

# **Report to the Trustee on the Actuarial investigation of the Defined Benefit Schemes as at 30 June 2021**

## **Local Government Super (Active Super)**

23 DECEMBER 2021

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## Key Results and Recommendations

This report on the actuarial investigation of the Defined Benefit Schemes (“the Plan”) of Local Government Super (Active Super) as at 30 June 2021 has been prepared to meet the requirements of the Plan’s governing rules and the SIS legislation. This report should not be relied upon for any other purpose or by any party other than the Trustee of the Plan. Mercer is not responsible for the consequences of any other use. This report should be considered in its entirety and not distributed in parts. The Trustee should share this report with the Employers who contribute to the Plan. The Employers may consider obtaining separate actuarial advice on the recommendations contained in the report.

### 1.1. Change in Financial Position

Defined Benefits Only*	Position at 30 June 2021		Position from 30 June 2018 Report	
	\$M	Asset Coverage	\$M	Asset Coverage
Assets**	2,677.4		2,565.7	
Actuarial Value of Accrued Benefits	2,573.4	104%	2,597.9	99%
Vested Benefits^	2,553.5	105%	2,577.8	99.5%
Cash Resignation Benefits^	2,398.8	112%	2,325.6	110%
Deferred Benefits^	2,619.7	102%	2,685.9	96%
SG Minimum Benefits^	1,951.3	137%	1,888.6	136%

\*The above totals include both Employer and member-financed defined benefit liabilities, but exclude accumulation style benefits such as deferred member benefit liabilities in Divisions B and C, and member’s Other Accounts.

\*\* The assets are the Defined Benefit Schemes assets available to support the defined benefit liabilities. These include both Employer and member defined benefit assets but exclude assets supporting accumulation style benefits and Division B Additional Benefits. Further information on assets as at 30 June 2021 is provided in section 8.1.

^No allowance for administration expense is included in these benefit measures. Further information on benefit measures is provided in section 2.

The asset coverage of the above benefit measures has increased from 30 June 2018 levels mainly due to the following items of positive experience:

- The average annual net investment earnings of 7.4% p.a. on assets in the three years to 30 June 2021. This was higher than the long term net investment return assumption of 5.35% p.a. (5.75% p.a. less 0.4% p.a. for administration fees);
- Additional past service Employer contributions of \$123 million over the three years to 30 June 2021;
- Average annual salary growth of 3.3% p.a. which was lower than the 3.5% p.a. assumed for the three years to 30 June 2021.
- Average annual pension indexation of 1.2% p.a. which was lower than the 2.5% p.a. assumed for the three years to 30 June 2021.

The above positive experience has been partially offset by the following negative experience and assumption changes:

- Member movements including higher than expected exits and higher than expected pension take-up

- Assumption changes, including a reduction in the investment return assumption, changes to pensioner mortality assumptions and Division B pension take-up (refer to section 3 for further details).

A detailed analysis of the movement in financial position is provided in section 3.5.

## 1.2. Employer Financed Actuarial Value of Accrued Benefits

The Employer financed actuarial value of accrued benefits (or past service liabilities) at 30 June 2021 is calculated as:

Liability for Actuarial Value of Accrued Benefits as at 30/06/2021 (\$M)				
Division	Member Type	Total Defined Benefits* (1)	Member DB Contributions Reserve* (2)	Employer Financed Past Service Liabilities = (1) – (2)
B	Contributors	1,711.2	696.1	1015.1
	Pensioners	509.8	-	509.8
C	Contributors	207.7	-	207.7
D	Contributors	10.8	3.4	7.5
	Deferred	5.6	-	5.6
	Pensioners	128.3	-	128.3
<b>Total</b>		<b>2,573.4</b>	<b>699.5</b>	<b>1,873.9</b>

\*Excludes accumulation style benefits such as deferred member benefit liabilities in Divisions B and C, and member's Other Accounts.

The asset coverage of the Employer financed past service liabilities at 30 June 2021 and 30 June 2018 are:

Employer Financed Past Service Liabilities Only	Position at 30 June 2021		Position from 30 June 2018 Report	
	\$M	Asset Coverage	\$M	Asset Coverage
Assets	1,977.9		1,819.7	
Actuarial Value of Accrued Benefits	1,873.9	106%	1,851.9	98%
Asset Surplus/(Deficiency)	104.0		(32.2)	

### **1.3. Recommended Employer Defined Benefit Contributions**

The financing objective we have adopted in this investigation is to maintain the funding target ratio for the Defined Benefit Schemes in the range between 100% and 110% of the higher of Vested Benefit liabilities and the Actuarial Value of Accrued Benefit liabilities.

At 30 June 2021, the Plan was in a satisfactory financial position and the coverage of both the Vested Benefits and Actuarial Value of Accrued Benefits was above the minimum funding target ratio.

The Scheme's funding position has improved to a point where the Trustee policy to de-risk the investment strategy has begun to be implemented. However, there remains material exposure to economic and market events.

Given the maturity of the Scheme and material exposure to markets that remains it is prudent to maintain some level of contributions to assist in providing a more stable pattern of contributions and furthering the Trustee objective of reducing investment risk.

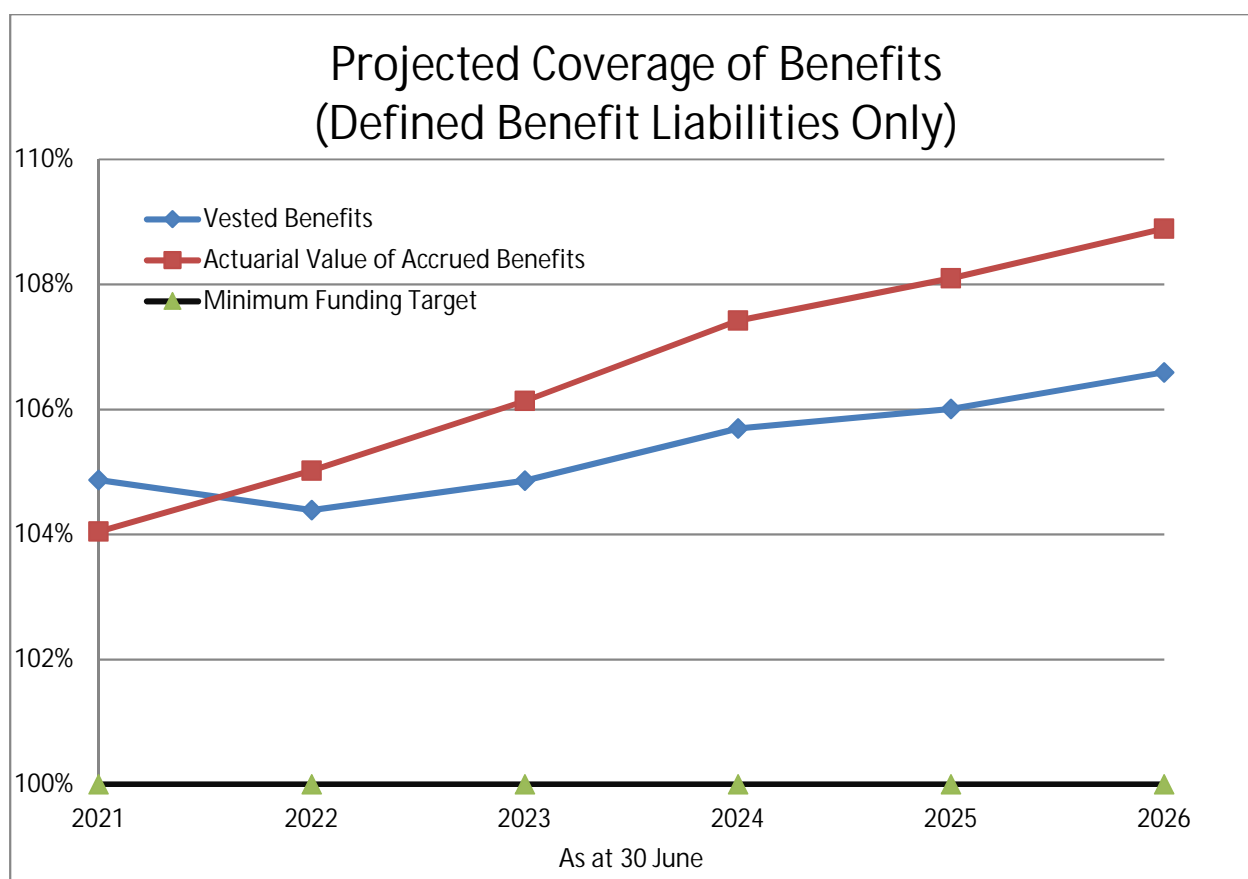
A contribution of \$20m p.a. (reduced from \$40m p.a.) is recommended for the 3 years 2022, 2023 and 2024 commencing from 1 January 2022.

The recommended Employer contributions are detailed in Appendix D. These Employer contributions are subject to discussions and agreement with the Trustee and the Employers. They are subject to change and will be reviewed annually.

The contribution program is tailored for specific Employer circumstances.

### **1.4. Projections**

Based on the assumptions adopted for this investigation and the recommended Employer contributions in Appendix D, we have prepared the following projection of Plan defined benefit assets and liabilities. The projection does not allow for subsequent investment return experience since 30 June 2021 (commentary on subsequent experience is provided in the next section).



The graph above shows that, without any allowance for subsequent investment experience, the recommended contributions are anticipated to maintain the Plan at a satisfactory financial position above the minimum 100% funding target with the potential to build additional reserves for further de-risking if experience is in line with expectations.

## 1.5. Experience since 30 June 2021

The actual investment return from 30 June 2021 to 30 November 2021 was 2.64%. Whilst the returns are slightly higher than expected year to date we believe this is part of the natural financial market cycle and volatility. The investment return assumption is set based on long term expectations and anticipates periods of higher returns over shorter timeframes.

The funding position will continue to be monitored and if conditions worsen materially due to the heightened levels of volatility we will raise for further consideration as part of the quarterly reviews.

The overall funding level of the Plan has enabled investment de-risking of the portfolio to begin as noted above. This is in line with the Trustee policy. Following the Board's approval, the Plan reduced its exposure to growth assets from 70% to 65% in September and a further 5% reduction to 60% has been approved at the December Board meeting.

These changes in investment strategy have been taken into account in carrying out this investigation and are consistent with the assumptions and projections set out in this report.

## **1.6. Other Findings and Recommendations for the Trustee**

- The investment and unit pricing policy for the defined benefit assets of the Plan is suitable.
- The Shortfall Limit can be maintained at 97%.

## **1.7. Action Required**

The Trustee should:

- Consider this report and confirm its agreement (or otherwise) to the contribution and other recommendations.
- Continue to monitor the contribution requirements under the Plan's Funding and Solvency Certificate and seek contributions from the Employers as appropriate.



## Liability Measures as at 30 June 2021

### 2.1. Actuarial Value of Accrued Benefits

The Actuarial Value of Accrued Benefits (also called past service liabilities) is the expected value (as at the investigation date) of all future expected benefit payments, based on membership to date, discounted to the investigation date, taking into account the probability and timing of payments.

This value is calculated using actuarial methods and assumptions. In determining the value, we have not applied a minimum of the vested benefits. The detailed actuarial assumptions used are as disclosed in Appendix C.

The calculation of the Actuarial Value of Accrued Benefits has been carried out using a method of apportionment of benefits between past and future membership that satisfies the requirements of Professional Standard No. 402 of the Actuaries Institute and is acceptable for Australian Accounting Standard AASB 1056 purposes.

More details on the method can be found in Appendix F.

As at 30 June 2021	Total Defined Benefits		Employer Financed Past Service Liabilities	
	\$M	Asset Coverage	\$M	Asset Coverage
Assets	2,677.4		1,977.9	
Actuarial Value of Accrued Benefits	2,573.4	104%	1,873.9	106%
Surplus/(Deficit)	104.0		104.0	

### 2.2. Vested Benefits

Vested Benefits are the amounts payable as of right now should all active members voluntarily resign or, if eligible, retire at the investigation date, plus the estimated actuarial value of expected future payments in respect of pensioners and Division D deferred members.

For contributors over the early retirement age, the Vested Benefits are the same as their retirement benefits (including allowance for taking up pension if eligible).

For contributors under the early retirement age, members can choose **Deferred Benefits** that are retained in the Defined Benefit Schemes or receive **Cash Resignation Benefits** transferred out of the Defined Benefit Schemes. For the calculation of the Vested Benefits, we have assumed 70% of benefits are deferred on resignation and 30% are taken as cash resignation benefits.

The value for Vested Benefits for pensioners and deferred Division D members is assumed to be the actuarial value of future pension payments. We have not included any administration expense allowance in the calculation of the Vested Benefits.

As at 30 June 2021	Total Defined Benefits		Employer Financed Component	
	\$M	Asset Coverage	\$M	Asset Coverage
Assets	2,677.4		1,977.9	
Vested Benefits	2,553.5	105%	1,854.0	107%
Surplus/(Deficit) to Vested Benefits	123.9		123.9	
Cash Resignation Benefits	2,398.8	112%	1,699.3	116%
Surplus/(Deficit) to Cash Resignation Benefits	278.6		278.6	
Deferred Benefits	2,619.7	102%	1,920.2	103%
Surplus/(Deficit) to Deferred Benefits	57.7		57.7	

### 2.3. Superannuation Guarantee (SG) Minimum Benefits

SG Minimum Benefits are the minimum benefits required under SG legislation, as defined in the Benefit Certificate (also referred to as Minimum Requisite Benefits or MRBs).

Plan assets at 30 June 2021 were greater than SG Minimum Benefits and hence the Plan was considered to be “solvent” under SIS legislation.

As at 30 June 2021	Total Defined Benefits		Employer Financed Component	
	\$M	Asset Coverage	\$M	Asset Coverage
Assets	2,677.4		1,977.9	
SG Minimum Benefits	1,951.3	137%	1,251.8	158%
Surplus/(Deficit)	726.1		726.1	

## Key Actuarial Assumptions and Plan Experience

### 3.1. Actuarial Assumptions

The ultimate cost to the Employers of providing Plan benefits is:

- the amount of benefits paid out; plus
- the expenses of running the Plan, including tax;

less

- members' contributions; and
- the return on investments.

The ultimate cost to the Employers will not depend on the actuarial investigation assumptions or methods used to determine the recommended Employer contribution rate, but on the actual experience of the Plan. The financing method and actuarial assumptions adopted will however affect the timing of the contribution requirements from the Employers.

The actuarial process includes projections of possible future Plan assets and benefit liabilities on the basis of actuarial assumptions about future experience.

These assumptions include investment returns, salary increases, rates at which members cease service for different reasons, and various other factors affecting the financial position of the Plan.

It is not expected that these assumptions will be precisely borne out in practice, but rather that in combination they will produce a model of possible future experience that is considered a suitable basis for setting contribution rates.

### 3.2. Key Assumptions for 2021 and 2018 Investigations

The following table sets out the key assumptions for the 2021 investigation compared to those used in the previous investigation and reasons for any changes:

Assumption	30 June 2021 Investigation	30 June 2018 Investigation	Reason for change
Investment return (net of tax and after investment fees)	5.5% pa	5.75% pa	Reflects changes in market conditions and reduction in growth asset allocation since last actuarial investigation.
General salary increases	3.5% pa	3.5% pa	No change
Rate of CPI increase	2.5% pa	2.5% pa	No change
Asset-based administration and Trustee expense	0.3% pa	0.4% pa	Reflects reduced administration fees of the Plan
Division B pension take-up	70%	50%	Based on experience analysis of the Plan since last actuarial investigation
Pensioner mortality	Based on Mercer standard pensioner mortality tables, including improvement rates based on Australian Life Tables 2015-17	Based on NSW Pooled Fund's June 2018 Triennial Investigation	We consider it is appropriate at this time to change to the use of Mercer standard pensioner mortality tables (Note: these tables are based on Mercer's analysis of the mortality experience of Australian Public Sector pensioners over the years 2012 to 2017).

### 3.3. Economic Assumptions

The most significant assumption made in estimating the cost of defined benefits is the difference between:

- the assumed rate of investment earnings; and
- the rate of salary and/or pension increases used in the projections of future benefit payments.

This difference is commonly referred to as the “gap”.

The key economic assumptions adopted for this investigation are:

	<b>Assumption</b>
Investment returns (after tax and investment fees)	5.5% p.a.
General salary increases	3.5% p.a.
Pension increase rate	2.5% p.a.

The assumption for investment returns is based on the expected long-term investment return for the Plan’s current benchmark investment mix, calculated using Mercer Investment Consulting’s assumptions of the means and standard deviations of returns from the various underlying asset classes and the correlations of returns between those asset classes.

No explicit allowance has been made for the potential tax credits that can be obtained in relation to the tax exemption for investment earnings on assets backing current pension liabilities. However, we have made an implicit allowance for this when setting the overall discount rate.

This will increase over time as the Plan matures but we expect the Trustee will also reduce its investment risk at the same time. This position will continue to be kept under review as part of the long-term investment strategy.

The general salary increase assumption is based on long-term economic forecasts consistent with the expected investment return assumptions. Past experience and the expectations for short term future salary increases are also taken into account in setting the general salary increase assumption.

The expected rate of CPI increase (for pension indexation) is based on the target range of the Reserve Bank of Australia.

#### 3.3.1. Economic Experience since Previous Investigation

Year to 30 June	2019	2020	2021	3-year average (pa)	Assumed (pa)
Investment Returns*	6.3%	-0.5%	17.1%	7.4%	5.4%^
Salary Increase	3.7%	3.7%	2.5%	3.3%	3.5%
Pension Increase	2.0%	1.7%	0.0%	1.2%	2.5%

\* Actual returns for the Defined Benefit Scheme from the Active Super website, net of taxes and all fees.

^ 2018 investigation assumed investment return of 5.75% pa net of taxes and investment management fees, but before administration and trustee expenses (which were estimated to be around 0.4% p.a.). Therefore 5.4% is shown for comparison purposes for consistency with reported investment returns from the Active Super website.

### **3.4. Demographic Assumptions and Experience**

#### **3.4.1. *Division B Pension Take-Up Rate***

Some Division B contributors are eligible for lifetime pensions due to their membership of previous schemes. A pension take up rate of 50% was assumed in the 2018 investigation for these contributors. Experience since the 2018 investigation has been higher than assumed. As we expect this experience to continue into the future, the pension take up rate has been changed from 50% to 70% at this investigation to reflect the expectation.

#### **3.4.2. *Pensioner Related Assumptions***

Mercer standard pensioner mortality tables have been used for this investigation (these rates are based on the experience of Australian Public Sector pensioners over the years 2012 to 2017 and Australian Life Tables 2015-17 average improvements).

This change represents a small reduction in mortality rates and marginally higher rates of future improvement when compared to the rates assumed for the 2018 investigation (which were based on the NSW Pooled Fund's June 2018 triennial investigation). The lower mortality rates are consistent with the experience of the Plan's pensioners in respect of whom actual deaths over the period 2017 to 2021 were fewer than expected under the 2018 assumptions.

The revised basis will result in a small increase in the accrued liability value in respect of pensioners.

The following assumptions are unchanged from the 2018 investigation:

- Percentages married/with spouse at death; and
- Spouse rate of commutations.

#### **3.4.3. *Other Demographic Assumption Changes***

The rates of resignation, retirement, death and disability from the 2018 investigation have been maintained for the 2021 investigation.

The detailed actuarial assumptions are disclosed in Appendix C.

The overall impact of the changes in assumptions is to increase the Actuarial Value of Accrued Benefits at 30 June 2021 by \$95 million (i.e. the sum of items marked with \* in the table on the next page). Further details are provided in the next section.

### 3.5. Analysis of Movement in Actuarial Value of Accrued Benefits Funding Position since 30 June 2018

Item	\$Million	Comments
<b>Surplus/(Deficit) at 30 June 2018</b>	<b>-32</b>	
Unwinding of discounting on the 2018 deficit to 30 June 2021	-5	Expected earnings on opening deficit
Actual investment return higher than expected	126	Returns higher than expected
Additional employer contributions	123	Past service contributions
Salary increase experience	11	Actual salary increases lower than expected
Pension indexation experience	14	Actual pension indexation lower than expected
Membership	-10	Member movements including higher than expected exits and higher than expected pension take-up
Change in pensioner mortality assumptions*	-40	
Change in Division B pension take up rate*	-30	
Change in asset-based admin fees*	16	
Change in discount rate*	-41	
Other	-28	
<b>Surplus/(deficit) as at 30 June 2021</b>	<b>104</b>	

\*see note in section 3.4.3.

### 3.6. Recommended Employer Contributions in Previous Investigation

Employer contributions were recommended in a separate letter subsequent to the finalisation of the 2018 investigation report.

The recommended Employer future service contributions were:

Division B:	1.9 times member contributions
Division C:	2.5% of salary
Division D:	1.64 times member contributions

In addition to the future service contributions, past service contributions were recommended for each employer. These contributions were agreed with the Trustee and the individual employers. The past service contributions were reviewed annually and revised as necessary in line with Plan experience and the latest financial position.

Over the three years to 30 June 2021, the Employers contributed in line with the contributions agreed with the Trustee.

## Contribution Requirements

### 4.1. Financing Objective

The financing objective we have adopted for the contribution recommendations is to maintain the funding target ratio for the Defined Benefit Schemes in the range between 100% and 110% of the higher of Vested Benefit liabilities and the Actuarial Value of Accrued Benefit liabilities.

Accumulation style benefits (including deferred member benefit liabilities in Divisions B and C, and members' Other Accounts) are matched by specific assets and do not require any additional margins.

There is no sub-fund in the Defined Benefit Schemes but the administrator maintains a notional employer defined benefit asset account for each employer group and thereby allows tracking of funding status and contribution requirements of each employer group.

### 4.2. Professional Requirements

Under Professional Standard 400 (PS400) issued by the Actuaries Institute, the funding method selected by the actuary "*must aim to provide that:*

- (a) members' benefit entitlements (including any pension increases provided by the Trust Deed or in accordance with either precedent or the intentions of the Trustee and/or Fund Sponsor) are fully funded before the members retire; and*
- (b) the assets of the Fund from time to time, after making full provision for the entitlements of any beneficiaries or members who have ceased to be employed, exceed the aggregate of benefits which employed members would reasonably expect to be payable to them on termination of membership, including the expenses of paying those benefits, and having regard to the provisions of the Trust Deed and the likely exercise of any Options or Discretions." (Paragraph 5.5.4 of PS400)*

Accordingly the actuary needs to be satisfied that any funding program is expected to provide a level of assets which meets or exceeds immediate benefit entitlements based on members' reasonable expectations. Should assets fall below that level, the funding program needs to aim to lift assets to at least the required level over a reasonable time period and to maintain assets at or above the required level thereafter.



### 4.3. Provisions of the Trust Deed

The Plan's Trust Deed includes general provisions on employer contribution requirements.

The schedules to the Trust Deed include the following specific provisions on Employer defined benefit contributions:

#### **Schedule 2: Division B (SASS)**

*4.1.1 If a Contributor is employed by an Employer, the Employer must pay under this Division Contributions at a rate determined by the Trustee on the advice of the Actuary, at such times as the Trustee may require.*

*4.1.2 In determining the Contributions payable by an Employer, the Trustee is to have regard to the amount required to meet the full costs of the liabilities under these Rules of all Employers.*

*4.1.3 The Trustee may require any such Employer to pay under this Division additional Contributions for a specified period if it appears to the Trustee that there is insufficient money in the reserve for Employers to meet the Employers' liabilities under these Rules.*

#### **Schedule 3: Division C (SANCS)**

*3.1.1 If an Employee is employed by an Employer, the Employer must pay at such times as the Trustee may require, Contributions at a rate determined by the Trustee.*

*3.1.2 The rate is to be determined by the Trustee after obtaining actuarial advice.*

*3.1.3 In determining the contributions payable by an Employer, the Trustee is to have regard to the amount required to meet the full costs of the liabilities under these Rules of all Employers.*

*3.1.4 The Trustee may require any such Employer to pay into the fund additional Contributions for a specified period if it appears to the Trustee that there is insufficient money in the reserve for Employers to meet the Employers' liabilities under these Rules.*

#### **Schedule 4: Division D (SSS)**

*10.1.1 An Employer must pay under this Division in respect of each Contributor that the Employer employs an amount equal to a specified multiple or percentage of the contributions payable to this Division by that Contributor.*

*10.1.2 The specified multiple or percentage referred to in subrule 10.1.1 is a multiple or percentage that the Trustee periodically fixes in respect of the Employer concerned.*

*10.1.3 In determining the contributions payable by an Employer, the Trustee is to have regard to the amount required to meet the full costs of the liabilities under these Rules.*

*10.1.4 The Trustee may require an Employer to pay under this Division additional contributions for a specified period if it appears to the Trustee that there is insufficient money in the relevant Employers' reserves for Employers to meet the Employers' liabilities under these Rules.*

#### 4.4. Financing Method

There are various financing methods that could be used to set the Employer contributions.

For the actual Employer defined benefit contribution recommendations, we have maintained the current employer standard contribution rates and then used a “Target Funding Method” to determine the Employer contributions required to meet the financing objectives outlined in section 4.1.

The level of the Employer contribution may vary from time to time to ensure that the Defined Benefit Schemes remain on course towards the financing objective. The same method was used in the previous investigation to determine the Employer contribution recommendations.

The contribution recommendations on this basis are set out in Appendix D.

#### 4.5. Theoretical Employer Future Service Contribution Rates

We have provided the theoretical Employer future service contribution rates to assist the understanding of the estimated cost of future benefit accruals to the Employers, the impact of investigation assumption changes and to comply with actuarial professional standards. They are not used in setting the employer contribution rates.

The “Attained Age Normal” method is used to calculate the theoretical Employer future service contribution rates in this investigation for all Divisions. This method determines the contribution rates required to fund future service benefit accruals over the future working life of the remaining contributors in the Plan. Any surplus or deficit in relation to past service liabilities are ignored in calculating these theoretical future service contribution rates. For simplicity and uniformity between the Divisions, the theoretical Employer future service contribution rates for all Divisions are expressed as a percentage of salaries.

The theoretical Employer future service contribution rates calculated under the “Attained Age Normal” method for each Division at 30 June 2021 and at 30 June 2018 are:

<b>Employer Future Service Contribution Rate</b>	<b>Division B (% of salaries)</b>	<b>Division C (% of salaries)</b>	<b>Division D (% of salaries)</b>
2021 investigation	3.6%	2.8%	7.0%
2018 investigation	5.1%	2.8%	7.2%

Divisions B and D future service costs have reduced since the previous investigation due to the continued maturing of the Divisions’ membership and the fact that increasingly more members are closer to reaching, or have reached their maximum benefit accrual.

Division C’s future service cost generally remains stable over time as Division C benefits accrue at a level rate over all service.

#### 4.6. Recommended Employer Defined Benefit Contributions

The recommended Employer defined benefit contributions are detailed in Appendix D.

They are subject to change and will be reviewed annually.

## 4.7. Investigation Balance Sheet

The following table shows the Plan's investigation balance sheet which treats future contributions as an asset and future benefits (based on both past and future service) as a liability.

Item	Actuarial Value \$M
Present Value of future defined benefits payments in respect of membership accrued at the investigation date	2,573.4
Present Value of future defined benefits payments in respect of membership after the investigation date	182.5
<b>Total Present Value of future defined benefit payments out of Plan</b>	<b>2,755.9</b>
Value of defined benefit Plan assets at 30 June 2021	2,677.4
Present Value of future Employer contributions (at recommended contribution rates and after contribution tax)	240.9
Present Value of future Member contributions (at assumed rates as outlined in the actuarial basis in Appendix C)	100.3
<b>Total available Assets (in the absence of other contributions)</b>	<b>3,018.6</b>
Excess/(Deficit) of Assets to value of benefits	262.7

The investigation results indicate that current recommended contribution rates are more than sufficient to fund future benefit payments, if future experience matches the assumptions.

The surplus over total service liabilities has arisen due to the current Employer contribution plan agreed with the sponsors being designed to exceed liabilities on the current set of assumptions. The intention is for this to provide a small surplus to protect the funding against adverse experience and where possible to permit a more conservative investment strategy in future to lower the investment risk within the Plan.

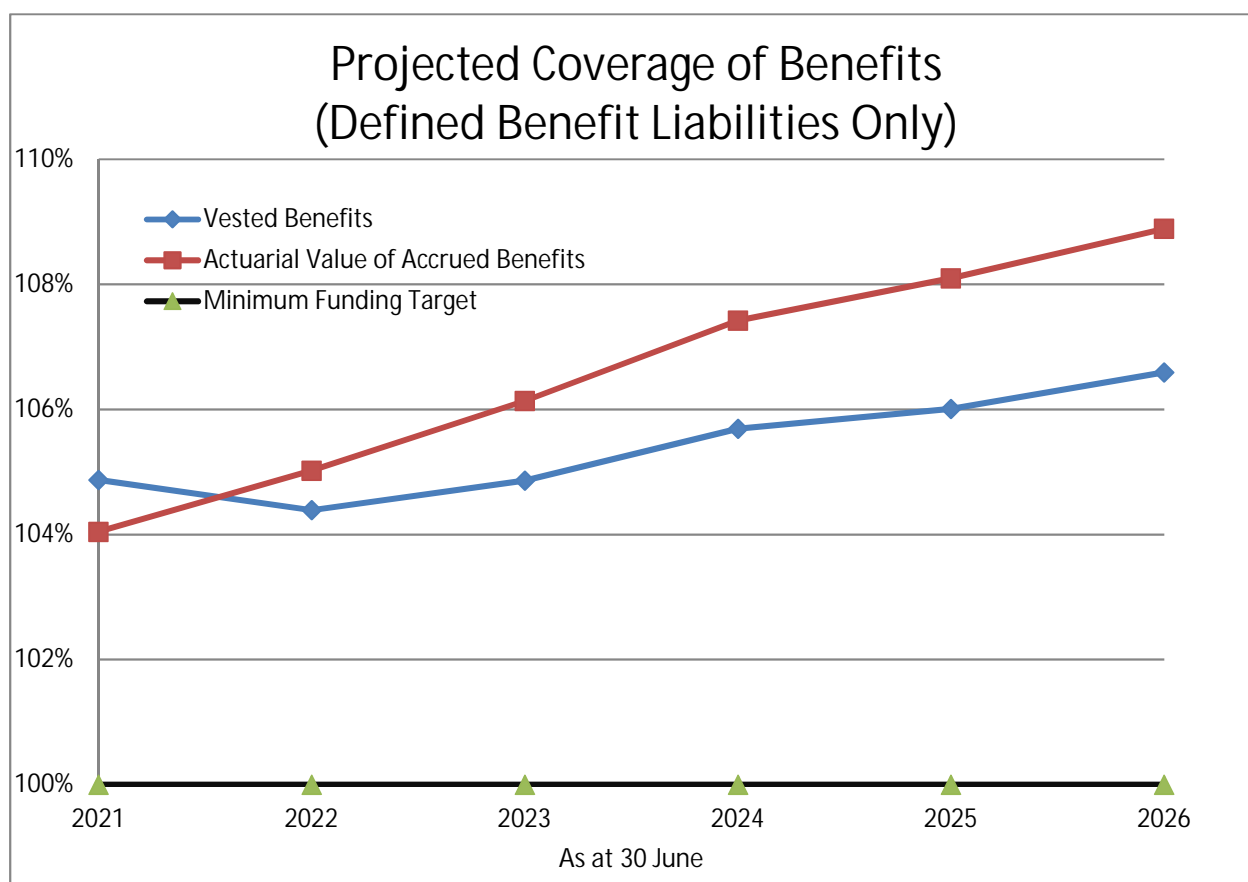
The Plan's financial position and the Employer contributions are monitored annually.

## Projections

We have prepared the following projection of Plan assets and benefit liabilities based on:

- the actuarial assumptions adopted for this investigation;
- assuming that the Employers contribute on the basis as recommended in Appendix D

The projection does not allow for subsequent investment return experience since 30 June 2021. Please see relevant commentary in section 1.5.



The graph above shows that, without any allowance for subsequent investment experience, the recommended contributions are anticipated to maintain the Plan at a satisfactory financial position above the minimum 100% funding target with the potential to build additional reserves for further de-risking if experience is in line with expectations.

The Trustee should note that this projection is based on the assumptions adopted, which represent a single scenario from a range of possibilities. The future is uncertain and the Plan's actual experience will differ from those assumptions; these differences may be minor in their overall effect, or they may be significant and material. In addition, different sets of assumptions or scenarios may also be within a reasonable range and results based on those alternative assumptions would be different.

## Key Risks and Sensitivity Results

### 6.1. Key Risks

#### 6.1.1. Investment

Investment risk is the risk that investment returns will be lower than assumed. Adverse investment performance will result in lower assets to support the defined benefit liabilities requiring the Employers to increase contributions to offset the shortfall. The investment risk is borne by the Employers.

#### 6.1.2. Salary

The risk is that wages or salaries (on which future benefit amounts will be based) will rise more rapidly than assumed, increasing benefit amounts and thereby requiring additional employer contributions. This risk is borne by the Employers.

#### 6.1.3. Pension Take Up

The risk is that for the contributors who are eligible for lifetime pensions, more of them choose to take up pension than assumed for this investigation. As the lifetime pension is generally more valuable than lump sum benefits, higher pension take up increases the benefit amounts and thereby requires additional employer contributions. This risk is borne by the Employers.

#### 6.1.4. Pension Indexation

The risk is that pensions (both current and future) may increase more rapidly than assumed, thereby increasing the cost of providing lifetime pensions and requiring additional employer contributions. This risk is borne by the Employers.

#### 6.1.5. Pensioner Longevity

This risk is that pensioners live longer than assumed, thereby increasing the cost of providing lifetime pensions and requiring additional employer contributions. This risk is borne by the Employers.

#### 6.1.6. Covid-19 risk

Whilst the initial repercussions of Covid-19 had a significant impact on investment markets over the March 2020 quarter, negatively impacting the Plan's investment return over the 2019/20 financial year, markets rebounded quickly with the result that 2020/21 financial year returns were generally very strong.

It appears however that the pandemic will likely be around for some time yet and therefore it is difficult to predict what, if any, impact Covid-19 will effectively have in the medium to long term.

Our current financial assumptions are consistent with an expectation of continuing progress in mitigating the public health and economic impacts of the pandemic, although this is not

guaranteed to occur. As part of our regular monitoring of investment markets and the Plan's financial position we will continue to assess these Covid-19 risks.

## 6.2. Sensitivity Results

Sensitivity scenarios below illustrate the financial impact (increase to employer financed past service liabilities) of the key risks above. Please note that the actual experience in relation to each key risk may vary (positively or negatively) from the assumptions for this investigation by much more than the sensitivity scenarios below.

Liability for Employer Financed Actuarial Value of Accrued Benefits as at 30/06/2021 (\$M)						
Basis	Division B Contributors	Division C Contributors	Division D Contributors	Pensioners and Division D Deferred Members	Total Employer Past Service Liabilities	Change in Past Service Liabilities
<b>Standard</b>	<b>1015.1</b>	<b>207.7</b>	<b>7.5</b>	<b>643.7</b>	<b>1,873.9</b>	
<b>Investment return +1%</b>	<b>936.5</b>	<b>197.5</b>	<b>5.9</b>	<b>581.8</b>	<b>1,721.7</b>	<b>-152.3</b>
% variation from standard	-7.7%	-4.9%	-21.1%	-9.6%	-8.1%	
<b>Investment return -1%</b>	<b>1107.7</b>	<b>219.0</b>	<b>9.5</b>	<b>717.5</b>	<b>2,053.7</b>	<b>179.7</b>
% variation from standard	9.1%	5.4%	27.5%	11.5%	9.6%	
<b>CPI increase +1%</b>	<b>1051.6</b>	<b>207.7</b>	<b>9.0</b>	<b>713.9</b>	<b>1,982.3</b>	<b>108.3</b>
% variation from standard	3.6%	0.0%	21.3%	10.9%	5.8%	
<b>CPI increase -1%</b>	<b>984.5</b>	<b>207.7</b>	<b>6.2</b>	<b>583.8</b>	<b>1,782.2</b>	<b>-91.8</b>
% variation from standard	-3.0%	0.0%	-17.3%	-9.3%	-4.9%	
<b>Salary increase +1%</b>	<b>1066.4</b>	<b>218.7</b>	<b>7.8</b>	<b>643.7</b>	<b>1,936.6</b>	<b>62.7</b>
% variation from standard	5.1%	5.3%	5.1%	0.0%	3.3%	
<b>Salary increase -1%</b>	<b>967.4</b>	<b>197.5</b>	<b>7.1</b>	<b>643.7</b>	<b>1,815.7</b>	<b>-58.3</b>
% variation from standard	-4.7%	-4.9%	-4.8%	0.0%	-3.1%	
<b>Lower pensioner mortality*</b>	<b>1020.0</b>	<b>207.7</b>	<b>7.7</b>	<b>649.9</b>	<b>1,885.2</b>	<b>11.2</b>
% variation from standard	0.5%	0.0%	2.6%	1.0%	0.6%	
<b>Higher pensioner mortality**</b>	<b>1012.7</b>	<b>207.7</b>	<b>7.4</b>	<b>638.9</b>	<b>1,866.7</b>	<b>-7.2</b>
% variation from standard	-0.2%	0.0%	-1.1%	-0.7%	-0.4%	
<b>Division B 100% Pension Take up</b>	<b>1063.2</b>	<b>207.7</b>	<b>7.5</b>	<b>643.7</b>	<b>1,922.1</b>	<b>48.1</b>
% variation from standard	4.7%	0.0%	0.0%	0.0%	2.6%	

\* Assumes the short term pensioner mortality improvement factors for years 2021-2027 (see Appendix C) also apply for years after 2027.

\*\* Assumes the long term pensioner mortality improvement factors for years post 2027 (see Appendix C) also apply for years 2021 to 2027.

### 6.3. Pension Liabilities on Market Value Basis

The basis used to value defined benefit pension entitlements for the purposes of this investigation is considered suitable taking into account the Plan's current circumstances, including the current investment policy and with ongoing support of the Employer sponsors.

Of course, conditions may change in future and it is important to understand some of the implications should the Employers/Trustee consider a wind-up of the Plan in the future.

If instead the pension liabilities were to be valued on a "market value" basis – that is, the amount which would be required to be paid to a third party (for example, a life office) to take on the liability – a higher pension liability value would be obtained. It is not possible to be precise about what the "market value" of the pension liabilities would be, as the market in Australia is currently very shallow at best.

However it is likely that a third party would base its pricing on a discount rate around the level of long-term Government bond rates. To provide an illustration of the order of magnitude of the potential impact, we have valued the pensioner liabilities at 30 June 2021 using a discount rate of 1.5% pa (based on the 30 June 2021 10-year Commonwealth Government bond rate), but with other assumptions unchanged.

	<b>Pensioner Liabilities as at 30/06/2021 (\$M)</b>
Standard - discount rate at 5.5% pa	638.1
Discount rate at 1.5% p.a.	1,012.7
% variation from standard basis	159%
Dollar variation from standard basis (\$M)	374.6

Valuing current pensioner liabilities on a Government bond rate basis increased the liabilities at 30 June 2021 by \$374.6 million. This would reduce the Asset Coverage of Actuarial Value of Accrued Benefits from 104% to 90%. Division D contributors and some Division B contributors are eligible for lifetime pension in the future when they retire. If these contributors' future pension liabilities are valued on a Government bond rate basis, the Plan's liabilities will increase further.

Therefore a wind-up of the Plan would likely require substantial funding in order to enable suitable provision to be made for continuation of the pension entitlements and in turn non-pensioner benefits.

## Trustee Policies and Self-Insurance

### 7.1. Investment

Some of the Plan's assets are subject to member investment choice and others are invested in the Employer Defined Benefit Asset Reserve. Currently the investment arrangements are:

Division	Member Other Accounts	Member Defined Benefit Contributions	Deferred Member Benefits	Employer Assets
Division B and associated Division C benefits	Subject to member investment choice			Invested in the Employer DB Asset Reserve
Division D and associated Division C benefits	Invested with the Employer DB Asset Reserve			

The Plan's Operational Risk Financial Requirement Reserve is invested separately. The Division B Additional Benefits Reserve is invested in the Employer DB Asset Reserve.

The Trustee determines the investment strategy for the Employer DB Asset Reserve.

The Trustee regularly reviews its investment strategy taking into account changes to the membership and how this may vary in the longer term as the Plan matures. As part of the monitoring of the investment strategy the Trustee has a policy to reduce the level of investment risk (i.e. de-risking) held where possible whilst still expecting to be able to fund the liabilities of the Plan.

Due to the positive experience in recent years the Trustee was able to begin to implement this reduction in investment risk in line with the Trustee policy. Following the Board's approval, the Plan reduced its exposure to growth assets from 70% to 65% in September and a further 5% reduction to 60% has been approved at the December Board meeting.

These changes in investment strategy have been taken into account in carrying out this investigation and are consistent with the assumptions and projections set out in this report.

The Trustee will continue to keep this policy and funding levels under review as part of the regular monitoring.



The strategic asset allocation of the Plan as at 30 June 2021 along with the latest approved allocations at the December Board meeting are shown below:

<b>Asset Class</b>	<b>Benchmark Asset Allocation for Employer Defined Benefit Asset Reserve 30 June 2021</b>	<b>Benchmark Asset Allocation for Employer Defined Benefit Asset Reserve Approved at December 2021 Board Meeting</b>
Australian Equities	24%	21%
International Equities	26%	21%
International Listed Property	2%	2%
Australian Direct Property	9%	7%
Private Equity	5%	4%
Private Credit	2%	2%
Growth Alternatives	2%	2%
Short Term Fixed Income	12%	14%
Liquid Alternatives	1%	1%
Bonds	7%	15%
Infrastructure	2%	2%
Cash	8%	8%
<b>Growth Assets</b>	<b>70%</b>	<b>60%</b>
<b>Defensive Assets</b>	<b>30%</b>	<b>40%</b>
<b>Total</b>	<b>100%</b>	<b>100%</b>

Given that it is not known when members will take their benefit with certainty, the exact term of the Plan's liabilities is unknown. However, despite the defined benefits being closed to new members, the projections carried out as part of this investigation indicate that it is expected to be a considerable number of years before the defined benefit assets reduce to below \$1 billion.

The Plan's investments are expected to provide a high level of liquidity in normal circumstances.

We have reviewed the Plan's investment policy for Employer defined benefit assets taking into account the Plan's financial position and the nature and term of the Plan's defined benefit liabilities and confirm we consider that the investment policy adopted is suitable subject to the Employers understanding the risk associated with this strategy.

## 7.2. Unit Pricing

The Plan uses daily unit pricing to credit investment returns for each investment option (including the Employer defined benefit asset reserve). We consider the unit pricing policy is generally suitable.

A full review of the Plan's unit pricing policy is outside the scope of this investigation.

### 7.3. Self-Insurance

The Defined Benefit Schemes of Local Government Super (Active Super) self-insure death and disability benefits. The table below sets out the self-insurance arrangements that exist in the Plan and the relevant actuarial monitoring process.

<b>Arrangements</b>	<b>Description</b>	<b>Latest Triennial Actuarial Investigation</b>	<b>Next Triennial Actuarial Investigation</b>
Division B Additional Benefit Reserve	Reserve to meet Additional Benefit payments to Division B members.	Reviewed as at 30 June 2020, report by Richard Boyfield dated 29 June 2021.	30 June 2023
Defined Benefit Reserve (DB employer reserve)	Meets the cost of standard death and disability benefits of Division B, C and D members.	Employer funding reviewed as at 30 June 2021 as part of this investigation.	30 June 2024

The self-insurance arrangements are monitored annually for the Trustee to satisfy requirements under the APRA Prudential Standard SPS 160 Defined Benefit Matters.

We consider that the Plan's current self-insurance arrangements and the actuarial monitoring processes are suitable.

## Assets

### 8.1. Assets

The Employer defined benefit assets and total defined benefit assets at 30 June 2021 are calculated as:

	\$M
<b>Cash asset value for the Employer Reserve at 30 June 2021</b>	<b>2,004.5<sup>^</sup></b>
Less: Employer Reserve benefit payables at 30 June 2021	(22.2)
Less: Division D contributor defined benefit contribution accounts	(3.4)
Less: Division D Other Accounts and Division C benefits of Division D deferred members	(1.0)
<b>Employer Defined Benefit assets at 30 June 2021</b>	<b>1,977.9</b>
Add: Division B contributor defined benefit contribution accounts	696.1
Add: Division D contributor defined benefit contribution accounts	3.4
<b>Total Defined Benefit assets at 30 June 2021</b>	<b>2,677.4</b>

<sup>^</sup> Including the value of Murrumbidgee Irrigation pensioners buy-in policies at 30 June 2021, which was \$22.7m as provided by Challenger.

The total cash asset value for the Employer Reserve was used for the audited financial statements at 30 June 2021. As the audited financial statements are prepared on a cash basis with no allowance for benefit payables at 30 June 2021, we have estimated the Employer Reserve benefit payables.

We have checked the asset information received for reasonableness and confirm its suitability for use in the report.

### 8.2. Operational Risk Reserve

The assets to meet the Trustee's Operational Risk Financial Requirement (ORFR) are held separately and are excluded from the defined benefit assets at the investigation date. A review of the adequacy of assets held to meet the ORFR or the ORFR strategy is outside the scope of this investigation.

### 8.3. Division B Additional Benefit Reserve

The Division B Additional Benefit Reserve of \$6.1 million as at 30 June 2021 is held separately and excluded from the defined benefit assets at the investigation date.

## The Regulator and Prudential Standards

The regulator (APRA) has issued a number of Prudential Standards for the superannuation industry, including Prudential Standard (SPS 160) relating to the financial management and funding of defined benefit plans. We have commented below on a number of the requirements arising from SPS 160.

### 9.1. Shortfall Limit

The Trustee must determine a “Shortfall Limit” for each fund, being “the extent to which the fund can be in an unsatisfactory financial position with the Trustee still being able to reasonably expect that, because of corrections to temporary negative market fluctuations in the value of the fund assets, the fund can be restored to a satisfactory financial position within a year”.

We understand that the Plan’s Shortfall Limit, determined by the Trustee on the basis of previous actuarial advice, is 97%.

The Shortfall Limit is expressed as a percentage coverage level of defined benefit vested benefits by defined benefit assets and it is appropriate to consider the following when determining if the shortfall limit remains appropriate:

- The guidance provided in the Actuaries Institute Information Note: Shortfall Limit in Prudential Standard 160 dated June 2013;
- The investment strategy for defined benefit assets, particularly the overall benchmark exposure of 60% to “growth” assets;
- The results of this investigation regarding the extent to which the current and projected defined benefit Vested Benefits are not linked to the investment return on defined benefit assets (i.e. salary-based benefits and defined benefit pensions) and the current and projected relativity between Vested Benefits and Minimum Requisite Benefits.

Based on the above, we recommend that the Trustee maintains the shortfall limit at 97%.

The projections also indicate that the level of Minimum Requisite Benefits is not expected to be a constraint in determining the Shortfall Limit. We will reassess the suitability of the adopted Shortfall Limit as part of the next regular actuarial investigation. The Shortfall Limit should be reviewed earlier if there is a significant change to the investment strategy for defined benefit assets – in particular a change to a more defensive investment strategy or if the Trustee otherwise considers it appropriate to do so.

## 9.2. Monitoring Process

SPS 160 also requires the Trustee to determine and implement a process for monitoring the defined benefit Vested Benefits coverage against the Shortfall Limit for each plan. If this monitoring process indicates that defined benefit vested benefits coverage has (or may have) fallen below the Shortfall Limit, then under SPS 160:

- An “Interim Actuarial Investigation” may be required (depending on the timing of the next regular actuarial investigation).
- A Restoration Plan is required to be put in place if an Interim Actuarial Investigation finds the plan has breached its Shortfall Limit. The Restoration Plan must be designed to return the plan to a “satisfactory financial position”, so that the Vested Benefits are fully covered, within a reasonable period that must not exceed 3 years (unless APRA permits a longer period to be applied based on specific circumstances of the fund) and this must be submitted to APRA.

The Trustee has a policy of reviewing the Plan’s funding level on an annual basis. The purpose of the regular reviews is to assess the financial position and the need for any modifications to the funding program due to emerging experience.

The Trustee should also continue to monitor the “Notifiable Events” specified in the Plan’s Funding and Solvency Certificate and advise the Actuary should any actual or potential Notifiable Events occur.

## 9.3. Requirements due to Unsatisfactory Financial Position

### 9.3.1. Restoration Plan

Under SPS 160, a Restoration Plan is also required to be put in place if the actuary finds in a regular actuarial investigation that a Plan:

- Is in an unsatisfactory financial position (whether or not the Shortfall Limit has been breached); or
- Is likely to fall into an unsatisfactory financial position.

The Restoration Plan must be designed to return the plan to a “satisfactory financial position”, so that Vested Benefits are fully covered, within a reasonable period that must not exceed 3 years (unless APRA permits a longer period to be applied based on specific circumstances of the fund) from the investigation date.

An SPS 160 Restoration Plan is not required if the plan is technically insolvent (in which case the insolvency rules must be followed). If an SPS 160 Restoration Plan is already in place then any changes to the Restoration Plan should be agreed with APRA.

As indicated by the Plan’s current financial position and our financial projections, the Plan is in a satisfactory financial position and is not likely to fall into an unsatisfactory financial position, and hence these requirements do not apply at this investigation.

### 9.3.2. Actuary’s Reporting Requirements

Section 130 of the SIS Act requires that if an actuary forms the opinion that a Plan’s financial position may be unsatisfactory, or may be about to become unsatisfactory, and that opinion was

formed in performing an actuarial function, the actuary must advise both the Trustee and the regulator (APRA) in writing immediately (an unsatisfactory financial position applies where assets are less than Vested Benefits).

These requirements do not currently apply as I am of the opinion that the Plan's financial position is not unsatisfactory (or about to become unsatisfactory).

The Plan's assets are sufficient to fully cover the SG Minimum Benefits at 30 June 2021. Therefore the Plan is not considered to be technically insolvent.

#### **9.4. Statements Required by SPS 160**

The attached Appendix E provides statements required to be made under APRA Prudential Standard SPS 160.

# Actuarial Certification

## 10.1. Purpose

I have prepared this report exclusively for the Trustee of the Defined Benefit Schemes of Local Government Super (Active Super) for the following purposes:

- To present the results of an actuarial investigation of the Plan as of 30 June 2021;
- To review Plan experience over the period since the previous actuarial investigation (effective at 30 June 2018);
- To recommend contributions to be made by the Employers intended to allow the Plan to meet its benefit obligations in an orderly manner, and to reach and maintain an appropriate level of security for members' accrued benefit entitlements;
- To satisfy the requirements of the Plan's Trust Deed for actuarial investigations of the Plan's financial position; and
- To meet legislative requirements under relevant Commonwealth superannuation legislation.

The report has been prepared in accordance with the requirements of the Trust Deed, the Superannuation Industry (Supervision) Act 1993 and associated regulations (SIS legislation), Prudential Standard SPS 160 issued by APRA and Professional Standard 400 issued by the Actuaries Institute setting out requirements for actuarial investigations of defined benefit superannuation funds under SIS legislation.

The previous actuarial investigation was conducted as at 30 June 2018 by Richard Boyfield, on behalf of Mercer, and the results are contained in a report dated 31 December 2018.

## 10.2. Background information of the Plan

The Trustee of the Plan holds a Registrable Superannuation Entity License under the SIS legislation and operates the Plan as required under the Trust Deed.

The Plan is a resident regulated fund and a complying superannuation fund for the purposes of the SIS legislation. The Plan is taxed as a complying superannuation fund.

The advice contained in this report is given in the context of Australian law and practice. No allowance has been made for taxation, accountancy or other requirements in any other country.

### 10.3. Governing Documents

The Trust Deed and Schedules to the Trust Deed from the Plan's website has been relied on in the preparation of this investigation report.

### 10.4. Additional information

**Significant events since the investigation date** – The investment return from 1 July 2021 to 30 November 2021 was 2.64%. Whilst the returns are higher than expected year to date we believe this is part of the natural financial market cycle and volatility. The investment return assumption is set based on long term expectations and anticipates periods of higher returns over shorter timeframes. The funding position will continue to be monitored and if conditions worsen materially due to the heightened levels of volatility we will raise for further consideration as part of the quarterly reviews.

The overall funding level of the Plan has enabled investment de-risking of the portfolio to begin. This is in line with the Trustee policy. Following the Board's approval, the Plan reduced its exposure to growth assets from 70% to 65% in September and a further 5% reduction to 60% has been approved at the December Board meeting.

These changes in investment strategy have been taken into account in carrying out this investigation and are consistent with the assumptions and projections set out in this report.

I am not aware of any other significant events since the investigation date that would affect the recommendations of this report.

**Next annual Actuarial Investigation** – The Plan has received an exemption from annual actuarial investigation requirements from APRA. Therefore the next actuarial investigation will be a triennial investigation conducted as at 30 June 2024.

**Funding and Solvency Certificate** – The current Funding and Solvency Certificate remains valid under the contributions recommended in this investigation. It will however need to be replaced before 11 November 2024.

**Next Benefit Certificate** – Will be required at or before the expiry of the current Benefit Certificate (which expires on 30 June 2025). This certificate is required primarily by the Employers to demonstrate compliance with their Superannuation Guarantee obligations to employees who are members of the Plan. However the Trustee must ensure the benefits paid from the Plan are not lower than the minimum benefits specified in the Benefit Certificate.

### 10.5. Actuary's certifications

#### ***Professional standards and scope***

This report has been prepared in accordance with generally accepted actuarial principles, Mercer internal standards, and the relevant Professional Standards of the Actuaries Institute, in particular PS400 which applies to “...*Actuarial Investigations of the financial condition of wholly or partially funded defined benefit superannuation funds.*”



### ***Use of report***

This report should not be relied upon for any other purpose or by any party other than the Trustee of the Plan. Mercer is not responsible for the consequences of any other use. This report should be considered in its entirety and not distributed in parts. The Trustee should share this report with the Employers who contribute to the Plan. The Employers may consider obtaining separate actuarial advice on the recommendations contained in the report.

The advice contained in this report is given in the context of Australian law and practice. No allowance has been made for taxation, accountancy or other requirements in any other country.

### ***Actuarial Uncertainty and Assumptions***

An actuarial investigation report contains a snapshot of a plan's financial condition at a particular point in time, and projections of the plan's estimated future financial position based on certain assumptions. It does not provide certainty in relation to a plan's future financial condition or its ability to pay benefits in the future.

Future funding and actual costs relating to the Plan are primarily driven by the Plan's benefit design, the actual investment returns, the actual rate of salary inflation and any discretions exercised by the Trustee or the Employer(s). The Plan's actuary does not directly control or influence any of these factors in the context of an actuarial investigation.

The Plan's future financial position and the recommended Employer contributions depend on a number of factors, including the amount of benefits the Plan pays, the cause and timing of member withdrawals, Plan expenses, the level of taxation and the amount earned on the assets invested to pay benefits. These amounts and others are uncertain and unknowable at the investigation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, assumptions are used to select a single scenario from a range of possibilities. The results of that single scenario are included in this report.

However, the future is uncertain and the Plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within a reasonable range and results based on those assumptions would be different.

Actuarial assumptions may also be changed from one investigation to the next because of mandated requirements, Plan experience, changes in expectations about the future and other factors. We did not perform, and thus do not present, an analysis of the potential range of future possibilities and scenarios.

Because actual Plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of one set of investigation results.

### ***Data and Plan Provisions***

To prepare this report, we have relied on financial and participant data provided by the Trustee and the Plan's administrator. The data used is summarised in this report. We have reviewed the financial and participant data for internal consistency and general reasonableness and believe it

is suitable for the purpose of this report. We have not verified or audited any of the data or information provided.

We have also relied upon the Plan's governing rules available from the Trustee's website. The Trustee is ultimately responsible for the validity, accuracy and comprehensiveness of this information. If the data or Plan provisions are not accurate and complete, the investigation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a revision of this report.

***Further Information***

If requested, I am available to provide any supplementary information and explanation about the actuarial investigation.

Prepared by



**Richard Boyfield**

Fellow of the Institute of Actuaries of Australia

23 December 2021

I have reviewed this report under Mercer's professional Peer Review Policy. I am satisfied that it complies with applicable professional standards and uses assumptions and methods which are suitable for the purpose.



**Julian Hotz**

Fellow of the Institute of Actuaries of Australia

# APPENDIX A

## Membership Information

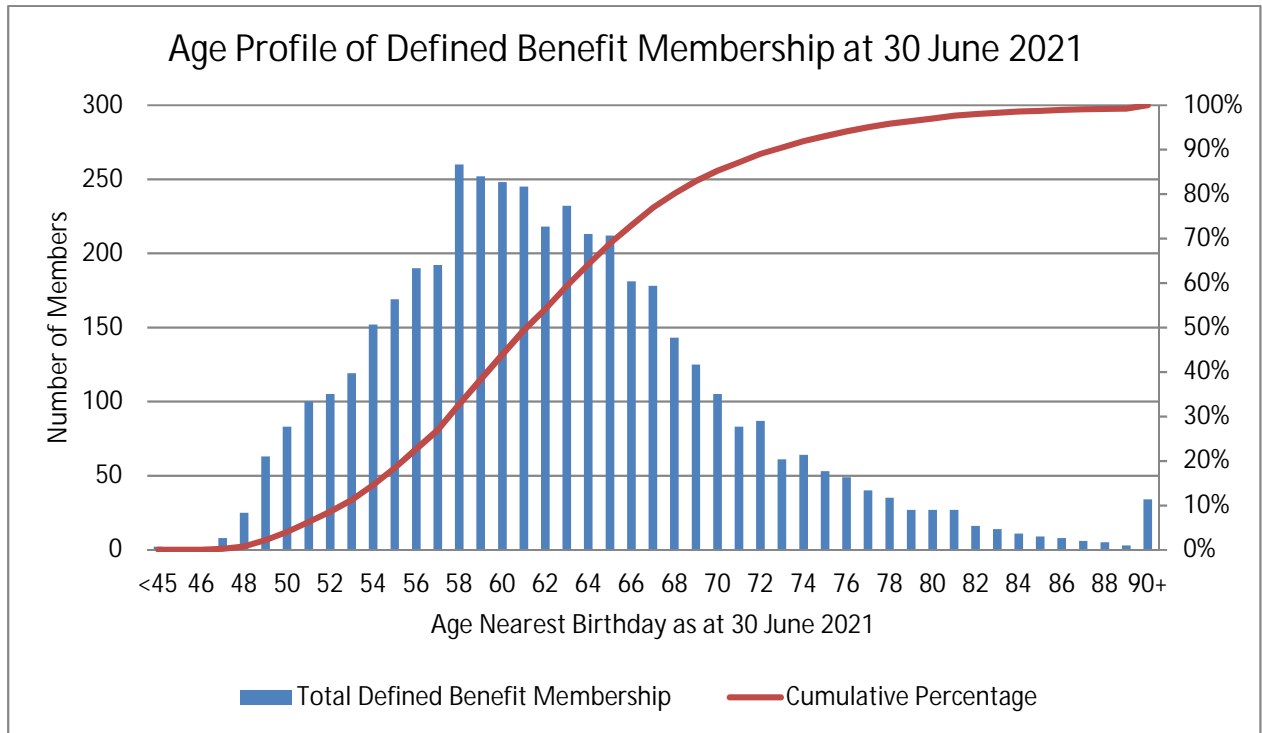
The membership of the defined benefit section has changed since 30 June 2021 as follows:

	Division B		Division D		
	Contributors	Pensioners	Contributors	Deferred	Pensioners
Active members at 30 June 2018	4,268	960	23	22	123
Exits	1,329	53	14	9	4
New Entrants	146	325	0	1	20
Active members at 30 June 2021	3,085	1,232	9	14	139
Total salaries at 30 June 2021	\$284,973,718	-	\$1,210,159	-	-
Average salaries at 30 June 2021	\$92,374	-	\$134,462	-	-
Total Annual Pension amount as at 30 June 2021	-	\$30,360,321	-	-	\$7,298,010
Average Annual Pension amount as at 30 June 2021	-	\$24,643	-	-	\$52,504
Average age at 30 June 2021	59	71	58	62	70

In addition, there were 2,978 deferred members at 30 June 2021 with accumulation style benefits. The Defined Benefit Schemes are closed to new members with the exception of transfers from eligible schemes.

### A.1. Active defined benefit member age profile

The 30 June 2021 defined benefit membership split by age is shown in the following graph:



# APPENDIX B

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## Plan Design

### B.1. Division B

#### B.1.1 Definitions

"Accrued benefit points" at a contributor's exit date means the number of benefit points contributed to that date, or the contributor's maximum benefit points at that date if less.

"Accumulation of contributions" means, in respect of a contributor, the amount of contributions made to the Fund by that contributor plus interest less death and disability charges (if covered for additional benefits) less administration costs.

"Additional benefit" means the additional amount of 4% times final salary (or final average salary if higher) times prospective benefit points. The additional benefit is payable on death or total and permanent disability for those contributors who are covered. Contributors who are covered pay a levy (deducted from their accumulation of contributions) for one quarter of these additional benefits.

"Benefit points" - a contributor accrues 1/12th of a benefit point for each one per cent of salary contributed for a whole month. The maximum number of benefit points a contributor may accrue is the lesser of 180 or half the number of months the contributor is (or is deemed to be) a contributor to the Scheme.

"Continuous contributory service", in relation to a contributor, means the period beginning with the contributor's entry date and ending with the contributor's exit date.

"Early retirement age" means the age of 58 years or, if some lower age (but not lower than the age of 55) is prescribed, that lower age.

"Final average salary" in respect of a contributor means the average of full-time salaries on the contributor's exit date and on 31 December in each of the 2 years immediately preceding that in which he ceased to be an employee.

"Final salary" means the annual rate of full-time salary payable to a contributor immediately before exit.

"Prospective benefit points" means the future benefit points accruing to a contributor if he were to continue to contribute until early retirement age 58 (or earlier prescribed age) at the average rate at which he has contributed since becoming a contributor to a points based scheme, limited to the points required to reach the contributor's maximum benefit points at early retirement age.

"Salary" means for contributions payable in a superannuation year commencing on 1 April the annual rate of salary paid to a contributor at the previous 31 December (or entry if later).

"Taxable date" means 1 July 1988.

180 Point Member means a Division B Member who has 180 benefit points.

## B.1.2 Contributions by Contributors

- contributors may elect to contribute at 1, 2, 3, 4, 5, 6, 7, 8 or 9 per cent of salary;
- the Trustee may approve a contribution rate of 0% in some circumstances, eg financial hardship.
- the elected rate of contribution may be altered each superannuation year (commencing 1 April).
- contributions are payable until the end of the month prior to exit or until age 70.

## B.1.3 Benefits

### B.1.3.1. Retirement on or after early retirement age

The benefit payable to a contributor on exit on or after early retirement age is:

- a lump sum equal to the accumulation of the former contributor's contributions; plus
- a lump sum equal to  $F \times A \times 0.025 \times (1 - 0.15 \times B/C)$ ;

Where F is the contributor's final average salary;  
 A is the contributor's accrued benefit points;  
 B represents the period in days of continuous contributory service that began on the taxable date;  
 C represents the period in days of continuous contributory service for the contributor;  
 0.15 represents the tax rate of the Fund on employers' contributions.

### B.1.3.2. Death

The benefit payable on death of the contributor after early retirement age is the benefit which would have become payable had he or she retired on the date of his death, but is not subject to reduction for tax, ie the factor B/C is zero.

The benefit payable on death of the contributor before attaining early retirement age is:

- a lump sum equal to the accumulation of the former contributor's contributions; plus
- a lump sum equal to  $S \times A \times 0.025$ ;

Where S is the former contributor's final salary, or final average salary if this is higher;  
 A is the former contributor's accrued benefit points;

plus

where the contributor was covered for additional benefits, the amount of the additional benefit (ie 4% times S times prospective benefit points).

### B.1.3.3. Total and permanent invalidity before early retirement age

The benefit payable to a former contributor who retires before attaining early retirement age due to total and permanent invalidity is:

- a lump sum equal to the accumulation of the contributor's contributions; plus
- a lump sum equal to  $S \times A \times 0.025 \times (1 - 0.15 \times B/C)$ ;

Where S is the contributor's final salary or final average salary if this is higher;

A is the contributor's accrued benefit points;  
 B represents the period in days of continuous contributory service that began on the taxable date;  
 C represents the period in days of continuous contributory service for the contributor;  
 plus

- where a contributor is covered for additional benefits, the amount of the additional benefit (ie 4% times S times prospective benefit points).

#### **B.1.3.4. Partial and permanent invalidity**

The benefit payable to a contributor who retires before attaining the early retirement age due to partial and permanent invalidity is:

- a lump sum equal to the accumulation of the contributor's contributions; plus
- a lump sum equal to  $S \times A \times 0.025 \times (1 - 0.15 \times B/C)$ ;

Where S is the contributor's final salary or final average salary if this is higher;

A is the contributor's accrued benefit points;  
 B represents the period in days of continuous contributory service that began on the taxable date;  
 C represents the period in days of continuous contributory service for the contributor.

#### **B.1.3.5. Retrenchment**

The benefit payable to a contributor who is retrenched before attaining the early retirement age is the same as for partial and permanent invalidity.

#### **B.1.3.6. Resignation, dismissal or discharge after 10 years' membership**

The benefit payable to a contributor who resigns or is dismissed or discharged before attaining the early retirement age and who has been a member for 10 years or more is:

- a lump sum equal to the accumulation of the contributor's contributions; plus
- a lump sum equal to  $(V - 0.15 \times T) \times R \times A/Y \times 0.025$ ;

Where V is the number of years of continuous contributory service (including fractional parts of a year);  
 T is the number of years of continuous contributory service that commenced on the taxable date or entry date (whichever occurred later) including fractional parts of a year;  
 R is the contributor's accumulated contributions;  
 A is the contributor's accrued benefit points;  
 Y is the total benefit points the member would have accrued at exit had no maximum applied.

That part of the benefit accrued since 30 June 1999 must be taken in preserved form.

### **B.1.3.7. After attainment of age 65**

After attainment of age 65, and on the Trustee being satisfied that the member has retired from the workforce the contributor must be paid the retirement benefit, but may elect to defer the benefit. After attainment of age 70 no further benefits may accrue and no further contributions are payable.

### **B.1.3.8. Deferred benefits**

A contributor who becomes entitled to a benefit on retrenchment, resignation, dismissal or discharge, on early retirement or after attainment of age 65 may elect instead a deferred benefit unless the benefit is less than \$200 or the contributor elects to take a cash benefit. A member may elect to receive part of the benefit as cash and defer the remainder.

The deferred benefit is payable on:

- application on attainment of early retirement age;
- death;
- total and permanent invalidity before early retirement age;
- retirement from the workforce (or effective retirement after 65 or 75 defined as working less than 10 or 30 hours a week respectively);
- on application if the benefit was deferred after early retirement age.

The deferred benefit is:

- a lump sum equal to the accumulated contributor's contributions, plus interest from the date of exit to the date of payment; plus
- a lump sum equal to  $F \times A \times 0.025 \times D \times (1 - 0.15 \times B/C)$  plus interest from the date of exit to the date of payment.

Where F is the contributor's final average salary;

A is the contributor's accrued benefit points;

D equals an actuarial discount factor (currently 0.99 for ages at exit under early retirement age, otherwise 1.0) raised to the power of (early retirement age less age at exit including fractions of a year);

B represents the period in days of continuous contributory service that began on the taxable date;

C represents the period in days of continuous contributory service for the contributor.

A retrenched member may elect to defer, instead of the above, the amount of the immediate retrenchment benefit.

A member may elect instead to receive part of benefit in cash up to the cash amount to which he would have been entitled at exit plus interest to the date of payment at an earlier date than the deferred benefit.

### **B.1.3.9. Provisions for part-time contributors**

- (i) Benefits are calculated on the equivalent full-time salary.
- (ii) Accrued benefit points for each month are reduced by salary ratio (actual salary divided by salary if full-time).
- (iii) The maximum number of points attainable is scaled down by salary ratio for each month.



- (iv) Prospective benefit points are scaled down by salary ratio at commencement of month in which exit occurs.
- (v) Contributions are reduced by applying the salary ratio.

#### **B.1.3.10. Superannuation Guarantee**

The employer-financed benefit on exit for any reason, together with the employer-financed benefit payable under Division C is subject to the minimum benefit as specified in the current Benefit Certificate so that benefits paid can be used to meet employers' obligations under the Superannuation Guarantee (Administration) Act. The minimum benefit is specified under the Division C summary of benefits below.

#### **B.1.3.11. Special provisions for certain members**

##### **Transferred PASS Contributors (Public Authorities Superannuation Scheme)**

- (i) The additional benefit and associated levy will automatically apply to a contributor who was qualified for the additional benefit under the PASS;
- (ii) Initial accrued benefit points will be the number of accrued benefit points under PASS as at 31 March 1988 multiplied by 0.72;
- (iii) The contributor's entry date will be deemed to be the date service commenced or was deemed to have commenced under PASS;
- (iv) Prospective benefit points will be subject to a minimum of 0.7 times the number of prospective benefit points that would have been calculated if early retirement age were 60;
- (v) Benefits are reduced where broken service has been recognised in the case of a contributor who had employment involuntarily terminated under Clause 5 of the New South Wales Retirement Benefits Regulation 1983;

##### **Transferred LGPF Contributors (Local Government Pension Fund)**

- (i) Transitional arrangements for ex-LGPF members are as for transferred PASS members with some additional special provisions.
- (ii) An additional lump sum is payable to qualified contributors on death or total and permanent disablement before age 60 equal to

$$\frac{S}{100} \times (P-R)$$

Where S is final salary;

P is prospective benefit points to age 65;

R is prospective benefit points under SASS.

- (iii) Minimum lump sum benefits on death or total and permanent disablement apply to certain contributors.
- (iv) Employer-financed benefits on retirement after age 60 may be taken completely or in part pension form as for LGPF except that benefit points provide 0.2223% pension, discounted for retirement before age 65 (special additional pension points are provided to ensure pensions always exceed LGPF pensions).

$$\text{ie Pension} = S \times C \times 0.002223 \times (1 - .025T)$$

Where S is final average salary;  
 C is the number of benefit points converted to pension;  
 T is the number of whole years that the member's exit date precedes his 65th birthday.

These benefits are subject to a reduction to account for contribution tax liability to the Fund as follows:

$$\text{Reduction} = A \times B/C \times Q \times 0.15 \times \text{Pension Benefit}$$

Where A represents the contributor's accrued benefit points;  
 B represents the period in days of continuous contributory service that began on the taxable date;  
 C represents the period in days of continuous contributory service for the contributor;  
 Q represents the proportion of accrued benefit points to be converted to a pension.

There are also pension options on death and disability.

- (v) Pensions in respect of children are payable as for LGPF. The rate as at 30 June 2021 was \$131.80 per fortnight where a parent survives or \$313.10 per fortnight where no parent survives. The total pension to dependants is not to exceed that which would have been payable on total and permanent disablement.

### NSW Retirement Fund (NRF)

- (i) Transitional arrangements for ex-NRF members are as for ex-PASS members with some additional special provisions.
- (ii) Contributions may be made at rates specified by regulation such that a certain benefit point accrual is attained (except that contributions shall not exceed 9% of salary).
- (iii) Points accrual for each 1% of salary contributed after 1 April 1988 and before attainment of age 59 11/12 by contributors born in May 1926 or later may be obtained from Schedule 2 to the Regulation "State Authorities Superannuation (Transitional Provisions) Regulation 1988" (subject to a maximum annual accrual of 9 points), or is calculated as  $(L \times 1.8 + 0.7)/2.5$  if greater

Where L is 1/9 of the maximum points the contributor could have acquired in the year commencing 1 April 1987

To accrue each benefit point the percentage of salary to be contributed by contributors born in April 1926 or earlier is the smaller of (percentage contribution rate at 31 March 1988)/(adjusted points limit), subject to a maximum annual accrual of 9 points or the adjusted points limit if greater, and 1%. The adjusted points limit is

$$\frac{(N \times 1.8 + 0.7)}{2.5}$$

Where N is the number of points accrued in the year commencing 1 April 1987.

(If a contributor is contributing 0% on 31 March 1988 they shall be deemed to be contributing 1%).

- (iv) Employer-financed benefits and additional benefits may be taken in pension form as for NRF. (ie as for LGPF with additional option to take non-reversionary pension of higher value)
- (v) Minimum benefits are provided on death or invalidity before early retirement age.

#### **State Public Service Superannuation Scheme (SPSSS) (transferred at 1 April 1989)**

- (i) The additional benefit and associated levy will automatically apply to a contributor who was qualified for the supplementary benefit under the SPSSS.
- (ii) The contributor's account will be credited at 1 April 1989 with the corresponding account balance under the SPSSS as at 31 March 1989.
- (iii) Initial accrued benefit points will be the number of accrued benefit points under SPSSS as at 31 March 1989.
- (iv) The contributor's entry date will be deemed to be the date service commenced or was deemed to have commenced under SPSSS.

The initial contributed points figure will be the corresponding figure under SPSSS.

The contributor's early retirement age is prescribed as age 55.

- (vii) The maximum benefit points applying to a transferred contributor are:

age 55 or less	162
age 55 to 58	162 plus 6 per year after age 55
age 58 or more	180

- (viii) The employer financed benefits are to be calculated using a multiple of 0.03 except for benefits on resignation, dismissal or discharge before early retirement where a multiple of 0.025 is used.

#### **Closed Local Government Schemes**

Local Government Provident Fund and Superannuation Benefits Funds and Local Government Superannuation Board insurance policyholders (effective 1 May 1990).

- (i) The additional benefit and associated levy will automatically apply to a contributor who was qualified for the additional benefit in the Benefits Fund or was an insurance policyholder.
- (ii) Accumulated credits and the proceeds on cancellation or surrender of insurance policies for each transferred contributor are allocated in certain ratios between contributor account and employer reserve.

- (iii) A "notional accumulation" is developed from the amount allocated to the employer reserve plus estimated notional future employer contributions plus interest.
- (iv) Initial accrued benefit points are calculated based on various formulae as stated in the "State Authorities Superannuation (Closed Local Government Schemes Transfer) Regulation 1990":
- |  |   |   |
|--|---|---|
| Insurance policyholders and fixed rate Provident Fund contributors | - | points calculated according to Schedule 1 to the Regulation, based on sum assured and date of contribution/premium payment            |
| Variable rate Provident Fund contributors                          | - | 0.02 points per 1% of salary contributed per month to 30 June 1985 and 0.03 points per 1% per month from 1 July 1985 to 30 April 1990 |
| Benefits Fund  | - | 0.21 points per month of contributory membership  |
- (v) Minimum employer financed benefits of the "notional accumulation" are provided.
- (vi) A minimum death and invalidity benefit based on a multiple of salary plus the notional accumulation applies to former Benefits Fund members covered for additional benefits.
- (vii) Early retirement age is 55 for ex Sydney County Council employees with twenty or more years of service and for ex-Benefits Fund females.
- (viii) Transferred contributors may elect to contribute at normal Division B rates.

Transferred contributors who do not make an election are deemed to have elected the following:

Benefits Fund and variable rate Provident Fund contributors	-	3.5%
Insurance policyholders and fixed rate Provident Fund contributors	-	1%

## B.2. Division C

### B.2.1 Definitions

"Eligible service" in respect of a member means service with an Employer. The eligible service accrued in respect of any day is a proportion of one day equal to the salary ratio of the member on that day.

"Final average salary", "Final salary", "Salary ratio" and "Taxable date" have the same meanings as under Division B.

### B.2.2 Benefits

#### B.2.2.1. Death

The benefit payable on death of a member is calculated as:

a lump sum equal to  $0.03 \times F \times Y$

Where F is in the case of a member who is aged 55 or over the member's final average salary; or in any other case the member's final salary;

Y is the years of eligible service commencing on 1 April 1988 or entry date (whichever is the later) including fractional parts of a year on a daily basis

#### B.2.2.2. Retirement, Resignation, Retrenchment and Total and Permanent Invalidity

The benefit payable on the retirement, or attainment of 65 years (or an age between 65 and 70 as elected if aged 60 or more on 1 July 1990), resignation, retrenchment, total and permanent invalidity or any other prescribed circumstances is as follows:

a lump sum equal to  $0.03 \times F \times (Y - 0.15 \times Z)$

Where F is in the case of the retrenchment or retirement before age 55 due to physical or mental incapacity of a member, the member's final salary; or in any other case the member's final average salary;

Y is the years of eligible service commencing on 1 April 1988 or entry date (whichever is the later) including fractional parts of a year;

Z is the years of eligible service commencing on the taxable date or entry date (whichever is the later) including fractional parts of a year on a daily basis;

0.15 represents the tax rate of the Fund for employer's contributions.

### B.2.2.3. Preservation of Benefits

All benefits are to be preserved until the person has attained age 55 and left the workforce or earlier death or total and permanent invalidity, unless circumstances exist where a SIS-regulated fund may pay an immediate benefit.

### B.2.2.4. Provisions for Part-Time Employees

In the case of part-time employees the determination of eligible service accrued by the employee includes a reduction in proportion to the salary ratio.

### B.2.2.5. Superannuation Guarantee

Members are entitled to minimum benefits assuming no superannuation guarantee shortfall under Divisions B and D. The difference between the unsupplemented total benefit and the minimum benefit is payable from the reserve under Division C.

The Minimum Requisite Benefit specified in the current Benefit Certificate (MRB) is described below. This is the minimum applying to the total benefits payable under Division C and either Division B or D in respect of an employee on exit.

MRB = The accumulation of the former contributor's contributions; plus  
a pre 1 July 1992 component; plus  
FASEX x 1.0524 x DF x SGLM1; plus  
FASOTE x 1.0824 x DF x SGLM2

Where FASEX is the contributor's final average salary at exit

FASOTE is the annual average of the Employee's Ordinary Time Earnings as defined in sub-section 6(1) of the Superannuation Guarantee (Administration) Act 1992, earned over the 2 years ending on the 30 June prior to the date of determination.

DF is .7 when age at exit  $\leq$  45  
1 - 0.015 x (65 - age at exit) when 45 < age at exit < 65  
1 when age at exit  $\geq$  65

SSGLM1 is the accrued Superannuation Guarantee Levy multiple at 30 June 2008 where the multiple accrues as follows:

Multiple accruing per year of service	Period over which given multiple applies
.04	01/07/1992 to 31/12/1992
.05	01/01/1993 to 30/06/1995
.06	01/07/1995 to 30/06/1998
.07	01/07/1998 to 30/06/2000
.08	01/07/2000 to 30/06/2002
.09	01/07/2002 to 30/06/2013
.0925	01/07/2013 to 30/06/2014
.095	01/07/2014 to 30/06/2021
.10	01/07/2021 to 30/06/2022
.105	01/07/2022 to 30/06/2023
.11	01/07/2023 to 30/06/2024
.115	01/07/2024 to 30/06/2025
.12	after 01/07/2025

SSGLM2 is the Superannuation Guarantee Levy multiple accrued post 1 July 2008 (as per the rates above). The pre 1 July 1992 component is the total of the employer-financed cash benefits (from Division C and either Division B or Division D) which would have been paid had the contributor resigned or retired on 1 July 1992 (except that for final average salary or final salary the amount used is the fund salary at 1 July 1992 for Division B members. For Division D members, salaries and commutation factors are as set out in the Benefit Certificate), updated to exit date by the ratio of FASEX for Division B members, final salary at exit for Division D members to fund salary at 1 July 1992.

In the case of Division D members, the minimum benefit as derived above is limited to an alternative MRB equal to the Division D benefit plus the Division C benefit plus a post 1 July 1992 amount calculated using Superannuation Guarantee Levy Multiples 3% lower than in the table above; with the further proviso that the minimum Division D benefit for purposes of the alternative MRB calculation is the member's accumulated contributions.

The MRB is reduced by the member's surcharge liability (if any), any adjustment for Family Law payments (if any), and adjusted for net MRB transfer payments (if any).

## **B.3. Division D**

### **B.3.1 Definitions**

"Annual adjustment date" means for contributors whose birthday falls in the first half of the calendar year, 28 July, for the rest 9 February.

"Annual review date" means for contributors whose birthday falls in the first half of the calendar year, 21 October, for the rest 5 May.

"Abandoned Units" are units for which no contribution is being made. The amount of these is the difference between Unit Entitlement and Contributory Units. They are also referred to as Reduced Value Units.

"Accumulation of contributions" means, in respect of a contributor, the amount of contributions made to the Fund by that contributor plus interest. Interest was at the rate of 3.5% pa until 30 June 1972, thereafter a rate determined by the Trustee based on the earnings of the Fund. This is called the "33B Accumulation" and is the amount maintained in respect of each contributor in the Contributors' Reserve.

"Contributory Units" are units for which the member is paying (or has paid) contributions.

"Retirement Age" is 60 years, except in the case of a woman who elects to contribute at rates to retire at age 55 (denoted R55 members), for whom it is 55 years.

"Unit Entitlement" - A member's unit entitlement is governed by the amount of salary notified as being received, in accordance with the following formula-

$$\text{Salary} / \$260 + 9 \times \text{factor}$$

where 'factor' is an allowance for the increase shown in the last published Consumer Price Index (All Groups) Sydney since 30 June 1982. The two components of the entitlement are separately calculated and their total rounded up to the next whole number.

"Salary" means the annual rate of salary paid to a contributor at the relevant date (exit, annual review date).

"Taxable date" means 1 July 1988.



## B.3.2 Contributions by Contributors

- Employees pay a 4-weekly contribution towards each contributory unit. The total contribution payable over each year depends on the number of units held and the cost per unit, and is adjusted each annual review date with effect from the annual adjustment date.
- An employee must contribute for the full unit entitlement as at the annual review date unless the resulting contributions would exceed 6% of salary, when units may be 'abandoned'. Abandoned units confer a smaller benefit entitlement, but may be 'taken up' on exit or next annual review day.
- The contribution per unit depends on
  - the employee's sex and age when contributions for the unit commence,
  - for a female, whether election has been made to contribute for retirement on full pension at age 55, and
  - the date of commencement of service.
- Contributions for units commenced before (Retirement Age - 5) cease at Retirement Age. Contributions for units taken up after attaining age 55 (or 50 for R55 females) are payable over five years in 65 instalments (with any instalments outstanding at retirement due then).
- Contributions cannot be accepted from a contributor over 70 years of age.
- During periods of leave without pay in excess of three months, a contributor has the option of accepting a permanent reduction in unit entitlement, otherwise the contributor may be required to pay the employer liability during the period of leave without pay.

## B.3.3 Benefits

### B.3.3.1. Retirement on or after attaining retirement age

Subject to completion of at least ten years of service, a fortnightly pension commencing at  $(\$5.50 \times \text{CU} + \$3.30 \times \text{ABU}) \times (1 - 0.15 \times \text{B/C} \times \text{ppn e'er})$

where:

CU	= Contributory units
ABU	= Abandoned or reduced value units
0.15	= the tax rate of the Fund on the employers' contributions
B	= the period in days of contributory service that began on the taxable date
C	= the period in days of the contributory service for the contributor
ppn e'er	= the proportion of the benefit deemed to be employer-financed

calculated as:

$$\frac{(\text{Unreduced pension} \times \text{capitalisation factor} - 33\text{B accumulation at exit})}{(\text{Unreduced pension} \times \text{capitalisation factor})}$$

where the unreduced pension is  $(\$5.50 \times \text{CU} + \$3.30 \times \text{ABU})$ , and the capitalisation factors are valuation factors for pensions at emergence depending on age and sex supplied for this purpose from time to time

### B.3.3.2. Early Retirement

Subject to continuous contribution to the Fund for at least ten years, a reduced pension is payable on retirement after having attained the age of 55 years if contributing at rates prescribed for retirement at age 60. The amount of the fortnightly pension at commencement is:

$$(\$2.20 \times \text{EPU} \times (1 - .07 \times \text{TM}) + \$3.30 \times \text{UE} \times \text{S} / (\text{S} + \text{TM}) \times (1 - .04 \times \text{TM})) \times (1 - 0.15 \times \text{B/C} \times \text{ppn e'er})$$

where:

EPU	= Contributory units adjusted to reflect non-payment of contribution due to early retirement
TM	= number of years (with fractions included on daily basis) from exit date to Retirement Age
UE	= Unit Entitlement in respect of salary at exit
S	= Number of years of contributory service (with fractions included on a daily basis)
0.15	= the tax rate of the Fund on the employers' contributions
B	= the period in days of contributory service that began on the taxable date
C	= the period in days of the contributory service for the contributor
ppn e'er	= the proportion of the benefit deemed to be employer-financed

calculated as:

$$\frac{(\text{Unreduced pension} \times \text{capitalisation factor} - 33\text{B accumulation at exit})}{(\text{Unreduced pension} \times \text{capitalisation factor})}$$

where the unreduced pension is  $(\$2.20 \times \text{EPU} \times (1 - .07 \times \text{TM}) + \$3.30 \times \text{UE} \times \text{S} / (\text{S} + \text{TM}) \times (1 - .04 \times \text{TM}))$ , and the capitalisation factors are valuation factors for pensions at emergence depending on age and sex supplied for this purpose from time to time

### B.3.3.3. Retirement owing to physical or mental incapacity

A proportion of the full retirement pension; the proportion being 80 per cent immediately on joining the Fund, increasing uniformly each year thereafter to reach 100 per cent either after ten years of contributory service, or at normal retirement age, whichever occurs first.

The pension at commencement is:

$$P(\text{DIS}) \times (\$5.50 \times \text{CU} + \$3.30 \times \text{ABU}) \times (1 - 0.15 \times \text{B/C} \times \text{ppn e'er})$$

where:

P(DIS) = proportion between .8 and 1.0 depending upon years of service.

CU = Contributory units

ABU = Abandoned or reduced value units

= the tax rate of the Fund on the employers' contributions

B = the period in days of contributory service that began on the taxable date

C = the period in days of the contributory service the contributor would have attained had he remained in service until his retirement age.

ppn e'er = the proportion of the benefit deemed to be employer-financed calculated as:

$$\frac{(\text{Unreduced pension} \times \text{capitalisation factor} - 33\text{B accumulation at exit})}{(\text{Unreduced pension} \times \text{capitalisation factor})}$$

where the unreduced pension is  $P(\text{DIS}) \times (\$5.50 \times \text{CU} + \$3.30 \times \text{ABU})$ , and the capitalisation factors are valuation factors for invalidity pensions at emergence depending on age and sex supplied for this purpose from time to time

### B.3.3.4. Resignation, dismissal or discharge

- a lump sum equal to the employee's accumulation of contributions, plus
- if contributory service exceeds ten years, an additional lump sum of

$$.025 \times A \times \text{TS} \times (1 - 0.15 \times \text{B/C})$$

where

A = the employee's accumulation of contributions

TS = Number of complete years of contributory service

0.15 = the tax rate of the Fund on the employers' contributions

B = the period in days of contributory service that began on the taxable date

C = the period in days of the contributory service for the contributor

Alternatively, at the option of the employee, a benefit may be deferred in the Fund until retirement or earlier death or disability.

The total lump sum resignation benefit is capped at the lump sum payable to a contributor on commutation of the retirement pension he/she would have been entitled to had they been age 55 (or current age if higher). The retirement pension for contributors under age 55 is the deferred pension adjusted for commencement at age 55.

### B.3.3.5. Death

On the death of a married contributor a pension is payable to the spouse at two-thirds of the rate of the pension which would have been payable to the contributor had he or she retired on the grounds of ill-health (but with the tax reduction calculated using the capitalised value of the spouse pension to derive the proportion employer financed). In addition, a pension is paid for each eligible child. If the spouse then dies, the excess of contributions over spouse benefits already paid is refunded to the deceased contributor's personal representative, and any child's pension is increased.

On the death before retirement of an unmarried contributor, at the Trustee's discretion a cash withdrawal benefit but without reduction for contributions tax, is payable to the deceased personal representative, or an orphan's pension is payable to each eligible child.

On the death of a married pensioner, a pension is payable to the spouse (but only if married prior to the pensioner's retirement or married to an invalidity pensioner for the 3 years immediately prior to the retirement age), equal to two-thirds of the pension that the deceased pensioner would have been receiving if none of it had been commuted, and children's pensions as above.

### B.3.3.6. Retrenchment

After three years contributory service, an immediate lump sum is payable equal to

$$(\$2.20 \times \text{EPU} \times (0.96^{M-A}) \times F + \$3.30 \times \text{UE} \times S / (S + \text{TM}) \times (0.98^{M-A}) \times F) \times (1 - 0.15 \times B/C \times \text{ppn e'er})$$

where:

- EPU = Contributory units adjusted to reflect non-payment of contributions due to shorter service.
- M = Retirement Age
- A = age in years (including fractional parts of a year) on the exit date
- F = 285 if M = 60; 320 if M = 55
- UE = Unit Entitlement in respect of salary at exit
- S = Number of years of contributory service (with fractions included on a daily basis)
- 0.15 = the tax rate of the Fund on the employers' contributions
- B = the period in days of contributory service that began on the taxable date
- C = the period in days of the contributory service for the contributor
- ppn e'er = the proportion of the benefit deemed to be employer-financed calculated as:

$$\frac{(\text{Unreduced benefit} - 33\text{B accumulation at exit})}{(\text{Unreduced benefit})}$$

where the unreduced benefit is

$$(\$2.20 \times \text{EPU} \times (1 - .07 \times \text{TM}) + \$3.30 \times \text{UE} \times S / (S + \text{TM}) \times (1 - .04 \times \text{TM})),$$

Alternatively the benefit may be taken as an equivalent pension or a deferred pension.

### B.3.3.7. Pensions

Pensions in payment are adjusted each October in line with the Consumer Price Index (All Groups) Sydney provided the change is at least 1%.

A pension other than a child's pension, may be exchanged for a lump sum, at age 55 years or later emergence. Commutation factors per dollar of fortnightly pension are specified in the Act. On commutation by an ex-contributor of all or part of a pension, the reversionary pension to a spouse is unaffected.

### B.3.3.8. Deferred Benefits

A contributor who becomes entitled to a benefit on retrenchment, resignation, dismissal or discharge, on early retirement or attainment of age 65 (or 65 to 75 if relevant) is provided with a deferred benefit. A member may elect to receive part of the benefit as cash and defer the remainder. The deferred benefit commences payment on:

- application on attainment of early retirement age. The pension components are then reduced by the early retirement discount factors (P1 by 7%, P2 by 4%);
- death;
- total and permanent invalidity before early retirement age;
- retirement from the workforce (or effective retirement after 65 or 70 defined as working less than 10 or 30 hours a week respectively). Early retirement discount factors apply if age is less than normal retirement age.
- on application if the benefit was preserved after early retirement age. Early retirement discount factors apply if age at commencement is less than normal retirement age.

The deferred benefit is a deferred pension calculated in two components. The amount of the fortnightly pension components at deferral date is set out below. Between deferral date and commencement the "employer-financed component" (P2) is indexed to CPI.

$$\text{Total Pension} = (P1 + P2U) \times (1 - 0.15 \times B/C \times \text{ppn e'er})$$

$$P2 = \text{Total Pension} - P1$$

where:

$$P1 = \$2.20 \times \text{EPU}$$

$$P2U = \$3.30 \times \text{UE} \times S / (S + \text{TM})$$

EPU = Contributory units adjusted to reflect non-payment of contributions due to early exit.

TM = number of years (with fractions included on daily basis) from exit date to Retirement Age

UE = Unit Entitlement in respect of salary at exit

S = Number of years of contributory service (with fractions included on a daily basis)

0.15 = the tax rate of the Fund on the employers' contributions

B = the period in days of contributory service that began on the taxable date

C = the period in days of the contributory service for the contributor

ppn e'er = the proportion of the benefit deemed to be employer-financed calculated as:

(Capitalised unreduced pension - 33B accumulation at exit)  
(Capitalised unreduced pension)

where the capitalised unreduced pension is  
( P1 x employee component capitalisation factor + P2U x employer component capitalisation factor),  
and the capitalisation factors are valuation factors for deferred pensions at preservation depending on age and sex supplied for this purpose from time to time.

#### **B.3.3.9. Provisions for part time contributors**

A contributor may move to permanent part time employment. Contributions paid prior to the change will purchase paid-up units, and a permanent reduction in unit entitlement is made, to reflect the service that will not be given. Appropriate provisions are made for subsequent changes in hours worked.

# APPENDIX C

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## Detailed Actuarial Assumptions

Set out below are the assumptions proposed for the triennial actuarial investigation as at 30 June 2021.

### Economic Assumptions

Rate of investment return / discount rate:	5.5% pa net of investment fees and tax
Salary increase:	3.5% pa
Rate of CPI increase:	2.5% pa

### Expenses

An asset-based administration fee of 0.3% pa is assumed.

### Tax

It is assumed that the current tax rate of 15% continues to apply to the Plan's assessable income, along with current tax credits and other concessions unless otherwise stated.

No explicit allowance has been made for the potential tax credits that can be obtained in relation to the tax exemption for investment earnings on assets backing current pension liabilities. However, we have made an implicit allowance for this when setting the overall discount rate.

This will increase over time as the Plan matures but we expect the Trustee will also reduce its investment risk at the same time. This position will continue to be kept under review as part of the long-term investment strategy.

All future Employer contributions are assumed to be subject to 15% contribution tax, after deduction of any administration and management costs. All contribution recommendations quoted in this report are gross of contribution tax.

No allowance has been made for:

- Any surcharge liability as members' benefits will be reduced by a surcharge offset amount equal to the surcharge payments made. Surcharge was abolished with effect from 1 July 2005.
- Excess contributions tax, as this is payable by the member.
- Additional tax on contributions (including defined benefit notional contributions) for those with incomes the threshold (currently \$250,000), which is also payable by the member.

## Demographic Assumptions

### C.1. Division B Contributors

#### C.1.1 Member Contribution Rate

It is assumed that contributors maintain their current contribution rate through to retirement, unless they reach maximum benefit points when 20% of members are assumed to reduce their contribution rate to the minimum contribution rate of 1% of salary and the remaining 80% assumed to maintain their current contribution rate to retirement.

#### C.1.2 Retirement

For Division B contributors, no member is assumed to retire under age 58.

Division B Contributor Age Retirement (per 10,000 at age shown)		
Age Nearest Birthday	Male	Female
58	500	500
59	500	1,000
60	1,500	1,000
61	1,500	1,000
62	1,500	1,000
63	1,500	1,500
64	1,500	2,000
65	4,000	3,000
66	4,000	3,000
67	4,000	3,000
68	4,000	3,000
69	4,000	3,000
70	10,000	10,000

#### C.1.3 Resignation

Division B Contributor Resignation (per 10,000 at age shown)					
Age Nearest Birthday	Male	Female	Age Nearest Birthday	Male	Female
38	420	470	48	255	290
39	380	460	49	250	280
40	350	450	50	250	290
41	330	430	51	250	300
42	320	410	52	250	310
43	310	390	53	248	320
44	300	380	54	245	340
45	280	360	55	235	350
46	270	320	56	225	360
47	260	300	57	210	370



### C.1.4 Retrenchment

Nil retrenchments have been assumed.

### C.1.5 Disability

<b>Division B Contributor - Total and Permanent Disability (per 10,000 at age shown)</b>					
<b>Age Nearest Birthday</b>	<b>Male</b>	<b>Female</b>	<b>Age Nearest Birthday</b>	<b>Male</b>	<b>Female</b>
38	8	2	48	13	8
39	8	2	49	15	9
40	9	2	50	18	10
41	9	2	51	24	11
42	10	2	52	32	11
43	10	3	53	38	12
44	12	3	54	44	14
45	11	4	55	45	16
46	11	6	56	45	17
47	11	7	57	35	19

<b>Division B Contributor - Partial and Permanent Disability (As a percentage of Total Permanent Disability Assumptions)</b>		
<b>Age Group</b>	<b>Males</b>	<b>Females</b>
<=45	100%	300%
46-50	75%	300%
51-57	50%	150%
58+	0%	0%

### C.1.6 Mortality

<b>Division B Contributor Mortality (per 10,000 at age shown)</b>		
<b>Age Nearest Birthday</b>	<b>Male</b>	<b>Female</b>
36	4	2
37	4	2
38	4	2
39	4	2
40	5	3
41	5	3
42	5	3
43	6	3
44	6	4
45	6	4
46	7	4
47	7	5
48	8	5
49	9	5
50	9	6
51	10	6
52	11	7
53	12	7
54	12	8
55	14	8
56	15	9
57	16	10
58	17	11
59	19	12
60	21	13
61	24	15
62	26	16
63	29	18
64	32	19

### C.1.7 Preservation of Benefits

On resignation, 70% of Division B contributors are assumed to elect the deferred benefit instead of the cash benefit.

### C.1.8 Rate of Pension Take-up

Former Local Government Pension Fund, NSW Retirement Fund and Government Railways Superannuation Scheme (RSA) Division B contributors may elect to receive pension benefits instead of a lump sum on retirement, disability and death.

It is assumed that 70% of these members would elect pensions, with the remainder choosing a lump sum.

## **C.2. Division D Contributors**

### **C.2.1 Proportion of Optional Units Take-up**

All available optional units are assumed to be taken up immediately by Division D contributors.

### **C.2.2 Retirement, Resignation, Retrenchment and Total and Permanent Disability and Mortality**

Division B contributor assumptions are used for Division D contributors with the exception that all Division D contributors are assumed to retire at age 65.

## **C.3. Pensioners**

### **C.3.1 Division D Commutation of Pension Benefits**

<b>Division D Commutation of Pension Benefits</b>	
Retirement Pensioners	5%
Spouse Pensioners	40%

### **C.3.2 Child Pensioners**

Given the maturity of contributor membership, no allowance is made for new child pensioners.

### C.3.3 Pensioner Mortality

#### C.3.3.1. Retiree and Spouse Pensioners

Retiree and Spouse Pensioners Mortality Assumptions (per 10,000 at age shown)					
Age Nearest Birthday	Male	Female	Age Nearest Birthday	Male	Female
50	11	10	81	339	238
51	16	8	82	398	284
52	16	8	83	467	338
53	17	9	84	543	388
54	17	10	85	632	444
55	18	11	86	730	522
56	18	12	87	838	617
57	19	13	88	968	732
58	19	14	89	1109	891
59	20	14	90	1282	1024
60	21	15	91	1468	1170
61	22	16	92	1680	1289
62	24	17	93	1901	1426
63	25	18	94	2108	1600
64	28	21	95	2315	1766
65	33	24	96	2485	1937
66	39	28	97	2692	2133
67	45	32	98	2911	2324
68	52	36	99	3163	2545
69	58	41	100	3438	2772
70	65	47	101	3737	3005
71	74	54	102	3982	3207
72	84	62	103	4226	3406
73	96	72	104	4465	3600
74	110	82	105	4698	3789
75	127	91	106	4932	3979
76	147	104	107	5166	4168
77	171	120	108	5399	4357
78	201	141	109	5633	4547
79	238	167	110	10000	10000
80	282	198			

The pensioner mortality rates above are assumed to apply for the year from 1 July 2021. Assumed mortality rates for subsequent years are reduced according to assumed rates of future improvement.

**C.3.3.2. Invalidation Pensioners**

<b>All Divisions – Invalidation Pensioner Mortality Assumptions (per 10,000 at age shown)</b>					
<b>Age Nearest Birthday</b>	<b>Male</b>	<b>Female</b>	<b>Age Nearest Birthday</b>	<b>Male</b>	<b>Female</b>
50	20	19	81	526	497
51	20	20	82	606	580
52	21	22	83	695	664
53	22	22	84	781	755
54	23	22	85	873	850
55	25	24	86	957	910
56	26	25	87	1,050	965
57	28	28	88	1,153	1,011
58	31	30	89	1,376	1,057
59	35	32	90	1,617	1,161
60	40	34	91	1,814	1,304
61	42	37	92	2,003	1,499
62	47	42	93	2,200	1,706
63	51	49	94	2,439	1,894
64	57	55	95	2,760	2,086
65	64	61	96	3,060	2,288
66	73	68	97	3,400	2,517
67	86	74	98	3,760	2,688
68	103	80	99	4,120	2,860
69	122	87	100	4,500	3,002
70	136	94	101	4,880	3,144
71	149	104	102	5,100	3,284
72	162	117	103	5,320	3,424
73	176	137	104	5,559	3,562
74	193	167	105	5,764	3,699
75	220	212	106	5,953	3,835
76	265	248	107	6,143	3,969
77	312	281	108	6,333	4,102
78	360	325	109	6,524	4,233
79	413	377	110	10000	10,000
80	470	425			

For invalidity pensioners, a select mortality rate is assumed for the first year of invalidity, a rate of 5% is assumed for ages up to 39 and 2.5% assumed for ages thereafter, for both male and female.

The pensioner mortality rates above are assumed to apply for the year from 1 July 2021. Assumed mortality rates for subsequent years are reduced according to assumed rates of future improvement.

**C.3.3.3. Improvement Factors**

<b>Pensioner Mortality Improvement rates</b>				
<b>Age</b>	<b>For years 2021-2027</b>		<b>For years post 2027</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
50	0.0148	0.0141	0.0151	0.0154
51	0.0161	0.0150	0.0149	0.0152
52	0.0173	0.0158	0.0147	0.0150
53	0.0184	0.0165	0.0144	0.0149
54	0.0195	0.0173	0.0142	0.0149
55	0.0205	0.0180	0.0140	0.0148
56	0.0215	0.0187	0.0139	0.0148
57	0.0225	0.0194	0.0138	0.0148
58	0.0235	0.0201	0.0137	0.0148
59	0.0245	0.0209	0.0137	0.0147
60	0.0255	0.0216	0.0136	0.0147
61	0.0265	0.0224	0.0135	0.0147
62	0.0275	0.0231	0.0135	0.0146
63	0.0284	0.0236	0.0134	0.0146
64	0.0291	0.0240	0.0135	0.0146
65	0.0297	0.0243	0.0135	0.0146
66	0.0301	0.0244	0.0135	0.0145
67	0.0302	0.0244	0.0135	0.0144
68	0.0303	0.0242	0.0134	0.0142
69	0.0301	0.0241	0.0132	0.0139
70	0.0299	0.0240	0.0129	0.0137
71	0.0295	0.0238	0.0127	0.0134
72	0.0291	0.0237	0.0124	0.0131
73	0.0287	0.0236	0.0121	0.0129
74	0.0282	0.0234	0.0119	0.0128
75	0.0277	0.0233	0.0116	0.0126
76	0.0271	0.0230	0.0113	0.0124
77	0.0264	0.0226	0.0109	0.0121
78	0.0256	0.0220	0.0105	0.0118
79	0.0246	0.0212	0.0100	0.0114
80	0.0235	0.0203	0.0095	0.0109
81	0.0222	0.0193	0.0090	0.0104
82	0.0208	0.0182	0.0084	0.0099
83	0.0193	0.0170	0.0079	0.0094
84	0.0177	0.0158	0.0074	0.0088
85	0.0161	0.0145	0.0068	0.0083
86	0.0144	0.0132	0.0063	0.0077
87	0.0128	0.0119	0.0058	0.0071
88	0.0114	0.0105	0.0054	0.0066
89	0.0100	0.0093	0.0049	0.0060
90	0.0089	0.0080	0.0045	0.0055
91	0.0079	0.0069	0.0042	0.0049
92	0.0072	0.0059	0.0039	0.0045
93	0.0065	0.0050	0.0036	0.0040
94	0.0058	0.0042	0.0033	0.0037

95	0.0052	0.0034	0.0031	0.0033
96	0.0045	0.0024	0.0028	0.0030
97	0.0037	0.0014	0.0025	0.0027
98	0.0028	0.0004	0.0023	0.0023
99	0.0018	-	0.0020	0.0020
100	0.0008	-	0.0017	0.0017
101	-	-	0.0015	0.0013
102	-	-	0.0012	0.0010
103	-	-	0.0010	0.0007
104	-	-	0.0007	0.0003
105	-	-	0.0004	-

## C.4. All Members

### C.4.1 Percentage with Spouse at Death

All Members – Percentage with Spouse at Death					
Age Nearest Birthday	Male	Female	Age Nearest Birthday	Male	Female
40	80%	55%	76	74%	35%
41	80%	55%	77	73%	33%
42	80%	55%	78	72%	31%
43	80%	55%	79	71%	28%
44	80%	55%	80	70%	26%
45	80%	55%	81	67%	24%
46	80%	55%	82	64%	22%
47	80%	55%	83	62%	20%
48	80%	55%	84	60%	18%
49	80%	55%	85	58%	16%
50	80%	55%	86	56%	14%
51	80%	55%	87	54%	12%
52	80%	55%	88	52%	10%
53	80%	55%	89	50%	9%
54	80%	55%	90	48%	8%
55	80%	55%	91	46%	7%
56	80%	55%	92	43%	6%
57	80%	55%	93	40%	5%
58	80%	55%	94	37%	4%
59	80%	55%	95	34%	3%
60	80%	55%	96	31%	2%
61	79%	55%	97	28%	1%
62	78%	55%	98	25%	-
63	77%	55%	99	22%	-
64	76%	55%	100	19%	-
65	75%	55%	101	16%	-
66	75%	55%	102	13%	-
67	75%	55%	103	10%	-
68	75%	55%	104	7%	-
69	75%	55%	105	4%	-
70	75%	55%	106	1%	-

71	75%	51%	107	-	-
72	75%	47%	108	-	-
73	75%	43%	109	-	-
74	75%	39%	110	-	-
75	75%	37%			



## C.4.2 Spouse Age Difference

When the spouse's date of birth is not provided in the data, the following assumptions are made:

<b>All Members - Spouse Age Difference</b>	
Male Division B pensioner	5 years older than wife
Female Division B pensioner	Same age as husband
Male Division D pensioner	3 years older than wife
Female Division D pensioner	2 years younger than husband

# APPENDIX D

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## Recommended Employer Contributions

The recommended employer contributions are subject to change and will be reviewed annually.

### **Recommended Future Service Defined Benefit Contributions**

The current future service Employer Defined Benefit Contributions are recommended to continue:

	Employer Standard Defined Benefit Contributions for Contributors		
	Division B	Division C	Division D
<b>Pooled Employers</b>	1.9 times member contributions for non-180 Point Members; Nil for 180 Point Members*	2.5% of salary	1.64 times member contributions

\* For 180 Point Members, Employers are required to contribute 7.5% of salaries to these members' accumulation accounts, which are paid in addition to members' defined benefits.

### **Recommended Past Service Contributions**

<b>Employer Name</b>	Past Service contributions for 1 January 2022 to 31 December 2024
<b>Pooled Employers</b>	\$20,000,000 p.a.

# APPENDIX E

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## Statements Required by SPS 160

*This section provides statements required to be made under APRA Prudential Standard SPS 160. Values cited relate to total defined benefits and assets of the Plan (i.e. inclusive of both Employer and member-financed defined benefit liabilities. Accumulation-style benefits are excluded from the values below).*

- (i) As at 30 June 2021, the net assets available to pay defined benefits of the Plan amounted to \$2,677,404,890. This value does not include the value of assets held to meet the Plan's Operational Risk Financial Requirement or the Plan's Additional Benefits Reserve. This is the value of assets used in determining the recommended contribution rates. Further information is set out in Section 8 of this report.
- (ii) The Plan's liabilities include current defined benefit pension liabilities of \$638,104,988.
- (iii) In my opinion, the actuarial value of accrued benefits as at 30 June 2021 was \$2,573,437,443. Hence I consider that the value of the assets at 30 June 2021 is adequate to meet the value of the accrued benefit liabilities of the Plan as at 30 June 2021. In determining the value, I have not applied a minimum of the Vested Benefits.

Taking into account the circumstances of the Plan, the details of the membership and the assets, the benefit structure of the Plan and the industry within which the Employers operate, I consider that the assumptions and investigation methodology used are appropriate in relation to the determination of the accrued benefit liabilities for the purposes of this report. Further comments on the assumptions and investigation methodology are set out in Section 3 of this report.

Assuming that the Employers contribute in accordance with my recommendations, then, based on the assumptions made for this actuarial investigation which I consider to be reasonable expectations for the Plan, I expect that assets will remain sufficient to cover the value of accrued benefit liabilities over the period to 30 June 2024

- (iv) In my opinion, the total as at 30 June 2021 of members' Vested Benefits amounted to \$2,553,451,647. Hence I consider that the value of the assets at 30 June 2021 is adequate to meet the value of the Vested Benefit liabilities of the Plan as at 30 June 2021.

Assuming that the Employers contribute in accordance with my recommendations, then, based on the assumptions made for this actuarial investigation, I expect that assets will be sufficient to cover the value of Vested Benefit liabilities over the period to 30 June 2024. Hence I consider that the financial position of the Plan should not be treated as unsatisfactory as defined in SPS 160.

- (v) In my opinion, the value of the liabilities of the Plan in respect of the minimum benefits of the members of the Plan as at 30 June 2021 was \$1,951,344,564. Hence the Plan was not technically insolvent as at 30 June 2021.

- (vi) A projection of the likely future financial position of the Plan over the three year period following 30 June 2021, based on what I consider to be reasonable expectations for the purposes of this investigation, is set out in Section 5 of this report.
- (vii) I recommend that the Employers contribute to the Plan at the following future service contribution rates:

	Employer Standard Defined Benefit Contributions for Contributors		
	Division B	Division C	Division D
<b>Pooled Employers</b>	1.9 times member contributions for non-180 Point Members; Nil for 180 Point Members*	2.5% of salary	1.64 times member contributions

\* For 180 Point Members, Employers are required to contribute 7.5% of salaries to these members' accumulation accounts, which are paid in addition to members' defined benefits.

### **Recommended Past Service Contributions**

Employer Name	Past Service contributions for 1 January 2022 to 31 December 2024
<b>Pooled Employers</b>	\$20,000,000 p.a.

- (viii) Based on the results of this investigation, I consider that the Shortfall Limit remains appropriate and does not require further review. Comments are set out in Section 9 of this report.
- (ix) The Plan is used for Superannuation Guarantee purposes. Therefore:
- a. All Funding and Solvency Certificates required under Division 9.3 of the SIS Regulations have been issued for the period from the date of the last investigation to 30 June 2021; and
  - b. I expect to be able to certify the solvency of the Plan in any Funding and Solvency Certificate(s) that may be required in the three year period from 30 June 2021.
- (x) In my opinion, there is a "high degree of probability", as at 30 June 2021 that the Plan will be able to meet the pension payments as required under the Plan's governing rules.

# APPENDIX F

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## Summary of Method of Attributing Benefits to Past Membership

The calculation of the Actuarial Value of Accrued Benefits has been carried out using a method of apportionment of benefits between past and future membership that satisfies the requirements of Professional Standard No. 402 of the Actuaries Institute and is acceptable for Australian Accounting Standard AASB 1056 purposes.

### **Accumulation Benefits**

The value of accumulation benefits has been taken as the sum of the balances held in accumulation accounts at the date of the investigation.

### **Defined Benefits**

The past membership components of all defined benefits payable in the future in respect of current active membership are projected forward allowing for assumed future salary increases, CPI increases and probability of each mode of exit and are then discounted back to the investigation date at the investment return rate assumed for this investigation.

The method is the same as that used at the previous investigation.

No adjustment has been made either on an individual level or Scheme level where Vested Benefits exceed the unadjusted Actuarial Value of Accrued Benefits.

### ***Division B***

Where liabilities for expected future benefit payments under Division B in this investigation have been apportioned between past service liabilities (benefits in respect of membership prior to the investigation date) and future service liabilities (membership after the investigation date), the method of apportioning to past service is as set out below. Future service liabilities are the difference between the total liabilities and the past service liabilities.

For benefits payable at time  $t$  years after the investigation date:

on retirement, partial disability, withdrawal with deferred benefit (before discount) and on total disability:

Past service component

$$= SAL_t \times ABP_0 \times 0.025 \times \left( 1 - \frac{(\text{TaxPS}+t)}{PS+t} \times 0.15 \right)$$

on death:

Past service component

$$= \text{SAL}_t \times \text{ABP}_0 \times 0.025$$

on resignation with 10 or more years of membership:

Past service component

$$= (\text{PS}+t) \times \text{MCI}_t \times \frac{\text{ABP}_0}{Y_t} \times 0.025 \times \left( 1 - \frac{(\text{TaxPS}+t)}{\text{PS}+t} \times 0.15 \right)$$

where:

ABP <sub>0</sub>	=	accrued benefit points at time 0 (i.e. at 30 June 2018), subject to maximum points limit.
Y <sub>t</sub>	=	as ABP <sub>t</sub> except not subject to maximum points limit
PS	=	membership period to 30 June 2018, including previous fund membership
TaxPS	=	membership period to 30 June 2018, excluding any period before 1 July 1988
SAL <sub>t</sub>	=	salary at time t (Final Salary or Final Average Salary as appropriate to the particular benefit)
MCI <sub>t</sub>	=	member contributions plus interest at time t, less expenses and additional benefit levy where appropriate. Member is assumed to continue to contribute at his/her 30 June 2018 rate until achieving maximum points limit, then member contribution rate reduces as per investigation assumption

## **Division C**

Where liabilities for expected future benefit payments under Division C in this investigation have been apportioned between past service liabilities (benefits in respect of membership prior to the investigation date) and future service liabilities (membership after the investigation date), the method of apportioning to past service is as set out below. Future service liabilities are the difference between the total liabilities and the past service liabilities.

For benefits payable at time t years after the investigation date:

Past service component

$$= \frac{\text{PS}}{\text{PS}+t} \times (\text{benefit payable in respect of Division C membership})$$

$$+ \frac{\text{SGPS}}{\text{SGPS}+t} \times (\text{SG top-up, if any})$$

where:

PS = membership period to 30 June 2018

SGPS = membership period to 30 June 2018, excluding any period before 30 June 1992

### ***Division D***

Where liabilities for expected future employer-financed benefit payments under Division D in this investigation have been apportioned between past service liabilities (benefits in respect of membership prior to the investigation date) and future service liabilities (membership after the investigation date), the method of apportioning to past service is as set out below. Future service liabilities are the difference between the total liabilities and the past service liabilities.

This method is a 'non-standard' approach and has been adopted due to the specific Division D benefit design, where members are required to continue contributions for each contributory unit (where the contribution varies by age each unit commenced) until retirement age for full accrual. Accrual of the units-based benefit before normal retirement age depends partly on service and partly on how much contribution remains unpaid.

Our alternative approach has therefore been used in line with clause 6.5 of PS 402 because the Division D benefit is not strictly defined in terms of the 'standard' approaches in the relevant clauses in PS 402.

This approach was agreed over 25 years ago as the difference between this and a proportional method ignoring the non-standard accrual of the member-financed component was material at that time. Further, our approach has been used consistently over all this time in respect of all relevant valuation work for Local Government Super. We have also adopted this method for work carried out on other schemes to which we regularly provide actuarial services having similar benefit features.

We note that the difference between the methods has become immaterial due to minimum future Division D benefit accruals. For consistency however, we have continued to use the historical approach.

For benefits payable at time  $t$  years after the investigation date:

on retirement, withdrawal and preservation:

Past service component

$$= \frac{PS}{PS+t} \times \text{Value of employer-financed benefit commencing payment at time } t$$

on death or disability:

Past service component

$$= \frac{PS}{TS} \times \text{Value of employer-financed benefit commencing payment at time } t$$

where:

PS = membership period to 30 June 2018, or normal retirement age if earlier  
TS = membership period to normal retirement age.  
PS+t = membership period to time t, or normal retirement age if earlier.

Value of employer-financed benefit = Value total benefit less amount of accumulated member contributions at time t.

This method is used due to the specific benefit design for Division D where members are required to continue contributions for their units accrued until retirement age (otherwise benefits will be reduced).



**Mercer Consulting (Australia) Pty Ltd**

ABN 55 153 168 140

AFS Licence # 411770

One International Towers Sydney

100 Barangaroo Avenue

Sydney, NSW Australia 2000

GPO Box 9946 Sydney NSW 2001

[www.mercer.com.au](http://www.mercer.com.au)