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**NATAL JOINT MUNICIPAL PENSION
FUND (RETIREMENT) (12/8/6676/2)
REPORT ON THE INTERIM ACTUARIAL
VALUATION AS AT 31 MARCH 2010**

Prepared by

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15 February 2011

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REPORT ON THE INTERIM ACTUARIAL VALUATION AS AT
31 MARCH 2010**

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EXECUTIVE SUMMARY

1. We have performed an interim actuarial valuation of the Natal Joint Municipal Pension Fund (Retirement) (the “Fund”) as at 31 March 2010 (“the valuation date”). The previous statutory valuation of the Fund was performed as at 31 March 2009 and the report on that valuation was lodged with the Financial Services Board.
2. At the valuation date (and at the previous statutory valuation date) the Fund covered the following membership:

	31 March 2009		31 March 2010	
	Number	Annual salaries/pension R'000	Number	Annual salaries/pension R'000
Active members	4 318	305 932	4 008	321 731
Pensioners	5 682	55 770	5 810	63 915

* The above number of pensioners include all suspended and pending pensioners

3. The market value of the Fund’s assets was R 1 835 990 000 at the valuation date.
4. The valuation of the Fund has been performed on two alternative approaches:
 - 4.1 Firstly the “Discounted Cash Flow” (DCF) valuation basis has been used. Under this basis a value is placed on the liabilities of the Fund using long-term “best estimate” assumptions, details of which are given in the main body of the report. A value is placed on the assets of the Fund applying assumptions that are consistent with those used to value the liabilities, based on the expected future investment cash flow.
 - 4.2 Secondly, a “Discontinuance Method Approach” (“DMA”) basis has been used. Under this basis the assets are taken at full market value and the rate of interest used for valuing the liabilities is based on the yield curve and the yield on inflation-linked stock at the valuation date. Details of the underlying assumptions are given in the main body of the report.
5. Both methods have advantages and disadvantages:
 - 5.1 The value placed on the assets under the DCF method can be quite different from the market value of the assets and thus this method can be seen as giving somewhat artificial results. However, it has the advantage that the results on this basis tend to be stable from valuation to valuation despite volatile investment conditions, because of the long term nature of the assumptions made.



- 5.2 The alternative valuation basis gives results that can be volatile from valuation to valuation. However it has the advantage of appearing “realistic” because the assets are taken at market value and the assumptions are based on investment conditions prevailing at the valuation date.
6. The purpose of providing the results of two valuations is to give the Committee of Management an indication of the sensitivity of the valuation results to the assumptions. In this report we have used the results of the DCF valuation, because of its relative stability, in order to determine the Fund’s liabilities. The results of the DMA valuation are shown so that the Committee is aware of the position if the Fund were to be discontinued and the liabilities bought out in the market at the prevailing interest rates.
7. The value placed on the assets for purposes of the valuation are:

	DCF Method		DMA Method
	31.03.2009	31.03.2010	31.03.2010
	R'm	R'm	R'm
Assets at market value	1 454,9	1 836,0	1 836,0
Less: Investment Reserve	<u>212,7</u>	<u>(24,0)</u>	<u>-</u>
Actuarial value of assets	<u>1 667,6</u>	<u>1 812,0</u>	<u>1 836,0</u>

It is noted that, for the DCF valuation at 31 March 2010, an actuarial adjustment of R 24 million was made to the market value of the assets so that assets have been taken at R 1 812 million for this method of valuation.

8. The statutory valuation as at 31 December 2009 showed a deficit in the Fund. The employers and members are paying a surcharge of 17% of pensionable salaries (on request of all active members at 31 December 2002), which is expected to fund the deficit over a five year period to 30 June 2015.
9. At each statutory triennial valuation the Fund’s actual experience is compared to the valuation assumptions and where necessary, the assumptions are revised. As this is an interim valuation, no such experience investigation was performed and the assumptions used in the statutory valuation as at 31 December 2009 were used for this valuation. Details are given in Appendix 4.



10. The valuation disclosed the following funding levels in respect of the liabilities for service to the valuation date:

	DCF Method		DMA Method
	31.03.2009	31.03.2010	31.03.2010
	R'm	R'm	R'm
Total			
Value of assets (Appendix 5)	1 667,6	1 812,0	1 836,0
Value of liabilities (Appendix 6)	(1 660,4)	(1 848,4)	(2 302,8)
Minimum pension Increase Reserve	(134,1)	(114,3)	(0,0)
Risk Reserve	(51,8)	(56,1)	(56,1)
Contribution Reserve	<u>(35,5)</u>	<u>(36,4)</u>	<u>(36,4)</u>
Surplus (shortfall)	<u><u>(214,2)</u></u>	<u><u>(243,2)</u></u>	<u><u>(559,3)</u></u>
Funding level	88,6%	88,2%	76,7%

11. On the DCF method the funding level has remained approximately the same. The reason for the funding level not improving is mainly due to higher than expected salary increases which were largely offset by the surcharge that is being paid.
12. It is noted that the DMA method of valuation discloses a much greater shortfall of R 559,3 million. This indicates what the results would be if the Fund were to buy out its liabilities with an outside financial institution that invests only in risk-free investments. The calculation is based on investment conditions at the valuation date, so that the results can be very volatile from valuation to valuation. For purposes of determining the Fund's financial condition the results of the DCF method of valuation has been applied.



13. The valuation disclosed a surplus of R 114,3 million in respect of pensioners and a shortfall of R 243,2 million in respect of members, as follows:

	DCF Method		DMA Method
	31.03.2009	31.03.2010	31.03.2010
	R'm	R'm	R'm
<u>Memorandum Account (Pensioners)*</u>			
Assets	835,4	894,9	906,8
Liabilities	(684,5)	(761,8)	(892,0)
Risk Reserve	<u>(16,8)</u>	<u>(18,8)</u>	<u>(18,8)</u>
Surplus (Shortfall)**	<u>134,1</u>	<u>114,3</u>	<u>(4,0)</u>
Funding level	119,1%	114,6%	99,6%
<u>Members</u>			
Balance of assets	832,2	917,1	929,2
Balance of liabilities***	(975,9)	(1 086,6)	(1 410,8)
Risk Reserve	(35,0)	(37,3)	(37,3)
Contribution Reserve	<u>(35,5)</u>	<u>(36,4)</u>	<u>(36,4)</u>
Surplus (Shortfall)	<u>(214,2)</u>	<u>(243,2)</u>	<u>(555,3)</u>
Funding level	79,5%	79,0%	62,6%

* The liabilities for the pensioners include an allowance for the pension increase on 1 July 2010.

** This amount is retained to provide for minimum pension increases.

*** Including allowance for death-in-service pending spouse's pensions.

14. The funding level in respect of the contributory members has deteriorated slightly, reducing from 79,5% to 79,0%. The primary reason for this is that salary increases were higher than expected. From the data it is noted that the average salary increases over the valuation period were 13,1% per annum, which is higher than inflation over that period. This was offset by the Local Authorities paying a surcharge into the Fund over the valuation period.
15. The Regulations of the Fund have been amended with effect from 1 July 2004, so that the Committee of Management is able to levy a separate surcharge on local authorities which grant excessive salary increases, thereby causing a financial strain on the Fund to the detriment of other stakeholders. Investigations in this regard were done as at 31 March 2006 and 31 March 2009. This investigation will be performed annually in the future and the employers will be advised accordingly if they are required to pay a surcharge in respect of individual employees.



16. Contributions payable to the Fund at the valuation date, including the surcharge, expressed as a percentage of the pensionable salaries, are as follows:

	%	%
by members - basic	7,00	
- additional*	<u>1,65</u>	8,65
by the local authorities - basic	13,65	
- additional*	<u>15,35</u>	<u>29,00</u>
Total		<u>37,65</u>

* Only in respect of members who were members at 30 June 2002.

17. The Employers are no longer permitting members to join the Fund, so that it is effectively closed to new members. This means that the average age will increase over time which, in turn, means that the required rate of contribution will also increase. Therefore the “Attained Age” method of calculating the required rate of contribution has been used for this valuation. This method determines a level rate of contribution that is required to be paid over the remaining service lifetime of the members. This method was also used in the last statutory valuation of the Fund as at 31 March 2009.

18. Excluding the surcharge, the “basic” contribution payable to the Fund is equal to 20,65% of pensionable salaries. Based on the DCF method of valuation, the basic contribution rate is less than the contribution rate required for future service by 2,24% of pensionable salaries, as reflected below:

	31 March 2009	31 March 2010
	%	%
Method of valuation	Attained Age	Attained Age
Contribution rate currently payable excluding surcharge	20,65	20,65
Members	7,00	7,00
Employer	<u>13,65</u>	<u>13,65</u>
Contribution rate required for future service	<u>22,95</u>	<u>22,89</u>
Excess/(shortfall)	<u>(2,30)</u>	<u>(2,24)</u>

19. Thus, once the surcharge ceases, the underlying rate of contribution of 20,65% will not be sufficient to meet the cost of the benefits. It is thus necessary to set aside a reserve in the valuation to hold assets equal to the expected shortfall. For this reason a “Contribution Reserve” in terms of the Financial Services Board’s Circular PF117 is held equal to the present value of the shortfall for the 5 years to 2015 when it is expected that the surcharge will cease. Note that, for purposes of the valuation, it is assumed that once the surcharge ceases the Employer contribution rate will be fixed at 18%. Based on the latter level of Employer contribution there is no need for a Contribution Reserve thereafter.

20. We have reconciled the valuation data with the financial statements and performed a number of reasonableness tests to verify the correctness of the data. The Fund’s administrators have undertaken to address the problem areas identified. We have adjusted the data provided, and we are satisfied with the accuracy of the data for purposes of this valuation.



21. I am satisfied that the asset composition on the valuation date is appropriate to the nature of the liabilities.
22. The Fund self-insures its risk benefits. The lump sum element of these benefits is relatively small, with the major element comprising of annuity payments. I am satisfied that the self-reinsurance arrangement is appropriate for the Fund.
23. At the valuation date
 - 23.1 The Memorandum Account in respect of pensioners was fully funded on the DCF method of valuation;
 - 23.2 The Fund's liabilities for the contributory members exceeded the value of the assets; it is expected that the shortfall will be funded by the surcharge of 17% of pensionable emoluments within five years, that is by 2015.
24. The position will be reviewed at the next interim valuation of the Fund as at 31 March 2011.

ARELS (FASSA FIA)
VALUATOR

In my capacity as valuator to the Fund and as an employee of Arthur Els & Associates

15 February 2011

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**NATAL JOINT MUNICIPAL PENSION FUND (RETIREMENT)
REPORT ON THE INTERIM ACTUARIAL VALUATION OF THE FUND
AS AT 31 MARCH 2010**

INTRODUCTION

1. We have performed an interim actuarial valuation of the Natal Joint Municipal Pension Fund (Retirement) (“the Fund”) as at 31 March 2010 (“the valuation date”). The previous statutory valuation of the Fund was performed as at 31 March 2009 and the report on that valuation was lodged with the Financial Services Board.
2. In this report the purposes of the valuation, the processes involved, the results obtained and the conclusions drawn are explained. The body of the report is a summary of the data, assumptions and results. The appendices, which form part of the report, contain particulars of the data, the reasons for the assumptions and details of the results.
3. The Fund is registered in terms of the Pension Funds Act.

PURPOSE OF THE VALUATION

4. The purpose of the valuation is to investigate the financial soundness of the Fund in terms of the funding objectives laid down by the Actuarial Society of South Africa and as required by the Registrar of Pension Funds.
5. This requires that the following be determined:
 - 5.1 whether the existing assets of the Fund are sufficient to cover the Fund’s accrued liabilities towards its members for service prior to the valuation date, and towards its pensioners;
 - 5.2 whether the future contribution rates are sufficient to meet the future accrual of benefits stipulated in the Regulations of the Fund;
 - 5.3 whether the contingency reserve accounts are appropriately funded; and
 - 5.4 whether the nature of the assets of the Fund is suitable to match the nature of the liabilities of the Fund.



CHANGES SINCE LAST STATUTORY VALUATION

6. The last statutory valuation was performed as at 31 March 2009. The period between this date and the valuation date (31 March 2010) is referred to as the “valuation period”.
7. Since the last statutory valuation, pensions in payment were increased as reflected below. Both increases were taken into account in the value of the liabilities in this valuation.

1 July 2009	8,64%
1 July 2010	7,20%

8. An additional increase of 7,14% was granted to pensioners as at 1 July 2009 to bring pension increases in line with the minimum required by the Pension Funds Act. The actual increase due to a pensioner depends on the date of retirement, for example if the pensioner had been on retirement for at least three years, an increase of 7,14% is payable, backdated to 1 July 2009.
9. Over the inter-valuation period, the Fund earned 26,27% per annum on its assets taken at market value and 8,72% on the assets taken at actuarial value.

VALUATION PARTICULARS

10. Particulars were supplied of –
 - 10.1 Audited financial statements (Appendix 1);
 - 10.2 The assets held by the Fund at the valuation date (Appendix 5);
 - 10.3 The members and pensioners of the Fund at the valuation date (Appendix 2); and
 - 10.4 The conditions governing the payment of benefits in terms of the Regulations of the Fund (Appendix 3).
11. We have reconciled the valuation data with the financial statements and performed a number of reasonableness tests to verify the correctness of the data. Problem areas were resolved with the administrators of the Fund. We are satisfied with the accuracy of the data for purposes of this valuation. (See Appendix 2).



VALUATION METHOD

Service to the valuation date

12. The Fund's liabilities for members' service to the valuation date and for pensioners was calculated on two alternative valuation methods:
 - 12.1 The first method is the "Discounted Cash Flow" (DCF) method of valuation that has been used for past valuations of the Fund. This is based on a set of "best estimate" assumptions which are expected to apply over the long-term. The benefits payable by the Fund in future are estimated and these are discounted using the assumed long-term rate of interest, to give the present value of their liabilities for service to the valuation date. A similar approach is taken for pensions in payment. As regards the Fund's assets, a value is determined by discounting expected future investment cash flow at the same rate of interest, allowing for expected future growth in dividends and other investment income. In this manner an "actuarial value" is placed on the assets of the Fund.
 - 12.2 A second valuation was then performed on an alternative basis, namely the "Discontinuance Method Approach" (DMA). This valuation takes into account investment conditions that are prevailing at the valuation date. The benefits payable by the Fund in the future, including pensions in payment, are estimated and these are discounted using the yield that could be earned on Government Stock at the valuation date. This gives the Fund's liabilities for service to the valuation date. Assets are taken at full market value.
13. Each of the above methods has advantages and disadvantages.
 - 13.1 The value placed on the assets under the DCF method can be quite different from the market value of the assets and thus this method can be seen as giving somewhat artificial results. However, it has the advantage that the results on this basis tend to be stable from valuation to valuation despite volatile investment conditions, because of the long-term nature of the assumptions made.
 - 13.2 The alternative valuation method gives results that can be volatile from valuation to valuation. However it has the advantage of appearing "realistic" because the assets are taken at market value and the assumptions are based on investment conditions prevailing at the valuation date.
14. The purpose of providing the results of two valuations is to give the Committee of Management an indication of the sensitivity of the valuation results to the assumptions. In this report we have used the results of the DCF valuation, because of its relative stability, in order to determine the Fund's liabilities. The results of the DMA valuation are shown so that the Committee is aware of the position if the Fund were to be discontinued and the liabilities bought out in the market at the prevailing interest rates.
15. We have been provided with information in respect of pensioners whose pensions have been suspended because the Fund has not received proof of existence. These pensions were valued



on the assumption that the following proportion of the pensions would again become payable:

Period since payments ceased	Proportion
more than 3 years	Nil
between 2 and 3 years	one-sixth
between 1 and 2 years	one-half
less than 1 year	five-sixths

16. We have this year been provided with details of 438 cases where a spouse's pension is possibly payable following the death of a member in the service or of a pensioner. We have allowed for an estimated pension per spouse of R 11 600 per annum where no data was available from the administrator. The Fund is taking steps to trace dependants of the deceased members and pensioners and it is likely that, in a number of cases, no pension will become payable. For the valuation it was decided to include in the liabilities 50% of the calculated value, so that an amount of R 16,2 million has been included in the Members' liabilities and R 1 million in the pensioner liabilities in respect of spouses of pensioners. This matter will be monitored at each valuation and the figure of 50% adjusted appropriately.
17. We have amended the method by which the assets in the Memorandum Account were calculated. Previously the assets on the DCF basis was taken as the assets on the DMA basis adjusted for the total actuarial value of assets as a proportion of the total market value of assets. In this valuation we determined the assets by taking the opening assets at market value and increasing those by the new pension reserves on the DCF basis and market value return and reducing it by pension payments. The final value was then adjusted to be consistent with the actuarial value of assets again.

Future service

18. The Employers no longer permit members to join the Fund, so that it has effectively become a closed fund. This implies that the average age of the membership will increase, which in turn will mean an increase in the required rate of contribution. For the last statutory valuation the rate of contribution was determined on the "Attained Age" method. This method takes into account the closed nature of the Fund and determines the level rate of contribution that is required over the remaining service lifetime of the members.
19. If the valuation assumptions are realized, this level rate of contribution should remain sufficient despite an increase in the average age of members. This assumption may not be realised if there are significant unforeseen changes in the membership, for example, if a number of members transfer into the Fund or out of the Fund from the other Natal Joint funds. The position will be monitored at each valuation.
20. This basis is referred to as the Attained Age Method of Valuation and was used for the purpose of this interim valuation.



Risk Reserve

21. The Fund self-insures its death and disability benefits and bears the longevity risk for its pensioners. It is prudent to maintain a “Risk Reserve” in order to give some protection against fluctuations in mortality and morbidity experience of the members, and against the longevity risk of pensioners. The Financial Services Board’s Circular PF117 sets out a standard for determining such a reserve; based on the formulae set out in Circular PF117 a Risk Reserve of R 56,1 million is appropriate for the Fund and we recommend that such a Reserve be retained.

VALUATION ASSUMPTIONS

Liabilities

22. The expected future payments of benefits were projected using reasonable demographic assumptions regarding withdrawals, mortality, disability and retirement, and financial assumptions regarding the future salary increases until retirement and pension increases after retirement. The projected benefits were then discounted at the valuation rate of interest to determine the present value of the liabilities on the valuation date.
23. At each statutory triennial valuation the Fund’s actual experience is compared to the valuation assumptions and where necessary, the assumptions are revised. As this is an interim valuation, no such comparison was done and the assumptions used in the last statutory valuation as at 31 March 2009 were retained. Details are given in Appendix 4.
24. For the DMA method of valuation the assumptions were determined in the light of investment conditions prevailing at the valuation date. Details of the assumptions are given in Appendix 4.

ASSETS

25. A comparison between the value of the assets and liabilities of the Fund can only be meaningful if the respective values were determined on a consistent basis.
 - 25.1 For the DCF method of valuation, the actuarial value of the assets was determined by discounting the expected future investment income from rental, dividends and interest, at the valuation rate of interest used to calculate the liabilities. Allowance was made for future increases in dividends, rentals etc. On this basis the assets are valued at R1 812 million (Details are given in Appendix 5).
 - 25.2 For the DMA method of valuation, assets were taken at market value.



25.3 The value placed on the assets for purposes of the valuation are:

	DCF Method		DMA Method
	31.03.2009	31.03.2010	31.03.2010
	R'm	R'm	R'm
Assets at market value	1 454,9	1 836,0	1 836,0
Less: Investment Reserve	<u>212,7</u>	<u>(24,0)</u>	<u>-</u>
Actuarial value of assets	<u>1 667,6</u>	<u>1 812,0</u>	<u>1 836,0</u>

It is noted that, for the DCF valuation at 31 March 2010, an actuarial adjustment of R 24 million was made to the market value of the assets so that assets have been taken at R 1 812 million for this method of valuation.

25.4 The details of the asset value are set out in Appendix 5.

VALUATION RESULTS

Service to the valuation date

26. The valuation disclosed the following funding levels in respect of the liabilities for service to the valuation date:

	DCF Method		DMA Method
	31.03.2009	31.03.2010	31.03.2010
	R'm	R'm	R'm
<u>Total</u>			
Value of assets (Appendix 5)	1 667,6	1 812,0	1 836,0
Value of liabilities (Appendix 6)	(1 660,4)	(1 848,4)	(2 302,8)
Minimum pension Increase Reserve	(134,1)	(114,3)	(0,0)
Risk Reserve	(51,8)	(56,1)	(56,1)
Contribution Reserve	<u>(35,5)</u>	<u>(36,4)</u>	<u>(36,4)</u>
Surplus (shortfall)	<u>(214,2)</u>	<u>(243,2)</u>	<u>(559,3)</u>
Funding level	88,6%	88,2%	76,7%

27. On the DCF method the funding level has remained approximately the same. The reason for the funding level not improving is mainly due to higher than expected salary increases which were largely offset by the surcharge that is being paid.

28. The shortfall on the DMA method is higher than that under the DCF method, indicating the position that would apply if the Fund were to be discontinued and the liabilities bought out on the basis of risk free interest rates at the valuation date. However, the Fund is an ongoing Fund with equity and other-inflation hedging assets which are expected to yield a higher return than fixed interest stock and hence the results the DCF method of valuation are used to determine the Fund's financial position for purposes of this report.



29. The valuation disclosed a surplus of R 114,3 million in respect of pensioners and a shortfall of R 243,2 million in respect of members, as follows.

	DCF Method		DMA Method
	31.03.2009	31.03.2010	31.03.2010
	R'm	R'm	R'm
<u>Memorandum Account (Pensioners)*</u>			
Assets	835,4	894,9	906,8
Liabilities	(684,5)	(761,8)	(892,0)
Risk Reserve	<u>(16,8)</u>	<u>(18,8)</u>	<u>(18,8)</u>
Surplus (Shortfall)**	<u>134,1</u>	<u>114,3</u>	<u>(4,0)</u>
Funding level	119,1%	114,6%	99,6%
<u>Members</u>			
Balance of assets	832,2	917,1	929,2
Balance of liabilities***	(975,9)	(1 086,6)	(1 410,8)
Risk Reserve	(35,0)	(37,3)	(37,3)
Contribution Reserve	<u>(35,5)</u>	<u>(36,4)</u>	<u>(36,4)</u>
Surplus (Shortfall)	<u>(214,2)</u>	<u>(243,2)</u>	<u>(555,3)</u>
Funding level	79,5%	79,0%	62,6%

* The liabilities for the pensioners include an allowance for the pension increase on 1 July 2010.

** This amount is retained to provide for minimum pension increases.

*** Including allowance for death-in-service pending spouse's pensions.

30. The surplus in the Memorandum Account is retained as a contingency reserve to provide for minimum pension increases as prescribed by legislation and incorporated in the Fund's Regulations. The Memorandum Account however shows a deficit on the DMA method of valuation, indicating that this Account will not be sufficient to provide for future pension increases if the underlying assets are invested in risk-free investments.
31. The funding level in respect of the contributory members has deteriorated slightly, reducing from 79,5% to 79,0%. The primary reason for this is that salary increases were higher than expected. From the data it is noted that the average salary increases over the valuation period were 13,1% per annum, which is higher than inflation over that period and also higher than the assumed increase in the previous valuation. This was partly offset by the Local Authorities paying the surcharge into the Fund over the valuation period.
32. The surcharge is currently 17% of pensionable emoluments (R51 million for the year ending 31 March 2010). We expect that the deficit will be funded by an extension of the current surcharge for another 5 years after 2010 (i.e. to 2015).



32. There is a shortfall on the DMA method of valuation. The difference between the results of the DCF and DMA valuation quantifies the reliance being placed by the Committee of Management on investment returns on the Fund's investment portfolio being higher than are currently obtainable on risk-free investments.

Contingency Reserves

33. The DCF method of valuation is based on best-estimate assumptions, including the assumption that the Fund's equity and property investments will yield a higher return than fixed interest stock. If this assumption is not realised then future investment earnings will be lower than expected, leading to a shortfall arising in future years. To reduce this risk the Fund could hold a "Solvency Reserve", determined according to Circular PF117 which was issued by the Financial Services Board in June 2004. The Solvency Reserve is the size of reserve needed to compensate the Fund for taking investment risk, because the DMA valuation adopts a "risk-free" approach to investment. In the case of the Fund the Solvency Reserve would amount to R 430,4 million, as reflected below:

	R' million
Liabilities per DMA method	2 302,8
Less: Liabilities per DCF method	(1 848,4)
Investment Reserve	<u>(24,0)</u>
	<u><u>430,4</u></u>

34. In view of the shortfall in the Fund, it was deemed not appropriate to retain a Solvency Reserve at this stage. The Committee of Management should be aware of the risks that this entails, as discussed in paragraph 13.
35. Circular PF117 also gives recognition to the mortality risks to which the Fund is exposed. This arises from pensioners living longer than allowed for in the valuation assumptions, and excessive deaths and disability claims where benefits are not reinsured with an insurer but are paid directly from a Fund. A fund may hold a "Risk Reserve" equivalent to the capital that would be required from an insurance company undertaking the business. In the case of the Fund, the Risk Reserve amounts to R 56,1 million calculated in accordance with paragraph 4.4 of Circular PF117. It is prudent that the Fund retains a Risk Reserve in order to give protection against fluctuations in mortality and for that reason such a reserve was introduced in the statutory valuation as at 31 March 2006. We recommend that this reserve be maintained and we have allowed for this Reserve, comprising R 18,8 million in respect of pensioners and R 37,3 million in respect of active members.



Future service

36. Contributions payable to the Fund at the valuation date, including the surcharge, expressed as a percentage of the pensionable salaries, are:

	%	%
by members - basic	7,00	
- additional*	<u>1,65</u>	8,65
by the local authorities - basic	13,65	
- additional*	<u>15,35</u>	<u>29,00</u>
Total		<u><u>37,65</u></u>

37. The total required contribution rate for future service is 22,89% of pensionable salaries before taking account of the past service shortfall. This has been calculated on the DCF basis in order to arrive at a relatively stable long-term rate of contribution, using the Attained Age method of valuation.
38. Based on the DCF method of valuation, the contribution rate payable at the valuation date was less than the contribution rate required for future service by 2,24% of pensionable salaries, as reflected below:

	31 March 2009	31 March 2010
	%	%
Method of valuation	Attained Age	Attained Age
Contribution rate currently payable excluding surcharge	20,65	20,65
Contribution rate required for future service	<u>22,95</u>	<u>22,89</u>
Excess/(shortfall)	<u>(2,30)</u>	<u>(2,24)</u>

39. Thus, once the surcharge ceases, the underlying rate of contribution of 20,65% will not be sufficient to meet the cost of the benefits. It is thus necessary to set aside a reserve in the valuation to hold assets equal to the expected shortfall. For this reason a "Contribution Reserve" in terms of the Financial Services Board's Circular PF117 is held equal to the present value of the shortfall for the 5 years to 2015 when it is expected that the surcharge will cease. Note that, for purposes of the valuation, it is assumed that once the surcharge ceases the Employer contribution rate will be fixed at 18%. Based on the latter level of Employer contribution there is no need for a Contribution Reserve thereafter.

OUTLOOK

Investments

40. Over the inter-valuation period, the Fund earned 26,27% per annum on its assets taken at market value but only 8,72% on the assets taken at actuarial value. This is lower than the 10% expected in terms of the valuation assumptions.
41. It is expected that the investment return of the Fund's assets will, over a reasonably long period, be greater than that required to meet the increase in liabilities as a result of reasonable salary increases. If it does occur that investment earnings continue to be lower than required



to support the increase in liabilities as a result of salary increases, the local authorities might need to be called upon to further increase their contributions to the Fund.

42. Increases to pensions at the rate of about 75% of inflation a year can be met if the valuation assumptions are realised. Any additional increases must be met from investment returns in excess of those assumed or from surplus or other profits made on the operations of the Memorandum Account.

Salary increases

43. A primary reason for the Fund not being in a sound financial condition, has been the excessive increases in pensionable salaries relative to inflation. Over the valuation period the average salary increase was 13,1% per annum.
44. The Regulations of the Fund have been amended so that the Committee of Management is able to levy a separate surcharge on local authorities which grant excessive salary increases, thereby causing a financial strain on the Fund to the detriment of other stakeholders. This is effective from 1 July 2004. An investigation into the surcharges due in this regard was done as at 31 March 2006 and 31 March 2009. Annual investigations will be performed in future.
45. The above step will assist in curbing the growth in the Fund's liabilities as a result of excessive salary increases.
46. If increases in pensionable salaries continue to be well in excess of inflation, a further surcharge might be required to fund the additional cost incurred.

New members and transfers

47. The Fund has effectively been closed to new members, and it is therefore assumed, for the valuation, that no new members will join the Fund. However, at present, members of the three Natal Joint Funds are permitted to transfer between the funds and, this flow of members may affect the rate of contribution required to be paid to the Fund.

**CERTIFICATE**

48. I am satisfied that the asset composition on the valuation date is appropriate to the nature of the liabilities.
49. The Fund self-insures its risk benefits. The lump sum element of these benefits is relatively small, with the major element comprising of annuity payments. I am satisfied that the self-reinsurance arrangement is appropriate for the Fund.
50. At the valuation date:
- 52.1 The Memorandum Account in respect of pensioners was fully funded on the DCF method of valuation;
- 52.2 The Fund's liabilities for the contributory members exceeded the value of the assets; it is expected that the shortfall will be funded by the surcharge of 17% of pensionable emoluments within five years, that is by 2015.
51. The position will be reviewed at the next interim valuation of the Fund as at 31 March 2011.

AR ELS (FASSA FIA)
VALUATOR

In my capacity as valuator to the Fund and as an employee of Arthur Els & Associates

15 February 2011



ACCOUNTS

1.1 The income and expenditure of the Fund during the valuation period were as follows:

	R'000	R'000	R'000
Amount of Fund as at 31 March 2009 (as per valuation)			1 454 861
Reverse prior year actuarial adjustment			2 444
Income			190 338
Contributions:		117 308	
- Members	22 483		
- Local authorities	43 819		
- Surcharge	51 006		
Transfers in		10	
Investment returns		73 020	
Expenditure			(129 011)
Lump sum benefits:		(49 076)	
- Disability	Nil		
- Withdrawal	(6 060)		
- Retirement	(9 754)		
- Retrenchment	(124)		
- Death	(21 607)		
- Transfer to other funds	(11 531)		
Pensions		(64 497)	
Other		(30)	
Investment managers' fees		(8 938)	
Administration expenses		(7 114)	
Tax		644	
Net adjustment to fair value of assets			317 358
Amount of Fund as at 31 March 2010 (market value)			<u>1 835 990</u>



MEMBERSHIP STATISTICS

A. MEMBERSHIP BUILD-UP

1. Active Members

Members at last statutory valuation date	4 318
Adjustments	(2)
New members	3
Exits	
Transfer to Superannuation	(8)
Transfer to KZN Pension Fund	(8)
Retirement	(91)
Ill-health	(26)
Death	(123)
Resignation	(29)
Dismissal	(12)
Retrenchment	(0)
Transfer to Provident	(14)
Members at current valuation date	<u>4 008</u>

2. Pensioners

	Former members	Spouses	Deferred	Total
Pensioners at previous valuation date	1 874	3 734	74	5 682
Adjustments and cessations	(11)	(30)	(5)	(46)
New pensioners	112	181	0	293
Deaths	(85)	(30)	(4)	(119)
Pensioners at current valuation date	<u>1 890</u>	<u>3 855</u>	<u>65</u>	<u>5 810</u>

3. Deferred Pensioners

The above summary includes 65 deferred pensioners (53 males and 12 females). By “deferred” is meant a pensioner whose pension is payable by the employing local authority until the pensioner attains the pension age.



B. VALUATION DATA : ACTIVE MEMBERS

1. Analysis

Age last birthday	Number	Pensionable salaries R	Liability	Contributions without interest R	Average pensionable service years
<=22	0	0	0	0	-
23 - 27	11	828 015	533 725	200 135	5.05
28 - 32	81	6 904 686	6 433 213	2 148 635	7.21
33 - 37	314	28 448 942	44 378 089	11 477 649	10.83
38 - 42	535	44 709 196	103 067 011	21 564 226	14.84
43 - 47	790	62 817 497	182 296 457	32 681 340	17.73
48 - 52	846	67 132 927	230 087 712	35 990 934	19.92
53 - 57	676	53 689 075	215 508 829	29 299 139	21.68
58 - 62	585	44 180 762	210 122 531	24 772 882	22.67
63+	<u>170</u>	<u>13 019 981</u>	<u>77 993 969</u>	<u>7 531 608</u>	<u>24.30</u>
Total	<u>4 008</u>	<u>321 731 081</u>	<u>1 070 421 536</u>	<u>165 666 549</u>	<u>18.52</u>

2. Statistics

	Previous Valuation Date	Current Valuation Date
(i) Females		
Number of members	614	581
Average age (years)	47,0	48,1
Annual pensionable salaries		
total (R'000)	39 793	42 570
average (R)	64 809	73 270
(ii) Males		
Number of members	3 704	3 427
Average age (years)	48,4	49,1
Annual pensionable salaries		
total (R'000)	266 139	279 161
average (R)	71 852	81 459



C. VALUATION DATA : PENSIONERS

1. Summary

	Current Valuation Date
(iii) Former members	
Number of pensioners	1 890
Pension weighted average age (years)	67
Annual pension	
total (R'000)	28 286
average (R)	14 966
(iv) Spouses	
Number of pensioners	3 855
Pension weighted average age (years)	53
Annual pension	
total (R'000)	34 930
average (R)	9 061
(v) Deferred pensioners	
Number of pensioners	65
Pension weighted average age (years)	59
Annual pension	
total (R'000)	699
average (R)	10 761



2. Further analysis

Age nearest birthday	Former Members		Spouses	
	Number	Annual Pension R	Number	Annual Pension R
<29	0	0	7	111 987
29 – 32	0	0	37	639 905
33 – 37	3	45 895	116	1 723 136
38 – 42	10	192 017	291	4 656 261
43 – 47	15	292 049	373	4 989 808
48 – 57	104	2 086 734	1 074	10 870 981
58 – 67	458	11 614 562	1 079	8 057 657
68 – 72	455	8 820 681	380	2 098 297
73 – 77	267	3 403 022	251	940 220
78 – 82	262	1 199 267	153	553 545
83 – 87	219	479 267	62	205 368
88 – 92	81	95 484	27	69 855
93 – 97	11	42 070	4	12 137
>97	<u>5</u>	<u>14 624</u>	<u>1</u>	<u>699</u>
Totals	<u>1 890</u>	<u>28 285 672</u>	<u>3 855</u>	<u>34 929 855</u>



D. SUMMARY OF DATA CHECKS

A large number of tests on the reasonability and consistency of the data were carried out, including the following:

- Reconciliation of the number of members at the valuation date and the previous valuation date, with the movements in membership reported over the valuation period.
- Testing for very high, low, nil or negative salary increases of individual members over the valuation period.
- Testing whether the ages and salaries of individual members were within a reasonable range.
- Ensuring that the age and past service of each member did not conflict with the minimum entry age.
- Testing the reasonability of each member's total/accumulated contributions relative to salary and length of service.
- Checking the level of pensions against the pensions at the previous valuation date and increases granted since then.
- Testing the reasonableness of age differences between pensioners and their spouses.
- Checking for changes in the membership details over the valuation period.
- Identifying any missing or invalid data fields.
- We have reconciled the valuation data with the financial statements and performed a number of reasonableness tests to verify the correctness of the data. We are satisfied with the accuracy of the data for purposes of this valuation.

Problems with the data supplied were resolved with the administrators of the Fund.

We are satisfied with the general accuracy of the data and with its suitability for purposes of the valuation.



APPENDIX 3

BENEFITS AND CONDITIONS

3.1 The benefits of the Fund at the valuation date are briefly described below:

Member's contributions	7% of pensionable salaries, plus a surcharge of 1,65% of pensionable salaries in respect of members who were members at 30 June 2002
Pension age	65 years
Final average salaries	Average annual pensionable salaries during the last year of service
Pension on retirement at pension age	2,1% of final average salaries per year of continuous service
Lump sum on retirement at pension age	5,5% of final average salaries per year of continuous service
Pension on retirement because of ill health (minimum ten years' continuous service)	Pension as for retirement at the pension age
Lump sum on retirement because of ill health (minimum ten years' continuous service)	Lump sum as for retirement at the pension age
Lump sum on retirement because of ill health (less than ten years' continuous service)	The greater of the resignation benefit or twice the member's contributions
Spouse's pension on death in service	1,05% of final average salaries per year of continuous service at date of death and 75% of potential service to the pension age
Spouse's pension on death of pensioner	1,05% (0,77% for pensioners who retired before 1 July 1999) of final average salaries per year of continuous service
Lump sum on death in service	Annual pensionable salaries



Withdrawal	Member's contributions plus $\frac{5}{12}\%$ for each month of continuous service (the addition is approximately equivalent to compound interest at 10% a year) increased by 5% for each complete year of continuous service up to a maximum of 100% after 20 years of service; or if member has completed ten years of continuous service, a deferred pension and lump sum as for retirement at the pension age payable when he attains the pension age.
Prescribed minimum benefits	All benefits are subject to the minimum prescribed by the Pension Funds Act.



VALUATION ASSUMPTIONS

A. VALUATION BASIS

1. General

To assess the financial position of the Fund, an attempt is made as far as possible to reach realistic long-term assumptions. A number of factors are considered which are inter-related, often to such an extent that individual elements cannot be considered in isolation.

Our valuation basis takes into account the experience of the Fund and that of similar funds.

The actual long-term cost of the benefits depends on the actual experience of the Fund and not on the assumptions adopted. While the assumptions can affect the timing of the emerging cost in the short-term, they have little impact on the long-term cost.

It was decided to value the Fund on two alternative methods of valuation:

- 1.1 The first method is the “Discounted Cash Flow” (DCF) method of valuation that has been used for past valuations of the Fund. This is based on a set of “best estimate” assumptions which are expected to apply over the long-term. The benefits payable by the Fund in future are estimated and these are discounted using the assumed long-term rate of interest, to give the present value of their liabilities for service to the valuation date. A similar approach is taken to pensions in payment. As regards the Fund’s assets, a value is determined by discounting expected future investment cash flow at the same rate of interest, allowing for expected future growth in dividends and other investment income. In this manner an “actuarial value” is placed on the assets of the Fund.
- 1.2 The valuation was then performed on an alternative basis, namely the “Discontinuance Method Approach” (DMA). This valuation takes into account of investment conditions at the valuation date. The benefits payable by the Fund in the future are estimated and these are discounted using the yield on Government Stock at the date of valuation. This gives the liability for service to the valuation date. Assets are taken at full market value.

Our assumptions are set out and motivated below. Assumptions used in the previous statutory valuation are shown in brackets.



2. Investment return

2.1 DCF Method

The assumed investment return is used as an interest rate to discount expected future cash flows. In estimating the future investment earnings, greater emphasis is placed on the long-term trend as opposed to the short-term experience of the Fund. Taking into account the structure of the Fund's assets we have assumed that the Fund will earn 10% p.a. over the long-term (10% p.a. previously).

Allowing for the Fund's relatively large holdings of equities, it was assumed that:

- 5% of the assets generate cash returns of, say, 6,5% p.a.;
- 25% of the assets are invested in Fixed Interest stock yielding, say, 8,5% p.a.;
- 5% of the assets are invested in property earning 9,5% p.a.;
- 65% of the assets are invested in equities with an equity risk premium of 3% above the investment return on Fixed Interest stock so that earnings are 11,5% p.a.; and
- Expenses reduce the earnings by, say, 0,5%;

The calculated Expected Return on Assets is approximately 9,9% for the active members. We have accordingly used a long term investment return assumption of 10%.

This interest rate of 10% p.a. is only really significant in relation to the assumed long-term rate of salary inflation of 6,5% (6,5% previously), as stated below.

We have therefore assumed that future investment returns will exceed future salary inflation by 3,5% p.a.. This is consistent with the previous statutory actuarial valuation.

2.2 DMA Method

At the valuation date the yield on government stocks varied from 7,00% at the short-terms and 8,64% at longer terms. The liabilities of the Fund are predominantly long term and therefore it was decided to apply a rate of interest of 8,56%. An adjustment was made for investment fees of 0,5% a year. For purposes of valuation it was thus assumed that the Fund would earn 8,06% (8,56% less 0,5%) and this was the rate used to place a value on the liabilities of the Fund.



3. Inflation

3.1 DCF Method

It was assumed that inflation over the long-term will be 6% a year (6% a year previously), which is in line with the assumed underlying rate of inflation in the market. This implies that the Fund will earn 4% more than inflation (10% less 6%). This is consistent with the previous statutory actuarial valuation.

3.2 DMA Method

At the valuation date the yield on long-term government stock was 8,64% and that on inflation-linked bonds was 3,29%. The difference of 5,35% (8,64% less 3,29%) is the inflation implied by the market at the valuation date. We have therefore assumed an underlying rate of inflation of 5,35% a year for the DMA method of valuation.

4. Salary increases

4.1 DCF Method

General salary increases as a result of inflation have been provided for at 6,5% pa (6,5% previously) (i.e. an assumption of inflation plus 0,5% which must be read in conjunction with the assumed rate of investment return).

In addition, we provided for merit increases based on the experience of the Fund. Samples of the increases allowed for are:

Age years	Merit increases per year %
20	7,7
25	2,9
30	1,8
35	0,7
40	0,1
45	-
50	-
55	-
60	-

4.2 DMA Method

Allowance has been made for salaries to be increased in future at 0,5% p.a. above the assumed rate of inflation of 5,35%, i.e. at 5,85% p.a.

In addition, we have allowed for merit and promotion increases according to the table set out in paragraph 4.1 above.



5. Pension increases

It has been, and continues to be, the policy of the Committee of Management to increase pensions at the rate of inflation provided this is affordable, based on investment returns in excess of 5,5% a year. The increases are subject to a minimum of 75% and a maximum of 100% of Headline inflation.

The post retirement interest rate was set at 5,5% for the DCF method of valuation. This rate is expected to allow for pension increases of approximately 75% of inflation.

For the DMA method of valuation the post retirement interest rate was set at 3,91% in order to allow for pension increases of approximately 75% of inflation.

6. Mortality

The mortality assumptions used for the last statutory valuation were retained for all active members and pensioners of the Fund. Examples of the mortality rates used are shown below. Pensioner mortality is shown before allowance for future improvements in mortality.

Age	<u>Active members</u>		Age	<u>Pensioners</u>	
	Males %	Females %		Males %	Females %
20	1,2	0,2	60	2,3	1,1
25	1,4	0,5	65	3,5	1,8
30	1,8	0,7	70	5,4	3,1
35	2,4	0,9	75	8,3	5,3
40	3,0	1,2	80	12,3	8,7
45	3,6	1,6	85	18,0	14,1
50	4,2	2,4	90	25,6	22,1
55	5,0	3,5			
60	6,2	5,2			
65	7,6	7,2			



7. Withdrawals

Withdrawals consist mainly of voluntary resignations and resignations to avoid dismissal. No special provision is made for exits such as retrenchments and transfers to other funds, since they are approximately financially neutral towards the Fund.

Allowance was made for the prescribed minimum withdrawal benefits in terms of the Pension Funds Second Amendment Act. The outcome of these minimum benefits is that the Fund no longer makes material withdrawal profits in respect of members who leave the Fund prior to retirement.

We retained the withdrawal assumption used in the last statutory actuarial valuation of the Fund for all active members.

The withdrawal rates used are set out in the table below:

Age	Males	Females
	%	%
20	6,7	10,0
25	4,0	6,0
30	2,7	4,0
35	2,0	3,0
40	1,3	2,0
45	0,7	1,0
50	0,3	0,5
55	-	-
60	-	-

8. Retirement due to poor health

We have allowed for members to retire on account of ill-health prior to attaining the pensionable age. We have retained the assumptions used for the last statutory valuation for all active members in the Fund.

Examples of percentages of ill-health retirements expected at the respective ages are as reflected on the next page.



Age	Males %	Females %
20	-	-
25	-	-
30	0,1	0,1
35	0,2	0,2
40	0,4	0,3
45	0,8	0,5
50	1,5	0,8
55	2,2	1,6
60	3,3	2,6
65	4,5	4,3

9. Family statistics

We assumed that on average a husband will be 5 years older than his wife and that 100% of male members and 50% of female members are married.

10. Expenses

Expenses of administration are paid by the Fund and have therefore been included in the required contribution rate. Based on actual costs over the valuation period, we have allowed for expenses of 1,25% of pensionable salaries.

In the case of current pensioners an allowance was made for expenses incurred in the payment of pensions, in both the DCF valuation and the DMA valuation. We have allowed for expenses to be incurred in the payment of pensions, at R 350 per pensioner per annum, increasing in future at the same rate as the pensions. This is the level of expense that would apply if pensions were paid by an outside administrator.

11. Insured benefits

The death and disability benefits are not insured. The costs will vary in the future as the age and gender distribution of the members changes and AIDS and other factors affect the underlying rates.

12. Prescribed minimum benefits

For each member the actuarial reserve was compared to the value of the minimum benefit that would become payable at each future date, if the member resigned from the service at that date. Where the latter figure exceeded the actuarial reserve, the difference was added to the liabilities of the Fund.



For calculating the value of the Prescribed Minimum Benefit the following assumptions were applied:

- 12.1 The deferred pension and gratuity is based on service to the valuation date.
- 12.2 A long term Earnings Yield assumption of 3%.
- 12.3 The pension will be payable from the member's normal retirement age.
- 12.4 No decrements are applied in placing a value on the deferred pension, until retirement at the normal retirement age.
- 12.5 Post-retirement mortality and allowance for pension increases after retirement are set out in paragraphs 5 and 6 above.



VALUATION OF ASSETS

A. ASSET COMPOSITION

The total market value of the assets was R 1 835 990 000, comprised as follows:

	R'000	%
Equities	973 344	53,0
Interest bearing stock	349 215	19,1
Cash and deposit	277 643	15,1
International assets	272 546	14,8
Current assets	10 476	0,6
Current liabilities	<u>(47 234)</u>	<u>(2,6)</u>
Total	<u>1 835 990</u>	<u>100,0</u>

B. ASSET VALUATION BASIS – DCF METHOD OF VALUATION

1. For the DCF method of valuation, it is necessary to discount expected future income and expenditure on a consistent basis. In the case of the valuation of the assets, this applies to expected receipts from investments, namely interest, rent, dividends and maturity payments. The book value and the current market value are only suitable for determining the financial position of a pension fund in exceptional circumstances.
2. We valued the assets by calculating the discounted value of the expected cash flow based on the valuation rate of interest of 10% p.a.
3. The dividend yield on the ALSI was approximately 2% at the valuation date. This is historically low because of the recession, but is expected to increase over the longer term. We have accordingly assumed a dividend growth rate of inflation plus 2%, i.e. at 8% per annum. If taken together with the assumed investment return of 10% per annum this means that we assume a dividend yield of 2% per annum. This means that the equities have effectively been valued at market value.

International assets were valued similarly to local assets invested in equities.

Cash and net current assets are taken at face value.

4. It was assumed that the mix of investments in other assets was similar to the mix in the balance of the Fund.
5. The actuarial value of the assets amounted to R1 812 million at the valuation date, which was equal to 98,7% of market value.



VALUATION OF LIABILITIES

A. TOTAL LIABILITIES

Service to the valuation date

- 6.1 The value of the liabilities of the Fund for the service of members and former members to the valuation date was R 1 848 417, as follows:

	DCF Method		DMA Method
	31-Mar-09	31-Mar-10	31-Mar-10
	R'000	R'000	R'000
Members	959 912	1 070 422	1 391 444
Pending widow/ers	15 961	16 207	19 396
Pensioners	223 666	261 336	297 885
Deferred pensioners	4 972	4 440	5 414
Spouses	322 174	385 390	459 299
Suspended Reserve	35 407	50 012	58 413
Increase in pensions*	82 730	45 006	52 700
Administration costs	<u>15 578</u>	<u>15 604</u>	<u>18 275</u>
Past-service liabilities	<u>1 660 400</u>	<u>1 848 417</u>	<u>2 302 826</u>

- * From 1 July of year of valuation, pro-rata for pensions in payment for less than a year at the valuation date.

Future service

- 6.2 The “Attained Age” method of valuation was used which allows for the fact that the Fund is closed to new members, as explained in the main body of the report.
- 6.3 The contributions (expressed as a percentage of pensionable salaries) required for future service were as follows:

	%
Benefits for future service	21,64
Administration expenses	<u>1,25</u>
	<u>22,89</u>



B. DETAILS OF LIABILITIES

1. Past service – DCF Method

The components of the liabilities in respect of past service are:

	DCF Method R'000	DMA Method R'000
Active members		
Benefits on :		
retirement	408 336	536 937
death	396 202	516 131
ill-health	243 504	311 373
withdrawal	16 543	17 683
Minimum benefits	5 836	9 320
Pending pensioners	<u>16 207</u>	<u>19 396</u>
Subtotal	<u>1 086 628</u>	<u>1 410 840</u>
Pensioners		
Former members	261 336	297 885
Spouses	385 390	459 299
Suspended pensioners	50 012	58 413
Deferred pensioners	4 440	5 414
Pension increase*	45 006	52 700
Pensions Administration cost (@R350)	<u>15 604</u>	<u>18 275</u>
Subtotal	<u>761 788</u>	<u>891 986</u>
Total liabilities	<u>1 848 416</u>	<u>2 302 826</u>

* From 1 July of year of valuation, pro-rata for pensions in payment for less than a year.

2. Future service

Expressed as a contribution rate, and allowing for the fact that the Fund is closed to new members, the future service liability is as follows:

	% of pensionable salaries
Retirement	8,12
Disability	3,98
Death in service	9,04
Withdrawal	0,50
Administration costs	<u>1,25</u>
Total	22,89
Current contributions by members	(7,00)
Required employer contribution rate	<u>15,89</u>



APPENDIX 6A

LIABILITIES FOR MEMBERS FOR SERVICE TO VALUATION DATE

Females

Age last birthday	Number	Pensionable salaries R	Liability	Contributions without interest R
<=22	0	0	0	0
23 - 27	3	248 474	89 187	53 874
28 - 32	27	2 685 532	1 366 169	723 726
33 - 37	61	6 158 229	4 975 021	2 166 322
38 - 42	66	4 897 004	6 137 284	2 248 675
43 - 47	102	6 944 544	11 511 220	3 378 174
48 - 52	122	8 223 360	17 632 231	4 183 877
53 - 57	99	6 686 043	20 062 873	3 610 483
58 - 62	77	5 037 278	18 298 503	2 703 483
63+	<u>24</u>	<u>1 689 302</u>	<u>8 479 350</u>	<u>911 112</u>
Total	<u>581</u>	<u>42 569 766</u>	<u>88 551 838</u>	<u>19 979 725</u>

Males

Age last birthday	Number	Pensionable salaries R	Liability	Contributions without interest R
<=22	0	0	0	0
23 - 27	8	579 541	444 538	146 262
28 - 32	54	4 219 154	5 067 044	1 424 909
33 - 37	253	22 290 713	39 403 068	9 311 327
38 - 42	469	39 812 192	96 929 727	19 315 551
43 - 47	688	55 872 953	170 785 237	29 303 166
48 - 52	724	58 909 567	212 455 481	31 807 057
53 - 57	577	47 003 032	195 445 956	25 688 656
58 - 62	508	39 143 484	191 824 028	22 069 399
63+	<u>146</u>	<u>11 330 679</u>	<u>69 514 619</u>	<u>6 620 496</u>
Total	<u>3 427</u>	<u>279 161 315</u>	<u>981 869 698</u>	<u>145 686 824</u>
Grand Total	<u>4 008</u>	<u>321 731 081</u>	<u>1 070 421 536</u>	<u>165 666 549</u>

* Excludes reserve for pending widow/ers



APPENDIX 6B

LIABILITIES FOR PENSIONERS

Age nearest birthday	Number of Pensioners	Annual Pension R	Liabilities R
Females			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	0	0	0
33 - 37	0	0	0
38 - 42	0	0	0
43 - 47	1	17 054	254 833
48 - 52	3	52 334	741 274
53 - 57	8	139 301	1 795 620
58 - 62	11	230 436	2 746 475
63+	<u>172</u>	<u>2 553 242</u>	<u>22 324 833</u>
Total	<u>195</u>	<u>2 992 368</u>	<u>27 863 036</u>
Males			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	0	0	0
33 - 37	3	45 895	724 474
38 - 42	8	162 451	2 563 760
43 - 47	9	228 998	3 385 049
48 - 52	26	549 614	7 742 759
53 - 57	53	1 269 829	16 037 892
58 - 62	124	3 384 227	39 784 400
63+	<u>848</u>	<u>17 707 693</u>	<u>163 234 349</u>
Total	<u>1 071</u>	<u>23 348 707</u>	<u>233 472 683</u>
Grand total	<u>1 266</u>	<u>26 341 075</u>	<u>261 335 719</u>

The above summary excludes cases where pension payments have been ceased pending receipt of evidence of survival.



APPENDIX 6C

LIABILITIES FOR DEFERRED PENSIONERS

Age nearest birthday	Number of Pensioners	Annual Pension R	Liabilities R
Females			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	0	0	0
33 - 37	1	13 015	23 766
38 - 42	2	29 008	63 600
43 - 47	0	0	0
48 - 52	1	3 173	14 253
53 - 57	1	13 611	67 018
58 - 62	4	38 041	282 316
63+	<u>1</u>	<u>7 341</u>	<u>73 122</u>
Total	<u>10</u>	<u>104 190</u>	<u>524 075</u>
Males			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	1	10 570	14 245
33 - 37	0	0	0
38 - 42	0	0	0
43 - 47	0	0	0
48 - 52	0	0	0
53 - 57	11	151 276	752 396
58 - 62	22	272 251	1 892 949
63+	<u>8</u>	<u>136 249</u>	<u>1 256 596</u>
Total	<u>42</u>	<u>570 347</u>	<u>3 916 186</u>
Grand total	<u>52</u>	<u>674 537</u>	<u>4 440 261</u>

The above summary excludes cases where the pension has been ceased pending receipt of evidence of survival.



APPENDIX 6D

LIABILITIES FOR SPOUSES

Age nearest birthday	Number of Pensioners	Annual Pension R	Liabilities R
Females			
< 22	0	0	0
23 - 27	1	20 138	346 696
28 - 32	32	575 325	9 689 239
33 - 37	85	1 463 257	23 919 410
38 - 42	215	4 008 766	62 941 200
43 - 47	277	4 170 461	62 087 807
48 - 52	373	4 994 702	69 745 656
53 - 57	358	4 304 273	55 088 484
58 - 62	426	4 272 358	49 090 073
63+	<u>789</u>	<u>5 744 293</u>	<u>49 593 087</u>
Total	<u>2 556</u>	<u>29 553 572</u>	<u>382 501 652</u>
Males			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	1	32 129	518 013
33 - 37	0	0	0
38 - 42	0	0	0
43 - 47	4	81 923	1 109 991
48 - 52	0	0	0
53 - 57	1	13 311	155 325
58 - 62	6	74 010	728 023
63+	<u>5</u>	<u>58 845</u>	<u>377 402</u>
Total	<u>17</u>	<u>260 217</u>	<u>2 888 754</u>
Grand total	<u>2 573</u>	<u>29 813 789</u>	<u>385 390 406</u>

The above summary excludes pending spouse pensioners and cases where the pension has been ceased pending receipt of evidence of survival.

**APPENDIX 7****LIMITATIONS TO USE OF REPORT**

This report has been prepared for the Committee of Management of the Natal Joint Municipal Pension Fund (Retirement). Its contents and conclusions should not be used by any other party, as the purpose for which this report has been prepared may not be appropriate for other uses.

A third party who wishes to use the information, conclusions, recommendations or any other aspects of this report should contact the Committee of Management of the Natal Joint Municipal Pension Fund (Retirement) who will in turn obtain written comment from Arthur Els & Associates on whether this report is appropriate for the intended use.

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