

Spirit Super Actuarial Triennial Review

30 June 2023



Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms, and their related entities (collectively, the "Deloitte organisation"). DTTL (also referred to as "Deloitte Global") and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients. Please see www.deloitte.com/about to learn more.

Deloitte is a leading global provider of audit and assurance, consulting, financial advisory, risk advisory, tax and related services. Our global network of member firms and related entities in more than 150 countries and territories (collectively, the "Deloitte organisation" serves four out of five Fortune Global 500® companies. Learn how Deloitte's approximately 415,000 people make an impact that matters at www.deloitte.com.

Liability limited by a scheme approved under Professional Standards Legislation.

Member of Deloitte Asia Pacific Limited and the Deloitte organisation.

Table of Contents

1. Executive summary	3
1.1 Financial position as at 30 June 2023	3
1.2 Overall position of Spirit Super defined benefit sub-plans	3
1.3 Defined benefits funds	5
1.4 Recommendations	6
1.4.1 Contribution rates	6
1.4.2 Shortfall limits	6
2. Introduction	8
2.1 General	8
2.2 Governing rules and structure of fund	8
2.3 Name and capacity of actuary	8
2.4 Previous report	9
2.5 Significant events since the previous review	9
2.6 Purpose of review	9
2.7 Structure of report	9
3. Defined benefit funds	10
3.1 Quadrant Defined Benefits Fund	10
3.1.1 Results	10
3.1.2 Recommendations	11
3.2 HCC Defined Benefits Fund	12
3.2.1 Results	12
3.2.2 Recommendations	12
3.3 LCC Defined Benefits Fund	13
3.3.1 Results	13
3.3.2 Recommendations – contribution rates	13
3.4 Shortfall limits	15

1. Executive summary

We have carried out an actuarial investigation of the defined benefit sub-funds in the Spirit Super Superannuation Fund (Spirit Super) using the member data and other information provided as at 30 June 2023 (the valuation date) and set out the results of the review in this report.

1.1 Financial position as at 30 June 2023

In Table 1 we have compared the vested benefits of the defined benefit sub-plans of Spirit Super with the estimated net assets as at 30 June 2023.

Table 1. Funding relative to vested benefits as at 30 June 2023

Section of Spirit Super	Vested Benefits	Net Assets	Surplus/ (Deficit)	Vested Benefits Index
	(\$ million)			(%)
Quadrant Defined Benefits (Quadrant)	39.79	48.44	8.65	122
HCC Defined Benefits (HCC) [#]	29.57	36.70	7.13	124
LCC Defined Benefits (LCC) [*]	54.41	57.66	3.25	106
Total	123.77	142.80	19.03	115

[#] Includes sections for members who are employees of HCC and members who are employees of TasWater.

^{*} Includes sections for members who are employees of LCC and members who are employees of TasWater.

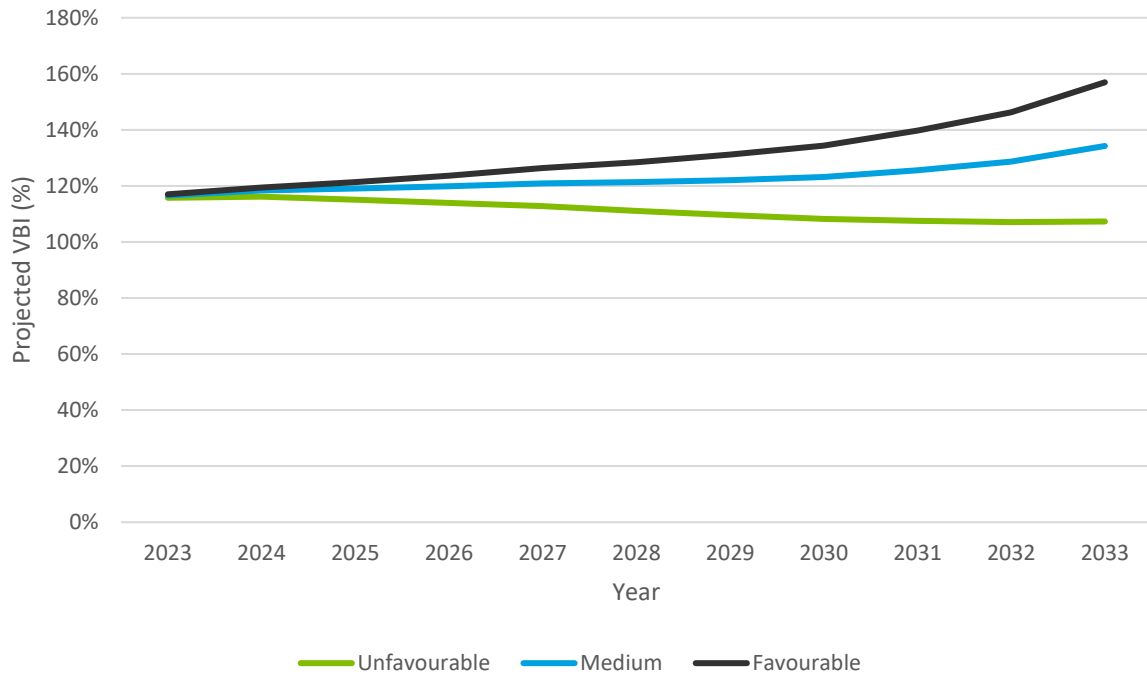
As shown in Table 1, each of Spirit Super's defined benefit sub-funds remained in a satisfactory financial position as at 30 June 2023, that is, the value of net assets exceeded the value placed on vested benefits.

1.2 Overall position of Spirit Super defined benefit sub-plans

The ratio of the net value of Spirit Super assets for the defined benefit members to vested benefits (the Vested Benefits Index, or VBI) at 30 June 2023 was 115%, which compares to 111% as at the date of the last full actuarial review of Spirit Super as at 30 June 2020. Spirit Super was therefore in a satisfactory financial position at the valuation date.

Graph 1 shows the projected level of the VBI for all defined benefits sections combined (excluding allowance for defined benefits members' accumulation accounts) over the next 10 years, assuming that the Employers contribute at the rates recommended in this report. The projected VBI is shown for each of the three investment return scenarios (Unfavourable, Medium and Favourable) discussed in the body of this report.

Graph 1. Projected VBI for defined benefits



Graph 1 indicates that if investment returns exceed wage increases by 1% per annum (p.a.) for HCC, LCC, and Quadrant, and current contribution rates continue, then the VBI is projected to:

- Increase slowly for several years; and then
- Increase more rapidly as the defined benefit liabilities diminish, resulting in the projected surplus being a larger percentage of the remaining defined benefit liabilities. This could support further reductions in contribution rates in future periods. However, the inherent uncertainty of future economic and investment conditions points to changes in contribution rates beyond a three-year period being best assessed in future reviews rather than seeking to map them out in advance.

The chart indicates that in the longer term the VBI is highly dependent on the investment return of Spirit Super. If investment returns are in line with the Medium scenario (investment returns exceed salary increases by 1% p.a. for HCC, LCC and Quadrant) then Spirit Super is likely to remain in a 'satisfactory' position, with a meaningful safety margin, over the long term. Note the key driver of future experience is the difference between investment returns and salary growth. For example, if investment returns were to fall short of expectations by 1% p.a. but this is matched by salaries growing by 1% p.a. less than expected, then the Medium scenario would still apply.

In addition, the sensitivity of the VBI to investment returns is dampened by a large part of the membership currently being entitled to accumulation-type benefits in excess of what they would receive under the relevant defined benefit formulae.

1.3 Defined benefits funds

Spirit Super had three defined benefit sub-funds at 30 June 2023:

- Quadrant Defined Benefits Fund
- HCC Defined Benefits Fund
- LCC Defined Benefits Fund.

All three sub-funds provide retirement benefits in the form of a lump sum based on the higher of a defined benefit formula and an accumulation-style benefit. Details of the benefit designs vary between the three sub-funds and between different benefit categories within these sub-funds.

All the defined benefit sub-funds are closed to new members.

The Quadrant Defined Benefits Fund was in a satisfactory financial position as at 30 June 2023, with a VBI of 121.7%. Based on the assumptions used for this report (and in particular an investment return exceeding salary increases by 1% p.a.), we expect that the VBI will continue to be strong unless there is a significant downturn in the market value of the sub-plan's assets.

The HCC Defined Benefits Fund was in a satisfactory financial position as at 30 June 2023 with a VBI of 124.1%. Based on the assumptions used for this report (and in particular an investment return exceeding salary increases by 1% p.a.), we projected that the VBI will remain reasonably stable in the short to medium term.

The LCC Defined Benefits Fund was in a satisfactory financial position as at 30 June 2023 with VBI of 106.0%, which has improved from a VBI of 104.0% at the last full triennial actuarial review at 30 June 2020. Based on the assumptions used for this report (and in particular an investment return exceeding salary increases by 1% p.a.), we expect that the VBI will improve slowly over time.

The financial positions of all of the sub-funds have improved in the period between this review and the previous review due mainly to:

- investment returns exceeding salary increases by a larger margin than assumed for the previous review; and
- member exits tending to lead to surpluses being higher when viewed as a percentage of the remaining liabilities.

In addition to leading to improvements in the VBIs, the investment returns have tended to increase the margin between accumulation-type and salary-related benefits in respect of members for whom an accumulation-type benefit is currently more valuable than their defined benefit entitlement.

Section 3 (Defined benefit funds) of this report provides a summary of the results for each sub-fund and the attachments contain full reports on the actuarial investigations of each fund, including the statements required under the Superannuation Industry (Supervision) Act.

1.4 Recommendations

1.4.1 Contribution rates

We recommend that the Employers contribute to the defined benefit funds at the contribution rates set out in Table 2 until they are reviewed in the next full triennial actuarial investigation, which is due as at 30 June 2026 and required to be completed within six months of that date. This recommendation takes into account our understanding that Spirit Super and its sponsoring employers have an established practice of implementing any changes in contribution rates at the start of the next financial year.

The recommendation is based on target investment returns of at least Consumer Price Index (CPI) plus 2% p.a. broadly corresponding to wage inflation plus 1% p.a. Relative to the assumptions in the 2020 actuarial investigation, this is the same as the previous assumption for Quadrant, and lower than the assumed investment returns of CPI plus 3% p.a. for the HCC and LCC sub-funds.

The current contribution rates, and recommended contribution rates from 1 July 2024, are summarised in Table 2. We recommend that the contribution rates continue at their current levels other than LCC – TasWater, for which we consider a reduction to 12.0% p.a. to be reasonable subject to normal processes for future reviews.

Table 2. Employer contribution rates

Employer Contribution Rates	Current	Recommended 1 July 2024 until next reviewed
	Percentage of salary (%)	
Quadrant	Nil	Nil
HCC – Other than TasWater	9.5	9.5
HCC - TasWater	6.0	6.0
LCC – Other than TasWater	11.0	11.0
LCC - TasWater	14.5	12.0

The Trustee should review the coverage of assets over vested benefits in each of the funds at each annual review date and the emerging investment returns in each fund year, to ensure that the Employer contribution rates remain appropriate, or alternatively to give early warning of any need to review contribution rates ahead of the next full actuarial investigation.

1.4.2 Shortfall limits

The shortfall limit, expressed in terms of assets as a percentage of vested benefits, drives the extent to which a fund has flexibility to allow for an unsatisfactory financial position to be corrected by investment returns before revisiting employer contribution rates. We recommend that the shortfall limits of the defined benefit sub-funds be kept at 98% to maintain flexibility to manage potential short-term fluctuations in investment values.

1.4.3 Insurance

We consider the current insurance arrangements to be appropriate, although they would still remain appropriate if the insurance of death and Total and Permanent Disablement benefits for the Quadrant sub-fund were reduced or removed due to these benefits being fully covered by the sub-fund's assets.

This report was prepared and peer reviewed for Spirit Super by

Prepared by



Michael Berg, FIAA
Principal

Peer Reviewed by



Andrew Boal, FIAA
Partner

23 October 2023

2. Introduction

2.1 General

The purpose of this report is to present the results of the actuarial review of the defined benefit sub-funds of Spirit Super as at 30 June 2023.

This report is provided for the Trustee of Spirit Super. Where this report is provided to third parties, it should be provided in its entirety.

This review is in accordance with the Trust Deed of Spirit Super, the requirements of the Superannuation Industry (Supervision) Act 1993 and the associated Regulations and Superannuation Prudential Standard SPS160 *Defined Benefit Matters*, which require actuarial investigations to be carried out at least once every three years.

We have prepared this report in accordance with Professional Standard No. 400 of the Institute of Actuaries of Australia relating to the investigation of defined benefit superannuation funds.

2.2 Governing rules and structure of fund

Spirit Super is a resident regulated fund and a complying fund for the purposes of the Superannuation Industry (Supervision) Act 1993. Provided it continues to comply with the relevant legislation, Spirit Super is eligible for concessional tax treatment.

Spirit Super operates with a number of different sub-funds including three defined benefit sub-funds:

- Quadrant Defined Benefits Fund
- HCC Defined Benefits Fund
- LCC Defined Benefits Fund.

In accordance with Spirit Super's current reserving policy, the excess of the total net assets of Spirit Super over the sum of the assets allocated to the sub-funds constitutes Spirit Super Reserves.

Under the Trust Deed, the sub-funds effectively operate as separate entities to the other parts of Spirit Super. As a result, the Trustee has adopted a policy of determining the assets available to support the benefits of each sub-fund according to the transactions in each sub-fund from time to time.

2.3 Name and capacity of actuary

This review has been undertaken by Michael Berg B Bus Sc MAppFin CFA FIAA of Deloitte.

2.4 Previous report

Michael Berg, then of Rice Warner, carried out the previous actuarial investigation of Spirit Super as at 30 June 2020 and his report on that investigation was dated 6 November 2020.

That report showed that the defined benefit arrangements within Spirit Super were in a satisfactory financial position as at 30 June 2020 with an overall VBI of 111%.

2.5 Significant events since the previous review

We are not aware of any other events that have occurred between 30 June 2020 and 30 June 2023, or since 30 June 2023, that we have not already taken into account, which would have a material impact on the recommendations in this report.

2.6 Purpose of review

The purposes of this actuarial review are to:

- Assess the financial position of Spirit Super and each of the defined benefit sub-funds.
- Recommend an appropriate level of Employer contributions for the future, for each defined benefit sub-fund.
- Satisfy the requirements of the Trust Deed.
- Meet the requirements of legislation and the Superannuation Prudential Standards.

2.7 Structure of report

Section 3 (Defined benefit funds) summarises the results of the actuarial reviews of the defined benefit sub-funds as at 30 June 2023. The full reports on those reviews are provided in the Attachments to this report.

3. Defined benefit funds

This section summarises the results and recommendations arising from the actuarial reviews of each of the defined benefit sub-funds. The results presented in this section are based on the actuarial assumptions we have adopted for each sub-fund.

One of the key assumptions we have made for this review and for each of the reviews of the sub-funds, is the assumed rate of future investment returns. Over the long term, we have adopted an assumption of 4.50% p.a. for HCC, LCC and Quadrant (net of investment management expenses and taxes on investment earnings, but not allowing for any Fund management or operational expenses, deducted to determine the crediting rates) in combination with salary growth of 3.50% p.a. However, to assess the sensitivity of the results to alternative investment market conditions, we have considered the three investment return scenarios in Table 3. Note the key driver of future experience is the difference between investment returns and salary growth. For example, if investment returns were to fall short of expectations by 1% p.a. but this is matched by salaries growing by 1% p.a. less than expected, then the Medium scenario would still apply.

Table 3. Investment Return Scenarios – annual investment returns 2023/2024 to 2032/2033

Scenario	Investment return % p.a.
Unfavourable	2.50%
Medium	4.50%
Favourable	6.50%

Further details of the assumptions adopted are contained in the full reports on the actuarial reviews of each sub-fund, provided in the Attachments.

Contribution recommendations are predominantly unchanged from current contribution rates (the exception being a recommended reduction for LCC TasWater as described below). This reflects improvements in the financial position since 30 June 2020 being used primarily to support reducing levels of investment risk.

3.1 Quadrant Defined Benefits Fund

3.1.1 Results

The investigation of the Quadrant Defined Benefits Fund shows that:

- The value of Fund assets at 30 June 2023 was 22% more than the total of members' vested benefits. That is, the Fund had a VBI of 122% (120% in 2020).
- The financial position has improved due mainly to the costs of funding employer contributions from surplus being outweighed by
 - exits including retirements leading to the surplus being a larger percentage of the remaining defined benefit liabilities; and

- investment returns exceeding salary increases by more than assumed in the 2020 review.
- The VBI is projected to strengthen further due to investment returns on the surplus and the surplus being spread over diminishing liabilities, with these factors only partly offset by assuming that the current employer contribution holiday continues. These projections are based on assumed investment returns exceeding salary increases by 1% p.a. which corresponds to a target return of CPI plus 2% p.a. and assumed salary growth of 1% p.a. more than CPI. (This does not rule out following strategies expected to achieve returns which exceed salary increases by more than 1% p.a.)
- Lower investment returns that are on average 1% p.a. less than salary increases will not lead to the VBI falling below 100% over the next 10 years. Conversely, higher investment returns could lead to even greater strengthening of the VBI.
- In our view, the results indicate that the current employer contribution holiday can continue subject to review in the next three-yearly review as well as ongoing monitoring for material adverse changes.
- We expect the Fund to remain in a 'satisfactory financial position' from 1 July 2023 to 30 June 2026 (with assets above vested benefits) unless there is a severe downturn in investment markets.
- If future experience follows the assumptions, then the benefits in respect of future service would be fully funded from the existing surplus. However, the actual position will depend on future experience especially in relation to investment returns, salary increases and how long members remain in the Fund. Consequently, the possibility of employers needing to resume contributions in the future cannot be ruled out.
- While we consider the current insurance arrangements to be within the appropriate range, they can be reduced or removed in view of the assets as at 30 June 2023 exceeding the benefits which would be payable if all the members died or became disabled on that date.
- We recommend that Spirit Super continue to keep the VBI under review so that the rate of Council contributions can be reviewed should a downturn in investment markets make this necessary.

3.1.2 Recommendations

Given the strong financial position of the Fund, we consider that the current employer contribution holiday can continue subject to normal monitoring and review processes. The continued applicability of the contribution holiday will be considered at the next triennial review, due as at 30 June 2026, and should be reconsidered ahead if this review in the event of a severe worsening of the position being identified through ongoing monitoring of the position.

The Councils should still contribute the amount of any contributions required under awards or other employment agreements.

Noting that the future financial position of the Fund may vary from the projected levels (for example, as a result of higher or lower investment returns), we also recommend that the Trustee continues its practice of reviewing the recommended contribution rates after 30 June each year, to confirm they

remain appropriate. If the financial position weakens significantly then it may be necessary for employers to resume paying contributions.

3.2 HCC Defined Benefits Fund

3.2.1 Results

The investigation of the HCC Defined Benefits Fund shows that:

- The value of Fund assets at 30 June 2023 was 24% higher than the total of members' vested benefits. That is, the Fund had a VBI of 124% (111% in 2020). Hence the Fund was in a 'satisfactory financial position' as at the date of this review.
- The financial position of the Fund has improved in the three years to 30 June 2023 due to:
 - Investment returns exceeding salary increases by a larger margin than assumed in the actuarial review as at 30 June 2020; and
 - The surplus becoming a larger percentage of the remaining liabilities following the exit of about 38% of the members over the previous three years.
- At the current rate of Council contributions (9.5% of salary for HCC and 6% for TasWater), the VBI is projected to remain relatively stable in the short term and trend upwards from approximately 2031. These projections are based on investment returns exceeding salary increases by 1% p.a. which corresponds to a target return of CPI plus 2% p.a. and assumed salary growth of CPI plus 1% p.a. Actual development of the VBI will depend on future experience, in particular the relationship between investment returns and salary increases.
- Lower investment returns that are not offset by lower salary increases would lead to the VBI reducing, other things being equal. Conversely, investment returns which exceed salary increases by more than 1% p.a. could lead to a further strengthening of the VBI.
- We expect the Fund to remain in a 'satisfactory financial position' from 1 July 2023 to 30 June 2026 (with assets above vested benefits) although this depends on future experience and should be kept under review.

3.2.2 Recommendations

Given the current level of world investment markets, the strengthening of the financial position of the sub-fund since the previous triennial actuarial review and the option of using this strengthening of the financial position to reduce investment risk, we recommend continuation of the current employer contribution rates as follows:

- For HCC, 9.5% of salary, subject to annual review.
- For TasWater, 6% of salary, subject to annual review.

The employers should also contribute the amount of any contributions required under awards or other employment agreements.

Noting that the future financial position of the Fund may vary from the projected levels (for example as a result of higher or lower investment returns), we also recommend that the Trustee continues its practice of reviewing the recommended contribution rates after 30 June each year, to confirm they

remain appropriate. If the Fund's financial position is stronger than expected, it may be appropriate for the employers to pay lower contributions than those recommended above, while if the financial position weakens significantly then it may be necessary for the employers to pay higher contributions.

3.3 LCC Defined Benefits Fund

3.3.1 Results

The investigation of the LCC Defined Benefits Fund shows that:

- The value of Fund assets at 30 June 2023 was 6% more than the total of members' vested benefits. That is, the Fund had a VBI of 106% (104% in 2020). The improved financial position is mainly due to investment returns having exceeded salary increases by more than assumed in the 2020 actuarial review and exits leading to the surplus being a smaller percentage of the remaining liabilities.
- The VBI at 30 June 2023 differed between the two sections of the sub-fund, being 107% for the LCC Council section and 102% for TasWater.
- The VBI is projected to improve over time if investment returns exceed salary increases by 1% p.a. (equivalent to investment returns of CPI plus 2% p.a. and salary growth of CPI plus 1% p.a.)

3.3.2 Recommendations – contribution rates

- Taking account of the calculated employer cost of future accruing benefits, and the current and projected levels of the funding indices under the investment return scenarios considered in this report, we recommend updating the contribution rates to be paid from 1 July 2024, subject to annual review, as follows:
 - For LCC, 11.0% of salary.
 - For TasWater, 12.0% of salary.
- Noting that the future financial position of the Fund may vary from the projected levels (for example as a result of higher or lower investment returns), we also recommend that the Trustee continues its practice of reviewing the recommended contribution rates after 30 June each year, to confirm they remain appropriate. If the Fund's financial position is stronger than expected, it may be appropriate for the employers to pay lower contributions than those recommended above or for investment risk to be reduced without immediate implications for the employer contribution rate, while if the financial position weakens significantly then it may be necessary to pay higher contributions.
- In addition, the Employers should continue to contribute:
 - Contributions to defined benefit members' accumulation accounts under the Employer's Enterprise Agreement (currently 6% of salary), for those permanent employees who have these contributions paid to this Fund.

- Member contributions as required under the Fund's rules for defined benefit members, whether from after-tax salary, by salary sacrifice or deemed contributions (grossed up for contributions tax where appropriate).
- Contributions in accordance with the Enterprise Agreement (currently 12% of salary) in respect of those temporary and casual employees who have these contributions paid to accumulation accounts in this Fund.
- Any voluntary member or Employer contributions.

A formal review of the employer contributions will also be required with the next full triennial actuarial investigation into Spirit Super as at 30 June 2026, as required under the SIS Regulations and the Superannuation Prudential Standards.

3.4 Shortfall limits

For the purposes of the Australian Prudential Regulation Authority's (APRA) Superannuation Prudential Standard 160 Defined Benefit Matters a shortfall limit is the extent to which a registrable superannuation entity (RSE) licensee considers that a fund can be in an unsatisfactory financial position with the RSE licensee still being able to reasonably expect that, because of corrections to temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year. This means that an actuarial investigation need not necessarily be brought forward if the VBI declines to below 100% but remains above the shortfall limit.

We recommend that the shortfall limit remain at 98% in respect of the HCC, LCC and Quadrant sub-funds. This takes into account:

- Increased potential for geopolitical and public health events to lead to fluctuations in investment markets.
- Advantages in having flexibility to monitor how a market situation develops and assess whether it represents a change in the underlying position or a temporary fluctuation not calling for changes in long-term funding plans.
- The defined benefit sub-funds holding significant investments in growth assets.
- Recoveries from a dip in asset values going partly to increase the extent to which some members' accumulation-type benefits exceed defined benefits calculated on a salary-related formula, hence the recommended shortfall limit is more stringent than might be considered for a purely defined benefit fund.

Different considerations may apply to any other sub-funds which become part of Spirit Super or part of a successor fund to Spirit Super in the future.

Yours sincerely,



Michael Berg
B Bus Sc MAppFin CFA FIAA

23 October 2023

Attachment A

Actuarial Review of the Quadrant Defined Benefits Fund

As at 30 June 2023

Prepared by:



Michael Berg,
B Bus Sc MAppFin CFA FIAA

23 October 2023

Table of Contents

1. Executive summary.....	19
1.1 Results	19
1.2 Contribution rates	20
1.3 Shortfall limit	20
2. Introduction	21
2.1 General	21
2.2 Governing rules and structure of fund	21
2.3 Name and capacity of actuary.....	21
2.4 Previous report.....	21
2.5 Significant events since the previous review	22
2.6 Purpose of review.....	22
3. Fund experience	23
3.1 Data provided.....	23
3.2 Assets	24
3.3 Investment returns relative to salary increases	25
3.4 Expenses.....	25
3.5 Interest crediting rate.....	25
4. Financial position.....	26
4.1 Measures of Solvency.....	26
4.2 Measures excluding accumulation accounts	27
4.3 Insurance position	28
5. Funding the benefits	29
5.1 General comments	29
5.2 Financing method.....	29
5.3 Assumptions.....	30
6. Council contributions	31
6.1 Projections of funding indices and sensitivity analysis	31
6.2 Accumulation underpin.....	31
6.3 Shock analysis.....	33
6.4 Recommended Council contributions	33

6.5	Shortfall limits	34
6.6	Next actuarial investigation	34
7.	Benefit summary	35
7.1	Eligibility	35
7.2	Contributions.....	35
7.2.1	Member contributions.....	35
7.2.2	Council contributions.....	35
7.3	Definitions	35
7.4	Benefits.....	36
7.4.1	Normal retirement benefit.....	36
7.4.2	Early retirement benefit.....	36
7.4.3	Late retirement benefit.....	36
7.4.4	Death benefit	37
7.4.5	Disablement benefit.....	37
7.4.6	Resignation benefit.....	37
7.4.7	SG minimum benefit	38
8.	Summary of valuation basis.....	39
8.1	Taxation.....	39
8.2	Decrement rates.....	39
	Addendum 1 - Summary of actuarial report.....	41
Appendix A	Actuary's statement for the purposes of the superannuation - industry (supervision)	
regulations	42

23 October 2023

Mr Jason Murray
Chief Executive Officer
Spirit Super
GPO Box 1547
Hobart TAS 7001

Dear Jason

Quadrant Defined Benefits Fund actuarial review as at 30 June 2023

We have carried out an investigation into the Quadrant Defined Benefits Fund (the Fund) using the member data and other information provided as at 30 June 2023 and set out the results of the review and our findings in this report.

For this review, we have applied the Aggregate Funding method, subject to adjustment where needed to meet funding requirements over intermediate periods. This method determines a single contribution rate, for each sub-fund (or each benefit category within each sub-fund), which is the contribution rate required to fund the total benefits for existing employees, allowing for the assets actually held, but ignoring new entrants. It is calculated as the present value of all benefits expected to be payable to existing members, less the value of the assets held and the present value of future contributions by current members, divided by the present value of all future salaries of the existing members. The path of the projected funding position over the following 10 years is then considered so that adjustments can be made if needed to manage the risk of the Fund falling into an unsatisfactory financial position over this period.

1. Executive summary

1.1 Results

The investigation was carried out as part of the full triennial investigation into the defined benefit sub-funds of Spirit Super, as required under the Superannuation Industry (Supervision) Act 1993 and the associated Regulations. The main purpose of the investigation into the Fund is to review the rate of Council contributions payable to the Fund.

The investigation shows that:

- The value of Fund assets at 30 June 2023 was 22% more than the total of members' vested benefits. That is, the Fund had a Vested Benefits Index (VBI) of 122% (120% in 2020).

- The increase in the VBI is mainly due to exits leading to the surplus being spread over a smaller base of remaining liabilities. This has been partly offset by the employer contribution holiday and favourable investment returns.
- The projections indicate that if the Fund maintains an investment return of 4.50% per annum (p.a.) combined with salary increases of 3.50% p.a. (or alternatively investment returns exceeding salary increases by 1% p.a.), the VBI will continue to strengthen without employer contributions being required.
- Lower investment returns that are on average 1% p.a. less than salary increases will not lead to VBI falling below 100% over the next 10 years. Conversely, higher investment returns could lead to even greater strengthening of the VBI.
- If future experience follows the assumptions, then the benefits in respect of future service would be fully funded from the existing surplus. However, the actual position will depend on future experience especially in relation to investment returns, salary increases and how long members remain in the Fund. Consequently, the possibility of employers needing to resume contributions in the future cannot be ruled out.

1.2 Contribution rates

Given the strong financial position of the Fund, we consider it reasonable for the Councils to continue their contribution holiday from 1 July 2023 until they are reviewed in the next full triennial actuarial investigation, which is due as at 30 June 2026 and required to be completed within six months of that date. This recommendation takes into account our understanding that Spirit Super and its sponsoring employers have an established practice of implementing any changes in contribution rates at the start of the next financial year.

The Councils should still contribute the amount of any contributions required under awards or other employment agreements.

Noting that the future financial position of the Fund may vary from the projected levels (for example, as a result of higher or lower investment returns), we also recommend that the Trustee continues its practice of reviewing the recommended contribution rates after 30 June each year, to confirm they remain appropriate. If the financial position weakens significantly then it could be necessary for the Councils to resume paying contributions in advance of the next triennial review.

1.3 Shortfall limit

The shortfall limit, expressed in terms of assets as a percentage of vested benefits, drives the extent to which a fund has flexibility to allow for an unsatisfactory financial position to be corrected by investment returns before revisiting employer contribution rates. We recommend that the shortfall limit of the Fund be maintained at 98% to give additional flexibility to manage potential short-term fluctuations in investment values.

2. Introduction

2.1 General

The purpose of this report is to present the results of the actuarial review of the Quadrant Defined Benefits Fund as at 30 June 2023. The Fund is a sub-fund of Spirit Super and this report is provided for the Trustee of Spirit Super. Where this report is provided to third parties, it should be provided in its entirety. The review of the Fund is part of a full actuarial review of Spirit Super in accordance with the Trust Deed of Spirit Super and meets the requirements of the Superannuation Industry (Supervision) Act 1993 and the associated Regulations, which require actuarial investigations to be carried out at least once every three years.

We have prepared this report in accordance with Professional Standard No. 400 of the Institute of Actuaries of Australia relating to the actuarial review of defined benefit superannuation funds. We have also considered the requirements of the Australian Prudential Regulation Authority's (APRA) Prudential Standard SPS 160 *Defined Benefit Matters*.

2.2 Governing rules and structure of fund

Spirit Super is a resident regulated fund and a complying fund for the purposes of the Superannuation Industry (Supervision) Act 1993. Provided it continues to comply with the relevant legislation, Spirit Super is eligible for concessional tax treatment.

The Fund is a defined benefit sub-fund of Spirit Super and provides lump sum benefits to members. The Fund is closed to new members.

A summary of the Fund's main benefit provisions is set out in Appendix A of this report. For full details of the Fund's benefits, reference should be made to Spirit Super's Trust Deed and the Fund's governing rules.

2.3 Name and capacity of actuary

This review has been undertaken by Michael Berg, B Bus Sc MAppFin CFA FIAA, in his capacity as an employee of Deloitte.

2.4 Previous report

The previous actuarial review of the Fund as at 30 June 2020 was carried out by Michael Berg of Rice Warner and was dated 6 November 2020.

That report showed that the Fund was in a sound financial position with the assets exceeding the total of members' vested benefits by 20% (with a VBI of 120%) at 30 June 2020. Given the strong financial position of the Fund, we recommended the Councils continue a contribution holiday subject to normal review processes.

2.5 Significant events since the previous review

We are not aware of any other events that have occurred between 30 June 2020 and 30 June 2023, or since 30 June 2023, that we have not already taken into account, which would have a material impact on the recommendations in this report.

2.6 Purpose of review

The purposes of this actuarial review are to:

- Assess the financial position of the Fund.
- Recommend an appropriate level of Council contributions for the future.
- Satisfy the requirements of the Trust Deed.
- Meet the legislative requirements.

3. Fund experience

3.1 Data provided

Spirit Super’s administrators provided us with the following information:

- Membership details for the Fund as at 30 June 2023.
- Salary histories of members for the past four annual review dates.
- Details of assets for each sub-fund as at 30 June 2023.
- Information about investment returns after 1 July 2023.

A summary of the membership data at the current and previous investigations is shown in Table 1.

Table 1. Current and previous membership data

Category	30/06/2023		30/06/2020	
	Number	Salaries	Number	Salaries
85	69	5,927,000	95	\$9,384,000

The number of members has reduced by 26 (about 27%) over the three years since the last review.

Graph 1 shows the numbers of defined benefit members in the different age bands at 30 June 2023.

Graph 1. Number of members by age bands

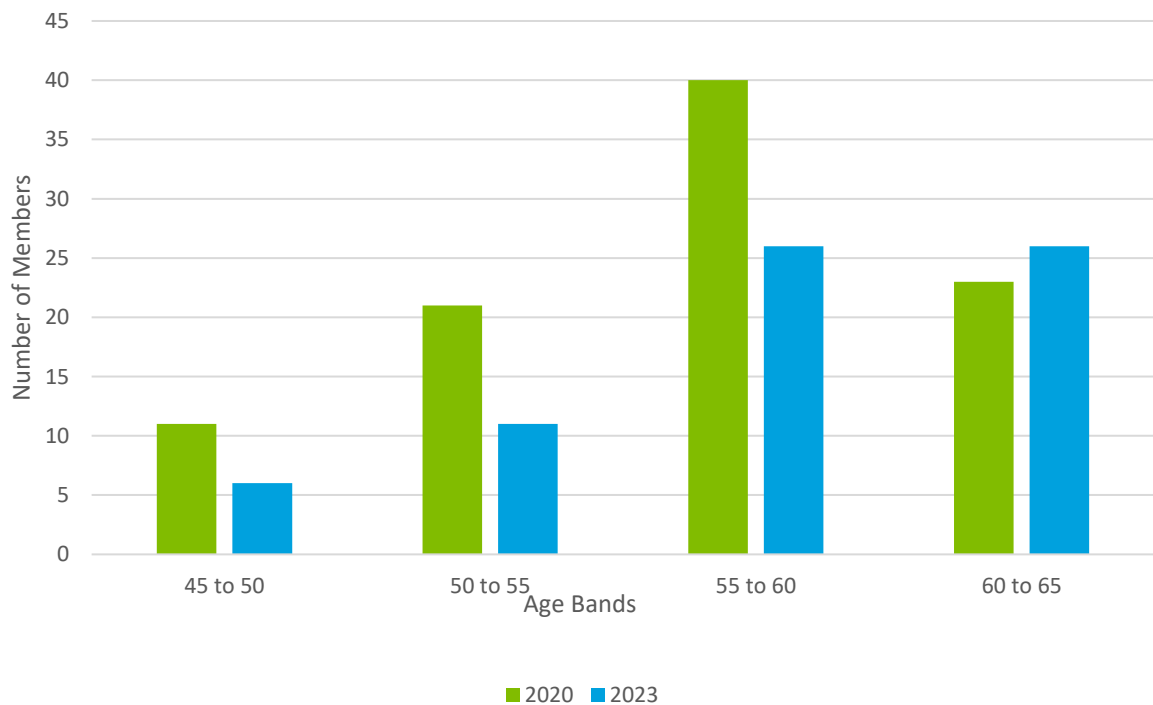


Table 2 shows average age and membership statistics at the current and previous actuarial review dates:

Table 2. Average age and membership statistics

Category	30/06/2023		30/06/2020	
	Average Age	Average Membership	Average Age	Average Membership
85	58.0 years	33.3 years	56.6 years	30.1 years

The data shows that:

- The average age of the members at 30 June 2023 was 58.0 years, an increase of 1.4 years on the average age three years previously.
- About 75% of the members were aged 55 or over at 30 June 2023 and were therefore immediately eligible for retirement benefits.
- A further 16% of the members were between the ages of 50 and 55.
- There were no members under 45.

The Fund has a mature age profile and is likely to reduce in size steadily over the next few years.

The weighted average term of the liabilities at the effective date was 4.7 years (5.2 years in 2020).

3.2 Assets

The market value of the net assets as at 30 June 2023 was provided by Spirit Super’s personnel and it was equal to approximately \$48,442,000. We have taken this amount to be the value of assets available to support the Fund’s liabilities.

The Fund is invested in a range of asset classes in accordance with the Trustee’s investment policy for the assets supporting defined benefit liabilities, with a target weighting of about 60% to growth assets (such as shares, property and infrastructure) and 40% to defensive assets (such as fixed interest and cash). Alternative allocations are under consideration with target allocations to growth assets of between 50% and 65% and investment return targets of at least 2% p.a. above Consumer Price Index (CPI). We consider that these allocations to be within the range of alternatives suitable to support the liabilities of the Fund.

We note that accumulation-type underpins are currently more valuable than the defined benefit formula the membership profile for a significant part of the membership, as discussed further in Section 6.2 (Accumulation underpin) below. At present these members broadly have an accumulation underpin with an employer-backed minimum return value, making it likely to be in members interests to have a higher allocation to growth assets than would be required if only the purely defined benefit elements were considered. This is tempered by the age profile being

weighted towards members with limited periods remaining before retirement age. We are satisfied that the strategic asset allocations currently in place and under consideration are within the range of reasonable allocations for this position.

3.3 Investment returns relative to salary increases

The average return on the Fund's assets over the three years to 30 June 2023 was 5.55% p.a. (net of investment management expenses and tax, but not allowing for any Fund management or operational expenses deducted to determine the crediting rates). This was slightly lower than the return of 3.75% assumed in the previous actuarial review.

Members who remained in the Fund over the three-year period since the last review experienced average salary increases of 3.2% p.a. compared with the 2.5% p.a. assumed in the 2023 actuarial review.

The margin between investment returns and salary increases was 2.3% p.a.

Investment returns from 30 June 2023 to 5 October 2023 have had a slightly negative effect on the Fund's financial position. The crediting rate from 30 June 2023 to 5 October 2023 was -0.99%. The financial position of the Fund has therefore likely worsened since 30 June 2023.

3.4 Expenses

The total of administration and other operational expenses used in setting the crediting rate for the 2022/2023 financial year was equal to 1.27% p.a. of assets. The corresponding expenses in the two preceding years were 1.31% and 1.00%. The average of these annual rates of expense are lower than the allowance for expenses at 1.25% p.a. assumed at the previous review. This experience will have had a slightly beneficial impact on the financial position of the Fund.

We have allowed for a deduction (from the Fund's net investment return to determine the crediting rate applied to members) of 1.25% p.a. in all future years.

3.5 Interest crediting rate

The crediting rate is based on the investment return on the Fund's assets, adjusted for fees and taxes in accordance with the crediting rate policy adopted by the Trustee. We consider this to be appropriate.

4. Financial position

4.1 Measures of Solvency

There are a number of ways to measure the financial position of the Fund at the review date. We have adopted the following measures which are compared to the value of the Fund's assets:

- **Vested Benefits**: The benefits to which members would have been entitled had they voluntarily left service as at 30 June 2023.
- **Accrued Retirement Benefits**: A member's Accrued Retirement Benefits (ARB) as at 30 June 2023 is calculated as:

$$\begin{aligned} & \text{Accrued Benefit Multiple} & & \text{times} & & \text{Final Average Salary at} \\ & \text{at the valuation date} & & & & \text{the valuation date} \\ & & & \text{plus} & & \\ & & & \text{the member's additional accumulation accounts.} & & \end{aligned}$$

The ARB is also subject to a minimum of the vested benefit.

- **Present Value of Accrued benefits**: The present value of that part of members' future expected benefit entitlements which have accrued up to 30 June 2023. This figure is an actuarial estimate, and represents our estimate of the accrued liabilities of the Fund as at 30 June 2023. The additional accumulation accounts are included at their face values as at 30 June 2023.
- **Minimum Requisite Benefits (MRBs)**: The minimum benefit required to be made available to employees in order that the Councils satisfy their Superannuation Guarantee obligations. If the assets fall below this figure, the Fund is regarded as 'technically insolvent'.

In each case, we have calculated an index by dividing the value of assets by the total of the relevant measure for all members. We have included the value of members' accumulation accounts in the liability measures.

Table 3 shows the indices at the current review.

Table 3. Indices at current review

Measure	30/06/2023 Assets = \$48,442,000		30/06/2020 Assets = \$51,939,000	
	Total of Measure (\$'000)	Index (%)	Total of Measure (\$'000)	Index (%)
Vested Benefits	39,789	122	43,411	120
Accrued Retirement Benefits	45,501	106	44,095	118
Present Value of Accrued Benefits	39,479	123	43,562	119
MRBs	32,605	149	35,275	147

The ratios in Table 3 show that the Fund was in a strong financial position as at 30 June 2023. Our comments on the individual indices are:

- The vested benefits remain covered by assets as at 30 June 2023.
- The fact that the coverage of assets over present value of accrued benefits greater than 100% indicates a sound level of funding at the valuation date.
- The MRBs were very well funded as at 30 June 2023.

4.2 Measures excluding accumulation accounts

Accumulation benefits are usually treated as being fully vested in the members and hence should be regarded as fully funded already. When considering the position of the Fund, it is instructive to reduce the value of the assets for any accumulation benefits, and compare this figure to the liabilities in respect of the defined benefits only. The funding indices excluding accumulation accounts at 30 June 2023 are shown in Table 4.

Table 4. Indices excluding accumulation accounts at 30 June 2023

Measure	Index %
Vested Benefits	126
Accrued Retirement Benefits	117
Present Value of Accrued Benefits	127
MRBs	161

4.3 Insurance position

The Fund is protected against adverse death and disablement experience by means of group life insurance arrangements covering the lump sum death and Total Permanent Disability (TPD) risks.

Table 5 compares the Fund's asset value and the sums insured as at 30 June 2023 to the total lump sum death benefits. It shows that the Fund's insurance arrangements are more than sufficient to cover the total death and TPD benefits.

Table 5. Fund's asset value and the sums insured as at 30 June 2023

Quadrant Defined Benefit Fund	Death Benefits \$'000	TPD Benefits \$'000
Value of Assets	48,442	48,442
Sums Insured	4,582	4,582
Total Assets plus insurance	53,025	53,025
Total Death and TPD Benefits	44,408	44,408
Excess/(Shortfall)	8,617	8,617
Excess as % Total Death/TPD Benefits	19.4%	19.4%

For a defined benefit fund, it is normal that the value of the assets plus the value of the sums insured does not exactly equal the total death and TPD benefits. There will generally be a small excess or shortfall, which varies in line with movements in the Fund's assets. In practice the cost of frequent changes to the insurance formula could easily exceed the value of these changes in the context of a sub-fund with modest numbers of members, and we would therefore prefer a slightly cautious level of insurance rather than the Fund incurring costs for frequent changes.

In the case of the Fund, the excess relates largely to the Fund being in surplus, although in our view it is not unduly large. We therefore consider the current insurance arrangements to be within a reasonable range. However, at 30 June 2023 the assets exceed the total benefits payable in the event of all the members dying or becoming totally and permanently disabled on that date. We therefore consider reducing or removing the insurance for the Quadrant sub-fund to be an available option.

5. Funding the benefits

5.1 General comments

Over the life of the Fund, the ultimate cost to the Councils of providing the benefits will be equal to:

- The amount of benefits paid out.
- The expenses of running the Fund including tax.
- Members' contributions.
- Less the return on investments.

Since the benefits are linked to members' salaries, the cost of providing the benefits will depend on the Fund's experience in relation to:

- Economic factors such as the investment return obtained on the Fund's assets and the rates at which salaries increase.
- Factors influencing membership turnover such as mortality and disability, resignation and retirement.

The valuation process involves making assumptions about the likely levels of the above factors in the future. Using these assumptions, we can project the expected future cash flows and benefits for the current members of the Fund. By discounting these cash flows, we derive a present value for the liabilities which we can compare to the value of the current assets.

The ultimate cost to the Councils will depend primarily on the actual experience of the Fund. The financing method and the actuarial assumptions will however affect the timing of the cost to the Councils.

5.2 Financing method

There are various financing methods that can be used to determine the Councils' contributions that should be paid over time. The funding method adopted in this review is the same method used at the previous review (aggregate funding method).

The contribution rate adjusted for surplus indicates the level of contribution required when surplus assets are taken into account and assumptions on which the calculations are based are as expected. If the future investment returns are lower than expected, the surplus will be at least partially depleted and this level of contribution may not be sufficient.

The stability of the Councils' contributions over time will depend on how closely the Fund's actual experience matches the expected experience. If the actual experience differs from that expected, the Councils' contribution rate may need to be adjusted accordingly to ensure the Fund remains on course towards its target of financing members' benefits.

5.3 Assumptions

Taking into account the long-term experience of superannuation funds with investment strategies that are similar to that adopted for this Fund, we have adopted a long-term assumption of 4.50% p.a. for investment returns (net of investment expenses and taxes on investment earnings, but not allowing for any Fund management or operational expenses deducted to determine the crediting rates). This is higher than the assumption of 3.75% p.a. in the previous valuation due to a allowing for an environment of increased inflation and higher expected nominal returns.

However, to assess the sensitivity of the results to alternative investment market conditions, in the next ten years, we have considered the three alternative scenarios in the Table 6.

Table 6. Alternative scenarios

Scenario	2023/24 to 2032/33 (% p.a.)
Unfavourable	2.50
Medium	4.50
Favourable	6.50

We have assumed salary increases of 3.50% p.a., inclusive of promotional increases. This is based on:

- Inflation of 2.50% p.a., taking into account the Reserve Bank of Australia’s target range of 2% p.a. to 3% p.a. and allowing for current conditions of lower inflation impacting on the average return over the period, taking into account the relatively short average remaining term of the liabilities.
- Salary increases of 1% p.a. over inflation.

The long-term investment return assumption and the salary growth assumption are different from those adopted for the 2020 actuarial review and assumed real rate of return assumption at 1.0% p.a. (before expenses). This is equivalent to an investment return of CPI plus 2% p.a. based on salary increases of CPI plus 1% p.a.

In addition, the Unfavourable and Favourable scenarios have been selected to illustrate the impact of a period of under or over performance of the Fund’s investments, relative to the Medium scenario. The Unfavourable scenario assumes under-performance of 2% p.a., while the Favourable scenario assumes out-performance of 2% p.a.

Note the three assumed investment returns are used in combination with assumed salary growth of 3.50% p.a. and the key driver of future experience is the difference between investment returns and salary growth. For example, if investment returns were to fall short of expectations by 1% p.a. but this is matched by salaries growing by 1% p.a. less than expected, then the Medium scenario would still apply.

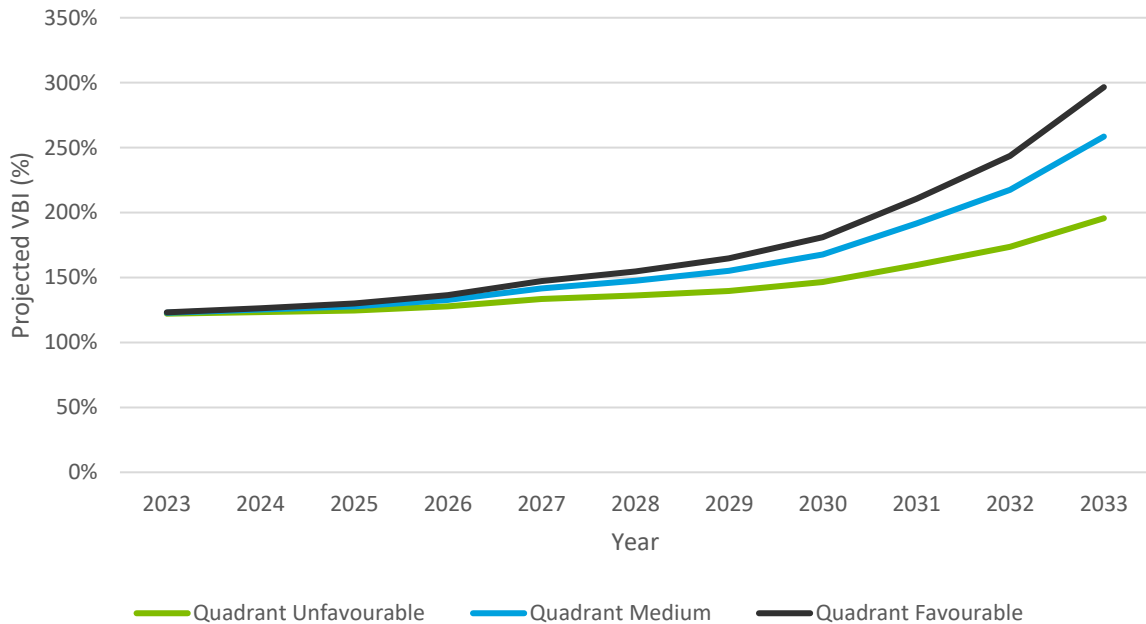
The decrement rates for resignation, retirement and other modes of exit used in this review are the same as the ones used in the previous review as at 30 June 2020. Section 8 (Summary of valuation basis) sets out the valuation basis in more detail.

6. Council contributions

6.1 Projections of funding indices and sensitivity analysis

Graph 2 shows the projected level of the VBI including members’ accumulation accounts over the next 10 years. The projection shows the position of the Fund assuming no future employer contributions. The projected VBI is shown for each of the investment return scenarios (Unfavourable, Medium and Favourable) discussed in Section 5.3 (Assumptions).

Graph 2. Projected VBI – current contributon rate



Note the three assumed investment returns are used in combination with assumed salary growth of 3.50% p.a. and the key driver of future experience is the difference between investment returns and salary growth. For example, if investment returns were to fall short of expectations by 1% p.a. but this is matched by salaries growing by 1% p.a. less than expected, then the Medium scenario would still apply.

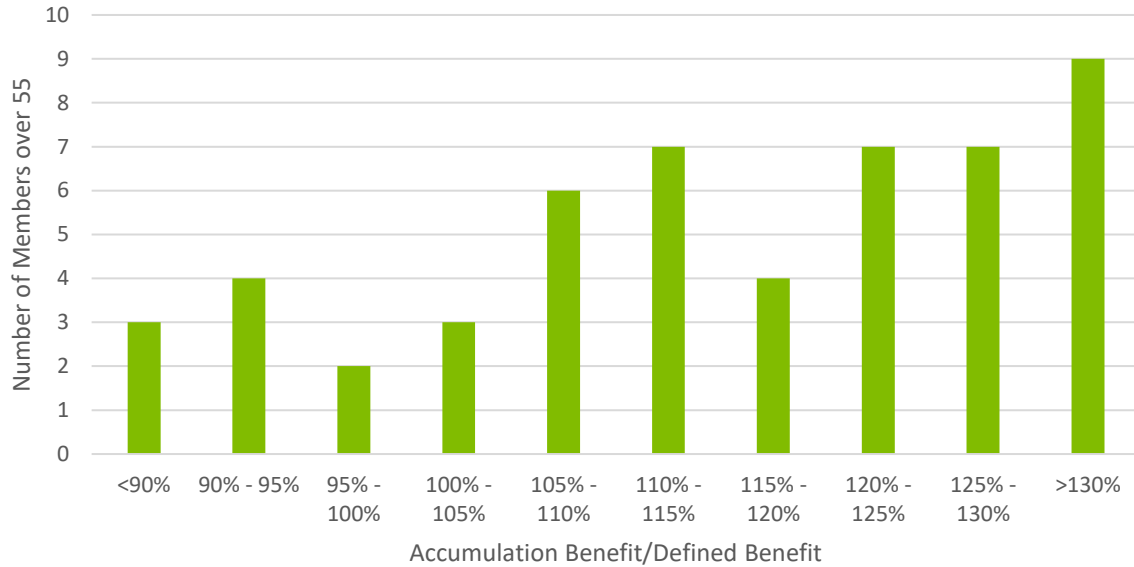
The graphs on this and the previous page confirm that the projected VBI is less sensitive to future investment returns as a result of the increased number of members receiving benefits higher than their defined benefits due to benefiting from the accumulation underpin.

6.2 Accumulation underpin

As a result of strong investment performance over the past years, a significant proportion of members over age 55 have their benefits higher than their defined benefit because of the accumulation underpin. Graph 3 and Graph 4 illustrate the distribution of the number of members

with regard to relative values of accumulation underpins versus defined benefit, for members over age 55.

Graph 3. Relative accumulation-type and DB benefits as at 30 June 2023 by number of members aged 55+



Graph 4. Relative accumulation-type and DB benefits, members aged 55+ as at 30 June 2023, by amounts

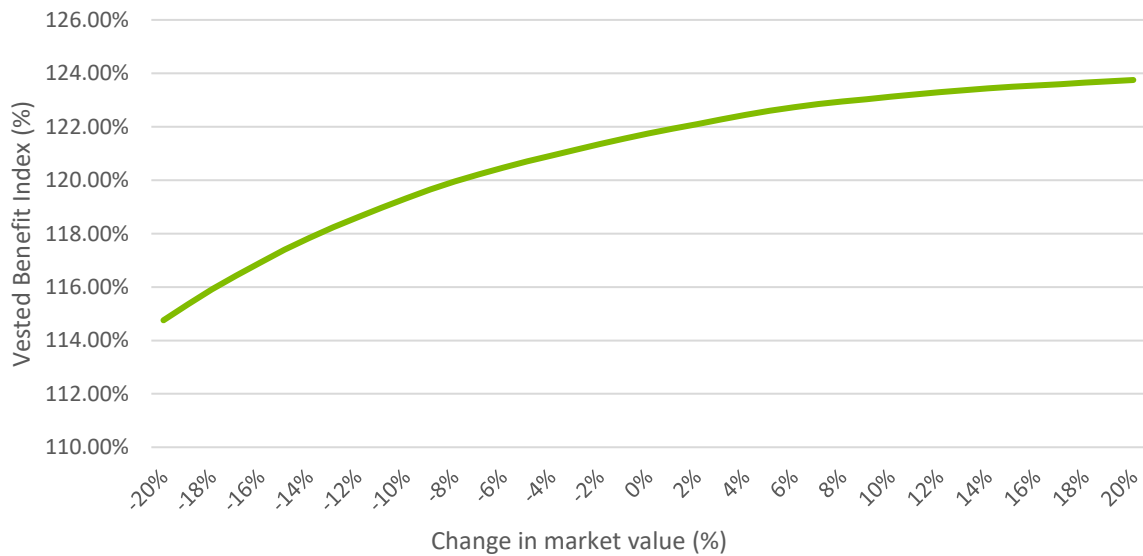


We note that there is a significant number of members having an accumulation benefit higher than, or very close to, the defined benefit entitlement. As a result, better than expected investment performance will have limited impact on the projected future VBI as noted above.

6.3 Shock analysis

Graph 5 shows the impact on the VBI as at 30 June 2023 if an immediate investment shock were to occur. Graph 5 shows that a reduction in the value of assets of 20% would reduce the VBI from 122% to 115% based on the Fund’s profile as of 30 June 2023. The strong position even after a 20% shock reflects a combination of the strong funding position and the impact of an investment loss falling partly on members whose accumulation-type underpins currently drive their total benefits.

Graph 5. VBI sensitivity to investment shock as at 30 June 2023



6.4 Recommended Council contributions

Given the strong financial position of the Fund, we recommend that the Councils continue their contribution holiday from 1 July 2023 until 1 July 2027. This rate would be reviewed at the next full triennial actuarial investigation due as at 30 June 2026.

The Councils should still contribute the amount of any contributions required under awards or other employment agreements.

Noting that the future financial position of the Fund may vary from the projected levels (for example, as a result of higher or lower investment returns), we also recommend that the Trustee continues its practice of reviewing the recommended contribution rates after 30 June each year, to confirm they remain appropriate. If the financial position significantly weakens it may be necessary to resume paying higher contributions.

Our review indicates that the Fund was in a 'satisfactory financial position' as at 30 June 2023, and is expected to remain in such a position until the time of the next full triennial actuarial investigation as at 30 June 2026.

6.5 Shortfall limits

For the purposes of APRA's Superannuation Prudential Standard SPS160 *Defined Benefit Matters* a shortfall limit is the extent to which an RSE licensee considers that a fund can be in an unsatisfactory financial position with the RSE licensee still being able to reasonably expect that, because of corrections to temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year. This means that an actuarial investigation need not necessarily be brought forward if the VBI declines to below 100% but remains above the shortfall limit.

The current shortfall limits for the Fund, expressed in terms of assets as a percentage of vested benefits, is 98%.

6.6 Next actuarial investigation

A formal review of the Councils' contributions will be required with the next full triennial actuarial investigation into the Spirit Super's defined benefit sub-funds as at 30 June 2026, as required under superannuation law.

Yours sincerely,



Michael Berg
B Bus Sc MAppFin CFA FIAA

23 October 2023

7. Benefit summary

7.1 Eligibility

This is a summary of the defined benefit arrangements for council employees (other than employees of the Hobart and Launceston City Councils who have separate arrangements). Defined benefit membership is a closed category.

7.2 Contributions

7.2.1 Member contributions

All defined benefit members contribute at the rate of 6% of salary.

7.2.2 Council contributions

The Councils contribute the balance required to fund the members' benefits.

7.3 Definitions

- Review Date
 - The Review Date is 30 June in each year.
- Final Average Salary
 - The average of the annual salary at date of leaving and the review date salaries on the two annual review dates prior to the date of leaving.
- Normal Retirement Date
 - The member's 65th birthday.
- Member Basic Account
 - The accumulation of the regular member contributions of 6% of salary with compound interest.
- Member Voluntary Account
 - The accumulation of any voluntary member contributions (over and above the regular contributions) with compound interest. Includes the accumulation of any member rollovers with compound interest. This account is paid in addition to all other benefits.
- Member Award Account
 - The accumulation of any salary sacrifice or award contributions with compound interest. This account is paid in addition to all other benefits.
- Member Surcharge Liability Account

- The accumulation of contribution surcharge assessments paid by the Trustee in respect of the member, together with interest at the crediting rate.
- Superannuation Guarantee Minimum Account
 - The accumulation of the Superannuation Guarantee (SG) employer funded minimum amount together with compound interest. This account is added to the total of all the other accounts to obtain the SG overall minimum benefit for a member.

7.4 Benefits

7.4.1 Normal retirement benefit

The benefit paid to a member who retires on his Normal Retirement Date is calculated as follows:

- 15% of Final Average Salary for each year of Category 85 membership, plus:
 - 15% of Final Average Salary for each year of Category 82 membership
 - 12.5% of Final Average Salary for each year of Category 72 membership.

With membership measured in years and complete months, plus the following account balances:

- Member Voluntary Account:
 - Member Award Account
 - Member Surcharge Liability Account.

This benefit is subject to a minimum of the Resignation Benefit and the SG Minimum Benefit.

7.4.2 Early retirement benefit

A member who retires within ten years of his Normal Retirement Date is entitled to an Early Retirement Benefit calculated in the same way as the Normal Retirement Benefit but including only membership completed at the date of retirement.

This benefit is subject to a minimum of the Resignation Benefit and the SG Minimum Benefit.

7.4.3 Late retirement benefit

If a member retires after his Normal Retirement Date, the benefit payable is the benefit which would have been payable had he retired on his Normal Retirement Date, together with compound interest on that benefit until the date of actual retirement.

This benefit is subject to a minimum of the Resignation Benefit and the SG Minimum Benefit.

7.4.4 Death benefit

The benefit paid on death is the benefit that would have been paid if the member had retired on the Normal Retirement Date, with salary and category at the date of death remaining unchanged until the Normal Retirement Date.

This benefit is subject to a minimum of the Resignation Benefit and the SG Minimum Benefit.

7.4.5 Disablement benefit

The benefit paid on disablement is dependent on the member's age next birthday at the annual review date prior to the date of disablement.

If the age is less than 56, the disablement benefit is equal to the death benefit which would have been paid had the member died on the date of disablement.

If the age is greater than 59, the disablement benefit is equal to the early retirement benefit which would have been paid had the member retired on that date.

If the age is between 56 and 59 inclusive, the disablement benefit is calculated as follows:

$$\text{Disablement Benefit} = \text{ERB} + \text{Fraction} \times \{\text{DB} - \text{ERB}\}$$

where

ERB is the Early Retirement Benefit as defined in this section

DB is the Death Benefit as defined in this section

Fraction = 0.2 times (60 – Age) with age calculated as above.

This benefit is subject to a minimum of the Resignation Benefit and the SG Minimum Benefit. This benefit is also subject to a further minimum of the value of the member's Death Benefit calculated as at the Review Date before the member's 55 birthday.

7.4.6 Resignation benefit

If a member leaves employment and is not eligible for any of the above benefits, the resignation benefit is payable. This is calculated as follows:

Category 85 members

The member's Member Basic Account increased by 5% for each completed year of membership in excess of five years, with a maximum increase of 100%, plus the sum of the following accounts:

- Member Voluntary Account Member
- Award Account
- Member Surcharge Liability Account.

7.4.7 *SG minimum benefit*

This benefit is a minimum benefit to be paid when a member is paid a benefit for any reason. It is calculated by taking the sum of the following accounts:

- Member Basic Account Member
- Voluntary Account Member Award
- Account
- Member Surcharge Liability Account SG
- Minimum Account.

8. Summary of valuation basis

Table 7. Summary of valuation basis

Method	Aggregate Funding								
Economic Assumptions									
Investment Return	<p>A long-term assumption of 4.50% p.a. (net of investment expenses and taxes on investment earnings, but not allowing for any Fund management or operational expenses deducted to determine the crediting rates).</p> <p>However, to assess the sensitivity of the results to alternative investment market conditions, we have modelled the three scenarios in the table below.</p> <table border="1"> <thead> <tr> <th>Scenario</th> <th>2023/2024 to 2032/33</th> </tr> </thead> <tbody> <tr> <td>Unfavourable</td> <td>2.50%</td> </tr> <tr> <td>Medium</td> <td>4.50%</td> </tr> <tr> <td>Favourable</td> <td>6.50%</td> </tr> </tbody> </table>	Scenario	2023/2024 to 2032/33	Unfavourable	2.50%	Medium	4.50%	Favourable	6.50%
Scenario	2023/2024 to 2032/33								
Unfavourable	2.50%								
Medium	4.50%								
Favourable	6.50%								
Salary Increase Rate	3.50% p.a. inclusive of promotional increases.								
Fund Management Expenses	1.25% p.a. of assets. In our valuation, this expense has been allowed for by reducing the assumed crediting rates.								
Crediting Rate	<p>The crediting rate applied to defined benefit accounts use an annual unsmoothed rate. Therefore, based on the investment return scenarios noted above, and after deducting the Fund management expenses noted above, the assumed crediting rates are:</p> <table border="1"> <thead> <tr> <th>Scenario</th> <th>2023/24 to 2032/33</th> </tr> </thead> <tbody> <tr> <td>Unfavourable</td> <td>1.25%</td> </tr> <tr> <td>Medium</td> <td>3.25%</td> </tr> <tr> <td>Favourable</td> <td>5.25%</td> </tr> </tbody> </table>	Scenario	2023/24 to 2032/33	Unfavourable	1.25%	Medium	3.25%	Favourable	5.25%
Scenario	2023/24 to 2032/33								
Unfavourable	1.25%								
Medium	3.25%								
Favourable	5.25%								
Asset Valuation	Market values as provided by the Spirit Super administrators.								

8.1 Taxation

Investment returns are assumed to be net of investment fees and investment tax. The contribution tax rate is assumed to be 15% of deductible contributions.

8.2 Decrement rates

A summary of the decrement rates assumed in the investigation is set out in Table 8.

Table 8. Summary of decrement rates assumed

Expected Number of Exits p.a. per 100,000 Members				
Age	Death	Disablement	Withdrawal	Retirement
20	184	12	16,300	-
25	101	12	12,800	-
30	104	23	9,900	-
35	120	35	7,500	-
40	175	58	7,000	-
45	276	138	4,700	-
50	477	311	2,800	-
55	859	681	-	7,500
56	966	795	-	5,800
57	1,085	910	-	6,100
58	1,214	1,061	-	6,900
59	1,351	1,222	-	7,800
60	1,501	1,407	-	12,000
61	1,662	1,614	-	25,000
62	1,852	1,891	-	12,000
63	2,053	2,212	-	18,000
64	2,268	2,569	-	35,000
65	-	-	-	100,000

Addendum 1 - Summary of actuarial report

The effective date of the most recent review of the Fund was 30 June 2023 and covered the three year period to that date. The review was undertaken by Michael Berg B Bus Sc MAppFin CFA FIAA of Deloitte, and the results of the review are set out in a report dated 23 October 2023.

A summary of this report is as follows:

- As of 30 June 2023, the net realisable value of the assets of the Fund, as determined by the Spirit Super Trustee, amounted to approximately \$48,442,000. This is also the value of assets used in determining the recommended contribution rate.
- The Fund has no liability in respect of postponed retirements or deferred benefits for former members or dependants.
- The present value of accrued benefits as at 30 June 2023 was approximately \$39,479,000. This amount also constitutes the 'value of the liabilities in respect of accrued benefits' as defined in Division 9.5 of the Superannuation Industry Supervision (SIS) Regulations. A summary of the method and assumptions used to determine this value is set out below. The above figure includes accumulation liabilities of approximately \$8,963,000.
- The total as at 30 June 2023 of members vested benefits (that is, voluntary resignation benefits, or early retirement benefits if eligible as of right), amounted to \$39,789,000.
- At 30 June 2023, the present value of accrued benefits and vested benefits were both covered by the Fund's assets. The ratios of the assets to these totals are as follows:

- Present value of accrued benefits	123%
- Vested benefits	122%
- The actuarial review was carried out using the Aggregate Funding method, supplemented by projecting the Fund's assets and total vested benefits on the basis of the actuarial assumptions made. Contribution rates were determined after considering the future levels of the vested benefit index arising from the payment of the contribution rates derived from the Aggregate Funding method. As a minimum, we require that the assets of the Fund be expected to exceed vested benefits at all times until 30 June 2026.
- The Actuary recommended that in future the Councils should continue their contribution holidays from 1 July 2023 until 30 June 2027, with contribution rates to be reviewed in the next full triennial actuarial investigation due as at 30 June 2026 or earlier in the event of a major adverse change in investment conditions.
- The next full triennial actuarial investigation of the Fund is due as at 30 June 2026. At that time, the level of Council contributions will be reviewed again.

Appendix A Actuary's statement for the purposes of the superannuation - industry (supervision) regulations

Quadrant Defined Benefits Fund

We have conducted an actuarial review of the Quadrant Defined Benefits Fund ('the Fund') as at 30 June 2023. The review was based on 69 active members with annual superannuation salaries of approximately \$5,927,000. We have reviewed the data for reasonableness, and we have no reason to believe the data used is not correct. In our opinion:

- The value of assets of the Fund was adequate to meet the liabilities of the Fund in respect of vested benefits as at 30 June 2023, with the result that the Fund was in a 'satisfactory financial position' as defined in the SIS Regulations.
- The value of the assets of the Fund was adequate to meet the value of the liabilities of the Fund in respect of the present value of accrued benefits as of 30 June 2023.
- Based on the assumptions used, and assuming the Employer contributes at the levels described below, the value of the assets will continue to be adequate to meet the value of the liabilities of the Fund in respect of vested benefits at all times during the period up to 30 June 2023. We therefore expect the Fund to remain in a 'satisfactory financial position' as defined in the SIS Regulations.

The Fund is used for Superannuation Guarantee purposes and is subject to the funding and solvency provisions of Division 9.3 of the SIS Regulations. All funding and solvency certificates required under Division 9.3 have been obtained for the period from the date of the last review to 30 June 2023 and we have issued a Funding and Solvency Certificate covering the period from 1 July 2023 to the next actuarial review.

We recommend that the Councils continues their contribution holiday from 1 July 2024 to 30 June 2027. The contribution rate will be reviewed at the next full triennial actuarial investigation due as at 30 June 2026.

In addition, Councils should contribute as required under awards or other agreements, until the results of the next full triennial actuarial investigation, due as at 30 June 2026, become available.



Michael Berg
B Bus Sc MAppFin CFA FIAA

23 October 2023

Attachment B

Actuarial Review of the HCC Defined Benefits Fund

As at 30 June 2023

Prepared by:



Michael Berg
B Bus Sc MAppFin CFA FIAA

23 October 2023

Table of Contents

1.Executive summary	46
1.1 Results	46
1.2 Recommendations – contribution rates	47
1.3 Shortfall limit.....	47
2.Introduction	48
2.1 General	48
2.2 Governing rules and structure of fund.....	48
2.3 Name and capacity of actuary.....	48
2.4 Previous report.....	48
2.5 Significant events since the previous review.....	49
2.6 Purpose of review.....	49
3.Fund experience	50
3.1 Data Provided	50
3.2 Assets	52
3.3 Investment returns and salary increases	52
3.4 Expenses.....	53
3.5 Interest crediting rate.....	53
4.Financial position.....	54
4.1 Measures of funding.....	54
4.2 Measures excluding accumulation accounts.....	55
4.3 Insurance position	56
4.4 Retrenchment benefits.....	57
5.Funding the benefits	58
5.1 General comments	58
5.2 Financing method.....	58
5.3 Assumptions	59
6.Employer contributions.....	61
6.1 Projections of Funding Indices and sensitivity analysis.....	61
6.2 Hobart City Council.....	61
6.3 TasWater	62

6.4	Projection of funding position – all employers	63
6.5	Accumulation underpin	64
6.6	Shock analysis.....	65
6.7	Recommended employer contributions	65
6.8	Shortfall limits	66
6.9	Next actuarial investigation	66
Appendix A	Benefit summary.....	67
Appendix B	Summary of valuation basis	69
Addendum 1	Summary of actuarial report.....	71
Appendix C regulations	Actuary’s statement for the purposes of the superannuation industry (supervision)	73

23 October 2023

Mr Jason Murray
Chief Executive Officer
Spirit Super
GPO Box 1547
Hobart TAS 7001

Dear Jason

HCC Defined Benefits Fund actuarial review as at 30 June 2023

We have carried out an investigation of the HCC Defined Benefits Fund (the Fund) using the member data and other information provided as at 30 June 2023 and set out the results of the review and our findings in this report.

1. Executive summary

1.1 Results

The investigation was carried out as part of the full triennial investigation into the defined benefit sub-funds of Spirit Super, as required under the Superannuation Industry (Supervision) Act 1993 and the associated Regulations. The main purpose of the investigation into the Fund is to review the rates of Employer contributions payable to the Fund.

The investigation of the HCC Defined Benefits Fund shows that:

- The value of Fund assets at 30 June 2023 was 24% higher than the total of members' vested benefits. That is, the Fund had a Vested Benefits Index (VBI) of 124% (111% in 2020). Hence the Fund was in a 'satisfactory financial position' as at the date of this review.
- The improvement in the financial position is the result of investment returns exceeding salary increases in the previous three years by a larger margin than assumed in 2020, as well as the previous surplus being a larger percentage of the remaining liabilities due to exits since the previous triennial review.
- The financial positions differ between the HCC section of the sub-fund and the TasWater section. At 30 June 2023 the VBI was 125% for HCC and 121% for the smaller TasWater part.
- We have carried out separate projections of the expected future VBI for each of the TasWater section of the Fund and the HCC section.
- At the current rate of Council contributions (9.5% of salary for HCC), the VBI for the HCC section is projected to remain relatively stable in the short term and then increase over time. The projections indicate that if an investment return of 4.50% per annum (p.a.) is maintained thereafter in

combination with salary increases of 3.50% p.a. then the VBI will strengthen. The same applies to any combination of investment returns exceeding salary increases by 1% p.a. which is equivalent to exceeding Consumer Price Index (CPI) by 2% p.a. assuming average salary increases of CPI plus 1% p.a. However, this is subject to future experience especially investment conditions.

- At the current rate of employer contributions for TasWater of 6% of salaries, the VBI is projected to reduce from 121% to slightly over 92% over the next decade. In addition to actual development of the VBI being subject to future experience, the relatively small membership of this section has the effect that the position can change materially due to the experience of small numbers of members and even individuals, including salary increases and timing of exits.
- Lower investment returns would lead to the VBI falling below 100% in approximately 2026 for TasWater, other things being equal.
- We expect the Fund to remain in a 'satisfactory financial position' from 1 July 2023 to 30 June 2026 (with assets above vested benefits).

1.2 Recommendations – contribution rates

We recommend the continuation of the following employer contribution rates:

- For HCC, contribute at the current contribution rate of 9.5% of salary, subject to annual review.
- For TasWater, contribute at the current contribution rate to 6% of salary, subject to annual review.

The employers should also contribute the amount of any contributions required under awards or other employment agreements.

Noting that the future financial position of the Fund may vary from the projected levels (for example as a result of higher or lower investment returns), we also recommend that the Trustee continues its practice of briefly reviewing the recommended contribution rates after 30 June each year, to confirm they remain appropriate. If the Fund's financial position is stronger than expected, it may be appropriate for the employers to pay lower contributions than those recommended above, while if the financial position significantly weakens it may be necessary to pay higher contributions.

1.3 Shortfall limit

The shortfall limit, expressed in terms of assets as a percentage of vested benefits, drives the extent to which a fund has flexibility to allow for an unsatisfactory financial position to be corrected by investment returns before revisiting employer contribution rates. We recommend that the shortfall limits be maintained at 98% to give additional flexibility to manage potential short-term fluctuations in investment values.

2. Introduction

2.1 General

The purpose of this report is to present the results of the actuarial review of the HCC Defined Benefits Fund as at 30 June 2023. The Fund is a sub-fund of Spirit Super.

This report is provided for the Trustee of Spirit Super. We understand that other recipients of this report will be the Hobart City Council and TasWater. Where this report is provided to third parties, it should be provided in its entirety. The review of the Fund is part of a full actuarial review of Spirit Super in accordance with the Trust Deed of Spirit Super and meets the requirements of the Superannuation Industry (Supervision) Act 1993 and the associated Regulations, which require actuarial investigations to be carried out at least once every three years.

We have prepared this report in accordance with Professional Standard No. 400 of the Institute of Actuaries of Australia relating to the actuarial review of defined benefit superannuation funds. We have also considered the requirements of Prudential Standard SPS 160 *Defined Benefit Matters*.

2.2 Governing rules and structure of fund

Spirit Super is a resident regulated fund and a complying fund for the purposes of the Superannuation Industry (Supervision) Act 1993. Provided it continues to comply with the relevant legislation, Spirit Super is eligible for concessional tax treatment.

The Fund is a defined benefit sub-fund of Spirit Super and provides lump sum benefits to members. The Fund is closed to new members.

A summary of the Fund's main benefit provisions is set out in Appendix A (Benefit Summary) of this report. For full details of the Fund's benefits, reference should be made to the Spirit Super's Trust Deed and the Fund's governing rules.

2.3 Name and capacity of actuary

This review has been undertaken by Michael Berg, B Bus Sc MAppFin CFA FIAA, in his capacity as an employee of Deloitte.

2.4 Previous report

The previous actuarial review of the Fund as at 30 June 2020 was carried out by Michael Berg of Rice Warner, and was dated 6 November 2020.

That report showed that the Fund was in a 'satisfactory financial position' with the assets exceeding the total of members' vested benefits by 24% (VBI = 124%) at that date.

The Employers were recommended to continue to contribute as follows:

- HCC: At a rate of 9.5% of salary, subject to annual review.
- TasWater: At a rate of 6% of salary, subject to annual review.

In addition, both the Employers also contributed the amount of any contributions required under awards or other employment agreements, and forwarded contributions made by members.

2.5 Significant events since the previous review

We are not aware of any significant events that have occurred between 30 June 2020 and 30 June 2023, or since 30 June 2023, that we have not already taken into account, which would have a material impact on the recommendations in this report.

2.6 Purpose of review

The purposes of this actuarial review are to:

- Assess the financial position of the Fund
- Recommend an appropriate level of Employer contributions for the future
- Satisfy the requirements of the Trust Deed
- Meet the legislative requirements.

3. Fund experience

3.1 Data provided

Spirit Super administrators provided us with the following information:

- Membership details for the Fund as at 30 June 2023.
- Salary histories of members for the past four annual review dates.
- Details of assets for each sub-fund as at 30 June 2023.
- Information about investment returns after 1 July 2023.

A summary of the defined benefit membership data at the current and previous investigations is set out in Table 1.

Table 1. Summary of the defined benefit membership

Category	30/06/2023		30/06/2020	
	Number	Salaries (\$)	Number	Salaries (\$)
A	44	4,321,846	65	5,649,009
B	0	-	2	205,610
C	0	-	0	-
D	2	139,868	5	367,856
E	20	1,535,889	34	2,267,284
Defined Benefit	66	5,997,603	106	8,489,760

The number of members has reduced by 40 (about 38%) over the three years since the last review. We note there are 8 HCC TasWater members.

Graph 1 shows the numbers of defined benefit members in the different five-year age bands at 30 June 2023.

Graph 1. Number of members by age bands

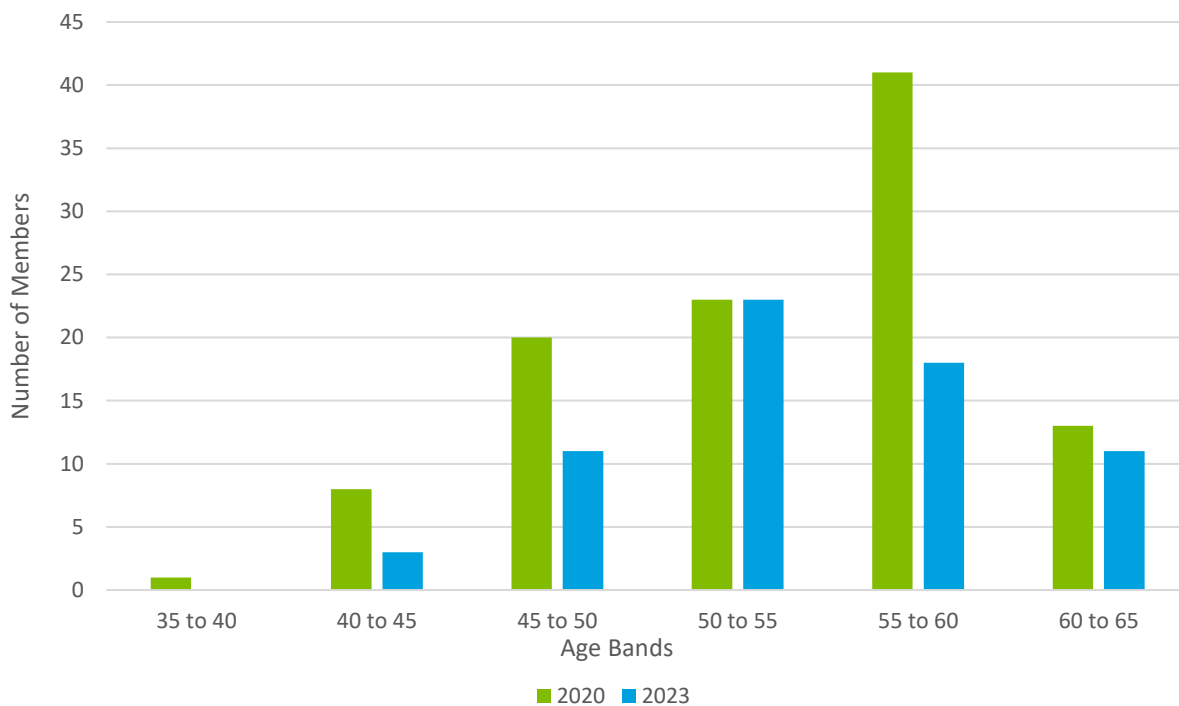


Table 2 shows average age and membership statistics of defined benefit members by membership category at the current and previous actuarial review dates.

Table 2. Average age and membership statistics of defined benefit members

Category	30/06/2023		30/06/2020	
	Average Age	Average Membership	Average Age	Average Membership
	(Years)			
A	53.2	25.55	52.3	22.8
B	-	-	61.2	44.3
C	-	-	-	-
D	52.9	28.54	55.0	23.4
E	56.7	34.16	56.1	31.1
Defined Benefit	54.3	28.25	53.8	25.9

The data shows that:

- The average age of the members at 30 June 2023 was 54.3 years, an increase of about 0.5 years on the average age three years previously.
- About 44% of the members were aged 55 or over at 30 June 2023 and were therefore immediately eligible for retirement benefits.

- A further 35% of the members were between the ages of 50 and 55.
- There were no members under 40 and only three members under 45.

The weighted average term of the liabilities at the effective date was 6.7 years (6.1 years in 2020).

The Fund has a mature age profile and is therefore likely to reduce in size over the next few years.

3.2 Assets

The market value of the net assets of the consolidated HCC Fund as at 30 June 2023 was provided by Spirit Super personnel and was equal to approximately \$36,696,000. We have taken this amount to be the value of assets available to support the Fund's liabilities. The amount of the net assets was approximately \$31,360,000 in respect of HCC employees and approximately \$5,336,000 in respect of TasWater employees.

The Fund is invested in a range of asset classes with total target weightings to growth assets of slightly over 70%. Taking into account the potential for partial de-risking of the investments, we have based the investment return assumption on a more defensive investment strategy which Spirit Super operates with another defined benefit sub-sub, with a target weighting in growth assets of slightly over 50% and a target return of CPI plus 2% p.a. over ten years. We consider both of these investment strategies to be within the range of alternatives suitable to support the liabilities of the Fund.

We recommend that the specific asset allocations be kept under review as the age profile of the Fund continues to increase.

3.3 Investment returns and salary increases

The average return on the Fund's assets over the three years to 30 June 2023 was 8.1% p.a. (net of investment management expenses and tax, but not allowing for any Fund management or operational expenses deducted to determine the crediting rates) which was similar to the 4.75% p.a. assumed in the previous actuarial review.

Members who remained in the Fund over the three-year period since the last investigation experienced average salary increases of 4.0% p.a. compared with the 2.75% p.a. assumed in the 2020 actuarial review.

Average salary increases were 3.81% p.a. and 5.36% p.a. for Hobart City Council and TasWater employees, respectively. Average salary increases for TasWater defined benefit members are inherently more volatile due to being averaged over a smaller number of members.

The difference between investment returns and salary increases of 4.1% p.a. exceeded the difference of 2.0% p.a. assume in the previous full actuarial review. This was positive for the financial position of the Fund as a whole, although the liabilities of the TasWater section were increased by the average salary increases of the small number of members in this section.

Investment returns from 30 June 2023 to 5 October 2023 have had a slightly negative effect on the Fund's financial position. The crediting rate from 30 June 2023 to 5 October 2023 was -0.76%. The financial position of the Fund has therefore likely worsened since 30 June 2023.

3.4 Expenses

The total of administration and other expenses used in setting the crediting rate for the 2022/2023 financial year was equal to 1.36% p.a. of assets. The corresponding expenses in the two preceding years were 1.39% and 1.04%. The average of these annual rates of expense is approximately the allowance for expenses at 1.25% p.a. assumed at the previous review. This experience will have had slightly beneficial impact on the financial position of the Fund.

We have continued to assume a deduction (from the Fund's net investment return to determine the crediting rate applied to members) at the rate of 1.25% in all future years.

3.5 Interest crediting rate

The crediting rate is based on the investment return on the Fund's assets, adjusted for fees and taxes in accordance with the crediting rate policy adopted by the Trustee.

4. Financial position

4.1 Measures of funding

There are a number of ways to measure the financial position of the Fund at the review date. We have adopted the following measures which are compared to the value of the Fund's assets:

- **Vested Benefits:** the benefits to which members would have been entitled had they voluntarily left service as at 30 June 2023.
- **Accrued Retirement Benefits:** Members' Accrued Retirement Benefits have been calculated as:

$$\begin{array}{l}
 \textit{Accrued Benefit Multiple} \\
 \textit{at the valuation date} \\
 \\
 \textit{plus} \\
 \textit{the member's additional accumulation accounts.} \\
 \\
 \textit{times} \\
 \\
 \textit{Final Average Salary at} \\
 \textit{the valuation date}
 \end{array}$$

The ARB is also subject to a minimum of the vested benefit.

- **Present Value of Accrued Benefits:** The present value of that part of members' future expected benefit entitlements which have accrued up to 30 June 2023. This figure is an actuarial estimate, and represents our estimate of the accrued liabilities of the Fund as at 30 June 2023. The additional accumulation accounts are included at their face values as at 30 June 2023.
- **Minimum Requisite Benefits (MRBs):** The minimum benefit required to be made available to employees in order that the Employers satisfy their superannuation guarantee obligations. If the assets fall below this figure, the Fund is regarded as 'technically insolvent'.

In each case, we have calculated an index by dividing the value of assets by the total of the relevant measure for all members. We have included the value of members' accumulation accounts in the liability measures.

Table 3 shows the indices at the current and at the previous review date.

Table 3. Indices at current review

HCC Consolidated	30/06/2023		30/06/2020	
	Assets = \$36,696,000		Assets = \$42,781,000	
Measure	Total of Measure (\$'000)	Index (%)	Total of Measure (\$'000)	Index (%)
Vested Benefits	29,566	124	38,508	111
Accrued Retirement Benefits	36,424	101	41,049	104
Present Value of Accrued Benefits	30,965	119	39,015	110
MRBs	24,660	148	30,026	142

The above ratios show that the consolidated Fund’s financial position has improved since the previous review date. This reflects investment returns having exceeded salary increases by more than assumed in the previous review, and the surplus being a higher percentage of the remaining liabilities following exit of about 37% of the Fund’s members over the previous three years.

Our comments on the individual indices are:

- The VBI of 124% at 30 June 2023 indicates that the Fund was in a ‘satisfactory financial position’ as is defined in the SIS Regulations.
- The fact that the coverage of assets over present value of accrued benefits is at 119% indicates a sound level of funding at the valuation date.
- The MRBs were very well funded as at 30 June 2023 and it is very likely that the MRBs will continue to be covered the Fund’s assets.

Table 4 shows the indices in respect of each participating employer.

Table 4. Indices in respect of each participating employer.

Employer:	HCC 30/06/2023 Assets = \$31,360,000		TasWater 30/06/2023 Assets = \$4,574,000	
Measure	Total of Measure (\$'000)	Index (%)	Total of Measure (\$)	Index (%)
Vested Benefits	25,146	125	4,420	121
Accrued Retirement Benefits	30,083	104	6,341	84
Present Value of Accrued Retirement Benefits	26,007	121	4,958	108
MRBs	21,164	148	3,496	153

4.2 Measures excluding accumulation accounts

Accumulation benefits are usually treated as being fully vested in the members and hence should be regarded as fully funded already. When considering the position of the Fund, it is instructive to reduce the value of the assets for any accumulation benefits and compare this figure to the liabilities in respect of the defined benefits only.

The funding indices excluding accumulation accounts at 30 June 2023 are shown in Table 5.

Table 5. Funding indices excluding accumulation accounts

Measure	Consolidated Index	HCC sub-fund Index	TasWater sub-fund Index
	(%)		
Vested Benefits	127	127	123
Accrued Retirement Benefits	101	105	83
Present Value of Accrued Benefits	120	123	108
MRBs	155	155	159

4.3 Insurance position

The Fund is protected against adverse death and disablement experience by means of group life insurance arrangements covering the lump sum death and total permanent disability (TPD) risks.

Table 6 compares the Fund's asset value and the sums insured as at 30 June 2023 to the total lump sum death benefits. It shows that the Fund's insurance arrangements are slightly more than sufficient to cover the total death and TPD benefits.

Table 6. Comparison of Fund's asset value and sums insured

HCC Defined Benefit Fund	Death Benefits	TPD Benefits
Consolidated	(\$'000)	
Value of Assets	36,696	36,696
Sums Insured	8,847	8,847
Total Assets plus insurance	45,543	45,543
Total Death and TPD Benefits	38,414	38,414
Excess/(Shortfall)	7,130	7,130
Excess as % Total Death/TPD Benefits	18.6%	18.6%

The level of insurance remains appropriate, with the excess of approximately \$7,130,000 arising primarily from the current surplus of the Fund's assets over the vested benefits and represents a reasonable margin for safety against fluctuations in investment values.

For a defined benefit fund, it is normal that the value of the assets plus the value of the sums insured does not exactly equal the total death and TPD benefits. There will generally be a small excess or shortfall, which varies in line with movements in the Fund's assets. In our view, the excess above is not unreasonable in this context. We would also note that changes in the insurance formula would be likely to have implementation costs which are material relative to the monetary amounts involved in the insurance and are therefore unlikely to be worthwhile from a cost-benefit perspective unless the changes are significant.

4.4 Retrenchment benefits

Fund benefits are also payable to members on retrenchment from the Employer's service. The retrenchment benefit is defined in the Trust Deed as the member's early retirement benefit. There are slight differences of terminology for certain category A and E members.

The accrued retirement benefit can be used to measure the ability of the Fund to provide for members' retrenchment benefits. The calculation above shows that if all of the members had been retrenched at 30 June 2023, the assets would have been sufficient to cover the benefits due at the time.

5. Funding the benefits

5.1 General comments

Over the life of the Fund, the ultimate cost to the Employers of providing the benefits will be equal to:

- the amount of benefits paid out
- the expenses of running the Fund including tax
- members' contributions
- less the return on investments.

Since the benefits are linked to members' salaries, the cost of providing the benefits will depend on the Fund's experience in relation to:

- Economic factors such as the investment return obtained on the Fund's assets and the rates at which the salaries increase.
- Factors influencing membership turnover such as mortality and disability, resignation and retirement.

The valuation process involves making assumptions about the likely levels of the above factors in the future. Using these assumptions, we can project the expected future cash flows and benefits for the current members of the Fund. By discounting these cash flows, we derive a present value for the liabilities which we can compare to the value of the current assets.

The ultimate cost to the Councils will depend primarily on the actual experience of the Fund. The financing method and the actuarial assumptions will however affect the timing of the cost to the Employers.

5.2 Financing method

For this review, we have applied the Aggregate Funding method, subject to adjustment where needed to meet intermediate funding requirements. This method determines a single contribution rate, for each sub-fund (or each benefit category within each sub-fund), which is the contribution rate required to fund the total benefits for existing employees, allowing for the assets actually held, but ignoring new entrants. It is calculated as the present value of all benefits expected to be payable to existing members, less the value of the assets held and the present value of future contributions by current members, divided by the present value of all future salaries of the existing members.

The projected funding position over the following 10 years is then considered so that adjustments can be made if needed to manage the risk of the Fund becoming under-funded over this period under any of the relevant measures of funding.

The contribution rate adjusted for surplus indicates the level of contribution required when surplus assets are taken into account and assumptions on which the calculations are based are as expected. If the future investment returns are lower than expected, the surplus will be depleted and this level of contribution will not be sufficient.

The stability of the Council’s and TasWater’s contributions over time will depend on how closely the Fund’s actual experience matches the expected experience. If the actual experience differs from that expected, the employers’ contribution rates may need to be adjusted accordingly to ensure the Fund remains on course towards its target of financing members’ benefits.

5.3 Assumptions

Taking into account the long-term experience of superannuation funds with investment strategies that are similar to that adopted for this Fund, we have adopted a long-term assumption of 4.50% p.a. for investment returns (net of investment expenses and taxes on investment earnings, but not allowing for any Fund management or operational expenses deducted to determine the crediting rates).

However, to assess the sensitivity of the results to alternative investment market conditions, in the short term we have considered the three alternative scenarios in Table 7.

Table 7. Alternative scenarios

Scenario	2023/24 to 2032/33
	(% p.a.)
Unfavourable	2.50
Medium	4.50
Favourable	6.50

We have assumed salary increases of 3.5% p.a., inclusive of promotional increases. This is based on:

- Inflation of 2.50% p.a., taking into account the Reserve Bank of Australia’s target range of 2% p.a. to 3% p.a. and allowing for current conditions of lower inflation impacting on the average return over the period, taking into account the relatively short average remaining term of the liabilities.
- Salary increases of 1% p.a. over inflation.

The long-term investment central return assumption and the salary growth assumption are different from those adopted for the 2020 actuarial review, with the assumed excess of investment returns over salary increases reducing from 2% p.a. to 1% p.a. The new assumption is consistent with targeting investment returns of at least 2% p.a. over the rate of CPI increases in combination with assuming real salary increases of 1% p.a..

Investment returns from 30 June 2023 to 5 October 2023 have had a slightly negative effect on the Fund’s financial position. The crediting rate from 30 June 2023 to 5 October 2023 was -0.76%. The financial position of the Fund has therefore likely worsened since 30 June 2023.

In addition, the Unfavourable and Favourable scenarios have been selected to illustrate the impact of a long period of under or over performance of the Fund’s investments, relative to the Medium scenario. The Unfavourable scenario assumes underperformance of 2% p.a., while the Favourable scenario assumes over performance of 2% p.a.

The crediting rate applied to Defined Benefit or Accelerated Benefit accounts uses an annual unsmoothed rate. The interest credited to members' accounts will be equal to the investment return (after adjustment for the administration fees borne by members).

For death and TPD, we have applied a decrement table similar to that used as at the previous review. The other decrement rates used in this review are the same as the ones used in the previous review as at 30 June 2020.

Appendix B (Summary of valuation basis) sets out the valuation basis in more detail.

6. Employer contributions

6.1 Projections of Funding Indices and sensitivity analysis

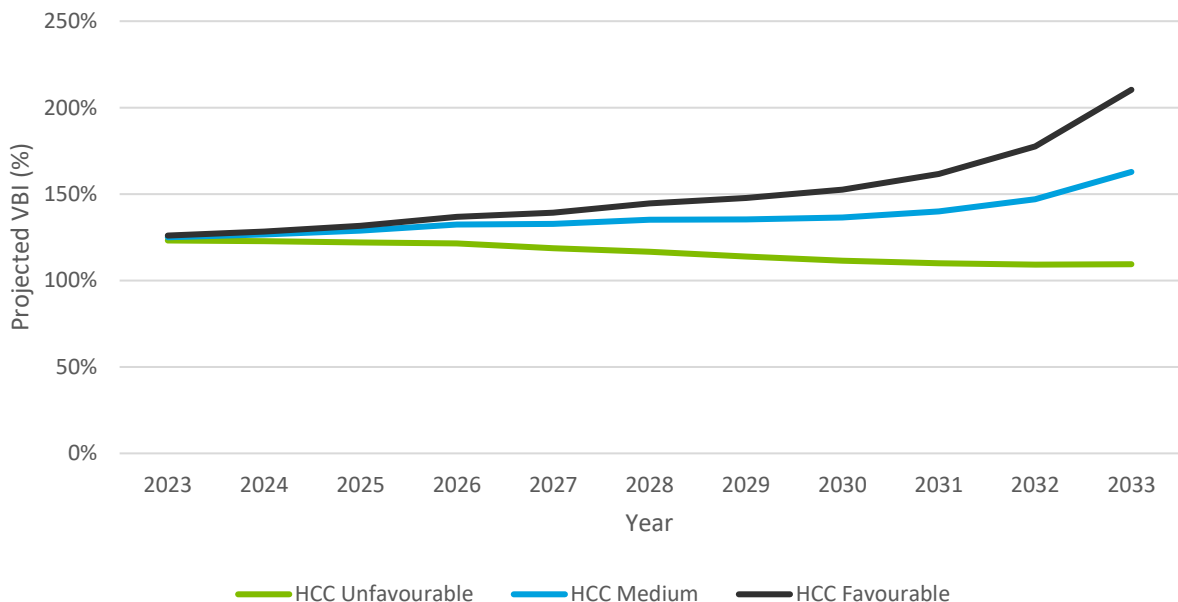
For this review, we have projected the VBI in respect of Hobart City Council members separately from the VBI of TasWater members. This approach is possible because the Spirit Super’s administrator has been recording two separate asset sub-pools, one in respect of Hobart City Council and one in respect of TasWater.

By taking this approach, we can use the VBI projections to develop separate contribution recommendations for each Employer, reflecting their own experience. This approach minimizes cross-subsidies between Employers.

6.2 Hobart City Council

Graph 2 shows the VBI projection for the Fund under three different investment return scenarios each using the current contribution rate of 9.5% of salaries.

Graph 2. VBI projection for the Fund under three different investment return scenarios and the current contribution rate of 9.5%



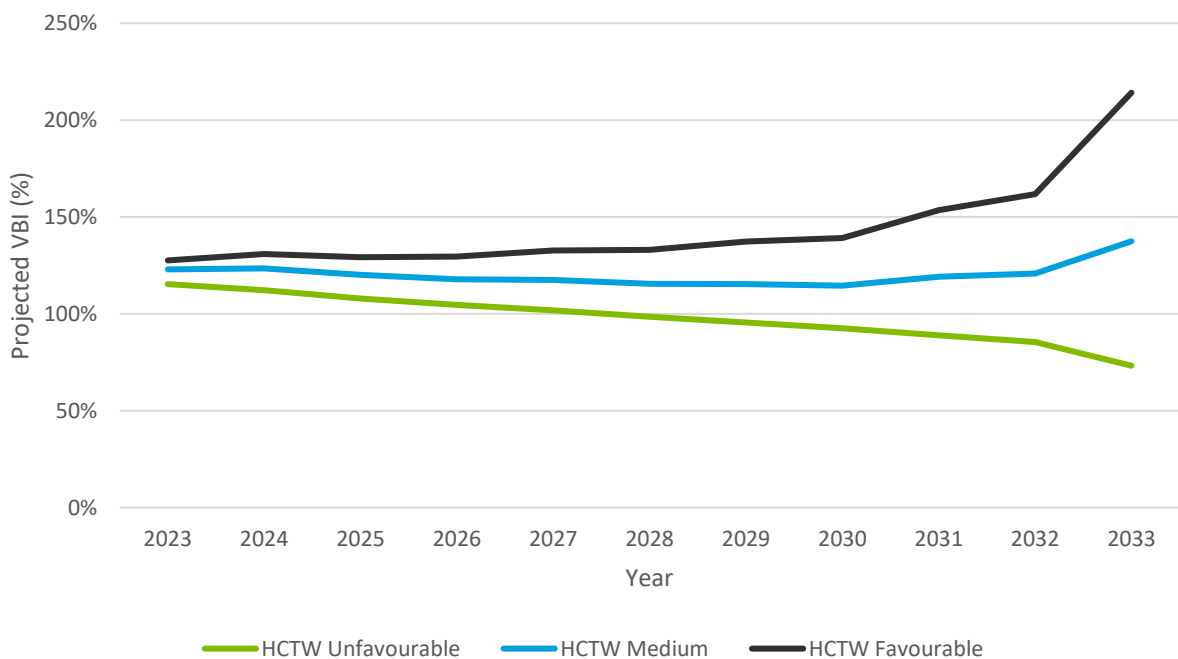
The projected VBI is clearly sensitive to the investment returns achieved. Under the Medium return scenario of 4.50% p.a., the VBI strengthens slightly in later years. Lower investment returns that are on average 2.50% p.a. over the next eight years will lead to the VBI falling to around 100% in 2033. Conversely, higher investment returns lead to a significant strengthening of the VBI.

Given the volatility of local and international investment markets and the age profile of the membership, it would be prudent for the employer to continue to contribute at the current contribution rate of 9.5% of salary, subject to annual review.

6.3 TasWater

The following chart shows the VBI projection for the fund under three different investment return scenarios each using the current contribution rate of 6.0% of salaries.

Graph 3. VBI projection for the fund under three different investment return scenarios and the current contribution rate of 6.0%



The projected VBI is sensitive to the investment return assumed. Under the Medium return scenario of 4.50% p.a., the VBI tends downwards across the projected years. In view of the relatively small number of members, the projected movements in the VBI are more likely to be affected by experience of one or two members than the projections for the larger number of members under Hobart City Council.

Lower investment returns that are on average 2.50% p.a. will lead to the VBI falling below 100% in 2026. Conversely, higher investment returns lead to a significant strengthening of the VBI, particularly in later years.

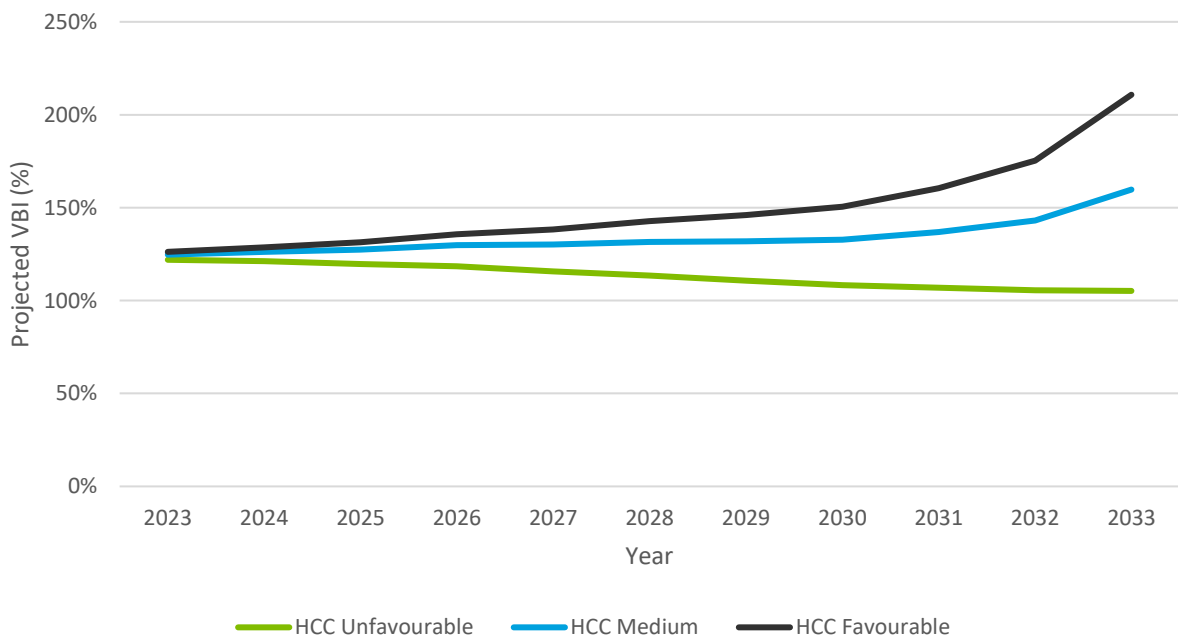
If experience follows expectation, the contribution rate will need to be reconsidered in the 2026 full triennial actuarial investigation.

Given the current level of world investment market and the age profile of the membership, it would be prudent for the employer to contribute at the current contribution rate of 6.0% of Salary, subject to annual review.

6.4 Projection of funding position – all employers

Graph 4 illustrates the projected VBI for all employees, assuming future employer contributions are made in accordance with the current contribution rates. The projected VBI is shown for each of the three investment return scenarios (Unfavourable, Medium and Favourable) discussed in Section 5.3 (Assumptions).

Graph 4. VBI projection for TasWater if the recommended contribution rate is adopted



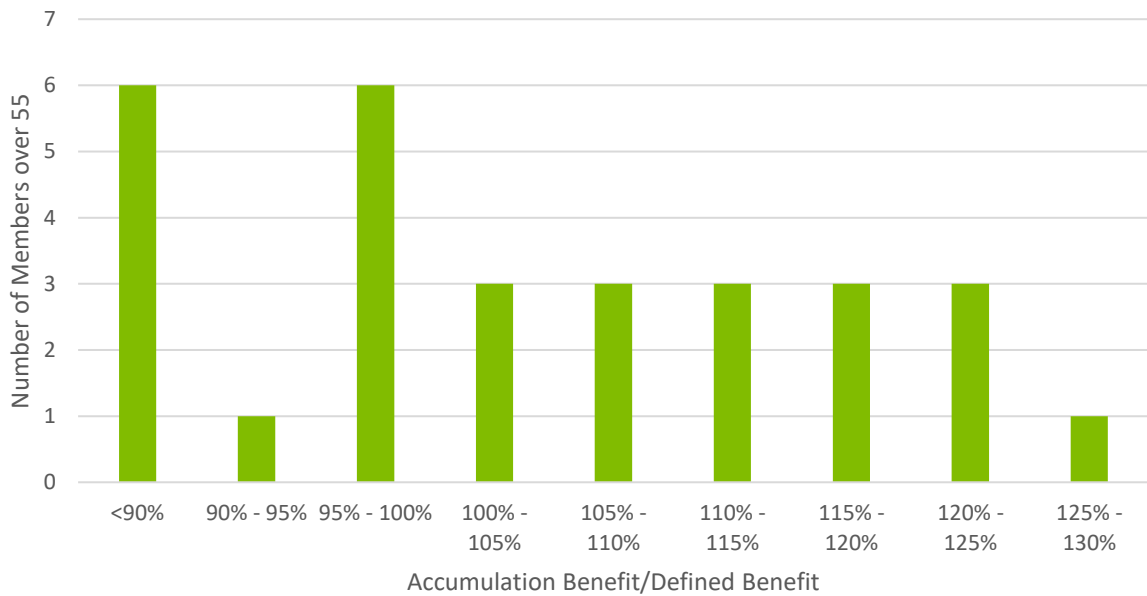
We note that the progression of the VBI clearly depends strongly on the level of investment returns assumed. The projections suggest that if an investment return of 4.50% p.a. is maintained (as assumed in the Medium scenario, and in combination with salary increases of 3.50% p.a.), the VBI is projected gradually increase over the next 10 years. Note the three assumed investment returns are used in combination with assumed salary growth of 2.50% p.a. and the key driver of future experience is the difference between investment returns and salary growth. For example, if investment returns were to fall short of expectations by 1% p.a. but this is matched by salaries growing by 1% p.a. less than expected, then the Medium scenario would still apply.

Lower investment returns that are on average 2.50% p.a. and below the salary increase of 3.50% cause the VBI to fall below 100% until 2031. Conversely, investment returns higher than 4.50% p.a. and exceeding salary increases by more than 3% p.a. would lead to a strengthening of the VBI.

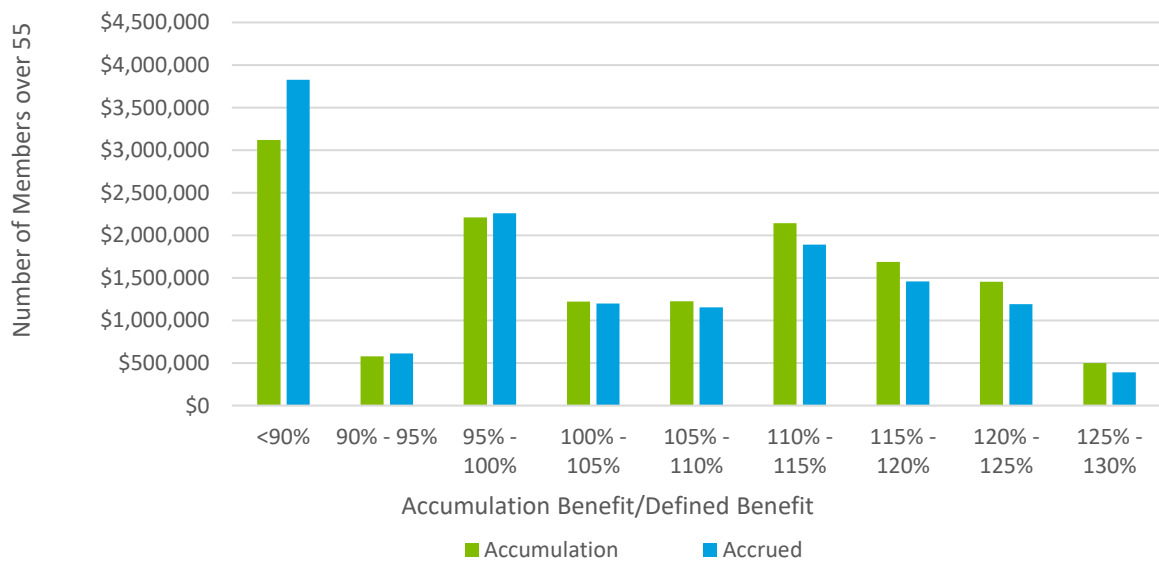
6.5 Accumulation underpin

Graph 5 and Graph 6 illustrates the distribution of the number of members having accumulation benefit versus defined benefit over age 55.

Graph 5. Relative accumulation-type and DB benefits as at 30 June 2023 by number of members aged 55+



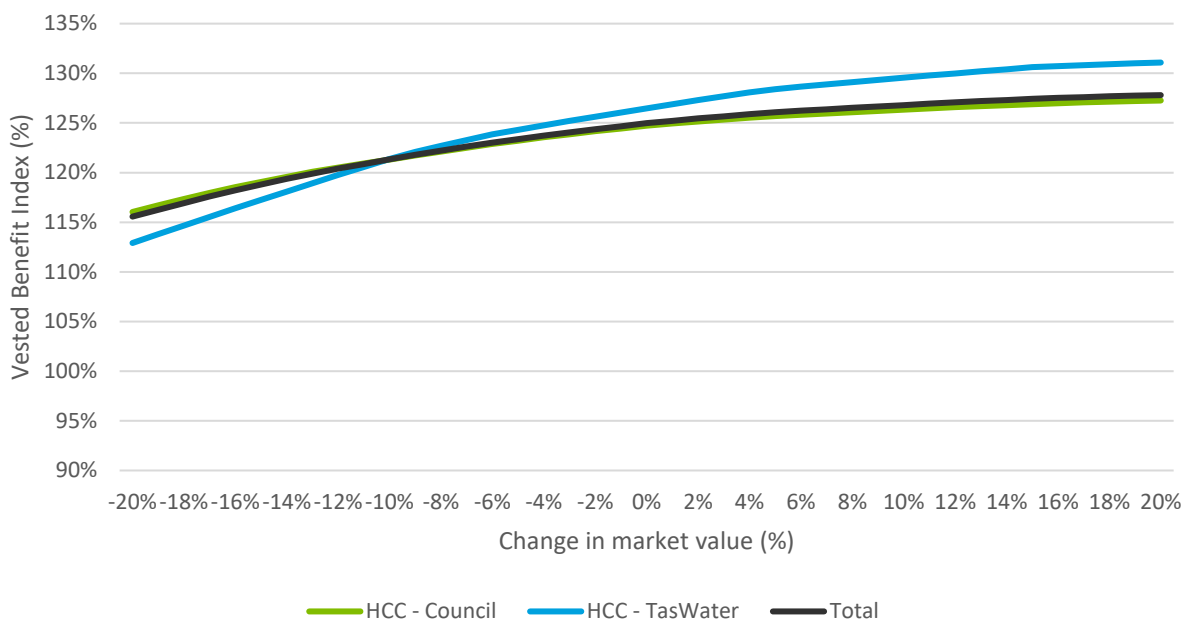
Graph 6. Relative accumulation-type and DB benefits, members aged 55+ as at 30 June 2023, by amounts



6.6 Shock analysis

Graph 7 below shows the impact on the VBI as at 30 June 2023 if an immediate investment shock were to occur. Graph 7 shows that a reduction in the value of assets of 20% would reduce the VBI from 125% to 116% based on the Fund’s profile as of 30 June 2023. The strong position even after a 20% shock reflects a combination of the strong funding position and the impact of an investment loss falling partly on members whose accumulation-type underpins currently drive their total benefits.

Graph 7. VBI change due to investment shock as at 30 June 2023



6.7 Recommended employer contributions

Given, the current level of world investment markets, we recommend the continuation of the following employer contribution rates:

- For HCC, contribute at the current contribution rate of 9.5% of salary, subject to annual review.
- For TasWater, contribute at the current contribution rate to 6% of salary, subject to annual review.

The employers should also contribute the amount of any contributions required under awards or other employment agreements.

Noting that the future financial position of the Fund may vary from the projected levels (for example as a result of higher or lower investment returns), we also recommend that the Trustee continues its practice of briefly reviewing the recommended contribution rates after 30 June each year, to confirm they remain appropriate. If the Fund’s financial position is stronger than expected, it may be appropriate for the employers to pay lower contributions than those recommended above, while if the financial position significantly weakens it may be necessary to pay higher contributions.

6.8 Shortfall limits

For the purposes of APRA's Superannuation Prudential Standard 160 *Defined Benefit Matters* a shortfall limit is the extent to which an RSE licensee considers that a fund can be in an unsatisfactory financial position with the RSE licensee still being able to reasonably expect that, because of corrections to temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year. This means that an actuarial investigation need not necessarily be brought forward if the VBI declines to below 100% but remains above the shortfall limit.

The current shortfall limits for the Fund, expressed in terms of assets as a percentage of vested benefits, is 98%.

6.9 Next actuarial investigation

A formal review of the Employers contributions will be required with the next full triennial actuarial investigation into the Spirit Super defined benefit sub-funds as at 30 June 2026, as required under the superannuation law.

Yours sincerely,



Michael Berg
B Bus Sc MAppFin CFA FIAA

23 October 2023

Appendix A Benefit summary

Categories

The member contribution levels and rates of accrual for the different membership categories are shown in Table 8.

Table 8. Membership categories

Category	Member Contributions (%)	Accrual Rate
A	6	<ul style="list-style-type: none"> 15.0% to 30 November 1982 17.5% from 1 December 1982
B	6	<ul style="list-style-type: none"> 20.0% to 30 November 1982 23.3% from 1 December 1982
C	6	<ul style="list-style-type: none"> 30.0% to 30 November 1982 35.0% from 1 December 1982
E	6	<ul style="list-style-type: none"> 15.0% to 30 June 1986 17.5% from 1 July 1986

Category D members contribute 6% of salary for an accrual rate of 17.5% of final average salary, adjusted according to the member's hours of part-time work.

A maximum multiple of seven times final average salary applies.

Final average salary is the average of the annual salary at date of leaving and the review date salaries on the annual review dates prior to the date of leaving.

Retirement after age 55

$$\text{Benefit} = \text{Accrual Rate} \times \text{Final Average Salary} \times \text{Period of Membership}$$

Any rollover, additional contributions and surcharge accounts are payable in addition.

Where the Leaving Service benefit below exceeds the retirement benefit, we have assumed that the Leaving Service benefit will be paid.

Leaving service before age 55

The leaving service benefit is calculated according to the following:

- The contributions made by or deemed to have been made by the Member together with interest at such a rate as the Trustee determines to be appropriate.
- 10% of the amount calculated in (a) for each year of Service as a member subject to a minimum of 35% and a maximum of 100%.

- Any additional contributions made by or for the member.
- In respect of a Member who has completed at least 15 years' continuous service with the Employer:
 - A percentage (based on the following table of the excess, if any, of the Member's retirement benefit (excluding additional contributions) at the date of exit multiplied by v^n over the sum of (a) and (b), where n is the number of years and complete months from the date of the member leaving service to the Member's Normal Retirement Date and v is $(1.03)^{-1}$.

Table 9. Years of service

Complete Years of Service with the Employer	Percentage
Less than 15	Nil
15 or more but less than 18	10
18 or more but less than 21	20
21 or more but less than 24	40
24 or more but less than 27	60
27 or more but less than 30	80
30 or more	100

Death and TPD

The benefit that would have been payable on retirement assuming that the Member remained in Service and that the Member's salary remained unchanged until age 62.

Superannuation Guarantee

All benefits are subject to a minimum benefit to ensure compliance with the Superannuation Guarantee legislation.

Appendix B Summary of valuation basis

Table 10. Summary of valuation basis

Method	Aggregate Funding								
Economic Assumptions									
Investment Return	<p>A long-term assumption of 4.50% p.a. (net of investment expenses and taxes on investment earnings, but not allowing for any Fund management or operational expenses deducted to determine the crediting rates).</p> <p>However, to assess the sensitivity of the results to alternative investment market conditions, we have assumed the three scenarios in the table below will apply.</p> <table border="1"> <thead> <tr> <th>Scenario</th> <th>2023/2024 to 2032/33</th> </tr> </thead> <tbody> <tr> <td>Unfavourable</td> <td>2.50%</td> </tr> <tr> <td>Medium</td> <td>4.50%</td> </tr> <tr> <td>Favourable</td> <td>6.50%</td> </tr> </tbody> </table>	Scenario	2023/2024 to 2032/33	Unfavourable	2.50%	Medium	4.50%	Favourable	6.50%
Scenario	2023/2024 to 2032/33								
Unfavourable	2.50%								
Medium	4.50%								
Favourable	6.50%								
Salary Increase Rate	3.50% p.a. inclusive of promotional increases.								
Fund Management Expenses	1.25% p.a. In our valuation, this expense has been allowed for by reducing the assumed crediting rates.								
Crediting Rate	<p>The crediting rate applied to Defined Benefit accounts uses an annual unsmoothed rate.</p> <p>Based on the investment return scenarios noted above, and after deducting the fund management expenses noted above, the assumed crediting rates are:</p> <table border="1"> <thead> <tr> <th>Scenario</th> <th>2023/24 to 2032/33</th> </tr> </thead> <tbody> <tr> <td>Unfavourable</td> <td>1.25%</td> </tr> <tr> <td>Medium</td> <td>3.25%</td> </tr> <tr> <td>Favourable</td> <td>5.25%</td> </tr> </tbody> </table>	Scenario	2023/24 to 2032/33	Unfavourable	1.25%	Medium	3.25%	Favourable	5.25%
Scenario	2023/24 to 2032/33								
Unfavourable	1.25%								
Medium	3.25%								
Favourable	5.25%								
Asset Valuation	Market values as provided by the Spirit Super administrators.								

Taxation

Investment returns are assumed to be net of investment fees and investment tax. The contribution tax rate is assumed to be 15% of deductible contributions.

Decrement rates

A summary of the decrement rates assumed in the investigation is set out in Table 11.

Table 11. Summary of the decrement rates

Expected Number of Exits pa per 100,000 Members				
Age	Death	Disablement	Withdrawal	Retirement
20	196	25	16,300	0
25	110	25	12,800	0
30	95	25	9,900	0
35	113	32	7,500	0
40	158	38	7,001	0
45	249	56	4,701	0
50	427	106	2,799	0
55	769	222	0	7,500
56	859	261	0	5,800
57	966	309	0	6,101
58	1,085	365	0	6,899
59	1,212	427	0	7,801
60	1,351	496	0	12,001
61	1,501	570	0	25,000
62	0	0	0	100,000

Addendum 1 - Summary of actuarial report

The effective date of the most recent review of the Fund was 30 June 2023 and covered the three year period to that date. The review was undertaken by Michael Berg, B.Bus.Sc., M.App.Fin., CFA, FIAA, of Deloitte, and the results of the review are set out in a report dated 23 October 2023.

A summary of this report is as follows:

- As at 30 June 2023, the net realisable value of the assets of the Fund, as determined by the Spirit Super Trustee, amounted to approximately \$36,696,000. This is also the value of assets used in determining the recommended contribution rate.
- The Fund has no liability in respect of postponed retirements or deferred benefits for former members or dependants.
- The present value of accrued benefits as at 30 June 2023 was approximately \$30,965,000. This amount also constitutes the 'value of the liabilities in respect of accrued benefits' as defined in Division 9.5 of the Superannuation Industry Supervision (SIS) Regulations. A summary of the method and assumptions used to determine this value is set out below. The above figure includes accumulation liabilities of approximately \$5,731,000.
- The total as at 30 June 2023 of members' vested benefits (i.e. voluntary resignation benefits, or early retirement benefits if eligible as of right), amounted to approximately \$29,566,000.
- At 30 June 2023, both the present value of accrued benefits and vested benefits were fully covered by the Fund's assets. The ratios of the assets to these totals are as follows:

- Present value of accrued benefits	119%
- Vested benefits	124%
- The actuarial review was carried out using the Aggregate Funding method, supplemented by projecting the Fund's assets and total vested benefits on the basis of the actuarial assumptions made. Contribution rates were determined after considering the future levels of the vested benefit index arising from the payment of the contribution rates derived from the Aggregate Funding method. If the Employers contribute at the recommended rates we expect that the assets of the Fund will exceed vested benefits at all times until 30 June 2026.
- The Actuary recommended that in future the Employers contribute as follows:
 - For HCC, contribute at the current contribution rate of 9.5% of salary, subject to annual review.
 - For TasWater, contribute at the current contribution rate of 6.0% of salary, subject to annual review.

In addition, both of the Employers should also continue to contribute the amount of any contributions required under awards or other employment agreements and continue to forward contributions made by members.

Noting that the future financial position of the Fund may vary from the projected levels (for example as a result of higher or lower investment returns), we also recommend that the Trustee continues its practice of briefly reviewing the recommended contribution rates after 30 June each year, to confirm they remain appropriate. If the Fund's financial position is stronger than expected, it may be appropriate for the employers to pay lower contributions than those recommended above, while if the financial position significantly weakens it may be necessary to pay higher contributions.

The next full actuarial investigation of the Fund is due as at 30 June 2026. At that time, the level of Employer contributions will be reviewed again.

Appendix C Actuary's statement for the purposes of the superannuation industry (supervision) regulations

HCC Defined Benefits Fund

We have conducted an actuarial review of the HCC Defined Benefits Fund (the Fund) as at 30 June 2023. The review was based on 66 active members with annual superannuation salaries of approximately \$5,997,000. We have reviewed the data for reasonableness and we have no reason to believe the data used is not correct. In our opinion:

- The value of assets of the Fund was adequate to meet the liabilities of the Fund in respect of vested benefits as at 30 June 2023, with the result that the Fund was in a 'satisfactory financial position' as defined in the SIS Regulations.
- The value of the assets of the Fund was adequate to meet the value of the liabilities of the Fund in respect of the present value of accrued benefits as at 30 June 2023.
- Based on the assumptions used, and assuming the Employer contributes at the levels described below, the value of the assets will continue to be adequate to meet the value of the liabilities of the Fund in respect of vested benefits at all times during the period up to 30 June 2026. We therefore expect the Fund to remain in a 'satisfactory financial position' as defined in the SIS Regulations.

The Fund is used for Superannuation Guarantee purposes and is subject to the funding and solvency provisions of Division 9.3 of the SIS Regulations. All funding and solvency certificates required under Division 9.3 have been obtained for the period from the date of the last review to 30 June 2023 and we have issued a Funding and Solvency Certificate covering the period from 1 July 2023 to the next actuarial review.

We recommend that in future the Employers contribute as follows:

- For HCC, contribute at the current contribution rate of 9.5% of salary, subject to annual review.
- For TasWater, contribute at the current contribution rate of 6.0% of salary, subject to annual review.

In addition, both the Employers should also continue to contribute the amount of any contributions required under awards or other employment agreements and continue to forward contributions made by members.

Noting that the future financial position of the Fund may vary from the projected levels (for example as a result of higher or lower investment returns), we also recommend that the Trustee continues its practice of briefly reviewing the recommended contribution rates after 30 June each year, to confirm they remain appropriate. If the Fund's financial position is stronger than expected, it may be appropriate for the employers to pay lower contributions than those recommended above, while if the financial position significantly weakens it may be necessary to pay higher contributions.

The recommended Employer contribution rates will be reviewed again at the next full triennial actuarial investigation, due as at 30 June 2026 or sooner if appropriate.



Michael Berg
B Bus Sc MAppFin CFA FIAA

23 October 2023

Attachment C

Actuarial Review of the LCC Defined Benefits Fund

As at 30 June 2023

Prepared by:



Michael Berg
B Bus Sc MAppFin CFA FIAA

23 October 2023

Table of Contents

1.Executive summary	78
1.1 Results.....	78
1.2 Recommended contribution rates.....	79
2.Introduction	80
2.1 General	80
2.2 Governing rules and structure of fund	80
2.3 Name and capacity of actuary	80
2.4 Previous report	80
2.5 Significant events	81
2.6 Purpose of review	81
3.Fund experience	82
3.1 Data provided	82
3.2 Assets.....	84
3.3 Investment returns and salary increases.....	84
3.4 Expenses	84
3.5 Interest crediting rate.....	85
4.Financial position	86
4.1 Measures of solvency	86
4.2 Measures excluding accumulation accounts	87
4.3 Insurance Position.....	88
4.4 Method of determining equitable shares.....	89
5.Funding the benefits.....	91
5.1 General comments	91
5.2 Financing method	92
5.3 Assumptions	92
6.Employer contributions	94
6.1 Projection of funding indices	94
6.2 Launceston City Council.....	94
6.3 TasWater.....	95
6.4 Projection of funding position – all employers.....	96
6.5 Accumulation underpin	98

- 6.6 Shock analysis 99
- 6.7 Recommended employer contributions 99
- 6.8 Shortfall limits 100
- 6.9 Next actuarial review 100
- Appendix A Benefit summary 101
- Appendix B Summary of valuation basis 106
- Addendum 1 Summary of actuarial report 108
- Appendix C Actuary's statement for the purposes of the superannuation industry (supervision) regulations 109

23 October 2023

Mr Jason Murray
Chief Executive Officer
Spirit Super
GPO Box 1547
HOBART TAS 7001

Dear Jason

LCC defined benefits fund actuarial review as at 30 June 2023

We have carried out an actuarial review into the LCC Defined Benefits Fund (the Fund) using the member data and other information provided as at 30 June 2023 and set out the results of the review and our findings in this report.

1. Executive Summary

The actuarial review was carried out as part of the full triennial actuarial review into the defined benefit sub-funds of Spirit Super, as required under the Superannuation Industry (Supervision) Act 1993 and the associated Regulations. The main purpose of the actuarial review into the Fund is to review the rate of Employer contributions payable to the Fund.

1.1 Results

The actuarial review shows that:

- The value of Fund assets at 30 June 2023 was 6% more than the total of members' vested benefits. That is, the Fund had a Vested Benefits Index (VBI) of 106% (104% in 2020). Better than expected investment returns relative to salary increases over the past three years have been the main contributors to strengthening of the financial position.
- The VBI differs between the two sections, being 107% for the section relating to the LCC Council and 102% for TasWater.
- The coverage of defined benefit liabilities is stronger than shown by the VBI in isolation, as members aged over 55 receive the higher of the benefit on a formula based on service and final salary or an accumulation-type underpin, and the accumulation-type underpin is currently more valuable for a significant part of the membership. Based on the assets and member profile as at 30 June 2023, the Fund could absorb a 20% decline in investment values without the VBI falling below 100%, although the TasWater VBI would fall below 100% in this scenario.

- We performed separate future contribution rate calculations for the Launceston City Council and TasWater members (previously Ben Lomond Water and Onstream). These projections indicated an average cost of future accruing benefits of 8.5% of salary for LCC and 6.7% for Taswater, the slightly different costs arising from a slightly different mix of ages and members in each benefit category.
- Projections of the VBI for the Fund, assuming an investment return of 4.50% per annum (p.a.) in combination with salary increases of 3.50% p.a. and a continuation of current contribution rates, showed the VBI projected to increase over time assuming that current contribution rates continue. This is partly a function of the surplus likely becoming a larger percentage of the remaining liabilities as members exit, although this depends on future experience especially investment returns relative to salaries.

1.2 Recommended contribution rates

- Taking account of the calculated employer cost of future accruing benefits, differences in current financial positions and the current and projected levels of the funding indices under the investment return scenarios considered in this report, we recommend that the employers contribute at the following rates:
 - For Launceston City Council, 11.0% of salary.
 - For TasWater, 12.0% of salary from 1 July 2024. This is a reduction from 14.5% currently being contributed, which should continue until 30 June 2024.

Noting that the future financial position of the Fund may vary from the projected levels (for example as a result of higher or lower investment returns), we also recommend that the Trustee continue to review the recommended contribution rates after 30 June each year, to confirm they remain appropriate. If the Fund's financial position is stronger than expected, it may be appropriate for the employers to pay lower contributions than those recommended above or to reduce investment risk further while maintaining employer contributions at the same level. If the financial position weakens significantly it may be necessary to pay higher contributions.

- In addition, the Employers should continue to contribute:
 - Contributions to defined benefit members' accumulation accounts under the Employer's Enterprise Agreement (currently 6% of salary), for those permanent employees who have these contributions paid to this Fund.
 - Member contributions as required under the Fund's rules for defined benefit members, whether from after-tax salary, by salary sacrifice or deemed contributions (grossed up for contributions tax where appropriate).
 - Contributions in accordance with the Enterprise Agreement (currently 12% of salary) in respect of those temporary and casual employees who have these contributions paid to accumulation accounts in this Fund.
 - Any voluntary member or Employer contributions.

2. Introduction

2.1 General

The purpose of this report is to present the results of the actuarial review of the LCC Defined Benefits Fund as at 30 June 2023. The Fund is a sub-fund of Spirit Super.

This report is provided for the Trustee of Spirit Super. We understand that other recipients of this report will be the Launceston City Council (the Council), TasWater (previously Ben Lomond Water and Onstream), and the Fund's Policy Committee. Where this report is provided to these and other third parties, it should be provided in its entirety.

The review of the Fund is part of a full actuarial review of Spirit Super in accordance with the Trust Deed of Spirit Super and meets the requirements of the Superannuation Industry (Supervision) Act 1993 and the associated Regulations, which require actuarial investigations to be carried out at least once every three years.

We have prepared this report in accordance with Professional Standard 400 of the Institute of Actuaries of Australia relating to the actuarial review of defined benefit superannuation funds. We have also considered the requirements of Prudential Standard SPS 160 *Defined Benefit Matters*.

2.2 Governing rules and structure of fund

Spirit Super is a resident regulated fund and a complying fund for the purposes of the Superannuation Industry (Supervision) Act 1993. Provided it continues to comply with the relevant legislation, Spirit Super is eligible for concessional tax treatment.

The Fund is a defined benefit sub-fund of Spirit Super and provides lump sum benefits to members. The Fund is now closed to new members.

A summary of the Fund's main benefit provisions is set out in Appendix A of this report. For full details of the Fund's benefits, reference should be made to Spirit Super's Trust Deed and the Fund's governing rules.

2.3 Name and capacity of actuary

This review has been undertaken by Michael Berg B Bus Sc MAppFin CFAA FIAA in his capacity as an employee of Deloitte.

2.4 Previous report

The previous actuarial review of the Fund as at 30 June 2020 was carried out by Michael Berg of Rice Warner, and was dated 6 November 2020.

The previous full triennial actuarial investigation as at 30 June 2020 showed that the Fund was in a sound financial position with the assets exceeding the total of members' vested benefits by 6% (VBI = 106%) at that date. The recommended employer contributions were:

- Launceston City Council: 11% of salaries
- TasWater: 14.5% of salaries.

In addition, the employers were to continue to contribute the amount of any contributions required under awards or other employment agreements and continue to forward contributions made by members.

2.5 Significant events

We are not aware of any significant events that have occurred between 30 June 2020 and 30 June 2023, or since 30 June 2023, that we have not already taken into account, which would have a material impact on the recommendations in this report.

2.6 Purpose of review

The purposes of this actuarial review are to:

- assess the financial position of the Fund
- recommend an appropriate level of Employer contributions for the future
- satisfy the requirements of the Trust Deed
- meet the legislative requirements.

3. Fund experience

3.1 Data provided

Spirit Super administrators provided us with the following information:

- membership details for the Fund as at 30 June 2023.
- Salary histories of members for the past four annual review dates.
- details of Assets for each sub-fund as at 30 June 2023.
- information about investment returns after 1 July 2023.

The Fund currently has five defined benefit categories (Categories A to E). A summary of the membership data provided as at 30 June 2023 is set out in Table 1.

Table 1. Summary of the membership data provided

Category	30/06/2023		30/06/2020	
	Number	Salaries (\$)	Number	Salaries (\$)
A	0	-	1	93,307
B	0	-	0	-
C	9	667,335	18	1,159,291
D	2	138,624	2	124,429
E	121	9,799,135	180	13,111,195
Total	132	10,605,094	201	14,488,222

The membership has decreased by 69 (about 34%) over the three years since the last review.

The average rate of salary increase for defined benefit members over the three-year period was 4.0% p.a. The salary increase assumption made in the previous actuarial review was 2.75% p.a.

Graph 1 shows the number of defined benefit members in the different age bands at 30 June 2023.

Graph 1. Number of defined benefit members in the different age bands

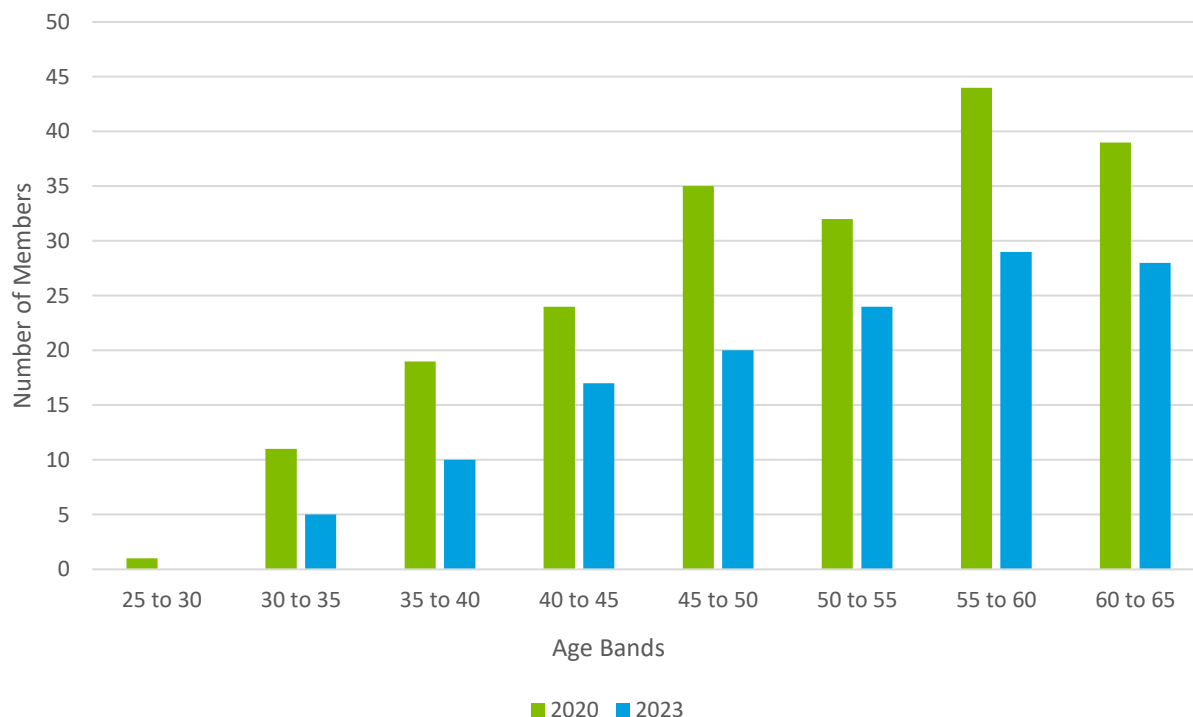


Table 2 shows average age and membership statistics by membership category at the current and previous actuarial review dates. The membership profile has continued to mature, in line with the employers not admitting new members to the Fund.

Table 2. Average age and membership statistics by membership category at the current and previous actuarial review dates

Category	30/06/2023		30/06/2020	
	Average Age	Average Membership	Average Age	Average Membership
A	-	-	64.4	36.9
B	-	-	-	-
C	58.1	33.20	57.2	30.5
D	56.7	36.90	53.7	33.9
E	51.0	18.49	50.1	15.7
DB Members	51.6	19.83	50.9	17.4

- The average age of the members at 30 June 2023 was 51.6 years, an increase of 0.7 years from the previous review.
- 43% of members were aged 55 or over and were therefore eligible for retirement benefits with the consent of their employer.
- 39% of members were under the age of 50.

The weighted average term of the liabilities at the effective date was 9.7 years (8.0 years last review).

3.2 Assets

The market value of the net assets as at 30 June 2023, advised by Spirit Super personnel, was approximately \$57,661,000. We have taken this amount to be the value of assets available to support the Fund's liabilities.

The Fund is invested in a range of asset classes with total target weightings to growth assets of slightly over 70%. Taking into account the potential for partial de-risking of the investments, we have based the investment return assumption on a more defensive investment strategy which Spirit Super operates with another defined benefit sub-sub, with a target weighting in growth assets of slightly over 50% and a target return of CPI plus 2% p.a. over ten years. We consider both of these investment strategies to be within the range of alternatives suitable to support the liabilities of the Fund.

We recommend that the specific asset allocations be kept under review as the age profile of the Fund continues to increase.

3.3 Investment returns and salary increases

The average return on the Fund's assets over the three years to 30 June 2023 was 8.1% p.a. (net of investment management expenses and tax, but not allowing for any Fund management or operational expenses deducted to determine the crediting rates). This was higher than the return of 4.5% assumed in the previous actuarial review. However, salary increases averaged 4.0% p.a. compared with the 2.75% p.a. assumed in the 2020 actuarial investigation. The margin between Investment returns and salary increases was therefore 4.1% p.a. which was more favourable than the 1.75% p.a. assumed in the 2020 actuarial investigation.

Investment returns from 30 June 2023 to 5 October 2023 have had a slightly negative effect on the Fund's financial position. The crediting rate from 30 June 2023 to 5 October 2023 was -0.76%, resulting in the financial position of the Fund worsening slightly although not to an extent that would materially change our conclusions nor change our recommendations.

3.4 Expenses

The total of administration and other expenses net of reimbursements from the employer which are used in setting the crediting rate for the 2023/2024 financial year was equal to 0.56% p.a. of assets. The corresponding expenses in the two preceding years were 0.59% and 0.24%. The average of the annual rates of expense is approximately the allowance for expenses of this nature of 0.45% assumed at the previous review. This experience will have had slightly beneficial impact on the financial position of the Fund.

We have allowed for a deduction from the Fund's assumed investment return at 1.25% p.a. in all future years partly offset by an allowance of 0.80% p.a. which is assumed to be reimbursable by the employers. Therefore, the reduction in the crediting rate assumed to be applied to members' benefits is 0.45% p.a.

3.5 Interest crediting rate

The crediting rate is based on the investment return on the Fund's assets, adjusted for fees and taxes in accordance with the crediting rate policy adopted by the Trustee.

4. Financial position

4.1 Measures of solvency

There are a number of ways to measure the financial position of the Fund at the review date. We have adopted the following measures which are compared to the value of the Fund's assets:

Vested Benefits: The benefits to which members would have been entitled had they voluntarily left service as at 30 June 2023.

Accrued Retirement Benefits: A member's Accrued Retirement Benefit (ARB) is calculated as:

$$\frac{\text{Accrued Benefit Multiple at the valuation date}}{\text{times}} \times \frac{\text{Final Average Salary as the valuation date}}{\text{plus}}$$

the member's additional accumulation accounts.

The ARB is also subject to a minimum of the vested benefit.

Present Value of Accrued Benefits: The present value of that part of members' future expected benefit entitlements which have accrued up to 30 June 2023. This figure is an actuarial estimate, and represents the estimate of the accrued liabilities of the Fund as at 30 June 2023. The additional accumulation accounts are included at their face values as at 30 June 2023.

Minimum Requisite Benefits (MRBs): The minimum benefit required to be made available to employees in order that the Employer satisfies its superannuation guarantee obligations. If the assets fall below this figure, the Fund is regarded as 'technically insolvent'.

In each case, we have calculated an index by dividing the value of assets by the total of the relevant measure for all members. Table 3 compares these indices at the current review to those calculated at 30 June 2023. The figures include allowance for additional benefits of an accumulation nature.

Table 3. Comparison of Indices at the current review to those calculated 30 June 2023

LCC Consolidated	30/06/2023 Assets = \$57,661,000		30/06/2020 Assets = \$63,021,000	
	Total of Measure (\$'000)	Index (%)	Total of Measure (\$'000)	Index (%)
Vested Benefits	54,413	106	60,603	104
Accrued Retirement Benefits	57,846	100	61,908	102
Present Value of Accrued Benefits	51,861	111	59,069	107
MRBs	43,953	131	48,481	130

Our comments on the individual indices are:

- The vested benefits remain covered as at 30 June 2023.
- The financial position relative to the present value of accrued benefits has improved over the period from 2020 to 2023. With an index of 113%, the current financial position is sound.
- The MRBs are well covered as they were as at 30 June 2023.

Table 4 shows the indices in respect of each Employer.

Table 4. Indices in respect of each Employer

Employer	LCC 30/06/2023 Assets = \$45,478,000		TasWater 30/06/2023 Assets = \$12,183,000	
	Total of Measure (\$'000)	Index %	Total of Measure (\$'000)	Index (%)
Vested Benefits	42,487	106	11,925	102
Accrued Retirement Benefits	44,180	103	13,666	89
Present Value of Accrued Benefits	40,297	113	11,564	105
MRBs	33,888	134	10,066	121

4.2 Measures excluding accumulation accounts

Accumulation benefits are usually treated as being fully vested in the members and hence should be regarded as fully funded already. When considering the position of the Fund, it is instructive to reduce the value of the assets for any accumulation benefits and compare this figure to the liabilities in respect of the defined benefits only.

The funding indices excluding accumulation accounts at 30 June 2023 are shown in Table 5.

Table 5. Funding indices excluding accumulation accounts

Measure	LCC Consolidated Index	LCC Index	TasWater Index
	(%)		
Vested Benefits	109	111	103
Accrued Retirement Benefits	100	105	85
Present Value of Accrued Benefits	118	122	108
MRBs	158	166	133

4.3 Insurance Position

The Fund is protected against adverse death and disablement experience by means of group life insurance arrangements covering the lump sum death and total

permanent disability (TPD) risks.

Table 6 compares the Fund's asset value and the sums insured as at 30 June 2023 to the total lump sum death and disability benefits. It shows that the Fund's insurance arrangements are sufficient to cover the total death and TPD benefits.

Table 6. Fund's asset value and the sums insured as at 30 June 2023 to the total lump sum death and disability benefits

LCC Defined Benefit Fund	Death Benefits	TPD Benefits
Consolidated	(\$'000)	
Value of Assets	57,661	57,661
Sums Insured	21,343	21,343
Total Assets plus insurance	79,005	79,005
Total Death and TPD Benefits	75,868	75,868
Excess/(Shortfall)	3,137	3,137
Excess as % Total Death/TPD Benefits	4.1%	4.1%

For a defined benefit fund, it is normal that the value of the assets plus the value of the sums insured does not exactly equal the total death and TPD benefits. There will generally be a small excess or shortfall, which varies in line with movements in the Fund's assets. In our view, the excess above is not unreasonable in this context.

4.4 Method of determining equitable shares

If a defined benefit member leaves an Employer's service as a result of retrenchment, 'Reorganisation' (as defined in the Fund's trust deed), chronic ill health or cessation of contract, and the member is not entitled to an Early Retirement Benefit, then 'the Trustee will pay a lump sum equal to the amount calculated by the Trustee after obtaining the Actuary's advice as being the Member's equitable share of Spirit Super if he or she remained in Service'.

The Trustee of the City of Launceston Employees Superannuation Fund (which moved into Spirit Super via a series of Successor Fund Transfers) received actuarial advice in 2002 to the effect that a member's 'equitable share' in the above circumstances should be determined as the greater of the member's Early Retirement Benefit and the Leaving Service Benefit. This recommendation was made when Accrued Retirement Benefit Index (ARBI) was in excess of 100% and was expected to remain so.

In the actuarial reviews as at 30 June 2017 and 2020, taking into account the funding position at the time, it was recommended that the equitable share be determined as:

- The member's early retirement benefit determined in accordance with Clause G6.2(a) of the Fund's Trust Deed at the date of leaving service (if the member satisfies the requirements of that clause).
- The member's leaving service benefit determined in accordance with Clause G6.5(a).

That is, it was recommended that the equitable share to be determined as:

- The usual early retirement benefit (if the member is over early retirement age).
- The usual resignation benefit (if the member is under early retirement age).

While the ARBI for LCC had improved to slightly over 100% as at 30 June 2023, this does not provide any substantial cushion against fluctuations in the market value of the assets. In addition, we note that the ARBI for the LCC TasWater section was 89% at 30 June 2023. In our view it is appropriate to maintain the previous recommendation and again determine the equitable share as:

- The usual early retirement benefit (if the member is over early retirement age).
- The usual resignation benefit (if the member is under early retirement age).

However, in any particular case or in general, it is our view that the Trustee could agree to pay an equitable share on the previous basis if it receives additional contributions from the Employer to fund the higher benefits, when a member leaves the Fund. Generally, the additional contribution required would be the amount (if any) by which the equitable share exceeded the usual leaving service or early retirement benefit, grossed up for contributions tax.

We will again review the method of determining the equitable share under Clause G6.2(b) as part of any actuarial review of the Fund or if the Fund's financial position improves sufficiently that the ARBI significantly exceeds 100% or if the financial position of the Fund significantly weakens.

If a material group of members leaves the Fund in circumstances where equitable shares are relevant, the interpretation of equitable share should also be reviewed to ensure it remains appropriate.

For example, it would be reasonable for the Trustee to take into account the Fund's financial position at that time.

5. Funding the benefits

5.1 General comments

For this review, we have applied the Aggregate Funding method, subject to adjustment where needed to meet funding requirements over intermediate periods. This method determines a single contribution rate, for each sub-fund (or each benefit category within each sub-fund), which is the contribution rate required to fund the total benefits for existing employees, allowing for the assets actually held, but ignoring new entrants. It is calculated as the present value of all benefits expected to be payable to existing members, less the value of the assets held and the present value of future contributions by current members, divided by the present value of all future salaries of the existing members. The projected funding position over the following 10 years is then considered so that adjustments can be made if needed to manage the risk of the Fund falling into an unsatisfactory financial position over this period.

Over the life of the Fund, the ultimate cost to the Employers of providing the benefits will be equal to:

the amount of benefits paid out
plus
the expenses of running the Fund including tax
less
members' contributions and the
return on investments.

The cost of providing the benefits will depend on the Fund's experience in relation to:

- Economic factors such as the investment return obtained on the Fund's assets and the rates at which the salaries increase.
- Factors influencing membership turnover such as mortality and disability, resignation and retirement.

The valuation process involves making assumptions about the likely levels of the above factors in the future. Using these assumptions, we can project the expected future cash flows and benefits for the current members of the Fund. By discounting these cash flows, we derive a present value for the liabilities which we can compare to the value of the current assets.

The ultimate cost to the Councils will depend primarily on the actual experience of the Fund. The financing method and the actuarial assumptions will however affect the timing of the cost to the Employer.

5.2 Financing method

In view of LCC excluding TasWater having a modest surplus relative to both vested benefits and the present value of accrued benefits, we recommend that the contribution rate continue at its current rate of 11% of salaries. For TasWater we recommend reducing the current contribution rate of 14.5% to 12% of salaries with effect from 1 July 2024.

The contribution rate adjusted for surplus/deficit indicates the level of contribution required when surplus/deficits are taken into account and assumptions on which the calculations are based are as expected. If the future investment returns are lower than expected, the surplus (if there is any) will be depleted and this level of contribution will not be sufficient.

The stability of the Employers' contributions over time will depend on how closely the Fund's actual experience matches the expected experience. If the actual experience differs from that expected, the Employers' contribution rates may need to be adjusted accordingly to ensure the Fund remains on course towards its target of financing members' benefits.

5.3 Assumptions

Taking into account the long-term experience of superannuation funds with investment strategies that are similar to that adopted for this Fund, we have adopted a long-term assumption of 4.50% p.a. for investment returns (net of investment expenses and taxes on investment earnings, but not allowing for any Fund management or operational expenses deducted to determine the crediting rates).

However, to assess the sensitivity of the results to alternative investment market conditions in the short term, we have considered the three alternative scenarios in Table 7.

Table 7. Alternative scenarios

Scenario	2023/24 to 2032/33 (% p.a.)
Unfavourable	2.50
Medium	4.50
Favourable	6.50

We have assumed salary increases of 2.75% p.a., inclusive of promotional increases.

The long-term investment central return assumption and the salary growth assumption are different to those adopted for the 2020 actuarial review and therefore the assumed real rate of return assumption decreased from 2.0% p.a. to 1.0% p.a. (before expenses). The alternative scenarios have been taken as long-term scenarios in this review as opposed to the medium-term assumption used in 2020.

In addition, the Unfavourable and Favourable scenarios have been selected to illustrate the impact of a period of under or over performance of the Fund's investments. Relative to the Medium scenario, the Unfavourable scenario assumes underperformance of 1% p.a., while the Favourable scenario assumes out-performance of 1% p.a.

The crediting rate applied to Defined Benefit or Accelerated Benefit accounts uses an annual unsmoothed rate. The interest credited to members' accounts will be equal to the investment return (after adjustment for the administration fees borne by members).

The decrement rates used in this review are the same as the ones used in the previous review as at 30 June 2020 in respect of retirement and resignation. A table of death and TPD rates, similar to those applied at the previous valuation, has been adopted.

Appendix A (Benefits summary) sets out the valuation basis in more detail.

6. Employer contributions

6.1 Projection of funding indices

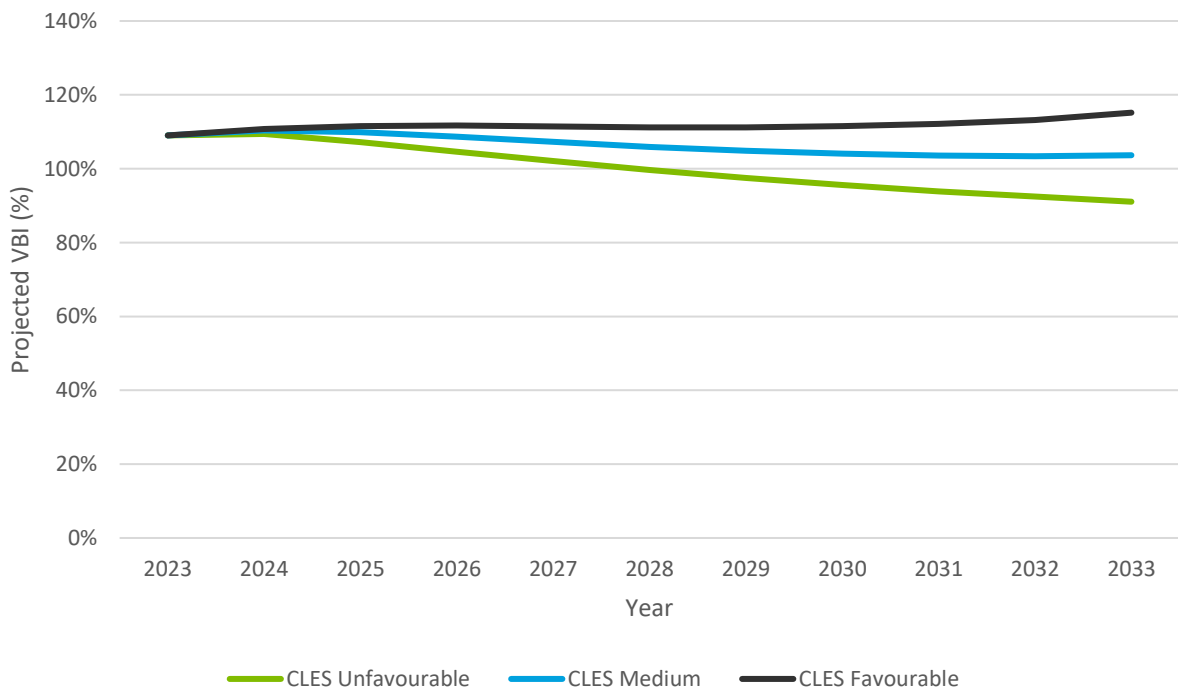
For this review, we have projected the VBI in respect of Launceston City Council members separately from the VBI of TasWater members. This approach is possible because Spirit Super’s administrator has been recording two separate asset sub-pools, one in respect of Launceston City Council and one in respect of TasWater, since the relevant employees were transferred on 1 July 2009.

Using these separate assets values as a base, we used VBI projections to test and fine-tune the contribution rates derived from applying the aggregate funding method for each Employer section of the Fund.

6.2 Launceston City Council

Graph 2 shows the projected level of the VBI (including member’s accumulation accounts) over the next 10 years, assuming that the Council continues to contribute at the current rate of 11% of members’ salaries.

Graph 2. Projected level of VBI over the next 10 years, assuming LCC contributes 11.0% of members salaries



The projected VBI is clearly dependent on investment returns. Under the Medium return scenario of 4.50% p.a. in combination with salary increases of 3.50% p.a., the VBI will continue to strengthen. Lower investment returns that are on average 2.50% p.a. and exceed salary increases by 1% p.a. over

the next three years will not lead to the VBI falling below 100%. Conversely, higher investment returns could lead to strengthening of the VBI.

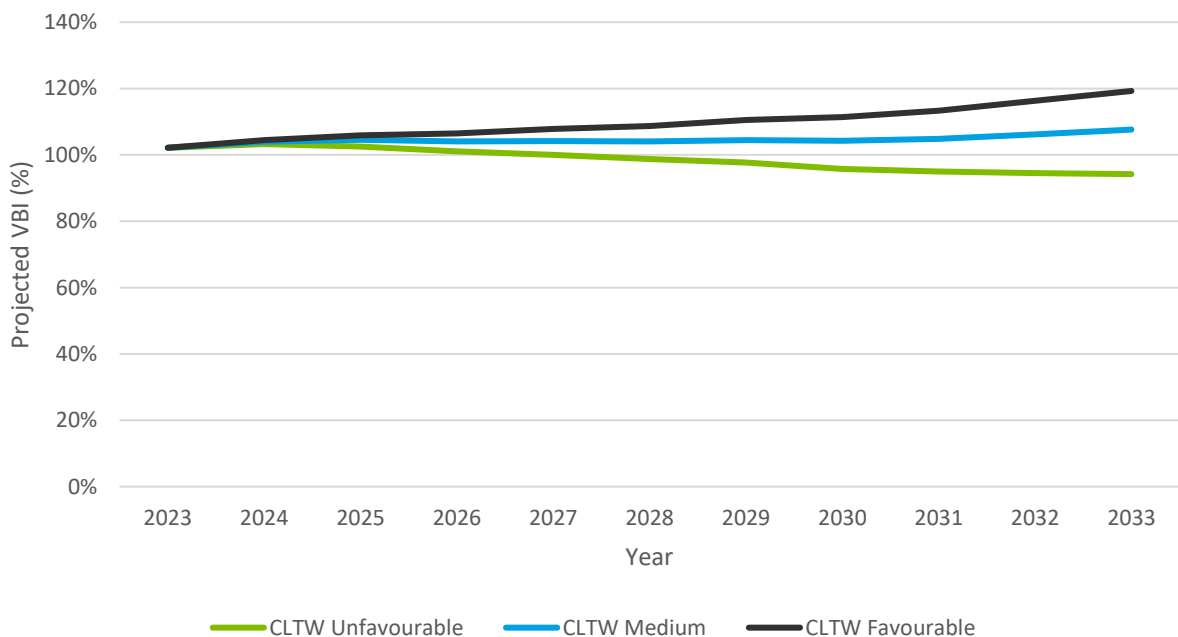
A distinctive pattern to note for LCC is that the difference in VBIs between the Medium and Favourable scenarios is relatively modest. This is driven by the accumulation underpins tending to be more valuable for the members in these scenarios, with the results that further additions to investment returns would be largely (although not entirely) matched by increases in members’ vested benefits.

Taking account of the calculated employer cost of future accruing benefits and the current state of world investment markets, we recommend that the LCC continues to contribute at the current contribution rate of 11.0% of salary.

6.3 TasWater

Graph 3 shows the projected level of the VBI over the next 10 years, assuming that TasWater contributes at the proposed rate of 12.0% of members’ salaries.

Graph 3. Projected level of VBI over the next 10 years, assuming TasWater contributes 12.0% of members salaries



The projection indicates that the proposed contribution rate of 12.0% p.a. will continue to improve the VBI.

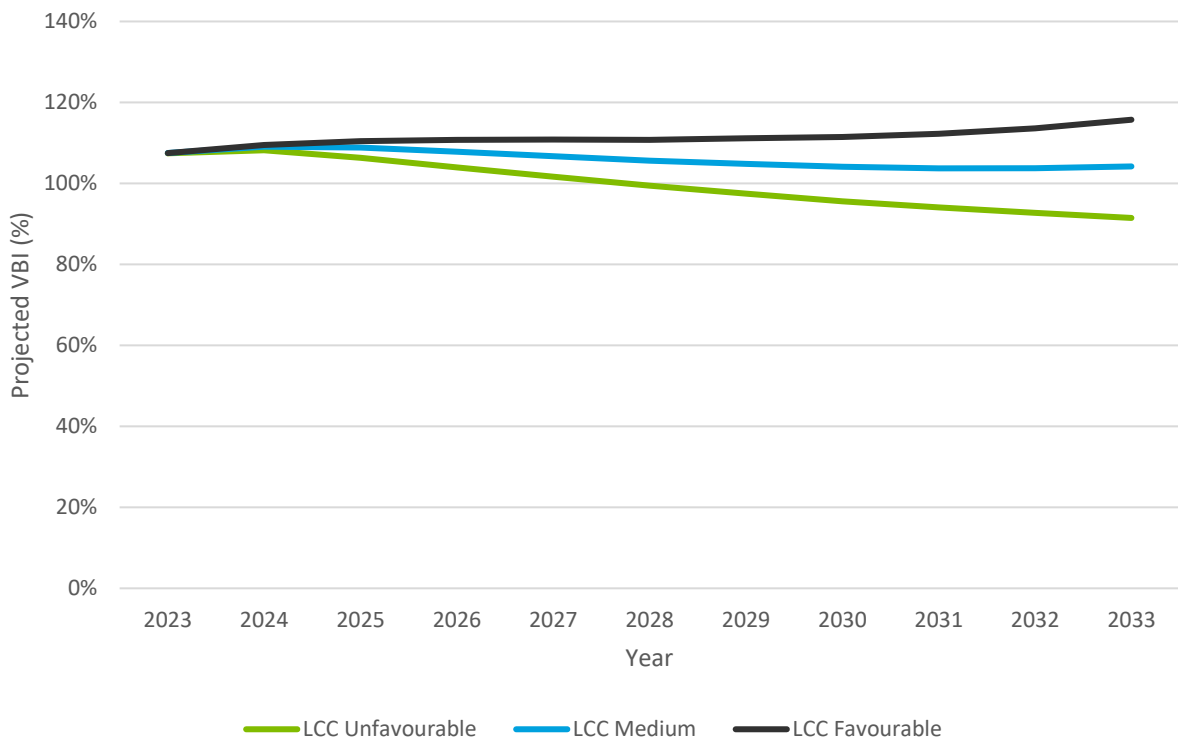
Similarly, to LCC, the projected VBI in the Favourable scenario is similar to the Medium scenario as the LCC-TasWater members’ benefits would be mainly driven by the accumulation underpin in both of these scenarios.

We recommend reducing the contribution rate for LCC TasWater from 14.5% of salaries to 12.0% of salaries with effect from 1 July 2024. This reduction reflects a modest safety margin having been built up in the LCC TasWater section.

6.4 Projection of funding position – all employers

Graph 4 illustrates the projected VBI for all employees, assuming future employer contributions remain unchanged. The projected VBI is shown for each of the three investment return scenarios (Unfavourable, Medium and Favourable) discussed in Section 5.3 (Assumptions).

Graph 4. Projected VBI for all employees



We note that the progression of the VBI clearly depends on the level of investment returns assumed. The projections suggest that if an investment return of 4.50% p.a. is maintained in combination with salary increases of 3.50% p.a. (as assumed in the Medium scenario), the VBI is projected to gradually increase over the years. Note the three assumed investment returns are used in combination with assumed salary growth of 3.50% p.a. and the key driver of future experience is the difference between investment returns and salary growth. For example, if investment returns were to fall short of expectations by 1% p.a. but this is matched by salaries growing by 1% p.a. less than expected, then the Medium scenario would still apply.

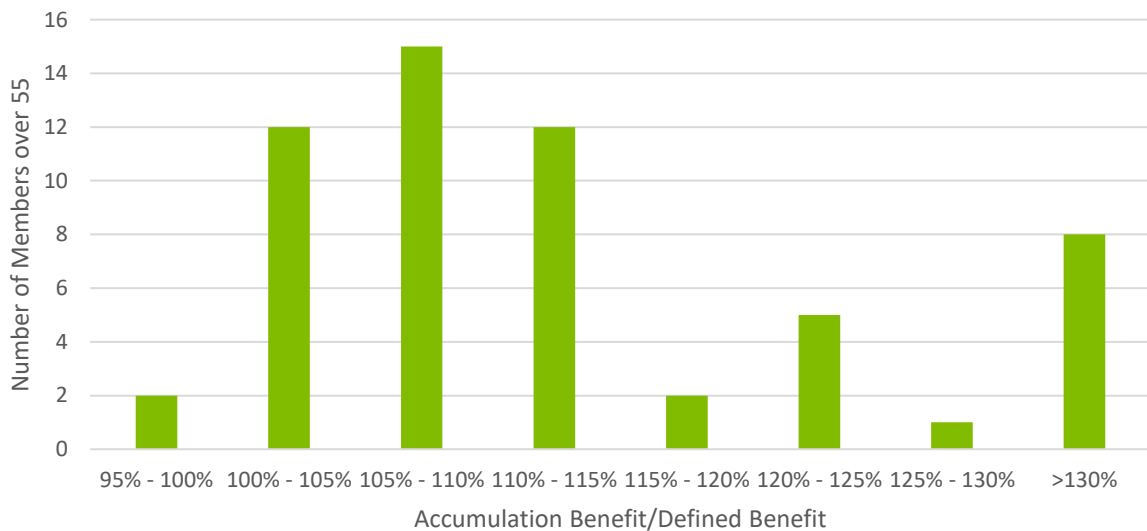
Lower investment returns that are on average 2.50% p.a., with salary exceeding it by 1% over the next ten years are not projected to cause the VBI to fall below 100% over the next 10 years. Conversely, investment returns higher than 6.50% could lead to a strengthening of the VBI.

The projection does not allow the flow of new entrants into the Fund, consistent with neither employer admitting new members.

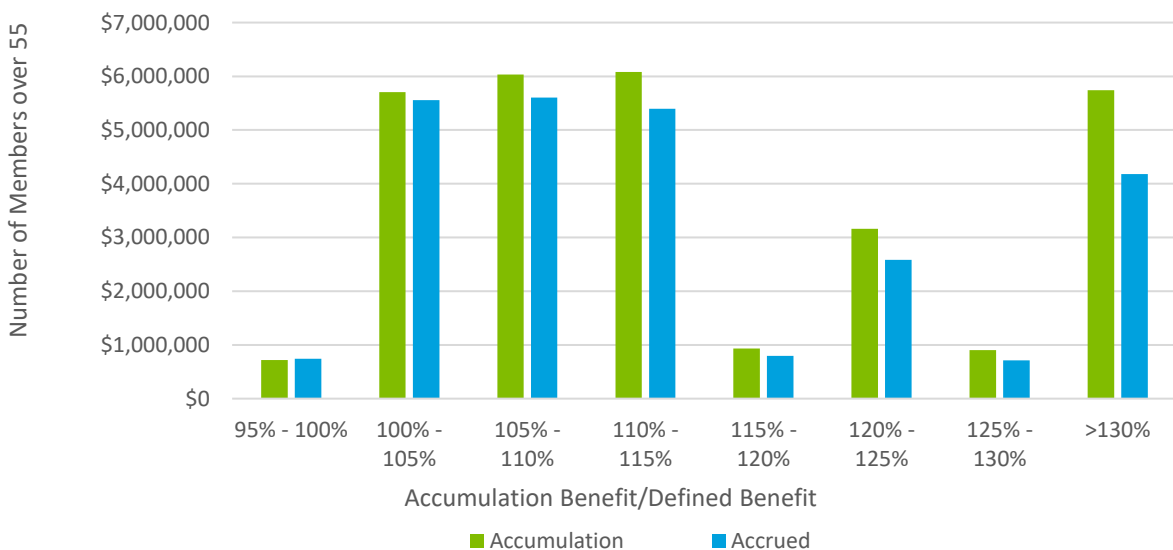
6.5 Accumulation underpin

As a result of strong investment performance over the past years, a significant proportion of members over age 55 have their benefits higher than their defined benefit because of the accumulation underpin. Graph 5 and Graph 6 illustrates the distribution of the number of members having accumulation benefit versus defined benefit over age 55.

Graph 5. Relative accumulation-type and DB benefits as at 30 June 2023 by number of members aged 55+



Graph 6. Relative accumulation-type and DB benefits, members aged 55+ as at 30 June 2023, by amounts

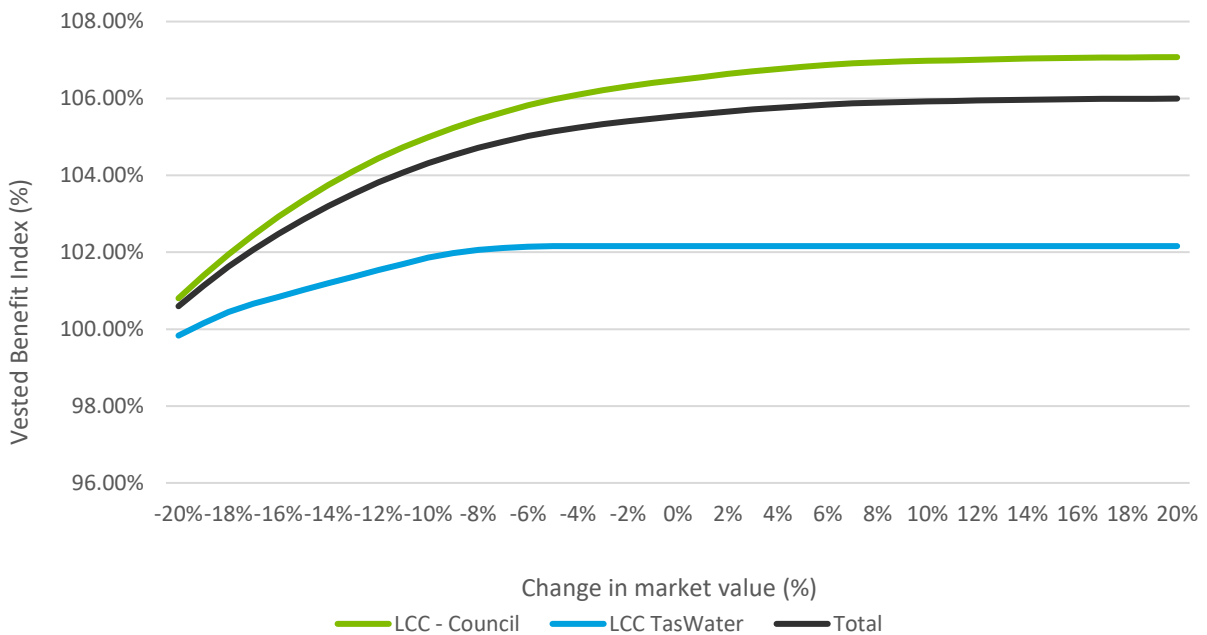


We note that there is a significant number of members having accumulation benefit higher than, or very close to, the defined benefit entitlement. As a result, better than expected investment performance will have limited impact on the projected future VBI as noted above.

6.6 Shock analysis

Graph 7 shows the impact on the VBI as at 30 June 2023 if an immediate investment shock were to occur. Graph 7 shows the fund could absorb a 20% decline in asset values as at 30 June 2023 before the VBI fell below 100%, due to some of the decline reducing the margin between accumulation-type benefits and the benefit on the standard formula based on final salary and length of service. Similarly, the scope for additional returns to increase the VBI is constrained by much of the additional investment returns likely going to increase benefits instead of increasing the difference between the asset values and the vested benefits. Additionally, due to the accumulation underpin of the fund, as the market value of assets increase, the accumulation benefit of members tends to exceed their defined benefits.

Graph 7. VBI change due to investment shock as at 30 June 2023



6.7 Recommended employer contributions

Taking account of the calculated employer cost of future accruing benefits, the current and projected levels of the funding indices under the investment return scenarios considered in this report, we recommend:

- For Launceston City Council, contribute at the current contribution rate of 11.0% of salary.
- For TasWater, contribute at the contribution rate of 14.5% of salary until 30 June 2024 and then at the reduced rate of 12.0% of salary with effect from 1 July 2024.

In addition, the Employers should continue to contribute:

- Contributions to defined benefit members' accumulation accounts under the Employer's Enterprise Agreement (currently 6% of salary), for those permanent employees who have these contributions paid to this Fund.
- Member contributions as required under the Fund's rules for defined benefit members, whether from after-tax salary, by salary sacrifice or deemed contributions (grossed up for contributions tax where appropriate).
- Contributions in accordance with the Enterprise Agreement (currently 12% of salary) in respect of those temporary and casual employees who have these contributions paid to accumulation accounts in this Fund.
- Any voluntary member or Employer contributions.

Finally, we note the comment in the previous actuarial review report that the basis for determining the 'equitable share', payable to retrenched members, may need to be varied in future from time-to-time, to ensure that it remains appropriate.

6.8 Shortfall limits

For the purposes of APRA's Superannuation Prudential Standard 160 *Defined Benefit Matters* a shortfall limit is the extent to which an RSE licensee considers that a fund can be in an unsatisfactory financial position with the RSE licensee still being able to reasonably expect that, because of corrections to temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year. This means that an actuarial investigation need not necessarily be brought forward if the VBI declines to below 100% but remains above the shortfall limit.

The current shortfall limit for the Fund, expressed in terms of assets as a percentage of vested benefits, is 98%.

6.9 Next actuarial review

The next full triennial actuarial investigation into the Fund should be conducted with an effective date no later than 30 June 2026, as required under the SIS Regulations.

Yours sincerely,



Michael Berg
B Bus Sc MAppFin CFA FIAA

23 October 2023

Appendix A Benefit summary

Full details of the benefit provisions of the Fund are contained in the trust deed of Spirit Super. A summary of the main provisions is set out below.

Membership

There are six categories of Fund membership – Categories A, B, C, D and E in the Defined Benefit Section and Category F in the Accumulation Section. Eligibility for the various categories is as follows:

<i>Category</i>	<i>Description</i>
A	Male member whose Date of Admission to the Fund was prior to 26 August 1985 and who is not a Category C member.
B	Female member whose Date of Admission to the Fund was prior to 26 August 1985 and who is not a Category D member.
C	<ul style="list-style-type: none"> ▪ Female members whose Date of Admission to the Fund was after 30 June 1989 and prior to 1 July 1993. ▪ Male members whose Date of Admission to the Fund was prior to 26 August 1985 and who elected prior to 23 January 1986 to make contributions to the Fund equal to 6% of their salary. ▪ Male members whose Date of Admission to the Fund was after 25 August 1985 and prior to 1 July 1993. <p>who did not transfer to Category E.</p>
D	<ul style="list-style-type: none"> ▪ female members whose Date of Admission to the Fund was after 25 August 1985 and prior to 1 July 1989. ▪ female members whose Date of Admission to the Fund was prior to 26 August 1985 and who elected prior to 23 January 1986 to make contributions to the Fund equal to 6% of their salary. <p>who did not transfer to Category E.</p>

E	<ul style="list-style-type: none">all Defined Benefit members whose Date of Admission to the Fund or the Fund is after 30 June 1993.category C or D members who elected to transfer to Category E.
F	Accumulation Section members.

Categories A, B, C and D are closed to new entrants and there are no remaining Category B members.

Definitions

Final Average Salary (FAS)

For Category A, B, C and D members, FAS is the salary at the date of retirement.

For Category E members, FAS is calculated as the annual average salary received by the member in the two years immediately preceding retirement.

Normal Retirement Date

The member's 65th birthday.

Eligible Service

The period of Service as a Member of the Fund (and any previous fund) calculated in years and complete months.

Schedule A Account

The accumulation of the Retirement Allowance transferred to the Fund from the City of Launceston Voluntary Retirements Fund with interest at the Fund Earning Rate.

Accumulated Credit

The accumulation of any rollovers, Superannuation Guarantee or Award contributions and Member or Voluntary Council contributions (excluding the Schedule A Account) paid by (or in respect of) the member to the Fund and the Fund with interest at the Fund Earning Rate.

Contributions

Member Contributions

Defined Benefit Section - The Members contribute at:

- 5% of Salary for Category A and B members
- 6% of Salary for Category C, D and E members (for a maximum of 44 years of Eligible Service).

Some members' contributions are paid by the Employers but are deemed to be paid by the member. Accumulation Section. Category F members are not required to contribute.

All members may make additional voluntary contributions.

Employer Contributions

The Employers makes allocated contributions in respect of most members under either Superannuation Guarantee or Award requirements. The Employers may also make additional voluntary contributions.

The Employers also contributes the balance required to meet the cost of the defined benefits that are not allocated to individual members but are applied as required to provide benefits. The actual cost will depend on the end benefit paid to the member, and the financial experience of the Fund.

Benefits for defined benefit section

Normal retirement benefit

A benefit is payable to a Member upon retirement at the Normal Retirement Date of a lump sum equal to the sum of:

- Accrual Rate multiplied by Eligible Service multiplied by Final Average Salary.
- The Schedule A Account (if any).

The Accrual Rate is 15.5% for Categories A, B, C and D and 16.5% for Category E. This benefit is subject to a minimum of the Resignation Benefit.

Early retirement benefit

All members may retire, with the consent of the Employer, at any time within 10 years of the Normal Retirement Date. Female members whose Date of Admission is prior to 1 July 1989 may also retire, with the consent of the Employer, within 15 years of their Normal Retirement Date.

The benefit is calculated as:

- Accrual Rate multiplied by Eligible Service multiplied by Final Average Salary, plus
- The Schedule A Account (if any), less

- For Category A and B members only, Accrual Rate multiplied by the period from the date of actual retirement to the Normal Retirement Date multiplied by Final Average Salary.

The Accrual Rate is 15.5% for Categories A, B, C and D and 16.5% for Category E. This benefit is subject to a minimum of the Resignation Benefit.

Late retirement benefit

If a member retires after his Normal Retirement Date, the benefit payable is the benefit which would have been payable had he retired on his Normal Retirement Date, plus interest at the Fund Earning Rate to the date of late retirement.

Pension option

Spirit Super does not provide a defined benefit Pension option to its members.

Death benefit

On the death of a member prior to Normal Retirement, the amount payable is the normal retirement benefit that would have been payable had the member remained in Service of the Employer with unaltered Salary until Normal Retirement Date. This benefit is subject to a minimum of the Resignation Benefit.

Disablement benefit

On Total and Permanent Disablement, the amount payable is equal to the death benefit.

Resignation benefit

Upon resignation, the benefit payable is equal to a return of the member's contributions together with interest at the Fund Earning Rate increased by 100%.

The benefit may be increased to an amount not exceeding the Early Retirement benefit.

Retrenchment benefit

The Trust Deed provides that on retrenchment members are entitled to the Member's equitable share of the Fund.

Member's accumulated credit

In addition to the above benefits, a Member is entitled to his Accumulated Credit.

Surcharge

Any surcharge tax in respect of a member is repaid to the Fund by a member via a reduction in the member's benefit of the accumulation of surcharge taxes paid accumulated with interest at the Fund Earning Rate.

SG minimum benefit

All benefits described above are subject to a minimum of the Minimum Requisite Benefit defined in the Benefit Certificate prepared by the Fund's actuary.

Benefits for accumulation section

Accumulation members receive a lump sum benefit, upon exit for any reason, equal to the Accumulated Credit.

On death and total and permanent disablement, an additional amount is payable equal to the sum insured (if any) payable under the group insurance policy.

Appendix B Summary of valuation basis

Table 8. Summary of valuation basis

Method	Aggregate funding								
Economic Assumptions									
Investment Return	<p>A long-term assumption of 4.50% p.a. (net of investment expenses and taxes on investment earnings, but not allowing for any Fund management or operational expenses deducted to determine the crediting rates). However, to assess the sensitivity of the results to alternative investment market conditions, in the short term we have assumed the three scenarios in the table below will apply.</p> <table border="1"> <thead> <tr> <th>Scenario</th> <th>2023/24 to 2032/33</th> </tr> </thead> <tbody> <tr> <td>Unfavourable</td> <td>2.50%</td> </tr> <tr> <td>Medium</td> <td>4.50%</td> </tr> <tr> <td>Favourable</td> <td>6.50%</td> </tr> </tbody> </table>	Scenario	2023/24 to 2032/33	Unfavourable	2.50%	Medium	4.50%	Favourable	6.50%
Scenario	2023/24 to 2032/33								
Unfavourable	2.50%								
Medium	4.50%								
Favourable	6.50%								
Salary Increase Rate	3.50% p.a. inclusive of promotional increases.								
Fund Management Expenses	1.25% p.a. In our valuation, this expense has been allowed for by reducing the crediting rates by only 0.45% as employers meet part (0.80%) of the cost.								
Crediting Rate	<p>The crediting rate applied to Defined Benefit or Accelerated Benefit accounts use an annual unsmoothed rate. Therefore, based on the investment return scenarios noted above, and after deducting the fund management expenses noted above, the assumed crediting rates are:</p> <table border="1"> <thead> <tr> <th>Scenario</th> <th>2023/24 to 2032/33</th> </tr> </thead> <tbody> <tr> <td>Unfavourable</td> <td>2.05%</td> </tr> <tr> <td>Medium</td> <td>4.05%</td> </tr> <tr> <td>Favourable</td> <td>6.05%</td> </tr> </tbody> </table>	Scenario	2023/24 to 2032/33	Unfavourable	2.05%	Medium	4.05%	Favourable	6.05%
Scenario	2023/24 to 2032/33								
Unfavourable	2.05%								
Medium	4.05%								
Favourable	6.05%								
Asset Valuation	Market values as provided by Spirit Super administrators.								

Taxation

Investment returns are assumed to be net of investment fees and investment tax. The contribution tax rate is assumed to be 15% of concessional contributions.

We have assumed that no further surcharge assessments are received by the Trustee after 30 June 2023.

Decrement rates

A summary of the decrement rates assumed in the investigation is set out in Table 9.

Table 9. Summary of decrement rates assumed

Expected Number of Exits pa per 100,000 Members				
Age	Death	Disablement	Withdrawal	Retirement
20	111	18	16,300	0
25	111	19	12,800	0
30	113	21	9,900	0
35	118	33	7,500	0
40	139	57	7,000	0
45	208	116	4,700	0
50	372	265	2,800	0
55	670	630	0	7,500
56	749	749	0	5,800
57	837	899	0	6,100
58	930	1,067	0	6,900
59	1,034	1,279	0	7,800
60	1,148	1,522	0	12,000
61	1,271	1,813	0	25,000
62	1,407	2,176	0	12,000
63	1,554	2,558	0	18,000
64	1,718	3,008	0	35,000
65	0	0	0	100,000

Addendum 1 - Summary of actuarial report

The effective date of the most recent review of the Fund was 30 June 2023 and covered the three year period to that date. The review was undertaken by Michael Berg, B Bus Sc MAppFin CFA FIAA , in his capacity as an employee of Deloitte, and the results of the actuarial review are set out in a report dated 23 October 2023.

A summary of this report is as follows:

- As at 30 June 2023, the net realisable value of the assets of the Fund, based on information supplied by Spirit Super administrators, amounted to approximately \$57,661,000. This is also the value of assets used in determining the recommended contribution rate.
- The Fund has no liability in respect of postponed retirements or deferred benefits for former members or dependants.
- The present value of accrued benefits as at 30 June 2023 was approximately \$51,861,000. This amount also constitutes the 'value of the liabilities in respect of accrued benefits' as defined in Division 9.5 of the Superannuation Industry Supervision (SIS) Regulations. A summary of the method and assumptions used to determine this value is set out below. The above figure includes accumulation liabilities of approximately \$5,801,000.
- The total as at 30 June 2023 of members' vested benefits (i.e. early retirement benefits payable to over age 55), amounted to \$54,413,000.
- The ratios of the assets to these benefit measures are as follows:

- Present value of accrued benefits	111%
- Vested benefits	106%
- The actuarial review was carried out using the Aggregate Funding method, supplemented by projecting the Fund's assets and total vested benefits on the basis of the actuarial assumptions made. Contribution rates were determined after considering the future levels of the vested benefit index arising from the payment of the contribution rates derived from the Aggregate Funding method. As a minimum, we required that the assets of the Fund be expected to exceed vested benefits at all times until 30 June 2026.
- The review disclosed that the Fund was in a satisfactory financial condition at 30 June 2023 and the Actuary recommended that Launceston City Council contribute at 11.0% of salary while TasWater contribute at 12.0% of salary from 1 July 2024 unless the Fund's financial position changes such that a different contribution rate is appropriate. The next full triennial actuarial investigation is due as at 30 June 2026. At that time, the level of Employee contributions will be reviewed again.

Appendix C Actuary's statement for the purposes of the superannuation industry (supervision) regulations

LCC Defined Benefits Fund

We have conducted an actuarial review of the LCC Defined Benefits Fund (the Fund) as at 30 June 2023. The review was based on 132 active members with annual superannuation salaries of approximately \$10,605,000. Various checks were carried out in relation to the data and we have no reason to believe the data used is not correct. In our opinion:

- The value of assets of the Fund was adequate to meet the liabilities of the Fund in respect of vested benefits as at 30 June 2023, with the result that the Fund was in a 'satisfactory financial position' as defined in the SIS Regulations.
- The value of the assets of the Fund was adequate to meet the value of the liabilities of the Fund in respect of the present value of accrued benefits as at 30 June 2023.
- Based on the assumptions used, and assuming the Employer contributes at the levels described below, the value of the assets will continue to be adequate to meet the value of the liabilities of the Fund in respect of vested benefits at all times during the period up to 30 June 2026. We therefore expect the Fund to remain in a 'satisfactory financial position' as defined in the SIS Regulations.

The Fund is used for Superannuation Guarantee purposes and is subject to the funding and solvency provisions of Division 9.3 of the SIS Regulations. All funding and solvency certificates required under Division 9.3 have been obtained for the period from the date of the last review to 30 June 2023 and we have issued a Funding and Solvency Certificate covering the period from 1 July 2023 to the next actuarial review.

We recommend that, Launceston City Council and TasWater contribute at the contribution rates of 11.0% and 12.0% of salaries, respectively, plus deemed member contributions grossed up for contributions tax. This is subject to further annual review and the ongoing Fund's financial position.



Michael Berg
B Bus Sc MAppFin CFA FIAA

23 October 2023