Willis Towers Watson

Local Authorities
Superannuation Fund

Report on the Actuarial Investigation as at 30 June 2020

Parks Plan

19 October 2020

Towers Watson Australia Pty Ltd
ABN 45 002 415 349 AFSL 229921

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Section 1: Executive Summary

1.1 We are pleased to present our report on the triennial actuarial investigation of the Parks plan of the Local Authorities Superannuation Fund (the Fund). This report has been prepared for Vision Super Pty Ltd, the Trustee of the Fund.

Results of previous actuarial investigation

1.2 The previous actuarial investigation was conducted by Matthew Burgess, FIAA, on behalf of Willis Towers Watson as at 30 June 2017. The results of that valuation were published in a report dated 30 October 2017.

1.3 In that review, the recommended funding arrangements comprised of the following:

a A contribution rate of 12% of salaries for Division E members and the current accruing cost contribution rates for Division F members;

b If the VBI is below 100% and in any event upon retrenchment, top-up amounts for exiting members equal to the following amount increased for contribution tax:

Benefit Payment less (Vested Benefit x VBI)

Top-up payments were to be calculated and invoiced quarterly in arrears. Top-up payments were required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of any insurance proceeds.

c Parks Victoria also needed to contribute the amount of members' salary sacrifice contributions.

d Under the valuation assumptions these contributions were expected to be more than required to meet funding requirements, and following discussions with Parks Victoria and Vision Super, we recommended Vision Super consider whether a lower risk investment strategy was appropriate at that time. Subsequently, the growth assets have reduced over the three years to 30 June 2020.

e We also recommended that the Board consider a plan to reduce the exposure to illiquid assets in the Parks plan to zero over time given the maturity of the plan and the possibility of large benefit payments. The illiquid assets have reduced over the three years to 30 June 2020. Vision Super should be mindful of the maturity of the Parks plan and the need to continue transitioning towards full liquidity overtime.

f We also recommended that Vision Super review the insurance policies, and update where necessary, to ensure it was satisfied that any self-insurance was not material.

1.4 Except where otherwise noted above, these recommendations have been implemented. In regards to insurance, upon reviewing the most recent insurance policy, we note there is still an element of self-insurance exposure within the Parks plan. This is because for some members the externally insured amounts are less than the excess of the relevant death/disability benefits above the resignation benefits. The self-insurance is not material from a funding perspective. We recommend Vision Super update insurance policies to remove self-insurance

Assumptions for this actuarial investigation

1.5 The financial assumptions used in this actuarial investigation are summarised below:

a	Net investment return:	3.4% p.a. (gross: 4.0%p.a.)
b	Salary Inflation:	2.0% p.a. for 2 years, 2.75% p.a. thereafter
c	Price Inflation:	2.0% p.a.

1.6 Following a review of the demographic experience, we have made minor changes to demographic assumptions but they have not had a material impact on the results of this investigation.

1.7 We increased the administration expense assumptions from 6.0% to 10.0% of active members' salaries.

Results of this actuarial investigation

1.8 The number of Parks plan members has reduced to 50, from 67 at the previous investigation date. The average age of members is 58.

Funding Status Measure

1.9 This actuarial investigation has shown that the Parks plan's financial position is similar to the last review as at 30 June 2017.

	30 June 2020 Funding Indices	30 June 2017 Funding Indices
	%	%
Vested Benefit Index[1]	108.7	107.7
Discounted Accrued Benefit Index[2]	112.7	120.5
Minimum Requisite Benefit Index[3]	156.7	159.6

1. Vested Benefits are the benefits payable if all members resign/retirement immediately
2. Discounted Accrued Benefits discount the future benefits expected to be paid in respect of completed membership to a present value.
3. Minimum Requisite Benefits are the minimum Superannuation Guarantee benefits

1.10 The Parks plan's assets cover vested benefits at the review date and therefore the Parks plan was in a satisfactory financial position at that date as defined in SPS 160.

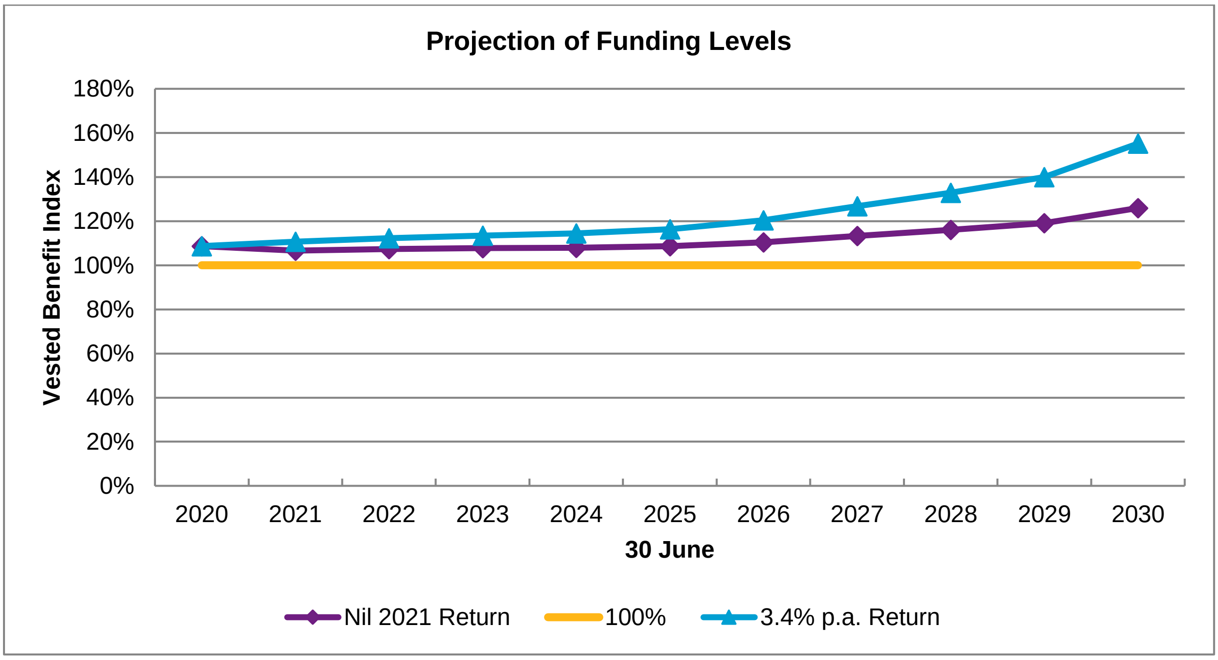
1.11 The reduction in asset coverage of the present value of past benefits (the Discounted Accrued Benefit Index) is primarily due to the change in financial assumptions. As recommended in the previous investigation, the investment strategy was changed to reduce risk and this has resulted in a lower assumed real investment return.

1.12 Our projection below shows that, on the basis of the assumptions made in this actuarial investigation and assuming that Parks Victoria makes contributions in line with the recommendations set out below, the Parks plan is expected to remain in a satisfactory financial position.

1.13 If experience is as expected one option for Parks Victorian is to reduce its contributions. However, we have been previously advised that the preference of Parks Victoria and the Trustee is to use surplus to reduce investment risk over time to manage the potential for additional lump sum contributions to be required from Parks Victoria in the event that actual experience is worse than expected. We have assumed this remains the case. Hence, we have recommended that contribution rates be retained and that the Trustee continue to consider whether de-risking the investment strategy is appropriate.

1.14 Reducing the investment risk in the Parks plan assets has minimal immediate impact on the Vested Benefits and a reduction could be made immediately if the Trustee considered it appropriate. For example, if the investment strategy was set to target a net investment return of 2.4% p.a. (rather than the 3.4% p.a. we have assumed) the current contribution rates would be expected to be sufficient.

1.15 The future funding position, and the potential for additional contributions to be required from Parks Victoria, is dependent upon future experience and particularly future investment returns. The following chart compares the expected Vested Benefit Index (VBI) in the best estimate "base case" and if there is a nil return in the year to 30 June 2021 (and expected returns thereafter). It should be noted that a nil return is not the worst outcome that could occur.



1.16 If the 2021 investment return is zero before reverting to 3.4% p.a., no top-up contributions would be expected to be required.

1.17 The above results stated above are prepared as at 30 June 2020 and do not reflect subsequent investment experience or the changes to investment strategy adopted in July 2020. We have reviewed and commented in our report on these impacts and confirm they do not materially impact the recommendations of this investigation.

Recommendations

1.18 We recommend that Parks Victoria continues to adopt the following funding plan:

a A contribution rate of 12% of salaries for Division E members and the current accruing cost contribution rates for Division F members;

b If the VBI is below 100% and in any event upon retrenchment, top-up amounts for exiting members equal to the following amount increased for contribution tax:

Benefit Payment less (Vested Benefit x VBI)

Top-up payments are to be calculated and invoiced quarterly in arrears. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of any insurance proceeds.

c Parks Victoria also needs to contribute the amount of members' salary sacrifice contributions.

1.19 Under the current assumptions these contributions are expected to be more than required to meet funding requirements, and based on our understanding of the preferences of Parks Victoria and Vision Super, we recommend that Vision Super considers whether a lower risk investment strategy is appropriate at this time.

1.20 The current and projected liquidity should continue to be regularly reviewed, and stress tested.

1.21 We also recommend that Vision Super update the insurance policy to remove remaining self-insurance, as it considers appropriate.

1.22 As required under SPS 160, the Trustee has set the Shortfall Limit for the Parks plan at 98%. We consider this Shortfall Limit as being appropriate, but recommend it be reviewed together with any future consideration of a lower risk investment strategy.

1.23 The next triennial actuarial review should be carried out as at a date no later than 30 June 2023.

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19 October 2020

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Section 2: Introduction

2.1 This report was commissioned by Vision Super Pty Ltd, the Trustee of the Local Authorities Superannuation Fund (the Fund).

2.2 The Local Authorities Superannuation Act (1988) (the Act) was proclaimed on 25 May 1988. The Act has been replaced and since 1 July 1998, the Fund has been governed by a Trust Deed.

2.3 The Fund is a "regulated fund" under the provisions of the Superannuation Industry (Supervision) Act 1993 ("SIS"). We understand that the Fund is treated as a complying superannuation fund for taxation purposes and is a taxed superannuation fund.

2.4 In accordance with Superannuation Prudential Standard 160 (SPS 160), "triennial" actuarial investigations are required at intervals of not more than three years. The last triennial actuarial investigation was completed for the Parks plan as at 30 June 2017 and our report was dated 30 October 2017.

2.5 This actuarial investigation report covers the Parks plan within the Fund, which is a sub-fund as defined in SPS 160. The divisions of the Fund that pay only accumulation benefits are not considered in this report. The actuarial investigations for the City of Melbourne Plan and the main Defined Benefit plan, which are also sub-funds as defined in SPS 160, are covered in separate reports.

2.6 The purpose of this report is to:

- examine the sufficiency of the assets in relation to members' accrued benefit entitlements;
- determine the contribution rates required to so that the Parks plan is expected to maintain a satisfactory financial position;
- satisfy requirements of the Trust Deed; and
- meet legislative requirements.

This actuarial review has been conducted in order to meet the Trustee's obligations in accordance with SPS160 issued under section 34C of the Superannuation Industry (Supervision) Act (SIS Act) which came into effect from 1 July 2013.

2.7 This report satisfies the requirements of the following Professional Standards and Guidance of the Institute of Actuaries of Australia:

- Practice Guideline 1
- Professional Standard 400
- Professional Standard 402
- Professional Standard 404.

Actuarial Investigation as at 30 June 2017 and subsequent events

2.8 The report on the actuarial investigation as at 30 June 2017 concluded that the experience of the Parks plan over the three years to 30 June 2017 had been favourable as a result of higher than expected investment returns and also contributions made were more than required. The Parks plan was in a satisfactory financial position.

2.9 We understand that Parks Victoria has contributed in accordance with our recommendations (refer Section 7).

2.10 Under the assumptions adopted in the last actuarial investigation the employer contributions were expected to be more than required to meet funding requirements, and following discussions with Parks Victoria and Vision Super, we recommended that Vision Super consider whether a lower risk investment strategy was appropriate. Subsequent to the actuarial investigation a lower risk investment strategy was adopted (refer Section 4).

2.11 We also recommended that the Board consider a plan to reduce the exposure to illiquid assets in the Parks plan to zero over time given the maturity of the plan and the possibility of large benefit payments. It is very important that other assets within the Fund continue to act as liquidity provider for the Parks plan. The illiquid assets have reduced over the three years to 30 June 2020. Nonetheless, this continues to remain a recommendation of this actuarial investigation.

2.12 We also recommended that Vision Super review the insurance policies to ensure it is satisfied that any self-insurance is not material. There is still an element of self-insurance within the Parks plan. Please refer to Section 8.

2.13 There have been no amendments to the Parks plan benefits since 30 June 2017.

2.14 There have been no legislative changes or changes to benefits that have materially impacted on the funding of the Parks plan.

2.15 Experience has been broadly favourable since 30 June 2017 as shown by improved vested benefit index (refer to Section 6).

Reliance Statement and Data

2.14 This report is provided subject to our agreed Terms and Conditions of Engagement dated 8 May 2020. This report is provided solely for the Trustee's use and for the specific purposes indicated above. It may not be suitable for use in any other context or for any other purpose.

2.15 Except where we expressly agree in writing, this report should not be relied on by any third party. In the absence of such consent and an express assumption of responsibility, no responsibility whatsoever is accepted by us for any consequences arising from any third party relying on this report or any advice relating to its contents.

2.16 The Trustee may make a copy of this report available to its auditors, Authorities and to any person to whom the Trustee may be required to provide a copy under relevant legislation, but we make no representation as to the suitability of this report for any purpose other than that for which it was originally provided and accept no responsibility or liability to the Trustee's auditors, Authorities or any third party in this regard. The Trustee should draw the provisions of this paragraph to the attention of its third parties when passing this report to them.

2.17 In conducting this review, we have relied upon information and data provided to us orally and in writing by the Trustee and other persons or organisations designated by the Trustee. We have relied on all the data and information provided, including plan provisions, membership data and asset information, as being complete and accurate. We have not independently verified the accuracy or completeness of the data or information provided, but we have performed limited checks for consistency.

2.18 The results presented in this report are directly dependent upon the accuracy and completeness of the underlying data and information. Any material inaccuracy in the data, assets, plan provisions or other information provided to us may have produced results that are not suitable for the purposes of this letter and such inaccuracies may produce materially different results that could require that a revised letter be issued.

Content of this Report

2.19 The remainder of this report is structured in the following manner:

- Sections 3 to 5 consider the data, assets, assumptions and methodology.
- Section 6 considers the financial position of the Parks plan at 30 June 2020.
- Section 7 considers the adequacy of funding of the Parks plan.
- Section 8 considers insurance.
- Section 9 considers material risks.
- Appendices A to F include supporting details of benefits, membership, accounts, actuarial assumptions, assets and actuarial surplus.
- Appendix G contains the statements required under SPS 160.

Section 3: Data and Experience

3.1 This section deals with the data used in the investigation and comments on the more significant factors bearing upon the experience of the Parks plan.

Membership

3.2 For the purposes of this investigation, we were supplied with information on active members of the Parks plan as at 30 June 2020 together with details of exits during the period from 1 July 2017 to 30 June 2020. While we have relied upon the data provided, from our checking processes we believe that the data is sufficiently accurate for the purposes of this investigation.

3.3 In summary, the active membership of the Parks plan has decreased by 17 (or 25%) from 67 at 30 June 2017 to 50 at 30 June 2020.

Summary of Parks Plan Membership as at 30 June 2020				
Former fund	**Number**	**Average Age (years)**	**Average Service (years)**	**Average Salaries**
WISF	46	58.1	35.3	108,483
Transport Scheme	3	59.3	38.6	95,343
Revised Scheme	1	*	*	*
Total	**50**	**58**	**36**	**107,000**

* We have not included details pertaining to the one Revised Scheme member for privacy purposes. Similarly, we have rounded totals for the entire Parks plan.

3.4 A detailed summary of the movement in active membership is set out in Appendix B.

Salaries

3.5 We have examined the salary experience of Parks plan members over the three year period ending 30 June 2020. The data showed that the full time equivalent salary of Parks plan members who remained members as at 30 June 2020 grew by 3.9% p.a. over the period. This compares to growth of 3.0% p.a. over the three year period to 30 June 2017 in the last actuarial investigation.

3.6 The actual increase over the three years ending 30 June 2020 was higher than the assumed rates of 3.5% p.a. in the 30 June 2017 actuarial investigation. The higher than expected salary increases, in isolation, would have resulted in a reduction in the Parks plan financial position.

3.7 It is of interest to compare the average rate of salary increase with the increase in Australian Average Weekly Ordinary Time Earnings (AWOTE). Over the three years period ending 30 June 2020, AWOTE increased by 3.6% p.a. On average, members received salary increases which are higher than those of the wider community.

Demographic Experience of Active Members

3.8 Given the small size in membership, it is difficult to develop statistically reliable decrement assumptions based on plan experience. Also, given the average age is approaching age 60 the average future length of membership is relatively short.

3.9 We have decided to continue to apply the same resignation and retirement rates for the former WISF members as are used for the main Defined Benefit plan. These are the same rates that were adopted in the last triennial actuarial investigation as at 30 June 2017.

3.10 For death and disablement we have decided to retain the same assumptions adopted for the 30 June 2017 actuarial investigation that were based on the external insurance premium rates.

Administration Expenses

3.11 In the 30 June 2017 investigation, the administration expense was assumed to be set as 6.0% of salaries for active members.

3.12 Actual expenses over the three years ending 30 June 2020 have been higher than expected. Based on experience we have increased the assumed level of expenses to 10% of salaries for active members.

Investment Returns

3.13 Vision Super has advised that the rate of return (net of tax and investment expenses) earned by the Parks plan for the three years ending 30 June 2020 was 6.1% p.a.

Investment Return	
Year ended	**% p.a.**
30 June 2018	7.5
30 June 2019	7.8
30 June 2020	3.0
Average	6.1

3.14 Comparison of the 6.1% p.a. return for the intervaluation period with the average salary increase rate (from paragraph 3.5) of 3.9% p.a. shows a real return of approximately 2.2% p.a. which is marginally lower than the 2.5% p.a. real return assumed in the 2017 investigation.

3.15 The real returns over the valuation period have had a marginal negative effect on the Parks plan's financial position.

3.16 The lower than assumed real return is not purely a reflection of poor investment returns, as well as the higher than expected salary increases. It is also a reflection of the reduction in growth assets in the investment strategy. In the previous actuarial investigation, I recommended that the Trustee consider reducing investment risk and following a review by the Trustee this recommendation was implemented.

Section 4: Assets and Investments

Assets

4.1 Copies of the Fund's audited financial statements as at 30 June 2020 were supplied by Vision Super for the investigation together with details of the investment strategy at 30 June 2020. We were also provided a breakdown of the market value of assets by sub-plan. A summary of cash flows over the period 1 July 2017 to 30 June 2020 is set out in Appendix C.

4.2 The fair value of the Parks assets as at 30 June 2020 used in the valuation was $31.2 million. No amounts are included in respect of accumulation accounts of members, except certain defined benefit offset accounts. The financial statements include the fair value of assets for the three defined benefit sub-plans and this value is consistent with that amount.

4.3 Vision Super has excluded the Operational Risk Financial Requirement from the Parks plan assets in the financial statements.

4.4 We believe that the most suitable approach for this investigation is to adopt the fair value of assets for all purposes. In our opinion the use of fair market value is reasonable as the Parks plan is expected to be ongoing. The funding position of the Parks plan may be variable because of the current high volatility in asset valuations.

Asset Allocation

4.5 The Parks plan invests in a wide range of asset classes such as equity, property and fixed interest investments. Appendix E shows the Strategic Asset Allocation, the Actual Asset Allocation as at 30 June 2020 and Strategic Asset Allocation post 30 June 2020 resulting from an amendment to the investment strategy on 17 July 2020.

4.6 The Strategic Allocation to Growth Assets as at 30 June 2020 was 36.2% (which is a notable reduction from 52.6% as at 30 June 2017), while the actual growth allocation was lower at 35.0%. Since 30 June 2020, there has been a slight increase in the actual growth allocation.

4.7 In our opinion the allocation to growth assets is among a range of allocations that could reasonably be used by the Parks plan.

4.8 Setting the Strategic Asset Allocation is a balance between:

a A high allocation to growth assets, which is expected to produce relatively high but more variable investment returns and therefore lower but more variable employer contributions; and

b A low allocation to growth assets, which is expected to produce relatively low but less variable investment returns and therefore higher but less variable employer contributions.

4.9 The Parks plan has been closed to new members for many years. Therefore, its liabilities will reduce significantly over the next ten years in real terms. If future investment returns are higher or lower than expected it is possible that a significant "actuarial surplus" or "actuarial shortfall" will again result. Therefore, it is recommended that the funding position of the Parks plan continues to be considered when setting investment policy. Later in this report we recommend further de-risking be considered.

Liquidity

4.10 As at 30 June 2020, Vision Super advised that 13.9% of the investments are in illiquid asset classes. Since 30 June 2020, this has increased a little.

4.11 We understand that it is intended that the illiquid asset allocation will increase to the new Strategic Target allocation of 16.5% (which was decreased from 22.9% at 30 June 2017). We note that while some of the illiquid assets are in fixed ended funds which will become liquid over time, others such as the Direct Property and Infrastructure investments will need to be sold or transferred from the defined benefit assets in the future.

4.12 In the long term, the defined benefit plans will require full liquidity. Therefore, we believe that Vision Super should continue to consider the time frame over which they will reduce the exposure to illiquid assets in the defined benefit plans to zero. We suggest that consideration of the liability run off under various scenarios should continue to form part of this consideration.

4.13 Vision Super has advised that illiquid assets held by the Parks plan are able to be transferred to other defined benefit or accumulation members within the Fund. Given the small relative size of the Parks plan this should enable adverse liquidity experience to be managed.

Unit Pricing

4.14 Within the Fund there are defined contribution members as well as defined benefit members. The assets and liabilities of the defined contribution members are equal, subject to timing differences, with daily unit pricing being used. There is no investment reserving. We have been advised that the assets of the defined contribution members are segregated from the defined benefit assets and Vision Super has in place processes to limit cross subsidies between defined contribution and defined benefit members.

4.15 The Fund's Investment Governance Framework states that "Defined Benefit Investment options are considered separately from the Accumulation Investment options for rebalancing purposes." This means that the Parks plan's asset allocation should not be materially impacted by the experience of the defined contribution plans.

Shortfall Limit

4.16 The Trustee has set a Shortfall Limit in accordance with SPS 160 of 98% for the Parks plan. This means that between actuarial investigations, a restoration plan to restore the VBI to 100% is required if the Parks plan's VBI reduces to below 98%.

4.17 A Shortfall Limit is defined in paragraph 10 of SPS 160 as:

"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 in the temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year."

4.18 We believe that the current Shortfall Limit remains appropriate. We have considered that:

a The actual asset allocation retains an allocation to growth assets of about 35% and whilst this is notably lower than when the Trustee last reviewed the Shortfall Limit. The growth asset allocation is consistent with a Shortfall Limit of 98% based on the Actuaries Institute's guidance;

b The defined benefits do not have material accumulation components;

c Vested benefits are higher than Minimum Requisite Benefits; and

d The employer has a contractual obligation to pay contributions determined by the Trustee.

4.19 In Section 7, of this report we recommend that the Trustee consider further reducing the Park's plan's allocation to growth assets. If this were to occur then a Shortfall Limit of 99% is likely to be appropriate and in this situation we recommend that the Shortfall Limit is reviewed.

Section 5: Valuation Assumptions and Funding Method

5.1 An appropriate set of both financial and demographic assumptions must be determined before values can be placed on the Parks plan's liabilities and assets. The assumptions relating to benefit liabilities and assets are discussed under separate headings below.

Valuation of Benefit Liabilities

5.2 The assumptions for this actuarial investigation have been determined on a "best estimate" basis.

5.3 "Best estimate" describes assumptions which reflect "mean" estimates for the various factors, rather than choosing assumptions with explicit margins to cope with uncertainty about future experience. These "best estimate" assumptions might be described as being realistic. They are equally likely to prove to be conservative or to be optimistic and are less likely to be able to absorb fluctuations in future experience.

5.4 As the Parks plan is closed to new members and as a result has declining membership, "best estimate" assumptions continue to be relevant because using conservative assumptions would be expected to eventually result in excess assets. Best estimate assumptions are also required by the Actuaries Institute's Professional Standards.

5.5 Appendix D contains a summary of the assumptions used.

Key Financial Assumptions

5.6 Financial assumptions for investment earnings, salary inflation and pension increases are required to value the liabilities.

5.7 The factor of major significance in the investigation of the Parks plan's active member benefit liabilities is the differential between the assumed future rate of investment earnings and the assumed rate of salary growth due to inflation. (These factors are almost exactly compensating in their effect upon the present value of the employed members' Parks plan's future benefit liabilities - hence, the difference between the rates is important, rather than their absolute values.)

5.8 The "best estimate" financial assumptions adopted at the 30 June 2017 actuarial investigation were:

- 3.5% p.a. salary inflation.
- 6.0% p.a. investment return.

Investment Return

5.9 In order to determine the best estimate assumptions for this investigation, we have considered the capital market assumptions of Willis Towers Watson and the Fund's asset consultants, Frontier. A net investment return of 3.4% p.a. has been adopted for this investigation. The reduction since 2017 reflects both the reduction in growth assets in the asset allocation and lower asset class return expectations.

5.10 The assumed gross of tax investment return used in this investigation is 4.0% p.a. The additional 0.6% p.a. investment return takes into account the fact that no investment tax is paid on assets backing pensioner liabilities. This is only relevant for certain benefits of former Ports plan members.

5.11 The assumptions are net of investment management fees.

CPI Increases

5.12 The Reserve Bank's target CPI range is 2.0% p.a. to 3.0% p.a. We have reduced the assumption from 2.5% p.a. at 30 June 2017 to 2.0% p.a. at 30 June 2020 after considering the price inflation expectations of the asset consultants and the need to be consistent with the assumed investment return. This assumption is only relevant for certain benefits of former Ports plan members.

Salary Inflation

5.13 The actual salary increases of the Parks plan members have been higher than AWOTE (refer 3.7). As the average age of Parks plan members is now over 58 years, significant benefit payments are expected in the next few years and the short term salary inflation assumption is important. A salary inflation assumption of 2.0% p.a. for two years, followed by a long term salary inflation assumption of 2.75% p.a. has been adopted in this investigation and is considered best estimate.

5.14 The long term salary increase assumption of 2.75% p.a. is 0.75% p.a. above the assumed 2.0% p.a. CPI, which is within the historical long term 0% to 2% p.a. differential. Given recent experience and the maturity of the Parks plan, we believe that this is appropriate. No promotional salary increases are being assumed.

5.15 Therefore, the "best estimate" financial assumptions adopted for the 30 June 2020 investigation are:

- 1.4% p.a. over two years and 0.65% p.a. long term real investment return over salary inflation. This comprised a 3.4% p.a. net of tax investment return assumption and a 2% p.a. over two years and long term 2.75% p.a. salary inflation assumption. This is lower than assumed as at 30 June 2017 and will mean a deterioration in the expected long term funding position.

- 2.0% p.a. real investment return over price inflation. This comprised a 4.0% p.a. gross of tax investment return and a 2.0% p.a. CPI assumption. This is 2.25% p.a. lower than assumed as at 30 June 2017 and will have a detrimental impact on the expected funding.

Demographic Assumptions

5.16 The demographic assumptions that affect the Parks plan have been discussed in Section 3. The pension mortality assumption that is relevant for certain benefits of former Ports plan members was updated consistently with changes made for the main Defined Benefit plan. Appendix D summarises the demographic assumptions adopted for this investigation.

Benefits

5.17 The benefits which have been valued are summarised in Appendix A.

Actuarial Funding Method

5.18 In recommending a funding plan which aims to be sufficient to fund the members' benefits in the long-term, it is necessary to project the operation of the Parks plan into the future, using the actuarial assumptions set out above.

5.19 Briefly the projection operates in the following manner:

a project total benefits and expenses expected to emerge in all future years in respect of current members. The projection is based on the long-term actuarial assumptions including allowance for the contingencies under which benefits can be paid (retirement, death, disablement and resignation), salary and pension increases;

b discount these projected benefits to a present value at the assumed long-term investment return;

c in a similar manner to (a) and (b), project the ongoing employer contribution and member contributions over all future years for current members, and discount them to present values; and

d determine the additional funding required by the employer by comparing (b) with (c) plus the appropriate value of the assets at the investigation date.

5.20 This projection is known as the aggregate funding method, which is considered to be appropriate for a closed fund. The purpose of the calculation is to assess if the existing contribution rates and assets are sufficient to provide all future benefits on current assumptions.

5.21 Under SPS 160, APRA requires superannuation funds to put in place a plan that is expected to fully fund their vested benefits within three years if the fund's assets are less than the vested benefits at an actuarial investigation, also known as being in an "Unsatisfactory Financial Position". A funding plan is also required when the VBI reduces to below the shortfall limit, currently 98%, between actuarial investigations.

5.22 The shortfall or surplus relative to vested benefits is likely to vary from the actuarial shortfall or surplus calculated using the method set out in 5.19. It is possible that the recommended funding amount under this funding method may not be sufficient to be expected to maintain the Park plan's Vested Benefits Index (VBI) to 100% within the timeframe required by APRA if it is below 100%. In this situation additional contributions would be recommended as required by APRA.

5.23 Additional contributions can be made to target a VBI of 100% but where these contributions are higher than any actuarial shortfall calculated using the aggregate funding method described above a surplus would be expected to result in the long term if experience is as expected. Vision Super may also be able to manage any such shortfalls or surpluses through a combination of changes to funding and investment strategy.

5.24 In the next section we review the financial position as at 30 June 2020 and in Section 7 we discuss the adequacy of the long term funding arrangements.

Section 6: Financial Position of the Parks Plan

6.1 The financial position of the Parks plan at the investigation date provides some insight into the progress towards fully funding members' benefits in the long-term.

6.2 A convenient means of assessing the financial position of the Parks plan involves the calculation of various indices of benefits compared to assets.

Vested Benefits Index

6.3 The first of the indices is the "Vested Benefits Index" (VBI). Vested Benefits are defined as the benefits that would be due and payable if all the members voluntarily terminated their service with their employers at the investigation date. For active members, the Vested Benefits are the resignation benefit or the early retirement benefit (if aged 55 or more).

6.4 The Vested Benefits Index is calculated as follows:

$$\text{VBI} = \frac{\text{fair value of assets}}{\text{total of vested benefits}}$$

6.5 The Vested Benefit Index as at 30 June 2020 is:

VBI as at 30 June 2020	
Parks plan assets ($m)	31.2
Vested Benefits ($m)	28.7
Vested Benefit Index	108.7%

6.6 The calculated VBI for the Parks plan at 30 June 2020 is 108.7%. This compares with a VBI of 107.7% at the 30 June 2017 investigation. The Parks plan was not in an unsatisfactory financial position as at 30 June 2020.

6.7 The VBI for the Parks plan has increased since 30 June 2017 mainly due expected contributions being made more than required and continued defined benefit member exits spreading surplus across a smaller group of people. This has been offset by lower than expected real investment returns during the three year period.

Discounted Accrued Benefits Index

6.8 Discounted Accrued Benefits means the present value of the benefit payable in the future (based on the assumptions) accrued in respect of service to the investigation date. The method of apportioning active members' benefits to past service for the Parks plan is as follows, effectively recognising the portion of future benefits arising due to service to date:

a Retirement– the past service benefit (based on accrued lump sum multiples) at the calculation date, with allowance for future salary growth to the assumed exit date.

b Death and Disablement benefits – the total projected death/disablement benefit at the assumed exit date multiplied by the ratio of service to the calculation date divided by service to the retirement date.

c Immediate Resignation Benefit – the past service benefit at the calculation date (based on the multiples at the calculation date) with allowance for future salary growth up to the assumed resignation date.

6.9 The Discounted Accrued Benefits are not subject to a minimum of the Vested Benefits.

6.10 The index is more a measure of the Parks plan's on-going capacity to meet Accrued Benefits in the long run.

6.11 The "Discounted Accrued Benefits Index" (DABI) is calculated as follows:

$$\text{DABI} = \frac{\text{fair value of assets}}{\text{total of discounted accrued benefits}}$$

6.12 The Discounted Accrued Benefit Index as at 30 June 2020 is:

DABI as at 30 June 2020	
Parks plan assets ($m)	31.2
Discounted Accrued Benefits ($m)	27.7
Discounted Accrued Benefit Index	112.7%

6.13 The calculated DABI for the Parks plan at 30 June 2020, based on the "best estimate" assumptions, used in this investigation, is 112.7%. The DABI was estimated to be 120.5% at the 30 June 2017 investigation. The decrease in DABI was mainly due to the changes in financial assumptions, coupled with the less than expected real investment return over the period. This was somewhat offset by contributions being made more than expected to be required.

6.14 Because the DABI is more than 100%, it means current assets are expected to be sufficient to provide the benefits of members' accrued benefits based on service to 30 June 2020.

Minimum Requisite Benefits Index

6.15 We have also considered the asset coverage of members' Minimum Requisite Benefits.

6.16 The Minimum Requisite Benefits (MRBs) are the minimum amount of benefit that must be provided to enable Parks Victoria to satisfy its Superannuation Guarantee obligations. The method to calculate the amount of MRBs for the active members is specified in my Benefit Certificate dated 23 October 2018.

6.17 The MRBs have been configured on the administration system. We have therefore used the MRB data provided by the administrator for the purposes of this valuation.

6.18 The Minimum Requisite Benefit Index is calculated as follows:

$$\text{MRBI} = \frac{\text{fair value of assets}}{\text{total of Minimum Requisite Benefits}}$$

6.19 The Minimum Requisite Benefit Index as at 30 June 2020 is:

MRBI as at 30 June 2020	
Parks plan assets ($m)	31.2
Minimum Requisite Benefits ($m)	19.9
Minimum Requisite Benefit Index	156.7%

6.20 As at 30 June 2020 we estimate that the ratio of the market value of assets to the amount of Minimum Requisite Benefits was approximately 156.7%. This compares with a MRBI of 159.6% at the 30 June 2017 investigation. The decrease in MRBI was mainly due to demographic changes in the small membership.

6.21 If this ratio for the entire Fund falls to below 100%, it becomes Technically Insolvent as defined in the SIS Regulations. If this occurs the Trustee must take certain steps to restore solvency. The Trustee needs to continue to monitor the "Notifiable Events" defined in the Funding and Solvency Certificate to identify if the Fund is at risk of becoming, or becomes, Technically Insolvent so appropriate action can be taken.

Other Measures of Financial Position

6.22 In accordance with Clause A.21.1(a) of the Trust Deed, an Employer requires the approval of the Board to terminate its contributions to the Parks plan. We assume this approval would not be provided unless any future funding risk is adequately managed.

6.23 However, if an Authority does terminate its contributions, Clause A.21 of the Trust Deed states that:

> *"the Trustee, after obtaining the advice of the Actuary and subject to A.21.5, may adjust any benefit which is or may become payable to or in respect of any person whom the Trustee may consider is affected by that termination to the extent and in the manner the Trustee considers appropriate and equitable"*

6.24 Further it states in Clause A.21.5 that:

> *"…Unless otherwise agreed between the Trustee and the Employer, an adjustment made …must not increase the amount of any benefit which, in the opinion of the Trustee after obtaining the advice of the Actuary, has accrued in respect of a person immediately prior to the effective date of that adjustment in respect of the period up to that date or improve the basis upon which benefits accrue during or in respect of any period after that date."*

6.25 Therefore, in the case of the termination of contributions the Trustee has some flexibility in respect of the benefits provided, subject to superannuation law, and there is no alternative measure of financial position that needs to be calculated in respect of this situation.

6.26 On retrenchment, members' are entitled to an accrued retirement benefit. For members over age 55 this is equal to their vested benefit (i.e. retirement benefit) but for members under age 55 it will be higher than their vested benefit. For active members, retrenchments benefits as at 30 June 2020 were materially the same as the Vested Benefits. At the 30 June 2017 investigation, the retrenchment benefits were also materially the same as the vested benefits. As members continue to age, retrenchment benefits will continue to move towards vested benefits.

6.27 An additional contribution is required from Parks Victoria in respect of each retrenchment, and each exit if the VBI is below 100%, so that there is no additional financial strain on the Parks plan.

6.28 In Appendix E the Parks plan's asset allocation is shown and there is currently a 13.9% allocation to illiquid assets. The funding indices have been calculated based on the valuation of these assets at fair market value from the 30 June 2020 financial statements (excluding disposal costs). In the unlikely event that these assets had to be quickly liquidated it is possible that this could occur at discounted values resulting in lower funding ratios. For example, a 20% discount on forced sale of illiquid assets would reduce the funding indices by approximately 3%.

6.29 There was no material deferred tax asset in the Fund as at 30 June 2020. Therefore, the funding is not significantly dependent upon being able to utilize such an amount.

Section 7: Assessing the adequacy of the Funding Arrangements

The Present Funding Arrangements

7.1 The funding arrangements for the Parks plan currently comprise the following components:

a Contributions equal to 12% of salaries for Division E members and the current accruing cost contribution rates for Division F members;

b Funding the top-up payments for exiting members equal to the following amount increased for contribution tax:

Benefit Payment less (Vested Benefit x VBI).

Top-up payments are calculated and invoiced quarterly in arrears. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of any insurance proceeds.

Parks Victoria also needs to contribute the amount of members' salary sacrifice contributions.

Total Service Liability Surplus/ Deficit as at 30 June 2020

7.2 As at 30 June 2020 there was a total service liability surplus of $1.7 million. This means that the current value of assets plus expected future contributions is more than the value of expected future benefits and expenses by $1.7 million, assuming that Parks Victoria continues to contribute at current rates. Full details of these calculations are set out in Appendix F.

7.3 The total service liability surplus as at 30 June 2017 was $4.6 million. The actuarial surplus has decreased over the intervaluation period mainly due to the changes in financial assumptions. This change was expected and recommended in the previous actuarial investigation. It reduced the total service liability surplus by the order of $3 million. The financial experience (excess of investment return above salary increase) being lower than assumed, the increase in the expense assumption and the Parks Victoria contributions have also been higher than is expected to be required also contributed to the change.

7.4 The existing funding arrangements are expected to be adequate if the current assumptions are borne out in practice. The total service liability surplus of $1.7 million is lower than the expected value of all future Parks Victoria contributions (gross of tax) of $2.6 million (refer to Appendix F). This means that if experience is as expected from 30 June 2020, Parks Victoria would need to make further contributions to the Parks plan. The long term Parks Victoria contribution rate implied by the aggregate funding method would be about one third of the current contribution rates.

7.5 Nevertheless, it needs to be recognised that the ultimate cost of benefits for members of the Parks plan will depend on the actual future experience of all the relevant factors (investment earnings, salary growth, pensioner mortality, turnover rates, etc.). Therefore, the contribution arrangements will need to be varied as the actual experience unfolds.

7.6 If experience is as expected in future, to avoid being left with a surplus in the long term, the Trustee will need to either materially:

a reduce Parks Victoria contributions; or

b reduce the expected investment return by reducing investment risk.

Sensitivity of Funding Arrangements to Future Assumptions

7.7 As outlined in Section 5, factors that affect the future experience of the Parks plan are split into two broad categories. They are the financial assumptions and the demographic assumptions. The results are more sensitive to changes in the financial assumptions and the sensitivity of the “actuarial surplus” to the financial assumptions is considered below.

7.8 To quantify the potential impact of variations in financial experience the following table shows the impact of changing some of the assumptions on the “actuarial surplus” as at 30 June 2020.The “gap” is the excess of the assumed investment return above the assumed salary inflation, because it is the difference between the assumptions that is important as they offset each other.

Impact of Changes in Key Assumptions	
	Actuarial Surplus $ Million
Best estimate assumptions	1.7
Higher gap (+1% pa)	3.0
Lower gap (-1% pa)	0.3
Lower gap (-2.0% pa)	(1.0)

7.9 The table shows that a variation in the financial assumptions has a very significant impact on the actuarial surplus or shortfall. It is possible that the actual gap may vary from our best estimate assumption by significantly more than 1% or 2% and the impact would be greater than what is shown in this sensitivity analysis.

Note that the variations selected in the sensitivity analysis do not indicate upper or lower bounds of all possible outcomes.

7.10 There is also a risk that the demographic experience may differ from our assumption which would lead to a lower or higher funding cost.

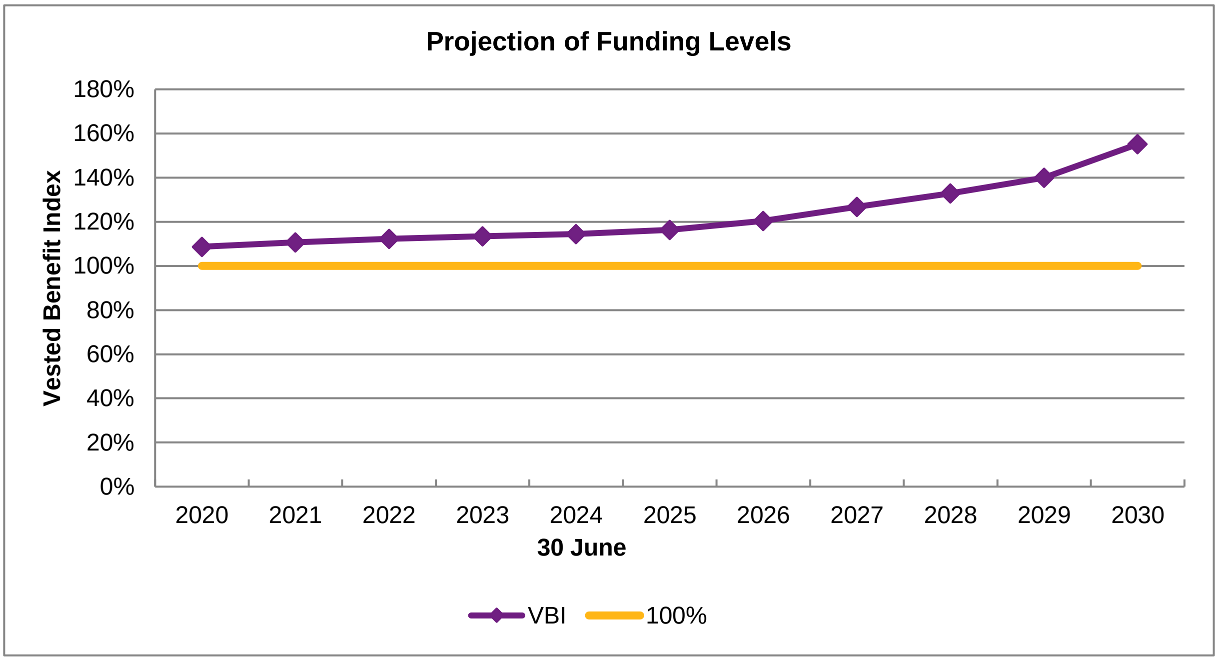
7.11 This table also shows that with the $1.7 million total service liability surplus as at 30 June 2020, a net of tax investment return of 3.4% p.a. was expected to be sufficient to fund all liabilities. If the investment strategy was changed so that the expected investment return was 2.4% p.a. rather than 3.4% p.a. there is expected to be an actuarial surplus of $0.3 million. This means that there is an opportunity to de-risk the investment strategy further and target a lower expected investment return. This assumes Parks Victoria continues to contribute at current rates.

7.12 If the investment strategy was changed so that the expected net return reduced to 2.4% p.a., the VBI as at 30 June 2020 would not have changed materially because for most members the Vested Benefits are lump sums and independent of assumptions. It is only for the one former Revised Scheme member that assumptions impact the Vested Benefits because the retirement benefit is a pension.

Projection of Funding Levels

7.13 This section considers the adequacy of the funding by projecting the Parks plan's future funding level. This projection is based on the "best estimate" funding assumptions set out in Appendix D.

7.14 The graph below shows the projected Vested Benefits (VBI) of the Parks plan for the next ten years.



7.15 The chart shows the VBI is expected to stay above 100% over the next ten years and hence no additional contribution is expected to be required from Parks Victoria to meet the funding requirement under SPS 160. However, in practice actual experience will be different to what is expected and the VBI may decrease or increase more quickly than expected.

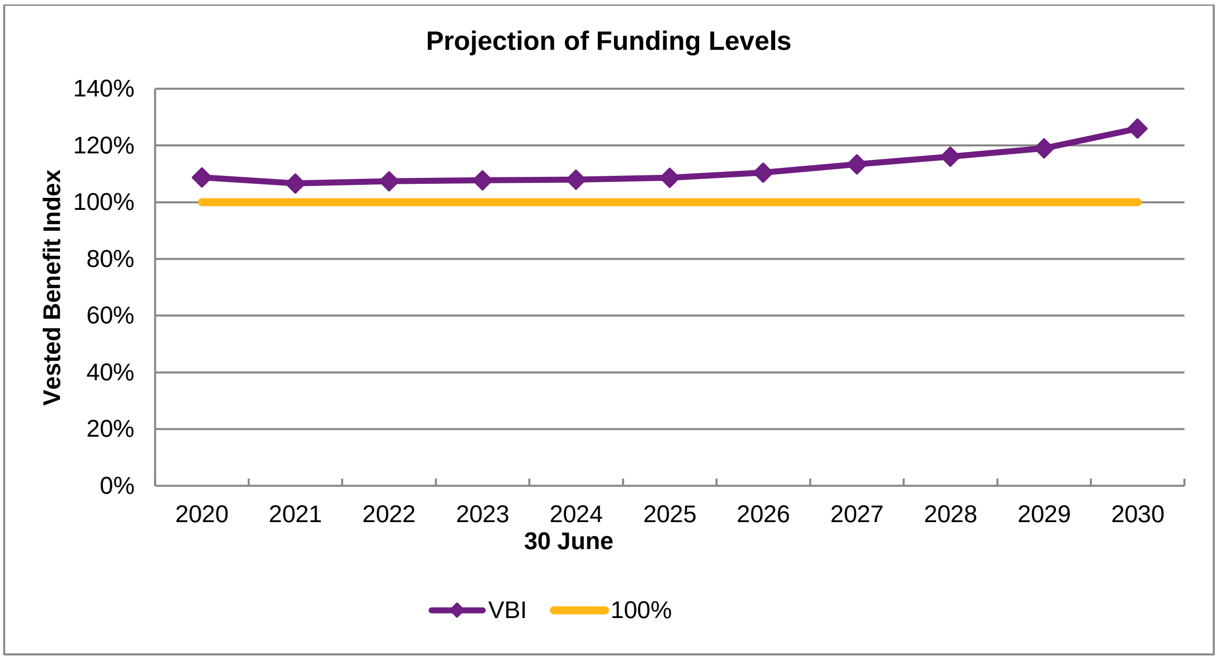
7.16 The above chart shows that the VBI is expected to slowly increase over time. This is consistent with the total service liability surplus of $1.7 million at 30 June 2020.

7.17 If the future investment return was 2.4% p.a. the VBI would expected to be broadly stable. If the future investment return was 1.4% p.a. the VBI is expected to deteriorate and the plan would require further contributions to remain at a satisfactory financial position over ten years.

Other Funding Issues

7.18 The Parks plan is mature and its funding is very sensitive to future experience. As shown in Section 7.8 a lower than expected investment return would significantly reduce the “actuarial surplus”.

7.19 The chart below shows the impact on the VBI in an adverse scenario where the return is 0% for the year to 30 June 2021 and all other experience is as expected. A best estimate return of 3.4% p.a. is assumed from 1 July 2021.



7.20 If the return is 0% in 2020/21, the VBI is expected to reduce slightly but still remain above 100%.

7.21 On the other hand, if experience is favourable an even larger “actuarial surplus” could result. Vision Super would need to consider how to treat such an “actuarial surplus”. Vision Super may also wish to consider adopting a more defensive investment strategy in order to reduce the investment risk.

Events since 30 June 2020

7.22 Vision Super has advised that the investment return for the three months ending 30 September 2020 for the Parks plan was 1.31% (equivalent to 5.34% p.a.). This is higher than the expected return of 3.4% p.a. and therefore will have had a positive impact on the financial position. We expect that the VBI of the Parks plan will have remained above 100%. This does not impact our recommendations.

7.23 Subsequent to 30 June 2020, Vision Super has advised there has been a revision to the Parks strategic asset allocation. Accordingly, some of the Parks plans allocation towards fixed interest has shifted towards alternative debt and cash. Overall, the growth strategic allocation has increased from 35% to 40% and the allocation towards illiquid assets has increased slightly.

The change is expected to increase the net investment return from 3.4% p.a. to 3.8% p.a. If this expected investment return were adopted as the valuation assumption it would have the following impacts on key metrics:

- The Vested Benefit Index of 108.7% as at 30 June 2020 is materially unaffected.
- The Discounted Accrued Retirement Benefit Index of 112.7% as at 30 June 2020 would increase to 114.3%. Therefore, current assets would continue to be expected to be sufficient to provide the benefits of members' accrued benefits based on the new strategic asset allocation.
- The $1.7 million total service liability surplus as at 30 June 2020 is expected to increase to $2.2 million. The expected return under the new strategic asset allocation is still expected to be sufficient to fund all liabilities.

We maintain our view there is an opportunity to de-risk the investment strategy further and target a lower expected investment return if reducing risk rather than contribution rates remains the preference of Parks Victoria and the Trustee. If de-risking were to occur the expected investment return of 3.4% p.a. adopted in this investigation is likely to better reflect expectations than the higher return based on the recently revised asset allocation. Overall the change in asset allocation does not materially affect the key funding recommendations of this investigation.

7.24 We are not aware of any other events subsequent to 30 June 2020 that would materially impact upon the results of the actuarial investigation of the Parks plan.

Recommendation

7.25 Section A.20.1 of the Trust Deed states:

> *"each Employer must contribute to the Fund in respect of a particular Employee at any particular time the amount or rate of contributions determined by the Trustee after obtaining the advice of the Actuary, including the Unfunded Liability Amount…."*

7.26 The analysis conducted has concluded that if experience is as expected the Trustee will need to either:

a Reduce Parks Victoria's contributions; or

b Reduce investment risk to target a lower expected investment return.

7.27 With the current VBI of 108.7% being not materially impacted immediately by changes in investment strategy, a reduction in investment risk could be done in the short term. For example, a total service liability surplus of $0.3 million would remain if the expected investment return reduced to 2.4% p.a. Parks Victoria has indicated in the past that it is its preference to retain current contribution rates and reduce investment risk. Assuming this remains the case, we recommend that Vision Super reviews the Parks plan's asset allocation to determine if reducing investment risk further is appropriate.

7.28 In summary, we recommend that Parks Victoria continues to adopt the following funding plan:

a A contribution rate of 12% of salaries for Division E members and the current accruing cost contribution rates for Division F members;

b If the VBI is below 100% and in any event upon retrenchment, top-up amounts for exiting members equal to the following amount increased for contribution tax:

Benefit Payment less (Vested Benefit x VBI).

Top-up payments are to be calculated and invoiced quarterly in arrears. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of any insurance proceeds.

c Parks Victoria also needs to contribute the amount of members' salary sacrifice contributions.

7.29 It is very important to understand that each of the components of the funding arrangements is very dependent on the actual future experience of the Parks plan. Consequently, all contribution components are subject to regular review by the Trustee using actuarial advice and could vary from the current recommendations at any time in the future. The next actuarial investigation is due as at 30 June 2023.

Section 8: Insurance

8.1 The Parks plan provides death and disablement benefits that are significantly higher than the resignation/retirement benefits.

8.2 As at the 31 December 2011 valuation, the Parks plan was self-insured. Therefore, at that time it was Parks Victoria that ultimately bore the financial risk if the amount of death and disablement benefits paid was significantly higher than expected. Variation in the claims experience could also have a large impact on the Parks plan's funding position and increase the likelihood of more variable contributions.

8.3 We recommended in the triennial actuarial investigation as at 31 December 2011 that the Trustee externally insure the death and disablement benefits in the Parks plan in order to mitigate the various risks involved. The Parks plan is externally insured with MLC, having changed from CommInsure.

8.4 Given the small number of Parks plan members and the progression of time, the risk of a self-insured claim emerging from prior to 1 October 2012 is small. If this were to occur, Parks Victoria would currently be required to make top-up contributions in respect of the self-insured component of the benefit if the VBI was below 100%, on the basis that it makes top-up contributions for the unfunded element of all benefits on exit in this circumstance. Therefore, if the VBI was below 100% there would not be expected to be a financial strain on the funding if such a claim was made. If the VBI is above 100% then the self-insured component of the benefit is likely to be able to be funded from surplus.

8.5 Vision Super has externally insured lump sum amounts in some situations where pensions could be paid if a claim occurs. Actuarial advice has been provided on the appropriate amount of the lump sums. If such a claim occurs, Parks Victoria would retain the ongoing risk in respect of the pension.

8.6 The insurance policy has been updated over time to better reflect the members underlying sum insured components. However, there is still a variance between the administered sum insured (determined as the difference between the administered death benefit and vested benefit) and the insured benefit as stated in the MLC policy. This difference is largely due to the death benefit being determined using pre 30 June 1993 accrual rates, whilst the vested benefit makes allowance for both pre and post 30 June 1993 accrual rates. Therefore, there is still some self-insurance totalling approximately $3 million in respect of death. Self insurance is negligible for TPD. These differences are not material for funding. However, we recommend Vision Super consider updating insurance policies to remove self insurance.

Section 9: Material Risks

9.1 The funding of the Parks plan is dependent upon future experience. We have briefly considered below the material risks in respect of funding. If experience is materially adverse Parks Victoria will be required to make additional contributions.

Investment Risk

9.2 The most significant risk facing the Parks plans is that investment returns will not be as high as expected. There is also a risk that a surplus could arise that could be difficult to utilize if not managed carefully. These risks occur because the income generated from the existing assets are not matched to the expected future benefit payments.

9.3 A change to the assumed investment return could also have a material impact on Parks Victoria contribution requirements in the short term, but would not be expected to impact the ultimate cost of funding benefits unless the change in assumption was because of a change in investment strategy. This also applies for other assumptions.

9.4 As per current practice, the Trustee should continue to consider the liabilities and the funding position when determining the Parks plans' investment strategy.

Salary and Price Inflation Risk

9.5 Salary increases or price inflation exceeding expectations will have a negative impact on funding.

9.6 It is the excess of the investment return above the rates of salary increases that is most important because the assets increase with the investment return and the liabilities with salary.

Pensioner Longevity Risk

9.7 At 30 June 2020 there were no life time pensioners in the Parks plan, but some members can elect pensions in prescribed circumstances. If this should occur, there is a risk that the liability will increase, particularly if pensioners live longer than expected. This would have a negative impact on the funding position.

Retrenchments Risk

9.8 The retrenchment benefit is larger than the resignation benefit for some members.

9.9 The current funding plan includes top-up contributions by Parks Victoria to manage this risk, although there could be a timing issue with additional contributions to fund the retrenchment benefits only being made after the retrenchments.

9.10 Furthermore, a large number of exits would temporarily reduce the funding position, when the VBI is below 100%, until the additional contributions to fund the deficiency with respect to the exits are made.

Legislation Risk

9.11 There is a risk that legislation changes could impact on funding. For example:

a Changes to legislation may impact investment returns or other aspects of experience; and

b Changes to tax may impact funding.

Other

9.12 Operational risks (e.g. unit pricing and administration) are not considered in this report.

9.13 There are many other risks in respect of the funding of the Parks plans but we have not included those that we do not consider to be currently material.

Appendix A: Summary of Benefits and Conditions

The benefits are set out in the Fund's Trust Deed. The Fund has been governed by the Trust Deed originally dated 26 June 1998 on and from 1 July 1998. The Trust Deed has subsequently been amended numerous times. This report is based on a copy of the Trust Deed including amendments up to 1 July 2014.

The benefits and conditions for Division E members (who were members of the Water Industry Superannuation Fund employed by Parks Victoria who transferred in to the Fund effective from 1 November 1995) are those which applied as at 31 October 1995, as set out in By-Law No. 235 of the Melbourne and Metropolitan Board of Works Act 1958, as amended, and now incorporated in Division E of the Fund's Trust Deed.

Division F of the Deed makes provision for miscellaneous members of the Fund. In particular, it covers members who were former members of the Transport Superannuation Fund (now the Transport Superannuation Scheme in the Emergency Services Superannuation Scheme) and the Revised Scheme in the Emergency Services Superannuation Scheme. In accordance with the current Deed, the benefit accruals and benefit entitlements for Division F Members continue to have the same status, operation and effect as they would have had under the State Superannuation Act 1988 pursuant to section 120 of the Port Services Act 1995 (Vic).

Division E members

Membership

The Parks Victoria Plan was established within Vision Super, during 1996, following the transfer of the employees of Parks Victoria who were members of the former Water Industry Superannuation Fund. These benefits are set out in the Parks Victoria Fund Trust Deed, and are now incorporated in Division E of the Fund's Deed.

Contribution rates and accrual rates

Members are allows to contribute at a rate between 0% to 7.5% of salary. The accrual of the member's benefit multiple is dependent on the member contribution rate, as follows:

Contribution Rate (%)	Accrual Rate Post 30 June 1993 (%)	Accrual Rate Pre 30 June 1993 (%)
0	7.00	8.00
2.5	12.25	14.00
5.0	17.50	20.00
7.5*	22.75	26.00

** for members of the Fund before 1 September 1987*

Accrued Benefit Multiple (ABM)

The sum of accrual rate for each year of membership, calculated in months and dependent upon the member's contribution rate, in accordance with the table above.

There are also various additional multiplies that may apply for particular members and are added to the ABM.

Final Salary (FS)

The member's annual salary at the date on which the member ceases to be an employee.

Retirement Benefit

The retirement benefit is calculated as ABM at retirement date x FS at retirement date.

A maximum benefit applies.

Partial Disablement benefits

The retirement benefit is calculated as ABM at disablement date x FS at disablement date.

The member's annual salary at the date on which the member ceases to be an employee.

Retrenchment Benefit

The lump sum retrenchment benefit calculated as ABM at retrenchment date x FS at retrenchment date.

A maximum benefit applies.

Resignation benefit

The lump sum benefit of either:

- If service is at least 5 years and less than 20 years:

  FS x (ABM5 + MCR5)
  where:

  ABM5 - ABM as at the date 5 years prior to resignation

  MCR5 - 5 x average member contribution rate (%) in the 5 year period prior to resignation

- If member is aged between 50 – 55 years or has between 20-25 years of service, a retirement benefit calculated on a phasing –in basis will apply upon termination of employment.

All members have at least 5 years membership.

Death benefit

The lump sum benefit is calculated as sum of:

(i) ABM at date of death (calculated on the pre-1993 rates) x FS; and

(ii) FS x F x PFM

Where:

F - 0.20 (or 0.26 for members contributing at 7.5%)
PFM (Prospective Future Membership) – the period between the date of death of the Member and the date on which the Member would have attained the age of 60 years (measured in years and fractions of a year based on complete months).

Total and Permanent Disablement benefit

The lump sum benefit is calculated as sum of:

(i) ABM at date of disablement x FS; and

(ii) FS x F x PFM

Where:

F - 0.20 (or 0.26 for members contributing at 7.5%)
PFM (Prospective Future Membership) – the period between the date of disablement of the Member and the date on which the Member would have attained the age of 60 years (measured in years and fractions of a year based on complete months).

Other Benefits

Various other benefits, and minimum benefits, apply for particular members based on previous funds. In particular, there are two Old Basis members.

Pension options may apply.

All benefits are subject to a minimum of the Minimum Requisite Benefit set out in the Benefit Certificate.

Division F - Revised Scheme

This is a summary of Revised Scheme benefits only.

Definitions

Minimum Retirement Age:	Age 55
Salary:	The salary for superannuation purposes is generally determined at a fixed level over the year from 1 July to the following 30 June, and is based on the annual rate of salary being earned on the 1 May preceding the start of that year.
Final Average Salary (FAS):	The average annual salary earned in the two years prior to retirement. FAS.
Recognised Service (RS):	The total period (in years and complete days) in which a member contributed to the Revised Scheme.
Maximum Reduction Factor:	17.6% of the portion of the benefit which has accrued after 1 July 1988 (the ratio of membership after 1 July 1988 to total membership).
Pension Reduction Factor:	This is calculated at the date the pension commences and is nil if the pension is $6,250 or less and 17% if the annual pension is $30,000 or greater. When the annual pension is between $6,250 and $30,000 the Pension Reduction Factor is determined by interpolation. The Pension Reduction Factor is taken to be the lesser of this amount and the Maximum Reduction Factor.
Lump Sum Reduction Factor:	13.75% of the post 1 July 1983 portion of the benefit (the ratio of membership after 1 July 1983 to total membership). The Lump Sum reduction factor is taken to be the lesser of this amount and the maximum Reduction Factor.

Member Contributions

Contributions are determined as a percentage of the member's Salary with the percentage depending upon the age last birthday of the member. Increases in contributions which would result from an increase in Salary or increase in percentage (due to age last birthday increasing to another contribution range) are only made from 1 July each year.

The contribution scales which currently apply are set out in the following table:

Age Last Birthday	Contributions (% of Salary)
15-29	8.0
30-39	8.5
40-49	9.0
50+	9.5

Retirement Benefit

A member may retire after reaching the minimum retirement age, and receive a pension benefit. An amount of up to 50% (or 100%) may be commuted into a lump sum.

For members retiring with at least 30 years of Recognised Service, the retirement benefits are equivalent to a pension of:

- for retirement at age 65: 70% x FAS x (1 - Pension Reduction Factor);

  or

- for retirement at age 60: $66^2/_3$% x FAS x (1 - Pension Reduction Factor).

A more detailed description of the retirement pensions, before applying the Pension Reduction Factor, at various ages is as follows:

Retirement Age	Recognised Service (RS) in Years	Annual Pension ($p.a.)
65 65	30+ less than 30	70% of FAS 70% x FAS x (RS/30)
60-65 60-65	30+ less than 30	$66^2/_3$% x FAS x (C60/CR) $66^2/_3$% x FAS x (C60/CR) x (RS/30)
60 60	30+ less than 30	$66^2/_3$% x FAS $66^2/_3$% x FAS x (RS/30)
less than 60 less than 60	30+ less than 30	$66^2/_3$% x FAS x (C60/CR) x (YA/YP) $66^2/_3$% x FAS x (C60/CR) x (YPP/30) x (YA/YP)

Where:

RS – Recognised Service

FAS – Final Average Salary

C60 – Commutation Factor at age 60 (as per commutation table below)

CR – Commutation Factor at retirement age (as per commutation table below)

YA – Recognised Service (maximum of 42 years)

YP – Recognised Service if continued to age 60 (maximum of 42 years)

YPP – Recognised Service if continued to age 60 (no maximum applied)

The pension calculated from this table is the "Unreduced Pension" and is recorded so that dependants benefits can be subsequently calculated if needed. The pension payable to the former member is:

Unreduced Pension x (1 – Pension Reduction Factor).

Commutation of Retirement Pensions

Within three months of retirement, a member may elect to commute either 100% or up to 50% of his or her Unreduced Pension entitlement to a lump sum. The factors used for conversion are set out in the table below and the resulting lump sum is then reduced by the Lump Sum Reduction Factor. The remaining pension is reduced by the appropriate Pension Reduction Factor.

Age	Factor (CR)
55	13.6
56	13.4
57	13.2
58	13.0
59	12.8
60	12.6
61	12.4
62	12.3
63	12.2
64	12.1
65	12.0

These factors are reduced by 2.0 if the portion of the benefit payable in the future to the spouse of the member is not converted.

Disablement Benefit

On disablement of a member prior to age 60, a Full Benefits contributor is entitled to a pension benefit calculated as for retirement at age 60, counting future service to age 60, but based on the FAS which applied at the date of disablement.

On disablement of a member aged more than 60, the retirement pension is available. In certain circumstances (for example a terminal medical condition), a lump sum may be available.

These pension benefits are reduced by applying the Pension Reduction Factors at the time that the disablement pension commences.

Death of a Pensioner

A pension is payable to any surviving spouse of a pensioner equal to 66 2/3% of the deceased pensioners Unreduced Pension. The spouse's pension is then reduced by the Pension Reduction Factor.

In addition, children's pensions may be payable.

If the spouse is under age 60 at the time of the member's death, the spouse has the option to commute the pension into a lump sum (of seven times the amount of the spouse's annual Unreduced Pension).

If the spouse is aged 60 or over, they may commute 100% or up to 50% of the pension into a lump sum within 12 months after the death of the member.

The Lump Sum Reduction Factor is applied to the lump sum benefit.

Death of a Contributor

A pension is payable to the spouse on the death of a Contributor prior to age 60, and the amount of this pension is determined as 66 $^{2}/_{3}$% of the Unreduced Pension which would have been payable had the contributor remained in the Fund and retired at age 60, counting future service to age 60, but based on the FAS which existed at the date of death. This pension is then reduced by the Pension Reduction Factor based on the amount of the spouse's pension.

On the death of a member aged 60 or more, $^{2}/_{3}$ of the Unreduced Pension on retirement is available. The spouse's pension is reduced by the Pension Reduction Factor.

Pensions are payable to dependant children, determined in a similar way as for the death of a pensioner but are based on the prospective retirement pension.

Similar to the death of pensioner, spouse can elect to commute their pension into a lump sum.

If a contributor has no dependants then the benefit payable is member's contributions with interest.

Resignation Benefit

On resignation, contributors are entitled to a choice of three benefits. These are:

(1) Member Contributions plus interest together with a deferred pension determined, before the Pension Reduction Factor is applied, as:

$$\frac{(\text{Age 60 Pension}) \times (YA - X) \times C \times 5}{YP \times 7}$$

Where:

YA, YP and Age 60 Pension are defined above as for age retirement

X - lower of 5 years and the period from age at exit to age 50

C - factor determined from the following table:

Age	Factor (C)
50+	1.00
45	0.90
40	0.80
35	0.70
30 or less	0.60

(2) Member contributions plus interest in the last X years, plus a deferred pension determined, before the Pension Reduction Factor is applied, as:

$$\frac{(\text{Age 60 Pension}) \times (YA-X) \times C}{YP}$$

(3) As for (2) but with a further deferred pension if the member chooses to forfeit Member Contributions received in the last X years.

At the time the pension begins to be paid the member's deferred pension is reduced by the Pension Reduction Factor.

Deferred pensions are payable from age 60. At the member's option, a deferred pension may be payable at any time after the minimum retirement age, but this will be adjusted as shown below.

Pension Payable = (Unreduced Deferred age 60 pension) x (C60/CR)

The pension payable is reduced by the appropriate Pension Reduction Factors at the time that it becomes payable.

A deferred pension may be converted to a 100% lump sum. Also, the former member may elect to commute up to 30% (or 50% if they have not already received a benefit of member contributions plus interest) of his or her unreduced deferred pension entitlement to a lump sum based on the same factors as for retirement pensions. This lump sum benefit is reduced by the Lump Sum Reduction Factor and the remaining pension is reduced by the appropriate Pension Reduction Factor.

Retrenchment Benefit

On retrenchment, before applying the relevant reduction factor, a revised scheme member is entitled to either of:

(1) A deferred pension calculated as follows:

$$\frac{(\text{Pension at age 60}) \times YA \times C}{YP}$$

or

(2) A lump sum determined as the deferred pension (in (1) above) times C60.

At payment the deferred pension is reduced by the Pension Reduction Factor while the lump sum is reduced by 12.5% of the portion of the benefit that accrued after 1 July 1983.

Indexation of Pensions

All pensions, including deferred pensions are indexed to the Consumer Price Index (Capital Cities).

Superannuation Guarantee

All benefits are subject to the Minimum Requisite Benefit set out in the Benefit Certificate.

Division F - Transport Superannuation Scheme

Accrued Retirement Benefit

The accrual rate (as set out below) times membership times final average salary.

Contribution Rate (%)	Accrual Rate Post 30 June 1993 (%)	Accrual Rate Pre 30 June 1993 (%)
0	10.00	8.50
2.5	15.00	13.00
5.0	20.00	17.50
7.5	25.00	22.00

Additional benefits are payable to members who transferred to the Transport Superannuation Scheme (TSS) from other plans or members who were not entitled to a benefit from a prescribed fund prior to 1987.

Notes:

- a maximum multiple of salary applies;
- membership includes completed days; and
- final average salary is the average of the annual salaries in the last two years.

<u>Prospective Retirement Benefit</u>

20% of final average salary for each year of potential membership from date of calculation to age 60.

Retirement Benefit

A member is entitled to a retirement benefit on or after age 55, equal to the accrued retirement benefit.

Death Benefit

Death before age 60, the benefit provided to the dependants is the sum of:

- the accrued retirement benefit at date of death (based on the pre July 1993 accrual rates); and
- the prospective retirement benefit from date of death to age 60, using final average salary at date of death.

Death after age 60 is a lump sum equal to accrued retirement benefit.

If on the death of a member before retirement the member has no dependants the benefit payable is a lump sum of the member's contributions with interest.

Total and Permanent Disability Benefit

Before age 60:

- a pension for life at the rate of 1/12th of the sum of the accrued retirement benefit and the prospective retirement benefit per annum;
- if a member continues to receive a pension to age 65 he may elect to receive a lump sum equal to his accrued retirement benefit calculated at the date of disablement instead of receiving a pension from the Fund; and
- the Board may decide that instead of the pension the member may receive:
  - (a) a lump sum = part of the accrued retirement benefit; and
  - (b) pension = 1/12th of the balance of the accrued retirement benefit.
- If the former member dies before age 65, a lump sum equal to the following amount is payable to the dependants:

$$\frac{D \times (312 - N)}{312}$$

Where:

D is the accrued retirement benefit that would have been payable if the member had died on the date of their disablement and;

N is the number of instalments already paid (fortnightly).

After age 60:

- a lump sum equal to the accrued retirement benefit.

Ill health benefit

The benefit payable is the accrued retirement benefit at the time of retirement.

Resignation Benefit

On resignation prior to age 55, a member is entitled to:

(a) a cash benefit equal to member contributions and interest; and

(b) a deferred benefit equal to:

(i) 3% of final average salary for each year of service after 1/9/87; and

(ii) for each year in excess of 5 years, 5% of the balance of the accrued retirement benefit up to a maximum of 100% after 25 years of service.

Where:

the balance of the accrued retirement benefit is the accrued retirement benefit at the time of resignation less the total of (a) and (b)(i) above.

Note that the deferred benefit is payable at any time between age 55 and age 65, or earlier upon the death or disablement of the member.

A member is able to elect an immediate lump sum benefit instead of a deferred lump sum.

Superannuation Guarantee

All benefits are subject to the Minimum Requisite Benefit set out in the Benefit Certificate.

Appendix B: Membership Movements

Parks plan

Membership as at 1 July 2017	67
Exits	17
Membership as at 30 June 2020	50

Appendix C: Summary of Income and Expenditure for the Fund

	($'000)
Market Value at 1 July 2017	**8,597,435**
Plus	
Net Investment Revenue	1,380,771
Contribution Revenue	2,015,634
Other Revenue	492,340
	3,888,745
Less	
Benefits paid	1,779,665
Administration Expenses	70,183
Superannuation Contribution Surcharge	0
Insurance Premium	62,802
Taxation Provision	208,874
	2,121,524
Market Value at 30 June 2020	**10,364,656**
Comprised of:	
Defined Benefit Plan	2,226,980
City of Melbourne	54,608
Parks Victoria including Ports	31,221
Accumulation Accounts & Reserves	6,176,284

Appendix D: Summary of Valuation Assumptions

Financial Assumptions

The most significant financial assumptions are:

- Active members:
  - investment returns (net of tax; expenses) — 3.4% p.a.
  - salary inflation growth — 2.0% p.a. for two years, 2.75% thereafter
- Pensioners:
  - investment returns (gross of tax; expenses) — 4.0% p.a.
  - CPI increases — 2.0% p.a.
- administration expenses: — 10.0% of salaries

Demographic Assumptions

Active Members (excluding former Ports members)

The table below illustrates the decrement rates assumed for active members. The decrement rates represent the percentage of members leaving the plan each year by each cause.

Year of Age	Deaths %	Disablements %	Resignations %	Retirements %
20	0.10	0.02	13.42	-
30	0.09	0.06	6.48	-
40	0.12	0.13	3.77	-
50	0.27	0.40	2.44	-
60	0.76	1.43	-	15.0
64	-	-	-	15.0

Former Ports members (Transport Scheme and Revised Scheme)

We assume that all members retire at age 60 (or current age if over age 60). No other decrement applies.

Pensioners

The table below illustrates the rates of mortality assumed for pensioners. The former Ports plan members are assumed to be entitled to pensions in certain circumstances. The figures represent the percentages dying in the years of age shown.

Year of Age	Retirement /Spouse Male %	Disability Male %	Retirement /Spouse Female %	Disability Female %
60	0.49	1.26	0.30	0.58
65	0.73	1.95	0.45	0.99
70	1.16	3	0.76	1.68
75	2.11	4.56	1.40	2.84
80	3.99	6.84	2.77	4.74
85	7.81	10.06	5.73	7.73
90	14.43	14.39	11.60	12.18

Mortality improvement based on the 125-year experience from the Australian life tables 2015-2017.

Other Pension Assumptions

Males (pensioners or reversionary spouses) are assumed to be 3 years older than their female spouses. The age based proportion married assumptions are applied at the date of commencement of a pension.

Appendix E: Asset Allocation

Asset Allocation at 30 June 2020

Asset Class	Actual Asset Allocation 30 June 2020 (%)	Strategic Asset Allocation 30 June 2020 (%)
Australian Equity	9.9	10.0
International Equity	9.5	9.5
Private Equity	1.2	1.2
Infrastructure	5.0	5.0
Property*	4.9	4.8
Opportunistic Investments	5.1	5.0
Alternative Debt	7.7	7.7
Fixed Interest	42.0	41.9
Cash	14.8	14.9
Total	**100.0**	**100.0**
Allocation to Illiquid Assets	13.9%	13.6%
Allocation to Growth Assets	35.0%	36.2%

* 3.9% of actual property is illiquid.

Asset Allocation post 30 June 2020

Asset Class	Strategic Asset Allocation Post 30 June 2020 (%)
Australian Equity	12.5
International Equity	14.5
Private Equity	0
Infrastructure	5.0
Property	5.0
Opportunistic Investments	0
Alternative Debt	15.5
Fixed Interest	30
Cash	17.5
Total	**100.0**
Allocation to Illiquid Assets	17%
Allocation to Growth Assets	40%

Appendix F: Total Service Liability Surplus/(Deficit)

		($million)
Present Value of Active Member Liabilities		31.0
Retirement	29.2	
Death	0.5	
Disablement	0.9	
Resignation	0.4	
less Family Offset and Surcharge Account balances		(0.1)
plus Present Value of Future Expenses		2.1
plus Allowance for tax on Contributions		0.0
Total Benefit Liability		**33.1**
Compared to:		
Assets		31.2
plus Value of ongoing member contributions (6%)		1.0
plus Value of ongoing Authority contributions (SG)		2.6
Total Assets		**34.8**
Surplus of Total Assets over Total Benefit Liability as at 30 June 2020		1.7

Appendix G: Actuarial Statements required under SPS 160 Paragraph 23(a) – (h)

Parks plan

The following statements are prepared for the purposes of actuarial statements and Paragraphs 23(a) to (h) of SPS160.

Background

The effective date of the most recent actuarial review of the Parks plan is 30 June 2020. The actuarial investigation was undertaken by Matthew Burgess, Fellow of The Institute of Actuaries of Australia, on behalf of Towers Watson Australia Pty Ltd (AFSL 229921).

This statement has been prepared for the Trustee of Vision Super as part of the actuarial investigation in accordance with the Professional Standards issued by The Institute of Actuaries of Australia.

Assets (SPS160 23(a))

The fair value of the Parks plan assets at 30 June 2020 was $31.2 million.

This value of assets at 30 June 2020 excludes amounts held to meet the Operational Risk Financial Requirement (ORFR) and was used to determine the required contributions.

Financial Condition SPS160 23(b)

The projected likely future financial position of the Parks plan during the three years following the valuation date and based on my best estimate assumptions is as follows.

Date	Vested Benefits Index (%)
30 June 2020	108.7%
30 June 2021	111%
30 June 2022	112%
30 June 2023	113%

The projected financial position is shown only for the defined benefit members.

Accrued Benefits (SPS160 23(c))

Accrued Benefits have been determined as the present value of expected future payments arising from membership completed as at the review date plus any additional accumulation benefits at face value. Accrued Benefits have not been subjected to a minimum of vested benefits.

In determining Accrued Benefits, the major assumptions adopted were a 1.4% p.a. real investment return over salary inflation for two years, followed by 0.65% p.a. real investment return over salary inflation thereafter. This comprised a 3.4% p.a. net of tax investment return assumption and a 2.0% p.a. salary inflation assumption for two years, followed by 2.75% p.a. thereafter.

The future rate of investment return used to determine the accrued benefits is the anticipated rate of return on the Parks plan assets.

Assumptions were also made about rates members would withdraw from service because of death, total and permanent disablement and resignation.

The past membership component of all benefits payable in future from the Parks plan in respect of the current membership are projected forward allowing for future salary increases and then discounted back to the valuation date at the assumed rate of investment return.

Using the above method, the total value of accrued benefits and the actuarial value of the Parks plan assets at 30 June 2020 were:

Value of accrued benefits:	$27.7 million
Fair Value of Assets:	$31.2 million. The ratio of the actuarial value of the assets to the value of the total accrued benefits was 112.7% which indicates an adequate coverage of the value of the accrued benefits as at the date of the actuarial investigation.

In our opinion, the value of the assets of the Parks plan at 30 June 2020 was adequate to meet the liabilities of the Parks plan in respect of accrued benefits in the Parks plan. The assets are considered adequate in the longer term based on the contributions recommended below, and assumptions as to the future experience which we regard as appropriate.

Vested Benefits (SPS160 23(d))

Vested benefits are the benefits to which members would be entitled if they voluntarily left service.

At the date of the actuarial investigation, the total vested benefits and net market value of the Parks plan total assets were:

Total Vested Benefits:	$28.7 million
Fair Value of Assets:	$31.2 million

The ratio of the net market value of the Parks plan assets to total vested benefits was 108.7%, which indicates a satisfactory coverage of Vested Benefits as at the date of the actuarial investigation.

In our opinion, the Parks plan's financial position is satisfactory.

The Trustee has determined the short fall limit to be 98%. In my opinion this is sufficient.

Minimum Benefits and Funding and Solvency Certificates (SPS160 23(e) and (f))

Funding and Solvency Certificates (FSC) for the Fund covering the period from 1 July 2017 to 30 June 2020 as required by the Superannuation Industry (Supervision) Act have been provided.

In our opinion, the solvency of the Fund will be able to be certified in any Funding and Solvency Certificate required under the Superannuation Industry (Supervision) Regulations during the three year period to 30 June 2023 if experience is as assumed.

We note that for the purpose of issuing an FSC, the appropriate funding measure is in respect of coverage of minimum benefits (MRBs), which in this fund are considerably less than vested benefits, and are covered sufficiently by Parks plan assets. At 30 June 2020, the ratio of assets to MRBs is 156.7%. The total Minimum Requisite Benefits as at 30 June 2020 was $19.9 million.

Recommended Contributions (SPS160 23(g))

We recommend that Parks Victoria contribute the following amounts from 1 July 2020:

- 12% of salaries for Division E members and the following contribution rates for Division F members as follows:

Former Fund	Current Member Contribution Rate (%) of Salary	Employer Accruing Cost Contribution Rate (%) of salaries
Transport Scheme	0.0	9.5
	2.5	9.5
	5.0	13.5
	7.5	18.0
Revised Scheme	N/A	17.0

- Fund the top-up payments for exiting members equal to the following amount increased for contribution tax:

  Benefit Payment less (Vested Benefit x VBI)

  Top-up payments are to be calculated and invoiced quarterly in arrears. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of any insurance proceeds; plus

- Any salary sacrifice contributions should be made in respect of members in accordance with the Trust Deed.

The amounts of required contributions will be reviewed in the next triennial actuarial review of the Parks plan to be conducted with an effective date no later than 30 June 2023. However, an earlier actuarial review should be undertaken if there are any significant changes in the Parks plan.

Matthew Burgess

Matthew Burgess
Fellow of the Institute of Actuaries of Australia

Surath Fernando
Fellow of the Institute of Actuaries of Australia

19 October 2020