



**STATE OF NEW JERSEY
STATE POLICE RETIREMENT SYSTEM**

Schedule of Pension Amounts

June 30, 2017

(With Independent Auditors' Report Thereon)

**STATE OF NEW JERSEY
STATE POLICE RETIREMENT SYSTEM**

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KPMG LLP
New Jersey Headquarters
51 John F. Kennedy Parkway
Short Hills, NJ 07078-2702

Independent Auditors' Report

The Treasurer
State of New Jersey:

We have audited the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) included in the accompanying schedule of pension amounts of the State of New Jersey State Police Retirement System as of and for the year ended June 30, 2017 and the related notes.

Management's Responsibility for the Schedule

Management is responsible for the preparation and fair presentation of this schedule in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedule that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on the specified column totals included in this schedule of pension amounts based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the specified column totals included in the schedule of pension amounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the specified column totals included in the schedule of pension amounts. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the specified column totals included in the schedule of pension amounts, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the specified column totals included in the schedule of pension amounts in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the specified column totals included in the schedule of pension amounts.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedule referred to above presents fairly, in all material respects, the net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the State of New Jersey State Police Retirement System as of and for the year ended June 30, 2017 in accordance with U.S. generally accepted accounting principles.



Other Matters

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the State of New Jersey, Division of Pensions and Benefits, which includes the State Police Retirement System, as of and for the year ended June 30, 2017, and our report thereon, dated March 29, 2018 expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of the State of New Jersey, Division of Pensions and Benefits management, the Treasurer of the State of New Jersey, the State of New Jersey and their auditors, and is not intended to be and should not be used by anyone other than these specified parties.

KPMG LLP

Short Hills, New Jersey
June 13, 2018

**STATE OF NEW JERSEY DIVISION OF PENSIONS AND BENEFITS
STATE POLICE RETIREMENT SYSTEM**

Schedule of Pension Amounts

As of and for the year ended June 30, 2017

	Deferred outflows of resources			Deferred inflows of resources				
	Differences between expected and actual experience	Changes of assumptions	Net difference between projected and actual investment earnings on pension plan investments	Total deferred outflows of resources	Differences between expected and actual experience	Changes of assumptions		Total deferred inflows of resources
\$ <u>Net pension liability</u>	35,036,188	696,983,442	25,308,938	757,328,568	11,411,829	574,871,622	586,283,451	310,150,954

See accompanying notes to schedule of pension amounts.

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STATE POLICE RETIREMENT SYSTEM**

Notes to Schedule of Pension Amounts

June 30, 2017

(1) Plan Description

The State of New Jersey State Police Retirement System (SPRS) is a single-employer defined benefit pension plan administered by the State of New Jersey, Division of Pensions and Benefits (the Division). For additional information about SPRS, please refer to the Division's Comprehensive Annual Financial Report (CAFR), which can be found at <http://www.nj.gov/treasury/pensions/financial-reports.shtml>.

The vesting and benefit provisions are set by N.J.S.A. 53:5A. SPRS provides retirement benefits as well as death and disability benefits. All benefits vest after ten years of service, and members are always fully vested in their contributions. Mandatory retirement is at age 55. Voluntary retirement is prior to age 55 with 20 years of credited service. The benefit is an annual retirement allowance equal to the greater of (a), (b), or (c), as follows: (a) 50% of final compensation; (b) for members retiring with 25 years or more of service, 65% of final compensation, plus 1% for each year of service in excess of 25 years, to a maximum of 70% of final compensation; or (c) for members as of August 29, 1985 who would not have 20 years of service by age 55, benefit as defined in (a) above. For members as of August 29, 1985, who would have 20 years of service, but would not have 25 years of service at age 55, benefit is as defined in (a) above plus 3% for each year of service.

(2) Basis of Presentation

The schedule of pension amounts (the Schedule) presents amounts that are considered elements of the financial statements of SPRS and the State of New Jersey as the employer. Accordingly, they do not purport to be a complete presentation of the financial position or changes in financial position of SPRS or the State of New Jersey. The accompanying Schedule was prepared in accordance with U.S. generally accepted accounting principles. Such preparation requires management of SPRS to make a number of estimates and assumptions relating to the reported amounts. Due to the inherent nature of these estimates, actual results could differ from those estimates.

(3) Contributions

The contribution policy for SPRS is set by N.J.S.A. 53:5A and requires contributions by active members and the State of New Jersey. State legislation has modified the amount that is contributed by the State. The State's contribution amount is based on an actuarially determined amount which includes the normal cost and unfunded accrued liability. For fiscal year 2017, the State's pension contribution was less than the actuarial determined amount.

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June 30, 2017

(4) Net Pension Liability and Actuarial Information

Components of Net Pension Liability

The components of the net pension liability of the State for SPRS as of June 30, 2017 are as follows:

Total pension liability	\$	5,124,274,114
Plan fiduciary net position		<u>1,761,497,335</u>
Net pension liability	\$	<u><u>3,362,776,779</u></u>
Plan fiduciary net position as a percentage of the total pension liability		34.38%

The total pension liability for the June 30, 2017 measurement date was determined by an actuarial valuation as of July 1, 2016, which was rolled forward to June 30, 2017. This actuarial valuation used the following actuarial assumptions, applied to all periods in the measurement:

Inflation rate		2.25%
Salary increases:		
Through 2025		2.95%
Thereafter		3.95%
Investment rate of return		7.00%

Preretirement and Postretirement mortality rates were based on the RP-2000 Combined Healthy Male (set back three years) and RP-2000 Combined Healthy Female Mortality Tables projected on a generational basis from the base year of 2000 to 2013 using Projection Scale BB. These rates were further projected using the plan actuary's modified MP-2014 Projection Scale. Disability mortality rates were based on the RP-2000 Combined Healthy Male (set forward five years) and RP-2000 Combined Health Female (set forward five years) Mortality Tables.

The actuarial assumptions used in the July 1, 2016 valuation were based on the results of an actuarial experience study for the period July 1, 2011 to June 30, 2014.

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Long-Term Expected Rate of Return

In accordance with State statute, the long-term expected rate of return on plan investments (7.00% at June 30, 2017) is determined by the State Treasurer, after consultation with the Directors of the Division of Investment and Division of Pensions and Benefits, the board of trustees and the actuaries. The long-term expected rate of return was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in SPRS's target asset allocation as of June 30, 2017 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Absolute return/risk mitigation	5.00%	5.51%
Cash equivalents	5.50%	1.00%
U.S. Treasuries	3.00%	1.87%
Investment grade credit	10.00%	3.78%
Public high yield	2.50%	6.82%
Global diversified credit	5.00%	7.10%
Credit oriented hedge funds	1.00%	6.60%
Debt related private equity	2.00%	10.63%
Debt related real estate	1.00%	6.61%
Private real asset	2.50%	11.83%
Equity related real estate	6.25%	9.23%
U.S. equity	30.00%	8.19%
Non-U.S. developed markets equity	11.50%	9.00%
Emerging markets equity	6.50%	11.64%
Buyouts/venture capital	8.25%	13.08%

Discount Rate

The discount rate used to measure the total pension liability was 4.42% as of June 30, 2017. This single blended discount rate was based on the long-term expected rate of return on pension plan investments of 7.00% and a municipal bond rate of 3.58% as of June 30, 2017 based on the Bond Buyer Go 20-Bond Municipal Bond Index, which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from employers will be made based on the contribution rate in the most recent fiscal year. The State contributed 40% of the actuarially determined contributions. Based on those assumptions, the plan's

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fiduciary net position was projected to be available to make projected future benefit payments of current plan members through 2037. Therefore, the long-term expected rate of return on plan investments was applied to projected benefit payments through 2037 and the municipal bond rate was applied to projected benefit payments after that date in determining the total pension liability.

Sensitivity of Net Pension Liability

The following presents the net pension liability of SPRS as of June 30, 2017, calculated using the discount rate as disclosed above as well as what SPRS's net pension liability would be if it was calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	<u>At 1% decrease (3.42%)</u>	<u>At current discount rate (4.42%)</u>	<u>At 1% increase (5.42%)</u>
\$	4,177,923,905	3,362,776,779	2,713,454,218

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(5) Deferred Outflows of Resources and Deferred Inflows of Resources

The following presents a summary of changes in the deferred outflows of resources and deferred inflows of resources for the year ended June 30, 2017:

	<u>Year of deferral</u>	<u>Amortization period</u>	<u>Beginning of year balance</u>	<u>Additions</u>	<u>Deductions</u>	<u>End of year balance</u>
Deferred Outflows of Resources:						
Differences between expected and actual experience	2015	5.34 years	\$ 22,044,965	—	6,600,289	15,444,676
	2017	5.67 years	—	23,786,696	4,195,184	19,591,512
Subtotal			<u>22,044,965</u>	<u>23,786,696</u>	<u>10,795,473</u>	<u>35,036,188</u>
Changes of assumptions	2014	5.14 years	38,589,487	—	18,032,471	20,557,016
	2015	5.34 years	272,510,908	—	81,590,093	190,920,815
	2016	5.70 years	616,723,343	—	131,217,732	485,505,611
Subtotal			<u>927,823,738</u>	<u>—</u>	<u>230,840,296</u>	<u>696,983,442</u>
Differences between projected and actual investment earnings on pension plan investments	2014	5 years	(61,018,832)	—	(30,509,415)	(30,509,417)
	2015	5 years	42,254,402	—	14,084,801	28,169,601
	2016	5 years	127,548,721	—	31,887,180	95,661,541
	2017	5 years	—	(85,015,984)	(17,003,197)	(68,012,787)
Subtotal			<u>108,784,291</u>	<u>(85,015,984)</u>	<u>(1,540,631)</u>	<u>25,308,938</u>
Total			<u>\$ 1,058,652,994</u>	<u>(61,229,288)</u>	<u>240,095,138</u>	<u>757,328,568</u>
Deferred Inflows of Resources:						
Differences between expected and actual experience	2016	5.70 years	\$ 14,496,107	—	3,084,278	11,411,829
Changes of assumptions	2017	5.67 years	—	697,970,471	123,098,849	574,871,622
Total			<u>\$ 14,496,107</u>	<u>697,970,471</u>	<u>126,183,127</u>	<u>586,283,451</u>

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Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ending June 30:		
2018	\$	113,912,009
2019		128,913,499
2020		54,098,500
2021		(46,213,441)
2022		<u>(79,665,450)</u>
Total	\$	<u><u>171,045,117</u></u>

(6) Pension Expense

The components of total pension expense for the year ending June 30, 2017 are as follows:

Service cost	\$	139,506,057
Interest on total pension liability		202,545,532
Member contributions		(23,721,785)
Administrative expense		294,745
Expected investment return net of investment expenses		(122,385,606)
Current period recognition (amortization) of deferred inflows/outflows of resources:		
Differences between expected and actual experience		7,711,195
Changes of assumptions		107,741,447
Difference between projected and actual investment earnings on pension plan investments		<u>(1,540,631)</u>
Total pension expense	\$	<u><u>310,150,954</u></u>