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INDIANA UTILITY
REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE PETITION OF TWIN LAKES UTILITIES, INC. FOR AN INCREASE IN ITS RATES AND CHARGES FOR WATER AND WASTEWATER UTILITY SERVICE	))))	CAUSE NO. 43128

PETITIONER'S SUBMISSION OF DIRECT TESTIMONY AND EXHIBITS

Pursuant to the schedule agreed to by the parties at the prehearing conference conducted in this cause on November 6, 2006, petitioner Twin Lakes Utilities, Inc. submits the attached direct testimony and exhibits of its three witnesses, Michael T. Dryjanski, Christopher K. Montgomery and Pauline M. Ahern in support of its request that the Indiana Utility Regulatory Commission approve an increase in its water and wastewater utility rates and charges.

Respectfully submitted,

TWIN LAKES UTILITIES, INC.

By: _____
Its attorney

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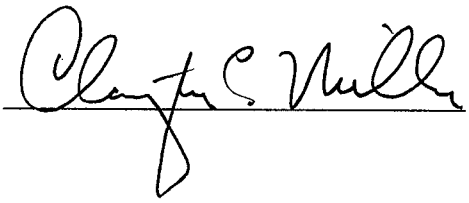
CERTIFICATE OF SERVICE

The undersigned certifies that on November 13, 2006, a copy of the petitioners direct testimony and exhibits was served by hand delivery to the Indiana Office of Utility Consumer Counselor, Indiana Government Center North, 100 North senate Avenue, Room N-501, Indianapolis, IN 46204



BEFORE THE

INDIANA UTILITY REGULATORY COMMISSION

CAUSE NO. 43128

PREPARED DIRECT TESTIMONY

OF

MICHAEL T. DRYJANSKI

ON BEHALF OF

PETITIONER TWIN LAKES UTILITIES, INC.

November 13, 2006

I. INTRODUCTION AND QUALIFICATIONS

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Michael T. Dryjanski. My business address is 2335 Sanders Road,
3 Northbrook, Illinois 60062.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I hold the position of Manager, Regulatory Accounting for Utilities, Inc. ("UI") and
6 its subsidiaries. The Petitioner, Twin Lakes Utilities, Inc. ("TLUI" or
7 "Company"), is a wholly owned subsidiary of UI. I have been employed by UI
8 since August 2006.

9 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

10 A. I received a Bachelor of Science Degree from Chicago State University and a
11 Masters of Business Administration from the University of Illinois – Springfield. I
12 am also a Certified Public Accountant.

13 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND.**

14 A. I began my accounting career in 1978 as a staff auditor with the firm of Arthur
15 Young. I then worked for several years at Procon Incorporated, an architectural/
16 engineering firm in the petrochemical construction field. At Procon, I held various
17 accounting positions including Manager of Project Accounting. In 1984, I joined
18 Illinois Power Company, an electric and gas utility now known as AmerenIP. I
19 held various accounting related positions with Illinois Power including Supervisor,
20 Administrative Controls; Senior Completion Cost Specialist; Supervisor Property
21 Unitization; Director, Property Accounting; Systems Reengineering Specialist;

1 Senior Rate Analyst, Regulatory Services; Project Coordinator, Regulatory
2 Reform; and Team Leader, Capital Asset Accounting. I left Illinois Power in 2001
3 to form MTD Consulting and Services, Inc., an independent consulting service
4 with a primary focus on utility regulatory issues where I worked as President until
5 joining UI earlier this year.

6 **Q. HAVE YOU TESTIFIED BEFORE THE INDIANA UTILITY**
7 **REGULATORY COMMISSION?**

8 A. No, I have not.

9 **Q. HAVE YOU TESTIFIED BEFORE ANY OTHER PUBLIC UTILITY**
10 **COMMISSIONS?**

11 A. Yes. I have testified before the Illinois Commerce Commission in Dockets 02-
12 0743 and 98-0680. My testimony and exhibits in this latter docket were
13 incorporated into the record of Illinois Power's delivery services implementation
14 plans and tariff proceedings (ICC Dockets 9-0120/99-0134). I have also presented
15 testimony before the FERC in Docket EC03-30-000 & ER03-284-000.

16 **Q. PLEASE EXPLAIN YOUR JOB RESPONSIBILITIES WITH UI.**

17 A. My responsibilities include: the preparation of rate applications, facilitation of
18 commission audits, and the submission of testimony and exhibits to support rate
19 and transfer applications. In addition, I oversee the regulatory activities of the
20 wholly owned utility operating subsidiaries of UI. I am responsible for rate-
21 making activities for individual companies within the group, including TLUI.

22 **Q. ARE YOU FAMILIAR WITH THE BOOKS, RECORDS, AND**

STATEMENTS OF FINANCIAL CONDITION OF TLUI?

A. Yes, I am.

II. BACKGROUND OF CASE

Q. PLEASE DESCRIBE TLUI.

A. TLUI is a wholly owned subsidiary of UI. TLUI serves an area located in Lake and Porter Counties, approximately six miles east of Crown Point. TLUI provides water and sewer utility service pursuant to Certificates of Territorial Authority issued by the Commission to TLUI by Orders entered, February 18, 1975, in Cause No. 33766, and May 18, 1979, in Cause No. 35611. The majority of TLUI's customers are residential and located within the Lake of the Four Season ("LOFS") development. At December 31, 2005, TLUI was serving approximately 3,100 water and sewer customers. TLUI's current water and sewer rates were approved by Order entered by the Commission, March 31, 2004, in Cause No.42488.

Q. PLEASE DESCRIBE UI.

A. UI is unique within the water and sewer industry in many respects. From its inception almost 40 years ago, UI has concentrated on the purchase, formation and expansion of smaller water and/or sewer utility systems. At the present time, UI has about 90 systems that provide service to approximately 300,000 customers in 17 states. In March, 2002, UI was purchased by Nuon nv, and in February 2006, Nuon sold its interest in UI to Hydro Star.

Q. DO TLUI CUSTOMERS BENEFIT FROM THE COMPANY'S AFFILIATION WITH UI?

A. Yes. The affiliation with UI has many benefits for TLUI customers. One of the primary benefits is TLUI's access to a large pool of experienced professionals from which to draw upon. UI employs experts in various critical areas, such as construction, engineering operations, accounting, data processing, billing, regulation, and customer service. Operating only water and sewer systems, UI personnel have the ability to meet the challenges of the rapidly changing utility industry, and TLUI's affiliation with UI affords TLUI's customers UI's combination of expertise and experience in a cost effective manner. Another advantage of TLUI's affitialtion with UI is that capital is available for improvements and expansion at a favorable cost. With increasingly more stringent health and environmental standards, ready access to capital will prove vital to continued quality service in the water and sewer utility business.

III. RELIEF REQUESTED

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. The purpose of my testimony is to explain TLUI's need for increased water and sewer rates. I sponsor the Company's financial exhibits, including pro-forma income statements and balance sheets.

Q. WHY IS TLUI REQUESTING RATE RELIEF?

A. Under present rates, TLUI is not able to cover its operating expenses and earn a reasonable return on its investment in the TLUI system. The utility's current combined operating income statement as at June 30, 2006 is shown in Schedule B, page 1, of Petitioner's Exhibit MTD-1. Separate income statements for the same

time period for TLUI's water utility and sewer utility operations are shown on pages 2 and 3, respectively, of Schedule B. TLUI's current rates have been in place since April 2004 and do not reflect rising costs since then, many of which result from increasingly stringent federal environmental regulations and the utility's need to make corresponding improvements to its systems. As shown on page 2 of Schedule C of Petitioner's Exhibit MTD-1, at June 30, 2006, TLUI had a return of negative 6.59% on an original cost rate base of $1,477,000 for its water operations. As shown on page 3 of Schedule C, TLUI earned an 8.15% return on the original cost rate base of its sewer utility property of $4,927,000. The proposed rates should increase those returns to an 8.64% return on the original cost rate base for each utility. In addition, TLUI is addressing rate relief after only two and one-half years because the Company did not get "Phase II" additions included in its sewer rate base.

Q. HOW DID YOU COMPUTE THOSE RETURNS?

A. This is shown in Schedules B and C of Petitioner's Exhibit MTD-1. As shown on page 2 of Schedule B, the water utility had test year operating revenues of $808,822 and total operating expenses of $869,897, after adjustments, for a pro forma operating loss under present rates of $61,075, for a negative return of 3.60% on the Company's original cost water utility rate base of $1,695,000. The rate base for the water utility is shown on page 2 of Schedule C and reflects adjustments for the utility's cash working capital needs and plant under construction in 2006 that will be in service by December 31, 2006.

As shown on page 3 of Schedule B, the sewer utility had test year operating revenues of $1,489,160 and total operating expenses of $1,165,235 after adjustments, for a pro forma operating income under present rates of a $323,925, for a return of 5.98% on the Company's original cost sewer utility rate base of $5,417,000. The rate base for the sewer utility is shown on page 3 of Schedule C and reflects adjustments for the utility's cash working capital needs and plant under construction in 2006 that will be in service by December 31, 2006.

Q. IN BOTH THE RATE BASES OF THE SEWER AND WATER UTILITIES THERE IS A LINE ENTITLED "WATER SERVICE CORPORATION", AS SHOWN ON PAGES 2 AND 3 OF SCHEDULE C. WHAT IS THAT?

A. The amounts shown for Water Service Corporation ("WSC") are allocations of property of UI's Illinois-based, wholly-owned service corporation used to service the needs of the UI subsidiaries, including TLUI. WSC is a direct subsidiary of UI, as is TLUI. The allocations of WSC property are based on numbers of customers.

Q. YOU MADE A NUMBER OF ADJUSTMENTS TO OPERATING EXPENSES FOR BOTH THE WATER AND SEWER OPERATIONS. ARE THOSE EXPLAINED IN YOUR SCHEDULES?

A. Yes. Schedule B, page 4 describes each such adjustment.

Q. HOW DID YOU COMPUTE THE REVENUE REQUIREMENT FOR THE WATER AND SEWER UTILITIES?

A. I first determined the return deficiencies by multiplying the Company's 8.64% cost of capital, as determined by Pauline M. Ahern in Petitioner's Exhibit PMH, times

1 the utility's original cost rate base, and subtracted from there the pro forma Net
2 Operating Income under current rates, shown in Schedule B. I then computed the
3 pre-tax revenue deficiencies.

4 **Q. WHAT IS PETITIONER'S EXHIBIT MTD-2?**

5 A. That is UI's balance sheet at June 30, 2006.

6 **Q. ARE ALL OF THE ADJUSTMENTS YOU MADE TO TEST YEAR**
7 **EXPENSE BASED ON ITEMS THAT ARE KNOWN, FIXED AND**
8 **MEASURABLE AND TO BE IN EFFECT WITHIN THE 12 MONTHS**
9 **AFTER JUNE 30, 2006?**

10 A. Yes, they are.

11 **Q. ARE THE PRO FORMAS ADJUSTMENTS TO RATE BASE MADE TO**
12 **INCLUDE THE COST OF WATER AND WASTEWATER CAPITAL**
13 **PROJECTS THAT WILL BE COMPLETED AND IN-SERVICE BY**
14 **DECEMBER 31, 2006?**

15 A. Yes. These projects are more fully described in the testimony of my colleague and
16 fellow TLUI witness, Christopher Montgomery.

17 **Q. WHY DID YOU USE A CUT-OFF DATE OF DECEMBER 31, 2006 FOR**
18 **YOUR PRO FORMA ADJUSTMENTS TO RATE BASE?**

19 A. Although it is apparently not unusual for parties in Indiana to agree to limit test
20 year adjustments to operating expenses and not make pro forma adjustments to rate
21 base, we have not agreed to such a limitation in this case. Consistent with
22 Company's prior rate relief requests, the TLUI takes into consideration capital

1 additions that have been requested and approved by utility management and will be
2 providing service to customers during the rate effective period. The Company has
3 conservatively used a period only six months from the test year to ensure that the
4 plant additions will be placed into service well in advance of the evidentiary
5 hearing of this request for rate relief. This cutoff is also consistent with the
6 Company's practice of booking additions to rate base once a year. Thus, some of
7 the pro forma adjustments to rate base included in my proposal reflect projects
8 completed before the end of the test year but not yet recorded on TLUI books as of
9 June 30, 2006. I have also been advised that had TLUI utilized the Commission's
10 minimum standard filing requirements, we would be permitted to make such
11 adjustments to rate base up to ten days in advance of the evidentiary hearing in this
12 matter, which is scheduled for February 27, 2007.

13 **Q. WHY IS THE COMPANY JUSTIFIED IN MAKING ANY PRO FORMA**
14 **PLANT ADJUSTMENTS?**

15 A. The pro forma plant adjustments made by the Company represent its on going
16 commitment and need to continuously improve and maintain its operating facilities
17 in order to provide TLUI's customers quality water and sewer service. The
18 majority of the additions in the pro forma period relate directly to the commitment
19 that the Company made in its last rate case to remediate inflow and infiltration of
20 its sewer system.

21 **Q. IS ALL OF THE PROPERTY THAT IS INCLUDED IN TLUI'S RATE**
22 **BASE USED AND USEFUL FOR SERVICE TO THE PUBLIC?**

A. Yes. All of the utility's property included in the test year rate base, including pro forma plant adjustments, is used and useful, and is currently or will be in service no later than December 31, 2006, to provide service to TLUI's customers.

Q. WHAT ARE TLUI'S RESIDENTIAL CUSTOMERS CURRENTLY CHARGED FOR WATER UTILITY SERVICE?

A. The bi-monthly charges are:

Base Charge: $13.09

Usage Charge per 1,000 gallons: $2.27

Based on the average residential consumption of approximately 13,250 gallons per bimonthly billing cycle, the average bi-monthly bill is $43.17 under current rates, or $21.59 per month.

Q. WHAT ARE TLUI'S RESIDENTIAL CUSTOMERS CURRENTLY CHARGED FOR SEWER UTILITY SERVICE?

A. The present bi-monthly charge is a flat rate of $80.53 for TLUI's residential sewer customers, or $40.27 per month.

Q. WHAT RATES ARE YOU PROPOSING?

A. The bi-monthly rates for residential customers that we are proposing are:

<u>Water</u>

Base Charge: $19.02

Usage Charge per 1,000 gallons: $3.30

<u>Sewer</u>

Base Charge: $95.23

Assuming our customers maintain their current bi-monthly water consumption, an average residential customer will pay $62.74 per bi-monthly period (or $31.37 on a monthly basis) for water service, an increase of approximately 45% over the present rates. Under our proposed rates, an average residential customer will pay $95.23 per bi-monthly period (or $47.61 on a monthly basis) for wastewater service, which represents an increase of approximately 18% over present rates.

Q. WHAT IS SHOWN IN SCHEDULE D OF PETITIONER'S EXHIBIT MTD-1?

A. This is a consumption analysis during the test year for the water utility and a statement of revenues broken down by meter size and class.

Q. WHAT IS SHOWN IN SCHEDULE E?

A. Schedule E shows TLUI's proposed water and sewer rates.

Q. ARE THE PROPOSED RATES JUST AND REASONABLE?

A. Yes, they are. They cover our pro forma operating expense for the water and sewer utilities and provide a fair return on the fair value, which for purposes of this rate case is the original cost, depreciated, less CIAC, of the TLUI's property now in service or to be in service by December 31, 2006.

IV. FUTURE INFRASTRUCTURE INVESTMENT

Q. WHAT ARE TLUI'S NEAR-TERM PLAN FOR FUTURE INFRASTRUCTURE INVESTMENTS?

A. The Company is committed to complete a $350,000 replacement project at the North Aeration Filter at Water Plant #1. This project is designed to provide and

1 maintain quality service to its customers. The details of this project are addressed
2 in Mr. Montgomery's Direct Testimony, and presented in summary form in his
3 accompanying exhibit. While the Company does not anticipate completion by
4 December 31, 2006, it does expect the project to be completed about mid-2007.
5 The Company is also in the process of preparing to acquire and install two new
6 generators at sewer lift stations. These two new emergency generators will have a
7 total cost of about $70,000 or more, each.

8 **Q. HOW ARE YOU RECOMMENDING THAT THE COMMISSION TREAT**
9 **THESE CAPITAL EXPENDITURES?**

10 A. TLUI is requesting that the Commission allow this addition, net of retirements,
11 when completed and placed in service, to be included in its rate base for
12 ratemaking purposes, and that TLUI's rates be adjusted at that time, after a hearing
13 as to their completion.

14 **Q. COULD YOU PLEASE ELABORATE ON THIS RECOMMENDATION?**

15 A. Yes. In other states such as Mississippi and Illinois, UI's operating subsidiaries
16 have been granted the authority to increase rates for specific capital projects that
17 were completed after the conclusion of their respective rate cases. The utility must,
18 of course, submit supporting documentation to the Commission's Staff and notify
19 the Commission of the completion of the projects. The Commission's Staff then
20 audits the invoices and conducts a site visit to ensure completion and service
21 status. The Utility files new tariffs with the adjusted rates and bills customers the
22 Phase II rates after they have been approved.

Q. WHAT BENEFITS ARE DERIVED BY ALLOWING THE UTILITY TO INCLUDE CAPITAL PROJECTS, ONCE THEY ARE IN SERVICE, IN RATES AFTER THE CONCLUSION OF A RATE CASE?

A. This type of rate making benefits the Commission's Staff, the Company and rate payers, as it limits the number of times a Utility is required to file a rate case. If the Company were not allowed to include these projects in its rates once they are placed into service, it will have to file yet another rate case and incur additional rate case expense (or seek a deferral of depreciation and a continuation of AFUDC on the project's costs) sooner than otherwise. The procedure we propose diminishes regulatory lag and should ultimately help reduce the cost of rate cases.

Q. HOW WOULD THESE PHASE II RATES BE CALCULATED?

A. The rate base approved in this proceeding would be updated to include the additional projects and related depreciation expense. The updated rate base would then be used to set Phase II rates, using the rate of return and revenue conversion factor used in this case.

V. RATE CASE EXPENSES

Q. IN CAUSE ORDER 42488, PARAGRAPH 4.G, THE COMPANY AGREED TO A THREE YEAR-AMORTIZATION OF RATE CASE EXPENSES AND THAT IT WOULD AMEND RATES IF IT DID NOT COMMENCE WITH A RATE PROCEEDING WITHIN THREE YEARS AFTER THE EFFECTIVE DATE OF THE ORDER. IS THERE ANY REASON WHY THE COMPANY SHOULD AMEND ITS RATES WITH RESPECT TO

1 **THIS ORDERING PARAGRAPH?**

2 A. No. This filing by the company is within the three-year window provided in the

3 Order, and therefore no adjustment is required.

4 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

5 A. Yes it does.

Petioner's Exhibit MTD-1
IURC Cause No. 43128
Schedules A - E

Twin Lakes Utilities, Inc.
Balance Sheet
June 30, 2006

Schedule A

ASSETS		
Plant In Service		
Water	$	5,113,324
Sewer		11,649,676
Total	$	16,762,999
Accumulated Depreciation-Water	$	(1,200,765)
Accumulated Depreciation-Sewer		(2,652,667)
Total	$	(3,853,433)
Net Utility Plant	$	12,909,567
Plant Acquisition Adjustment-Water	$	0
Plant Acquisition Adjustment-Sewer		0
Total	$	0
Construction Work In Process-Water	$	38,805
Construction Work In Process-Sewer		225
Total	$	39,030
Current Assets		
Cash	$	265
Accounts Receivable - Net		423,487
Other Current Assets		1,464
Total	$	425,216
Deferred Charges	$	133,185
TOTAL ASSETS	$	13,506,998

LIABILITIES AND OTHER CREDITS		
Capital Stock and Retained Earnings		
Common Stock and Paid In Capital	$	7,139,647
Retained Earnings		5,575,650
Total	$	12,715,297
Current and Accrued Liabilities		
Accounts Payable-Trade	$	8,830
Taxes Accrued		427,439
Customer Deposits		1,515
Customer Deposits - Interest		3,453
A/P - Assoc. Companies		(6,349,826)
Total	$	(5,908,588)
Advances In Aid of Construction		
Water	$	0
Sewer		0
Total	$	0
Contributions In Aid of Construction		
Water	$	2,058,911
Sewer		3,730,294
Total	$	5,789,205
Accumulated Deferred Income Tax		
Unamortized ITC	$	82,913
Deferred Tax - Federal		881,023
Deferred Tax - State		(52,852)
Total	$	911,083
TOTAL LIABILITIES AND OTHER CREDITS	$	13,506,998

Twin Lakes Utilities, Inc.
Combined Operations
Test Year Ended June 30, 2006

	Per Books	Pro Forma Adjustments		Pro Forma Present		Proposed Increase		Pro Forma Proposed
Operating Revenues								
Service Revenues - Water	$ 815,906	$ (11,671)	[a]	$ 804,235		$ 383,901		$ 1,188,136
Service Revenues - Sewer	1,504,196	(20,613)	[a]	1,483,583		270,753		1,754,336
Miscellaneous Revenues	23,206	-		23,206		-		23,206
Uncollectible Accounts	(13,042)	-		(13,042)	[l]	(3,750)		(16,792)
Total Operating Revenues	$ 2,330,266	$ (32,284)		$ 2,297,982		$ 650,904		$ 2,948,886
Maintenance Expenses								
Salaries and Wages	$ 208,760	$ 104,526	[b]	$ 313,286		$ -		$ 313,286
Purchased Power	174,625	5,907	[j]	180,532		-		180,532
Purchased Sewer & Water	-	-	[j]	-		-		-
Maintenance and Repair	151,953	5,140	[j]	157,093		-		157,093
Maintenance Testing	41,499	1,404	[j]	42,903		-		42,903
Meter Reading	13,550	458	[j]	14,008		-		14,008
Chemicals	38,312	1,296	[j]	39,608		-		39,608
Transportation	47,799	1,617	[j]	49,416		-		49,416
Operating Exp. Charged to Plant	(39,133)	489	[c]	(38,643)		-		(38,643)
Outside Services - Other	15,422	263	[j]	15,686		-		15,686
Total	$ 652,788	$ 121,101		$ 773,889		$ -		$ 773,889
General Expenses								
Salaries and Wages	$ 96,867	$ 27,612	[b]	$ 124,480		$ -		$ 124,480
Office Supplies & Other Office Exp.	27,469	469	[j]	27,939		-		27,939
Regulatory Commission Exp.	45,343	3,342	[d]	48,685		-		48,685
Pension & Other Benefits	55,570	12,617	[b]	68,187		-		68,187
Rent	263	9	[j]	272		-		272
Insurance	42,006	1,421	[j]	43,427		-		43,427
Office Utilities	15,861	537	[j]	16,398		-		16,398
Miscellaneous	(31,518)	-	[j]	(31,518)		-		(31,518)
Total	$ 251,862	$ 46,007		$ 297,869		$ -		$ 297,869
Depreciation	$ 374,629	$ 29,182	[e]	$ 403,811		$ -		$ 403,811
Taxes Other Than Income	554,638	9,776	[f]	564,414		64,811	[f]	629,224
Income Taxes - Federal	133,708	(135,661)	[g]	(1,954)		184,552	[g]	182,598
Income Taxes - State	60,296	(61,321)	[g]	(1,025)		49,818	[g]	48,793
Amort. Investment Tax Credit	(1,871)	-		(1,871)		-		(1,871)
Amortization of PAA	-	-	[e]	-		-		-
Amortization of CIAC	-	-	[e]	-		-		-
Total	$ 1,121,400	$ (158,024)		$ 963,375		$ 299,180		$ 1,262,556
Total Operating Expenses	$ 2,026,049	$ 9,083		$ 2,035,133		$ 299,180		$ 2,334,313
Net Operating Income	$ 304,217	$ (41,367)		$ 262,849		$ 351,723		$ 614,573
Interest During Construction	$ 998	$ (998)	[h]	$ -		$ -		$ -
Interest on Debt	275,067	(3,140)	[i]	271,927		-		271,927
Net Income	$ 28,151	$ (37,229)		$ (9,078)		$ 351,723		$ 342,645

Twin Lakes Utilities, Inc.
Water Operations
Test Year Ended June 30, 2006

	Per Books	Pro Forma Adjustments		Pro Forma Present		Proposed Increase		Pro Forma Proposed
Operating Revenues								
Service Revenues - Water	$ 815,906	$ (11,671)	[a]	$ 804,235		$ 383,901		$ 1,188,136
Service Revenues - Sewer	-	-	[a]	-				-
Miscellaneous Revenues	9,234	-		9,234				9,234
Uncollectible Accounts	(4,647)	-		(4,647)	[l]	(2,218)		(6,865)
Total Operating Revenues	$ 820,493	$ (11,671)		$ 808,822		$ 381,683		$ 1,190,505
Maintenance Expenses								
Salaries and Wages	$ 105,403	$ 52,766	[b]	$ 158,169		$ -		$ 158,169
Purchased Power	108,298	3,663	[j]	111,961		-		111,961
Purchased Water	-	0	[j]	-		-		-
Maintenance and Repair	73,835	2,498	[j]	76,333		-		76,333
Maintenance Testing	8,134	275	[j]	8,409		-		8,409
Meter Reading	13,550	458	[j]	14,008		-		14,008
Chemicals	19,344	654	[j]	19,998		-		19,998
Transportation	24,134	816	[j]	24,950		-		24,950
Operating Exp. Charged to Plant	(19,758)	247	[c]	(19,511)		-		(19,511)
Outside Services - Other	7,787	263		8,050		-		8,050
Total	$ 340,726	$ 61,642		$ 402,367		$ -		$ 402,367
General Expenses								
Salaries and Wages	$ 48,908	$ 13,938	[b]	$ 62,846		$ -		$ 62,846
Office Supplies & Other Office Exp.	13,869	469	[j]	$ 14,338		-		14,338
Regulatory Commission Exp.	22,894	1,687	[d]	24,581		-		24,581
Pension & Other Benefits	28,057	6,368	[b]	34,426		-		34,426
Rent	133	4	[j]	137		-		137
Insurance	21,209	717	[j]	21,926		-		21,926
Office Utilities	8,008	271	[j]	8,279		-		8,279
Miscellaneous	(15,914)			(15,914)		-		(15,914)
Total	$ 127,165	$ 23,456		$ 150,621		$ -		$ 150,621
Depreciation	$ 116,923	$ 13,784	[e]	$ 130,708				$ 130,708
Taxes Other Than Income	264,403	4,935	[f]	269,338		38,006	[f]	307,344
Income Taxes - Federal	47,640	(112,491)	[g]	(64,850)		106,918	[g]	42,067
Income Taxes - State	21,483	(39,202)	[g]	(17,719)		29,213	[g]	11,494
Amort. Investment Tax Credit	(567)	-		(567)				(567)
Amortization of PAA	-	-	[e]	-		-		-
Amortization of CIAC	-	-	[e]	-		-		-
Total	$ 449,883	$ (132,974)		$ 316,909		$ 174,136		$ 491,046
Total Operating Expenses	$ 917,774	$ (47,876)		$ 869,897		$ 174,136		$ 1,044,034
Net Operating Income	$ (97,281)	$ 36,205		$ (61,075)		$ 207,546		$ 146,471
Interest During Construction	$ 303	$ (303)	[h]	$ -		$ -		$ -
Interest on Debt	83,215	(18,404)	[i]	64,811		-		64,811
Net Income	$ (180,798)	$ 54,912		$ (125,886)		$ 207,546		$ 81,660

Twin Lakes Utilities, Inc.
Sewer Operations
Test Year Ended June 30, 2006

	Per Books	Pro Forma Adjustments		Pro Forma Present		Proposed Increase		Pro Forma Proposed
Operating Revenues								
Service Revenues - Water	$ -	$ -	[a]	$ -		$ -		$ -
Service Revenues - Sewer	1,504,196	(20,613)	[a]	1,483,583		270,753		1,754,336
Miscellaneous Revenues	13,972	-		13,972		-		13,972
Uncollectible Accounts	(8,395)	-		(8,395)	[l]	(1,532)		(9,927)
Total Operating Revenues	$ 1,509,773	$ (20,613)		$ 1,489,160		$ 269,221		$ 1,758,381
Maintenance Expenses								
Salaries and Wages	$ 103,357	$ 51,760	[b]	$ 155,117		$ -		$ 155,117
Purchased Power	66,327	2,244	[j]	68,570		-		68,570
Purchased Sewer	-	-	[j]	-		-		-
Maintenance and Repair	78,118	2,642	[j]	80,760		-		80,760
Maintenance Testing	33,366	1,129	[j]	34,494		-		34,494
Meter Reading	-	-	[j]	-		-		-
Chemicals	18,968	642	[j]	19,610		-		19,610
Transportation	23,665	801	[j]	24,466		-		24,466
Operating Exp. Charged to Plant	(19,375)	242	[c]	(19,132)		-		(19,132)
Outside Services - Other	7,636	-	[j]	7,636		-		7,636
Total	$ 312,062	$ 59,459		$ 371,521		$ -		$ 371,521
General Expenses								
Salaries and Wages	$ 47,959	$ 13,674	[b]	$ 61,633		$ -		$ 61,633
Office Supplies & Other Office Exp.	13,600	-	[j]	13,600		-		13,600
Regulatory Commission Exp.	22,449	1,655	[d]	24,104		-		24,104
Pension & Other Benefits	27,513	6,249	[b]	33,761		-		33,761
Rent	130	4	[j]	135		-		135
Insurance	20,797	703	[j]	21,501		-		21,501
Office Utilities	7,853	266	[j]	8,119		-		8,119
Miscellaneous	(15,605)			(15,605)		-		(15,605)
Total	$ 124,697	$ 22,551		$ 147,248		$ -		$ 147,248
Depreciation	$ 257,706	$ 15,398	[e]	$ 273,104				$ 273,104
Taxes Other Than Income	290,235	4,841	[f]	295,076		26,805	[f]	321,880
Income Taxes - Federal	86,067	(23,171)	[g]	62,897		77,634	[g]	140,530
Income Taxes - State	38,813	(22,119)	[g]	16,694		20,605	[g]	37,299
Amort. Investment Tax Credit	(1,304)	-		(1,304)		-		(1,304)
Amortization of PAA	-	-	[e]	-		-		-
Amortization of CIAC	-	-	[e]	-		-		-
Total	$ 671,517	$ (25,050)		$ 646,466		$ 125,044		$ 771,510
Total Operating Expenses	$ 1,108,276	$ 56,960		$ 1,165,235		$ 125,044		$ 1,290,279
Net Operating Income	$ 401,497	$ (77,573)		$ 323,925		$ 144,177		$ 468,102
Interest During Construction	$ 696	$ (696)	[h]	$ -		$ -		$ -
Interest on Debt	191,852	15,265	[i]	207,117		-		207,117
Net Income	$ 208,950	$ (92,142)		$ 116,808		$ 144,177		$ 260,985

[a] Water and sewer revenues are adjusted to tie to test year consumption data at test year rates. These were the rates established in Cause Order No. 42488, issued March 31, 2004.

[b] Salaries, wages and benefits are adjusted for annualization as of 6/30/06, and then adjusted for anticipated increases of 4%.

[c] Operating expense charged to plant has been adjusted to reflect an increase in operator salaries.

[d] Regulatory expense has been adjusted for the total estimated cost of this case, amortized over three years.

[e] Depreciation and amortization expense are annualized to reflect actual and estimated pro forma plant additions, actual and estimated capitalize time additions, and actual and estimated general ledger plant additions at the Company's depreciation rates These actual and estimated pro forma additions account for pro forma additions through the estimated audit date

[f] Taxes other than income are adjusted for annualized payroll taxes, utility commission taxes, and gross receipts taxes.

[g] Income taxes are computed on taxable income at current rates.

[h] AFUDC is eliminated for rate making purposes.

[i] Interest on Debt has been computed using a 58.11% /41.89% debt / equity ratio and a 6.58% cost of debt.

[j] A consumer price index increase of 3.4% has been included in this filing.

[l] Uncollectible accounts have been adjusted to account for bad debt expense at proposed revenues

Twin Lakes Utilities, Inc.
Combined Operations
Rate Base and Rate of Return
Test Year Ended June 30, 2006

	Per Books	Pro Forma Adjustments		As Adjusted	Proposed Increase	Effect of Proposed Increase
Net Operating Income	$ 304,217	(41,367)		$ 262,849	$ 351,723	$ 614,573
Gross Plant In Service	16,762,999	-		16,762,999	-	$ 16,762,999
Accumulated Depreciation	(3,853,433)	281,373	[b]	(3,572,060)	-	(3,572,060)
Net Plant In Service	12,909,567	281,373		13,190,940	-	13,190,940
Cash Working Capital	113,081	20,889	[c]	133,970	-	133,970
Contributions In Aid of Construction	(5,789,205)	-		(5,789,205)	-	(5,789,205)
Accumulated Deferred Income Taxes	(828,171)	-		(828,171)	-	(828,171)
Customer Deposits	(1,515)	-		(1,515)	-	(1,515)
Plant Acquisition Adjustment	-	-		-	-	-
Water Service Corporation	-	-		-	-	-
General Ledger Additions	-	249,104	[d]	249,104	-	249,104
Capitalized Time Additions	-	-	[d]	-	-	-
Excess Book Value	-	-		-	-	-
Pro Forma Plant	-	460,347	[e]	460,347	-	460,347
Pro Forma Plant Retirements	-	(304,010)	[e]	(304,010)	-	(304,010)
Total Rate Base	$ 6,403,757	707,703		$ 7,111,459	$ -	$ 7,111,459
Return on Rate Base	4.75%			3.70%		8.64% [f]

Twin Lakes Utilities, Inc.
Water Operations
Rate Base and Rate of Return
Test Year Ended June 30, 2006

	Per Books	Pro Forma Adjustments		As Adjusted	Proposed Increase	Effect of Proposed Increase
Net Operating Income	$ (97,281)	36,205		$ (61,075)	$ 207,546	$ 146,471
Gross Plant In Service	5,113,324			5,113,324	-	5,113,324
Accumulated Depreciation	(1,200,765)	32,519	[b]	(1,168,246)	-	(1,168,246)
Net Plant In Service	3,912,559	32,519		3,945,078	-	3,945,078
Cash Working Capital	58,486	10,638	[c]	69,124	-	69,124
Contributions In Aid of Construction	(2,058,911)	-		(2,058,911)	-	(2,058,911)
Accumulated Deferred Income Taxes	(434,749)	-		(434,749)	-	(434,749)
Customer Deposits	(765)	-		(765)	-	(765)
Plant Acquisition Adjustment	-	-		-	-	-
Water Service Corporation	-	-		-	-	-
General Ledger Additions	-	84,849	[d]	84,849	-	84,849
Capitalized Time Additions	-	-	[d]	-	-	-
Excess Book Value	-	-		-	-	-
Pro Forma Plant	-	131,186	[e]	131,186	-	131,186
Pro Forma Plant Retirements	-	(40,875)	[e]	(40,875)	-	(40,875)
Total Rate Base	$ 1,476,619	218,317		$ 1,694,936	$ -	$ 1,694,936
Return on Rate Base	-6.59%			-3.60%		8.64% [f]

Twin Lakes Utilities, Inc.
Sewer Operations
Rate Base and Rate of Return
Test Year Ended June 30, 2006

	Per Books	Pro Forma Adjustments		As Adjusted	Proposed Increase	Effect of Proposed Increase	
Net Operating Income	$ 401,497	(77,573)		$ 323,925	$ 144,177	$ 468,102	
Gross Plant In Service	11,649,676			11,649,676	-	11,649,676	
Accumulated Depreciation	(2,652,667)	248,854	[b]	(2,403,813)	-	(2,403,813)	
Net Plant In Service	8,997,008	248,854		9,245,862	-	9,245,862	
Cash Working Capital	54,595	10,251	[c]	64,846	-	64,846	
Contributions In Aid of Construction	(3,730,294)	-		(3,730,294)	-	(3,730,294)	
Accumulated Deferred Income Taxes	(393,422)	-		(393,422)	-	(393,422)	
Customer Deposits	(750)	-		(750)	-	(750)	
Plant Acquisition Adjustment	-	-		-	-	-	
Water Service Corporation	-	-		-	-	-	
General Ledger Additions	-	164,256	[d]	164,256	-	164,256	
Capitalized Time Additions	-	-	[d]	-	-	-	
Excess Book Value	-	-		-	-	-	
Pro Forma Plant	-	329,161	[e]	329,161	-	329,161	
Pro Forma Plant Retirements	-	(263,135)	[e]	(263,135)	-	(263,135)	
Total Rate Base	$ 4,927,137	489,386		$ 5,416,523	$ -	$ 5,416,523	
Return on Rate Base	8.15%			5.98%		8.64%	[f]

[b] Accumulated depreciation is adjusted to reflect the increase in gross plant in service, actual and estimated capitalized time, actual and estimated general ledger additions, actual and estimated pro forma plant, and pro forma plant retirements.

[c] Cash working capital is calculated based on 1/8 of maintenance and general expenses.

[d] A pro forma adjustment is made to account for actual and estimated capitalized time and actual and estimated general ledger additions to be included in this case. These additions are estimated through ORS' estimated audit date.

[e] Pro forma plant and pro forma plant retirements are adjusted for planned additional capital investments through the estimated audit date

[f] The return on rate base shown above is provided solely as a matte of information and convenience for the Commission and is not intended tc reflect a request for this specific return on rate base (or any return or equity). Applicant will make its request for a return on rate base (anc return on equity) by way of evidence to be introduced at hearing

Twin Lakes Utilities, Inc.
Test Year Ended June 30, 2006
Test Year Revenues

Schedule D

WATER

Bill code	Description	Gallonage	Usage Charge	Units	BFC	Revenues
28001	5/8" Residential	242,615,055	$ 2.27	18,308	$ 13.09	$ 790,391
28002	5/8" Commercial	2,431,043	$ 2.27	201	13.09	8,148
28003	5/8" Residential	1,858,130	$ 2.27	36	13.09	4,689
28004	Flat Water - Unmetered Public Drinking Fountain	(11,418)	$ -	16	34.47	552
28005	5/8" Residential	131,400	$ 2.27	12	13.09	455
28009	1" Residential	72,480	$ 2.27	6	32.72	361
28010	1" Residential	86,770	$ 2.27	6	32.72	393
28013	2" Residential	2,992,036	$ 2.27	24	104.71	9,305
28016	1" Residential	725,100	$ 2.27	10	32.72	1,973
28017	1.5" Residential	388,468	$ 2.27	6	65.44	1,274
28018	2" Residential	0	$ 2.27	0	104.71	-
	Total	251,289,064		18,625		$ 804,235

per t/b	$	815,906
difference $	$	(11,671)
difference %		-1.43%

SEWER

Bill code	Description	Gallonage	Usage Charge	Units	Rate	Revenues
28021	5/8" Residential	-225,882	$ -	18,163	$ 80.53	$ 1,462,699
28022	3/4" Residential	0			$ 80.53	
28023	1" Residential	0			$ 80.53	
28026	Commercial	8,487,130	-	283	73.82	20,884
	Total	8,261,248		18,446		$ 1,483,583

**	per t/b	$	1,504,196
	difference $	$	(20,613)
	difference %		-1.37%

United Utilities Companies, Inc.
Test Year Ended September 30, 2005
Proposed Revenues

Schedule E

WATER

Bill code	Description	Gallonage	Usage Charge	Units	BFC	Revenues
28001	5/8" Residential	242,615,055	$ 3.30	18,308	$ 19.02	$ 1,148,676
28002	5/8" Commercial	2,431,043	$ 3.30	201	$ 19.02	11,842
28003	5/8" Residential	1,858,130	$ 3.30	36	$ 19.02	6,815
28004	Flat Water - Unmetered Public Drinking Fountain	(11,418)	$ -	16	$ 50.10	802
28005	5/8" Residential	131,400	$ 3.30	12	$ 19.02	662
28009	1" Residential	72,480	$ 3.30	6	$ 47.55	524
28010	1" Residential	86,770	$ 3.30	6	$ 47.55	572
28013	2" Residential	2,992,036	$ 3.30	24	$ 152.18	13,523
28016	1" Residential	725,100	$ 3.30	10	$ 47.55	2,868
28017	1.5" Residential	388,468	$ 3.30	6	$ 95.10	1,852
28018	2" Residential	0	$ 3.30	0	$ 152.18	-
	Total	251,289,064		18,625		$ 1,188,136

SEWER

Bill code	Description	Gallonage	Usage Charge	Units	Rate	Revenues
28021	5/8" Residential	(225,882)	$ -	18,163	$ 95.23	$ 1,729,641
28022	3/4" Residential	-	-	-	$ 95.23	-
28023	1" Residential	-	-	-	$ 95.23	-
28026	Commercial	8,487,130	-	283	$ 87.29	24,695
	Total	8,261,248		18,446		$ 1,754,336

UTILITIES, INC. AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF CAPITALIZATION

AT JULY 31, 2006 AND DECEMBER 31, 2005

	Unaudited June 30, 2006	December 31, 2005
COMMON SHAREHOLDERS' EQUITY:		
Common shares, $.10 par value; authorized and issued 1,000 shares	$ 100	$ 100
Paid-in capital	61,611,656	24,261,656
Retained earnings ($42,152,239 restricted at July 31, 2006 and December 31, 2005)	68,133,111	71,411,589
Note receivable from parent		(2,650,000)
Other comprehensive income		(412,098)
TOTAL COMMON SHAREHOLDERS' EQUITY	$ 129,744,867	$ 92,611,247
LONG-TERM DEBT:		
Collateral trust notes- 6.58%, due July 2036	$ 180,000,000	
Collateral trust notes-		
5.41%, $7,142,857 due in annual installments beginning in 2006 through 2012	-	$ 50,000,000
8.42%, $5,857,143 due in annual installments beginning in 2009 through 2015	-	41,000,000
4.55%, $4,000,000 due in annual installments beginning in 2008 through 2012	-	20,000,000
4.62%, $4,000,000 due in annual installments beginning in 2008 through 2012	-	20,000,000
9.01%, $1,500,000 due in annual installments through 2007	-	3,000,000
9.16%, $1,000,000 due in annual installments through 2006	-	1,000,000
Other long-term debt-		
8.10% to 8.96% promissory notes payable to bank due in monthly installments through 2017	-	285,191
TOTAL LONG-TERM DEBT	$ 180,000,000	$ 135,285,191
Less-Current maturities	-	9,662,667
TOTAL LONG-TERM DEBT, NET	$ 180,000,000	$ 125,622,524

1 **DIRECT TESTIMONY**

2 **OF**

3 **Christopher K. Montgomery**

4

5 **Introduction and Qualifications**

6 **Q. Please state your name and business address.**

7 A. My name is Christopher K. Montgomery. My business address is 334 N. 575
8 E., Valparaiso, Indiana 46383.

9 **Q. What is your occupation and employment?**

10 A. I am the Regional Director of Operations of the Midwest for Utilities, Inc.("UI").
11 UI is the corporate parent of the petitioner, Twin Lakes Utilities, Inc. ("TLUI" or
12 "Company").

13 **Q. How long have you been employed by UI?**

14 A. A little over five years.

15 **Q. What is your professional background?**

16 A. I have 12 years of experience in operations and 16 years in management. I
17 have steadily increased in responsibility in operation and management of water
18 and wastewater utility systems.

19 **Q. What positions have you held with UI?**

20 A. I started as an operator in January of 2001. In January of 2002, I was
21 promoted to Area Manager and operated and managed three companies. In
22 August of 2003 I was given a fourth company to supervise. In October of 2005,

1 I was promoted to Regional Director of Operations for all companies in Ohio,
2 Indiana and Illinois.

3 **Q. What are your duties with TLUI?**

4 A. TLUI is one of the UI operating utility subsidiaries for which I am responsible. I
5 manage all operating personnel, and oversee the proper operation of the
6 facilities, facility maintenance, capital improvements, customer service,
7 compliance with governmental regulations, and communications with
8 government agencies and customer groups, such as the Indiana Department of
9 Environmental Management ("IDEM") and the Indiana Utility Regulatory
10 Commission ("Commission").

11 **Q. Are you familiar with the plant and equipment used by TLUI to provide**
12 **water and wastewater services to its customers?**

13 A. Yes, I am very familiar with the TLUI's operation.

14 Q. **Have you previously testified before the Indiana Utility Regulatory**
15 **Commission?**

16 A. Yes. I submitted testimony in Cause Order 42969 on behalf of another of UI's
17 operating subsidiaries, Water Service Company of Indiana, in support of that
18 utility's request to increase its water rates.

19 **Purpose of Testimony**

20 **Q. What is the purpose of your testimony?**

21 **A.** The purpose of my testimony is to present the Company's position regarding
22 the following topics related to the operation of TLUI:

1 a. Customer service, including the resolution of customer complaints;

2 b. Water quality and capacity;

3 c. Compliance with infrastructure investment commitments specified in most

4 recent rate order, including:

5 i. Remediation of Sewer Discharges;

6 ii. Quarterly reporting of investments related to remediation of inflow

7 and infiltration (I & I);

8 iii. Sewer Vents; and

9 iv. Landscaping;

10 d. Pro forma plant additions.

11 **Customer Service**

12 **Q. How would you characterize the quality of customer service provided by**

13 **TLUI?**

14 A. Both UI and TLUI take seriously our obligation to our customers, and I think

15 our operations staff does a good job with customer service. Staff members

16 have been trained, not only in operations, but also in resolving customer

17 service issues in a timely manner. Customer service representatives in our

18 corporate office are adept at receiving requests from our customers and

19 promptly relaying them to our personnel in the field. We have the ability to

20 respond to an emergency situation in a short amount of time, and we work

21 with our customers to schedule appointments at their convenience. We have a

22 24-hour phone number that puts the customer in touch with a person, who

1 then has the capability to contact the appropriate member of our field staff via
2 a paging system.

3 Q. **Pursuant to ordering paragraph 5 of Cause Order 42488, TLUI was**
4 **required to distribute an annual notice to customers regarding the**
5 **Company's procedures and standards for handling customer inquiries and**
6 **complaints, appeals available to customers, background on the OUCC and**
7 **the Commission, as well as contact information. Has the Company**
8 **complied with this requirement?**

9 A. Yes. That Order required that the Company distribute the first annual notice
10 within 90 days of the Order's issuance on March 31, 2004. The Company's
11 first issuance of this notice was mailed June 23, 2004. The Company mailed
12 this notice again to all water and sewer customers of TLUI on June 23, 2005,
13 and again on June 23, 2006. Copies of these notices are provided as
14 Petitioner's Exhibit CKM-1.

15 Q. **The Order also required TLUI to continue reporting to the Commission's**
16 **Consumer Affairs Division the receipt and dispositions of customer**
17 **complaints on a quarterly basis through the fourth quarter of 2007, and**
18 **thereafter on an annual basis. Has TLUI complied with this aspect of the**
19 **Order?**

20 A. Yes. Since the last rate order, TLUI has submitted reports to the Consumer
21 Affairs Division on a quarterly basis. Copies of these reports are provided as

Petitioner's Exhibit CKM-2. These reports cover the period of 2004 through September 30, 2006.

Water Quality and Capacity

Q. How would you characterize the quality and quantity of potable water supplied by TLUI?

A. Overall, I feel this ground water system produces a high quality water. The water in the aquifer we draw from is a quality water source, as well water is typically a good source of water, bacteriologically speaking. Of course, it contains minerals, such as iron (2.5 ppm), which is also typical of ground water. We treat the raw water with iron filtration and the iron level is reduced to around 0.1 ppm, well within the Indiana Department of Environmental Management's (IDEM) Secondary Maximum Contaminant Level (MCL) of 0.3 ppm. Filtration, in conjunction with regular hydrant flushing and chemical treatment, has produced a good quality water.

Q. What is TLUI doing about drinking water capacity?

A. To date, water supply has been sufficient to meet demand. However, the area in and around the TLUI system is growing rapidly, and the Company is planning ahead to ensure that it will be in a position to meet additional demand in the future. We have taken steps to identify available raw water resources on Company property. These steps include drilling test wells and performing analysis of the results. Similarly, TLUI is managing its wastewater

1 system so that its collection, treatment and disposal facilities are sufficiently
2 capable of serving growing demands.
3 Q. **Pursuant to ordering paragraph 5 of Cause Order 42488, TLUI was**
4 **required to address the I & I issue by filing quarterly reports with the**
5 **Commission's Gas/Water/Sewer Division setting forth the steps taken to**
6 **address the issue pursuant to paragraph 6 and 7 of the Settlement**
7 **Agreement. Has TLUI complied with this ordering requirement?**
8 A. Yes. The Company has filed quarterly reports of its I & I program reports as
9 required. Copies of these reports are attached hereto as Petitioner's Exhibit
10 CKM-3.
11 Q. **Please summarize the steps taken by TLUI to address the I & I issue.**
12 A. The Company has addressed the I & I issue by way of its Inflow &
13 Infiltration Remediation Program. The I & I Remediation Program consists of
14 sewer main replacements, relining of sewer mains, jetting and televising sewer
15 mains (which allows us to see where sources for I & I exist), analysis of lift
16 station run times, re-sealing, re-aligning and raising manholes and installing
17 inserts in manholes in order to prevent rainwater from entering into our
18 collection system. The Company committed to spending at least $500,000 on
19 this program for five years from 2003 – 2007. Each of the projects specified in
20 the Commission's 2004 rate order either has already been completed or will be
21 completed by the end of 2006, including re-lining portions of the main near
22 East Lake Shore Drive and sections near Happy Valley Drive and repairing Lift

Station F. By the end of this year we will also have completed the rehabilitation of 64 manholes identified as contributors to the I&I problem. Other specific projects are addressed in the section of my testimony under the caption of System Improvements.

System Improvements

Q. Please describe improvements made to the TLUI water or wastewater system in the recent past.

A. Petitioner's Exhibit CKM-4 is a summary of the major projects that have been completed since the last rate case, 2003 through June 30, 2006, which have already been completed. Petitioner's exhibit CKM-5 is a summary of major projects expected to be completed by December 31, 2006, such as the replacement of 1100' of sewer main on Kingsway Drive. This main was allowing inflow and infiltration into our sanitary sewer system. Sewer mains which were also contributing to the I & I problem were replaced on Green Valley Drive and Brandywine Drive. At the wastewater treatment plant ("WWTP"), we recently installed valves to help us control flow within that plant. We also replaced our effluent meter, which was incorrectly measuring flow and replaced the unit that breaks down inorganic material that comes into the WWTP. Also at the WWTP, we have replaced parts on our south clarifier's rake arm drive and removed an abandoned underground storage tank. Finally, we have added two new fire hydrants in our system and replaced eleven more.

Q. How do these projects correlate to the I & I Remediation Program that you discussed earlier.

A. The following projects are a part of the I & I Remediation Program:

1. We televised and relined 3156.82' of sewer main at a cost of $131,334.16.
2. We replaced 300' of sewer main on Greenvalley Drive at a cost of $17,795.00.
3. We replaced 170' of sewer main on Brandywine Road at a cost of $28,237.50.
4. We engaged a professional firm to study our existing sewer collection system to determine the most prudent course of action for remediation. This project is in process and the work planned for 2006 is expected to be complete prior to the end of 2006 at a cost of $118,895.00.
5. Project ID #4168 included doing the engineering required to replace 1100' of sewer main and is related to project ID #3395. The cost associated with project ID #4168 is $29,936.50.
6. Project ID #3395 includes replacing 1100' of sewer main that has significant I & I coming into it. This project is in process and is expected to be complete prior to the end of 2006. The cost is expected to be $81,150.00.

Q. Has TLUI also invested in its water plant?

A. Yes. We have tested and replaced water meters at both of our water treatment plants. This is necessary to ensure proper calculation of Unaccounted For Water (UFW). The cost was $15,452.00. Well #7 has been rehabilitated on two occasions since the last rate case, first in February 2005 at a cost of $5,696 and again in June of 2006 at a cost of $9,497.00. Well #7 is our best producing well, but requires high maintenance in order to keep producing water. The well #7 rehab in June of 2006 involved replacing the column pipe (upon which the pump is suspended) in the belief that the stronger pipe would hold the pump more firmly and would lessen the amount of damage being caused by the motor torque when the pump starts up.

Some miscellaneous WWTP or collection system improvements include:

1. We replaced the pumps and upgraded some of our controls at our sludge holding tank wetwell under project ID #2659. The cost was $10,173.00.
2. We replaced 200' of sewer main on Hidden Valley Drive under project ID #2757 at a cost of $28,402.00. This main had several "bellied" areas where the sewer main had sagged and was allowing sewer backups. Since I & I was not considered to be a problem in this main it was not included in the I & I remediation program.
3. We replaced key parts on our south clarifier drive unit at our WWTP under project #3728 at a cost of $11,532.00.

4. We replaced the unit located at the headworks for our WWTP that breaks down inorganic compounds under project ID #3710 at a cost of $19,044.00.
5. We removed an abandoned underground storage tank from our WWTP under project #3713 at a cost of $14,919.00.

Some miscellaneous water plant and distribution system improvements include:

1. We repiped our backwash lines at water treatment plant #2 under project ID #3373 at a cost of $5,582.00.
2. We rehabilitated well #4 in May of 2005 under project ID #3027 at a cost of $18,175.00. The well was thoroughly cleaned and the pump and motor were replaced.
3. We installed a hydrant on Country Club Drive under project ID #3514 at a cost of $7,295.00. This was to provide a hydrant to resolve customer complaints regarding water quality by allowing us to properly flush the water main there.
4. Emergency well repair was done on well #11 under project ID #3549 at a cost of $5,234.00. The check valve in the well had failed, necessitating replacement.
5. High Service Pump #1 had significant components replaced under project ID #3608 at a cost of $11,449.00. This is one of five high service pumps at water treatment plant #1.

6. We replaced 10 fire hydrants that were not working under project ID #1817, which was completed in October 2005 at a cost of $39,785.00. (The project title calls for 11 hydrants to be replaced and 2 new ones installed, but only 10 were replaced under this work order ID # - two hydrants were installed under separate purchase order numbers).
7. We replaced 40' of water main on Walnut Hill Drive under project ID #3824 at a total cost of $11,120.00.
8. We rehabilitated high service pump #4 and replaced key parts under project ID #3882 at a cost of $8,950.00.
9. We rehabilitated well #6 under project ID #3649 at a cost of $21,400.08.
10. We rehabilitated well #3 under project ID #3881 at a cost of $9,535.72.

Q. In the Settlement Agreement TLUI also committed to addressing Sewer Vents. Please describe how the Company addressed this issue.

A. TLUI had agreed to bury the blue plastic 55 gallon drum of carbon located on Kingsway Drive. This work was completed in a timely fashion and the barrel has been removed from view and additional plants were installed around the vent pipe. TLUI also installed plants around vent pipes that were viewed as a concern by the Property Owners Association (POA).

1 **Q. In the Settlement Agreement, TLUI committed to resolving landscaping**
2 **issues by June 1, 2004. Please describe the Company compliance with**
3 **this commitment.**
4 A. TLUI was diligent in working to get the contractor, Grimmer Construction, to
5 restore the areas within the Lakes of the Four Seasons that were disturbed by
6 the force main project back to their natural state after the new force main was
7 installed. On June 24, 2004, TLUI notified Grimmer Construction that it was
8 in breach of the contract agreement that required the restoration to be
9 completed, and TLUI contracted with another contractor to complete the
10 landscaping work. This work was substantially completed by November 1,
11 2004, and the areas were revisited for further touch up in the spring of 2005.
12 The POA manager expressed to me his satisfaction with end result.
13 **Q. Are any of the projects on your Exhibit CMK-5 completed and placed in**
14 **service as of the date of this filing?.**
15 A. Yes. Seven of the eleven projects on Exhibit CMK-5 are complete and have
16 been placed in service. These projects are enumerated as project nos. 3, 4, 5,
17 8, 9, 10 and 11 on that exhibit.
18 **Q. Why are these projects on your pro forma plant exhibit if they are already**
19 **complete and placed in service?**
20 A. Specific questions about the process should be referred to Mr. Dryjanski,
21 however, it is my understanding that the Company closes work orders to its
22 plant in service accounts only at year end. Therefore, while the projects are

1 providing service to existing customers the costs associated with these projects
2 are not yet reflected in the per books plant accounts.

3 **Q. Has TLUI notified its customers of this pending request for rate relief?**

4 A. Yes. Attached as Exhibit CKM-6 is a copy of the notice letter mailed to
5 customers on November 13, 2006.

6 **Q. Does this conclude your testimony?**

7 A. Yes.

Petioner's Exhibit CKM-1
IURC Cause No. 43128

Twin Lakes Utilities, Inc.
An Affiliate of Utilities, Inc.
2335 Sanders Road
Northbrook, IL 60062
Phone 800-831-2359
Fax 847-498-6547

June 2006

Dear Customer:

Twin Lakes Utilities, Inc. is issuing this notice to summarize its customer inquiry process. If you have any questions or concerns regarding your water or wastewater service, please contact our Customer Service Department toll-free at 800-831-2359. Our Customer Service Representatives are available Monday through Friday, 8 a.m. to 5 p.m. This same toll-free number is also available 24-hours a day, 7 days a week, for requesting emergency service.

If you call us with a service issue, such as discolored water, low water pressure, or a main break, a service operator will be dispatched to the affected site as soon as possible. If you have a billing issue, our Customer Service Representatives will be happy to assist you with it. If you have a question regarding payment options, please note that we have several alternatives available for your convenience, such as our automatic drafting program, credit or debit card program, or Internet payment program. Please contact our Customer Service Department at the above toll-free telephone number for further details.

If you have contacted Twin Lakes Utilities, Inc. about a complaint or inquiry and were not satisfied with the response you received, you may contact the **Indiana Utility Regulatory Commission at 800-851-4268**. The Indiana Utility Regulatory Commission regulates water and wastewater utility companies within the state, and its consumer affairs division assists in resolving disputes between utilities and their customers.

In addition, another state agency, the **Indiana Office of Utility Consumer Counselor**, represents the interests of utility ratepayers in formal legal proceedings. That agency's toll-free telephone number is **888-441-2494**.

Once again, if you have any questions or concerns about Twin Lakes Utilities, Inc., please contact our **Customer Service Department at 800-831-2359** for assistance.

Sincerely,

Customer Service Department
Twin Lakes Utilities, Inc.

Mailed Today 06/23/06 w/bills
Sub 282 cust 1588
Sub 280 Cur cust 1489
MMurphy

Twin Lakes Utilities, Inc.
An Affiliate of Utilities, Inc.
2335 Sanders Road
Northbrook, IL 60062
Phone 800-831-2359
Fax 847-498-6547

June 2005

Dear Customer:

Twin Lakes Utilities, Inc. is issuing this notice to summarize its customer inquiry process. If you have any questions or concerns regarding your water or wastewater service, please contact our Customer Service Department toll-free at 800-831-2359. Our Customer Service Representatives are available Monday through Friday, 8 a.m. to 5 p.m. This same toll-free number is also available 24-hours a day, 7 days a week, for requesting emergency service.

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In addition, another state agency, the **Indiana Office of Utility Consumer Counselor**, represents the interests of utility ratepayers in formal legal proceedings. That agency's toll-free telephone number is **888-441-2494**.

Once again, if you have any questions or concerns about Twin Lakes Utilities, Inc., please contact our **Customer Service Department at 800-831-2359** for assistance.

Sincerely,

Customer Service Department
Twin Lakes Utilities, Inc.

Mailed today 06/23/05
Sub 280 cust 1671
[illegible]

Twin Lakes Utilities, Inc.
An Affiliate of Utilities, Inc.
2335 Sanders Road
Northbrook, IL 60062
Phone 800-831-2359
Fax 847-498-6547

June 2004

Dear Customer:

Twin Lakes Utilities, Inc. is issuing this notice to summarize its customer inquiry process. If you have any questions or concerns regarding your water or wastewater service, please contact our Customer Service Department toll-free at 800-831-2359. Our Customer Service Representatives are available Monday through Friday, 8 a.m. to 5 p.m. This same toll-free number is also available 24-hours a day, 7 days a week, for requesting emergency service.

If you call us with a service issue, such as discolored water, low water pressure, or a main break, a service operator will be dispatched to the affected site as soon as possible. If you have a billing issue, our Customer Service Representatives will be happy to assist you with it. If you have a question regarding payment options, please note that we have several alternatives available for your convenience, such as our automatic drafting program, credit or debit card program, or Internet payment program. Please contact our Customer Service Department at the above toll-free telephone number for further details.

If you have contacted Twin Lakes Utilities, Inc. about a complaint or inquiry and were not satisfied with the response you received, you may contact the **Indiana Utility Regulatory Commission at 800-851-4268**. The Indiana Utility Regulatory Commission regulates water and wastewater utility companies within the state, and its consumer affairs division assists in resolving disputes between utilities and their customers.

In addition, another state agency, the **Indiana Office of Utility Consumer Counselor**, represents the interests of utility ratepayers in formal legal proceedings. That agency's toll-free telephone number is **888-441-2494**.

Once again, if you have any questions or concerns about Twin Lakes Utilities, Inc., please contact our **Customer Service Department at 800-831-2359** for assistance.

Sincerely,

Customer Service Department
Twin Lakes Utilities, Inc.

Mailed today 06/24/04
Sub. 280 cust 1512.
[illegible]

Petioner's Exhibit CKM-2
IURC Cause No. 43128

TWIN LAKES UTILITIES, INC.

An Affiliate of Utilities, Inc.
2335 Sanders Road ~ Northbrook, IL 60062
1-800-831-2359

January 2, 2004

Ms. Faith Goff, Director
Consumer Affairs Division
Indiana Utility Regulatory Commission
302 W. Washington Street Ste. E306
Indianapolis, IN 46204

Dear Ms. Goff,

In compliance with the State of Indiana regulation 170 IAC 6-1-17 governing customer complaints, the following is a summary of customer complaints for the fourth quarter. 10/01/03 through 12/31/2003.

Misc. Complaint	38	Taste/Odor Water	14	Clogged Sewer	01
Low Pressure Water	01	Air in Water	00	Odor in Sewer	00
Discolored Water	00	No Water	02	Lift Station	02
Minerals in Water	00	Misc. Water	00	Misc. Sewer	01

If you should have any questions, please call us at the number listed above.

Sincerely,

Darrin Yount
Regional Director

Stacy Foltz
Customer Service Supervisor

TWIN LAKES UTILITIES, INC.

An Affiliate of Utilities, Inc.
2335 Sanders Road ~ Northbrook, IL 60062
1-800-831-2359

April 5, 2004

Ms. Faith Goff, Director
Consumer Affairs Division
Indiana Utility Regulatory Commission
302 W. Washington Street Ste. E306
Indianapolis, IN 46204

Dear Ms. Goff,

In compliance with the State of Indiana regulation 170 IAC 6-1-17 governing customer complaints, the following is a summary of customer complaints for the fourth quarter, 1/1/2004 through 3/31/2004.

Misc. Complaint	00	Taste/Odor Water	01	Clogged Sewer	04
Low Pressure Water	04	Air in Water	00	Odor in Sewer	04
Discolored Water	03	No Water	01	Lift Station	02
Minerals in Water	00	Misc. Water	00	Misc. Sewer	04

If you should have any questions, please call us at the number listed above.

Sincerely,

Darrin Yount
Regional Director

Stacy Foltz
Customer Service Supervisor

FILE

TWIN LAKES UTILITIES, INC.

An Affiliate of Utilities, Inc.
2335 Sanders Road - Northbrook, IL 60062
1-800-831-2359

July 26, 2004

Ms. Faith Goff, Director
Consumer Affairs Division
Indiana Utility Regulatory Commission
302 W. Washington Street Ste. E306
Indianapolis, IN 46204

Dear Ms. Goff,

In compliance with the State of Indiana regulation 170 IAC 6-1-17 governing customer complaints, the following is a summary of customer complaints for the second quarter. 4/1/2004 through 6/30/2004.

Misc. Complaint	00	Taste/Odor Water	02	Clogged Sewer	01
Low Pressure Water	06	Air in Water	00	Odor in Sewer	00
Discolored Water	01	No Water	06	Lift Station	00
Minerals in Water	00	Misc. Water	02	Misc. Sewer	04

If you should have any questions, please call us at the number listed above.

Sincerely,

Darrin Yount
Regional Director

Stacy Foltz
Customer Service Supervisor

Twin Lakes Complaints for 3rd Quarter 2004

Type	Qty	Reason
20	100	Misc. Service Order
28	0	High / Low Pressure
29	3	Discolored Water
30	2	Mineral Amount Water
32	0	Taste / Odor of Water
31	0	Air in Water
42	1	Misc Water Complaint
36	3	Clogged Sewer
37	1	Odor in Sewer
39	0	Lift Station Sewer
41	2	Misc Sewer Complaint

TWIN LAKES UTILITIES, INC.

An Affiliate of Utilities, Inc.
2335 Sanders Road – Northbrook, IL 60062
1-800-831-2359

May 5, 2005

Ms. Faith Goff, Director
Consumer Affairs Division
Indiana Utility Regulatory Commission
302 W. Washington Street Ste. E306
Indianapolis, IN 46204

Dear Ms. Goff,

In compliance with the State of Indiana regulation 170 IAC 6-1-17 governing customer complaints, the following is a summary of customer complaints for the fourth quarter, 10/1/2004 through 12/30/2004.

Misc. Complaint	00	Taste/Odor Water	01	Clogged Sewer	03
Low Pressure Water	00	Air in Water	00	Odor in Sewer	00
Discolored Water	08	No Water	00	Lift Station	00
Minerals in Water	01	Misc. Water	01	Misc. Sewer	01

If you should have any questions, please call us at the number listed above.

Sincerely,

Darrin Yount
Regional Director

Stacy Foltz
Customer Service Supervisor

TWIN LAKES UTILITIES, INC.

An Affiliate of Utilities, Inc.
2335 Sanders Road - Northbrook, IL 60062
1-800-831-2359

May 5, 2005

Ms. Faith Goff, Director
Consumer Affairs Division
Indiana Utility Regulatory Commission
302 W. Washington Street Ste. E306
Indianapolis, IN 46204

Dear Ms. Goff,

In compliance with the State of Indiana regulation 170 IAC 6-1-17 governing customer complaints, the following is a summary of customer complaints for the first quarter, 1/1/2005 through 3/30/2005

Misc. Complaint	00	Taste/Odor Water	00	Clogged Sewer	00
Low Pressure Water	00	Air in Water	00	Odor in Sewer	00
Discolored Water	00	No Water	00	Lift Station	00
Minerals in Water	00	Misc. Water	00	Misc. Sewer	00

If you should have any questions, please call us at the number listed above.

Sincerely,

Darrin Yount
Regional Director

Stacy Foltz
Customer Service Supervisor

TL Complaints for 2nd Quarter 2005

Type	Qty	Reason
20	49	Misc. Service Order
28	2	High / Low Pressure
29	4	Discolored Water
30	1	Mineral Amount Water
32	2	Taste / Odor of Water
31	0	Air in Water
42	0	Misc Water Complaint
36	3	Clogged Sewer
37	0	Odor in Sewer
39	0	Lift Station Sewer
41	2	Misc Sewer Complaint

Twin Lakes 3rd Quarter Complaints 2005

Type	Qty	Reason
20	10	Misc. Service Order
28	5	High / Low Pressure
29	2	Discolored Water
30	5	Mineral Amount Water
32	0	Taste / Odor of Water
31	0	Air in Water
42	0	Misc Water Complaint
36	6	Clogged Sewer
37	2	Odor in Sewer
39	0	Lift Station Sewer
41	1	Misc Sewer Complaint

Twin Lakes Utilities Incorporated

An Affiliate of Utilities, Inc.
2335 Sanders Road ~ Northbrook, Illinois 60062
1-800-831-2359

January 3, 2006

Ms. Faith Goff, Director
Consumer Affairs Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E306
Indianapolis, IN 46204

Dear Ms. Goff,

In compliance with the State of Indiana regulation 170 IAC 6-1-17 governing customer complaints, the following is a summary of customer complaints for the fourth quarter. 10/1/2005-12/31/2005.

Misc. Complaint	47	Taste/Odor Water	06	Clogged Sewer	06
Low Pressure Water	24	Air in Water	00	Odor in Sewer	00
Discolored Water	07	No Water	00	Lift Station	00
Minerals in Water	02	Misc. Water	02	Misc. Sewer	00

If you should have nay questions, please call me at the number listed above.

Sincerely,

Stacy Foltz
Customer Service Supervisor

Twin Lakes Utilities Incorporated

An Affiliate of Utilities, Inc.
2335 Sanders Road ~ Northbrook, Illinois 60062
1-800-831-2359

April 4, 2006

Ms. Faith Goff, Director
Consumer Affairs Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E306
Indianapolis, IN 46204

Dear Ms. Goff,

In compliance with the State of Indiana regulation 170 IAC 6-1-17 governing customer complaints, the following is a summary of customer complaints for the fourth quarter. 1/1/2006-3/31/2006.

Misc. Complaint	33	Taste/Odor Water	00	Clogged Sewer	02
Low Pressure Water	04	Air in Water	00	Odor in Sewer	00
Discolored Water	03	No Water	00	Lift Station	00
Minerals in Water	00	Misc. Water	02	Misc. Sewer	02

If you should have nay questions, please call me at the number listed above.

Sincerely,

Stacy Foltz

Stacy Foltz
Customer Service Supervisor

Twin Lakes Utilities Incorporated

An Affiliate of Utilities, Inc.
2335 Sanders Road ~ Northbrook, Illinois 60062
1-800-831-2359

July 7, 2006

Ms. Faith Goff, Director
Consumer Affairs Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E306
Indianapolis, IN 46204

Dear Ms. Goff,

In compliance with the State of Indiana regulation 170 IAC 6-1-17 governing customer complaints, the following is a summary of customer complaints for the fourth quarter. 4/1/2006-6/30/2006.

Misc. Complaint	34	Taste/Odor Water	03	Clogged Sewer	02
Low Pressure Water	04	Air in Water	31	Odor in Sewer	01
Discolored Water	03	No Water	00	Lift Station	00
Minerals in Water	02	Misc. Water	00	Misc. Sewer	00

If you should have nay questions, please call me at the number listed above.

Sincerely,

Stacy Foltz

Stacy Foltz
Customer Service Manager

Twin Lakes Utilities Incorporated

2335 Sanders Road ~ Northbrook, Illinois 60062
1-800-831-2359

November 5, 2,006

Ms. Faith Goff, Director
Consumer Affairs Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E306
Indianapolis, IN 46204

Dear Ms. Goff,

In compliance with the State of Indiana regulation 170 IAC 6-1-17 governing customer complaints, the following is a summary of customer complaints for the fourth quarter. 71/2006-10/31/2006.

Misc. Complaint	25	Taste/Odor Water	04	Clogged Sewer	10
Low Pressure Water	00	Air in Water	00	Odor in Sewer	00
Discolored Water	01	No Water	00	Lift Station	00
Minerals in Water	01	Misc. Water	03	Misc. Sewer	03

If you should have nay questions, please call me at the number listed above.

Sincerely,

Stacy Foltz

Stacy Foltz
Customer Service Manager

Petioner's Exhibit CKM-3
IURC Cause No. 43128

Twin Lakes Utilities, Inc.

Corporate Offices:
2335 Sanders Road
Northbrook, IL 60062
(800) 831-2359 Phone
(847) 498-2066 Fax

July 27, 2004

Jerry Webb
Director – Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes' 2003 Rate Case (IURC Cause No. 42488)
Inflow & Infiltration Report for Second Quarter, 2004

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced rate case. Ordering paragraph #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes' inflow and infiltration remediation program. Please note that since this is the first report filed pursuant to ordering paragraph #3 of the March 31, 2004, Order, this report includes Twin Lakes' expenditures since the beginning of the period defined by the Order as 2003-2007.

The following table describes actions taken from January 1, 2003, through the second quarter of 2004 by Twin Lakes to address instances of inflow and infiltration on its system:

Description	Cost
Repaired Lift Station B force main	$7,350.00
Replaced 350 feet of sewer main on Broadacre	$28,653.20
North Lakeshore Drive sewer main repairs	$10,238.77
Sewer Jetting/Televising	$42,648.00
Lift Station F repair	$8,953.00
Replaced 20 foot section of sewer main at 1447 Brandywine	$1,600.00
Repaired sewer main at 2474, 2482, and 2470 East Lakeshore Drive	$5,500.00
Repaired sewer main at three locations near the #6 fairway & green	$3,700.00
Raised manhole at 1342 Brandywine	$150.00
Televised and Relined 3,156.82 feet of 8" sewer main	$131,334.16
Repaired manhole 107 on Hidden Valley Drive	$442.50
Replaced 14' section of sewer main at 2147 Greenvalley Drive	$3,936.19
Total	$244,505.82

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself.

Sincerely,

Damin Yount
Regional Director of Operations

RECEIVED

JUL 30 2004

INDIANA UTILITY REGULATORY COMMISSION
GAS/WATER/SEWER DIVISION

cc: Lisa Crossett, UI
Steve Lubertozzi, UI
Daniel M. LeVay, OUCC
Theodore A. Fitzgerald, Intervenor
Nikki G. Shoultz, Intervenor

Enclosures

Twin Lakes Utilities, Inc.

Corporate Offices:
2335 Sanders Road
Northbrook, IL 60062
(800) 831-2359 Phone
(847) 498-2066 Fax

October 28, 2004

Jerry Webb
Director – Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes' 2003 Rate Case (IURC Cause No. 42488)
Inflow & Infiltration Report for Third Quarter, 2004

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced rate case. Ordering paragraph #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes' inflow and infiltration (I & I) remediation program.

Twin Lake's efforts in the third quarter of 2004 to address I & I remediation included inspections that exposed two illegal residential connections to the sanitary sewer system. The residents were asked to remove these illegal connections. The total dollar amount remains at $244,505.82 as reported in my letter dated July 27th, 2004.

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself.

Sincerely,

Damin Yount
Regional Director of Operations

cc: Lisa Crossett, UI
Steve Lubertozzi, UI
Daniel M. LeVay, OUCC
Theodore A. Fitzgerald, Intervenor's Counsel
Nikki G. Shoultz, Intervenor's Counsel

Enclosures

RECEIVED
NOV 4 2004
INDIANA ... ORY
GAS/WATER/SEWER DIVISION

Twin Lakes Utilities, Inc.

Corporate Offices:
2335 Sanders Road
Northbrook, IL 60062
(800) 831-2359 Phone
(847) 498-2066 Fax

RECEIVED

JAN 31 2005

INDIANA UTILITY REGULATORY COMMISSION
GAS/WATER/SEWER DIVISION

January 26, 2005

Jerry Webb
Director – Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes' 2003 Rate Case (IURC Cause No. 42488)
Inflow & Infiltration Report for Fourth Quarter, 2004

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced rate case. Ordering paragraph #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes' inflow and infiltration remediation program.

The following table describes actions taken for the fourth quarter of 2004 by Twin Lakes to address instances of inflow and infiltration on its system:

Description	Cost
Replaced a 300 linear feet of sewer main on Greenvalley Drive	$15,480.00
Seven (7) manholes were sealed	$1,390.00
Sub Total	$16,870.00
Previous Expenditures	$244,505.82
Total (through end of 2004)	$261,375.82

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself.

Sincerely,
Twin Lakes Utilities, Inc.

Darrin Yount
Regional Director of Operations

cc: Lisa Crossett
Steve Lubertozzi
Daniel M. LeVay
Theodore A. Fitzgerald
Nikki G. Shoultz

Enclosures

COPY

M3 - Twin Lakes Rate Case Follow Up

Twin Lakes Utilities, Inc.

Corporate Offices:
2335 Sanders Road
Northbrook, IL 60062
(800) 831-2359 Phone
(847) 498-2066 Fax

April 27, 2005

Jerry Webb
Director-Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes' 2003 Rate Case (IURC Cause No. 42488)
Inflow & Infiltration Report for First Quarter, 2005

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced case. Ordering paragraph #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes' inflow and infiltration remediation program.

The following table describes actions taken for the first quarter of 2005 by Twin Lakes to address instances of inflow and infiltration on its system:

Description	Cost
Replaced 170 linear feet of sewer main on Brandywine Road	$21,320.00
Previous Expenditures	$261,375.82
Total (through end of 1st quarter 2005)	$282,695.82

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself. Thank you for your assistance in this regard.

Sincerely,
Twin Lakes Utilities, Inc.

Damin Yount
Regional Director of Operations

Cc: Lisa Crossett
Steve Lubertozzi
Daniel M. LeVay
Theodore A. Fitzgerald
Nikki G. Shoultz

Enclosures

RECEIVED
APR 29 2005
INDIANA UTILITY REGULATORY COMMISSION
GAS/WATER/SEWER DIVISION

Twin Lakes Utilities, Inc.

Corporate Offices:
2335 Sanders Road
Northbrook, IL 60062
(800) 831-2359 Phone
(847) 498-2068 Fax

Post-it® Fax Note 7671	Date 7/18	# of pages ▶ 1
To Steve Lubertozzi	From D. Yount	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

Post-it® Fax Note 7671	Date 7/18	# of pages ▶ 1
To Lisa Crossett	From Darrin Yount	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

7005 1160 0001 3999 6207

7005 1160 0001 3999 6214

7005 1160 0001 3999 6221

7005 1160 0001 3999 6238

July 18, 2005

Jerry Webb
Director-Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes' 2003 Rate Case (IURC Cause No. 42488)
Inflow & Infiltration Report for Second Quarter, 2005

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced case. Ordering paragraph #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes' inflow and infiltration (I&I) remediation program.

The following table describes actions taken for the second quarter of 2005 by Twin Lakes to address instances of inflow and infiltration on its system:

Description	Cost
Had customer at 3296 Rustic Lane remove an illegal connection in the home	$0.00
Raised the cleanout at 1211 Sunnyslope Drive	$150.00
Repaired sewer lateral in retention pond at 1522 Happy Valley (major I&I source)	$620.00
Raised manholes at 3684 Kingsway & 3681 Cherry Hill Drive	$1,495.52
Raised manholes at 3689 Kingsway & 3695 Kingsway	$1,230.62
Previous Expenditures	$282,695.82
Total (through end of 2nd quarter 2005)	**$286,191.96**

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself.

Sincerely,
Twin Lakes Utilities, Inc.

Darrin Yount
Regional Director of Operations

Cc: Lisa Crossett
Steve Lubertozzi
Daniel M. LeVay
Theodore A. Fitzgerald
Nikki G. Shoultz

Enclosures

Twin Lakes Utilities, Inc.

Corporate Offices:
2335 Sanders Road
Northbrook, IL 60062
(800) 631-2359 Phone
(847) 498-2068 Fax

October 21, 2005

Jerry Webb
Director-Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes' 2003 Rate Case (IURC Cause No. 42488)
Inflow & Infiltration Report for Third Quarter, 2005

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced case. Ordering paragraph #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes' inflow and infiltration (I&I) remediation program.

The following table describes actions taken for the third quarter of 2005 by Twin Lakes to address instances of inflow and infiltration on its system:

Description	Cost
Raised Manhole at 4099 Westover Drive	$323.91
Replaced 200 feet of sewer main on Hidden Valley Drive	$17,935.00
Previous Expenditures	$286,191.96
Total (through end of 3rd quarter 2005)	$304,450.87

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself.

Sincerely,
Twin Lakes Utilities, Inc.

Darrin Yount
Regional Director of Operations

Cc: Lisa Crossett
Steve Luberiozzi
Daniel M. LeVay
Theodore A. Fitzgerald
Nikki G. Shoultz

Enclosures

RECEIVED
OCT 31 2005
INDIANA UTILITY REGULATORY COMMISSION
GAS/WATER/SEWER DIVISION

Twin Lakes Utilities, Inc.

Corporate Offices:
2335 Sanders Road
Northbrook, IL 60062
(800) 831-2359 Phone
(847) 498-2066 Fax

Tuesday, January 03, 2006

Jerry Webb
Director-Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes' 2003 Rate Case (IURC Cause No. 42488)
Inflow & Infiltration Report for Fourth Quarter, 2005

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced case. Ordering paragraph #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes' inflow and infiltration (I&I) remediation program.

The following table describes actions taken for the fourth quarter of 2005 by Twin Lakes to address instances of inflow and infiltration on its system:

Description	Cost
Raised Manholes: #5, #344, #214, #214A, #42 and #51	$1560.00
Replaced 8' Section of Sewer Main at 1917 Loganberry	$3818.00
Previous Expenditures	$304,450.87
Total (through end of 3rd quarter 2005)	**$309,828.87**

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself.

Sincerely,
Twin Lakes Utilities, Inc.

Chris Montgomery
Regional Director of Operations

Cc: Lisa Crossett
Steve Lubertozzi
Daniel M. LeVay
Theodore A. Fitzgerald
Nikki G. Shoultz

Enclosures

Twin Lakes Utilities, Inc.

Corporate Offices:
2335 Sanders Road
Northbrook, IL. 60062
(800) 831-2359 Phone
(847) 498-2066 Fax

Monday, May 22, 2006

COPY

Jerry Webb
Director-Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes 2003 Rate Case (IURC Cause 42488)
Inflow & Infiltration Report for First Quarter, 2006

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced case. Ordering paragraph on #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes Inflow and Infiltration (I&I) remediation program.

The following table describes actions taken for the first quarter of 2006 by Twin Lakes to address instances of inflow and infiltration on its system:

Description	Cost
No action taken	$0.00
Previous Expenditures	$309,828.87
Total (through end of 1st quarter 2006)	$309,828.87

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself.

Sincerely,
Twin Lakes Utilities, Inc.

Charles L. Alexander
Area Manager, Indiana Operations

Cc: Paul Burris
Steve Lubertozzi
Daniel M. LeVay
Theodore A. Fitzgerald
Nikki G. Shoultz

Corporate Offices:
2335 Sanders Road
Northbrook, IL. 60062
(800) 831-2359 Phone
(847) 498-2066 Fax

Thursday, July 13, 2006

COPY

Jerry Webb
Director-Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes 2003 Rate Case (IURC Cause 42488)
Inflow & Infiltration Report for Second Quarter, 2006

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced case. Ordering paragraph on #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes Inflow and Infiltration (I&I) remediation program.

The following table describes actions taken for the second quarter of 2006 by Twin Lakes to address instances of inflow and infiltration on its system:

Description	Cost
Installed Rainstopper Inflow Shields (see attachment)	$2,646.96
Previous Expenditures	$309,828.87
Total (through end of 2nd quarter 2006)	$312,475.83

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself.

Sincerely,
Twin Lakes Utilities, Inc.

Charles L. Alexander
Area Manager, Indiana Operations

Corporate Offices:
2335 Sanders Road
Northbrook, IL 60062
(800) 831-2359 Phone
(847) 498-2066 Fax

Wednesday, October 18, 2006

Jerry Webb
Director-Gas/Water/Sewer Division
Indiana Utility Regulatory Commission
302 W. Washington Street, Ste. E-306
Indianapolis, IN 46204

Re: Twin Lakes 2003 Rate Case (IURC Cause 42488)
Inflow & Infiltration Report for Third Quarter, 2006

Dear Mr. Webb:

This report is being sent in compliance with one of the terms of the Indiana Utility Regulatory Commission's March 31, 2004, Order approving the parties' settlement of the above-referenced case. Ordering paragraph on #3 on page 6 of the Commission's Order directs Twin Lakes to file quarterly reports with this Commission concerning Twin Lakes Inflow and Infiltration (I&I) remediation program.

The following table describes actions taken for the third quarter of 2006 by Twin Lakes to address instances of inflow and infiltration on its system:

Description	Cost
Seal and Grout Manholes (location listing attached)	$5,215.37
Previous Expenditures	$312,475.83
Total (through end of 3rd quarter 2006)	$317,691.20

In addition to this original for your records, I have enclosed two copies to be stamped "RECEIVED" and returned in the enclosed envelopes to our local counsel and myself.

Sincerely,
Twin Lakes Utilities, Inc.

Charles L. Alexander
Area Manager, Indiana Operations

COPY

1370 LEEWARD ROAD
1370 LEEWARD ROAD
4146 OAKMONT COURT
4150 OAKMONT COURT
4153 OAKMONT COURT
4157 OAKMONT COURT
3638 ST. ANDREWS COURT
3644 ST. ANDREWS COURT
1350 BRANDYWINE ROAD
1343 BRANDYWINE ROAD

COPY

Petioner's Exhibit CKM-4
IURC Cause No. 43128

Petitioner's Exhibit CKM-4

#	Project Name	Project Description	Cost	In-service date
1	Replace 300' of Sewer Main - Green valley	To replace a deteriorated section of main that was allowing backups to occur in our sanitary sewer system.	$ 17,795.00	December-04
2	Testing/Replacing Water meters	To calibrate and replace master water meters at both water treatment plants	$ 15,452.00	January-05
3	Rehab well #7 (1st Repair)	To replace the non-working pump and motor to this well.	$ 5,696.00	February-05
4	Replace Pumps - Sludge Holding Tank Wetwell	To replace two non-working pumps and repair/upgrade the controls.	$ 10,173.00	April-05
5	Repipe Water Plant #2 Backwash Lines	To redirect the backwash lines at WTP #2 so that the flow goes through the backwash tanks properly.	$ 5,582.00	May-05
6	Rehab well #4	To clean the well and replace the pump and motor.	$ 18,175.00	May-05
7	Replace Sewer Main - Brandywine	To replace a section of main that was 'bellied' and was allowing backups to occur in our sanitary sewer system.	$ 28,238.00	May-05
8	Install a hydrant at Country Club Dr.	To install a hydrant to improve water quality.	$ 7,295.00	June-05
9	Emergency well repair - well #11	Emergency replacement of the check valve, air line and electrical cable.	$ 5,234.00	July-05
10	Repair High Service Pump #1	To replace key parts in the pump.	$ 11,449.00	September-05

Petitioner's Exhibit CKM-04

#	Project Name	Project Description	Cost	In-service date
11	Replace 200' of Sewer Main - Hidden Valley	To replace a section of main that was allowing backups to occur in our sanitary sewer system.	$ 28,402.00	October-05
12	Replace 11 and Install 2 Hydrants	To replace non-working hydrants and install new hydrants.	$ 39,785.00	October-05
13	Replace 40' of water main on Walnut Hill Drive	To replace a section of main that has been the source of three water main breaks over the last few months.	$ 13,195.00	December-05
14	Rehab High Service Pump #4	To replace key parts in the pump.	$ 8,950.00	January-06
15	Rehab Well #6	To aggressively clean the well and replace the pump and motor.	$ 21,400.00	January-06
16	Remove an Underground Storage Tank from the WWTP	To remove an abandoned storage tank from the Sewer Plant.	$ 14,919.00	February-06
17	Repair the South Clarifier at the WWTP	To replace the scrapers and the rake arm drive parts on the clarifier drive.	$ 11,532.00	March-06
18	Rehab Well #3	To replace the non-working pump and motor to this well.	$ 8,569.00	May-06
19	Replace the 'Muffin Monster'	To replace the unit that breaks down inorganics that come into the WWTP.	$ 19,044.00	June-06
20	Rehab Well #7 (2nd replacement)	To replace the non-working pump and motor to this well.	$ 9,497.00	June-06
	Totals		$ 300,382.00	

Petioner's Exhibit CKM-5
IURC Cause No. 43128

Twin Lakes Utilities, Inc.
Pro Forma Plant
Test Year Ended June 30, 2006

Exhibit CKM-5

Line No.	System	Project Name	Project Description	Project ID #	W/O #	Estimated Cost	Additional Cost to Complete	Total Cost of Project	Water	Sewer	Estimated Date of Completion	Completed Yes/No	% Complete
1	Twin Lakes Utilities, Inc. sewer collection system	Sewer Main repairs to achieve Inflow and	A study of the system will be completed. Based upon that	4167	N/A	118,895	$ 118,895	$ 118,895	$ -	$ 118,895	Nov-06	No	0%
2	Twin Lakes Utilities, Inc. replacement of 1100 lineal foot of sewer main on Kingsway Drive	Replace 1100' of Sewer Main	Replace dilapidated sewer main that is allowing inflow and infiltration into the sanitary sewer system	3395	N/A	81,150	$ 81,150	$ 81,150		$ 81,150	Nov-06	No	0%
3	Twin Lakes Utilities, Inc. engineering for the 1100' sewer main replacement on Kingsway Drive	Engineering for replacing 1100' of sewer main	Engineering for the above project	4168	060-0280-116-06-0	29,937	$ 28,659	$ 29,937		$ 29,937	Oct-06	Yes	100%
6	Twin Lakes Utilities, Inc. repair to manholes in the sewer collection system	Rehab 64 manholes	Rehabilitate and seal manholes that are allowing inflow and infiltration	4163	060-0280-116-06-0	20,000	$ 20,000	$ 20,000		$ 20,000	Nov-06	No	75%
4	Twin Lakes Utilities, Inc. is drilling test wells to locate additional well(s) that are needed	New Test Well & Evaluation	Drill test wells to find an adequate water source	2495	060-0280-115-06-0	55,000	$ 46,899	$ 55,000	$ 55,000		Nov-06	Yes	100%
5	Twin Lakes Utilities, Inc. has installed a water hydrant at our sewer plant. This will provide a safe and effective way to clean basins in the sewer plant	Install Hydrant at WWTP	Hydrant will be used to aid in cleaning the 'contact zone' at the WWTP.	3515	N/A	16,500	$ 16,500	$ 16,500	$ 16,500		Nov-06	Yes	100%
7	Twin Lakes Utilities, Inc. engineering for replacing the water treatment filter at water	Engineering to Replace North Aeration Filter at Water Plant #1	Engineering for the above project	4161	060-0280-115-06-0	38,000	$ 37,681	$ 38,000	$ 38,000		Nov-06	No	75%
8	Twin Lakes Utilities, Inc. has replaced the errant effluent meter at the sewer plant.	WWTP Effluent Meter Replacement	Replace the current meter, which is believed to be inaccurate by up to 30%	2507	060-0280-116-06-0	43,035	$ 43,035	$ 43,035		$ 43,035	Sep-06	Yes	100%
9	Twin Lakes Utilities, Inc. has replaced/installed valves at the sewer plant.	Install 6 new valves at the WWTP	These valves would allow us to redirect flow within the WWTP.	3900	N/A	21,000	$ 21,000	$ 21,000		$ 21,000	Oct-06	Yes	100%
10			Rehab Well #6	3649	115-05-01	21,686	$ 21,686	$ 21,686	$ 21,686		Feb-06	Yes	100%
11			Remove UST from WWTP	3713	116-05-02	15,144	$ 15,144	$ 15,144		$ 15,144	Feb-06	Yes	100%
12													
13													
14													
15													
	Total					**$ 460,347**	**$ 450,648**	**$ 460,347**	**$ 131,186**	**$ 329,161**			

(a) Estimated capitalized time of 10% has been used since project has not started yet.

Petioner's Exhibit CKM-6
IURC Cause No. 43128

Twin Lakes Utilities, Inc.

2335 Sanders Road
Northbrook, IL 60062
1-800-831-2359

November 13, 2006

TO: Customers of Twin Lakes Utilities, Inc.

FROM: Twin Lakes Utilities, Inc.

Dear Customer:

On September 29, 2006, Twin Lakes Utilities, Inc. ("Twin Lakes") filed with the Indiana Utility Regulatory Commission ("Commission") a petition for approval of an increase in its base rates and charges for water and wastewater utility service. The Commission has assigned this petition cause number 43128. Twin Lakes last petitioned to increase its rates in July, 2003.

In order to provide sufficient revenue to repay the existing debt obligations (including required debt service reserves) and to provide adequate funds for increasing costs of operating and maintaining the current system, Twin Lakes requests the Commission's approval of an approximate forty-five percent (45%) increase from the present retail rates for water service and an approximate eighteen percent (18%) increase from the present retail rates for wastewater service. This increase in rates and charges is designed to meet the aforementioned ongoing needs of the current Twin Lakes water and wastewater systems and is the minimum increase Twin Lakes felt it could ask for and still be able to operate and maintain the system in a sound manner. We hope that you will find it not unreasonable. Together we share your goal of a safe, dependable supply of potable water as well as the safe, reliable treatment and disposal of wastewater, at the lowest possible price consistent with prudent business practices.

Thank you for your cooperation and understanding in this matter, and please feel free to contact us at the above mailing address or telephone number should you have any questions about this notice.

Respectfully,

Twin Lakes Utilities, Inc.

Twin Lakes Utilities, Inc.
Cause No. 43128

BEFORE THE

INDIANA UTILITY REGULATORY COMMISSION

PREPARED DIRECT TESTIMONY

OF

PAULINE M. AHERN, CRRA
PRINCIPAL
AUS CONSULTANTS

ON BEHALF OF

TWIN LAKES UTILITIES, INC.

CONCERNING

FAIR RATE OF RETURN

NOVEMBER 2006

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Appendix A to the Direct Testimony of Pauline M. Ahern

I. INTRODUCTION

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

A. My name is Pauline M. Ahern and I am a Principal of AUS Consultants. My business address is 155 Gaither Drive, Suite A, Mt. Laurel, New Jersey 08054.

Q. Please summarize your educational background and professional experience.

A. I am a graduate of Clark University, Worcester, MA, where I received a Bachelor of Arts degree with honors in Economics in 1973. In 1991, I received a Master of Business Administration with high honors from Rutgers University.

In June 1988, I joined AUS Consultants - Utility Services as a Financial Analyst and am now a Vice President. I am responsible for the preparation of all fair rate of return and capital structure exhibits for AUS Consultants - Utility Services. I have offered expert testimony on behalf of investor-owned utilities before twenty-two state regulatory commissions. The details of these appearances, as well as details of my educational background, are shown in Appendix A supplementing this testimony.

I also calculate and maintain the A.G.A. Index under contract with the American Gas Association (A.G.A.). The A.G.A. Index is a market capitalization weighted index of the common stocks of about 70 corporate members of the A.G.A.

I have co-authored an article with Frank J. Hanley, President, AUS Consultants - Utility Services entitled "Comparable Earnings: New Life for an Old Precept" which was published in the American Gas Association's Financial Quarterly Review, Summer 1994. I also assisted in the preparation of an article authored by Frank J. Hanley and A. Gerald Harris entitled "Does Diversification Increase the Cost of Equity Capital?" published in the July 15, 1991 issue of Public Utilities Fortnightly.

I am a member of the Society of Utility and Regulatory Financial Analysts, formerly the National Society of Rate of Return Analysts serving as President for 2006-2008 and Secretary/Treasurer for 2004-2006. In 1992, I was awarded the professional designation "Certified Rate of Return Analyst" (CRRA) by the National Society of Rate of Return Analysts. This designation is based upon education, experience and the successful completion of a comprehensive written examination.

I am an associate member of the National Association of Water Companies, serving on its Finance Committee, a member of the Energy Association of Pennsylvania, formerly the Pennsylvania Gas Association, and a member of the American Finance Association.

Q. What is the purpose of your testimony?

A. The purpose is to provide testimony on behalf of Twin Lakes Utilities, Inc. (Twin Lakes or the Company) as to the appropriate common equity cost rate which it should be afforded the opportunity to earn on the common equity financed portion of its jurisdictional rate base.

Q. What is your recommended fair rate of return?

A. I recommend that the Indiana Utility Regulatory Commission (IURC or the Commission) authorize the Company the opportunity to earn an overall rate of return of 8.64% based upon the consolidated capital structure at July 31, 2006 of Utilities, Inc., the parent of Twin Lakes, which consisted of 58.11% long-term debt and 41.89% common equity at a debt cost rate of 6.58% and my recommended common equity cost rate of 11.50%.

The overall cost of capital is summarized in Table 1 below:

Table 1

	Capital Structure Ratios	Cost Rate	Weighted Return
Long-Term Debt	58.11%	6.58%	3.82%
Common Equity	41.89	11.50	4.82
Total	100.00%		8.64%

Q. Have you prepared an exhibit which supports your overall recommended fair rate of return?

A. Yes, I have. It has been marked for identification as Exhibit No. 1 and consists of Schedules PMA-1 through PMA-12. Hereinafter, references to Schedules within this testimony will be from this Exhibit, unless otherwise noted.

II. SUMMARY

Q. Please summarize your recommended common equity cost rate.

A. My recommended common equity cost rate of 11.50% is summarized on Schedule PMA-1, page 2. Because Twin Lakes' common stock is not publicly traded, a market-based common equity cost rate cannot be determined directly for Twin Lakes. Therefore, in arriving at my recommended common equity cost rate of 11.50%, I assessed the market-based cost rates of companies of relatively similar risk, i.e., proxy group(s), for insight into a recommended common equity cost rate applicable to Twin Lakes and suitable for cost of capital purposes. It is appropriate to look at a proxy group or groups of companies as similar in risk as possible whose common stocks are actively traded for insight into an appropriate common equity cost rate applicable to Twin Lakes and then adjust the results upward to reflect Twin Lakes' relative business and financial risk vis-à-vis the proxy groups. Using other utilities of

relatively comparable risk as proxies is consistent with the principles of fair rate of return established in the Hope[1] and Bluefield[2] cases and adds reliability to the informed expert judgment used in arriving at a recommended common equity cost rate. However, no proxy group can be selected to be identical in risk to Twin Lakes and therefore, the proxy groups' results must be adjusted to reflect the greater relative business and financial risk of Twin Lakes as will be subsequently discussed in detail. I have evaluated the market data of two proxy groups of water companies in arriving at my recommended common equity cost rate. The bases of selection are described below.

As explained in more detail below, my analysis reflects current capital market conditions and results from the application of four well-tested market-based cost of common equity models, the Discounted Cash Flow (DCF) approach, the Risk Premium Model (RPM), the Capital Asset Pricing Model (CAPM), and the Comparable Earnings Model (CEM).

The results derived from each are as follows:

---

[1] Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944).

[2] Bluefield Water Works Improvement Co. v. Public Serv. Comm'n, 262 U.S. 679 (1922).

Table 2

	Proxy Group of Six AUS Utility Reports Water Cos.		Proxy Group of Four Value Line (Std. Ed.) Water Cos.
Discounted Cash Flow Model	9.6%		9.9%
Risk Premium Model	10.9		11.0
Capital Asset Pricing Model	10.6		10.6
Comparable Earnings Model	14.0		14.1
Indicated Range of Common Equity Cost Rate Before Business Risk Adjustment	10.80%	--	11.50%
Business Risk Adjustment	0.25		0.25
Indicated Range of Common Equity Cost Rate After Adjustment for Business Risk	11.05%	--	11.60%
Financial Risk Adjustment	0.15		0.15
Indicated Range of Common Equity Cost Rate After Adjustment for Business and Financial Risk	11.20%	--	11.75%
Recommended Common Equity Cost Rate		11.50%	

After reviewing the cost rates based upon the four models, I conclude that a range of common equity cost rate, before adjustment for business and financial risk, of 10.80% to 11.50% is indicated based upon the application of all four models to the proxy group of six AUS Utility Reports water companies and four Value Line (Standard Edition) water companies. After applying a business risk adjustment of 25 basis points due to Twin Lakes' smaller size and a financial risk adjustment of 15 basis points due to Twin Lakes' greater financial risk vis-a-vis the two proxy groups as will be discussed in detail subsequently, the indicated common equity cost rate is 11.20% to 11.75%. My recommended common equity cost rate is 11.50% based upon the midpoint of the range of 11.48% and is applicable to the Company's common equity ratio

of 41.89% at July 31, 2006.

III. GENERAL PRINCIPLES

Q. What general principles have you considered in arriving at your recommended common equity cost rate of 11.50%.

A. In unregulated industries, the competition of the marketplace is the principal determinant of the price of a product or service. In the case of regulated public utilities, regulation must act as a substitute for such marketplace competition. Consequently, marketplace data must be relied upon to assure that the utility can fulfill its obligations to the public and provide adequate service at all times. This requires a level of earnings sufficient to maintain the integrity of presently invested capital and permit the attraction of needed new capital at a reasonable cost in competition with other firms of comparable risk, consistent with the fair rate of return standards established by the U.S. Supreme Court in the Hope and Bluefield cases cited previously. Consequently, in my determination of common equity cost rate, I have evaluated data gathered from the marketplace for utilities as similar in risk as possible to Twin Lakes.

IV. BUSINESS RISK

Q. Please define business risk and explain why it is important to the determination of a fair rate of return?

A. Business risk incorporates all of the risks of a firm other than financial risk, which will be discussed subsequently. Examples of business risk include the quality of management, the regulatory environment, customer mix, service territory growth and the like, which have a direct bearing on earnings.

Business risk is important to the determination of a fair rate of return because the greater the level of risk, the greater the rate of return investors

demand, consistent with the basic financial precept of risk and return.

Q. Please discuss the business risks facing the water industry in general.

A. The water utility industry faces significant risks related to replacing aging transmission and distribution systems. Value Line Investment Survey[3] observes:

> Increasingly, more rigorous Environmental Protection Agency (EPA) regulatory laws on pipeline and well infrastructures will probably make it difficult for water utility companies to maintain the earnings momentum that we anticipate this year out to late [sic] decade. Current infrastructures are well over 100 years old in many cases and require maintenance, if not significant rebuilding. Even worse, the agency is stepping up drinking water purification standards in light of the political angst currently afflicting the world. In fact, infrastructure repair costs are expected to climb to the hundreds of millions of dollars over the next two decades. With this I mind, it is likely that capital expenditures will continue to rise over the next couple of years. However, many of the smaller water companies lack the capital to undergo these initiatives and are being forced to shop their businesses to larger suitors.
>
> * * * *
>
> We recommend that most investors avoid the issues in the Water Utilities Industry. Not one is timely or holds above-average 3- to 5-year appreciation potential. Although the industry has long been a haven for income-minded investors, such is no longer the case. Higher interest-rates have increased the income-producing appeal of alternative investments, making the yields found in this industry modestly appealing at best.

In addition, because the water industry is much more capital-intensive than the electric, natural gas or telephone industries, the investment required to produce a dollar of revenue is greater. And, because investor-owned water utilities

[3] Value Line Investment Survey, July 28, 2006.

typically do not receive federal funds for infrastructure replacement, the challenge to investor-owned water utilities is exacerbated and their access to financing is restricted, thus increasing risk.

The National Association of Regulatory Commissioners (NARUC) has also highlighted the challenges facing the water industry stemming from its capital intensity. NARUC's Board of Directors adopted a resolution in July 2005, taking the position that[4]:

> WHEREAS, To meet the challenges of the water and wastewater industry which may face a combined capital investment requirement nearing one trillion dollars over a 20-year period, the following policies and mechanisms were identified to help ensure sustainable practices in promoting needed capital investment and cost-effective rates: a) the use of prospectively relevant test years; b) the distribution system improvement charge; c) construction work in progress; d) pass-through adjustments; e) staff-assisted rate cases; f) consolidation to achieve economies of scale; g) acquisition adjustment policies to promote consolidation and elimination of non-viable systems; h) a streamlined rate case process; i) mediation and settlement procedures; j) defined timeframes for rate cases; k) integrated water resource management; l) a fair return on capital investment; *and* m) improved communications with ratepayers and stakeholders; *and*
>
> WHEREAS, Due to the massive capital investment required to meet current and future water quality and infrastructure requirements, adequately adjusting allowed equity returns to recognize industry risk in order to provide a fair return on invested capital was recognized as crucial...
>
> RESOLVED, That the National Association of Regulatory Utility Commissions (NARUC), convened in its July 2005 Summer Meetings in Austin, Texas, conceptually supports review and consideration of the innovative regulatory policies and practices identified herein as "best practices;" *and be it further*
>
> RESOLVED, That NARUC recommends that economic regulators consider and adopt as many as appropriate of the regulatory

[4] "Resolution Supporting Consideration of Regulatory Policies Deemed as 'Best Practices'", Sponsored by the Committee on Water. Adopted by the NARUC Board of Directors, July 27, 2005.

mechanisms identified herein as best practices...

The water utility industry also experiences lower relative depreciation rates. Lower depreciation rates, as one of the principal sources of internal cash flows for all utilities, mean that water utility depreciation as a source of internally-generated cash is far less than for electric, natural gas or telephone utilities. Water utilities' assets have longer lives and, hence, longer capital recovery periods. As such, water utilities face greater risk due to inflation which results in a higher replacement cost per dollar of net plant than for other types of utilities. Specifically, water utilities experienced an average depreciation rate of 2.4% in 2005 while Twin Lakes experienced an average depreciation rate of 2.2% for 2005. In contrast, in 2005 the electric, combination electric and gas, natural gas or telephone industries, experienced average depreciation rates of 4.0%, 4.0%, 3.7% and 6.4%, respectively.

In addition, as noted by S&P[5]:

> Environmental regulations, which can be particularly stringent for water utilities, impact credit quality. Mandatory compliance with environmental legislation is often quite capital intensive. This is particularly so in the areas of wastewater discharge and drinking water quality. In most jurisdictions observed by Standard & Poor's, pressures from environmental standards is likely to increase. High compliance costs can impact a water utility's creditworthiness if their financing is up-front and their recovery is over a long period, potentially putting stress on the financial profile in the short term.
>
> A key rating consideration is the extent of the link between a water utility's legislated environmental standards and its rate-setting mechanism. Stringent environmental rules requiring expensive upgrade and compliance costs are not necessarily a negative rating factor, so long as the utility has a flexible and transparent process for passing the costs through to consumers, and these consumers are willing and able to bear these costs. Standard & Poor's considers whether the environmental and

[5] Standard & Poor's, Criteria: Infrastructure Finance, Water and Wastewater Utilities, Projects and Concessions, September 1998, p. 47.

economic regulators are acting in isolation, or perhaps have different constituencies.

Moody's[6] also notes that:

We expect that the credit quality of the investor-owned U.S. water utilities will likely deteriorate over the next several years, due to ongoing large capital spending requirements in the industry. Larger capital expenditures facing the water utility industry result from the following factors:

- Continued federal and state environmental compliance requirements;
- Higher capital investments for constructing modern water treatment and filtration facilities;
- Ongoing improvement of maturing distribution and delivery infrastructure; and
- Heightened security measures for emergency preparedness designed to prevent potential terrorist acts.

Given the overwhelming importance of protecting the public health, the water utility industry remains regulated by the federal and state regulatory agencies. As a result of this importance, the level of state regulators' responsiveness is critical in enabling the water utilities to maintain their financial integrity. In addition, when utilities are permitted a fair rate of return and timely rate adjustments to reflect the costs of providing this essential service, they will be more able to implement the necessary safeguards to protect the public health.

In addition, the water utility industry, as well as the electric and natural gas utility industries, faces the need for increased funds to finance the increasing security costs required to protect the water supply and infrastructure from potential terrorist attacks in the post-September 11, 2001, world as noted by Value Line above.

In view of the foregoing, it is clear that the water utility industry's high degree of capital intensity coupled with the need for substantial infrastructure

[6] Moody's Investors Service, Global Credit Research, "Credit Risks and Increasing for U.S. Investor Owned Water Utilities", Special Comment, January 2004, p. 5.

capital spending and increased anti-terrorism and anti-bioterrorism security spending, requires regulatory support in the form of adequate and timely rate relief, as recognized by NARUC, so water utilities will be able to successfully meet the challenges they face.

Q. Does Twin Lakes face additional extraordinary business risk?

A. Yes. Twin Lakes' smaller size, i.e., total capital of $12.729 million at December 31, 2005 vis-à-vis average total capital of $581.470 million in 2005 for the proxy group of six AUS Utility Reports water companies (see page 3 of Schedule PMA-1), and $815.059 million for the proxy group of four Value Line (Std. Ed.) water companies indicates greater relative business risk because all else equal, size has a bearing on risk.

Q. Please explain why size has a bearing on business risk.

A. Smaller companies are less capable of coping with significant events which affect sales, revenues and earnings.

In general, the loss of revenues from a few larger customers, for example, would have a greater effect on a small company than on a much larger company with a larger customer base. In addition, the effect of extreme weather conditions, i.e., prolonged droughts or extremely wet weather will have a greater effect on a small operating water company than upon the much larger, more geographically diverse, publicly traded holding companies. Another factor contributing to the risk effects of size include the fact that

investors demand greater returns to compensate for a lack of marketability and liquidity. Because Twin Lakes is the regulated utility to whose rate base the IURC's ultimately allowed overall cost of capital and fair rate of return will be applied, the relevant risk reflected in the cost of capital must be that of Twin Lakes, including the impact of its small size on common equity cost rate. Size is an important factor which affects common equity cost rate, and Twin Lakes is significantly smaller than the average company in each proxy group based upon total investor-provided capital as shown below:

Table 3

	2005 Total Capital ($ millions)	Times Greater than The Company	Market Capitalization(1) ($ Millions)	Times Greater than the Company
Proxy group of Six AUS Utility Reports Water Companies	$581.470	45.7	$819.174	23.8x
Proxy Group of Four Value Line (Std. Ed.) Water Companies	815.059	64.1x	1,170.357	35.9x
Twin Lakes Utilities, Inc.	12.729		34.432 (2) 32.639 (3)	

(1) From Schedule PMA-1, page 3.
(2) Based upon the average market-to-book ratio of the proxy group of six AUS Utility Reports water companies.
(3) Based upon the average market-to-book ratio of the proxy group of four Value Line (Std. Ed.) water companies.

Table 3 above also shows the results of my study of the market capitalization of the proxy groups of six AUS Utility Reports water companies and four Value Line (Std. Ed.) water companies. The results are shown on page 5 of Schedule PMA-1 which summarizes the market capitalizations as of October 13, 2006.

Twin Lakes' common stock is not publicly traded. Consequently, I have

assumed that if Twin Lakes' common stock were publicly traded, its consolidated common shares would be selling at the same market-to-book ratio as the average market-to-book ratio for each proxy group, or 270.8% (six water companies) and 256.7% (four water companies) at October 13, 2006. Hence, Twin Lakes' market capitalization is estimated at $34.432 million and $32.639 million based upon the average market-to-book ratios of each proxy group, respectively, as of October 13, 2006. In contrast, the market capitalization of the average AUS Utility Reports water company was $819.174 million on October 13, 2006, or 23.8 times larger than Twin Lakes' estimated market capitalization. In addition, the market capitalization of the average Value Line (Std. Ed.) water company was $1.170 billion at October 13, 2006, or 35.9 times larger than Twin Lakes. It is conventional wisdom, supported by actual returns over time, and a general premise contained in basic finance textbooks, that smaller companies tend to be more risky causing investors to expect greater returns as compensation for that risk.

Q. Does the financial literature affirm a relationship between size and common equity cost rate?

A. Yes. Brigham[7] states:

> A number of researchers have observed that portfolios of small-firms have earned consistently higher average returns than those of large-firms stocks; this is called "small-firm effect." On the surface, it would seem to be advantageous to the small firms to provide average returns in a stock market that are higher than those of larger firms. In reality, it is bad news for the small firm; what *the small-firm effect means is that the capital market demands higher returns on stocks of small firms than on otherwise similar stocks of the large firms.* (italics added)

[7] Eugene F. Brigham, Fundamentals of Financial Management, Fifth Edition, The Dryden Press, 1989, p. 623.

V. FINANCIAL RISK

Q. Please define financial risk and explain why it is important to the determination of a fair rate of return?

A. Financial risk is the additional risk created by the introduction of senior capital, i.e., debt and preferred stock, into the capital structure. In other words, the higher the proportion of senior capital in the capital structure, the higher the financial risk.

Utilities formerly were considered to have much less business risk vis-a-vis unregulated enterprises, and, as a result, a larger percentage of debt capital was acceptable to investors. In June 2004, S&P revised its utility financial guidelines and assigned new business profile scores to U.S. utility companies to better reflect the relative business risk among companies in the sector. S&P's revised financial guidelines for utilities can be found in Schedule PMA-2, page 14, while pages 1 through 9 describe the utility bond rating process. As shown on page 14, S&P's revised financial guidelines for utilities establishes financial guideline ratios for ten levels of business position/profile with "1" being considered lowest risk and "10" being highest risk.

As shown on Schedule PMA-11, page 2, the average S&P bond rating (issuer credit rating) and business profile of the six AUS Utility Reports water companies is A (A) and "2.6", which rounds to "3" and A+/A (A) and "2.7" (rounded to "3"), for the four Value Line (Std. Ed.) water companies.

Q. How can one measure the combined business and financial risks, i.e., investment risk of an enterprise?

A. Similar bond ratings/issue credit ratings reflect similar combined business and

financial risks, i.e., total risk. Although the specific business or financial risks may differ between companies, the same bond rating indicates that the combined risks are similar as the bond rating process reflects acknowledgment of all diversifiable business and financial risks in order to assess credit quality or credit risk. For example, S&P expressly states that the bond rating process encompasses a qualitative analysis of business and financial risks (see pages 3 through 9 of Schedule PMA-2). While not a means by which one can specifically quantify the differential in common equity risk between companies, the bond (credit) rating provides a useful means to compare/differentiate investment risk between companies because it is the result of a thorough and comprehensive analysis of all diversifiable business and financial risks, i.e., investment risk.

The Company's ratemaking common equity ratio of 41.89% is significantly lower than the average 2005 common equity ratios based upon total permanent capital (excluding short-term debt) of the six AUS Utility Reports water companies, 46.41% shown on page 3 of Schedule PMA-3 and of the four Value Line (Std. Ed.) water companies, 50.33%, as shown on page 3 of Schedule PMA-4, indicating greater financial risk for Twin Lakes which exacerbates its greater relative business risk based upon its smaller size vis-à-vis the two proxy groups.

VI. TWIN LAKES UTILITIES, INC.

Q. Have you reviewed the financial data for Twin Lakes?

A. Yes. Twin Lakes is a wholly-owned subsidiary of Utilities, Inc. and provides water service to approximately 3,100 retail water customers and 3,000 retail sewer customers in Indiana.

VII. PROXY GROUPS

Q. Please explain how you chose the proxy group of six AUS Utility Reports water companies.

A. The basis of selection for the proxy group of six AUS Utility Reports water companies were those companies that meet the following criteria: 1) they are included in the Water Company Group of AUS Utility Reports (October 2006); 2) they have Value Line or Thomson FN/First Call Consensus five-year EPS growth projections; and 3) they have more than 70% of their 2005 operating revenues derived from water operations. Six companies met all of these criteria.

Q. Please describe Schedule PMA-3.

A. Schedule PMA-3 contains comparative capitalization and financial statistics for the six AUS Utility Reports water companies for the years 2001 through 2005. The schedule consists of three pages. Page 1 contains a summary of the comparative data for the years 2001-2005. Page 2 contains notes relevant to page 1, as well as the basis of selection and names of the individual companies in the proxy group. Page 3 contains the capital structure ratios based upon total

permanent capital (excluding short-term debt) by company and on average for the years 2001-2005.

During the five-year period ending 2005, the historically achieved average earnings rate on book common equity for this group ranged between 8.97% in 2003 and 10.58% in 2002, and averaged 9.96%. The five-year period ending 2005 average common equity ratio based upon total permanent investor-provided capital was 46.46%, while the five-year average dividend payout ratio was 77.47%.

Coverage of interest charges, excluding all AFUDC from funds from operations for the years 2001-2005 ranged between 3.26 and 3.89 times and averaged 3.52 times during the period, while funds from operations relative to total debt ranged from 14.00% to 17.18% and averaged 15.34% for the period.

Q. Please explain how you chose the proxy group of four Value Line water companies.

A. The basis of selection for the proxy group of four Value Line (Std. Ed.) water companies was to include those companies which are part of Value Line's (Std. Ed.) Water Utility Industry Group.

Q. Please describe Schedule PMA-4.

A. Schedule PMA-4 contains comparative capitalization and financial statistics for the four Value Line (Std. Ed.) water companies for the years 2001 through 2005. The schedule consists of two pages. Page 1 contains a summary of the

comparative data for the years 2001-2005. Page 2 contains notes relevant to page 1, as well as the basis of selection and names of the individual companies in the proxy group. Page 3 contains the capital structure ratios based upon total permanent capital (excluding short-term debt) by company and on average for the years 2001-2005.

During the five-year period ending 2005, the historically achieved average earnings rate on book common equity for this group ranged between 8.38% in 2004, and 10.91% in 2002, and averaged 9.70%. The five-year period ending 2005 average common equity ratio based upon total permanent investor-provided capital was 47.79%, while the five-year average dividend payout ratio was 67.08%.

Coverage of interest charges, excluding all AFUDC from funds from operations for the years 2001-2005 ranged between 3.61 and 4.40 times and averaged 3.93 times during the five-year period, while funds from operations relative to total debt ranged from 15.81% to 20.38% and averaged 18.09% during the five-year period.

VIII. COMMON EQUITY COST RATE MODELS

A. The Efficient Market Hypothesis (EMH)

Q. Are the cost of common equity models you use market-based models, and hence based upon the EMH?

A. Yes. The DCF model is market-based in that market prices are utilized in developing the dividend yield component of the model. The RPM is market-

based in that the bond ratings and expected bond yields used in the application of the RPM reflect the market's assessment of risk. In addition, the use of betas to determine the equity risk premium also reflects the market's assessment of risk as betas are derived from regression analyses of market prices. The CAPM is market-based for many of the same reasons that the RPM is market-based i.e., the use of expected bond (Treasury bond) yields and betas. The CEM is market-based in that the process of selecting the comparable risk non-utility companies is based upon statistics which result from regression analyses of market prices. Therefore, all the cost of common equity models I utilize are market-based models, and hence based upon the EMH.

Q. Please describe the conceptual basis of the EMH.

A. The Efficient Market Hypothesis (EMH), which is the foundation of modern investment theory, was pioneered by Eugene F. Fama[8] in 1970. An efficient market is one in which security prices reflect all relevant information all the time. This implies that prices adjust instantaneously to new information, thus reflecting the intrinsic fundamental economic value of a security.[9]

The essential components of the EMH are:

A. Investors are rational and invest in assets providing the highest expected return given a particular level of risk.

B. Current market prices reflect all publicly available

[8] Fama, Eugene F., "Efficient Capital Markets: A Review of Theory and Empirical Work". Journal of Finance, May 1970, pp. 383-417.

[9] Morin, Roger A., New Regulatory Finance, Public Utility Reports, Inc., Arlington, VA, 2006, p. 279-281.

information.

C. Returns are independent i.e., today's market returns are unrelated to yesterday's returns.

D. Capital markets follow a random walk i.e., the probability distribution of expected returns approximates a normal distribution.

Brealey and Myers state:[10]

> When economists say that the security market is 'efficient', they are not talking about whether the filing is up to date or whether desktops are tidy. They mean that information is widely and cheaply available to investors and that all relevant and ascertainable information is already reflected in security prices.
>
> The three forms of the EMH are:
>
> A. The "weak" form which asserts that all past market prices and data are fully reflected in securities prices i.e., technical analysis cannot enable an investor to "outperform the market".
>
> B. The "semistrong" form which asserts that all publicly available information is fully reflected in securities prices i.e., fundamental analysis cannot enable an investor to "outperform the market".
>
> C. The "strong" form which asserts that all information, both public and private, is fully reflected in securities prices i.e., even insider information cannot enable an investor to "outperform the market".

The "semistrong" form of the EMH is generally held to be true because the use of insider information often enables investors to "outperform the market" and earn excessive returns. The generally-accepted "semistrong" form of the EMH means that all perceived risks are taken into account by investors in the prices they pay for securities. Investors are aware of all publicly-available information,

[10] Brealey, R.A. and Myers, S.C., Principles of Corporate Finance, McGraw-Hill Publications, Inc., 1996, pp. 323-324.

including bond ratings, discussions about companies by bond rating agencies and investment analysts as well as the various cost of common equity methodologies (models) discussed in the financial literature. In an attempt to emulate investor behavior, this means that no single common equity cost rate model should be relied upon in determining a cost rate of common equity and that the results of multiple cost of common equity models should be taken into account.

Q. Is there support in the academic literature for the need to rely upon more than one cost of common equity model in arriving at a recommended common equity cost rate range?

A. Yes. For example, Phillips[11] states:

> Since regulation establishes a level of authorized earnings which, in turn, implicitly influences dividends per share, *estimation of the growth rate from such data is an inherently circular process. For these reasons, the DCF model "suggests a degree of precision which is in fact not present" and leaves "wide room for controversy and argument about the level of k" [investors' capitalization or discount rate, i.e., the cost of capital].* (italics added) (p. 396)
>
> * * *
>
> Despite the difficulty of measuring relative risk, the comparable earnings standard is no harder to apply than is the market-determined standard. The DCF method, to illustrate, requires a subjective determination of the growth rate the market is contemplating. Moreover, as Leventhal has argued: *'Unless the utility is permitted to earn a return comparable to that available elsewhere on similar risk, it will not be able in the long run to attract*

[11] Charles F. Phillips, Jr., The Regulation of Public Utilities-Theory and Practice, 1993, Public Utility Reports, Inc., Arlington, VA, p. 396, 398.

capital.' (italics added) (p. 398)

Also, Morin[12] states:

> Each methodology requires the exercise of considerable judgment on the reasonableness of the assumptions underlying the methodology and on the reasonableness of the proxies used to validate a theory. *The inability of the DCF model to account for changes in relative market valuation, discussed below, is a vivid example of the potential shortcomings of the DCF model when applied to a given company.* Similarly, the inability of the CAPM to account for variables that affect security returns other than beta tarnishes its use. (italics added)
>
> No one individual method provides the necessary level of precision for determining a fair return, but each method provides useful evidence to facilitate the exercise of an informed judgment. Reliance on any single method or preset formula is inappropriate when dealing with investor expectations because of possible measurement difficulties and vagaries in individual companies' market data. (Morin, p. 428)

* * *

The financial literature supports the use of multiple methods. Professor Eugene Brigham, a widely respected scholar and finance academician, asserts:[1](footnote omitted)

> Three methods typically are used: (1) the Capital Asset Pricing Model (CAPM), (2) the discounted cash flow (DCF) method, and (3) the bond-yield-plus-risk-premium approach. These methods are not mutually exclusive – no method dominates the others, and all are subject to error when used in practice. Therefore, when faced with the task of estimating a company's cost of equity, we generally use all three methods and then choose among them on the basis of our confidence in the data used for each in the specific case at hand.

Another prominent finance scholar, Professor Stewart Myers, in an early pioneering article on regulatory finance, stated:[2](footnote omitted)

> Use more than one model when you can. Because estimating the opportunity cost of capital is difficult, only a fool throws away useful information. That means you should not use any one

[12] Id, at pp. 428 and 430 - 431.

> model or measure mechanically and exclusively. Beta is helpful as one tool in a kit, to be used in parallel with DCF models or other techniques for interpreting capital market data.
>
> Reliance on multiple tests recognizes that no single methodology produces a precise definitive estimate of the cost of equity. As stated in Bonbright, Danielsen, and Kamerschen (1988), '*no single or group test or technique is conclusive.*' Only a fool discards relevant evidence. (italics in original) (Morin, p. 430)
>
> * * *
>
> While it is certainly appropriate to use the DCF methodology to estimate the cost of equity, there is no proof that the DCF produces a more accurate estimate of the cost of equity than other methodologies. Sole reliance on the DCF model ignores the capital market evidence and financial theory formalized in the CAPM and other risk premium methods. The DCF model is one of many tools to be employed in conjunction with other methods to estimate the cost of equity. *It is not a superior methodology that supplants other financial theory and market evidence. The broad usage of the DCF methodology in regulatory proceedings in contrast to its virtual disappearance in academic textbooks does not make it superior to other methods. The same is true of the Risk Premium and CAPM methodologies.* (italics added) (Morin, p. 431)

In view of the foregoing, it is clear that investors are or should be aware of all of the models available for use in determining a common equity cost rate. The EMH requires the assumption that, collectively, investors consider them all.

B. Discounted Cash Flow Model (DCF)

1. Theoretical Basis

Q. What is the theoretical basis of the DCF model?

A. The theory of the DCF model is that the present value of an expected future stream of net cash flows during the investment holding period can be determined by discounting the cash flows at the cost of capital, or the capitalization rate.

DCF theory suggests that an investor buys a stock for an expected total return rate which is expected to be derived from cash flows received in the form of dividends plus appreciation in market price (the expected growth rate). Thus, the dividend yield on market price plus a growth rate equals the capitalization rate, i.e., the total return rate expected by investors.

Q. Please comment on the applicability of the DCF model in establishing a cost of common equity for Twin Lakes.

A. The extent to which the DCF is relied upon should depend upon the extent to which the cost rate results differ from those resulting from the use of other cost of common equity models because the DCF model has a tendency to mis-specify investors' required return rate when the market value of common stock differs significantly from its book value. Market values and book values of common stocks are seldom at unity. The market-based DCF model will result in a total annual dollar return on book common equity equal to the total annual dollar return expected by investors only when market and book values are equal, a rare and unlikely situation. In recent years, the market values of utilities' common stocks have been well in excess of their book values as shown on page 1 of Schedule PMA-3 ranging between 215.22% and 261.32% for the proxy group of six AUS Utility Reports water companies and between 220.49% and 248.19% for the proxy group of four Value Line (Std. Ed.) water companies as shown on page 1 of Schedule PMA-4.

Mathematically, the DCF model understates/overstates investors' required

return rate when market value exceeds/is less than book value because, in many instances, market prices reflect investors' assessments of long-range market price growth potentials (consistent with the infinite investment horizon implicit in the standard regulatory version of the DCF model) not fully reflected in analysts' shorter range forecasts of future growth for earnings per share (EPS) and dividends per share (DPS) accounting proxies. This indicates the need to better match market prices with investors' longer range growth expectations embedded in those prices. However, the understatement/overstatement of investors' required return rate associated with the application of the market price-based DCF model to the book value of common equity clearly illustrates why reliance upon a single common equity cost rate model should be avoided.

2. Applicability of a Market-Based Common Equity Cost Rate to a Book Value Rate Base

Q. Is it reasonable to expect the market values of utilities' common stocks to continue to sell well above their book values?

A. Yes. I believe that the common stocks of utilities will continue to sell substantially above their book values, because many investors, especially individuals who traditionally committed less capital to the equity markets, will likely continue to commit a greater percentage of their available capital to common stocks in view of lower interest rate alternative investment opportunities and to provide for retirement. The recent past and current capital market environment is in stark contrast to the late 1970's and early 1980's when very high (by historical standards) yields on secured debt instruments in

public utilities were available. Despite the fact that the market declined significantly during late 2001 through 2003, following the September 11, 2001 tragedy and despite recent market volatility due to volatile energy prices, utility stocks have continued to sell at market prices well above their book values. The significant recent increases in market-to-book ratios have been influenced by factors other than fundamentals such as actual and reported growth in earnings per share (EPS) and dividends per share (DPS).

Traditional rate base/rate of return regulation, where a market-based common equity cost rate is applied to a book value rate base, presumes that market-to-book ratios are one. However, there is ample empirical evidence over sustained periods which demonstrate that this is an incorrect presumption. Market-to-book ratios of one are rarely the case as there are many factors affecting the market price of common stocks, in addition to earnings. Moreover, allowed ROEs have a limited effect on utilities' market/book ratios as market prices of common stocks are influenced by a number of other factors beyond the direct influence of the regulatory process.

For example, Phillips[13] states:

> Many question the assumption that market price should equal book value, believing that 'the earnings of utilities should be sufficiently high to achieve market-to-book ratios which are consistent with those prevailing for stocks of unregulated companies.'

In addition, Bonbright[14] states:

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13 Id., at p. 395.

14 James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, Principles of Public Utility Rates, 1988, Public Utilities Reports, Inc., Arlington, VA, p. 334.

> In the first place, commissions cannot forecast, except within wide limits, the effect their rate orders will have on the market prices of the stocks of the companies they regulate. In the second place, *whatever the initial market prices may be, they are sure to change not only with the changing prospects for earnings, but with the changing outlook of an inherently volatile stock market.* In short, market prices are beyond the control, though not beyond the influence of rate regulation. Moreover, even if a commission did possess the power of control, any attempt to exercise it ... would result in harmful, uneconomic shifts in public utility rate levels. (italics added)

In view of the foregoing, a mismatch results in the application of the DCF model as market prices reflect long range expectations of growth in market prices (consistent with the presumed infinite investment horizon of the standard DCF model), while the short range forecasts of growth in accounting proxies, i.e., EPS and DPS, do not reflect the full measure of growth (market price appreciation) expected in per share market value.

Q. Please explain why a DCF-derived common equity cost rate mis-specifies investors' expected common equity cost rate when the market/book ratio is greater or less than unity (100%).

A. Under the DCF model, the rate of return investors require is related to the price paid for a stock i.e., market price is the basis upon which they formulate the required rate of return. A regulated utility is limited to earning on its net book value (depreciated original cost) rate base. As discussed previously, market values differ from book values for many reasons unrelated to earnings. Thus, when market values differ significantly from book values, a market-based DCF

cost rate applied to the book value of common equity will not accurately reflect investors' expected common equity cost rate. It will either overstate or understate investors' expected common equity cost rate (without regard to any adjustment for flotation costs which may, at times, be appropriate on an ad hoc basis) depending upon whether market value is less than or greater than book value.

Schedule PMA-5 demonstrates how a market-based DCF cost rate applied to a book value which is either below or above market value will either understate or overstate investors' expectations because these expectations are based on a required return on market value. As shown, there is no realistic opportunity to earn the market-based rate of return on book value. Note that in Column 1, investors expect a 10.00% return on a market price of $24.00. Moreover, as shown in Column 2, when the 10.00% return rate on market value is applied to book value which is approximately 55.5% of market value, the total annual return opportunity is just $1.333 on book value. With an annual dividend of $0.840, there is an opportunity for growth of $0.493 which translates to just 2.05% in contrast to the 6.50% growth in market price expected by investors. There is no way to possibly achieve the expected growth of $1.560 or 6.50% absent a huge cut in the annual dividend, an unreasonable expectation which would result in an extremely adverse reaction by investors because it would be a sign of extreme financial distress.

Conversely, in Column 3, where the market-to-book ratio is 80%, when the 10.00% return rate on market value is applied to a book value which is

approximately 25.0% greater than market value, the total annual return opportunity is $3.000 on book value with an annual dividend of $0.840, there is an opportunity for growth of $2.160 which translates to 9.00% in contrast to the 6.50% growth in market price expected by investors.

In view of the foregoing, it is clear that the DCF model either understates or overstates investors' required cost of common equity capital when market values exceed or are less than their underlying book values and thus multiple cost of common equity models should be relied upon when estimating investors' expectations.

Q. Have any commissions explicitly stated that the DCF model should not be relied upon exclusively?

A. Yes. As stated previously, the majority of regulatory commissions rely upon a combination of the various cost of common equity models available.

Specifically, the Iowa Utilities Board (IUB) has recognized the tendency of the DCF model to understate investors' expected cost of common equity capital when market values are significantly above their book values. In its June 17, 1994 Final Decision and Order in Re U.S. West Communications, Docket No. RPU-93-9 the IUB stated:[15]

> While the Board has relied in the past on the DCF model, in *Iowa Electric Light and Power Company*, Docket No. RPU-89-9, "Final Decision and Order" (October 15, 1990), the Board stated: '[T]he DCF model may understate the return on equity in some circumstances. This is particularly true when the market is relatively volatile and the company in question has a

[15] Re: U.S. West Communications, Inc., Docket No. RPU-93-9, 152 PUR4th at 459.

> market-to-book ratio in excess of one." Those conditions exist in this case and the Board will not rely on the DCF return. (Consumer Advocate Ex. 367, See Tr. 2208, 2250, 2277, 2283-2284). *The DCF approach underestimates the cost of equity needed to assure capital attraction during this time of market uncertainty and volatility. The board will, therefore, give preference to the risk premium approach.* (italics added)

Similarly, in 1994, the Indiana Utility Regulatory Commission (IURC), for example, recognized the tendency of the DCF model to understate the cost of equity when market value exceeds book value[16]:

> In determining a common equity cost rate, we must again recognize the tendency of the traditional DCF model, . . . to understate the cost of common equity. As the Commission stated in Indiana-Mich. Power Co. (BPU 8/24/90), Cause No. 38728, 116 PUR 4th 1, 17-18, *"the unadjusted DCF result is almost always well below what any informed financial analyst would regard as defensible, and therefore, requires an upward adjustment based largely on the expert witness's judgement."* (italics added)
>
> * * *
>
> [u]nder the traditional DCF model . . . the appropriate earnings level of the utility would not be derived by applying the DCF result to the market price of the Company's stock . . . it would be applied to the utility's net original cost rate base. *If the market price of the stock exceeds its book value, . . . the investor will not achieve the return which the model finds is necessary.* (italics added)

Also, the Hawaii Public Utilities Commission (HPUC) recognized this phenomenon in a decision dated June 30, 1992[17] in a case regarding Hawaiian Electric Company, Inc., when it stated:

> In this docket, as in other rate proceedings, experts disagree on the relative merits of the various methods of determining the

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[16] Re: Indiana-American Water Company, Inc., Cause No. 39595, 150 PUR4th at 167-168.

[17] Re: Hawaiian Electric Company, Inc., Docket No. 6998, 134 PUR4th at 479.

> cost of common equity. In this docket, HECO is particularly critical of the use of the constant growth DCF methodology. It asserts that method is imbued with downward bias and, thus, its use will understate common equity cost. *We are cognizant of the shortcomings of the DCF method.* There are, however, shortcomings to be found with the use of CAPM and the RP methods as well. We reiterate that, despite the problems with the use of any methodology, *all methods should be considered and that the DCF method and the combined CAPM and RP methods should be given equal weight.* (italics added)

Q. Do other cost of common equity models contain unrealistic assumptions and have shortcomings?

A. Yes. That is why I am not recommending that <u>any</u> of the models be relied upon exclusively. I have focused on the shortcomings of the DCF model because some regulatory commissions still place excessive or exclusive reliance upon it. Although the DCF model is useful, it is not a superior methodology that supplants financial theory and market evidence based upon other valid cost of common equity models. For these reasons, <u>no model</u>, including the DCF, should be relied upon exclusively.

3. <u>Application of the Single-Stage DCF Model</u>

a. Dividend Yield

Q. Please describe the dividend yield you used in your application of the DCF model.

A. The unadjusted dividend yields are based upon an average of a recent spot date (October 13, 2006) as well as an average of the three months ended September 30, 2006, respectively, which are shown on Schedule PMA-7. The

average unadjusted yield is 2.8% for the six AUS Utility Reports water companies and 2.5% for the four Value Line (Std. Ed.) water companies.

b. Discrete Adjustment of Dividend Yield

Q. Please explain the dividend growth component shown on Schedule PMA-6, page 1, Column 2.

A. Because dividends are paid quarterly, or periodically, as opposed to continuously (daily), an adjustment to the dividend yield must be made. This is often referred to as the discrete, or the Gordon Periodic, version of the DCF model.

Since the various companies in the proxy groups increase their quarterly dividend at various times during the year, a reasonable assumption is to reflect one-half the annual dividend growth rate in the D_1 expression, or $D_{1/2}$. This is a conservative approach which does not overstate the dividend yield which should be representative of the next twelve-month period. Therefore, the actual average dividend yields in Column 1 on Schedule PMA-6 have been adjusted upward to reflect one-half the growth rates shown in Column 4.

c. Selection of Growth Rates for Use in the Single-Stage DCF Model

Q. Please explain the basis of the growth rates of the proxy group of six AUS Utility Reports water companies and the proxy group of four Value Line (Std. Ed.) water companies which you use in your application of the DCF model.

A. Schedule PMA-8 indicates that approximately 76% of the common shares of

the proxy group of six AUS Utility Reports water companies and 61% of the common shares of the proxy group of four Value Line (Std. Ed.) water companies are held by individuals as opposed to institutional investors. Individual investors are particularly likely to place great significance on the opinions expressed by financial information services, such as Value Line and Thomson FN/First Call, which are easily accessible and/or available on the Internet.

Forecasts by analysts, including Value Line, are typically limited to five years. In my opinion, investors in water utilities would have little interest in historical growth rates beyond the most recent five years because an historical five-year period balances the five-year period for projected growth rates. Consequently, the use of five-year historical and five-year projected growth rates in earnings per share (EPS) and dividends per share (DPS) as well as the sum of internal and external growth in per share value (BR + SV) is appropriate to consider in the determination of a growth rate for use in this application of the DCF model. In addition, investors realize that analysts have significant insight into the dynamics of the industries and they analyze individual companies as well as companies' abilities to effectively manage the effects of changing laws and regulations. Consequently, I have reviewed analysts' projected growth in EPS, as well as historical and projected five-year compound growth rates in EPS, DPS and (BR + SV) for each company in each proxy group. The historical growth rates are from Value Line or are calculated in a manner similar to Value Line, while the projected growth rates in earnings

are from Value Line and Thomson FN/First Call forecasts. Thomson FN/First Call growth rate estimates are not available for DPS and internal growth, and they do not include the Value Line projections.

In addition to evaluating EPS and DPS growth rates, it is reasonable to assume that investors also assess (BR + SV). The concept is based on well documented financial theory that future dividend growth is a function of the portion of the overall return to investors which is reinvested in the firm plus the sales of new common stock. Consequently, the growth component as proxied by internal and external growth is defined as follows:

$$g = BR + SV$$

Where:

B = the fraction of earnings retained by the firm, i.e., retention ratio

R = the return on common equity

S = the growth in common shares outstanding

V = the premium/discount of a company's stock price relative to its book value, i.e., one minus the complement of the market/book ratio.

Consistent with the use of five-year historical and five-year projected growth rates in EPS and DPS, I have derived five-year historical and five-year projected (BR + SV) growth. Projected EPS growth rate averages are shown in Column 4 on the lower half of Schedule PMA-6, while historical and projected growth in DPS, EPS, and BR + SV is shown in Column 4 on the upper half of Schedule PMA-6. The bases of these growth rates are summarized for the companies in each proxy group on page 1, Schedule PMA-9. Supporting

growth rate data are detailed on pages 2 through 7 of Schedule PMA-9, while pages 8 through 13 contain all of the most current Value Line Investment Survey data for the companies in both proxy groups.

d. Conclusion of Single-Stage Cost Rates

Q. Please summarize the single-stage growth DCF model results.

A. As shown on Schedule PMA-6, the results of the applications of the single-stage DCF model are 9.6% for the proxy group of six AUS Utility Reports water companies and 9.8% for the proxy group of four Value Line (Std. Ed.) water companies. In arriving at conclusions of indicated common equity cost rates for the two proxy groups, I included only those single-stage DCF results which are 8.4% or greater, i.e., 200 basis points above the average prospective yield on Moody's A rated public utility bonds of 6.4% based upon Blue Chip Financial Forecasts' October 1, 2006 consensus forecast of about 50 economists of the expected yield on Aaa rated corporate bonds as discussed subsequently and derived in Note 3 on page 6 of Schedule PMA-10. As will also be discussed subsequently, it is necessary to adjust the average Aaa rated corporate bond yield to be equivalent to a Moody's A2 rated public utility bond. Thus, an adjustment to the average prospective yield on Aaa rated corporate bonds of 0.5% was required, as detailed in Note 2 on page 1 of Schedule PMA-10, resulting in an average prospective yield on Moody's A rated public utility bonds of 6.4%.

Based upon a review of recent authorized returns on common equity

(ROE) throughout the United States vis-à-vis concurrent estimates of the forecasted average yield on A rated public utility bonds, I determined that the equity risk premium implicit in authorized ROEs for the first nine months of 2006 ranged between 303 and 559 basis points and averaged 398 basis points and the twelve months ended December 2005 is between 310 and 567 basis points, averaging 415 basis points. In addition, the equity risk premium implicit in all regulatory awarded returns on common equity for 2004 and to date in 2006, ranged from 280 to 567 basis points, averaging 402 basis points. In accordance with the EMH, investors are aware of these implicit equity risk premia and, in my opinion, would not consider returns providing an equity risk premium of only 200 basis points either reasonable or credible. Therefore, it is reasonable, if not conservative, to eliminate any single-stage DCF results which are no more than 200 basis points above the current prospective average yield on A rated public utility bonds of 6.4%.

4. Conclusion of DCF Cost Rates

Q. Please summarize the DCF model results.

A. As shown on Schedule PMA-6, the results of the applications of the DCF model are 9.6% for the proxy group of six AUS Utility Reports water companies and 9.9% for the proxy group of four Value Line (Std. Ed.) water companies.

C. The Risk Premium Model (RPM)

1. Theoretical Basis

Q. Please describe the theoretical basis of the RPM.

A. Risk Premium theory indicates that the cost of common equity capital is greater than the prospective company-specific cost rate for long-term debt capital. In other words, the cost of common equity equals the expected cost rate for long-term debt capital plus a risk premium to compensate common shareholders for the added risk of being unsecured and last-in-line for any claim on the corporation's assets and earnings.

Q. Some analysts state that the RPM is another form of the CAPM. Do you agree?

A. While there are some similarities, there is a very significant distinction between the two models. The RPM and CAPM both add a "risk premium" to an interest rate. However, the beta approach to the determination of an equity risk premium in the RPM should not be confused with the CAPM. Beta is a measure of systematic, or market, risk, a relatively small percentage of total risk (the sum of both non-diversifiable systematic and diversifiable unsystematic risk). Unsystematic risk is fully captured in the RPM through the use of the prospective long-term bond yield as can be shown by reference to pages 3 through 9 of Schedule PMA-2, which confirm that the bond rating process involves an assessment of all business and financial risks. In contrast, the use of a risk-free rate of return in the CAPM does not, and by definition

cannot, reflect a company's specific i.e., unsystematic risk. Consequently, a much larger portion of the total common equity cost rate is reflected in the company-specific bond yield (a product of the bond rating) than is reflected in the risk-free rate in the CAPM, or indeed even by the dividend yield employed in the DCF model. Moreover, the financial literature recognizes the RPM and CAPM as two separate and distinct cost of common equity models as discussed previously.

Q. Have you performed RPM analyses of common equity cost rate for the two proxy groups?

A. Yes. The results of my application of the RPM are summarized on page 1 of Schedule PMA-10. On Line No. 3, page 1, Schedule PMA-11, I show the average expected yield on A rated public utility bonds of 6.4 %. On Line No. 4, I show the adjustments, if necessary, that need to be made to the average 6.4% expected A rated utility bond yield so that the expected yields of 6.4% in Line No. 5 is reflective of the average Moody's bond rating of A2 for both the proxy groups of six AUS Utility Reports' water companies and of four Value Line (Std. Ed.) water companies. On Line No. 6 of page 1, my conclusions of an equity risk premium applicable to each proxy group are shown, while the total risk premium common equity cost rates are shown on Line No. 7.

2. Estimation of Expected Bond Yield

Q. Please explain the basis of the expected bond yield of 6.4% applicable to the

1 average company in both proxy groups.

2 A. Because the cost of common equity is prospective, a prospective yield on
3 similarly-rated long-term debt is essential. As shown on Schedule PMA-10,
4 page 2, the average Moody's bond rating of both proxy groups is A2. I relied
5 upon a consensus forecast of about 50 economists of the expected yield on
6 Aaa rated corporate bonds for the six calendar quarters ending with the first
7 calendar quarter of 2008 as derived from the October 1, 2006 Blue Chip
8 Financial Forecasts (shown on page 7 of Schedule PMA-10). As shown on
9 Line No. 1 of page 1 of Schedule PMA-10, the average expected yield on
10 Moody's Aaa rated corporate bonds is 5.9%. It is necessary to adjust that
11 average yield to be equivalent to a Moody's A2 rated public utility bond.
12 Consequently, an adjustment to the average prospective yield on Aaa rated
13 corporate bonds of 0.5% was required. It is shown on Line No. 2, page 1 of
14 Schedule PMA-10 and explained in Note 2 at the bottom of the page. After
15 adjustment, the expected bond yield applicable to a Moody's A rated public
16 utility bond is 6.4% as shown on Line No. 3, page 1 of Schedule PMA-10.

17 Because both the proxy group of six AUS Utility Reports water
18 companies' and the proxy group of four Value Line (Std. Ed.) water companies'
19 average Moody's bond rating is A2, no adjustment is necessary to make the
20 prospective bond yield applicable to an A2 public utility bond. Therefore, the
21 expected specific bond yield is 6.4% for both proxy groups of water companies.
22

1 3. Estimation of the Equity Risk Premium

2 Q. Please explain the method utilized to estimate the equity risk premium.

3 A. I evaluated the results of two different historical equity risk premium studies, as
4 well as Value Line's forecasted total annual market return in excess of the
5 prospective yield on high grade corporate bonds, as detailed on pages 5, 6 and
6 8 of Schedule PMA-10. As shown on Line No. 3, page 5 of Schedule PMA-10,
7 the mean equity risk premium based on both of the studies is 4.5% applicable
8 to the proxy group of six AUS Utility Reports water companies and 4.6%
9 applicable to the proxy group of four Value Line (Std. Ed.) water companies.
10 These estimates are the result of an average of a beta-derived historical equity
11 risk premium and a forecasted total market equity risk premium as well as the
12 mean historical equity risk premium applicable to public utilities with bonds
13 rated A based upon holding period returns.

14 The basis of the beta-derived equity risk premia applicable to the proxy
15 groups is shown on page 6 of Schedule PMA-10. Beta-determined equity risk
16 premia should receive substantial weight because betas are derived from the
17 market prices of common stocks over a recent five-year period. Beta is a
18 meaningful measure of prospective relative risk to the market as a whole and is
19 a logical means by which to allocate a relative share of the market's total equity
20 risk premium.

21 The total market equity risk premium utilized is 6.2% and is based upon
22 an average of both the long-term historical and forecasted market risk premia
23 of 6.2% and 6.1%, respectively, as shown on page 6 of Schedule PMA-10. To

derive the historical market equity risk premium, I used the most recent Ibbotson Associates' data on holding period returns for the S&P 500 Composite Index and the average historical yield on Moody's Aaa and A rated corporate bonds for the period 1926-2005. The use of holding period returns over a very long period of time is useful in the beta approach. As Ibbotson Associates'[18] Valuation Edition 2006 Yearbook states:

> The estimate of the equity risk premium depends on the length of the data series studied. A proper estimate of the equity risk premium requires a data series long enough to give a reliable average without being unduly influenced by very good and very poor short-term returns. When calculated using a long data series, the historical equity risk premium is relatively stable.[5] Furthermore, because an average of the realized equity risk premium is quite volatile when calculated using a short history, using a long series makes it less likely that the analyst can justify any number he or she wants. The magnitude of how shorter periods can affect the result will be explored later in this chapter.
>
> Some analysts estimate the expected equity risk premium using a shorter, more recent time period on the basis that recent events are more likely to be repeated in the near future; furthermore, they believe that the 1920s, 1930s and 1940s contain too many unusual events. This view is suspect because all periods contain "unusual" events. Some of the most unusual events this century took place quite recently, including the inflation of the late 1970s and early 1980s, the October 1987 stock market crash, the collapse of the high-yield bond market, the major contraction and consolidation of the thrift industry, the collapse of the Soviet Union, and the development of the European Economic Community – all of these happened approximately in the last 30 years.
>
> It is even difficult for economists to predict the economic environment of the future. For example, if one were analyzing the stock market in 1987 before the crash, it would be statistically improbable to predict the impending short-term volatility without considering the stock market crash and market

[18] Ibbotson Associates, Stocks, Bonds, Bills and Inflation – Valuation Edition 2006 Yearbook, pp. 82-83.

volatility of the 1929-1931 period.

> Without an appreciation of the 1920s and 1930s, no one would believe that such events could happen. The 80-year period starting with 1926 is representative of what can happen: it includes high and low returns, volatile and quiet markets, war and peace, inflation and deflation, and prosperity and depression. Restricting attention to a shorter historical period underestimates the amount of change that could occur in a long future period. Finally, because historical event-types (not specific events) tend to repeat themselves, long-run capital market return studies can reveal a great deal about the future. Investors probably expect "unusual" events to occur from time to time, and their return expectations reflect this. (footnote omitted)

In addition, the use of long-term data in a RPM model is consistent with the long-term investment horizon presumed by the DCF model. Consequently, the long-term arithmetic mean total return rates on the market as a whole of 12.3% and the long-term arithmetic mean yield on corporate bonds of 6.1% were used, as shown at Line Nos. 1 and 2 of page 6 of Schedule PMA-10. As shown on Line No. 3 of page 6, the resultant long-term historical equity risk premium on the market as a whole is 6.2%.

I used arithmetic mean return rates because they are appropriate for cost of capital purposes. As Ibbotson Associates state in their Valuation Edition 2006 Yearbook[19]:

> The equity risk premium data presented in this book are arithmetic average risk premia as opposed to geometric average risk premia. The arithmetic average equity risk premium can be demonstrated to be most appropriate when discounting future cash flows. For use as the expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. This is

[19] Id., p. 77.

> because both the CAPM and the building block approach are additive models, in which the cost of capital is the sum of its parts. The geometric average is more appropriate for reporting past performance, since it represents the compound average return.
>
> The argument for using the arithmetic average is quite straightforward. In looking at projected cash flows, the equity risk premium that should be employed is the equity risk premium that is expected to actually be incurred over the future time periods. Graph 5-3 shows the realized equity risk premium for each year based on the returns of the S&P 500 and the income return on long-term government bonds. (The actual, observed difference between the return on the stock market and the riskless rate is known as the realized equity risk premium.) There is considerable volatility in the year-by-year statistics. At times the realized equity risk premium is even negative.

As Ibbotson Associates[20] states in their 1999 Yearbook:

> The expected equity risk premium should always be calculated using the arithmetic mean. The arithmetic mean is the rate of return which, when compounded over multiple periods, gives the mean of the probability distribution of ending wealth values....Stated another way, the arithmetic mean is correct because an investment with uncertain returns will have a higher expected ending wealth value than an investment which earns, with certainty, its compound or geometric rate of return every year....*Therefore, in the investment markets, where returns are described by a probability distribution, the arithmetic mean is the measure that accounts for uncertainty, and is the appropriate one for estimating discount rates and the cost of capital.* (italics added)

Ex-post (historical) total returns and equity risk premium spreads differ in size and direction over time. This is precisely why the arithmetic mean is important as it provides insight into the variance and standard deviation of returns. This prospect for variance, as captured in the arithmetic mean, provides the valuable insight needed by investors to estimate future risk when

[20] Ibbotson Associates, Stocks, Bonds, Bills and Inflation - 1999 Yearbook, pp. 157-158.

making a current investment. Absent such valuable insight into the potential variance of returns, investors cannot meaningfully evaluate prospective risk. As discussed previously, all of the cost of common equity models, including the DCF, are premised upon the EMH, that all publicly available information is reflected in the market prices paid. If investors relied upon the geometric mean of ex-post spreads, they would have no insight into the potential variance of future returns because the geometric mean relates the change over many periods to a constant rate of change, thereby obviating the year-to-year fluctuations, or variance, *critical to risk analysis*.

The basis of the forecasted market equity risk premium can be found on Line Nos. 4 through 6 on page 6 of Schedule PMA-10. It is derived from an average of the most recent 3-month (using the months of July 2006 through September 2006) and a recent spot (October 13, 2006) median market price appreciation potentials by Value Line as explained in detail in Note 1 on page 3 of Schedule PMA-11. The average expected price appreciation is 48% which translates to 10.30% per annum and, when added to the average (similarly calculated) dividend yield of 1.70% equates to a forecasted annual total return rate on the market as a whole of 12.00%. Thus, this methodology is consistent with the use of the 3-month and spot dividend yields in my application of the DCF model. To derive the forecasted total market equity risk premium of 6.2% shown on Schedule PMA-10, page 6, Line No. 6, the October 1, 2006 forecast of about 50 economists of the expected yield on Moody's Aaa rated corporate bonds for the six calendar quarters ending with the first calendar quarter 2008

of 5.9% from Blue Chip Financial Forecasts was deducted from the Value Line total market return of 12.0%. The calculation resulted in an expected market risk premium of 6.1%.

The average of the historical and projected market equity risk premia of 6.2% and 6.1% is 6.15%, rounded to 6.2%.

On page 9 of Schedule PMA-10, the most current Value Line (Standard Edition) betas for the companies in the two proxy groups are shown. Applying the average beta of each proxy group to the average market equity risk premium of 6.2% results in a beta adjusted equity risk premium of 4.5% for the proxy group of six AUS Utility Reports water companies and 4.7% for the proxy group of four Value Line (Std. Ed.) water companies as shown on Schedule PMA-10, page 6, Line No. 9.

A mean equity risk premium of 4.4% applicable to companies with A rated public utility bonds was calculated based upon holding period returns from a study using public utilities, as shown on Line No. 2, page 5 of Schedule PMA-10, and detailed on page 8 of the same schedule.

The equity risk premia applicable to the proxy group of six AUS Utility Reports water companies and the proxy group of four Value Line (Std. Ed.) water companies are the averages of the beta-derived premia and that based upon the holding period returns of public utilities with A rated bonds, as summarized on Schedule PMA-10, page 5, i.e., 4.5% and 4.6%.

Q. What are the RPM calculated common equity cost rates?

A. They are 10.9% for the six AUS Utility Reports water companies and 11.0% for the four Value Line (Std. Ed.) water companies as shown on Schedule PMA-10, page 1.

Q. Some critics of the RPM model claim that its weakness is that it presumes a constant equity risk premium. Is such a claim valid?

A. No. The equity risk premium varies inversely with interest rate changes, although not in tandem with those changes. This presumption of a constant equity risk premium is no different than the presumption of a constant "g", or growth component, in the DCF model. If one calculates a DCF cost rate today, the absolute result "k", as well as the growth component "g", would invariably differ from a calculation made just one or several months earlier. This implies that the "g" does change, although in the application of the standard DCF model, the "g" is presumed to be constant. Hence, there is no difference between the RPM and DCF models in that both models assume a constant component, but in reality, these components, the "g" and the equity risk premium both change.

As Morin[21] states with respect to the DCF model:

> It is not necessary that *g* be constant year after year to make the model valid. *The growth rate may vary randomly around some average expected value. Random variations around trend are perfectly acceptable, as long as the mean expected growth is constant.* The growth rate must be 'expectationally constant' to use formal statistical jargon. (italics added)

The foregoing confirms that the RPM is similar to the DCF model. Both

[21] Id., p. 256.

assume an "expectationally constant" risk premium and growth rate, respectively, but in reality both vary (change) randomly around an arithmetic mean. Consequently, the use of the arithmetic mean, and not the geometric mean is confirmed as appropriate in the determination of an equity risk premium as discussed previously.

D. The Capital Asset Pricing Model (CAPM)

1. Theoretical Basis

Q. Please explain the theoretical basis of the CAPM.

A. CAPM theory defines risk as the covariability of a security's returns with the market's returns. This covariability is measured by beta ("β"), an index measure of an individual security's variability relative to the market. A beta less than 1.0 indicates lower variability while a beta greater than 1.0 indicates greater variability than the market.

The CAPM assumes that all other risk, i.e., all non-market or unsystematic risk, can be eliminated through diversification. The risk that cannot be eliminated through diversification is called market, or systematic, risk. The CAPM presumes that investors require compensation for risks that cannot be eliminated through diversification. Systematic risks are caused by macroeconomic and other events that affect the returns on all assets. Essentially, the model is applied by adding a risk-free rate of return to a market risk premium. This market risk premium is adjusted proportionately to reflect the systematic risk of the individual security relative to the market as measured

by beta. The traditional CAPM model is expressed as:

$$R_s = R_f + \beta(R_m - R_f)$$

Where:	R_s	=	Return rate on the common stock
	R_f	=	Risk-free rate of return
	R_m	=	Return rate on the market as a whole
	β	=	Adjusted beta (volatility of the security relative to the market as a whole)

Numerous tests of the CAPM have confirmed its validity. These tests have measured the extent to which security returns and betas are related as predicted by the CAPM. However, Morin observes that while the results support the notion that beta is related to security returns, it has been determined that the empirical Security Market Line (SML) described by the CAPM formula is not as steeply sloped as the predicted SML. Morin[22] states:

> With few exceptions, the empirical studies agree that ... low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted.
>
> * * *
>
> Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:
>
> $$K = R_F + x\,\beta(R_M - R_F) + (1-x)\ \beta(R_M - R_F)$$
>
> where x is a fraction to be determined empirically. The value of x that best explains the observed relationship Return = 0.0829 + 0.0520 β is between 0.25 and 0.30. If x = 0.25, the equation becomes:

[22] Id., at p. 175.

$$K = R_F + 0.25(R_M - R_F) + 0.75\,\beta(R_M - R_F)$$[23]

In view of theory and practical research, I have applied both the traditional CAPM and the empirical CAPM to the companies in the proxy groups and averaged the results.

2. Risk-Free Rate of Return

Q. Please describe your selection of a risk-free rate of return.

A. As shown at the top of column 3 on page 2 of Schedule PMA-11, the risk-free rate adopted for both applications of the CAPM is 5.0%. It is based upon the average consensus forecast of the reporting economists in the October 1, 2006 Blue Chip Financial Forecasts as shown in Note 2, page 4, of the expected yields on 30-year U.S. Treasury bonds for the six quarters ending with the first calendar quarter 2008.

Q. Why is the prospective yield on long-term U.S. Treasury Bonds appropriate for use as the risk-free rate?

A. The yield on long-term T-Bonds is almost risk-free and its term is consistent with the long-term cost of capital to public utilities measured by the yields on A rated public utility bonds, and is consistent with the long-term investment horizon inherent in utilities' common stocks. Therefore, it is consistent with the long-term investment horizon presumed in the standard DCF model employed

[23] Id., at p. 190.

in regulatory ratemaking. As, Morin[24] states:

> As a proxy for the risk-free rate, long-term rates are the relevant benchmarks when determining the cost of common equity rather than short-term or intermediate-term interest rates.[4(footnote omitted)] There are several reasons for this, both conceptual and practical.
>
> At the conceptual level, because common stock is a long-term investment and because the cash flows to investors in the form of dividends last indefinitely, the yield on very long-term government bonds, namely, the yield on 30-year Treasury bonds, is the best measure of the risk-free rate for use in the CAPM[5(footnote omitted)] . . . . The expected common stock return is based on long-term cash flows, regardless of an individual's holding time period.
>
> On the grounds of stability and consistency, the yields on long-term Treasury bonds match more closely with expected commons tock returns. Finally, yields on 90-day Treasury Bills typically do not match the investor's planning horizons. Equity investors generally have an investment horizon far in excess of 90 days.
>
> At the practical level, short-term rates are volatile, fluctuate widely, and are subject to more random disturbances than are long-term rates, leading to volatile and unreliable equity return estimates. Short-term rates are also largely administered rates. For example, Treasury Bills are used by the Federal Reserve as a policy vehicle to stimulate the economy and to control the money supply, and are used by foreign governments, companies, and individuals as a temporary safe harbor for money.

In addition, Ibbotson Associates note in their Valuation Edition 2006 Yearbook[25]

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[24] Id., at p. 151.

[25] Id., p. 59.

> The horizon of the chosen Treasury security should match the horizon of whatever is being valued. When valuing a business that is being treated as a going concern, the appropriate Treasury yield should be that of a long-term Treasury bond. Note that the horizon is a function of the investment, not the investor. If an investor plans to hold stock in a company for only five years, the yield on a five-year Treasury Note would not be appropriate since the Company will continue to exist beyond those five years.

In conclusion, the average expected yield on 30-year Treasury Bonds is the appropriate proxy for the risk-free rate in the CAPM because it is less volatile than yields on Treasury Bills, is almost risk-free as noted by Morin above and is consistent with the long-term investment horizon implicit in common stocks.

3. Market Equity Risk Premium

Q. Please explain the estimation of the expected equity risk premium for the market.

A. First, I estimate investors' expected total return rate for the market. Then I estimate the expected risk-free rate which I subtract from the expected total return rate for the market. The result is an expected equity risk premium for the market, some proportion of which must be allocated to the companies in the proxy group through the use of beta. As a measure of risk relative to the market as a whole, the beta is an appropriate means by which to apportion the market risk premium to a specific company or group. The total market equity risk premium utilized was 7.1% and is based upon an average of the long-term historical and projected market risk premia.

The basis of the projected median market equity risk premium is explained in detail in Note 1 on page 3 of Schedule PMA-11. As previously discussed, it is derived from an average of the most recent 3-month (using the months of July 2006 through September 2006) and a recent spot (October 13, 2006) 3 - 5 year median total market price appreciation projections from Value Line, and the long-term historical average from Ibbotson Associates. The appreciation projections by Value Line plus average dividend yield equate to a forecasted annual total return rate on the market of 12.0%. The long-term historical return rate of 12.3% on the market as a whole is from Ibbotson Associates' Stocks, Bonds, Bills and Inflation – Valuation Edition 2006 Yearbook. In each instance, the relevant risk-free rate was deducted from the total market return rate. For example, from the Value Line projected total market return of 12.0%, the forecasted average risk-free rate of 5.0% was deducted indicating a forecasted market risk premium of 7.0%. From the Ibbotson Associates' long-term historical total return rate of 12.3%, the long-term historical income return rate on long-term U.S. Government Securities of 5.2% was deducted indicating an historical equity risk premium of 7.1%. Thus, the average of the projected and historical total market risk premia of 7.0% and 7.1%, respectively, is 7.05%, rounded to 7.1%.

Q What are the results of your applications of the traditional and empirical CAPM to the proxy groups?

A. As shown on Schedule PMA-11, Line No. 1 of page 1, the traditional CAPM

cost rate is 10.6% for the proxy group of six AUS Utility Reports water companies and 10.4% for the proxy group of four Value Line (Std. Ed.) water companies. And, as shown on Line No. 2 of page 1, the empirical CAPM cost rate is 10.6% for the six water companies and 10.8% for the four Value Line (Std. Ed.) water companies. The traditional and empirical CAPM cost rates are shown individually by company on pages 2 and 3 of Schedule PMA-12. As shown on Line No. 3, the CAPM cost rate applicable to both proxy groups of six AUS Utility Reports water companies and the proxy group of four Value Line (Std. Ed.) water companies is 10.6%, based upon the traditional and empirical CAPM results.

Q. Some critics of the ECAPM model claim that using adjusted betas in a traditional CAPM amounts to using an ECAPM. Is such a claim valid?

A. No. Using adjusted betas in a CAPM analysis is not equivalent to the ECAPM. Betas are adjusted because of the regression tendency of betas to converge toward 1.0 <u>over time</u>, i.e., over successive calculations of beta. As discussed previously, numerous studies have determined that the Security Market Line (SML) described by the CAPM formula at <u>any given moment</u> in time is not as steeply sloped as the predicted SML. Morin[26] states:

> Some have argued that the use of the ECAPM is inconsistent with the use of adjusted betas, such as those supplied by Value Line and Bloomberg. This is because the reason for using the ECAPM is to allow for the tendency of betas to regress toward the mean value of 1.00 over time, and, since Value Line betas are already adjusted for such trend [sic], an ECAPM analysis results in double-counting. This argument is erroneous.

[26] Id., at p. 191.

> Fundamentally, the ECAPM is not an adjustment, increase or decrease, in beta. This is obvious from the fact that the expected return on high beta securities is actually lower than that produced by the CAPM estimate. The ECAPM is a formal recognition that the observed risk-return tradeoff is flatter than predicted by the CAPM based on myriad empirical evidence. The ECAPM and the use of adjusted betas comprised two separate features of asset pricing. Even if a company's beta is estimated accurately, the CAPM still understates the return for low-beta stocks. Even if the ECAPM is used, the return for low-beta securities is understated if the betas are understated. Referring back to Figure 6-1, the ECAPM is a return (vertical axis) adjustment and not a beta (horizontal axis) adjustment. Both adjustments are necessary.

Moreover, the slope of the Security Market Line (SML) should not be confused with beta. As Eugene F. Brigham, finance professor emeritus and the author of many financial textbooks states[27] :

> The slope of the SML reflects the degree of risk aversion in the economy – the greater the average investor's aversion to risk, then (1) the steeper is the slope of the line, (2) the greater is the risk premium for any risky asset, and (3) the higher is the required rate of return on risky assets.[12]
>
> [12]Students sometimes confuse beta with the slope of the SML. This is a mistake. As we saw earlier in connection with Figure 6-8, and as is developed further in Appendix 6A, beta does represent the slope of a line, but *not* the Security Market Line. This confusion arises partly because the SML equation is generally written, in this book and throughout the finance literature, as $k_i = R_F + b_i(k_M - R_F)$, and in this form b_i looks like the slope coefficient and $(k_M - R_F)$ the variable. It would perhaps be less confusing if the second term were written $(k_M - R_F)b_i$, but this is not generally done.

In addition, regulatory support for the ECAPM can be found in the New York Public Service Commission's Generic Financing Docket, Case 91-M-0509. In addition, the Regulatory Commission of Alaska (RCA) in its Order No. 151 in Docket No. P-97-4 re: In the Matter of the Correct Calculation and Use

[27] Eugene F. Brigham, Financial Management – Theory and Practice, 4th Ed., The Dryden Press, 1985, p. 203.

of Acceptable Input Data to Calculate the 1997, 1998, 1999, 2000, 2001 and 2002 Tariff Rates for the Intrastate Transportation of Petroleum over the TransAlaska Pipeline System noted:

> Although we primarily rely upon Tesoro's recommendation, we are concerned, however, about Tesoro's CAPM analysis. Tesoro averaged the results it obtained from CAPM and ECAPM while at the same time providing empirical testimony[604] that the ECAPM results are more accurate then [sic] traditional CAPM results. The reasonable investor would be aware of these empirical results. Therefore, we adjust Tesoro's recommendation to reflect only the ECAPM result.

In view of the foregoing, using adjusted betas in an ECAPM analysis is not incorrect, nor inconsistent with the financial literature. Rather, the use of the traditional CAPM results in an understated estimate of the cost of common equity capital for a utility with an adjusted beta below 1.00. And notwithstanding regulatory support for the use of only the ECAPM, my CAPM analysis, which includes both the traditional CAPM and the ECAPM, is a conservative approach resulting in a reasonable estimate of the cost of common equity.

E. Comparable Earnings Model (CEM)

1. Theoretical Basis

Q. Please describe your application of the Comparable Earnings Model and how it is used to determine common equity cost rate.

A. My application of the CEM is summarized on Schedule PMA-12 which consists of six pages. Pages 1 and 2 show the CEM results for the proxy group of six

1 AUS Utility Reports water companies and pages 3 and 4 show the CEM results
2 for the proxy group of four Value Line (Std. Ed.) water companies. Pages 5
3 and 6 contain notes related to pages 1 through 4.

4 The comparable earnings approach is derived from the "corresponding
5 risk" standard of the landmark cases of the U.S. Supreme Court. Therefore, it
6 is consistent with the Hope doctrine that the return to the equity investor should
7 be commensurate with returns on investments in other firms having
8 corresponding risks.

9 The CEM is based upon the fundamental economic concept of
10 opportunity cost which maintains that the true cost of an investment is equal to
11 the cost of the best available alternative use of the funds to be invested. The
12 opportunity cost principle is also consistent with one of the fundamental
13 principles upon which regulation rests: that regulation is intended to act as a
14 surrogate for competition and to provide a fair rate of return to investors.

15 The CEM is designed to measure the returns expected to be earned on
16 the book common equity, in this case net worth, of similar risk enterprises.
17 Thus, it provides a direct measure of return, since it translates into practice the
18 competitive principle upon which regulation rests. In my opinion, it is
19 inappropriate to use the achieved returns of regulated utilities of similar risk
20 because to do so would be circular and inconsistent with the principle of
21 equality of risk with non-price regulated firms.

22 The difficulty in application of the CEM is to select a proxy group of
23 companies which are similar in risk, but are not price regulated utilities.

Consequently, the first step in determining a cost of common equity using the comparable earnings model is to choose an appropriate proxy group of non-price regulated firms. The proxy group should be broad-based in order to obviate any company-specific aberrations. As stated previously, utilities need to be eliminated to avoid circularity since the returns on book common equity of utilities are substantially influenced by regulatory awards and are therefore not representative of the returns that could be earned in a truly competitive market.

2. Application of the CEM

Q. Please describe your application of the CEM.

A. My application of the CEM is market-based in that the selection of non-price regulated firms of comparable risk is based upon statistics derived from the market prices paid by investors.

I have chosen two proxy groups of domestic, non-price regulated firms to reflect both the systematic and unsystematic risks of the proxy group of six AUS Utility Reports water companies and the proxy group of four Value Line (Std. Ed.) water companies, respectively. The proxy group of ninety-nine non-utility companies similar in risk to the proxy group of six AUS Utility Reports water companies and one hundred non-utility companies similar in risk to the proxy group of four Value Line (Std. Ed.) water companies are listed on pages 1 through 4, Schedule PMA-12. The criteria used in the selection of these proxy companies were that they be domestic non-utility companies and have a meaningful rate of return on net worth, common equity or partners' capital

reported in Value Line (Std. Ed.) for each of the five years ended 2005, or projected for 2009-2011. Value Line betas were used as a measure of systematic risk. The standard error of the regression was used as a measure of each firm's specific, i.e., unsystematic risk. The standard error of the regression reflects the extent to which events specific to a company's operations will affect its stock price and, therefore, is a measure of diversifiable, unsystematic, company-specific risk. *In essence, companies which have similar betas and standard errors of the regressions, have similar investment risk, i.e., the sum of systematic (market) risk as reflected by beta and unsystematic (business and financial) risk, as reflected by the standard error of the regression, respectively. Those statistics are derived from regression analyses using market prices which, under the EMH reflect all relevant risks. The application of these criteria results in proxy groups of non-price regulated firms similar in risk to the average company in each proxy group.*

Using a Value Line, Inc. proprietary database dated September 15, 2006, the proxy group of one hundred four non-price regulated companies were chosen based upon ranges of unadjusted beta and standard error of the regression. The ranges were based upon the average standard deviations of the unadjusted beta and the average standard error of the regression for the proxy group of six AUS Utility Reports water companies.

The six AUS Utility Reports water companies in the proxy group have an average unadjusted beta of 0.60 whose standard deviation is 0.0985 as of

September 15, 2006, as shown on page 2, Schedule PMA-12. The average standard error of the regression is 3.3512 as also shown on Schedule PMA-13, page 2 with a standard deviation of 0.1472 as derived in Note 5, page 5. Ranges of unadjusted betas from 0.30 to 0.90 and of standard errors of the regression from 2.9096 to 3.7928 were used to select the proxy group of one hundred four domestic non-utility companies comparable to the profile of the proxy group of six AUS Utility Reports water companies as can be gleaned from pages 1 and 2 and explained in Note 1 on page 5 of Schedule PMA-13. These ranges are based upon the proxy group's average unadjusted beta of 0.60 and average standard error of the regression of 3.3512 plus or minus three standard deviations of beta (0.0985 x 3 = 0.2955) and standard error of the regressions (0.1472 x 3 = 0.4416). The use of three standard deviations assures capturing 99.73% of the distribution of unadjusted betas and standard errors, assuring comparability.

Likewise, using the same Value Line, Inc. proprietary database dated September 15, 2006, the proxy group of one hundred twenty-five non-price regulated companies were chosen based upon ranges of unadjusted beta and standard error of the regression. The ranges were based upon the average standard deviations of the unadjusted beta and the average standard error of the regression for the proxy group of four Value Line (Std. Ed.) water companies.

The four Value Line (Std. Ed.) water companies in the proxy group have an average unadjusted beta of 0.69 whose standard deviation is 0.0963

as of September 15, 2006, as shown on page 4, Schedule PMA-12. The average standard error of the regression is 3.2739 as also shown on Schedule PMA-12, page 4 with a standard deviation of 0.1438 as derived in Note 10, page 6 . Ranges of unadjusted betas from 0.40 to 0.98 and of standard errors of the regression from 2.8425 to 3.7053 were used to select the proxy group of one hundred twenty-five domestic non-utility companies comparable to the profile of the proxy group of four Value Line (Std. Ed.) water companies as can be gleaned from pages 3 and 4 and explained in Note 9 on pages 5 and 6 of Schedule PMA-12. These ranges are based upon the proxy group's average unadjusted beta of 0.69 and average standard error of the regression of 3.2739 plus or minus three standard deviations of beta (0.0963 x 3 = 0.2889) and standard error of the regressions (0.1438 x 3 = 0.4314). The use of three standard deviations assures capturing 99.73% of the distribution of unadjusted betas and standard errors, assuring comparability.

I believe that this methodology for selecting non-price regulated firms of similar total risk (i.e., non-diversifiable systematic and diversifiable non-systematic risk) is meaningful and effectively responds to the criticisms normally associated with the selection of firms presumed to be comparable in total risk. This is because the selection of non-price regulated companies comparable in total risk is based upon regression analyses of market prices which reflect investors' assessment of all risks, diversifiable and non-diversifiable. Thus, the empirical selection process results in companies comparable in both systematic and unsystematic risks, i.e., total risk.

Once proxy groups of non-price regulated companies are selected, it is then necessary to derive returns on book common equity, net worth or partners' capital for the companies in the groups. I have measured these returns using the rate of return on net worth, common equity or partners' capital reported by Value Line (Standard Edition). It is reasonable to measure these returns over both the most recent historical five-year period as well as those projected over the ensuing five-year period.

Q. What are your conclusions of CEM cost rate?

A. Conclusions of CEM cost rates are 16.4% for the proxy group of six AUS Utility Reports water companies as shown on page 2 of Schedule PMA-12 and 16.4%, also, for the proxy group of four Value Line (Std. Ed.) water companies as shown on page 4. Note that I have applied a test of significance (Student's t-statistic) to determine whether any of the historical or projected returns are significantly different from their respective means at the 95% confidence level. As a result, the historical and the projected means of several companies have been excluded.

I have also eliminated from the groups of non-price regulated companies, all those rates of return which are 20.0% or greater and 8.4% and below, i.e., 200 basis points above the current prospective yield of 6.4% on Moody's A rated public utility bonds (see page 1 of Schedule PMA-10) for reasons discussed previously. Such an elimination results in an arithmetic mean return rate of 14.1% on an historical five-year and 13.8% on a projected

five-year basis for the six AUS Utility Reports water companies and 14.1% on an historical five-year basis and 13.9% on a projected five-year basis for the four Value Line (Std. Ed.) water companies as shown on pages 2 and 4 of Schedule PMA-12, respectively. I rely upon the midpoint of the arithmetic mean historical five-year and projected five-year rates of return of 14.0% as my CEM conclusion for both proxy groups.

IX. CONCLUSION OF COMMON EQUITY COST RATE

Q. What is your recommended common equity cost rate?

A. It is 11.50% based upon the common equity cost rates resulting from all four cost of common equity models consistent with the EMH which logically mandates the use of multiple cost of common equity models as adjusted for Twin Lakes' greater business and financial risk

In formulating my recommended common equity cost rate of 11.50%, I reviewed the results of the application of four different cost of common equity models, namely, the DCF, RPM, CAPM, and CEM for the two proxy groups. I employ all four cost of common equity models as primary tools in arriving at my recommended common equity cost rate because no single model is so inherently precise that it can be relied upon solely, to the exclusion of other theoretically sound models. As discussed above, all four models are based upon the Efficient Market Hypothesis (EMH), and therefore, have application problems associated with them. The EMH, as also previously discussed, requires the assumption that investors rely upon multiple cost of common

equity models. Moreover, as demonstrated in this testimony, the prudence of using multiple cost of common equity models is supported in the financial literature. Therefore, none should be relied upon exclusively to estimate investors' required rate of return on common equity.

In a market environment where market value deviates significantly from book value (lower or higher), sole reliance on the DCF model is problematic for a regulated utility because its application results in an overstatement or understatement, respectively, of investors' required rate of return. Investors expect to achieve their required rate of return based upon dividends received and appreciation in market price. This testimony has shown that market prices are significantly influenced by factors other than earnings per share (EPS) and dividends per share (DPS). Thus, because it is necessary to use accounting proxies for growth in the DCF model (such as EPS, DPS, or their derivative, internal growth), that model does not reflect the full extent of market price growth expected by investors. Market prices reflect other factors affecting growth not accounted for in the standard regulatory version of the DCF model such as an increase in the market value per share due to expected increases in price/earnings multiples and less obvious factors included in the long-range goals of investors. For these reasons, sole reliance on the DCF model should be avoided. In fact, as discussed in detail above, state commissions in Iowa, Indiana and Hawaii have questioned their previous primary reliance upon the DCF, having explicitly recognized this tendency of the DCF model to understate the common equity cost rate when, as now, market prices significantly exceed

1 book values.

2 The results of the four cost of common equity models applied to the
3 proxy groups of six AUS Utility Reports water companies and four Value Line
4 (Std. Ed.) water companies are shown on Schedule PMA-1, page 2 and
5 summarized below:

Table 4

	Proxy Group of Six AUS Utility Reports Water Cos.		Proxy Group of Four Value Line (Std. Ed.) Water Cos.
Discounted Cash Flow Model	9.6%		9.9%
Risk Premium Model	10.9		11.0
Capital Asset Pricing Model	10.6		10.6
Comparable Earnings Model	14.0		14.1
Indicated Range of Common Equity Cost Rate Before Business Risk Adjustment	10.80%	--	11.50%
Business Risk Adjustment	0.25		0.25
Indicated Range of Common Equity Cost Rate After Adjustment for Business Risk	11.05%	--	11.60%
Financial Risk Adjustment	0.15		0.15
Indicated Range of Common Equity Cost Rate After Adjustment for Business and Financial Risk	11.20%	--	11.75%
Recommended Common Equity Cost Rate	11.50%		

Based upon these common equity cost rate results, I conclude that a range of common equity cost rate of 10.80% to 11.50% is indicated based upon the use of multiple common equity cost rate models applied to the market data of both proxy groups and before any adjustment for Twin Lakes' greater relative business and financial risk as shown on Line No. 5, page 2 of Schedule PMA-1.

Q. Is there a way to quantify a business risk adjustment due to Twin Lakes' small size vis-à-vis the two proxy groups?

A. Yes. As discussed previously, Twin Lakes has slightly greater business risk than the average proxy group company because of its smaller size vis-à-vis each proxy group, whether measured by book capitalization or the market capitalization of common equity (estimated market value for Twin Lakes, whose common stock is not traded). Therefore, it is necessary to upwardly adjust the range of common equity cost rate of 10.80% to 11.50% based upon the two proxy groups. Based upon Twin Lakes' small relative size, an adjustment to reflect its smaller relative size of 4.03% (403 basis points) relative to the conclusion of common equity cost rate of the six AUS Utility Reports water companies and 4.69% (469 basis points) relative to the conclusion of common equity cost rate of the four Value Line (Std. Ed.) water companies are indicated. These adjustments are based upon data contained in Chapter 7 entitled "Firm Size and Return" from Ibbotson Associates' Stocks, Bonds, Bills and Inflation-Valuation Edition 2006 Yearbook. The determinations are based on the size premia for decile portfolios of New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and NASDAQ listed companies for the 1926-2005 period and related data shown on pages 3 through 18 of Schedule PMA-1. The average size premia for the deciles in which the proxy groups fall have been compared to the average size premia for the 10th decile in which Twin Lakes would fall if its stock were traded and sold at the October 13, 2006 average market/book ratio of either 270.8% or 256.7% experienced by each proxy group, respectively. As shown on page 3 of Schedule PMA-1, the size premium spread between Twin Lakes and the six water companies is 4.03%

and 4.69% between Twin Lakes and the four Value Line (Std. Ed.) water companies. Page 4 contains notes relative to page 3. Page 5 contains data in support of page 3 while pages 6 through 18 of PMA-1 contain relevant information from the Ibbotson Associates' Valuation Edition 2006 Yearbook discussed previously.

Consequently, business risk adjustments of 4.03% and 4.69% are indicated for the six water companies and the four Value Line (Std. Ed.) water companies, respectively. However, I will make conservatively reasonable business risk adjustments of 0.25% (25 basis points) to the range of indicated common equity cost rate of 10.80% to 11.50%. This results in an indicated range of business risk adjusted common equity cost rate of 11.05% to 11.60%.

Q. Is there a way to quantify a financial risk adjustment due to Twin Lakes' greater financial risk vis-à-vis the two proxy groups?

A. Yes. As previously discussed, the Company's requested common equity ratio at July 31, 2006, 41.89%, is significantly lower than the common equity and even the total equity (the sum of preferred stock and common equity) ratios maintained, on average, by the companies in the two proxy groups. Thus, Twin Lakes has greater financial risk than the companies in either of the two proxy groups. Because investors require a higher return in exchange for bearing high risk, an upward adjustment to the common equity cost rates derived from the market data of water companies with a lower degree of financial risk than Twin Lakes is necessary.

A study by Brigham, Gapenski and Aberwald[28] concluded that a 1

[28] Eugene F. Brigham, Louis C. Gapenski, and Dana A. Aberwald, "Capital Structure, Cost of Capital, and Revenue

percentage point change in common equity ratio in the range of 40.0% to 50.0% results in an average 12 basis point change in common equity cost rate with the change approximately 15 basis points at the lower end of the range, i.e., near 40.0%, and approximately 7 basis points at the higher end of the range, i.e., near 50.0%. Clearly, the lower the common equity ratio, the higher the common equity cost rate, all else equal. Thus, an adjustment to the range of common equity cost rate based upon the two proxy groups and the 452 basis points (4.52%) and 844 basis points (8.44%) difference between the average 2005 common equity ratios of the two proxy groups[29] can be derived as follows: 0.54% = [(46.41% - 41.89%) * 0.12%] = [(4.52% x 0.12%) and 1.01 = [(50.33% - 41.89%) * 0.12%] = [8.44% * 0.12%].

Consequently, financial risk adjustments of 0.54% and 1.01% are indicated for the six water companies and the four water companies, respectively. However, I will make a conservatively reasonable financial risk adjustment of 0.15% (15 basis points) to the range of indicated common equity cost rates of 11.05% to 11.60% as adjusted for business risk. This results in a range of financial and business risk adjusted common equity cost rates of 11.20% to 11.75%. My recommended common equity cost rate of 11.50% based upon the midpoint of this range, i.e., 11.48% rounded to 11.50%, will provide Twin Lakes with sufficient earnings to enable it to attract necessary new capital.

Requirements", Public Utilities Fortnightly, January 8, 1987, pp. 15-24.

29 See page 3 of Schedule PMA-3 and PMA-4. 4.52% is the difference between the average 2005 common equity ratio of the seven water companies, 46.41% and Twin Lakes proposed common equity ratio of 41.89%. Likewise, 8.44% is the difference between the average 2005 common equity ratio of the four water companies, 50.33% and 41.89% (4.52% = 46.41% - 41.89%) and (8.44% = 50.33% and 41.89%).

Q. Does that conclude your direct testimony?

A. Yes.

APPENDIX A

PROFESSIONAL QUALIFICATIONS

OF

PAULINE M. AHERN, CRRA
PRINCIPAL

AUS CONSULTANTS

PROFESSIONAL QUALIFICATIONS
OF
PAULINE M. AHERN, CRRA
PRINCIPAL
AUS CONSULTANTS

PROFESSIONAL EXPERIENCE

1996-Present

As a Principal, I offer testimony as an expert witness on the subjects of fair rate of return and cost of capital before state public utility commissions. I provide assistance and support to clients throughout the entire ratemaking litigation process.

1994-1996

As an Assistant Vice President, I prepared fair rate of return and cost of capital exhibits which are filed along with expert testimony before various state and federal public utility regulatory bodies. These supporting exhibits include the determination of an appropriate ratemaking capital structure and the development of embedded cost rates of senior capital. The exhibits also support the determination of a recommended return on common equity through the use of various market models, such as, but not limited to, Discounted Cash Flow analysis, Capital Asset Pricing Model and Risk Premium Methodology, as well as an assessment of the risk characteristics of the client utility. I also assisted in the preparation of responses to any interrogatories received regarding such testimonies filed on behalf of client utilities. Following the filing of fair rate of return testimonies, I assisted in the evaluation of opposition testimony in order to prepare interrogatory questions, areas of cross-examination, and rebuttal testimony. I also evaluated and assisted in the preparation of briefs and exceptions following the hearing process. I have submitted testimony before state public utility commissions regarding appropriate capital structure ratios and fixed capital cost rates.

1990-1994

As a Senior Financial Analyst, I supervised two analysts in the preparation of fair rate of return and cost of capital exhibits which are filed along with expert testimony before various state and federal public utility regulatory bodies. The team also assisted in the preparation of interrogatory responses.

I evaluated the final orders and decisions of various commissions to determine whether further actions are warranted and to gain insight which may assist in the preparation of future rate of return studies.

I assisted in the preparation of an article authored by Frank J. Hanley and A. Gerald Harris entitled "Does Diversification Increase the Cost of Equity Capital?" published in the July 15, 1991 issue of Public Utilities Fortnightly.

I co-authored an article with Frank J. Hanley entitled "Comparable Earnings: New Life for an Old Precept" which was published in the American Gas Association's Financial Quarterly Review, Summer 1994.

I was awarded the professional designation "Certified Rate of Return Analyst" (CRRA) by the National Society of Rate of Return Analysts (now the Society of Utility and Regulatory Financial Analysts (SURFA)). This designation is based upon education, experience and the successful completion of a comprehensive examination.

As Administrator of Financial Analysis for AUS Utility Reports, which reports financial data for over 200 utility companies and has approximately 1,000 subscribers, I oversee the preparation of this monthly publication, as well as the annual publication, Financial Statistics - Public Utilities.

1988-1990

As a Financial Analyst, I assisted in the preparation of fair rate of return studies including capital structure determination, development of senior capital cost rates, as well as the determination of an appropriate rate of return on equity. I also assisted in the preparation of interrogatory responses, interrogatory questions of the opposition, areas of cross-examination and rebuttal testimony. I also assisted in the preparation of the annual publication C. A. Turner Utility Reports - Financial Statistics - Public Utilities.

1973-1975

As a research assistant in the Research Department of the Regional Economics Division of the Federal Reserve Bank of Boston, I was involved in the development and maintenance of econometric models to simulate regional economic conditions in New England in order to study the effects of, among other things, the energy crisis of the early 1970's and property tax revaluations on the economy of New England. I was also involved in the statistical analysis and preparation of articles for the New England Economic Review. Also, I acted as assistant editor for New England Business Indicators.

1972

As a research assistant in the Office of the Assistant Secretary for International Affairs, U.S. Treasury Department, Washington, D.C., I developed and maintained econometric models which simulated the economy of the United States in order to study the results of various alternate foreign trade policies so that national trade policy could be formulated and recommended.

I am also a member of the Society of Utility and Regulatory Financial Analysts (formerly the National Society of Rate of Return Analysts).

Clients Served

I have offered expert testimony before the following commissions:

Arkansas
California
Delaware
Florida
Hawaii
Idaho
Illinois
Indiana
Kentucky
Maine
Maryland
Michigan
Missouri
Nevada
New Jersey
New York
North Carolina
Ohio
Pennsylvania
South Carolina
Virginia
Washington

I have sponsored testimony on the rate of return and capital structure effects of merger and acquisition issues for:

California-American Water Company

New Jersey-American Water Company

I have sponsored testimony on fair rate of return and related issues for:

Aqua Illinois, Inc.
Aqua New Jersey, Inc.
Aqua Virginia, Inc.
Audubon Water Company
Carolina Pines Utilities, Inc.
Carolina Water Service, Inc.
Consumers Illinois Water Company
Consumers Maine Water Company
Consumers New Jersey Water Company
City of DuBois, Pennsylvania
Elizabethtown Water Company
Emporium Water Company
GTE Hawaiian Telephone Inc.
Greenridge Utilities, Inc.
Borough of Hanover, Pennsylvania
Long Neck Water Company
Middlesex Water Company
Missouri-American Water Company
Mt. Holly Water Company
Nero Utility Services, Inc.
New Jersey-American Water Company
Ohio-American Water Company
Penn Estates
Pinelands Waste Water Company
Pittsburgh Thermal
Spring Creek Utilities, Inc.
Sussex Shores Water Company
Twin Lakes Water Service, Inc.
Thames Water Americas
Tidewater Utilities, Inc.
Transylvania Utilities, Inc.
Twin Lakes Utilities, Inc.
United Utility Companies
United Water Arkansas, Inc.
United Water Delaware, Inc.
United Water Idaho, Inc.
United Water Indiana, Inc.
United Water New Rochelle, Inc.
United Water New York, Inc.
United Water Pennsylvania, Inc.
United Water Virginia, Inc.
United Water West Lafayette, Inc.
Utilities, Inc. of Florida
Utilities Services of South Carolina
Valley Energy, Inc.
Water Service Corp. of Kentucky
Wellsboro Electric Company
Western Utilities, Inc.

I have sponsored testimony on capital structure and senior capital cost rates for the following clients:

Alpena Power Company
Arkansas-Western Gas Company
Associated Natural Gas Company
PG Energy Inc.
United Water Delaware, Inc.
Washington Natural Gas Company

I have assisted in the preparation of rate of return studies on behalf of the following clients:

Algonquin Gas Transmission Company
Arkansas-Louisiana Gas Company
Arkansas Western Gas Company
Artesian Water Company
Associated Natural Gas Company
Atlantic City Electric Company
Bridgeport-Hydraulic Company
Cambridge Electric Light Company
Carolina Power & Light Company
Citizens Gas and Coke Utility
City of Vernon, CA
Columbia Gas/Gulf Transmission Cos.
Commonwealth Electric Company
Commonwealth Telephone Company
Conestoga Telephone & Telegraph Co.
Connecticut Natural Gas Corporation
Consolidated Gas Transmission Company
Consumers Power Company
CWS Systems, Inc.
Delmarva Power & Light Company
East Honolulu Community Services, Inc.
Equitable Gas Company
Equitrans, Inc.
Florida Power & Light Company
Gary Hobart Water Company
Gasco, Inc.
GTE Arkansas, Inc.
GTE California, Inc.
GTE Florida, Inc.
GTE Hawaiian Telephone
GTE North, Inc.
GTE Northwest, Inc.
GTE Southwest, Inc.
Great Lakes Gas Transmission L.P.
Hawaiian Electric Company
Hawaiian Electric Light Company
IES Utilities Inc.
Illinois Power Company
Interstate Power Company
Iowa Electric Light and Power Company
Iowa Southern Utilities Company
Kentucky-West Virginia Gas Company
Lockhart Power Company
Middlesex Water Company
Milwaukee Metropolitan Sewer District
Mountaineer Gas Company
National Fuel Gas Distribution Corp.
National Fuel Gas Supply Corp.

Rate of Return Study Clients, Continued

National Fuel Gas Distribution Corp.
National Fuel Gas Supply Corp.
Newco Waste Systems of NJ, Inc.
New Jersey Natural Gas Company
New Jersey-American Water Company
New York-American Water Company
North Carolina Natural Gas Corp.
Northumbrian Water Company
Ohio-American Water Company
Oklahoma Natural Gas Company
Orange and Rockland Utilities
Paiute Pipeline Company
PECO Energy Company
Penn-York Energy Corporation
Pennsylvania-American Water Co.
PG Energy Inc.
Philadelphia Electric Company
South Carolina Pipeline Company
Southwest Gas Corporation
Stamford Water Company
Tesoro Alaska Petroleum Company
United Telephone of New Jersey
United Utility Companies
United Water Arkansas, Inc.
United Water Delaware, Inc.
United Water Idaho, Inc.
United Water Indiana, Inc.
United Water New Jersey, Inc.
United Water New York, Inc.
United Water Pennsylvania, Inc.
United Water Virginia, Inc.
United Water West Lafayette, Inc.
Vista-United Telecommunications Corp.
Washington Natural Gas Company
Washington Water Power Corporation
Waste Management of New Jersey – Transfer Station A
Wellsboro Electric Company
Western Reserve Telephone Company
Western Utilities, Inc.

EDUCATION:

1973 – Clark University – B.A. – Honors in Economics
1991 – Rutgers University – M.B.A. – High Honors

PROFESSIONAL AFFILIATIONS:

American Finance Association
Society of Utility and Regulatory Financial Analysts
President – 2006-2008
Secretary/Treasurer – 2004-2006
Energy Association of Pennsylvania
National Association of Water Companies – Member of the Finance Committee

Twin Lakes Utilities, Inc.
Cause No. 43128
Exhibit No. 1

BEFORE THE

INDIANA UTILITY REGULATORY COMMISSION

EXHIBIT

TO ACCOMPANY THE

PREPARED DIRECT TESTIMONY

OF

PAULINE M. AHERN, CRRA
PRINCIPAL
AUS CONSULTANTS

ON BEHALF OF

TWIN LAKES UTILITIES, INC.

CONCERNING

FAIR RATE OF RETURN

NOVEMBER 2006

Twin Lakes Utilities, Inc.
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to the Supporting Schedules
of Pauline M. Ahern

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Twin Lakes Utilities, Inc.
Summary of Cost of Capital and Fair Rate of Return
Based on the Actual Consolidated Capital Structure of Utilities, Inc. at July 31, 2006

Type of Capital	Ratios (1)	Cost Rate	Weighted Cost Rate
Long-Term Debt	58.11 %	6.58 % (1)	3.82 %
Common Equity	41.89	11.50 (2)	4.82
Total	100.00 %		8.64 %

(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.

Twin Lakes Utilities, Inc.
Brief Summary of Common Equity Cost Rate

No.	Principal Methods	Proxy Group of Six AUS Utility Reports Water Companies	Proxy Group of Four Value Line (Standard Edition) Water Companies
1.	Discounted Cash Flow Model (DCF) (1)	9.6 %	9.9 %
2.	Risk Premium Model (RPM) (2)	10.9	11.0
3.	Capital Asset Pricing Model (CAPM) (3)	10.6	10.6
4.	Comparable Earnings Model (CEM) (4)	14.0	14.1
5.	Indicated Range of Common Equity Cost Rate before Adjustment for Business Risk	10.80 %	11.35 %
6.	Business Risk Adjustment (5)	0.25	0.25
7.	Indicated Range of Common Equity Cost Rate after Adjustment for Business Risk	11.05 %	11.60 %
8.	Financial Risk Adjustmnet (6)	0.15	0.15
9.	Indicated Range of Common Equity Cost Rate after Adjustment for Business and Financial Risk	11.20 %	11.75 %
10.	Recommendation	11.50%	

Notes:
(1) From Schedule PMA-6 of this Exhibit.
(2) From page 1 of Schedule PMA-10 of this Exhibit.
(3) From page 1 Schedule PMA-11 of this Exhibit.
(4) From page 2 and 4 of Schedule PMA-12. of this Exhibit.
(5) Business risk adjustment to reflect Twin Lakes Utilities, Inc.'s greater business risk due to its small size vis-à-vis each proxy group as detailed in Ms. Ahern's accompanying direct testimony.
(6) Financial risk adjustment to reflect Twin Lakes Utilities, Inc.'s greater fiancial risk vis-a-vis each proxy group as detailed in Ms. Ahern's accompanying direct testimony.

Twin Lakes Utilities, Inc.
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.		1 Total Capitalization (incl. Short-Term Debt) for the Year 2005 (millions)		(times larger)	2 Market Capitalization on October 13, 2006 (1) (millions)		(times larger)	3 Applicable Decile of the NYSE/AMEX/ NASDAQ	4 Applicable Size Premium		5 Spread from Applicable Size Premium (2)
1.	Twin Lakes Utilities, Inc.	$ 12.729	(3)								
A.	Based upon the Proxy Group of Six AUS Utility Reports Water Companies				$ 34.432			10 (4)	6.36%	(5)	
B.	Based upon the Proxy Group of Four Value Line (Standard Edition) Water Companies				$ 32.639			10 (4)	6.36%	(5)	
2.	Proxy Group of Six AUS Utility Reports Water Companies	$ 581.470	(6)	45.7 x	$ 819.174		23.8 x	8 (7)	2.33%	(8)	4.03%
3.	Proxy Group of Four Value Line (Standard Edition) Water Companies	$ 815.059	(9)	64.0	$ 1,170.357		35.9	7 (10)	1.67%	(11)	4.69%

Decile	Number of Companies	Recent Total Market Capitalization (millions)	Recent Average Market Capitalization (millions)
1 - Largest	169	$8,869,801.117	$52,484.030
2	182	2,025,323.685	11,128.152
3	195	1,074,446.763	5,509.994
4	206	656,297.080	3,185.908
5	207	452,329.097	2,185.165
6	238	389,595.517	1,636.956
7	299	319,642.175	1,069.037
8	352	287,783.718	817.567
9	693	268,738.291	387.790
10 - Smallest	1746	216,334.858	123.903

See page 4 for notes.

Twin Lakes Utilities, 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.

(2) Line No. 1 – Line No. 2 and Line No. 1 – Line No. 3 of Columns 3 and 4, respectively. For example, the 4.03% in Column 5, Line No. 2 is derived as follows 4.03%% = 6.36% - 2.33%.

(3) Company-provided

(4) With an estimated market capitalization of $34.432 million (based upon the proxy group of six AUS Utility Reports water companies) and $32.639 (based upon the proxy group of four Value Line (Standard Edition) water companies), Twin Lakes Utilities, Inc. falls in the 10th decile of the NYSE/AMEX/NASDAQ which has an average market capitalization of $123.903 as shown in the table on the bottom half of page 3 of this Schedule.

(5) Size premium applicable to the 10th decile of the NYSE/AMEX/NASDAQ as shown on page 15 of this Schedule.

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

(7) With an estimated market capitalization of $819.174 million, the proxy group of six AUS Utility Reports water companies falls in the 8th decile of the NYSE/AMEX/NASDAQ which has an average market capitalization of $817.567 million as shown in the table on the bottom half of page 3 of this Schedule.

(8) Size premium applicable to the 8th decile of the NYSE/AMEX/NASDAQ as shown on page 15 of this Schedule.

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

(10) With an estimated market capitalization of $1,170.357 million, the proxy group of four Value Line (Standard Edition) water companies falls in the 7th decile of the NYSE/AMEX/NASDAQ which has an average market capitalization of $1,069.037 million as shown in the table on the bottom half of page 3 of this Schedule.

(11) Size premium applicable to the 7th decile of the NYSE/AMEX/NASDAQ as shown on page 15 of this Schedule.

Source of Information: Ibbotson Associates, Stocks, Bonds, Bills and Inflation -- Valuation Edition – 2006 Yearbook, Chicago, IL, 2006

Twin Lakes Utilities, Inc.
Market Capitalization of Twin Lakes Utilities, Inc.
the Proxy Group of Six AUS Utility Reports Water Companies and the
the Proxy Group of Four Value Line (Standard (Edition) Water Companies

Company	1 Common Stock Shares Outstanding at June 30, 2006 (millions)	2 Book Value per Share at June 30, 2006 (1)	3 Total Common Equity at June 30, 2006 (millions)	4 Closing Stock Market Price on October 13, 2006	5 Market-to-Book Ratio at October 13, 2006 (2)	6 Market Capitalization on October 13, 2006 (3) (millions)
Twin Lakes Utilities, Inc.	NA (4)	NA	$ 12.715 (4)	NA		
Based upon the Proxy Group of Six AUS Utility Reports Water Companies					270.8 % (5)	$ 34.432 (6)
Based upon the Proxy Group of Four Value Line (Standard Edition) Water Companies					256.7 % (7)	$ 32.639 (8)
Proxy Group of Six AUS Utility Reports Water Companies						
American States Water Co.	16.982	$ 16.159	$ 274.415	$ 40.450	250.3 %	$ 686.922
Aqua America, Inc.	131.387	6.658	874.807	22.900	343.9	3,008.762
Artesian Resources Corp.	6.060	9.737	59.008	18.540	190.4	112.352
California Water Service Group	18.390	15.781	290.216	37.470	237.4	689.073
Middlesex Water Company	11.620	8.698	101.073	18.730	215.3	217.643
York Water Company	10.432 (9)	4.960	51.744	19.200	387.1	200.294
Average	32.479	$ 10.332	$ 275.211	$ 26.215	270.8 %	$ 819.174
Proxy Group of Four Value Line (Standard Edition) Water Companies						
American States Water Co.	16.982	$ 16.159	$ 274.415	$ 40.450	250.3 %	$ 686.922
Aqua America, Inc.	131.387	6.658	874.807	22.900	343.9	3,008.762
California Water Service Group	18.390	15.781	290.216	37.470	237.4	689.073
Southwest Water Company	22.909	6.634	151.969	12.950	195.2	296.672
	47.417	$ 11.308	$ 397.852	$ 28.443	256.7 %	$ 1,170.357

NA = Not Available

Notes:
(1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 5 * Column 3.
(4) Company-provided.
(5) The market-to-book ratio of Twin Lakes Utilities, Inc. at October 13, 2006 is assumed to be equal to the average market-to-book ratio at October 13, 2006 of the proxy group of six AUS Utility Reports water companies.
(6) Twin Lakes Utilities, Inc.'s common stock, if traded, would trade at a market-to-book ratio equal to the average market-to-book ratio at October 13, 2006 of the proxy group of six AUS Utility Reports water companies, 270.8%, and Twin Lakes Utilities, Inc.'s market capitalization at October 13, 2006 would therefore have been $34.432 million. ($34.432 = $12.715 * 270.8%).
(7) The market-to-book ratio of Twin Lakes Utilities, Inc. at October 13, 2006 is assumed to be equal to the average market-to-book ratio at October 13, 2006 of the proxy group of four Value Line (Standard Edition) water companies.
(8) Twin Lakes Utilities, Inc.'s common stock, if traded, would trade at a market-to-book ratio equal to the average market-to-book ratio at October 13, 2006 of the proxy group of four Value Line (Standard Edition) water companies, 256.7%, and Twin Lakes Utilities, Inc.'s market capitalization at October 13, 2006 would therefore have been $32.639 million. ($32.639 = $12.715 * 256.7%).
(9) Adjusted for September 12, 2006 3-fo-2 stock split.

Source of Information: Standard & Poor's Compustat Services, Inc. Research Insight PCPlus Data Base
finance.yahoo.com

Stocks, Bonds, Bills, and Inflation

SBBI

Valuation Edition
2006 Yearbook

ibbotson

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. Nearly two-thirds of the market value is represented by the first decile, which currently consists of 169 stocks, while the smallest decile accounts for just over

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.

one percent of the market value. The data in the second column of Table 7-1 are averages across all 80 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 2005.

Table 7-1

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ Size and Composition
1926 through September 30, 2005

Decile	Historical Average Percentage of Total Capitalization	Recent Number of Companies	Recent Decile Market Capitalization (in thousands)	Recent Percentage of Total Capitalization
1-largest	63.29%	169	$8,869,801,117	60.92%
2	13.97%	182	2,025,323,685	13.91%
3	7.57%	195	1,074,448,763	7.38%
4	4.74%	206	656,297,080	4.51%
5	3.24%	207	452,329,097	3.11%
6	2.37%	238	389,595,517	2.68%
7	1.73%	299	319,642,175	2.20%
8	1.28%	352	287,783,718	1.98%
9	0.99%	693	268,738,291	1.85%
10-Smallest	0.81%	1,746	216,334,858	1.49%
Mid-Cap 3-5	15.55%	608	2,183,074,940	14.99%
Low-Cap 6-8	5.39%	889	997,021,410	6.85%
Micro-Cap 9-10	1.80%	2,439	485,073,149	3.33%

Source: © 200603 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 80 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, 2005.

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 $7,187,244,000 but greater than $1,728,888,000. Low-cap stocks include deciles 6–8 and currently include all companies in the NYSE/AMEX/NASDAQ with market capitalizations at or below $1,728,888,000 but greater than $586,393,000. Micro-cap stocks include deciles 9–10 and include companies with market capitalizations at or below $586,393,000. The market capitalization of the smallest company included in the micro-capitalization group is currently $1,079,000.

Table 7-2

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, Largest Company and Its Market Capitalization by Decile
September 30, 2005

Decile	Market Capitalization of Largest Company (in thousands)	Company Name
1-Largest	$367,495,144	General Electric Co.
2	16,016,450	Entergy Corp.
3	7,187,244	Chesapeake Energy Corp.
4	3,961,425	Ball Corp.
5	2,519,280	Celenese Corp.
6	1,728,888	AGCO Corp.
7	1,280,966	ESCO Technologies Inc.
8	872,103	West Pharmaceutical Services Inc.
9	586,393	General Cable Corp.
10-Smallest	264,981	4Kids Entertainment 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 1926–2005 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 9 percent 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, with the largest stocks rising 46 percent, and the smallest stocks rising 224 percent. 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.

Table 7-3 (continued)

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

from 1966 to 2005

	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
2005	$7,187,244	$1,728,888	$586,393	$1,729,364	$587,243	$1,079

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

Table 7-4

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, Summary Statistics of Annual Returns 1926–2005

Decile	Geometric Mean	Arithmetic Mean	Standard Deviation	Serial Correlation
1-Largest	9.5	11.3	19.17	0.09
2	10.9	13.2	21.86	0.03
3	11.3	13.8	23.66	–0.02
4	11.3	14.3	25.94	–0.02
5	11.6	14.9	26.78	–0.02
6	11.8	15.3	27.84	0.04
7	11.6	15.6	29.99	0.01
8	11.8	16.6	33.47	0.04
9	12.0	17.5	36.55	0.05
10-Smallest	14.0	21.6	45.44	0.15
Mid-Cap, 3-5	11.4	14.2	24.74	–0.02
Low-Cap, 6-8	11.7	15.7	29.52	0.03
Micro-Cap, 9-10	12.7	18.8	39.16	0.08
NYSE/AMEX/NASDAQ Total Value-Weighted Index	10.1	12.0	20.21	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.

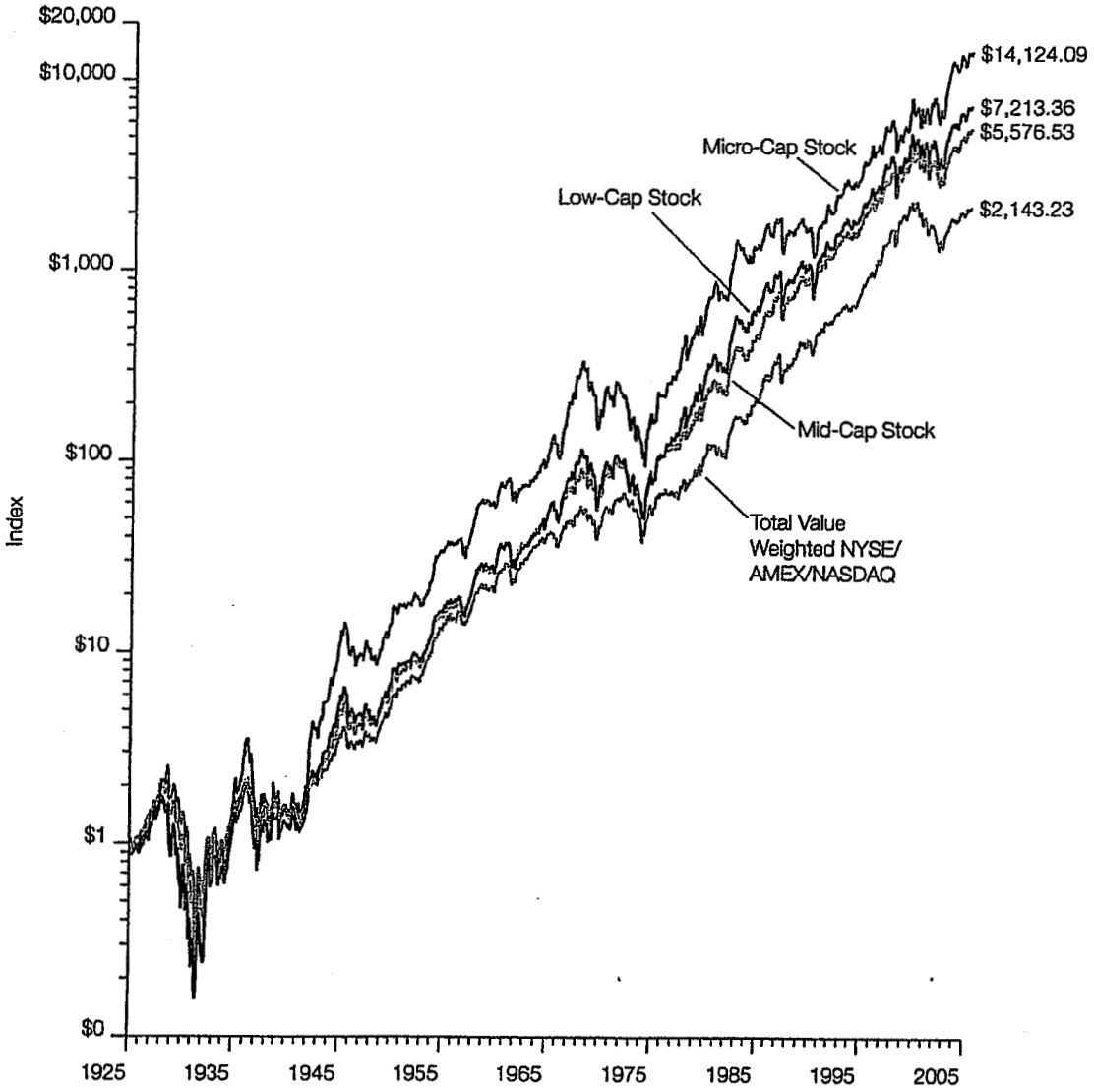
Second, the calendar annual return differences between small and large companies are serially correlated. This suggests that past annual returns may be of some value in predicting future annual returns. Such serial correlation, or autocorrelation, is practically unknown in the market for large stocks 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
1925–2005

Year-end 1925 = $1.00



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

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 80 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 explained 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 80-year arithmetic mean return on large company stocks, 12.30 percent, less the 80-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 2005. See Chapter 6 for more detail on beta estimation.

Table 7-5

Long-Term Returns in Excess of CAPM Estimation for Decile Portfolios of the NYSE/AMEX/NASDAQ 1926–2005

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	11.29%	6.07%	6.45%	–0.37%
2	1.04	13.22%	8.00%	7.33%	0.67%
3	1.10	13.84%	8.62%	7.77%	0.85%
4	1.13	14.31%	9.09%	7.98%	1.10%
5	1.16	14.91%	9.69%	8.20%	1.49%
6	1.18	15.33%	10.11%	8.38%	1.73%
7	1.23	15.62%	10.40%	8.73%	1.67%
8	1.28	16.60%	11.38%	9.05%	2.33%
9	1.34	17.48%	12.26%	9.50%	2.76%
10-Smallest	1.41	21.59%	16.37%	10.01%	6.36%
Mid-Cap, 3-5	1.12	14.15%	8.94%	7.91%	1.02%
Low-Cap, 6-8	1.22	15.66%	10.44%	8.63%	1.81%
Micro-Cap, 9-10	1.36	18.77%	13.55%	9.61%	3.95

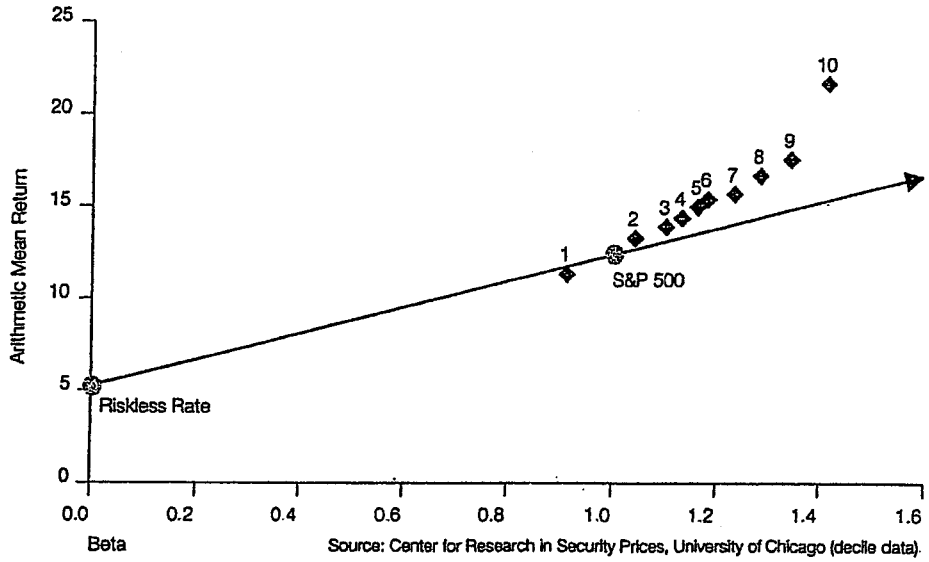
*Betas are estimated from monthly portfolio total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2005.

**Historical riskless rate is measured by the 80-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 (12.30 percent) minus the arithmetic mean income return component of 20-year government bonds (5.22 percent) from 1926–2005.

Graph 7-2

Security Market Line versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ 1926–2005



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

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, 2005

Decile	Recent Number of Companies	Recent Decile Market Capitalization (in thousands)	Market Capitalization of Largest Company (in thousands)	Company Name
10a	483	$108,194,821	$264,981	4Kids Entertaint Inc.
10b	1,279	$102,157,012	$169,195	Quaker Chemical Corp.

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

Table 7-7

Long-Term Returns in Excess of CAPM Estimation for Decile Portfolios of the NYSE/AMEX/NASDAQ, with 10th Decile Split
1926–2005

	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	11.29%	6.07%	6.45%	-0.37%
2	1.04	13.22%	8.00%	7.33%	0.67%
3	1.10	13.84%	8.62%	7.77%	0.85%
4	1.13	14.31%	9.09%	7.98%	1.10%
5	1.16	14.91%	9.69%	8.20%	1.49%
6	1.18	15.33%	10.11%	8.38%	1.73%
7	1.23	15.62%	10.40%	8.73%	1.67%
8	1.28	16.60%	11.38%	9.05%	2.33%
9	1.34	17.48%	12.26%	9.50%	2.76%
10a	1.43	19.71%	14.49%	10.10%	4.39%
10b-Smallest	1.39	24.87%	19.65%	9.82%	9.83%
Mid-Cap, 3-5	1.12	14.15%	8.94%	7.91%	1.02%
Low-Cap, 6-8	1.22	15.66%	10.44%	8.63%	1.81%
Micro-Cap, 9-10	1.36	18.77%	13.55%	9.61%	3.95%

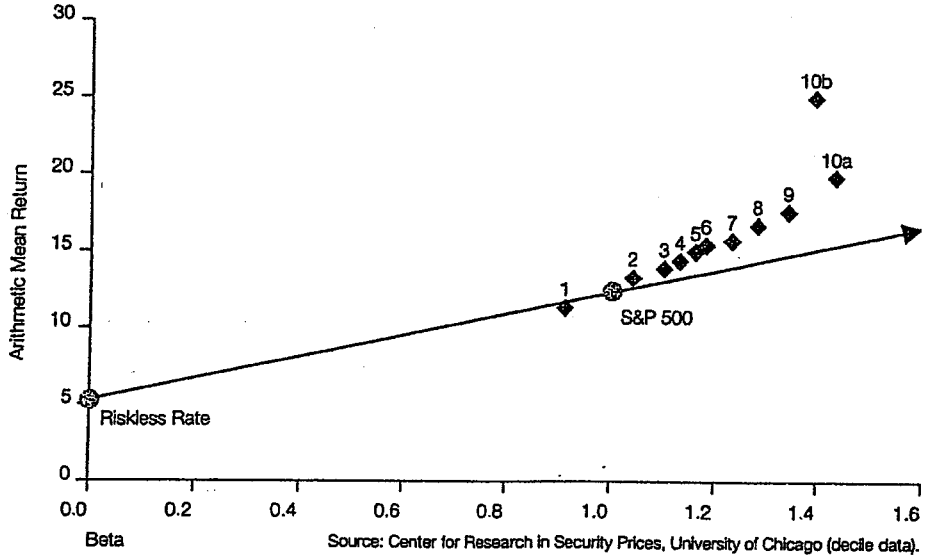
*Betas are estimated from monthly portfolio total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2005 .

**Historical riskless rate is measured by the 80-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 (12.30 percent) minus the arithmetic mean income return component of 20-year government bonds (5.22 percent) from 1926–2005.

Graph 7-3

Security Market Line versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, with 10th Decile Split
1926-2005



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

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
2005	1,746

*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, 1926–2005, 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 6.33, as opposed to 7.08 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.

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Utilities

The utilities rating methodology encompasses two basic components: business risk analysis and financial analysis. Evaluation of industry characteristics, the utility's position within that industry, its regulation, and its management provides the context for assessing a firm's financial condition.

Historical analysis is a tool for identifying strengths and weaknesses, and provides a starting point for evaluating financial condition. Business position assessment is the qualitative measure of a utility's fundamental creditworthiness. It focuses on the forces that will shape the utilities' future.

Utilities credit analysis factors

Business risk	Financial risk
• Markets and service area economy	• Earnings protection
• Competitive position	• Capital structure
• Operations	• Cash flow adequacy
• Regulation	• Financial flexibility/capital attraction
• Management	
• Fuel, power, and water supply	
• Asset concentration	

The credit analysis of utilities is quickly evolving, as utilities are treated less as regulated monopolies and more as entities faced with a host of challengers in a competitive environment. Marketplace dynamics are supplanting the power of regulation, making it critically important to reduce costs and/or market new services in order to thwart competitors' inroads.

Markets and service area economy

Assessing service territory begins with the economic and demographic evaluation of the area in which the utility has its franchise. Strength of long-term demand for the product is examined from a macroeconomic perspective. This enables Standard & Poor's to evaluate the affordability of rates and the staying power of demand.

Standard & Poor's tries to discern any secular consumption trends and, more importantly, the reasons for them. Specific items examined include the size and growth rate of the market, strength of the franchise, historical and projected sales growth, income levels and trends in population, employment, and per capita income. A utility with a healthy economy and customer base—as illustrated by diverse employment opportunities, average or above-average wealth and income statistics, and low unemployment—will have a greater capacity to support its operations.

For electric and gas utilities, distribution by customer class is scrutinized to assess the depth and diversity of the utility's customer mix. For example, heavy industrial concentration is viewed cautiously, since a utility may have significant exposure to cyclical volatility. Alternatively, a large residential component yields a stable and more predictable revenue stream. The largest utility customers are identified to determine their importance to the bottom line and assess the risk of their loss and potential adverse effect on the utility's financial position. Credit concerns arise when individual customers represent more than 5% of revenues. The company or industry may play a significant role in the overall economic base of the service area. Moreover, large customers may turn to cogeneration or alternative power supplies to meet their energy needs, potentially leading to reduced cash flow for the utility (even in cases where a large customer pays discounted rates and is not a profitable account for the utility). Customer concentration is less significant for water and telecommunication utilities.

Competitive position

As competitive pressures have intensified in the utilities industry, Standard & Poor's analysis has deepened to include a more thorough review of competitive position.

Electric utility competition

For electric utilities, competitive factors examined include: percentage of firm wholesale revenues that are most vulnerable to competition; industrial load concentration; exposure of key customers to alternative suppliers; commercial concentrations; rates for various customer classes; rate design and flexibility; production costs, both marginal and fixed; the regional capacity situation; and transmission constraints. A regional focus is evident, but high costs and rates relative to national averages are also of significant concern because of the potential for electricity substitutes over time.

Mounting competition in the electric utility industry derives from excess generating capacity, lower barriers to entering the electric generating business, and marginal costs that are below embedded costs. Standard & Poor's has already witnessed declining prices in wholesale markets, as *de facto* retail competition is already being seen in several parts of the country. Standard & Poor's believes that over the coming years more and more customers will want and demand lower prices. Initial concerns focus on the largest industrial loads, but other customer classes will be increasingly vulnerable. Competition will not necessar-

ily be driven by legislation. Other pressures will arise from global competition and improving technologies, whether it be the declining cost of incremental generation or advances in transmission capacity or substitute energy sources like the fuel cell. It is impossible to say precisely when wide-open retail competition will occur; this will be evolutionary. However, significantly greater competition in retail markets is inevitable.

Gas utility competition

Similarly, gas utilities are analyzed with regard to their competitive standing in the three major areas of demand: residential, commercial, and industrial. Although regulated as holders of monopoly power, natural gas utilities have for some time been actively competing for energy market share with fuel oil, electricity, coal, solar, wood, etc. The long-term staying power of market demand for natural gas cannot be taken for granted. In fact, as the electric utility industry restructures and reduces costs, electric power will become more cost competitive and threaten certain gas markets. In addition, independent gas marketers have made greater inroads behind the city gate and are competing for large gas users. Moreover, the recent trend by state regulators to unbundle utility services is creating opportunities for outsiders to market niche products. Distributors still have the upper hand, but those who do not reduce and control costs, and thus rates, could find competition even more difficult.

Natural gas pipelines are judged to carry a somewhat higher business risk than distribution companies because they face competition in every one of their markets. To the extent a pipeline serves utilities versus industrial end users, its stability is greater. Over the next five years, pipeline competition will heat up since many service contracts with customers are expiring. Most distributor or end-use customers are looking to reduce pipeline costs and are working to improve their load factor to do so. Thus, pipelines will likely find it difficult to recontract all capacity in coming years. Being the pipeline of choice is a function of attractive transportation rates, diversity and quality of services provided, and capacity available in each particular market. In all cases though, periodic discounting of rates to retain customers will occur and put pressure on profitability.

Water utility competition

As the last true utility monopoly, water utilities face very little competition and there is currently no challenge to the continuation of franchise areas. The only exceptions have been cases where investor-owned water companies have been subject to condemnation and municipalization because of poor service or political motivations. In that regard, Standard & Poor's pays close attention to costs and rates in relation to neighboring utilities and national averages. (In contrast, the privatization of public water facilities has begun, albeit at a slower pace than anticipated. This is occurring mostly in the form of operating contracts and public/private partnerships, and not in asset transfers. This trend should continue as cities look for ways to balance their tight budgets.) Also, water utilities are not fully immune to the forces of competition; in a few instances wholesale customers can access more than one supplier.

Telephone competition

The Telecommunications Act of 1996 accelerates the continuing challenge to the local exchange companies' (LECs) century-old monopoly in the local loop. Competitive access providers (CAPs), both facilities-based and resellers, are aggressively pursuing customers, generally targeting metropolitan areas, and promising lower rates and better service.

Most long-distance calls are still originated and terminated on the local telephone company network. To complete such a call, the long-distance provider (including AT&T, MCI, Sprint and a host of smaller interexchange carriers or "IXCs") must pay the local telephone company a steep "access" fee to compensate the local phone company for the use of its local network. CAPs, in contrast, build or lease facilities that directly connect customers to their long-distance carrier, bypassing the local telephone company and avoiding access fees, and thereby can offer lower long-distance rates. But the LECs are not standing still; they are combating the loss of business to CAPs by lowering access fees, thereby reducing the economic incentive for a high usage long-distance customer to use a CAP. LECs are attempting to make up for the loss of revenues from lower access fees by increasing basic local service rates (or at least not lowering them), since basic service is far less subject to competition. LECs are improving operating efficiency and marketing high margin, value-added new services. Additionally, in the wake of the Telecommunications Act, LECs will capture at least some of the inter-LATA long-distance market. As a result of these initiatives, LECs continue to rebuild themselves—from the traditional utility monopoly to leaner, more marketing oriented organizations.

While LECs, and indeed all segments of the telecommunications sector, face increasing competition, there are favorable industry factors that tend to offset heightened business risk and auger for overall ratings stability for most LECs. Importantly, telecommunications is a declining-cost business. With increased deployment of fiber optics, the cost of transport has fallen dramatically and digital switching hardware and software have yielded more capable, trouble-free and cost-efficient networks. As a result, the cost of network maintenance has dropped sharply, as illustrated by the ratio of employees per 10,000 access lines, an oft cited measurement of efficiency. Ratios as low as 25 employees per 10,000 lines are being seen, down from the typical 40 or more employees per 10,000 ratio of only a few years ago.

In addition, networks are far more capable. They are increasingly digitally switched and able to accommodate high-speed communications. The infrastructure needed to accommodate switched broadband services will be built into telephone networks over the next few years. These advanced networks will enable telephone companies to look to a greater variety of high-margin, value-added serv-

ices. In addition to those current services such as call waiting or caller ID, the delivery of hundreds of broadcast and interactive video channels will be possible. While these services offer the potential of new revenue streams, they will simultaneously present a formidable challenge. LECs will be entering the new (to them) arena of multimedia entertainment and will have to develop expertise in marketing and entertainment programming acumen; such skills stand in sharp contrast to LECs' traditional strengths in engineering and customer service.

Operations

Standard & Poor's focuses on the nature of operations from the perspective of cost, reliability, and quality of service. Here, emphasis is placed on those areas that require management attention in terms of time or money and which, if unresolved, may lead to political, regulatory, or competitive problems.

Operations of electric utilities

For electrics, the status of utility plant investment is reviewed with regard to generating plant availability and utilization, and also for compliance with existing and contemplated environmental and other regulatory standards. The record of plant outages, equivalent availability, load factors, heat rates, and capacity factors are examined. Also important is efficiency, as defined by total megawatt hour per employee and customers per employee. Transmission interconnections are evaluated in terms of the number of utilities to which the utility in question has access, the cost structures and available generating capacity of these other utilities, and the price paid for wholesale power.

Because of mounting competition and the substantial escalation in decommissioning estimates, significant weight is given to the operation of nuclear facilities. Nuclear plants are becoming more vulnerable to high production costs that make their rates uneconomic. Significant asset concentration may expose the utility to poor performance, unscheduled outages or premature shutdowns, and large deferrals or regulatory assets that may need to be written off for the utility to remain competitive. Also, nuclear facilities tend to represent significant portions of their operators' generating capability and assets. The loss of a productive nuclear unit from both power supply and rate base can interrupt the revenue stream and create substantial additional costs for repairs and improvements and replacement power. The ability to keep these stations running smoothly and economically directly influences the ability to meet electric demand, the stability of revenues and costs, and, by extension, the ability to maintain adequate creditworthiness. Thus, economic operation, safe operation, and long-term operation are examined in depth. Specifically, emphasis is placed on operation and maintenance costs, busbar costs, fuel costs, refueling outages, forced outages, plant statistics, NRC evaluations, the potential need for repairs, operating licenses, decommissioning estimates and amounts held in external trusts, spent fuel storage capacity, and management's nuclear experience. In essence, favorable nuclear operations offer significant opportunities but, if a nuclear unit runs poorly or not at all, the attendant risks can be great.

Operations of gas utilities

For gas pipeline and distribution companies, the degree of plant utilization, the physical condition of the mains and lines, adequacy of storage to meet seasonal needs, "lost and unaccounted for" gas levels, and per-unit nongas operating and construction costs are important factors. Efficiency statistics such as load factor, operating costs per customer, and operating income per employee are also evaluated in comparison to other utilities and the industry as a whole.

Operations of water utilities

As a group, water utilities are continually upgrading their physical plant to satisfy regulations and to develop additional supply. Over the next decade, water systems will increasingly face the task of maintaining compliance, as drinking water regulations change and infrastructure ages. Given that the Safe Drinking Water Act was authorized in 1974, the first generation of treatment plants built to conform with these rules are almost 20 years old. Additionally, because the focus during this period was on satisfying environmental standards, deferred maintenance of distribution systems has been common, especially in older urban areas. The increasing cost of supplying treated water argues against the high level of unaccounted for water witnessed in the industry. Consequently, Standard & Poor's anticipates capital plans for rebuilding distribution lines and major renewal and replacement efforts aimed at treatment plants.

Operations of telephone companies

For telephone companies, cost-of-service analysis focuses on plant capability and measures of efficiency and quality of service. Plant capability is ascertained by looking at such parameters as percentage of digitally switched lines; fiber optic deployment, in particular in those portions of the plant key to network survival; and the degree of broadband capacity fiber and coaxial deployment and broadband switching capacity. Efficiency measures include operating margins, the ratio of employees per 10,000 access lines, and the extent of network and operations consolidation. Quality of service encompasses examination of quantitative measures, such as trouble reports and repeat service calls, as well as an assessment of qualitative factors, that may include service quality goals mandated by regulators.

Regulation

Regulatory rate-setting actions are reviewed on a case-by-case basis with regard to the potential effect on creditworthiness. Regulators' authorizing high rates of return is of little value unless the returns are earnable. Furthermore, allowing high returns based on noncash items does not benefit bondholders. Also, to be viewed positively, regulatory treatment should allow consistent performance from

period to period, given the importance of financial stability as a rating consideration.

The utility group meets frequently with commission and staff members, both at Standard & Poor's offices and at commission headquarters, demonstrating the importance Standard & Poor's places on the regulatory arena for credit quality evaluation. Input from these meetings and from review of rate orders and their impact weigh heavily in Standard & Poor's analysis.

Standard & Poor's does not "rate" regulatory commissions. State commissions typically regulate a number of diverse industries, and regulatory approaches to different types of companies often differ within a single regulatory jurisdiction. This makes it all but impossible to develop inclusive "ratings" for regulators.

Standard & Poor's evaluation of regulation also encompasses the administrative, judicial, and legislative processes involved in state and federal regulation. These can affect rate-setting activities and other aspects of the business, such as competitive entry, environmental and safety rules, facility siting, and securities sales.

As the utility industry faces an increasingly deregulated environment, alternatives to traditional rate-making are becoming more critical to the ability of utilities to effectively compete, maintain earnings power, and sustain creditor protection. Thus, Standard & Poor's focuses on whether regulators, both state and federal, will help or hinder utilities as they are exposed to greater competition. There is much that regulators can do, from allocating costs to more captive customers to allowing pricing flexibility—and sometimes just stepping out of the way.

Under traditional rate-making, rates and earnings are tied to the amount of invested capital and the cost of capital. This can sometimes reward companies more for justifying costs than for containing them. Moreover, most current regulatory policies do not permit utilities to be flexible when responding to competitive pressures of a deregulated market. Lack of flexible tariffs for electric utilities may lure large customers to wheel cheaper power from other sources.

In general, a regulatory jurisdiction is viewed favorably if it permits earning a return based on the ability to sustain rates at competitive levels. In addition to performance-based rewards or penalties, flexible plans could include market-based rates, price caps, index-based prices, and rates premised on the value of customer service. Such rates more closely mirror the competitive environment that utilities are confronting.

Electric industry regulation

The ability to enter into long-term arrangements at negotiated rates without having to seek regulatory approval for each contract is also important in the electric industry. (While contracting at reduced rates constrains financial performance, it lessens the potential adverse impact in the event of retail wheeling. Since revenue losses associated with this strategy are not likely to be recovered from ratepayers, utilities must control costs well enough to remain competitive if they are to sustain current levels of bondholder protection.)

Natural gas industry regulation

In the gas industry, too, several state commission policies weigh heavily in the evaluation of regulatory support. Examples include stabilization mechanisms to adjust revenues for changes in weather or the economy, rate and service unbundling decisions, revenue and cost allocation between sales and transportation customers, flexible industrial rates, and the general supportiveness of construction costs and gas purchases.

Water industry regulation

In all water utility activities, federal and state environmental regulations continue to play a critical role. The legislative timetable to effect the 1986 amendments to the Safe Drinking Water Act of 1974 was quite aggressive. But environmental standards-setting has actually slowed over the past couple of years due largely to increasing sentiment that the stringent, costly standards have not been justified on the basis of public health. A moratorium on the promulgation of significant new environmental rules is anticipated.

Telecommunications industry regulation

Despite the advances in telecommunications deregulation, analysis of regulation of telephone operators will continue to be a key rating determinant for the foreseeable future. The method of regulation may be either classic rate-based rate of return or some form of price cap mechanism. The most important factor is to assess whether the regulatory framework—no matter which type—provides sufficient financial incentive to encourage the rated company to maintain its quality of service and to upgrade its plant to accommodate new services while facing increasing competition from wireless operators and cable television companies.

Where regulators do still set tariffs based on an authorized return, Standard & Poor's strives to explore with regulators their view of the rate-of-return components that can materially impact reported versus regulatory earnings. Specifically these include the allowable base upon which the authorized return can be earned, allowable expenses, and the authorized return. Since regulatory oversight runs the gamut from strict, adversarial relationships with the regulated operating companies to highly supportive postures, Standard & Poor's probes beyond the apparent regulatory environment to ascertain the actual impact of regulation on the rated company.

Management

Evaluating the management of a utility is of paramount importance to the analytical process since management's abilities and decisions affect all areas of a company's operations. While regulation, the economy, and other outside factors can influence results, it is ultimately the quality of management that determines the success of a company.

With emerging competition, utility management will be more closely scrutinized by Standard & Poor's and will become an increasingly critical component of the credit evaluation. Management strategies can be the key determinant in differentiating utilities and in establishing where companies lie on the business position spectrum. It is imperative that managements be adaptable, aggressive, and proactive if their utilities are to be viable in the future; this is especially important for utilities that are currently uncompetitive.

The assessment of management is accomplished through meetings, conversations, and reviews of company plans. It is based on such factors as tenure, industry experience, grasp of industry issues, knowledge of customers and their needs, knowledge of competitors, accounting and financing practices, and commitment to credit quality. Management's ability and willingness to develop workable strategies to address their systems' needs, to deal with the competitive pressures of free market, to execute reasonable and effective long-term plans, and to be proactive in leading their utilities into the future are assessed. Management quality is also indicated by thoughtful balancing of public and private priorities, a record of credibility, and effective communication with the public, regulatory bodies, and the financial community. Boards of directors will receive ever more attention with respect to their role in setting appropriate management incentives.

With competition the watchword, Standard & Poor's also focuses on management's efforts to enhance financial condition. Management can bolster bondholder protection by taking any number of discretionary actions, such as selling common equity, lowering the common dividend payout, and paying down debt. Also important for the electric industry will be creativity in entering into strategic alliances and working partnerships that improve efficiency, such as central dispatching for a number of utilities or locking up at-risk customers through long-term contracts or expanded flexible pricing agreements. Proactive management teams will also seek alternatives to traditional rate-base, rate-of-return rate-making, move to adopt higher depreciation rates for generating facilities, segment customers by individual market preferences, and attempt to create superior service organizations.

In general, management's ability to respond to mounting competition and changes in the utility industry in a swift and appropriate manner will be necessary to maintain credit health.

Fuel, power, and water supply

Assessment of present and prospective fuel and power supply is critical to every electric utility analysis, while gauging the long-term natural gas supply position for gas pipeline and distribution companies and the water resources of a water utility is equally important. There is no similar analytical category for telephone utilities.

Electric utilities

For electric utilities emphasis is placed on generating reserve margins, fuel mix, fuel contract terms, demand-side management techniques, and purchased power arrangements. The adequacy of generating margins is examined nationally, regionally, and for each individual company. However, the reserve margin picture is muddied by the imprecise nature of peak-load growth forecasting, and also supply uncertainty relating to such things as Canadian capacity availability and potential plant shutdowns due to age, new NRC rules, acid rain remedies, fuel shortages, problems associated with nontraditional technologies, and so forth. Even apparently ample reserves may not be what they seem. Moreover, the quality of capacity is just as important as the size of reserves. Companies' reserve requirements differ, depending upon individual operating characteristics.

Fuel diversity provides flexibility in a changing environment. Supply disruptions and price hikes can raise rates and ignite political and regulatory pressures that ultimately lead to erosion in financial performance. Thus, the ability to alter generating sources and take advantage of lower cost fuels is viewed favorably.

Dependence on any single fuel means exposure to that fuel's problems: electric utilities that rely on oil or gas face the potential for shortages and rapid price increases; utilities that own nuclear generating facilities face escalating costs for decommissioning; and coal-fired capacity entails environmental problems stemming from concerns over acid rain and the "greenhouse effect."

Buying power from neighboring utilities, qualifying facility projects, or independent power producers may be the best choice for a utility that faces increasing electricity demand. There has been a growing reliance on purchased power arrangements as an alternative to new plant construction. This can be an important advantage, since the purchasing utility avoids potential construction cost overruns as well as risking substantial capital. Also, utilities can avoid the financial risks typical of a multiyear construction program that are caused by regulatory lag and prudence reviews. Furthermore, purchased power may enhance supply flexibility, fuel resource diversity, and maximize load factors. Utilities that plan to meet demand projections with a portfolio of supply-side options also may be better able to adapt to future growth uncertainties. Notwithstanding the benefits of purchasing, such a strategy has risks associated with it. By entering into a firm long-term purchased power contract that contains a fixed-cost component, utilities can incur substantial market, operating, regulatory, and financial risks. Moreover, regulatory treatment of purchased power removes any upside potential that might help offset the risks. Utilities are not compensated through incentive rate-making; rather, purchased power is recovered dollar-for-dollar as an operating expense.

To analyze the financial impact of purchased power, Standard & Poor's first calculates the net present value of future annual capacity payments (discounted at 10%). This represents a potential debt equivalent—the off-balance-sheet obligation that a utility incurs when it enters into a long-term purchased power contract. However, Standard

& Poor's adds to the utility's balance sheet only a portion of this amount, recognizing that such a contractual arrangement is not entirely the equivalent of debt. What percentage is added is a function of Standard & Poor's qualitative analysis of the specific contract and the extent to which market, operating, and regulatory risks are borne by the utility (the risk factor). For unconditional, take-or-pay contracts, the risk factor range is from 40%-80%, with the average hovering around 60%. A lower risk factor is typically assigned for system purchases from coal-fired utilities and a higher risk factor is usually designated for unit-specific nuclear purchases. The range for take-and-pay performance obligations is between 10%-50%.

Gas utilities

For gas distribution utilities, long-term supply adequacy obviously is critical, but the supply role has become even more important in credit analysis since the Federal Energy Regulatory Commission's Order 636 eliminated the interstate pipeline merchant business. This thrust gas supply responsibilities squarely on local gas distributors. Standard & Poor's has always believed distributor management has the expertise and wherewithal to perform the job well, but the risks are significant since gas costs are such a large percentage of total utility costs. In that regard, it is important for utilities to get preapprovals of supply plans by state regulators or at least keep the staff and commissioners well informed. To minimize risks, a well-run program would diversify gas sources among different producers or marketers, different gas basins in the U.S. and Canada, and different pipeline routes. Also, purchase contracts should be firm, with minimal take-or-pay provisions, and have prices tied to an industry index. A modest percentage of fixed-price gas is not unreasonable. Contracts, whether of gas purchases or pipeline capacity, should be intermediate term. Staggering contract expirations (preferably annually) provides an opportunity to be an active market player. A modest degree of reliance on spot purchases provides flexibility, as does the use of market-based storage. Gas storage and on-property gas resources such as liquefied natural gas or propane air are effective peak-day and peak-season supply management tools.

Since pipeline companies no longer buy and sell natural gas and are just common carriers, connections with varied reserve basins and many wells within those basins are of great importance. Diversity of sources helps offset the risks arising from the natural production declines eventually experienced by all reserve basins and individual wells. Moreover, such diversity can enhance a pipeline's attractiveness as a transporter of natural gas to distributors and end users seeking to buy the most economical gas available for their needs.

Water utilities

Nearly all water systems throughout the U.S. have ample long-term water supplies. Yet to gain comfort, Standard & Poor's assesses the production capability of treatment plants and the ability to pump water from underground aquifers in relation to the usage demands from consumers. Having adequate treated water storage facilities has become important in recent years and has helped many systems meet demands during peak summer periods. Of interest is whether the resources are owned by the utility or purchased from other utilities or local authorities. Owning properties with water rights provides more supply security. This is especially so in states like California where water allocations are being reduced, particularly since recent droughts and environmental issues have created alarm. Since the primary cost for water companies is treatment, it makes little difference whether raw water is owned or bought. In fact, compliance with federal and state water regulations is very high, and the overall cost to deliver treated water to consumers remains relatively affordable.

Asset concentration in the electric utility industry

In the electric industry, Standard & Poor's follows the operations of major generating facilities to assess if they are well managed or troubled. Significant dependence on one generating facility or a large financial investment in a single asset suggests high risk. The size or magnitude of a particular asset relative to total generation, net plant in service, and common equity is evaluated. Where substantial asset concentration exists, the financial profile of a company may experience wide swings depending on the asset's performance. Heavy asset concentration is most prevalent among utilities with costly nuclear units.

Earnings protection

In this category, pretax cash income coverage of all interest charges is the primary ratio. For this calculation, allowance for funds used during construction (AFUDC) is removed from income and interest expense. AFUDC and other such noncash items do not provide any protection for bondholders. To identify total interest expense, the analyst reclassifies certain operating expenses. The interest component of various off-balance-sheet obligations, such as leases and some purchased-power contracts, is included in interest expense. This provides the most direct indication of a utility's ability to service its debt burden.

While considerable emphasis in assessing credit protection is placed on coverage ratios, this measure does not provide the entire earnings protection picture. Also important are a company's earned returns on both equity and capital, measures that highlight a firm's earnings performance. Consideration is given to the interaction of embedded costs, financial leverage, and pretax return on capital.

Capital structure

Analyzing debt leverage goes beyond the balance sheet and covers quasi-debt items and elements of hidden financial leverage. Noncapitalized leases (including sale/leaseback obligations), debt guarantees, receivables financing, and purchased-power contracts are all considered debt equivalents and are reflected as debt in calculating capital

structure ratios. By making debt level adjustments, the analyst can compare the degree of leverage used by each utility company.

Furthermore, assets are examined to identify undervalued or overvalued items. Assets of questionable value are discounted to more accurately evaluate asset protection.

Some firms use short-term debt as a permanent piece of their capital structure. Short-term debt also is considered part of permanent capital when it is used as a bridge to permanent financing. Seasonal, self-liquidating debt is excluded from the permanent debt amount, but this situation is rare—with the exception of certain gas utilities. Given the long life of almost all utility assets, short-term debt may expose these companies to interest-rate volatility, remarketing risk, bank line backup risk, and regulatory exposure that cannot be readily offset. The lower cost of shorter-term obligations (assuming a positively sloped yield curve) is a positive factor that partially mitigates the risk of interest-rate variability. As a rule of thumb, a level of short-term debt that exceeds 10% of total capital is cause for concern.

Similarly, if floating-rate debt and preferred stock constitute over one-third of total debt plus preferred stock, this level is viewed as unusually high and may be cause for concern. It might also indicate that management is aggressive in its financial policies.

A layer of preferred stock in the capital structure is usually viewed as equity—since dividends are discretionary and the subordinated claim on assets provides a cushion for providers of debt capital. A preferred component of up to 10% is typically viewed as a permanent wedge in the capital structure of utilities. However, as rate-of-return regulation is phased out, preferred stock may be viewed by utilities—as many industrial firms would—as a temporary option for companies that are not current taxpayers that do not benefit from the tax deductibility of interest. Even now, floating-rate preferred and money market perpetual preferred are problematic; a rise in the rate due to deteriorating credit quality tends to induce a company to take out such preferred stock with debt. Structures that convey tax deductibility to preferred stock have become very popular and do generally afford such financings with equity treatment.

Cash flow adequacy

Cash flow adequacy relates to a company's ability to generate funds internally relative to its needs. It is a basic component of credit analysis because it takes cash to pay expenses, fund capital spending, pay dividends, and make interest and principal payments. Since both common and preferred dividend payments are important to maintain capital market access, Standard & Poor's looks at cash flow measures both before and after dividends are paid.

To determine cash flow adequacy, several quantitative relationships are examined. Emphasis is placed on cash flow relative to debt, debt service requirements, and capital spending. Cash flow adequacy is evaluated with respect to a firm's ability to meet all fixed charges, including capacity payments under purchased-power contracts. Despite the conditional nature of some contracts, the purchaser is obligated to pay a minimum capacity charge. The ratio used is funds from operations plus interest and capacity payments divided by interest plus capacity payments.

Financial flexibility/capital attraction

Financing flexibility incorporates a utility's financing needs, plans, and alternatives, as well as its flexibility to accomplish its financing program under stress without damaging creditworthiness. External funding capability complements internal cash flow. Especially since utilities are so capital intensive, a firm's ability to tap capital markets on an ongoing basis must be considered. Debt capacity reflects all the earlier elements: earnings protection, debt leverage, and cash flow adequacy. Market access at reasonable rates is restricted if a reasonable capital structure is not maintained and the company's financial prospects dim. The analyst also reviews indenture restrictions and the impact of additional debt on covenant tests.

Standard & Poor's assesses a company's capacity and willingness to issue common equity. This is affected by various factors, including the market-to-book ratio, dividend policy, and any regulatory restrictions regarding the composition of the capital structure.

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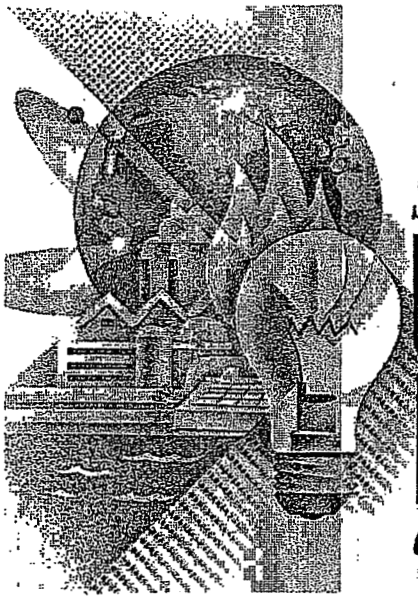

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STANDARD
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New Business Profile Scores Assigned for U.S. Utility and Power Companies; Financial Guidelines Revised

Standard & Poor's Ratings Services has assigned new business profile scores to U.S. utility and power companies to better reflect the relative business risk among companies in the sector. Standard & Poor's also has revised its published risk-adjusted financial guidelines. The new business scores and financial guidelines do not represent a change to Standard & Poor's ratings criteria or methodology, and no ratings changes are anticipated from the new business profile scores or revised financial guidelines.

New Business Profile Scores and Revised Financial Guidelines

Standard & Poor's has always monitored changes in the industry and altered its business risk assessments accordingly. This is the first time since the 10-point business profile scale for U.S. investor-owned utilities was implemented that a comprehensive assessment of the benefits and the application of the methodology has been made. The principal purpose was to determine if the methodology continues to provide meaningful differentiation of business risk. The review indicated that while business profile scoring continues to provide analytical benefits, the complete range of the 10-point scale was not being utilized to the fullest extent.

Standard & Poor's has also revised the key financial guidelines that it uses as an integral part of evaluating the credit quality of U.S. utility and power companies. These guidelines were last updated in June 1999. The financial guidelines for three principal ratios (funds from operations (FFO) interest coverage, FFO to total debt, and total debt to total capital) have been broadened so as to be more flexible. Pretax interest cov-

Chart 1
Distribution of Business Profile Scores

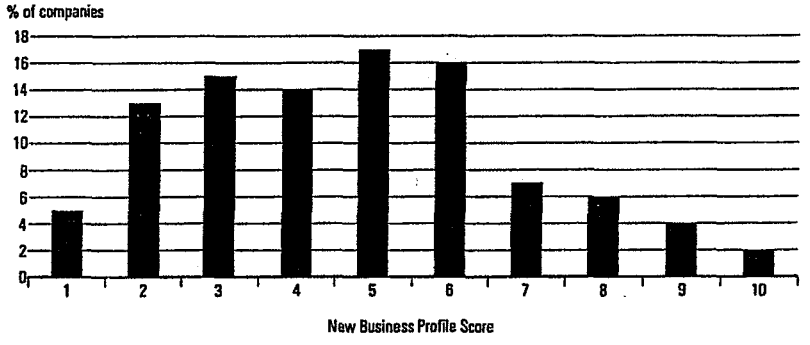
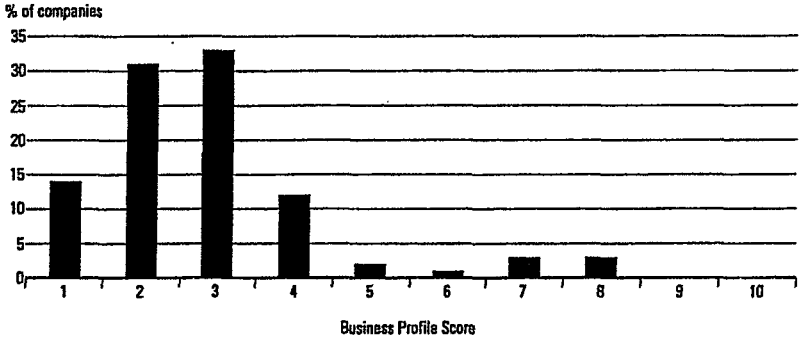


Chart 2
Transmission and Distribution—Water, Gas, and Electric



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erage as a key credit ratio was eliminated.

Finally, Standard & Poor's has segmented the utility and power industry into sub-sectors based on the dominant corporate strategy that a company is pursuing. Standard & Poor's has published a new U.S. utility and power company ranking list that reflects these sub-sectors.

There are numerous benefits to the reassessment. Fuller utilization of the entire 10-point scale provides a superior relative ranking of qualitative business risk. A revision of the financial guidelines supports the goal of not causing rating changes from the recalibration of the business profiles. Classification of companies by sub-sectors will ensure greater comparability and consistency in ratings. The use of industry segmentation will also allow more in-depth statistical analysis of ratings distributions and rating changes.

The reassessment does not represent a change to Standard & Poor's criteria or methodology for determining ratings for utility and power companies. Each business profile score should be considered as the assignment of a new score; these scores do not represent improvement or deterioration in our assessment of an individual company's business risk relative to the previously assigned score. The financial guidelines continue to be risk-adjusted based on historical utility and industrial medians. Segmentation into industry sub-sectors does not imply that specific company characteristics will not weigh heavily into the assignment of a company's business profile score.

Results

Previously, 83% of U.S. utility and power business profile scores fell between '3' and '6', which clearly does not reflect the risk differentiation that exists in the utility and power industry today. Since the 10-point scale was introduced, the industry has transformed into a much less homogenous industry, where the divergence of business risk—particularly regarding management, strategy, and degree of competitive market exposure—has created a much wider spectrum of risk profiles. Yet over the same period, business profile scores actually converged more tightly around a median score of '4'. The new business pro-

Chart 3

Transmission Only—Electric, Gas, and Other

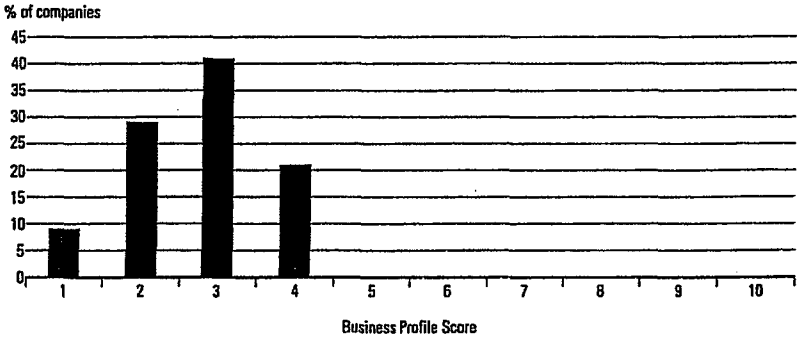
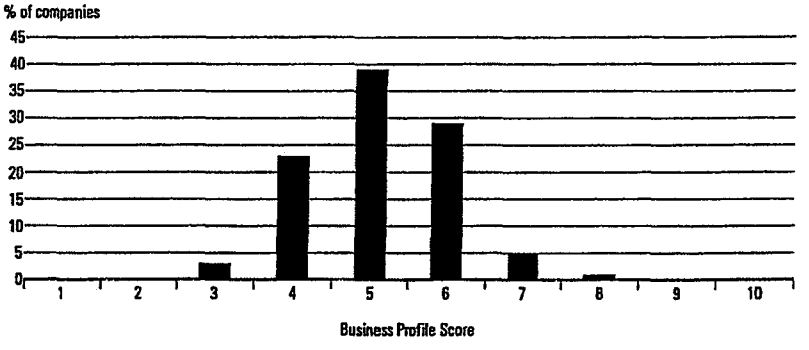


Chart 4

Integrated Electric, Gas, and Combination Utilities



file scores, as of June 2, are shown in Chart 1. The overall median business profile score is now '5'.

Table 1 contains the revised financial guidelines. It is important to emphasize that these metrics are only guidelines associated with expectations for various rating levels. Although credit ratio analysis is an important part of the ratings process, these three statistics are by no means the only critical financial measures that Standard & Poor's uses in its analytical process. We also analyze a wide array of financial ratios that do not have published guidelines for each rating category.

Again, ratings analysis is not driven solely by these financial ratios, nor has it ever been. In fact, the new financial guidelines that Standard & Poor's is incorporating for the specified rating categories reinforce the analytical framework whereby other factors can outweigh the achievement of otherwise acceptable financial ratios. These factors include:

- Effectiveness of liability and liquidity management;
- Analysis of internal funding sources;
- Return on invested capital;
- The execution record of stated business strategies;
- Accuracy of projected performance versus actual results, as well as the trend;
- Assessment of management's financial policies and attitude toward credit; and
- Corporate governance practices.

Charts 2 through 6 show business profile scores broken out by industry sub-sector. The five industry sub-sectors are:

- Transmission and distribution—Water, gas, and electric;
- Transmission only—Electric, gas, and other;
- Integrated electric, gas, and combination utilities;
- Diversified energy and diversified nonenergy; and
- Energy merchant/power developer/trading and marketing companies.

The average business profile scores for transmission and distribution companies and transmission-only companies are lower on the scale than the previous averages, while the average business profile scores for integrated utilities, diversified energy, and energy merchants and developers are higher.

Chart 5
Diversified Energy and Diversified Non-Energy

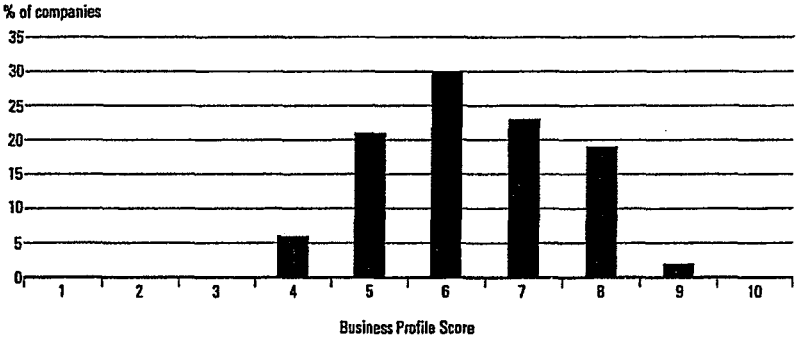
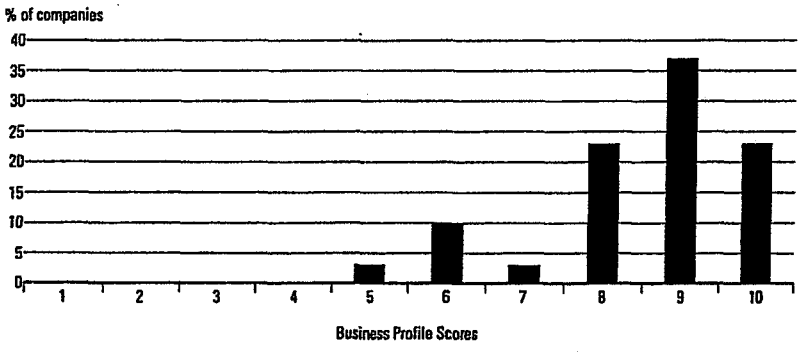


Chart 6
Energy Merchant/Developers/Trading and Marketing



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See pages 16 to 19 for the company ranking list of business profile scores segmented by industry sub-sector and ranked in order of credit rating, outlook, business profile score, and relative strength.

Business Profile Score Methodology

Standard & Poor's methodology of determining corporate utility business risk is anchored in the assessment of certain specific characteristics that define the sector. We assign business profile scores to each of the rated companies in the utility and power sector on a 10-point scale, where '1' represents the lowest risk and '10' the highest risk. Business profile scores are assigned to all rated utility and power companies, whether they are holding companies, subsidiaries, or stand-alone corporations. For operating subsidiaries and stand-alone companies, the score is a bottom-up assessment. Scores for families of companies are a composite of the operating subsidiaries' scores. The actual credit rating of a company is analyzed, in part, by comparing the business profile score with the risk-adjusted financial guidelines.

For most companies, business profile scores are assessed using five categories; specifically, regulation, markets, operations, competitiveness, and management. The emphasis placed on each category may be influenced by the

Table 1

Revised Financial Guidelines

Funds from operations/interest coverage (x)

Business Profile	AA		A		BBB		BB	
1	3	2.5	2.5	1.5	1.5	1		
2	4	3	3	2	2	1		
3	4.5	3.5	3.5	2.5	2.5	1.5	1.5	1
4	5	4.2	4.2	3.5	3.5	2.5	2.5	1.5
5	5.5	4.5	4.5	3.8	3.8	2.8	2.8	1.8
6	6	5.2	5.2	4.2	4.2	3	3	2
7	8	6.5	6.5	4.5	4.5	3.2	3.2	2.2
8	10	7.5	7.5	5.5	5.5	3.5	3.5	2.5
9			10	7	7	4	4	2.8
10			11	8	8	5	5	3

Funds from operation/total debt (%)

Business Profile	AA		A		BBB		BB	
1	20	15	15	10	10	5		
2	25	20	20	12	12	8		
3	30	25	25	15	15	10	10	5
4	35	28	28	20	20	12	12	8
5	40	30	30	22	22	15	15	10
6	45	35	35	28	28	18	18	12
7	55	45	45	30	30	20	20	15
8	70	55	55	40	40	25	25	15
9			65	45	45	30	30	20
10			70	55	55	40	40	25

Total debt/total capital (%)

Business Profile	AA		A		BBB		BB	
1	48	55	55	60	60	70		
2	45	52	52	58	58	68		
3	42	50	50	55	55	65	65	70
4	38	45	45	52	52	62	62	68
5	35	42	42	50	50	60	60	65
6	32	40	40	48	48	58	58	62
7	30	38	38	45	45	55	55	60
8	25	35	35	42	42	52	52	58
9			32	40	40	50	50	55
10			25	35	35	48	48	52

dominant strategy of the company or other factors. For example, for a regulated transmission and distribution company, regulation may account for 30% to 40% of the business profile score because regulation can be the single-most important credit driver for this type of company. Conversely, competition, which may not exist for a transmission and distribution company, would provide a much lower proportion (e.g., 5% to 15%) of the business profile score.

For certain types of companies, such as power generators, power developers, oil and gas exploration and production companies, or nonenergy-related holdings, where these five components may not be appropriate, Standard & Poor's will use other, more appropriate methodologies. Some of these companies are assigned business profile scores that are useful only for relative ranking purposes.

As noted above, the business profile score for a parent or holding company is a composite of the business profile scores of its individual subsidiary companies. Again, Standard & Poor's does not apply rigid guidelines for determining the proportion or weighting that each subsidiary represents in the overall business profile score. Instead, it is determined based on a number of factors. Standard & Poor's will analyze each subsidiary's contribution to FFO, forecast capital expenditures, liquidity requirements, and other parameters, including the extent to which one subsidiary has higher growth. The weighting is determined case-by-case. ■

Ronald M. Barone
New York (1) 212-438-7662
Richard W. Cortright, Jr.
New York (1) 212-438-7665
Suzanne G. Smith
New York (1) 212-438-2106
John W. Whitlock
New York (1) 212-438-7678
Andrew Watt
New York (1) 212-438-7868
Arthur F. Simonson
New York (1) 212-438-2094

PROXY GROUP OF SIX AUS UTILITY REPORTS WATER COMPANIES
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2001 - 2005, INCLUSIVE

	2005	2004	2003	2002	2001	
			(MILLIONS OF DOLLARS)			
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	$551.470	$514.211	$457.786	$396.089	$363.439	
SHORT-TERM DEBT	$30.000	$25.357	$32.067	$35.125	$30.666	
TOTAL CAPITAL EMPLOYED	$581.470	$539.568	$489.853	$431.215	$394.104	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	6.14 %	6.12 %	6.24 %	6.49 %	6.98 %	
PREFERRED STOCK	5.33	4.89	3.98	5.73	5.31	
CAPITAL STRUCTURE RATIOS						5 YEAR AVERAGE
BASED ON TOTAL PERMANENT CAPITAL:						
LONG-TERM DEBT	53.18 %	52.56 %	52.88 %	53.16 %	53.25 %	53.01 %
PREFERRED STOCK	0.40	0.43	0.51	0.57	0.77	0.53
COMMON EQUITY	46.42	47.01	46.61	46.27	45.98	46.46
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	54.98 %	54.57 %	56.32 %	56.29 %	56.72 %	55.77 %
PREFERRED STOCK	0.39	0.41	0.48	0.52	0.70	0.50
COMMON EQUITY	44.63	45.02	43.20	43.19	42.58	43.73
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
FINANCIAL STATISTICS						
FINANCIAL RATIOS - MARKET BASED						
EARNINGS / PRICE RATIO	4.00 %	4.31 %	3.85 %	4.90 %	4.92 %	4.40 %
MARKET / AVERAGE BOOK RATIO	261.32	231.71	232.50	221.41	215.22	232.43
DIVIDEND YIELD	2.85	3.20	3.28	3.63	3.81	3.35
DIVIDEND PAYOUT RATIO	70.74	74.58	87.80	74.83	79.40	77.47
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	10.10 %	9.80 %	8.97 %	10.58 %	10.35 %	9.96 %
FUNDS FROM OPERATIONS / INTEREST COVERAGE (3)	3.74 X	3.89 X	3.37 X	3.37 X	3.26 X	3.52 X
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	16.37 %	17.18 %	14.00 %	14.53 %	14.64 %	15.34 %
TOTAL DEBT / TOTAL CAPITAL	54.98 %	54.57 %	56.32 %	56.29 %	56.72 %	55.78 %

See Page 2 for notes.

Proxy Group of Six AUS Utility Reports Water Companies
Capitalization and Financial Statistics
2001-2005, Inclusive

Notes:

(1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.

(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.

(3) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges divided by interest charges.

(4) Funds from operations (as defined in Note 3) as a percentage of total debt.

Selection Criteria:

The basis of selection was to include those water companies: 1) which are included in the Water Company Group of C. A. Turner Public Utility Reports (October 2006); 2) which have Value Line (Standard Edition) five-year EPS growth rate projections or Thomson FN / First Call consensus five-year EPS growth rate projections; and 3) which have more than 70% of their 2005 operating revenues derived from water operations.

The following six water companies met the above criteria:

American States Water Co.
Aqua America, Inc.
Artesian Resources, Inc.
California Water Service Group
Middlesex Water Company
York Water Co.

Source of Information: Standard & Poor's Compustat Services, Inc., PC Plus / Research Insight Database
Company Annual Forms 10K

Capital Structure Based upon Permanent Capital for
the Proxy Group of Six AUS Water Companies
for the Years 2001 through 2005

	2005	2004	2003	2002	2001	5 YEAR AVERAGE
American States Water Co.						
Long-Term Debt	50.46 %	47.75 %	52.05 %	53.40 %	54.98 %	51.73 %
Preferred Stock	0.00	0.00	0.00	0.00	0.42	0.08
Common Equity	49.54	52.25	47.95	46.60	44.60	48.19
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Aqua America, Inc.						
Long-Term Debt	52.61 %	52.72 %	52.76 %	55.58 %	52.87 %	53.31 %
Preferred Stock	0.09	0.08	0.07	0.06	0.19	0.10
Common Equity	47.30	47.20	47.17	44.36	46.94	46.59
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Artesian Resources Corp.						
Long-Term Debt	61.58 %	60.30 %	60.47 %	55.62 %	59.33 %	59.46 %
Preferred Stock	0.00	0.00	0.07	0.17	0.67	0.18
Common Equity	38.42	39.70	39.46	44.21	40.00	40.36
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
California Water Service Group						
Long-Term Debt	48.07 %	48.66 %	52.41 %	55.36 %	50.97 %	51.09 %
Preferred Stock	0.61	0.61	0.67	0.77	0.85	0.70
Common Equity	51.32	50.73	46.92	43.87	48.18	48.20
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Middlesex Water Company						
Long-Term Debt	55.68 %	53.99 %	54.05 %	52.24 %	53.68 %	53.93 %
Preferred Stock	1.70	1.88	2.23	2.41	2.47	2.14
Common Equity	42.62	44.13	43.72	45.35	43.85	43.93
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
York Water Company						
Long-Term Debt	50.71 %	51.94 %	45.53 %	46.76 %	47.70 %	48.53 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	49.29	48.06	54.47	53.24	52.30	51.47
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Proxy Groupf of Six AUS Utility Reports Water Companies						
Long-Term Debt	53.19 %	52.56 %	52.88 %	53.16 %	53.25 %	53.01 %
Preferred Stock	0.40	0.43	0.50	0.57	0.77	0.53
Common Equity	46.41	47.01	46.62	46.27	45.98	46.46
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source of Information: Standard & Poor's Compustat Services, Inc., PC Plus / Research Insight Data Base
Company Annual Forms 10K (Sinking Fund Requirements)

PROXY GROUP OF FOUR VALUE LINE (STANDARD EDITION) WATER COMPANIES
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2001 - 2005, INCLUSIVE

	2005	2004	2003	2002	2001	
			(MILLIONS OF DOLLARS)			
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	$773.683	$719.252	$628.903	$541.882	$496.630	
SHORT-TERM DEBT	$41.376	$32.529	$39.728	$46.623	$37.917	
TOTAL CAPITAL EMPLOYED	$815.059	$751.781	$668.632	$588.505	$534.547	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	6.39 %	6.28 %	6.36 %	6.39 %	7.09 %	
PREFERRED STOCK	4.27	3.38	2.63	3.73	4.34	
CAPITAL STRUCTURE RATIOS						5 YEAR AVERAGE
BASED ON TOTAL PERMANENT CAPITAL:						
LONG-TERM DEBT	49.45 %	49.42 %	51.43 %	55.35 %	53.70 %	51.87 %
PREFERRED STOCK	0.22	0.24	0.40	0.39	0.47	0.34
COMMON EQUITY	50.33	50.34	48.17	44.26	45.83	47.79
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	50.93 %	51.13 %	53.69 %	58.05 %	55.96 %	53.95 %
PREFERRED STOCK	0.22	0.25	0.39	0.38	0.45	0.34
COMMON EQUITY	48.85	48.62	45.92	41.57	43.59	45.71
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
FINANCIAL STATISTICS						
FINANCIAL RATIOS - MARKET BASED						
EARNINGS / PRICE RATIO	3.88 %	3.88 %	4.12 %	4.96 %	4.81 %	4.33 %
MARKET / AVERAGE BOOK RATIO	248.19	222.69	220.49	223.08	227.57	228.40
DIVIDEND YIELD	2.42	2.79	2.91	3.10	3.11	2.87
DIVIDEND PAYOUT RATIO	61.18	71.81	74.09	61.40	66.93	67.08
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	9.19 %	8.38 %	9.19 %	10.91 %	10.83 %	9.70 %
FUNDS FROM OPERATIONS / INTEREST COVERAGE (3)	4.16 X	4.40 X	3.81 X	3.67 X	3.61 X	3.93 X
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	19.61 %	20.38 %	17.79 %	15.81 %	16.85 %	18.09 %
TOTAL DEBT / TOTAL CAPITAL	50.93 %	51.13 %	53.69 %	58.05 %	55.96 %	53.95 %

See Page 2 for notes.

Proxy Group of Four Value Line (Standard Edition) Water Companies
Capitalization and Financial Statistics
2001-2005, Inclusive

Notes:

(1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.

(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.

(3) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges divided by interest charges.

(4) Funds from operations (as defined in Note 3) as a percentage of total debt.

Selection Criteria:

The basis of selection was to include those water companies: 1) which are included in the Value Line (Standard Edition).

The following four water companies met the above criteria:

American States Water Co.
Aqua America, Inc.
California Water Service Group
Southwest Water Company

Source of Information: Standard & Poor's Compustat Services, Inc., PC Plus / Research Insight Database
Company Annual Forms 10K

Capital Structure Based upon Total Permanent Capital for
the Proxy Group of Four Value Line (Standard Edition) Water Companies
for the Years 2001 through 2005

	2005	2004	2003	2002	2001	5 YEAR AVERAGE
American States Water Co.						
Long-Term Debt	50.46 %	47.75 %	52.05 %	53.40 %	54.98 %	51.73 %
Preferred Stock	0.00	0.00	0.00	0.00	0.42	0.08
Common Equity	49.54	52.25	47.95	46.60	44.60	48.19
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Aqua America, Inc.						
Long-Term Debt	52.61 %	52.72 %	52.76 %	55.58 %	52.87 %	53.31 %
Preferred Stock	0.09	0.08	0.07	0.06	0.19	0.10
Common Equity	47.30	47.20	47.17	44.36	46.94	46.59
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
California Water Service Group						
Long-Term Debt	48.07 %	48.66 %	52.41 %	55.36 %	50.97 %	51.09 %
Preferred Stock	0.61	0.61	0.67	0.77	0.85	0.70
Common Equity	51.32	50.73	46.92	43.87	48.18	48.20
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Southwest Water Company						
Long-Term Debt	46.67 %	48.53 %	48.50 %	57.07 %	55.97 %	51.35 %
Preferred Stock	0.17	0.28	0.85	0.74	0.41	0.49
Common Equity	53.16	51.19	50.65	42.19	43.62	48.16
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Proxy Group of Four Value Line Water Companies						
Long-Term Debt	49.45 %	49.42 %	51.43 %	55.35 %	53.70 %	51.87 %
Preferred Stock	0.22	0.24	0.40	0.39	0.47	0.34
Common Equity	50.33	50.34	48.17	44.26	45.83	47.79
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source of Information: Standard & Poor's Compustat Services, Inc., PC Plus / Research Insight Data Base
Company Annual Forms 10K (Sinking Fund Requirements)

Exhibit No. 1
Schedule PMA-5

Twin Lakes Utilities, Inc.
Hypothetical Example of the Inadequacy of
A DCF Return Rate Related to Book Value
When Market Value is Greater / Less than Book Value

Line No.		1 Market Value	2 Book Value with Market to Book Ratio of 180%	3 Book Value with Market to Book Ratio of 80%
1.	Per Share	$ 24.00	$ 13.33	$ 30.00
2.	DCF Cost Rate (1)	10.00%	10.00%	10.00%
3.	Return in Dollars	$ 2.400	$ 1.333	$ 3.000
4.	Dividends (2)	$ 0.840	$ 0.840	$ 0.840
5.	Growth in Dollars	$ 1.560	$ 0.493	$ 2.160
6.	Return on Market Value	10.00%	5.55% (3)	12.50% (4)
7.	Rate of Growth on Market Value	6.50% (5)	2.05% (6)	9.00% (7)

Notes:
(1) Comprised of 3.5% dividend yield and 6.5% growth.
(2) $24.00 * 3.5% yield = $0.840.
(3) $1.333 / $24.00 market value = 5.55%.
(4) $3.000 / $24.00 market value = 12.50%.
(5) Expected rate of growth per market based DCF model.
(6) Actual rate of growth when DCF cost rate is applied to book value ($1.333 possible earnings - $0.840 dividends = $0.493 for growth / $24.00 market value = 2.05%).
(7) Actual rate of growth when DCF cost rate is applied to book value ($3.000 possible earnings - $0.840 dividends = $2.160 for growth / $24.00 market value = 9.00%).

Twin Lakes Utilities, Inc.
Indicated Common Equity Cost Rate Through Use of the
Single Stage Discounted Cash Flow Model for
the Proxy Group of Six AUS Utility Reports Water Companies and the
Proxy Group of Four 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 AUS Utility Reports Water Companies					
American States Water Co.	2.3 %	0.0 %	2.3 %	4.0 %	6.3 %
Aqua America, Inc.	2.0	0.1	2.1	8.8	10.9
Artesian Resources Corp.	3.2	0.1	3.3	6.4	9.7
California Water Services Group	3.1	0.1	3.2	3.8	7.0
Middlesex Water Company	3.6	0.0	3.6	2.5	6.1
York Water Company	2.4	0.1	2.5	7.3	9.8
Average	2.8 %	0.1 %	2.8 %	5.5 %	10.1 % (6)
Proxy Group of Four Value Line (Standard Edition) Water Companies					
American States Water Co.	2.3 %	0.0 %	2.3 %	4.0 %	6.3 %
Aqua America, Inc.	2.0	0.1	2.1	8.8	10.9
California Water Services Group	3.1	0.1	3.2	3.8	7.0
Southwest Water Company	2.4	0.1	2.5	7.9	10.4
Average	2.5 %	0.1 %	2.5 %	6.1 %	10.7 % (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 AUS Utility Reports Water Companies					
American States Water Co.	2.3 %	0.1 %	2.4 %	5.3 %	7.7 %
Aqua America, Inc.	2.0	0.1	2.1	10.7	12.8
Artesian Resources Corp.	3.2	0.2	3.4	10.0	13.4
California Water Services Group	3.1	0.1	3.2	5.8	9.0
Middlesex Water Company	3.6	0.1	3.7	3.5	7.2
York Water Company	2.4	0.1	2.5	10.2	12.7
Average	2.8 %	0.1 %	2.9 %	7.6 %	9.0 % (6) (7)
Proxy Group of Four Value Line (Standard Edition) Water Companies					
American States Water Co.	2.3 %	0.1 %	2.4 %	5.3 %	7.7 %
Aqua America, Inc.	2.0	0.1	2.1	10.7	12.8
California Water Services Group	3.1	0.1	3.2	5.8	9.0
Southwest Water Company	2.4	0.1	2.5	10.3	12.8
Average	2.5 %	0.1 %	2.6 %	8.0 %	9.0 % (6) (7)
Conclusion					
Proxy Group of Six AUS Utility Reports Water Companies					9.6 %
Proxy Group of Four Value Line (Standard Edition) Water Companies					9.9 %

Notes:

(1) From Schedule PMA-7 of this Exhibit.

(2) This reflects a growth rate component equal to one-half the conclusion of growth rate (from page 1 of Schedule PMA-9 of this Exhibit) x Column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for American States Water Co., 2.3% x (1/2 x 4.0%) = 0.1%.

(3) Column 1 + Column 2.

(4) From page 1 Schedule PMA-9 of this Exhibit

(5) Column 3 + Column 4.

(6) Includes only those indicated common equity cost rates which are greater than 8.4%, i.e., 200 basis points above the prospective yield on A rated Moody's public utility bonds of 6.4% (from page 1 of Schedule PMA-11 of this Exhibit).

(7) Excludes Aqua America, Inc.'s results of 12.8%, Artesian Resources Corp.'s 13.4%, York Water Co.'s 12.7% and Southwest Water Company's DCF results of 12.8%, because in Ms. Ahern's opinion it is unlikely that a water company would be authorized a return rate on common equity of 12.0% or greater in the immediate future.

Exhibit No. 1
Schedule PMA-7

Twin Lakes Utilities, Inc.
Derivation of Dividend Yield for Use in the
Discounted Cash Flow Model

	Dividend Yield		
	Spot (10/13/2006) (1)	Average of Last 3 Months (2)	Average Dividend Yield (3)
Proxy Group of Six AUS Utility Reports Water Companies			
American States Water Co.	2.2 %	2.4 %	2.3 %
Aqua America, Inc.	2.0	2.0	2.0
Artesian Resources Corp.	3.3	3.1	3.2
California Water Services Group	3.1	3.1	3.1
Middlesex Water Company	3.6	3.5	3.6
York Water Company	2.3	2.4	2.4
Average	2.8 %	2.8 %	2.8 %
Proxy Group of Four Value Line (Standard Edition) Water Companies			
American States Water Co.	2.2 %	2.4 %	2.3 %
Aqua America, Inc.	2.0	2.0	2.0
California Water Services Group	3.1	3.1	3.1
Southwest Water Company	3.1	1.7	2.4
Average	2.6 %	2.3 %	2.5 %

Notes: (1) The spot dividend yield is the current annualized dividend per share divided by the spot market price on 10/13/06.

(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 September 30, 2006.

(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. 1
Schedule PMA-8

Twin Lakes Utilities, Inc.
Current Institutional Holdings (1) and Individual Holdings (2) for
the Proxy Group of Six AUS Utility Reports Water Companies,
the Proxy Group of Four Value Line (Standard Edition) Water Companies

	1 October 2006 Percentage of Institutional Holdings (1)	2 October 2006 Percentage of Individual Holdings (2)
Proxy Group of Six AUS Utility Reports Water Companies		
American States Water Co.	49.6 %	50.4 %
Aqua America	33.3	66.7
Artesian Resources Corp.	12.7	NA
California Water Service Group	30.0	70.0
Middlesex Water Company	15.7	84.3
York Water Company	4.6	95.4
Average	24.3 %	75.7 %
Proxy Group of Four Value Line Water Companies		
American States Water Co.	49.6 %	50.4 %
Aqua America	33.3	66.7
California Water Service Group	30.0	70.0
Southwest Water Company	44.8	55.2
Average	39.4 %	60.6 %

Notes: (1) (1 - column 1).

Source of Information: today.reuters.com, updated October 13, 2006

Twin Lakes Utilities, 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 2003-05 to 2009-'11 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 AUS Utility Reports Water Companies														
American States Water Co.	1.0 %	(2.5) %	4.4 %	1.0 %	4.5 %	6.0 %	[1]	5.3 %	7.0 %	1.0 % (8)	7.0 % (8	4.0 %	4.0 % (8)	4.0 %
Aqua America, Inc.	6.5	8.5	8.2	10.0	11.0	10.4	[7]	10.7	6.8	6.5	11.0	8.8	8.8	8.8
Artesian Resources Corp.	3.7 (5)	4.1 (5)	5.5	NA	NA	10.0	[1]	10.0	NA	3.7	10.0	6.9	5.6	6.4
California Water Services Group	1.0	(4.0)	3.7	1.0	4.5	7.0	[3]	5.8	4.5	1.0 (8)	7.0 (8)	4.0	3.6 (6)	3.8
Middlesex Water Company	2.0	1.0	2.4	NA	NA	3.5	[1]	3.5	NA	1.0	3.5	2.3	2.8	2.5
York Water Company	(9.5)	6.9 (5)	4.4	NA	NA	10.2	[3]	10.2	NA	4.4 (8)	10.2 (8)	7.3	7.2 (8)	7.3
Average	2.8 %	5.1 % (8)	4.8 %	4.0 %	6.7 %	7.9 %		7.6 %	8.1 %	2.9 %	8.1 %	5.6 %	5.3 %	5.5 %
Proxy Group of Four Value Line (Standard Edition) Water Companies														
American States Water Co.	1.0 %	(2.5) %	4.4 %	1.0 %	4.5 %	6.0 %	[1]	5.3 %	7.0 %	1.0 % (8)	7.0 % (8	4.0 %	4.0 % (8)	4.0 %
Aqua America, Inc.	6.5	8.5	8.2	10.0	11.0	10.4	[7]	10.7	6.8	6.5	11.0	8.8	8.8	8.8
California Water Services Group	1.0	(4.0)	3.7	1.0	4.5	7.0	[3]	5.8	4.5	1.0 (8)	7.0 (8)	4.0	3.6 (6)	3.8
Southwest Water Company	10.0	1.5	13.0	9.0	12.0	8.5	[2]	10.3	5.3	1.5	13.0	7.3	8.5	7.9
Average	4.6 %	5.0 % (8)	7.3 %	5.3 %	8.0 %	8.0 %		8.0 %	5.9 %	2.6 %	9.5 %	6.0 %	6.2 %	6.1 %

Notes:
(1) As shown on pages 8 through 13 of this Schedule. Historical growth rates are five-year compound growth rates.
(2) From page 2 of this Schedule.
(3) Average of Columns 5 and 6.
(4) From page 6 of this Schedule.
(5) Calculated using the same methodology as Value Line Investment Survey, i.e., three-year base periods ending 2005.
(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, July 28, 2006
ThomsonFN First Call Earnings, ec.thomsonfn.com, updated October 7, 2006

Twin Lakes Utilities, Inc.
Calculation of Historical BR + SV

	1	2	3	4	5
	BR (1)	S Factor (2)	V Factor (3)	SV (4)	BR + SV (5)
Proxy Group of Six AUS Utility Reports Water Companies					
American States Water Co.	3.4 %	2.2 %	43.9 %	1.0 %	4.4 %
Aqua America, Inc.	5.5	3.9	68.0	2.7	8.2
Artesian Resources Corp.	2.6	6.3	45.3	2.9	5.5
California Water Services Group	1.6	4.1	51.1	2.1	3.7
Middlesex Water Company	0.8	2.8	58.3	1.6	2.4
York Water Company	2.5	2.9	63.8	1.9	4.4
Average	2.7 %	3.7 %	55.1 %	2.0 %	4.8 %
Proxy Group of Four Value Line (Standard Edition) Water Companies					
American States Water Co.	3.4 %	2.2 %	43.9 %	1.0 %	4.4 %
Aqua America, Inc.	5.5	3.9	68.0	2.7	8.2
California Water Services Group	1.6	4.1	51.1	2.1	3.7
Southwest Water Company	5.5	13.9	53.9	7.5	13.0
Average	4.0 %	6.0 %	54.2 %	3.3 %	7.3 %

Notes:
(1) From column 6, page 3 of this Schedule.
(2) From column 12, page 4 of this Schedule.
(3) From column 7, page 5 of this Schedule.
(4) Column 2 * column 3.
(5) Column 1 + column 4.

Twin Lakes Utilities, Inc.
Historical Internal Growth Rate (1), i.e., BR, for the Proxy Group of Six AUS Utility Reports Water Companies and the Proxy Group of Four Value Line (Standard Edition) Water Companies for the Years 2001 -2005

	1	2	3	4	5	6
	2005	2004	2003	2002	2001	Five-Year Average 2000-2004 Internal Growth Rate, i.e., BR
Proxy Group of Six AUS Utility Reports Water Companies						
American States Water Co.						
Common Equity Return Rate	10.38 %	7.99 %	5.59 %	9.83 %	10.37 %	
Retention Ratio	43.59	25.17	(12.98)	35.04	35.65	
Internal Growth Rate (1)	4.52	2.01	(0.73)	3.44	3.70	3.4 % (2)
Aqua America, Inc.						
Common Equity Return Rate	11.69 %	11.39 %	12.30 %	13.92 %	13.34 %	
Retention Ratio	43.90	42.75	43.61	45.22	42.95	
Internal Growth Rate (1)	5.13	4.87	5.36	6.29	5.73	5.5
Artesian Resources Corp.						
Common Equity Return Rate	8.93 %	8.18 %	7.41 %	9.67 %	9.80 %	
Retention Ratio	31.08	25.80	19.24	34.96	31.35	
Internal Growth Rate (1)	2.78	2.11	1.43	3.38	3.07	2.6
California Water Services Group						
Common Equity Return Rate	9.31 %	9.72 %	8.68 %	9.56 %	7.49 %	
Retention Ratio	25.81	22.97	8.79	10.13	(14.22)	
Internal Growth Rate (1)	2.40	2.23	0.76	0.97	(1.07)	1.6 (2)
Middlesex Water Company						
Common Equity Return Rate	8.45 %	9.37 %	8.17 %	10.10 %	9.37 %	
Retention Ratio	6.49	9.95	(6.51)	13.33	5.88	
Internal Growth Rate (1)	0.55	0.93	(0.53)	1.35	0.55	0.8 (2)
York Water Company						
Common Equity Return Rate	11.85 %	12.17 %	11.66 %	10.37 %	11.73 %	
Retention Ratio	24.70	25.86	21.04	12.32	21.97	
Internal Growth Rate (1)	2.93	3.15	2.45	1.28	2.58	2.5
Average						2.7 %
Proxy Group of Four Value Line (Standard Edition) Water						
American States Water Co.						
Common Equity Return Rate	10.38 %	7.99 %	5.59 %	9.83 %	10.37 %	
Retention Ratio	43.59	25.17	(12.98)	35.04	35.65	
Internal Growth Rate (1)	4.52	2.01	(0.73)	3.44	3.70	3.4 % (2)
Aqua America, Inc.						
Common Equity Return Rate	11.69 %	11.39 %	12.30 %	13.92 %	13.34 %	
Retention Ratio	43.90	42.75	43.61	45.22	42.95	
Internal Growth Rate (1)	5.13	4.87	5.36	6.29	5.73	5.5
California Water Services Group						
Common Equity Return Rate	9.31 %	9.72 %	8.68 %	9.56 %	7.49 %	
Retention Ratio	25.81	22.97	8.79	10.13	(14.22)	
Internal Growth Rate (1)	2.40	2.23	0.76	0.97	(1.07)	1.6 (2)
Southwest Water Company						
Common Equity Return Rate	5.38 %	4.40 %	10.20 %	10.32 %	12.12 %	
Retention Ratio	42.00	21.88	64.23	64.02	67.92	
Internal Growth Rate (1)	2.26	0.96	6.55	6.61	8.23	5.5
Average						4.0 %

Notes: (1) The internal growth rate is calculated by multiplying the common equity return rate by the retention ratio (100% minus the dividend payout ratio). All data are on a consolidated basis.

(2) Excludes negatives.

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

Twin Lakes Utilities, Inc.
Calculation of Five Year Average Growth in Common Shares Outstanding (1), i.e., S Factor

	1 2000 Common Shares Outstanding (1)	2 00-01 Growth	3 2001 Common Shares Outstanding (1)	4 01-02 Growth	5 2002 Common Shares Outstanding (1)	6 02-03 Growth	7 2003 Common Shares Outstanding (1)	8 03-04 Growth	9 2004 Common Shares Outstanding (1)	10 04-05 Growth	11 2005 Common Shares Outstanding (1)	12 Five Year Average Common Share Growth
Proxy Group of Six AUS Utility Reports Water Companies												
American States Water Co.	15.120	0.0 %	15.120	0.4 %	15.181	0.2 %	15.212	10.1 %	16.752	0.3 %	16.798	2.2 %
Aqua America, Inc.	111.825	1.9	113.977	(0.7)	113.195	9.1	123.452	3.0	127.180	1.4	128.969	3.9 (2)
Artesian Resources Corp.	3.020	1.3	3.060	26.2	3.863	1.0	3.901	1.4	3.956	1.5	4.014	6.3
California Water Services Group	15.146	0.2	15.182	0.0	15.182	11.5	16.932	8.5	18.367	0.1	18.390	4.1
Middlesex Water Company	10.098	0.7	10.168	1.8	10.356	2.0	10.567	7.5	11.359	2.0	11.584	2.8
York Water Company	9.015 (3)	5.0	9.462 (3)	0.9	9.548 (3)	0.8	9.629 (3)	7.3	10.331 (3)	0.7	10.400 (3)	2.9
Average												3.7 %
Proxy Group of Four Value Line (Standard Edition) Water Companies												
American States Water Co.	15.120	0.0 %	15.120	0.4 %	15.181	0.2 %	15.212	10.1 %	16.752	0.3 %	16.798	2.2 %
Aqua America, Inc.	111.825	1.9	113.977	(0.7)	113.195	9.1	123.452	3.0	127.180	1.4	128.969	3.9 (2)
California Water Services Group	15.146	0.2	15.182	0.0	15.182	11.5	16.932	8.5	18.367	0.1	18.390	4.1
Southwest Water Company	13.172	2.5	13.499	(3.6)	13.012	18.4	15.403	25.9	19.395	8.9	21.129	13.9 (2)
Average												6.0 %

Notes: (1) Year-end shares outstanding.
(2) Excludes negatives.
(3) Adjusted for September 12, 2006 3-for-2 stock split.

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

Twin Lakes Utilities, Inc.
Calculation of the Premium/Discount of a
Company's Stock Price Relative to its Book Value, i.e., V Factor

	1	2	3	4	5	6	7
	2001 Market to Book Ratio (1)	2002 Market to Book Ratio (1)	2003 Market to Book Ratio (1)	2004 Market to Book Ratio (1)	2005 Market to Book Ratio (1)	Five Year Average Market to Book Ratio	V Factor (2)
Proxy Group of Six AUS Utility Reports Water Companies							
American States Water Co.	174.8 %	180.6 %	180.3 %	164.3 %	191.5 %	178.3 %	43.9 %
Aqua America, Inc.	303.5	289.8	295.6	291.4	383.8	312.8	68.0
Artesian Resources Corp.	163.8	162.1	184.5	192.8	211.1	182.9	45.3
California Water Services Group	197.4	181.6	199.8	212.6	231.6	204.6	51.1
Middlesex Water Company	236.9	232.9	247.9	241.7	238.9	239.7	58.3
York Water Company	214.9	281.5	286.9	287.4	311.0	276.3	63.8
Average						232.4 %	55.1 %
Proxy Group of Four Value Line (Standard Edition) Water Companies							
American States Water Co.	174.8 %	180.6 %	180.3 %	164.3 %	191.5 %	178.3 %	43.9 %
Aqua America, Inc.	303.5	289.8	295.6	291.4	383.8	312.8	68.0
California Water Services Group	197.4	181.6	199.8	212.6	231.6	204.6	51.1
Southwest Water Company	234.6	240.3	206.2	222.5	181.5	217.0	53.9
Average						228.2 %	54.2 %

Notes: (1) Market to Book Ratio = average of yearly high-low market price divided by the average of beginning and ending year's balance of book common equity per share.
(2) (1 - (100 / column 6)).

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

Twin Lakes Utilities, Inc.
Calculation of Projected BR + SV

	1	2	3	4	5	6	7	8	9	10	11
	Common Shares Outstanding (1) (000,000)			Projected 2009 - 2011 (1)							
	Actual 2005	Projected 2009-2011	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 AUS Utility Reports Water Companies											
American States Water Co.	16.80	20.50	4.1 %	45.00	30.00	20.00	$37.50	46.7 %	1.9 %	5.1 %	7.0 %
Aqua America, Inc.	128.97	134.00	0.8	35.00	20.00	9.00	27.50	67.3	0.5	6.3	6.8
Artesian Resources Corp.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
California Water Services Group	18.39	22.00	3.6	40.00	30.00	20.45	35.00	41.6	1.5	3.0	4.5
Middlesex Water Company	11.58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
York Water Company	10.40 (8)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average			2.8 %					51.9 %	1.3 %	4.8 %	6.1 %
Proxy Group of Four Value Line (Standard Edition) Water											
American States Water Co.	16.80	20.50	4.1 %	$45.00	$30.00	$20.00	$37.50	46.7 %	1.9 %	5.1 %	7.0 %
Aqua America, Inc.	128.97	134.00	0.8	35.00	20.00	9.00	27.50	67.3	0.5	6.3	6.8
California Water Services Group	18.39	22.00	3.6	40.00	30.00	20.45	35.00	41.6	1.5	3.0	4.5
Southwest Water Company	22.33	24.00	1.5	18.00	12.00	7.90	15.00	47.3	0.7	4.6	5.3
Average			2.5 %					50.7 %	1.2 %	4.8 %	5.9 %

NA = Not Available

Notes:
(1) From pages 8 through 13 of this Schedule.
(2) The S Factor is the six or five year compound growth rate between the 2005 and 2010 (mid-point of 2009-2011 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 9, column 14 of this Schedule.
(7) Column 9 + column 10.
(8) Adjusted for September 12, 2006 3-for-2 stock split.

Source of Information: Value Line Investment Survey, July 28, 2006

Twin Lakes Utilities, Inc.
Projected Internal Growth Rate

	1	2	3	4	6	6	7	8	9	10	11	12	13	14
	2005			2009-2011					2009-2011					
	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 AUS Utility Reports Water Companies														
American States Water Co.	49.60 %	$532.50	$264.12	49.00 %	$950.00	$408.00	9.09 %	1.04 %	10.00 %	10.40 %	$1.90	$0.96	49.5 %	5.1 %
Aqua America, Inc.	49.00	1,690.40	811.39	49.00	2,465.00	1,207.85	8.28	1.04	13.50	14.04	1.20	0.68	45.0	6.3
Artesian Resources Corp.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
California Water Services Group	51.40	571.60	293.80	50.00	900.00	450.00	8.90	1.04	9.00	9.36	1.80	1.22	32.2	3.0
Middlesex Water Company	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
York Water Company	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average														4.8 %
Proxy Group of Four Value Line (Standard Edition) Water Companies														
American States Water Co.	49.60 %	$532.50	$264.12	49.00 %	$950.00	$408.00	9.09 %	1.04 %	10.00 %	10.40 %	$1.90	$0.96	49.5 %	5.1 %
Aqua America, Inc.	49.00	1,690.40	811.39	49.00	2,465.00	1,207.85	8.28	1.04	13.50	14.04	1.20	0.68	45.0	6.3
California Water Services Group	51.40	571.60	293.80	50.00	900.00	450.00	8.90	1.04	9.00	9.36	1.80	1.22	32.2	3.0
Southwest Water Company	55.10	262.80	144.86	53.50	355.00	189.93	5.57	1.03	8.00	8.24	0.70	0.31	55.7	4.6
Average														4.8 %

NA = Not Available

Notes:
(1) From pages 8 through 13 of this Schedule.
(2) Column 1 * column 2.
(3) Column 4 * column 5.
(4) Five year compound growth rate in common equity from 2005 to 2009-2011 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, July 28, 2006

AMER. STATES WATER NYSE-AWR

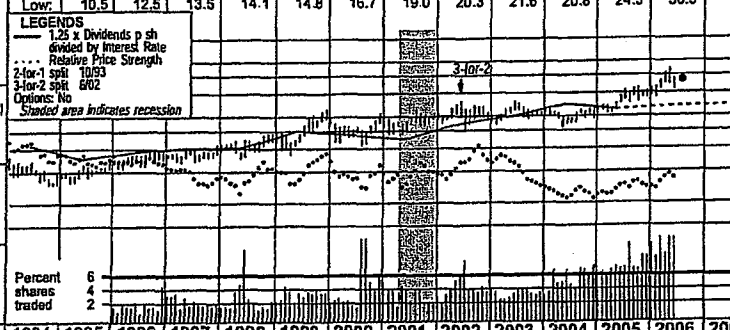
RECENT PRICE 37.73 | P/E RATIO 23.6 (Trailing: 25.8 Median: 17.0) | RELATIVE P/E RATIO 1.36 | DIV'D YLD 2.4% | VALUE LINE

TIMELINESS 3 Raised 3/24/06
SAFETY 3 New 2/4/00
TECHNICAL 3 Lowered 6/30/06
BETA .75 (1.00 = Market)

High:	14.0	16.1	17.1	19.5	26.5	25.3	26.4	29.0	29.0	26.8	34.6	43.8
Low:	10.5	12.5	13.5	14.1	14.8	16.7	19.0	20.3	21.6	20.8	24.3	30.3

Target Price Range 2009 | 2010 | 2011

LEGENDS
— 1.25 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 10/93
3-for-2 split 6/02
Options: No
Shaded area indicates recession



2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+20%)	7%
Low	30	(-20%)	-3%

Insider Decisions

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

Institutional Decisions

	3Q2005	4Q2005	1Q2006
to Buy	54	48	51
to Sell	33	41	44
Hld's(000)	6302	6273	7223

% TOT. RETURN 6/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	24.8	11.8
3 yr.	43.0	63.9
5 yr.	85.0	59.7

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
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	13.61	14.06	*15.45*	*15.60*	Revenues per sh	*18.05*
1.49	1.78	1.81	1.67	1.68	1.75	1.76	1.85	2.04	2.26	2.20	2.53	2.54	2.08	2.23	2.64	*3.00*	*3.05*	"Cash Flow" per sh	*3.60*
.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	1.32	*1.60*	*1.65*	Earnings per sh A	*1.90*
.72	.73	.77	.79	.80	.81	.82	.83	.84	.85	.86	.87	.87	.88	.89	.90	*.91*	*.92*	Div'd Decl'd per sh B■	*.96*
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	5.03	4.24	*4.00*	*4.10*	Cap'l Spending per sh	*4.50*
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	15.01	15.72	*17.00*	*17.85*	Book Value per sh	*20.00*
9.43	9.91	9.96	11.71	11.77	11.77	13.33	13.44	13.44	13.44	15.12	15.12	15.18	15.21	16.75	16.80	*17.50*	*18.25*	Common Shs Outst'g C	*20.50*
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	21.9	*Bold figures are*		Avg Ann'l P/E Ratio	*19.5*
.76	.56	.64	.79	.84	.78	.79	.84	.81	.97	1.03	.86	1.00	1.82	1.23	1.17	*Value Line*		Relative P/E Ratio	*1.25*
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%	3.6%	3.1%	*estimates*		Avg Ann'l Div'd Yield	*2.6%*

CAPITAL STRUCTURE as of 3/31/06
Total Debt $299.9 mill. Due in 5 Yrs $30.0 mill.
LT Debt $268.3 mill. LT Interest $20.0 mill.
(LT interest earned: 4.4x: total interest coverage: 4.1x) (50% of Cap'l)

Leases, Uncapitalized: None
Pension Assets-12/05 $56.6 mill.
Oblig. $83.2 mill.
Pfd Stock None. Pfd Div'd None.

Common Stock 16,825,639 shs.
MARKET CAP: $625 million (Small Cap)

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		09-11
151.5	153.8	148.1	173.4	184.0	197.5	209.2	212.7	228.0	236.2	*270*	*285*	Revenues ($mill)	*370*
13.5	14.1	14.6	16.1	18.0	20.4	20.3	11.9	16.5	22.5	*28.5*	*31.0*	Net Profit ($mill)	*40.0*
43.3%	41.1%	40.9%	46.0%	45.7%	43.0%	38.9%	43.5%	37.4%	47.0%	*42.0%*	*42.0%*	Income Tax Rate	*42.0%*
--	--	--	--	--	--	--	--	--	--	*Nil*	*Nil*	AFUDC % to Net Profit	*Nil*
41.9%	43.0%	43.6%	51.0%	47.5%	54.9%	52.0%	52.0%	47.7%	50.4%	*50.5%*	*51.0%*	Long-Term Debt Ratio	*52.0%*
57.3%	56.3%	55.7%	48.4%	51.9%	44.7%	48.0%	48.0%	52.3%	49.6%	*49.5%*	*49.0%*	Common Equity Ratio	*48.0%*
256.0	268.4	277.1	328.2	371.1	447.6	444.4	442.3	480.4	532.5	*600*	*665*	Total Capital ($mill)	*850*
357.8	383.6	414.8	449.6	509.1	539.8	563.3	602.3	664.2	713.2	*785*	*835*	Net Plant ($mill)	*1000*
6.9%	6.9%	7.0%	6.6%	6.4%	6.1%	6.5%	4.6%	5.2%	5.4%	*6.5%*	*6.5%*	Return on Total Cap'l	*6.5%*
9.0%	9.2%	9.4%	10.0%	9.2%	10.1%	9.5%	5.6%	6.6%	8.5%	*9.5%*	*9.5%*	Return on Shr. Equity	*10.0%*
9.0%	9.2%	9.4%	10.1%	9.3%	10.1%	9.5%	5.6%	6.6%	8.5%	*9.5%*	*9.5%*	Return on Com Equity	*10.0%*
2.4%	1.8%	2.1%	2.9%	3.0%	3.6%	3.3%	NMF	1.0%	2.8%	*4.0%*	*4.5%*	Retained to Com Eq	*5.0%*
73%	80%	78%	72%	68%	65%	65%	113%	84%	67%	*56%*	*54%*	All Div'ds to Net Prof	*50%*

CURRENT POSITION ($MILL.)	2004	2005	3/31/06
Cash Assets	4.3	13.0	14.4
Receivables	14.3	13.3	10.0
Inventory (Avg Cst)	1.5	1.4	1.4
Other	32.9	41.2	42.0
Current Assets	53.0	68.9	67.8
Accts Payable	18.2	19.7	20.0
Debt Due	45.9	27.6	31.6
Other	22.2	30.3	48.4
Current Liab.	86.3	77.6	80.4
Fix. Chg. Cov.	246%	325%	335%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	3.0%	3.0%	*3.5%*
"Cash Flow"	3.0%	1.5%	*4.5%*
Earnings	--	-2.5%	*4.5%*
Dividends	1.0%	1.0%	*1.0%*
Book Value	4.0%	4.5%	*5.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2003	46.7	51.8	63.7	50.5	212.7
2004	46.7	59.3	69.0	53.0	228.0
2005	49.8	60.5	68.1	57.8	236.2
2006	60.6	*68.0*	*77.0*	*64.4*	*270*
2007	*63.0*	*73.0*	*81.0*	*68.0*	*285*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2003	.20	.19	.51	d.12	.78
2004	.08	.30	.52	.15	1.05
2005	.22	.34	.47	.29	1.32
2006	.35	*.38*	*.55*	*.32*	*1.60*
2007	*.31*	*.42*	*.58*	*.34*	*1.65*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.217	.217	.217	.221	.87
2003	.221	.221	.221	.221	.88
2004	.221	.221	.221	.225	.89
2005	.225	.225	.225	.225	.90
2006	.225	.225			

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State 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 23,000 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 515 employees. Off. & dir. own 3.1% of common stock (4/06 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.

We have raised our 2006 share-net estimate for American States Water by $0.15, to $1.60. Although $0.11 of the increase is attributable to a better-than-expected first quarter, we have also raised our second-half estimate by roughly a nickel. Usage rates for water are rising. We suspect that this trend will continue as the year progresses and weather patterns take a more normal shape. Water consumption levels declined about 4% in 2005 because of unusually rainy conditions. Meanwhile, we are also encouraged by recent changes to the California Public Utilities Commission (CPUC). Long a nemesis to utility companies looking for rate relief, the CPUC is showing signs of being more business friendly in recent months. Indeed, the board has been redesigned and now looks to be handing down more timely and favorable rulings. This is a major boon for AWR.

Still, we look for earnings growth to slow in 2007. Despite the improving regulatory backdrop, we remain extremely concerned about elevated infrastructure costs, given the state of the company's water systems. Indeed, EPA demands for water quality will likely only grow more stringent with time. Unfortunately, AWR does not have the means to fund many of these changes internally and will likely have to look to equity and debt markets in order to do so. Such undertakings will likely cause earnings growth to slow considerably in 2007 and to late decade, as well as preclude the company from participating in the attractive acquisition market. We estimate earnings of $1.65 a share in 2007.

We think that most investors would be better served to look elsewhere. Although untimely AWR shares have tumbled roughly 10% since our April report, their 3- to 5-year total-return potential is unexciting, given the concerns we have about infrastructure costs. In fact, the stock is trading within our 2009-2011 Target Price Range. Meanwhile, there are better income vehicles out there at this time. It should be noted, however, that the company's foray into military bases is paying off. Continued progression in this area could be accretive to our current 2009-2011 projections.

Andre J. Costanza *July 28, 2006*

(A) Primary earnings. Excludes nonrecurring gains: '91, 73¢; '92, 13¢; '04, 14¢; '05, 25¢. Quarterly earnings may not sum due to change in share count. Next earnings report due early August.
(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	80
Price Growth Persistence	80
Earnings Predictability	60

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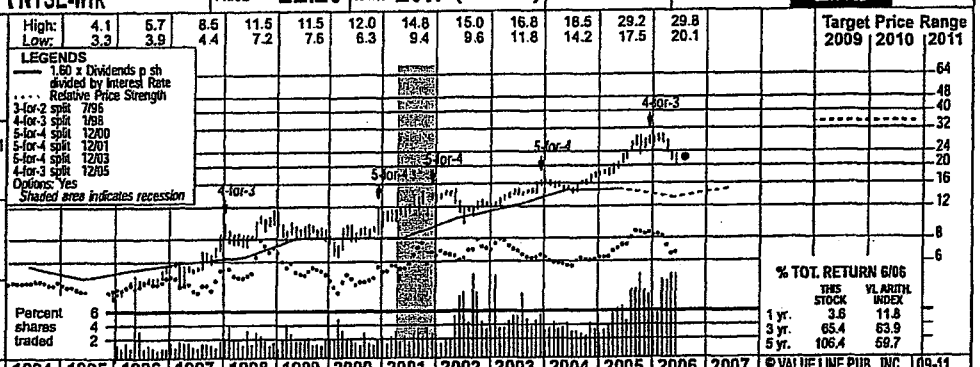
AQUA AMERICA NYSE-WTR

RECENT PRICE 22.25 | P/E RATIO 29.7 (Trailing: 32.2 Median: 23.0) | RELATIVE P/E RATIO 1.71 | DIV'D YLD 1.9% | VALUE LINE

TIMELINESS 5 Lowered 5/12/06
SAFETY 3 Lowered 8/1/03
TECHNICAL 4 Raised 7/28/06
BETA .80 (1.00 = Market)

High:	4.1	5.7	8.5	11.5	11.5	12.0	14.8	15.0	16.8	18.5	29.2	29.8
Low:	3.3	3.9	4.4	7.2	7.6	6.3	9.4	9.6	11.8	14.2	17.5	20.1

Target Price Range 2009 | 2010 | 2011



2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+55%)	14%
Low	20	(-10%)	Nil

Insider Decisions

	S	O	N	D	J	F	M	A	M
to Buy	0	0	0	0	0	0	0	0	0
Options	2	3	2	1	2	2	0	1	0
to Sell	3	3	2	1	2	1	0	1	0

Institutional Decisions

	3Q2005	4Q2005	1Q2006
to Buy	124	112	111
to Sell	73	123	93
Hld's(000)	37964	37756	39210

% TOT. RETURN 6/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	3.6	11.8
3 yr.	65.4	63.9
5 yr.	106.4	59.7

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
2.02	2.14	1.82	1.70	1.82	1.84	1.86	2.02	2.09	2.41	2.46	2.70	2.85	2.97	3.48	3.85	4.15	4.60	Revenues per sh	5.05
.43	.45	.39	.42	.42	.47	.50	.56	.61	.72	.76	.86	.94	.96	1.09	1.21	1.30	1.40	"Cash Flow" per sh	1.65
.24	.25	.24	.24	.26	.29	.30	.34	.40	.42	.47	.51	.54	.57	.64	.71	.75	.85	Earnings per sh A	1.20
.19	.19	.20	.21	.21	.22	.23	.24	.26	.27	.28	.30	.32	.35	.37	.40	.44	.49	Div'd Decl'd per sh B■	.66
.76	.54	.60	.47	.46	.52	.48	.58	.82	.90	1.16	1.09	1.20	1.32	1.54	1.84	1.90	2.15	Cap'l Spending per sh	2.60
2.10	2.07	2.09	2.29	2.41	2.46	2.69	2.84	3.21	3.42	3.85	4.15	4.36	5.34	5.89	6.30	6.75	7.20	Book Value per sh	9.00
40.64	41.42	51.20	59.40	59.77	63.74	65.75	67.47	72.20	106.80	111.62	113.97	113.19	123.45	127.18	128.97	130.00	131.00	Common Shs Outst'g C	134.00
10.2	10.8	12.5	14.4	13.5	12.0	15.6	17.8	22.5	21.2	18.2	23.6	23.6	24.5	25.1	31.8	Bold figures are		Avg Ann'l P/E Ratio	23.0
.76	.69	.76	.85	.89	.80	.98	1.03	1.17	1.21	1.18	1.21	1.29	1.40	1.33	1.70	Value Line		Relative P/E Ratio	1.55
7.7%	7.2%	6.8%	5.9%	6.0%	6.2%	4.9%	3.9%	2.9%	3.0%	3.3%	2.5%	2.5%	2.5%	2.3%	1.8%	estimates		Avg Ann'l Div'd Yield	2.4%

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		09-11
122.5	136.2	151.0	257.3	275.5	307.3	322.0	367.2	442.0	496.8	540	605	Revenues ($mill)	675
19.8	23.2	28.8	45.0	50.7	58.5	62.7	67.3	80.0	91.2	100	110	Net Profit ($mill)	160
41.4%	40.6%	40.5%	38.4%	38.9%	39.3%	38.5%	39.3%	39.4%	38.4%	39.0%	39.0%	Income Tax Rate	39.0%
--	--	--	--	--	--	--	--	2.9%	2.6%	2.5%	2.5%	AFUDC % to Net Profit	2.0%
54.1%	54.4%	52.7%	52.9%	52.0%	52.2%	54.2%	51.4%	50.0%	52.0%	51.0%	51.0%	Long-Term Debt Ratio	51.0%
44.0%	44.8%	46.6%	46.7%	47.8%	47.7%	45.8%	48.6%	50.0%	48.0%	49.0%	49.0%	Common Equity Ratio	49.0%
401.7	427.2	496.6	782.7	901.1	990.4	1076.2	1355.7	1497.3	1690.4	1785	1920	Total Capital ($mill)	2465
502.9	534.5	609.8	1135.4	1251.4	1368.1	1490.8	1824.3	2069.8	2280.0	2410	2545	Net Plant ($mill)	3010
6.8%	7.4%	7.6%	7.5%	7.4%	7.8%	7.6%	6.4%	6.7%	6.9%	7.0%	7.5%	Return on Total Cap'l	8.0%
10.7%	11.9%	12.3%	12.2%	11.7%	12.3%	12.7%	10.2%	10.7%	11.2%	11.5%	11.5%	Return on Shr. Equity	13.5%
11.2%	12.0%	12.4%	12.3%	11.7%	12.4%	12.7%	10.2%	10.7%	11.2%	11.5%	11.5%	Return on Com Equity	13.5%
2.6%	3.6%	4.5%	4.3%	4.7%	5.1%	5.2%	4.2%	4.6%	4.9%	5.0%	5.5%	Retained to Com Eq	6.0%
75%	70%	64%	65%	60%	59%	59%	59%	57%	56%	57%	58%	All Div'ds to Net Prof	55%

CAPITAL STRUCTURE as of 3/31/06
Total Debt $1108.4 mill. Due in 5 Yrs $280.0 mill.
LT Debt $916.5 mill. LT Interest $50.0 mill.
(LT interest earned: 3.4x; total interest coverage: 2.9x) (53% of Cap'l)

Pension Assets-12/05 $117.7 mill. Oblig. $179.7 mill.

Pfd Stock None
Common Stock 129,512,881 shares as of 4/21/06

MARKET CAP: $2.9 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2004	2005	3/31/06
Cash Assets	13.1	11.9	51.4
Receivables	64.5	62.7	57.6
Inventory (AvgCst)	6.9	7.8	8.8
Other	5.6	7.6	8.0
Current Assets	90.1	90.0	125.8
Accts Payable	23.5	55.5	29.9
Debt Due	135.3	163.1	191.9
Other	58.6	44.7	46.7
Current Liab.	217.4	263.3	268.5
Fix. Chg. Cov.	364%	377%	284%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	7.0%	8.0%	7.0%
"Cash Flow"	9.5%	9.5%	9.0%
Earnings	9.0%	8.5%	11.0%
Dividends	6.0%	6.5%	10.0%
Book Value	9.5%	11.0%	7.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	80.5	83.4	102.1	101.2	367.2
2004	99.8	106.5	120.3	115.4	442.0
2005	114.0	123.1	136.8	122.9	496.8
2006	117.9	135	145	142.1	540
2007	135	150	165	155	605

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	.11	.14	.18	.14	.57
2004	.13	.14	.20	.17	.64
2005	.15	.17	.22	.17	.71
2006	.13	.17	.25	.20	.75
2007	.16	.19	.28	.22	.85

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.08	.08	.08	.084	.32
2003	.084	.084	.084	.09	.34
2004	.09	.09	.09	.098	.37
2005	.098	.098	.098	.108	.40
2006	.108	.108			

BUSINESS: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately 2.5 million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Divested three of four non-water businesses in '91; telemarketing group in '93; and others. Acquired AquaSource, 7/03; Consumers Water, 4/99; and others. Water supply revenues '05: residential, 59%; commercial, 15%; industrial & other, 26%. Officers and directors own 1.2% of the common stock (4/06 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.

Aqua America is suffering from regulatory lag. First-quarter share net was $0.13, a bit below our estimate, and revenues, too, fell slightly (2%) short of our tally. The water utilities giant is being hurt by high fuel costs and unfavorable timing of its rate cases. The company is awaiting judgment on over $50 million of annual rate hikes. The stock has come under increasing pressure since management announced first-half earnings growth in 2006 would be below historical averages. Therefore, we suspect profit growth this year will be confined to the latter two quarters.

Accordingly, earnings comparisons should turn positive by the September interim. Aqua announced in June that a rate case settlement was approved in Pennsylvania. The win will augment annual revenue by about $25 million, a 9.2% increase over current rates in the state. The new rates should take effect in time to support third-quarter revenue growth.

The acquisition of New York Water Service should further top-line advances in 2007. The system would cost $51 million and enhance Aqua's total customer count by 135,000 (5%). As well, it ought to contribute roughly $0.02 a share to the bottom line beginning in 2007. Aqua already supplies water to New York, but because New York Water Service does not encroach on any existing infrastructure, cannibalization should be minimal. New York will become Aqua's seventh-largest state when the deal closes later this year.

The company's growth strategy, for the most part, centers around acquisitions. The highly fragmented nature of the water industry facilitates industry consolidation by big players like Aqua. Many of the smaller water utilities are run less efficiently than Aqua's divisions; it is their capacity for improvement that make them good targets for acquisition. The company's most recent purchase was a troubled water system in North Carolina, bringing the total number of transactions closed this year to 10. We expect another five deals to close by yearend.

This stock is ranked 5 (Lowest) for year-ahead performance. Despite a recent price drop, Aqua is still trading at a hefty premium. Moreover, the water utility sector seems to be cooling down.

Praneeth Satish *July 28, 2006*

(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 August. (B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd. reinvestment plan available (5% discount). (C) In millions, adjusted for stock splits

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

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CALIFORNIA WATER NYSE-CWT

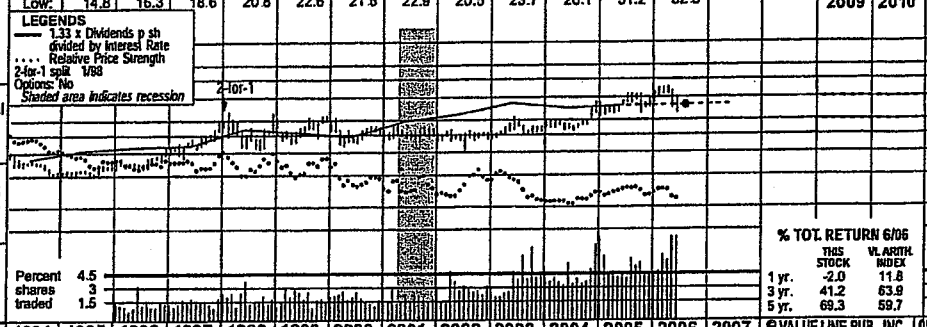
RECENT PRICE 36.25 | P/E RATIO 22.0 (Trailing: 24.5 Median: 19.0) | RELATIVE P/E RATIO 1.26 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 4 Raised 11/4/05
SAFETY 2 Lowered 8/11/95
TECHNICAL 3 Lowered 7/7/06
BETA .80 (1.00 = Market)

High:	17.6	21.9	29.6	33.8	32.0	31.4	28.6	26.9	31.4	37.9	42.1	45.8
Low:	14.8	16.3	18.6	20.8	22.6	21.5	22.9	20.5	23.7	26.1	31.2	32.8

Target Price Range 2009 | 2010 | 2011

LEGENDS
— 1.33 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 1/98
Options: No
Shaded area indicates recession



2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+10%)	6%
Low	30	(-15%)	-1%

Insider Decisions

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

Institutional Decisions

	3Q2005	4Q2005	1Q2006
to Buy	38	39	36
to Sell	39	32	35
Hld's(000)	4897	4959	5618

% TOT. RETURN 6/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	-2.0	11.8
3 yr.	41.2	63.9
5 yr.	69.3	59.7

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
10.93	11.18	12.29	13.34	12.59	13.17	14.48	15.48	14.76	15.98	16.16	16.26	17.33	16.37	17.18	17.44	*17.30*	*18.70*	Revenues per sh	*21.60*
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	2.83	3.04	*3.05*	*3.40*	"Cash Flow" per sh	*3.60*
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	1.47	*1.65*	*1.75*	Earnings per sh A	*1.80*
.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*	*1.16*	Div'd Decl'd per sh B ■	*1.22*
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	5.14	*5.00*	*4.50*	Cap'l Spending per sh	*4.00*
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	15.66	15.98	*16.70*	*17.50*	Book Value per sh C	*20.45*
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	18.39	*19.00*	*19.50*	Common Shs Outst'g D	*22.00*
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	24.9	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
.77	.72	.86	.80	.92	.92	.75	.73	.93	1.01	1.27	1.39	1.08	1.26	1.06	1.30	*Value Line*		Relative P/E Ratio	*1.25*
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%	3.9%	3.1%	*estimates*		Avg Ann'l Div'd Yield	*3.5%*

CAPITAL STRUCTURE as of 3/31/06
Total Debt $282.4 mill. Due in 5 Yrs $9.0 mill.
LT Debt $273.8 mill. LT Interest $18.5 mill.

(LT interest earned: 3.5x; total int. cov.: 3.2x)

Pension Assets-12/05 $70.2 mill.
Oblig. $103.2 mill.
Pfd Stock $3.5 mill. Pfd Div'd $.15 mill.
139,000 shares, 4.4% cumulative ($25 par).

Common Stock 18,406,638 shs.
as of 5/2/06
MARKET CAP: $675 million (Small Cap)

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		09-11
182.8	195.3	186.3	206.4	244.8	246.8	263.2	277.1	315.6	320.7	*345*	*365*	Revenues ($mill)	*475*
19.1	23.3	18.4	19.9	20.0	14.4	19.1	19.4	26.0	27.2	*30.0*	*35.0*	Net Profit ($mill)	*40.0*
38.9%	37.4%	36.4%	37.9%	42.3%	39.4%	39.7%	39.9%	39.6%	42.4%	*40.0%*	*40.5%*	Income Tax Rate	*40.0%*
--	--	--	--	--	--	--	10.3%	--	--	*Nil*	*Nil*	AFUDC % to Net Profit	*Nil*
47.4%	45.4%	44.2%	46.9%	48.9%	50.3%	55.3%	50.2%	48.6%	48.0%	*48.5%*	*49.0%*	Long-Term Debt Ratio	*49.5%*
51.4%	53.5%	54.7%	52.0%	50.2%	48.8%	44.0%	49.1%	50.8%	51.4%	*51.0%*	*50.5%*	Common Equity Ratio	*50.0%*
299.9	306.7	308.6	333.8	388.8	402.7	453.1	498.4	585.9	571.6	*625*	*675*	Total Capital ($mill)	*900*
443.6	460.4	478.3	515.4	582.0	624.3	697.0	759.5	800.3	856.7	*925*	*950*	Net Plant ($mill)	*1125*
8.3%	9.4%	7.8%	7.8%	6.8%	5.3%	5.9%	5.6%	6.1%	6.4%	*6.5%*	*6.5%*	Return on Total Cap'l	*6.5%*
12.1%	13.9%	10.7%	11.2%	10.0%	7.2%	9.4%	7.8%	8.9%	9.1%	*9.5%*	*10.5%*	Return on Shr. Equity	*9.0%*
12.3%	14.1%	10.8%	11.4%	10.1%	7.2%	9.5%	7.9%	9.0%	9.3%	*9.5%*	*10.5%*	Return on Com Equity	*9.0%*
3.8%	6.0%	2.8%	3.5%	1.8%	NMF	1.0%	.7%	2.1%	2.1%	*2.5%*	*4.0%*	Retained to Com Eq	*3.0%*
69%	58%	74%	70%	82%	119%	90%	91%	77%	77%	*73%*	*63%*	All Div'ds to Net Prof	*67%*

CURRENT POSITION ($MILL.)	2004	2005	3/31/06
Cash Assets	18.8	9.5	5.1
Other	51.6	42.7	39.2
Current Assets	70.4	52.2	44.3
Accts Payable	19.8	36.1	28.9
Debt Due	1.1	1.1	8.6
Other	36.3	39.6	44.8
Current Liab.	57.2	76.8	82.3
Fix. Chg. Cov.	338%	361%	*370%*

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	3.0%	2.0%	*3.5%*
"Cash Flow"	2.5%	-0.5%	*4.5%*
Earnings	0.5%	-4.0%	*4.5%*
Dividends	1.5%	1.0%	*1.0%*
Book Value	2.5%	1.5%	*5.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	51.3	68.0	88.2	69.6	277.1
2004	60.2	88.9	97.1	69.4	315.6
2005	60.3	81.5	101.1	77.8	320.7
2006	65.2	*94.8*	*105*	*80.0*	*345*
2007	*70.0*	*100*	*110*	*85.0*	*365*

Cal-endar	EARNINGS PER SHARE A E Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	d.05	.30	.53	.41	1.21
2004	.08	.59	.59	.20	1.46
2005	.03	.41	.71	.32	1.47
2006	.04	*.56*	*.72*	*.33*	*1.65*
2007	*.08*	*.58*	*.74*	*.35*	*1.75*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.28	.28	.28	.28	1.12
2003	.281	.281	.281	.281	1.12
2004	.283	.283	.283	.283	1.13
2005	.285	.285	.285	.285	1.14
2006	.2875	.2875			

BUSINESS: California Water Service Group provides regulated and nonregulated water service to over 2 million people (456,700 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, '05: residential, 69%; business, 18%; public authorities, 5%; industrial, 4%; other, 4%. '05 reported deprec. rate: 3.6%. Has about 840 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.

California Water Service Group looks to be dealing with a more favorable regulatory administration. In the past, the California Public Utilities Commission (CPUC), which is in charge of supervising local utilities, was not very friendly to those seeking rate relief. Indeed, decisions were typically unfavorable compared to other states and, in many cases, delayed. However, since taking office, Governor Schwarzenegger has made it a priority to correct the regulatory environment. Personnel changes made under his tenure have improved the climate for rates of return, and significantly cleared the backlog of cases pending decisions. This is obviously a positive development for CWT, which files a general rate case (GRC) each year for eight of its 24 districts. It is currently waiting for a ruling on its 2005 GRC, requesting about $11 million, assuming a 12.23% return on equity. Meanwhile, the commission has also ruled that utilities could recover costs tracked in balancing accounts without having to pass an earnings test. We look for a double-digit earnings advance this year.

Infrastructure costs will probably remain a thorn in the company's side going forward, though. The costs of maintaining well and pipeline infrastructures continue to rise due to the growing demands of the EPA for drinking water standards. However, CWT does not currently have the means to continuously meet these expenses and will likely have to look to equity and debt markets to foot the bill. Meanwhile, we our also concerned that the financial burden will prevent CWT from taking advantage of the highly fragmented industry and making acquisitions. Therefore, we look for bottom-line growth to moderate considerably in 2007 and thereafter out to late decade.

Most investors will want to take a pass on these untimely shares. Indeed, they still hold below-average 3- to 5-year appreciation potential, despite about a 25% slide in price since our April review. (Business appears to be fine, although the stock got ahead of itself.) Dividend growth is likely to be slow but steady. However, the current yield doesn't especially stand out. Income-minded investors have better alternatives to choose from.

Andre J. Costanza *July 28, 2006*

(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (7¢); '01, 4¢; 02, 8¢. Next earnings report due late October.
(B) Dividends historically paid in mid-Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available.
(C) Incl. deferred charges. In '05: $63.9 mill., $3.47/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	85
Price Growth Persistence	95
Earnings Predictability	65

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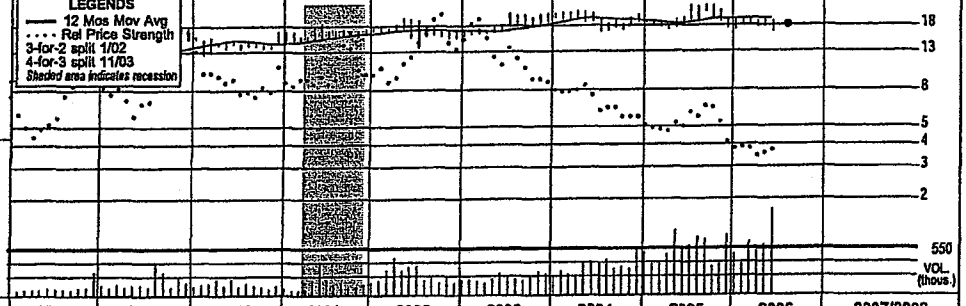
MIDDLESEX WATER NDQ-MSEX

RECENT PRICE 18.17 | TRAILING P/E RATIO 24.6 | RELATIVE P/E RATIO 1.29 | DIV'D YLD 3.7% | VALUE LINE

RANKS		
PERFORMANCE	3	Average
Technical	3	Average
SAFETY	3	Average
BETA .80	(1.00 = Market)	
Financial Strength	B+	
Price Stability	80	
Price Growth Persistence	75	
Earnings Predictability	70	

	12.88	19.75	16.97	18.73	20.04	21.23	21.81	23.47	19.72	High
	9.63	10.50	12.50	14.69	13.73	15.77	16.65	17.07	16.50	Low



© VALUE LINE PUBLISHING, INC.	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007/2008
SALES PER SH	4.39	5.35	5.39	5.87	5.98	6.12	6.25	6.44	--	
"CASH FLOW" PER SH	1.02	1.19	.99	1.18	1.20	1.15	1.28	1.33	--	
EARNINGS PER SH	.71	.76	.51	.66	.73	.61	.73	.71	.74 A,B	.77 C/NA
DIV'DS DECL'D PER SH	.58	.60	.61	.62	.63	.65	.66	.67	--	
CAP'L SPENDING PER SH	2.68	2.33	1.32	1.25	1.59	1.87	2.54	2.18	--	
BOOK VALUE PER SH	6.80	6.95	6.98	7.11	7.39	7.60	8.38	8.60	--	
COMMON SHS OUTST'G (MILL)	9.82	10.00	10.11	10.17	10.36	10.48	11.36	11.58	--	
AVG ANN'L P/E RATIO	15.2	17.6	28.7	24.6	23.5	30.0	26.4	27.4	24.6	23.6/NA
RELATIVE P/E RATIO	.79	1.00	1.87	1.26	1.28	1.71	1.39	1.46	--	
AVG ANN'L DIV'D YIELD	5.4%	4.4%	4.2%	3.8%	3.7%	3.5%	3.4%	3.5%	--	
SALES ($MILL.)	43.1	53.5	54.5	59.6	61.9	64.1	71.0	74.6	--	Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.
OPERATING MARGIN	37.0%	33.9%	32.2%	47.2%	47.1%	44.0%	44.4%	44.4%	--	
DEPRECIATION ($MILL)	3.8	4.3	4.9	5.3	5.0	5.6	6.4	7.2	--	
NET PROFIT ($MILL)	6.5	7.9	5.3	7.0	7.8	6.6	8.4	8.5	--	
INCOME TAX RATE	31.5%	26.8%	33.1%	34.8%	33.3%	32.8%	31.1%	27.6%	--	
NET PROFIT MARGIN	15.1%	14.7%	9.7%	11.7%	12.5%	10.3%	11.9%	11.4%	--	
WORKING CAP'L ($MILL)	14.6	6.8	d2.7	d.9	d9.3	d13.3	d11.8	d4.5	--	
LONG-TERM DEBT ($MILL)	78.0	82.3	81.1	88.1	87.5	97.4	115.3	128.2	--	
SHR. EQUITY ($MILL)	71.7	74.6	74.7	76.4	80.6	83.7	99.2	103.6	--	
RETURN ON TOTAL CAP'L	5.7%	6.4%	4.9%	5.6%	6.0%	5.0%	5.1%	5.0%	--	
RETURN ON SHR. EQUITY	9.1%	10.6%	7.1%	9.1%	9.6%	7.9%	8.5%	8.2%	--	
RETAINED TO COM EQ	1.8%	2.5%	NMF	.5%	1.3%	NMF	.9%	.5%	--	
ALL DIV'DS TO NET PROF	81%	78%	121%	94%	87%	106%	90%	94%	--	

A No. of analysts changing earn. est. in last 15 days: 0 up, 0 down, consensus 5-year earnings growth 3.5% per year. B Based upon one analyst's estimate. C Based upon one analyst's estimate.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	4.5%	3.0%
"Cash Flow"	3.5%	3.5%
Earnings	1.0%	-2.5%
Dividends	2.0%	1.5%
Book Value	3.5%	2.5%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/04	15.9	17.8	19.8	17.5	71.0
12/31/05	16.7	18.4	20.8	18.7	74.6
12/31/06	18.2				
12/31/07					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/03	.11	.17	.22	.11	.61
12/31/04	.09	.16	.29	.19	.73
12/31/05	.12	.16	.26	.17	.71
12/31/06	.15	.16	.26	.17	
12/31/07					

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2003	.161	.161	.161	.165	.65
2004	.165	.165	.165	.168	.66
2005	.168	.168	.168	.17	.67
2006	.17	.17			

INSTITUTIONAL DECISIONS

	3Q'05	4Q'05	1Q'06
to Buy	20	11	18
to Sell	15	21	18
Hld's(000)	1938	1707	1789

ASSETS ($mill.)	2004	2005	3/31/06
Cash Assets	4.0	3.0	3.3
Receivables	9.9	11.8	10.4
Inventory (Avg cost)	1.2	1.3	1.4
Other	.9	.9	.6
Current Assets	16.0	17.0	15.7
Property, Plant & Equip, at cost	314.9	343.0	--
Accum Depreciation	52.0	55.0	--
Net Property	262.9	288.0	293.1
Other	26.7	19.4	19.0
Total Assets	305.6	324.4	327.8
LIABILITIES ($mill.)			
Accts Payable	6.0	6.0	4.1
Debt Due	12.1	5.9	9.2
Other	9.7	9.6	11.0
Current Liab	27.8	21.5	24.3

LONG-TERM DEBT AND EQUITY as of 3/31/06

Total Debt $137.0 mill. Due in 5 Yrs. NA
LT Debt $127.8 mill.
Including Cap. Leases NA (55% of Cap'l)
Leases, Uncapitalized Annual rentals NA

Pension Liability $6.7 mill in '05 vs. $5.5 mill. in '04

Pfd Stock $4.0 mill Pfd Div'd Paid $.2 mill. (2% of Cap'l)

Common Stock 11,603,238 shares (43% 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. Has 231 employees. Chairman: J. Richard Tompkins. Inc.: NJ. Address: 1500 Ronson Road, P.O. Box 1500, Iselin, NJ 08830. Tel.: (732) 634-1500. Internet: http://www.middlesexwater.com.

A.O.

July 28, 2006

TOTAL SHAREHOLDER RETURN
Dividends plus appreciation as of 6/30/2006

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
0.82%	11.14%	0.93%	13.11%	32.34%

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YORK WATER CO NDQ-YORW

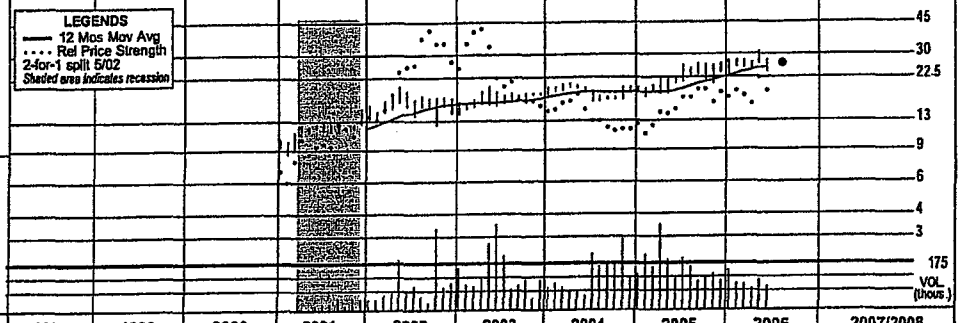
RECENT PRICE 26.76 | TRAILING P/E RATIO 31.9 | RELATIVE P/E RATIO 1.67 | DIV'D YLD 2.5% | VALUE LINE

	1998	1999	2000	2001	2002	2003	2004	2005	2006
High				15.33	20.17	20.23	21.04	26.81	31.48
Low				8.50	12.30	14.00	16.50	17.50	23.00

RANKS

PERFORMANCE 3 Average
Technical 4 Below Average
SAFETY 3 Average
BETA .45 (1.00 = Market)

Financial Strength B+
Price Stability 65
Price Growth Persistence NMF
Earnings Predictability 85



© VALUE LINE PUBLISHING, INC.	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007/2008
REVENUES PER SH	–	–	–	3.08	3.07	3.25	3.27	3.87	–	
"CASH FLOW" PER SH	–	–	–	.88	.86	.97	.98	1.18	–	
EARNINGS PER SH	–	–	–	.65	.60	.70	.73	.84	.90 A,B	.97 C/NA
DIV'D DECL'D PER SH	–	–	–	.51	.53	.55	.59	.64	–	
CAP'L SPENDING PER SH	–	–	–	1.12	.99	1.61	3.76	2.53	–	
BOOK VALUE PER SH	–	–	–	5.69	5.85	6.08	6.98	7.27	–	
COMMON SHS OUTST'G (MILL)	–	–	–	6.31	6.36	6.42	6.89	6.93	–	
AVG ANN'L P/E RATIO	–	–	–	17.9	26.9	24.5	25.7	26.3	29.7	27.6/NA
RELATIVE P/E RATIO	–	–	–	.92	1.47	1.40	1.36	1.40	–	
AVG ANN'L DIV'D YIELD	–	–	–	4.3%	3.3%	3.2%	3.1%	2.9%	–	
REVENUES ($MILL)	–	–	18.5	19.4	19.6	20.9	22.5	26.8	–	Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.
NET PROFIT ($MILL)	–	–	3.8	4.0	3.8	4.4	4.8	5.8	–	
INCOME TAX RATE	–	–	35.7%	35.8%	34.9%	34.8%	36.7%	36.7%	–	
AFUDC % TO NET PROFIT	–	–	–	2.2%	3.7%	–	–	–	–	
LONG-TERM DEBT RATIO	–	–	50.2%	47.7%	46.7%	43.4%	42.5%	44.1%	–	
COMMON EQUITY RATIO	–	–	49.8%	52.3%	53.3%	56.6%	57.5%	55.9%	–	
TOTAL CAPITAL ($MILL)	–	–	65.2	68.6	69.9	69.0	83.6	90.3	–	
NET PLANT ($MILL)	–	–	97.0	102.3	106.7	116.5	140.0	155.3	–	
RETURN ON TOTAL CAP'L	–	–	7.9%	7.9%	7.4%	8.5%	7.6%	8.4%	–	
RETURN ON SHR. EQUITY	–	–	11.6%	11.2%	10.2%	11.4%	10.0%	11.6%	–	
RETURN ON COM EQUITY	–	–	11.6%	11.2%	10.2%	11.4%	10.0%	11.6%	–	
RETAINED TO COM EQ	–	–	2.5%	2.5%	1.3%	2.6%	2.1%	3.0%	–	
ALL DIV'DS TO NET PROF	–	–	78%	78%	88%	77%	79%	74%	–	

A No. of analysts changing earn. est. in last 15 days: 0 up, 0 down, consensus 5-year earnings growth 7.0% 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	–	18.5%
"Cash Flow"	–	20.5%
Earnings	–	15.0%
Dividends	-9.5%	7.5%
Book Value	–	4.0%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/04	5.3	5.5	5.6	6.1	22.5
12/31/05	6.2	6.7	7.2	6.7	26.8
12/31/06	6.6				
12/31/07					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/03	.12	.16	.24	.18	.70
12/31/04	.18	.16	.18	.21	.73
12/31/05	.18	.21	.25	.20	.84
12/31/06	.18	.23	.26	.24	
12/31/07					

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2003	.135	.135	.135	.135	.54
2004	.145	.145	.145	.145	.58
2005	.156	.156	.156	.156	.62
2006	.168	.168	.168		

INSTITUTIONAL DECISIONS

	3Q'05	4Q'05	1Q'06
to Buy	8	10	8
to Sell	4	3	6
Hld's(000)	476	517	519

ASSETS ($mill.)	2004	2005	3/31/06
Cash Assets	.2	.0	.0
Receivables	3.7	3.8	3.8
Inventory	.7	.8	.9
Other	.4	.5	.6
Current Assets	5.0	5.1	5.3
Property, Plant & Equip. at cost	164.3	182.4	--
Accum Depreciation	24.3	27.1	--
Net Property	140.0	155.3	157.8
Other	11.1	11.9	12.2
Total Assets	156.1	172.3	175.3
LIABILITIES ($mill.)			
Accts Payable	1.8	2.6	2.0
Debt Due	16.3	19.3	21.0
Other	3.1	2.8	2.9
Current Liab	21.2	24.7	25.9

LONG-TERM DEBT AND EQUITY as of 3/31/06

Total Debt $60.8 mill. Due in 5 Yrs. NA
LT Debt $39.8 mill.
Including Cap. Leases NA (44% of Cap'l)

Leases, Uncapitalized Annual rentals NA

Pension Liability $3.9 mill. in '05 vs. $3.0 mill. in '04

Pfd Stock None Pfd Div'd Paid None

Common Stock 6,943,716 shares (56% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: York Water Company engages in the impounding, purification, and distribution of water in York County, Pennsylvania. As of March 31, 2005, the company had two reservoirs, Lake Williams and Lake Redman, which together held approximately 2.23 billion gallons of water. It supplies water for residential, commercial, industrial, and other customers. As of the above date, the company served approximately 55,879 customers in 34 municipalities in York County. Has 97 employees. Chairman: William Morris. Inc.: PA. Address: 130 East Market Street, York, PA 17401. Tel.: (717) 845-3601. Internet: http://www.yorkwater.com.

A.O.

July 28, 2006

TOTAL SHAREHOLDER RETURN
Dividends plus appreciation as of 6/30/2006

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
-8.67%	-6.38%	15.95%	60.41%	125.20%

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SOUTHWEST WATER NDQ-SWWC

RECENT PRICE 12.30 | P/E RATIO 33.2 (Trailing: 32.4 Median: 19.9) | RELATIVE P/E RATIO 1.91 | DIV'D YLD 1.7% | VALUE LINE

TIMELINESS 4 Lowered 3/24/06
SAFETY 3 New 10/28/05
TECHNICAL 3 Lowered 6/30/06
BETA .70 (1.00 = Market)

High:	2.1	3.7	5.0	5.6	9.2	8.3	10.2	12.4	11.2	14.3	15.2	19.1
Low:	1.6	2.0	2.6	3.5	3.6	5.1	6.9	7.6	8.1	10.3	9.0	10.8

Target Price Range 2009 | 2010 | 2011

2009-11 PROJECTIONS

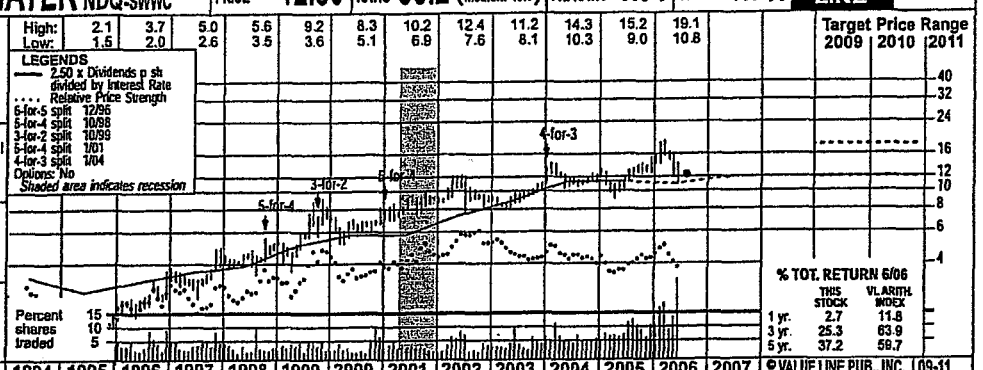
	Price	Gain	Ann'l Total Return
High	18	(+45%)	12%
Low	12	(Nil)	2%

Insider Decisions

	S	O	N	D	J	F	M	A	M
to Buy	0	0	0	0	0	0	0	0	0
Options	1	1	1	0	0	0	5	0	1
to Sell	2	1	1	1	1	1	5	1	1

Institutional Decisions

	3Q2005	4Q2005	1Q2006
to Buy	39	31	50
to Sell	15	39	29
Hld's(000)	5706	6376	8401



% TOT. RETURN 6/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	2.7	11.8
3 yr.	25.3	63.9
5 yr.	37.2	59.7

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
3.58	3.34	3.77	4.03	4.20	4.84	5.31	5.61	5.63	6.16	7.49	8.15	9.12	10.70	9.23	9.10	9.35	10.00	Revenues per sh	12.10
.46	.28	.44	.38	.38	.44	.46	.53	.59	.85	.76	.87	.86	.91	.67	.78	.85	.95	"Cash Flow" per sh	1.25
.22	.02	.19	.08	.09	.12	.15	.21	.25	.31	.38	.42	.39	.44	.23	.34	.37	.45	Earnings per sh A	.70
.18	.18	.18	.14	.08	.08	.09	.09	.10	.11	.13	.14	.15	.16	.18	.20	.23	.25	Div'd Decl'd per sh B	.31
.50	.39	.42	.60	.72	.84	.95	.74	.79	.53	.55	1.06	1.78	1.14	1.26	1.66	1.50	1.50	Cap'l Spending per sh	1.90
2.57	2.41	2.42	2.31	2.31	2.45	2.40	2.52	2.70	3.05	3.44	3.84	4.27	4.90	6.17	6.49	6.70	6.95	Book Value per sh D	7.90
11.48	11.60	11.80	11.97	12.13	11.74	12.45	12.65	12.83	13.12	13.99	14.17	14.35	16.17	20.36	22.33	23.00	23.00	Common Shs Outst'g C	24.00
14.2	NMF	14.5	35.8	22.3	14.6	16.5	16.9	17.2	19.6	17.0	19.8	24.8	21.2	NMF	35.5	Bold figures are		Avg Ann'l P/E Ratio	21.0
1.05	NMF	.88	2.11	1.46	.98	1.03	.97	.89	1.12	1.11	1.01	1.35	1.21	NMF	1.90	Value Line		Relative P/E Ratio	1.40
5.7%	5.5%	6.6%	4.7%	4.2%	4.7%	3.4%	2.7%	2.3%	1.8%	2.0%	1.7%	1.5%	1.7%	1.5%	1.6%	estimates		Avg Ann'l Div'd Yield	1.5%

CAPITAL STRUCTURE as of 3/31/06
Total Debt $132.1 mill. Due in 5 Yrs $45.0 mill.
LT Debt $122.6 mill. LT Interest $7.0 mill.
(Total interest coverage: 1.4x) (45% of Cap'l)

Leases, Uncapitalized: Annual rentals $6.7 mill.
Pension Liability None

Pfd Stock $461,000 Pfd Div'd $24,000

Common Stock 22,667,379 shs.
as of 5/5/06
MARKET CAP: $275 million (Small Cap)

2001	2002	2003	2004	2005	2006	2007		09-11
66.2	71.0	72.2	80.9	104.7	115.5	130.8	173.0	188.0	203.2	215	230	Revenues ($mill)	290
1.9	2.6	3.4	4.2	5.4	6.2	6.0	7.2	4.5	7.3	8.0	10.0	Net Profit ($mill)	15.0
41.8%	41.6%	39.5%	39.0%	37.0%	36.0%	34.9%	35.9%	36.1%	36.0%	36.0%	36.0%	Income Tax Rate	36.0%
--	--	--	--	--	14.4%	3.2%	--	11.0%	9.5%	11.5%	11.0%	AFUDC % to Net Profit	11.5%
50.2%	47.9%	48.7%	45.2%	48.8%	51.4%	56.7%	47.9%	47.9%	44.7%	44.5%	47.5%	Long-Term Debt Ratio	46.5%
48.9%	51.3%	50.5%	54.1%	50.7%	48.2%	42.9%	51.8%	52.0%	55.1%	55.5%	52.5%	Common Equity Ratio	53.5%
61.1	62.2	68.5	73.9	95.0	113.0	142.8	152.8	242.0	262.9	280	305	Total Capital ($mill)	355
91.4	102.1	109.2	113.7	157.8	171.1	203.9	219.5	302.6	344.8	375	410	Net Plant ($mill)	545
5.5%	6.8%	7.1%	7.6%	7.6%	7.6%	5.8%	6.2%	3.1%	4.1%	4.0%	4.5%	Return on Total Cap'l	5.5%
6.3%	8.0%	9.5%	10.3%	11.1%	11.4%	9.7%	9.0%	3.6%	5.0%	5.0%	6.0%	Return on Shr. Equity	8.0%
6.3%	8.1%	9.6%	10.4%	11.1%	11.4%	9.7%	9.1%	3.6%	5.0%	5.0%	6.5%	Return on Com Equity	8.0%
2.9%	4.5%	6.0%	7.0%	7.8%	7.8%	6.3%	5.8%	.8%	2.1%	2.0%	2.5%	Retained to Com Eq	4.0%
55%	45%	38%	33%	31%	32%	36%	36%	78%	58%	63%	60%	All Div'ds to Net Prof	47%

CURRENT POSITION ($MILL.)	2004	2005	3/31/06
Cash Assets	1.9	3.0	2.6
Receivables	23.9	26.5	25.8
Inventory (Avg Cst)	1.9	--	--
Other	17.6	18.2	17.0
Current Assets	45.3	47.7	45.4
Accts Payable	12.3	10.0	6.7
Debt Due	3.4	9.5	9.5
Other	20.0	21.1	19.6
Current Liab.	35.7	40.6	35.8

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	8.5%	8.5%	4.0%
"Cash Flow"	7.0%	3.5%	8.0%
Earnings	13.5%	1.5%	12.0%
Dividends	6.0%	10.0%	9.0%
Book Value	9.5%	14.0%	5.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2003	36.1	41.5	51.4	44.0	173.0
2004	39.8	45.7	55.0	47.5	188.0
2005	45.2	51.3	54.7	52.0	203.2
2006	50.8	55.0	60.0	49.2	215
2007	54.0	60.0	63.0	53.0	230

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2003	d.01	.13	.21	.11	.44
2004	--	.13	.12	d.02	.23
2005	d.01	.15	.14	.06	.34
2006	.03	.12	.15	.07	.37
2007	.04	.15	.16	.10	.45

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.038	.038	.038	.038	.15
2003	.042	.042	.042	.046	.17
2004	.046	.046	.046	.050	.19
2005	.048	.048	.048	.052	.20
2006	.052	.052	.052		

BUSINESS: Southwest Water Company provides a broad range of services including water production, treatment and distribution; wastewater collection and treatment; utility billing and collection; utility infrastructure construction management; and public works services. It operates out of two groups, Utility (39% of 2005 revenues) and Services (61%). Utility owns and manages rate-regulated public water utilities in California, New Mexico, Oklahoma, and Texas. Services does mostly maintenance work on a contract basis. Off. & dir. own 8.2% of com. shs.; T. Rowe Price, 5.8% (4/06 proxy). Chairman: Anton C. Garnier; CEO: Mark Swatek. Inc.: DE. Addr.: One Wishire Building, 624 S. Grand Avenue, Ste. 2900, Los Angeles, CA 90017. Tel.: 213-929-1800. Internet: www.swwc.com.

Southwest Water Company is struggling. First-quarter share net was a penny above our estimate, but the outperformance was fleeting. Management revised down its full-year share earnings estimate; accordingly, we have reduced our 2006 assessment by $0.05 (12%).

Changes on the regulatory front in California should fuel profit growth at the Utility Group in the coming years. Profitability for a water utility is largely dependent on state commissions. The commission determines the return on investment for a utility based on its operating costs and capital expenditures made to maintain the underlying infrastructure. California Governor Schwarzenegger nominated two candidates to fill vacant spots on the California Public Utilities Commission (CPUC) early last year. Until recently, return on investments allowed by the CPUC had been below those of many other states. With the regulatory situation improved, Southwest is seeking an 11% return on equity in its latest filing with the CPUC, compared to the current allowed return of 9.8%.

Increased costs are hurting the Services Group. Margins have been spread thin here over the last few quarters, and during the March interim the business fell back into the red. While the recently acquired (in 2005) Alabama wastewater system has helped increase revenues, fixed costs have expanded at an equivalent rate. Services operates approximately 730 vehicles, which drive 18 million miles annually. Higher gasoline costs have offset much of the top-line gains in this segment. However, management anticipates it will be able to shrink the cost base with improved contract pricing over the next several months.

Desalination technologies provide another avenue of growth. The United States has been slow to adopt desalination as a way to boost water supply. However, saltwater intrusion into many coastal states may well make this technology compelling for many cities. Southwest stands to benefit from any shift towards desalination, given its experience in the field.

Nonetheless, this untimely stock has limited appreciation potential, based on its current quotation.

Praneeth Satish *July 28, 2006*

(A) Diluted earnings. Excludes nonrecurring gains (losses): '00, (3¢); '01, (5¢); '02, 1¢; '05, (23¢). Next earnings report due early August.
(B) Dividends historically paid in late January, April, July, and October.
(C) In millions, adjusted for splits.
(D) Includes intangibles. In 2005: $35.9 million, $1.61/share.

Company's Financial Strength	B
Stock's Price Stability	75
Price Growth Persistence	100
Earnings Predictability	55

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Twin Lakes Utilities, 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 AUS Utility Reports Water	Proxy Group of Four Value Line (Standard Edition) Water Companies
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	5.9 %	5.9 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A Rated Public Utility Bonds	0.5 (2)	0.5 (2)
3.	Adjusted Prospective Yield on A Rated Public Utility Bonds	6.4 %	6.4 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	0.0 (3)	0.0 (3)
5.	Adjusted Prospective Bond Yield	6.4	6.4
6.	Equity Risk Premium (4)	4.5	4.6
7.	Risk Premium Derived Common Equity Cost Rate	10.9 %	11.0 %

Notes:
(1) Derived in Note (3) on page 6 of this Schedule.
(2) The average yield spread of A rated public utility bonds over Aaa rated corporate bonds of 0.51%, rounded to 0.5% from page 4 of this Schedule.
(3) No adjustment necessary as the average Moody's bond rating of the proxy group is A2.
(4) From page 5 of this Schedule.

Twin Lakes Utilities, Inc.
Comparison of Bond Ratings and Business Profile for
the Proxy Group of Six AUS Utility Reports Water Companies and
the Proxy Group of Four Value Line (Standard Edition) Water Companies

	September 2006 Moody's Bond Rating		September 2006 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 AUS Utility Reports 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 Corp.	NR	--	NR	--	NR	--	--
California Water Service Group (5)	A2	6	NR	--	A+	5	3.0
Middlesex Water Company	NR	--	A	6	A-	7	3.0
York Water Company	NR	--	A	6	A-	7	2.0
Average	A2	6.0	A	5.8	A	6.2	2.6
Proxy Group of Four 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
Southwest Water Company	NR	--	NR	--	NR	--	--
Average	A2	6.0	A+ / A	5.5	A	5.7	2.7

Notes:
(1) From page 3 of this Schedule.
(2) From Standard & Poor's U.S. Issuer Ranking: U.S. Utility and Power Companies, Strongest to Weakest, October 13, 2006
(3) Ratings and business profile are those of Golden State Water Company
(4) Ratings and business profile are those of Aqua Pennsylvania, Inc.
(5) Ratings and business profile are those of California Water Service Company.

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

Twin Lakes Utilities, Inc.
Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-

Moody's
Comparison of Interest Rate Trends
for the Three Months Ending July 2006 (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
June-06	5.89 %	6.16 %	6.40 %	6.61 %					
July-06	5.85	6.13	6.37	6.61					
August-06	5.68	5.97	6.20	6.43					
Average of Last 3 Months	5.81 %	6.09 %	6.32 %	6.55 %	0.28 %	0.51 %	0.74 %	0.23 %	0.23 %

Notes: (1) All yields are distributed yields.

Source of Information: Mergent Bond Record, September 2006, Vol. 73, No. 9

Twin Lakes Utilities, Inc.
Judgment of Equity Risk Premium for
the Proxy Group of Six AUS Utility Reports Water Companies and
the Proxy Group of Four Value Line (Standard Edition) Water Companies

Line No.		Proxy Group of Six AUS Utility Reports Water Companies	Proxy Group of Four Value Line (Standard Edition) Water Companies
1.	Calculated equity risk premium based on the total market using the beta approach (1)	4.5 %	4.7 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A rated bonds (2)	4.4	4.4
3.	Average equity risk premium	4.5 %	4.6 %

Notes: (1) From page 6 of this Schedule.
(2) From page 8 of this Schedule.

Twin Lakes Utilities, Inc.
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
the Proxy Group of Six AUS Utility Reports Water Companies and
the Proxy Group of Four Value Line (Standard Edition) Water Companies

Line No.		Proxy Group of Six AUS Utility Reports Water	Proxy Group of Four Value Line (Standard Edition) Water Companies
1.	Arithmetic mean total return rate on the Standard & Poor's 500 Composite Index - 1926-2005 (1)	12.3 %	12.3 %
2.	Arithmetic mean yield on Aaa and Aa Corporate Bonds 1926-2005 (2)	(6.1)	(6.1)
3.	Historical Equity Risk Premium	6.2 %	6.2 %
4.	Forecasted 3-5 year Total Annual Market Return (3)	12.0 %	12.0 %
5.	Prospective Yield an Aaa Rated Corporate Bonds (4)	(5.9)	(5.9)
6.	Forecasted Equity Risk Premium	6.1 %	6.1 %
7.	Average of Historical and Forecasted Equity Risk Premium (5)	6.2 %	6.2 %
8.	Adjusted Value Line Beta (6)	0.72	0.76
9.	Beta Adjusted Equity Risk Premium	4.5 %	4.7 %

Notes:

(1) From Stocks, Bonds, Bills and Inflation - 2006 Yearbook Valuation Edition, Ibbotson Associates, Inc., Chicago, IL, 2006.

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

(3) From page 3 of Schedule PMA-11.

(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 October 1, 2006 (see page 7 of this Schedule). The estimates are detailed below.

Fourth Quarter 2006	5.7 %
First Quarter 2007	5.8
Second Quarter 2007	5.9
Third Quarter 2007	5.9
Fourth Quarter 2007	5.9
First Quarter 2008	6.0
Average	5.9 %

(5) Average of the Historical Equity Risk Premium of 6.2% from Line No. 3 and the Forecasted Equity Risk Premium of 6.1% from Line No. 6 ((6.2% + 6.1%) / 2 = 6.15%, rounded to 6.2%).

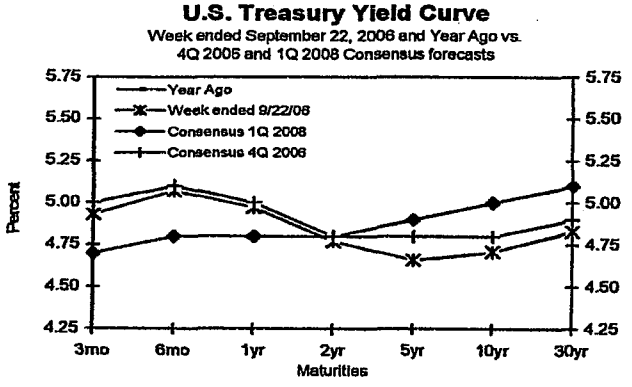
(5) From page 9 of this Schedule.

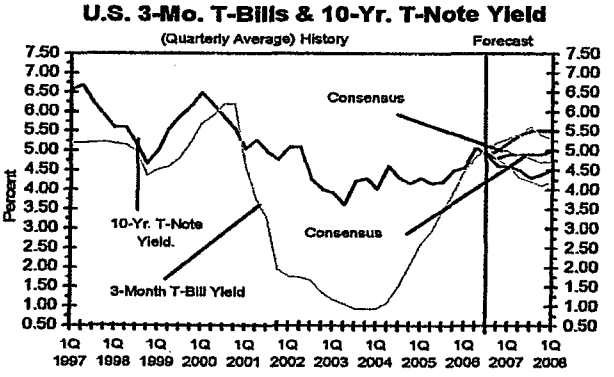
Consensus Forecasts Of U.S. Interest Rates And Key Assumptions[1]

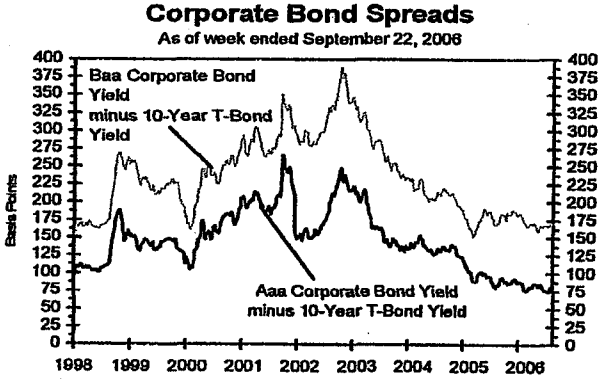
	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			*Latest Q**	4Q	1Q	2Q	3Q	4Q	1Q
Interest Rates	Sep. 22	Sep. 15	Sep. 8	Sep. 1	Aug.	Jul.	Jun.	*3Q 2006*	2006	2007	2007	2007	2007	2008
Federal Funds Rate	5.24	5.23	5.25	5.25	5.25	5.24	4.99	*5.24*	5.3	5.2	5.1	5.0	4.9	4.9
Prime Rate	8.25	8.25	8.25	8.25	8.25	8.25	8.02	*8.25*	8.3	8.2	8.1	8.0	7.9	7.9
LIBOR, 3-mo.	5.37	5.39	5.39	5.40	5.42	5.49	5.40	*5.43*	5.4	5.3	5.2	5.1	5.0	5.0
Commercial Paper, 1-mo.	5.20	5.20	5.21	5.20	5.22	5.24	5.12	*5.22*	5.3	5.3	5.2	5.0	5.0	4.9
Treasury bill, 3-mo.	4.93	4.93	4.97	5.06	5.09	5.08	4.92	*5.04*	5.0	5.0	4.9	4.8	4.7	4.7
Treasury bill, 6-mo.	5.07	5.11	5.12	5.14	5.17	5.27	5.17	*5.18*	5.1	5.1	5.0	4.9	4.8	4.8
Treasury bill, 1 yr.	4.97	5.02	5.02	5.03	5.08	5.22	5.16	*5.10*	5.0	5.0	4.9	4.9	4.8	4.8
Treasury note, 2 yr.	4.77	4.83	4.81	4.83	4.90	5.12	5.12	*4.94*	4.8	4.9	4.9	4.8	4.8	4.8
Treasury note, 5 yr.	4.66	4.73	4.73	4.73	4.82	5.04	5.07	*4.86*	4.8	4.8	4.9	4.8	4.8	4.9
Treasury note, 10 yr.	4.71	4.79	4.79	4.76	4.88	5.09	5.11	*4.91*	4.8	4.9	4.9	4.9	4.9	5.0
Treasury note, 30 yr.	4.83	4.92	4.94	4.91	5.00	5.13	5.15	*5.01*	4.9	5.0	5.0	5.0	5.1	5.1
Corporate Aaa bond	5.49	5.58	5.59	5.57	5.68	5.85	5.89	*5.69*	5.7	5.8	5.9	5.9	5.9	6.0
Corporate Baa bond	6.40	6.49	6.52	6.50	6.59	6.76	6.78	*6.61*	6.6	6.7	6.8	6.8	6.8	6.9
State & Local bonds	4.21	4.30	4.34	4.30	4.39	4.61	4.60	*4.43*	4.4	4.5	4.6	4.6	4.7	4.7
Home mortgage rate	6.40	6.43	6.47	6.44	6.52	6.76	6.68	*6.57*	6.4	6.5	6.5	6.5	6.6	6.6

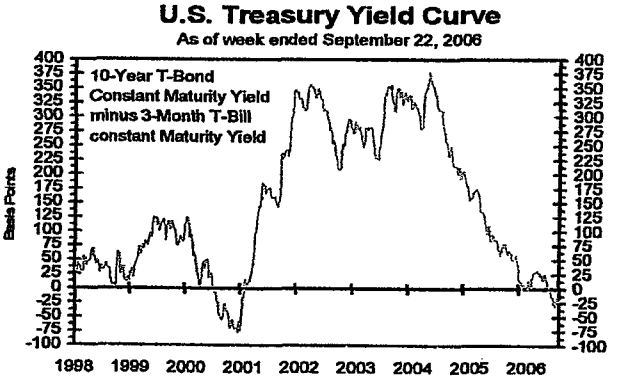
	History								Consensus Forecasts-Quarterly Avg.					
	3Q	4Q	1Q	2Q	3Q	4Q	1Q	*3Q**	4Q	1Q	2Q	3Q	4Q	1Q
Key Assumptions	2004	2004	2005	2005	2005	2005	2006	*2006*	2006	2007	2007	2007	2007	2008
Major Currency Index	81.9	81.3	83.5	84.7	85.8	84.9	82.2	*81.7*	81.0	80.2	79.6	79.6	79.6	79.5
Real GDP	2.6	3.4	3.3	4.2	1.8	5.6	2.6	*2.3*	2.5	2.6	2.6	2.9	3.0	3.1
GDP Price Index	3.2	3.5	2.4	3.3	3.3	3.3	3.3	*2.7*	2.3	2.6	2.4	2.3	2.2	2.3
Consumer Price Index	3.6	2.3	3.8	5.5	3.3	2.2	4.9	*3.3*	1.9	2.7	2.5	2.4	2.3	2.3

[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). ***Interest rate data for 3Q 2006 based on historical data through the week ended September 22. Data for 3Q 2006 Major Currency Index also is based on data through week ended September 22. Figures for 3Q 2006 Real GDP, GDP Chained Price Index and Consumer Price Index are consensus forecasts based on a special question asked of the panel members this month.***









Twin Lakes Utilities, 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		1928-2005
1.	Arithmetic Mean Holding Period Returns (2): Standard & Poor's Public Utility Index	11.0 %
2.	Arithmetic Mean Yield on: A Rated Public Utility Bonds	(6.6)
3.	Equity Risk Premium	4.4 %

Notes: (1) S&P Public Utility Index and Moody's Public Utility Bond Average Annual Yields 1928-2005, (US Consultants - Utility Services, 2006).

(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.

Twin Lakes Utilities, Inc.
Value Line Adjusted Betas for
the Proxy Group of Six AUS Utility Reports Water Companies and
the Proxy Group of Four Value Line (Standard Edition) Water Companies

	Value Line Adjusted Beta
Proxy Group of Six AUS Utility Reports Water Companies	
American States Water Co.	0.75
Aqua America, Inc.	0.80
Artesian Resources, Corp.	NA
California Water Service Group	0.80
Middlesex Water Company	0.80
York Water Company	0.45
Average	0.72
Proxy Group of Four Value Line (Standard Edition) Water Companies	
American States Water Co.	0.75
Aqua America, Inc.	0.80
California Water Service Group	0.80
Southwest Water Company	0.70
Average	0.76

NA = Not Available

Source of Information: Value Line Investment Survey, July 28, 2006
Standard Edition and Small and Mid-Cap Edition

Twin Lakes Utilities, Inc.
of the Capital Asset Pricing Model for
the Proxy Group of Six AUS Utility Reports Water Companies and the
Proxy Group of Four Value Line (Standard Edition) Water Companies

Line No.		Proxy Group of Six AUS Utility Reports Water Companies	Proxy Group of Four Value Line (Standard Edition) Water Companies
1.	Traditional Capital Asset Pricing Model (1)	10.6 %	10.4 %
2.	Empirical Capital Asset Pricing Model (1)	10.6 %	10.8 %
3.	Conclusion	10.6 %	10.6 %

Notes: (1) From page 2 of this Schedule.

Twin Lakes Utilities, Inc.
Indicated Common Equity Cost Rate Through Use
of the Capital Asset Pricing Model

	1	2	3
	Value Line Adjusted Beta	Company-Specific Risk Premium Based on Market Premium of 7.1% (1)	CAPM Result Including Risk-Free Rate of 5.0% (2)
		Traditional Capital Asset Pricing Model (3)	
Proxy Group of Six AUS Utility Reports Water Companies			
American States Water Co.	0.75	5.3 %	10.3 %
Aqua America, Inc.	0.80	5.7	10.7
Artesian Resources Corp.	NA	NA	NA
California Water Service Group	0.80	5.7	10.7
Middlesex Water Company	0.80	5.7	10.7
York Water Company	0.45	3.2	8.2
Average	0.72	5.1 %	10.6 % (4)
Proxy Group of Four Value Line (Standard Edition) Water Companies			
American States Water Co.	0.75	5.3 %	10.3 %
Aqua America, Inc.	0.80	5.7	10.7
California Water Service Group	0.80	5.7	10.7
Southwest Water Company	0.70	5.0	10.0
Average	0.76	5.4 %	10.4 % (4)
		Empirical Capital Asset Pricing Model (5)	
Proxy Group of Six AUS Utility Reports Water Companies			
American States Water Co.	0.75	5.8 %	10.8 %
Aqua America, Inc.	0.80	6.0	11.0
Artesian Resources Corp.	NA	NA	NA
California Water Service Group	0.80	6.0	11.0
Middlesex Water Company	0.80	6.0	11.0
York Water Company	0.45	4.2	9.2
Average	0.72	5.6 %	10.6 % (4)
Proxy Group of Four Value Line (Standard Edition) Water Companies			
American States Water Co.	0.75	5.8 %	10.8 %
Aqua America, Inc.	0.80	6.0	11.0
California Water Service Group	0.80	6.0	11.0
Southwest Water Company	0.70	5.5	10.5
	0.76	5.8 %	10.8 % (4)

See page 3 for notes.

Twin Lakes Utilities, Inc.
Development of the Market-Required Rate of Return on Common Equity Using
the Capital Asset Pricing Model for
the Proxy Group of Six AUS Utility Reports Water Companies and the
Proxy Group of Four 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 (Jul. '06 – Sep. '06), as well as a recently available (Oct. 13, 2006), Value Line Summary & Index, a forecasted 3-5 year total annual market return of 12.0% 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 48% produces a four-year average annual return of 10.30 % ($(1.48^{.25}) - 1$). When the average annual forecasted dividend yield of 1.70% is added, a total average market return of 12.00% (1.70% + 10.30%).

The 3-month and spot forecasted total market return of 12.0% minus the risk-free rate of 5.0% (developed in Note 2) is 7.0% (12.0% - 5.0%). The Ibbotson Associates calculated market premium of 7.1% for the period 1926-2005 results from a total market return of 12.3% less the average income return on long-term U.S. Government Securities of 5.2% (12.3% - 5.2% = 7.1%). This is then averaged with the 7.0% Value Line market premium resulting in a 7.05%, rounded to 7.1% market premium. The 7.1% market premium is then multiplied by the beta in column 1 of page 2 of this Schedule.

(2) Average forecast based upon six quarterly estimates of 30-year Treasury Note yields per the consensus of nearly 50 economists reported in the Blue Chip Financial Forecasts dated October 1, 2006 (see page 7 of Schedule PMA-10.) The estimates are detailed below:

	30-Year Treasury Note Yield
Fourth Quarter 2006	4.9%
First Quarter 2006	5.0
Second Quarter 2007	5.0
Third Quarter 2007	5.0
Fourth Quarter 2007	5.1
First Quarter 2008	5.1
Average	5.0%

(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 8.4%, i.e., 200 basis points a0ove the prospective yield of 6.4% on A rated Moody's public utility bonds (page 1 of Schedule PMA-11.)

(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, October 1, 2006
Value Line Investment Survey, July 28, 2006, Standard Edition and Small and Mid-Cap Edition
Stocks, Bonds, Bills and Inflation – Valuation Edition 2006 Yearbook,
Ibbotson Associates, Inc., Chicago, IL

Twin Lakes Utilities, Inc.
Comparable Earnings Analysis
for a Proxy Group of One Hundred Four Non-Utility Companies Comparable to the
Proxy Group of Six AUS Utility Reports Water Companies (8)

Proxy Group of One Hundred Four Non-Utility Companies Comparable to the Proxy Group of Six AUS Utility Reports Water Companies (8)	Adj. Beta	Unadj. Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Book Common Equity, Net Worth or Partners' Capital 2001	2002	2003	2004	2005	5-year Average (2) Percent	5-year Average (2) Student's T-Statistic	5-Year Projected (3) Percent	5-Year Projected (3) Student's T-Statistic
21st Century Ins. Group	0.80	0.64	3.4374	0.1011	3.7 %	7.4 %	6.5 %	8.8 %	10.8 %	8.0 %	(0.98)	9.5 %	(1.20)
ABM Industries Inc.	0.60	0.66	3.3763	0.0993	12.5	12.1	8.2	9.5	9.6	10.4	(0.74)	14.5	(0.37)
Abbott Labs.	0.85	0.71	3.0831	0.0907	32.5	30.4	26.6	24.6	27.1	28.2	0.69	23.0	1.05
Allergan Inc.	0.85	0.71	3.2339	0.0951	27.1	24.5	42.4	33.2	28.9	31.2	1.17	17.0	0.05
Alliant Techsystems	0.80	0.65	3.6088	0.1061	15.5	27.0	28.6	22.4	24.5	23.6	0.47	13.0	(0.62)
Allied Capital Corp.	0.85	0.71	3.2554	0.0957	14.8	14.7	10.0	12.6	33.3	17.1	(0.13)	21.5	0.60
Altria Group	0.80	0.68	3.2554	0.0957	43.6	46.3	36.7	30.7	29.9	37.8	1.77	24.0	1.22
AmerisourceBergen	0.75	0.61	3.6221	0.1067	4.9	10.8	11.2	10.8	8.3	9.2	(0.85)	11.5	(0.67)
Amgen	0.90	0.78	3.7858	0.1107	24.6	6.7	11.7	14.6	18.1	15.5	(0.28)	20.5	0.63
Annaly Mortgage Mgmt.	0.90	0.76	3.6129	0.1062	13.8	20.3	15.7	14.6	4.9	13.9	(0.42)	15.5	(0.20)
Apache Corp.	0.95	0.90	3.5926	0.1056	17.3	11.5	19.1	20.4	24.9	18.8	0.01	10.5	(1.03)
Applebee's Int'l	0.85	0.76	3.4357	0.1010	21.1	21.1	21.6	22.3	24.7	22.2	0.34	20.0	0.55
Apria Healthcare	0.70	0.52	3.4748	0.1022	30.2	29.4	31.7	28.5	25.6	29.1	0.97	14.0	(0.45)
Archer Daniels Mid'd	0.85	0.70	3.2346	0.0951	6.1	6.8	6.2	8.7	10.9	7.9	(0.97)	11.5	(0.67)
Arrow Int'l	0.70	0.47	3.1369	0.0923	14.3	13.1	13.3	12.5	8.3	12.3	(0.57)	13.0	(0.62)
Ball Corp.	0.90	0.63	3.2019	0.0942	21.0	32.3	29.4	27.7	34.4	29.0	0.86	18.5	0.47
Bantz Corp.	0.80	0.64	3.1916	0.0939	14.2	13.3	11.7	12.6	13.4	13.0	(0.50)	13.0	(0.62)
Barnes Group	0.90	0.78	3.4527	0.1015	9.6	13.0	10.3	10.8	13.5	11.4	(0.65)	13.5	(0.53)
Bemis	0.80	0.64	3.4634	0.1018	17.2	20.4	22.3	22.5	24.8	21.4	0.27	22.0	0.88
Blyth Inc.	0.80	0.69	3.4764	0.1022	16.5	16.9	17.0	18.0	12.2	16.3	(0.20)	12.5	(0.70)
Bob Evans Farms	0.90	0.79	3.3953	0.0998	12.6	13.4	11.4	5.7	6.8	10.0	(0.76)	11.0	(0.85)
Brinker Int'l	0.90	0.78	3.4143	0.1004	16.1	17.0	16.1	20.7	18.0	17.6	(0.06)	21.0	0.72
Brown & Brown	0.90	0.79	3.6370	0.1069	30.8	21.2	22.2	20.6	19.7	22.8	0.40	16.0	(0.12)
Buckle (The)Inc.	0.90	0.84	3.6416	0.1071	14.1	12.1	11.3	13.0	17.3	13.6	(0.45)	8.5	(1.20)
CBRL Group	0.80	0.66	3.7893	0.1114	8.7	11.7	13.4	13.2	14.6	12.3	(0.57)	26.0	1.55
CVS Corp.	0.90	0.79	3.7901	0.1114	14.0	13.8	14.1	13.1	14.1	13.8	(0.43)	13.5	(0.53)
Casey's Gen'l Stores	0.85	0.76	3.5440	0.1042	8.6	9.8	8.3	9.1	12.0	9.6	(0.82)	11.5	(0.67)
ChoicePoint Inc.	0.90	0.81	3.5358	0.1040	16.3	19.1	16.1	15.0	16.0	16.5	(0.18)	11.0	(0.95)
Church & Dwight	0.60	0.35	3.0859	0.0907	19.1	19.4	17.8	15.9	17.6	18.0	(0.05)	14.0	(0.45)
Coca-Cola Bottling	0.70	0.48	3.2888	0.0961	39.5	69.0	58.5	33.9	30.5	46.1 (4)	2.53	37.5 (4)	3.47
Constellation Brands	0.75	0.62	3.6103	0.1062	14.4	16.4	11.2	11.3	12.8	13.2	(0.49)	11.0	(0.95)
Corn Products Int'l	0.90	0.78	3.3595	0.0988	6.7	7.6	8.3	8.7	7.4	7.7	(0.99)	10.5	(1.03)
Costco Wholesale	0.85	0.76	3.3857	0.0990	12.3	12.3	11.0	11.6	11.1	11.7	(0.62)	11.5	(0.87)
Curtiss-Wright	0.80	0.65	3.4392	0.1011	11.6	10.1	10.9	11.3	11.8	11.1	(0.88)	12.0	(0.78)
DaVita Inc.	0.85	0.70	3.4809	0.1024	19.5	210.3	53.2	41.5	24.4	69.8 (4)	4.71	19.5	0.47
Del Monte Foods	0.70	0.51	3.1686	0.0932	200.8	14.1	16.6	12.6	10.4	50.9 (4)	2.97	11.5	(0.87)
Diebold Inc.	0.80	0.63	3.1762	0.0934	15.6	16.8	15.2	14.6	11.6	14.8	(0.34)	22.5	0.97
Dionex Corp.	0.80	0.62	3.2422	0.0953	24.5	21.0	18.7	22.6	24.9	22.5	0.37	21.0	0.72
ESCO Technologies	0.85	0.67	3.7678	0.1108	6.1	7.1	12.0	12.6	13.2	10.2	(0.76)	15.5	(0.20)
Edwards Lifesciences	0.75	0.58	3.0214	0.0888	13.7	15.4	15.2	16.6	18.1	15.8	(0.25)	16.5	(0.03)
Energizer Holdings	0.80	0.65	3.2301	0.0950	13.2	26.4	21.0	45.5	63.2	33.9	1.41	24.0	1.22
Fisher Scientific	0.90	0.82	3.2478	0.0955	235.6	72.4	24.9	6.9	8.2	69.6 (4)	4.69	11.5	(0.87)
Gallagher (Arthur J.)	0.90	0.81	3.2582	0.0958	33.7	28.5	26.7	24.6	22.4	26.8	0.76	20.0	0.55
Gen'l Dynamics	0.80	0.67	3.0127	0.0886	20.8	20.2	16.8	16.8	18.0	18.5	-	15.0	(0.28)
HCA Inc.	0.65	0.42	3.6995	0.1088	21.9	21.9	21.5	26.3	29.3	24.6	0.56	17.0	0.05
HNI Corp.	0.60	0.68	2.9793	0.0876	15.2	14.1	13.8	17.1	23.6	16.6	(0.16)	18.0	0.22
Hancock Holding	0.85	0.77	3.0005	0.0882	9.7	12.0	12.6	12.5	11.3	11.8	(0.63)	14.5	(0.37)
Harland (John H.)	0.70	0.52	3.5571	0.1046	19.3	22.4	21.9	20.1	23.7	21.5	0.28	17.5	0.13
Health Mgmt. Assoc.	0.75	0.55	3.2829	0.0965	15.6	18.3	17.3	16.4	15.4	16.6	(0.17)	13.5	(0.53)
IDEXX Labs.	0.75	0.59	3.5807	0.1053	12.5	13.8	14.9	18.8	21.5	16.3	(0.20)	19.0	0.38
IHOP Corp.	0.90	0.84	3.2923	0.0968	12.9	11.2	11.1	12.0	14.9	12.4	(0.56)	18.0	0.38
Invacare Corp.	0.80	0.67	3.4114	0.1003	15.8	13.5	11.6	10.0	7.2	11.6	(0.63)	9.5	(1.20)
Kellwood Co.	0.90	0.79	3.5542	0.1045	7.6	6.2	11.3	9.7	7.5	8.5	(0.92)	9.5	(1.20)
Kimball Int'l 'B'	0.80	0.67	3.6978	0.1087	8.2	5.8	1.3	5.0	4.5	5.0	(1.24)	10.5	(1.03)
Kohl's Corp.	0.85	0.76	3.7150	0.1092	17.8	16.3	14.1	14.7	14.1	15.8	(0.25)	16.5	(0.03)
Lance Inc.	0.85	0.73	3.7137	0.1092	13.4	11.0	13.1	12.5	11.4	12.3	(0.57)	17.0	0.05
Lauder (Estee)	0.90	0.79	3.3117	0.0974	20.3	15.8	18.7	21.7	25.6	20.4	0.17	35.0 (4)	3.05
Lilly (Eli)	0.85	0.73	3.0291	0.0891	42.4	32.7	28.6	28.1	29.1	32.2	1.26	27.5	1.80
Lincare Holdings	0.60	0.38	3.7035	0.1089	19.8	22.2	27.4	23.4	18.8	22.3	0.35	27.0	1.72
Lincoln Elec Hldgs.	0.85	0.85	3.3345	0.0981	16.8	17.2	11.7	14.8	17.4	15.6	(0.27)	15.0	(0.28)
Lockheed Martin	0.70	0.53	2.9555	0.0869	10.8	18.0	15.6	18.0	21.8	16.8	(0.16)	21.0	0.72
MacDermid Inc.	0.80	0.62	3.4742	0.1022	9.1	17.0	20.3	17.5	15.1	15.8	(0.25)	16.5	(0.03)
Manor Care	0.85	0.77	3.5898	0.1056	6.5	13.0	13.6	17.1	20.6	14.2	(0.39)	21.5	0.80
Mattel Inc.	0.75	0.58	3.3810	0.0994	20.5	24.6	24.9	21.3	23.1	22.9	0.40	29.0 (4)	2.05
Matthews Int'l	0.75	0.57	3.3625	0.0989	21.0	21.1	17.5	18.0	17.9	19.1	0.06	14.5	(0.37)
Medco Health Solutions	0.80	0.64	3.6786	0.2045	4.1	5.4	8.4	8.4	7.8	6.8	(1.07)	11.5	(0.87)

Exhibit No. 1
Schedule PMA-12
Page 1 of 6

Twin Lakes Utilities, Inc.
Comparable Earnings Analysis
for a Proxy Group of One Hundred Four Non-Utility Companies Comparable to the
Proxy Group of Six AUS Utility Reports Water Companies (9)

Proxy Group of One Hundred Four Non-Utility Companies Comparable to the Proxy Group of Six AUS Utility Reports Water Companies (9)	Adj. Beta	Unadj. Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Book Common Equity, Net Worth or Partners' Capital								
										5-year Average (2)		5-Year Projected (3)	
					2001	2002	2003	2004	2005	Percent	Student's T-Statistic	Percent	Student's T-Statistic
Medtronic Inc.	0.70	0.52	3.0425	0.0895	23.0	21.8	22.0	21.7	28.6	23.4	0.45	23.5	1.13
Mettler-Toledo Int'l	0.95	0.89	2.9552	0.0869	22.5	19.5	14.7	15.0	19.3	18.2	(0.03)	18.5	0.30
Millipore Corp.	0.95	0.85	3.5486	0.1043	19.1	26.7	20.4	16.5	16.8	20.3	0.17	19.5	0.47
Newell Rubbermaid	0.90	0.84	3.2432	0.0954	13.1	20.5	20.2	21.6	25.8	20.2	0.16	21.0	0.72
Northrop Grumman	0.70	0.49	2.8816	0.0877	5.5	4.8	4.8	6.4	7.4	5.8	(1.17)	12.0	(0.76)
OSI Restaurant Partners	0.95	0.85	3.1264	0.0919	15.0	15.8	16.9	14.5	13.5	15.1	(0.31)	14.5	(0.37)
Oshkosh Truck	0.90	0.82	3.5594	0.1047	14.7	14.5	14.8	17.7	19.8	16.2	(0.21)	16.0	(0.12)
Owens & Minor	0.90	0.82	3.1451	0.0925	15.8	18.1	13.1	13.1	13.0	14.6	(0.36)	13.0	(0.62)
Pacific Cap. Bancorp	0.85	0.70	3.2218	0.0947	17.2	20.2	19.0	19.1	15.5	18.2	(0.03)	8.5	(1.37)
Pactiv Corp.	0.95	0.85	3.0395	0.0894	9.8	24.5	21.7	19.7	17.7	18.7	0.02	18.0	0.22
Papa John's Int'l	0.75	0.61	3.0718	0.0903	24.2	38.4	23.0	28.0	25.7	27.9	0.86	17.0	0.05
Pepsi Bottling Group	0.80	0.64	3.6706	0.1079	17.5	23.5	22.4	23.4	22.8	21.8	0.31	24.5	1.30
Quest Diagnostics	0.85	0.73	3.4704	0.1020	14.1	18.1	18.2	22.2	19.8	18.5	-	19.0	0.38
RLI Corp.	0.75	0.60	2.9914	0.0880	9.0	8.4	10.6	10.3	14.0	10.5	(0.73)	12.5	(0.70)
Raytheon Co.	0.80	0.68	3.5283	0.1037	4.0	8.9	5.3	6.0	8.8	6.6	(1.09)	12.0	(0.76)
Regis Corp.	0.90	0.83	3.4027	0.1001	15.6	15.8	15.4	15.3	13.6	15.1	(0.31)	13.0	(0.62)
Reynolds & Reynolds	0.95	0.88	3.2761	0.0963	20.8	25.4	26.0	18.7	23.7	23.1	0.42	27.5	1.80
Schein (Henry)	0.75	0.57	3.6371	0.1069	12.8	13.7	13.8	12.3	13.2	13.2	(0.49)	16.0	(0.12)
Selective Ins. Group	0.90	0.84	3.0047	0.0884	4.5	6.1	7.7	12.6	14.0	9.0	(0.87)	14.5	(0.37)
Sensient Techn.	0.90	0.78	3.1883	0.0932	15.1	16.2	13.4	11.5	9.1	13.1	(0.50)	9.5	(1.20)
Smithfield Foods	0.85	0.75	3.5889	0.1055	14.4	2.0	10.1	15.7	9.4	10.3	(0.75)	10.0	(1.12)
Smucker (J.M.)	0.70	0.50	3.0974	0.0911	12.2	9.3	10.0	8.9	9.0	9.9	(0.79)	10.0	(1.12)
Sonic Corp.	0.70	0.52	3.5402	0.1041	19.4	20.7	19.7	18.8	19.6	19.6	0.10	15.0	(0.26)
Speedway Motorsports	0.75	0.60	3.0864	0.0910	12.9	12.5	12.4	12.7	14.1	12.9	(0.51)	12.0	(0.76)
Standex Int'l	0.95	0.88	3.5743	0.1051	14.5	11.4	11.1	13.5	14.4	13.0	(0.50)	14.5	(0.37)
Stanley Works	0.95	0.80	3.3762	0.0993	24.2	20.7	18.8	20.2	16.9	20.6	0.19	16.0	(0.12)
Steak n Shake	0.85	0.90	3.7257	0.1096	13.1	13.8	12.9	12.6	11.9	12.8	(0.51)	12.5	(0.70)
Stryker Corp.	0.80	0.63	3.1675	0.0931	25.7	23.8	21.0	21.3	22.1	22.8	0.39	26.5	1.47
TJX Companies	0.95	0.89	3.2898	0.0961	40.3	41.0	42.4	41.3	33.5	39.7	1.84	27.0	1.72
Tennant Co.	0.95	0.87	3.2725	0.0962	3.1	8.0	8.5	8.5	11.9	8.0	(0.96)	12.5	(0.70)
Thornburg Mtg.	0.75	0.59	3.1441	0.0925	6.6	9.4	10.4	8.2	5.7	8.1	(0.95)	6.0	(1.78)
Topps Co.	0.90	0.83	3.5104	0.1032	14.7	8.6	8.0	5.9	2.6	7.6	(1.00)	9.5	(1.20)
Toro Co.	0.95	0.89	2.8574	0.0870	14.8	17.4	18.5	26.0	29.2	21.2	0.25	33.0 (4)	2.72
UnitedHealth Group	0.65	0.41	3.2831	0.0965	23.5	30.5	35.6	24.1	18.6	28.5	0.73	25.0	1.38
Universal Health Sv. 'B'	0.70	0.50	3.7101	0.1091	16.2	19.0	17.7	13.2	13.2	15.9	(0.24)	12.0	(0.76)
Varian Medical Sys.	0.85	0.73	3.7829	0.1106	17.2	19.8	23.2	27.3	31.3	23.8	0.49	23.5	1.13
Waste Connections	0.95	0.88	3.2643	0.0960	10.3	12.8	12.2	10.9	12.0	11.6	(0.63)	16.5	(0.03)
Wendy's Int'l	0.75	0.59	3.2315	0.0950	18.8	15.1	13.4	13.6	12.0	14.6	(0.36)	13.5	(0.53)
Wyeth	0.95	0.88	3.7821	0.1106	71.2	36.3	32.8	34.9	33.0	41.6	2.12 (4)	26.0	1.55
Zimmer Holdings	0.75	0.59	3.7398	0.1101	242.4	70.4	9.3	15.2	16.5	70.6	4.80 (4)	14.5	(0.37)
Average for the Non-Utility Group	0.83	0.71	3.3780	0.1002									
Average for the Proxy Group of Six AUS Utility Reports Water Companies	0.76	0.60	3.3512 (10)	0.0985									
Mean										16.8%		16.0%	
Conclusion (6)											16.4% (6)		
Conservative Mean (7)										14.1%		13.8%	
Conservative Conclusion (8)											14.0% (8)		

See pages 5 and 6 for notes.

Exhibit No. 1
Schedule PMA-12
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Twin Lakes Utilities, Inc.
Comparable Earnings Analysis
for a Proxy Group of One Hundred Twenty-Five Non-Utility Companies Comparable to the
Proxy Group of Four Value Line (Standard Edition) Water Companies (3)

Proxy Group of One Hundred Twenty-Five Non-Utility Companies Comparable to the Proxy Group of Four Value Line (Standard Edition) Water Companies (3)	Adj. Beta	Unadj. Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Book Common Equity, Net Worth or Partners' Capital 2001	2002	2003	2004	2005	5-year Average (2) Percent	5-year Average (2) Student's T-Statistic	5-Year Projected (3) Percent	5-Year Projected (3) Student's T-Statistic
21st Century Ins. Group	0.90	0.84	3.4374	0.1011	3.7 %	7.4 %	8.8 %	9.8 %	10.8 %	8.8 %	(0.98)	9.5 %	(1.17)
ASM Industries Inc.	0.80	0.66	3.3763	0.0993	12.5	12.1	8.2	9.5	9.6	10.4	(0.76)	14.5	(0.33)
Abbott Labs.	0.85	0.71	3.0831	0.0907	32.5	30.4	26.6	24.6	27.1	28.2	0.89	23.0	1.06
Airgas Inc.	1.00	0.98	3.5094	0.1032	10.8	11.7	11.6	11.3	13.7	11.9	(0.63)	16.0	(0.08)
Allergan Inc.	0.85	0.71	3.2336	0.0951	27.1	24.5	42.4	33.2	28.9	31.2	1.17	17.0	0.58
Allent Techsystems	0.80	0.65	3.6086	0.1061	15.5	27.0	28.8	22.4	24.5	23.6	0.46	13.0	(0.58)
Allied Capital Corp.	0.85	0.71	3.2554	0.0957	14.8	14.7	10.0	12.6	33.3	17.1	(0.14)	21.5	0.83
Altria Group	0.80	0.68	3.2554	0.0957	43.8	48.3	36.7	30.7	29.9	37.8	1.76	24.0	1.25
AmerisourceBergen	0.75	0.61	3.6221	0.1067	4.8	10.5	11.2	10.8	8.3	9.2	(0.87)	11.5	(0.83)
Anadarko Petroleum	1.00	0.94	3.2109	0.0944	20.5	11.8	14.4	17.2	22.3	17.2	(0.13)	11.0	(0.92)
Annaly Mortgage Mgmt.	0.90	0.78	3.6129	0.1062	13.8	20.3	15.7	14.6	4.9	13.9	(0.44)	15.5	(0.17)
Apache Corp.	0.95	0.90	3.5926	0.1056	17.3	11.5	19.1	20.4	24.9	18.5	-	10.5	(1.00)
Applebee's Int'l	0.85	0.76	3.4357	0.1010	21.1	21.1	21.6	22.3	24.7	22.2	0.33	20.0	0.58
Apria Healthcare	0.70	0.52	3.4748	0.1022	30.2	29.4	31.7	28.5	25.6	29.1	0.97	14.0	(0.42)
Archer Daniels Mid'd	0.85	0.70	3.2346	0.0951	6.1	5.8	6.2	9.7	10.9	7.9	(0.99)	11.5	(0.83)
Arrow Int'l	0.70	0.47	3.1389	0.0923	14.3	13.1	13.3	12.5	8.3	12.3	(0.56)	13.0	(0.58)
Astoria Financial	0.95	0.91	2.8696	0.0841	11.5	14.3	17.5	19.7	19.3	16.5	(0.19)	16.5	-
Ball Corp.	0.90	0.83	3.2019	0.0942	21.0	32.3	29.4	27.7	34.4	29.0	0.98	19.5	0.50
Bandag Inc.	1.00	0.94	3.0009	0.0882	9.5	11.1	12.6	10.7	8.8	10.3	(0.77)	9.0	(1.25)
Banta Corp.	0.80	0.64	3.1918	0.0939	14.2	13.3	11.7	12.6	13.4	13.0	(0.52)	13.0	(0.58)
Barnes Group	0.90	0.78	3.4527	0.1015	9.6	13.0	10.3	10.8	13.5	11.4	(0.67)	13.5	(0.50)
Bemis	0.80	0.64	3.4634	0.1018	17.2	20.4	22.3	22.5	24.8	21.4	0.26	22.0	0.92
Black & Decker	1.00	0.95	3.1349	0.0922	23.8	43.6	36.5	28.3	35.7	33.5	1.39	19.0	0.42
Blyth Inc.	0.80	0.69	3.4764	0.1022	16.5	16.9	17.0	19.0	12.2	16.3	(0.21)	12.5	(0.67)
Bob Evans Farms	0.90	0.79	3.3953	0.0998	12.5	13.4	11.4	5.7	5.8	10.0	(0.80)	11.0	(0.92)
Borders Group	1.00	0.98	3.4871	0.1025	11.5	10.9	10.6	12.1	10.9	11.2	(0.59)	12.5	(0.67)
Brinker Int'l	0.90	0.78	3.4143	0.1004	16.1	17.0	16.1	20.7	18.0	17.8	(0.09)	21.0	0.75
Brown & Brown	0.90	0.79	3.6370	0.1069	30.8	21.2	22.2	20.8	19.7	22.9	0.49	16.0	(0.08)
Buckle (The)Inc.	0.90	0.84	3.6418	0.1071	14.1	12.1	11.3	13.0	17.3	13.6	(0.46)	9.5	(1.17)
C.H. Robinson	1.00	0.93	3.2162	0.0945	23.6	22.8	22.1	22.1	26.1	23.3	0.44	19.0	0.42
CLARCOR Inc.	0.95	0.92	2.9467	0.0866	15.3	14.8	14.7	14.9	15.8	15.1	(0.32)	13.5	(0.50)
CSX Corp.	1.00	0.98	3.0284	0.0890	5.4	7.5	5.3	5.5	9.7	7.1	(1.06)	11.0	(0.92)
Casey's Gen'l Stores	0.85	0.76	3.5440	0.1042	8.6	9.8	8.3	9.1	12.0	9.6	(0.83)	11.5	(0.83)
ChoicePoint Inc.	0.90	0.81	3.5356	0.1040	16.3	19.1	16.1	15.0	16.0	16.5	(0.19)	11.0	(0.92)
Coca-Cola Bottling	0.70	0.48	3.2666	0.0961	36.6	69.0	59.5	33.9	30.5	46.1 (4)	2.55	37.5 (4)	3.50
Commerce Bancorp NJ	0.95	0.92	3.2504	0.0956	16.2	16.8	15.2	16.4	12.3	15.2	(0.31)	15.0	(0.25)
Constellation Brands	0.75	0.62	3.6103	0.1062	14.4	16.4	11.2	11.3	12.5	13.2	(0.50)	11.0	(0.92)
Corn Products Int'l	0.90	0.78	3.3595	0.0988	6.7	7.5	8.3	8.7	7.4	7.7	(1.01)	10.5	(1.00)
Costco Wholesale	0.85	0.76	3.3657	0.0990	12.3	12.3	11.0	11.6	11.1	11.7	(0.64)	11.5	(0.83)
Crescent Real Est.	0.90	0.81	2.6550	0.0840	7.0	18.3	15.2	22.1	26.4	17.2	(0.13)	29.5 (4)	2.17
Curtiss-Wright	0.80	0.65	3.4382	0.1011	11.6	10.1	10.9	11.3	11.6	11.1	(0.69)	12.0	(0.75)
DaVita Inc.	0.95	0.70	3.4809	0.1024	19.5	210.3	53.2	41.5	24.4	69.8 (4)	4.74	19.5	0.50
Del Monte Foods	0.70	0.51	3.1686	0.0932	200.8	14.1	16.6	12.6	10.4	50.9 (4)	2.99	11.5	(0.83)
Diebold Inc.	0.90	0.83	3.1782	0.0934	16.5	16.8	15.2	14.6	11.8	14.8	(0.36)	22.5	1.00
Dionex Corp.	0.90	0.82	3.2422	0.0953	24.5	21.0	19.7	22.8	24.9	22.5	0.36	21.0	0.75
Donaldson Co.	0.95	0.88	2.9071	0.0855	23.7	22.7	21.3	19.4	21.1	21.6	0.28	16.5	-
Downey Fin'l	1.00	0.97	3.2675	0.0961	16.4	13.5	11.1	10.7	16.0	14.0	(0.43)	14.0	(0.42)
Edwards Lifesciences	0.75	0.56	3.0214	0.0888	13.7	18.4	15.2	16.6	16.1	15.8	(0.26)	16.5	-
Energizer Holdings	0.80	0.65	3.2301	0.0950	13.2	26.4	21.0	46.5	63.2	33.9	1.42	24.0	1.25
Fannie Mae	0.90	0.79	2.9022	0.0853	29.6	38.6	31.7	26.0 m	21.0 m	29.4	1.00	12.5	(0.67)
Fisher Scientific	0.90	0.82	3.2479	0.0955	235.5	72.4	24.9	5.9	8.2	69.6 (4)	4.72	11.5	(0.83)
Gallagher (Arthur J.)	0.90	0.81	3.2582	0.0958	33.7	26.5	26.7	24.8	22.4	26.8	0.76	20.0	0.58
Gen'l Dynamics	0.80	0.67	3.0127	0.0886	20.8	20.2	15.6	16.8	19.0	18.5	(0.01)	16.0	(0.25)
Graco Inc.	1.00	0.94	2.9277	0.0861	37.6	30.8	51.1	47.1	43.7	42.1 (4)	2.16	34.0 (4)	2.92
HCA Inc.	0.65	0.42	3.5995	0.1058	21.9	21.9	21.5	28.3	29.3	24.5	0.56	17.0	0.08
HNI Corp.	0.80	0.68	2.9793	0.0876	15.2	14.1	13.8	17.1	23.6	16.8	(0.17)	18.0	0.25
Hancock Holding	0.85	0.77	3.0005	0.0882	9.7	12.0	12.6	12.5	11.3	11.6	(0.65)	14.5	(0.33)
Harland (John H.)	0.70	0.52	3.5571	0.1046	19.3	22.4	21.9	20.1	23.7	21.5	0.27	17.5	0.17
Harrah's Entertain.	1.00	0.94	3.2295	0.0950	17.1	22.9	16.7	16.8	8.4	16.8	(0.17)	13.0	(0.58)
Hasbro Inc.	1.00	0.95	3.2765	0.0963	4.4	8.9	15.3	13.3	13.6	11.1	(0.69)	21.0	0.75
Health Mgmt. Assoc.	0.75	0.55	3.2629	0.0965	16.6	18.3	17.3	16.4	15.4	16.6	(0.19)	13.5	(0.50)
Hillenbrand Inds.	0.75	0.59	2.8484	0.0838	17.7	19.8	21.1	17.5	18.6	19.0	0.04	18.0	0.25
IDEX Corp.	1.00	0.97	2.9130	0.0857	8.2	10.7	10.5	12.1	13.3	11.0	(0.70)	13.0	(0.58)
IDEXX Labs.	0.75	0.59	3.5807	0.1053	12.5	13.8	14.9	18.8	21.5	18.3	(0.21)	19.0	0.42
IHOP Corp.	0.90	0.84	3.2923	0.0968	12.9	11.2	11.1	12.0	14.9	12.4	(0.57)	19.0	0.42
Invacare Corp.	0.80	0.67	3.4114	0.1003	16.5	13.5	11.5	10.0	7.2	11.5	(0.65)	9.5	(1.17)

Twin Lakes Utilities, Inc.
Comparable Earnings Analysis
for a Proxy Group of One Hundred Twenty-Five Non-Utility Companies Comparable to the
Proxy Group of Four Value Line (Standard Edition) Water Companies (8)

Proxy Group of One Hundred Twenty-Five Non-Utility Companies Comparable to the Proxy Group of Four Value Line (Standard Edition) Water Companies (9)	Adj. Beta	Unadj. Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Book Common Equity, Net Worth or Partners' Capital 2001	2002	2003	2004	2005	5-year Average (2) Percent	5-year Average (2) Student's T-Statistic	5-Year Projected (3) Percent	5-Year Projected (3) Student's T-Statistic
Kellwood Co.	0.90	0.76	3.5542	0.1045	7.8	6.2	11.3	9.7	7.5	8.5	(0.94)	9.5	(1.17)
Kimbell Int'l 'B'	0.80	0.67	3.6978	0.1087	8.2	5.8	1.3	5.0	4.5	5.0	(1.25)	10.5	(1.00)
Lauder (Estee)	0.90	0.79	3.3117	0.0974	20.3	15.8	18.7	21.7	25.8	20.4	0.17	35.0 (4)	3.08
Lilly (Eli)	0.85	0.73	3.0291	0.0891	42.4	32.7	28.6	28.1	29.1	32.2	1.26	27.5	1.83
Lincoln Elec Hldgs.	0.95	0.85	3.3345	0.0981	16.9	17.2	11.7	14.8	17.4	15.6	(0.28)	15.0	(0.25)
Lockheed Martin	0.70	0.53	2.9555	0.0869	10.8	18.0	15.9	18.0	21.8	15.8	(0.17)	21.0	0.75
MacDermid Inc.	0.90	0.82	3.4742	0.1022	9.1	17.0	20.3	17.5	15.1	15.8	(0.26)	16.5	-
Manor Care	0.85	0.77	3.5898	0.1056	6.5	13.0	13.6	17.1	20.8	14.2	(0.41)	21.5	0.83
Mattel Inc.	0.75	0.59	3.3810	0.0994	20.5	24.6	24.9	21.3	23.1	22.9	0.48	29.0 (4)	2.08
Matthews Int'l	0.75	0.57	3.3625	0.0989	21.9	21.1	17.5	18.0	17.9	19.1	0.06	14.5	(0.33)
Medco Health Solutions	0.80	0.64	3.6706	0.2045	4.1	5.4	6.4	8.4	7.8	6.8	(1.09)	11.5	(0.83)
Medtronic Inc.	0.70	0.52	3.0425	0.0895	23.0	21.8	22.0	21.7	28.6	23.4	0.44	23.5	1.17
Mettler-Toledo Int'l	0.95	0.89	2.9552	0.0869	22.5	19.5	14.7	15.0	19.3	18.2	(0.04)	18.5	0.33
Millipore Corp.	0.95	0.85	3.5496	0.1043	19.1	28.7	20.4	16.5	16.8	20.3	0.18	19.5	0.50
Murphy Oil Corp.	1.00	0.97	3.6125	0.1062	17.6	6.4	13.1	17.8	21.0	15.2	(0.31)	9.5	(1.17)
NIKE Inc. 'B'	0.90	0.76	2.6872	0.0849	16.9	17.4	15.5	19.8	21.5	18.8	0.02	16.0	(0.08)
New York Community	0.95	0.92	3.5071	0.1031	10.5	17.3	11.3	11.1	8.8	11.6	(0.63)	12.0	(0.75)
Newell Rubbermaid	0.90	0.84	3.2432	0.0954	13.1	20.5	20.2	21.6	25.8	20.2	0.16	21.0	0.76
Northrop Grumman	0.70	0.49	2.9616	0.0877	5.5	4.8	4.8	6.4	7.4	5.8	(1.19)	12.0	(0.75)
OSI Restaurant Partners	0.55	0.85	3.1264	0.0919	15.0	15.6	16.9	14.5	13.5	15.1	(0.32)	14.5	(0.33)
Occidental Petroleum	1.00	0.97	2.6716	0.0844	23.6	16.2	20.3	25.4	26.4	22.4	0.35	15.0	(0.25)
Oshkosh Truck	0.90	0.82	3.5594	0.1047	14.7	14.5	14.6	17.7	19.5	16.2	(0.22)	16.0	(0.08)
Owens & Minor	0.90	0.82	3.1451	0.0926	18.8	18.1	13.1	13.1	13.0	14.6	(0.37)	13.0	(0.58)
Pacific Cap. Bancorp	0.85	0.70	3.2218	0.0947	17.2	20.2	19.0	19.1	15.5	18.2	(0.04)	8.5	(1.33)
Pacliv Corp.	0.95	0.85	3.0335	0.0894	9.8	24.5	21.7	19.7	17.7	18.7	0.01	18.0	0.25
Papa John's Int'l	0.75	0.61	3.0716	0.0903	24.2	38.4	23.0	26.0	28.7	27.9	0.86	17.0	0.08
Pepsi Bottling Group	0.80	0.64	3.8706	0.1079	17.6	23.5	22.4	23.4	22.8	21.9	0.31	24.5	1.33
PepsiAmericas Inc.	0.80	0.69	2.8430	0.0838	6.3	9.4	9.8	10.8	12.0	9.7	(0.82)	10.5	(1.00)
Quest Diagnostics	0.85	0.73	3.4704	0.1020	14.1	18.1	18.2	22.2	19.8	18.5	(0.01)	19.0	0.42
RLI Corp.	0.75	0.60	2.9914	0.0880	9.0	8.4	10.6	10.3	14.0	10.5	(0.75)	12.5	(0.67)
RPM Int'l	1.00	0.93	3.4370	0.1011	8.8	11.8	14.1	14.5	16.0	13.0	(0.52)	15.5	(0.17)
Raytheon Co.	0.80	0.68	3.5283	0.1037	4.0	8.9	5.3	6.0	8.8	6.8	(1.11)	12.0	(0.75)
Regis Corp.	0.90	0.83	3.4027	0.1001	15.8	15.8	15.4	15.3	13.6	15.1	(0.32)	13.0	(0.58)
Reynolds & Reynolds	0.95	0.89	3.2761	0.0963	20.9	25.4	26.0	19.7	23.7	23.1	0.42	27.5	1.83
Ruddick Corp.	0.85	0.76	2.9746	0.0945	10.8	12.3	12.1	11.8	11.3	11.7	(0.84)	12.5	(0.67)
SUPERVALU INC.	0.95	0.91	3.4265	0.1008	12.6	12.8	13.1	13.3	12.3	12.8	(0.54)	11.0	(0.92)
Schein (Henry)	0.75	0.57	3.5371	0.1069	12.8	13.7	13.9	12.3	13.2	13.2	(0.50)	16.0	(0.08)
Selective Ins. Group	0.90	0.84	3.0647	0.0884	4.5	5.1	7.7	12.8	14.0	9.0	(0.89)	14.5	(0.33)
Sensient Techn.	0.90	0.78	3.1683	0.0932	16.1	18.2	13.4	11.5	9.1	13.1	(0.51)	9.5	(1.17)
ServiceMaster Co.	0.85	0.75	2.8657	0.0843	9.4	14.0	19.4	17.4	17.1	16.5	(0.29)	18.5	0.33
Smithfield Foods	0.85	0.75	3.5889	0.1055	14.4	2.0	10.1	15.7	9.4	10.3	(0.77)	10.0	(1.08)
Smucker (J.M.)	0.70	0.50	3.0974	0.0911	12.2	9.3	10.0	8.9	9.8	9.9	(0.81)	10.0	(1.08)
Sonic Corp.	0.70	0.52	3.5402	0.1041	19.4	20.7	19.7	19.8	19.6	19.6	0.09	18.0	(0.25)
Speedway Motorsports	0.75	0.60	3.0964	0.0910	12.9	12.6	12.4	12.7	14.1	12.9	(0.63)	12.0	(0.75)
Standex Int'l	0.95	0.86	3.5743	0.1051	14.5	11.4	11.1	13.5	14.4	13.0	(0.52)	14.5	(0.33)
Stanley Works	0.95	0.90	3.3762	0.0993	24.2	20.7	18.8	20.2	18.9	20.8	0.19	18.0	(0.08)
Stryker Corp.	0.80	0.63	3.1676	0.0931	25.7	23.8	21.0	21.3	22.1	22.6	0.39	25.5	1.50
TJX Companies	0.95	0.89	3.2698	0.0961	40.3	41.0	42.4	41.3	33.5	39.7	1.96	27.0	1.75
Tennant Co.	0.95	0.87	3.2725	0.0962	3.1	8.0	8.5	8.5	11.9	8.0	(0.98)	12.5	(0.67)
Thomburg Mtg.	0.75	0.59	3.1441	0.0925	6.6	9.4	10.4	9.2	5.7	8.1	(0.97)	8.0	(1.75)
Topps Co.	0.90	0.83	3.5104	0.1032	14.7	8.6	6.0	5.9	2.6	7.8	(1.02)	9.5	(1.17)
Toro Co.	0.95	0.89	2.9574	0.0870	14.8	17.4	18.5	26.0	29.2	21.2	0.24	33.0 (4)	2.75
Tupperware Brands	1.00	0.98	3.5232	0.1036	74.0	42.9	21.0	29.9	25.7	38.7	1.86	24.0	1.25
UnitedHealth Group	0.65	0.41	3.2831	0.0965	23.5	30.5	35.6	24.1	18.6	26.5	0.73	25.0	1.42
Washington Mutual	0.95	0.91	2.6972	0.0852	28.2	33.5	41.1	47.2	36.9	36.9	1.69	29.0 (4)	2.08
Waste Connections	0.95	0.88	3.2643	0.0960	10.3	12.8	12.2	10.9	12.0	11.8	(0.55)	16.5	-
Waste Management	0.95	0.88	2.6970	0.0852	13.6	15.2	13.2	13.7	14.3	14.0	(0.43)	20.0	0.58
Wendy's Int'l	0.75	0.59	3.2315	0.0950	16.6	16.1	13.4	13.6	12.0	14.6	(0.37)	13.5	(0.50)
Wolverine World Wide	1.00	0.98	3.6600	0.1062	12.1	13.0	12.0	14.4	16.1	13.5	(0.47)	17.0	0.09
Average for the Non-Utility Group	0.87	0.78	3.2793	0.0972									
Average for the Proxy Group of Four Value Line (Standard Edition) Water Companies	0.83	0.69	3.2739 (10)	0.0963									
Mean										17.1%		15.6%	
Conclusion (5)											16.4% (5)		
Conservative Mean (7)										14.1%		13.9%	
Conservative Conclusion (6)											14.0% (6)		

See pages 5 and 6 for notes.

Exhibit No. 1
Schedule PMA-12
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Twin Lakes Utilities, Inc.
Comparable Earnings Analysis

E = Estimated

Notes: (1) The criteria for selection of the proxy group of one hundred four non-utility companies was that the non-utility companies be domestic and have a meaningful rate of return on book common equity, shareholders' equity, net worth, or partners' capital for each of the five years ended 2005 or projected 2009 - 2011 as reported in Value Line Investment Survey (Standard Edition). The proxy group of one hundred four non-utility companies was selected based upon the proxy group of six AUS Utility Reports water companies' unadjusted beta range of 0.30 - 0.90 and standard error of the regression range of 2.9096 – 3.7928. These ranges are based upon plus or minus three standard deviations of the unadjusted beta and standard error of the regression as detailed in Ms. Ahern's direct testimony. Plus or minus three standard deviations captures 99.73% of the distribution of unadjusted betas and standard errors of the regression.

(2) Ending 2005.

(3) 2009 - 2011.

(4) The Student's T-statistic associated with these returns exceeds 1.96 at the 95% level of confidence. Therefore, they have been excluded, as outliers, to arrive at proper mean historical and projected returns as fully explained in Ms. Ahern's testimony.

(5) The standard deviation of group of six AUS Utility Reports water companies' standard error of the regression is 0.1472. The standard deviation of the standard error of the regression is calculated as follows:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{/2N}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

$$\text{Thus, } 0.1472 = \frac{3.3512}{/518} = \frac{3.3512}{22.7596}$$

(6) Mid-point of the arithmetic mean of the historical five year average and five year projected rate of return on book common equity, shareholder's equity, net worth, or partners' capital.

(7) Arithmetic mean of historical five year rates of return and five year projected rates of return on net worth, common equity or partners' capital excluding those 20% and greater as well as those 8.4% or less, i.e., 200 basis points above the prospective yield of 6.4% on A rated Moody's public utility bonds (from page 1 of Schedule PMA-10.)

(8) Mid-point of the arithmetic mean of historical five year rates of return and five year projected rates of return on net worth, common equity or partners' capital excluding those 20% and greater as well as those 8.4% or less, i.e., 200 basis points above the prospective yield of 6.4% on A rated Moody's public utility bonds (from page 1 of Schedule PMA-10.)

(9) The criteria for selection of the proxy group of one hundred twenty-five non-utility companies was that the non-utility companies be domestic and have a meaningful rate of return on book common equity, net worth, or partners' capital for each of the five years ended 2005 or projected 2009 - 2011 as reported in Value Line Investment Survey (Standard Edition). The proxy group of one hundred twenty-five non-utility companies was selected based upon the

Twin Lakes Utilities, Inc.
Comparable Earnings Analysis

proxy group of four Value Line (Standard Edition) water companies' unadjusted beta range of 0.40 - 0.98 and standard error of the regression range of 2.8425– 3.7053. These ranges are based upon plus or minus three standard deviations of the unadjusted beta and standard error of the regression as detailed in Ms. Ahern's direct testimony. Plus or minus three standard deviations captures 99.73% of the distribution of unadjusted betas and standard errors of the regression.

(10) The standard deviation of the proxy group of four Value Line (Standard Edition) water companies' standard error of the regression is 0.1438 (3.2739 / 22.7596).

Source of Information: Value Line, Inc., September 15, 2006
Value Line Investment Survey (Standard Edition)