

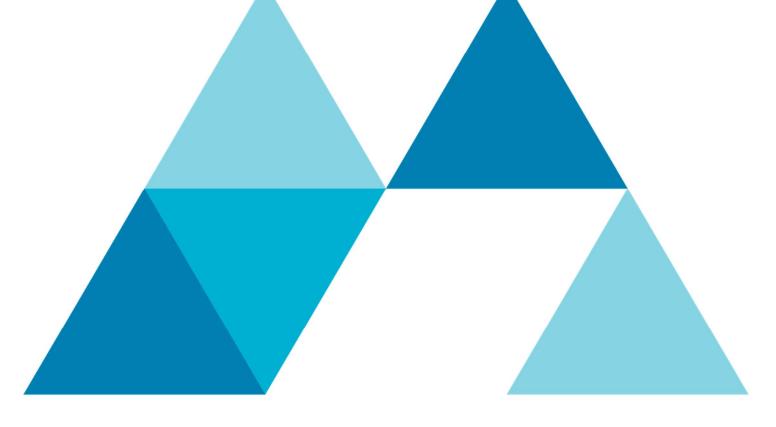
# CATHOLIC CHURCH STAFF SUPERANNUATION PLAN (SOUTH AUSTRALIA)

(A SUB-PLAN IN NGS SUPER)

STATEMENT OF ADVICE

REPORT TO THE TRUSTEE ON THE ACTUARIAL INVESTIGATION AS AT 30 JUNE 2015

11 MARCH 2016





## **CONTENTS**

1.	Key Res	sults and Recommendations	1
	• 1.1.	Change in Financial Position	1
	• 1.2.	Recommended Contribution Rates and Projections	2
	• 1.3.	Other Findings and Recommendations for the Trustee	4
	• 1.4.	Action Required	4
2.	Liability	/ Measures as at 30 June 2015	5
	• 2.1.	Vested Benefits (consent assumed for early retirement)	5
	• 2.2.	Vested Benefits (no consent)	5
	• 2.3.	Discounted Accrued Retirement Benefit (DARB)	5
	• 2.4.	Actuarial Value of Accrued Benefits	5
	• 2.5.	SG Minimum Benefits	6
3.	Experie	ence	7
	• 3.1.	Change in Financial Position since Previous Investigation	7
	• 3.2.	Recommendations in Previous Actuarial Investigation	10
4.	Contrib	oution Requirements	11
	• 4.1.	Financing Objective	11
	• 4.2.	Financing Method	12
	• 4.3.	Employer's Future Service Cost	13
	• 4.4.	Recommended Contributions	15
	• 4.5.	Valuation Balance Sheet	16
	• 4.6.	Projected Financial Position	16
5.	Project	ions	17
	• 5.1.	Meeting the Financing Objective	19
6.	Investn	nent Policy and Related Risks	20
	• 6.1.	Investment Policy	20
	• 6.2.	Unit Pricing Policy	23
	• 6.3.	Investment Risk – Impact on Cost to the Employer	24
	• 6.4	Investment Volatility	25

7.	Insuran	ce Policy and Related Risks	27
	• 7.1.	Documentation	29
	• 7.2.	Conclusion	29
8.	Other F	Risks	30
	• 8.1.	Salary growth risk	30
	• 8.2.	Legislative risk	30
9.	Assets		31
	• 9.1.	Assets	31
	• 9.2.	Operational risk reserves	31
10.		al Assumptions	
		. Economic assumptions	
		. Other assumptions	
	• 10.3	. Changes in Assumptions since the Previous investigation	37
11.		gulator and Prudential Standards	
		. Shortfall Limit	
		. Monitoring Process	
		. Requirements due to Unsatisfactory Financial Position	
	• 11.4	. Statements Required by SPS 160	41
12.		al Certification	
		. Purpose	
		. Background information of the Plan	
		. Governing Documents	
		. Additional information	
	• 12.5	. Actuary's certifications	43
App	endix A	Membership Information	46
	• A.1.	Active defined benefit member age profile	47
	• A.2.	Actuarial Value of Accrued Benefits age profile	48
App		Plan Design	
		Summary of benefits	
	• B.2.	The Superannuation Guarantee (Administration) Act 1992	53

Appendix C: Summary of Actuary's Report (AAS 25)	54
• C.1. Note 1: Summary of Method of Attributing Benefits to	Past Membership 58
C.2. Note 2: Summary of Assumptions	59
Appendix D: Investment Strategy	61
D.1. Potential Investment Options	
D.2. Investment Volatility	63

## Key Results and Recommendations

This report on the actuarial investigation of the Plan as at 30 June 2015 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 and the Employer(s) who contribute to 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.

## 1.1. Change in Financial Position

	Position at 30 June 2015		
Defined Benefits Only*	\$000	Asset Coverage	Coverage at 30 June 2012
Assets	89,476		
Liability for Vested Benefits (consent assumed for early retirement)^	80,793	111%	97%
Liability for Vested Benefits (no consent)^^	73,367	122%	115%
Discounted Accrued Retirement Benefits	83,139	108%	90%
Liability for Actuarial Value of Accrued Benefits	78,876	113%	98%
Liability for SG Minimum Benefits	64,744	138%	134%

<sup>\*</sup> Excludes accumulation accounts (member investment choice), defined benefit surcharge, offset and family law accounts, and the benefit of a genuine Category 4 (g) member. These total \$32,531,000 as at 30 June 2015.

The coverage levels at 30 June 2015 were higher than the levels at the previous actuarial investigation, due to the following items of positive experience:

- Investment earnings of 11.7% p.a., which were higher than the long term rate (6.3% p.a.);
- Salary growth of 3.3% p.a. which was lower than expected (3.5% p.a.);
- The payment of contributions at a rate higher than the long-term cost of benefit accrual within the Plan.

<sup>^</sup>Trustee and employer consent is required for members to receive defined benefits on retirement from age 55. Vested Benefits (consent assumed for early retirement) is the total of the retirement benefits with consent for those aged 55 and over and the account based resignation benefits for those under 55.

<sup>^</sup> Vested Benefits (no consent) is the total of account based resignation benefits for all members.

## 1.2. Recommended Contribution Rates and Projections

At 30 June 2015, the Plan was in a satisfactory financial position. The 111% coverage of Defined Benefit Vested Benefits (consent assumed) was above the financing objective of 110% coverage adopted for this investigation.

Based on the financial position at 30 June 2015 and assuming -1.4% investment return for the first year (actual return has been -1.4% for the 6 month period following 30 June 2015 and markets remain volatile so we have assumed nil return for the remainder of the first year), I recommend that the Employer contributes to the Plan as follows:

Category	Employer Defined Benefit Contribution Rate (% of Salary)		
Jalegory	From 1 July 2015 to 30 June 2016	From 1 July 2016	
Category 1	13.0%	SG% minus 3%	
Category 1BC	13.0%	SG% minus 3%	
Category 1C	13.0%	SG% minus 3%	
Category 1D	13.0%	SG% minus 3%	
Category 2	13.0%	SG% minus 3%	
Category 3	13.0%	SG% minus 3%	
Category 4*	13.0%	SG% minus 3%	

<sup>\*</sup> Category 4 members (as defined by the administrator) include former members of Categories 1 or 2 who have ceased paying member contributions. The contribution rate is not applicable to the one "genuine" Category 4 member as defined in the Participation Schedule (referred to as Category 4(g) for the purpose of this report). Contributions in respect of the Category 4(g) member are detailed below.

SG% is the Superannuation Guarantee rate as legislated. The SG rate is currently 9.5% and so the contribution payable from 1 July 2016 is (9.5% - 3%) = 6.5%.

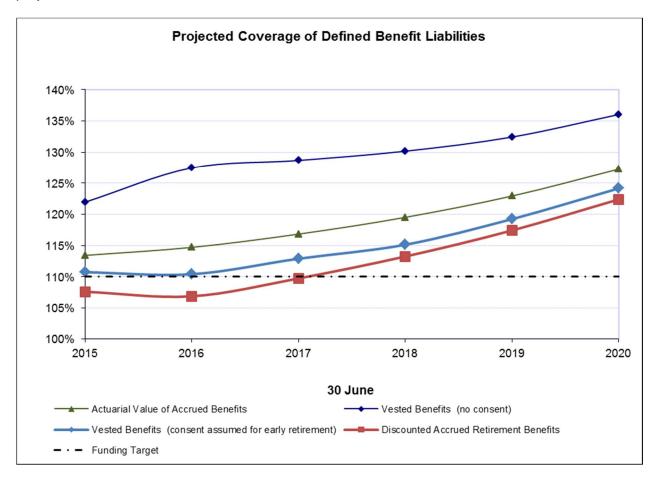
Note that 3% productivity contributions are paid in addition to the above rates.

We understand that 3% productivity contributions are payable in respect of <u>all</u> members. These contributions are payable to either the Plan, the Industry Section of NGS Super or another fund. Payment of these contributions is assumed as part of the Plan's benefit design.

Employer contributions in respect of the Category 4(g) member should be at such rates agreed between the member, the Employer and the Trustee ensuring that the Employer's Superannuation Guarantee obligations are being met.

All compulsory and voluntary member pre-tax (salary sacrifice) contributions should also be paid.

Based on the assumptions adopted for this investigation and allowing for any material experience after the investigation date as detailed in this report, we have prepared the following projection of Plan assets and benefit liabilities:



The graph above shows that the recommended contributions are expected to maintain the Plan in a satisfactory financial position in the long term and at a level above the financing objective over the next three years. We have reduced the recommended contribution rate from the current level to reflect the strong financial position of the Plan. The Employer continuing to make contributions to the Plan maintains the contribution discipline and the strong projected funding position allows the Trustee flexibility to change the investment strategy in order to lock in to the surplus position whilst reducing the investment risk currently held, if desired by the Trustee and the Employer.

It should be noted that the recommended contribution rates are still likely to be sufficient to meet the funding objective (refer Section 5 for the projected coverage of defined benefit liabilities) if investment returns were as low as -6% in the calendar year to 30 June 2016.

## 1.3. Other Findings and Recommendations for the Trustee

#### **Suitability of Policies**

- The investment policy for the defined benefit section of the Plan is suitable.
- The crediting policy for the defined benefit section of the Plan is suitable.
- The insurance arrangements for the defined benefit section of the Plan are suitable.
- The Shortfall Limit (for the purposes of SPS 160) is suitable.
- The Trustee's process for monitoring the Plan's financial position is suitable.

#### Recommendations

- The investment policy for the defined benefit section of the Plan should be reviewed in light of the projected surplus position and taking consideration of the Employer's current risk tolerance.
- The Shortfall Limit should continue to be a defined benefit vested benefit index of 98.5% (consent assumed for early retirement).
- The basis for allocating the administration expense should continue to be reviewed annually, with the next review at 30 June 2016.
- The Trustee should note the inconsistency between the benefits paid on death and disablement (no consent) compared to leaving service (with consent) and consider whether to review this. The Trustee should also note that this difference results in a significant amount of over insurance.
- The Trustee should review whether the expense recovery is sufficient.

## 1.4. Action Required

The Trustee should consider this report and confirm its agreement (or otherwise) to the contribution and other recommendations.

The Trustee should seek formal agreement from the Employer to contribute in line with the recommendations.

## Liability Measures as at 30 June 2015

### 2.1. Vested Benefits (consent assumed for early retirement)

The benefits payable if all members resigned or, if eligible, retired at the valuation date and consent were given for members aged 55 or over to receive the higher defined benefit if it applies.

Plan assets at 30 June 2015 were greater than Vested Benefits (consent assumed for early retirement). The financing objective adopted for this investigation is to maintain coverage of at least 110% of Vested Benefits (consent assumed for early retirement). This financing objective was met as at 30 June 2015.

### 2.2. Vested Benefits (no consent)

The benefits payable as of right if all members resigned or, if eligible, retired at the valuation date before applying any higher benefits on retirement from age 55, which are subject to the approval of the Trustee and the Employer.

At 30 June 2015, Plan assets were greater than Vested Benefits (no consent). Accordingly the Plan was considered to be in a "satisfactory financial position" under SIS legislation.

## 2.3. Discounted Accrued Retirement Benefit (DARB)

For members aged 55 or over, it is their defined benefit Vested Benefits assuming that consent is granted for early retirement. For members under age 55 we discount their 'notional' accrued defined benefit for the period remaining to age 55. A minimum of Vested Benefits is applied at the individual level.

Plan assets at 30 June 2015 were greater than DARB. The financing objective adopted for this investigation is to maintain coverage of at least 100% of DARB. This financing objective was met as at 30 June 2015.

#### 2.4. Actuarial Value of Accrued Benefits

The Actuarial Value of Accrued Benefits 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 of payment. This value is calculated using actuarial

methods and assumptions. In determining the value, I have not applied a minimum of the vested benefits.

The coverage of the Actuarial Value of Accrued Defined Benefits at 30 June 2015 was also above 100%.

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 AAS25 purposes.

More details on the method can be found in the attached summary of the actuarial report prepared for AAS25 purposes.

#### 2.5. 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 2015 were also greater than SG Minimum Benefits and hence the Plan was considered to be "solvent" under SIS legislation.

## Experience

## 3.1. Change in Financial Position since Previous Investigation

The table below shows the coverage levels for various indices as at 30 June 2015, and the corresponding values at the previous investigation date.

	Position at 30 June 2015		
Defined Benefits Only*	\$000	Asset Coverage	Coverage at 30 June 2012
Assets	89,476		_
Liability for Vested Benefits (consent assumed for early retirement)^	80,793	111%	97%
Liability for Vested Benefits (no consent)^^	73,367	122%	115%
Discounted Accrued Retirement Benefits	83,139	108%	90%
Liability for Actuarial Value of Accrued Benefits	78,876	113%	98%
Liability for SG Minimum Benefits	64,744	138%	134%

<sup>\*</sup> Excludes accumulation accounts (member investment choice), defined benefit surcharge, offset and family law accounts, and the benefit of a genuine Category 4 (g) member. These total \$32,531,000 as at 30 June 2015.

The coverage levels at 30 June 2015 were higher than the levels at the previous actuarial investigation due to the overall positive experience during the period since the previous investigation.

The reasons for the changes in the financial position due to experience since the previous investigation are detailed below.

<sup>^</sup>Trustee and employer consent is required for members to receive defined benefits on retirement from age 55. Vested Benefits (consent assumed for early retirement) is the total of the retirement benefits with consent for those aged 55 and over and the account based resignation benefits for those under 55.

### 3.1.1. Investment Returns and Crediting Rates

The table below shows the rates of investment earnings (after tax, investment fees and asset based administration fees) for assets supporting defined benefits, and crediting rates applied to defined benefit members' accounts, over the period since the previous investigation.

Year Ending	Investment Return (pa)	Crediting Rate(pa)
30 June 2013	13.5%	13.5%
30 June 2014	11.9%	11.9%
30 June 2015	9.6%	9.6%
Compound Average	11.7%	11.7%

The average investment return for the three year period to 30 June 2015 was 11.7% p.a. compared to our longer term assumption at the last actuarial investigation of 6.3% p.a. The higher than assumed return had a positive impact on the Plan's financial position.

### 3.1.2. Salary Increases

Salaries for the current defined benefit members increased by an average of 3.3% p.a. over the period compared to our longer term assumption at the last actuarial investigation of 3.5% p.a. The lower than assumed salary increases had a small positive impact on the Plan's financial position.

## 3.1.3. Changes in Membership/Decrements

During the period under review the number of defined benefit members within the Plan decreased and the decrease was more than assumed. This has not had a material impact on the Plan's overall financial position.

#### 3.1.4. Contributions

The Employer contribution rates since the date of the prior actuarial investigation were as follows:

Catamany	Employer Defined Benefit Contribution Rate	
Category	(% of Salary)	
Category 1	13.0%	
Category 1BC	13.0%	
Category 1C	13.0%	
Category 1D	13.0%	
Category 2	13.0%	
Category 3	13.0%	
Category 4*	13.0%	

<sup>\*</sup> Category 4 members (as defined by the administrator) include former members of Categories 1 or 2 who have ceased paying member contributions. The contribution rate is not applicable to the one "genuine" Category 4 member as defined in the Participation Schedule (referred to as Category 4(g) for the purpose of this report). Contributions in respect of the Category 4(g) member are detailed below.

We understand that 3% productivity contributions were paid in addition to the above rates to either this or other funds.

The Employer contribution rates were in accordance with the prior actuarial investigation and subsequent contribution recommendations.

The Employer contributions paid over the review period were higher than the long term Employer contribution rate (i.e. the estimated employer cost of future service benefits), which had a positive impact on the Plan's financial position.

## 3.2. Recommendations in Previous Actuarial Investigation

The previous actuarial investigation made the following recommendations and the status of these is shown in the table below:

1) 2)	Contribution program	
2)	Contribution program	Paid in accordance with our recommendations.
۷)	Productivity Contributions	Employer Group confirmed that these are being paid.
3)	Investment Strategy	Trustee and Employer confirmed that they wish to continue with the existing investment strategy.
4)	Exit communication and Supplementary Annual Report	Documentation updated to reflect the potential change in investment strategy on exit.
5)	Fixed insurance premiums for compulsory insurance cover	The insurance premiums were changed. The deductions are now age based premiums.
6)	Compulsory death and disability income insurance use salary at date of event	Confirmation received from CommInsure.
7)	Salary definition consistency for disability income between insurance policy and Participation Schedule	No action taken.
8)	Review consistency of TPD definition in participation agreement and insurance policy	On advice, the Trustee concluded that this was not necessary but could be updated next time the Participation Schedule is updated.
9)	ORFR	ORFR established and management ongoing.
10)	Defined Benefit Policy	Established and Shortfall Limit set.
11)	Quarterly reviews	Quarterly reviews have been undertaken.
12)	Benefit Certificate and Funding and Solvency Certificate	Updated
13)	Update Participation Schedule to reflect no new members	Subsequently advised that this is not necessary.
14)	Expenses	Expense recovery was reviewed and it was agreed that the existing expense allowance should continue as it was sufficient.
15)	Crystallisation of defined benefits at age 75	The Trustee agreed to formulate a policy when a member approaches age 75. At the investigation date the oldest member is 70.

## Contribution Requirements

### 4.1. Financing Objective

The financing objective I have adopted for this investigation is to maintain the value of the Plan's assets at least equal to:

- 100% of accumulation account balances; plus
- 110% of Defined Benefit Vested Benefits (consent assumed for early retirement); and
- 100% of Discounted Accrued Retirement Benefits.

Accumulation account balances are matched by specific assets and do not require any additional margins.

A financing objective against Defined Benefit Vested Benefits (consent assumed for early retirement) recognises that historical prevalence has been for members aged 55 and over to be given Trustee and Employer consent to receive the defined benefit retirement benefit if higher than the accumulation based benefit.

A significant proportion of the total Defined Benefit Vested Benefits (consent assumed for early retirement) is not linked to the returns on the underlying assets and this proportion is projected to increase. A margin in excess of 100% coverage of this benefit measure is therefore desirable to provide a degree of security against adverse experience such as poor investment returns. We have increased the target margin from105% at the last investigation to 110% due to the increased funding position and also as a result of the increasing proportion of the liabilities that are salary linked. We believe this target strikes a reasonable balance between the Trustee's desire to provide security to members and the Employer's desire to avoid an unnecessary build-up of surplus.

Coverage of Discounted Accrued Retirement Benefits becomes important if a Plan wind up were to be contemplated. We have also targeted at least 100% coverage of Discounted Accrued Retirement Benefits.

Based on the assumptions adopted for this investigation, achieving the financing objective of 110% of Vested Benefits (consent assumed for early retirement) for defined benefit members would also result in at least 100% coverage of the Actuarial Value of Accrued Benefits, the Vested Benefits (no consent) and a satisfactory margin of coverage over 100% of SG Minimum Benefits. Hence it is not considered necessary to adopt specific financing objectives in relation to these benefit liability measures.

I have taken into consideration the provisions of the Trust Deed and any professional requirements as set out below.

### 4.1.1. Professional Requirements

Under Professional Standard 400 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.

The financing objective has been set on the basis that members' reasonable expectations on termination would be to receive their vested benefit entitlement.

#### 4.1.2. Provisions of the Trust Deed

NGS Super's Trust Deed includes a requirement that an actuarial investigation for each defined benefit sub-plan is conducted when Relevant Law requires (i.e. at least every 3 years for a plan that does not have defined benefit pensioners).

The Participation Schedule governing the operation of the Plan specifies in clause 5.1 that each Employer shall make contributions to the Plan at a prescribed rate "or such other amount as may be agreed with the Trustee having regard to advice of the Actuary as necessary to provide the benefits to the Members under the Participation Schedule".

## 4.2. Financing Method

There are various financing methods that could be followed in setting the Employer contribution level. For the purposes of this investigation, we have:

- Used the "Attained Age Normal" method to calculate the long term "normal cost" under the valuation assumptions, and
- Used the "Target Funding" method to assist in the development of our recommended contribution program.

Under the "Attained Age Normal" method, the "normal cost" is the estimated rate of Employer contributions required to provide benefits in respect of future service (i.e. service after the investigation date) for existing members. The normal cost ignores any surplus or deficiency of assets over accrued liabilities

Under the "Target Funding" method, the Employer contribution rate required to provide a target level of coverage of a particular benefit liability measure is determined. For this Plan, the target coverage measures are detailed in Section 4.1 of the report. Under this method, the level of the Employer contribution may vary from time to time to ensure that the Plan remains on course towards its financing objectives.

We consider that the combination of the two methods above is suitable in the Plan's current circumstances as it allows the recommended contribution rate to be determined having regard to both the long term outlook and the Plan's shorter term financing objectives.

I consider that this combination of financing methods is suitable in the Plan's current circumstances as it allows the recommended contribution rate to be determined specifically to meet the Plan's financing objective.

## 4.2.1. Changes in Financing Method

The above financing methods were also used at the previous investigation.

## 4.3. Employer's Future Service Cost

Based on the assumptions adopted for this investigation, I estimate that the Employer's long-term defined benefit funding costs (i.e. the normal cost of funding future service defined benefit accruals for each category) are as follows:

Defined Benefit Membership Group	Employer long-term cost (of future benefit accrual) (% of Salary/Wage)
Category 1	7.0%
Category 1BC	7.2%
Category 1C	6.5%
Category 1D	6.5%
Category 2	6.3%
Category 3	SG less 3%
Category 4*	SG less 3%

<sup>\*</sup> Category 4 members (as defined by the administrator) include former members of Categories 1 or 2 who have ceased paying member contributions.

Note: 3% productivity contributions are paid in addition to the above rates.

The contribution requirement applicable to the Category 4(g) member is the rate agreed between the member, the Employer and the Trustee. This rate must at least meet the Employer's Superannuation Guarantee obligations (currently 9.5%).

The average Employer normal cost for current members (excluding Category 4(g)) is 6.9% of salaries.

Under the Target Funding method, it would be appropriate to reduce the current employer contribution requirements to slightly below the long-term defined benefit funding costs based on the relatively strong financial position of the Plan. Therefore, we believe that a reduction in the employer contribution requirements from 13% (current rate) to (SG% minus 3% i.e. currently 6.5%) of defined benefit members' salaries strikes the right balance between ensuring that the contributions to the Plan are anticipated to continue to exceed the adopted financing objective without building up excessive surplus. We have recommended the same rate for each category for simplicity and to be consistent with current practice.

Note that 3% productivity contributions need to be paid in addition to the recommended rate.

#### 4.4. Recommended Contributions

Based on the Trustee's financing objective described and the results of this investigation, I recommended that Employer contributes as follows:

Category	Employer Defined Benefit Contribution Rate (% of Salary)		
	From 1 July 2015 to 30 June 2016	From 1 July 2016	
Category 1	13.0%	SG% minus 3%	
Category 1BC	13.0%	SG% minus 3%	
Category 1C	13.0%	SG% minus 3%	
Category 1D	13.0%	SG% minus 3%	
Category 2	13.0%	SG% minus 3%	
Category 3	13.0%	SG% minus 3%	
Category 4*	13.0%	SG% minus 3%	

<sup>\*</sup> Category 4 members (as defined by the administrator) include former members of Categories 1 or 2 who have ceased paying member contributions. The contribution rate is not applicable to the one "genuine" Category 4 member as defined in the Participation Schedule (referred to as Category 4(g) for the purpose of this report). Contributions in respect of the Category 4(g) member are detailed below.

SG% is the Superannuation Guarantee rate as legislated. The SG rate is currently 9.5% and so the contribution payable from 1 July 2016 is (9.5% - 3%) = 6.5%.

Note that 3% productivity contributions are paid in addition to the above rates.

We understand that 3% productivity contributions are payable in respect of <u>all</u> members. These contributions are payable to either the Plan, the Industry Section of NGS Super or another fund. Payment of these contributions is assumed as part of the Plan's benefit design.

Employer contributions in respect of the Category 4(g) member should be at such rates agreed between the member, the Employer and the Trustee ensuring that the Employer's Superannuation Guarantee obligations are being met.

All compulsory and voluntary member pre-tax (salary sacrifice) contributions should also be paid.

### 4.5. Valuation Balance Sheet

The following table shows the Plan's valuation 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 valuation date	78.876
Present Value of future defined benefits payments in respect of membership after the valuation date	13.714
Present Value of future Plan operating costs and tax on contributions	2.462
Total Present Value of future payments out of Plan	95.052
Value of Plan Assets at 30 June 2015  Present Value of future Employer contributions	89.476 8.768
(at rate recommended)	
Present Value of future Member contributions (at rate(s) specified in Trust Deed)	6.913
Total available Assets (in absence of other contributions)	105.157
Excess/(Deficit) of Assets to value of benefits	10.105

In practice it is likely to be necessary to vary the Employer contribution rate over time to achieve the Trustee's financing objective. The above long term surplus of \$10.105m suggests that further employer contribution reductions may be appropriate in the future.

## 4.6. Projected Financial Position

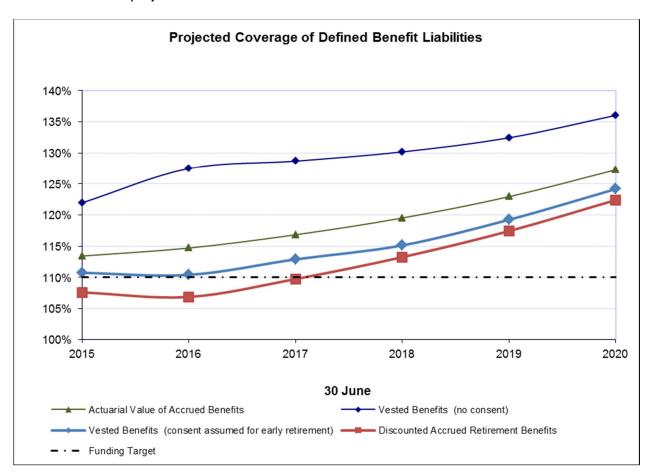
The next section of the report shows the projected financial position on the recommended contributions compared with the Financing Objective adopted by the Trustee.

## **Projections**

I have prepared a projection of Plan assets and benefit liabilities based on:

- the actuarial assumptions adopted for this investigation;
- but allowing for -1.4% investment return in the first year (actual return has been -1.4% for the 6 month period following 30 June 2015 and markets remain volatile so we have assumed nil return for the remainder of the first year); and
- assuming that the Employer contributes on the basis as recommended above.

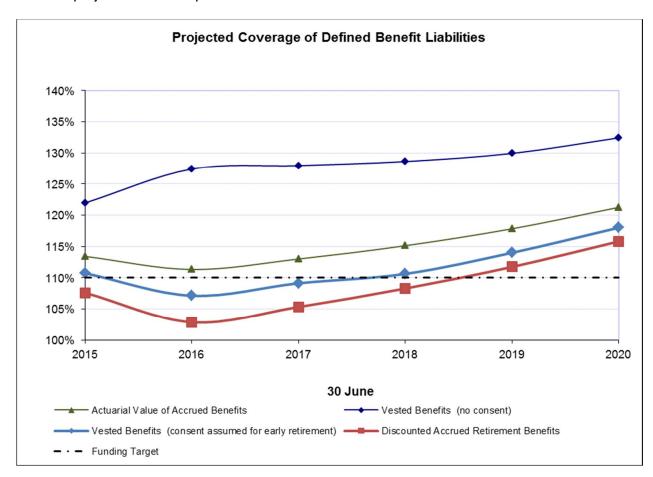
The results of the projection are as follows:



The Trustee should note that this projection is based on the assumptions adopted, which represent a single scenario from the 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 the reasonable range and results based on those alternative assumptions would be different.

#### Negative 6% return in year ending 30 June 2016

For example, if we assume that the return in the year ending 30 June 2016 will be -6% (instead of the -1.4% assumed above) and all other assumptions are the same as those detailed above, then the projected financial position would be as follows:



The graph above demonstrates that even allowing for a large negative return of -6% in the year following the investigation date, the Plan's Vested Benefit (consent assumed for early retirement) coverage is not expected to drop below 105% and the recommended contribution rate (SG -3%) from 1 July 2016 is expected to be sufficient to return the Plan to 110% coverage by 30 June 2018 and therefore meet its Financing Objective.

## 5.1. Meeting the Financing Objective

The first projection above shows that the recommended contributions are expected to maintain asset coverage of at least 110% of Defined Benefit Vested Benefits (consent assumed for early retirement) over the next five years (the financing objective adopted in this investigation).

The second projection graph shows that even if the investment returns fall as low as (-6% in the first year, the recommended contributions are expected to return the Plan to an asset coverage level of at least 110% of Defined Benefit Vested Benefits (consent assumed for early retirement) by 30 June 2018 and therefore meet its Financing Objective.

Both graphs also show the coverage level of assets compared with the Discounted Accrued Retirement Benefit. The recommended contributions are projected to result in asset coverage of at least 100% of this coverage measure over the next five years under both scenarios.

## Investment Policy and Related Risks

### 6.1. Investment Policy

Assets backing accumulation benefit liabilities

The Plan provides members with a range of investment options for their accumulation benefits (the additional account balances of defined benefit members). The assets supporting these liabilities are invested according to members' selected investment options and the actual returns on those investments (whether positive or negative) are passed on to members via changes in the unit prices by which member account balances are determined. Thus the Plan's accumulation liabilities and related assets are matched.

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

I consider that the Plan's investment policy for assets relating to accumulation liabilities is suitable, having regard to the nature and term of these liabilities.

Assets backing defined benefit liabilities

The Plan's investment strategy for assets supporting defined benefit liabilities, the NGS Super Diversified (MySuper) investment option within NGS, currently involves a benchmark 70% exposure to 'growth' assets such as shares and property and a benchmark 30% exposure to 'defensive' assets such as cash and fixed interest (refer to the table below for the actual and benchmark investment allocations of these assets as at the investigation date). 'Growth' assets are expected to earn higher returns over the long term compared to 'defensive' assets, but at the same time to exhibit more variation in returns from year to year.

30 June 2015	Benchmark Allocation	Tactical Allocation Range
Australian Shares	22.0%	15 – 40%
Overseas Shares	28.0%	15 – 40%
Property	5.0%	0 - 15%
Infrastructure	5.0%	0 - 10%
Fixed Interest	5.0%	0 - 20%
Alternatives - Growth	15.0%	0 - 30%
Alternatives - Defensive	15.0%	0 - 30%
Cash and Term Deposits	5.0%	0 - 25%
Total	100.0%	

The Plan's resignation benefit and SG minimum benefit are account based benefits and so are affected by the investment return on the Plan's assets. However, the retirement benefit is a salary based benefit which is not affected by investment returns. Assuming Employer consent is granted for early retirement from age 55, the Vested Benefit (consent assumed for early retirement) for members under 55 is the greater of the resignation and SG minimum benefit, while for over 55 members it is the greater of the resignation, SG minimum and retirement benefits. At the investigation date, around 65% of the Defined Benefit Vested Benefits (consent assumed for early retirement) was salary based i.e. this portion of the benefits are not affected by the investment return on the Plan's assets. The volatility of the Plan's investment returns will therefore affect the financial position of the Plan from year to year and is likely to impact on the required level of Employer contributions.

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, with the defined benefits having been closed to new members for some time now and a significant amount of retirement benefits due to become payable in the next few years, the projections carried out as part of this actuarial investigation indicate that a substantial reduction of defined benefit assets is expected over the next 5-10 years.

The following table shows the projected value of assets and associated major cash flows expected over the next ten years:

Year Beginning 1 July	Projected Asset Value	Employer Contributions	Member Contributions	Benefit Payments	Investment Earnings Net of Tax & Expenses
	(\$)	(\$)	(\$)	(\$)	(\$)
2015	89,476,000	3,744,000	1,317,000	-15,707,000	-1,903,000
2016	76,927,000	1,938,000	1,180,000	-9,881,000	3,624,000
2017	73,788,000	1,738,000	1,039,000	-10,020,000	3,472,000
2018	70,016,000	1,564,000	900,000	-9,865,000	3,292,000
2019	65,908,000	1,401,000	783,000	-9,471,000	3,104,000
2020	61,725,000	1,256,000	681,000	-8,684,000	2,931,000
2021	57,908,000	1,181,000	570,000	-9,152,000	2,697,000
2022	53,204,000	1,075,000	456,000	-9,135,000	2,443,000
2023	48,044,000	991,000	369,000	-7,242,000	2,269,000
2024	44,430,000	869,000	305,000	-5,671,000	2,171,000

The Plan's investments are expected to provide a high level of liquidity in normal circumstances. Hence we do not envisage any problem in being able to redeem assets to meet benefit payments as they arise. However the shorter-term liability profile reduces the ability of the Plan to 'ride out' the ups and downs in returns that are expected from investment strategies with substantial exposure to 'growth' assets.

Hence, while the existing investment strategy is appropriate in the context of a relatively high risk tolerance of the Employer, we recommend that a review of the current defined benefit investment policy be undertaken, with consideration to be given to moving part or all of the defined benefit assets to a lower risk strategy, particularly if the Employer wishes to reduce the potential for contribution rate volatility and/or if significant levels of early retirements are anticipated.

Further information on the impact of a change in the Plan's investment strategy to a more conservative strategy has been provided in Appendix D to this report.

## 6.2. Unit Pricing Policy

NGS Super has a documented unit pricing policy (dated September 2011).

The main features of the unit pricing policy are summarised briefly below:

- Earnings credited are based on the actual net earning rates (i.e. earnings net of investment
  costs, asset-based administration fees, member protection fees and provisions for tax) of the
  particular investment options. Net earnings are allocated via changes in unit prices. Unit
  prices are determined on a weekly basis. Any further asset-based administration fees not
  already allowed for in unit pricing are deducted via reduction in units.
- Hard-close unit prices are calculated (monthly and annually) for performance monitoring but are not used for transaction processing or member statements.
- All transactions (real and notional) except switches in and out of investment options are
  processed using historical unit pricing (i.e. based on the previous week's unit price).
   Switches in and out of investment options would be processed using forward unit pricing to
  limit the opportunity for members to select against the Plan.
- Members' defined benefits are crystallised at the date of leaving service. For the period from
  the date of leaving service to the date of payment of the benefit (or until transferred to the
  Industry section of NGS Super), late payment interest is payable on the benefit. This is
  calculated as the movement in the cash option unit price between the date of leaving service
  and the date of payment/transfer.
- Members' additional accumulation benefits (subject to member investment choice) are calculated using the latest unit price at the date of payment/transfer.
- NGS Super Management allows certain member transaction requests to be backdated. That
  is, certain transactions can be processed with an earlier "business effective date" than the
  actual "processing date".
- NGS Super maintains a unit pricing reserve. A target fund level of 30 bps of the NGS Super's Net Asset Value is held to cover any potential errors caused by incorrect calculations of unit prices.
- Contingency arrangements are documented for the Trustee to take action if markets become significantly volatile, including the release of additional unit prices and the suspension of member transaction processing.
- Members leaving service for any reason will be automatically transferred to the Industry Section of NGS Super (unless alternative payment instructions have been received).

Termination of service can result in an automatic change in a member's investment option. If transferred to the Industry section (on exit for any other reason):

- If the member has selected an investment option or options for any additional accounts, the former defined benefit is to be invested according to the nominated investment choice from the date the conversion is processed.
- If the member has not selected an investment option for the additional accounts or does not have any additional accounts, the former defined benefit is to be invested in the default investment option for accumulation members from the date the conversion is processed.
- The member may switch investment options at any time after the processing date.

#### Comments

We consider that the current frequency of review of unit prices is appropriate. Whilst the use of historical unit pricing can result in members being disadvantaged or advantaged (depending on market movement), when considered alongside the contingency arrangements in place we consider the risk is controlled sufficiently.

#### 6.2.1. Conclusion

The unit pricing policy and related procedures are documented. A detailed review of the policy and related procedures is outside the scope of this investigation.

The general principles of the unit pricing policy are reasonable.

Based on a review of the main features, I consider that the unit pricing policy is generally suitable taking into consideration the principles of equity between different generations of members and any material risks which may have a significant impact on the Plan (i.e. a market shock or sudden downturn in investment markets).

## 6.3. Investment Risk – Impact on Cost to the Employer

There is a risk that investment returns will be lower than assumed and the Employer will need to increase contributions to offset this shortfall. This risk is normally borne by the Employer.

For example, if the assumed future investment return was reduced by 1% pa with no change in other assumptions, then:

- (i) the Actuarial Value of Accrued Benefits would increase by \$1,333,000 (Employer funding cost impact \$1,333,000 /0.85 = \$1,568,000), with a resulting reduction in the coverage of the Actuarial Value of Accrued Benefits from 113% to 112%; and
- (ii) the long term employer contribution rate (the estimated employer cost of future service benefits) would increase from 6.9% to 7.5% of salaries under this scenario.

The actual investment return achieved by the Plan in future may vary (positively or negatively) from the rate assumed at this investigation by much more than the (negative) 1% pa illustrated in the example above.

### 6.4. Investment Volatility

65% of the current Vested Benefits (consent assumed for early retirement) for defined benefit members are not linked to investment returns (i.e. are salary based benefits) and therefore the Plan's vested benefits coverage is sensitive to changes in the investment returns.

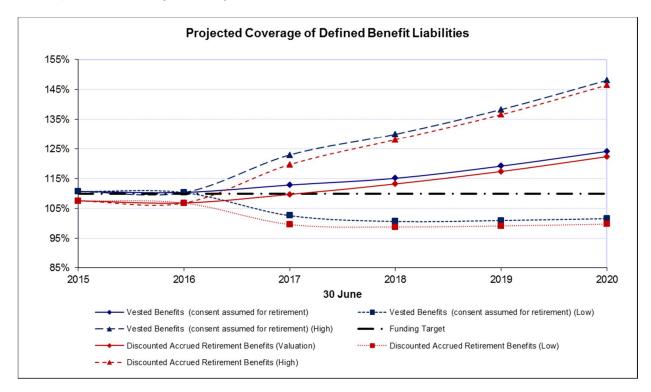
I have considered the impact of investment volatility on the Plan's financial position over the next few years using a "high return" and a "low return" scenario. The returns under both scenarios have been derived from assumptions about the likely risk attached to the Plan's defined benefit investment strategy.

Using the investment return model and assumptions adopted, there is approximately a 10% chance of the Plan's cumulative investment return being less than the "low return" scenario. Similarly, there is approximately only a 10% chance of the Plan's cumulative investment return being greater than the "high return" scenario. Allowance has been included for the actual return of -1.4% for the 6 month period following 30 June 2015 with nil return assumed for the remaining 6 months of the first year. As markets remain volatile and indeed are expected to have further deteriorated since the start of the calendar year, we have assumed nil return for the remainder of the first year.

1 July 2015 to 30 June	Assumed Cumulative Investment Return (%)		
	"Low Return"	Valuation	"High Return"
2016	-1.4%	-1.4%	-1.4%
2017	-5.3%	4.5%	14.6%
2018	-2.6%	10.9%	25.2%
2019	1.6%	17.6%	35.1%
2020	6.3%	24.8%	45.4%

The cumulative investment return is the total return from 1 July 2015 up to 30 June in the year shown. The extent of variation allowed for in these projections reflects the Plan's asset mix and Mercer's views on potential variability in investment results in various investment sectors.

The graph below shows the effect on the projected ratio of assets to Vested Benefits for defined benefit members under the "high return" and "low return" scenarios, with all other investigation assumptions remaining unchanged.



Based on fluctuations in investment returns only, and assuming other experience is in line with the assumptions adopted for this investigation, there is approximately an 80% chance that the coverage of assets over Vested Benefits (consent assumed for early retirement) at 30 June 2018 will fall in the range from 101% to 130%.

Please note that the Low Return Scenario and the High Return Scenario shown above are illustrations only, and show what may occur under assumed future experiences which differ from our baseline assumptions. These scenarios do not constitute upper or lower bounds and the actual future coverage of Vested Benefits may differ significantly from the range shown above, depending on actual future experience.

In my view, the Trustee should be satisfied with the expected level of security over the next few years if the Employer contributes at the recommended levels.

## Insurance Policy and Related Risks

The insurance arrangements for NGS Super are underwritten by CommInsure ("the insurer") and outlined in the relevant policy and policy endorsements between the Trustee and the insurer. The purpose of the insurance policies is to protect the Plan against unexpectedly large payouts on the death of members.

#### **Death Benefit**

The benefits on TPD and death are:

TPD Benefit: Resignation Benefit (without consent) + Voluntary Insurance

Death Benefit\*: Resignation Benefit (without consent) + 1 x Salary + Voluntary Insurance

\* Subject to a minimum of the member's 'notional' accrued retirement benefit.

The 1 x Salary benefit and the Voluntary Insurance are fully insured.

As there is a minimum of a member's 'notional' accrued retirement benefit applied to their death benefit (irrespective of the member's age), the benefit payable for some members may be higher than the member's sum of accounts plus insurance. In this regard, we note that the 'notional' accrued retirement benefit was greater that the death benefit for 46 out of 362 members as at 30 June 2015.

#### Discrepancy between Death and TPD Benefits and Leaving Service Benefits

The formulae above show that the TPD and Death benefits are based on the Resignation benefit without consent assumed for early retirement. If a member were to leave service after age 55, then they would receive the higher early retirement benefit (subject to the approval of the Trustee and the Employer). Therefore a member that is over age 55 would receive a higher benefit from the Fund (ignoring insurance proceeds) if they left service compared to if a TPD/Death benefit were paid.

We recommend that the Trustee review whether this discrepancy is appropriate and whether it should be removed.

#### Amount Insured

The total amount insured should cover the excess of the death benefits over the Plan's assets, unless there is a funding shortfall. Based on data provided by the Plan's administrator and the formula in use at the investigation date, the coverage of death risk as at 30 June 2015 for the Plan was as follows.

	Defined Benefit members	\$'000
	Death Benefits	102,337
less	Sum Insured	28,979
less	Assets	89,476
	Over Insurance of Death Benefits	16,109

There is a relatively large amount of over-insurance mainly due to the strong financial position of the Plan. This comes about due to the discrepancy described above, that is, between the different leaving service benefits used for funding purposes (with consent) and for death and disablement purposes where the no consent resignation benefit is applied. However, it is not at a level where I consider that a change to the current insurance formula is necessary.

#### **Disability Income Benefits**

The Plan provides for a temporary disablement income benefit of 75% of salary (indexed) plus 5.5% of salary to cover member contributions to the Plan.

The benefit is payable for a 5 year period or to the earlier of death, recovery or age 65 if sooner.

There is a 3 month waiting period.

The Automatic Acceptance Limit for this benefit is \$9,000 per month.

#### **Insurance Deductions**

Currently, premiums for both voluntary and compulsory insurance cover are deducted from Employer Accounts at age based premium rates as detailed in the Plan insurance policies. The compulsory insurance rates have been changed from a fixed rate that applied at the last investigation date and this will have affected members in different ways.

#### Members without compulsory insurance

Some members in the Plan do not have standard insurance (around 39 members at 30 June 2015 had neither standard death nor income protection insurance). Some members only have standard income protection insurance (6 members at 30 June 2015) only. It was noted by the previous actuary that, whilst some members do not have insurance as a result of them not being

accepted for insurance or because the insurance cover is provided through the Industry Section of NGS Super, it is expected that some members have in the past elected to opt out of insurance cover.

We understand that the Trustee no longer allows for members to opt out of compulsory insurance cover.

In my opinion, the current group life insurance arrangements, including the sum insured formula for defined benefit members, are appropriate and provide adequate protection for the Plan.

#### 7.1. Documentation

The compulsory death and other voluntary insurance arrangements are underwritten by Comminsure ("the insurer") and outlined in the latest endorsement to the policy (dated 1 July 2014) between the Trustee and the insurer. The purpose of the insurance policy is to protect the Plan against unexpectedly large payouts on the death or disablement of members.

The disability income benefits insurance arrangements are also underwritten by CommInsure.

#### 7.2. Conclusion

I consider that the Plan's current insurance arrangements are suitable. However, the Trustee should note the discrepancy between the leaving service benefits used for funding purposes (with consent) and for death and disablement purposes (no consent) and consider whether this remains appropriate and whether it should be removed. The Trustee should also note that as a result of this discrepancy, there is a significant amount of over insurance in place.

## Other Risks

There are a number of other risks relating to the operation of the Plan. The more significant financial risks, other than investment, and insurance risk, relating to the defined benefits are:

### 8.1. Salary growth risk

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 Employer.

For example, if the assumed future salary increase rate was increased by 1% pa with no change in other assumptions, then

- (i) the Actuarial Value of Accrued Benefits would increase by \$820,000 (Employer funding cost impact \$820,000/0.85 = \$964,000), with a resulting reduction in the coverage of the Actuarial Value of Accrued Benefits from 113% to 112%; and
- (ii) the long term employer contribution rate (the estimated employer cost of future service benefits) would increase from 6.9% to 7.2% of salaries under this scenario.

The actual rate of future salary increases may vary (positively or negatively) from the rate assumed at this investigation by much more than the (positive) 1% pa illustrated in the example above.

## 8.2. Legislative risk

The risk is that legislative changes could be made which increase the cost of providing the defined benefits – for example an increase in the rate of tax on superannuation funds. This risk is borne by the Employer.

The Plan's Risk Management Statement and Risk Management Plan should identify a full range of risks faced by the Trustee.

## **Assets**

#### 9.1. Assets

The net market value of the Plan's assets as at 30 June 2015 amounted to \$122,007,000 (based on the data provided by the Plan's administrator for the Plan at 30 June 2015.

Calculation of Defined Benefit Assets at 30 June 2015		
Net market value of the Plan's assets as at 30 June 2015	\$122,007,000	
Less accumulation accounts for defined benefit members and the benefit of one genuine category 4 member.	\$32,531,000	
Assets to support the defined benefit liabilities of the Plan	\$89,476,000	

## 9.2. Operational risk reserves

The assets to meet the Operational Risk Financial Requirement (ORFR) are held separately to the assets of the Plan.

The scope of this Investigation does not include a review of the adequacy of assets held to meet the ORFR or the ORFR strategy.

## **Actuarial Assumptions**

The ultimate cost to the Employer 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 Employer 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 Employer.

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/wage increases, crediting rates, 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.

## 10.1. 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 increases used in the projections of future benefit payments.

This difference is commonly referred to as the "gap".

The key economic long term assumptions adopted for this investigation are:

	Assumption
Investment returns	6.1% p.a.*
(after tax, investment and asset based administration fees)	<u></u>
General salary increases	3.0% for first three years; and
General Salary Increases	4.0% p.a. thereafter

<sup>\*</sup>Investment returns have been assumed to be -1.4% in the first year from the investigation date.

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.

The general salary increase assumption is based on long term economic forecasts for future increases in average weekly earnings (AWOTE) and feedback received from the Employer.

### 10.2. Other assumptions

#### New members

The Plan's defined benefit section is closed to new entrants. No allowance has been made for new members.

### **Expenses**

#### Insurance premiums

The premiums for death cover and disability income benefits are deducted from Employer Accounts at the age based rates set out in the Plan's insurance policy. As part of this investigation we have analysed the actual premium amounts currently being paid by each member. Our analysis suggests that 1% of member salaries is a prudent estimate of the average cost of insurance cover for these benefits and have allowed for this cost in our projections.

Premiums for additional voluntary insurance cover are also deducted from Employer Accounts at age based rates and we have allowed for these actual deductions in our projections.

#### Administration and actuarial expenses

(i) Valuation assumption

The expected investment return has been reduced by 0.4% of assets to allow for the administration, operational and actuarial expenses applicable to the Plan allocated as follows:

- 1. Administration and actuarial expenses are assumed to be met through the asset based fee deduction of 0.3% of assets.
- 2. General operational expenses are assumed to be met through the standard NGS Super unit price deduction of 0.1% of assets.

#### (ii) Expense analysis

Based on the Plan's current membership, we estimate the cost of administration fees to be \$145,000 per annum (indexed) and actuarial expenses\* to be \$40,000 per annum (indexed) plus GST. Including GST, the total expenses are estimated to be \$185,000 per annum, or approximately 0.2% of current assets.

\*The estimated actuarial fees quoted above are in respect of "ordinary actuarial services". The costs for such services are intended to be met via the 0.3% asset based fee. For "additional actuarial services" the Trustee must determine whether the costs are to be met via the 0.3% asset based fee or as an additional deduction from Plan assets. Additional actuarial services are infrequent and have not been allowed for in this analysis.

It is intended that the administration and actuarial fees will be recovered via the 0.3% asset based fee deducted from defined benefit assets and the \$65 per member per annum fee deducted from members' Supplementary Accounts.

It is our understanding that the standard 0.1% deducted from NGS Super unit prices is intended to be used for general operational expenses and is not directly intended for the recovery of administration or actuarial expenses. We have not performed an analysis on the actual use of this deduction.

The cost per head in relation to expenses is very sensitive to the number of members in the Plan as the majority of expenses are fixed (i.e. they do not vary based on the number of members). As the fixed expenses are primarily met by an asset based recovery (which is sensitive to the number of members remaining in the Plan) we recommend that the allowance for expenses is reviewed annually (see below) to ensure that the current fees recovered from Plan assets remain sufficient to meet the costs of managing the Plan. We recommend that the next review be at the investigation date.

The Participation Schedule allows the Trustee to review the fees each 1 July (Clause 4.2.2) and, with the agreement of the Employer, under the following circumstances from time to time (Clause 4.5.1):

The impact of the GST, any change to the GST or any other tax law (other than income tax);
 and

• The impact of any significant legislative changes or significant changes to the Plan characteristics on which the fees have been based.

In particular, Clause 4.2.2 states that the Trustee has the right to review the 0.3% asset based fee if the assets fall below \$50 million.

#### 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.

All future Employer contributions are assumed to be subject to 15% contribution tax, after deduction of any insurance premiums and 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, accumulated at the Plan crediting rate. 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 higher than \$300,000, which is also payable by the member.

### **Demographic Assumptions**

Assumptions regarding the rate at which members leave the Plan have been retained unchanged from the previous actuarial investigation and are summarised below.

Resignation	1% pa before age 55
Retirement	Employer consent is assumed for early retirements from age 55. Retirement is assumed to occur at the following rates:

Age at Retirement	Proportion of members assumed to retire
55	20%
56	5%
57	5%
58	5%
59	5%
60	20%
61	15%
62	15%
63	20%
64	50%
65	100%

Retrenchment	Nil
Mortality	Mercer standard decrements (1997) - white collar
Disability	Mercer standard decrements (1997) - white collar

# 10.3. Changes in Assumptions since the Previous investigation

The following table sets out changes in assumptions from those used in the previous investigation and the reasons for the changes:

Assumption	30 June	e 2015 investigation	30 June 2012 investigation	Reason for change
Investment returns (after tax, investment and asset based administration fees)	6.1% p.a.		6.3% p.a.	Updated to reflect current investment market outlook
General salary		three years; and	3.5% for first three	Long-term view after discussion with
increases	4.0% p.a. the	reafter	years; and 4.0% p.a. thereafter	Employer.
Early Retirement rates	Age at Retirement	Proportion of members assumed to retire	10% of members aged 55 to 64 are assumed to retire	Move to Mercer standard basis
	55	20%	each year.	
	56	5%		
	57	5%		
	58	5%		
	59	5%		
	60	20%		
	61	15%		
	62	15%		
	63	20%		
	64	50%		
	65	100%		

# 11

# 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.

### 11.1. 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 98.5%.

The Shortfall Limit is expressed as a percentage coverage level of defined benefit Vested Benefits (consent assumed for early retirement) by defined benefit assets. This will be referred to as the defined benefit Vested Benefit index. 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 benchmark exposure of 70% 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. Also, the current and projected relativity between Vested Benefits and Minimum Requisite Benefits;
- The option open to the Employer to grant benefits of a greater value than vested benefits. For this Plan, the Employer has a history of granting consent to the Leaving Service Benefit on early retirement and therefore the Shortfall Limit refers to the vested benefits (consent assumed for early retirement).

The proportion of defined benefit Vested Benefits that are not linked to the investment return on defined benefit assets has increased since the Shortfall Limit was originally set and this would support a reduction in the Shortfall Limit. However, given the Plan has a defined benefit Vested Benefit Index of 111% at the investigation date, I recommend maintaining the current shortfall limit of a defined benefit vested benefits index of 98.5% (consent assumed for early retirement).

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 strategy which has a benchmark allocation to "growth" assets of less than 65% - or if the Trustee otherwise considers it appropriate to do so.

### 11.2. 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 and this must be submitted to
  APRA.

We understand that the Trustee has adopted a monitoring process which includes the following:

- A broad estimate of the defined benefit vested benefits coverage for each Plan is prepared each quarter using an approximate approach which takes into account key factors such as the investment return and top-up contributions (if any) for the quarter ("Trustee's estimate");
- If the Trustee's estimate indicates that the Shortfall Limit has, or may have been breached, action will be taken as required by SPS 160;
- For plans in a satisfactory financial position where there has been a significant reduction in the Trustee's estimate of defined benefit vested benefits coverage, the Trustee will request a review of the financial position and formal advice from the Plan actuary as to whether or not the current contribution program remains appropriate; and

• For plans in an unsatisfactory financial position, the Trustee will request a review of the financial position and advice from the Plan actuary each quarter as to whether or not the current contribution program remains appropriate or any other action should be taken.

We consider that the adopted monitoring process is appropriate.

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.

### 11.3. Requirements due to Unsatisfactory Financial Position

### 11.3.1. 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 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 contribution program (including its period) must be made within the framework of that Restoration Plan.

As indicated by the financial position and the projections, we consider that:

- The Plan is not in an unsatisfactory financial position; and
- The Plan is not likely to fall into an unsatisfactory financial position.

Hence the special requirements of SPS 160 for funds in an unsatisfactory financial position do not apply at this investigation.

### 11.3.2. 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 also sufficient to fully cover the SG Minimum Benefits at 30 June 2015 therefore the Plan is not considered to be technically insolvent.

### 11.4. Statements Required by SPS 160

The Summary of Actuary's Report (AAS 25), in Appendix C, provides statements required to be made under APRA Prudential Standard SPS 160.

# 12

# **Actuarial Certification**

### 12.1. Purpose

I have prepared this report exclusively for the Trustee of the Catholic Church Staff Superannuation Plan (South Australia) for the following purposes:

- To present the results of an actuarial investigation of the Plan as of 30 June 2015;
- To review Plan experience for the period since the previous actuarial investigation (effective at 30 June 2012);
- To recommend contributions to be made by the Employer 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.

It 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 Institute of Actuaries of Australia setting out requirements for actuarial investigations of defined benefit superannuation funds under SIS legislation.

The previous actuarial investigation was conducted as at 30 June 2012 by Anna Collins & Julian Hotz, on behalf of Mercer, and the results are contained in a report dated 5 February 2013.

# 12.2. Background information of the Plan

The Plan is operated for the benefit of employees of a number of participating employers of the Catholic Church Staff Superannuation Plan (South Australia). The Plan is a sub-plan of NGS Super. The Trustee of NGS Super, NGS Super Pty Limited, holds a Registrable Superannuation Entity Licence 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.

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.

### 12.3. Governing Documents

The governing rules of the Plan are set out in the NGS Super Trust Deed (as amended).

#### 12.4. Additional information

**Significant events since the investigation date** – The recommendations take into account the actual investment return of -1.4% for the 6 months immediately after 30 June 2015 and assume a nil return for the six months thereafter. I am not aware of any other significant events that have occurred since 30 June 2015 which would have a material impact on the recommendations in this report.

**Next actuarial investigation** - Required at a date no later than 30 June 2018. At that time, the adequacy of the Employer contribution levels will be reassessed. Note that the monitoring process recommended may lead to an earlier reassessment ahead of the next full actuarial investigation.

**AAS25 Summary** - A summary of the report for Australian Accounting Standard AAS25 purposes is enclosed and forms part of this report.

**Next Funding and Solvency Certificate** – A new Funding and Solvency Certificate has been prepared in conjunction with this report.

**Next Benefit Certificate** – required at or before the expiry of the current Benefit Certificate (which expires 27 June 2018). The current Benefit Certificate is designed to accommodate changes to the legislated Superannuation Guarantee schedule.

### 12.5. 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 investigation report should not be relied upon for any other purpose or by any party other than the Trustee of the Plan and the Employer(s) who contribute to 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 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. 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 expense, the level of taxation and the amount earned on any assets invested to pay the 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 the 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 the 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 a set of investigation results.

#### Data and Plan Provisions

To prepare this report, we have relied on financial and participant data provided by 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 documents, including amendments, governing the Plan as provided by the Trustee. 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

al Hause

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

Prepared by

Angele Herti

Angela Hartl
Fellow of the Institute of Actuaries of Australia

11 March 2016

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.

.....

Stuart Mules

Sel

Fellow of the Institute of Actuaries of Australia

# **APPENDIX A**

# Membership Information

The Plan's defined benefit membership as at 30 June 2015 was:

Catagory	Number of	Average Age	Salaries
Category	Members		\$000
Category 1	275	57.5	
Category 1BC	1	57.6	
Category 1C	1	56.4	
Category 1D	2	58.2	
Category 2	38	51.9	
Category 3	6	53.0	
Category 4*	39	49.0	
Total	362	55.9	38,056
2012 Total	444	52.2	42,262

<sup>\*</sup> Category 4 members (as defined by the administrator) include former members of Categories 1 or 2 who have ceased paying member contributions.

In addition, there is one "genuine" Category 4 member (as defined in the Participation Schedule) at 30 June 2015. This member is referred to as the Category 4(g) for the purpose of this report. This member's defined benefit accrual is frozen in the Plan. The member's future contributions are currently paid to the Industry section of NGS Super.

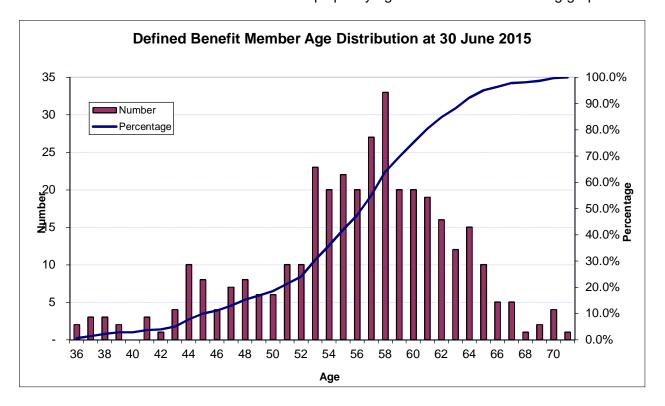
The Plan is closed to new members.

Members can change categories in certain circumstances, as set out in Clause 3.2 of the Participation Schedule.

The membership data used for this investigation was taken from the database used to administer the Plan. We have carried out some broad "reasonableness" checks on the data and I am satisfied with the quality of the data and its suitability for this purpose.

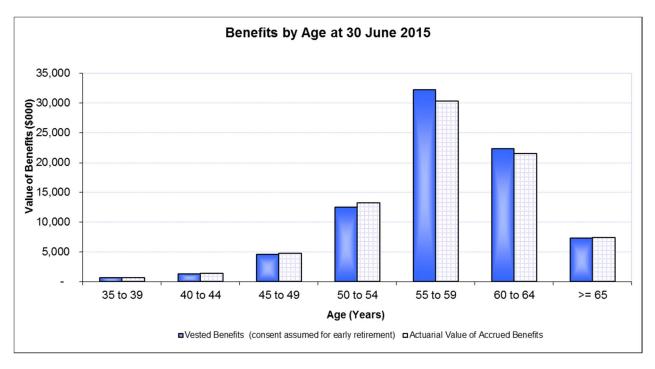
# A.1. Active defined benefit member age profile

The 30 June 2015 defined benefit membership split by age is shown in the following graph:



# A.2. Actuarial Value of Accrued Benefits age profile

The following graph shows the Vested Benefits (consent assumed for early retirement) and Actuarial Value of Accrued Benefits of defined benefit members (excluding additional accounts) at 30 June 2015, split by age.



# APPENDIX B

# Plan Design

## **B.1.** Summary of benefits

A summary of the main benefit provisions in respect of defined benefit members is set out below. A full description of the benefits provided by the Plan is set out in the Plan's Participation Schedule, as amended from time to time. Reference should be made to the formal governing documents for definitive statements.

Resignation	Member Account + Employer Account + AMPFA <sup>1</sup>		
Retirement (from age 55 with consent) <sup>4</sup> Total and Permanent Disablement (TPD) <sup>5</sup> Death <sup>5</sup>	Multiple x Final Average Salary (FAS)  Resignation Benefit + Voluntary Insurance  TPD Benefit	+ 3% Productivity Account <sup>2</sup> + Category 3 Account	+ Voluntary Accumulation Accounts <sup>3</sup>
	+ 1 x Salary (to age 65) with a minimum of the Retirement Benefit (applied to all members)	Subject to member investment choice	Subject to member investment choice
Minimum Requisite Benefit (as per Benefit Certificate)	Member Account + SG Account + AMPFA		
Put simply,	DB Benefit	Accumulation Accounts	Voluntary Accounts

<sup>&</sup>lt;sup>1</sup> A small number of members have bought rollover multiples, which are included in their retirement multiples. On resignation (and minimum SG benefits), members receive the return of their rollover accumulated with investment returns i.e. AMPFA.

<sup>&</sup>lt;sup>2</sup> Some employees receive 3% productivity contributions in this section, other ex ISST with insurance members receive their 3% productivity contributions in the Industry Section of NGS Super. Some employees may also receive in other funds.

<sup>&</sup>lt;sup>3</sup> Voluntary Accumulation Accounts include voluntary member contribution accounts (pre or post tax), rollover accounts, (negative) surcharge account.

<sup>&</sup>lt;sup>4</sup> Trustee and Employer consent required.

<sup>&</sup>lt;sup>5</sup> Maximum of 4 x Salary of voluntary insurance. Can have additional insurance in the Industry Section of NGS Super.

Benefit Category	Member Account	Employer Account	SG Account*	Category 3 Account*	Multiple Accrual <sup>6</sup>
1 - Standard	5.5%	5.5%	6.5%	-	13.5%
1BC - ex CBC (not CBC)	5.5%	5.5%	6.5%	-	12.5%
1C - ex CBC (at CBC)	5.0%	6.0%	6.5%	-	12.5%
1D - ex St Michaels	5.0%	6.0%	6.5%	-	13.5%
2 - Lower	3.0%	3.0%	6.5%	-	6.75%
3 - Frozen DB	-	-	-	6.5%	-

Tax deducted	<b>x</b> <sup>7</sup>	×	✓	✓	n/a
Insurance premiums	×	Cat 3: × Others: ✓	Cat 3: ★ Others: ✓	Cat 3 only:  ✓ = member conts of 0.75% or 1.5%	n/a
Investment returns	Earning based on unit price movements (with standard 0.1% pa deduction) less deductions for a further 0.3% pa asset-based administration fee			Earning based on unit price movements (with standard 0.1% pa deduction)	n/a

Temporary Disability Benefit	75% of salary for up to 5 years (ceases at age 65) plus member contributions until the earlier of 5 years, age 65 or cessation of employment
Final Average Salary	The average of the member's last five 1 February Salaries prior to leaving service

<sup>\*</sup> Future increases in the SG rate will be incorporated into the MRB and therefore, the contributions to SG Account and Category 3 Account will increase in accordance with the Superannuation Guarantee requirements less 3%.

Category 4 (as defined by the administrator) members have been treated in a similar way as Category 3 members for the purpose of this investigation. These members are former members of Categories 1 or 2 who have ceased paying compulsory member contributions. Their past service defined benefit accruals are frozen i.e. defined benefit accrual ceased at the time they ceased paying member contributions. Future benefits are accrued on an accumulation basis.

<sup>&</sup>lt;sup>6</sup> Subject to legislative requirements, accrual continues past age 65 (see below for further comment).

<sup>&</sup>lt;sup>7</sup> Where members make their member contributions from before tax salary (salary sacrifice), tax is deducted, but contributions paid by the member are higher to offset this impact.

Benefits in respect of the Category 4(g) member are set on a non-standard basis agreed between the member, the Trustee and the Employer. This member's defined benefit accrual is frozen in the Plan. The member's future contributions are currently paid to the Industry section of NGS Super.

Members can transfer between categories as allowed for in the Participation Schedule.

Benefits on leaving service for any reason are subject to a minimum Superannuation Guarantee benefit described in the Plan's Benefit Certificate (see below).

### Benefit accrual after Normal Retirement Date

The rules of the Plan (as set out in Schedule 2 of the Participation Schedule) are silent on the cessation of defined benefit accrual after a member's Normal Retirement Date. That is, members can continue accruing defined benefits after age 65 subject to legislative requirements.

Current legislation allows employers and employees to contribute towards the accrual of defined benefits up to age 75 as long as the member meets the work test (at least 40 hours worked during any consecutive 30 day period in the financial year in which contributions are received). After age 75, defined benefit accrual can only continue if it relates to mandated contributions (contributions required to meet the requirements of SG, award or other certified agreements). There is no maximum age for which SG contributions should be paid.

This means that defined benefit accrual can continue in the Plan after age 75 but **only** if it relates to SG accrual or requirements under an award or other certified agreement.

In practice, this type of arrangement is complex to apply and administer in a defined benefit environment and we recommend that defined benefits are crystallised at age 75 and superannuation benefits after age 75 be provided under an accumulation arrangement. We understand that the Trustee will consider this issue when a member reaches approaches age 75.

There are currently no Plan members over age 75.

## Trustee and Employer Discretions

The table below indicates the material discretions available to the Trustee and Employer and the member options specified within the Plan's legal documents, to the extent that these affect benefits. The table also shows the general prevalence of the past exercise of discretions and the options chosen by the members. Please note, however, that past exercises of discretions should not be viewed as precedents which would constrain any future decisions.

Trustee and Employer Discretions	
Description and Deed Reference	Historical Prevalence
Clause 8.1 – Trustee and Employer must give consent for members to receive their Accrued Retirement Multiple after age 55	Consent given
Clause 8 – Trustee and Employer are able to amend the Participation Schedule by agreement between them (includes changing investment strategy of defined benefit assets which will affect members' accumulation benefits). Consent of ALL participating employers is required where cost to fund liabilities is increased.	Nil
Clause 2.3 – Employee of a Participant can be admitted as a Member of the Plan subject to Employer approval (plus subject to the Deed and Relevant Law).	No new entrants since 2002
Clause 3.2 of Schedule 2 – the Trustee can provide consent for certain members to change their category of membership. No Employer approval required	Low prevalence
Clause 6.2 of Schedule 2 – the Trustee and the Employer can determine member contributions other than those specified in the schedule.	In the past a number of members from Categories 1 and 2 have ceased paying their employee contributions. Where this has happened, the Trustee has transferred these members to Category 4. Defined benefit accrual has ceased and future benefits are accumulation in nature.

Member Options	
Description and Deed Reference	Historical Prevalence
Clause 2 – members can choose to take out additional voluntary insurance. This is paid for out of defined benefit assets (deducted from Employer Accounts).	181 members have additional voluntary death cover, 1677 members have additional voluntary TPD cover.
Clause 3.2 of Schedule 2 – certain members can change their category of membership by informing the Trustee in writing (no Trustee of Employer consent required)	Low prevalence

### **B.2.** The Superannuation Guarantee (Administration) Act 1992

This Act requires employers to provide minimum superannuation benefits that are fully vested in their employees within a complying superannuation fund.

The contribution rates recommended in this report and the projected financial positions allow for benefits being augmented as necessary to meet the minimum Superannuation Guarantee (SG) benefit described in the Plan's current Benefit Certificate.

Legislation was passed in September 2014 to freeze the SG rate at 9.5% until 1 July 2021. The SG rate will then increase by 0.5% pa until it reaches 12% from 1 July 2025.

# **APPENDIX C**

# Summary of Actuary's Report (AAS 25)

# Catholic Church Staff Superannuation Plan (South Australia)

This Summary has been prepared for the purposes of **Australian Accounting Standard 25**. This Summary also provides statements required to be made under APRA Prudential Standard SPS 160. Values cited relate to the Plan as a whole (inclusive of all accumulation members and accounts).

The effective date of the most recent actuarial investigation of the Catholic Church Staff Superannuation Plan (South Australia) (the Plan) was 30 June 2015 covering the period from 30 June 2012 to that date. The investigation was undertaken by Angela Hartl, a Fellow of the Institute of Actuaries of Australia, on behalf of Mercer, Darling Park Tower 3, 201 Sussex Street, Sydney NSW 2000, and the results are set out in a report dated 11 March 2016. A summary of this report follows:

- (i) As at 30 June 2015, the net realisable value of the assets of the Plan, based on unaudited information provided by the Trustee, amounted to \$122,007,000. This value excludes assets held to meet the Operational Risk Financial Requirement. This is also the value of assets used in determining the recommended contribution rate.
- (ii) The actuarial value of accrued benefits as at 30 June 2015 was \$111,407,000. Hence I consider that the value of the assets at 30 June 2015 is adequate to meet the value of the accrued benefit liabilities of the Plan as at 30 June 2015. In determining the value, I have not applied a minimum of the vested benefits.. The above figure includes accumulation accounts for defined benefit members (primarily additional voluntary contribution accounts) totaling \$32,531,000 taken at face value.
- (iii) The total as at 30 June 2015 of members' Vested Benefits (i.e. voluntary resignation benefits with no consent for early retirement assumed), amounted to \$105,898,000. Hence I consider that the value of the assets at 30 June 2015 is adequate to meet the value of the vested benefit liabilities of the Plan as at 30 June 2015. Assuming that the Employer contributes in accordance with my recommendations, then, based on the assumptions made for this actuarial investigation, I expect that assets will remain sufficient to cover the value of vested benefit liabilities over the period to 30 June 2018. Hence I consider that the financial position of the Plan should not be treated as unsatisfactory as defined in SPS 160.

- (iv) 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 2015 was \$97,275,000. Hence the Plan was not technically insolvent at 30 June 2015.
- (v) The ratios of the assets to the present value of accrued benefits, vested benefits and the SG Minimum Benefits are:

	Defined Benefits Only*		Total Plan	
	\$000	Asset Coverage	\$000	Asset Coverage
Assets	89,476		122,007	
Liability for Vested Benefits (consent assumed for early retirement)^	80,793	111%	113,324	108%
Liability for Vested Benefits (no consent)^^	73,367	122%	105,898	115%
Discounted Accrued Retirement Benefits	83,139	108%	115,670	105%
Liability for Actuarial Value of Accrued Benefits	78,876	113%	111,407	110%
Liability for SG Minimum Benefits	64,744	138%	97,275	125%

<sup>\*</sup> Excludes accumulation accounts (member investment choice), defined benefit surcharge, offset and family law accounts, and the benefit of a genuine Category 4 (g) member. These total \$32,531,000 as at 30 June 2015.

(vi) The actuarial investigation was carried out using the "Target" funding method\*. Under this method, contributions are set with the aim of providing assets which provide coverage of specified accrued benefit liabilities at a minimum 'target' level. The target level adopted was at least 100% coverage of vested benefits.

The investigation disclosed that the Plan was in a satisfactory financial position at 30 June 2015.

- \*The "Attained Age Normal" funding method was used to calculate the Employer longterm normal cost of funding future benefit accruing ignoring any current surplus or deficit.
- (vii) The actuary recommended that the Employer contribute to the Plan at the following rates from 30 June 2015:

<sup>^</sup>Trustee and employer consent is required for members to receive defined benefits on retirement from age 55. Vested Benefits (consent assumed for early retirement) is the total of the retirement benefits with consent for those aged 55 and over and the account based resignation benefits for those under 55.

Category	Employer Defined Benefit Contribution Rate (% of Salary)		
Category	From 1 July 2015 to 30 June 2016	From 1 July 2016	
Category 1	13.0%	SG% minus 3%	
Category 1BC	13.0%	SG% minus 3%	
Category 1C	13.0%	SG% minus 3%	
Category 1D	13.0%	SG% minus 3%	
Category 2	13.0%	SG% minus 3%	
Category 3	13.0%	SG% minus 3%	
Category 4*	13.0%	SG% minus 3%	

<sup>\*</sup> Category 4 members (as defined by the administrator) include former members of Categories 1 or 2 who have ceased paying member contributions. The contribution rate is not applicable to the one "genuine" Category 4 member as defined in the Participation Schedule (referred to as Category 4(g) for the purpose of this report). Contributions in respect of the Category 4(g) member are detailed below.

SG% is the Superannuation Guarantee rate as legislated. The SG rate is currently 9.5% and so the contribution payable from 1 July 2016 is (9.5% - 3%) = 6.5%.

Note that 3% productivity contributions are paid in addition to the above rates.

We understand that 3% productivity contributions are payable in respect of <u>all</u> members. These contributions are payable to either the Plan, the Industry Section of NGS Super or another fund. Payment of these contributions is assumed as part of the Plan's benefit design.

Employer contributions in respect of the Category 4(g) member should be at such rates agreed between the member, the Employer and the Trustee ensuring that the Employer's Superannuation Guarantee obligations are being met.

All compulsory and voluntary member pre-tax (salary sacrifice) contributions should also be paid.

- (viii) A projection of the likely future financial position of the Plan over the 3-year period following 30 June 2015, based on what I consider to be reasonable expectations for the Plan for the purpose of this projection, is set out in the report.
- (ix) Based on the results of this investigation, I consider that the shortfall limit does not require review and should continue to be set at a defined benefit vested benefits index of 98.5% (consent for early retirement).
- (x) The next investigation date should be no later than 30 June 2018. At that time, the level of Employer contributions will be reviewed. The progress of the Plan's coverage of vested benefits should be reviewed quarterly while vested benefits coverage is less than

100%, or otherwise each year following the annual administrative review, to ascertain if an adjustment to the Employer contribution levels is required prior to the next complete investigation.

- (xi) The Plan is used for Superannuation Guarantee purposes.
  - 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 2015;
  - b. I expect to be able to certify the solvency of the Plan in any Funding and Solvency Certificates that may be required in the three year period from 30 June 2015.
- (xii) 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 Employer operates, the assumptions and valuation methodology used are appropriate in relation to the determination of the present value of accrued benefits for the purposes of the actuarial investigation and AAS25.
- (xiii) In preparing this summary, I have complied with the Professional Standards and Guidance Notes issued by the Actuaries Institute.

**Angela Hartl** 

Fellow of the Institute of Actuaries of Australia

Representative of

al Harry

Mercer Consulting (Australia) Pty Ltd AFS Licence #411770

11 March 2016

# C.1. Note 1: Summary of Method of Attributing Benefits to Past Membership

### C.1.1. 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.

#### C.1.2. Defined Benefits

The past membership components of all defined benefits payable in the future from the Plan in respect of current membership are projected forward allowing for assumed future salary increases and credited interest rates and are then discounted back to the investigation date at the investment return rate assumed for the investigation.

The past membership component for each type of benefit is:

### Resignation/Retirement

- Based on the member's accrued benefit multiples and accumulated contributions at the valuation date.
- Increased to allow for future discount factors and future vesting to the projected date of resignation/retirement.

#### Death and Disablement in Service

Based on the member's past service resignation benefits (as above).

# C.1.3. Changes in Methodology of Calculating the Actuarial Value of Accrued Benefits

The method used for the determination of Accrued Benefits is the same as that used at the previous investigation.

## C.2. Note 2: Summary of Assumptions

## C.2.1. Financial Assumptions

	Assumption
Investment returns	6.1% p.a.*
(after tax, investment and asset based administration fees)	 3.0% for first three years; and
General salary increases	4.0% p.a. thereafter

<sup>\*</sup>A return of -1.4% has been assumed for the first year.

For the purposes of determining the present value of accrued benefits in accordance with Australian Accounting Standard AAS25, a market-determined, risk adjusted discount rate of 6.1% per annum was used. This rate represents the weighted average (weighted by accrued benefit liabilities) expected return on the Plan's defined benefit assets.

The weighted average term of the accrued benefit liabilities is 5 years.

### C.2.2. Other Assumptions

Assumptions regarding rates at which members will leave the Plan on account of retirement, death, disablement and resignation have been based on the experience of this and other similar Plans. Further details can be found in my report of the actuarial investigation as at 30 June 2015.

# C.2.3. Changes in Key Assumptions

Assumption	30 June 2015		30 June 2012 investigation	Paggan for obsess
Investment returns (after tax, investment and asset based administration fees)#	6.1% p.a.	nvestigation	6.3% p.a.	Reason for change  Updated to reflect current investment market outlook
General salary increases	3.0% for first 4.0% p.a. the	three years; and reafter	3.5% for first three years; and 4.0% p.a. thereafter	Long-term view after discussion with Employer.
Early Retirement decrements	Age at Retirement	Proportion of members assumed to retire	10% of members aged 55 to 64 are assumed to retire each year.	Move to Mercer Standard Basis
	55	20%		
	56	5%		
	57	5%		
	58	5%		
	59	5%		
	60	20%		
	61	15%		
	62	15%		
	63	20%		
	64	50%		
	65	100%		

# APPENDIX D

# **Investment Strategy**

### **D.1.** Potential Investment Options

The Plan's investment strategy for assets supporting defined benefit liabilities, the NGS Super Diversified (MySuper) investment option within NGS, currently involves a benchmark 70% exposure to 'growth' assets such as shares and property and a benchmark 30% exposure to 'defensive' assets such as cash and fixed interest (refer to the table below for the actual and benchmark investment allocations of these assets as at the investigation date). 'Growth' assets are expected to earn higher returns over the long term compared to 'defensive' assets, but at the same time to exhibit more variation in returns from year to year.

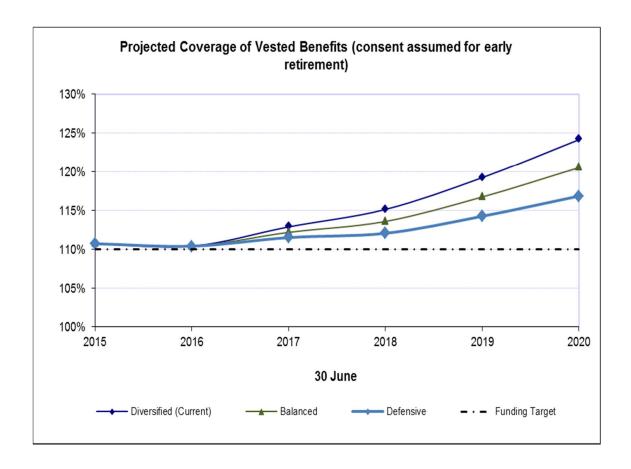
While we believe the current strategy remains appropriate, consideration should be given to moving to a more conservative investment strategy in order to reduce the level of risk.

We have considered the impact on the Plan's projected funding level of switching to either the Balanced or Defensive investment options offered by NGS Super.

Investment Option	Diversified (Current)	Balanced	Defensive
Growth Asset Allocation	70%	50%	32%
Defensive Asset Allocation	30%	50%	68%
Expected Long-Term Investment returns (after tax, investment and asset based administration fees)	6.1% p.a.	5.1% p.a.	4.1% p.a.

As requested, we have prepared a projection of Plan assets and benefit liabilities under each of the investment options based on:

- the expected long-term return assumption for the relevant investment option and other actuarial assumptions adopted for the investigation;
- but allowing for -1.4% investment return in the first year (actual return has been -1.4% for the 6 month period following 30 June 2015 and nil return for the remainder of the first year); and
- assuming that the Employer contributes on the basis as recommended in the main body of this report.



The graph above shows that the projected asset coverage reduces with a switch to a more conservative investment strategy. This is as a result of the trade-off between a lower risk investment option offering a lower expected rate of return.

However, it is important to note that all three of the strategies are expected (based on the valuation assumptions) to result in the asset coverage remaining comfortably above 110% (the current financing objective) over the next five years.

In practice, if the investment strategy were changed, then the financing objective would also be reduced to reflect the lower asset volatility.

### D.2. Investment Volatility

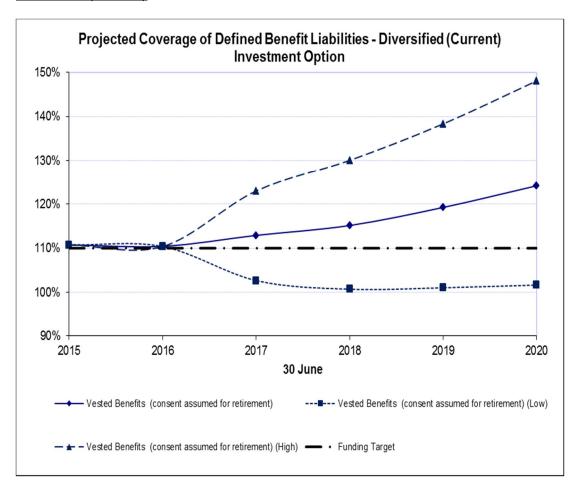
65% of the current Vested Benefits (consent assumed for early retirement) for defined benefit members are not linked to investment returns (i.e. are salary based benefits) and therefore the Plan's vested benefits coverage is sensitive to changes in the investment returns.

We have considered the impact of investment volatility on the Plan's financial position over the next few years using a "high return" and a "low return" scenario for both of the suggested investment options. The returns have been derived from assumptions about the likely risk of the investment strategies under consideration.

Using the investment return model and assumptions adopted, there is approximately a 10% chance of the Plan's cumulative investment return being less than the "low return" scenario. Similarly, there is approximately only a 10% chance of the Plan's cumulative investment return being greater than the "high return" scenario. Allowance has been included for the actual return of -1.4% for the 6 month period following 30 June 2015 with nil return assumed for the remaining 6 months of the first year. As markets remain volatile and indeed are expected to have further deteriorated since the start of the calendar year, we have assumed nil return for the remainder of the first year.

The graphs below shows the effect on the projected ratio of assets to Vested Benefits for defined benefit members under the "high return" and "low return" scenarios, with all other investigation assumptions remaining unchanged.

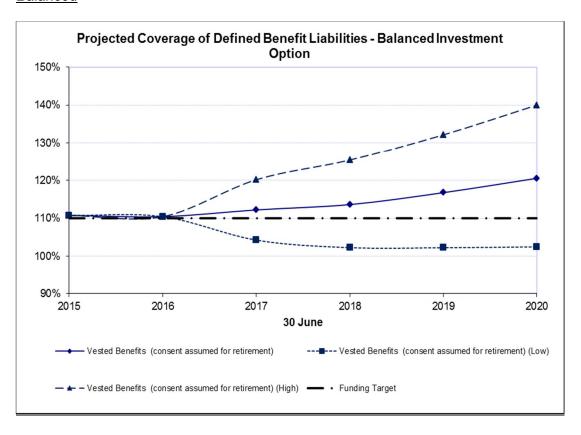
### **Diversified (Current)**



The cumulative Investment Returns used in these projections for the Diversified option are:

1 July 2015 to 30 June	Assumed Cumulative Investment Return (%)		
	"Low Return" Valuation "H		"High Return"
2016	-1.4%	-1.4%	-1.4%
2017	-5.3%	4.5%	14.6%
2018	-2.6%	10.9%	25.2%
2019	1.6%	17.6%	35.1%
2020	6.3%	24.8%	45.4%

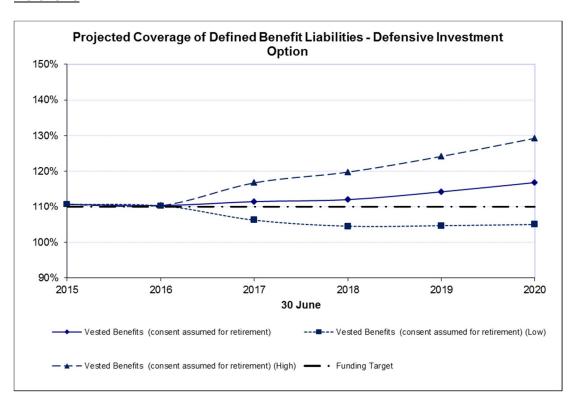
### **Balanced**



The cumulative Investment Returns used in these projections for the Balanced option are:

1 July 2015 to 30 June	Assumed Cumulative Investment Return (%)		
	"Low Return"	Valuation	"High Return"
2016	-1.4%	-1.4%	-1.4%
2017	-3.9%	3.6%	11.1%
2018	-1.3%	8.9%	19.5%
2019	2.4%	14.5%	27.2%
2020	6.5%	20.3%	35.1%

### **Defensive**



The cumulative Investment Returns used in these projections for the Defensive option are:

1 July 2015 to 30 June	Assumed Cumulative Investment Return (%)		
	"Low Return" Valuation		"High Return"
2016	-1.4%	-1.4%	-1.4%
2017	-2.3%	2.6%	7.6%
2018	0.2%	6.9%	13.7%
2019	3.4%	11.2%	19.4%
2020	6.9%	15.8%	25.1%

The graphs illustrate the lower level of investment volatility (or risk) that is associated with a more conservative investment option. For example, the current investment strategy (the Diversified option) has the highest allocation to growth assets and the highest level of risk. As a result, it is associated with the largest range of coverage levels with an 80% chance that the coverage of assets over Vested Benefits (consent assumed for early retirement) at 30 June 2018 will fall in the range from 101% to 130%. In comparison, the most conservative investment option, Defensive, results in a range of 104% to 120%. It is important to note that there are 10% of returns that will fall below the illustrated "low" scenarios and these are likely to be significantly lower under the Diversified option compared to the Defensive option.

Please note that the Low Return Scenario and the High Return Scenario shown above are illustrations only, and show what may occur under assumed future experiences which differ from our baseline assumptions. These scenarios do not constitute upper or lower bounds and the actual future coverage of Vested Benefits may differ significantly from the range shown above, depending on actual future experience.

### Impact on Member's Benefits of a change in Investment Strategy:

One important issue for the Trustee to consider before proceeding with a change in investment strategy is the impact on members' benefits. Broadly speaking the members have three tranches of benefit:

- (i) Defined benefit
- (ii) Accumulation Accounts (3% Productivity account for some members this is paid to another fund) + Category 3 Account
- (iii) Voluntary Accumulation accounts

Please refer to Appendix B for more information.

The true accumulation accounts (ii) and (iii) are subject to member investment choice and therefore would not be affected by a change in investment strategy (other than perhaps a change in the default strategy).

The defined benefit tranche would be affected by a change in investment strategy. The benefit design is such that the members receive their Member and Employer accumulation accounts if they leave before age 55 but after age 55 they get the higher of these accumulation accounts and their defined benefit formula. These accumulation accounts are invested in line with the DB investment strategy therefore changing the investment strategy can directly impact the benefit that members receive. We would be happy to provide an analysis of the members benefits to understand the level of defined benefit versus accumulation benefits and the gap between the two, if required.

A change to a more conservative strategy therefore has implications for members as it could be perceived as reducing the potential future crediting rates and therefore member benefits (even though there is no change to the salary related defined benefit). There are different views in the

industry as to whether this can be interpreted as a reduction in benefits or just the employer exercising its right to control the investment strategy supporting the underlying defined benefits.

### **Employer Consent**

If the Trustee would like to change the investment strategy, they would need to take legal advice as to what is permitted under the Plan's Rules and whether they need to obtain consent from all of the participating employers.



Mercer Consulting (Australia) Pty Ltd ABN 55 153 168 140 AFS Licence # 411770 Darling Park Tower 3 201 Sussex Street Sydney NSW 2000 GPO Box 9946 Sydney NSW 2001 +61 2 8864 6800

