equivalent annuity purchases from the LEOFF Plan 2 retirement fund to LEOFF Plan 2 members and survivors. The proposal allows members to purchase annuities prior to retirement. DRS would develop the life annuity benefit schedules no later than December 31, 2010.

Assumed Effective Date: 90 days after session.

#### What Is The Current Situation?

Plan 3 members may purchase a similar annuity with contributions invested in the Total Allocation Portfolio of the Washington State Investment Board (WSIB) investment program, but only at the time of retirement. LEOFF Plan 2 members may purchase up to five years of additional service by paying the full actuarial value of the service at the time of retirement.

#### Who Is Impacted And How?

We estimate this proposal could affect all 16,626 active members of LEOFF Plan 2 with the option of improved benefits.

We estimate this proposal will increase the benefits for a typical member by providing the option to annuitize their retirement savings. Annuitizing their money provides a member security against outliving their assets. In addition, the annuity offered to them through DRS will cost far less than an annuity bought from a private insurer. A private insurer calculates annuities based on a lower interest rate to account for risk and profit.

For example, a private insurer will provide the annuity based on an interest rate of about 4 percent, whereas DRS will provide the annuity based on an interest rate of about 8 percent. For a member age 55 buying a \$10,000 life annuity, this would mean they would pay a private company about \$165,000, whereas they would pay DRS about \$110,000.

#### WHY THIS PROPOSAL DOES NOT HAVE A COST

#### Why This Proposal Does Not Have A Cost

This proposal does not have an expected cost because the member is paying the full actuarial value.

#### Who Will Pay For These Costs/Savings If They Arise?

The member will pay the actuarially equivalent value of the annuity.

However, as the experience of the system emerges, if the payment is more or less than the actual value of the annuity, then LEOFF Plan 2 contribution rates will increase or decrease accordingly.

#### HOW WE VALUED THESE COSTS

#### Assumptions We Made

We assumed that the payments made by the members will equal the full actuarial value of the annuity. We would need to make several assumptions to determine the purchase price of the annuity:

- Expected rate of investment return.
- Expected rate of mortality for the annuitant.
- The annuity start date the member's retirement date (if purchased prior to retirement).

As with any actuarial calculation that involves estimating future events, actual experience may differ from the underlying assumptions made. When actual experience differs from what we assumed would occur, the system experiences an actuarial gain or loss. An actuarial gain would decrease plan liabilities (or increase assets); whereas, an actuarial loss would increase plan liabilities (or decrease assets). Therefore, we cannot say with certainty that this proposal will not impact plan liabilities in the future.

If the members who purchase annuities, on average, live shorter/longer than assumed, the system will experience actuarial gains/losses in the future. If the actual rate of investment return is more/less than the assumed rate, the system will experience actuarial gains/losses from this assumption as well. For these two assumptions, we will not know whether a gain or loss has occurred until DRS has made all payments under the annuity contract.

The assumed annuity start date, or member's retirement date, will also produce a source of actuarial gain or loss for members who purchase annuities prior to their retirement date. For this particular assumption, we can determine whether an actuarial gain or loss has occurred at the time of retirement. DRS may have the option to adjust the purchase price or adjust the annuity amount (a "true up") at the time of retirement to eliminate this source of gain/loss. Without such an adjustment, the potential for significant actuarial gain/loss, on an individual member basis, exists for this particular assumption.

Otherwise, we developed these costs using the same assumptions as disclosed in the 2008 Actuarial Valuation Report.

#### HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

To determine the sensitivity of the actuarial results to the best-estimate assumptions selected for this pricing we varied the following assumptions:

- Mortality rate We determined the cost to the system if the annuity amount was calculated based on higher mortality rates than what actually occurs over time (people lived longer than assumed). For this sensitivity we used 100 percent of scale AA mortality improvement rather than the assumed 50 percent.
- Investment returns We determined the cost to the system if the annuity amount was calculated based on a higher investment returns than what actually occurs over time (investments pay less than assumed). For this sensitivity we used a 7.5 percent investment return rather than the assumed 8 percent.
- Annuity start date We determined the cost to the system if the annuity amount was calculated based on a later retirement date than what actually occurs over time (people start collecting the annuity earlier than assumed). For this sensitivity we used a start age of 53 rather than an assumed age of 55.
- All of the above We determined the cost to the system if all three of the assumptions are incorrect, as described above, at the same time.

The table below shows the expected results versus the four sensitivity runs outlined above. The example outlines the impact due to one member currently age 40 who purchases an annuity with \$100,000. When all three occur at once, the liability is larger than the sum of each of the three individually because of the interaction of these assumptions.

Sensitivity Example – 40-Year- Old		Retirement Annu	uity With \$100,000
Scenario	Cash Paid From Member To Plan	Present Value of Plan Annuity	Cost to the System
1) Expected	\$100,000	\$100,000	\$0
2) Lower Mortality Than Expected	\$100,000	\$102,549	\$2,549
3) Lower Asset Returns Than Expected	\$100,000	\$112,980	\$12,980
4) Earlier Retirement Age Than Expected	\$100,000	\$120,794	\$20,794
5) Scenarios 2, 3, and 4	\$100,000	\$138,777	\$38,777
Assumes apputy calculation based on 3% COL	A and 90%/10% male	Annale mortality blen	d

#### ACTUARY'S CERTIFICATION

The undersigned hereby certifies that:

- 1. The actuarial cost methods are appropriate for the purposes of this pricing exercise.
- 2. The actuarial assumptions used are appropriate for the purposes of this pricing exercise.
- 3. The data on which this draft fiscal note is based are sufficient and reliable for the purposes of this pricing exercise.
- 4. Use of another set of methods and assumptions may also be reasonable, and might produce different results.
- 5. This draft fiscal note has been prepared for the Law Enforcement Officers' and Fire Fighters' Retirement System Plan 2 Board.
- 6. This draft fiscal note has been prepared, and opinions given, in accordance with Washington State law and accepted actuarial standards of practice as of the date shown on page one of this draft fiscal note.

This draft fiscal note is a preliminary actuarial communication and the results shown may change. While this draft fiscal note is meant to be complete, the undersigned is available to provide extra advice and explanations as needed.

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Matthew M. Smith, FCA, EA, MAAA State Actuary

#### GLOSSARY OF ACTUARIAL TERMS

Actuarial Accrued Liability: Computed differently under different funding methods, the actuarial accrued liability generally represents the portion of the present value of fully projected benefits attributable to service credit that has been earned (or accrued) as of the valuation date.

Actuarial Present Value: The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions (i.e. interest rate, rate of salary increases, mortality, etc.).

Aggregate Funding Method: The Aggregate Funding Method is a standard actuarial funding method. The annual cost of benefits under the Aggregate Method is equal to the normal cost. The method does not produce an unfunded liability. The normal cost is determined for the entire group rather than on an individual basis.

Entry Age Normal Cost Method (EANC): The EANC method is a standard actuarial funding method. The annual cost of benefits under EANC is comprised of two components:

- Normal cost.
- Amortization of the unfunded liability.

The normal cost is determined on an individual basis, from a member's age at plan entry, and is designed to be a level percentage of pay throughout a member's career.

Normal Cost: Computed differently under different funding methods, the normal cost generally represents the portion of the cost of projected benefits allocated to the current plan year.

**Projected Unit Credit (PUC) Liability:** The portion of the Actuarial Present Value of future benefits attributable to service credit that has been earned to date (past service).

**Projected Benefits**: Pension benefit amounts which are expected to be paid in the future taking into account such items as the effect of advancement in age as well as past and anticipated future compensation and service credits.

**Unfunded PUC Liability:** The excess, if any, of the Present Value of Benefits calculated under the PUC cost method over the Valuation Assets. This is the portion of all benefits earned to date that are not covered by plan assets.

Unfunded Actuarial Accrued Liability (UAAL): The excess, if any, of the actuarial accrued liability over the actuarial value of assets. In other words, the present value of benefits earned to date that are not covered by plan assets.

#### Appendix E - Bill draft for annuitizing roll-overs in LEOFF Plan 2.

The following section is added to chapter 41.26 RCW in the subchapter titled "provisions applicable to Plan 2."

#### NEW SECTION.

At the time of retirement, plan 2 members may make an additional contribution of not less than \$25,000 into the LEOFF Plan 2 trust fund.

- (1) If a plan 2 member makes an additional contribution under this section the department shall establish a savings account in the member's name and convert the funds in the account into a monthly lifetime annuity. The member may select either a single life annuity or a joint life annuity.
- (2) The annuity shall be paid in monthly installment issued as a separate payment in addition to the retiree's retirement allowance.
- (3) The annuity offered by the department shall include, but not be limited to, the following features:
  - a. An annual cost of living adjustment calculated in the same manner as provided in RCW 41.26.440 calculated on the annuity payment.
  - b. The same survivor option selected by the member for his or her retirement allowance under RCW 41.26.460, including a pop up provision as authorized under RCW 41.26.460(3).
  - c. If the member, or the member and the member's beneficiary if a joint life annuity, dies before the monthly annuity payments issued by the department equal or exceed the original annuity purchase price, the balance shall be refunded to the beneficiary selected by the member.
  - d. The member may rescind or alter the annuity contract up to fifteen days after the department receives the signed contract. After that time the contract is irrevocable.
- (4) Subject to rules adopted by the department, a member seeking make an additional contribution under this section may pay all or part of the cost with a lump sum payment, eligible rollover, direct rollover, or trustee-to-trustee transfer from an eligible retirement plan. The department shall adopt rules to ensure that all lump sum payments, rollovers, and transfers comply with the requirements of the internal revenue code and regulations adopted by the internal revenue service. The rules adopted by the department may condition the acceptance of a rollover or transfer from another plan on the receipt of information necessary to enable the department to determine the eligibility of any transferred funds for tax-free rollover treatment or other treatment under federal income tax law.

Appendix F - Draft bill requiring all LEOFF employers to offer DRS deferred compensation plan to their employees:

Sec. 1. Intent

The Legislature recognizes that the deferred compensation program administered by the Department of Retirement Systems provides market rate returns for a relatively low administrative fee. All state agencies are required to offer the state administered deferred compensation program to their employees. Some, but not all, local government employers also participate. Recognizing the importance of individual retirement savings, the Legislature intends to ensure that the state administered deferred compensation program is available to all law enforcement officers' and fire fighters participating in the retirement system established under Chapter 41.26 RCW.

Sec. 2. RCW 41.50.780 is amended as follows:

(1) The deferred compensation principal account is hereby created in the state treasury.

(2) The amount of compensation deferred by employees under agreements entered into under the authority contained in RCW  $\underline{41.50.770}$  shall be paid into the deferred compensation principal account and shall be sufficient to cover costs of administration and staffing in addition to such other amounts as determined by the department. The deferred compensation principal account shall be used to carry out the purposes of RCW  $\underline{41.50.770}$ . All eligible state employees shall be given the opportunity to participate in agreements entered into by the department under RCW  $\underline{41.50.770}$ . State agencies shall cooperate with the department in providing employees with the opportunity to participate.

(3) Any county, municipality, or other subdivision of the state may elect to participate in any agreements entered into by the department under RCW <u>41.50.770</u>, including the making of payments therefrom to the employees participating in a deferred compensation plan upon their separation from state or other qualifying service. Accordingly, the deferred compensation principal account shall be considered to be a public pension or retirement fund within the meaning of Article XXIX, section 1 of the state Constitution, for the purpose of determining eligible investments and deposits of the moneys therein. Any county, municipality, or other subdivision of the state employing members of the law enforcement officers' and fire fighters' retirement system plan 2 shall elect to participate in the deferred compensation program administered by the department no later than three months after the effective date of this 2014 act.

(4) All moneys in the state deferred compensation principal account and the state deferred compensation administrative account, all property and rights purchased therewith, and all income attributable thereto, shall be held in trust by the state investment board, as set forth under RCW <u>43.33A.030</u>, for the exclusive benefit of the state deferred compensation plan's participants and their beneficiaries. Neither the participant, nor the participant's beneficiary or beneficiaries, nor any other designee, has any right to commute, sell, assign, transfer, or otherwise convey the right to receive any payments under the plan. These payments and right thereto are nonassignable and nontransferable. Unpaid accumulated deferrals are not subject to attachment, garnishment, or execution and are not transferable by operation of law in event of bankruptcy or insolvency, except to the extent otherwise required by law.

(5) The state investment board has the full power to invest moneys in the state deferred compensation principal account and the state deferred compensation administrative account in accordance with RCW <u>43.84.150</u>, <u>43.33A.140</u>, and <u>41.50.770</u>, and cumulative investment directions received pursuant to RCW <u>41.50.770</u>. All investment and operating costs of the state investment board associated with the investment of the deferred compensation plan assets shall be paid pursuant to RCW <u>43.33A.160</u> and <u>43.84.160</u>. With the exception of these expenses, one hundred percent of all earnings from these investments shall accrue directly to the deferred compensation principal account.

(6)(a) No state board or commission, agency, or any officer, employee, or member thereof is liable for any loss or deficiency resulting from participant investments selected pursuant to RCW <u>41.50.770</u>(3).

(b) Neither the department, nor the director or any employee, nor the state investment board, nor any officer, employee, or member thereof is liable for any loss or deficiency resulting from reasonable efforts to implement investment directions pursuant to RCW  $\underline{41.50.770}(3)$ .

(7) The deferred compensation administrative account is hereby created in the state treasury. All expenses of the department pertaining to the deferred compensation plan including staffing and administrative expenses shall be paid out of the deferred compensation administrative account. Any excess balances credited to this account over administrative expenses disbursed from this account shall be transferred to the deferred compensation principal account at such time and in such amounts as may be determined by the department with the approval of the office of financial management. Any deficiency in the deferred compensation administrative account caused by an excess of administrative expenses disbursed from this account from the deferred compensation principal account shall be transferred to the deferred compensation administrative account caused by an excess of administrative expenses disbursed from this account shall be transferred to management.

(8)(a)(i) The department shall keep or cause to be kept full and adequate accounts and records of the assets of each individual participant, obligations, transactions, and affairs of any deferred compensation plans created under RCW <u>41.50.770</u> and this section. The department shall account for and report on the investment of state deferred compensation plan assets or may enter into an agreement with the state investment board for such accounting and reporting.

(ii) The department's duties related to individual participant accounts include conducting the activities of trade instruction, settlement activities, and direction of cash movement and related wire transfers with the custodian bank and outside investment firms.

(iii) The department has sole responsibility for contracting with any recordkeepers for individual participant accounts and shall manage the performance of recordkeepers under those contracts.

(b)(i) The department's duties under (a)(ii) of this subsection do not limit the authority of the state investment board to conduct its responsibilities for asset management and balancing of the deferred compensation funds.

(ii) The state investment board has sole responsibility for contracting with outside investment firms to provide investment management for the deferred compensation funds and shall manage the performance of investment managers under those contracts.

(c) The state treasurer shall designate and define the terms of engagement for the custodial banks.

(9) The department may adopt rules necessary to carry out its responsibilities under RCW  $\underline{41.50.770}$  and this section.

[2010 1st sp.s. c 7 § 30; 2008 c 229 § 12; 2001 c 181 § 2. Prior: 1998 c 245 § 42; 1998 c 116 § 12; 1995 c 239 § 315.]

#### Appendix G: Draft Letter to DRS

Marcie Frost, Director Department of Retirement Systems PO Box 48380 Olympia, WA 98504-8380

Dear Marcie:

I know we are both interested in authorizing employees to take advantage of retirement savings options allowed under federal tax law. I am writing on behalf of the Board to ask DRS to exercise that authority.

The LEOFF Plan 2 board recently reviewed information on the federal law changes allowing governmental 457 plans to offer Roth options. The Small Business Jobs Act of 2010 authorized DRS to offer Roth options allowing:

- Roth or after-tax contributions to DRS's deferred compensation program; and
- Conversion of current pre-tax account balance to a Roth account taxable in year of conversion.

Based on the understanding that this does not require enabling legislation, the Board voted to ask DRS to implement those Roth options within its deferred compensation program.

I know DRS has plenty to do, but it would be helpful to the Board if you could develop an implementation plan for offering this option. Thank you for your attention to this issue.

Sincerely

Kelly Fox, Chair LEOFF Plan 2 Retirement System Board

Cc: Steve Nelsen

#### SUMMARY OF RESULTS

This proposal allows members of the Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) Plan 2 to purchase an additional annuity through the LEOFF 2 trust fund at the time of retirement.

We assumed this annuity is intended to be an actuarially equivalent purchase. As a result, this proposal is not expected to impact the actuarial funding of the system.

#### HIGHLIGHTS OF ACTUARIAL ANALYSIS

This proposal does not have an expected cost because we assumed the member is paying the full actuarial value of the additional annuity. However, as the experience of the system emerges, if the purchase payment is more or less than the actual value of the annuity, then LEOFF Plan 2 contribution rates will increase or decrease accordingly. For example, costs could emerge if members who purchase an annuity live longer than expected or investment returns are lower than expected.

See the remainder of this draft fiscal note for additional details on the summary and highlights presented here.

# WHAT IS THE PROPOSED CHANGE?

#### Summary Of Proposal

This proposal impacts the following systems:

✤ LEOFF Plan 2.

When a LEOFF 2 member retires, the member may purchase a monthly lifetime annuity through the LEOFF 2 trust fund.

To pay for the annuity, retirees must make an additional contribution of at least \$25,000 to the LEOFF 2 trust fund. We have assumed that the resulting annuity will be actuarially equivalent to the additional amount contributed by the retiree.

If the retiree (and survivor, for a joint annuity) dies before the total monthly payments equal or exceed the purchase price of the annuity, the balance of the purchase price will be refunded to the selected beneficiary.

Retirees may make the additional contribution through any combination of lump sum payments, or eligible rollovers from other savings and retirement vehicles. The Department of Retirement Systems (DRS) is instructed to adopt rules to ensure that these contributions comply with Internal Revenue Service requirements.

The annuity must include at least the following items:

- ✤ An annual Cost-Of-Living-Adjustment (COLA), calculated the same as the COLA for LEOFF 2 retirement benefits.
- The same survivor option as the retiree has chosen for his or her LEOFF 2 retirement benefits.

Retirees choosing the optional annuity may rescind or alter the contract within 15 days of DRS receiving the contract.

Assumed Effective Date: 90 days after session.

# What Is The Current Situation?

At retirement, members of all state retirement plans can increase their monthly benefits by purchasing up to five years of additional service credit. The cost of service is based on the annuity factor for the member's age and plan.

Members of LEOFF 2 cannot purchase additional annuities through the trust fund. However, Plan 3 members of the Public Employees' Retirement System, the Teachers' Retirement System, and the School Employees' Retirement System currently have the option to purchase an annuity from the Total Allocation Portfolio at the time of retirement using funds in the defined contribution portion of the member's Plan 3 account.

For more information about the Plans 3 annuity options, please see Chapter 415-111-320 of the Washington Administrative Code.

# Who Is Impacted And How?

We estimate this proposal could affect all 16,720 active members of this system with the option of improved benefits.

We estimate this proposal will increase the benefits for a typical member by providing the option to annuitize their personal retirement savings. Annuitizing their money provides a member security against outliving their assets. In addition, the annuity offered to them through DRS will cost less than an annuity bought from a private insurer. A private insurer calculates annuities based on a lower interest rate to account for risk and profit.

For example, we estimate a private insurer will provide the annuity based on an interest rate of about 4.0 percent, whereas DRS will provide the annuity based on an interest rate of about 7.5 percent. For a member age 56 buying a \$10,000 life annuity (including the LEOFF Plan 2 COLA design), this would mean they would pay a private company about \$236,000, whereas they would pay DRS about \$157,000.

# WHY THIS PROPOSAL DOES NOT HAVE AN EXPECTED COST

# Why This Proposal Does Not Have An Expected Cost

This proposal does not have an expected cost because we assume the member is paying the full actuarial value. However, if experience is different than the assumptions used to determine the full actuarial value, then costs or savings could arise.

# Who Will Pay For Any Costs/Savings If They Arise?

As the experience of the system emerges, if the payment made by the member who purchased the annuity was more or less than the actual value of the annuity, then current LEOFF Plan 2 members and employers will pay for the costs/savings through contribution rates that will increase or decrease accordingly.

# HOW WE VALUED THESE COSTS

# Assumptions We Made

We assumed that the payments made by the members will equal the full actuarial value of the annuity. We further assumed that the LEOFF 2 Board would adopt annuity purchase administrative factors that maintain actuarial equivalence and that these factors would be reviewed on a regular basis and updated as needed.

To determine the purchase price of an annuity, we would need to make several assumptions, primarily:

- ✤ Expected rate of investment return.
- Expected rate of mortality for the annuitant.
- Expected rate of inflation.

As with any actuarial calculation that involves estimating future events, actual experience may differ from the underlying assumptions made. When actual experience differs from what we assumed would occur, the system experiences an actuarial gain or loss. An actuarial gain would decrease plan liabilities (or increase assets); whereas, an actuarial loss would increase plan liabilities (or decrease assets). Therefore, we cannot say with certainty that this proposal will not impact plan costs in the future.

If the members who purchase annuities, on average, live shorter/longer than assumed, the system will experience actuarial gains/losses in the future. If the actual rate of investment return is more/less than the assumed rate, the system will experience actuarial gains/losses from this assumption as well. For these two assumptions, we will not know whether a gain or loss has occurred until DRS has made all payments under the annuity contract.

Inflation, on the other hand, could be less than we expect. This would result in smaller calculated COLAs on the annuitant's annual benefit and produce a savings for the plan.

Otherwise, we developed these costs using the same assumptions as disclosed in the *June 30, 2012, Actuarial Valuation Report* (AVR).

The analysis of this proposal does not consider any other proposed changes to the system. The combined effect of several changes to the system could exceed the sum of each proposed change considered individually.

#### How We Applied These Assumptions

We developed these costs using the same methods, assets, and data as disclosed in the AVR.

# ACTUARIAL RESULTS

#### No Expected Impact To Liabilities or Present Value of Future Salaries (PVFS)

This proposal is not expected to change the present value of future benefits payable or the PVFS, so there is no impact on the actuarial funding of the affected plan due to liability or PVFS changes.

#### No Expected Impact to the Contribution Rates or Budgets

This proposal is not expected to change the contribution rates for members and employers, so there is no expected impact on the actuarial funding of the affected plan due to contribution rate changes.

#### HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

To determine the sensitivity of the actuarial results to the best-estimate assumptions selected for this pricing, we varied the following assumptions.

- Mortality Rate We determined the cost to the system if the annuity amount was calculated based on higher mortality rates than what actually occurs over time. For this sensitivity run we used 100 percent of scale AA mortality improvement rather than the assumed 50 percent. In other words, we determined the cost if people lived longer than what is assumed using our current mortality assumptions.
- Investment Returns We determined the cost to the system if the annuity amount was calculated based on higher investment returns than what actually occurs over time (investments pay less than assumed). For this sensitivity run we used a 7.0 percent investment return rather than the assumed 7.5 percent.
- All of the Above We determined the cost to the system if both of these assumptions are incorrect, as described above, at the same time.

The table below shows the expected results versus the three sensitivity runs outlined above. The example outlines the impact due to one member currently age 56 who purchases an annuity *upon retirement* with \$100,000. When both scenarios occur at once, the cost to the plan is larger than the sum of each of the two individually because of the interaction of these assumptions. Note that this analysis illustrates how the costs to the plan could increase. By comparison, a decrease could result if lower than expected inflation results in smaller COLAs on the annuitant's annual benefit.

Sensitivity Example – 56-Year-Old Pu	rchases Retireme	nt Annuity With	n \$100,000
Scenario	Cash Paid From Member To Plan	Present Value of Plan Annuity	Cost to the Plan
1) Expected	\$100,000	\$100,000	\$0
2) Lower Mortality Than Expected	\$100,000	\$102,558	\$2,558
3) Lower Asset Returns Than Expected	\$100,000	\$105,325	\$5,325
4) Scenarios 2 and 3	\$100,000	\$108,176	\$8,176

Assumes annuity calculation based on 3% COLA and 90%/10% male/female mortality blend.

Another consideration with actuarially equivalent purchases pertains to the concept of anti-selection. This is defined as a risk where members with aboveaverage costs make a choice (in this case, to purchase an annuity) resulting in higher costs for the plan. For example, members in poor health may be less likely to annuitize their savings, while members in relatively good health may be more likely to do so. Since the assumptions used to develop administrative factors include life expectancy, the LEOFF 2 Board could adopt administrative factors that include mortality assumptions to address expected anti-selection, and limit that risk to the plan.

#### WHAT THE READER SHOULD KNOW

The Office of the State Actuary ("we") prepared this draft fiscal note based on our understanding of the proposal as of the date shown in the footer. We intend this draft fiscal note to be used by the LEOFF 2 Board during the 2013 Interim only.

We advise readers of this draft fiscal note to seek professional guidance as to its content and interpretation, and not to rely upon this communication without such guidance. Please read the analysis shown in this draft fiscal note as a whole. Distribution of, or reliance on, only parts of this draft fiscal note could result in its misuse and may mislead others.

#### ACTUARY'S CERTIFICATION

The undersigned hereby certifies that:

- 1. The actuarial cost methods are appropriate for the purposes of this pricing exercise.
- 2. The actuarial assumptions used are appropriate for the purposes of this pricing exercise.
- 3. The data on which this draft fiscal note is based are sufficient and reliable for the purposes of this pricing exercise.
- 4. Use of another set of methods and assumptions may also be reasonable, and might produce different results.
- 5. We prepared this draft fiscal note for the LEOFF 2 Board during the 2013 Interim.
- 6. We prepared this draft fiscal note and provided opinions in accordance with Washington State law and accepted actuarial standards of practice as of the date shown in the footer of this draft fiscal note.

The undersigned, with actuarial credentials, meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

While this draft fiscal note is meant to be complete, the undersigned is available to provide extra advice and explanations as needed.

Lisa A. Won, ASA, FCA, MAAA Senior Actuary

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#### **GLOSSARY OF ACTUARIAL TERMS**

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- ✤ Normal cost.
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