

**CAYMAN ISLANDS  
PUBLIC SERVICE PENSIONS BOARD**

**Actuarial Valuation of  
The Judicial Pension Plan  
As of January 1, 2005**

**July 10, 2006**

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**CAYMAN ISLANDS PUBLIC SERVICE PENSIONS BOARD**  
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***SECTION I - INTRODUCTION***

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Watson Wyatt Worldwide ("Watson Wyatt") has been requested by the Cayman Islands Public Service Pensions Board ("the Board") to carry out an actuarial valuation of the Judicial Pension Plan as of January 1, 2005. We are pleased to provide the results of the valuation in this report. The last valuation was as of July 1, 2003.

This Plan originally arose from the The Judges' Emoluments and Allowance Law, 1997. The Judges' Emoluments and Allowance Order, 2005 ("the 2005 Order") came into effect on October 28, 2005, following a comprehensive review of the provisions and procedural arrangements. The 2005 Order incorporates features of the Plan that were not explicitly stated or defined in the prior legislation. It also specifies certain administrative procedures, and has been developed in a format that is similar to other Public Service plans in the Cayman Islands.

A key feature of the 2005 Order is that there is a Defined Benefit part and a Defined Contribution part. Only the three existing participating judges (Justices Smellie, Levers and Henderson) are eligible for benefits defined under the Defined Benefit part. Benefits for future participating judges will be provided through the Defined Contribution part.

Although the 2005 Order came into effect after the valuation date, the results of this valuation are based on the benefit provisions as defined in that Order.

The purpose of this valuation is to quantify the liabilities of the Plan and determine the amounts required for funding, in accordance with the 2005 Order. A separate valuation is required to establish the amounts to be expensed and the amounts to be reflected in the Government's balance sheet under the provisions of International Accounting Standard No. 19.

Throughout this report "the Plan" means the pension provisions as stated in the 2005 Order.

All monetary amounts in this report have been expressed in Cayman Islands Dollars.



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**SECTION II - EXECUTIVE SUMMARY**

The actuarial position of the Judicial Pension Plan is shown below, along with the prior results:

	<u>CI\$ - July 1,</u> <u>2003</u>	<u>CI\$ - January 1,</u> <u>2005</u>
<b>1. <u>Actuarial Position of the Plan as of valuation date</u></b>		
<b>Total available assets</b>	499,392	890,688
Available assets are equal to the accumulated contributions (Government and member) with interest.		
<b>Past service liabilities based on projected salary at retirement</b>		
• Including pre-9/97 service (without repayment of gratuity)	489,244	835,363
Past service liabilities reflect the present value of expected future retirements based on salary at retirement and service as of the valuation date.		
<b>Funding surplus/(deficiency) (available assets – past service liabilities )</b>		
• Including pre-9/97 service (without repayment of gratuity)	10,148	55,325
The funding surplus/ (deficiency) is the excess/ (shortfall) of available asset over the past service liabilities.		
<b>2. <u>Total annual cost</u></b>		
• Annual amount	197,562	200,091
• Annual amount as a percentage of annual salary	42%	41%
The annual cost is the total annual contribution necessary to accumulate sufficient funds at retirement age to cover the value of expected benefits for Justices Smellie, Levers and Henderson. The cost is expected to remain constant in future as a percentage of salary. The actual amount will increase as salaries increase.		



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**SECTION III - DETAILED RESULTS AND COMMENTS**

**1. Census Data**

Information was provided by the Board for each individual covered by the Plan as of January 1, 2005. Information included date of birth, spouse's date of birth, date of hire, current salary, and contributions with interest.

Exhibit 2 shows a summary of the data provided.

**2. Benefit Provisions**

The legal document concerning the Plan provisions is the 2005 Order. Exhibit 4 shows a summary of the principal provisions as they affect the valuation of the liabilities. The summary shown relates only to the Defined Benefit part of the 2005 Order.

**3. Available Assets**

Assets of the Plan are combined with those of other Public Service pension plans. We were provided with information that showed that the share of the total fund as of January 1, 2005 attributable to this Plan was CI\$890,688.

**4. Actuarial Assumptions Used for Valuing the Plan (See Exhibit 3)**

**4.1 Economic Assumptions**

Economic assumptions for the valuation of the Judicial Pension Plan are the same assumptions used for the January 1, 2005 valuation of the Public Service Pensions Plan. The assumptions have remained unchanged since the previous valuation. The following are the most important of the economic assumptions:

- *Inflation* - It is usual to commence with an assumption for the underlying long-term rate of inflation, as inflation impacts such things as future salary increases, future asset earnings, and future pension increases. Based on discussions with the Public Service Pensions Board, a long-term rate of 2.50% per year has been used for purposes of this valuation.
- *Interest Rate* - The valuation interest rate is used to discount future benefit payments and represents the expected long-term rate of return of the Fund's invested assets. This valuation has been carried out using a 7.00% per year rate, based on the anticipation of a balanced portfolio of equities and fixed-interest securities in the Public Service Pension Fund.
- *Salary Increases* - As with the valuation of the Public Service pensions, we have made an allowance of 1.5% over and above inflation for merit and promotion. The rate of salary increases used in this valuation is therefore 4.00%.
- *Pension Increases* - We have assumed that pensions will increase in the future at the rate of 2.50% per year, the same as the rate of inflation.



4.2 Demographic Assumptions

The most important of the demographic assumptions are as follows:

- *Retirement Age* - Age 65 has been selected as the assumed retirement age.
- *Turnover & Mortality* - Due to the small number of members in this Plan, no assumption has been made for turnover or for mortality prior to retirement. For post-retirement mortality, we have used an updated mortality table.

5. Actuarial Cost Method Used for Valuing the Benefits

We have determined the on-going contribution requirements of the Plan as of January 1, 2005 using an aggregate actuarial cost method in conjunction with assumptions outlined in the preceding section. Under this method, the present value of all projected benefits (for past and future service) is first reduced by the available assets. The resulting amount is spread over the working lifetime of each participant, as a fixed percentage of that participant's salary, in order to determine the annual cost. If actual future experience follows the actuarial assumptions used, the annual cost, expressed as a percentage of pay, would remain unchanged from year to year. The annual costs have been determined for the plan as a whole, and not individually by participant.

For determining the past service liabilities under the plan, we have used the projected unit credit actuarial cost method. The past service liability measurement includes projection of pay to retirement. This method is commonly used for measuring the funded status of the plan and for recognizing past service liabilities.

A surplus/(deficiency) arises when the available assets of the Fund are more/(less) than this projected past service liability under the projected unit credit actuarial cost method.

6. Valuation Results

6.1 The Actuarial Position as of January 1, 2005

Exhibit 1 sets forth the results of the actuarial valuation on the basis outlined in Section 4 above.

*Past Service Liability (With Projection of Pay)* - This is shown in Item C of Exhibit 1. The total past service liability as of January 1, 2005 for the three participants is CI\$835,363. This compares with CI\$489,244 as of the last valuation. The increase in liability is principally due to the additional service accrual since the last valuation.

As of January 1, 2005, the Plan assets exceed the Past Service Liability by CI\$55,325, as shown in Item D of Exhibit 1. There is therefore a small surplus in the Plan as of the valuation date.



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*SECTION III (Continued)*

6.2 Assessment of Future Contribution Requirement

*Total Annual Cost* - The annual contribution requirement, as a percentage of pensionable salaries, is 41%, as shown in Item H of Exhibit 1. The annual cost for the 2005 plan year is CI\$200,091 as shown in Item I of Exhibit 1.

7. Conclusions and Recommendations

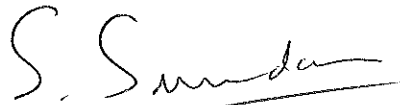
1. The Plan's past service benefits are adequately funded.
2. As shown by the determination of the Annual Cost, total required contributions are 41% of annual pensionable salary (10% for the member and 31% for the Government).
3. We recommend that the current contribution rate (10% for the member and 31% for the Government) be maintained until the next actuarial valuation for funding purposes.

\* \* \* \* \*

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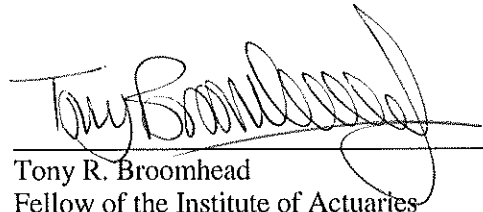
We are at the disposal of the Board to discuss this report and to answer any questions that may arise, or to provide any further information that may be required.

Respectfully Submitted  
WATSON WYATT WORLDWIDE



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Subramanian Sundaresan  
Fellow of the Institute of Actuaries



Tony R. Broomhead  
Fellow of the Institute of Actuaries

July 10, 2006



**Actuarial Valuation Results**

*Amounts in CI\$*

	<u>July 1, 2003</u>	<u>January 1, 2005</u>
A. Summary of Valuation Data		
1. Number of participants currently receiving benefits	0	0
2. Number of participants with deferred vested benefits	0	0
3. Number of active participants	3	3
4. Total annual Pensionable Salaries	470,386	488,027
B. Value of Allocated Assets	499,392	890,688
C. Past Service Liability (With Projection of Pay)		
1. Justice Smellie	475,434	613,860
2. Justice Levers	13,810	110,788
3. Justice Henderson	-	110,715
4. Total	489,244	835,363
D. Surplus/(Deficiency) (Item B less Item C4)	10,148	55,325
E. Past and Future Service Liability (With Projection of Pay)		
1. Justice Smellie	1,220,364	1,321,314
2. Justice Levers	552,381	506,458
3. Justice Henderson	437,429	473,612
4. Total	2,210,174	2,301,384
F. Amount Required to be Funded in the Future (Item E4 less Item B)	1,710,782	1,410,696
G. Present Value of Future Pensionable Salaries	4,047,517	3,472,589
H. Annual Cost as a Percentage of Pensionable Salary (Item F divided by Item G)	42%	41%
I. Annual Cost for Year	197,562	200,091





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Exhibit 2

**Valuation Data**

	<u>Chief Justice</u> <u>Anthony Smellie</u>	<u>Justice</u> <u>Priva Levers</u>	<u>Justice</u> <u>Alexander Henderson</u>
1. Date of Birth	10/25/1952	3/18/1946	11/5/1944
2. Spouse Date of Birth	11/7/1961	10/12/1926	9/16/1967
3. Current Annual Pensionable Salary (CIS)	183,103	152,462	152,462
4. Pre 9/1997 Service (months)	47	-	-
5. Pre 9/1997 Gratuity for Repayment (CIS)	26,002	-	-

**Age and Service**

1. Age at Valuation	52.17	58.75	60.08
2. Future Service (months)	154	75	59
3. Past Service excluding pre-9/1997 service (months)	88	21	18
4. Total service including pre-9/1997 service	289	96	77



## Actuarial Assumptions Employed

### A. Economic Assumptions

1. Underlying Inflation Rate: Long-term inflation rate of 2.50% per year.
2. Interest: 7.00% per year.
3. Salary Increases: 4.00% per year, consisting of an allowance of 2.50% for inflation and 1.50% for merit and promotion.
4. Pension Increases: 2.50% per year, the same as the rate of inflation.
5. Commutation of Pensions: It has been assumed that all participants will exercise their right to commute part of their pension for a lump sum payment.

### B. Demographic Assumptions:

1. Post-Retirement Mortality: It is not anticipated that the mortality rates will be significantly different to that of employees of U.S. corporations. Standard U.S. mortality rates have been used for the valuation. The rates used are based on the UP-1994 Table and sample rates are shown below:

<u>Age</u>	<u>Male</u>	<u>Female</u>
50	.002773	.001536
60	.008576	.004773
70	.025516	.014763
80	.066696	.042361
90	.164442	.125016

2. Pre-Retirement Mortality: None.



**Actuarial Assumptions Employed (Continued)**

B. Demographic Assumptions (Cont'd.):

- |  |  |
|--|--|
| 3. Turnover:   | None.  |
| 4. Disability:   | No disability incident rates have been used. |
| 5. Retirement Age:   | Age 65.                                      |
| 6. Family Assumptions:                                     |  |
| a. Percentage of Participants<br>with Spouse at Retirement | 100% if currently married.                   |
| b. Age of Spouse   | As provided in the data.                     |
| 7. New Entrants:   | None.  |



## Principal Benefit Provisions

*The following is a summary of the provisions under the Defined Benefit part of The Judges' Emoluments and Allowance Order, 2005. Not all of the features are identified here - only those that are the most important for assessing the liabilities and costs of the Plan.*

1. Eligibility: Only the following are eligible participants:  
Chief Justice Anthony Smellie  
Justice Priya Levers  
Justice Alexander Henderson
2. Pensionable Service: Service as a Judge of the Grand Court.
3. Pensionable Earnings: Annual base salary while serving as a Judge of the Grand Court.
4. Final Pensionable Earnings: Average of Pensionable Earnings over the final 36 months prior to retirement, resignation, death or disability.
5. Participant Contributions: 10% of Pensionable Earnings.
6. Government Contributions: To be determined by actuarial valuations.
7. Normal Retirement Age: Age 65.
8. Eligibility for Retirement Pension: After eight years of judicial service and attaining Normal Retirement Age or after completing 20 years' of judicial service.
9. Retirement Benefits:
  - a. Pension at retirement An annual pension equal to  $1/300$  times the number of completed months of Pensionable Service times Final Pensionable Earnings. The pension cannot exceed  $4/5$ ths of Final Pensionable Earnings. For months of service prior to September 1997, the pension factor will be  $1/600$  per month rather than  $1/300$  per month. However, if the member repays all gratuities received during judicial service, then the pension factor for service prior to September 1997 will be the original  $1/300$  per month.
  - b. Commutation Up to  $1/4$  of the retirement pension can be commuted for a lump sum. The pension to lump sum conversion will be determined by the Plan's actuarial factors.



**Principal Benefit Provisions (Continued)**

9. Retirement Benefits (cont'd):

c. Pension Increases

Pensions in payment may be adjusted annually to match annual cost-of-living increases up to 5% and on a sliding scale thereafter.

d.. Early Retirement

Allowed from age 55 subject to completing eight or more years of judicial service. For retirements prior to age 60, the benefits will be reduced in accordance with the Plan actuarial tables.

10. Benefits on Death After Retirement or While Eligible to Retire:

A spouse's pension equal to 50% of the pensioner's benefit. An additional equivalent amount is divided equally among any children under the age of 18 (or 23 if in full-time education).

11. Benefits on Disablement

A pension based on accrued normal retirement pension is payable upon receipt of medical evidence of permanent disability and incapacity to perform duties.

An additional pension is payable to an officer who is permanently injured in discharge of duty equal to one-third of the participant's Final Pensionable Earnings.



**Principal Benefit Provisions (Continued)**

12. Benefits on Death in Service: A spouse's pension equal to 50% of the member's pension accrued as of the date of death, based on pay and service at the date of death. An additional equivalent amount is divided equally among any children under the age of 18 (or 23 if in full-time education).
- In addition, there will be paid an amount equal to the excess, if any, of the greater of:
- (a) a lump sum equal to 12 month' Pensionable Earnings
  - (b) the participant's contribution account balance
- over the actuarially equivalent present value of the pension benefits payable to the beneficiaries.
- An additional pension is paid to the beneficiaries of participants killed as a result of injuries received while in the actual discharge of duty.
13. Resignation Prior to Completing Eight Years of Pensionable Service: A lump sum payment (or a transfer to an approved plan) of Participant and matching Government contributions with interest.
14. Resignation After Completing Eight Years of Pensionable Service: A participant may elect to:
- (a) receive a lump sum payment (or a transfer to an approved plan) of Participant and matching Government contributions with interest, or
  - (b) have an entitlement to a deferred vested benefit payable upon reaching retirement eligibility, or
  - (c) transfer, to an approved plan, an amount equal to the greater of (a) above or the actuarial present value of (b) above.

