

March 2005

# Avon Pension Fund

## Actuarial Valuation Report

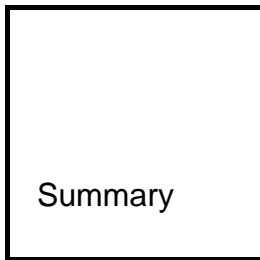
As at 31 March 2004

# MERCER

Human Resource Consulting

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## 1. Funding objective

The funding objective is:

- To achieve and then maintain a funding target that requires assets equal to 100% of the present value of benefits based on completed service including provision for the effects of future salary growth and inflation up to retirement.

Further details on the funding objective are given in Section 2.

## 2. Valuation results

### Past service

The Fund shows a deficit of £366.4 million at the valuation date against the above funding objective and on the actuarial assumptions detailed in this report. This represents a funding level of 80%.

### Future service

The Common Contribution Rate (i.e. the contribution rate in respect of future service only) is 8.9% of Pensionable Pay.

Further details on these results are given in Section 1.

## 3. Funding plan

The funding plan is set out in the Fund's Funding Strategy Statement, as prepared by the Administering Authority (Bath and North East Somerset Council), and after consultation with the participating employers. Individual employer funding plans, and the resulting certified contribution rates, have been determined in accordance with the FSS. Depending on individual circumstances, different approaches to the funding of benefits have been adopted, as part of the FSS consultation process. However, for the majority of employers the two main features of the funding plan are that contribution rates should be assessed based on recovery of the deficit over a period of

up to 20 years, and that any increase in contributions to this required level can be phased in over a period of up to 3 years.

If the deficiency is recovered over this 20 year period then the average employer contribution rate emerging from the valuation is 14.3% of Pensionable Pay per annum. Disregarding the effect of phasing in increases and in the absence of any further reviews, this average contribution rate would be paid for 20 years from 1 April 2005, reverting to 8.9% of Pensionable Pay at the end of the period. In practice, contribution rates will be reviewed regularly over this period so that, all other factors being neutral, a gradual revision of the average employer's contribution rate towards the Common Contribution Rate may be expected.

The recommended employer contribution rates for the period 1 April 2005 to 31 March 2008 are set out in the Certificate attached to this report. Employee contributions are payable in addition to the employer contributions. These contributions are adequate to meet the above funding objective based on the actuarial assumptions detailed in this report.

Additional capital contributions will be paid on top of the rates shown in respect of non-ill health early retirements.

These contributions have been set in accordance with the provisions of Regulation 77 of the Local Government Pension Scheme Regulations 1997 (as amended).

#### **4. Investment strategy**

The investment strategy pursued by the Administering Authority, and reflected in the Statement of Investment Principles involves an element of risk. The risks of the strategy relative to the form and incidence of the liabilities are discussed at the end of Section 1.



1. I am the actuary to the Avon Pension Fund ("the Fund"). This is a report to the Administering Authority of the Fund on my actuarial valuation of the assets and liabilities of the Fund as at 31 March 2004. The last actuarial valuation of the Fund was carried out as at 31 March 2001.
2. The valuation has been undertaken in accordance with the Local Government Pension Scheme Regulations 1997 (as amended) ("the Regulations").
3. The calculations in the report use methods and bases appropriate for the purpose described above. Figures required for other purposes, such as employer accounting, should be calculated in accordance with the specific requirements for such purposes and it should not be assumed that the figures provided here are appropriate.
4. Although addressed to the Administering Authority, this report may be disclosed to other parties with the consent of the Administering Authority, or under the disclosure legislation and regulations. Such parties may use the results as a guide to the funding position of the Fund. Mercer Human Resource Consulting Limited does not accept liability to any other third parties in respect of the contents of this report.
5. This report complies with the requirements in the appropriate version of Guidance Note 9 - 'Retirement Benefit Schemes - Actuarial Reports' (insofar as it applies to Local Government Schemes), issued jointly by the Institute of Actuaries and the Faculty of Actuaries. This report does not deal with the solvency position of the Fund were it to be discontinued, given the statutory constitution of the Local Government Pension Scheme.

**Signature**

**Actuary**

S K Jacquest

**Date of signing**

24 March 2005

**Qualification**

Fellow of the Institute of Actuaries

## Contents Page

### **Summary**

### **Certification**

1. Results.....	1
2. Valuation objectives and method.....	6
3. Valuation assumptions.....	8
4. Valuation data and trends.....	15

### **Appendices**

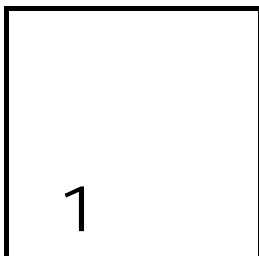
A. Summary of significant benefits changes .....	19
B. Summary of membership data .....	21
C. Distribution of membership by employing bodies.....	23
D. Summary of assets .....	26
E. Summary of income and expenditure .....	27
F. Experience analysis.....	28
G. Scenario analysis.....	29

### **Certificates**

Rates and Adjustments Certificate issued in accordance with Regulation 77

Schedule to the Rates and Adjustments Certificate dated 24 March 2005

Surplus certificate



## Results

- 1.1 The results of the valuation are shown below. The method and assumptions used are described in Sections 2 and 3.

### **Future service**

- 1.2 In calculating the average employer contribution rate required for future service only (the Common Contribution Rate), the pension and death-in-service benefits arising from one year's future pensionable service have been valued. Allowance has also been made for the cost of administrative expenses paid from the Fund.

Contribution rate for:	% of Pensionable Pay
▪ pension and death-in-service benefits	14.44
▪ administrative expenses	0.36
Total contribution rate	14.80
Average employee contribution rate	5.90
Common Contribution Rate	8.90

The Common Contribution Rate identified at the previous valuation was 10.2% of Pensionable Pay.

- 1.3 Allowance has been made for the benefit changes introduced by the Local Government Pension Scheme (Amendment) (No.2) Regulations 2004, which take effect from 1 April 2005 (see Appendix A). On 18 March 2005 the Government announced its intention, subject to statutory consultation, to revoke these changes. In the event that the changes are revoked, then the contribution rates set out in this

report and the attaching Rates and Adjustments Certificate will need to be reviewed.

### Past service

- 1.4 The next step is to consider the imbalance between the assets of the Fund and the funding target.

Value of liabilities	£m
▪ members in service	788.8
▪ deferred pensioners	250.9
▪ pensioners	786.5
GMP Equalisation Reserve	15.0
Total liabilities	1,841.2
Market value of assets	1,474.8
Deficit	366.4
Funding level	80%

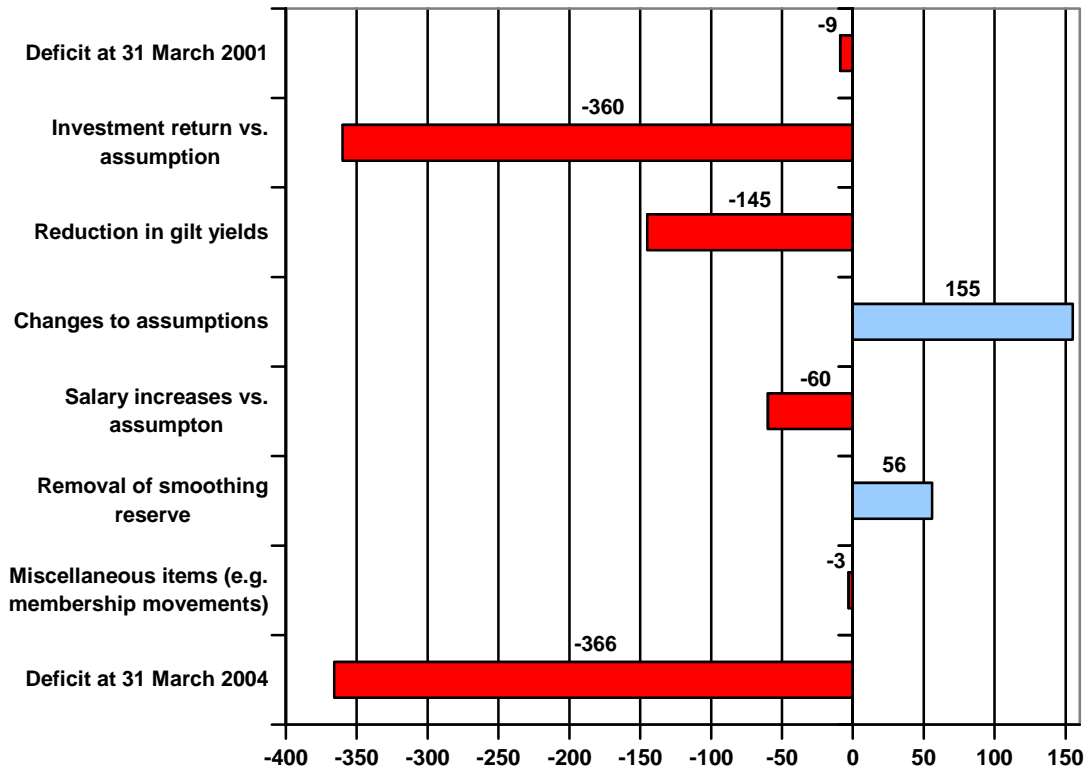
The funding objective is to achieve and maintain a funding level of 100%. The deficit of £366.4 million could be eliminated by an average contribution addition of 5.4% of Pensionable Pay for 20 years. This would imply an average employer contribution rate of 14.3% (10.4% at the previous valuation) of Pensionable Pay.

- 1.5 Of the many assumptions upon which the level of deficit revealed above is dependent, one of the most important is the extent to which advance credit has been taken for the expected future out-performance of the Fund's investments over that available from gilts. If the long-term return were assumed to be in line with the gilt return (as would be the case if the portfolio were closely matched against its liabilities), then the above deficit might increase to about £910 million.
- 1.6 It is highly likely that future financial developments will not follow the assumptions made in the valuation, especially in the short term. The scope for variation in the funding level – and resulting contribution requirements – is substantial. This can be illustrated if we consider the impact of varying the key financial assumptions. Changing the investment return assumption, for example, by ½% per annum would have approximately an 8% effect on the overall liabilities. Reducing the allowance for salary increases by ½% per annum would reduce the deficit by about £42 million.

### Reconciliation to previous valuation

- 1.7 The previous actuarial valuation was carried out as at 31 March 2001 and showed that the value of the assets was lower than the value of the accrued liabilities, after making allowance for projected salaries. There was therefore a deficit in the Fund

of £9.2 million. The principal reasons for the change in the funding position (with figures being rounded to whole £m) are as follows:



### Maximum funding

1.8 The Fund’s funding level on the maximum funding test under the Income and Corporation Taxes Act 1988 is less than 105% and therefore this test does not impinge on the decisions regarding the contribution rates payable to the Fund. The necessary certificate confirming this position is included in this report.

## Funding plan

1.9 The average employer contribution rate required to meet the funding objective is:

8.9% of Pensionable Pay (i.e. the Common Contribution Rate)

plus

5.4% of Pensionable Pay for a period of 20 years (to remove the deficit)

In the absence of other factors impinging on the Fund, average contributions at the above level would mean a gradual improvement in the funding level of the Fund so that at the end of 20 years the funding level would have increased to 100% (based on the actuarial assumptions detailed in Section 3).

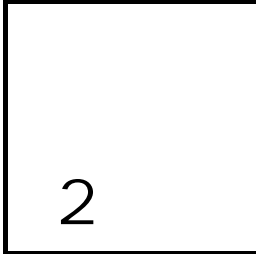
Additional capital contributions are payable in relation to non-ill health early retirements.

1.10 In practice, each employer's position is separately assessed and our certificate confirming the individual employer contribution rates payable for the period 1 April 2005 to 31 March 2008 is attached to this report. These individual rates take into account the differing circumstances of each employer and the funding plan, as laid down in the Funding Strategy Statement, in particular in relation to deficit recovery period and implementation of increases in employer contributions where these are required.

## Investment strategy

- 1.11 It has been assumed that the Administering Authority will continue to invest a significant portion of the assets of the Fund in UK and overseas equities and that these will produce a future investment return that exceeds the current yield available on bonds.
- 1.12 Alternative investment strategies could be followed that would minimise the risk of deterioration in the Fund's funding position. One such strategy would be to invest the assets of the Fund primarily in long-term fixed and index-linked bonds. This strategy would substantially reduce the risk that changing economic conditions will cause deterioration in the Fund's funding position. It would also tend to produce a more stable contribution rate but at a much higher overall level than indicated on the valuation assumptions.
- 1.13 This alternative strategy would involve investing more significant portions of the assets in bonds. This would lead directly to higher contribution rates since it would no longer be appropriate to anticipate the higher investment return that is generally achieved by equities.

- 1.14 It is recommended that the Administering Authority continues to review investment objectives and strategy regularly. The broad purpose of such reviews should be:
- to review the investment risk associated with different investment strategies and
  - to confirm that the current strategy remains appropriate, or otherwise, to act as a stimulus for change.
- 1.15 The analysis in Appendix G illustrates the level of risk inherent in the Fund's current investment strategy by showing the scope for variation in the past service funding level over the next three years.



## Valuation objectives and method

### Valuation objectives

- 2.1 The valuation has been undertaken in accordance with the provisions of the Local Government Pension Scheme Regulations 1997 (as amended) (“the Regulations”). Under the Regulations, the contribution rates set for the various participating employers are determined by the Fund’s actuary, having regard to the Funding Strategy Statement (FSS).
- 2.2 The FSS has been prepared by the Administering Authority, in accordance with Regulation 76A of the Local Government Pension Scheme Regulations 1997 (as amended), after taking account of guidance issued by the Chartered Institute of Public Finance and Accountancy (CIPFA), and after consultation with the participating employers.
- 2.3 The funding objective for the Fund is to achieve and then maintain assets equal to 100% of projected accrued liabilities, assessed on an ongoing basis including allowance for projected final pay. The funding plan, in accordance with the Funding Strategy Statement, is to achieve the funding objective over a maximum period of 20 years.

### Valuation method

- 2.4 The same actuarial method, namely the Projected Unit method, has been used at this and the previous valuation. The Projected Unit method is consistent with the funding objective and is in common use for funding pension funds in the United Kingdom.
- 2.5 The recommended contribution under the Projected Unit method consists of two parts:

- the **Common Contribution Rate** required to meet the cost of benefits accruing for service after the valuation. This is calculated as the value of benefits expected to accrue to the membership in respect of one year's service based on projected salaries, with appropriate allowance for administrative expenses and members' contributions,

plus

- the **contribution adjustment** required to correct (over an agreed future period) any imbalance between the assets of the Fund and the funding objective.

2.6 For a given set of actuarial assumptions, the method has the following characteristics:

- if the membership profile remains stable in terms of age and sex, then the Common Contribution Rate (as a percentage of Pensionable Pay) will remain stable. The method therefore implicitly allows for new entrants;
- if the supply of new entrants to the Fund is cut off or declines, then the Common Contribution Rate will tend to rise at future valuations.

### **Selection of assumptions**

#### **Common Contribution rate**

- 2.7 As described above, the Common Contribution Rate to the Fund is calculated as the value of benefits expected to accrue to the membership in respect of one year's service based on projected salaries and assessed on the valuation assumptions (see Section 3 for further details).
- 2.8 Under the Regulations, the actuary must have regard to the desirability of maintaining as nearly constant an employer contribution rate as possible. We have therefore used long-term actuarial assumptions (a "nominal yield basis") to calculate the Common Contribution Rate.

#### **Contribution adjustment**

- 2.9 As described above, an adjustment is made to the Common Contribution Rate to correct (over an agreed future period) any imbalance between the assets of the Fund and the funding objective (i.e. the present value of benefits based on completed service including provision for the effects of future salary growth and inflation up to the assumed retirement age). To determine the adjustment, assets and liabilities must be calculated on a consistent basis. The funding objective has been calculated on valuation assumptions (see Section 3 for further details) that are consistent with market conditions on the valuation date (a "current yield basis"), and the assets have been taken at their market value at that date.

3

## Valuation assumptions

- 3.1 The valuation results depend on the assumptions used. There are two broad categories of assumptions:
- financial assumptions - such as the investment return that will be earned in the future and the rates at which earnings and pensions will increase; and
  - demographic assumptions - such as rates of mortality, retirement, and withdrawal from the Fund.
- 3.2 The financial and demographic assumptions are considered separately below. A number of changes have been made to the assumptions used for the last actuarial valuation. These have been noted below.
- 3.3 In addition, there are special considerations in respect of the assumptions to adopt when calculating individual employer contribution rates. These issues are considered at the end of this section.

### **Financial assumptions – past service**

- 3.4 In setting any actuarial basis, it is important to appreciate that the differences between the financial assumptions (for example, the real returns above price and salary inflation) are more significant for the valuation result than the absolute rates of investment return and price/salary inflation individually.
- 3.5 The financial assumptions for valuing past service liabilities have been derived from the long-term yield on Government bonds in the market at the valuation date. The table below compares the key market yields on the valuation date with the corresponding yields at the last valuation:

	Valuation date	Previous valuation
Annualised yield on long-dated fixed gilts	4.6%	4.6%
Annualised yield on long-dated index-linked gilts	1.8%	2.3%
Long term expectation for annual price inflation	2.8%	2.3%

### Investment return

3.6 In considering the past service investment return assumptions the following have been taken into account:

- the return available on long-dated gilts of 4.6% per annum.
- the expected out-performance over gilts in the long-term from other asset classes, such as equities, held by the Fund. It is a matter of judgement what the expected out-performance relative to gilts should be.
- In considering the allowance for expected out-performance relative to gilts, it must be recognised that this will primarily be generated by the Fund's equity investment content. The proportion of the Fund invested in equities is a relevant factor, but the higher the equity content adopted (in pursuit of higher overall returns) the greater will be the volatility in funding outcomes from one valuation to the next.
- For this valuation the asset out-performance assumption for valuing past service liabilities has been set at 2.35% per annum for the period pre-retirement and 1.2% per annum for the period post-retirement. The allowance for this out-performance is based on the liability profile of the Fund, with a higher assumption in respect of the "pre-retirement" (i.e. active and deferred pensioner) liabilities than for the "post-retirement" (i.e. pensioner) liabilities. This approach allows for a gradual shift in the overall equity/bond weighting of the Fund as the liability profile of the membership matures over time.

At the 2001 valuation an asset out-performance assumption of 1.1% per annum for the period pre and post retirement was used to value past service liabilities.

### Pension increases

3.7 The Fund guarantees to increase the pension in payment in line with price inflation. Therefore, for valuing past service liabilities the pension increase assumption has been set equal to the long term current expectation for price inflation (i.e. 2.8% per annum as shown above).

### Pensionable Pay increases

- 3.8 It has been assumed that increases in Pensionable Pay will be 1.25% per annum above the assumed increase in price inflation of 2.8% per annum i.e. a total increase of 4.05% per annum for valuing past service liabilities. At the 2001 valuation Pensionable Pay was assumed to increase at 1.0% per annum in excess of price inflation and in addition a salary scale was included for certain members to reflect promotional increases. No salary scale has been included for this valuation. This is explained further under "Demographic assumptions" below.

### Financial assumptions – future service

- 3.9 In deriving the assumptions to be used for assessing the future service contribution rate (the Common Contribution Rate), account has been taken of the fact that contributions will be invested in market conditions applying at future dates, which are unknown at the present time and are not directly linked to market conditions at the valuation date. Further, the future service liabilities for which these contributions will be paid have a longer average duration than the past service liabilities. Given this, a "longer-term" view has been taken in setting the future service basis with the result that the financial assumptions adopted are essentially the same as for the previous valuation. The allowance for Pensionable Pay increases above price inflation has, however, been changed in the same way as for past service.

### Financial assumptions - summary

- 3.10 In summary, the financial assumptions adopted for the valuation (2001 valuation assumptions shown in brackets) are as follows:

	Past service	Future service
Investment return		
- pre retirement	6.95% p.a. (5.7% p.a.)	6.5% p.a. (6.5% p.a.)
- post retirement	5.8% p.a. (5.7% p.a.)	6.5% p.a. (6.5% p.a.)
Pensionable Pay increases	4.05% p.a. (3.3% p.a.)	3.75% p.a. (3.5% p.a.)
Pension increases	2.8% p.a. (2.3% p.a.)	2.5% p.a. (2.5% p.a.)

### Demographic assumptions

- 3.11 The demographic assumptions used for the valuation cover factors such as rates of withdrawal, ill health retirements and proportions married.
- 3.12 In relation to members in active service, we have traditionally differentiated between manual and officer members in connection with such areas as the

assumed rates of early retirement in ill-health, early leaving and assumed future promotional pay rises. However, with the advent of “single status” employment, it is often no longer possible to identify in LGPS pension scheme records whether an employee should be described as “manual” or “officer”. We have therefore brought the demographic assumptions for both groups into line with one another at this valuation. For this purpose, we have adopted the assumed rates of ill-health retirement and/or leaving as were previously applied to officer members. In addition we have removed the assumed promotional salary scale which applied to officers, and replaced it with an overall increase in the assumed earnings inflation rate of 0.25%.

- 3.13 The most important of the demographic assumptions are discussed below. In addition, an analysis of actual experience during the intervaluation period, compared with that expected on the demographic assumptions adopted at this valuation, is set out in Appendix F.

### Early retirement

- 3.14 Some members are entitled to receive their benefits unreduced from an age prior to the Fund’s normal pension age under the “Rule of 85” provisions of the Regulations. This age will be at some point between ages 60 and 65, depending on the length of a member’s pensionable service. Our calculations in respect of past service allow for a proportion of the active membership to retire in normal health prior to age 65, as set out below.

Age	% retiring per annum	
	Males	Females
60	24.0	41.0
61	15.0	20.0
62	21.0	20.0
63	22.0	19.0
64	26.0	23.0

- 3.15 For future service the situation is different since the “Rule of 85” provision has been removed for service from April 2005. Further detail of these changes is given in Appendix A. As a result of the changes, for future service we have assumed the earliest age at which unreduced benefits become an entitlement is 65 except for those members who have protected status under the transitional provisions.
- 3.16 As for the 2001 valuation no allowance has been made for non-ill health early retirements prior to age 60. Additional capital contributions will be paid by employers in respect of the cost of these retirements.

- 3.17 We have allowed for outstanding contributions due in respect of early retirements occurring prior to the valuation date by offsetting the costs being met by the employer against the corresponding liabilities.

### Ill health retirement

- 3.18 A small proportion of the members in service have been assumed to retire owing to ill health. The allowance for ill health retirements will be reviewed at future valuations. The following is an extract from the decrement table used.

Age	% retiring per annum	
	Males	Females
35	0.04	0.07
45	0.19	0.24
55	0.80	1.09

### Mortality

- 3.19 There has been a trend for people to live longer and this is expected to continue. Consequently, for this valuation lighter mortality assumptions have been adopted than for the previous valuation in order to make some allowance for this improved longevity. It should be stressed, however, that the valuation does not make allowance for the full extent of the increased longevity indicated by the most recent mortality investigations. Therefore, this assumption will continue to be monitored in the light of general trends in mortality experience and the Fund's specific experience.
- 3.20 The following standard tables have been used:

<b>Pensionable Employees</b>	
Males	PMA92 Base rated down by 2years
Females	PFA92 Base rated down by 2 years
<b>Preserved Pensioners</b>	
Males	PMA92 Base rated down by 2 years
Females	PFA92 Base rated down by 2 years
<b>Current Pensioners</b>	
Males	PMA92 Base
Females	PFA92 Base

For members who are assumed to retire in ill health from active status, their mortality assumption is as described above but rated up by 5 years (e.g. PMA92 Base rated up by 3 years for males).

### Withdrawals

- 3.21 This assumption relates to those members who leave the Fund with an entitlement to a deferred pension or transfer value. It has been assumed that members in service will leave the Fund at the following sample rates:

Age	% leaving per annum	
	Males	Females
25	4.4	7.7
35	1.6	4.2
45	0.9	1.9

### Proportion married and age difference

- 3.22 The Fund provides pensions to members' spouses on death. It has been assumed that the proportion of members married will be in accordance with the sample rates below. A further assumption has been made that wives are three years younger, on average, than their husbands.

Age	% married	
	Males	Females
25	34	56
35	81	84
45	92	93

### Discretionary benefits

- 3.23 The costs of any discretion exercised by an employer in order to enhance benefits for a member through the Fund will be subject to additional contributions from the employer as required by the Regulations as and when the event occurs. As a result, no allowance for such discretionary benefits has been made in the valuation.

### GMP Equalisation

- 3.24 UK and European law require pension schemes to provide equal benefits to men and women in respect of service after 17 May 1990 (the date of the "Barber")

judgement). There is still no general agreement on whether this applies to inequalities caused by guaranteed minimum pensions (GMPs) and, if it does, what adjustments have to be made to scheme benefits to correct these inequalities. The valuation includes a reserve of £15 million to mitigate any costs emerging for the equalisation of these inequalities. This is the same reserve as was included in the 2001 valuation.

### **Individual employers**

- 3.25 Having developed the assumptions in this way for the Fund overall, it is important to consider how the financial assumptions in particular impact on individual participating employers. As employers in the Fund will have different mixes of active, deferred and pensioner members, adopting a different pre/post retirement investment return approach is equivalent to hypothecating a different equity/bond mix investment strategy for each employer. Such an approach would be inconsistent with the Fund practice, as set out in the FSS, of allocating investment performance pro rata across all employers based on a “mirror image” investment strategy to the whole Fund. In completing the calculations for individual employers, we have therefore adopted a combined single pre and post retirement asset out-performance assumption.
- 3.26 The funding plan adopted in setting individual contribution rates is in accordance with the FSS. Variations in deficit recovery periods adopted and the approach to phasing of contribution increases are as determined through the FSS consultation process and discussions between the Administering Authority and individual employers.

# 4

## Valuation data and trends

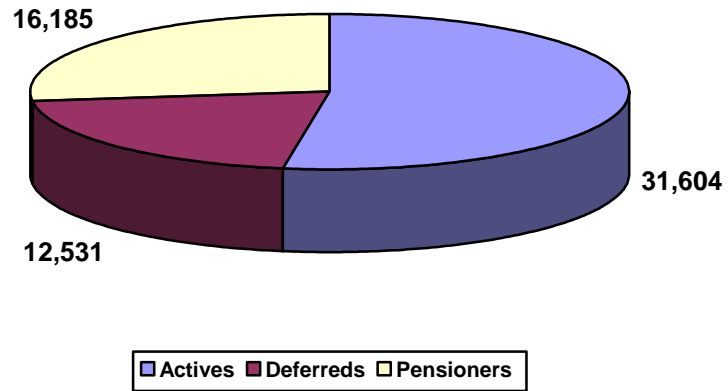
- 4.1 The valuation is based on three key items of data:
- the membership of the Fund at the valuation date;
  - the benefits promised by the Fund as set out in the Regulations; and
  - the amount of assets held by the Fund on the valuation date.
- 4.2 The primary responsibility for the accuracy of the data provided is with the Administering Authority who may rely on others for the provision and maintenance of accurate data. Such reasonableness checks as are practicable have been carried out on this data. These checks do not guarantee the accuracy of the data.

### **Membership**

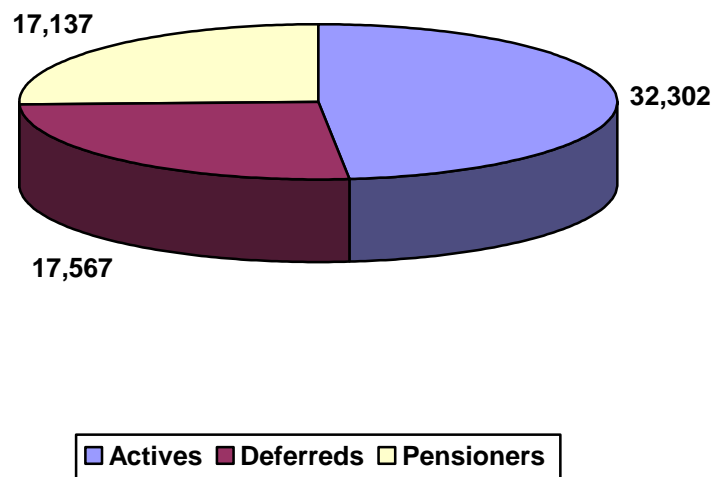
- 4.3 Data in relation to members in service, former employees with deferred pensions and current pensioners were obtained from computerised records maintained by the Fund administrators.
- 4.4 The following charts summarise the change in total membership since the 2001 valuation and also show the age profile of the active membership at this valuation. A more detailed summary of the membership data at the valuation date, with figures at the previous valuation date shown for comparison, is included as Appendix B. A split of the membership between the employers is shown in Appendix C.

### Summary of Membership

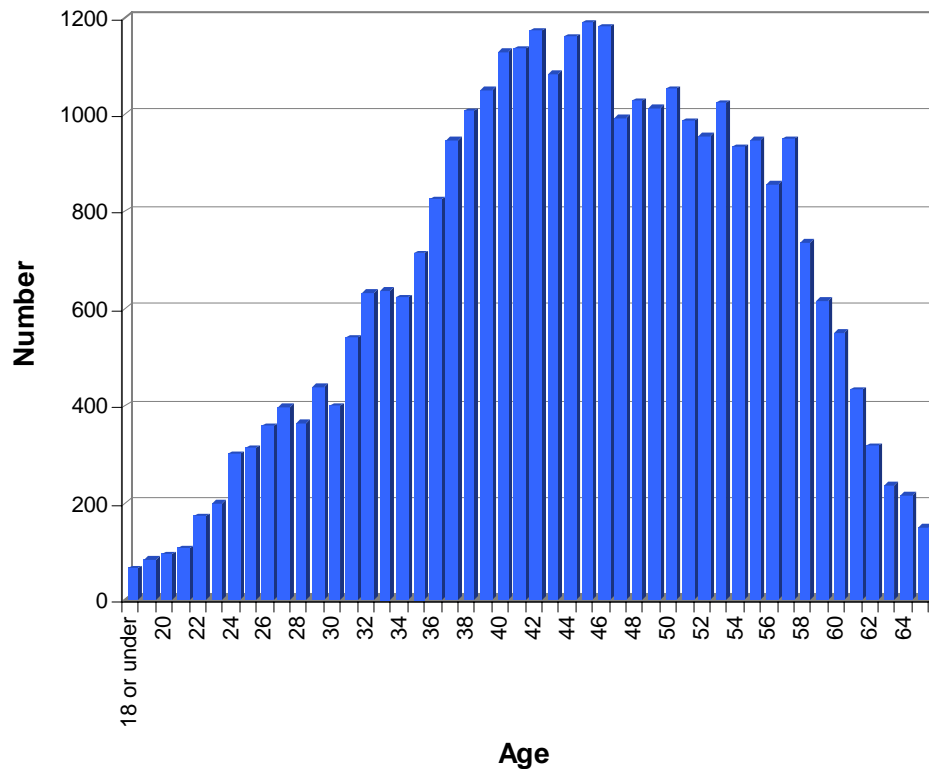
**At 31 March 2001**



**At 31 March 2004**



## Age Profile of Active Members as at 31 March 2004



### Benefits

- 4.5 The benefits provided by the Fund and taken into account in this valuation are set out in the Local Government Pension Scheme Regulations 1997 (as amended) as at the date of signing this report. The Regulations which have been amended in a number of respects since the last valuation. The most significant changes that will impact on the benefits payable are set out in Appendix A. We have made no allowance for other changes which may be introduced in the future.
- 4.6 Benefits recharged to individual employers on a £ for £ basis have been excluded from the calculation of the valuation liabilities.

### Assets

- 4.7 Details of the assets held by the Fund, and audited accounts covering the period ended 31 March 2004, were supplied by the Administering Authority. Full details

of the assets are given in Appendix D, with a summary of income and expenditure in Appendix E.

- 4.8 The Fund's assets are invested in equities, bonds and other assets, in both UK and overseas markets using investment managers, who invest either directly in stocks or via pooled funds investing in such stocks.
- 4.9 The Fund has a money purchase additional voluntary contribution (AVC) facility to which members may choose to pay additional contributions to secure additional benefits. As the assets under this arrangement are used solely to meet and match, precisely, the AVC liabilities, they have been ignored for the purposes of this valuation.

Appendix A
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## Summary of significant benefit changes

A number of changes have been made to the Regulations during the period since the last valuation. The significant changes are summarised below.

1. The introduction of benefits for Councillors in England and Wales. In relation to the provisions for Councillors to join the Scheme, three of the unitary authorities have made provision for their Councillors to be eligible to join with entitlement to “career average” benefits. The liabilities in relation to the Councillor members have been allowed for in the valuation.
2. The Local Government Pension Scheme (Amendment) Regulations 2004 made the following principal changes from 1 April 2004:
  - Introduction of vesting of benefits after 3 months.
  - Introduction of the restriction of re-employed pensioners and deferred pensioners to have their service aggregated for benefit calculation purposes.
3. The Local Government Pension Scheme (Amendment) (No.2) Regulations 2004 make the following changes, effective from 1 April 2005:
  - Removal of “Rule of 85” retirement terms for benefits earned from scheme membership after 1 April 2005.
  - Normal retirement age of 65 for all members.
  - Increase in the earliest age from which retirement benefits may be paid, other than on grounds of ill health, from 50 to 55.

The changes in retirement terms summarised in 3 above are subject to certain transitional provisions as follows:

**(a) Protection of retirement benefits payable at the member's old Rule of 85 age.**

Benefits built up from service before 1 April 2005 will continue to be payable unreduced from the member's Rule of 85 age, where this falls before the normal retirement age of 65. Employer consent is still required for retirement prior to age 60.

**(b) Protection of unreduced retirement from the later of age 60 and Rule of 85 age, for members as at 31 March 2005 who attain age 60 on or before 31 March 2013.**

These members will, if they retire on or after their Rule of 85 age (between ages 60 and 65), have no reduction applied to benefits in respect of service completed prior to 1 April 2013.

**(c) Members aged 50 or more on 31 March 2005.**

Such members will continue to be eligible for immediate payment of retirement benefits if made redundant prior to age 55, and also to retire at their own volition, subject to employer consent, prior to age 55 (although benefits may be reduced for early payment in the latter case).

On 18 March 2005 the Government announced its intention, subject to statutory consultation, to revoke the Local Government Pension Scheme (Amendment) (No 2) Regulations 2004 with retrospective effect. It also announced its intention to begin consultation on new Regulations, to ensure the continuing solvency of the scheme.

The contribution rates set out in this report and attaching Rates and Adjustments Certificate allow for the financial impact of the changes to retirement terms effective from 1 April 2005. In the event that these changes are revoked (without corresponding changes of equal financial effect being simultaneously introduced), then the contribution rates will need to be reviewed.

Appendix B
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## Summary of membership data

### Pensionable Employees

	At 31.3.2001	At 31.3.2004	Increase (%)
Number	31,604	32,302	2.2
Annual Pensionable Pay <sup>1</sup> (£m)	364.4	431.4	18.4
Average Pensionable Pay (£)	11,531	13,355	15.8
Average Age (years)	44.0	44.4	N/A
Average Reckonable Service (years)	5.9	6.2	5.1

1. Pensionable Pay figures include actual pay for part-time employees.

### Preserved Pensioners\*

	At 31.3.2001	At 31.3.2004	Increase (%)
Number	12,531	17,567	40.2
Annual Pensions inclusive of Pension Increase (£m)	15.1	20.0	32.5
Average Pension including Pension Increase (£)	1,206	1,136	-5.8
Average Age (years)	44.0	45.2	N/A

\* including frozen refunds and leaver options pending

## Current Pensioners

	At 31.3.2001	At 31.3.2004	Increase (%)
Number	13,360	14,259	6.7
Annual Pensions inclusive of Pension Increase (£m)	50.7	56.3	11.0
Average Pension including Pension Increase (£)	3,794	3,949	4.1
Average Age (years)	68.6	69.3	N/A

## Current Widow/Widower Pensioners

	At 31.3.2001	At 31.3.2004	Increase (%)
Number	2,616	2,729	4.3
Annual Pensions inclusive of Pension Increase (£m)	4.5	5.0	11.1
Average Pension including Pension Increase (£)	1,730	1,816	5.0
Average Age (years)	75.3	75.6	N/A

In addition there were a total of 149 current dependant and children pensioners as at 31 March 2004 with pensions in payment totalling £165,476 per annum.

Appendix C
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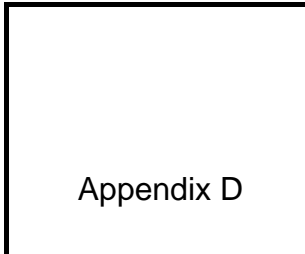
## Distribution of membership by employing bodies

Employing Body	Pensionable Employees	Preserved Pensioners	Pensioners	Widow(er)s
Aquaterra Leisure Limited	52	6	0	0
Ashley House Hostel	7	8	2	0
Assessment & Qualifications Alliance	4	8	11	2
Avon & Somerset Police Authority	1	0	6	0
Avon County Council	0	2947	4628	745
Avon Fire Brigade	111	22	65	10
Avon Probation Service	0	131	106	17
Backwell Parish Council	1	2	0	0
Bath and North East Somerset Council	5135	1578	1313	236
Bath and North East Somerset Racial Equality Council	1	0	0	0
Bath Centre for Voluntary Properties	0	0	1	0
Bath Festival Society	0	2	0	0
Bath Spa University College	242	106	51	6
Bradley Stoke Town Council	13	2	0	0
Brandon Trust	54	5	8	0
Brislington Neighbourhood Centre	1	1	0	0
Bristol Airport	0	24	9	2
Bristol City Council	12494	5745	4527	1186
Bristol Council for Racial Equality	3	0	1	0
Bristol Council for Voluntary Service	0	2	2	0
Bristol Development Corporation	0	9	5	0
Bristol Education Action Zone	13	1	0	0
Bristol Municipal Airport	0	13	59	14
Bristol Royal Society for the Blind	0	58	71	10
Bristol Tourism & Conference Bureau	16	6	0	0
Bristol Waterworks	0	0	1	2
Care & Repair in Bath and North East Somerset	1	1	0	0
Centre for the Deaf	7	3	3	1

<b>Employing Body</b>	<b>Pensionable Employees</b>	<b>Preserved Pensioners</b>	<b>Pensioners</b>	<b>Widow(er)s</b>
Charter Trustees of the City of Bath	2	0	1	0
City Academy Bristol	54	0	0	0
City of Bath College	131	87	45	0
City of Bristol College	503	335	131	9
Clifton Suspension Bridge Trust	18	5	12	7
Commission for Social Care Inspection	18	3	2	0
Community Action	2	3	1	2
Connexions Gloucestershire	125	9	1	0
Connexions West of England	318	108	28	1
Department for Constitutional Affairs	0	71	90	28
Dodington Parish Council	4	1	0	0
Downend & Bromley Heath Parish Council	1	0	0	0
Filton College	178	79	23	4
Filton Town Council	8	0	0	0
Frampton Cotterell Parish Council	4	0	1	0
H B S Business Services	55	6	0	0
Holbourne Museum and Crafts Study Centre	8	1	0	0
Keynsham Town Council	10	2	2	0
Long Ashton Parish Council	1	0	0	0
Nailsea Town Council	3	0	0	0
National Health Service	0	1	28	13
North Somerset Council	3797	2108	1141	200
North Somerset Education Action Zone	0	2	1	0
Norton Radstock College	102	55	13	1
Norton Radstock Town Council	9	1	1	0
Off the Record Bath and North East Somerset	11	2	0	0
Oldland Parish Council	1	0	0	0
Patchway & Bradley Stoke Community Development Project	1	0	0	0
Patchway Town Council	3	1	0	0
Paulton Parish Council	3	0	0	0
Portishead and North Western Town Council	2	0	0	0
Saltford Parish Council	0	1	0	0
Shaw Health Centre (North Somerset) Limited	44	4	9	1
SITA Holdings UK Limited	14	2	7	0
Somer Community Housing Trust	188	48	28	1
Somer Housing Group Limited	37	7	1	0
South Gloucestershire Council	6027	2548	1170	140
South West Museums, Libraries and Archives Council	12	13	0	0
St Brendan's College	32	12	8	0
St Joseph's School	0	0	2	0
STA Travel	2	0	0	0
Stoke Gifford Parish Council	3	1	1	0
Thornbury Town Council	11	1	4	1
United Waste Services	0	1	0	0
University of Bath	954	632	333	61
University of West of England	1292	641	277	24

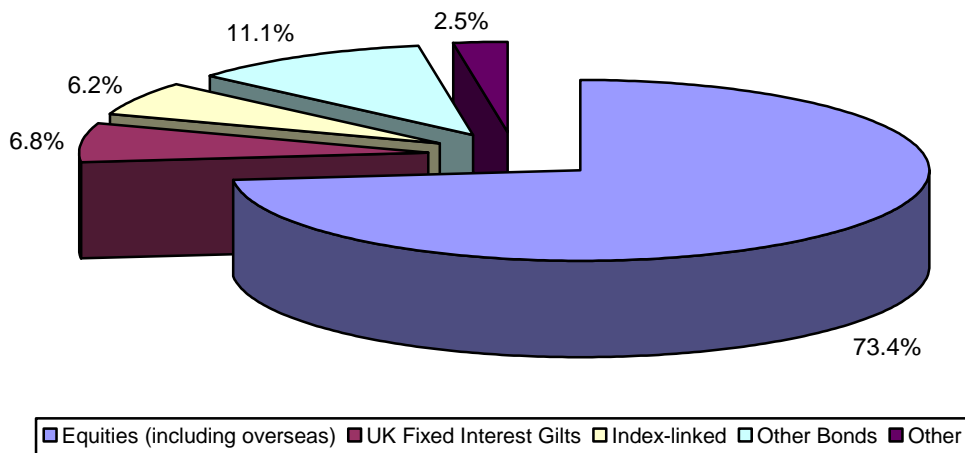
<b>Employing Body</b>	<b>Pensionable Employees</b>	<b>Preserved Pensioners</b>	<b>Pensioners</b>	<b>Widow(er)s</b>
Wessex Water Authority	0	0	4	3
West Mendip Internal Drainage Board	1	1	0	1
Weston-Super-Mare College	133	90	23	1
Weston-Super-Mare Town Council	4	0	0	0
Whitchurch Parish Council	0	1	0	0
Woodspring Association for Blind People	5	2	1	0
Yate Town Council	15	2	1	0
<b>Totals</b>	<b>32302</b>	<b>17567</b>	<b>14259</b>	<b>2729</b>

In addition to the above there were a total of 149 dependant and children pensioners as at 31 March 2004.



### Summary of assets

Based on the information supplied, the market value of the assets of the Fund (excluding AVCs) at the valuation date is £1,474,807,000. The distribution of assets is as follows:-



At the 2001 valuation, the market value of the Fund was £1,563,068,000. Therefore, the market value of the assets of the Fund has fallen by 5.6 per cent over the three year period.

Appendix E
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## Summary of income and expenditure

INCOME	Year ending 31 March			Total
	2002	2003	2004	
	£000s	£000s	£000s	£000s
Fund at beginning of year	1,563,068	1,513,006	1,191,902	1,563,068
Contributions to Fund:				
Employees	21,061	22,885	25,173	69,119
Employers	35,321	40,462	46,319	122,102
Transfer Values received	9,863	13,884	16,573	40,320
Investment income	36,660	24,334	20,935	81,929
Other income	124	179	106	409
Change in market value of investments	-78,077	-331,542	259,569	-150,050
<b>TOTAL:</b>	<b>1,588,020</b>	<b>1,283,208</b>	<b>1,560,577</b>	<b>1,726,897</b>

EXPENDITURE	Year ending 31 March			Total
	2002	2003	2004	
	£000s	£000s	£000s	£000s
Retirement and Spouses' Benefits	55,622	57,448	59,698	172,768
Retiring allowances and death gratuities	7,073	7,693	10,063	24,829
Withdrawals	538	523	573	1,634
Transfer Values paid	8,236	21,360	10,604	40,200
Investment Expenses	2,116	2,730	3,219	8,065
Administration Expenses	1,429	1,552	1,613	4,594
Fund at end of year	1,513,006	1,191,902	1,474,807	1,474,807
<b>TOTAL:</b>	<b>1,588,020</b>	<b>1,283,208</b>	<b>1,560,557</b>	<b>1,726,897</b>

Appendix F
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## Experience Analysis of the Membership of the Fund based on the period 1 April 2001 to 31 March 2004

The analysis below compares the actual experience over the 3 year period with the assumptions used for the 2004 valuation.

### 1. Ill Health Retirements

	Actual	Expected	%
Males	133	99	134
Females	236	313	75
Total	369	412	90

### 2. Withdrawals

	Actual	Expected	%
Males	2,800	326	859
Females	9,351	1,915	488
Total	12,151	2,241	542

Note that actual withdrawals include members moving to another LGPS Fund, bulk transfers and also transfers under the special transfer club terms.

### 3. Pensioner Deaths

	Actual	Expected	%
Males	782	740	106
Females	792	785	101
Total	1,574	1,525	103

## Appendix G

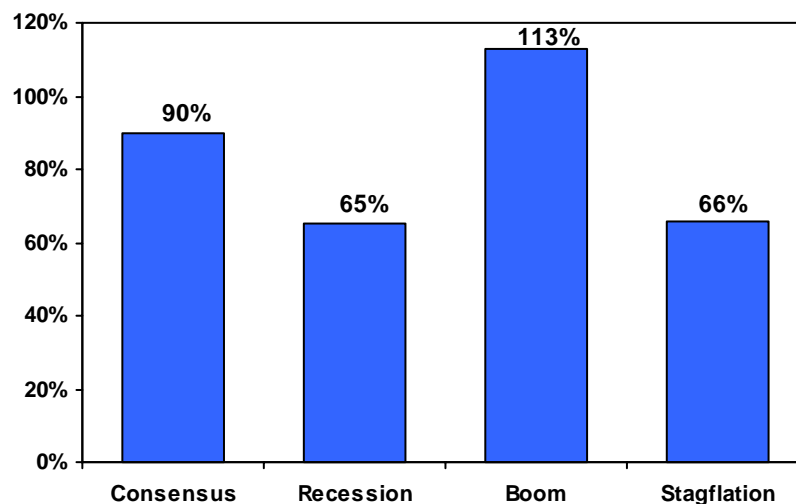
### Scenario analysis

1. The ongoing valuation of the Fund has been carried out based on the assumptions set out in Section 3 of this report. The actual outcome is likely to be different from these assumptions, especially in the short term. Scenario analysis, carried out as part of the valuation process, shows the potential impact of a range of possible economic outcomes on the past service funding position over the next three years.
2. The purpose of this process is two-fold:
  - to illustrate the potential variation in the funding level depending on the extent to which experience over the next three years differs from the assumptions; and
  - to highlight the risk (and potential rewards) inherent in the current investment strategy.
3. The results of the analysis are set out below. At this stage the impact of changing investment strategy has not been considered.
4. The scenarios investigated are designed to form a broad spectrum of possible outcomes and are neither equally likely nor intended to represent extremes. The investment assumptions underlying the various scenarios are designed to model possible short-term experience of the Fund over the next few years, as against the long-term valuation assumptions used in the ongoing valuation of the Fund. However, as the experience of the last three years has confirmed, returns on investments – equities in particular – do not always follow the logic implied by economic statistics; rather, the return depends significantly on how investors' views about the future at the end of the period of measurement compare with their views at the start.

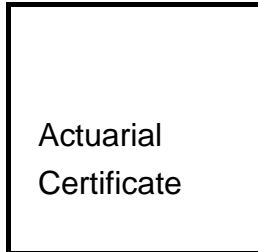
5. Full details of the actuarial assumptions underlying each scenario can be provided, if required. Some of the more extreme scenarios are designed to test the robustness of the investment strategy to critical conditions for the Fund, not because they are all equally likely. In summary, the four scenarios considered are:

- Consensus (moderate growth, low inflation)
- Recession (low growth, low inflation)
- Boom (high growth, moderate inflation)
- Stagflation (low growth, high inflation)

6. The following chart shows the Fund's approximate ongoing funding level after three years under each scenario, assuming employer contribution rates from 1 April 2005 are paid as indicated in the Rates and Adjustments Certificate. This chart assumes that no changes would be made to the key actuarial assumptions underlying the valuation.



7. Changes in funding level will, of course, impact on future contribution requirements to the Fund, subject to any mechanisms which may be adopted to smooth out contribution rate fluctuations.



Local Government Pension Scheme Regulations 1997  
(as amended)

Rates and Adjustments Certificate issued in accordance  
with Regulation 77

**Regulation 77(3)**

I hereby certify that, in my opinion, the Common Rate of employers' contributions payable in each year of the period of three years beginning 1 April 2005 should be at the rate of 8.9 per cent of Pensionable Pay.

I hereby certify that, in my opinion, the amount of the employers' contribution rate payable in each year of the period of three years beginning with 1 April 2005, as set out above, should be individually adjusted as set out in the attached Schedule.

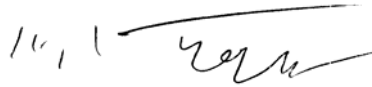
A further individual adjustment shall be applied in respect of each non-ill health early retirement occurring in the period of the Rates and Adjustments Certificate. This further individual adjustment will be calculated in accordance with methods agreed from time to time between the Fund's actuary and the Administering Authority.

The contribution rates set out in the attached Schedule represent the minimum contribution which may be paid by each employer. Additional contributions may be paid if requested by the employer concerned.

The contribution rates set out in the Schedule should be reviewed in the event of any changes to the Regulations after the date of this Certificate affecting benefits accruing prior to 31 March 2008.

**Regulation 77(7)**

No allowance for non-ill health early retirements has been made in determining the results of the valuation, on the basis that the costs arising will be met by additional contributions. Allowance for ill health retirements has been included in each employer's contribution rate, on the basis of the method and assumptions set out in the report.

**Signature****Name**

S K Jacquest FIA

**Date of signing**

24 March 2005

Actuarial Certificate
-----------------------

## Schedule to the Rates and Adjustments Certificate dated 24 March 2005

	2005/06		2006/07		2007/08	
	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %
<b>Scheduled Bodies</b>						
<i>Principal Councils and Service Providers</i>						
Bath and North East Somerset Council	3.9	12.8	5.7	14.6	7.5	16.4
Bristol City Council	2.3	11.2	3.9	12.8	5.5	14.4
North Somerset Council	3.4	12.3	5.3	14.2	7.2	16.1
South Gloucestershire Council	3.0	11.9	4.2	13.1	5.4	14.3
Avon Fire Brigade	4.6	13.5	6.6	15.5	8.6	17.5
<i>Further/Higher Education Institutions</i>						
Bath Spa University College	4.8	13.7	4.8	13.7	4.8	13.7
City Academy Bristol	0.6	9.5	0.6	9.5	0.6	9.5
City of Bath College	2.5	11.4	2.9	11.8	3.2	12.1
City of Bristol College	4.3	13.2	4.3	13.2	4.3	13.2
Filton College	1.7	10.6	1.7	10.6	1.7	10.6
Norton Radstock College	1.6	10.5	1.6	10.5	1.6	10.5
St Brendan's College	4.2	13.1	4.2	13.1	4.2	13.1

	2005/06		2006/07		2007/08	
	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %
University of West of England	3.9	12.8	3.9	12.8	3.9	12.8
Weston-Super-Mare College	3.6	12.5	3.6	12.5	3.6	12.5

	2005/06		2006/07		2007/08	
	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %
<b>Resolution Bodies</b>						
Backwell Parish Council	6.5	15.4	6.5	15.4	6.5	15.4
Bradley Stoke Town Council	-0.1	8.8	-0.1	8.8	-0.1	8.8
Bristol Tourism & Conference Bureau	-1.8	7.1	-1.8	7.1	-1.8	7.1
Charter Trustees of the City of Bath	1.6	10.5	1.6	10.5	1.6	10.5
Dodington Parish Council	5.2	14.1	5.3	14.2	5.3	14.2
Downend & Bromley Heath Parish Council	-1.3	7.6	-1.3	7.6	-1.3	7.6
Filton Town Council	-1.1	7.8	-0.9	8.0	-0.7	8.2
Frampton Cotterell Parish Council	-0.2	8.7	-0.2	8.7	-0.2	8.7
Keynsham Town Council	5.1	14.0	5.1	14.0	5.1	14.0
Long Ashton Parish Council	11.3	20.2	11.3	20.2	11.3	20.2
Nailsea Town Council	10.8	19.7	10.8	19.7	10.8	19.7
Norton Radstock Town Council	7.1	16.0	7.1	16.0	7.1	16.0
Oldland Parish Council	0.1	9.0	0.1	9.0	0.1	9.0
Patchway Town Council	6.4	15.3	6.4	15.3	6.4	15.3
Paulton Parish Council	1.3	10.2	1.3	10.2	1.3	10.2

	2005/06		2006/07		2007/08	
	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %
Portishead & North Weston Town Council	4.7	13.6	4.7	13.6	4.7	13.6
Stoke Gifford Parish Council	6.4	15.3	6.4	15.3	6.4	15.3
Thornbury Town Council	9.2	18.1	9.8	18.7	10.4	19.3
Weston-Super-Mare Town Council	-0.1	8.8	-0.1	8.8	-0.1	8.8
Yate Town Council	3.9	12.8	3.9	12.8	3.9	12.8

	2005/06		2006/07		2007/08	
	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %
<b>Admitted Bodies</b>						
Aquaterra Leisure Limited	-2.2	6.7	-2.2	6.7	-2.2	6.7
Ashley House Hostel	-0.6	8.3	0.5	9.4	1.6	10.5
Bath and North East Somerset Racial Equality Council	2.4	11.3	2.4	11.3	2.4	11.3
Brislington Neighbourhood Centre	-2.1	6.8	-2.1	6.8	-2.1	6.8
Bristol Council for Racial Equality	2.6	11.5	4.1	13.0	5.6	14.5
Centre for the Deaf	5.4	14.3	5.4	14.3	5.4	14.3
Clifton Suspension Bridge Trust	-1.3	7.6	1.0	9.9	3.3	12.2
Commission for Social Care Inspection	tbc	tbc	tbc	tbc	tbc	tbc
Community Action	5.8	14.7	6.4	15.3	7.0	15.9
Connexions Gloucestershire	3.3	12.2	3.3	12.2	3.3	12.2
Connexions West of England	6.6	15.5	6.6	15.5	6.6	15.5
HBS Business Services	3.4	12.3	4.7	13.6	5.9	14.8
Holbourne Museum and Crafts Study Centre	-1.6	7.3	-1.4	7.5	-1.2	7.7

	2005/06		2006/07		2007/08	
	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %	Individual Adjustment %	Total Contribution Rate %
Off The Record Bath and North East Somerset	-0.7	8.2	-0.7	8.2	-0.7	8.2
Patchway and Bradley Stoke Community Development Project	-0.9	8.0	-0.9	8.0	-0.9	8.0
Shaw Health Care (North Somerset) Ltd (Scope)	8.2	17.1	9.3	18.2	10.3	19.2
SITA Holdings UK Ltd	10.4	19.3	12.2	21.1	14.0	22.9
Somer Community Housing Trust	2.6	11.5	2.6	11.5	2.6	11.5
Somer Housing Group Ltd	2.6	11.5	2.6	11.5	2.6	11.5
South West Museums Libraries & Archives Council	2.4	11.3	2.4	11.3	2.4	11.3
STA Travel	4.5 plus £770	13.4 plus £770	4.5 plus £770	13.4 plus £770	4.5 plus £770	13.4 plus £770
Brandon Trust	5.8	14.7	6.5	15.4	7.1	16.0
University of Bath	-1.3	7.6	0.4	9.3	2.1	11.0
West Mendip Internal Drainage Board	9.4 plus £2,700	18.3 plus £2,700	9.4 plus £2,700	18.3 plus £2,700	9.4 plus £2,700	18.3 plus £2,700
Woodspring Association for Blind People	6.1	15.0	8.1	17.0	10.0	18.9

**Other interested bodies with no pensionable employees**

<b>Former Employers</b>	<b>Proportion of Pension Increases to be Recharged %</b>
Avon & Somerset Police Authority	100
Avon County Council	0
Avon Probation Service	0
Bath Centre for Voluntary Properties Ltd	0
Bath Festival Society Limited	0
Bristol Airport	0
Bristol Council for Voluntary Service	0
Bristol Development Corporation	0
Bristol Municipal Airport	0
Bristol Royal Society for the Blind	0
Bristol Waterworks	100
Central Bristol Citizens Advice Bureau	0
National Health Service	100
Sea Stag Club	0
St Joseph's School	0
United Waste Services	0
Wessex Water Authority	100
Whitchurch Parish Council	0
Whitchurch Parish Council	0

<b>Former Employers</b>	<b>£ per annum</b>
Assessment & Qualifications Alliance	58,800
Care & Repair in Bath and North East Somerset	tbc
Department for Constitutional Affairs (Magistrates Courts)	tbc
Salford Parish Council (See note 1)	0

## Notes:

1. At the valuation date a deficit existed in relation to Salford Parish Council. It has been agreed that no contributions will be required for the period 1 April 2005 to 31 March 2008 subject to review at the next valuation.
2. The former Education Action Zones have been reabsorbed by the relevant Local Education Authority.

Actuarial  
Certificate

## Surplus certificate

**The certificate is given to the Commissioners of Inland Revenue for the purposes of paragraph 2 of Schedule 22 to the Income and Corporation Taxes Act 1988.**

**Name of Fund**

Avon Pension Fund

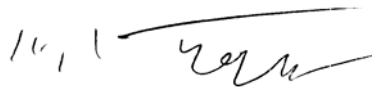
**Inland Revenue Reference No.**

PS49/1897

I hereby certify that:

1. In my opinion as at 31 March 2004 the value of the assets of the Fund did not exceed 105% of the value of the liabilities of the Fund;
2. The assets and liabilities to which paragraph (1) refers have been determined in accordance with principles and requirements prescribed by the Pension Fund Surpluses (Valuation) Regulations 1987.

**Signature**



**Name**

S K Jacquest

**Date of signing**

24 March 2005

**Address**

Mercer Human Resource Consulting Limited  
Mercury Court, Tithebarn Street,  
Liverpool, L2 2QH

**Qualification**

Fellow of the Institute of Actuaries

# MERCER

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