Report on the Actuarial Investigation as at 30 June 2014

The Parks Plan

Local Authorities Superannuation Fund

24 NOVEMBER 2014

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1 EXECUTIVE SUMMARY

Purpose

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, the Trustee of the Fund.

1.2 This actuarial investigation report covers the Parks plan within the Fund, which is a sub-fund as defined in Superannuation Prudential Standard 160 (SPS 160). The actuarial investigations for the Defined Benefit plan and City of Melbourne Plan, which are also sub-funds as defined in SPS 160, are covered in separate reports.

1.3 The purpose of this report is:

(a) to meet the requirements of the Trust Deed and the relevant superannuation legislation;

(b) to examine the current financial position of the Parks plan;

(c) to provide advice to the Trustee on the funding arrangements;

(d) to meet the requirements of APRA's SPS 160.

Data, Experience and Assumptions

1.4 The Parks plan membership is summarised as at 30 June 2014 in the following table:

SUMMARY OF PARKS PLAN MEMBERSHIP AS AT 30 JUNE 2014				
Former fund	Number	Average Age (years)	Average Service (years)	Average Salaries
WISF	74	55.2	30.8	$86,296
Transport Scheme	6	55.0	31.9	$85,152
Revised Scheme	1	*	*	*
Total	81	55*	31*	$86,000*

*Numbers are not disclosed due to privacy. Similarly we have rounded the totals shown for the entire Parks plan.

1.5 The market value of the Parks plan assets as at 30 June 2014 used in the valuation was $33.3 million.

Financial Experience and Assumptions

1.6 The rate of return (net of tax and investment expenses) earned by the Parks plan for the period from 1 January 2012 to 30 June 2014 was 11.6% p.a. which was higher than the expected return of 7.5% p.a. in the 2011 investigation.

1.7 The full time equivalent salary of Parks plan members who remained members as at 30 June 2014 grew by 5.2% p.a.. This is lower than the rate of 6.7% p.a. assumed (i.e. an one-off increase of 6.0% in addition to the long term assumption of 4.25% p.a.).

1.8 Overall, the financial experience over the last two and a half years has been favourable which has led to an improvement of the Parks plan's financial position.

1.9 The financial assumptions used in this actuarial investigation are the same as used in the 31 December 2011 actuarial investigation and are summarised below:

(a) Net investment return: 7.5% p.a.

(b) Salary Inflation: 4.25% p.a.

(c) Price Inflation: 2.75% p.a.

Demographic Experience and Assumptions

1.10 Over the two and a half years to 30 June 2014, the total number of exits was 24 which is consistent with the number expected.

1.11 Because of the small number of members, for the retirement and resignation rates, we have decided to continue to base the assumptions on the rates used for the main Defined Benefit plan. Therefore, consistently with the Defined Benefit plan 30 June 2014 actuarial investigation we have lowered the retirement rates between ages 55 to 58 to reflect the legislated increases to preservation age and that superannuation benefits become tax free at age 60. Simplified assumptions are adopted for the small number of former Transport Scheme and Revised Scheme members.

1.12 For death and disablement we have decided to adopt the external insurance premium rates as the decrements to ensure an allowance for the cost of insurance is included in the funding arrangements.

Funding Position as at 30 June 2014

1.13 The three funding measures of the Parks plan's financial position as at a particular date are:

(a) Vested Benefit Index (VBI): a measure of the financial position if all members were to leave employment at the calculation date;

(b) Discounted Accrued Benefit Index (DABI): a measure of the financial position of benefits in respect of past service at the calculation date, but assuming an ongoing Fund;

(c) Minimum Requisite Benefit Index (MRBI): coverage of Superannuation Guarantee minimum requisite benefits.

1.14 The following table shows each of the three key indices as at 31 December 2011 and 30 June 2014 for the Parks plan.

Funding Position	30 June 2014	31 December 2011
Vested Benefit Index (VBI)	102%	85%
Discounted Accrued Benefit Index (DABI)	119%	94%
Minimum Requisite Benefit Index (MRBI)	158%	121%

1.15 The funding indices have improved significantly since the last triennial actuarial investigation largely because of the large additional contributions made by Parks Victoria and the better than expected investment returns.

1.16 The Parks plan was in a satisfactory financial position as at 30 June 2014 as defined in SPS160 as having a VBI above 100%.

1.17 Using the methodology we provided, Vision Super has calculated the VBI as at 30 September 2014 to be 103.1%. The investment return from 1 October 2014 to 18 November 2014 has been calculated by Vision Super to be 1.14%. Vision Super has advised that a significant factor leading to the increase in VBI as at 30 September 2014 has been that members' salaries have remained unchanged for the quarter. We understand that salary increases usually occur at the end of the financial year and the VBI will reduce at that time to reflect the increases. While based on the best estimate assumptions, the VBI is expected to remain above 100% at 30 June 2015, the margin is small.

1.18 Therefore we expect that the Parks plan would have remained in a satisfactory financial position at the date of this completing this report.

1.19 Section 6 of the report considers the funding indices of the Parks plan in more detail.

Adequacy of the Funding Plan

1.20 The current funding arrangements for the Parks plan comprise of the following:

(a) an ongoing contribution rate of 12% of salaries for Division E members and contributions of the accruing cost for Division F members;

(b) 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.

1.21 The Parks plan funding seeks to:

(a) Maintain a VBI of over 100%, because under SPS 160 a plan to restore the VBI to 100% is required in prescribed circumstances; and

(b) Ensure that the aggregate of the current assets, plus future member and employer contributions are sufficient to pay all future member benefits (whereby an excess of assets on this basis is called a total liability surplus, or a shortfall is called a total liability deficit).

1.22 As at 31 December 2011, the Parks plan was in an unsatisfactory financial position with a VBI of 85%. Since then, Parks Victoria has contributed additional amounts of $0.8 million in 2012/13 and $2.8 million in 2013/14.

1.23 As at 30 June 2014 the VBI for the Parks plan was 102% and is expected to stay above 100% for the next three years under the current funding plan. Furthermore, under the current funding plan, we have determined the actuarial surplus to be $4.2 million. This means that if future experience is as expected, the assets and future contributions at the current rates are more than are required and excess assets will exist when the last benefit is paid from the Parks plan.

1.24 Because of the actuarial surplus there are various funding options available to Parks Victoria and Vision Super in respect of the Parks Plan. Based on the current assumptions, the actuarial surplus is expected to be sufficient to allow Parks Victoria to not make any future contributions. In this scenario the total actuarial surplus calculated using the current assumptions would reduce to $0.1 million.

1.25 However, if Parks Victoria adopted this funding plan (after being agreed by Vision Super) the risk of material additional contributions being required because of worse than expected experience would be increased. Based on our current assumptions, we expect that the VBI would remain marginally above 100% if Parks Victoria ceased contributions, but any adverse experience would be likely to cause the VBI to reduce below 100%. Parks Victoria has advised Vision Super that its preference is to maintain the current contribution rates to reduce the risk of needing to make large additional contributions.

1.26 If Parks Victoria maintain the current contribution rates, and all other experience is as expected, we estimate that an investment return of the order of 5.5% p.a. would be required to maintain the VBI just above 100% for the foreseeable future if this approach was adopted. While there is the opportunity to reduce the investment risk in the Parks plan investment strategy by targeting a lower investment return, there would remain a risk of additional contributions being required. However, the amount of additional contributions required should there be very poor investment return experience in the markets would probably be reduced (as the assets would be less risky).

1.27 Therefore, we recommend that the current funding plan be retained, but suggest that Vision Super consider whether it is appropriate to reduce the investment risk in the investment strategy at this time. The extent to which reducing the investment risk would be possible will depend upon the financial position of the Parks plan at that time.

1.28 Section 7 of the Report considers funding in more detail, including examples of the sensitivity of the results to the assumptions and future experience.

Insurance

1.29 In the prior actuarial investigation, as at 31 December 2011, the Parks plan self-insured its death and disablement benefits.

1.30 We recommended in that investigation that Vision Super externally insure the death and disablement benefits in the Parks plan and we understand that the Parks plan has been externally insured by Comminsure since 1 October 2012.

1.31 In reviewing the insurance policies we have identified some situations where the full future service component of death and disability benefits is not covered by the policy and situations where there may be some self insurance. While in most cases the differences are not material, we recommend that Vision Super review the insurance policies, and update them where necessary, to ensure that it is satisfied that any self insurance is not material.

Material Risks

1.32 The most significant risk facing the Parks plan funding is that investment returns will not be as high as expected which might result in additional contributions required in the future. It is recommended that the funding position of the Parks plan continue to be considered in setting investment policy. We suggest that such considerations should include the liquidity requirements (because in the long term full liquidity will be required) and whether reducing investment risk is appropriate at this time.

1.33 In our opinion the current Shortfall Limit of 97.0% remains appropriate, noting that the investment strategy has not changed materially since the Shortfall Limit was set by the Board.

1.34 A more complete discussion of the risks is included in Section 9.

Summary of Recommendations

1.35 A continuation of the following funding plan is recommended, whereby Park Victoria will pay:

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

(b) 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) Any additional contributions that may be required under SPS 160.

1.36 Under the current assumptions these contributions are expected to be more than required to meet funding requirements, and following discussions with Parks Victoria and Vision Super, we recommend that Vision Super consider whether a lower risk investment strategy is appropriate at this time.

1.37 We also recommend 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.

1.38 We also recommend that Vision Super review the insurance policies, and update where necessary, to ensure it is satisfied that any self insurance is not material.

Other

1.39 We are not aware of any event since 30 June 2014 that warrants review of the recommendations in this report.

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24 November 2014

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2 INTRODUCTION

2.1 This report was commissioned by Vision Super, 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 the Superannuation Industry (Superannuation) Act 1993, actuarial investigations are required at intervals of not more than three years. The previous triennial actuarial investigation was conducted as at 31 December 2011 by Mr. Matthew Burgess, FIAA of Russell Investment Pty Ltd, and set out in the “Report on the Actuarial Investigation as at 31 December 2011 dated 25 June 2012” (“previous report”).

2.5 This actuarial investigation covers the Parks Victoria sub-plan (“Parks plan”) within the Fund, which is a sub-fund as defined in Superannuation Prudential Standard 160 (“SPS 160”). The actuarial investigations for the main Defined Benefit plan and the City of Melbourne plan which are also sub-funds as defined in the SPS 160, are covered in separate reports.

2.6 An annual actuarial investigation of the Parks plan was also completed as at 30 June 2013 and set out in my report dated 14 October 2013. SPS 160 does not require annual actuarial investigation of the Parks plan as long as it does not commence to pay any life time pensions.

2.7 The Parks plan consists of the following members:

(a) members of the Water Industry Superannuation Fund (WISF) employed by Parks Victoria who transferred into the Fund effective from 1 November 1995 and are covered by Division E of the Local Authorities Super Trust Deed (“the Deed”); and

(b) former members of the Transport Superannuation Fund (now the Transport Scheme in the Emergency Services Superannuation Scheme), the Revised Scheme in the State Superannuation Fund (now the Revised Scheme in the Emergency Services Superannuation Scheme) or the Port of Melbourne Authorities Superannuation Scheme (PMASS) who transferred into the Fund and are covered by Division F of the Deed. All former PMASS members exited from the Parks plan prior to 31 December 2011. One Revised Scheme member, who is not employed by Parks Victoria, has been included in the main Defined Benefit plan (and is not considered in this report).

2.8 A separate notional plan is operated for the Parks plan (Division E & F members) within the Fund. Contributions and benefits in respect of the Parks Victoria members are made to (and from) this plan, as are relevant investment earnings and a share of the Fund expenses.

2.9 The Parks Victoria plan is closed to new entrants. New employees of Parks Victoria join Vision Super Saver.

2.10 The purpose of this report is:

- to meet the requirements of the Trust Deed and the relevant superannuation legislation;
- to examine the current financial position of the plan;
- to provide advice to the Trustee on the funding arrangements; and
- to meet the requirements of APRA's SPS 160.

2.11 This report satisfies the requirements of the following Professional Standards of the Actuaries Institute:

- Professional Standard 400
- Professional Standard 402
- Professional Standard 404

Actuarial Investigation as at 31 December 2011

2.12 The report on the actuarial investigation as at 31 December 2011 concluded that the experience of the Parks plan over the three year period to 31 December 2011 had been unfavourable. The VBI was 85% as at 31 December 2011.

2.13 As part of the 31 December 2011 actuarial investigation, we recommended that the following funding plan be adopted for the Parks plan:

(a) A $0.4 million contribution by 30 June 2012 as per the previous funding plan;

(b) Increase the ongoing contribution rate from 10% to 12% of salaries for Division E members from 1 July 2012 and retain the current accruing cost contribution rates for Division F members;

(c) Contribute an additional $1.9 million (inclusive of 15% contribution tax) per annum by 30 June 2013, 30 June 2014 and 30 June 2015.

(d) 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.

Events since the 31 December 2011 Actuarial Investigation

2.14 Following the actuarial investigation as at 31 December 2011, Parks Victoria agreed to, and implemented, components (a), (b) and (d) of the funding plan set out in Section 2.13.

2.15 Instead of the funding plan component (c) set out above, an alternative funding arrangement was implemented based on further actuarial advice. We understand that Parks Victoria has contributed additional amounts of $0.8 million in 2012/13 and $2.8 million in 2013/14. The contribution of $2.8 million was estimated to be sufficient to return the VBI to 100% at the time the contribution was made.

2.16 The Parks plan investment return for the period from 1 January 2012 to 30 June 2014 was approximately 11.6% p.a., which is higher than expected and led to an improvement in the financial position of the Parks plan.

2.17 The Government has legislated to increase the Superannuation Guarantee Charge to 12% of Ordinary Times Earnings. Under the current funding plan agreed, Parks Victoria has increased the ongoing contribution rate from 10% to 12% of salaries for Division E members from 1 July 2012. This legislative change should not have any material impact on the funding of the Parks plan.

2.18 We also note that the future service death and disablement benefits were externally insured from 1 October 2012. This is consistent with our recommendation in the previous triennial actuarial investigation.

2.19 APRA issued Superannuation Prudential Standard 160 (SPS 160) relating to defined benefit matters which applied from 1 July 2013 on a mandatory basis. Key requirements of SPS 160 are:

(a) The Trustee must set a short-fall limit. The Trustee has adopted a limit of 97% for the Parks plan. This means that if the Vested Benefit Index (VBI) falls below this percentage then an interim actuarial investigation may be required; and

(b) If the VBI falls below 97%, or below 100% at certain times such as when an actuarial investigation is being completed, then the Trustee must put in place a funding plan that is expected to restore the VBI to 100% within three years, irrespective of other funding measures. APRA can approve a longer time frame than three years.

2.20 There have been no other legislative changes or changes to benefits that have materially impacted on the funding of the Defined Benefit plan.

Contents of this Report

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

- Section 3 considers the data used in this investigation and the experience since 31 December 2011;
- Section 4 considers the assets and investment policy of the Parks plan;
- Section 5 considers the assumptions and methodology of the valuation;
- Section 6 considers the financial position of the Parks plan as at 30 June 2014;
- Section 7 considers the adequacy of the funding plan;
- Section 8 considers insurance;
- Section 9 discusses the material risks;
- Appendices A to C include supporting details of benefits, assets, and actuarial assumptions;
- Appendix D summarises the actuarial surplus/(deficit) as at 30 June 2014; and
- Appendix E contains the statements required under SPS 160.

3 DATA AND EXPERIENCE

Membership

3.1 For the purposes of this investigation, we were supplied by Vision Super with information on active members of the Parks plan as at 30 June 2014. We have relied on the data and information provided by Vision Super. From our checking processes we believe that the data is sufficiently accurate for the purposes of this investigation.

3.2 The membership details of the Parks plan are set out in the table below.

SUMMARY OF PARKS PLAN MEMBERSHIP AS AT 30 JUNE 2014				
Former fund	Number	Average Age (years)	Average Service (years)	Average Salaries
WISF	74	55.2	30.8	$86,296
Transport Scheme	6	55.0	31.9	$85,152
Revised Scheme	1	*	*	*
Total	81	55*	31*	$86,000*

* We have not included the average age, average service and average salary of the one Revised Scheme member to ensure privacy for this member. Similarly we have rounded the totals shown for the entire Parks plan.

Experience since 31 December 2011

3.3 Over the investigation period the salary increases were 5.2% p.a.. This is lower than the rate of 6.7% p.a. assumed (ie an one-off increase of 6.0% in addition to the long term assumption of 4.25% p.a.) in the previous investigation which has been favourable for the plan.

3.4 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 two and a half years to 30 June 2014, AWOTE increased by 3.6% p.a.. Overall, members received salary increases which are higher than those of the wider community, bearing in mind that the 5.2% p.a. salary increase rate would also reflect some element of promotional increases in addition to the inflationary increases and the one-off increase which we understand related to previous periods. Over the three years to 31 December 2011 the salary increases were 2.9% p.a..

3.5 Our previous salary scale assumption assumes that the promotional effect ceases after age 35. It is noted that all active members were over age 35 as at 30 June 2014 and therefore we have decided to remove the salary scale on the basis that the effect of promotion is not expected to be material.

3.6 The investment return was 11.6% p.a. over the investigation period, which is higher than the assumed investment return of 7.5% p.a.. This has led to an improvement in the Parks plan's financial position.

3.7 The table below summarized the number of exits over the two and a half years to 30 June 2014:

Exits during period from 1 January 2012 to 30 June 2014	
Exit Type	**Number**
Retirement	21
Resignation	1
Disability	1
Transfer to LASF	1
Total	24

3.8 The total number of exits during the investigation period was 24 which is consistent with the expected number of exits.

3.9 Given the small size of the membership, it is difficult to develop any statistically reliable decrement assumptions based on the plan experience.

3.10 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 31 December 2011 except that the rates of retirement between ages 55 to 58 were reduced to reflect the legislated increases to preservation age and that superannuation benefits become tax free at age 60.

3.11 For death and disablement we have decided to adopt the external insurance premium rates as the decrements. It is likely that this will overstate the number of death and disability benefits because the insurer's rates will include an allowance for administration expenses and a profit margin. The insurer may also have made other pricing decisions that mean actual experience would be expected to be higher or lower than implied by the premium rates. However, given the small number of members, very few death or disablement benefits are expected and the impact of the simplification of using the insurer's rates is not expected to be material. It also automatically ensures an allowance for the cost of insurance is included in the funding arrangements without having to make a separate allowance.

4 ASSETS AND INVESTMENTS

Assets

4.1 The market value of assets has been taken from the 30 June 2014 audited financial statements provided by Vision Super. Vision Super also provided additional information in respect of sub-plan assets. We have relied on the financial information provided by Vision Super.

4.2 The market value of the Parks plan assets as at 30 June 2014 used in the valuation was $33.3 million.

4.3 All Parks plan accounting transactions are recorded in a separate sub account. In this way over time the contribution rate will reflect the actual experience of the Parks plan. Vision Super allocates the balance of this sub account to the Parks plan. There was no material contribution receivable as at 30 June 2014 in respect of the Parks plan.

4.4 We believe the most suitable approach for this investigation is to continue to adopt the market value of assets for all purposes. We note that the funding position of the Parks plan may be variable because of the current high volatility in asset valuations.

Asset Allocation

4.5 The Fund invests in a wide range of asset classes such as equity, property and fixed interest investments. The Parks plan's asset allocation and the Strategic Asset Allocation are shown in Appendix C.

4.6 The Strategic Allocation to Growth Assets as at 30 June 2014 is 68.6%, including Australian Equities, International Equities, Private Equity, Opportunistic Investments, Absolute Return Strategies and a portion of the Multi-Asset, Core Property, Floating Rate Debt and Infrastructure asset classes. This has decreased from 73.5% as at 31 December 2011.

4.7 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.

4.8 We believe that the 68.6% allocation to growth assets is among a range of allocations that could reasonably be used for the Parks plan.

4.9 The Parks plan has been closed to new members. 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 more significant "actuarial surplus" or a large "actuarial shortfall" will result. Therefore, as we understand currently occurs in accordance with past recommendations, it is recommended that the funding position of the Parks plan continues to be considered in setting investment policy.

4.10 The higher the Parks plan's "actuarial surplus", the more attractive it may be to the Board to reduce the allocation to growth assets as a means of reducing the risk of subsequent higher contributions being caused by poor investment experience. An "actuarial surplus" also means that there is more flexibility in respect of the funding plan.

Liquidity

4.11 The Strategic Allocation to illiquid assets is 21.75%. As at 30 June 2014, 28.9% of the investments are invested in illiquid asset classes which include Private Equity, Infrastructure, Direct Property, Floating Rate Debt, Opportunistic Investments and Multi-Asset.

4.12 Given the size and maturity of the Parks plan, and that it pays lump sum benefits, it is inappropriate for the plan to hold illiquid assets unless other Fund assets (particularly the Defined Benefit plan) will continue to act as the "liquidity provider" for the Parks plan when members exit the plan.

4.13 With our assistance, Vision Super has completed a review of its liquidity profile and stress testing in early 2013. Stress testing showed that should a significant shock occur, the illiquid asset allocation could become a significant portion of the assets of the three defined benefit plans. Because the three defined benefit plans are closed to new members, liquidity modeling showed that the illiquid asset allocation of the three defined benefit plans will become even more sensitive to external events over time. Accordingly, we believe that it is appropriate to reduce the target allocation to illiquid assets over time.

4.14 We understand that the Board has determined that currently no further commitments are to be made to illiquid investments. We also understand that it is intended that the illiquid asset allocation will reduce to the Strategic Target of 21.75%. 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.

4.15 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.

Unit Pricing

4.16 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 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. The Trustee should continue to satisfy itself that no cross subsidies are occurring or could occur between the defined benefit and defined contribution plans.

4.17 The Parks plan assets are segregated for accounting purposes as well as unit pricing purposes. We believe that this is appropriate.

Shortfall Limit

4.18 The Trustee has set a Shortfall Limit in accordance with SPS 160 of 97% for the Parks plan. This means that between actuarial investigations, a restoration plan to restore the VBI to 100% is required when the Parks plan's VBI reduces to below 97%.

4.19 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."

4.20 Given the current and target asset allocation of the Parks plan, we believe that the current Shortfall Limit remains appropriate.

5 VALUATION ASSUMPTIONS AND FUNDING METHOD

Assumptions

5.1 An appropriate set of both financial and demographic assumptions must be determined before values can be placed on the defined 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.

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 B contains a summary of the assumptions used.

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 Parks plan's future benefit liabilities - hence, the difference between the rates is important, rather than their absolute values.)

5.8 Also, while there are currently no life time pensioners, some members are entitled to elect pensions indexed to CPI on retirement so a price inflation assumption is also required.

5.9 The "best estimate" financial assumptions adopted at the 31 December 2011 actuarial investigation were:

- 3.25% p.a. real investment return over salary inflation. This comprised a 7.5% p.a. net of tax investment return assumption and a 4.25% p.a. salary inflation assumption (an additional one off salary increase of 6.0% immediately after 31 December 2011 was also assumed).

- 5.5% p.a. real investment return over price inflation. This comprised an 8.25% p.a. gross of tax investment return and a 2.75% p.a. CPI assumption.

Investment Return

5.10 In order to determine the best estimate assumptions for this investigation, we have considered the capital market assumptions of Russell and the Fund's asset consultants, Frontier. A net investment return of 7.5% p.a. has been adopted for this investigation.

5.11 The investment return assumption has remained unchanged from the 31 December 2011 investigation. The assumptions are net of investment management fees.

CPI Increases

5.12 Russell and Frontier's CPI estimate is of the order of 2.0% - 3.0% p.a. which is consistent with the Reserve Bank's target CPI range of 2.0% p.a. to 3.0% p.a.. Therefore, we have retained the CPI assumption of 2.75% p.a. for the investigation.

Salary Inflation

5.13 The actual salary increases of Parks plan members have been a little higher than AWOTE (refer 3.3-3.4).

5.14 A salary increase assumption of 4.25% p.a. is 1.5% p.a. above the assumed 2.75% 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.

Expenses

5.15 We have reviewed the plan expenses for the period from 1 January 2012 to 30 June 2014 and noted that the plan expenses as a proportion of the members' salaries has increased over time as the membership continues to decline.

5.16 Hence, we have increased the expense assumption from 3.0% of salary to 5.0% of salary to reflect this trend.

Demographic Assumptions

5.17 A detailed analysis of the Parks plan's demographic experience was not undertaken due to the small size of membership. Overall exits were slightly lower than expected as set out in Section 3.8.

5.18 As discussed in Section 3, the demographic assumptions used for former WISF members are the same as those adopted for the Defined Benefit plan, except that the insurer's premium rates were used for death and disability. The former Transport Scheme and Revised Scheme members have been assumed to retire at age 60 to simplify the calculation given there are only a small number of such members. The assumptions are summarized in Appendix B.

Actuarial Funding Method

5.19 Clause A.20.1 of the Trust Deed gives the Trustee the ability to determine "the amount or rate of contributions" that Parks Victoria must contribute, after obtaining the advice of the actuary. 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.

5.20 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 all the contingencies under which benefits can be paid (retirement, death, disablement and resignation) and salary 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 Parks Victoria by comparing (b) with (c) plus the appropriate value of the assets at the investigation date.

5.21 This projection is known as the aggregate funding method, or total service liability funding, 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.

5.22 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".

5.23 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 Section 5.20. It is possible that the recommended funding amount under this funding method may not be sufficient to restore the fund's Vested Benefits Index (VBI) to 100% within the timeframe required by APRA if it is below 100%. 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.

6 FUNDING POSITION OF THE PARKS PLAN

Financial Position at 30 June 2014

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

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 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 thus the resignation benefit or the early retirement benefit (if aged 55 or more).

6.4 The Vested Benefits Index is calculated as follows:

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

6.5 Vested Benefits as at 30 June 2014 are:

Vested Benefits	($m)
Parks assets	$33.3
<u>Vested Benefits</u>	
Former WISF members	$29.5
Former Transport and Revised Scheme members	$3.2
Total Vested Benefits	$32.7
Vested Benefit Index	101.8%

6.6 The calculated VBI for the Parks plan at 30 June 2014 is 101.8%. This compares with a VBI of 85% as at 31 December 2011. The improvement in VBI has occurred primarily because of the higher than expected investment return and the additional contributions from Parks Victoria.

6.7 The Parks plan is not in an unsatisfactory financial position as at 30 June 2014. Because the VBI is currently greater than 100%, it means current assets are expected to be sufficient to cover the vested benefit if all members exited the fund on 30 June 2014.

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 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:

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

6.12 Discounted accrued benefits as at 30 June 2014 are:

Discounted Accrued Benefits	($m)
Parks assets	$33.3
Discounted Accrued Benefits Former WISF members	$25.0
Former Transport and Revised Scheme members	$2.9
Total Discounted Accrued Benefits	$27.9
Discounted Accrued Benefits Index	119%

6.13 The calculated DABI for the Parks plan at 30 June 2014, based on the "best estimate" assumptions, used in this investigation is 119%. This compares with a DABI of 94% as at 31 December 2011.

6.14 The increase in DABI is mainly due to higher investment returns than expected and the additional contributions from Parks Victoria.

6.15 Because the DABI is greater 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 2014.

Minimum Requisite Benefits Index

6.16 We have also considered the asset coverage of members' Minimum Requisite Benefits (i.e. Superannuation Guarantee Benefits).

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

6.18 The MRBs for the former WISF members are provided by Vision Super. While we are not able to independently verify the calculation, we have performed some reasonableness checks and these benefits appear to be in the right order. MRBs for the other members are not provided and therefore we have used the vested benefits as the proxy.

6.19 The Minimum Requisite Benefit Index is calculated as follows:

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

6.20 Minimum Requisite Benefits as at 30 June 2014 are:

Minimum Requisite Benefits	($m)
Parks assets	33.3
<u>Minimum Requisite Benefits</u> Former WISF members	$17.8
Former Transport and Revised Scheme members	$3.2*
Total Minimum Requisite Benefits	$21.0
Minimum Requisite Benefits Index	158%

**The Minimum Requisite Benefits for the former Transport and Revised Scheme members have been assumed to be equal to vested benefits. This will overstate the amount of Minimum Requisite Benefits.*

6.21 As at 30 June 2014 we estimate that the ratio of the market value of assets to the amount of Minimum Requisite Benefits was 158%. This compares with a MRBI 121% as at 31 December 2011.

6.22 The increase in MRBI is mainly due to higher investment returns than expected and the additional contributions from Parks Victoria.

6.23 If this ratio for the entire Fund falls below 100%, the Fund 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

6.24 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 Defined Benefit plans. We assume this approval would not be provided unless any future funding risk is adequately managed.

6.25 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"*

6.26 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."*

6.27 Therefore, in the case of the termination of contributions by Parks Victoria, 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.

6.28 On retrenchment, members' are entitled to the accrued retirement lump sum. This benefit may also be payable on partial disablement. As at 30 June 2014 the accrued retirement benefits were $32.9 million, and accordingly, as at that date, the ratio for the market value of assets to the amount of retrenchment benefits was 101.2%. The corresponding index as at 31 December 2011 was 84%. The increase in the index is mainly due to higher investment returns than expected and the additional contributions from Parks Victoria.

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

6.30 In certain situations some members can elect a pension. While there are no current pensioners, a member electing a pension is likely to cause a strain on funding. There are also other benefit options that are available in some circumstances that we also do not expect to have a material impact on funding.

6.31 In shown in Appendix C, there is currently a 28.9% allocation to illiquid assets. The funding indices have been calculated based on the valuation of these assets at market value from the 30 June 2014 audited financial statements. 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 the forced sale of illiquid assets would reduce the funding indices by of the order of 6%.

6.32 There was no material deferred tax asset in the Fund as at 30 June 2014. Therefore the funding is not significantly dependent upon being able to utilize such an amount.

7 ASSESSING THE ADEQUACY OF THE FUNDING ARRANGEMENT

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:

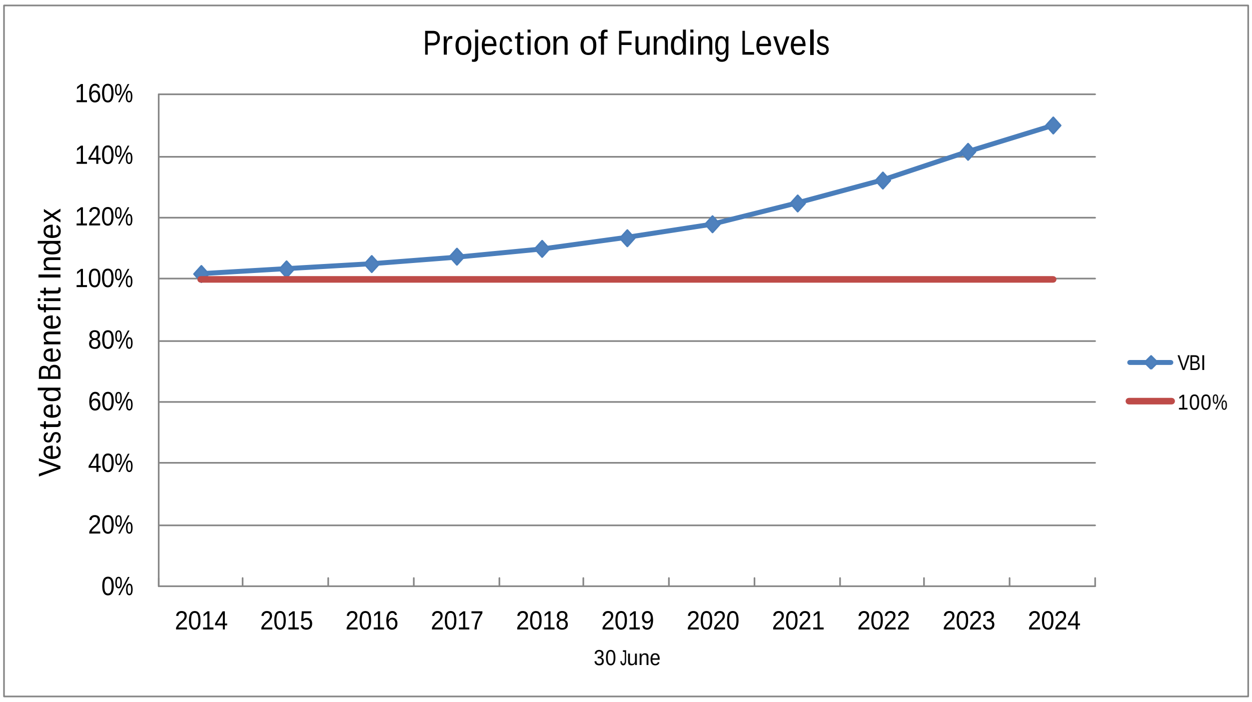
Benefit Payment less (Vested Benefit x VBI)

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.

Projection of Vested Benefit Index

7.2 This section considers the adequacy of the funding by projecting the Parks plan's future funding levels. This projection is based on the "best estimate" funding assumptions set out in Appendix B. It also assumes that Parks Victoria's contribution rates remain unchanged.

7.3 The following graph shows the projected VBI for the next 10 years under the current funding plan.



7.4 The chart shows that the VBI is expected to stay above over 100% for the next 10 years. Therefore, the current funding plan meets the requirements of SPS 160.

7.5 Another observation from this chart is that the VBI is expected to increase well above 100% in the long term. This means that if the assumptions are borne out in practice in the long term, either a contribution rate reduction will be required, a more conservative investment strategy could be adopted or a combination of both.

Actuarial Surplus/(Shortfall)

7.6 Based on the methods described in Section 5.19-5.20, we have calculated the actuarial surplus/(shortfall) as at 30 June 2014 to be $4.2 million. The calculation is set out in Appendix D.

7.7 As at 31 December 2011, there was an actuarial surplus of $2.2 million under the proposed funding plan in that report.

7.8 The actuarial surplus has increased from $2.2 million to $4.2 million mainly due to higher than expected investment return and lower than expected salary growth over the period. The additional contributions made were lower than recommended in the 31 December 2011 actuarial investigation because I revised my advice based on updated experience. The increase in the assumption in respect of future administration expenses reduced the actuarial surplus by $0.6 million. The change to the retirement rates was not material.

7.9 A surplus of $4.2 million means that the current assets, together with the future contributions would be $4.2 million more than adequate to fund the benefits in the long term if experience is as expected. As set out above, this means that in the long term either a contribution rate reduction will be required, a lower risk and return investment strategy could be adopted or both. However, given the maturity of the fund, the funding requirement is highly dependent on the actual experience.

Other Considerations

7.10 Under SPS 160 which places a greater emphasis on the short term solvency (i.e. VBI), the future contributions are likely to be volatile. It would be prudent to allow for some margin in the VBI in order to reduce the need for additional funding.

7.11 This risk of volatile contributions may also be managed by reducing the exposure to growth assets if the VBI becomes well above 100%. However, de-risking the investments may reduce the expected return and hence increase the funding cost.

7.12 As at 30 June 2014, the long-term cost of funding the future service benefits for the Parks plan members (excluding the Ports plan members) was determined to be 15.6% of members' salaries. This is the employer contribution rate required assuming that assets at the valuation date were equal to the present value of discounted accrued benefit liabilities (i.e. the DABI was 100%). This reflects the ongoing cost to the employer of providing the defined benefits accruing in respect of future service. It should be noted that because of changes to assumptions and experience over time, the current contribution rates for the Transport Scheme and Revised Scheme may differ from updated estimates of the accruing cost. We have not updated them on the basis that this group is small and any changes would not be expected to be material to the overall Parks plan funding.

7.13 As there is an actuarial surplus of $4.2 million, contributions at the long term cost of funding future service benefits are not required. Because of the actuarial surplus there are various funding options available to Parks Victoria and Vision Super in respect of the Parks Plan. Based on the current assumptions, the actuarial surplus is expected to be sufficient to allow Parks Victoria to not make any future contributions. In this scenario the total actuarial surplus calculated using the current assumptions would reduce to $0.1 million and based on the current assumptions, we expect the VBI would remain only marginally above 100%.

7.14 However, if Parks Victoria adopted this funding plan (after being agreed by Vision Super) the risk of material additional contributions being required, because of worse than expected experience, would be increased. Parks Victoria has advised Vision Super that its preference is to maintain the current contribution rates to reduce the risk of needing to make large additional contributions.

7.15 If Parks Victoria maintains the current contribution rates, and all other experience is as expected, we estimate that an investment return of the order of 5.5% p.a. is required. The VBI would be expected to remain just above 100% for the foreseeable future if this approach was adopted and experience is consistent with the assumptions. While there is the opportunity to reduce the investment risk in the Parks plan investment strategy, there would remain the risk of additional contributions being required. However, the amount of additional contributions required should there be very poor investment return experience in the markets would probably be reduced (as the assets would be less risky).

7.16 Therefore, we recommend that the current funding plan be retained, but suggest that Vision Super consider whether it is appropriate to reduce the investment risk in the investment strategy at this time.

7.17 In the current funding plan, top up contributions for all exits have been recommended when the VBI is less than 100%. Should this situation arise again, these top up contributions are necessary to ensure that the funding position, in particular the VBI, would not deteriorate with each exit. When the VBI is above 100%, the amount of the top-up contributions would be zero except where a retrenchment benefit payable is greater than the vested benefit.

Sensitivity Analysis

7.18 The factors affecting the ultimate funding cost depends on future experience of the plan and are generally split into two broad categories. They are the financial assumptions and the demographic assumptions. The funding cost is more sensitive to changes in the financial assumptions. Accordingly, the sensitivity of the actuarial surplus/(shortfall) to the financial assumptions is considered below.

7.19 The key financial assumption is the differential or "gap" between the investment return and the growth in salaries. If the actual experience for the "gap" varies from the assumed "best estimate" assumption of 3.25% p.a., it can have a very significant effect on the ongoing contribution rate and any unfunded liability contributions (as demonstrated in this investigation relative to the last investigation).

7.20 To quantify the potential impact of variations in financial experience the following table shows the impact of changing the gap on the actuarial surplus/(shortfall) as at 30 June 2014.

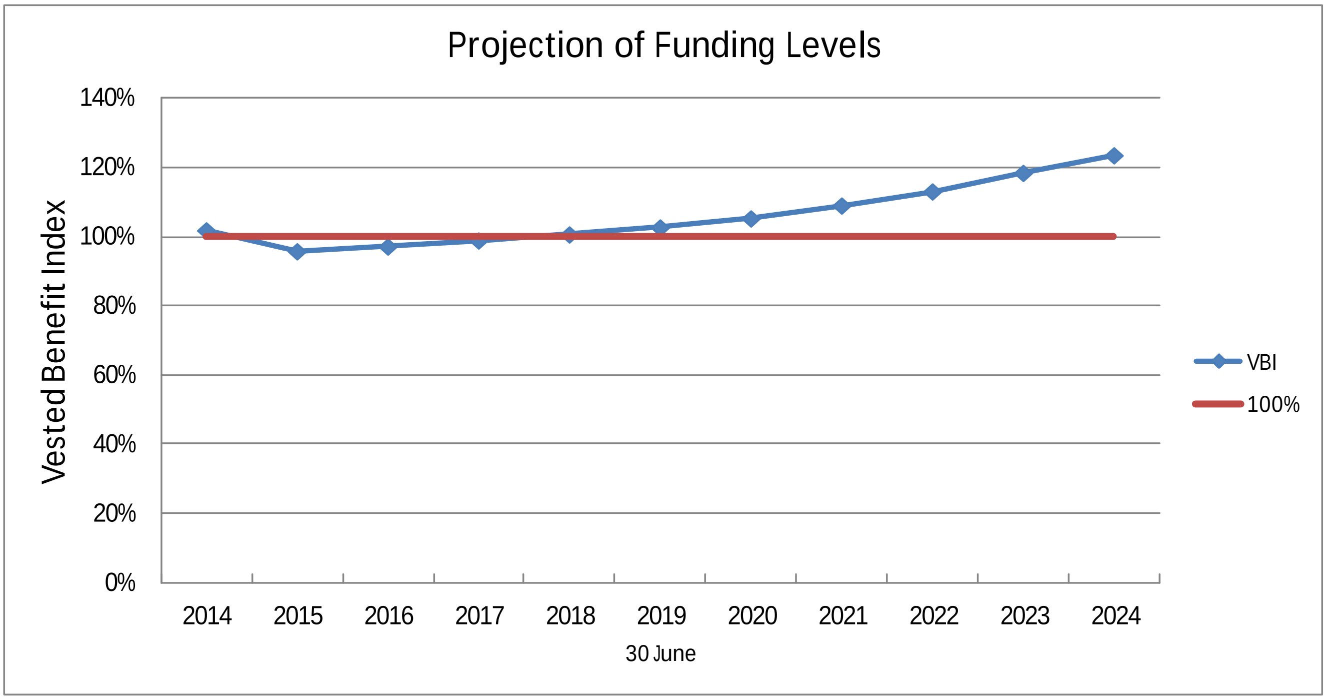
Impact of Changes in Key Assumption

	Actuarial Surplus/(Shortfall) $ Million
Best estimate assumptions	4.2
Increase the gap by 1%	5.7
Decrease the gap by 1%	2.4

7.21 The table shows that a variation in the "gap" has a very significant impact on the actuarial/(shortfall). It is possible that the actual "gap" may vary materially from our best estimate assumption by significantly more than 1% and the impact would be greater than what was shown in this sensitivity analysis.

7.22 The variations selected in the sensitivity analysis do not indicate the upper and lower bounds of all possible outcomes.

7.23 We have also considered the investment risk in the short term. The chart below shows the impact on the VBI if the investment return is 0% in the year to 30 June 2015. The investment return is assumed to return to 7.5% p.a. from 1 July 2015 and all other experience is assumed to be as expected.



7.24 The VBI is expected to increase to 100% within three years' (from 30 June 2015) if the return is 0% in the 2014/2015 year. However, additional contributions would be required in respect of exiting members while the VBI was below 100% for the VBI to be expected to increase to 100% in this timeframe. If the experience was any worse than this scenario then additional lump sum top-up contributions would be likely to be required..

Events since 30 June 2014

7.25 Vision Super has advised that the Parks plan VBI was 103.1% as at 30 September 2014. Since 1 October 2014 the investment return to 18 November 2014 has been 1.14%. It is clear that the VBI has improved since 30 June 2014.

7.26 Vision Super has advised that a significant factor leading to the increase in VBI as at 30 September 2014 has been that members' salaries have remained unchanged for the quarter. We understand that salary increases usually occur at the end of the financial year and the VBI will reduce at that time to reflect the increases. While, based on the best estimate assumptions, the VBI is expected to remain above 100% at 30 June 2015, the margin above 100% is small.

7.27 We are not aware of any other event subsequent to 30 June 2014 that would materially impact upon the results of the actuarial investigation of the Parks plan.

Recommendation

7.28 We recommend that Parks Victoria continues to contribute according to the current funding plan:

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

(b) 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.

(c) Any additional contributions that may be required under SPS 160.

7.29 Under the current assumptions these contributions are expected to be more than required to meet funding requirements, and following discussions with Parks Victoria and Vision Super, we recommend that Vision Super consider whether a lower risk investment strategy is appropriate at this time.

7.30 We also recommend that the Board continue to 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.

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 is significantly higher than expected. Variation in the claims experience could also have a large impact on the 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.

8.4 We understand that the Parks plan has been externally insured by Comminsure since 1 October 2012, which we continue to believe is appropriate.

8.5 Given the small number of Parks plan members, 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, there would not be expected to be a financial strain on the funding if such a claim was made.

8.6 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.

8.7 We have broadly reviewed the terms of the cover and the formulas used to determine the sums insured. We have identified some situations where the full future service component of death and disability benefits is not covered by the policy and situations where there may be some self insurance. While in most cases the differences are not material for funding, we recommend that Vision Super review the insurance policies, and update them where necessary, to ensure that it is satisfied that any self insurance is not material. We have separately provided Vision Super with a list of possible issues that we identified.

9 MATERIAL RISKS

9.1 The funding of the Parks plan is dependent upon future experience. I have briefly considered below the material risks in respect of funding. If adverse outcomes occur then the Parks plan's VBI could reduce to below the Short Fall Limit of 97% prior to the next actuarial investigation. If this occurs, additional contributions may be required from Parks Victoria in accordance with SPS 160.

9.2 Please also refer to Section entitled sensitivity analysis in Section 7 of this report.

Technical Insolvency

9.3 As the MRBI is currently 158% as at 30 June 2014, there is a low risk that the Parks plan could become Technically Insolvent in the short term.

Investment Risk

9.4 The most significant funding risk facing the Parks plan is that investment returns will not be as high as expected. There is also a risk a large surplus could arise that could be difficult to utilize if not managed carefully. A change to the assumed investment return could also have a material impact on contribution requirements in the short term, but would not be expected to impact the ultimate cost of funding benefits. This also applies for other assumptions.

9.5 The impact of variations in future experience is considered in Section 7.

9.6 The Trustee should continue to consider the liabilities and the funding position when determining the Parks plan's investment strategy. Because the Parks plan is currently in actuarial surplus and Parks Victoria has indicated it would prefer a lower risk of future top-up contributions than a reduction in contribution rate, in Section 7 we have recommended that Vision Super consider whether a lower risk investment strategy is appropriate at this time.

Salary and Price Inflation Risk

9.7 Salary increases exceeding expectations will have a negative impact on funding.

9.8 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.

Liquidity Risk

9.9 In Section 4 liquidity risk is discussed. Also, Section 6.31 considered the potential impact on funding of having to liquidate investments at a discount.

9.10 A review of the cash flows and sensitivity of the liquidity position to adverse scenarios is completed for Vision Super periodically. We understand that the Parks plan shares liquidity risk with the other defined benefit plans within the Fund. We understand that Vision Super considers the long term liquidity requirements in setting its strategic asset allocation and plans to reduce exposure to illiquid assets in the Parks plan to zero in the long term given the maturity of the plan, which we believe continues to be appropriate.

Retrenchments Risk

9.11 The retrenchment benefit is larger than the resignation benefit for some members. A significant number of retrenchments would have a negative impact on liquidity and funding.

9.12 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.

9.13 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

9.14 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

9.15 Operational risks (e.g. unit pricing, segregation of defined benefit assets and administration) are not considered in this report.

9.16 There is a selection risk that members may take more expensive benefit options than expected.

9.17 There is a risk that Parks Victoria will not pay recommended contributions, however it should be noted that Parks Victoria is a Victorian Government department.

9.18 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 and conditions for the members of the Parks Plan are set out in Division E and Division F of the Local Authorities Super Trust Deed (“the Deed”). These divisions are closed to new members. 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 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 State Superannuation Fund) and the Revised Scheme in the State Superannuation Fund. 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 dependents 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 dependent 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.

Prospective Retirement Benefit

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 dependents 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 - SUMMARY OF VALUATION ASSUMPTIONS

Financial Assumptions

The most significant financial assumptions are:

- active members:
    - investment returns (net of tax; expenses) — 7.5% p.a.
    - salary inflation growth — 4.25% p.a.
    - CPI increases — 2.75% p.a.

Other financial assumptions used are:

- administration expenses:
    - 5.0% of salaries

Other Assumptions

Parks members (excluding former Ports members)

The table below illustrates the decrement rates and the promotional salary scale 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.

Appendix C - ASSET ALLOCATION

Asset Class	Actual Asset Allocation 30 June 2014 (%)	Strategic Asset Allocation 30 June 2014 (%)
Australian Equity	25.1	25.0
International Equity	23.0	20.0
Private Equity	7.5	2.0
Infrastructure	10.4	9.0
Absolute Return Strategies	3.3	6.0
Direct Property	4.9	9.0
Opportunistic Investments	3.6	0.0
Multi-Asset	3.6	7.0
Floating Rate Debt	3.3	7.0
Fixed Interest	11.0	10.0
Cash	4.4	5.0
Total	100.0	100.0
Allocation to Illiquid Assets	28.9%	21.8%
Allocation to Growth Assets	73.8%	68.6%

Appendix D - ACTUARIAL SURPLUS/(DEFICIT) AS AT 30 JUNE 2014

	Parks Victoria ($m)
Present Value of Active Member Liabilities	
• Retirement	29.7
• Death	0.8
• Disablement	1.4
• Resignation	1.3
Total	33.2
Less Surcharge and Family Law Balance	(0.1)
Plus Present Value of Future Expenses	1.9
Plus Allowance for Contribution Tax	0.3
Total Benefit Liability	35.4
Compared to:	
Net Assets	33.3
Plus Present Value of Member Contributions	1.8
Plus Present Value of Employer Contributions	4.4
Total Assets	39.5
Surplus/ (Shortfall)	4.2

Appendix E - REQUIREMENTS UNDER PRUDENTIAL STANDARD SPS 160

Parks Victoria – Division E & F (Parks Plan)

As the Actuary to the Fund, I hereby confirm that in my opinion:

a) At 30 June 2014, the value of the assets of the Parks plan, excluding the amount held to meet the Operational Risk Financial Requirement (ORFR), was $33.3 million.

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	Assets ($m)	Vested Benefits ($m)	Vested Benefits Index (%)
30 June 2014	$33.3	$32.7	101.8%
30 June 2015	$32.4	$31.4	103.3%
30 June 2016	$31.7	$30.2	105.0%
30 June 2017	$30.8	$28.7	107.4%

** Numbers provided above are subject to rounding.*

c) In my opinion, the value of the assets of the Parks plan at 30 June 2014, excluding the amount held to meet the ORFR, was adequate to meet the liabilities in respect of the accrued benefits of members of the sub-fund (measured as the present value of members' accrued entitlements using the valuation assumptions). I consider that the assumptions and valuation methods set out in this report are appropriate for determining the accrued benefit liability.

d) At 30 June 2014 the Parks plan was not in an unsatisfactory financial position, as defined in SPS 160. The shortfall limit does not need to be reviewed.

e) At 30 June 2014 the value of the liabilities of the Parks plan in respect of minimum benefits of the members of the sub-fund is $21.0 million. Minimum benefits are as defined in Regulation 5.04 of the Superannuation Industry (Supervision) Regulations.

f) Funding and Solvency Certificates for the Fund covering the period from 30 June 2013 to 30 June 2014 have been obtained. The Fund was solvent, as defined in the Superannuation Industry (Supervision) Regulations, at 30 June 2014. In my opinion, the solvency of the Fund will be able to be certified in any other Funding and Solvency Certificate required under the Regulations during the three year period to 30 June 2017.

g) For the three years from 30 June 2014, the employers should make contributions to the Parks plan as follows:

- 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 salaries	Employer Accruing Cost Contribution Rates % 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.

Matthew Burgess	Gabrielle Baron
Fellow of the Institute of Actuaries of Australia	Fellow of the Institute of Actuaries of Australia

24 November 2014

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