RECEIVED
FILED

2005 MAY 11 PM 5:16

IDAHO PUBLIC
UTILITIES COMMISSION

Dean J. Miller
McDEVITT & MILLER LLP
420 West Bannock Street
P.O. Box 2564-83701
Boise, ID 83702
Tel: 208.343.7500
Fax: 208.336.6912
joe@mcdevitt-miller.com

Attorneys for Applicant

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF UNITED WATER IDAHO INC. FOR AUTHORITY TO INCREASE ITS RATES AND CHARGES FOR WATER SERVICE IN THE STATE OF IDAHO	Case No. UWI-W-04-04

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

REBUTTAL TESTIMONY OF PAULINE M. AHERN, CRRA, VICE PRESIDENT

AUS CONSULTANTS—UTILITY SERVICES

ON BEHALF OF UNITED WATER IDAHO INC.

TABLE OF CONTENTS

I. INTRODUCTION 1

II. PURPOSE 1

III. IPUC STAFF WITNESS HALL 2

A. Debt Cost Rate 2
B. Common Equity Cost Rate 5
C. Relative Risk of United Water Idaho Inc. 7

IV. IPUC STAFF WITNESS CARLOCK 9

A. Comparable Earnings Method 9
B. Discounted Cash Flow Model (DCF) 11

V. CONCLUSIONS 15

1 I. INTRODUCTION

2 Q. Please state your name, occupation and business address.

3 A. My name is Pauline M. Ahern and I am a Vice President of AUS Consultants -

4 Utility Services. My business address is 155 Gaither Drive, P.O. Box 1050,

5 Moorestown, New Jersey 08057.

6 Q. Are you the same Pauline M. Ahern who previously submitted prepared direct

7 testimony in this proceeding?

8 A. Yes, I am.

9 Q. Have you prepared an exhibit which supports your rebuttal testimony?

10 A. Yes, I have. It has been marked for identification as Exhibit No. 18 and

11 consists of Schedules (PMA-12) through (PMA-17).

2 II. PURPOSE

13 Q. What is the purpose of this testimony?

14 A. The purpose of this testimony is to rebut certain aspects of the prepared

15 testimonies of Idaho Public Utilities Commission (IPUC) Staff Witnesses

16 Carolee Hall and Terri Carlock concerning common equity cost rate and

17 overall rate of return. Specifically, I will address: Ms. Hall's recommended

18 debt cost rate; the inadequacy of her recommended common equity cost rate;

19 and her assessment of the relative risk of United Water Idaho Inc. (United). I

20 will also address Ms. Carlock's misuse of the data contained in Exhibit No. 12

21 accompanying my direct testimony; her applications of both the Comparable

22 Earnings and Discounted Cash Flow models; and the inadequacy of her

1 recommended common equity cost rate of 10.00%. Finally, I will provide an
2 update of my recommended common equity cost rate.

3 III. IPUC STAFF WITNESS HALL

4 A. Debt Cost Rate

5 Q. Do you agree with Staff's adjustment to the Company's cost of debt?

6 A. No. The Company has calculated its proposed debt cost rate of 6.90% by
7 dividing the annual cost of debt, comprised of the aggregate annual interest
8 expense plus the aggregate annual amortization of the net discount, premium
9 and expenses, by the aggregate bond issuances minus the aggregate
10 unamortized balances of net discount, premium and expense at December 31,
11 2004. Ms. Hall states on page 6, line 24 through page 7, line 1 of her direct
2 testimony that "Staff believes that the Company has not reflected the
13 discounting properly, thereby inflating the embedded cost rate and the overall
14 long-term debt cost." In contrast, Staff has used the aggregate face value of the
15 bonds in the denominator of the calculation. In Ms. Hall's opinion, doing so
16 "accurately reflects the discounting of issuance costs to properly allow the
17 Company to recover in rates the annual interest cost and the annual
18 amortization of issuance costs." (see page 7, at lines 13 - 16). However, Ms.
19 Hall did not provide any empirical evidence in support of her assertion.

20 Q. Can you provide empirical evidence that shows that the methodology the
21 Company used to calculate its proposed debt cost rate does not inflate the
22 embedded long-term debt cost rate?

1 A. Yes. That evidence is shown on pages 1 and 2 of Schedule (PMA-12).
2 Schedule (PMA-12) shows that the Company's recovers its full net discount,
3 premium and expenses through its debt cost rate calculation methodology in
4 contrast to an inability to fully recover these costs using the Staff's
5 methodology. Page 1 provides an example using a bond sold at discount, while
6 page 2 provides an example using a bond sold at premium. In both cases, the
7 Company fully recovers its costs using its debt cost rate methodology. In the
8 first instance, with a bond sold at discount, the Company does not fully recover
9 its costs using Staff's methodology. In the second, with a bond sold at
10 premium, the Company would recover more than its costs using Staff's
11 methodology.
2 Q. Please explain.
13 A. In the case of a 2-year, $100 par bond with an 8.00% coupon rate, sold at a
14 10% discount, or $90, the annual interest expense is $8.00 ($8.00 = $100 *
15 8.00%). The amortization of the discount would be $5.00 / year ($5.00 =
16 $10.00 / 2 years). Using the Company's debt cost rate methodology, the total
17 annual revenue requirement, i.e., interest and amortization expense, is $13.00
18 ($13.00 = $8.00 interest + $5.00 amortization of discount). In Year 1, the
19 Company receives net proceeds of $90, the $100 face value of the bond less the
20 $10 discount, and invests it in rate base. Since the Company needs to recover
21 $13 per year, the debt cost rate in Year 1 is 14.44% ($13.00 / $90.00).
22 Applying this 14.44% debt cost rate to the $90 debt portion of rate base

1 provides the Company with the proper revenue requirement of $13.00. Debt
2 holders receive $8.00 in interest and the unamortized balance of net discount is
3 reduced by $5.00. In Year 2, then, the unamortized balance of net discount is
4 $5.00 ($5.00 = $10.00 - $5.00) and the denominator of the Company's debt
5 cost rate calculation is $95 ($95 = $100 face value - $5.00 unamortized balance
6 of net discount at the beginning of Year 2). The debt cost rate in Year 2 is thus
7 13.68% (13.68% = $13.00 / $95.00). The $5.00 annual amortization expense is
8 invested in rate base, raising the rate base debt investment to $95. Applying
9 this 13.68% debt cost rate to the $95 debt portion of rate base again provides
10 the Company with the proper revenue requirement of $13.00. Debt holders
11 receive $8.00 in interest and the unamortized balance of net discount is reduced
2 by $5.00. Once again, the $5.00 annual amortization expense is invested in
13 rate base, raising the rate base debt investment to $100, the original face value
14 of the debt. Thus, the Company is made whole, having recovered its full $10
15 discount on the debt.
16 In contrast, using Staff's methodology, the bottom half of page 1 of
17 Schedule (PMA-12) demonstrates how applying a constant 13% debt cost rate,
18 i.e., $8.00 annual interest expense plus $5.00 annual amortization / $100 face
19 value of the bond, does not provide the Company with the opportunity to fully
20 recover the $10 discount on the debt. During Year 1, the Company will have
21 received only $11.70, i.e., 13.00% * $90 (the portion of the debt in rate base in
22 Year 1). With $8.00 interest paid to debt holders, only $3.70 remains to offset

1 the unamortized balance of the discount. Thus, during Year 2, the amount of
2 debt in the rate base is $93.70 ($93.70 = $90.00 + $3.70) and only $12.18 is
3 received by the Company ($12.18 = 13.00% * $95.00). After paying $8.00 of
4 interest to debt holders, the Company will have $4.18 to offset the unamortized
5 balance of the discount. At the end of two years, the Company, using Staff's
6 methodology, will have recovered only $7.88 in aggregate amortization
7 expenses. This leaves $2.12 not yet recovered ($2.12 = $10.00 - $7.88). Since
8 the debt will no long be outstanding, there will be no opportunity for further
9 recovery of this $2.12 and the Company does not fully recover the costs
10 associated with the debt.
11 Likewise, in a similar manner, page 2 demonstrates that using the
2 Company's debt cost rate methodology, the Company accurately recovers its
13 costs for a bond sold at premium, but recovers more than its costs for the same
14 bond using Staff's methodology.
15 B. Common Equity Cost Rate
16 Q. On page 12, lines 19 - 22 of her direct testimony, Ms. Hall states that she
17 "calculated a water utilities industry cost of equity of 10% and recommend[s]
18 that this rate be authorized for United Water Idaho", and on page 13, lines 3 -
19 7, Ms. Hall asserts that a common equity cost rate of 10% is "in line with the
20 composite Value Line returns for the industry." Please comment.
21 A. Ms. Hall supports her recommended common equity cost rate of 10% with
22 Value Line Investment Survey's (Value Line) composite statistics for the water

1 utilities industry as published on October 29, 2004 and January 28, 2005. She
2 states at page 13, lines 5-7 that the "return on shareholder's equity and
3 common equity for 2004 and 2005 was 9.5%" and "[f]or the years of 2007-
4 2009 it is projected to be at 10%." Although those are Value Line's composite
5 estimates for the water utility industry, the average expected returns on
6 common equity (ROEs) for the three individual water companies which
7 comprise the Value Line water industry contained in Value Line Investment
8 Survey's Standard Edition and Ms. Hall's DCF sample group (American States
9 Water Company, Aqua America, Inc. and California Water Service Group)
10 average 10.4% for 2004 and 2005 and 11.5% for 2007-2009 from both the
11 October 29, 2004 Value Line and January 28, 2005 as shown on Schedule
2 (PMA-13). Clearly Value Line is expecting the average proxy water company
13 to earn a prospective ROE of 11.5% which is significantly greater than Ms.
14 Hall's recommended common equity cost rate of 10.00%.
15 Moreover, the most currently available Value Line Investment
16 Survey (April 29, 2005) is projecting these same three water companies to earn
17 an average projected 5-year ROE of 12.0%. In addition, the expected ROEs
18 for the Value Line composite water industry are 11.3% for 2005 and 2006 and
19 12.0% for 2008-2010. It is clear, then, that Ms. Hall's recommended common
20 equity cost rate of 10% is also not in line with the most current Value Line
21 ROE expectations for water companies, either on an average or composite
22 basis. In fact, the most recent (April 29, 2005) Value Line expected ROEs for

Value Line's composite water industry, 11.3% for 2005 and 2006 and 12.0% for the 2008-2010 clearly demonstrate that both my originally recommended common equity cost rate of 11.20%, as well as my updated recommended common equity cost rate of 11.10% (which will be discussed subsequently) are conservatively reasonable.

C. Relative Risk of United Water Idaho Inc.

Q. Ms. Hall disagrees with the Company's position regarding the risks of United Water Idaho Inc. Please comment.

A. Ms. Hall's disagreement with the Company's risk analysis centers on the betas of the three Value Line water companies. Ms. Hall correctly states that two of the companies ((American States Water Company and Aqua America, Inc.) have Value Line adjusted betas of 0.70, while one company (California Water Service Group) has an adjusted beta of 0.75.[1] Ms. Hall is also correct that these betas "reflect[s] a lower than market risk for these water utilities." (see page 15, lines 3 and 4 of Ms. Hall's direct testimony) However, market risk is but a very small portion of the total investment risk faced by any given company. Total risk is the sum of market, i.e., diversifiable, risk and non-market, i.e., non-diversifiable or company specific risk. Hence, Ms. Hall's comparison of the betas of the three Value Line water companies with the market is an incomplete comparison. In addition, the R-squared of the

[1] Presumably from the January 28, 2005 Value Line Investment Survey. Note that these betas are identical to those published by Value Line for these three water companies on April 29, 2005.

1 regression which gives rise to betas describes the percentage of variation in the
2 dependent variable, i.e., a company's market price, which is explained by the
3 independent variable, i.e., the market price of the market as a whole. As
4 Ibbotson Associates state on page 103 of Stocks, Bonds, Bills and Inflation –
5 Valuation Edition 2005 Yearbook, which is provided in Schedule (PMA-14)
6 "[a]n R-squared of 0 indicates that the independent variable does not explain
7 any of the variation of the dependent variable." It is also stated on page 110
8 (page 3 of Schedule (PMA-14)) that "a high R-squared means that the
9 movements of the returns of the security are explained largely by the
10 movements of the returns of the market. The R-squared for security betas are
11 usually quite low." Graph 6.4 on page 110, shows the distribution of the R-
2 squareds for 5000 companies for whom Ibbotson Associates calculates betas.
13 It is clear that the majority of these R-squareds are less than 0.10, indicated that
14 less than 10% of the variation in the returns of individual securities are
15 explained by the movements of the returns of the market. As Ibbotson
16 Associates state on page 100: "What can we infer from this data? There may
17 be other company- or industry-specific factors that drive security prices." It is
18 clear then that a comparison of betas does not provide a comprehensive
19 comparison of all the factors which drive security prices and hence the risk of a
20 company.
21 In addition, Ms. Hall's comparison is limited to the three Value
22 Line water companies and the market as a whole. She has not conducted any

relative risk comparison between United itself and the three Value Line water companies. Since United faces many extraordinary risk factors and is significantly smaller than the three Value Line water companies as measured by either total capitalization or estimated market capitalization of equity as discussed in my direct testimony on page 11, line 1 through page 16, line 17, United clearly is significantly more business risky than the three Value Line water companies. Consequently, no valid conclusion as to United's relative risk can be drawn from Ms. Hall's comparison of the relative market risk of the Value Line water companies. Therefore, Ms. Hall's recommended common equity cost rate of 10.0% is unsupported and grossly understated.

IV. IPUC STAFF WITNESS CARLOCK

A. Comparable Earnings Method

Q. Please comment upon Ms. Carlock's application of the Comparable Earnings Method (CEM).

A. Based upon a lengthy narrative, Ms. Carlock concludes that she "believe[s] a reasonable return on equity attributed to United Water Idaho is 9.5% - 10.0% under the Comparable Earnings method." Ms. Carlock provided no empirical data or analysis in support of this range of common equity cost rate. In responding to Company Data Request No. 20, a copy of which is attached as Schedule (PMA-15), which requested the identity of the companies used in her CEM as well as the source documents and calculations relied upon by Ms. Carlock, she replied that the water companies were those in my two proxy

1 groups and that she did a "risk-adjusted comparison with the Value Line
2 electric utilities." Regarding the requested source documents and calculations,
3 Ms. Carlock stated that the documents were available online and that Exhibit
4 No. 12, my exhibit and workpapers were utilized. I would point out that I was
5 never requested to, nor did I, provide any workpapers other than Exhibit No.
6 12. Hence, the precise source of and derivation of Ms. Carlock's range of CEM
7 conclusion of 9.5% - 10.0% cannot be determined. However, given that it is
8 identical to the Value Line composite water industry ROEs referenced by Ms.
9 Hall as supporting her recommended common equity cost rate of 10.0%, one
10 can only assume that Ms. Carlock relied upon the same Value Line expected
11 ROEs for the three water companies in its Standard Edition as Ms. Hall. As
2 previously discussed, relative to Schedule (PMA-13), the average expected
13 ROEs for the three individual Value Line water companies for 2004 and 2005
14 which average 10.4%, as well as for the years 2007-2009, which average
15 11.5%[2] do not support a range of common equity cost rate of 9.5% - 10.0%.
16 Furthermore, more current Value Line information, from April 29, 2005,
17 indicates that the average expected ROEs for these three water companies for
18 2005 and 2006 and for the years 2008-2010 are 10.6% and 12.0%, respectively,
19 which are also not supportive of a range of common equity cost rate of 9.5% -
20 10.0%.
21 In addition, in relying upon water companies in her CEM analysis,

[2] From both the October 29, 2004 and January 28, 2005 Value Line Investment Survey.

Ms. Carlock has introduced circularity into it as the ROEs of water companies are a direct result of the regulatory process, i.e., authorized ROEs. The circularity results because the earned returns, even on a projected basis, are not determined by competitive factors but rather by the regulatory process. As Roger A. Morin states[3]:

> It would be hopelessly circular to set a fair return based on the past actions of other regulators, much like observing a series of duplicate images in multiple mirrors.

In other words, Ms. Carlock is using data resulting from authorized ROES as the basis of recommending an authorized ROE.

As for Ms. Carlock's "risk-adjusted comparison with Value Line electric utilities", because I still do not know upon which specific electric utilities she relied or her risk-adjustment methodology, I can neither accept it nor comment upon it. And, neither should the IPUC.

In view of the foregoing, Ms. Carlock's range of CEM results of 9.5% - 10.0% is supported neither by the documentation she provided (or failed to provide) or by the average expected ROEs of the three Value Line (Standard Edition) water companies upon which the only DCF analysis documented by Staff in Ms. Hall's direct testimony is based.

B. Discounted Cash Flow Model (DCF)

Q. Please comment upon Ms. Carlock's DCF analysis.

---

[3] Morin, Roger A., Regulatory Finance - Utilities' Cost of Capital. Public Utility Reports, Inc., Arlington, VA, 1994, p. 395.

1 A. Once again, in response to the Company's data requests, specifically Request
2 Nos. 21 and 22 (provided as Schedule (PMA-16), rather than provide the
3 requested source documents and calculations supporting her DCF analysis, Ms.
4 Carlock responded that she relied upon Value Line, Exhibit No. 12 and my
5 nonexistent workpapers. Therefore, it is not possible to know exactly how
6 either her dividend yield range of 3.4% - 3.5% or her growth rate range of 5.0%
7 - 6.0% were derived. Nor is it possible to figure out how a dividend yield
8 range of 3.4% - 3.5% and a growth rate range of 5.0% - 6.0%, yields a range of
9 DCF results of 8.0% - 10.5%.
10 In view of the foregoing, as with Ms. Carlock's "risk-adjusted
11 comparison with the Value Line electric utilities" in her CEM, I can neither
2 accept it nor comment upon it. And, neither should the IPUC.
13 Nevertheless, in her response to Part b. of Request No. 21, there is
14 a hint that she has relied upon Value Line data for the years 2004, 2005 and
15 2007 – 2009, indicating that she relied upon forecasted growth in arriving at
16 her growth rate range. Exactly how she utilized this information is unknown.
17 However, there is ample empirical academic support for the use of analysts'
18 forecasts of earnings growth in a DCF analysis. Over the long run, there can be
19 no growth in DPS without growth in EPS. Earnings expectations have a more
20 significant, but not exclusive, influence on market prices than dividend
21 expectations. Thus, the use of earnings growth rates in a DCF analysis
22 provides a better matching between investors' market appreciation

expectations and the growth rate component of a DCF. This is obvious, even to the laypersons who hear financial news reports on radio / TV and read them in newspapers / magazines.

In addition, Myron Gordon, the "father" of the standard regulatory version of the DCF model utilized by Ms. Carlock, Ms. Hall and myself in this proceeding, has recognized the significance of analysts' forecasts of growth in EPS in a speech given in March 1990 before the Institute for Quantitative Research and Finance. He said:

> We have seen that earnings and growth estimates by security analysts were found by Malkiel and Cragg to be superior to data obtained from financial statements for the explanation of variation in price among common stocks. . . estimates by security analysts available from sources such as IBES are far superior to the data available to Malkiel and Cragg. Eq (7) is not as elegant as Eq (4), but is has a good deal more intuitive appeal. It says that investors buy earnings, but what they will pay for a dollar of earnings increases with the extent to which the earnings are reflected in the dividend or in appreciation through growth.

Therefore, in view of the foregoing, since Ms. Carlock is apparently relying exclusively upon Value Line forecasted information in her DCF analysis, it would be appropriate for her to rely upon Value Line's projected growth in EPS, which averaged 9.5% (October 29, 2004), 9.5% (January 28, 2004) and 8.8% (April 29, 2005) for the three water companies as shown on Schedule (PMA-13). Using a projected EPS growth rate range of 8.8% - 9.5% and Ms. Carlock's range of 3.4% - 3.5% and conservatively not growing the dividend yield by the growth rate, results in a DCF common equity cost rate range of

12.2% - 13.0%, Thus, Ms. Carlock's DCF range of 8.0% - 10.5% is grossly understated.

If Ms. Carlock, who states that she has relied upon the data in Exhibit No. 12 accompanying my direct testimony, had utilized the growth rate range indicated by the average growth rates shown in Column 4 on page 1 of Schedule (PMA-5), 5.7% - 7.9%, a DCF cost rate range of 9.1% - 11.4%, with a midpoint of 10.25% results. However, because this 10.25% DCF cost rate is applicable to the three Value Line water companies which are significantly larger than United in terms of both total capitalization and estimated market capitalization (see page 3 of Schedule (PMA-17), i.e., page 3 of Schedule (PMA-1)(Updated)), this understates the common equity cost rate applicable to United. Adding a modest size adjustment of 30 basis points (0.30%) (see page 2 of Schedule (PMA-17), i.e., page 2 of Schedule (PMA-1)(Updated)), to this 10.25% DCF cost rate using Value Line projected growth in EPS, results in a DCF cost rate of 10.55% more applicable to United than Ms. Carlock's recommended range of DCF cost rate of 8.0% - 10.5%. Note, that a DCF cost rate of 10.55% more closely approximates the updated DCF cost rates for my two proxy groups of water companies, i.e., 10.4% and 10.6%, respectively as shown on page 2 of Schedule (PMA-17), i.e., page 2 of Schedule (PMA-1)(Updated). However, based upon the Efficient Market Hypothesis, (EMH) as discussed in my direct testimony at pages 23 – 25, the results of multiple cost of common equity models should be relied upon and not the results of a

1 single model, such as the DCF.

2 V. CONCLUSIONS

3 Q. What conclusions do you have after reviewing the direct testimonies of Ms.
4 Hall and Ms. Carlock?

5 A. I conclude that the Company's debt cost rate should be accepted by the IPUC
6 because it affords the Company's the opportunity to full recovery of all costs
7 associated with the debt issues outstanding and that the Staff's debt cost rate
8 should be rejected because it does not.

9 I also conclude that Staff's recommended return on common equity
10 of 10.00% is unsupported by the analyses of Ms. Hall and Ms. Carlock and
11 grossly understates the cost of common equity applicable to United, even if a
2 size adjustment of 30 basis points (0.30%) on an updated basis (see page 2 of
13 Schedule (PMA-17), i.e., page 2 of Schedule (PMA-1)(Updated)) is added.

14 IV. UPDATED COMMON EQUITY COST RATE

15 Q. Have you prepared an update of your common equity cost rate to reflect current
16 capital market conditions?

17 A. Yes. The updated is shown on Schedule (PMA-17), which consists of forty-
18 two (42) pages. Current capital market conditions indicate that an appropriate
19 common equity cost rate applicable to United is 11.10% applicable to United's
20 updated capital structure.

21 Q. Does that conclude your rebuttal testimony?

22 A. Yes.

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF UNITED WATER IDAHO, INC. FOR APPROVAL OF INCREASED RATES FOR WATER SERVICE	))))	CASE NO. UWI-W-04-04

EXHIBIT 18
TO ACCOMPANY THE
REBUTTAL TESTIMONY OF
PAULINE M. AHERN, CRRA, VICE PRESIDENT
AUS CONSULTANTS – UTILITY SERVICES

ON BEHALF OF UNITED WATER IDAHO, INC.

MAY 2005

United Water Idaho, Inc.
Demonstration of the Inadequacy of IPUC Staff Witness Hall's
Recommended Debt Cost Rate

Debt Cost Recovery to the Company of a Bond sold at Discount

Example 1: 2 year, $100 bond, 8.00% coupon rate, sold at $90 (Discount)

Method 1 (Used by Company): Varying cost rate; revenue requirements are constant

Year No.	Cash Flows From / To Investors	Debt in Rate Base at Beginning of Year	Total Revenue Requirements	Interest Payments	Amortization of Bond Discount
0	($90 00)	-			
1	$8.00	$90 00	$13 00	$8 00	$5 00
2	$108 00	$95 00	$13.00	$8.00	$5.00
3		$100 00			
	Totals		$26.00	$16.00	$10.00

Cost Rate Year 1 $13 / $90 = 14 44% (Revenue Requirement/Net Proceeds)
Year 2 $13 / $95 = 13 68% (Revenue Requirement/Net Proceeds)

Year 3 Rate Base =$100 00 (Face Value of Bond)
Bond Discount fully amortized in Year 2

Result: Company recovers its costs

Example 1: 2 year, $100 bond, 8.00% coupon rate, sold at $90 (Discount)

Method 2 (Used by Staff): Applying incorrect cost rate

Year No.	Cash Flows From / To Investors	Debt in Rate Base at Beginning of Year	Revenue Requirements Cost Rate of 13 0% Applied to Beg. - Year Rate Base	Interest Payments	Amortization of Bond Discount
0	($90.00)	-			
1	$8 00	$90 00	$11 70	$8 00	$3 70
2	$108 00	$93.70	$12.18	$8.00	$4.18
3		$97 88			
	Totals		$23.88	$16.00	$7.88

Cost Rate Year 1 ($8+$5) or $13 / $100 = 13 00% (Revenue Requirement/Face Value of Bond)

Year 3 Rate Base =$97.88 (Does not Equal Face Value of Bond)
Bond Discount is not fully amortized in Year 2

Result: Company does not recover its costs

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-12), Page 1 of 2

United Water Idaho, Inc.
Demonstration of the Inadequacy of IPUC Staff Witness Hall's
Recommended Debt Cost Rate

Debt Cost Recovery to the Company of a Bond sold at Premium

Example 2: 2 year, $100 bond, 8.00% coupon rate, sold at $110 (Premium)

Method 1 (Used by Company): Varying cost rate; revenue requirements are constant

Year No.	Cash Flows From / To Investors	Debt in Rate Base at Beginning of Year	Total Revenue Requirements	Interest Payments	Amortization of Bond Premium
0	($110 00)	-			
1	$8.00	$110 00	$3 00	$8 00	($5.00)
2	$108 00	$105 00	$3.00	$8.00	($5.00)
3		$100 00			
	Totals		$6.00	$16.00	($10.00)

Cost Rate Year 1 $3 / $110 = 2 73% (Revenue Requirement/Net Proceeds)
Year 2 $3 / $105 = 2 86% (Revenue Requirement/Net Proceeds)

Year 3 Rate Base =$100 00 (Face Value of Bond)
Bond Discount fully amortized in Year 2

Result: Company recovers its costs

Example 2: 2 year, $100 bond, 8.00% coupon rate, sold at $110 (Premium)

Method 2 (Used by Staff): Applying incorrect cost rate

Year No.	Cash Flows From / To Investors	Debt in Rate Base at Beginning of Year	Revenue Requirements Cost Rate of 3 0% Applied to Beg - Year Rate Base	Interest Payments	Amortization of Bond Premium
0	($110 00)	-			
1	$8 00	$110.00	$3 30	$8 00	($4.70)
2	$108 00	$105.30	$3.16	$8.00	($4.84)
3		$100.46			
	Totals		$6.46	$16.00	($9.54)

Cost Rate Year 1 ($8-$5) or $3 / $100 = 3 00% (Revenue Requirement/Face Value of Bond)

Year 3 Rate Base =$100 46 (Does not Equal Face Value of Bond)
Bond Premium is not fully amortized in Year 2

Result: Company recovers more than its costs

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-12), Page 2 of 2

United Water Idaho, Inc.
Value Line Proejcted Return on Common Equity and 5-Year Projected Growth in EPS

Company	Return on Common Equity (October 29, 2004) 2004	2005	2004-2005 Average ROE Percent	2007-2009 Projected Average ROE Percent	2001-'03 to 2007-'09 Projected Growth Rate in EPS
American States Water Company	9.0 %	9.5 %	9.3 %	10.5 %	9.5 %
Aqua America, Inc	11.0	12.0	11.5	13.0	9.0
California Water Service Group	10.5	10.5	10.5	11.0	10.0
Average	10.2 %	10.7 %	10.4 %	11.5 %	9.5 %
Water Utility Industry	9.5 %	9.5 %	9.5 %	10.0 %	

Company	Return on Common Equity (January 28, 2005) 2004	2005	2004-2005 Average ROE Percent	2007-2009 Projected Average ROE Percent	2001-'03 to 2007-'09 Projected Growth Rate in EPS
American States Water Company	9.0 %	9.5 %	9.3 %	10.5 %	9.5 %
Aqua America, Inc	11.0	12.0	11.5	13.0	9.0
California Water Service Group	10.0	10.5	10.3	11.0	10.0
Average	10.0 %	10.7 %	10.4 %	11.5 %	9.5 %
Water Utility Industry	9.5 %	9.5 %	9.5 %	10.0 %	

Company	Return on Common Equity (April 29, 2005) 2005	2006	2005-2006 Average ROE Percent	2008-2010 Projected Average ROE Percent	2002-'04 to 2008-'10 Projected Growth Rate in EPS
American States Water Company	9.0 %	9.5 %	9.3 %	12.0 %	8.0 %
Aqua America, Inc	12.0	12.5	12.3	13.0	9.0
California Water Service Group	10.0	10.5	10.3	11.0	9.5
Average	10.3 %	10.8 %	10.6 %	12.0 %	8.8 %
Water Utility Industry	11.0 %	11.5 %	11.3 %	12.0 %	

Source of Information: Value Line Investment Survey, Octobedr 29, 2004, January 28, 2005 and April 29, 2005

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-13), Page 1 of 1

Stocks, Bonds, Bills, and Inflation

SBBI

Valuation Edition
2005 Yearbook

Ibbotson Associates

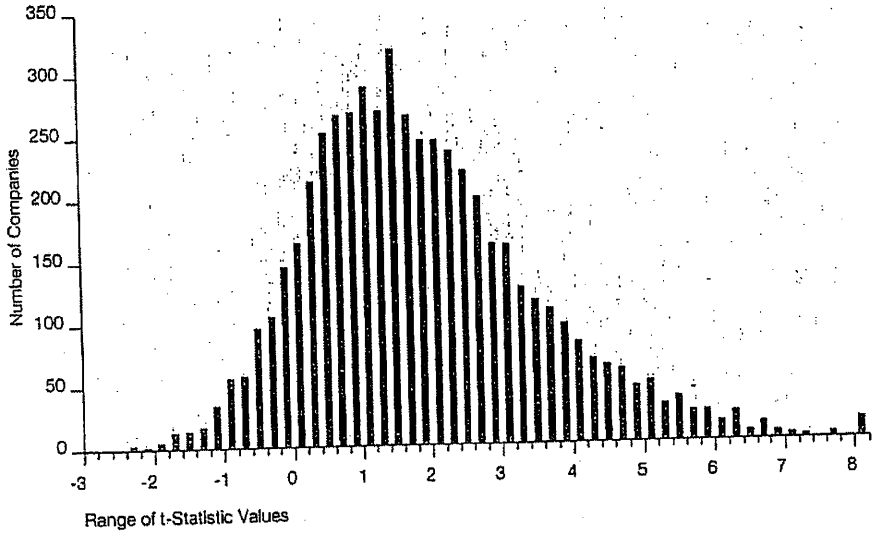
Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-14), Page 1 of 3

thus, the beta of Company B is not statistically different than zero at that confidence level. If the regression provides a beta of 0.90 but is not statistically different than zero, then other measures of beta may need to be consulted (such as the company's peer betas or industry average betas).

To better illustrate the typical range of a beta's t-statistic, Graph 6-3 depicts the distribution of all t-statistics calculated with respect to the betas of over 5,000 companies included in Ibbotson's *Beta Book*. Since these beta calculations use 60 months of data, the critical value for the t-statistic is again 1.67 at the 90 percent confidence level. Recall that the absolute value is what is compared to the critical value; t-statistics above 1.67 or below –1.67 would therefore be considered statistically significant.

Graph 6-3

t-Statistic Distribution
October 1999 through September 2004



R-Squared

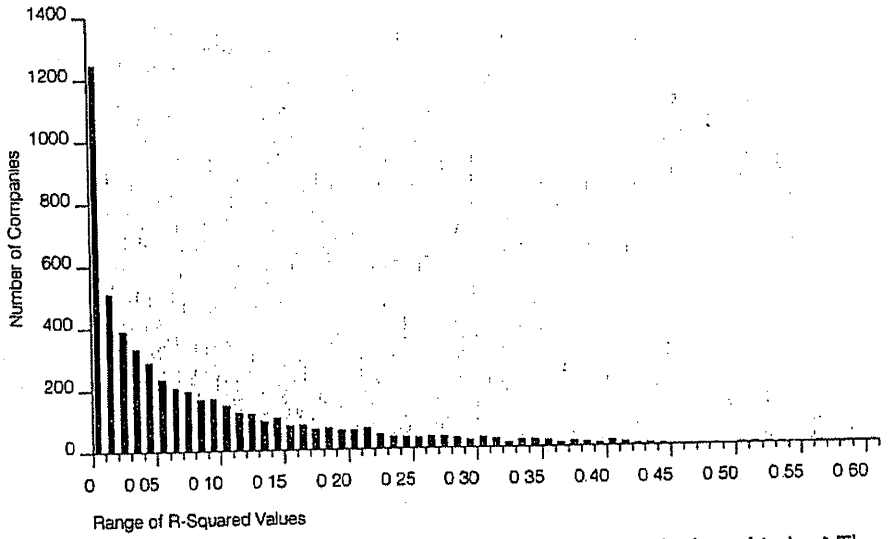
Another valuable regression statistic is the coefficient of determination, or R-squared. The R-squared is a statistic that measures the "goodness of fit" of the regression line and describes the percentage of variation in the dependent variable that is explained by the independent variable. The R-squared measure may vary from zero to one. An R-squared of 1.00 means that the independent variable explains 100 percent of the variation of the dependent variable. An R-squared of 0 indicates that the independent variable does not explain any of the variation of the dependent variable.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-14), Page 2 of 3

In terms of measuring beta via regression, a high R-squared means that the movements of the returns of the security are explained largely by the movements of the returns of the market. The R-squared for security betas are usually quite low. Graphs 6-4 and 6-5 show a distribution of R-squared statistics from Ibbotson Associates' *Beta Book*. The first graph shows the distribution of R-squared for all 5,000 plus companies included in the publication. The second graph shows the distribution of R-squared for the largest 100 companies, in terms of equity capitalization, that are included in the book.

Graph 6-4

R-Squared Distribution for Entire Population
October 1999 through September 2004



Note that most betas have an R-squared less than 0.3. What can we infer from this data? There may be other company- or industry-specific factors that drive security prices. While the CAPM includes only one factor in determining expected returns, it does not disallow the existence of others.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-14), Page 3 of 3

UNITED WATER IDAHO INC.
CASE NO. UWI-W-04-4
FIRST PRODUCTION REQUEST OF UNITED WATER
TO COMMISSION STAFF

Request No. 20: Please refer to page 8, line 13 through 16 of Ms. Carlock's direct testimony. Please provide the following:

a. The identity of the companies utilized by Ms. Carlock in her Comparable Earnings method.

b. A copy of the source documents, electronic spreadsheets and calculations relied upon by Ms. Carlock in developing the "reasonable return on equity attributed to United Water Idaho [of] 9.5% - 10.5% under the Comparable Earnings method.

Response to Request No. 20:

a. The companies utilized for the comparable earnings method include an analysis of water companies including those listed by Value Line and C. A. Turner as included in Company witness Ahern's Exhibit No. 12. A risk-adjusted comparison with Value Line electric utilities was also evaluated

b. The source documents for Value Line are available online and is also utilized by Company witness Ahern so she has access to this data. This data can be made available for review at the Commission office by setting up an appointment with Terri Carlock. Ms. Ahern's Exhibit No. 12 and workpapers were also utilized

Preparer/Sponsoring Witness: Terri Carlock
Telephone Number: (208) 334-0356
Title: Audit Section Supervisor

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-15), Page 1 of 1

UNITED WATER IDAHO INC.
CASE NO. UWI-W-04-4
FIRST PRODUCTION REQUEST OF UNITED WATER
TO COMMISSION STAFF

Request No. 21: Please refer to page 10, line 25 through page 11, line 5 of Ms. Carlock's direct testimony.

a. **Please provide all source documents, electronic spreadsheets and calculations supporting Ms. Carlock's conclusion of the cost of equity for United Water Idaho, Inc. using the Discounted Cash Flow method of between 8% and 10.5%.**

b. **Please identify the "various time intervals" referenced on line 2 of page 11 of Ms. Carlock's direct testimony.**

c. **Please identify the companies relied upon for the dividend yield of 3.4% to 3.5% and growth rate of 5% to 6% referenced in lines 4 and 5 of page 8.**

Response to Request No. 21:

a. Value Line (October 2004, January 2005, March 2005), Company witness Ahern's Exhibit No. 12 and workpapers were utilized. Ms. Carlock's judgment differs but the data is the same.

b. The various time intervals include 2004, 2005 and 2007 – 2009 estimates

c. The companies utilized include the water companies listed by Value Line and C. A. Turner as included in Company witness Ahern's Exhibit No. 12

Preparer/Sponsoring Witness: Terri Carlock
Telephone Number: (208) 334-0356
Title: Audit Section Supervisor

UNITED WATER IDAHO INC.
CASE NO. UWI-W-04-4
FIRST PRODUCTION REQUEST OF UNITED WATER
TO COMMISSION STAFF

Request No. 22: Please refer to page 10, lines 13 through 19 of Ms. Carlock's direct testimony.

a. **Please provide all source documents, electronic spreadsheets and calculations supporting Ms. Carlock's conclusion of expected growth rate of 5% to 6% referenced on line 14 of page 8.**

Response to Request No. 22: Value Line (October 2004, January 2005, March 2005), Company witness Ahern's Exhibit No. 12 and workpapers were utilized. Ms. Carlock's judgment differs but the data is the same.

Preparer/Sponsoring Witness: Terri Carlock
Telephone Number: (208) 334-0356
Title: Audit Section Supervisor

United Water Idaho, Inc.
Summary of Cost of Capital and Fair Rate of Return
Based upon the Consolidated Capital Structure of United Waterworks Inc.
at December 31, 2004

Type of Capital	Ratios (1)	Cost Rate	Weighted Cost Rate
Long-Term Debt	53.41 %	6.90 % (1)	3.69 %
Minority Interest (Preferred Stock)	0.13	5.00 (1)	0.01
Common Equity	46.46	11.10 (2)	5.16
Total	100.00 %		8.86 %

Notes:

(1) Company-provided.

(2) Based upon informed judgment from the entire study, the principal results of which are summarized on page 2 of this Schedule, i.e. page 2 of Schedule (PMA-1) (Updated).

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-1), Page 1 of 18
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 1 of 43

United Water Idaho, Inc.
Brief Summary of Common Equity Cost Rate

No.	Principal Methods	Proxy Group of Six C. A. Turner Water Companies		Proxy Group of Three Value Line (Standard Edition) Water Companies
1.	Discounted Cash Flow Model (DCF) (1)	10.4 %		10.6 %
2	Risk Premium Model (RPM) (2)	10.8		10.9
3.	Capital Asset Pricing Model (CAPM) (3)	10.5		10.9
4.	Comparable Earnings Model (CEM) (4)	14.2		13.9
5	Range of Indicated Common Equity Cost Rate Before Business Risk Adjustment	10.6 %	--	11.0 %
6.	Business Risk Adjustment	0.20		0.30
7.	Range of Common Equity Cost Rate After Business Risk Adjustment	10.80 %	--	11.30 %
8	Midpoint of Common Equity Cost Rate After Business Risk Adjustment	11.10%		
9.	Recommended Common Equity Cost Rate	11.10%		

Notes: (1) From page 19 of this Schedule, i.e., Schedule (PMA-5) (Updated).
(2) From page 29 of this Schedule. i.e., page 1 of Schedule (PMA-9) (Updated).
(3) From page 37 of this Schedule, i.e. page 1 of Schedule (PMA-10) (Updated).
(4) From pages 41 and 43 of this Schedule. i.e., pages 2 and 4 of Schedule (PMA-11) (Updated).

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-1), Page 2 of 18
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 2 of 43

United Water Idaho, Inc.
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.		1		2		3	4		5
		Total Capitalization (incl. Short-Term Debt) for the Year 2003 (millions)	(times larger)	Market Capitalization on April 29, 2005 (1) (millions)	(times larger)	Applicable Decile of the NYSE/AMEX/ NASDAQ	Applicable Size Premium		Spread from Applicable Size Premium for (2)
1.	United Water Idaho, Inc.	$ 120.665 (3)							
a.	Based Upon the Proxy Group of Six C. A. Turner Water Companies			$ 127.708		10 (4)	6.41%	(5)	
b.	Based Upon the Proxy Group of Three Value Line (Standard Edition) Water Companies			$ 129.932		10 (4)	6.41%	(5)	
2.	Proxy Group of Six C. A. Turner Water Companies	$ 502.690 (6)	4.2 x	$ 670.824	5.3 x	7 - 8 (7)	2.61%	(8)	3.80%
3.	Proxy Group of Three Value Line (Standard Edition) Water Companies	$ 865.130 (9)	7.2 x	$ 1,194.083	9.2 x	6 (10)	1.75%	(11)	4.66%

page 4 for notes.

Decile	Number of Companies	Recent Total Market Capitalization (millions)	Recent Average Market (millions)
1 - Largest	172	$8,214,688.366	$47,759.816
2	177	1,722,153.325	9,729.660
3	199	894,917.914	4,497.075
4	209	548,369.454	2,623.873
5	219	400,381.543	1,828.226
6	257	325,662.936	1,267.171
7	300	264,131.617	880.439
8	372	219,976.996	591.336
9	589	230,476.080	391.301
10 - Smallest	1782	185,820.318	104.276

United Water Idaho, Inc..
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE

Notes:

(1) From page 5 of this Schedule, i e , page 5 of Schedule (PMA-1) (Updated)

(2) Line No. 1 – Line No. 2 and Line No. 1 – Line No. 3 of Columns 3 and 4, respectively. For example, the 3.80% in Column 5, Line No. 2 is derived as follows: 3.80% = 6.41% - 2.61%.

(3) At June 30, 2004. Company-provided.

(4) With an estimated market capitalization of $127.708 million (based upon the proxy group of six C. A. Turner water companies) or $129.932 million (based upon the proxy group of three Value Line (Standard Edition) water companies), United Water Idaho, Inc. falls in the 10th decile of the NYSE/AMEXNASDAQ which has an average market capitalization of $104.276 million as can be gleaned from the information shown in the table on the bottom half of page 3 of this Schedule, i e , page 3 of Schedule (PMA-1) (Updated)

(5) Size premium applicable to the 10th decile of the NYSE/AMEXNASDAQ derived from the information shown on page 15 of this Schedule, i.e., page 15 of Schedule (PMA-10) (Updated).

(6) From page 1 of Schedule (PMA-3)

(7) With an estimated market capitalization of $670.824 million, the proxy group of six C. A. Turner water companies falls between the 7th and 8th deciles of the NYSE/AMEXNASDAQ which have an average market capitalization of $735.888 million as can be gleaned from the information shown in the table on the bottom half of page 3 of this Schedule, i.e., page 3 of Schedule (PMA-1) (Updated).

(8) Average size premium applicable to the 7th and 8th deciles of the NYSE/AMEXNASDAQ derived from the information shown on page 15 of this Schedule, i.e., page 15 of Schedule (PMA-1) (Updated).

(9) From page 1 of Schedule (PMA-4).

(10) With an estimated market capitalization of $1,194.083 million, the proxy group of three Value Line (Standard Edition) water companies falls in the 6th decile of the NYSE/AMEXNASDAQ which has an average market capitalization of $1,267.171 million as shown in the table on the bottom half of page 3 of this Schedule, i.e., page 3 of Schedule (PMA-1) (Updated).

(11) Size premium applicable to the 6th decile of the NYSE/AMEXNASDAQ derived from the information shown on page 15 of this Schedule, i e., page 15 of Schedule (PMA-1) (Updated).

Source of Information: Ibbotson Associates, Stocks, Bonds, Bills and Inflation – Valuation Edition – 2005 Yearbook, Chicago, IL, 2005

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-1), Page 4 of 18
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 4 of 43

United Water Idaho, Inc.
Market Capitalization of United Water Idaho, Inc.
for the Proxy Group of Six C. A. Turner Water Companies and
the Proxy Group of Three Value Line (Standard Edition) Water Companies and

Company	1 Common Stock Shares Outstanding at December 31, 2004 (millions)	2 Book Value per Share at December 31, 2004 (1)	3 Total Common Equity at December 31, 2004 (millions)	4 Closing Stock Market Price on April 29, 2005	5 Market-to-Book Ratio at April 29, 2005 (2)	6 Market Capitalization on April 29, 2005 (3) (millions)
United Water Idaho, Inc.	NA	NA	$ 54.022 (4)	NA		
Based Upon the Proxy Group of Six C. A. Turner Water Companies					236.4 % (5)	$ 127.708 (6)
Based Upon the Proxy Group of Three Value Line (Standard Edition) Water Companies					240.5 % (7)	$ 129.932 (8)
Proxy Group of Six C. A. Turner Water Companies						
American States Water Co.	16.752	$ 15.011	$ 251.465	$ 25.400	169.2 %	$ 425.501
Aqua America, Inc.	95.385	7.847	748.468	28.700	340.3	2,546.780
Artesian Resources Corp.	3.956	13.480	53.327	26.729	198.3	105.740
California Water Services Group	18.367	15.659	287.605	33.210	212.1	609.968
Middlesex Water Company	11.359	8.375	95.129	17.350	207.2	197.079
York Water Company	6.887	6.975	48.037	20.310	291.2	139.875
Average	25.451	$ 11.225	$ 247.339	$ 24.950	236.4 %	$ 670.824
Proxy Group of Three Value Line (Standard Edition) Water Companies						
American States Water Co.	16.752	$ 15.011	$ 251.465	$ 25.400	169.2 %	$ 425.501
Aqua America, Inc.	95.385	7.847	748.468	28.700	340.3	2,546.780
California Water Services Group	18.367	15.659	287.605	33.210	212.1	609.968
Average	43.501	$ 12.839	$ 429.179	$ 29.437	240.5 %	$ 1,194.083

NA = Not Available

Notes:
(1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 5 * Column 3.
(4) Based upon allocating United Water Idaho, Inc.'s total capital at June 31, 2004 of $120.665 million by United Waterworks, Inc.'s common equity ratio based upon total investor provided capital, i.e., excluding customer deposits, at June 30, 2004 of 44.77% as derived below. $54.022 = $120.665 * 44.77%.

United Waterworks Inc.
Consolidated Capital Structure Based upon Investor Provided Capital at December 31, 2004

Type of Capital	Amount	Ratio
Long-term Debt	$ 234,435,000	55.10%
Minority Interest (Pfd. Stock)	561,000	0.13%
Common Equity	190,469,072	44.77%
Total	$ 425,465,072	100.00%

(5) The market-to-book ratio of United Water Idaho, Inc. at April 29, 2005 is assumed to be equal to the average market-to-book ratio at April 29, 2005 of the proxy group of six C. A. Turner Water Companies.
(6) United Water Idaho, Inc.'s common stock, if traded, would trade at a market-to-book ratio equal to the average market-to-book ratio at April 29, 2005 of the proxy group of six C. A. Turner water companies, 236.4%, and United Water Idaho, Inc.'s market capitalization at April 29, 2005 would therefore have been $127.708 million. ($127.708 = $54.022 * 236.4%).
(7) The market-to-book ratio of United Water Idaho, Inc. at April 29, 2005 is assumed to be equal to the average market-to-book ratio at April 29, 2005 of the proxy group of three Value Line (Standard Edition) Water Companies.
(8) United Water Idaho, Inc.'s common stock, if traded, would trade at a market-to-book ratio equal to the average market-to-book ratio at April 29, 2005 of the proxy group of three Value Line (Standard Edition) water companies, 240.5%, and United Water Idaho, Inc.'s market capitalization at April 29, 2005 would therefore have been $129.932 million. ($129.932 = $54.022 * 240.5%).

Source of Information: Company Annual Forms 10K
Yahoo.finance.com
Company-provided

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-1), Page 5 of 18
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 5 of 43

SBBI

Stocks, Bonds, Bills, and Inflation

Valuation Edition
2005 Yearbook

Ibbotson Associates

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 6 of 43

Chapter 7

Firm Size and Return

The Firm Size Phenomenon

One of the most remarkable discoveries of modern finance is that of a relationship between firm size and return. The relationship cuts across the entire size spectrum but is most evident among smaller companies, which have higher returns on average than larger ones. Many studies have looked at the effect of firm size on return.[1] In this chapter, the returns across the entire range of firm size are examined.

Construction of the Decile Portfolios

The portfolios used in this chapter are those created by the Center for Research in Security Prices (CRSP) at the University of Chicago's Graduate School of Business. CRSP has refined the methodology of creating size-based portfolios and has applied this methodology to the entire universe of NYSE/AMEX/NASDAQ-listed securities going back to 1926.

The New York Stock Exchange universe excludes closed-end mutual funds, preferred stocks, real estate investment trusts, foreign stocks, American Depository Receipts, unit investment trusts, and Americus Trusts. All companies on the NYSE are ranked by the combined market capitalization of their eligible equity securities. The companies are then split into 10 equally populated groups, or deciles. Eligible companies traded on the American Stock Exchange (AMEX) and the Nasdaq National Market (NASDAQ) are then assigned to the appropriate deciles according to their capitalization in relation to the NYSE breakpoints. The portfolios are rebalanced, using closing prices for the last trading day of March, June, September, and December. Securities added during the quarter are assigned to the appropriate portfolio when two consecutive month-end prices are available. If the final NYSE price of a security that becomes delisted is a month-end price, then that month's return is included in the quarterly return of the security's portfolio. When a month-end NYSE price is missing, the month-end value of the security is derived from merger terms, quotations on regional exchanges, and other sources. If a month-end value still is not determined, the last available daily price is used.

Base security returns are monthly holding period returns. All distributions are added to the month-end prices, and appropriate price adjustments are made to account for stock splits and dividends. The return on a portfolio for one month is calculated as the weighted average of the returns for its individual stocks. Annual portfolio returns are calculated by compounding the monthly portfolio returns.

Size of the Deciles

Table 7-1 reveals that the top three deciles of the NYSE/AMEX/NASDAQ account for most of the total market value of its stocks. Approximately two-thirds of the market value is represented by the first decile, which currently consists of 172 stocks, while the smallest decile accounts for just over one percent of the market value. The data in the second column of Table 7-1 are averages across all

1 Rolf W. Banz was the first to document this phenomenon. See Banz, Rolf W. "The Relationship Between Returns and Market Value of Common Stocks," *Journal of Financial Economics*, Vol. 9, 1981, pp. 3–18.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 7 of 43

79 years. Of course, the proportion of market value represented by the various deciles varies from year to year.

Columns three and four give recent figures on the number of companies and their market capitalization, presenting a snapshot of the structure of the deciles near the end of 2004.

Table 7-1

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ Size and Composition
1926-2004

Decile	Historical Average Percentage of Total Capitalization	Recent Number of Companies	Recent Decile Market Capitalization (in thousands)	Recent Percentage of Total Capitalization
1-Largest	63 31%	172	$8.214.688.366	63 16%
2	13.97%	177	1.722.153.325	13.24%
3	7.58%	199	894.917.914	6.88%
4	4 74%	209	548.389.454	4 22%
5	3 24%	219	400.381.543	3 08%
6	2 37%	257	325.662,936	2.50%
7	1 73%	300	264.131.617	2.03%
8	1 28%	372	219.976.996	1 69%
9	0 98%	589	230.476.080	1 77%
10-Smallest	0 80%	1.782	185.820.318	1 43%
Mid-Cap 3–5	15 56%	627	1.843.688.910	14 18%
Low-Cap 6–8	5 38%	929	809,771.549	6 23%
Micro-Cap 9–10	1 79%	2.371	416.296.398	3 20%

Source: © 200503 CRSP® Center for Research in Security Prices Graduate School of Business. The University of Chicago Used with permission All rights reserved www crsp uchicago edu

Historical average percentage of total capitalization shows the average, over the last 79 years, of the decile market values as a percentage of the total NYSE/AMEX/NASDAQ calculated each month. Number of companies in deciles. recent market capitalization of deciles. and recent percentage of total capitalization are as of September 30. 2004

Table 7-2 gives the current breakpoints that define the composition of the NYSE/AMEX/NASDAQ size deciles. The largest company and its market capitalization are presented for each decile. Table 7-3 shows the historical breakpoints for each of the three size groupings presented throughout this chapter. Mid-cap stocks are defined here as the aggregate of deciles 3–5. Based on the most recent data (Table 7-2), companies within this mid-cap range have market capitalizations at or below $6,241,953,000 but greater than $1,607,854,000. Low-cap stocks include deciles 6–8 and currently include all companies in the NYSE/AMEX/NASDAQ with market capitalizations at or below $1,607,854,000 but greater than $505,437,000. Micro-cap stocks include deciles 9–10 and include companies with market capitalizations at or below $505,437,000. The market capitalization of the smallest company included in the micro-capitalization group is currently $1,393,000.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 8 of 43

Table 7-2

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, Largest Company and Its Market Capitalization by Decile
September 30, 2004

Decile	Market Capitalization of Largest Company (in thousands)	Company Name
1-Largest	$342,087,219	General Electric Co.
2	14,096,886	Agilent Technologies Inc
3	6,241,953	Tenet Healthcare Corp
4	3,464,104	Wellchoice Inc
5	2,231,707	OGE Energy Corp
6	1,607,854	Entercom Communications Corp
7	1,097,603	Vintage Petroleum Inc
8	746,219	Wabash National Corp
9	505,437	World Fuel Services Corp
10-Smallest	262,725	Mastec Inc

Source: Center for Research in Security Prices, University of Chicago

Presentation of the Decile Data

Summary statistics of annual returns of the 10 deciles over 1926–2004 are presented in Table 7-4. Note from this exhibit that both the average return and the total risk, or standard deviation of annual returns, tend to increase as one moves from the largest decile to the smallest. Furthermore, the serial correlations of returns are near zero for all but the smallest two deciles. Serial correlations and their significance will be discussed in detail later in this chapter.

Graph 7-1 depicts the growth of one dollar invested in each of three NYSE/AMEX/NASDAQ groups broken down into mid-cap, low-cap, and micro-cap stocks. The index value of the entire NYSE/AMEX/NASDAQ is also included. All returns presented are value-weighted based on the market capitalizations of the deciles contained in each subgroup. The sheer magnitude of the size effect in some years is noteworthy. While the largest stocks actually declined in 1977, the smallest stocks rose more than 20 percent. A more extreme case occurred in the depression-recovery year of 1933, when the difference between the first and tenth decile returns was far more substantial. This divergence in the performance of small and large company stocks is a common occurrence.

Table 7-3

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ
Largest and Smallest Company by Size Group

from 1926 to1965

	Capitalization of Largest Company (in thousands)			Capitalization of Smallest Company (in thousands)		
Date (Sept 30)	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10
1926	$61.490	$14.040	$4.305	$14,100	$4.325	$43
1927	$65.281	$14.746	$4.450	$15.311	$4.496	$72
1928	$81,998	$18,975	$5.074	$19.050	$5.119	$135
1929	$107.085	$24.328	$5.875	$24.480	$5.915	$126
1930	$67.808	$13.050	$3.219	$13.068	$3.264	$30
1931	$42.607	$8.142	$1.905	$8.222	$1.927	$15
1932	$12.431	$2.170	$473	$2.196	$477	$19
1933	$40.298	$7.210	$1.830	$7.280	$1.875	$100
1934	$38.129	$6.669	$1.669	$6.734	$1.673	$68
1935	$37.631	$6.519	$1.350	$6.549	$1.383	$38
1936	$46.920	$11.505	$2.660	$11.526	$2.668	$98
1937	$51.750	$13,601	$3.500	$13.635	$3.539	$68
1938	$36.102	$8.325	$2,125	$8.372	$2.145	$60
1939	$35,784	$7.367	$1.697	$7.389	$1.800	$75
1940	$31.050	$7.990	$1.861	$8.007	$1.872	$51
1941	$31.744	$8.316	$2.086	$8.336	$2.087	$72
1942	$26.135	$6.870	$1.779	$6.875	$1.788	$82
1943	$43.218	$11.475	$3.847	$11.480	$3.903	$395
1944	$46.621	$13,066	$4.800	$13.068	$4.812	$309
1945	$55.268	$17.325	$6.413	$17.575	$6.428	$225
1946	$79.158	$24.192	$10.013	$24.199	$10.051	$829
1947	$57.830	$17.735	$6.373	$17.872	$6.380	$747
1948	$67,238	$19.575	$7.313	$19.651	$7.329	$784
1949	$55.506	$14.549	$5.037	$14.577	$5.108	$379
1950	$65.881	$18.675	$6.176	$18.750	$6.201	$303
1951	$82.517	$22.750	$7,567	$22.860	$7,598	$668
1952	$97.936	$25.452	$8.428	$25,532	$8.480	$480
1953	$98.595	$25.374	$8.156	$25.395	$8.168	$459
1954	$125.834	$29.645	$8.484	$29.707	$8.488	$463
1955	$170.829	$41.445	$12.353	$41.681	$12.366	$553
1956	$183.434	$46.805	$13.481	$46,886	$13.524	$1.122
1957	$192.861	$47.658	$13.844	$48.509	$13.848	$925
1958	$195.083	$46.774	$13.789	$46.871	$13.816	$550
1959	$253.644	$64.221	$19.500	$64.372	$19.548	$1.804
1960	$246.202	$61.485	$19.344	$61,529	$19.385	$831
1961	$296.261	$79.058	$23.562	$79.422	$23.613	$2.455
1962	$250.433	$58.866	$18.952	$59.143	$18.968	$1.018
1963	$308.438	$71,846	$23.819	$71.971	$23.822	$296
1964	$344.033	$79.343	$25.594	$79.508	$25.595	$223
1965	$363.759	$84.479	$28.365	$84.600	$28.375	$250

Source: Center for Research in Security Prices. University of Chicago

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 10 of 43

Table 7-3 (continued)

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ
Largest and Smallest Company by Size Group

from 1966 to 2004

	Capitalization of Largest Company (in thousands)			Capitalization of Smallest Company (in thousands)		
Date (Sept 30)	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10
1966	$399.455	$99.578	$34.884	$99.935	$34.966	$381
1967	$459.170	$117.985	$42.267	$118,329	$42.313	$381
1968	$528.326	$149.261	$60.351	$150.128	$60.397	$592
1969	$517,452	$144.770	$54.273	$145,684	$54,280	$2,119
1970	$380.246	$94.025	$29.910	$94.047	$29.916	$822
1971	$542.517	$145.340	$45,571	$145.673	$45.589	$865
1972	$545.211	$139.647	$46.728	$139,710	$46.757	$1.031
1973	$424.584	$94,809	$29,601	$95.378	$29.606	$561
1974	$344.013	$75.272	$22.475	$75.853	$22,481	$444
1975	$465.763	$96.954	$28.140	$97,266	$28.144	$540
1976	$551.071	$116.184	$31.987	$116,212	$32.002	$564
1977	$573.084	$135,804	$39.192	$137.323	$39,254	$513
1978	$572,967	$159.778	$46.621	$160.524	$46.629	$830
1979	$661.336	$174.480	$49.088	$174.517	$49.172	$948
1980	$754.562	$194,012	$48.671	$194.241	$48.953	$549
1981	$954.665	$259.028	$71,276	$261.059	$71,289	$1,446
1982	$762.028	$205.590	$54.675	$206.536	$54,883	$1,060
1983	$1.200,680	$352,698	$103.443	$352.944	$103.530	$2.025
1984	$1.068.972	$314.650	$90.419	$315.214	$90.659	$2.093
1985	$1.432.342	$367,413	$93,810	$368.249	$94,000	$760
1986	$1.857.621	$444.827	$109.956	$445.648	$109,975	$706
1987	$2.059,143	$467.430	$112.035	$468,948	$112.125	$1.277
1988	$1.957,926	$420.257	$94.268	$421,340	$94.302	$696
1989	$2.147.608	$480,975	$100,285	$483.623	$100,384	$96
1990	$2,164.185	$472.003	$93.627	$474,065	$93.750	$132
1991	$2.129,863	$457.958	$87.586	$458.853	$87.733	$278
1992	$2,428.671	$500,346	$103.352	$501.050	$103.500	$510
1993	$2.711.068	$608.520	$137,945	$608.825	$137,987	$602
1994	$2.497.073	$601.552	$149.435	$602,552	$149,532	$598
1995	$2.793.761	$653.178	$158.011	$654.019	$158.063	$89
1996	$3.150.685	$763,377	$195.188	$763.812	$195.326	$1.043
1997	$3,511.132	$818.299	$230,472	$821.028	$230,554	$480
1998	$4,216.707	$934.264	$253,329	$936.727	$253.336	$1.671
1999	$4.251.741	$875.309	$218.336	$875,582	$218.368	$1.502
2000	$4.143.902	$840.000	$192.598	$840.730	$192.721	$1.462
2001	$5.252.063	$1,114.792	$269.275	$1.115.200	$270.391	$443
2002	$5.012.705	$1.143,845	$314.042	$1,144.452	$314,174	$501
2003	$4.794.027	$1.166,799	$330,608	$1,167.040	$330,797	$332
2004	$6.241,953	$1.607.854	$505.437	$1.607.931	$506,410	$1.393

Source: Center for Research in Security Prices. University of Chicago

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 11 of 43

Table 7-4

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, Summary Statistics of Annual Returns 1926–2004

Decile	Geometric Mean	Arithmetic Mean	Standard Deviation	Serial Correlation
1-Largest	9 6%	11 4%	19 27%	0 09
2	10 9	13 2	22 00	0 03
3	11 3	13 8	23 81	–0 02
4	11 3	14 4	26 10	–0 02
5	11 7	15 0	26 94	–0 02
6	11 8	15 5	27 97	0 04
7	11 6	15 7	30 17	0 01
8	11 9	16 7	33 65	0 04
9	12 2	17 7	36 77	0 05
10-Smallest	14 0	21 8	45 67	0 15
Mid-Cap. 3–5	11 4	14 2	24 90	–0 02
Low-Cap. 6–8	11 8	15 8	29 68	0 03
Micro-Cap. 9–10	12 8	19 0	39 38	0 08
NYSE/AMEX/NASDAQ Total Value-Weighted Index	10 1	12 1	20 32	0 03

Source: Center for Research in Security Prices. University of Chicago.

Aspects of the Firm Size Effect

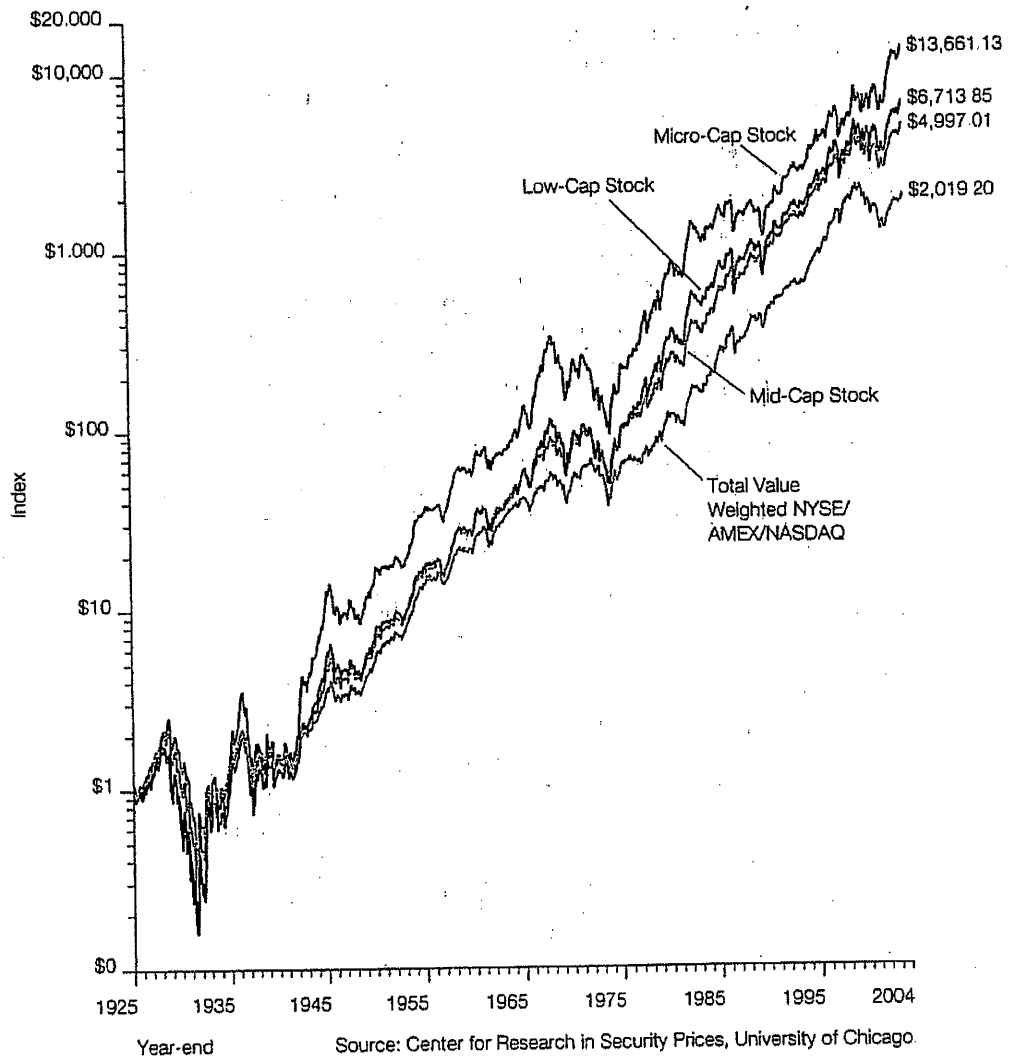
The firm size phenomenon is remarkable in several ways. First, the greater risk of small stocks does not, in the context of the capital asset pricing model (CAPM), fully account for their higher returns over the long term. In the CAPM, only systematic or beta risk is rewarded; small company stocks have had returns in excess of those implied by their betas.

Second, the calendar annual return differences between small and large companies are serially correlated. This suggests that past annual returns may be of some value in predicting future annual returns. Such serial correlation, or autocorrelation, is practically unknown in the market for large stocks and in most other equity markets but is evident in the size premia.

Third, the firm size effect is seasonal. For example, small company stocks outperformed large company stocks in the month of January in a large majority of the years. Such predictability is surprising and suspicious in light of modern capital market theory. These three aspects of the firm size effect—long-term returns in excess of systematic risk, serial correlation, and seasonality—will be analyzed thoroughly in the following sections.

Graph 7-1

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ: Wealth Indices of Investments in Mid-, Low-, Micro- and Total Capitalization Stocks
1925–2004
Year-end 1925 = $1 00



Source: Center for Research in Security Prices, University of Chicago.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 13 of 43

Long-Term Returns in Excess of Systematic Risk

The capital asset pricing model (CAPM) does not fully account for the higher returns of small company stocks. Table 7-5 shows the returns in excess of systematic risk over the past 79 years for each decile of the NYSE/AMEX/NASDAQ. Recall that the CAPM is expressed as follows:

$$k_s = r_f + (\beta_s \times ERP)$$

Table 7-5 uses the CAPM to estimate the return in excess of the riskless rate and compares this estimate to historical performance. According to the CAPM, the expected return on a security should consist of the riskless rate plus an additional return to compensate for the systematic risk of the security. The return in excess of the riskless rate is estimated in the context of the CAPM by multiplying the equity risk premium by β (beta). The equity risk premium is the return that compensates investors for taking on risk equal to the risk of the market as a whole (systematic risk).[2] Beta measures the extent to which a security or portfolio is exposed to systematic risk.[3] The beta of each decile indicates the degree to which the decile's return moves with that of the overall market.

A beta greater than one indicates that the security or portfolio has greater systematic risk than the market; according to the CAPM equation, investors are compensated for taking on this additional risk. Yet, Table 7-5 illustrates that the smaller deciles have had returns that are not fully explainable by their higher betas. This return in excess of that predicted by CAPM increases as one moves from the largest companies in decile 1 to the smallest in decile 10. The excess return is especially pronounced for micro-cap stocks (deciles 9–10). This size-related phenomenon has prompted a revision to the CAPM, which includes a size premium. Chapter 4 presents this modified CAPM theory and its application in more detail.

This phenomenon can also be viewed graphically, as depicted in the Graph 7-2. The security market line is based on the pure CAPM without adjustment for the size premium. Based on the risk (or beta) of a security, the expected return lies on the security market line. However, the actual historic returns for the smaller deciles of the NYSE/AMEX/NASDAQ lie above the line, indicating that these deciles have had returns in excess of that which is appropriate for their systematic risk.

2 The equity risk premium is estimated by the 79-year arithmetic mean return on large company stocks, 12.39 percent, less the 79-year arithmetic mean income-return component of 20-year government bonds as the historical riskless rate, in this case 5.22 percent. (It is appropriate, however, to match the maturity, or duration, of the riskless asset with the investment horizon.) See Chapter 5 for more detail on equity risk premium estimation.

3 Historical betas were calculated using a simple regression of the monthly portfolio (decile) total returns in excess of the 30-day U.S. Treasury bill total returns versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2004. See Chapter 6 for more detail on beta estimation.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 14 of 43

Table 7-5

Long-Term Returns in Excess of CAPM Estimation for Decile Portfolios of the NYSE/AMEX/NASDAQ 1926–2004

Decile	Beta*	Arithmetic Mean Return	Realized Return in Excess of Riskless Rate**	Estimated Return in Excess of Riskless Rate†	Size Premium (Return in Excess of CAPM)
1-Largest	0 91	11 39%	6.16%	6 53%	-0 37%
2	1.04	13 24%	8 02%	7.42%	0 60%
3	1 10	13 84%	8 62%	7 86%	0 75%
4	1 13	14 38%	9 15%	8 08%	1 07%
5	1.16	14.96%	9.74%	8.30%	1.44%
6	1 18	15 46%	10 23%	8 48%	1.75%
7	1 23	15 67%	10.45%	8 83%	1 61%
8	1 28	16 74%	11 51%	9 15%	2 36%
9	1 34	17 71%	12 48%	9 62%	2 86%
10-Smallest	1 41	21 77%	16 54%	10 14%	6 41%
Mid-Cap. 3-5	1 12	14 19%	8 96%	8 01%	0.95%
Low-Cap. 6-8	1 22	15 76%	10 54%	8 73%	1 81%
Micro-Cap. 9-10	1 36	18 97%	13 74%	9 72%	4 02%

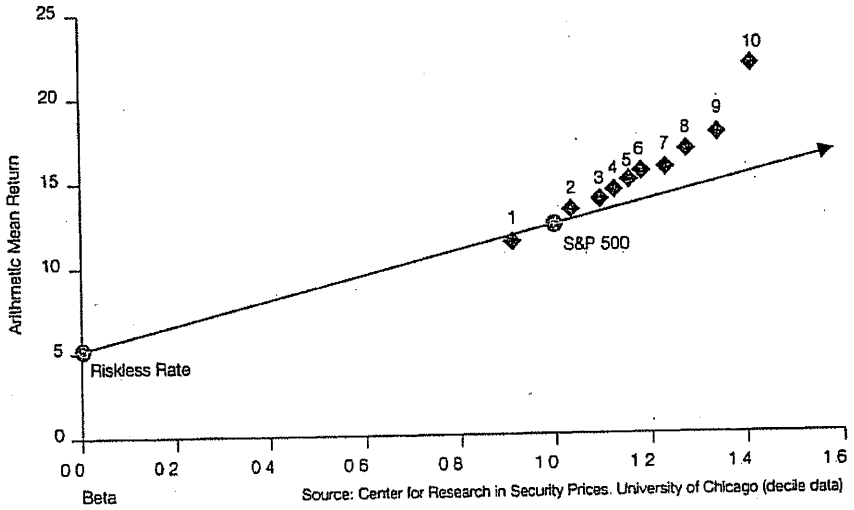
*Betas are estimated from monthly portfolio total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U S. Treasury bill, January 1926–December 2004

**Historical riskless rate is measured by the 79-year arithmetic mean income return component of 20-year government bonds (5 22 percent)

†Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the S&P 500 (12.39 percent) minus the arithmetic mean income return component of 20-year government bonds (5 22 percent) from 1926–2004.

Graph 7-2

Security Market Line versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ 1926–2004



Source: Center for Research in Security Prices, University of Chicago (decile data)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 15 of 43

Further Analysis of the 10th Decile

The size premia presented thus far do a great deal to explain the return due solely to size in publicly traded companies. However, by splitting the 10th decile into two size groupings we can get a closer look at the smallest companies. This magnification of the smallest companies will demonstrate whether the company size to size premia relationship continues to hold true.

As previously discussed, the method for determining the size groupings for size premia analysis was to take the stocks traded on the NYSE and break them up into 10 deciles, after which stocks traded on the AMEX and NASDAQ were allocated into the same size groupings. This same methodology was used to split the 10th decile into two parts: 10a and 10b, with 10b being the smaller of the two. This is equivalent to breaking the stocks down into 20 size groupings, with portfolios 19 and 20 representing 10a and 10b.

Table 7-7 shows that the pattern continues; as companies get smaller their size premium increases. There is a noticeable increase in size premium from 10a to 10b, which can also be demonstrated visually in Graph 7-3. This can be useful in valuing companies that are extremely small. Table 7-6 presents the size, composition, and breakpoints of deciles 10a and 10b. First, the recent number of companies and total decile market capitalization are presented. Then the largest company and its market capitalization are presented.

Breaking the smallest decile down lowers the significance of the results compared to results for the 10th decile taken as a whole, however. The same holds true for comparing the 10th decile with the Micro-Cap aggregation of the 9th and 10th deciles. The more stocks included in a sample the more significance can be placed on the results. While this is not as much of a factor with the recent years of data, these size premia are constructed with data back to 1926. By breaking the 10th decile down into smaller components we have cut the number of stocks included in each grouping. The change over time of the number of stocks included in the 10th decile for the NYSE/AMEX/NASDAQ is presented in Table 7-8. With fewer stocks included in the analysis early on, there is a strong possibility that just a few stocks can dominate the returns for those early years.

While the number of companies included in the 10th decile for the early years of our analysis is low, it is not too low to still draw meaningful results even when broken down into subdivisions 10a and 10b. All things considered, size premia developed for deciles 10a and 10b are significant and can be used in cost of capital analysis. These size premia should greatly enhance the development of cost of capital analysis for very small companies.

Table 7-6

Size-Decile Portfolios 10a and 10b of the NYSE/AMEX/NASDAQ, Largest Company and Its Market Capitalization
September 30, 2004

Decile	Recent Number of Companies	Recent Decile Market Capitalization (in thousands)	Market Capitalization of Largest Company (in thousands)	Company Name
10a	532	$98,581,341	$262,725	Mastec Inc
10b	1,261	$83,633,980	$143,916	Rex Stores Corp.

Note: These numbers may not aggregate to equal decile 10 figures.
Source: Center for Research in Security Prices, University of Chicago

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 16 of 43

Table 7-7

Long-Term Returns in Excess of CAPM Estimation for Decile Portfolios of the NYSE/AMEX/NASDAQ, with 10th Decile Split
1926–2004

	Beta*	Arithmetic Mean Return	Realized Return in Excess of Riskless Rate**	Estimated Return in Excess of Riskless Rate†	Size Premium (Return in Excess of CAPM)
1-Largest	0.91	11 39%	6 16%	6 53%	–0 37%
2	1 04	13 24%	8.02%	7 42%	0 60%
3	1 10	13 84%	8 62%	7 86%	0 75%
4	1 13	14 38%	9 15%	8 08%	1 07%
5	1.16	14 96%	9 74%	8 30%	1 44%
6	1 18	15 46%	10 23%	8 48%	1 75%
7	1 23	15.67%	10 45%	8 83%	1 61%
8	1 28	16 74%	11 51%	9 15%	2 36%
9	1 34	17 71%	12 48%	9 62%	2 86%
10a	1 42	19 95%	14 73%	10 19%	4 54%
10b-Smallest	1 39	25.13%	19 90%	10 00%	9 90%
Mid-Cap. 3–5	1 12	14 19%	8 96%	8 01%	0 95%
Low-Cap. 6–8	1 22	15 76%	10.54%	8 73%	1 81%
Micro-Cap. 9-10	1 36	18 97%	13 74%	9 72%	4 02%

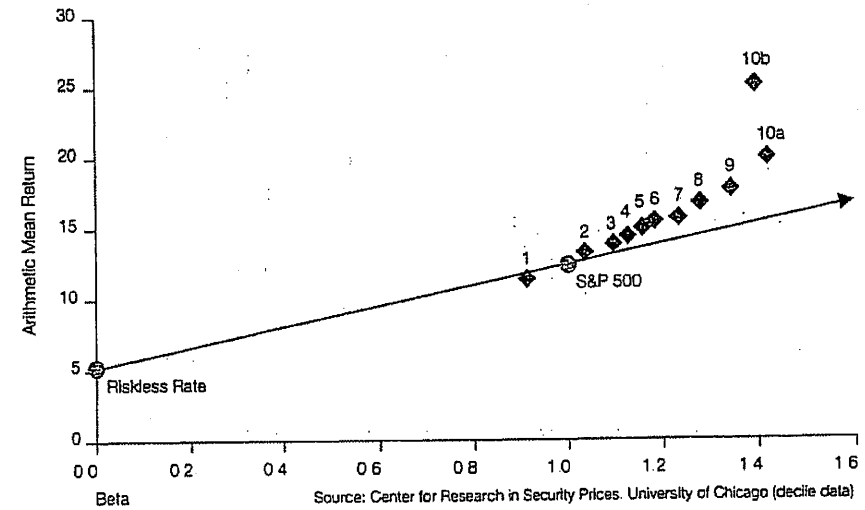
*Betas are estimated from monthly portfolio total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U S Treasury bill. January 1926–December 2004.

**Historical riskless rate is measured by the 79-year arithmetic mean income return component of 20-year government bonds (5 22 percent)

†Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the S&P 500 (12 39 percent) minus the arithmetic mean income return component of 20-year government bonds (5 22 percent) from 1926–2004

Graph 7-3

Security Market Line versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, with 10th Decile Split
1926-2004



Source: Center for Research in Security Prices. University of Chicago (decile data)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 17 of 43

Table 7-8
Historical Number of Companies for NYSE/AMEX/NASDAQ Decile 10

Sept.	Number of Companies
1926	52*
1930	72
1940	78
1950	100
1960	109
1970	865
1980	685
1990	1,814
2000	1,927
2004	1,782

*The fewest number of companies was 49 in March, 1926

Source: Center for Research in Security Prices, University of Chicago

Alternative Methods of Calculating the Size Premia

The size premia estimation method presented above makes several assumptions with respect to the market benchmark and the measurement of beta. The impact of these assumptions can best be examined by looking at some alternatives. In this section we will examine the impact on the size premia of using a different market benchmark for estimating the equity risk premia and beta. We will also examine the effect on the size premia study of using sum beta or an annual beta.[4]

Changing the Market Benchmark

In the original size premia study, the S&P 500 is used as the market benchmark in the calculation of the realized historical equity risk premium and of each size group's beta. The NYSE total value-weighted index is a common alternative market benchmark used to calculate beta. Table 7-9 uses this market benchmark in the calculation of beta. In order to isolate the size effect, we require an equity risk premium based on a large company stock benchmark. The NYSE deciles 1–2 large company index offers a mutually exclusive set of portfolios for the analysis of the smaller company groups: mid-cap deciles 3–5, low-cap deciles 6–8, and micro-cap deciles 9–10. The size premia analyses using these benchmarks are summarized in Table 7-9 and depicted graphically in Graph 7-4.

For the entire period analyzed, 1926–2004, the betas obtained using the NYSE total value-weighted index are higher than those obtained using the S&P 500. Since smaller companies had higher betas using the NYSE benchmark, one would expect the size premia to shrink. However, as was illustrated in Chapter 5, the equity risk premium calculated using the NYSE deciles 1–2 benchmark results in a value of 6.40, as opposed to 7.17 when using the S&P 500. The effect of the higher betas and lower equity risk premium cancel each other out, and the resulting size premia in Table 7-9 are slightly higher than those resulting from the original study.

4 Sum beta is the method of beta estimation described in Chapter 6 that was developed to better account for the lagged reaction of small stocks to market movements. The sum beta methodology was developed for the same reason that the size premia were developed; small company betas were too small to account for all of their excess returns.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 18 of 43

United Water Idaho, Inc.
Indicated Common equity Cost Rate Through Use of the
Single Stage Discounted Cash Flow Model for
the Proxy Group of Six C. A. Turner Water Companies and the
Proxy Group of Three Value Line (Standard Edition) Water Companies

Based upon Historical and Projected Growth in DPS, EPS, and BR+SV

	1	2	3	4	5
	Average Dividend Yield (1)	Dividend Growth Component (2)	Adjusted Dividend Yield (3)	Growth Rate (4)	Indicated Common Equity Cost Rate (5)
Proxy Group of Six C A. Turner Water Companies					
American States Water Co	3.5 %	0.1 %	3.6 %	4.2 %	7.8 %
Aqua America, Inc.	2.0	0.1	2.1	10.1	12.2
Artesian Resources Corp.	3.3	0.1	3.4	5.8	9.2
California Water Services Group	3.4	0.1	3.5	5.2	8.7
Middlesex Water Company	3.9	0.1	4.0	3.3	7.3
York Water Company	3.2	0.1	3.3	5.1	8.4
Average	3.2 %	0.1 %	3.3 %	5.8 %	10.0 % (6)
Proxy Group of Three Value Line (Standard Edition) Water Companies					
American States Water Co.	3.5 %	0.1 %	3.6 %	4.2 %	7.8 %
Aqua America, Inc.	2.0	0.1	2.1	10.1	12.2
California Water Services Group	3.4	0.1	3.5	5.2	8.7
Average	3.0 %	0.1 %	3.1 %	8.5 %	10.6 % (6)

Based upon Projected Growth in EPS

	1	2	3	4	5
	Average Dividend Yield (1)	Dividend Growth Component (2)	Adjusted Dividend Yield (3)	Growth Rate (4)	Indicated Common Equity Cost Rate (5)
Proxy Group of Six C A. Turner Water Companies					
American States Water Co	3.5 %	0.1 %	3.6 %	5.5 %	9.1 %
Aqua America, Inc.	2.0	0.1	2.1	9.4	11.5
Artesian Resources Corp	3.3	0.1	3.4	8.5	11.9
California Water Services Group	3.4	0.1	3.5	8.0	11.5
Middlesex Water Company	3.9	0.1	4.0	6.0	10.0
York Water Company	3.2	0.1	3.3	7.3	10.6
Average	3.2 %	0.1 %	3.3 %	7.5 %	10.8 % (6)
Proxy Group of Three Value Line (Standard Edition) Water Companies					
American States Water Co	3.5 %	0.1 %	3.6 %	5.5 %	9.1 %
Aqua America, Inc.	2.0	0.1	2.1	9.4	11.5
California Water Services Group	3.4	0.1	3.5	8.0	11.5
Average	3.0 %	0.1 %	3.1 %	7.0 %	10.7 % (6)
Conclusion					
Proxy Group of Six C A. Turner Water Companies					10.4 %
Proxy Group of Three Value Line (Standard Edition) Water Companies					10.6 %

Notes: (1) From page 20 of this Schedule, i.e., Schedule (PMA-6) (Updated).

(2) This reflects a growth rate component equal to one-half the conclusion of growth rate (from page 21 of this Schedule, i.e., page 1 of Schedule (PMA-7) (Updated)) x Column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment Thus, for American States Water Co., 3.5% x (1/2 x 5.5%) = 0.1%

(3) Column 1 + Column 2.

(4) From page 21 of this Schedule, i.e., page 1 of Schedule (PMA-7) (Updated).

(5) Column 3 + Column 4.

(6) Includes only those indicated common equity cost rates which are greater than 8.5%, i.e., 200 basis points above the prospective yield on A rated Moody's public utility bonds of 6.5% (from page 28 of this Schedule, i.e., page 1 of Schedule (PMA-9) (Updated))

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-5), Page 1 of 1
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 19 of 43

United Water Idaho, Inc.
Derivation of Dividend Yield for Use in the
Discounted Cash Flow Model

	Dividend Yield		
	Spot (04/29/04) (1)	Average of Last 3 Months (2)	Average Dividend Yield (3)
Proxy Group of Six C. A. Turner Water Companies			
American States Water Co.	3.5 %	3.5 %	3.5 %
Aqua America, Inc.	1.9	2.1	2.0
Artesian Resources Corp.	3.3	3.2	3.3
California Water Services Group	3.4	3.4	3.4
Middlesex Water Company	3.9	3.8	3.9
York Water Company	3.1	3.2	3.2
Average	3.2 %	3.2 %	3.2 %
Proxy Group of Three Value Line (Standard Edition) Water Companies			
American States Water Co.	3.5	3.5 %	3.5 %
Aqua America, Inc	1.9	2.1	2.0
California Water Services Group	3.4	3.4	3.4
Average	2.9 %	3.0 %	3.0 %

Notes: (1) The spot dividend yield is the current annualized dividend per share divided by the spot market price on 04/29/04.

(2) The average 3-month dividend yield was computed by relating the indicated annualized dividend rate and market price on the last trading day of each of the three months ended April 29, 2005

(3) Equal weight has been given to the 3-month average and spot dividend yield This provides recognition of current conditions, but does not place undue emphasis thereon.

Source of Information: Standard & Poor's Compustat Services, Inc., PC Plus
Research Insight Database
finance.yahoo.com

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-6), Page 1 of 1
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 20 of 43

United Water Idaho, Inc.
Historical and Projected Growth

	1	2	3	4	5	6		7	8	9	10	11	12	13
	Value Line Historical Five Year Growth Rate (1)		Five Year Historical BR + SV (2)	Value Line Projected 2002-04 to 2008-10 Growth Rate (1)		ThomsonFN / First Call Mean Consensus Projected Five Year Growth Rate		Average Projected Five Year Growth Rate in EPS (3)	Projected Five Year BR + SV (4)	Range of Growth Rates			Average of all Growth Rates	Average of Midpoint and Average of all Growth Rates (9)
	DPS	EPS		DPS	EPS	EPS	No. of Est			Low	High	Midpoint		
Proxy Group of Six C. A. Turner Water Companies														
American States Water Co	1.0 %	1.5 %	4.4 %	1.5 %	8.0 %	3.00 %	[1]	5.5 %	8.0 %	1.0 %	8.0 %	4.5 %	3.9 %	4.2 %
Aqua America, Inc.	6.5	8.5	15.8	7.0	9.0	9.75	[4]	9.4	6.8	6.5	15.6	11.1	9.0	10.1
Artesian Resources Corp.	4.0 (5)	3.5 (5)	5.4	NA	NA	8.50	[2]	8.5	NA	3.6	8.5	6.1	5.4	5.9
California Water Services Group	1.0	(6.5)	4.9	1.5	9.5	6.50	[4]	8.0	9.8	1.0 (6)	9.5	5.3	5.0	5.2
Middlesex Water Company	2.5	(0.1)	2.3	NA	NA	6.00	[1]	6.0	NA	(0.1)	6.0	3.0	3.6	3.3
York Water Company	3.6 (5)	5.7 (5)	3.3	NA	NA	7.25	[2]	7.3	NA	3.2	7.3	5.2	4.9	5.1
Average	3.1 %	4.8 % (6)	6.0 %	3.3 %	8.8 %	6.83 %		7.5 %	7.2 %	2.5 %	9.1 %	5.9 %	5.3 %	5.6 %
Proxy Group of Three Value Line (Standard Edition) Water Companies														
American States Water Co	1.0 %	1.5 %	4.4 %	1.5 %	8.0 %	3.00 %	[1]	5.5 %	8.0 %	1.0 %	8.0 %	4.5 %	3.9 %	4.2 %
Aqua America, Inc.	6.5	8.5	15.8	7.0	9.0	9.75	[4]	9.4	6.8	6.5	15.6	11.1	9.0	10.1
California Water Services Group	1.0	(6.5)	4.9	1.5	9.5	6.50	[4]	8.0	6.8	1.0 (6)	9.5 (6)	5.3	5.0	5.2
Average	2.8 %	5.0 % (6)	9.3 %	3.3 %	8.8 %	6.42 %		7.6 %	7.2 %	2.8 %	11.0 %	7.0 %	6.0 %	6.5 %

Notes
(1) As shown on pages 24 through 28 of this Schedule, i.e., pages 8 through 12 of Schedule (PMA-8) (Updated). Historical growth rates are five-year compound growth rates
(2) From page 2 of Schedule (PMA-8)
(3) Average of Columns 5 and 6.
(4) From page 23 of this Schedule, i.e., page 6 of Schedule (PMA-8) (Updated)
(5) Calculated using the same methodology as Value Line Investment Survey, i.e., three-year base periods ending 2004.
(6) Average of Columns 1, 2, 3, 4, 5, 6, and 8
(7) From Column 7.
(8) Excludes negatives.
(9) Average of Column 11 and Column 12.

Source of Information: Value Line Investment Survey, April 29, 2005
ThomsonFN First Call Earnings, ec.thomsonfn.com, updated April 30, 2005

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-8), Page 1 of 12
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 21 of 43

United Water Idaho, Inc.
Calculation of Projected BR + SV

	1	2	3	4	5	6	7	8	9	10	11
	Common Shares Outstanding (1) (000,000)			Projected 2008 - 2010 (1)							
	Actual 2004	Projected 2008-2010	S Factor (2)	High Stock Price	Low Stock Price	Book Value	Average Stock Price (3)	V Factor (4)	SV (5)	BR (6)	BR + SV (7)
Proxy Group of Six C. A. Turner Water Companies											
American States Water Co.	16.77	20.00	3.6 %	$35.00	$20.00	$17.65	$27.50	35.8 %	1.3 %	6.7 %	8.0 %
Aqua America, Inc.	95.38	100.00	1.0	35.00	25.00	9.70	30.00	67.7	0.7	6.1	6.8
Artesian Resources Corp.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
California Water Services Group	18.37	23.00	4.6	40.00	30.00	19.55	35.00	44.1	2.0	4.8	6.8
Middlesex Water Company	11.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
York Water Company	6.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average			3.1 %					49.2 %	1.3 %	5.9 %	7.2 %
Proxy Group of Three Value Line (Standard Edition) Water											
American States Water Co.	16.77	20.00	3.6 %	$35.00	$20.00	$17.65	$27.50	35.8 %	1.3 %	6.8 %	8.1 %
Aqua America, Inc.	95.38	100.00	1.0	35.00	25.00	9.70	30.00	67.7	0.7	6.0	6.7
California Water Services Group	18.37	23.00	4.6	40.00	30.00	19.55	35.00	44.1	2.0	4.9	6.9
Average			3.1 %					49.2 %	1.3 %	5.9 %	7.2 %

NA = Not Available

Notes:
(1) From pages 24 through 28 of this Schedule, i.e., pages 8 through 12 of Schedule (PMA-8) (Updated).
(2) The S Factor is the six or five year compound growth rate between the 2002 and 2007 (mid-point of 2006-2008 projection) common shares outstanding.
(3) The Average Stock Price is the average of column 4 and column 5.
(4) (1 - (column 6 / column 7))
(5) Column 3 * column 8.
(6) From page 23 column 14 of this Schedule, i.e., page 7 of Scheudle (PMA-8) (Updated).
(7) Column 9 + column 10.
(8) Excludes negatives

Source of Information: Value Line Investment Survey, April 29, 2005

United Water Idaho, Inc.
Projected Internal Growth Rate

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	2004			2008-2010					2008-2010					
	Common Equity (%) (1)	Total Capital ($ mill) (1)	Common Equity ($ mill) (2)	Common Equity (%) (1)	Total Capital ($ mill) (1)	Common Equity ($ mill) (3)	Annual Common Equity Growth Rate (4)	ROE Adjustment Factor (5)	Return on Common Equity (1)	Return on Average Common Equity (6)	EPS (1)	DPS (1)	Retention Ratio (7)	Projected Internal Growth (8)
Proxy Group of Six C. A. Turner Water Companies														
American States Water Co.	52.30 %	$480.40	$251.25	48.00 %	$735.00	$352.80	7.02 %	1.03 %	12.00 %	12.36 %	$2.10	$0.96	54.3 %	6.7 %
Aqua America, Inc.	50.00	1,497.30	748.65	60.00	1,615.00	969.00	5.30	1.03	13.00	13.39	1.25	0.68	45.6	6.1
Artesian Resources Corp.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
California Water Services Group	50.80	565.90	287.48	50.00	900.00	450.00	9.38	1.04	11.00	11.44	2.15	1.24	42.3	4.8
Middlesex Water Company	NA	NA	53.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
York Water Company	58.80	69.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average														5.9 %
Proxy Group of Three Value Line (Standard Edition) Water Companies														
American States Water Co.	52.30 %	$480.40	$251.25	52.30 %	$735.00	$384.41	8.88 %	1.04 %	12.00 %	12.48 %	$2.10	$0.96	54.3 %	6.8 %
Aqua America, Inc.	50.00	1,497.30	748.65	50.00	1,615.00	807.50	1.52	1.01	13.00	13.13	1.25	0.68	45.6	6.0
California Water Services Group	50.80	565.90	287.48	50.80	900.00	457.20	9.72	1.05	11.00	11.55	2.15	1.24	42.3	4.8
Average														5.9 %

NA = Not Available

Notes:
(1) From pages 24 through 28 of this Schedule, i.e., pages 6 through 12 of Schedule (PMA-8) (Updated).
(2) Column 1 * column 2.
(3) Column 4 * column 5.
(4) Five year compound growth rate in common equity from 2004 to 2008-2010 or ((((column 6 / column 3) ^ (1/5)) - 1)).
(5) 2 * ((1 + column 7) / (2 + column 7)) .
(6) Column 8 * column 9.
(7) 1 - (column 12 / column 11).
(8) Column 10 * column 13.

Source of Information: Value Line Investment Survey, April 29, 2005

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-8), Page 7 of 12
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 23 of 43

AMER. STATES WATER NYSE-AWR

RECENT PRICE 24.96 | P/E RATIO 19.8 (Trailing: 20.8 Median: 16.0) | RELATIVE P/E RATIO 1.11 | DIV'D YLD 3.6% | VALUE LINE

High:	14.7	14.0	16.1	17.1	19.5	26.5	25.3	26.4	29.0	29.0	26.8	27.6
Low:	10.2	10.5	12.5	13.5	14.1	14.8	16.7	19.0	20.3	21.6	20.8	24.3

TIMELINESS 4 Raised 11/7/03

SAFETY 3 New 2/4/00

TECHNICAL 3 Lowered 2/25/05

BETA .70 (1.00 = Market)

2008-10 PROJECTIONS

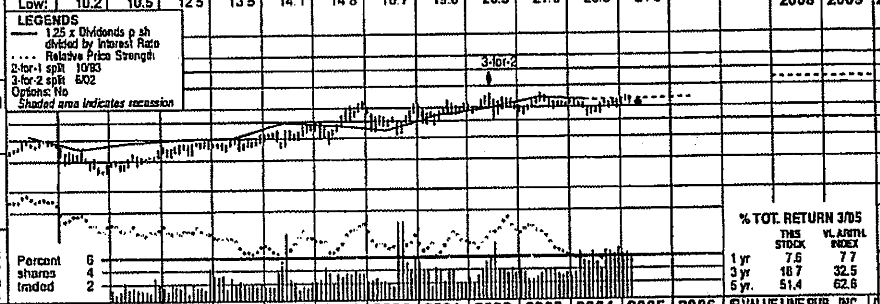
	Price	Gain	Ann'l Total Return
High	35	(+40%)	12%
Low	20	(-20%)	-1%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	2Q2004	3Q2004	4Q2004
to Buy	45	52	57
to Sell	35	25	29
Hld's(000)	5584	5038	5063



Target Price Range 2008 | 2009 | 2010

% TOT. RETURN 3/05

	THIS STOCK	VL ARITH INDEX
1 yr	7.6	7.7
3 yr	18.7	32.5
5 yr	51.4	62.8

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	© VALUE LINE PUB., INC.	08-10
9.12	9.58	9.15	10.10	9.27	10.43	11.03	11.37	11.44	11.02	12.91	12.17	13.06	13.78	13.98	13.60	14.20	14.70	Revenues per sh	16.00
1.44	1.49	1.78	1.81	1.67	1.68	1.75	1.75	1.85	2.04	2.26	2.20	2.53	2.54	2.08	2.22	2.65	2.95	"Cash Flow" per sh	3.70
.92	.94	1.19	1.15	1.11	.95	1.03	1.13	1.04	1.08	1.19	1.28	1.35	1.34	.78	1.05	1.35	1.55	Earnings per sh A	2.10
.69	.72	.73	.77	.79	.80	.81	.82	.83	.84	.85	.86	.87	.87	.88	.89	.90	.91	Div'd Decl'd per sh B■	.96
2.46	2.53	2.77	2.31	1.90	2.43	2.19	2.40	2.58	3.11	4.30	3.03	3.18	2.68	3.76	5.02	5.15	5.25	Cap'l Spending per sh	5.50
7.31	7.54	8.39	8.85	9.95	10.07	10.29	11.01	11.24	11.48	11.82	12.74	13.22	14.05	13.97	14.98	15.20	15.35	Book Value per sh	17.65
9.39	9.43	9.91	9.96	11.71	11.77	11.77	13.33	13.44	13.44	13.44	15.12	16.12	15.18	15.21	16.77	17.25	18.00	Common Shs Outst'g C	20.00
9.7	10.2	8.8	10.6	13.4	12.8	11.6	12.6	14.5	15.5	17.1	15.9	16.7	18.3	31.9	23.2	Bold figures are	Value Line	Avg Ann'l P/E Ratio	13.0
.73	.76	.56	.64	.79	.84	.78	.79	.84	.81	.97	1.03	.86	1.00	1.82	1.23	estimates		Relative P/E Ratio	.85
7.7%	7.5%	7.0%	6.3%	5.3%	6.6%	6.7%	5.8%	5.5%	5.0%	4.2%	4.2%	3.9%	3.6%	3.5%	3.7%			Avg Ann'l Div'd Yield	3.5%
						129.8	151.5	153.8	148.1	173.4	184.0	197.5	209.2	212.7	228.0	245	265	Revenues ($mill)	320
						12.2	13.5	14.1	14.6	16.1	18.0	20.4	20.3	11.9	16.4	23.0	28.0	Net Profit ($mill)	42.0
						41.9%	43.3%	41.1%	40.9%	46.0%	45.7%	43.0%	38.9%	43.5%	37.7%	40.0%	40.0%	Income Tax Rate	40.0%
						--	--	--	--	--	--	--	--	--	--	Nil	Nil	AFUDC % to Net Profit	Nil
						46.6%	41.9%	43.0%	43.6%	51.0%	47.5%	54.9%	52.0%	52.0%	47.7%	51.0%	51.0%	Long-Term Debt Ratio	52.0%
						52.5%	57.3%	56.3%	55.7%	48.4%	51.9%	44.7%	48.0%	48.0%	52.3%	49.0%	49.0%	Common Equity Ratio	48.0%
						230.6	256.0	268.4	277.1	328.2	371.1	447.6	444.4	442.3	480.4	535	600	Total Capital ($mill)	735
						335.0	357.8	383.6	414.8	449.6	509.1	539.8	563.3	602.3	664.2	710	770	Net Plant ($mill)	915
						7.2%	6.9%	6.9%	7.0%	6.6%	6.4%	6.1%	6.5%	4.6%	4.9%	7.5%	8.0%	Return on Total Cap'l	7.5%
						9.9%	9.0%	9.2%	9.4%	10.0%	9.2%	10.1%	9.5%	5.6%	6.5%	9.0%	9.5%	Return on Shr. Equity	12.0%
						10.0%	9.0%	9.2%	9.4%	10.1%	9.3%	10.1%	9.5%	5.6%	6.5%	9.0%	9.5%	Return on Com Equity	12.0%
						2.1%	2.4%	1.8%	2.1%	2.9%	3.0%	3.6%	3.3%	NMF	NMF	2.5%	4.0%	Retained to Com Eq	6.5%
						79%	73%	80%	78%	72%	68%	65%	65%	113%	91%	68%	59%	All Div'ds to Net Prof	46%

CAPITAL STRUCTURE as of 12/31/04
Total Debt $274.8 mill. Due in 5 Yrs $65.0 mill.
LT Debt $228.9 mill. LT Interest $18.0 mill.
(Total interest coverage: 2.6x)

Leases, Uncapitalized: None
Pension Assets-12/04 $51.3 mill.
Oblig. $70.3 mill.
Pfd Stock None. Pfd Div'd None.

Common Stock 16,768,396 shs
as of 3/11/05
MARKET CAP: $425 million (Small Cap)

CURRENT POSITION ($MILL.)	2002	2003	12/31/04
Cash Assets	18.4	12.8	4.3
Receivables	10.8	11.8	14.3
Inventory (Avg Cst)	.9	1.4	1.5
Other	21.7	32.4	32.9
Current Assets	51.8	58.4	53.0
Accts Payable	11.6	18.8	18.2
Debt Due	48.3	56.8	45.9
Other	19.6	20.3	22.2
Current Liab.	79.5	95.90	86.3
Fix. Chg. Cov.	285%	255%	200%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '02-'04 to '08-'10
Revenues	3.5%	4.0%	2.0%
"Cash Flow"	3.0%	5.0%	5.0%
Earnings	--	1.5%	8.0%
Dividends	1.5%	1.0%	1.5%
Book Value	4.5%	4.0%	3.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	44.5	52.8	61.6	50.3	209.2
2003	46.7	51.8	63.7	50.5	212.7
2004	46.7	59.3	69.0	53.0	228.0
2005	50.0	63.0	73.0	59.0	245
2006	55.0	68.0	78.0	64.0	265

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.25	.36	.50	.23	1.34
2003	.20	.19	.51	d.12	.78
2004	.08	.30	.52	.16	1.05
2005	.20	.35	.55	.25	1.35
2006	.25	.40	.60	.30	1.55

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2001	.217	.217	.217	.217	.87
2002	.217	.217	.217	.221	.87
2003	.221	.221	.221	.221	.88
2004	.221	.221	.221	.225	.89
2005	.225				

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Southern California Water Company, it supplies water to 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to approximately 22,000 customers in the city of Big Bear Lake and in areas of San Bernardino County. Acquired Chaparral City Water of Arizona (10/00); 11,400 customers. Has roughly 525 employees. Off. & dir. own 2.4% of common stock (4/05 Proxy). Chairman: Lloyd Ross. President & CEO: Floyd Wicks. Incorporated: CA. Add.: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel.: 909-394-3600. Web: www.aswater.com.

An improving regulatory environment is painting a positive backdrop for American States Water. Indeed, more favorable and timely rate request decisions by the California Public Utility Commission (CPUC) helped the company post $0.16 share net in the fourth quarter, versus a loss of $0.12 last year, despite unseasonably rainy weather. We look for the current regulatory landscape to get even better at the urging of Governor Schwarzenegger. He recently replaced two regulatory commissioners, considered to be antagonists of rate relief for utilities, with more business friendly members. The CPUC has already approved rate increases for Region I and II customer areas, which should boost AWR's top line by more than $5 million. This relief along with more normal weather ought to fuel better-than 25% earnings growth this year.

Earnings growth should tail off a bit in 2006. We are concerned that the company's strapped financials will become a hindrance to growth. Infrastructure costs are growing higher everyday and do not look as though they will be receding anytime soon. With only minimal cash on hand, AWR will likely be forced to sell stock and debt to fund these expenditures. Such a development would undoubtedly dilute earnings, despite brighter top-line prospects. We, therefore, look for American's earnings growth rate to slow to 15% in 2006. However, there might be a catalyst on the horizon. The utility filed a general rate case for region III during the first quarter. Region III is its largest service area with roughly 40% of AWR's customer base. The company is requesting a 24% revenue increase, effective January 2006. If a favorable ruling is handed down, our share-net figure would probably prove too conservative.

Most investors will want to look elsewhere. AWR stock offers minimal appreciation potential to 2008-2010 and is ranked 4 (Below Average) for Timeliness. Although consolidating industry trends could provide some opportunities for the company, a dearth of funds limits the likelihood of such measures. That said, income-oriented investors might want to consider the issue because AWR offers an above average dividend yield.

Andre J. Costanza *April 29, 2005*

(A) Primary earnings. Excludes nonrecurring gains: '91, 73¢; '92, 13¢; '04, 14¢. Next earnings report due late July. Quarterly earnings may not sum due to change in share count

(B) Dividends historically paid in early-March, June, September, December ■ Div'd reinvestment plan available.

(C) In millions, adjusted for splits

Company's Financial Strength	B+
Stock's Price Stability	85
Price Growth Persistence	80
Earnings Predictability	70

© 2005, Value Line Publishing, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 24 of 43

AQUA AMERICA NYSE-WTR

RECENT PRICE 25.90 | P/E RATIO 27.8 (Trailing: 30.1 Median: 21.0) | RELATIVE P/E RATIO 1.55 | DIV'D YLD 2.0% | VALUE LINE

TIMELINESS 4 Lowered 6/4/04
SAFETY 3 Lowered 8/1/03
TECHNICAL 3 Lowered 3/4/05
BETA .75 (1.00 = Market)

High:	5.0	5.5	7.6	11.4	15.4	15.4	16.0	19.7	20.0	22.4	24.6	27.0					
Low:	4.4	4.4	5.2	5.9	9.7	10.1	8.4	12.5	12.8	15.8	18.9	23.3					

Target Price Range 2008 | 2009 | 2010

2008-10 PROJECTIONS

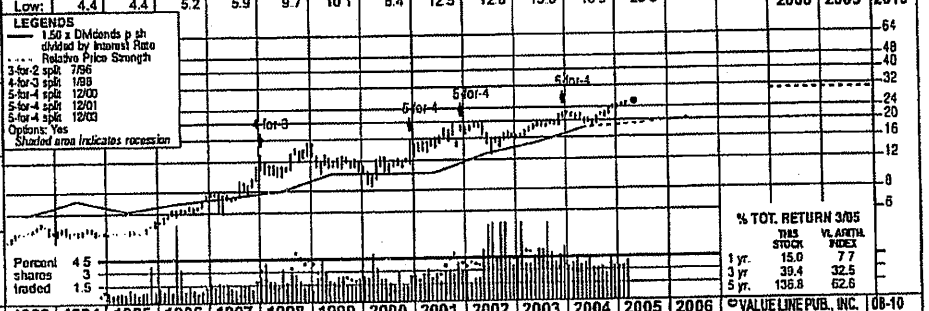
	Price	Gain	Ann'l Total Return
High	35	(+35%)	9%
Low	25	(+5%)	1%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	1	0	0	0	0	0	0	0	0
Options	0	0	0	0	1	0	0	0	1
to Sell	1	0	1	0	0	0	0	0	2

Institutional Decisions

	2Q2004	3Q2004	4Q2004
to Buy	90	90	103
to Sell	62	45	49
Hld's(000)	26345	26282	27052



% TOT. RETURN 3/05

	THIS STOCK	VL ARITH. INDEX
1 yr.	15.0	7.7
3 yr.	39.4	32.5
5 yr.	136.8	62.6

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	© VALUE LINE PUB., INC.	08-10
4.53	2.70	2.85	2.43	2.27	2.42	2.45	2.48	2.69	2.79	3.21	3.29	3.59	3.79	3.97	4.63	5.00	5.30	Revenues per sh	6.50
.65	.58	.59	.52	.56	.56	.63	.67	.74	.81	.96	1.01	1.15	1.26	1.28	1.46	1.55	1.65	"Cash Flow" per sh	1.90
.27	.33	.33	.31	.33	.35	.39	.40	.46	.53	.56	.62	.68	.72	.76	.85	.95	1.05	Earnings per sh A	1.25
.24	.26	.26	.27	.27	.28	.29	.30	.32	.34	.36	.38	.40	.43	.46	.49	.52	.56	Div'd Decl'd per sh B■	.68
1.15	1.01	.72	.80	.63	.61	.69	.64	.77	1.09	1.20	1.55	1.45	1.60	1.76	2.05	1.85	1.80	Cap'l Spending per sh	1.85
2.92	2.80	2.76	2.79	3.05	3.21	3.28	3.59	3.79	4.28	4.57	5.13	5.53	5.81	7.12	7.85	8.05	8.45	Book Value per sh	9.70
29.45	30.48	31.06	36.40	44.55	44.83	47.81	49.31	50.60	54.15	80.10	83.67	85.48	84.90	92.59	95.38	98.00	98.00	Common Shs Outst'g C	100.00
12.9	10.2	10.8	12.5	14.4	13.5	12.0	15.6	17.6	22.5	21.2	18.2	23.6	23.6	24.5	25.1	Bold figures are		Avg Ann'l P/E Ratio	23.0
.98	.76	.69	.76	.85	.89	.80	.98	1.03	1.17	1.21	1.18	1.21	1.29	1.40	1.34	Value Line		Relative P/E Ratio	1.55
6.9%	7.7%	7.2%	6.6%	5.9%	6.0%	6.2%	4.9%	3.9%	2.9%	3.0%	3.3%	2.5%	2.5%	2.5%	2.3%	estimates		Avg Ann'l Div'd Yield	2.4%

CAPITAL STRUCTURE as of 12/31/04
Total Debt $884.2 mill. Due in 5 Yrs $221.6 mill
LT Debt $748.9 mill. LT Interest $40.0 mill
(Total interest coverage: 3.7x)

Pension Assets-12/04 $115.3 mill. Oblig. $171.1 mill.

Pfd Stock None

Common Stock 95,475,161 shares as of 2/18/05

MARKET CAP: $2.5 billion (Mid Cap)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006		08-10
117.0	122.5	136.2	151.0	257.3	275.5	307.3	322.0	367.2	442.0	490	525	Revenues ($mill)	650
19.0	19.8	23.2	28.8	45.0	50.7	58.5	62.7	67.3	80.0	95.0	105.0	Net Profit ($mill)	125
40.4%	41.4%	40.6%	40.5%	38.4%	38.9%	39.3%	38.5%	39.3%	39.4%	40.0%	40.0%	Income Tax Rate	40.0%
1.6%	--	--	--	--	--	--	--	2.2%	3.2%	3.5%	3.5%	AFUDC % to Net Profit	4.0%
51.9%	54.1%	54.4%	52.7%	52.9%	52.0%	52.2%	54.2%	51.4%	50.0%	48.0%	46.0%	Long-Term Debt Ratio	40.0%
46.4%	44.0%	44.8%	46.6%	46.7%	47.8%	47.7%	45.8%	48.6%	50.0%	52.0%	54.0%	Common Equity Ratio	60.0%
338.0	401.7	427.2	496.6	782.7	901.1	990.4	1076.2	1355.7	1497.3	1525	1550	Total Capital ($mill)	1615
436.9	502.9	534.5	609.8	1135.4	1251.4	1368.1	1490.8	1824.3	2069.8	2125	2175	Net Plant ($mill)	2325
7.7%	6.8%	7.4%	7.6%	7.6%	7.4%	7.8%	7.6%	6.4%	6.7%	7.5%	8.0%	Return on Total Cap'l	8.5%
11.7%	10.7%	11.9%	12.3%	12.2%	11.7%	12.3%	12.7%	10.2%	10.7%	12.0%	12.5%	Return on Shr. Equity	13.0%
11.7%	11.2%	12.0%	12.4%	12.3%	11.7%	12.4%	12.7%	10.2%	10.7%	12.0%	12.5%	Return on Com Equity	13.0%
3.5%	2.8%	3.6%	4.5%	4.3%	4.7%	5.1%	5.2%	4.2%	4.6%	5.5%	6.0%	Retained to Com Eq	6.0%
71%	75%	70%	64%	65%	60%	59%	59%	59%	57%	55%	53%	All Div'ds to Net Prof	55%

CURRENT POSITION ($MILL.)	2002	2003	12/31/04
Cash Assets	49.7	39.2	13.1
Receivables	57.7	62.3	64.5
Inventory (Avg Cst)	4.6	5.8	6.9
Other	2.7	5.1	5.6
Current Assets	114.7	112.4	90.1
Accts Payable	31.1	32.3	23.5
Debt Due	149.4	135.6	135.3
Other	46.0	63.9	58.6
Current Liab.	226.5	232.0	217.4
Fix. Chg. Cov.	347%	344%	364%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '02-'04 to '08-'10
Revenues	5.5%	7.5%	8.0%
"Cash Flow"	9.5%	9.5%	7.0%
Earnings	9.0%	8.5%	9.0%
Dividends	5.5%	6.5%	7.0%
Book Value	8.5%	10.5%	6.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	71.7	76.6	91.9	81.8	322.0
2003	80.5	83.4	102.1	101.2	367.2
2004	99.8	106.5	120.3	115.4	442.0
2005	110	120	130	130	490
2006	120	130	140	135	525

Cal-endar	EARNINGS PER SHARE A D Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.14	.16	.25	.17	.72
2003	.15	.18	.24	.19	.76
2004	.17	.19	.26	.24	.85
2005	.19	.23	.27	.26	.95
2006	.21	.25	.30	.29	1.05

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2001	.099	.099	.099	.106	.40
2002	.106	.106	.106	.112	.43
2003	.112	.112	.112	.12	.46
2004	.12	.12	.12	.13	.49
2005	.13				

BUSINESS: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately 2.5 million residents in Pennsylvania, Ohio, New Jersey, Illinois, Maine, North Carolina, Texas, Florida, Kentucky, and five other states. Divested three of four non-water businesses in '91; telemarketing group in '93; and others. Acquired Consumers Water, 4/99; AquaSource, 7/03; and others. Water supply revenues '04: residential, 60%; commercial, 15%; industrial & other, 25%. Officers and directors own 1.5% of the common stock (4/05 Proxy). Chairman & Chief Executive Officer: Nicholas DeBenedictis. Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Telephone: 610-525-1400. Internet: www.aquaamerica.com.

We look for Aqua America to realize an earnings gain of about 12% in the current year, following similar increases in 2004. Continued growth will likely stem from further acquisitions and some rate increases. The company could also benefit from a long hot summer, as reservoirs in the Northeast are at or near capacity thanks to a wet winter, which will enable the utility to meet customer demand from its own facilities.

Management has been fairly successful in securing rate increases. A pending North Carolina case will yield a $3.2 million increase if granted in full. We believe a realistic decision will be reached, based on previous outcomes in that state. Utility commissions are more apt to award increases due to rising capital costs rather than operating expenses. Its ability to lower the ratio of expenses to revenues impresses the commission.

The company is further expanding through acquisitions. WTR completed eight purchases in the first quarter of 2005. We expect a similar rate of expansion throughout the year. Most of these operations are located in Pennsylvania and New Jersey, areas in which the company already has a strong presence. It is likely to file for additional rate hikes, reflecting the cost of hose acquisitions. Also, three of these purchases represent Aqua's first venture into the specialized area of wastewater treatment. It will enable the company to provide internal sludge hauling and collection system maintenance for its own treatment facilities in southeastern Pennsylvania. If this allows tighter cost control, it may be applied to other geographic regions as opportunity allows, perhaps providing a new source of earnings.

This stock's Price/Earnings ratio is somewhat above its 15-year median. Consequently, despite decent earnings growth prospects, this equity's appreciation potential to 2008–2010 is unattractive. But acquisitions of additional small water utilities will likely continue. The company has typically been able to increase returns on those operations, due to its larger size and lower capital costs. Accordingly, our projections might well prove conservative.

Marc Denton *April 29, 2005*

(A) Primary shares outstanding through '96; diluted thereafter. Excl. nonrec. gains (losses): '90, (38¢); '91, (34¢); '92, (38¢); '99, (11¢); '00, 2¢; '01, 2¢; '02, 5¢; '03, 4¢. Excl. gain from disc. operations: '96, 2¢. Next earnings report due early May. (B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd reinvestment plan available (5% discount). (C) In millions, adjusted for stock splits. (D) May not sum due to rounding.

Company's Financial Strength	B+
Stock's Price Stability	85
Price Growth Persistence	95
Earnings Predictability	100

© 2005, Value Line Publishing, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 25 of 43

CALIFORNIA WATER NYSE-CWT

RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD	
33.30	21.5	(Trailing: 22.8 / Median: 17.0)	1.20	3.4%	VALUE LINE

TIMELINESS 4 Lowered 2/4/05
SAFETY 2 Lowered 8/11/95
TECHNICAL 2 Raised 4/29/05
BETA .75 (1.00 = Market)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
High:	20.5	17.6	21.9	29.6	33.8	32.0	31.4	28.6	26.9	31.4	37.9	37.8
Low:	14.7	14.8	16.3	18.6	20.8	22.6	21.5	22.9	20.5	23.7	26.1	31.2

Target Price Range 2008 | 2009 | 2010

2008-10 PROJECTIONS

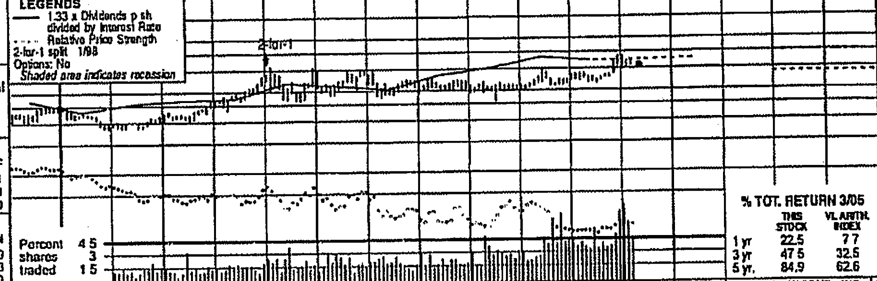
	Price	Gain	Ann'l Total Return
High	40	(+20%)	8%
Low	30	(-10%)	2%

Insider Decisions

	J	J	A	S	O	N	D	J	F
to Buy	0	0	0	0	0	0	0	0	1
Options	0	0	0	0	0	0	5	0	0
to Sell	0	0	0	0	0	1	5	0	0

Institutional Decisions

	2Q2004	3Q2004	4Q2004
to Buy	40	38	49
to Sell	30	28	28
Hld's(000)	4047	3994	4419



% TOT. RETURN 3/05

	THIS STOCK	VL ARITH. INDEX
1 yr	22.5	7.7
3 yr	47.5	32.5
5 yr.	84.9	62.6

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	© VALUE LINE PUB., INC.	08-10
10.33	10.93	11.18	12.29	13.34	12.59	13.17	14.48	15.48	14.76	15.96	16.16	16.26	17.33	16.37	17.18	*18.15*	*18.95*	Revenues per sh	*21.75*
1.89	1.97	1.98	1.92	2.25	2.02	2.07	2.50	2.92	2.60	2.75	2.52	2.20	2.65	2.51	2.84	*3.10*	*3.40*	"Cash Flow" per sh	*4.10*
1.20	1.25	1.21	1.09	1.35	1.22	1.17	1.51	1.83	1.45	1.53	1.31	.94	1.25	1.21	1.46	*1.60*	*1.75*	Earnings per sh A	*2.15*
.84	.87	.90	.93	.96	.99	1.02	1.04	1.06	1.07	1.09	1.10	1.12	1.12	1.12	1.13	*1.14*	*1.15*	Div'd Decl'd per sh B ■	*1.24*
2.40	2.36	3.03	3.09	2.53	2.26	2.17	2.83	2.61	2.74	3.44	2.45	4.09	5.82	4.39	3.73	*3.85*	*3.95*	Cap'l Spending per sh	*4.15*
9.66	10.04	10.35	10.51	10.90	11.56	11.72	12.22	13.00	13.38	13.43	12.90	12.95	13.12	14.44	15.65	*16.00*	*16.90*	Book Value per sh C	*19.55*
11.38	11.38	11.38	11.38	11.38	12.49	12.54	12.62	12.62	12.62	12.94	15.15	15.18	15.18	16.93	18.37	*18.75*	*19.25*	Common Shs Outst'g D	*23.00*
10.6	10.4	11.2	14.1	13.6	14.1	13.7	11.9	12.6	17.8	17.8	19.6	27.1	19.8	22.1	20.1	*Bold figures are*	*Value Line*	Avg Ann'l P/E Ratio	*16.0*
.80	.77	.72	.86	.80	.92	.92	.75	.73	.93	1.01	1.27	1.39	1.08	1.26	1.06	*estimates*		Relative P/E Ratio	*1.05*
6.6%	6.7%	6.6%	6.1%	5.2%	5.8%	6.4%	5.8%	4.6%	4.2%	4.0%	4.3%	4.4%	4.5%	4.2%	5.0%			Avg Ann'l Div'd Yield	*3.5%*
						165.1	182.8	195.3	186.3	206.4	244.8	246.8	263.2	277.1	315.6	*340*	*365*	Revenues ($mill)	*500*
						14.7	19.1	23.3	18.4	19.9	20.0	14.4	19.1	19.4	26.0	*30.0*	*35.0*	Net Profit ($mill)	*50.0*
						40.1%	38.9%	37.4%	36.4%	37.9%	42.3%	39.4%	39.7%	39.9%	39.6%	*40.0%*	*40.0%*	Income Tax Rate	*40.0%*
						--	--	--	--	--	--	--	--	--	--	*Nil*	*Nil*	AFUDC % to Net Profit	*Nil*
						49.2%	47.4%	45.4%	44.2%	46.9%	48.9%	50.3%	55.3%	50.2%	48.6%	*49.5%*	*49.5%*	Long-Term Debt Ratio	*49.5%*
						49.7%	51.4%	53.6%	54.7%	52.0%	50.2%	48.6%	44.0%	49.1%	50.6%	*50.0%*	*50.0%*	Common Equity Ratio	*50.0%*
						296.0	299.9	306.7	308.6	333.8	388.8	402.7	453.1	498.4	565.9	*600*	*650*	Total Capital ($mill)	*900*
						422.2	443.6	460.4	478.3	515.4	582.0	624.3	697.0	759.5	800.3	*850*	*900*	Net Plant ($mill)	*1050*
						6.8%	8.3%	9.4%	7.8%	7.8%	6.8%	5.3%	6.9%	5.6%	6.1%	*6.5%*	*7.0%*	Return on Total Cap'l	*7.5%*
						9.8%	12.1%	13.9%	10.7%	11.2%	10.0%	7.2%	9.4%	7.8%	8.9%	*10.0%*	*10.5%*	Return on Shr. Equity	*11.0%*
						9.9%	12.3%	14.1%	10.8%	11.4%	10.1%	7.2%	9.5%	7.9%	9.0%	*10.0%*	*10.5%*	Return on Com Equity	*11.0%*
						1.2%	3.8%	6.0%	2.8%	3.5%	1.8%	NMF	1.0%	.7%	1.8%	*3.0%*	*4.0%*	Retained to Com Eq	*5.0%*
						88%	69%	58%	74%	70%	82%	119%	90%	91%	80%	*71%*	*63%*	All Div'ds to Net Prof	*57%*

CAPITAL STRUCTURE as of 12/31/04
Total Debt $274.8 mill. Due in 5 Yrs $11.0 mill.
LT Debt $274.8 mill. LT Interest $18.5 mill.

(LT interest earned: 3.8x; total int. cov.: 3.4x)

Pension Assets-12/04 $75.1 mill.
Oblig. $87.6 mill.
Pfd Stock $3.5 mill. Pfd Div'd $.15 mill.
139,000 shares, 4.4% cumulative ($25 par).

Common Stock 18,372,496 shs.
as of 3/4/05
MARKET CAP: $600 million (Small Cap)

CURRENT POSITION ($MILL.)	2002	2003	12/31/04
Cash Assets	1.1	2.9	18.8
Other	41.9	40.6	51.6
Current Assets	43.0	43.5	70.4
Accts Payable	23.7	23.8	19.8
Debt Due	24.8	7.3	--
Other	43.0	32.5	36.4
Current Liab.	91.5	63.6	57.2
Fix. Chg. Cov.	250%	218%	200%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '02-'04 to '08-'10
Revenues	3.0%	2.0%	4.0%
"Cash Flow"	2.0%	-1.5%	7.5%
Earnings	-0.5%	-6.5%	9.5%
Dividends	2.0%	1.0%	1.5%
Book Value	2.5%	1.0%	5.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	51.7	69.2	81.4	60.9	263.2
2003	51.3	68.0	88.2	69.6	277.1
2004	60.2	88.9	97.1	69.4	315.6
2005	*65.0*	*90.0*	*105*	*80.0*	*340*
2006	*75.0*	*95.0*	*110*	*85.0*	*365*

Cal-endar	EARNINGS PER SHARE A E Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.12	.43	.50	.20	1.25
2003	d.05	.30	.53	.41	1.21
2004	.08	.59	.59	.20	1.46
2005	*.10*	*.60*	*.65*	*.25*	*1.60*
2006	*.15*	*.63*	*.67*	*.30*	*1.75*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2001	.279	.279	.279	.279	1.12
2002	.28	.28	.28	.28	1.12
2003	.281	.281	.281	.281	1.12
2004	.283	.283	.283	.283	1.13
2005	.285				

BUSINESS: California Water Service Group provides regulated and nonregulated water service to over 2 million people (451,800 customers) in 75 communities in California, Washington, and New Mexico. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired National Utility Company (5/04); Rio Grande Corp. (11/00). Revenue breakdown, '04: residential, 70%; business, 18%; public authorities, 5%; industrial, 4%; other, 3%. '04 reported deprec. rate: 2.3%. Has about 837 employees. Chairman: Robert W. Foy. President & CEO: Peter C. Nelson. Inc.: Delaware. Address: 1720 North First Street, San Jose, California 95112-4598. Telephone: 408-367-8200. Internet: www.calwater.com.

Changes within the California Public Utility Commission (CPUC) paint a brighter picture for California Water Service Group going forward. The company has been forced to deal with regulatory delays from the board for years, as general rate case requests often remained in limbo for up to two years. However, two of the main adversaries to rate increase requests stepped down earlier this year and were replaced with more business-friendly candidates. The landscape has already improved, as CWT received approval to increase rates on an annual basis by $4.1 million effective January, 2005. The company is currently awaiting a decision on its 2004 general rate case for eight districts, totaling $26.5 million.

However, there are some concerns looming. Earlier this year, the Office of Ratepayer Advocates (ORA) took issue with CWT's land sale program. The CPUC branch, responsible for looking out for ratepayers, charged that CWT violated the California Water Utility Infrastructure Improvement Act of 1995, challenging its land sales since 1996. It recommended that the company pay a small fine and that an unspecified portion of the $19.2 million in gains from these sales be allocated for the benefit of the ratepayers. The company denies the charges. The CPUC does not have to take the ORA's advice, but this is the first case of this nature, making timeline and outcome of a resolution difficult to pin down. We expect the claim to slow earnings growth until the matter is concluded, though. As a result, we have lowered our 2005 earnings estimate by a dime, to $1.60 a share.

Growth-minded investors will want to look elsewhere. These untimely shares are likely to underperform the broad market out to late decade. Besides the uncertainty surrounding the motion by the ORA, profits will likely be thwarted by ongoing share and debt issuances, a product of rising infrastructure costs.

However, Cal may interest those looking for some income. The company offers an above-average dividend yield. And the recent dividend hike marks the 38th consecutive year that it has increased its payout. Risk-averse investors should like the stock's 2 (Above Average) Safety rank.

Andre J. Costanza *April 29, 2005*

(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (7¢); '01, 4¢; Q2 '02, 8¢. Next earnings report due late July.
(B) Dividends historically paid in mid-Feb., May, Aug., Nov. ■ Div'd reinvestment plan available.
(C) Incl. deferred charges. In '04: $54.3 mill., $2.96/sh.
(D) In millions, adjusted for split.
(E) May not total due to change in shares.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	95
Earnings Predictability	65

© 2005, Value Line Publishing, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 26 of 43

MIDDLESEX WATER NDQ-MSEX

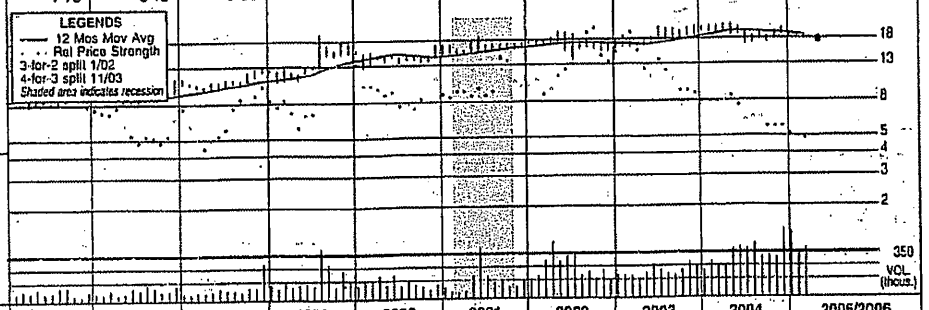
RECENT PRICE	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE
17.68	24.2	1.27	3.8%	4705

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	High / Low
High	9.63	11.25	12.88	19.75	16.97	18.73	20.04	21.23	21.81	19.16	
Low	7.75	8.19	9.63	10.50	12.50	14.69	13.73	15.77	16.65	17.53	

RANKS

PERFORMANCE	3	Average
Technical	3	Average
SAFETY	2	Above Average
BETA .65		(1.00 = Market)

Financial Strength	B++
Price Stability	95
Price Growth Persistence	75
Earnings Predictability	70



© VALUE LINE PUBLISHING, INC.	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005/2006
SALES PER SH	4.52	4.72	4.39	5.35	5.39	5.87	5.98	6.12	6.25	
"CASH FLOW" PER SH	.94	1.02	1.02	1.19	.99	1.18	1.20	1.15	1.28	
EARNINGS PER SH	.60	.67	.71	.76	.51	.66	.73	.61	.73	79[A,D]/NA
DIV'DS DECL'D PER SH	.55	.57	.58	.60	.61	.62	.63	.65	.66	
CAP'L SPENDING PER SH	.73	1.20	2.68	2.33	1.32	1.25	1.59	1.87	2.63	
BOOK VALUE PER SH	5.85	6.00	6.80	6.95	6.98	7.11	7.39	7.60	8.38	
COMMON SHS OUTST'G (MILL)	8.41	8.54	9.82	10.00	10.11	10.17	10.36	10.48	11.36	
AVG ANN'L P/E RATIO	14.4	13.4	15.2	17.6	28.7	24.6	23.5	30.0	26.4	22.4/NA
RELATIVE P/E RATIO	.90	.77	.79	1.00	1.87	1.26	1.28	1.71	1.39	
AVG ANN'L DIV'D YIELD	6.4%	6.3%	5.4%	4.4%	4.2%	3.8%	3.7%	3.5%	3.4%	
SALES ($MILL.)	38.0	40.3	43.1	53.5	54.5	59.6	61.9	64.1	71.0	
OPERATING MARGIN	36.0%	37.2%	37.0%	33.9%	32.2%	47.2%	47.1%	44.0%	44.4%	
DEPRECIATION ($MILL.)	2.9	3.1	3.8	4.3	4.9	5.3	5.0	5.6	6.4	
NET PROFIT ($MILL.)	5.2	5.9	6.5	7.9	5.3	7.0	7.8	6.6	8.4	
INCOME TAX RATE	32.8%	34.9%	31.5%	28.8%	33.1%	34.8%	33.3%	32.8%	31.1%	
NET PROFIT MARGIN	13.6%	14.5%	15.1%	14.7%	9.7%	11.7%	12.5%	10.3%	11.9%	
WORKING CAP'L ($MILL.)	2.0	d2.9	14.6	6.8	d2.7	d.9	d9.3	d13.3	d11.8	
LONG-TERM DEBT ($MILL.)	53.0	52.9	78.0	82.3	81.1	88.1	87.5	97.4	115.3	
SHR. EQUITY ($MILL.)	51.9	56.2	71.7	74.6	74.7	76.4	80.6	83.7	99.2	
RETURN ON TOTAL CAP'L	6.4%	6.8%	5.7%	6.4%	4.9%	5.6%	6.0%	5.0%	5.1%	
RETURN ON SHR. EQUITY	10.0%	10.4%	9.1%	10.6%	7.1%	9.1%	9.6%	7.9%	8.5%	
RETAINED TO COM EQ	.8%	1.7%	1.8%	2.5%	NMF	.5%	1.3%	NMF	.9%	
ALL DIV'DS TO NET PROF	92%	85%	81%	78%	121%	94%	87%	106%	90%	

Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.

[A]No. of analysts changing earn. est. in last 16 days: 0 up, 0 down, consensus 5-year earnings growth 6.0% per year. [D]Based upon one analyst's estimate.

ANNUAL RATES

of change (per share)	5 Yrs	1 Yr.
Sales	5.0%	2.0%
"Cash Flow"	2.5%	12.0%
Earnings	-0.5%	19.5%
Dividends	2.5%	2.0%
Book Value	3.5%	10.0%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/02	14.3	15.5	17.0	15.1	61.9
12/31/03	15.0	16.0	17.6	15.5	64.1
12/31/04	15.9	17.8	19.8	17.5	71.0
12/31/05					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/01	.08	.18	.23	.17	.66
12/31/02	.12	.18	.24	.19	.73
12/31/03	.11	.17	.22	.11	.61
12/31/04	.09	.16	.29	.19	.73
12/31/05	.12	.24	.28		

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2002	.158	.158	.158	.161	.64
2003	.161	.161	.161	.165	.65
2004	.165	.165	.165	.168	.66
2005	.168				

INSTITUTIONAL DECISIONS

	2Q'04	3Q'04	4Q'04
to Buy	19	12	16
to Sell	13	17	12
Hld's(000)	1911	1882	1861

ASSETS ($mill.)	2002	2003	12/31/04
Cash Assets	2.9	3.0	4.0
Receivables	9.2	5.7	9.9
Inventory (Avg cost)	1.2	1.4	1.2
Other	7.0	4.3	.9
Current Assets	20.3	14.4	16.0
Property, Plant & Equip, at cost	259.3	278.4	308.4
Accum Depreciation	47.9	47.5	52.0
Net Property	211.4	230.9	256.4
Other	12.9	17.9	26.7
Total Assets	244.6	263.2	299.1
LIABILITIES ($mill.)			
Accts Payable	2.1	4.8	6.0
Debt Due	18.3	13.6	12.1
Other	9.2	9.3	9.7
Current Liab	29.6	27.7	27.8

LONG-TERM DEBT AND EQUITY as of 12/31/04

Total Debt $127.4 mill. Due in 5 Yrs $19.4 mill.
LT Debt $115.3 mill.
Including Cap. Leases None (54% of Cap'l)

Leases, Uncapitalized Annual rentals None

Pension Liability $5.5 mill. in '04 vs. $5.1 mill. in '03

Pfd Stock $4.1 mill. Pfd Div'd Paid $.3 mill. (2% of Cap'l)

Common Stock 11,358,772 shares (44% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: Middlesex Water Company, through its subsidiaries, engages in the ownership and operation of regulated water utility systems in central and southern New Jersey, and in Delaware, as well as a regulated wastewater utility in southern New Jersey. Its New Jersey water utility system (the Middlesex System) provides water services to retail customers in central New Jersey. The Middlesex System also provides water service under contract to municipalities in central New Jersey. The company operates the water supply system and wastewater system for the city of Perth Amboy in New Jersey in partnership with its subsidiary, Utility Service Affiliates (Perth Amboy), Inc. Its other New Jersey subsidiaries provide water and wastewater services to residents in Southampton Township. The company's Delaware subsidiaries, comprising Tidewater Utilities, Inc. and Southern Shores Water Company, LLC, offer water services to retail customers in New Castle, Kent, and Sussex Counties. Has 220 employees. Chairman: J. Richard Tompkins. Inc.: NJ. Address: 1500 Ronson Road, Iselin, NJ 08830. Tel.: (732) 634-1500. Internet: http://www.middlesexwater.com. *A.O.*

April 29, 2005

TOTAL SHAREHOLDER RETURN

Dividends plus appreciation as of 3/31/2005

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
-3.31%	3.09%	-9.13%	15.07%	48.21%

©2005 Value Line Publishing, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 27 of 43

YORK WATER CO NDQ-YORW

RECENT PRICE 22.01 | TRAILING P/E RATIO 30.2 | RELATIVE P/E RATIO 1.58 | DIV'D YLD 2.8% | VALUE LINE 4708

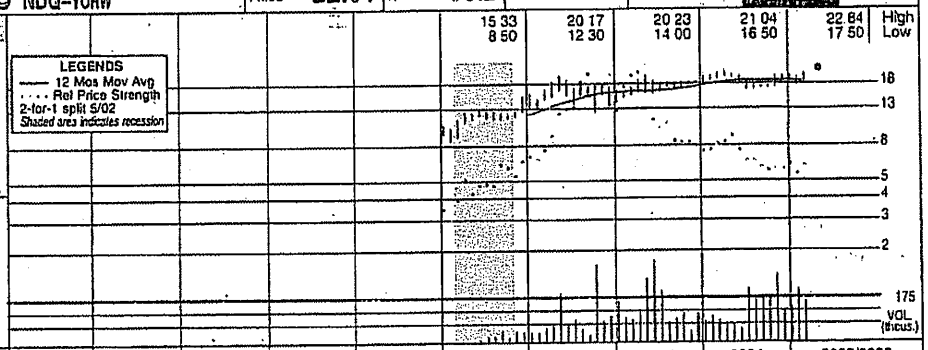
						15.33 / 8.50	20.17 / 12.30	20.23 / 14.00	21.04 / 16.50	22.84 / 17.50 High / Low

RANKS

PERFORMANCE 2 Above Average
Technical 2 Above Average
SAFETY 3 Average
BETA .55 (1.00 = Market)

Financial Strength B+
Price Stability 70
Price Growth Persistence NMF
Earnings Predictability NMF

LEGENDS
—— 12 Mos Mov Avg
.... Rel Price Strength
2-for-1 split 5/02
Shaded area indicates recession



© VALUE LINE PUBLISHING, INC.	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005/2006
REVENUES PER SH	--	--	--	--	6.07	3.08	3.07	3.25	3.27	
"CASH FLOW" PER SH	--	--	--	--	1.79	88	86	97	98	
EARNINGS PER SH	--	--	--	--	1.24	65	60	70	73	.80[A,B]/.87[C]
DIV'D DECL'D PER SH	--	--	--	--	.98	.51	.53	.55	.59	
CAP'L SPENDING PER SH	--	--	--	--	2.11	1.12	99	1.61	3.76	
BOOK VALUE PER SH	--	--	--	--	10.66	5.69	5.85	6.08	6.98	
COMMON SHS OUTST'G (MILL)	--	--	--	--	3.04	6.31	6.36	6.42	6.89	
AVG ANN'L P/E RATIO	--	--	--	--	--	17.9	26.9	24.5	25.7	27.5/25.3
RELATIVE P/E RATIO	--	--	--	--	--	.92	1.47	1.40	1.35	
AVG ANN'L DIV'D YIELD	--	--	--	--	--	4.3%	3.3%	3.2%	3.1%	
REVENUES ($MILL)	--	--	--	--	18.5	19.4	19.6	20.9	22.5	Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.
NET PROFIT ($MILL)	--	--	--	--	3.8	4.0	3.8	4.4	4.8	
INCOME TAX RATE	--	--	--	--	35.7%	35.6%	34.9%	34.8%	36.7%	
AFUDC % TO NET PROFIT	--	--	--	--	--	2.2%	3.7%	--	--	
LONG-TERM DEBT RATIO	--	--	--	--	50.2%	47.7%	46.7%	43.4%	42.5%	
COMMON EQUITY RATIO	--	--	--	--	49.8%	52.3%	53.3%	56.6%	57.5%	
TOTAL CAPITAL ($MILL)	--	--	--	--	65.2	68.6	69.9	69.0	83.6	
NET PLANT ($MILL)	--	--	--	--	97.0	102.3	106.7	116.5	140.0	
RETURN ON TOTAL CAP'L	--	--	--	--	7.9%	7.9%	7.4%	8.5%	7.6%	
RETURN ON SHR. EQUITY	--	--	--	--	11.6%	11.2%	10.2%	11.4%	10.0%	
RETURN ON COM EQUITY	--	--	--	--	11.6%	11.2%	10.2%	11.4%	10.0%	
RETAINED TO COM EQ	--	--	--	--	2.5%	2.5%	1.3%	2.6%	2.1%	
ALL DIV'DS TO NET PROF	--	--	--	--	78%	78%	88%	77%	79%	

[A]No. of analysts changing earn. est. in last 16 days: 0 up, 0 down, consensus 5-year earnings growth 7.3% per year. [B]Based upon 2 analysts' estimates. [C]Based upon one analyst's estimate.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Revenues	--	0.5%
"Cash Flow"	--	1.0%
Earnings	--	4.5%
Dividends	--	7.5%
Book Value	--	14.5%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/02	4.7	4.9	5.3	4.7	19.6
12/31/03	4.8	5.0	5.6	5.3	20.9
12/31/04	5.3	5.5	5.6	6.1	22.5
12/31/05					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/01	.13	.14	.23	.15	.65
12/31/02	.14	.15	.18	.13	.60
12/31/03	.12	.16	.24	.18	.70
12/31/04	.18	.16	.18	.21	.73
12/31/05	.19	.20	.21		

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2002	.13	.13	.13	.13	.52
2003	.135	.135	.135	.135	.54
2004	.145	.145	.145	.145	.58
2005	.156				

INSTITUTIONAL DECISIONS

	2Q'04	3Q'04	4Q'04
to Buy	1	5	4
to Sell	6	4	2
Hld's(000)	541	430	443

ASSETS ($mill.)	2002	2003	12/31/04
Cash Assets	.0	.0	.2
Receivables	2.8	3.2	3.7
Inventory	.5	.6	.7
Other	.4	.3	.4
Current Assets	3.7	4.1	5.0
Property, Plant & Equip, at cost	127.7	139.1	164.3
Accum Depreciation	21.0	22.6	24.3
Net Property	106.7	116.5	140.0
Other	8.0	6.9	11.1
Total Assets	118.4	127.5	156.1
LIABILITIES ($mill.)			
Accts Payable	.7	1.7	1.8
Debt Due	2.8	9.9	16.3
Other	2.0	2.4	3.1
Current Liab	5.5	14.0	21.2

LONG-TERM DEBT AND EQUITY as of 12/31/04

Total Debt $51.9 mill. Due in 5 Yrs $19.2 mill.
LT Debt $35.6 mill.
Including Cap. Leases $7.0 mill. (43% of Cap'l)

Leases, Uncapitalized Annual rentals None

Pension Liability $3.0 mill. in '04 vs. None in '03

Pfd Stock None. Pfd Div'd Paid None

Common Stock 6,887,047 shares (57% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: York Water Company engages in the impounding, purification, and distribution of water in York County, Pennsylvania. The company has two reservoirs, Lake Williams and Lake Redman, which together hold up to 2.75 billion gallons of water. It supplies water for domestic, commercial, industrial, and fire protection purposes. The company serves approximately 149,000 people in 31 municipalities in York County, Pennsylvania. It supplies through the company's own distribution system to the city of York; the boroughs of New York State. In March, York Water Company entered into an agreement to acquire the water system of Spring Grove Borough that serves customers in York County. In the same month, the company also agreed to acquire the water system of Mountain View Water Company that serves customers and a 220-unit mobile home park in Conewago Township, York County. Has 95 employees. Chairman: William Morris. Inc.: PA. Address: 130 East Market Street, York, PA 17405. Tel.: (717) 845-3601. Internet: http://www.yorkwater.com.

A O

April 29, 2005

TOTAL SHAREHOLDER RETURN
Dividends plus appreciation as of 3/31/2005

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
-1.03%	11.61%	-3.46%	35.88%	125.57%

©2005 Value Line Publishing, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 28 of 43

United Water Idaho, Inc.
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Six C. A. Turner Water Companies	Proxy Group of Three Value Line (Standard Edition) Water Companies
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	6.1 %	6.1 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A Rated Public Utility Bonds	0.4 (2)	0.4 (2)
3.	Adjusted Prospective Yield on A Rated Public Utility Bonds	6.5 %	6.5 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	0.0 (3)	0.0 (3)
5.	Adjusted Prospective Bond Yield	6.5	6.5
6.	Equity Risk Premium (4)	4.3	4.4
7.	Risk Premium Derived Common Equity Cost Rate	10.8 %	10.9 %

Notes:
(1) Derived in Note (3) on page 33 of this Schedule, i.e., page 6 of Schedule (PMA-9) (Updated).
(2) The average yield spread of A rated public utility bonds over Aaa rated corporate bonds of 0.43%, rounded to 0.4% from page 31 of this Schedule. i.e., page 4 of Schedule (PMA-9) (Updated).
(3) No adjustment necessary as the average Moody's bond rating of the proxy group is A2.
(4) From page 32 of this Schedule, i.e., page 5 of Schedule (PMA-9) (Updated).

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-9), Page 1 of 9
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 29 of 43

United Water Idaho, Inc.
Comparison of Bond Ratings and Business Profile for
the Proxy Group of Six C. A. Turner Water Companies and the
Proxy Group of Three Value Line (Standard Edition) Water Companies

	April 2005 Moody's Bond Rating		April 2005 Standard & Poor's Bond Rating				Standard & Poor's Business Position / Profile (2)
	Bond Rating	Numerical Weighting (1)	Bond Rating	Numerical Weighting (1)	Credit Rating	Numerical Weighting (1)	
Proxy Group of Six C. A. Turner Water Companies							
American States Water Co. (3)	A2	6	A-	7	A-	7	3.0
Aqua America, Inc. (4)	NR	--	AA-	4	A+	5	2.0
Artesian Resources, Inc.	NR	--	NR	--	NR	--	--
California Water Service Group (5)	A2	6	NR	--	A+	5	3.0
Middlesex Water Company	NR	--	A+	5	A	6	3.0
York Water Company	NR	--	NR	--	A-	7	2.0
Average	A2	6.0	A+	5.3	A	6.0	2.6
Proxy Group of Three Value Line (Standard Edition) Water							
American States Water Co. (3)	A2	6	A-	7	A-	7	3.0
Aqua America, Inc. (4)	NR	--	AA-	4	A+	5	2.0
California Water Service Group (5)	A2	6	NR	--	A+	5	3.0
Average	A2	6.0	A+ / A	5.5	A	5.7	2.7

Notes:
(1) From page 3 of Schedule (PMA-9).
(2) From Standard & Poor's U.S. Utilities and Power Ranking List, April 22, 2005.
(3) Ratings and business profile are those of Southern California Water Company
(4) Formerly Philadelphia Suburban Corp. Ratings and business profile are those of Aqua Pennsylvania, Inc. (formerly Pennsylvania Suburban Water Company).
(5) Ratings and business profile is that of California Water Service Company.

Source of Information: Moody's Investors Service
Standard & Poor's Global Utilities Rating Service

Moody's
Comparison of Interest Rate Trends
for the Three Months Ending February 2005 (1)

Years	Corporate Bonds Aaa Rated	Public Utility Bonds Aa Rated	Public Utility Bonds A Rated	Public Utility Bonds Baa Rated	Spread - Corporate v. Public Utility Bonds: Aa (Pub. Util.) over Aaa (Corp.)	Spread - Corporate v. Public Utility Bonds: A (Pub. Util.) over Aaa (Corp.)	Spread - Corporate v. Public Utility Bonds: Baa (Pub. Util.) over Aaa (Corp.)	Spread - Public Utility Bonds: A over Aa	Spread - Public Utility Bonds: Baa over A
December-04	5.47 %	5.78 %	5.92 %	6.10 %					
January-05	5.36	5.68	5.78	5.95					
February-05	5.20	5.55	5.61	5.76					
Average of Last 3 Months	5.34 %	5.67 %	5.77 %	5.94 %	0.33 %	0.43 %	0.60 %	0.10 %	0.17 %
Average Spread (2)					0.33 %	0.43 %	0.60 %	0.10 %	0.17 %

Notes: (1) All yields are distributed yields.

Source of Information: Mergent Bond Record , March 2005, Vol. 72, No. 2

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-9), Page 4 of 9
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 31 of 43

United Water Idaho, Inc.
Judgment of Equity Risk Premium for
the Proxy Group of Six C. A. Turner Water Companies and the
Proxy Group of Three Value Line (Standard Edition) Water Companies

Line No.		Proxy Group of Six C. A. Turner Water Companies	Proxy Group of Three Value Line (Standard Edition) Water Companies
1.	Calculated equity risk premium based on the total market using the beta approach (1)	4.3 %	4.6
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A rated bonds (2)	4.2	4.2
3.	Average equity risk premium	4.3 %	4.4 %

Notes: (1) From page 33 of this Schedule, i.e., page 6 of Schedule (PMA-9) (Updated).
(2) From page 35of this Schedule, i e., page 8 of Schedule (PMA-9) (Updated)

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-9), Page 5 of 9
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 32 of 43

United Water Idaho, Inc.
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the Proxy Group of Six C. A. Turner Water Companies and the
Proxy Group of Three Value Line (Standard Edition) Water Companies

Line No.		Proxy Group of Six C. A. Turner Water Companies	Proxy Group of Three Value Line (Standard Edition) Water Companies
1.	Arithmetic mean total return rate on the Standard & Poor's 500 Composite Index - 1926-2004 (1)	12.4 %	12.4 %
2.	Arithmetic mean total return rate on Aaa and Aa Corporate Bonds 1926-2004 (2)	(6.1)	(6.1)
3	Historical Equity Risk Premium	6.3 %	6.3 %
4.	Forecasted 3-5 year Total Annual Market Return (3)	12.3 %	12.3 %
5.	Prospective Yield an Aaa Rated Corporate Bonds (4)	(6.1)	(6.1)
6.	Forecasted Equity Risk Premium	6.2 %	6.2 %
7	Average of Historical and Forecasted Equity Risk Premium (5)	6.3 %	6.3 %
8.	Adjusted Value Line Beta (6)	0.68	0.73
9.	Beta Adjusted Equity Risk Premium	4.3 %	4.6 %

Notes:
(1) From Stocks, Bonds, Bills and Inflation - 2005 Yearbook Valuation Edition, Ibbotson Associates, Inc., Chicago, IL. 2005.

(2) From Moody's Industrial Manual and Mergent Bond Record Monthly Update.

(3) From Note 1. page 39 of this Schedule. i.e.. 3 of Schedule (PMA-10) (Updated).

(4) Average forecast based upon six quarterly estimates of Aaa rated corporate bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated May 1. 2005 (see page 34 of this Schedule. i.e.. page 7 of Schedule (PMA-9) (Updated)). The estimates are detailed below.

Second Quarter 2005	5.5 %
Third Quarter 2005	5.8
Fourth Quarter 2005	6.1
First Quarter 2006	6.2
Second Quarter 2006	6.4
Third Quarter 2006	6.4
Average	6.1 %

(5) Average of the Historical Equity Risk Premium of 6.3% from Line No. 3 and the Forecasted Equity Risk Premium of 6.2% from Line No. 6 ((6.3% + 6.2%) / 2 = 6.25%, rounded to 6.3%).

(5) From page 36 of this Schedle. i.e., page 9 of Schedule (PMA-9) (Updated).

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-9), Page 6 of 9
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 33 of 43

Consensus Forecasts Of U.S. Interest Rates And Key Assumptions[1]

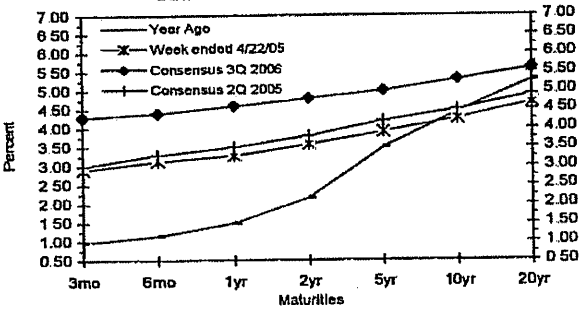
Interest Rates	History: Average For Week Ending Apr.22	Apr.15	Apr.8	Apr.1	Average For Month Mar.	Feb.	Jan.	Latest Q 1Q 2005	Consensus Forecasts-Quarterly Avg. 2Q 2005	3Q 2005	4Q 2005	1Q 2006	2Q 2006	3Q 2006
Federal Funds Rate	2.78	2.76	2.81	2.77	2.63	2.50	2.28	2.47	3.0	3.4	3.8	4.0	4.2	4.3
Prime Rate	5.75	5.75	5.75	5.75	5.58	5.49	5.25	5.44	6.0	6.4	6.8	7.0	7.2	7.3
LIBOR, 3-mo.	3.16	3.14	3.12	3.10	3.02	2.82	2.67	2.84	3.2	3.7	4.0	4.2	4.4	4.5
Commercial Paper, 1-mo.	2.89	2.81	2.74	2.74	2.67	2.49	2.33	2.50	3.0	3.5	3.8	4.1	4.3	4.3
Treasury bill, 3-mo.	2.90	2.77	2.78	2.82	2.80	2.58	2.37	2.58	3.0	3.4	3.8	4.0	4.2	4.3
Treasury bill, 6-mo.	3.13	3.15	3.13	3.15	3.09	2.85	2.68	2.87	3.3	3.7	4.0	4.2	4.3	4.4
Treasury bill, 1 yr.	3.28	3.32	3.33	3.38	3.30	3.03	2.86	3.06	3.5	3.9	4.2	4.4	4.5	4.6
Treasury note, 2 yr.	3.57	3.65	3.74	3.84	3.73	3.38	3.22	3.44	3.8	4.2	4.4	4.6	4.7	4.8
Treasury note, 5 yr.	3.90	4.02	4.13	4.24	4.17	3.77	3.71	3.88	4.2	4.5	4.7	4.9	5.0	5.0
Treasury note, 10 yr.	4.26	4.37	4.48	4.55	4.50	4.17	4.22	4.30	4.5	4.8	5.0	5.1	5.3	5.3
Treasury note, 20 yr.	4.68	4.79	4.87	4.93	4.89	4.61	4.77	4.76	4.9	5.2	5.4	5.5	5.6	5.6
Corporate Aaa bond	5.27	5.36	5.43	5.44	5.40	5.20	5.36	5.32	5.5	5.8	6.1	6.2	6.4	6.4
Corporate Baa bond	6.01	6.08	6.13	6.17	6.06	5.82	6.02	5.97	6.2	6.5	6.8	7.0	7.1	7.2
State & Local bonds	4.42	4.49	4.56	4.61	4.57	4.35	4.41	4.44	4.6	4.8	5.0	5.1	5.2	5.3
Home mortgage rate	5.80	5.91	5.93	6.04	5.93	5.63	5.71	5.76	6.0	6.3	6.5	6.6	6.7	6.8

Key Assumptions	History: 2Q 2003	3Q 2003	4Q 2003	1Q 2004	2Q 2004	3Q 2004	4Q 2004	1Q* 2005	Consensus Forecasts-Quarterly Avg. 2Q 2005	3Q 2005	4Q 2005	1Q 2006	2Q 2006	3Q 2006
Major Currency Index	90.8	90.7	87.8	85.3	88.0	86.5	81.9	81.3	80.7	80.2	79.7	79.6	79.7	79.9
Real GDP	4.1	7.4	4.2	4.5	3.3	4.0	3.8	3.1	3.4	3.5	3.5	3.4	3.4	3.4
GDP Price Index	1.1	1.4	1.6	2.8	3.2	1.4	2.3	3.3	2.5	2.1	2.1	2.3	2.2	2.2
Consumer Price Index	0.4	2.2	0.9	4.0	4.4	1.7	3.4	2.5	3.3	2.5	2.5	2.5	2.6	2.5

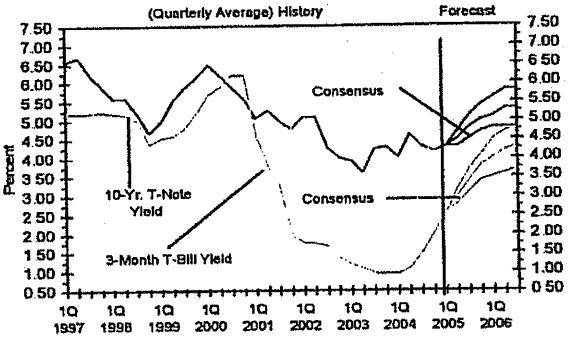
[1]Individual panel members' forecasts are on pages 4 through 9. Historical data for interest rates except LIBOR is from Federal Reserve Release (FRSR) H.15. LIBOR quotes available from *The Wall Street Journal*. Definitions reported here are same as those in FRSR H.15. Treasury yields are reported on a constant maturity basis. Historical data for the U.S. Federal Reserve Board's Major Currency Index is from FRSR H.10 and G.5. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS).

U.S. Treasury Yield Curve

Week ended April 22, 2005 and Year Ago vs. 2Q 2005 and 3Q 2006 Consensus forecasts

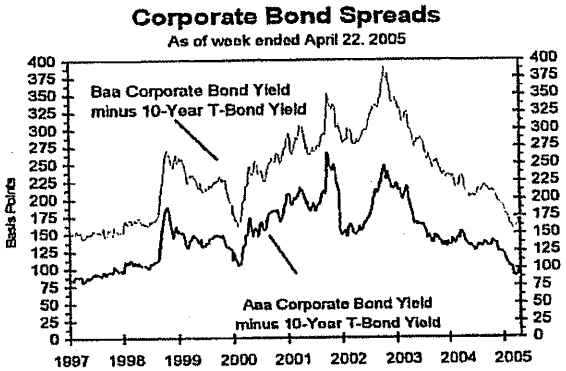


U.S. 3-Mo. T-Bills & 10-Yr. T-Note Yield



Corporate Bond Spreads

As of week ended April 22, 2005



U.S. Treasury Yield Curve

As of week ended April 22, 2005

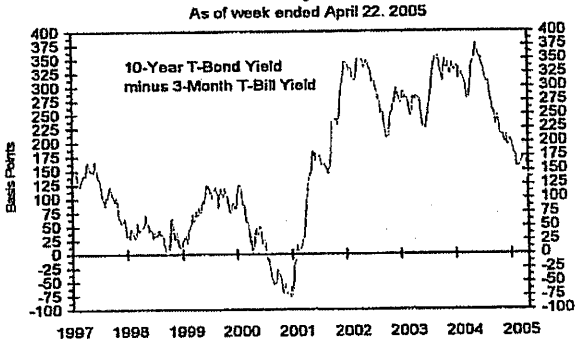


Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 34 of 43

United Water Idaho, Inc.
Derivation of Mean Equity Risk Premium Based on a Study
Using Holding Period Returns of Public Utilities

Line No.		Over A Rated Public Utility Bonds AUS Consultants - Utility Services Study (1)
		1
Time Period		1928-2003
1	Arithmetic Mean Holding Period Returns (2): Standard & Poor's Public Utility Index	10.8 %
2.	Arithmetic Mean Yield on: A Rated Public Utility Bonds	(6.6)
3.	Equity Risk Premium	4.2 %

Notes: (1) S&P Public Utility Index and Moody's Pubilc Utility Bond Average Annual Yields 1928-2003, (US Consultants - Utility Services, 2004)

(2) Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-9), Page 8 of 9
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 35 of 43

United Water Idaho, Inc.
Value Line Adjusted Betas for
the Proxy Group of Six C. A. Turner Water Companies and the
Proxy Group of Three Value Line (Standard Edition) Water Companies

	Value Line Adjusted Beta
Proxy Group of Six C. A Turner Water Companies	
American States Water Co.	0.70
Aqua America, Inc.	0.75
Artesian Resources Corp.	NA
California Water Service Group	0.75
Middlesex Water Company	0.65
York Water Company	0.55
Average	0.68
Proxy Group of Three Value Line (Standard Edition) Water	
American States Water Co.	0.70
Aqua America, Inc.	0.75
California Water Service Group	0.75
Average	0.73

NA = Not Available

Source of Information: Value Line Investment Survey,
April 29, 2005

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-9), Page 9 of 9
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 36 of 43

United Water Idaho, Inc.
of the Capital Asset Pricing Model for
the Proxy Group of Six C. A. Turner Water Companies and the
Proxy Group of Three Value Line (Standard Edition) Water Companies

Line No.		Proxy Group of Six C. A. Turner Water Companies	Proxy Group of Three Value Line (Standard Edition) Water Companies
		Traditional Capital Asset Pricing Model	
1.	Risk-Free Rate (1)	5.4 %	5.4 %
2.	Average Company-Specific Market Premium (2)	4.8	5.2
3.	Capital Asset Pricing Model Derived Company Equity Cost Rate	10.2 %	10.6 %
		Empirical Capital Asset Pricing Model	
4.	Risk-Free Rate (1)	5.4 %	5.4 %
5	Average Company-Specific Market Premium (2)	5.4	5.7
6.	Capital Asset Pricing Model Derived Company Equity Cost Rate	10.8 %	11.1 %
7	Conclusion	10.5 %	10.9 %

Notes: (1) Developed in note 2 of page 39 of this Schedule. i e., page 3 of Schedule (PMA-10) (Updated)
(2) Developed on page 38 of this Schedule. i e., apge 2 of Schedule (PMA-10) (Updated).

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-10), Page 1 of 3
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 37 of 43

United Water Idaho, Inc.
Indicated Common Equity Cost Rate Through Use
of the Capital Asset Pricing Model

	Value Line Adjusted Beta	Company-Specific Risk Premium Based on Market Premium of 7.1% (1)	CAPM Result Including Risk-Free Rate of 5.4% (2)
		Traditional Capital Asset Pricing Model (3)	
Proxy Group of Six C. A. Turner Water Companies			
American States Water Co.	0.70	5.0 %	10.4 %
Aqua America, Inc.	0.75	5.3	10.7
Artesian Resources Corp.	NA	NA	NA
California Water Service Group	0.75	5.3	10.7
Middlesex Water Company	0.65	4.6	10.0
York Water Company	0.55	3.9	9.3
Average	0.68	4.8 %	10.2 % (3)
Proxy Group of Three Value Line (Standard Edition) Water Companies			
American States Water Co.	0.70	5.0 %	10.4 %
Aqua America, Inc.	0.75	5.3	10.7
California Water Service Group	0.75	5.3	10.7
Average	0.73	5.2 %	10.6 % (3)
		Empirical Capital Asset Pricing Model (5)	
Proxy Group of Six C. A. Turner Water Companies			
American States Water Co.	0.70	5.5 %	10.9 %
Aqua America, Inc.	0.75	5.8	11.2
Artesian Resources Corp.	NA	NA	NA
California Water Service Group	0.75	5.8	11.2
Middlesex Water Company	0.65	5.2	10.6
York Water Company	0.55	4.7	10.1
Average	0.68	5.4 %	10.8 % (3)
Proxy Group of Three Value Line (Standard Edition) Water Companies			
American States Water Co.	0.70	5.5 %	10.9 %
Aqua America, Inc.	0.75	5.8	11.2
California Water Service Group	0.75	5.8	11.2
	0.73	5.7 %	11.1 % (3)

See page 39 for notes.

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-10), Page 2 of 3
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 38 of 43

United Water Idaho, Inc.
Development of the Market-Required Rate of Return on Common Equity Using
the Capital Asset Pricing Model for
the Proxy Group of Six C. A. Turner Water Companies and the
Proxy Group of Three Value Line (Standard Edition) Water Companies
Adjusted to Reflect a Forecasted Risk-Free Rate and Market Return

Notes:

(1) From the three previous month-end (Feb. '05 – Apr. '05), as well as a recently available (Apr, 29, 2005), Value Line Summary & Index, a forecasted 3-5 year total annual market return of 12.3% can be derived by averaging the 3-month and spot forecasted total 3-5 year total appreciation, converting it into an annual market appreciation and adding the Value Line average forecasted annual dividend yield.

The 3-5 year average total market appreciation of 50% produces a four-year average annual return of 10.67% ($(1.50^{.25}) - 1$). When the average annual forecasted dividend yield of 1.67% is added, a total average market return of 12.34%, rounded to 12.3%, (1.67% + 10.67%) is derived.

The 3-month and spot forecasted total market return of 12.3% minus the risk-free rate of 5.4% (developed in Note 2) is 6.9% (12.3% - 5.4%). The Ibbotson Associates calculated market premium of 7.2% for the period 1926-2004 results from a total market return of 12.4% less the average income return on long-term U.S. Government Securities of 5.2% (12.4% - 5.2% = 7.2%). This is then averaged with the 6.9% Value Line market premium resulting in a 7.05%, rounded to 7.1% market premium. The 7.12% market premium is then multiplied by the beta in column 1 of page 38 of this Schedule., i.e., Schedule (PMA-10), page 3 (Updated)

(2) Average forecast based upon six quarterly estimates of 20-year Treasury Bond yields per the consensus of nearly 50 economists reported in the Blue Chip Financial Forecasts dated October 1, 2004 (see page 34 of this Schedule, i.e., page 7 of Schedule (PMA-9) (Updated)) The estimates are detailed below:

	20-Year Treasury Bond Yield
Second Quarter 2005	4.9%
Third Quarter 2005	5.2
Fourth Quarter 2005	5.4
First Quarter 2006	5.5
Second Quarter 2006	5.6
Third First Quarter 2006	5.6
Average	5.4%

(3) The traditional Capital Asset Pricing Model (CAPM) is applied using the following formula:

$R_S = R_F + \beta (R_M - R_F)$

Where R_S = Return rate of common stock
R_F = Risk Free Rate
β = Value Line Adjusted Beta
R_M = Return on the market as a whole

(4) Includes only those indicated common equity cost rates which are above 8.5%, i.e., 200 basis points above the prospective yield of 6.5% on A rated Moody's public utility bonds (from page 29 of this Schedule, i.e., page 1 of Schedule (PMA-9) (Updated)).

(5) The empirical CAPM is applied using the following formula:

$R_S = R_F + .25 (R_M - R_F) + .75 \beta (R_M - R_F)$

Where R_S = Return rate of common stock
R_F = Risk-Free Rate
β = Value Line Adjusted Beta
R_M = Return on the market as a whole

Source of Information: Value Line Summary & Index
Blue Chip Financial Forecasts, May 1, 2005
Value Line Investment Survey, April 29, 2005, Standard Edition and Small and Mid-Cap Edition
Stocks, Bonds, Bills and Inflation – Valuation Edition 2005 Yearbook., Ibbotson Associates, Inc., Chicago, IL

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-10), Page 3 of 3
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 39 of 43

United Water Idaho, Inc.
Comparable Earnings Analysis
for a Proxy Group of Seventy-Nine Non-Utility Companies Comparable to
the Proxy Group of Six C. A. Turner Water Companies (1)

Proxy Group of Seventy-Nine Non-Utility Companies Comparable to the Proxy Group of Six C. A. Turner Water Companies (1)	Adj. Beta	Unadj. Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Net Worth 1999	2000	2001	2002	2003	5-year Average (2) Percent	5-year Average (2) Student's T-Test	5-Year Projected (3) Percent	5-Year Projected (3) Student's T-Test
21st Century Ins. Group	0.85	0.73	4.1045	0.1083	12.1 %	1.8 %	3.7 %	7.4 %	8.5 %	6.7 %	(0.90)	10.0 %	(0.94)
ABM Industries Inc.	0.70	0.51	3.8382	0.0994	14.0	13.7	12.5	12.1	8.2	12.1	(0.54)	14.0	(0.33)
Abbott Labs.	0.60	0.64	4.0020	0.1036	34.7	32.5	32.5	30.4	26.6	31.3	0.75	27.5	1.71
AmerisourceBergen	0.75	0.59	4.1861	0.1363	50.0	35.1	4.9	10.8	11.2	22.4	0.15	10.0	(0.94)
Amvaly Mortgage Mgmt.	0.65	0.46	3.5841	0.0923	17.6	12.2	13.8	20.3	15.7	15.9	(0.28)	14.0	(0.33)
Applied Ind'l Techn.	0.75	0.56	3.9603	0.1025	6.8	10.4	9.0	4.9	5.9	7.4	(0.85)	14.0	(0.33)
Archer Daniels Mid'd	0.70	0.54	3.7599	0.0973	4.5	4.9	6.1	6.8	6.2	5.7	(0.97)	10.0	(0.94)
Arrow Int'l	0.60	0.33	3.9025	0.1010	15.8	17.0	14.3	13.1	13.3	14.7	(0.36)	15.0	(0.18)
Ball Corp.	0.85	0.73	3.9152	0.1014	15.1	16.6	21.0	32.3	29.4	22.9	0.19	20.5	0.65
Bard (C.R.)	0.75	0.59	3.7710	0.0976	20.5	20.4	16.2	20.1	19.5	19.7	(0.03)	23.0	1.03
Barnes Group	0.75	0.60	3.8747	0.1003	15.8	17.7	9.6	13.0	10.3	13.3	(0.46)	13.5	(0.41)
Beckman Coulter	0.60	0.36	4.0464	0.1047	46.5	36.5	27.3	26.9	20.3	31.5	0.77	13.5	(0.41)
Becton Dickinson	0.75	0.61	3.9551	0.1024	21.8	20.1	18.8	19.3	18.6	19.9	(0.01)	20.0	0.58
Berry Petroleum 'A'	0.70	0.48	3.9777	0.1030	15.5	25.6	14.3	17.5	17.5	18.1	(0.13)	16.5	0.05
Blyth Inc.	0.75	0.59	4.0456	0.1047	24.3	23.0	16.5	16.9	17.0	19.5	(0.04)	14.0	(0.33)
Bob Evans Farms	0.85	0.72	3.9148	0.1013	12.3	11.1	12.5	13.4	11.4	12.1	(0.54)	11.0	(0.79)
CLARCOR Inc.	0.85	0.71	3.7284	0.0965	16.6	16.6	15.3	14.9	14.7	15.6	(0.30)	13.0	(0.46)
ChoicePoint Inc.	0.85	0.75	4.0305	0.1043	19.1	16.1	16.3	19.1	16.1	17.3	(0.19)	14.0	(0.33)
Coca-Cola	0.65	0.41	3.9732	0.1003	34.0	39.4	35.0	34.7	34.0	35.4	1.03	33.5 (4)	2.62
Coca-Cola Bottling	0.50	0.19	3.9364	0.1019	14.7	9.5	38.5	69.0	58.5	38.0	1.20	41.0 (4)	3.78
ConAgra Foods	0.70	0.52	3.5237	0.0912	23.9	27.0	17.1	18.2	18.2	20.9	0.05	16.0	0.27
Constellation Brands	0.65	0.45	4.2245	0.1094	15.5	15.8	14.4	16.4	11.2	14.7	(0.36)	12.5	(0.56)
Corn Products Int'l	0.75	0.62	3.7903	0.0981	7.5	6.4	6.7	7.6	8.3	7.3	(0.66)	11.0	(0.79)
Curtiss-Wright	0.70	0.48	3.5467	0.0918	12.3	13.1	11.6	10.1	10.9	11.6	(0.57)	11.0	(0.79)
Dean Foods	0.65	0.40	3.4581	0.0895	20.5	20.1	8.5	17.0	12.6	15.7	(0.30)	10.5	(0.66)
Dentsply Int'l	0.70	0.54	3.3077	0.0856	19.2	19.4	16.0	17.5	15.4	17.9	(0.15)	12.5	(0.56)
Dionex Corp.	0.80	0.66	4.1881	0.1084	34.7	28.7	24.5	21.0	19.7	25.7	0.38	23.0	1.03
ESCO Technologies	0.75	0.60	4.2075	0.1089	3.5	5.4	6.1	7.1	12.0	6.8	(0.89)	12.5	(0.56)
Fortune Brands	0.65	0.72	3.6381	0.0942	12.4	17.1	17.8	21.2	20.9	17.9	(0.15)	17.5	0.20
Franklin Electric	0.65	0.41	3.8328	0.0992	27.8	20.9	22.0	21.0	17.9	21.8	0.12	16.0	(0.03)
Gen'l Dynamics	0.75	0.62	3.9923	0.1033	22.5	23.6	20.8	20.2	16.7	20.8	0.05	17.0	0.12
Gillette	0.65	0.47	3.9984	0.1035	41.2	65.0	49.9	53.5	61.8	54.1 (4)	2.28	31.5 (4)	2.32
Golden West Fin'l	0.85	0.75	3.5852	0.0931	13.0	14.9	14.8	19.1	16.9	16.8	(0.10)	20.5	0.65
HON Industries Inc.	0.85	0.74	3.6729	0.0951	19.8	18.5	15.2	14.1	13.8	16.3	(0.26)	17.5	0.20
Harland (John H.)	0.70	0.50	4.0867	0.1053	25.3	16.7	19.3	22.4	22.0	21.1	0.07	15.5	(0.11)
Hillenbrand Inds.	0.80	0.67	3.4433	0.0891	17.7	18.7	17.7	19.8	21.1	19.0	(0.07)	16.0	(0.03)
Int'l Flavors & Frag.	0.75	0.59	3.7525	0.0971	22.0	23.7	25.8	32.0	28.9	26.1	0.40	18.5	0.35
Invacare Corp.	0.60	0.87	3.8811	0.1000	15.8	15.1	15.8	13.5	11.6	14.4	(0.38)	12.0	(0.84)
Kellogg	0.55	0.31	3.6306	0.0940	74.5	72.6	61.1	79.4	54.5	68.4 (4)	3.24	27.5	1.71
Kimball Int'l 'B'	0.80	0.63	4.2659	0.1104	12.0	10.3	8.2	5.8	1.3	7.5	(0.85)	10.0	(0.94)
Lancaster Colony	0.75	0.59	3.7450	0.0969	22.9	24.6	19.6	16.6	16.1	20.0	(0.01)	14.5	(0.26)
Lance Inc.	0.65	0.46	3.9241	0.1016	13.7	12.8	13.4	11.0	13.1	12.8	(0.49)	15.5	(0.11)
Lawson Products	0.65	0.42	3.6513	0.0945	15.9	16.3	6.7	7.7	9.7	11.7	(0.56)	15.0	(0.18)
Libbey Inc.	0.75	0.59	4.2544	0.1101	47.3	35.2	23.8	26.1	20.8	30.6	0.70	17.0	0.12
Lincoln Elec Hldgs.	0.80	0.68	4.0224	0.1041	20.7	19.3	16.8	17.2	11.7	17.1	(0.20)	13.5	(0.41)
Lockheed Martin	0.60	0.34	4.2031	0.1088	9.0	6.0	10.8	18.0	15.6	11.9	(0.55)	21.0	0.73
Murphy Oil Corp.	0.85	0.74	3.9871	0.1032	9.4	24.3	17.6	8.4	13.1	14.2	(0.40)	9.5	(1.02)
New Plan Excel R'lty	0.65	0.46	3.3159	0.0858	9.2	7.9	7.0	7.8	8.1	8.0	(0.81)	12.5	(0.56)
Northrop Grumman	0.60	0.38	3.8461	0.0996	14.8	15.9	5.5	4.8	4.8	9.2	(0.73)	11.0	(0.79)
Occidental Petroleum	0.85	0.73	3.4225	0.0886	7.3	27.8	23.6	16.2	20.3	19.0	(0.07)	15.5	(0.11)
PepsiAmericas Inc.	0.75	0.58	3.7762	0.0978	6.2	5.8	6.3	8.4	9.8	7.5	(0.85)	10.5	(0.66)
Pfizer Inc.	0.85	0.71	3.3984	0.0880	38.2	40.4	45.6	47.9	19.5	38.3	1.22	21.0	0.73
Procter & Gamble	0.60	0.38	4.2173	0.1092	34.4	34.4	36.6	36.9	35.4	35.5	1.03	28.5 (4)	2.02
Quaker Chemical	0.60	0.63	3.8901	0.1007	19.0	20.2	16.8	16.2	13.2	17.1	(0.20)	9.5	(1.02)
Ralcorp Holdings	0.55	0.29	3.4046	0.0881	11.2	10.6	9.9	12.3	13.0	11.4	(0.58)	12.0	(0.64)
Ruddick Corp.	0.85	0.70	3.7643	0.0980	11.4	10.6	10.6	12.3	12.1	11.5	(0.58)	13.0	(0.48)
Ryan's Family	0.75	0.56	4.2258	0.1094	14.7	14.9	14.2	15.7	14.0	14.7	(0.36)	11.0	(0.79)
SLM Corporation	0.80	0.69	3.5721	0.0925	47.9	34.6	37.3	31.9	33.3	37.0	1.13	26.5	1.58
Sara Lee Corp.	0.60	0.36	3.4174	0.0885	88.3	82.0	99.9	63.8	58.1	80.8 (4)	4.06	32.5 (4)	2.47
Schulman (A.)	0.80	0.68	4.2284	0.1095	13.4	11.7	3.9	9.0	4.2	6.4	(0.79)	8.0	(1.24)

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-11), Page 1 of 6
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 40 of 43

United Water Idaho, Inc.
Comparable Earnings Analysis
for a Proxy Group of Seventy-Nine Non-Utility Companies Comparable to
the Proxy Group of Six C. A. Turner Water Companies (1)

Proxy Group of Seventy-Nine Non-Utility Companies Comparable to the Proxy Group of Six C. A. Turner Water Companies (1)	Adj. Beta	Unadj. Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Net Worth 1999	2000	2001	2002	2003	5-year Average (2) Percent	5-year Average (2) Student's T-Test	5-Year Projected (3) Percent	5-Year Projected (3) Student's T-Test
Selective Ins. Group	0.80	0.64	3.6719	0.0951	9.4	4.6	4.5	6.1	7.7	6.5	(0.91)	12.5	(0.58)
Sensient Techn.	0.70	0.54	3.6751	0.0951	18.6	16.7	15.1	16.2	13.4	16.0	(0.26)	12.0	(0.64)
ServiceMaster Co.	0.75	0.55	4.0512	0.1049	18.6	15.9	9.4	14.0	19.4	15.5	(0.31)	19.5	0.50
Sigma-Aldrich	0.80	0.68	4.0344	0.1044	11.8	16.2	17.4	14.8	19.3	15.9	(0.28)	14.5	(0.26)
Smucker (J.M.)	0.65	0.41	3.7441	0.0969	11.4	13.4	12.2	9.3	10.0	11.3	(0.59)	10.0	(0.94)
Standex Int'l	0.80	0.63	3.8767	0.1004	18.9	18.5	14.5	11.4	11.1	14.9	(0.35)	16.5	0.05
Stryker Corp.	0.75	0.58	4.0975	0.1061	23.9	25.9	25.7	23.8	21.0	24.1	0.27	26.5	1.56
Sysco Corp.	0.80	0.65	3.5151	0.0910	25.4	25.8	27.8	31.9	35.4	29.3	0.62	28.5	1.86
Tecumseh Products 'A'	0.80	0.62	3.9302	0.1017	13.1	6.6	4.4	5.5	3.8	6.7	(0.90)	10.5	(0.86)
Tennant Co.	0.75	0.60	3.6385	0.0942	17.7	18.2	3.1	8.0	8.5	11.1	(0.60)	12.0	(0.64)
Thomas Inds.	0.75	0.56	3.8254	0.0990	12.5	13.5	11.9	10.4	9.7	11.6	(0.57)	7.0	(1.39)
Thornburg Mtg.	0.70	0.54	3.5956	0.0931	8.2	8.2	11.0	14.4	14.2	11.4	(0.58)	11.5	(0.71)
Union Pacific	0.80	0.78	3.2485	0.0841	8.2	9.0	8.7	9.3	8.5	8.7	(0.77)	9.0	(1.09)
Universal Corp.	0.70	0.48	3.7086	0.0960	23.6	23.7	21.4	18.1	18.3	21.0	0.08	17.0	0.12
WD-40 Co.	0.70	0.51	4.2230	0.1093	39.3	38.9	30.6	30.5	27.9	33.4	0.89	20.5	0.65
Walgreen Co.	0.85	0.72	3.7290	0.0965	17.9	17.9	16.7	16.3	16.1	17.0	(0.21)	17.5	0.20
Wendy's Int'l	0.75	0.54	3.9883	0.1032	15.6	16.1	18.8	15.1	13.4	15.8	(0.29)	14.5	(0.26)
West Pharmac. Svcs.	0.70	0.49	3.6054	0.0933	15.7	8.3	11.8	6.4	10.6	10.6	(0.64)	12.5	(0.56)
Zimmer Holdings	0.75	0.59	3.8939	0.1268	42.7	73.6	242.4	70.4	9.3	87.7 (4)	4.54	14.5	(0.26)
Average for the Non-Utility Group	0.74	0.56	3.8319	0.0999									
Average for the Proxy Group of Six C. A. Turner Water Companies	0.66	0.45	3.7805 (5)	0.1014									
Mean										17.3%		15.1%	
Conclusion (6)											16.2% (6)		
Conservative Mean (7)										14.8%		13.5%	
Conservative Conclusion (6)											14.2% (6)		

See pages 5 and 6 for notes.

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-11), Page 2 of 6
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 41 of 43

United Water Idaho, Inc.
Comparable Earnings Analysis
for a Proxy Group of Ninety-Seven Non-Utility Companies Comparable to
the Proxy Group of Three Value Line (Standard Edition) Water Companies (9)

Proxy Group of Ninety-Seven Non-Utility Companies Comparable to the Proxy Group of Three Value Line (Standard Edition) Water Companies (9)	Adj. Beta	Unadj. Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Net Worth 1999	2000	2001	2002	2003	5-year Average (2) Percent	5-year Average (2) Student's T-Test	5-Year Projected (3) Percent	5-Year Projected (3) Student's T-Test
21st Century Ins. Group	0.85	0.73	4.1045	0.1063	12.1 %	1.8 %	3.7 %	7.4 %	8.5 %	6.7 %	(0.88)	10.0 %	(0.97)
ABM Industries Inc.	0.70	0.51	3.8362	0.0994	14.0	13.7	12.5	12.1	9.2	12.1	(0.52)	14.0	(0.33)
Abbott Labs.	0.80	0.64	4.0020	0.1036	34.7	32.5	32.5	30.4	26.6	31.3	0.74	27.5	1.81
Albemarle Corp.	0.65	0.77	3.1649	0.0819	16.8	17.2	11.7	11.7	12.6	14.0	(0.35)	14.0	(0.33)
Allied Capital Corp.	0.65	0.76	3.6577	0.0947	14.6	13.8	14.8	14.7	10.0	13.6	(0.42)	15.0	(0.17)
Amerada Hess	0.90	0.79	4.0009	0.1036	10.1	25.4	19.3	12.9	9.5	15.4	(0.30)	9.0	(1.13)
Anheuser-Busch	0.60	0.36	3.2183	0.0833	35.8	37.6	42.0	63.4	76.6	51.1 (4)	2.05	35.5 (4)	3.08
Annaly Mortgage Mgmt.	0.65	0.46	3.5641	0.0923	17.6	12.2	13.8	20.3	15.7	15.9	(0.27)	14.0	(0.33)
Applied Ind'l Techn.	0.75	0.56	3.9603	0.1025	6.8	10.4	9.0	4.9	5.9	7.4	(0.83)	14.0	(0.33)
Archer Daniels Midl'd	0.70	0.54	3.7599	0.0973	4.5	4.9	6.1	8.8	6.2	5.7	(0.94)	10.0	(0.97)
Arrow Int'l	0.60	0.33	3.9025	0.1010	15.8	17.0	14.3	13.1	13.3	14.7	(0.35)	15.0	(0.17)
Ball Corp.	0.85	0.73	3.9152	0.1014	15.1	18.6	21.0	32.3	29.4	22.9	0.19	20.5	0.70
Bandag Inc.	0.90	0.82	4.0361	0.1045	13.2	12.7	9.5	11.1	12.6	11.8	(0.55)	11.0	(0.81)
Bard (C.R.)	0.76	0.59	3.7710	0.0976	20.5	20.4	16.2	20.1	19.5	19.7	(0.02)	23.0	1.10
Barnes Group	0.75	0.60	3.8747	0.1003	15.8	17.7	9.6	13.0	10.3	13.3	(0.44)	13.5	(0.41)
Beckman Coulter	0.60	0.36	4.0464	0.1047	46.5	38.5	27.3	28.8	20.3	31.5	0.76	13.5	(0.41)
Becton Dickinson	0.75	0.61	3.9551	0.1024	21.8	20.1	18.8	19.3	19.6	19.8	(0.01)	20.0	0.62
Berry Petroleum 'A'	0.70	0.48	3.9777	0.1030	15.5	25.6	14.3	17.5	17.5	18.1	(0.13)	16.5	0.06
Blyth Inc.	0.75	0.59	4.0456	0.1047	24.3	23.0	16.5	16.9	17.0	19.5	(0.03)	14.0	(0.33)
Bob Evans Farms	0.85	0.72	3.9148	0.1013	12.3	11.1	12.5	13.4	11.4	12.1	(0.52)	11.0	(0.81)
CLARCOR Inc.	0.85	0.71	3.7284	0.0965	16.8	18.6	15.3	14.9	14.7	15.6	(0.29)	13.0	(0.49)
ChoicePoint Inc.	0.85	0.75	4.0305	0.1043	19.1	16.1	16.3	19.1	16.1	17.3	(0.18)	14.0	(0.33)
City National Corp.	0.90	0.79	3.3312	0.0862	16.9	17.7	16.4	16.3	15.3	16.9	(0.20)	14.5	(0.25)
Coca-Cola	0.65	0.41	3.8732	0.1003	34.0	39.4	35.0	34.7	34.0	35.4	1.01	33.5	2.78
Commercial Metals	0.90	0.81	4.0341	0.1044	11.3	11.0	5.6	8.1	3.7	7.9	(0.80)	13.5	(0.41)
ConAgra Foods	0.70	0.52	3.5237	0.0912	23.9	27.0	17.1	18.2	18.2	20.9	0.06	18.0	0.50
ConocoPhillips	0.85	0.75	3.1746	0.0822	10.5	28.4	11.4	5.1	13.4	13.8	(0.41)	7.0	(1.44)
Corn Products Int'l	0.75	0.62	3.7903	0.0981	7.5	6.4	6.7	7.6	8.3	7.3	(0.84)	11.0	(0.81)
Curtiss-Wright	0.70	0.48	3.5467	0.0918	12.3	13.1	11.6	10.1	10.9	11.6	(0.55)	11.0	(0.81)
Dean Foods	0.85	0.40	3.4581	0.0895	20.5	20.1	8.5	17.0	12.6	15.7	(0.29)	10.5	(0.89)
Dentsply Int'l	0.70	0.54	3.3077	0.0856	19.2	19.4	18.0	17.5	15.4	17.9	(0.14)	12.5	(0.57)
Donaldson Co.	0.90	0.81	3.6120	0.0935	23.8	25.1	23.7	22.7	21.3	23.3	0.22	16.5	0.06
Federated Investors	0.90	0.82	3.8584	0.0999	104.4	105.1	72.8	59.8	51.7	78.8 (4)	3.67	29.5 (4)	2.13
Ferro Corp.	0.90	0.80	3.5598	0.0921	24.6	23.7	13.0	8.5	5.4	15.0	(0.33)	10.0	(0.97)
Fortune Brands	0.85	0.72	3.6381	0.0942	12.4	17.1	17.6	21.2	20.9	17.9	(0.14)	17.5	0.22
Franklin Electric	0.65	0.41	3.8326	0.0992	27.8	20.9	22.0	21.0	17.9	21.9	0.13	16.0	(0.02)
Gen'l Dynamics	0.75	0.62	3.9823	0.1033	22.5	23.6	20.8	20.2	18.7	20.9	0.05	17.0	0.14
Gillette	0.65	0.47	3.8884	0.1035	41.2	65.0	48.9	53.5	61.6	54.1 (4)	2.24	31.5 (4)	2.44
Golden West Fin'l	0.85	0.75	3.5852	0.0931	13.0	10.7	11.8	16.1	18.8	14.0	(0.39)	20.5	0.70
HON Industries Inc.	0.85	0.74	3.6729	0.0951	19.8	18.5	15.2	14.1	13.6	16.3	(0.24)	17.5	0.22
Harland (John H.)	0.70	0.50	4.0867	0.1053	25.3	18.7	18.3	22.4	22.0	21.1	0.07	15.5	(0.10)
Harte-Hanks	0.80	0.66	3.2423	0.0839	12.6	14.9	14.4	17.0	15.7	14.9	(0.34)	16.0	(0.02)
Hillenbrand Inds.	0.80	0.67	3.4433	0.0891	17.7	18.7	17.7	19.8	21.1	19.0	(0.07)	16.0	(0.02)
IHOP Corp.	0.85	0.76	3.6811	0.0953	14.2	13.6	12.9	11.2	11.1	12.6	(0.49)	14.5	(0.25)
Int'l Flavors & Frag.	0.75	0.59	3.7525	0.0971	22.0	23.7	25.8	32.0	28.9	26.1	0.40	18.5	0.38
Invacare Corp.	0.90	0.67	3.8611	0.1000	16.8	15.1	15.8	13.5	11.6	14.4	(0.37)	12.0	(0.65)
Johnson & Johnson	0.65	0.46	3.2778	0.0849	28.0	25.5	24.3	30.0	26.8	26.5	0.43	23.0	1.10
Kellogg	0.55	0.31	3.6308	0.0940	74.5	72.6	61.1	79.4	54.5	68.4	3.18	27.5 (4)	1.81
Kirby Corp.	0.90	0.79	3.8446	0.0995	10.4	13.0	13.2	11.9	11.9	11.9	(0.53)	11.0	(0.81)
Lancaster Colony	0.75	0.59	3.7460	0.0969	22.9	24.6	19.6	16.8	16.1	20.0	0.00	14.5	(0.25)
Lance Inc.	0.65	0.46	3.9241	0.1016	13.7	12.6	13.4	11.0	13.1	12.8	(0.47)	15.5	(0.10)
Lawson Products	0.65	0.42	3.6513	0.0945	15.8	16.3	8.7	7.7	9.7	11.7	(0.55)	15.0	(0.17)
Lincoln Elec Hldgs.	0.80	0.68	4.0224	0.1041	20.7	19.3	16.8	17.2	11.7	17.1	(0.19)	13.5	(0.41)
Marathon Oil Corp.	0.85	0.76	3.5433	0.0917	9.0	27.0	28.7	11.1	16.7	18.1	(0.13)	12.5	(0.57)
Matthews Int'l	0.65	0.41	3.7430	0.0969	21.8	22.0	21.0	21.1	17.5	20.7	0.05	15.0	(0.17)

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-11), Page 3 of 6
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 42 of 43

United Water Idaho, Inc.
Comparable Earnings Analysis
for a Proxy Group of Ninety-Seven Non-Utility Companies Comparable to
the Proxy Group of Three Value Line (Standard Edition) Water Companies (5)

Proxy Group of Ninety-Seven Non-Utility Companies Comparable to the Proxy Group of Three Value Line (Standard Edition) Water Companies (5)	Adj. Beta	Unadj. Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Net Worth 1999	2000	2001	2002	2003	5-year Average (2) Percent	5-year Average (2) Student's T-Test	5-Year Projected (3) Percent	5-Year Projected (3) Student's T-Test
McGraw-Hill	0.80	0.65	3.1551	0.0917	23.7	26.2	25.9	26.6	24.6	25.4	0.36	25.0	1.41
Medtronic Inc.	0.90	0.78	3.9651	0.1026	24.7	23.4	23.0	21.8	22.0	23.0	0.20	20.0	0.62
Merck & Co.	0.85	0.77	3.7757	0.0977	44.5	46.0	45.4	39.3	42.3	43.5	1.55	23.0	1.10
Mercury General	0.90	0.80	3.3098	0.0857	14.7	10.6	9.8	10.2	14.1	11.9	(0.53)	18.0	(0.02)
Minerals Techn.	0.90	0.79	3.6265	0.0939	12.6	12.6	10.2	9.1	7.3	10.4	(0.63)	9.0	(1.13)
Murphy Oil Corp.	0.85	0.74	3.9871	0.1032	9.4	24.3	17.6	6.4	13.1	14.2	(0.38)	9.5	(1.05)
New Plan Excel Rlty	0.65	0.46	3.3158	0.0858	9.2	7.9	7.0	7.9	8.1	8.0	(0.79)	12.5	(0.57)
Northrop Grumman	0.60	0.38	3.8461	0.0996	14.9	15.9	5.5	4.8	4.8	9.2	(0.71)	11.0	(0.81)
Occidental Petroleum	0.85	0.73	3.4225	0.0886	7.3	27.8	23.6	16.2	20.3	19.0	(0.07)	15.5	(0.10)
Pactiv Corp.	0.95	0.77	4.0803	0.1081	7.1	9.3	9.9	24.5	21.7	14.5	(0.36)	15.5	(0.10)
People's Bank	0.85	0.72	3.2209	0.0834	14.3	12.3	2.6	5.9	6.4	8.3	(0.77)	11.5	(0.73)
PepsiAmericas Inc.	0.75	0.58	3.7762	0.0978	6.2	5.8	6.3	9.4	9.8	7.5	(0.82)	10.5	(0.89)
PepsiCo Inc.	0.65	0.44	3.1931	0.0827	26.8	30.1	34.6	37.7	30.0	31.8	0.78	32.0 (4)	2.52
Pfizer Inc.	0.85	0.71	3.3984	0.0880	39.2	40.4	45.6	47.9	19.5	38.3	1.20	21.0	0.78
Protective Life	0.90	0.79	3.7503	0.0971	17.7	12.3	10.1	10.0	9.8	12.0	(0.53)	11.5	(0.73)
Quaker Chemical	0.80	0.63	3.8991	0.1007	19.0	20.2	16.8	18.2	13.2	17.1	(0.19)	9.5	(1.05)
Raicorp Holdings	0.55	0.29	3.4048	0.0881	11.2	10.8	9.9	12.3	13.0	11.4	(0.57)	12.0	(0.65)
Ruddick Corp.	0.85	0.70	3.7843	0.0980	11.4	10.8	10.6	12.3	12.1	11.5	(0.56)	13.0	(0.49)
SLM Corporation	0.90	0.68	3.5721	0.0925	47.9	34.8	37.3	31.8	33.3	37.0	1.12	28.5	1.65
Sara Lee Corp.	0.50	0.38	3.4174	0.0885	88.3	92.0	99.9	63.8	59.1	80.6 (4)	3.99	32.5 (4)	2.60
Selective Ins. Group	0.80	0.64	3.6719	0.0951	9.4	4.8	4.5	6.1	7.7	6.5	(0.89)	12.5	(0.57)
Sensient Techn.	0.70	0.54	3.6751	0.0951	18.6	16.7	15.1	16.2	13.4	16.0	(0.26)	12.0	(0.65)
ServiceMaster Co.	0.75	0.55	4.0512	0.1049	19.6	15.9	9.4	14.0	19.4	15.5	(0.30)	19.5	0.54
Sigma-Aldrich	0.80	0.69	4.0344	0.1044	11.8	16.2	17.4	14.8	19.3	15.9	(0.27)	14.5	(0.25)
Smucker (J.M.)	0.65	0.41	3.7441	0.0969	11.4	13.4	12.2	9.3	10.0	11.3	(0.57)	10.0	(0.97)
Standex Int'l	0.80	0.63	3.8767	0.1004	18.9	18.5	14.5	11.4	11.1	14.9	(0.34)	16.5	0.06
Stryker Corp.	0.75	0.58	4.0975	0.1061	23.9	25.9	25.7	23.8	21.0	24.1	0.27	26.5	1.65
Sysco Corp.	0.80	0.65	3.5151	0.0910	25.4	25.8	27.8	31.9	35.4	29.3	0.61	28.5	1.97
Tecumseh Products 'A'	0.80	0.62	3.9302	0.1017	13.1	6.6	4.4	5.5	3.8	6.7	(0.88)	10.5	(0.89)
Tennant Co.	0.75	0.60	3.6385	0.0942	17.7	18.2	3.1	8.0	8.5	11.1	(0.59)	12.0	(0.65)
Thomas Indr.	0.75	0.56	3.8254	0.0990	12.5	13.5	11.9	10.4	9.7	11.6	(0.55)	7.0	(1.44)
Thorndburg Mtg.	0.70	0.54	3.5658	0.0931	8.2	9.2	11.0	14.4	14.2	11.4	(0.57)	11.5	(0.73)
Toro Co.	0.60	0.68	3.2798	0.0849	12.5	14.3	14.8	17.4	18.5	15.5	(0.30)	27.0	1.73
Union Pacific	0.90	0.78	3.2495	0.0841	8.2	9.0	8.7	9.3	9.5	8.7	(0.74)	9.0	(1.13)
Universal Corp.	0.70	0.49	3.7086	0.0960	23.6	23.7	21.4	18.1	18.3	21.0	0.97	17.0	0.14
Unocal Corp.	0.90	0.78	3.4344	0.0889	5.2	26.6	19.2	10.0	16.0	16.4	(0.30)	16.0	(0.02)
Valspar Corp.	0.90	0.81	3.6618	0.0948	20.9	19.8	7.9	18.3	12.9	15.6	(0.26)	12.5	(0.57)
Walgreen Co.	0.85	0.72	3.7290	0.0965	17.9	17.9	16.7	16.3	16.1	17.0	(0.20)	17.5	0.22
Weis Markets	0.70	0.52	3.2481	0.0841	6.5	7.8	10.1	10.4	9.5	9.3	(0.70)	10.5	(0.89)
Wendy's Int'l	0.75	0.54	3.9883	0.1032	15.6	16.1	19.8	15.1	13.4	15.8	(0.28)	14.5	(0.25)
West Pharmac. Svcs.	0.70	0.49	3.6054	0.0933	15.7	9.3	11.9	6.4	10.6	10.6	(0.92)	12.5	(0.57)
Zimmer Holdings	0.75	0.59	3.8939	0.1268	42.7	73.6	242.4	70.4	9.3	87.7 (4)	4.45	14.5 (4)	(0.25)
Average for the Non-Utility Group	0.77	0.62	3.7015	0.0961									
Average for the Proxy Group of Three Value Line (Standard Edition) Water Companies	0.72	0.54	3.6320 (10)	0.0940									
Mean										16.7%		14.9%	
Conclusion (9)											15.8% (9)		
Conservative Mean (7)										14.3%		13.5%	
Conservative Conclusion (8)											13.9% (8)		

See pages 5 and 6 for notes.

Exhibit No. 12
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-11), Page 4 of 6
(Updated)

Exhibit No. 18
Case No. UWI-W-04-04
Pauline M. Ahern, AUS Consultants
Schedule (PMA-17), Page 43 of 43