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April 17, 2025

Luke Masselink, ASA, EA, MAAA
Senior Actuary
Washington Office of the State Actuary
PO Box 40914
Olympia, WA 98504
Sent via email: luke.masselink@leg.wa.gov

Re: Projected Cash Flows for Investment Income Sensitivities from 2024 Actuarial Valuation Report

Dear Luke:

Per your request, we summarized projected WA Cares Fund investment income cash flows from our 2024 Base Scenario modeling, as well as for the two investment income sensitivities (i.e., -100bps and +100bps annually from Base Scenario) in our [2024 Actuarial Valuation Report](#)¹. The information in this letter should be considered in the context of the 2024 Actuarial Valuation Report, which should be read in its entirety with this letter.

RESULTS

We attach Exhibit 1 to this letter containing the following projected information by year for state fiscal years 2025 through 2099:

- Undiscounted projected premium, benefit payments, and expenses (expressed in millions of dollars)
- Yearly net program cash flows (excluding investment income), calculated as *premium less benefit payments and expenses* (expressed in millions of dollars)
- Investment income and fund level at end of year under three scenarios (expressed in millions of dollars):
 - 2024 Base Scenario investment income (i.e., 4.4% in 2024 through 2038, grading down to 4.0% by 2053)
 - Investment income -100bps each year (i.e., 3.4% in 2024 through 2038, grading down to 3.0% by 2053)
 - Investment income +100bps each year (i.e., 5.4% in 2024 through 2038, grading down to 5.0% by 2053)

CAVEATS AND LIMITATIONS

This information is intended for the internal use of the Washington State Office of the State Actuary (OSA) and Washington State Department of Social and Health Services (DSHS) and it should not be distributed, in whole or in part, to any external party without the prior written permission of Milliman, subject to the following exception:

- This letter shall be a public record that shall be subject to disclosure to the State Legislature and its committees, persons participating in legislative reviews and deliberations, and parties making a request pursuant to the Washington Public Records Act.

We do not intend this information to benefit any third party even if we permit the distribution of our work product to such third party.

¹ Giese, C. et al. (December 10, 2024). *2024 WA Cares Actuarial Valuation as of June 30, 2024*. Milliman Report. Retrieved April 14, 2025, from <https://leg.wa.gov/media/riior0zb/report01-wa-cares-actuarial-valuation-as-of-june-30-2024.pdf>



Luke Masselink, ASA, EA, MAAA
Washington Office of the State Actuary
April 17, 2025
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This letter provides information related to cash flow projections used in the 2024 Actuarial Valuation Report provided on December 10, 2024, which should be read in its entirety with this letter. In completing this analysis, we relied on information provided by OSA, DSHS, SIB, ESD, and publicly available data. We accepted without audit but reviewed the information for general reasonableness. Our estimates may not be appropriate if this information is not accurate.

Many assumptions were used to construct the estimates in this letter. Actual results will differ from the projections in this letter. Experience should be monitored as it emerges, and corrective actions should be taken when necessary.

Milliman has developed certain models to estimate the values included in this letter. The intent of the models was to evaluate revenues and expenditures for the WA Cares Fund program. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. Chris Giese, Annie Gunnlaugsson, and Evan Pollock are members of the American Academy of Actuaries and meet the qualification standards for performing the analyses in this letter.



Luke, please let us know if you would like to discuss further or have any other questions.

Sincerely,

A handwritten signature in black ink that reads 'Christopher J. Giese'.

Christopher J. Giese, FSA, MAAA
Principal and Consulting Actuary

CJG/mb

Attachment



EXHIBIT

Exhibit 1
Washington Office of the State Actuary
Projected Cash Flows (Undiscounted) - 2024 Base Scenario vs. Investment Income Sensitivities

		2024 Base Scenario				Investment Income -100bps		Investment Income +100bps			
State Fiscal Year	Description	Premium	Benefit Payments	Expenses	Yearly Net Program Cash Flows ¹	Investment Income	Fund Level (End of Year)	Investment Income	Fund Level (End of Year)	Investment Income	Fund Level (End of Year)
2025	Jul 24-Jun 25	\$1,337	\$0	\$47	\$1,290	\$69	\$2,659	\$54	\$2,644	\$83	\$2,674
2026	Jul 25-Jun 26	\$1,416	\$0	\$50	\$1,366	\$132	\$4,157	\$101	\$4,112	\$162	\$4,202
2027	Jul 26-Jun 27	\$1,506	\$1,809	\$116	(\$419)	\$167	\$3,905	\$128	\$3,821	\$207	\$3,990
2028	Jul 27-Jun 28	\$1,609	\$551	\$76	\$982	\$188	\$5,075	\$143	\$4,946	\$235	\$5,207
2029	Jul 28-Jun 29	\$1,730	\$588	\$81	\$1,061	\$233	\$6,370	\$176	\$6,183	\$293	\$6,561
2030	Jul 29-Jun 30	\$1,850	\$627	\$87	\$1,136	\$291	\$7,797	\$219	\$7,538	\$366	\$8,064
2031	Jul 30-Jun 31	\$1,971	\$731	\$95	\$1,146	\$353	\$9,295	\$264	\$8,948	\$446	\$9,655
2032	Jul 31-Jun 32	\$2,099	\$807	\$102	\$1,190	\$418	\$10,903	\$312	\$10,450	\$532	\$11,377
2033	Jul 32-Jun 33	\$2,237	\$892	\$110	\$1,236	\$489	\$12,628	\$363	\$12,049	\$624	\$13,237
2034	Jul 33-Jun 34	\$2,377	\$981	\$118	\$1,279	\$565	\$14,472	\$418	\$13,746	\$724	\$15,240
2035	Jul 34-Jun 35	\$2,502	\$1,070	\$125	\$1,307	\$645	\$16,423	\$475	\$15,528	\$831	\$17,378
2036	Jul 35-Jun 36	\$2,632	\$1,179	\$133	\$1,320	\$730	\$18,473	\$535	\$17,383	\$945	\$19,643
2037	Jul 36-Jun 37	\$2,767	\$1,295	\$142	\$1,330	\$819	\$20,622	\$598	\$19,310	\$1,066	\$22,038
2038	Jul 37-Jun 38	\$2,910	\$1,422	\$152	\$1,337	\$913	\$22,872	\$663	\$21,310	\$1,194	\$24,569
2039	Jul 38-Jun 39	\$3,061	\$1,557	\$162	\$1,342	\$1,011	\$25,225	\$730	\$23,382	\$1,329	\$27,239
2040	Jul 39-Jun 40	\$3,215	\$1,704	\$172	\$1,340	\$1,108	\$27,673	\$795	\$25,517	\$1,465	\$30,045
2041	Jul 40-Jun 41	\$3,376	\$1,863	\$183	\$1,330	\$1,207	\$30,211	\$860	\$27,708	\$1,606	\$32,981
2042	Jul 41-Jun 42	\$3,545	\$2,028	\$195	\$1,322	\$1,308	\$32,841	\$925	\$29,955	\$1,753	\$36,056
2043	Jul 42-Jun 43	\$3,721	\$2,223	\$208	\$1,290	\$1,412	\$35,542	\$991	\$32,236	\$1,904	\$39,251
2044	Jul 43-Jun 44	\$3,904	\$2,430	\$222	\$1,252	\$1,517	\$38,311	\$1,057	\$34,545	\$2,061	\$42,563
2045	Jul 44-Jun 45	\$4,095	\$2,652	\$236	\$1,207	\$1,623	\$41,142	\$1,122	\$36,875	\$2,221	\$45,992
2046	Jul 45-Jun 46	\$4,292	\$2,886	\$251	\$1,155	\$1,731	\$44,027	\$1,187	\$39,217	\$2,386	\$49,533
2047	Jul 46-Jun 47	\$4,496	\$3,136	\$267	\$1,092	\$1,839	\$46,959	\$1,251	\$41,561	\$2,555	\$53,181
2048	Jul 47-Jun 48	\$4,707	\$3,403	\$284	\$1,020	\$1,948	\$49,927	\$1,314	\$43,895	\$2,727	\$56,928
2049	Jul 48-Jun 49	\$4,927	\$3,688	\$302	\$938	\$2,056	\$52,921	\$1,375	\$46,208	\$2,902	\$60,769
2050	Jul 49-Jun 50	\$5,155	\$3,989	\$320	\$846	\$2,164	\$55,930	\$1,434	\$48,488	\$3,080	\$64,695
2051	Jul 50-Jun 51	\$5,391	\$4,308	\$339	\$743	\$2,270	\$58,944	\$1,491	\$50,722	\$3,260	\$68,698
2052	Jul 51-Jun 52	\$5,635	\$4,645	\$360	\$631	\$2,376	\$61,950	\$1,545	\$52,897	\$3,442	\$72,771
2053	Jul 52-Jun 53	\$5,887	\$5,000	\$381	\$507	\$2,479	\$64,936	\$1,596	\$55,000	\$3,625	\$76,902
2054	Jul 53-Jun 54	\$6,149	\$5,370	\$403	\$375	\$2,580	\$67,891	\$1,644	\$57,019	\$3,809	\$81,086
2055	Jul 54-Jun 55	\$6,417	\$5,757	\$426	\$234	\$2,691	\$70,817	\$1,699	\$58,953	\$4,009	\$85,329
2056	Jul 55-Jun 56	\$6,694	\$6,160	\$450	\$84	\$2,806	\$73,707	\$1,756	\$60,793	\$4,216	\$89,630
2057	Jul 56-Jun 57	\$6,978	\$6,579	\$474	(\$75)	\$2,919	\$76,550	\$1,809	\$62,527	\$4,427	\$93,981
2058	Jul 57-Jun 58	\$7,271	\$7,016	\$500	(\$245)	\$3,030	\$79,335	\$1,860	\$64,142	\$4,640	\$98,376
2059	Jul 58-Jun 59	\$7,574	\$7,471	\$527	(\$424)	\$3,138	\$82,049	\$1,906	\$65,624	\$4,854	\$102,806
2060	Jul 59-Jun 60	\$7,929	\$7,942	\$555	(\$568)	\$3,244	\$84,725	\$1,950	\$67,006	\$5,072	\$107,310
2061	Jul 60-Jun 61	\$8,295	\$8,429	\$585	(\$719)	\$3,349	\$87,354	\$1,990	\$68,277	\$5,292	\$111,883
2062	Jul 61-Jun 62	\$8,672	\$8,934	\$616	(\$879)	\$3,451	\$89,927	\$2,026	\$69,424	\$5,516	\$116,520
2063	Jul 62-Jun 63	\$9,062	\$9,456	\$648	(\$1,043)	\$3,551	\$92,435	\$2,059	\$70,440	\$5,743	\$121,220
2064	Jul 63-Jun 64	\$9,464	\$9,995	\$681	(\$1,212)	\$3,649	\$94,872	\$2,088	\$71,317	\$5,973	\$125,982
2065	Jul 64-Jun 65	\$9,879	\$10,551	\$715	(\$1,387)	\$3,744	\$97,229	\$2,113	\$72,042	\$6,206	\$130,800
2066	Jul 65-Jun 66	\$10,306	\$11,125	\$750	(\$1,569)	\$3,835	\$99,495	\$2,133	\$72,606	\$6,442	\$135,673
2067	Jul 66-Jun 67	\$10,746	\$11,715	\$786	(\$1,755)	\$3,923	\$101,663	\$2,148	\$73,000	\$6,680	\$140,599
2068	Jul 67-Jun 68	\$11,200	\$12,327	\$823	(\$1,950)	\$4,007	\$103,720	\$2,159	\$73,208	\$6,921	\$145,569
2069	Jul 68-Jun 69	\$11,667	\$12,956	\$862	(\$2,150)	\$4,086	\$105,656	\$2,163	\$73,221	\$7,164	\$150,583
2070	Jul 69-Jun 70	\$12,147	\$13,602	\$901	(\$2,356)	\$4,161	\$107,461	\$2,162	\$73,027	\$7,409	\$155,636
2071	Jul 70-Jun 71	\$12,642	\$14,264	\$942	(\$2,563)	\$4,230	\$109,127	\$2,155	\$72,618	\$7,656	\$160,728
2072	Jul 71-Jun 72	\$13,150	\$14,940	\$983	(\$2,773)	\$4,294	\$110,648	\$2,141	\$71,986	\$7,905	\$165,860
2073	Jul 72-Jun 73	\$13,670	\$15,631	\$1,026	(\$2,987)	\$4,352	\$112,013	\$2,120	\$71,119	\$8,155	\$171,028
2074	Jul 73-Jun 74	\$14,205	\$16,338	\$1,069	(\$3,202)	\$4,404	\$113,215	\$2,093	\$70,010	\$8,408	\$176,234
2075	Jul 74-Jun 75	\$14,755	\$17,059	\$1,114	(\$3,418)	\$4,449	\$114,246	\$2,058	\$68,650	\$8,663	\$181,478
2076	Jul 75-Jun 76	\$15,322	\$17,796	\$1,159	(\$3,633)	\$4,488	\$115,101	\$2,016	\$67,033	\$8,919	\$186,764
2077	Jul 76-Jun 77	\$15,903	\$18,547	\$1,206	(\$3,849)	\$4,520	\$115,771	\$1,966	\$65,150	\$9,177	\$192,092
2078	Jul 77-Jun 78	\$16,500	\$19,313	\$1,253	(\$4,067)	\$4,544	\$116,249	\$1,908	\$62,991	\$9,438	\$197,463
2079	Jul 78-Jun 79	\$17,116	\$20,094	\$1,302	(\$4,280)	\$4,561	\$116,529	\$1,843	\$60,554	\$9,700	\$202,883
2080	Jul 79-Jun 80	\$17,751	\$20,888	\$1,352	(\$4,489)	\$4,570	\$116,609	\$1,768	\$57,833	\$9,965	\$208,360
2081	Jul 80-Jun 81	\$18,410	\$21,698	\$1,404	(\$4,692)	\$4,571	\$116,488	\$1,686	\$54,826	\$10,233	\$213,901
2082	Jul 81-Jun 82	\$19,090	\$22,524	\$1,457	(\$4,891)	\$4,564	\$116,161	\$1,595	\$51,530	\$10,505	\$219,515
2083	Jul 82-Jun 83	\$19,795	\$23,367	\$1,511	(\$5,082)	\$4,549	\$115,628	\$1,495	\$47,943	\$10,780	\$225,212
2084	Jul 83-Jun 84	\$20,526	\$24,226	\$1,566	(\$5,267)	\$4,526	\$114,887	\$1,387	\$44,063	\$11,059	\$231,004
2085	Jul 84-Jun 85	\$21,283	\$25,102	\$1,623	(\$5,443)	\$4,495	\$113,939	\$1,270	\$39,890	\$11,343	\$236,904
2086	Jul 85-Jun 86	\$22,068	\$25,996	\$1,682	(\$5,611)	\$4,456	\$112,784	\$1,144	\$35,424	\$11,632	\$242,926
2087	Jul 86-Jun 87	\$22,881	\$26,909	\$1,743	(\$5,770)	\$4,408	\$111,422	\$1,010	\$30,664	\$11,928	\$249,083
2088	Jul 87-Jun 88	\$23,725	\$27,841	\$1,805	(\$5,921)	\$4,353	\$109,854	\$867	\$25,611	\$12,230	\$255,393
2089	Jul 88-Jun 89	\$24,603	\$28,792	\$1,869	(\$6,058)	\$4,289	\$108,086	\$716	\$20,269	\$12,540	\$261,875
2090	Jul 89-Jun 90	\$25,515	\$29,764	\$1,935	(\$6,184)	\$4,218	\$106,120	\$556	\$14,641	\$12,859	\$268,550
2091	Jul 90-Jun 91	\$26,463	\$30,737	\$2,002	(\$6,276)	\$4,139	\$103,983	\$388	\$8,752	\$13,188	\$275,461
2092	Jul 91-Jun 92	\$27,447	\$31,749	\$2,072	(\$6,374)	\$4,054	\$101,663	\$211	\$2,590	\$13,528	\$282,616
2093	Jul 92-Jun 93	\$28,468	\$32,781	\$2,144	(\$6,456)	\$3,961	\$99,168	\$27	Account depleted	\$13,880	\$290,040
2094	Jul 93-Jun 94	\$29,528	\$33,815	\$2,217	(\$6,504)	\$3,862	\$96,525	Account depleted	Account depleted	\$14,247	\$297,782
2095	Jul 94-Jun 95	\$30,625	\$34,889	\$2,293	(\$6,557)	\$3,757	\$93,725	Account depleted	Account depleted	\$14,629	\$305,854
2096	Jul 95-Jun 96	\$31,794	\$35,980	\$2,372	(\$6,559)	\$3,646	\$90,812	Account depleted	Account depleted	\$15,028	\$314,324
2097	Jul 96-Jun 97	\$33,004	\$37,085	\$2,453	(\$6,534)	\$3,531	\$87,809	Account depleted	Account depleted	\$15,447	\$323,237
2098	Jul 97-Jun 98	\$34,258	\$38,205	\$2,536	(\$6,483)	\$3,412	\$84,739	Account depleted	Account depleted	\$15,888	\$332,642
2099	Jul 98-Jun 99	\$35,555	\$39,344	\$2,621	(\$6,411)	\$3,292	\$81,619	Account depleted	Account depleted	\$16,354	\$342,584

¹ Excluding investment income