

**Answers of Office of Attorney General to
Commission Staff's First Set of Information Requests**

1. At page 7 of his direct testimony, Scott J. Rubin states that it is not clear that Kentucky-American Water Company's ("Kentucky-American") proposed Emergency Pricing Tariff "would meet legal requirements for ratemaking by KAWC or any other investor-owned utility." Identify the statute(s), administrative regulation(s), or legal doctrine(s) to which Mr. Rubin is referring.

Answer:

The cited portion of Mr. Rubin's testimony is not based on a specific analysis of Kentucky law. Rather, it is based on Mr. Rubin's knowledge of legal and regulatory requirements that are generally effective throughout the United States. The specific legal doctrines to which he is referring are the general requirements that rates should be just and reasonable and not unduly discriminatory. As Mr. Rubin explains in his testimony, it is not at all clear that the pricing methodology proposed by KAWC would be consistent with these general requirements.

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2. Describe the program or pricing method that Mr. Rubin believes that Kentucky-American should implement to reduce water consumption during severe drought or emergency periods.

Answer:

Mr. Rubin does not necessarily believe that KAWC should implement any program or pricing method during severe drought or emergency periods. It may be more acceptable to the public, and more consistent with legal and regulatory requirements and principles, to have any type of pricing penalty imposed by state or local government, rather than by a privately owned utility. Mr. Rubin's assignment in this case did not include the development of a specific drought-response proposal.

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3. At page 9 of his direct testimony, Scott J. Rubin states that Kentucky-American's proposed low-income customer rate is unlawful. Identify the statute(s), administrative regulation(s), or legal doctrine(s) that lead the AG to believe the proposed rate is unlawful.

Answer:

The Public Service Commission is a creature of statute, and it has only those powers that the General Assembly elects to provide. *Boone County Water v. Public Service Commission*, Ky., 949 S.W.2d 588, 591 (1997). The fact that the General Assembly has given the Commission jurisdiction over utility rates does not mean that the Commission's power to set rates is unfettered. *South Central Bell v. Utility Regulatory Commission*, Ky., 637 S.W.2d 649 (1982).

KRS 278.170 contains the express statutory mandate for the Commission with regard to free or reduced rate service. Kentucky-American's low-income tariff provision does not fall within the scope of KRS 278.170, and the Company fails to identify any other statute (such as, for example, KRS 278.172) in KRS Chapter 278 that authorizes the reduced rate service proposed under this tariff provision.

**Answers of Office of Attorney General to
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4. Refer to the Direct Testimony of Scott J. Rubin at 10. State whether the AG believes that tax credits and direct subsidies from the Commonwealth of Kentucky or Lexington-Fayette Urban County Government ("LFUCG") are the most appropriate means of assisting low-income water customers.

Answer:

Mr. Rubin's testimony at page 10 (lines 17 and 18) conveys his belief that "there are many ways KAWC could assist its low-income customers without running afoul of the law." The position of the Office of the Attorney General is in accord with this statement.

The Office of the Attorney General has not conducted a study relating to the use of tax credits and direct subsidies from the Commonwealth of Kentucky or Lexington-Fayette Urban County Government as a means of assisting low-income water customers. Consequently, the Attorney General is unable to take a position as to whether such measures "are the most appropriate means of assisting low-income water customers."

**Answers of Office of Attorney General to
Commission Staff's First Set of Information Requests**

5. At page 11 of his direct testimony, Scott J. Rubin states that Kentucky-American's proposed economic development rate is unlawful.
- (a) Identify the statute(s), administrative regulation(s), or legal doctrine(s) that lead the AG to believe the proposed rate is unlawful.
 - (b) State whether the AG takes the position that all economic development rates are unlawful.
 - (c) Explain how the AG's position regarding Kentucky-American's proposed economic development rate is consistent with the position that the Commission adopted in Administrative Case No. 327.

Answer:

- (a) The Kentucky-American Water Company is not seeking approval of an economic development rate.¹ The "tariff" is not truly part of the filing of the current case.² Therefore, there is no proposed economic development rate.

Mr. Rubin's testimony at page 11 (lines 2 through 9) pertains to Kentucky-American Water Company's testimony regarding the possibility of proposing an economic development tariff in the future. He recommends that the Company "cease expending its resources on the development of an economic development tariff." The position of the Office of the Attorney General is in accord with his testimony.

Public Service Commission is a creature of statute, and it has only those powers that the General Assembly elects to provide. *Boone County Water v. Public Service Commission*, Ky., 949 S.W.2d 588, 591 (1997). The fact that the General Assembly has given the Commission jurisdiction over utility rates does not mean that the Commission's power to set rates is unfettered. *South Central Bell v. Utility Regulatory Commission*, Ky., 637 S.W.2d 649 (1982).

KRS 278.170 contains the express statutory mandate for the Commission with regard to free or reduced rate service. The statute does not contain an authorization for a utility to grant free or reduced rate service for economic development. The General Assembly has yet to add a statute to or otherwise amend an existing statute in KRS Chapter 278 to authorize free or reduced rate service for economic development.

- (b) While the term "rate" is defined by KRS 278.010, the section does not contain a definition for the term "economic development rate" for use in KRS Chapter 278. In Administrative Case No. 327³ the Commission did, for the purposes of that investigation, provide a definition of an economic development rate.⁴ The Attorney

¹ KAWC Response to AG 1 – 14.

² KAWC Response to PSC 3 – 66.

³ *In the Matter of: An Implementation of Economic Development Rates by Electric and Gas Utilities.*

⁴ Administrative Case No. 327, Order, 24 September 1990, page 1.

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General is not aware of any other economic development rate(s) falling outside of this definition. Thus, the Attorney General limits his response to the economic development rate described in Administrative Case No. 327.

It is the position of the Office of the Attorney General that the Commission is a creature of statute. The General Assembly has yet to add a statutory provision to or amend an existing provision of Chapter 278 to authorize a utility to grant free or reduced rate service for economic development. In light of the detail (or comprehensive nature) of the General Assembly's mandate regarding free or reduced rate service in KRS 278.170, the Attorney General does not believe that the ability for the Commission to authorize an economic development rate is within the Commission's necessarily implied powers. Hence, the Attorney General believes that these rates are unlawful.

- (c) Again, Kentucky-American has not proposed an economic development rate in this case.⁵ For the sake of discussion, the definition of an economic development rate in Administrative Case No. 327 does not include a water rate discount. Hence, the possible proposed economic development rate of Kentucky-American does not fall within the scope of the Commission's definition of an economic development rate as per Administrative Case No. 327.

The Attorney General's position regarding Kentucky-American's "proposed" economic development rate is neither consistent nor inconsistent with the position that the Commission adopted in Administrative Case No. 327 concerning gas or electric rate discounts. Further, there is no requirement that the Attorney General's position regarding free or reduced rate service for economic development must be consistent with Administrative Case No. 327.

⁵ KAWC Response to PSC 3 – 66.

**Answers of Office of Attorney General to
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6. Refer to the Direct Testimony of Scott J. Rubin at 11 – 12.
- (a) State whether Mr. Rubin holds the position that the AWWA Manual M1 requires a miscellaneous or special charge to meet all of the stated six principles to be a proper charge. If yes, identify the specific portion of the AWWA Manual M1 that supports this position.
 - (b) Provide all legal or regulatory authorities for Mr. Rubin's proposition that a customer's ability to pay should be considered in assessing the reasonableness of a miscellaneous or special charge.
 - (c) Explain why ability to pay should be considered as a factor in assessing the reasonableness of a miscellaneous or special charge.

Answer:

(a) No. AWWA Manual M1 does not "require" anything. The Foreword to the Manual states: "As with the other manuals prepared by the Rates and Charges Subcommittee, this manual will not prescribe a solution. Rather, it is intended to provide guidance and advice. ... The purpose of this manual is to describe and present issues associated with developing water rates and charges, to enumerate the advantages and disadvantages of various alternatives, and to provide information to help users determine water rates and charges that are most relevant to a particular situation." Consistent with the role of the Manual to provide guidance and advice, the specific portion of the Manual cited in Mr. Rubin's testimony refers to the six principles using the following language: "In deciding whether to establish various service charges, a utility should consider general policies and a philosophy for governing such charges. Six basic guiding principles to establish charges for miscellaneous and special services include" Manual M1, p. 246.

(b) Mr. Rubin does not suggest that "a customer's ability to pay should be considered in assessing the reasonableness" of a charge. Rather, he states that the impact on customers of a proposed new charge should be considered. Part of considering that impact is to determine the types of customers who are likely to pay the charge. In this instance, Mr. Rubin determined that low-income customers were most likely to pay the new charge, while high-income customers were least likely to pay the new charge. Mr. Rubin is of the opinion that imposing a new charge that would have this impact might raise serious issues of fairness, equity, and rate discrimination.

(c) See response to (b).

Kentucky-American Water Company
Case No. 2004-00103

**Answers of Office of Attorney General to
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7. Does the AWWA Manual M 1 provide a method or guideline for establishing rates based on a customer's ability to pay? If yes, site the location of this in the Manual M 1.

Answer:

Yes. Pricing based on the specific characteristics of a customer, including ability to pay and related economic factors, is discussed in Chapters 16 (Low-Income Affordability Rates), 17 (Negotiated Contract Rates), and 18 (Economic Development Rates).

Responsible witness: Scott J. Rubin

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8. At page 15 of his direct testimony, Scott J. Rubin recommends that, if the Commission approves the proposed activation fee and “the overall level of rate increase allowed by the Commission is less than the \$672,000 that would be generated from the activation fee . . . [then] all Central Division charges should be reduced by an equal percentage.” State whether, in Mr. Rubin’s opinion, Central Division charges should be increased by an equal amount if the Commission permits an overall level of rate increase that exceeds \$672,000. Explain.

Answer:

No. On page 15 of his testimony, Mr. Rubin states: “the increased revenue resulting from that [activation] fee should be used to reduce or eliminate any increase in the 5/8-inch meter charge.” Thus, if the Commission approves the activation fee and the overall increase exceeds \$672,000, Mr. Rubin recommends the following procedure be used to design rates:

1. Do not increase Northern Division rates.
2. After subtracting miscellaneous revenue (including the activation charge) from the revenue requirement, calculate the Central Division rates that would be charged if all rates were increased by an equal percentage.
3. Calculate the increased revenue from the 5/8-inch customer charge from step 2.
4. If the increased revenue from the 5/8-inch charge, as calculated in step 3, is less than \$672,000, then keep the 5/8-inch charge at its existing level and increase all other Central Division charges by an equal percentage to recover the difference.
5. If the increased revenue from the 5/8-inch charge, as calculated in step 3, is \$672,000 or more, then reduce the 5/8-inch charge so that the revenue collected is \$672,000 lower than the amount calculated in step 3. Increase all other Central Division charges by an equal percentage to recover the difference.

Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

PSC-I-9. At page 2 of his Direct Testimony, Dr. J. Randall Woolridge states: "The benchmark for long-term capital costs is the rate on ten-year Treasury bonds." Provide all reports, studies, and publications upon which Dr. Woolridge relies for this statement.

Response:

The Street.Com: Treasury Bonds

(www.thestreet.com/tsc/basics/tscglossary/Treasury_Securities.html)

The 10-year note is the U.S. benchmark, meaning that people look to its yield as a proxy for all U.S. interest rates. Formerly, that honor went to the 30-year bond. But reduced issuance of 30-year bonds has given them scarcity value, making them less reliable as an indicator of how high people think interest rates should be. (30-year bond sometimes trades like commodities.)

Recession Telltale

(www.forbes.com/forbes/2000/1113/6613388a_print.html)

That bellowing you hear from the bulls would have you believe that this time it's different, that the inversion is really a chimera produced by the shortage of long Treasury bonds. Indeed, the 30-year yield has fallen 20 basis points since the Fed started its rate-raising campaign. Moody's, Merrill Lynch and other major Wall Street powers assume the long bond is going the way of the passenger pigeon and have switched to the 10-year Treasury as their benchmark.

Goldman Sachs Sees 10 year note as its government debt benchmark

(www.brady.net.com/bbs/us/100004-0.html)

2000 Feb, NEW YORK, Feb 9 (Reuters) - With the U.S. Treasury Department buying back benchmark 30-year bonds and cutting back on new issuance of long bonds, investment bank Goldman Sachs said on Wednesday it would now use the Treasury 10-year note as its government debt benchmark to gauge appropriate prices and yields on other types of securities.

Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

PSC-I-10. List all other term lengths of U.S. Treasury bonds that are currently available.

Response:

Attachment PSC I-10A provides the yields and maturities for the various Treasury issues that trade in the markets as of September 13, 2004.


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Treasury Quotes

Monday, September 13, 2004

U.S. Government Bonds and Notes

Representative Over-the-Counter quotation based on transactions of \$1 million or more. Treasury bond, note and bill quotes are from midafternoon. Colons in bond and note bid-and-asked quotes represent 32nds; 101:01 means 101 1/32. Net change in 32nds. n-Treasury Note. i-Inflation-indexed issue. Treasury bill quotes in hundredths, quoted in terms of a rate of discount. Days to maturity calculated from settlement date. All yields are to maturity and based on the asked quote. For bonds callable prior to maturity, yields are computed to the earliest call date for issues quoted above par and to the maturity date for issues quoted below par.

*-When issued. Daily change expressed in basis points.

Rate	Maturity Mo/Yr	Bid	Asked	Chg	Asked Yield
1 7/8	Sep 04 n	100:00	100:01	....	1.15
2 1/8	Oct 04 n	100:01	100:02	....	1.50
5 7/8	Nov 04 n	100:22	100:23	....	1.57
7 7/8	Nov 04 n	101:01	101:02	....	1.51
11 5/8	Nov 04	101:21	101:22	-1	1.52
2	Nov 04 n	100:01	100:02	-1	1.62
1 3/4	Dec 04 n	100:00	100:01	+1	1.64
1 5/8	Jan 05 n	99:29	99:30	....	1.75
7 1/2	Feb 05 n	102:12	102:13	....	1.70
1 1/2	Feb 05 n	99:26	99:27	-1	1.81
1 5/8	Mar 05 n	99:27	99:28	....	1.83
1 5/8	Apr 05 n	99:26	99:27	....	1.88
6 1/2	May 05 n	103:00	103:01	-1	1.89

6 3/4	May 05 n	103:05	103:06	....	1.90
12	May 05	106:21	106:22	-1	1.85
1 1/4	May 05 n	99:17	99:18	+1	1.87
1 1/8	Jun 05 n	99:10	99:11	....	1.94
1 1/2	Jul 05 n	99:17	99:18	....	1.99
6 1/2	Aug 05 n	104:01	104:02	....	1.99
10 3/4	Aug 05	107:29	107:30	+1	1.98
2	Aug 05 n	99:30	99:31	+1	2.02
1 5/8	Sep 05 n	99:18	99:19	+1	2.02
1 5/8	Oct 05 n	99:15	99:16	....	2.06
5 3/4	Nov 05 n	104:05	104:06	....	2.10
5 7/8	Nov 05 n	104:09	104:10	....	2.10
1 7/8	Nov 05 n	99:22	99:23	+1	2.11
1 7/8	Dec 05 n	99:19	99:20	+1	2.16
1 7/8	Jan 06 n	99:17	99:18	+1	2.20
5 5/8	Feb 06 n	104:24	104:25	....	2.18
9 3/8	Feb 06	110:00	110:00	+1	2.18
1 5/8	Feb 06 n	99:03	99:04	....	2.23
1 1/2	Mar 06 n	98:26	98:27	....	2.27
2 1/4	Apr 06 n	99:27	99:28	-1	2.32
2	May 06 n	99:15	99:16	+1	2.31
4 5/8	May 06 n	103:23	103:24	....	2.31
6 7/8	May 06 n	107:12	107:13	....	2.31
2 1/2	May 06 n	100:07	100:08	+1	2.35
2 3/4	Jun 06 n	100:19	100:20	+1	2.39
7	Jul 06 n	108:05	108:06	....	2.41
2 3/4	Jul 06 n	100:17	100:18	....	2.43
2 3/8	Aug 06 n	99:27	99:28	....	2.43
2 3/8	Aug 06 n	99:25	99:26	+1	2.47
6 1/2	Oct 06 n	108:01	108:02	....	2.51
2 5/8	Nov 06 n	100:04	100:05	....	2.54

3 1/2	Nov 06 n	102:00	102:00	....	2.54
3 3/8	Jan 07 i	107:00	107:01	+2	0.35
2 1/4	Feb 07 n	99:03	99:04	....	2.62
6 1/4	Feb 07 n	108:13	108:14	-1	2.62
6 5/8	May 07 n	110:00	110:01	....	2.70
4 3/8	May 07 n	104:07	104:08	....	2.71
3 1/8	May 07 n	101:00	101:01	....	2.71
2 3/4	Aug 07 n	99:26	99:27	+1	2.80
3 1/4	Aug 07 n	101:08	101:09	....	2.78
6 1/8	Aug 07 n	109:08	109:09	+1	2.79
3	Nov 07 n	100:13	100:14	....	2.85
3 5/8	Jan 08 i	109:22	109:23	+2	0.67
3	Feb 08 n	100:06	100:07	+1	2.93
5 1/2	Feb 08 n	108:08	108:09	+1	2.93
2 5/8	May 08 n	98:21	98:22	+2	3.00
5 5/8	May 08 n	109:00	109:01	+2	3.01
3 1/4	Aug 08 n	100:18	100:19	+2	3.09
3 1/8	Sep 08 n	100:01	100:02	+2	3.10
3 1/8	Oct 08 n	100:00	100:00	+3	3.12
3 3/8	Nov 08 n	100:28	100:29	+3	3.14
4 3/4	Nov 08 n	106:06	106:07	+3	3.14
3 3/8	Dec 08 n	100:25	100:26	+3	3.17
3 1/4	Jan 09 n	100:05	100:06	+3	3.20
3 7/8	Jan 09 i	112:11	112:12	+3	0.95
3	Feb 09 n	99:02	99:03	+2	3.22
2 5/8	Mar 09 n	97:13	97:14	+3	3.24
3 1/8	Apr 09 n	99:13	99:14	+3	3.26
3 7/8	May 09 n	102:16	102:17	+3	3.28
5 1/2	May 09 n	109:21	109:22	+3	3.24
4	Jun 09 n	103:00	103:00	+3	3.31
3 5/8	Jul 09 n	101:08	101:09	+3	3.33

3 1/2	Aug 09 n	100:20	100:21	+3	3.35
6	Aug 09 n	111:30	111:31	+4	3.34
3 3/8	Sep 09 n	100:00	100:00	+3	3.37
10 3/8	Nov 09	101:16	101:17	....	1.14
4 1/4	Jan 10 i	115:25	115:26	+4	1.18
6 1/2	Feb 10 n	114:29	114:30	+5	3.45
11 3/4	Feb 10	104:05	104:06	....	1.62
10	May 10	105:12	105:13	-1	1.80
5 3/4	Aug 10 n	111:18	111:19	+5	3.56
12 3/4	Nov 10	112:08	112:09	+1	2.05
3 1/2	Jan 11 i	112:30	112:31	+5	1.36
5	Feb 11 n	107:19	107:20	+5	3.66
13 7/8	May 11	118:29	118:30	....	2.23
5	Aug 11 n	107:16	107:17	+4	3.75
14	Nov 11	124:09	124:10	-1	2.41
3 3/8	Jan 12 i	112:28	112:29	+6	1.51
4 7/8	Feb 12 n	106:17	106:18	+5	3.85
3	Jul 12 i	110:11	110:12	+6	1.59
4 3/8	Aug 12 n	103:01	103:02	+6	3.92
4	Nov 12 n	100:12	100:13	+7	3.94
10 3/8	Nov 12	122:10	122:11	-2	2.93
3 7/8	Feb 13 n	99:07	99:08	+6	3.98
3 5/8	May 13 n	97:11	97:12	+7	3.98
1 7/8	Jul 13 i	101:08	101:09	+6	1.72
4 1/4	Aug 13 n	101:10	101:11	+7	4.07
12	Aug 13	132:18	132:19	+3	3.10
4 1/4	Nov 13 n	101:04	101:05	+8	4.10
2	Jan 14 i	102:00	102:01	+7	1.76
4	Feb 14 n	99:00	99:01	+7	4.12
4 3/4	May 14 n	104:24	104:25	+7	4.14
13 1/4	May 14	142:24	142:25	+4	3.29

2	Jul 14 i	101:26	101:27	+7	1.79
4 1/4	Aug 14 n	100:25	100:26	+7	4.15
12 1/2	Aug 14	141:00	141:00	+4	3.38
11 3/4	Nov 14	139:00	139:00	+4	3.45
11 1/4	Feb 15	159:00	159:01	+12	4.20
10 5/8	Aug 15	155:01	155:02	+10	4.26
9 7/8	Nov 15	148:30	148:31	+11	4.30
9 1/4	Feb 16	143:23	143:24	+10	4.35
7 1/4	May 16	125:21	125:22	+11	4.41
7 1/2	Nov 16	128:08	128:09	+12	4.46
8 3/4	May 17	140:27	140:28	+13	4.48
8 7/8	Aug 17	142:10	142:11	+11	4.51
9 1/8	May 18	145:26	145:27	+12	4.57
9	Nov 18	145:05	145:06	+13	4.62
8 7/8	Feb 19	144:00	144:01	+13	4.65
8 1/8	Aug 19	136:16	136:17	+16	4.69
8 1/2	Feb 20	141:01	141:02	+13	4.72
8 3/4	May 20	144:06	144:07	+14	4.72
8 3/4	Aug 20	144:12	144:13	+14	4.74
7 7/8	Feb 21	134:22	134:23	+14	4.79
8 1/8	May 21	137:28	137:29	+15	4.79
8 1/8	Aug 21	138:03	138:04	+15	4.81
8	Nov 21	136:26	136:27	+14	4.82
7 1/4	Aug 22	128:04	128:05	+13	4.88
7 5/8	Nov 22	132:28	132:29	+13	4.87
7 1/8	Feb 23	126:26	126:27	+13	4.90
6 1/4	Aug 23	116:03	116:04	+13	4.93
7 1/2	Nov 24	132:21	132:22	+15	4.92
2 3/8	Jan 25 i	103:14	103:15	+16	2.16
7 5/8	Feb 25	134:12	134:13	+15	4.93
6 7/8	Aug 25	124:25	124:26	+14	4.95

6	Feb 26	113:08	113:09	+14	4.98
6 3/4	Aug 26	123:14	123:15	+16	4.98
6 1/2	Nov 26	120:04	120:05	+15	4.99
6 5/8	Feb 27	121:27	121:28	+15	4.99
6 3/8	Aug 27	118:19	118:20	+16	5.00
6 1/8	Nov 27	115:09	115:10	+16	5.00
3 5/8	Apr 28 i	125:30	125:31	+22	2.21
5 1/2	Aug 28	106:21	106:22	+15	5.02
5 1/4	Nov 28	103:07	103:08	+15	5.02
5 1/4	Feb 29	103:09	103:10	+14	5.01
3 7/8	Apr 29 i	131:20	131:21	+22	2.20
6 1/8	Aug 29	115:22	115:23	+15	5.01
6 1/4	May 30	117:27	117:28	+17	5.00
5 3/8	Feb 31	106:11	106:12	+15	4.94
3 3/8	Apr 32 i	125:22	125:23	+23	2.14

Treasury Bills

Maturity	Days to Mat.	Bid	Asked	Chg	Ask Yield
Sep 16 04	2	1.45	1.44	-0.02	1.46
Sep 23 04	9	1.45	1.44	....	1.46
Sep 30 04	16	1.49	1.48	-0.02	1.50
Oct 07 04	23	1.56	1.55	-0.02	1.57
Oct 14 04	30	1.52	1.51	-0.03	1.53
Oct 21 04	37	1.55	1.54	-0.02	1.56
Oct 28 04	44	1.56	1.55	-0.01	1.57
Nov 04 04	51	1.56	1.55	....	1.57
Nov 12 04	59	1.56	1.55	-0.01	1.58
Nov 18 04	65	1.58	1.57	....	1.60
Nov 26 04	73	1.60	1.59	-0.01	1.62
Dec 02 04	79	1.60	1.59	-0.01	1.62

Dec 09 04	86	1.62	1.61	-0.01	1.64
Dec 16 04	93	1.64	1.63	-0.02	1.66
Dec 23 04	100	1.65	1.64	-0.01	1.67
Dec 30 04	107	1.67	1.66	....	1.69
Jan 06 05	114	1.71	1.70	-0.01	1.73
Jan 13 05	121	1.73	1.72	....	1.75
Jan 20 05	128	1.75	1.74	....	1.78
Jan 27 05	135	1.77	1.76	+0.01	1.80
Feb 03 05	142	1.78	1.77	+0.01	1.81
Feb 10 05	149	1.78	1.77	+0.01	1.81
Feb 17 05	156	1.79	1.78	+0.01	1.82
Feb 24 05	163	1.80	1.79	+0.01	1.83
Mar 03 05	170	1.83	1.82	+0.01	1.86
Mar 10 05	177	1.84	1.83	+0.01	1.87

Source: eSpeed/Cantor Fitzgerald

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Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

PSC-I-11. At page 3 of his Direct Testimony, Dr. Woolridge compares the yield differential between Baa-rate corporate bonds and 10-year Treasuries. Explain why 10-year Treasuries should be compared to Baa-rated corporate bonds rather than other rated bonds.

Response:

The graph is intended to show the risk premium required on fixed income securities. Since a risk premium is defined as the premium required for bearing risk, it should be computed as the difference between the yields on risk-free securities (U.S. Treasuries) and risky bonds.

Kentucky-American Water Company

Case No. 2004-00103

Information Request Response to Commission Staff

Respondent: OAG Witness Dr. J. Randall Woolridge

Set I

PSC-I-12. Provide a copy of J.R. Siegel, "The Shrinking Equity Risk Premium," *The Journal of Portfolio Management* (Fall 1999).

Response:

The requested article is included as attachment PSC-I-12A.

The Shrinking Equity Premium

Historical facts and future forecasts.

Jeremy J. Siegel

Few conundrums have caught the imagination of economists and practitioners as much as the "Equity Premium Puzzle," the title chosen by Rajneesh Mehra and Edward Prescott for their seminal 1985 article in the *Journal of Monetary Economics*. Mehra and Prescott show that the historical return on stocks has been too high in relation to the return on risk-free assets to be explained by the standard economic models of risk and return without invoking unreasonably high levels of risk aversion.¹ They calculate the margin by which stocks outperformed safe assets — the *equity premium* — to be in excess of 6 percentage points per year, and claim that the profession is at a loss to explain its magnitude.

There have been many attempts since to explain the size of the equity premium by variations of the standard finance model. I shall not enumerate them here, but refer readers to reviews by Abel [1991], Kocherlakota [1996], Cochrane [1997], and Siegel and Thaler [1997].

I review here the estimates of the equity premium derived from historical data, and offer some reasons why I believe that most of the historical data underestimate the real return on fixed-income assets and overestimate the expected return on equities. I shall also offer some reasons why, given the current high level of the stock market relative to corporate earnings, the forward-looking equity premium may be considerably lower than the historical average.

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REAL RETURNS ON "RISK-FREE" ASSETS

From 1889 through 1978, Mehra and Prescott estimate the real return on short-dated fixed-income

assets (commercial paper until 1920 and Treasury bills thereafter) to have been 0.8%. In 1976 and again in 1982, Roger Ibbotson and Rex Sinquefeld formally estimated the real risk-free rate to be even lower — at zero, based on historical data analyzed from 1926. This extremely low level of the short-term real rate is by itself puzzling, and has been termed the “real rate puzzle” by Weil [1989]. The essence of this puzzle is that, given the historical growth of per capita income, it is surprising that the demand to borrow against tomorrow’s higher consumption has not resulted in higher borrowing rates.

The low measured level of the risk-free rate may in fact be in part an artifact of the time period examined. There is abundant evidence that the real rate both during the nineteenth century and after 1982 has been substantially higher. Exhibit 1, based on Siegel [1998], indicates that over the entire period from 1802 through 1998, the real compound annual return on Treasury bills (or equivalent safe assets) has been 2.9%, while the realized return on long-term government bonds has been 3.5%. Exhibit 2 presents the historical equity premium

EXHIBIT 1
COMPOUND ANNUAL REAL RETURNS (%)
U.S. DATA, 1802-1998

	Stocks	Bonds	Bills	Gold	Inflation
1802-1998	7.0	3.5	2.9	-0.1	1.3
1802-1870	7.0	4.8	5.1	0.2	0.1
1871-1925	6.6	3.7	3.2	-0.8	0.6
1926-1998	7.4	2.2	0.7	0.2	3.1
1946-1998	7.8	1.3	0.6	-0.7	4.2

Source: Siegel [1998] updated.

for selected time periods for both bonds and bills based on the same data.²

The danger of using historical averages — even over long periods — to make forecasts is readily illustrated by noting Ibbotson and Sinquefeld’s long-term predictions made in 1976 and again in 1982 on the basis of their own analysis of the historical data. In 1976, they made predictions for the twenty-five-year period from

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EXHIBIT 2
EQUITY PREMIUMS (%) — U.S. DATA, 1802-1998

	Equity Premium with Bonds		Equity Premium with Bills	
	Geometric	Arithmetic	Geometric	Arithmetic
1802-1998	3.5	4.7	5.1	5.5
1802-1870	2.2	3.2	1.9	2.9
1871-1925	2.9	4.0	3.4	4.6
1926-1998	5.2	6.7	6.7	8.6
1946-1998	6.5	7.3	7.2	8.6

Source: Siegel [1998] updated.

1976 through 2000, and in 1982 they made predictions for the twenty-year period from 1982 through 2001. Their forecasts are shown in Exhibit 3. Since we now have data for most of these forecast periods, it is of interest to assess their estimates.

The last two decades have been extremely good for financial assets, so it is not surprising that Ibbotson and Sinquefeld underestimate all their real returns. But their most serious underestimation is for fixed-income assets, where they forecast the real bill rate to average essentially zero and the real return on bonds to be less than 2%. Given the standard deviation of estimates, realized annual real bond and bill returns have been 9.9% and 2.9%, respectively, significantly above their estimates. Since negative real returns on fixed-income assets persisted between the two surveys, Ibbotson and Sinquefeld more seriously underestimate long-term real bill rates in their 1982 forecasts than they did in 1976.³

My purpose here is not to highlight errors in Ibbotson's and Sinquefeld's past forecasts. Their analysis was state-of-the-art, and their data have rightly

EXHIBIT 3
LONG-TERM FORECASTS OF REAL RETURNS —
COMPOUND ANNUAL RATES OF RETURN

Forecast Period		Stocks	Bonds	Bills	Inflation
1976-2000	Forecast	6.3 (23.5)	1.5 (8.0)	0.4 (4.6)	6.4 (4.8)
	Actual*	11.0	5.3	2.1	4.8
1982-2001	Forecast	7.6 (21.9)	1.8 (8.3)	0.0 (4.4)	12.8 (5.1)
	Actual*	14.6	9.9	2.9	3.3

*Data through 1998.
 Standard deviations of annual returns in parentheses.
 Source: Ibbotson and Sinquefeld [1976, 1982].

formed the benchmark for the risk and return estimates used by both professional and academic economists. I bring these forecasts to light to show that even the fifty-year history of financial returns available to economists at that time was insufficient to estimate future real fixed-income returns.

It is not well understood why the real rate of returns on fixed-income assets was so low during the 1926-1980 period. The bursts of unanticipated inflation following the end of World War II and during the 1970s certainly had a negative effect on the realized real returns from long-term bonds. Perhaps the shift from a gold standard to a paper monetary standard had a negative effect on these real returns until investors fully adjusted to the inflationary bias inherent in the new monetary standard.⁴

Whatever the reasons, the current yields on the Treasury inflation-protected securities, or TIPS, first issued in 1997 support the assertion that the future real returns on risk-free assets will be substantially above the level estimated over the Ibbotson-Sinquefeld period. This is so even when the estimating period includes the higher real rates of the past two decades. In August 1999, the ten- and thirty-year TIPS bond yielded 4.0%, nearly twice the realized rate of return on long-dated government bonds over the past seventy-five years.⁵

The market projects real returns on risk-free assets to be substantially higher in the future than they have been over most of this century. It is also likely that the expected returns in the past are substantially greater than they have turned out ex post, especially for longer-dated securities. If one uses a 3.5% real return on fixed-income assets, the geometric equity premium for a 7.0% real stock return falls to 3.5%.

HISTORICAL EQUITY RETURNS
AND SURVIVORSHIP BIAS

The real return on stocks, as I have emphasized [1998], has displayed a remarkable long-term stability. Over the entire 196-year period that I examine, the long-term after-inflation geometric annual rate of return on equity averages 7.0%. In the 1926-1998 period, the real return has been 7.4%, and since 1946 (when virtually all the thirteenfold increase in the consumer price index over the past two hundred years has taken place) the real return on equity has been 7.8%. The relative stability of long-term real equity returns is in marked contrast to the unstable real returns on fixed-income assets.

Some economists believe the 7% historical real

return on equities very likely overstates the true expected return on stocks. They claim that using the ex post equity returns in the United States to represent returns expected by shareholders is misleading. This is because no investor in the nineteenth or early twentieth century could know for certain that the United States would be the most successful capitalist country in history and experience the highest equity returns.

This "survivorship bias" hypothesis, as it has been called, is examined by Jorion and Goetzmann [1999] in "Global Stock Markets in the Twentieth Century." They conclude that of thirty-nine equity markets that existed in 1921, none of them show as high a real capital appreciation as the United States, and most of them have had substantial disruptions in their operations or have disappeared altogether. They report that the median real capital appreciation of non-U.S. markets has been only 0.8% per year as opposed to 4.3% in the U.S.⁶

But this evidence may be misleading. Total returns of a portfolio, especially over long periods of time, are a very non-linear function of the returns of the individual components. Mathematically it can be shown that if individual stock returns are lognormal, the performance of the *median* stock is almost always worse than the market portfolio performance.⁷

So, it is not surprising that the median performance of individual countries will not match the "world portfolio" or the returns in the dominant market. Jorion and Goetzmann recognize this near the end of their study when they show that compound annual real return on a GDP-weighted portfolio of equities in all countries falls only 28 basis points short of the U.S. return. In fact, because of the real depreciation of the dollar over this time, the compound annual *dollar* return on a GDP-weighted world is actually 30 basis points *higher* than the return on U.S. equities.⁸

But examining international stock returns alone does not give us a better measure of the equity premium. The equity premium measures the *difference* between the returns on stocks and safe bonds. Although stock returns may be lower in foreign countries than the U.S., the real returns on foreign bonds are substantially lower. Almost all disrupted markets experienced severe inflation, in some instances wiping out the value of fixed-income assets. (One could say that the equity premium in Germany covering any period including the 1922-1923 hyperinflation is over 100%, since the real value of fixed-income assets fell to zero while equities did not.)

Even investors who purchased bonds that

promised precious metals or foreign currency experienced significant defaults. It is my belief that if one uses a world portfolio of stocks and bonds, the equity *premium* will turn out higher, not lower, than found in the U.S.⁹

TRANSACTION COSTS AND DIVERSIFICATION

I believe that 7.0% per year does approximate the long-term real return on equity indexes. But the return on equity *indexes* does not necessarily represent the *realized* return to the equityholder. There are two reasons for this: transaction costs and the lack of diversification.¹⁰

Mutual funds and, more recently, low-cost "index funds" were not available to investors of the nineteenth or early twentieth century. Prior to 1975, brokerage commissions on buying and selling individual stocks were fixed by the New York Stock Exchange, and were substantially higher than today. This made the accumulation and maintenance of a fully diversified portfolio of stocks quite costly.

The advent of mutual funds has substantially lowered the cost of maintaining a diversified portfolio. And the cost of investing in mutual funds has declined over the last several decades. Rea and Reid [1998] report a decline of 76 basis points (from 225 to 149) in the average annual fee for equity mutual funds from 1980 to 1997 (see also Bogle [1999, p. 69]). Index funds with a cost of less than 20 basis points per year are now available to small investors.

Furthermore, the risk experienced by investors unable to fully diversify their portfolios made the risk-return trade-off less desirable than that calculated from stock indexes. On a risk-adjusted basis, a less-than-fully diversified portfolio has a lower expected return than the total market.

Given transaction costs and inadequate diversification, I assume that equity investors experienced real returns more in the neighborhood of 5% to 6% over most of the nineteenth and twentieth century rather than the 7% calculated from indexes. Assuming a 3.5% real return on bonds, the historical equity premium may be more like 1.5 to 2.5 percentage points, rather than the 6.0 percentage points recorded by Mehra and Prescott.

PROJECTING FUTURE EQUITY RETURNS

Future stock returns should not be viewed independently of current fundamentals, since the price of

stocks is the present discounted value of all expected future cash flows. Earnings are the source of these cash flows, and the average price-to-earnings (P-E) ratio in the U.S. from 1871 through 1998 is 14 (see Shiller [1989] for an excellent source for this series).

Using data from August 13, 1999, the S&P 500 stock index is 1327, and the mean 1999 estimate for operating earnings of the S&P 500 stock index of fifteen analysts polled by Bloomberg News is \$48.47.¹¹ This yields a current P-E ratio on the market of 27.4. But due to the increased number of write-offs and other special charges taken by management over the last several years, operating earnings have exceeded total earnings by 10% to 15%.¹² On the basis of reported earnings, which is what most historical series report (including Shiller's), the P-E ratio of the market is currently about 32.¹³

There are two long-term consequences of the high level of stock prices relative to fundamentals. Either 1) future stock returns are going to be lower than historical averages, or 2) earnings (and hence other fundamentals such as dividends or book value) are going to rise at a more rapid rate in the future. A third possibility, that P-E ratios will rise continually without bound, is ruled out since this would cause an unstable bubble in stock prices that must burst.

If future dividends grow no faster than they have in the past, forward-looking real stock returns will be lower than the 7% historical average. As is well known from the dividend discount model, the rate of return on stocks can be calculated by adding the current dividend yield to the expected rate of growth of future dividends. The current dividend yield on the S&P 500 index is 1.2%. Since 1871, the growth of real per share dividends on the index has been 1.3%, but since 1946, due in part to a higher reinvestment rate, growth has risen to 2.1%. If we assume future growth of real per share dividends to be close to the most recent average of 2.1%, we obtain a 3.3% real return on equities, less than one-half the historical average.

A second method of calculating future real returns yields a similar figure. If the rate of return on capital equals the return investors require on stocks, the *earnings yield*, or the reciprocal of the price-earnings ratio, equals the forward-looking real long-term return on equity (see Phillips [1999] for a more formal development of this proposition). Long-term data support this contention; a 14 price-to-earnings ratio corresponds to a 7.1% earnings yield, which approximates the long-term real return on equities. The current P-E ratio on the S&P 500 stock

index is between 27 to 32, depending on whether total or operating earnings are considered. This indicates a current earnings yield, and hence a future long-term and real return, of between 3.1% to 3.7% on equities.

One way to explain these projected lower future equity returns is that investors are bidding up the price of stocks to higher levels as the favorable historical data about the risks and returns in the equity market become incorporated into investor decisions.¹⁴ Lower transaction costs further enable investors to assemble diversified portfolios of stocks to take advantage of these returns. The desirability of stocks may be further reinforced by the perception that the business cycle has become less severe over time and has reduced the inherent risk in equities.¹⁵

If these factors are the cause of the current bull market, then the revaluation of equity prices is a one-time adjustment. This means that future expected equity returns should be lower, not higher, than in the past. During this period of upward price adjustment, however, equity returns will be higher than average, increasing the historical measured returns in the equity market.

This divergence between increased historical returns and lower future returns could set the stage for some significant investor disappointment, as survey evidence suggests that many investors expect future returns to be higher, not lower, than in the past (see "PaineWebber Index of Investor Optimism" [1999]).

SOURCES OF FASTER EARNINGS GROWTH

Although the increased recognition of the risks and returns to equity may be part of the explanation for the bull market in stocks, there must be other reasons. This is because the forward-looking rates of return we derive for equities fall below the current 4.0% yield on inflation-protected government bonds. Although one could debate whether in the long run stocks or *nominal* bonds are riskier in real terms, there should be no doubt that the inflation-protected bonds are safer than equities and should have a lower expected return.

Hence, some part of the current bull market in stocks must be due to the expectations that future earnings (and dividend) growth will be significantly above the historical average. Optimists frequently cite higher growth of real output and enhanced productivity, enabled by the technological and communications revolution, as the source of this higher growth. Yet the long-run relation between the growth of real output and *per share* earn-

ings growth is quite weak on both theoretical and empirical grounds. Per share earnings growth has been primarily determined by the reinvestment rate of the firm, or the earnings yield minus the dividend yield, not the rate of output growth.¹⁶

The reason why output growth does not factor into per share earnings growth is that new shares must be issued (or debt floated) to cover the expansion of productive technology needed to increase output. Over the long run, the returns to technological progress have gone to workers in the form of higher real wages, while the return per unit of capital has remained essentially unchanged. Real output growth could spur growth in per share earnings only if it were "capital-enhancing," in the growth terminology, which is contrary to the labor-augmenting and wage-enhancing technological change that has marked the historical data (see Diamond [1999] for a discussion of growth and real return).

But there are factors that may contribute to higher future earnings growth of U.S. corporations, at least temporarily. The United States has emerged as the leader in the fastest-growing segments of the world economy: technology, communications, pharmaceuticals, and, most recently, the Internet and Internet technology. Furthermore, the penetration of U.S. brand names such as Coca-Cola, Procter & Gamble, Disney, Nike, and others into the global economy can lead to temporarily higher profit growth for U.S. firms.

Nonetheless, the level of corporate earnings would have to double to bring the P-E ratio down to the long-term average, or to increase by 50% to bring the P-E ratio down to 20. A 20 price-to-earnings yield corresponds to a 5% earnings yield or a 5% real return, a return that I believe approximates realized historical equity returns after transaction costs are subtracted. For per share earnings to temporarily grow to a level 50% above the long-term trend is clearly possible in a world economy where the U.S. plays a dominant role, but it is by no means certain.

CONCLUSION

The degree of the equity premium calculated from data estimated from 1926 is unlikely to persist in the future. The real return on fixed-income assets is likely to be significantly higher than that estimated on earlier data. This is confirmed by the yields available on Treasury inflation-linked securities, which currently exceed 4%. Furthermore, despite the acceleration in earnings

growth, the return on equities is likely to fall from its historical level due to the very high level of equity prices relative to fundamentals.¹⁷

All of this makes it very surprising that Ivo Welch [1999] in a survey of over 200 academic economists finds that most estimate the equity premium at 5 to 6 percentage points over the next thirty years. Such a premium would require a 9% to 10% real return on stocks, given the current real yield on Treasury inflation-indexed securities. This means that real per share dividends would have to grow by nearly 8.0% to 9.0% per year, given the current 1.2% dividend yield, to prevent the P-E ratio from rising farther from its current record levels. This growth rate is more than six times the growth rate of real dividends since 1871 and more than triple their growth rate since the end of World War II.

Unless there is a substantial increase in the productivity of capital, dividend growth of this magnitude would mean an ever-increasing share of national income going to profits. This by itself might cause political ramifications that could be negative for shareholders.

ENDNOTES

This article is adapted from a paper delivered at the UCLA Conference, "The Equity Premium and Stock Market Valuations," and a Princeton Center for Economic Policy Studies Conference, "What's Up with the Stock Market?" both held in May 1999. The author thanks participants in these seminars and particularly Jay Ritter, Robert Shiller, and Peter L. Bernstein for their comments.

¹A few economists believe these high levels of risk aversion are not unreasonable; see, e.g., Kandel and Stambaugh [1991].

²In the capital asset pricing model, equity risk premiums are derived from the *arithmetic* and not geometric returns. Compound annual geometric returns are almost universally used in characterizing long-term returns.

³Their wildly high 12.8% long-term inflation estimate in 1982 is derived by subtracting their low historical real yield from the high nominal bond rate. This overprediction has no effect on their estimated *real* returns.

⁴But real rates on *short-dated* bonds, for which unanticipated inflation should have been less important, were also extremely low between 1926 and 1980.

⁵I am very persuaded by the research of Campbell and Viceira [1998], who argue that in a multiperiod world the proper risk-free asset is an inflation-indexed annuity rather than the short-dated Treasury bill. This conclusion comes from intertemporal models where agents desire to hedge against unanticipated changes in the real rate of interest. The duration of such an indexed annuity is closely approximated by the ten-year inflation-indexed bonds.

⁶They are unable to construct dividend series for most foreign countries, but they make a not-unreasonable assumption that dividend yields in the U.S. were at least as high as abroad.

⁷Intuitively, the return of the winners more than compensates for the lower returns of the more numerous losers.

⁸Furthermore, the dollar return on the foreign portfolio is much better measured than the real return. These data are taken from Jorion and Goetzmann [1991], Tables VI and VII.

⁹To avoid the problems with default, gold is considered the "risk-free" alternative in many countries. But gold's long-term real returns are negative in the U.S. even before one considers storage and insurance costs. And precious metals are far from risk-free in real terms. The real return on gold since 1982 has been a negative 7% per year.

¹⁰I abstract from taxes, which reduce the return on both bonds and stocks.

¹¹These data were taken from the Bloomberg terminal on August 16, 1999.

¹²From 1970 through 1989, operating earnings exceeded reported earnings by an average of 2.29%. Since 1990, the average has been 12.93%.

¹³There are other factors that distort reported earnings, some upward (underreporting option costs: see Murray, Smithers, and Emerson [1998]) and some downward (overexpensing R&D; see Nakamura [1999]). No clear bias is evident.

¹⁴This is particularly true on a long-term, after-inflation basis. See Siegel [1998, Chapter 2].

¹⁵Bernstein [1998] has emphasized the role of economic stability in stock valuation. Also see Zarnowitz [1999] and Romer [1999]. Other reasons given for the high price of equities rely on demographic factors, specifically the accumulations of "baby boomers." This should, however, reduce both stock and bond returns, yet we see real bond returns as high if not higher than historically.

¹⁶From 1871 to 1998, the growth of real per share earnings is only 1.7% per year, slightly less than obtained by subtracting the median dividend yield of 4.8% from the median earnings yield of 7.2%.

¹⁷This should not be construed as predicting that equity prices need fall significantly, or that the expected returns on equities are not higher, even at current levels, than those on fixed-income investments.

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Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

PSC-I-13. Refer to the Direct Testimony of Dr. J. Randall Woolridge at 7 – 8 and Exhibit JRW-3.

- a. Provide August 2004 report from the C.A. Turner Utility Reports for each company within Dr. Woolridge's comparison groups.
- b. Explain why Dr. Woolridge used water revenues of at least 80 percent of total revenues as a criterion for selecting his comparison group.
- c. Explain why Dr. Woolridge did not use a lower percentage of water revenues of total revenues as a criterion for selecting his comparison group.
- d. State Kentucky-American's percentage of total revenues derived from water sales.

Response:

- a. The requested document is attached as PSC-I-13A
- b. The intention of the water revenue screen is to identify companies that are primarily engaged in the water utility business. The 80% figure is based on Dr. Woolridge's judgment but it is arbitrary.
- c. See response to PSC-I-13b.
- d. In Supplemental Response to PSC 1 - 5, KAWC reports the following:

Water Revenues	23,489,749
Sewer	25,258
<u>Other</u>	<u>653,699</u>

As such, KAWC percent of water revenues from water sales is 97%.

WATER

COMPANY	LATEST 12 MONTHS EARNINGS AVAILABLE	PER SHARE	
		EARNINGS	CURRENT ANNUAL DIVIDEND
American States Water Co. (NYSE-AWR)		0.66	
Aqua America, Inc. (NYSE-WTR)		0.81	
Artesian Resources Corp. (NDQ-ARTNA)		0.97	
California Water Service Group (NYSE-CWT)		1.32	
Connecticut Water Service, Inc. (NDQ-CTWS)		1.14	
Middlesex Water Company (NDQ-MSEX)		0.59	
Pennichuck Corporation (NDQ-PNNW)		0.45	
SJW Corporation (ASE-SJW)		1.66	
Southwest Water Company (NDQ-SWWC)		0.49	
York Water Company (NDQ-YORW)		0.83	
AVERAGE			

COMPANIES

BOOK VALUE (1)	STOCK PRICE 7/26	PERCENT (2)				DIV/ BOOK (2)	PRICE EARN MULT
		COMMON SHARES Q/S MILL	DIV PAYOUT	DIV YIELD	MKT/ BOOK		
13.85		15.2		4.0		6.4	
7.19		92.8		2.5		6.7	
13.50		3.9		3.6		6.1	
14.24		16.9		4.3		7.9	
10.51		8.0		3.4		7.9	
7.48		10.6		3.9		8.8	
12.38		2.4		3.4		6.9	
18.25		9.1		3.3		5.6	
6.85		14.8		1.6		2.8	
6.21		6.4		3.4		9.3	
				3.3		6.8	

WATER

COMPANY	OPER REV \$ MILL (1)	% WAT REV	NET PLANT \$ MILL	NET PLANT
				REV \$ (1)
American States Water Co. (NYSE-AWR)		88		2.57
Aqua America, Inc. (NYSE-WTR)		92		4.22
Artesian Resources Corp. (NDQ-ARTNA)		97		4.52
California Water Service Group (NYSE-CWT)		97		2.35
Connecticut Water Service, Inc. (NDQ-CTWS)		92		3.70
Middlesex Water Company (NDQ-MSEX)		87		3.27
Pennichuck Corporation (NDQ-PNNW)		88		3.00
SJW Corporation (ASE-SJW)		97		1.79
Southwest Water Company (NDQ-SWWC)		33		0.79
York Water Company (NDQ-YORW)		87		5.07
AVERAGE				

COMPANIES

S&P BOND RATING	MOODY'S BOND RATING	COMMON EQUITY RATIO (3)	% RETURN ON BOOK VALUE		REGULATION	
			COMMON EQUITY (4)	TOTAL CAPITAL	ALLOWED ROE	ORDER DATE
	A2		4.7		10.00	
	NR		12.5		10.15	
	NR		7.4		10.50	
	A2		9.9		9.70	
	NR		10.9		12.70	
	NR		7.9		10.38	
	NR		3.6		10.33	
	NR		9.3		9.95	
	NR		9.1		9.84	
	NR		13.6		-	
			8.9		10.39	

Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

PSC-I-14. Provide a copy of James M. McTaggart, "The Ultimate Poison Pill: Closing the Value Gap," *Commentary* (Spring 1988).

Response:

The requested article is included as attachment PSC-I-14A.

The Ultimate Poison Pill: Closing the Value Gap

James M. McTaggart, Chairman & Chief Executive Officer

Seldom in the history of U.S. business has a structural change hit with the same force. Ten years ago, large-scale LBOs, raiders, and forced restructuring were virtually unknown. Today, they are commonplace and are rapidly changing the economic landscape. At the source of this structural change is a growing belief that many large diversified companies are not being managed to create the maximum value possible for their shareholders. It is also important to note that the gap between actual and potential market values, the "value gap," is so large for some companies that substantial profits can be made even after premiums of 30-50% are paid to acquire control. This perception, combined with a flood of institutional money into junk bonds and LBO funds, has produced the takeover entrepreneur, who can now entice or threaten all but the very largest corporations.

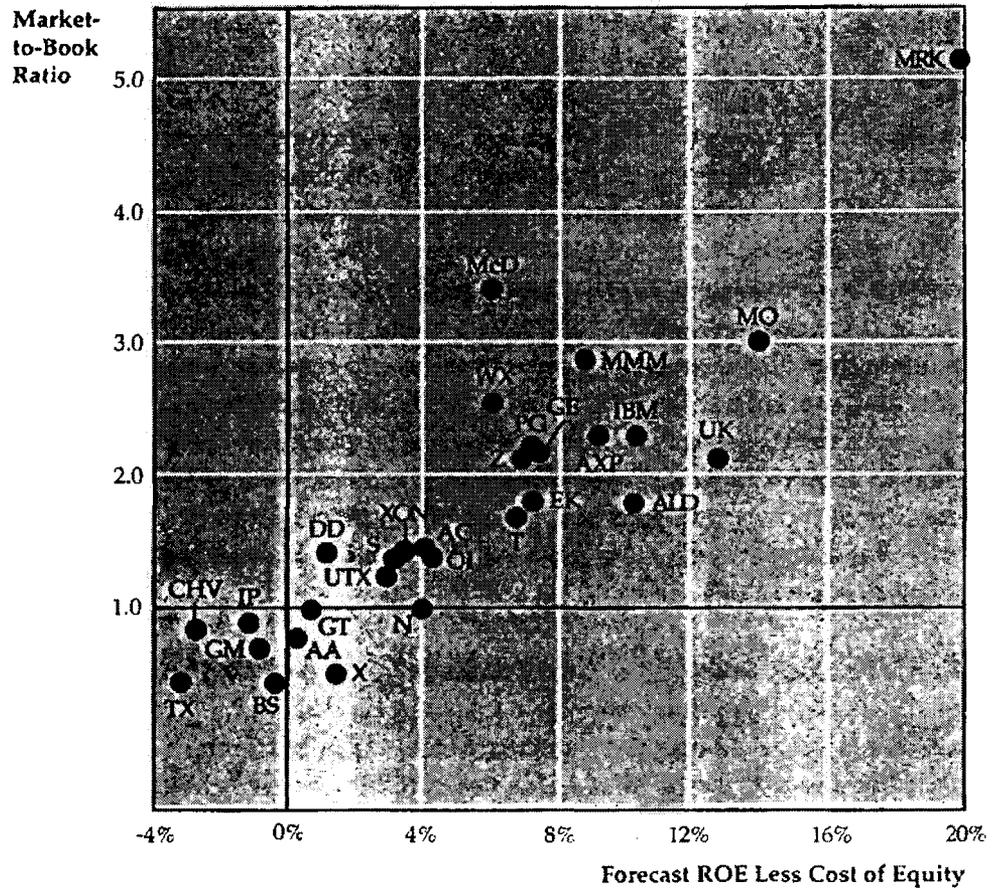
Can it be true? Is the value gap of sufficient size to make a large number of diversified companies attractive takeover candidates? In general, the answer is yes, although the number of candidates has been declining recently due to the spread of value-based strategic management. More important, however, are the sources of the gap. There are three management shortcomings that we believe account for most of the gap between actual and potential market values:

- 1) A tendency to invest far too much capital in unprofitable businesses
- 2) Poor balance sheet management, and
- 3) Tolerance of noneconomic overhead.

The Determinants of Value

In order to describe clearly the three sources of the value gap, it is necessary to first examine the factors that determine the market value of any business or company.

Exhibit 1: Profitability of Dow Jones Industrials - June 1986



- | | | | |
|-----|--------------------------|-----|---------------------|
| ALD | Allied Corp. | IP | Int'l. Paper |
| AA | Aluminum Co. of Am. | McD | McDonald's Corp. |
| AC | American Can | MRK | Merck & Co. |
| AXP | American Express | MMM | Minnesota Mining |
| T | American Telephone | MO | Philip Morris |
| BX | Bethlehem Steel | OI | Owens-Illinois |
| CHV | Chevron | PG | Proctor & Gamble |
| DD | DuPont | S | Sears, Roebuck |
| EK | Eastman Kodak | TX | Texaco, Inc. |
| XON | Exxon Corp. | UK | Union Carbide |
| GE | General Electric | X | U.S. Steel |
| GM | General Motors | UTX | United Technologies |
| GT | Goodyear Tire | WX | Westinghouse |
| IBM | Int'l. Business Machines | ZZ | Woolworth (F.W.) |
| N | Inco Limited | | |

Fundamentally, the value of a company is determined by the cash flow it generates over time for its owners and the minimum acceptable rate of return required by investors to supply equity capital. This "cost of equity capital" is used to discount the expected equity cash flow, converting it to a present value. The cash flow is, in turn, produced by the interaction of a company's return on equity and the annual rate of equity growth. High-ROE companies in low-growth markets, such as Kellogg, are prodigious generators of cash flow, while low-ROE companies in high-growth markets, such as Texas Instruments, barely generate enough cash flow to finance growth.

A company's ROE over time relative to its cost of equity also determines whether it is worth more or less than its book value. If ROE is consistently greater than the cost of equity capital (the investor's minimum acceptable return), the business is economically profitable and its market value will exceed book value. If, however, the business earns an ROE consistently less than its cost of equity, it is economically unprofitable and its market value will be less than book value. These basic principles can be seen at work in Exhibit I, which plots the profitability of the Dow Jones Industrials, based on Value Line forecasts of ROE and Marakon estimates of the cost of equity capital.

Growth acts as a magnifier. If ROE remains constant and the growth rate of a profitable business increases, its market-to-book ratio rises. For an unprofitable business, increasing growth actually drives the market-to-book lower (unless growth causes ROE to rise). And in the case where ROE is just equal to the cost of equity, growth has no impact on the market-to-book ratio. The primary reason for the scattering of the observations in Exhibit I is differential growth rates.

The profitability of a company is determined primarily by the profitability of its businesses. The profitability of a business is, in turn, determined by economic forces affecting supply and demand in its product markets, its competitive position, and the effectiveness of its strategy. The interaction of constantly changing economic forces and competitive strategies produces a wide variation in both industry and company profitability, as can be seen in Exhibits II and III. Understanding how industry economics and competitive position determine profitability for a given business is the first step toward developing strategies to increase shareholder returns.

Exhibit II: Profitability of 14 U.S. Industries – Spring 1986

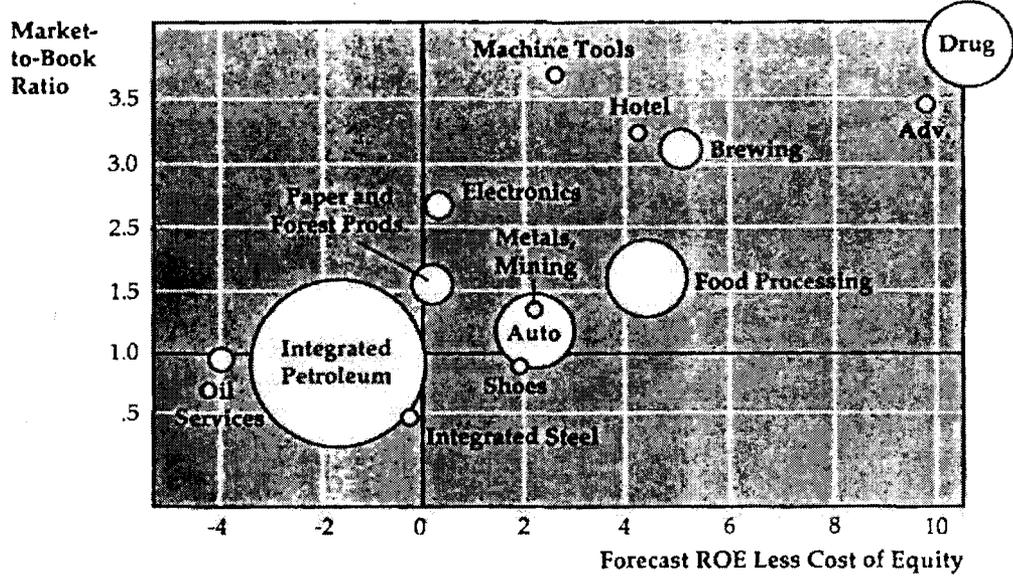
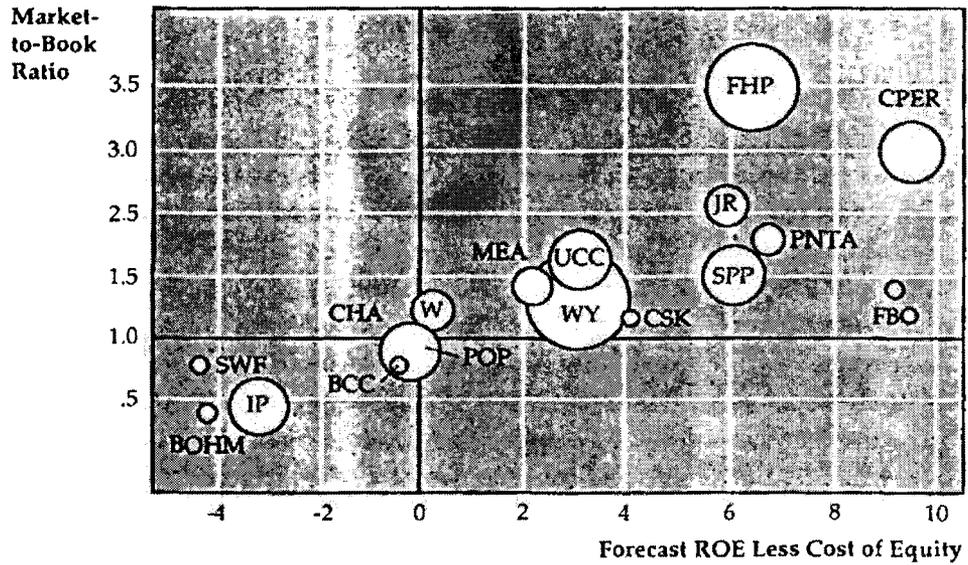


Exhibit III: Profitability of Paper and Forest Products Companies – Spring 1986



BOHM	Bohemia	FHP	Fort Howard Paper	SPP	Scott Paper
BCC	Boise Cascade	IP	International Paper	SWF	Southwest Forest
CHA	Champion International	JR	James River	UCC	Union Camp
CSK	Chesapeake	MEA	Mead	W	Westvaco
CPER	Consolidated Paper	PNTA	Pentair	WY	Weyerhaeuser
FBO	Federal Paper Board	POP	Pope & Talbot		

Sources of the Value Gap

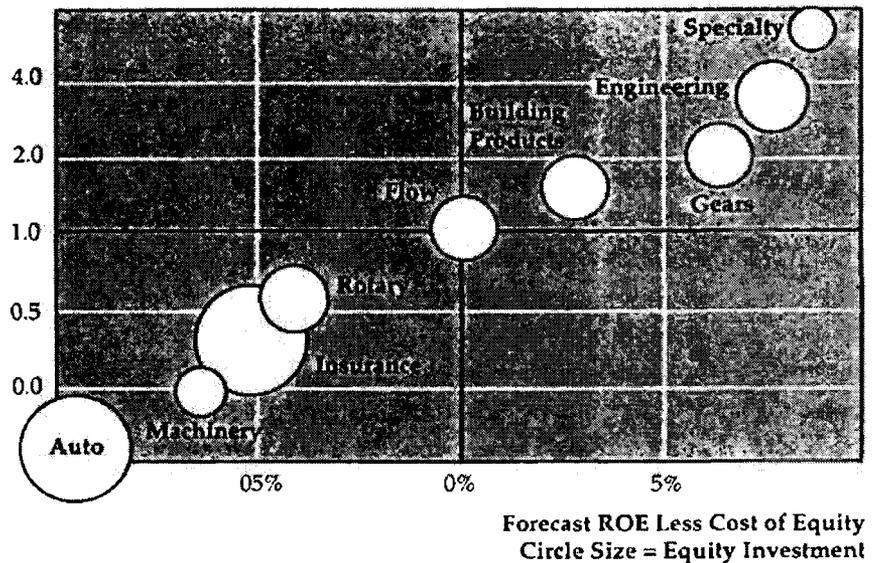
The wide variation in industry and company profitability also occurs within a typical diversified company's portfolio of businesses. Within a company, however, the capital allocation discipline provided by creditors and investors is replaced by management policies and strategies, which can significantly magnify the variation, particularly on the downside. The magnification can occur in either of two ways. The first is when management allows low-return businesses to invest too much capital, a process that can actually produce businesses with negative market values. The second is when management allows or causes high-return businesses to underinvest, which if prolonged usually results in a loss of competitive position and declining returns. In both instances, the business unit market values are significantly lower than they otherwise would be. This tendency to misallocate capital by allowing or causing businesses to pursue inappropriate strategies is the first of the three major sources of the gap between actual and potential market value.

The business portfolio shown in Exhibit IV, based on a recent engagement, illustrates the magnitude of the gap that can be produced by pursuing inappropriate business strategies. This company's sales were roughly \$750 million, and its common stock was trading at about 80% of book value. Its portfolio contained five profitable and four unprofitable businesses. The operating value of each unprofitable business, based on the prevailing strategies, was less than 50% of its book value. All told, the four operating values summed to \$115 million, versus a combined book value exceeding \$300 million.

The most unprofitable business, machinery, was actually worth a negative \$12 million; that is, the present value of its planned cash flow was negative \$12 million. This was produced by an operating strategy whose primary objective was growth. The key element of the plan was a massive capital spending program designed to boost capacity and eliminate a competitive cost disadvantage. And while the program, if successful, would have significantly enhanced the unit's ROI (from 8% to 12%), the long-term positive impact on value was more than offset by the near-term negative cash flow.

Based on a thorough assessment of market economics and profitability relative to competitors, we concluded that by changing strategy at each

Exhibit IV: Profitability of Company Portfolio



of the four businesses to emphasize profitability rather than growth, their combined market values could be increased by at least \$150 million within two years. In other words, the current value gap caused by over-investing in four unprofitable businesses was \$120 million, or 40% of the company's market value.*

As a general rule, strategy changes at the business unit level emanating from improved capital allocation can enhance market values by anywhere from 20-100% within a few years. While this alone can provide impetus to takeover entrepreneurs, the value gap can, in fact, be further magnified by poor balance sheet management and tolerance of non-economic overhead.

With respect to balance sheet management, substantial value can often be created by redeploying underperforming assets and reducing the cost of capital used to fund investments. On the asset side, two of the more prominent targets are excess cash and underutilized real estate. The source of value creation in the cash account is the low after-tax return it earns. To the extent that excess cash is held for long periods of time in

*The machinery business was subsequently sold in a leveraged buyout for book value and has since prospered.

taxable securities, it is worth less than its face value. Redeploying excess cash by repurchasing shares, for example, generates a capital gain equal to the present value of the tax savings. Excess pension fund reserves are also a source of funds that can be worth more if returned to shareholders. The source of value creation with corporate real estate is land or buildings that are not being put to their highest and best use. The capital tied up in undeveloped land, vacant office space, underutilized plants, or unprofitable retail outlets nearly always earns a return well below the cost of capital. To the extent that it can be redeployed into profitable businesses or, again, used to buy back stock, a substantial capital will occur.

On the liability side, value can be created for equity holders by increasing financial leverage up to a point. This, of course, is one of the sources of value that LBOs have utilized to recapture purchase price premiums. The source of the value creation is the tax saving due to the deductibility of interest. As a rule of thumb, each dollar of new debt should increase the firm's equity value by 20-25 cents until the firm's financial risk becomes excessive. At this point, the benefits from further borrowing are offset by the restrictions placed on the firm, which limit its capital availability and increase the probability that the interest expense will not be tax deductible. This point, however, is significantly beyond the current leverage position of most U.S. companies.

The magnitude of the opportunity to increase returns through improved balance sheet management will, of course, depend on the amount of nonproductive assets on the company's books and its capacity to borrow. In the case of Gulf Oil, we estimated that redeployment of over \$1 billion of excess cash and full utilization of the company's debt capacity would have produced a 20-25% increase in the market value of Gulf's stock. Focused efforts to reduce underperforming assets and improve liability management can result in increases to shareholder value of up to 50%.

With respect to overhead, our experience suggests that most large companies are overburdened and do not appreciate the magnitude of the overhead drag on equity values. The accumulation of overhead throughout most companies occurs for a variety of reasons. As companies grow, they face the continuing problem of how to decentralize operating re-

sponsibility while maintaining some centralized control. In many instances, the result is duplication of support functions at corporate, group, and business unit levels, such as accounting, personnel, and planning. In addition, the overriding objective of most people managing the support functions is to maximize the quality of their services, and their compensation is often closely correlated to the number of people under their stewardship. The result is excess staff and a service "quality-to-cost" ratio that is much lower than it should be.

The impact of noneconomic overhead on value can be staggering. For example, the overhead at Beatrice Corp. was estimated at roughly \$150 million annually, or 1.3% of its \$12 billion in sales. By contrast, Esmark, at roughly \$6 billion in sales, was spending only \$25 million on overhead functions, less than 0.5%. If Beatrice could have managed down its overhead to \$50 million, the resulting \$100 million in pretax earnings would have created roughly \$1 billion of shareholder value. This represents nearly 30% of Beatrice's preacquisition market value and 70% of the premium paid to acquire control of the company. This means that if the new owners can manage down Beatrice's overhead to Esmark's level, they will be two thirds of the way to recovering the acquisition premium, with potential divestments, strategy changes, and the impact of leverage and taxes yet to be considered.

Closing the Value Gap

In the current environment, with takeover financing readily available, no company can run for long with a large perceived gap between actual and potential market values. To close the gap, we recommend a five-step process:

First, develop accurate estimates of the operating and divestment values of each business in the portfolio. Few companies have this information, and yet it is the foundation of managing for shareholder value.

Second, incorporate profitability and operating values into both the strategic planning process and incentive compensation. The planning process should stress the relationships among market economics, competitive position, and profitability. Business unit managers cannot be expected to

develop value-creating strategies if they don't know how much their units are worth or why they are either profitable or unprofitable. To ensure effective implementation, a significant portion of key executive compensation must be tied directly or indirectly to shareholder value.

Third, don't hoard cash or carry nonproductive assets on the books. At least once a year, a thorough analysis of asset productivity should be conducted.

Fourth, put in place an aggressive financial policy. The level of borrowing should be matched to the ability of business units to bear interest rate risk. Excess cash flow should be dedicated to profitable diversification, dividends, and repurchasing shares.

Fifth, don't tolerate noneconomic overhead. Support functions should be viewed as service businesses and where possible, subjected to both performance measurement and outside competition.

If managed well, a diversified company could be worth more than just the sum of its business unit values, owing to economies of scale and scope in support functions and to the increase in debt capacity produced by diversification. Those companies that can accomplish this feat will not only enrich shareholders but will also put in place the best possible poison pill.

Kentucky-American Water Company

Case No. 2004-00103

Information Request Response to Commission Staff

Respondent: OAG Witness Dr. J. Randall Woolridge

Set I

PSC-I-15. Refer to the Direct Testimony of Dr. J. Randall Woolridge at 18. Describe Kentucky-American's position within the Three-Stage DCF Model.

Response:

Given the nature and regulated status of the water service industry and KAWC, it is in the steady-state stage of the three-stage DCF.

Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

16. Refer to the Direct Testimony of Dr. J. Randall Woolridge at 20 and Exhibit JRW-7 at 2.

- a. State whether the monthly dividend yield for August 2004 is an estimate.
- b. List the source(s) used to derive the monthly dividend yield for August 2004.

Response:

- a. The dividend yield is not an estimate, it comes from the August, 2004 *C. A. Turner Utility Reports*.
- b. The August, 2004 *C. A. Turner Utility Reports*.

Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

PSC-I-17. Refer to the Direct Testimony of Dr. J. Randall Woolridge at Exhibit JRW-7.

- a. State whether the supporting data for this Exhibit is for periods ending August 2004.
- b. Provide a copy of all supporting documents and reports used to prepare the Exhibit.
- c. Page 3 of the Exhibit shows members of the Small Water Company Group experienced negative growth rates.

(1) State the reasons for these negative values.

(2) Explain why it is appropriate to include negative growth in determining the historic growth rate.

Response:

a. The historic data is for the end of calendar year 2003. The projected data (Value Line and projected EPS data) are as of the end of July, 2003

b. See attachment PSC-I-17A

c. (1). The primary reason for the negative growth rates were the declines in sales and EPS for Pennichuck. The particular problem at Pennichuck is discussed in their Annual Report under "Results of Operations - 2003 Compared to 2002"

For the year ended December 31, 2003, the Company's consolidated net income was \$1.25 million, compared to net income of \$2.34 million in 2002, a decrease of nearly 47%. On a per share basis, basic income per share was \$.52 for the twelve months ended December 31, 2003, a \$.46 per share decrease from last year. This decrease in consolidated net income was due to, among other things, approximately \$1.11 million in expenses incurred during 2003 relating to the terminated merger with PSC, the pending regulatory investigations and the eminent domain issue with the City as discussed herein. Excluding the effect of those expenses in 2003 and 2002, consolidated net income was \$2.02 million, or \$.84 per share and \$3.53 million, or \$1.48 per share, respectively. Further contributing to this decrease in net income was an 8.7% decrease in consolidated revenues primarily from a decline in both the Company's regulated water and real estate businesses.

c. (2). Negative growth rates are one outcome that investors must deal with. Since the negative growth rates in this case were excessive, I reviewed the median as well as the mean growth rates.

American States Water Co. (United States) (NYS: AWR)

As Reported Annual Income Statement Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Total operating revenues	212,669	209,205	197,514	183,960
Operating income (loss)	33,605	37,648	36,692	32,307
Total interest charges	18,070	17,699	15,735	14,122
Net income	11,892	20,339	20,447	18,086
Weighted average shares outstanding- diluted	15,227	15,157	15,256.50	14,116.50
Year end shares outstanding	15,212.28	15,180.84	15,119.44	15,113.44
Net earnings (loss) per common share- basic	0.78	1.34	1.3467	1.28
Net earnings (loss) per common share- diluted	0.78	1.34	1.3333	1.2733
Dividends per common share	0.884	0.872	0.8667	0.8567
As Reported Annual Balance Sheet Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Net utility plant	602,298	563,311	539,842	509,096
Total assets	757,475	701,650	683,764	616,646
Total common shareholders' equity	212,487	213,279	199,982	192,723
Long-term debt	229,799	231,089	245,692	176,452
Long-term debt - current	820	13,305	800	735
Long-term debt net of current	228,979	217,784	244,892	175,717
Notes payable to banks	56,000	35,000	20,000	45,000
Total current liabilities	95,898	79,520	63,636	80,217
Total capitalization	442,286	444,368	447,554	371,095

Aqua America Inc (NYS: WTR)

As Reported Annual Income Statement Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Operating revenues	367,233	322,028	307,280	275,538
Operating income (loss)	153,561	140,504	134,340	118,313

Interest expense, net	44,662	40,396	39,859	40,360
Net income (loss)	70,795	67,206	60,111	52,890
Weighted average shares outstanding - diluted	89,244	86,538.75	85,943.75	81,767.19
Year end shares outstanding	92,589.04	84,895.54	85,483.09	83,868.63
Net income (loss) per share-basic	0.8	0.784	0.704	0.6528
Net income (loss) per share-diluted	0.79	0.776	0.696	0.6464
Dividends per common share	0.46	0.432	0.4	0.3757
Net income (loss)	70,795	67,206	60,111	52,890
Retained earnings	210,915	180,047	149,682	123,911
Year end shares outstanding	92,589.04	84,895.54	85,483.09	83,868.63

As Reported Annual Balance Sheet Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Net property, plant & equipment	1,824,291	1,486,703	1,368,115	1,251,427
Total assets	2,069,736	1,717,069	1,560,339	1,414,010
Total stockholders' equity	659,030	493,097	473,833	432,347
Total long-term debt	736,052	617,175	-	484,712
Current portion of long-term debt	39,386	34,265	-	15,943
Long-term debt, excluding current portion	696,666	582,910	516,520	468,769
Total capitalization	2,131,134	1,727,447	990,353	1,401,771
Note payable	960	978	-	12,000
Total current liabilities	232,001	226,531	202,635	173,183

California Water Service Group (DE) (United States) (NYS: CWT)

As Reported Annual Income Statement Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Operating revenue	277,128	263,151	246,820	244,806
Net operating income	30,234	30,297	25,151	33,196
Net interest expense	17,517	16,841	16,029	14,646
Net income	19,417	19,073	14,965	19,963
Weighted average shares outstanding - diluted	15,893	15,185	15,285	15,173

Year end shares outstanding	16,932	15,182	15,182	15,146
Net earnings (loss) per share-basic	1.21	1.25	0.98	1.31
Net earnings (loss) per share-diluted	1.21	1.25	0.97	1.31
Dividend declared	1.125	1.12	1.115	1.1

As Reported Annual Balance Sheet Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Net utility plant	759,498	696,988	624,342	582,008
Total assets	873,035	800,582	710,214	666,605
Total common shareholders' equity	244,524	199,217	196,619	198,834
Long-term debt, less current maturities	272,226	250,365	202,600	187,098
Total capitalization	520,225	453,057	402,694	389,407
Total current liabilities	63,564	91,541	78,989	63,736

SJW Corp. (ASE: SJW)

As Reported Annual Income Statement Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Operating revenue	149,732	145,652	136,083	123,157
Operating income	22,954	20,558	19,827	17,925
Interest on long-term debt	8,471	7,803	6,737	6,434
Net income	18,677	14,232	14,017	10,665
Year end shares outstanding	9,135.44	9,135.44	9,135.44	9,135.44
Net earnings per share-basic	2.04	1.5567	1.5333	1.1667
Dividends per common share	0.97	0.92	0.86	0.82
Net income	18,677	14,232	14,017	10,665
Retained earnings	138,058	128,242	122,415	116,232
Year end shares outstanding	9,135.44	9,135.44	9,135.44	9,135.44

As Reported Annual Balance Sheet Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Net utility plant	408,724	380,343	357,506	323,496
Total assets	511,717	453,223	431,017	391,930

Total stockholders' equity	166,368	153,499	149,354	144,325
Long-term debt	139,614	110,000	110,000	90,000
Total capitalization	305,982	263,499	259,354	234,325
Total current liabilities	15,076	23,600	24,159	26,742

Averages for Large Water Companies

As Reported Annual Income Statement Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Operating revenue	251,691	235,009	221,924	206,865
Operating income	60,089	57,252	54,003	50,435
Interest Expense	22,180	20,685	19,590	18,891
Net income	30,195	30,213	27,385	25,401
Year end shares outstanding	33,467.19	31,098.45	31,229.99	30,815.88
Net earnings per share-basic	1.2075	1.232675	1.141	1.102375
Dividends per common share	0.86	0.84	0.81	0.79
As Reported Annual Balance Sheet Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Net utility plant	898,703	781,836	722,451	666,507
Total assets	1,052,991	918,131	846,334	772,298
Total stockholders' equity	320,602	264,773	254,947	242,057
Long-term debt	401,649	357,851	330,380	288,770
Total capitalization	849,907	722,093	524,989	599,150
Total current liabilities	101,635	105,298	92,355	85,970

Calculations	12/31/2003	12/31/2002	12/31/2001	12/31/2000
AWR - ROA	1.570%	2.899%	2.990%	2.933%
WTR - ROA	3.420%	3.914%	3.852%	3.740%

CWT - ROA	2.224%	2.382%	2.107%	2.995%
SJW - ROA	3.650%	3.140%	3.252%	2.721%
Average	2.716%	3.084%	3.050%	3.097%
AWR - ROE	5.597%	9.536%	10.224%	9.384%
WTR - ROE	10.742%	13.629%	12.686%	12.233%
CWT - ROE	7.941%	9.574%	7.611%	10.040%
SJW - ROE	11.226%	9.272%	9.385%	7.390%
Average	8.876%	10.503%	9.977%	9.762%
AWR - Profin Margin	5.592%	9.722%	10.352%	9.831%
WTR - Profin Margin	19.278%	20.870%	19.562%	19.195%
CWT - Profin Margin	7.007%	7.248%	6.063%	8.155%
SJW - Profin Margin	12.474%	9.771%	10.300%	8.660%
Average	11.087%	11.903%	11.569%	11.460%
AWR - Interest Coverage	1.860	2.127	2.332	2.288
WTR - Interest Coverage	3.438	3.478	3.370	2.931
CWT - Interest Coverage	1.726	1.799	1.569	2.267
SJW - Interest Coverage	2.710	2.635	2.943	2.786
Average	2.433	2.510	2.554	2.568

Growth Rates	3 Year	5 Year	10 Year
AWR - Sales	4.953%	7.511%	6.961%
WTR - Sales	10.049%	19.456%	13.752%
CWT - Sales	4.220%	8.269%	6.210%
SJW - Sales	6.730%	7.150%	4.650%
Average	6.488%	10.597%	7.893%
Median	5.841%	7.890%	6.585%

AWR - EPS	-15.071%	-6.301%	-3.438%
WTR - EPS	6.916%	8.417%	6.314%
CWT - EPS	-2.612%	-3.554%	-1.089%
SJW - EPS	20.473%	3.919%	5.333%
Average	2.426%	0.620%	1.780%
Median	5.841%	3.919%	5.333%
AWR - DPS	1.051%	1.026%	1.003%
WTR - DPS	6.981%	6.119%	2.851%
CWT - DPS	0.752%	1.008%	1.599%
SJW - DPS	5.805%	4.380%	3.072%
Average	3.647%	3.133%	2.131%
Median	5.805%	3.919%	2.851%
AWR - BVPS	0.733%	3.996%	3.453%
WTR - BVPS	11.778%	11.361%	5.776%
CWT - BVPS	5.495%	2.838%	0.958%
SJW - BVPS	4.852%	3.867%	5.587%
Average	5.714%	5.515%	3.943%
Median	5.495%	3.919%	3.453%

12/31/1999 Thousands	12/31/1998 Thousands	12/31/1997 Thousands	12/31/1996 Thousands	12/31/1995 Thousands	12/31/1994 Thousands
173,421	148,060	153,755	151,529	129,813	122,675
28,514	25,061	23,458	23,429	21,388	18,930
-12,945	-11,207	-10,157	-10,500	-9,559	-7,828
16,101	14,623	14,059	13,460	12,165	11,338
-	-	-	-	-	-
13,436.51	13,437	13,437	13,329	11,767.50	11,767.50
1.1933	1.08	1.04	1.1267	1.0267	0.9533
-	-	-	-	-	-
0.8533	0.84	0.83	0.82	0.8067	0.8

12/31/1999 Thousands	12/31/1998 Thousands	12/31/1997 Thousands	12/31/1996 Thousands	12/31/1995 Thousands	12/31/1994 Thousands
449,595	414,753	383,623	357,776	334,968	314,879
533,181	484,671	457,074	430,922	406,255	383,627
158,846	154,299	151,053	146,766	121,576	118,962
167,363	120,809	115,286	107,190	107,455	92,891
340	260	231	482	15,624	4,624
167,023	120,549	115,055	106,708	91,831	88,267
21,000	38,000	26,000	16,000	8,500	19,500
54,965	63,768	56,180	44,688	46,541	46,596
328,169	277,108	268,379	256,036	231,151	214,013

12/31/1999 Thousands	12/31/1998 Thousands	12/31/1997 Thousands	12/31/1996 Thousands	12/31/1995 Thousands	12/31/1994 Thousands
257,326	150,977	136,171	122,503	117,044	108,636
101,045	66,679	56,799	49,290	46,109	40,845

33,698	18,976	17,890	15,311	14,852	12,896
36,384	28,819	23,188	20,743	18,400	15,638
80,673.83	54,445.31	51,314.45	-	-	-
80,102.75	54,154.30	53,712.89	36,984.38	35,710.94	33,625
0.4557	0.5325	0.4557	0.5581	0.5222	0.4608
0.4506	0.5274	0.4506	-	-	-
0.3584	0.3418	0.3039	0.4045	0.3891	0.3758
36,384	28,819	23,188	20,743	18,400	15,638
101,533	66,447	56,136	49,272	43,345	38,491
80,102.75	54,154.30	53,712.89	36,984.38	35,710.94	33,625

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
1,135,364	609,808	534,483	502,938	436,905	385,709
1,280,805	701,450	618,472	582,944	518,051	458,183
368,901	234,759	194,745	180,015	156,976	143,795
425,946	264,278	234,919	-	-	-
12,194	2,452	2,448	-	-	-
413,752	261,826	232,471	217,518	175,395	152,195
1,220,793	763,315	664,583	397,533	332,371	295,990
9,200	38,935	27,128	-	-	-
183,813	44,856	44,697	45,039	47,918	29,379

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
206,440	186,273	195,324	182,764	165,086	157,271
30,610	30,074	34,349	30,367	25,392	25,505
13,201	12,446	11,902	11,907	11,462	11,384
19,919	18,395	23,305	19,067	14,698	14,408
-	12,619	12,619	-	-	-

12,936	12,619	12,619	12,620	12,538	12,494
1.53	1.45	1.83	1.505	1.165	1.22
-	1.45	1.83	-	-	-
1.085	1.07	1.055	1.04	1.02	0.99

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
515,354	478,305	460,407	443,588	422,175	407,895
587,618	548,499	531,297	512,390	484,883	464,228
177,182	168,804	164,065	154,226	146,949	144,447
156,572	136,345	139,205	142,153	145,540	132,419
337,229	308,624	306,745	299,854	295,964	276,866
55,511	55,528	43,144	34,794	25,830	30,128

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
117,001	106,010	110,084	102,593	97,385	99,422
19,739	18,847	19,314	17,606	15,314	13,767
6,552	5,629	5,695	5,892	4,888	5,082
15,884	16,018	15,216	18,560	11,535	9,902
9,135.44	9,502.64	9,510	9,510	9,753	9,753
1.7333	1.6833	1.6	1.9167	1.1833	1.0167
0.81	0.78	0.76	0.74	0.74	0.74
15,884	16,018	15,216	18,560	11,535	9,902
113,058	104,553	95,954	87,966	76,569	72,056
9,135.44	9,502.64	9,510	9,510	9,753	9,753

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
302,434	280,418	256,349	234,784	224,098	213,432
372,427	359,380	323,223	296,536	280,497	262,530

143,894	143,149	133,553	120,028	108,854	104,098
90,000	90,000	75,000	75,000	76,500	62,500
233,894	233,149	208,553	195,028	185,354	166,598
16,842	11,754	8,940	8,954	10,760	15,242

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
188,547	147,830	148,834	139,847	127,332	122,001
44,977	35,165	33,480	30,173	27,051	24,762
10,127	6,461	6,333	5,653	5,411	5,384
22,072	19,464	18,942	17,958	14,200	12,822
28,902.67	22,428.23	22,319.72	18,110.84	17,442.36	16,909.88
1.228075	1.18645	1.231425	1.276625	0.9743	0.9127
0.78	0.76	0.74	0.75	0.74	0.73

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
600,687	445,821	408,716	384,772	354,537	330,479
693,508	523,500	482,517	455,698	422,422	392,142
212,206	175,253	160,854	150,259	133,589	127,826
259,945	199,785	185,770	175,291	159,216	146,578
530,021	395,549	362,065	287,113	261,210	238,367
77,783	43,977	38,240	33,369	32,762	30,336

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
3.020%	3.017%	3.076%	3.124%	2.994%	2.955%
2.841%	4.108%	3.749%	3.558%	3.552%	3.413%

3.390%	3.354%	4.386%	3.721%	3.031%	3.104%
4.265%	4.457%	4.708%	6.259%	4.112%	3.772%
3.379%	3.734%	3.980%	4.165%	3.422%	3.311%
10.136%	9.477%	9.307%	9.171%	10.006%	9.531%
9.863%	12.276%	11.907%	11.523%	11.722%	10.875%
11.242%	10.897%	14.205%	12.363%	10.002%	9.975%
11.039%	11.190%	11.393%	15.463%	10.597%	9.512%
10.570%	10.960%	11.703%	12.130%	10.582%	9.973%
9.284%	9.876%	9.144%	8.883%	9.371%	9.242%
14.139%	19.088%	17.029%	16.933%	15.721%	14.395%
9.649%	9.875%	11.931%	10.433%	8.903%	9.161%
13.576%	15.110%	13.822%	18.091%	11.845%	9.960%
11.662%	13.487%	12.981%	13.585%	11.460%	10.689%
-2.203	-2.236	-2.310	-2.231	-2.237	-2.418
2.999	3.514	3.175	3.219	3.105	3.167
2.319	2.416	2.886	2.550	2.215	2.240
3.013	3.348	3.391	2.988	3.133	2.709
1.532	1.761	1.786	1.632	1.554	1.425

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
108,506	100,660	90,660	90,398	85,564
20,050	19,098	16,825	14,733	14,814
-8,378	-7,890	-7,583	-6,421	-7,673
12,026	12,142	15,363	8,907	8,730
-	-	-	-	-
11,707.50	9,964.50	9,910.50	9,408	9,387
1.1067	1.2133	1.56	0.9333	0.92
-	-	-	-	-
-	-	-	-	-

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
294,990	277,525	258,558	235,713	214,465
358,533	312,491	293,444	268,028	254,346
116,463	88,229	83,162	71,141	68,602
84,286	84,195	82,634	67,246	67,767
417	1,013	3,175	599	635
83,869	83,182	79,459	66,647	67,132
12,000	14,668	-	7,500	-
32,668	40,599	27,180	26,195	20,228
202,949	174,664	168,076	140,707	138,729

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
101,244	93,307	88,648	82,267	133,517
37,430	34,337	31,637	27,743	-

13,108	15,068	14,781	14,305	13,760
13,835	4,292	4,889	4,089	7,786
-	-	-	-	-
33,486.33	28,804.69	23,541.02	22,863.28	22,083.98
0.4337	0.1705	0.2114	0.1807	0.3584
-	-	-	-	-
0.3473	0.3533	-	-	-
13,835	4,292	4,889	4,089	7,786
35,490	33,284	37,858	40,828	44,380
33,486.33	28,804.69	23,541.02	22,863.28	22,083.98

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
Thousands	Thousands	Thousands	Thousands	Thousands
366,230	345,610	320,974	306,702	288,443
439,679	365,949	350,560	352,037	337,741
135,934	106,971	85,621	85,456	85,886
-	-	-	-	-
-	-	-	-	-
145,292	153,508	168,076	175,885	163,133
281,226	260,479	253,697	261,341	249,019
-	-	-	-	-
24,370	26,700	19,096	25,448	24,614

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
Thousands	Thousands	Thousands	Thousands	Thousands
151,716	139,805	127,176	124,387	117,488
27,855	23,774	24,321	23,370	22,338
12,627	11,414	10,777	9,657	9,236
15,501	12,529	13,928	14,366	13,772
-	-	-	-	-

11,378	11,378	11,378	11,378	11,378
1.35	1.09	1.21	1.25	1.2
-	-	-	-	-
0.96	0.93	0.9	0.87	0.84

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
391,703	374,613	349,937	325,409	307,802
446,619	403,448	393,609	369,055	339,348
123,999	119,574	117,779	114,244	109,929
133,083	125,544	106,980	108,380	89,487
257,082	245,118	224,759	222,624	199,416
37,956	33,670	33,868	20,658	27,093

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
95,045	89,109	76,281	70,458	56,044
14,960	14,123	12,152	11,587	6,774
4,489	4,002	3,865	3,504	3,816
11,767	10,227	8,448	8,539	4,307
9,753	9,768	8,514	8,514	8,514
1.2133	1.2	0.9933	1	0.5
0.7167	0.77	0.7133	0.7233	0.7467
11,767	10,227	8,448	8,539	4,307
68,980	63,850	59,667	56,668	53,433
9,753	9,768	8,514	8,514	8,514

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
203,653	188,841	176,650	170,663	163,892
256,851	230,198	197,095	188,313	185,905

103,130	96,155	77,374	74,374	-
64,000	58,503	41,248	35,193	38,138
167,130	154,658	118,622	109,567	110,581
9,410	12,592	17,365	18,427	15,792

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
Thousands	Thousands	Thousands	Thousands	Thousands
114,128	105,720	95,691	91,878	98,153
25,074	22,833	21,234	19,358	14,642
5,462	5,649	5,460	5,261	4,785
13,282	9,798	10,657	8,975	8,649
16,581.21	14,978.80	13,335.88	13,040.82	12,840.75
1.025925	0.91845	0.993675	0.841	0.7446
0.67	0.68	0.81	0.80	0.79

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
Thousands	Thousands	Thousands	Thousands	Thousands
314,144	296,647	276,530	259,622	243,651
375,421	328,022	308,677	294,358	279,335
119,882	102,732	90,984	86,304	88,139
141,474	137,769	132,791	130,394	120,911
227,097	208,730	191,289	183,560	174,436
26,101	28,390	24,377	22,682	21,932

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
3.354%	3.886%	5.235%	3.323%	3.432%
3.147%	1.173%	1.395%	1.162%	2.305%

3.471%	3.105%	3.539%	3.893%	4.058%
4.581%	4.443%	4.286%	4.534%	2.317%
3.638%	3.152%	3.614%	3.228%	3.028%
10.326%	13.762%	18.474%	12.520%	12.726%
10.178%	4.012%	5.710%	4.785%	9.066%
12.501%	10.478%	11.826%	12.575%	12.528%
11.410%	10.636%	10.918%	11.481%	#VALUE!
11.104%	9.722%	11.732%	10.340%	#VALUE!
11.083%	12.062%	16.946%	9.853%	10.203%
13.665%	4.600%	5.515%	4.970%	5.831%
10.217%	8.962%	10.952%	11.549%	11.722%
12.380%	11.477%	11.075%	12.119%	7.685%
11.836%	9.275%	11.122%	9.623%	8.860%
-2.393	-2.421	-2.219	-2.295	-1.931
2.856	2.279	2.140	1.939	#VALUE!
2.206	2.083	2.257	2.420	2.419
3.333	3.529	3.144	3.307	1.775
1.500	1.368	1.331	1.343	#VALUE!

Artesian Resources Corp. (OTC: ARTN B)

As Reported Annual Income Statement Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Total operating revenues	36,295	34,597	31,987	27,551
Operating income	8,529	8,175	7,401	6,211
Interest charges	4,889	4,388	4,537	4,055
Net income	3,917	4,167	3,321	2,451
Weighted average shares outstg - diluted	3,993	3,612	3,108	3,066
Year end shares outstanding	3,900.81	3,861.50	3,059.97	3,019.74
Net income (loss) per share - basic	0.99	1.1667	1.0733	0.7933
Net income (loss) per share - diluted	0.96	1.14	1.0533	0.78
Dividends per common share	0.7975	0.7733	0.74	0.7333
As Reported Annual Balance Sheet Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Utility plant, at orig cost less accum depr	187,893	167,338	152,356	134,038
Total assets	216,324	183,072	163,534	144,407
Total stockholders equity	52,691	51,176	34,445	32,829
Total long-term debt	80,746	64,391	50,698	50,717
Total capitalization	133,249	115,246	84,015	83,846
Notes payable	12,499	3,163	16,118	2,000
Total current liabilities	19,674	9,531	25,498	9,498

Connecticut Water Service, Inc. (United States) (NMS: CTWS)

As Reported Annual Income Statement Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Operating revenues	47,115	45,830	45,392	41,512
Total operating expenses	35,584	33,996	34,078	30,353
Operating Income	11,531	11,834	11,314	11,159
Total interest & debt expenses	4,635	4,534	4,632	4,541

Net income applicable to common stock	9,172	8,742	8,401	7,925
Weighted average shares outstanding-diluted	8,002	7,771	7,662	7,308
Year end shares outstanding	7,967.38	7,939.71	7,649.36	7,279.00
Net earnings (loss) per share-basic	1.15	1.13	1.1	1.0867
Net earnings (loss) per share-diluted	1.15	1.12	1.1	1.0867
Dividends per share	0.825	0.81	0.804	0.7953

As Reported Annual Balance Sheet Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Net utility plant	235,098	229,097	202,330	186,971
Total assets	277,546	264,799	231,714	215,399
Common stockholders' equity	83,315	79,975	70,783	64,906
Long-term debt	64,754	64,734	63,953	64,658
Total capitalization	148,916	145,556	135,583	130,336
Interim bank loans payable	9,700	6,950	1,825	1,150
Total current liabilities	15,111	15,478	12,656	8,574

Middlesex Water Co. (United States) (NMS: MSEX)

As Reported Annual Income Statement Scale	12/31/2003 \$	12/31/2002 \$	12/31/2001 \$	12/31/2000 \$
Operating revenues	64,111,214	61,932,786	59,638,145	54,476,543
Operating income	11,500,139	12,466,938	11,493,316	9,938,129
Total interest charges	5,227,030	5,143,463	5,042,292	4,997,022
Net income	6,630,596	7,765,353	6,952,984	5,305,060
Weighted average shares outstanding-diluted	10,818,435	10,623,441.33	10,474,048	10,387,436
Year end shares outstanding	10,566,937	10,356,489.33	10,168,002.67	10,097,068
Earnings per share-basic	0.61	0.7275	0.66	0.505
Earnings per share- diluted	0.61	0.7275	0.66	0.505
Dividends paid per share	0.649	0.6337	0.6225	0.6125

As Reported Annual Balance Sheet Scale	12/31/2003 \$	12/31/2002 \$	12/31/2001 \$	12/31/2000 \$
Utility plant - net	226,784,785	207,943,404	196,063,459	188,278,311
Total assets	263,191,935	244,604,232	236,373,673	219,399,959
Total common equity	79,643,184	76,501,245	72,290,312	70,635,193
Long-term debt	97,376,847	87,483,382	88,140,459	82,109,297
Total capitalization	181,083,093	168,047,689	164,493,833	156,807,552
Notes payable	12,500,000	17,650,000	13,225,000	6,050,000
Total current liabilities	27,695,486	29,578,603	25,970,586	18,006,641

Pennichuck Corp. (NMS: PNNW)

As Reported Annual Income Statement Scale	12/31/2003 \$	12/31/2002 \$	12/31/2001 \$	12/31/2000 \$
Total revenues	21,388,000	23,421,556	22,754,338	23,671,476
Operating income	5,195,000	7,647,272	8,552,142	9,215,920
Interest expense	1,969,000	1,977,646	1,980,926	1,991,488
Net income (loss)	1,247,000	2,340,579	3,611,704	3,682,661
Weighted average shares outstanding - diluted	2,398,198	2,411,781	2,400,088	2,363,348.82
Year end shares outstanding	2,396,140	2,391,439	2,387,634	2,343,978.70
Net income (loss) per common share-basic	0.52	0.98	1.52	1.5639
Net income (loss) per common share-diluted	0.52	0.97	1.5	1.5564
Dividends per common share	0.838989792	0.813	0.76	0.7293
Net income (loss)	1,247,000	2,340,579	3,611,704	3,682,661
Year end shares outstanding	2,396,140	2,391,439	2,387,634	2,343,978.70
Retained earnings (accumulated deficit)	13,178,000	13,941,337	13,544,696	12,342,510

As Reported Annual Balance Sheet Scale	12/31/2003 \$	12/31/2002 \$	12/31/2001 \$	12/31/2000 \$
Property, plant & equipment, net	85,727,000	79,672,205	73,960,044	68,437,556
Total assets	97,210,000	90,981,914	87,840,541	82,880,006
Total stockholders' equity	30,172,000	30,433,541	30,595,099	28,595,633

Long-term debt, less current portion	26,879,000	26,859,795	27,071,798	26,917,860
Total capitalization	57,051,000	57,293,336	57,666,897	55,513,493
Note payable to bank	-	-	-	-
Total current liabilities	5,424,000	2,930,547	3,556,268	2,472,952

York Water Co. (United States) (NMS: YORW)

As Reported Annual Income Statement Scale	12/31/2003 \$	12/31/2002 \$	12/31/2001 \$	12/31/2000 \$
Total water operating revenues	20,888,536	19,553,211	19,402,542	18,481,163
Operating income	9,333,579	8,333,219	8,934,637	8,472,539
Interest expense on long-term debt	2,759,228	2,759,609	2,759,985	2,739,902
Interest expense on short-term debt	83,655	71,671	183,429	113,709
Total interest expense	2,842,883	2,831,280	2,943,414	2,853,611
Net income	4,448,296	3,790,347	4,006,067	3,757,787
Year end shares outstanding	6,419,230	6,364,803	3,154,332	6,009,466
Earnings per share - basic	0.7	0.6	0.65	0.625
Dividends per share	0.55	0.53	0.51	0.49
As Reported Annual Balance Sheet Scale	12/31/2003 \$	12/31/2002 \$	12/31/2001 \$	12/31/2000 \$
Utility plant, net	115,802,244	106,217,261	101,752,782	96,443,665
Total assets	127,508,458	118,408,387	113,351,492	116,386,607
Stockholders' equity	39,056,529	37,216,708	35,891,474	32,437,755
Long-term debt	29,913,445	32,652,087	32,690,343	32,728,220
Total capitalization	68,969,974	69,868,795	68,581,817	65,165,975
Short-term borrowings	7,153,119	2,737,976	2,000,000	2,648,946
Total current liabilities	14,047,246	5,494,279	4,841,217	5,764,095

Averages for Small Water Companies

As Reported Annual Income Statement Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Total operating revenues	37,960	37,067	35,835	33,138
Operating income	9,218	9,691	9,539	8,999
Total interest expense	3,913	3,775	3,827	3,688
Net income	5,083	5,361	5,259	4,624
Year end shares outstanding	6,250	6,183	5,284	5,750
Earnings per share - basic	0.794	0.92084	1.00066	0.91478
Dividends per share	0.7321	0.7120	0.6873	0.6721
As Reported Annual Balance Sheet Scale	12/31/2003 Thousands	12/31/2002 Thousands	12/31/2001 Thousands	12/31/2000 Thousands
Utility plant, net	170,261	158,054	145,292	134,834
Total assets	196,356	180,373	166,563	155,695
Stockholders' equity	56,976	55,060	48,801	45,881
Long-term debt	59,934	55,224	52,511	51,426
Total capitalization	117,854	111,202	102,068	98,334
Total current liabilities	16,390	12,602	14,504	8,863

Averages for Small Water Companies

As Reported Annual Income Statement	37986	37621	37256	36891
Total operating revenues	37959.55	37066.9106	35834.805	33138.4364
Operating income	9217.7436	9691.2858	9539.019	8999.3176
Total interest expense	3912.5826	3774.8778	3827.1264	3687.6242
Net income	5082.9784	5361.0558	5258.551	4624.3016
Year end shares outstanding	6250.1	6182.789067	5283.859533	5749.85004
Earnings per share - basic	0.794	0.92084	1.00066	0.91478
Dividends per share	0.732097958	0.712	0.6873	0.67208

As Reported Annual Balance Sheet Scale	37986 Thousands	37621 Thousands	37256 Thousands	36891 Thousands
Utility plant, net	170261.0058	158053.574	145292.457	134833.7064
Total assets	196356.0786	180373.1066	166562.7412	155694.5144
Stockholders' equity	56975.5426	55060.4988	48800.977	45880.7162
Long-term debt	59933.8584	55224.0528	52510.72	51426.0754
Total capitalization	117853.8134	111202.364	102068.1094	98333.804
Total current liabilities	16390.3464	12602.4858	14504.4142	8863.1376

Calculations	12/31/2003	12/31/2002	12/31/2001	12/31/2000
ARTN B - ROA	1.811%	2.276%	2.031%	1.697%
CTWS - ROA	3.305%	3.301%	3.626%	3.679%
MSEX - ROA	2.519%	3.175%	2.942%	2.418%
PNNW - ROA	1.283%	2.573%	4.112%	4.443%
YORW - ROA	3.489%	3.201%	3.534%	3.229%
Average	2.481%	2.905%	3.249%	3.093%
ARTN B - ROE	7.434%	8.142%	9.641%	7.466%
CTWS - ROE	11.009%	10.931%	11.869%	12.210%
MSEX - ROE	8.325%	10.151%	9.618%	7.511%
PNNW - ROE	4.133%	7.691%	11.805%	12.878%
YORW - ROE	8.921%	9.737%	10.776%	10.079%
Average	7.964%	9.330%	10.742%	10.029%
ARTN B - Profin Margin	10.792%	12.044%	10.382%	8.896%
CTWS - Profin Margin	19.467%	19.075%	18.508%	19.091%
MSEX - Profin Margin	10.342%	12.538%	11.659%	9.738%
PNNW - Profin Margin	5.830%	9.993%	15.873%	15.557%
YORW - Profit Margin	13.391%	14.463%	14.674%	13.954%

Average	11.965%	13.623%	14.219%	13.447%
ARTN B - Retention Rate	16.927%	32.167%	29.745%	5.987%
CTWS - Retention Rate	28.261%	27.679%	26.909%	26.815%
MSEX - Retention Rate	-6.393%	12.893%	5.682%	-21.287%
PNNW - Retention Rate	-61.344%	16.186%	49.333%	53.142%
YORW - Retention Rate	21.429%	11.667%	21.538%	21.600%
Average	-0.224%	20.118%	26.641%	17.251%
ARTN B - Interest Coverage	1.745	1.863	1.631	1.532
CTWS - Interest Coverage	2.488	2.610	2.443	2.457
MSEX - Interest Coverage	2.200	2.424	2.279	1.989
PNNW - Interest Coverage	2.638	3.867	4.317	4.628
YORW - Interest Coverage	3.283	2.943	3.035	2.969
Average	2.471	2.741	2.741	2.715

Growth Rates

	3 Year	5 Year	10 Year
ARTN B - Sales	9.623%	7.344%	5.962%
CTWS - Sales	4.311%	4.436%	2.138%
MSEX - Sales	5.578%	8.287%	6.095%
PNNW - Sales	-3.325%	4.220%	8.232%
YORW - Sales	4.166%	4.039%	3.934%
Average	4.071%	5.665%	5.272%
Median	4.311%	4.436%	5.962%
ARTN B - EPS	7.166%	-0.139%	-0.100%
CTWS - EPS	1.905%	2.428%	2.609%
MSEX - EPS	6.499%	-2.853%	-0.860%
PNNW - EPS	-30.610%	-15.338%	-0.674%
YORW - EPS	3.850%	5.722%	3.091%

Average	-2.238%	-2.036%	0.813%
Median	3.850%	-0.139%	-0.100%
ARTN B - DPS	2.837%	4.281%	14.834%
CTWS - DPS	1.230%	1.180%	1.246%
MSEX - DPS	1.948%	2.451%	2.075%
PNNW - DPS	4.781%	7.150%	10.091%
YORW - DPS	3.926%	3.415%	
Average	2.944%	3.695%	7.062%
Median	2.837%	3.415%	6.083%
ARTN B - BVPS	7.214%	5.173%	3.933%
CTWS - BVPS	5.442%	4.096%	3.811%
MSEX - BVPS	2.681%	0.212%	3.424%
PNNW - BVPS	1.309%	-2.190%	4.630%
YORW - BVPS	4.072%	3.601%	3.924%
Average	4.143%	2.179%	3.944%
Median	4.072%	3.601%	3.924%

12/31/1999 Thousands	12/31/1998 Thousands	12/31/1997 Thousands	12/31/1996 Thousands	12/31/1995 Thousands	12/31/1994 Thousands
26,777	25,466	22,340	20,891.99	22,631.28	21,012.29
6,090	5,667	4,407	4,100.92	3,933.36	3,814.16
3,298	3,162	2,580	2,535.85	2,758.50	2,334.28
2,980	2,720	1,985	1,658.66	1,207.43	1,485.78
2,994	2,724	2,662.49	-	-	-
2,997.03	2,705.77	2,670.41	2,622.43	1,556.24	1,526.10
0.9867	0.98	0.7133	0.7067	0.7067	0.8933
0.9733	0.9667	0.7133	-	-	-
0.7067	0.6467	0.6133	0.6	0.42	0.4

12/31/1999 Thousands	12/31/1998 Thousands	12/31/1997 Thousands	12/31/1996 Thousands	12/31/1995 Thousands	12/31/1994 Thousands
122,481	109,780	97,694	88,993.07	83,160.42	73,237.89
132,482	119,376	107,867	99,708.15	96,841.17	87,453.24
32,356	27,933	26,587	25,487.48	15,395.90	14,727.80
34,529	32,053	32,103	26,258.98	17,558.30	24,653.23
67,285	60,486	59,290	52,843.16	34,198.40	40,772.73
7,617	7,704	1,164	25	9,225	1,525
16,539	14,051	6,247	5,650.62	21,846.51	7,335.44

12/31/1999 Thousands	12/31/1998 Thousands	12/31/1997 Thousands	12/31/1996 Thousands	12/31/1995 Thousands	12/31/1994 Thousands
42,624	37,924	38,501	38,592	39,350	38,129
31,397	27,620	28,167	28,464	29,328	28,474
11,227	10,304	10,334	10,128	10,022	9,655
4,526	4,316	4,304	3,967	3,946	3,940

7,456	6,927	6,766	6,565	6,325	5,842
7,272	6,802.50	6,786	-	-	-
7,258.19	6,804	6,790.50	6,777	6,675.75	6,459.75
1.0267	1.02	0.9955	0.9733	0.9645	0.9245
1.0267	1.02	0.9955	-	-	-
0.7867	0.778	0.7687	0.7553	0.7467	0.7333

12/31/1999 Thousands	12/31/1998 Thousands	12/31/1997 Thousands	12/31/1996 Thousands	12/31/1995 Thousands	12/31/1994 Thousands
181,342	167,326	163,757	153,898	146,536	140,784
210,885	194,586	189,277	184,640	176,459	171,241
62,495	57,945	56,069	54,395	51,788	47,983
65,399	62,501	54,532	54,430	54,460	54,600
128,666	121,218	111,373	109,597	107,020	103,335
2,411	1,895	8,811	5,795	2,646	2,700
13,874	12,156	18,794	15,212	12,310	12,053

12/31/1999 \$	12/31/1998 \$	12/31/1997 \$	12/31/1996 \$	12/31/1995 \$	12/31/1994 \$
53,497,153	43,057,966	40,294,118	38,024,669	37,846,899	36,122,475
10,665,479	9,149,461	8,793,137	8,222,446	8,912,391	8,564,800
4,695,445	4,423,601	3,336,697	3,280,154	3,114,762	3,043,697
7,881,041	6,521,226	5,860,906	5,167,460	5,703,744	5,495,372
10,296,306	9,160,610	8,764,690	-	-	-
10,001,178	9,794,138	8,538,434	8,409,898	8,273,944	8,061,668
0.77	0.71	0.665	0.6	0.68	0.665
0.76	0.705	0.665	-	-	-
0.595	0.575	0.5625	0.5525	0.5425	0.5285

12/31/1999 \$	12/31/1998 \$	12/31/1997 \$	12/31/1996 \$	12/31/1995 \$	12/31/1994 \$
179,721,639	159,116,392	135,070,736	121,244,520	117,932,632	108,743,013
215,035,665	203,501,256	159,760,773	148,659,522	144,822,207	132,412,758
70,489,358	66,729,466	51,225,549	49,215,813	28,820,844	27,151,673
82,329,592	78,031,513	52,918,245	52,960,953	52,960,000	49,500,000
156,882,012	149,756,614	109,139,429	104,843,071	103,269,966	97,141,200
2,000,000	1,000,000	564,701	-	-	-
14,305,266	13,200,061	11,577,608	9,926,511	8,810,546	8,380,997

12/31/1999 \$	12/31/1998 \$	12/31/1997 \$	12/31/1996 \$	12/31/1995 \$	12/31/1994 \$
17,809,258	17,394,794	11,840,700	12,202,688	11,486,183	10,215,780
6,075,904	5,719,124	3,809,577	3,613,913	3,480,764	3,305,712
2,024,601	2,263,636	1,773,580	1,630,581	1,703,570	1,716,226
2,615,665	2,106,053	1,290,091	1,238,485	1,094,970	972,548
2,335,026.47	1,765,419.39	1,506,931.23	-	-	-
2,323,047.16	2,274,065.92	1,508,794.56	1,487,302.43	1,439,588.01	1,429,411.52
1.1278	1.2105	0.8622	0.8421	0.7669	0.6617
1.1203	1.1955	0.8571	-	-	-
0.6917	0.594	0.5314	0.5081	0.4526	0.3970
2,615,665	2,106,053	1,290,091	1,238,485	1,094,970	972,548
2,323,047.16	2,274,065.92	1,508,794.56	1,487,302.43	1,439,588.01	1,429,411.52
10,361,038	9,335,414	7,876,346	7,380,880	6,898,162	6,454,761

12/31/1999 \$	12/31/1998 \$	12/31/1997 \$	12/31/1996 \$	12/31/1995 \$	12/31/1994 \$
63,004,773	58,389,304	47,094,203	43,338,395	41,446,173	40,101,650
75,580,844	70,838,181	55,089,595	50,069,698	47,893,193	46,528,250
26,257,309	24,811,169	13,833,278	13,196,402	12,247,211	11,846,081

27,223,378	28,001,997	25,435,826	20,995,000	20,881,078	16,733,097
53,480,687	52,813,166	39,269,104	34,191,402	33,128,289	28,579,178
-	-	-	-	-	4,645,000
3,130,116	2,281,496	1,761,462	2,128,579	1,831,168	5,710,430

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
\$	\$	\$	\$	\$	\$
17,511,251	17,137,029	16,996,706	15,721,462	15,449,296	14,755,707
7,255,698	5,650,674	5,676,783	5,239,531	4,909,557	4,818,760
2,715,505	2,718,950	2,718,950	2,718,950	2,789,721	2,832,887
31,026	36,605	35,589	286,322	175,424	21,926
2,746,531	2,755,555	2,754,539	3,005,272	2,965,145	2,854,813
3,154,073	3,135,389	3,120,061	2,759,756	2,312,247	2,444,678
5,978,182	5,959,444	5,869,564	5,801,048	5,098,992	5,037,472
0.525	0.53	0.535	0.525	0.4575	0.4888
-	0.465	0.455	0.45	-	-

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
\$	\$	\$	\$	\$	\$
91,725,068	86,041,217	83,155,036	80,334,138	76,819,549	73,107,138
108,600,110	102,479,091	98,854,074	96,736,434	90,459,706	86,967,330
30,829,654	30,380,436	29,150,786	28,002,757	21,771,767	21,251,914
32,765,943	32,000,000	32,000,000	32,000,000	32,000,000	32,000,000
63,595,597	62,380,436	61,150,786	60,002,757	53,771,767	53,251,914
1,431,118	-	843,000	1,237,000	4,164,000	1,302,000
3,926,446	2,374,508	3,201,776	3,494,614	6,231,288	4,829,605

12/31/1999 Thousands	12/31/1998 Thousands	12/31/1997 Thousands	12/31/1996 Thousands	12/31/1995 Thousands	12/31/1994 Thousands
31,644	28,196	25,995	25,087	25,353	24,047
8,263	7,298	6,604	6,261	6,252	6,032
3,458	3,384	2,950	2,884	2,898	2,778
4,817	4,282	3,804	3,478	3,329	3,248
5,712	5,507	5,076	5,020	4,609	4,503
0.88724	0.8901	0.7542	0.72942	0.71512	0.72666
0.6950	0.6117	0.5862	0.5732	0.5405	0.5147

12/31/1999 Thousands	12/31/1998 Thousands	12/31/1997 Thousands	12/31/1996 Thousands	12/31/1995 Thousands	12/31/1994 Thousands
127,655	116,131	105,354	97,562	93,179	87,195
148,517	138,156	122,170	115,963	111,295	104,921
44,485	41,560	35,373	34,059	26,005	24,592
48,449	46,518	39,398	37,329	35,572	35,497
93,982	89,331	76,044	72,295	66,278	64,616
10,355	8,813	8,316	7,282	10,206	7,662

36525	36160	35795	35430	35064	34699
31643.7324	28195.9578	25994.5048	25086.5624	25352.7322	24047.0508
8262.8162	7298.0518	6604.0994	6260.9618	6251.614	6031.6864
3458.1154	3384.1584	2949.7632	2883.7714	2897.5944	2777.8028
4817.3558	4281.9336	3804.4116	3477.8712	3328.6778	3248.0752
5711.525332	5507.483684	5075.539812	5019.535185	4608.903002	4502.879403
0.88724	0.8901	0.7542	0.72942	0.71512	0.72666
0.695025	0.61174	0.58618	0.573189259	0.540451991	0.514709729

36525 Thousands	36160 Thousands	35795 Thousands	35430 Thousands	35064 Thousands	34699 Thousands
127654.896	116130.5826	105354.195	97561.6252	93178.9552	87194.7376
148516.7238	138156.1056	122169.6884	115962.7614	111295.0544	104920.5148
44485.4642	41559.8142	35373.1226	34059.491	26004.7442	24592.0942
48449.3826	46517.502	39397.8142	37328.986	35571.8756	35497.265
93981.8592	89330.8432	76044.4638	72295.478	66277.6842	64616.0046
10354.9656	8812.613	8316.3692	7282.4642	10205.9014	7661.8948

12/31/1999	12/31/1998	12/31/1997	12/31/1996	12/31/1995	12/31/1994
2.249%	2.279%	1.840%	1.664%	1.247%	1.699%
3.536%	3.560%	3.575%	3.556%	3.584%	3.412%
3.665%	3.205%	3.669%	3.476%	3.938%	4.150%
3.461%	2.973%	2.342%	2.474%	2.286%	2.090%
2.904%	3.060%	3.156%	2.853%	2.556%	2.811%
3.163%	3.015%	2.916%	2.804%	2.722%	2.832%
9.210%	9.738%	7.466%	6.508%	7.843%	10.088%
11.931%	11.954%	12.067%	12.069%	12.213%	12.175%
11.180%	9.773%	11.441%	10.500%	19.790%	20.240%
9.962%	8.488%	9.326%	9.385%	8.941%	8.210%
10.829%	10.303%	10.755%	10.211%	12.800%	13.208%
10.622%	10.051%	10.211%	9.735%	12.317%	12.784%
11.129%	10.681%	8.885%	7.939%	5.335%	7.071%
17.492%	18.265%	17.574%	17.011%	16.074%	15.322%
14.732%	15.145%	14.545%	13.590%	15.071%	15.213%
14.687%	12.107%	10.895%	10.149%	9.533%	9.520%
15.224%	15.186%	14.635%	13.863%	13.129%	13.507%

14.653%	14.277%	13.307%	12.511%	11.828%	12.127%
27.391%	33.102%	14.019%	#VALUE!	#VALUE!	#VALUE!
23.376%	23.725%	22.783%	#VALUE!	#VALUE!	#VALUE!
21.711%	18.440%	15.414%	#VALUE!	#VALUE!	#VALUE!
38.258%	50.314%	38.000%	#VALUE!	#VALUE!	#VALUE!
#VALUE!	12.264%	14.953%	14.286%	#VALUE!	#VALUE!
#VALUE!	27.569%	21.034%	#VALUE!	#VALUE!	#VALUE!
1.847	1.792	1.708	1.617	1.426	1.634
2.481	2.387	2.401	2.553	2.540	2.451
2.271	2.068	2.635	2.507	2.861	2.814
3.001	2.527	2.148	2.216	2.043	1.926
2.642	2.051	2.061	1.743	1.656	1.688
2.448	2.165	2.191	2.127	2.105	2.103

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
20,340.25	18,216.19	17,684.20	15,924.28	14,433.81
3,823.30	3,088.57	2,723.97	2,558.90	2,275.53
2,434.05	2,232.75	2,394.66	2,269.57	2,042.11
1,625.82	766.024	390.765	-99.636	245.641
-	-	-	-	-
1,502.63	1,481.89	1,479.65	1,308.88	1,279.74
1	0.42	0.18	-0.1933	0.1133
-	-	-	-	-
0.2	-	-	-	-

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
66,787.40	64,851.70	63,372.62	59,797.09	54,870.90
81,926.81	76,815.99	73,469.94	70,861.99	65,275.90
13,800.86	12,468.71	11,869.99	10,419.29	11,107.28
24,677.48	17,812.37	18,179.03	18,722.21	19,016.81
39,917.55	31,766.78	31,581.21	30,719.20	31,747.29
50	5,600	4,500	4,600	1,200
4,081.36	9,762.47	8,681.52	8,550.52	5,059.52

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
38,131	37,190	37,372	32,301	29,804
28,148	27,157	26,970	23,589	21,031
9,983	10,033	10,402	8,712	8,773
4,338	4,872	5,321	5,650	5,206

5,529	5,111	4,839	2,945	3,683
-	-	-	-	-
6,277.50	6,189.75	6,099.75	6,003	4,878
0.8889	0.8311	0.8	0.5778	0.76
-	-	-	-	-
0.7289	0.7155	0.7111	0.6978	0.6933

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
137,568	135,697	135,132	133,103	127,440
163,080	149,696	148,625	145,379	140,555
45,160	43,138	41,490	40,146	33,104
51,600	51,600	52,412	52,953	54,067
100,508	98,510	97,771	97,485	92,142
3,950	4,983	6,413	3,936	7,000
10,479	11,010	12,247	10,053	11,889

12/31/1993 \$	12/31/1992 \$	12/31/1991 \$	12/31/1990 \$	12/31/1989 \$
35,478,810	30,860,626	29,853,248	26,416,556	23,499,414
8,224,631	7,247,898	7,056,138	6,012,885	5,315,066
3,014,477	3,267,490	3,155,664	2,828,268	2,998,152
5,479,626	4,462,203	4,104,574	3,467,024	2,986,836
-	-	-	-	-
7,958,774	7,781,942	7,005,124	6,911,960	6,845,032
0.665	0.6	0.5675	0.48	0.455
-	-	-	-	-
-	-	-	-	-

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
\$	\$	\$	\$	\$
105,392,452	100,582,966	85,472,221	84,258,149	79,386,893
125,676,223	113,842,995	100,014,459	93,092,852	92,058,393
42,838,680	40,039,013	33,068,290	31,974,003	31,524,820
24,500,000	38,800,000	45,350,000	39,350,000	39,350,000
71,290,180	82,856,513	80,958,290	73,930,003	73,546,820
9,000,000	1,050,000	-	1,500,000	-
29,359,911	12,822,330	6,772,896	7,492,903	7,089,199

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
\$	\$	\$	\$	\$
9,696,362	9,196,669	8,381,000	9,394,000	10,471,000
3,034,595	2,232,839	1,938,000	2,820,000	4,138,000
1,602,057	1,567,726	1,647,000	1,694,000	1,566,000
870,587	466,094	247,000	793,000	1,563,000
-	-	-	-	-
1,423,574.15	1,422,435	1,422,435	1,422,435	1,422,435
0.5564	0.2707	0.1103	0.4912	1.0276
-	-	-	-	-
0.3208	0.3790	0.3035	0.4893	-
870,587	466,094	247,000	793,000	1,563,000
1,423,574.15	1,422,435	1,422,435	1,422,435	1,422,435
6,049,745	5,714,000	5,787,000	6,194,000	6,097,000

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
\$	\$	\$	\$	\$
38,832,483	36,385,000	33,843,000	33,465,000	32,781,000
45,389,505	43,745,000	42,062,000	41,754,000	40,664,000
11,399,672	11,058,000	11,132,000	11,539,000	11,442,000

11,580,109	15,726,000	16,341,000	14,083,000	16,139,000
22,979,781	26,784,000	27,473,000	25,622,000	27,581,000
3,350,000	2,370,000	1,875,000	2,000,000	855,000
10,043,234	4,654,000	3,493,000	5,190,000	2,374,000

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
\$	\$	\$	\$	\$
14,201,756	13,216,692	13,021,354	12,242,010	11,882,267
4,324,642	4,518,649	4,366,687	4,195,215	4,052,217
3,116,741	2,606,206	2,665,700	2,321,424	2,567,692
2,599	19,286	24,844	150,338	49,253
3,119,340	2,625,492	2,690,544	2,471,762	2,616,945
2,550,883	2,168,118	2,026,368	2,094,646	2,018,575
4,974,536	4,911,112	4,409,944	4,351,752	4,298,008
0.5163	0.4638	0.4625	0.485	0.4725
-	-	-	-	-

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
\$	\$	\$	\$	\$
67,937,662	63,245,524	61,696,391	59,285,384	52,140,111
84,738,162	80,330,004	69,613,666	70,162,724	64,733,052
20,597,440	19,832,098	16,692,820	16,313,909	15,866,505
32,000,000	34,966,327	29,531,111	29,743,855	23,442,372
52,597,440	54,798,425	46,223,931	46,057,764	39,308,877
452,000	-	288,000	-	-
3,560,423	4,428,307	2,872,089	3,449,394	8,031,281

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
23,570	21,736	21,262	19,256	18,018
5,878	5,424	5,297	4,860	4,911
2,902	2,913	3,042	2,983	2,886
3,211	2,595	2,322	1,840	2,099
4,427	4,357	4,083	4,000	3,745
0.72532	0.51712	0.42406	0.36814	0.56568
0.4166	0.5472	0.5073	0.5936	0.6933

12/31/1993 Thousands	12/31/1992 Thousands	12/31/1991 Thousands	12/31/1990 Thousands	12/31/1989 Thousands
83,304	80,152	75,903	73,982	69,324
100,162	92,886	86,757	84,250	80,657
26,759	25,307	22,851	22,078	20,609
28,872	31,781	32,363	30,970	30,403
57,459	58,943	56,801	54,763	52,865
11,505	8,535	6,813	6,947	6,889

34334	33969	33603	33238	32873
23569.6348	21736.0346	21262.3604	19255.5694	18018.0976
5878.0326	5424.1906	5297.3592	4859.8006	4910.762
2901.5846	2913.0924	3041.773	2982.72	2885.8416
3211.1822	2594.6878	2321.5414	1840.0068	2099.4104
4427.403629	4357.4256	4083.3805	3999.6046	3744.6424
0.72532	0.51712	0.42406	0.36814	0.56568
0.416566667	0.547246884	0.507296829	0.593550898	0.6933

34334 Thousands	33969 Thousands	33603 Thousands	33238 Thousands	32873 Thousands
83303.5988	80152.4382	75903.2456	73981.7244	69323.7802
100162.14	92885.998	86757.0124	84250.1126	80657.2688
26759.3308	25307.1642	22850.619	22078.4402	20608.9206
28871.5186	31780.9388	32362.628	30970.4134	30403.0362
57458.5894	58943.143	56801.487	54762.7936	52865.1968
11504.7858	8535.4214	6813.3016	6947.1638	6888.5996

12/31/1993	12/31/1992	12/31/1991	12/31/1990	12/31/1989
1.984%	0.997%	0.532%	-0.141%	0.376%
3.390%	3.414%	3.256%	2.026%	2.620%
4.360%	3.920%	4.104%	3.724%	3.245%
1.918%	1.065%	0.587%	1.899%	3.844%
3.010%	2.699%	2.911%	2.985%	3.118%
2.933%	2.419%	2.278%	2.099%	2.641%
11.781%	6.144%	3.292%	-0.956%	2.212%
12.243%	11.848%	11.663%	7.336%	11.126%
12.791%	11.145%	12.412%	10.843%	9.475%
7.637%	4.215%	2.219%	6.872%	13.660%
12.000%	10.253%	10.160%	8.334%	10.187%
11.290%	8.721%	7.949%	6.486%	9.332%
7.993%	4.205%	2.210%	-0.626%	1.702%
14.500%	13.743%	12.948%	9.117%	12.357%
15.445%	14.459%	13.749%	13.124%	12.710%
8.978%	5.068%	2.947%	8.442%	14.927%
13.624%	11.937%	10.919%	9.556%	11.652%

12.108%	9.883%	8.555%	7.923%	10.670%
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
1.571	1.383	1.138	1.127	1.114
2.301	2.059	1.955	1.542	1.685
2.728	2.218	2.236	2.126	1.773
1.894	1.424	1.177	1.665	2.642
1.386	1.721	1.623	1.697	1.548
1.976	1.761	1.626	1.631	1.753



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Artesian Resources Corp (ARTNA)

At 3:46PM ET: **24.82** ↓ 0.

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Analyst Estimates

Get Analyst Estimates for:

Earnings Est	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Avg. Estimate	0.46	0.30	1.19	1.41
No. of Analysts	1	1	2	2
Low Estimate	0.46	0.30	1.18	1.37
High Estimate	0.46	0.30	1.19	1.44
Year Ago EPS	0.26	0.22	0.96	1.19

Revenue Est	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Avg. Estimate	N/A	N/A	N/A	N/A
No. of Analysts	0	0	0	
Low Estimate	N/A	N/A	N/A	N/A
High Estimate	N/A	N/A	N/A	N/A
Year Ago Sales	9.23M	N/A	N/A	N/A
Sales Growth (year/est)	N/A	N/A	N/A	N/A

Earnings History	Sep-03	Dec-03	Mar-04	Jun-04
	EPS Est	N/A	N/A	N/A
EPS Actual	0.26	0.22	0.18	0.24
Difference				
Surprise %	%	%	%	%

EPS Trends	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Current Estimate	0.46	0.30	1.19	1.41
7 Days Ago	0.46	0.30	1.28	1.41
30 Days Ago	0.46	0.30	1.28	1.41
60 Days Ago	0.46	0.30	1.28	1.41
90 Days Ago	0.46	0.30	1.28	1.41

EPS Revisions	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	0	0
Down Last 30 Days	0	0	2	0
Down Last 90 Days	0	0	2	0

Growth Est	ARTNA	Industry	Sector	S&P 500
	Current Qtr.	76.9%	12.4%	1.1%
Next Qtr.	36.4%	26.4%	8.5%	15.6%

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This Year	24.0%	10.1%	3.9%	18.9%
Next Year	18.5%	10.3%	8.1%	10.1%
Past 5 Years (per annum)	4.5%	N/A	N/A	N/A
Next 5 Years (per annum)	8.5%	9.50%	4.89%	10.77%
Price/Earnings (avg. for comparison categories)	20.9	22.64	14.35	16.07
PEG Ratio (avg. for comparison categories)	2.46	2.38	2.94	1.49

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Estimates

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EPS Estimates FOR **ARTNA.O**  Symbol Lookup

Printable version

ARTESIAN RESOURCES CORP (UTC)

LAST [3:46 PM ET]	CHANGE	Risk Alert for ARTNA.O
24.82 usd	 -0.09 (-0.36%)	 Medium 
SECTOR: Utilities | INDUSTRY: Water Utilities		

▶ Free offer at Ameritrade ▶ \$7 Trades at Scottrade ▶ Introducing Schwab Trader CT

Risk Alert : ARTESIAN RESOURCES CORP

 **Medium**

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EPS Estimates

Earnings Per Share Estimates

	In US Dollar					
	# of Ests.	Mean Est.	High Est.	Low Est.	Std. Dev.	Proj-P/E
Quarter Ending 06/04	2	0.30	0.30	0.30	0.00	--
Quarter Ending 09/04	2	0.46	0.46	0.46	0.00	--
Year Ending 12/04	3	1.26	1.31	1.24	0.04	20.85
Year Ending 12/05	3	1.38	1.44	1.32	0.06	19.13
LT Growth Rate	2	8.00	8.00	8.00	0.00	--

 Learn about EPS Estimates

Earnings Surprises

Quarterly Earnings Surprises
Estimated vs. Actual Earnings Per Share

	In US Dollar		
	Estimate	Actual	Difference
March 2004	0.21	0.18	-0.02
December 2003	0.31	0.22	-0.09
September 2003	0.43	0.26	-0.17
June 2003	0.27	0.31	0.04
March 2003	0.20	0.18	-0.02

 Learn about Earnings Surprises

Estimate Revisions

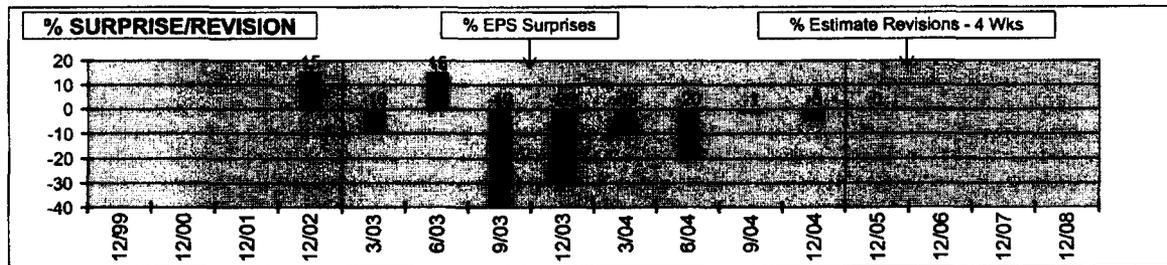
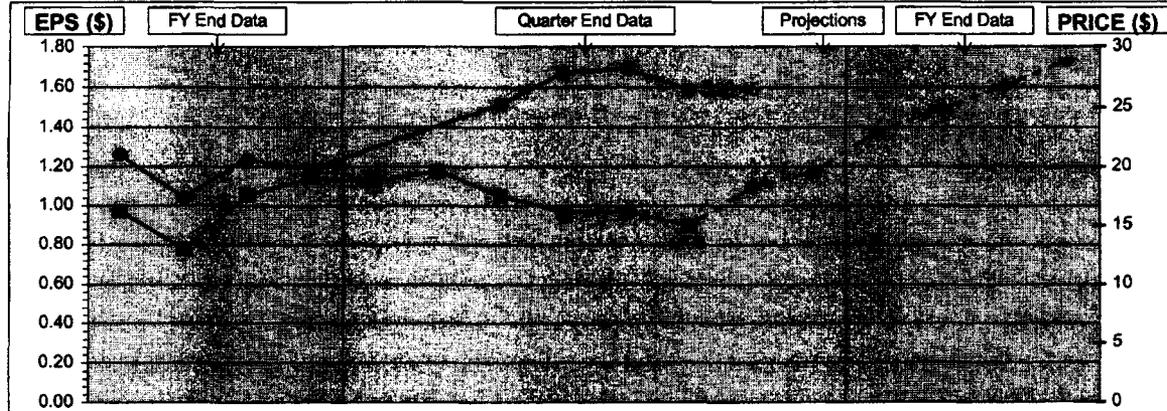
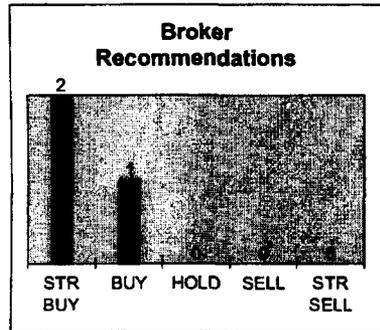
Earnings Per Share Estimates Revisions Summary

	Last Week		Last 4 Weeks	
	Revised Up	Revised Down	Revised Up	Revised Down
Quarter Ending 06/04	0	0	1	0
Quarter Ending 09/04	0	0	0	1
Year Ending 12/04	0	0	0	3

				Industry: UTIL-WATER SPLY			Type: Small Blend		
Rec Price	P/E	Mkt Cap	Div Rate	Yield	Sales (12Mo)	Sls Gr	EPS Gr	Div Gr	
\$25.42	28.2	\$98 MM	\$0.83	3.3%	\$37 MM	9%	4%	3%	

Artesian Resources Corporation operates as the parent holding company of Artesian Water Company, Inc a regulated public water utility. Artesian Water provides water utility service to customers with in its established service territory in portions of New Castle County, Delaware.

		#Up	#Dn	Price/Volume Data			EPS, P/E and Growth Rates			Yr/Yr
		0	0	52-Wk High	\$29.50	FY	EPS	P/E	EPS Gr	
				Low	\$22.79	12/03 Act	0.96	29.0	-16%	
				PriceChg-YTD	-9%	12/04 Est	1.20	21.1	25%	
				-YTD(Rel)	-5%	12/05 Est	1.38	18.5	14%	
				Avg Dly Vol	6 000s	Last 5Yr			4%	
				Exp Return/Risk		Next 3-5Yr (Est)			8%	
				Impl Ret=Yld+Gr	11%	Other Key Measures			5-Year	
				Beta	0.17	P/E (12 Mo)	Current		Avg	
				Shareholder Data			Rel P/E			
				Shares Out	3.9 MM	Net Margin	10%		10.5%	
				Institutions	10.34%	ROE	6.8%		8.6%	
				Insiders	8.79%	LT Debt/Cap	61%		56%	



UTIL-WATER SPLY		Industry Comparables						Impl				
Industry #	196	Pr Chg YTD	P/E (12Mo)	EPS Gr 5Yr Est	Price/Book	Price/Sales	Price/CF	Ret/P/E	Div Yield	Net Margin	ROE	Debt/Cap
ARTESIAN RES		-9%	28.2	8%	1.8	2.7	13.0	0.40	3.3%	9.7%	7%	61%
INDUSTRY AVG*			24.1	8%	2.1		12.7	0.48	3.3%	9.7%	10%	
S&P 500		-4%	19.5	10%	4.1				1.8%		26%	

* 14 Companies in industry group.

Latest Splits: 07/01/03 1.500

Ex-Div. Date: 05/06/04



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Middlesex Water Co (MSEX)

At 4:00PM ET: **17.48** ↑ 0.

Analyst Estimates

Get Analyst Estimates for:

Earnings Est	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Avg. Estimate	0.27	0.14	0.67	0.74
No. of Analysts	1	1	1	1
Low Estimate	0.27	0.14	0.67	0.74
High Estimate	0.27	0.14	0.67	0.74
Year Ago EPS	0.22	0.11	0.61	0.67

Revenue Est	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Avg. Estimate	N/A	N/A	N/A	N/A
No. of Analysts	0	0	0	
Low Estimate	N/A	N/A	N/A	N/A
High Estimate	N/A	N/A	N/A	N/A
Year Ago Sales	N/A	N/A	N/A	N/A
Sales Growth (year/est)	N/A	N/A	N/A	N/A

Earnings History	Sep-03	Dec-03	Mar-04	Jun-04
	EPS Est	N/A	N/A	N/A
EPS Actual	0.22	0.11	0.09	0.16
Difference				
Surprise %	%	%	%	%

EPS Trends	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Current Estimate	0.27	0.14	0.67	0.74
7 Days Ago	0.27	0.14	0.67	0.74
30 Days Ago	0.27	0.14	0.73	0.79
60 Days Ago	0.27	0.14	0.73	0.79
90 Days Ago	0.26	0.23	0.88	

EPS Revisions	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	0	0
Down Last 30 Days	0	0	0	0
Down Last 90 Days	0	0	1	1

Growth Est	MSEX	Industry	Sector	S&P 500
	Current Qtr.	22.7%	12.4%	1.1%	14.9%
Next Qtr.	27.3%	26.4%	8.5%	15.6%
This Year	9.8%	10.1%	3.9%	18.9%
Next Year	10.4%	10.3%	8.1%	10.1%
Past 5 Years (per annum)	-1.6%	N/A	N/A	N/A
Next 5 Years (per annum)	6.0%	9.50%	4.89%	10.77%

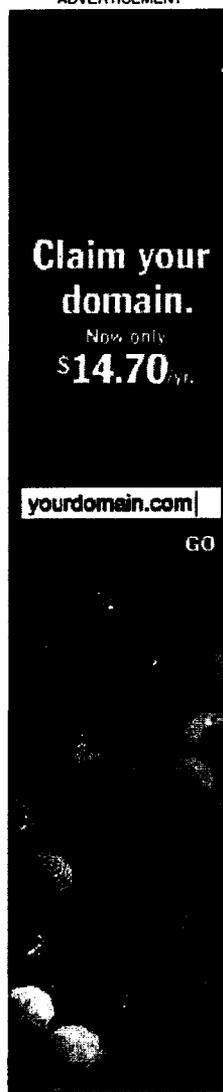
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Estimates

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EPS Estimates FOR **MSEX.O**  Symbol Lookup

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MIDDLESEX WATER CO (UTC)

LAST [4:00 PM ET]	CHANGE	Risk Alert for MSEX.O
17.48 USD	 0.17 (0.9%)	 Low 
SECTOR: Utilities | INDUSTRY: Water Utilities		

▶ Free offer at Ameritrade ▶ \$7 Trades at Scottrade ▶ Introducing Schwab Trader CT

Risk Alert : MIDDLESEX WATER CO

 **Low**

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EPS Estimates

Earnings Per Share Estimates

	In US Dollar					
	# of Ests.	Mean Est.	High Est.	Low Est.	Std. Dev.	Proj-P/E
Quarter Ending 06/04	2	0.24	0.24	0.23	0.01	--
Quarter Ending 09/04	2	0.27	0.27	0.26	0.01	--
Year Ending 12/04	2	0.71	0.73	0.69	0.03	27.13
Year Ending 12/05	2	0.82	0.85	0.79	0.04	23.49
LT Growth Rate	1	6.00	6.00	6.00	--	--

 [Learn about EPS Estimates](#)

Earnings Surprises

**Quarterly Earnings Surprises
Estimated vs. Actual Earnings Per Share**

	In US Dollar		
	Estimate	Actual	Difference
March 2004	0.13	0.09	-0.04
December 2003	0.16	0.11	-0.05
September 2003	0.26	0.22	-0.04
June 2003	0.20	0.17	-0.04
March 2003	0.11	0.11	0.00

 [Learn about Earnings Surprises](#)

Estimate Revisions

Earnings Per Share Estimates Revisions Summary

	Last Week		Last 4 Weeks	
	Revised Up	Revised Down	Revised Up	Revised Down
	Quarter Ending 06/04	0	0	1	0
Quarter Ending 09/04	0	0	1	0
Year Ending 12/04	0	0	0	0

				Industry: UTIL-WATER SPLY			Type: Small Blend		
Rec Price	P/E	Mkt Cap	Div Rate	Yield	Sales (12Mo)	Sls Gr	EPS Gr	Div Gr	
\$17.15		\$182 MM	\$0.66	3.8%	\$64 MM			1%	

Middlesex Water Company treats, stores and distributes water for residential, commercial, industrial and fire prevention purposes.

#Up	#Dn
0	0

Broker Recommendations

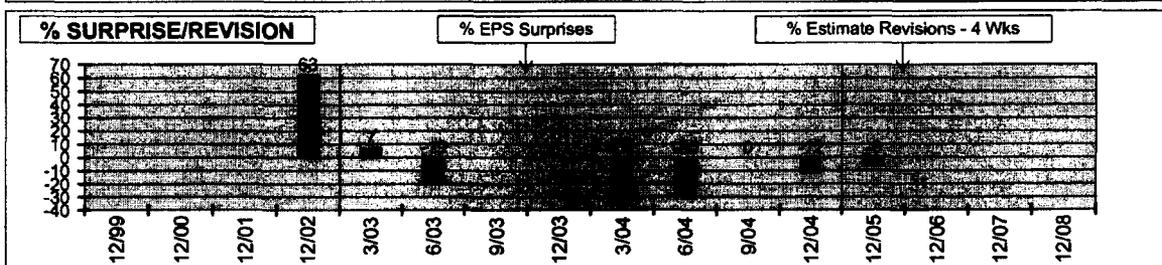
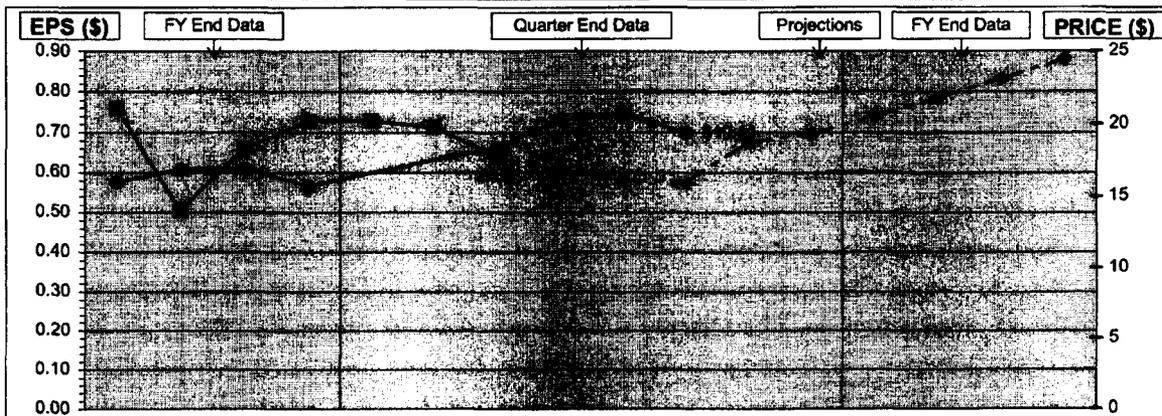
STR BUY HOLD SELL STR SELL

Price/Volume Data

52-Wk High	\$21.56
Low	\$16.70
PriceChg-YTD	-16%
-YTD(Rel)	-12%
Avg Dly Vol	22 000s
Exp Return/Risk	
Impl Ret=Yld+Gr	10%
Beta	0.25
Shareholder Data	
Shares Out	10.6 MM
Institutions	16.83%
Insiders	3.65%

EPS, P/E and Growth Rates

	FY	EPS	P/E	Yr/Yr
12/03 Act		0.61	33.3	-16%
12/04 Est		0.76	22.6	25%
12/05 Est		0.74	23.2	-3%
Last 5Yr				
Next 3-5Yr (Est)				6%
Other Key Measures				5-Year
Current				Avg
P/E (12 Mo)				25.7
Rel P/E				
Net Margin				11.8%
ROE				8.4%
LT Debt/Cap				54%
				41%



UTIL-WATER SPLY		Industry Comparables						Impl				
Industry #	196	Pr Chg YTD	P/E (12Mo)	EPS Gr 5Yr Est	Price/Book	Price/Sales	Price/CF	Ret/P/E	Div Yield	Net Margin	ROE	Debt/Cap
MIDDLESEX WATER		-16%		6%	2.3	2.9	13.9	3.8%	9.7%	10%	54%	
INDUSTRY AVG*			24.1	8%	2.1		12.7	0.48	3.3%			
S&P 500		-4%	19.5	10%	4.1				1.8%			

* 14 Companies in industry group.

Latest Splits: 11/17/03 1.333 01/03/02 1.500 10/02/92 2.000 Ex-Div. Date: 05/12/04

Quotes & Info

Enter Symbol(s):

York Water Co (YORW)

At 3:35PM ET: **17.00** ↓ 0.



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Analyst Estimates

Get Analyst Estimates for:

Earnings Est	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Avg. Estimate	N/A	N/A	0.75	0.77
No. of Analysts	0	0	1	1
Low Estimate	N/A	N/A	0.75	0.77
High Estimate	N/A	N/A	0.75	0.77
Year Ago EPS	N/A	N/A	0.70	0.75

Revenue Est	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Avg. Estimate	N/A	N/A	N/A	N/A
No. of Analysts	0	0	0	
Low Estimate	N/A	N/A	N/A	N/A
High Estimate	N/A	N/A	N/A	N/A
Year Ago Sales	5.79M	N/A	N/A	N/A
Sales Growth (year/est)	N/A	N/A	N/A	N/A

Earnings History	Sep-03	Dec-03	Mar-04	Jun-04
	EPS Est	N/A	N/A	N/A
EPS Actual				
Difference				
Surprise %	%	%	%	%

EPS Trends	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Current Estimate			0.75	0.77
7 Days Ago			0.75	0.77
30 Days Ago			0.75	0.77
60 Days Ago			0.75	0.77
90 Days Ago			0.73	

EPS Revisions	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	0	0
Down Last 30 Days	0	0	0	0
Down Last 90 Days	0	0	0	0

Growth Est	YORW	Industry	Sector	S&P 500
	Current Qtr.	N/A	12.4%	1.1%
Next Qtr.	N/A	26.4%	8.5%	15.6%

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This Year	7.1%	10.1%	3.9%	18.9%
Next Year	2.7%	10.3%	8.1%	10.1%
Past 5 Years (per annum)	2.5%	N/A	N/A	N/A
Next 5 Years (per annum)	7.0%	9.50%	4.89%	10.77%
Price/Earnings (avg. for comparison categories)	22.9	22.64	14.35	16.07
PEG Ratio (avg. for comparison categories)	3.27	2.38	2.94	1.49

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Estimates

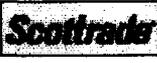
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EPS Estimates FOR **YORW.O**  Symbol Lookup

[Printable version](#)

YORK WATER CO (UTC)

LAST [3:35 PM ET]	CHANGE	Risk Alert for YORW.O
17.00 usd	 -0.15 (-0.87%)	 Low 
SECTOR: Utilities | INDUSTRY: Water Utilities		

▶ Free offer at Ameritrade ▶ \$7 Trades at Scottrade ▶ Introducing Schwab Trader CT

Risk Alert : YORK WATER CO



▶ [View Risk Alert Tests](#) ▶ [About Rating](#)

EPS Estimates

Earnings Per Share Estimates

	In US Dollar					
	# of Ests.	Mean Est.	High Est.	Low Est.	Std. Dev.	Proj-P/E
Quarter Ending 06/04	1	0.16	0.16	0.16	--	--
Quarter Ending 09/04	1	0.25	0.25	0.25	--	--
Year Ending 12/04	2	0.74	0.75	0.72	0.02	26.53
Year Ending 12/05	1	0.77	0.77	0.77	--	25.32
LT Growth Rate	1	7.00	7.00	7.00	--	--

 [Learn about EPS Estimates](#)

Earnings Surprises

**Quarterly Earnings Surprises
Estimated vs. Actual Earnings Per Share**

	In US Dollar		
	Estimate	Actual	Difference
March 2004	0.15	0.25	0.10
December 2003	0.15	0.18	0.03
September 2003	0.24	0.24	0.00
June 2003	0.16	0.16	0.00
March 2003	0.15	0.12	-0.03

 [Learn about Earnings Surprises](#)

Estimate Revisions

Earnings Per Share Estimates Revisions Summary

	Last Week		Last 4 Weeks	
	Revised Up	Revised Down	Revised Up	Revised Down
Quarter Ending 06/04	0	0	0	0
Quarter Ending 09/04	0	0	0	0
Year Ending 12/04	1	0	1	0

				Industry: UTIL-WATER SPLY			Type: Small Growth		
Rec Price	P/E	Mkt Cap	Div Rate	Yield	Sales (12Mo)	Sls Gr	EPS Gr	Div Gr	Price Risk
\$17.14	22.9	\$110 MM	\$0.58	3.4%	\$22 MM	2%	-2%	4%	High

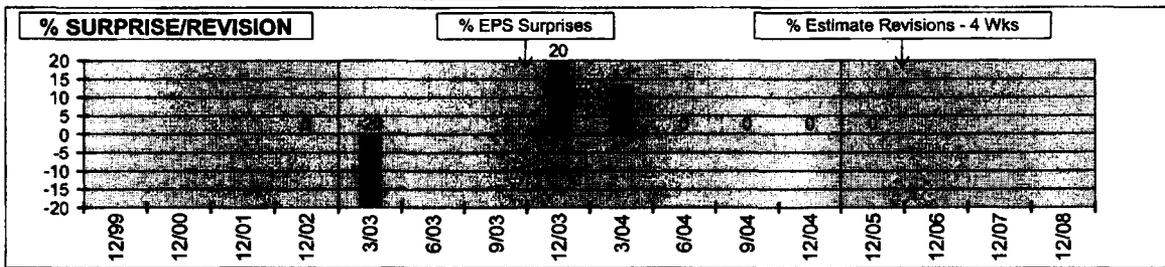
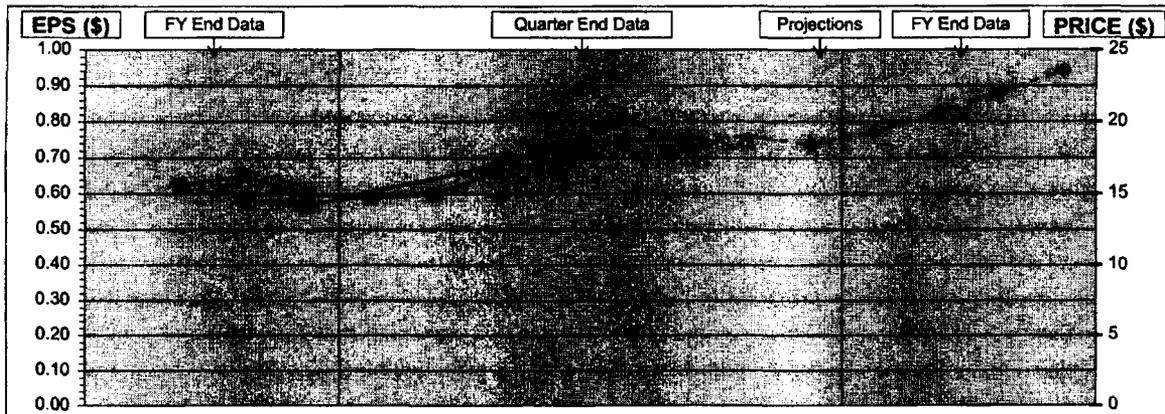
The York Water Company impounds, purifies and distributes water. They are regulated by the Pennsylvania Public Utility Commission in the areas of billing, payment procedures, dispute processing, terminations, service territory, and rate setting. They must obtain PPUC approval before changing any of the aforementioned procedures.

#Up	#Dn
0	0

Broker Recommendations
2

STR BUY HOLD SELL STR BUY SELL

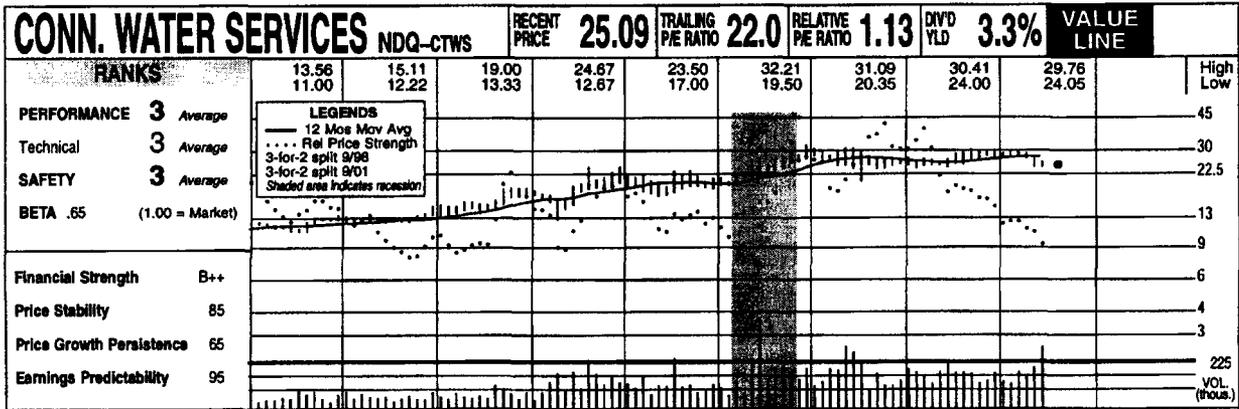
Price/Volume Data		EPS, P/E and Growth Rates		Yr/Yr
52-Wk High	\$20.99	FY	EPS	P/E
Low	\$17.00	12/03 Act	0.70	26.0
PriceChg-YTD	-6%	12/04 Est	0.74	23.3
-YTD(Rel)	-2%	12/05 Est	0.77	22.3
Avg Dly Vol	12 000s	Last 5Yr		-2%
Exp Return/Risk		Next 3-5Yr (Est)		7%
Impl Ret=Yld+Gr	10%	Other Key Measures		5-Year
Beta	0.05	Current		Avg
Shareholder Data		P/E (12 Mo)	22.9	24.4
Shares Out	6.4 MM	Rel P/E	117%	
Institutions	10.27%	Net Margin	24%	19.7%
Insiders	3.68%	ROE	17.0%	11.4%
		LT Debt/Cap	43%	48%



UTIL-WATER SPLY	Industry Comparables									
Industry #	Pr Chg	P/E	EPS Gr	Price/	Price/	Price/	Impl	Div	Net	Debt/
196	YTD	(12Mo)	5Yr Est	Book	Sales	CF	Ret/	Yield	Margin	Cap
YORK WATER CO	-6%	22.9	7%	17.0	5.0	17.7	0.45	3.4%	24.0%	17%
INDUSTRY AVG*		24.1	8%	2.1		12.7	0.48	3.3%	9.7%	10%
S&P 500	-4%	19.5	10%	4.1				1.8%		26%

* 14 Companies in industry group.

Latest Splits: 05/21/02 2.000 06/24/97 4.000 02/01/89 1.050 Ex-Div. Date: 06/28/04



0 VALUE LINE PUBLISHING, INC.	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005/2006
SALES PER SH	5.69	5.67	5.58	5.87	5.70	5.93	5.77	5.91	--	
"CASH FLOW" PER SH	1.46	1.51	1.59	1.65	1.73	1.78	1.78	1.89	--	
EARNINGS PER SH	.97	1.00	1.02	1.03	1.09	1.13	1.12	1.15	1.19 ^{A,B}	1.22 ^C /NA
DIV'DS DECL'D PER SH	.76	.77	.78	.79	.79	.80	.81	.83	--	
CAP'L SPENDING PER SH	1.62	1.99	1.12	1.42	1.43	1.86	1.98	1.49	--	
BOOK VALUE PER SH	8.03	8.26	8.52	8.61	8.92	9.25	10.06	10.46	--	
COMMON SHS OUTST'G (MILL)	6.78	6.79	6.80	7.26	7.28	7.65	7.94	7.97	--	
AVG ANN'L P/E RATIO	12.5	12.9	15.5	18.2	18.2	21.5	24.3	23.5	21.1	20.6/NA
RELATIVE P/E RATIO	.78	.74	.81	1.04	1.18	1.10	1.33	1.35	--	
AVG ANN'L DIV'D YIELD	6.2%	6.0%	4.9%	4.2%	4.0%	3.3%	3.0%	3.0%	--	
SALES (\$MILL)	38.6	38.5	37.9	42.6	41.5	45.4	45.8	47.1	--	<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>
OPERATING MARGIN	44.9%	45.5%	46.2%	48.7%	48.8%	56.1%	57.7%	52.1%	--	
DEPRECIATION (\$MILL)	3.3	3.5	3.9	4.5	4.7	5.0	5.4	5.9	--	
NET PROFIT (\$MILL)	6.6	6.8	7.0	7.5	8.0	8.7	8.8	9.2	--	
INCOME TAX RATE	37.0%	35.1%	34.3%	40.1%	35.7%	36.1%	33.8%	17.9%	--	
NET PROFIT MARGIN	17.1%	17.7%	18.4%	17.6%	19.2%	19.1%	19.2%	19.5%	--	
WORKING CAP'L (\$MILL)	d7.9	d10.4	d3.7	d3.8	.3	d3.3	d5.1	d3.9	--	
LONG-TERM DEBT (\$MILL)	54.4	54.5	62.5	65.4	64.7	64.0	64.8	64.8	--	
SHR. EQUITY (\$MILL)	55.2	56.8	58.7	63.3	65.7	71.6	80.7	84.2	--	
RETURN ON TOTAL CAP'L	7.6%	7.7%	7.3%	7.4%	7.6%	7.9%	7.4%	7.5%	--	
RETURN ON SHR. EQUITY	12.0%	12.0%	11.9%	11.8%	12.1%	12.1%	10.9%	10.9%	--	
RETAINED TO COM EQ	2.7%	2.8%	2.8%	3.1%	3.2%	3.6%	3.1%	3.2%	--	
ALL DIV'DS TO NET PROF	78%	77%	76%	74%	74%	71%	72%	71%	--	

^ANo. of analysts changing earn. est. in last 17 days: 0 up, 0 down, consensus 5-year earnings growth not available. ^BBased upon one analyst's estimate. ^CBased upon one analyst's estimate.

ANNUAL RATES				
of change (per share)	5 Yrs.	1 Yr.		
Sales	1.0%	2.5%		
"Cash Flow"	3.5%	6.5%		
Earnings	2.5%	2.5%		
Dividends	1.0%	1.5%		
Book Value	3.5%	4.0%		

Fiscal Year	1Q	2Q	3Q	4Q	Full Year
12/31/02	10.3	10.7	13.8	11.0	45.8
12/31/03	10.9	10.8	13.7	11.7	47.1
12/31/04	10.9				
12/31/05					

Fiscal Year	1Q	2Q	3Q	4Q	Full Year
12/31/01	.30	.25	.38	.20	1.13
12/31/02	.19	.24	.50	.19	1.12
12/31/03	.26	.15	.48	.26	1.15
12/31/04	.25	.17	.53	.24	
12/31/05					

Cal-ender	1Q	2Q	3Q	4Q	Full Year
2001	.20	.20	.202	.202	.80
2002	.202	.202	.206	.206	.81
2003	.205	.205	.208	.208	.83
2004	.208	.208			

INSTITUTIONAL DECISIONS		
	3Q'03	4Q'03
to Buy	20	22
to Sell	14	14
Hld's(000)	1276	1278

ASSETS (\$mill.)		
Cash Assets	2002	2003
Receivables	8.8	8.9
Inventory (Avg cost)	1.0	.9
Other	.1	.3
Current Assets	10.4	11.2

LIABILITIES (\$mill.)		
Accs Payable	6.5	5.4
Debt Due	7.2	10.0
Other	1.8	-.3
Current Liab	15.5	15.1

LONG-TERM DEBT AND EQUITY as of 3/31/04		
Total Debt \$77.3 mill.		Due in 5 Yrs. NA
LT Debt \$65.1 mill.		
including Cap. Leases NA		
	(43% of Cap'l)	
Leasee, Uncapitalized Annual rentals NA		
Pension Liability None in '03 vs. None in '02		
Pfd Stock \$.8 mill.		Pfd Div'd Paid NMF (1% of Cap'l)
Common Stock 7,966,267 shares		(56% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: Connecticut Water Services, Inc. acts as the parent company of The Connecticut Water Co. and other subsidiaries, which supply water for residential, commercial, industrial, and municipal purposes in Connecticut. Sales and distributions are affected by seasonal weather fluctuations throughout the year. Profitability is dependent on numerous factors, such as the quantity of rainfall and temperature in a given period of time, industrial demand, prevailing rates of interest for short-term and long-term borrowings, energy rates, and compliance with environmental and water-quality regulations. Connecticut Water owns and operates 10 water filtration treatment plants, including the Guilford Well, Rockville, Westbrook Well, MacKenzie, Hunt Well Field, Stafford Springs, and Reynolds Bridge. Has 195 employees. Chairman, C.E.O. & President: Marshall T. Chiaraluce, Inc.: CT. Address: 93 West Main Street, Clinton, CT 06413. Tel.: (860) 669-8636. Internet: <http://www.ctwater.com>.

A.Z.

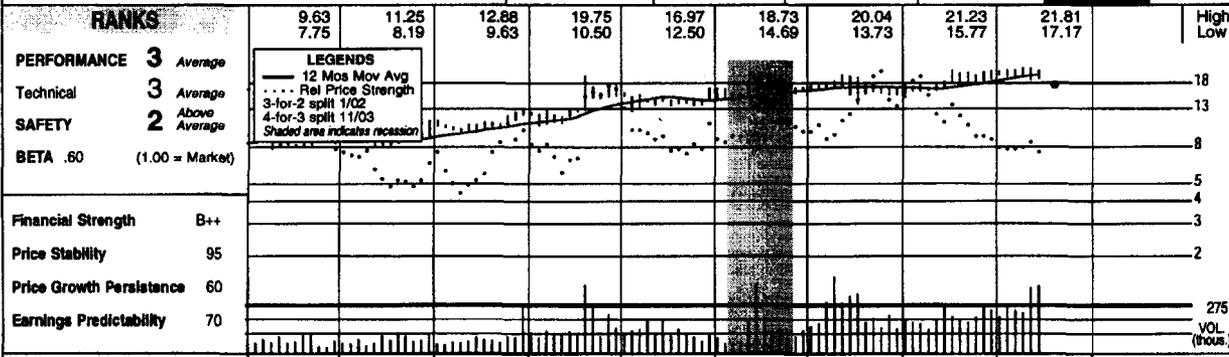
July 30, 2004

TOTAL SHAREHOLDER RETURN				
<i>Dividends plus appreciation as of 6/30/2004</i>				
3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
-8.36%	-5.15%	4.22%	22.77%	65.01%

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MIDDLESEX WATER NDQ-MSEX RECENT PRICE **17.66** TRAILING P/E RATIO **29.9** RELATIVE P/E RATIO **1.55** DIV'D YLD **3.9%** VALUE LINE



© VALUE LINE PUBLISHING, INC.	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005/2006
SALES PER SH	4.52	4.72	4.39	5.35	5.39	5.87	5.98	6.12	--	
"CASH FLOW" PER SH	.94	1.02	1.02	1.19	.99	1.18	1.20	1.15	--	
EARNINGS PER SH	.60	.67	.71	.76	.51	.66	.73	.61	.87 ^{A,B}	.79 ^C /NA
DIV'DS DECL'D PER SH	.55	.57	.58	.60	.61	.62	.63	.65	--	
CAPL SPENDING PER SH	.73	1.20	2.66	2.33	1.32	1.25	1.59	1.87	--	
BOOK VALUE PER SH	5.85	6.00	6.80	6.95	6.98	7.11	7.39	7.60	--	
COMMON SHS OUTST'G (MILL)	8.41	8.54	9.82	10.00	10.11	10.17	10.36	10.48	--	
AVG ANNL P/E RATIO	14.4	13.4	15.2	17.6	28.7	24.6	23.5	30.0	20.3	22.4/NA
RELATIVE P/E RATIO	.90	.77	.79	1.00	1.87	1.26	1.28	1.72	--	
AVG ANNL DIV'D YIELD	6.4%	6.3%	5.4%	4.4%	4.2%	3.8%	3.7%	3.5%	--	
SALES (\$MILL)	38.0	40.3	43.1	53.5	54.5	59.6	61.9	64.1	--	Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.
OPERATING MARGIN	36.0%	37.2%	37.0%	33.9%	32.2%	47.2%	47.1%	44.0%	--	
DEPRECIATION (\$MILL)	2.9	3.1	3.8	4.3	4.9	5.3	5.0	5.6	--	
NET PROFIT (\$MILL)	5.2	5.9	6.5	7.9	5.3	7.0	7.8	6.6	--	
INCOME TAX RATE	32.8%	34.9%	31.5%	28.8%	33.1%	34.8%	33.3%	32.8%	--	
NET PROFIT MARGIN	13.6%	14.5%	15.1%	14.7%	9.7%	11.7%	12.5%	10.3%	--	
WORKING CAP'L (\$MILL)	2.0	d2.9	14.6	6.8	d2.7	d.9	d9.3	d13.3	--	
LONG-TERM DEBT (\$MILL)	53.0	52.9	78.0	82.3	81.1	88.1	87.5	97.4	--	
SHR. EQUITY (\$MILL)	51.9	56.2	71.7	74.6	74.7	76.4	80.6	83.7	--	
RETURN ON TOTAL CAP'L	6.4%	6.8%	5.7%	6.4%	4.9%	5.6%	6.0%	5.0%	--	
RETURN ON SHR. EQUITY	10.0%	10.4%	9.1%	10.6%	7.1%	9.1%	9.6%	7.9%	--	
RETAINED TO COM EQ	.8%	1.7%	1.8%	2.5%	NMF	.5%	1.3%	NMF	--	
ALL DIV'DS TO NET PROF	92%	85%	81%	78%	121%	94%	87%	106%	--	

^ANo. of analysts changing earn. est. in last 17 days: 0 up, 0 down, consensus 5-year earnings growth 6.0% per year. ^BBased upon 2 analysts' estimates. ^CBased upon one analyst's estimate.

ANNUAL RATES				ASSETS (\$mill.)		
of change (per share)	5 Yrs.	1 Yr.		2002	2003	3/31/04
Sales	5.5%	2.5%		Cash Assets	2.9	3.0
"Cash Flow"	3.5%	-5.0%		Receivables	9.2	5.7
Earnings	0.5%	-16.0%		Inventory (Avg cost)	1.2	1.4
Dividends	2.5%	2.5%		Other	7.0	4.3
Book Value	3.5%	3.0%		Current Assets	20.3	14.4
				Property, Plant & Equip, at cost	259.3	278.4
				Accum Depreciation	47.9	47.5
				Net Property	211.4	230.9
				Other	12.9	17.9
				Total Assets	244.6	263.2
				LIABILITIES (\$mill.)		
				Accs Payable	2.1	4.8
				Debt Due	18.3	13.6
				Other	9.2	9.3
				Current Liab	29.6	27.7
				LONG-TERM DEBT AND EQUITY as of 3/31/04		
				Total Debt \$112.8 mil.		Due in 5 Yrs. NA
				LT Debt \$98.3 mil.		
				Including Cap. Leases NA		(54% of Cap'l)
				Leases, Uncapitalized Annual rentals NA		
				Pension Liability \$5.1 mil. in '03 vs. \$5.3 mil. in '02		
				Pfd Stock \$4.1 mil.		Pfd Div'd Paid \$.3 mil. (2% of Cap'l)
				Common Stock 10,588,947 shares		(44% of Cap'l)

INDUSTRY: Water Utility

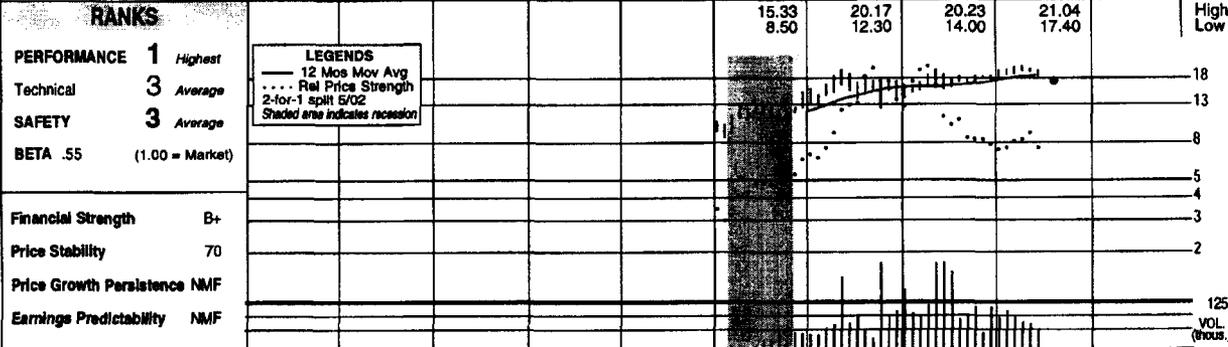
BUSINESS: Middlesex Water Company, through its subsidiaries, engages in the ownership and operation of regulated water utility systems in central and southern New Jersey, and in Delaware, as well as a regulated wastewater utility in southern New Jersey. Its New Jersey water utility system (the Middlesex System) provides water services to retail customers in central New Jersey. The Middlesex System also provides water service under contract to municipalities in central New Jersey. The company operates the water supply system and wastewater system for the city of Perth Amboy in New Jersey in partnership with its subsidiary, Utility Service Affiliates (Perth Amboy), Inc. Its other New Jersey subsidiaries provide water and wastewater services to residents in Southampton Township. The company's Delaware subsidiaries comprising Tidewater Utilities, Inc. and Southern Shores Water Company, LLC offer water services to retail customers in New Castle, Kent, and Sussex Counties. Has 209 employees. C.E.O. & President: J. Richard Tompkins, Inc.: NJ. Address: 1500 Ronson Road, Iselin, NJ 08830. Tel.: (732) 634-1500. Internet: <http://www.middlesexwater.com>. A.Z.

July 30, 2004

TOTAL SHAREHOLDER RETURN					
Dividends plus appreciation as of 6/30/2004					
3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.	
-5.43%	-2.79%	8.05%	26.42%	85.80%	

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© VALUE LINE PUBLISHING, INC.	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005/2006
REVENUES PER SH	--	--	--	--	6.07	3.08	3.07	3.25	--	
"CASH FLOW" PER SH	--	--	--	--	1.79	.88	.86	.97	--	
EARNINGS PER SH	--	--	--	--	1.24	.65	.60	.70	.74 ^{A,B}	.77 ^C /NA
DIV'D DECL'D PER SH	--	--	--	--	.98	.51	.53	.55	--	
CAP'L SPENDING PER SH	--	--	--	--	2.11	1.12	.99	1.61	--	
BOOK VALUE PER SH	--	--	--	--	10.66	5.69	5.85	6.08	--	
COMMON SHS OUTST'G (MILL)	--	--	--	--	3.04	6.31	6.36	6.42	--	
AVG ANN'L P/E RATIO	--	--	--	--	--	17.9	26.9	24.5	23.5	22.6/NA
RELATIVE P/E RATIO	--	--	--	--	--	.92	1.47	1.40	--	
AVG ANN'L DIV'D YIELD	--	--	--	--	--	4.3%	3.3%	3.2%	--	
REVENUES (\$MILL)	--	--	--	--	18.5	19.4	19.6	20.9	--	<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>
NET PROFIT (\$MILL)	--	--	--	--	3.8	4.0	3.8	4.4	--	
INCOME TAX RATE	--	--	--	--	35.7%	35.8%	34.9%	34.8%	--	
AFUDC % TO NET PROFIT	--	--	--	--	1.5%	2.2%	3.7%	--	--	
LONG-TERM DEBT RATIO	--	--	--	--	50.2%	47.7%	46.7%	43.4%	--	
COMMON EQUITY RATIO	--	--	--	--	49.8%	52.3%	53.3%	56.6%	--	
TOTAL CAPITAL (\$MILL)	--	--	--	--	65.2	68.6	69.9	69.0	--	
NET PLANT (\$MILL)	--	--	--	--	97.0	102.3	106.7	116.5	--	
RETURN ON TOTAL CAP'L	--	--	--	--	7.9%	7.9%	7.4%	8.5%	--	
RETURN ON SHR. EQUITY	--	--	--	--	11.6%	11.2%	10.2%	11.4%	--	
RETURN ON COM EQUITY	--	--	--	--	11.6%	11.2%	10.2%	11.4%	--	
RETAINED TO COM EQ	--	--	--	--	2.5%	2.5%	1.3%	2.6%	--	
ALL DIV'DS TO NET PROF	--	--	--	--	78%	78%	88%	77%	--	

^ANo. of analysts changing earn. est. in last 17 days: 0 up, 0 down, consensus 5-year earnings growth 7.0% per year. ^BBased upon 2 analysts' estimates. ^CBased upon one analyst's estimate.

ANNUAL RATES					ASSETS (\$mill.)			INDUSTRY: Water Utility					
of change (per share)	5 Yrs.	1 Yr.			2002	2003	3/31/04						
Revenues	--	6.0%			.0	.0	.0	BUSINESS: York Water Company engages in the impounding, purification, and distribution of water in York County, Pennsylvania. The company has two reservoirs, Lake Williams and Lake Redman, which together hold up to 2.75 billion gallons of water. It supplies water for domestic, commercial, industrial, and fire protection purposes. The company serves approximately 156,000 people in 33 municipalities in York County, Pennsylvania. It supplies through the company's own distribution system to the city of York; the boroughs of North York; West York; Manchester; Mount Wolf; New Salem; Hallam; Jacobus; Loganville; Yorkana; Seven Valleys; East Prospect; Jefferson; Glen Rock; New Freedom, Railroad; and portions of the townships of Manchester, East Manchester, West Manchester, North Codorus, Shrewsbury, North Hopewell, Hopewell, Springettsbury, Spring Garden, Conewago, Springfield, York, Hellam, Windsor, Lower Windsor, Dover, and Jackson. Has 92 employees. C.E.O. & President: William Morris, Inc.: PA. Address: 130 East Market Street, York, PA 17401. Tel.: (717) 845-3601. Internet: http://www.yorkwater.com . A.Z.					
"Cash Flow"	--	13.0%			2.8	3.2	3.0						
Earnings	--	16.5%			.5	.6	.6						
Dividends	--	5.0%			.4	.3	.5						
Book Value	--	4.0%			3.7	4.1	4.1						
Fiscal Year	QUARTERLY SALES (\$mill.)		Full Year	LIABILITIES (\$mill.)									
	1Q	2Q	3Q	4Q	Accts Payable	Debt Due	Other						
12/31/02	4.7	4.9	5.3	4.7	.7	1.7	2.9						
12/31/03	4.8	5.0	5.8	5.3	2.8	9.9	12.5						
12/31/04	5.4				2.0	2.4	2.5						
12/31/05					5.5	14.0	17.9						
Fiscal Year	EARNINGS PER SHARE		Full Year	LONG-TERM DEBT AND EQUITY as of 3/31/04									
	1Q	2Q	3Q	4Q	Total Debt \$42.4 mill.	Due in 5 Yrs. NA							
12/31/01	.13	.14	.23	.15	LT Debt \$29.9 mill.	Including Cap. Leases NA							
12/31/02	.14	.15	.18	.13	(43% of Cap'l)								
12/31/03	.12	.16	.24	.18	Leases, Uncapitalized Annual rentals NA								
12/31/04	.25	.16	.25	.16	Pension Liability None in '03 vs. \$1.7 mill. in '02								
12/31/05					Pfd Stock None		Pfd Div'd Paid None						
Cal-ender	QUARTERLY DIVIDENDS PAID		Full Year	Common Stock 6,430,838 shares									
	1Q	2Q	3Q	4Q	(57% of Cap'l)								
2001	.125	.125	.125	.125									
2002	.13	.13	.13	.13									
2003	.135	.135	.135	.135									
2004	.145	.145	.145										
INSTITUTIONAL DECISIONS					TOTAL SHAREHOLDER RETURN								
		3Q'03	4Q'03	1Q'04	Dividends plus appreciation as of 6/30/2004								
to Buy	3	5	2	3 Mos.			6 Mos.	1 Yr.	3 Yrs.	5 Yrs.			
to Sell	8	4	4	-8.75%			2.80%	17.00%	64.26%	113.21%			
Hld's(000)	678	683	661										

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American States Water Co (Holding Co) (AWR)

At 4:03PM ET: **22.20** ↑ 0.

Analyst Estimates

Get Analyst Estimates for:

Earnings Est	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Avg. Estimate	N/A	N/A	1.35	1.50
No. of Analysts	0	0	1	1
Low Estimate	N/A	N/A	1.35	1.50
High Estimate	N/A	N/A	1.35	1.50
Year Ago EPS	0.51	-0.12	0.72	1.35

Revenue Est	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Avg. Estimate	N/A	N/A	219.00M	N/A
No. of Analysts	0	0	1	
Low Estimate	N/A	N/A	219.00M	N/A
High Estimate	N/A	N/A	219.00M	N/A
Year Ago Sales	63.73M	N/A	N/A	219.00M
Sales Growth (year/est)	N/A	N/A	N/A	N/A

Earnings History	Sep-03	Dec-03	Mar-04	Jun-04
	EPS Est	N/A	N/A	N/A
EPS Actual	0.51	-0.12	0.08	
Difference				
Surprise %	%	%	%	%

EPS Trends	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Current Estimate			1.35	1.50
7 Days Ago			1.35	1.50
30 Days Ago			1.35	1.50
60 Days Ago			1.35	1.50
90 Days Ago			1.35	1.50

EPS Revisions	Current Qtr	Next Qtr	Current Year	Next Year
	Sep-04	Dec-04	Dec-04	Dec-05
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	0	0
Down Last 30 Days	0	0	0	0
Down Last 90 Days	0	0	0	0

Growth Est	AWR	Industry	Sector	S&P 500
	Current Qtr.	N/A	12.4%	1.1%	14.9%
Next Qtr.	N/A	26.4%	8.5%	15.6%
This Year	87.5%	10.1%	3.9%	18.9%
Next Year	11.1%	10.3%	8.1%	10.1%
Past 5 Years (per annum)	-9.5%	N/A	N/A	N/A
Next 5 Years (per annum)	3.0%	9.50%	4.89%	10.77%

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AMERICAN STATES WATER CO (NYS)

LAST [4:03 PM ET]	CHANGE	Risk Alert for AWR.N	
22.20 usd	 0.10 (0.4%)	 Low	
SECTOR: Utilities | INDUSTRY: Water Utilities			

▶ Free offer at Ameritrade ▶ \$7 Trades at Scottrade ▶ Free offer at Ameritrade

Risk Alert : AMERICAN STATES WATER CO

 **LOW**

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EPS Estimates

Earnings Per Share Estimates

	In US Dollar					
	# of Ests.	Mean Est.	High Est.	Low Est.	Std. Dev.	Proj- P/E
Quarter Ending 06/04	1	0.42	0.42	0.42	--	--
Quarter Ending 09/04	1	0.58	0.58	0.58	--	--
Year Ending 12/04	2	1.40	1.44	1.35	0.06	16.42
Year Ending 12/05	1	1.50	1.50	1.50	--	15.27
LT Growth Rate	1	3.00	3.00	3.00	--	--

 [Learn about EPS Estimates](#)

Earnings Surprises

Quarterly Earnings Surprises
Estimated vs. Actual Earnings Per Share
In US Dollar

	Estimate	Actual	Difference
March 2004	0.24	0.08	-0.15
December 2003	0.22	0.27	0.05
September 2003	0.57	0.51	-0.06
June 2003	0.38	0.19	-0.19
March 2003	0.25	0.20	-0.05

 [Learn about Earnings Surprises](#)

Estimate Revisions

Earnings Per Share Estimates Revisions Summary

	Last Week		Last 4 Weeks	
	Revised Up	Revised Down	Revised Up	Revised Down
Quarter Ending 06/04	0	0	0	0
Quarter Ending 09/04	0	0	0	0
Year Ending 12/04	0	0	0	1

				Industry: UTIL-WATER SPLY			Type: Small Value		
Rec Price	P/E	Mkt Cap	Div Rate	Yield	Sales (12Mo)	Sls Gr	EPS Gr	Div Gr	
\$22.00	24.2	\$335 MM	\$0.88	4.0%	\$220 MM	6%	-7%	1%	

American States is a public utility company engaged principally in the purchase, production, distribution and sale of water. The company also distributes electricity in some communities. In the customer service areas for both water and electric, rates and operations are subject to the jurisdiction of the California Public Utilities Commission.

#Up	#Dn
0	0

Broker Recommendations

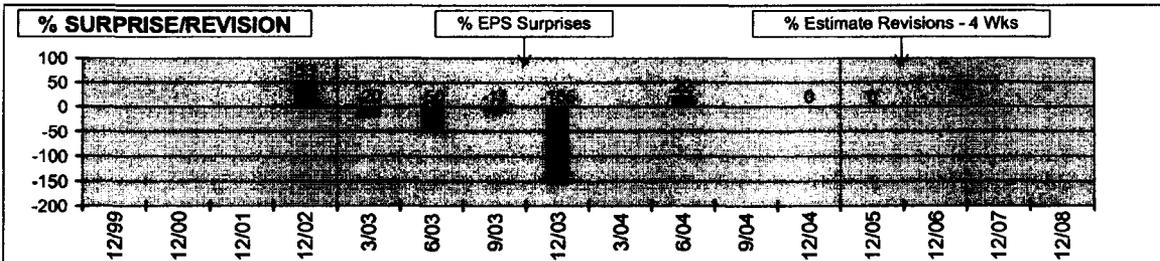
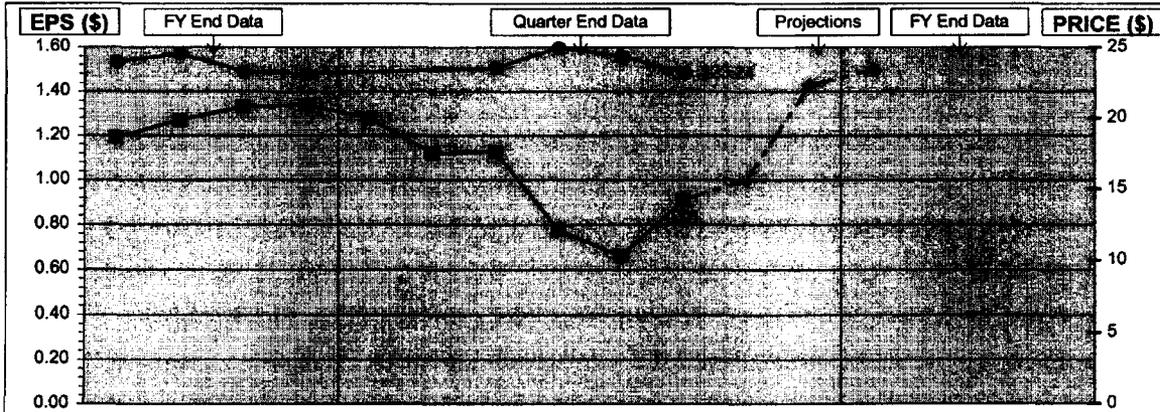
1	1
STR BUY	STR SELL

Price/Volume Data

52-Wk High	\$26.78
Low	\$21.37
PriceChg-YTD	-12%
-YTD(Rel)	-8%
Avg Dly Vol	35 000s
Exp Return/Risk	
Impl Ret=Yld+Gr	
Beta	-0.12
Shareholder Data	
Shares Out	15.2 MM
Institutions	41.08%
Insiders	

EPS, P/E and Growth Rates

FY	EPS	P/E	YrYr EPS Gr
12/03 Act	0.78	32.1	-42%
12/04 Est	1.35	16.3	73%
12/05 Est	1.50	14.7	11%
Last 5Yr			-7%
Next 3-5Yr (Est)			
Other Key Measures			5-Year Avg
	Current		
P/E (12 Mo)	24.2		20.1
Rel P/E	124%		
Net Margin	6%		9.0%
ROE	6.5%		9.3%
LT Debt/Cap	52%		51%



UTIL-WATER SPLY	Industry Comparables					Impl					
Industry #	Pr Chg YTD	P/E (12Mo)	EPS Gr 5Yr Est	Price/Book	Price/Sales	Price/CF	Ret/P/E	Div Yield	Net Margin	ROE	Debt/Cap
196	-12%	24.2	8%	1.6	1.5	10.6	0.48	4.0%	6.3%	6%	52%
AMER STATES WTR											
	-12%	24.1	8%	2.1		12.7		3.3%	9.7%	10%	
INDUSTRY AVG*											
	-4%	19.5	10%	4.1				1.8%		26%	
S&P 500											

* 14 Companies in industry group.

Latest Splits: 06/10/02 1.500 10/06/93 2.000

Ex-Div. Date: 05/06/04

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Aqua America Inc (WTR)

At 4:02PM ET: **20.00** ↑ 0.

Analyst Estimates

Get Analyst Estimates for:

Earnings Est				
	Current Qtr Sep-04	Next Qtr Dec-04	Current Year Dec-04	Next Year Dec-05
Avg. Estimate	0.27	0.24	0.87	0.96
No. of Analysts	2	2	5	4
Low Estimate	0.26	0.23	0.84	0.95
High Estimate	0.28	0.24	0.89	0.98
Year Ago EPS	0.24	0.19	0.79	0.87

Revenue Est				
	Current Qtr Sep-04	Next Qtr Dec-04	Current Year Dec-04	Next Year Dec-05
Avg. Estimate	122.40M	119.40M	447.55M	485.95M
No. of Analysts	1	1	2	2
Low Estimate	122.40M	119.40M	447.00M	479.00M
High Estimate	122.40M	119.40M	448.10M	492.90M
Year Ago Sales	102.15M	N/A	N/A	447.55M
Sales Growth (year/est)	19.8%	N/A	N/A	8.6%

Earnings History				
	Sep-03	Dec-03	Mar-04	Jun-04
EPS Est	0.26	0.20	0.17	0.19
EPS Actual	0.24	0.19	0.17	0.19
Difference	-0.02	-0.01	0.00	0.00
Surprise %	-7.7%	-5.0%	0.0%	0.0%

EPS Trends				
	Current Qtr Sep-04	Next Qtr Dec-04	Current Year Dec-04	Next Year Dec-05
Current Estimate	0.27	0.24	0.87	0.96
7 Days Ago	0.28	0.23	0.87	0.96
30 Days Ago	0.28	0.23	0.87	0.96
60 Days Ago	0.29	0.21	0.87	0.96
90 Days Ago	0.27	0.22	0.87	0.95

EPS Revisions				
	Current Qtr Sep-04	Next Qtr Dec-04	Current Year Dec-04	Next Year Dec-05
Up Last 7 Days	0	1	0	0
Up Last 30 Days	0	1	0	0
Down Last 30 Days	1	0	1	0
Down Last 90 Days	1	0	1	0

Growth Est				
	WTR	Industry	Sector	S&P 500
Current Qtr.	12.5%	12.4%	1.1%	14.9%
Next Qtr.	26.3%	26.4%	8.5%	15.6%
This Year	10.1%	10.1%	3.9%	18.9%
Next Year	10.3%	10.3%	8.1%	10.1%
Past 5 Years (per annum)	7.5%	N/A	N/A	N/A
Next 5 Years (per annum)	9.5%	9.50%	4.89%	10.77%

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AQUA AMERICA INC (NYS)

LAST [4:02 PM ET]	CHANGE	Risk Alert for WTR.N
20.00 usd	 0.30 (1.5%)	 Low 
SECTOR: Utilities INDUSTRY: Water Utilities		

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Risk Alert : AQUA AMERICA INC

 **Low**

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EPS Estimates

Earnings Per Share Estimates

	In US Dollar					
	# of Ests.	Mean Est.	High Est.	Low Est.	Std. Dev.	Proj-P/E
Quarter Ending 06/04	4	0.20	0.21	0.19	0.01	--
Quarter Ending 09/04	4	0.28	0.30	0.26	0.02	--
Year Ending 12/04	7	0.87	0.90	0.84	0.02	21.88
Year Ending 12/05	6	0.96	0.98	0.92	0.02	19.98
LT Growth Rate	6	8.83	10.00	6.00	1.60	--

 [Learn about EPS Estimates](#)

Earnings Surprises

Quarterly Earnings Surprises
Estimated vs. Actual Earnings Per Share

	In US Dollar		
	Estimate	Actual	Difference
March 2004	0.17	0.17	0.00
December 2003	0.20	0.20	0.00
September 2003	0.26	0.26	0.01
June 2003	0.18	0.18	0.00
March 2003	0.16	0.15	0.00

 [Learn about Earnings Surprises](#)

Estimate Revisions

Earnings Per Share Estimates Revisions Summary

	Last Week		Last 4 Weeks	
	Revised Up	Revised Down	Revised Up	Revised Down
	Quarter Ending 06/04	0	0	0	2
Quarter Ending 09/04	0	0	2	0
Year Ending 12/04	0	0	0	2

				Industry: UTIL-WATER SPLY			Type: Mid Blend		
Rec Price	P/E	Mkt Cap	Div Rate	Yield	Sales (12Mo)	Sls Gr	EPS Gr	Div Gr	Zacks Rank
\$19.80	24.0	\$1838 MM	\$0.48	2.4%	\$410 MM	10%	9%	6%	Hold

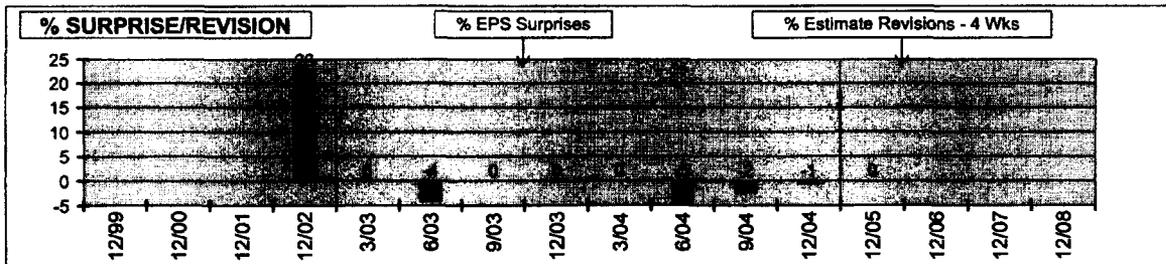
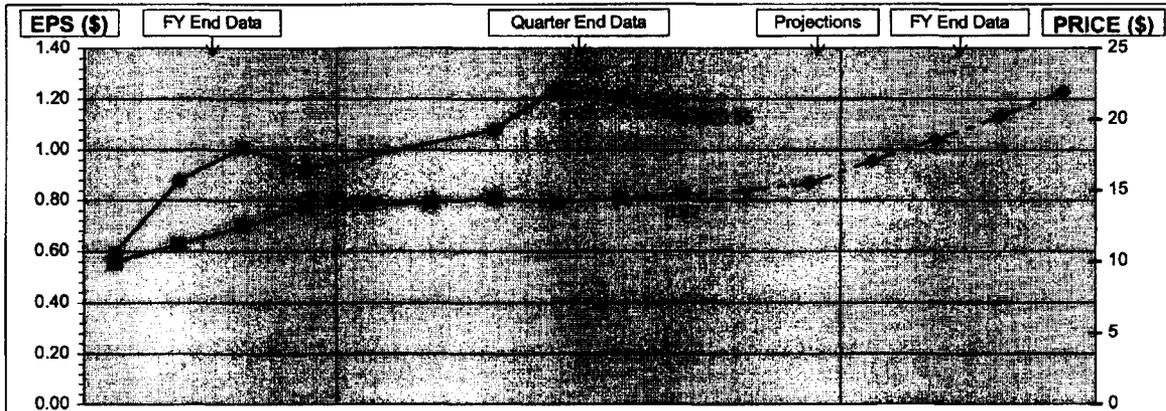
Aqua America is the largest publicly-traded U.S.-based water utility serving residents in Pennsylvania, Ohio, Illinois, Texas, New Jersey, Indiana, Virginia, Florida, North Carolina, Maine, Missouri, New York, South Carolina and Kentucky. The company has been committed to the preservation and improvement of the environment throughout its history, which spans more than 100 years.

#Up	#Dn
0	0

Broker Recommendations

STR BUY HOLD SELL STR SELL

Price/Volume Data		EPS, P/E and Growth Rates		Yr/Yr
52-Wk High	\$22.55	FY	EPS	P/E
Low	\$18.43	12/03 Act	0.79	28.0
PriceChg-YTD	-10%	12/04 Est	0.87	22.7
-YTD(Rel)	-6%	12/05 Est	0.96	20.7
Avg Dly Vol	166 000s	Last 5Yr	9%	
Exp Return/Risk		Next 3-5Yr (Est)	9%	
Impl Ret=Yld+Gr	11%	Other Key Measures		
Beta	-0.23	Current	5-Year	
Shareholder Data		P/E (12 Mo)	24.0	Avg
Shares Out	92.8 MM	Rel P/E	124%	23.4
Institutions	28.39%	Net Margin	18%	18.6%
Insiders	1.60%	ROE	11.5%	12.8%
		LT Debt/Cap	53%	53%



UTIL-WATER SPLY	Industry Comparables											
Industry #	196	Pr Chg YTD	P/E (12Mo)	EPS Gr 5Yr Est	Price/Book	Price/Sales	Price/CF	Impl Ret/P/E	Div Yield	Net Margin	ROE	Debt/Cap
AQUA AMER INC		-10%	24.0	9%	2.7	4.5	15.0	0.46	2.4%	18.5%	11%	53%
INDUSTRY AVG*			24.1	8%	2.1		12.7	0.48	3.3%	9.7%	10%	
S&P 500		-4%	19.5	10%	4.1				1.8%		26%	

* 14 Companies in industry group.

Latest Splits: 12/02/03 1.250 12/03/01 1.250 12/04/00 1.250 Ex-Div. Date: 05/12/04

Quotes & Info

Enter Symbol(s):
e.g. YHOO, ^DJI

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California Water Service Group Holding (CWT)

At 4:04PM ET: **27.60** ↑ 0.

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Analyst Estimates

Get Analyst Estimates for:

Earnings Est	Current Qtr Sep-04	Next Qtr Dec-04	Current Year Dec-04	Next Year Dec-05
Avg. Estimate	0.73	0.32	1.65	1.68
No. of Analysts	1	1	2	2
Low Estimate	0.73	0.32	1.55	1.65
High Estimate	0.73	0.32	1.74	1.71
Year Ago EPS	0.53	0.41	1.21	1.65

Revenue Est	Current Qtr Sep-04	Next Qtr Dec-04	Current Year Dec-04	Next Year Dec-05
Avg. Estimate	105.67M	76.83M	315.29M	332.24M
No. of Analysts	1	1	2	2
Low Estimate	105.67M	76.83M	299.00M	313.00M
High Estimate	105.67M	76.83M	331.58M	351.48M
Year Ago Sales	88.20M	N/A	N/A	315.29M
Sales Growth (year/est)	19.8%	N/A	N/A	5.4%

Earnings History	Sep-03	Dec-03	Mar-04	Jun-04
EPS Est	0.56	0.26	N/A	0.40
EPS Actual	0.53	0.41	0.08	0.59
Difference	-0.03	0.15		0.19
Surprise %	-5.4%	57.7%	%	47.5%

EPS Trends	Current Qtr Sep-04	Next Qtr Dec-04	Current Year Dec-04	Next Year Dec-05
Current Estimate	0.73	0.32	1.65	1.68
7 Days Ago	0.73	0.32	1.65	1.68
30 Days Ago	0.78	0.35	1.61	1.70
60 Days Ago	0.78	0.35	1.61	1.70
90 Days Ago	0.78	0.35	1.61	1.70

EPS Revisions	Current Qtr Sep-04	Next Qtr Dec-04	Current Year Dec-04	Next Year Dec-05
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	1	0
Down Last 30 Days	0	0	0	0
Down Last 90 Days	1	1	0	1

Growth Est	CWT	Industry	Sector	S&P 500
Current Qtr.	37.7%	12.4%	1.1%	14.9%
Next Qtr.	-22.0%	26.4%	8.5%	15.6%

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This Year	36.4%	10.1%	3.9%	18.9%
Next Year	1.8%	10.3%	8.1%	10.1%
Past 5 Years (per annum)	-5.1%	N/A	N/A	N/A
Next 5 Years (per annum)	4.0%	9.50%	4.89%	10.77%
Price/Earnings (avg. for comparison categories)	16.5	22.64	14.35	16.07
PEG Ratio (avg. for comparison categories)	4.12	2.38	2.94	1.49

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Estimates

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EPS Estimates FOR **CWT.N**  Symbol Lookup

[Printable version](#)

CALIFORNIA WATER SERVICE GROUP (NYS)

LAST [4:04 PM ET]	CHANGE	Risk Alert for CWT.N
27.60 USD	 0.35 (1.3%)	 Low 
SECTOR: Utilities | INDUSTRY: Water Utilities		

▶ Free offer at Ameritrade ▶ \$7 Trades at Scottrade ▶ Introducing Schwab Trader CT

Risk Alert : CALIFORNIA WATER SERVICE GROUP



▶ [View Risk Alert Tests](#) ▶ [About Rating](#)

EPS Estimates

Earnings Per Share Estimates

	In US Dollar					
	# of Ests.	Mean Est.	High Est.	Low Est.	Std. Dev.	Proj-P/E
Quarter Ending 06/04	3	0.40	0.44	0.35	0.05	--
Quarter Ending 09/04	2	0.74	0.78	0.70	0.06	--
Year Ending 12/04	3	1.59	1.66	1.55	0.06	16.95
Year Ending 12/05	3	1.67	1.75	1.62	0.07	16.08
LT Growth Rate	1	3.00	3.00	3.00	--	--

 [Learn about EPS Estimates](#)

Earnings Surprises

Quarterly Earnings Surprises
Estimated vs. Actual Earnings Per Share

	In US Dollar		
	Estimate	Actual	Difference
March 2004	0.02	0.08	0.06
December 2003	0.25	0.41	0.16
September 2003	0.60	0.53	-0.07
June 2003	0.50	0.30	-0.20
March 2003	0.15	-0.05	-0.20

 [Learn about Earnings Surprises](#)

Estimate Revisions

Earnings Per Share Estimates Revisions Summary

	Last Week		Last 4 Weeks	
	Revised Up	Revised Down	Revised Up	Revised Down
Quarter Ending 06/04	0	0	0	0
Quarter Ending 09/04	0	0	0	0
Year Ending 12/04	0	0	0	0

				Industry: UTIL-WATER SPLY			Type: Small Blend		
Rec Price	P/E	Mkt Cap	Div Rate	Yield	Sales (12Mo)	5Ys Gr	EPS Gr	Div Gr	Book Value
\$27.37	18.4	\$498 MM	\$1.13	4.1%	\$307 MM	7%	-6%	1%	

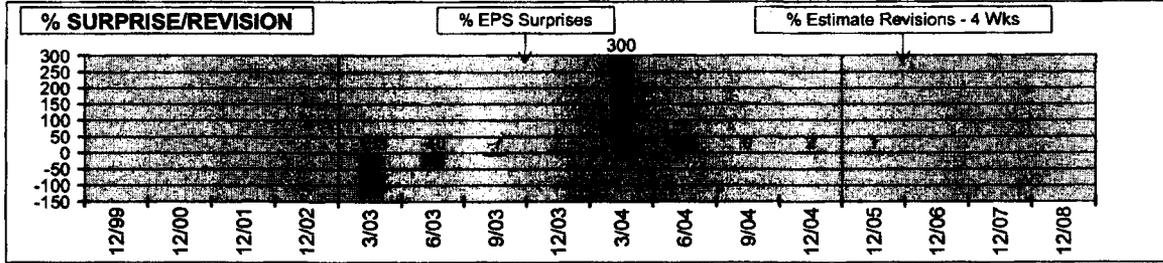
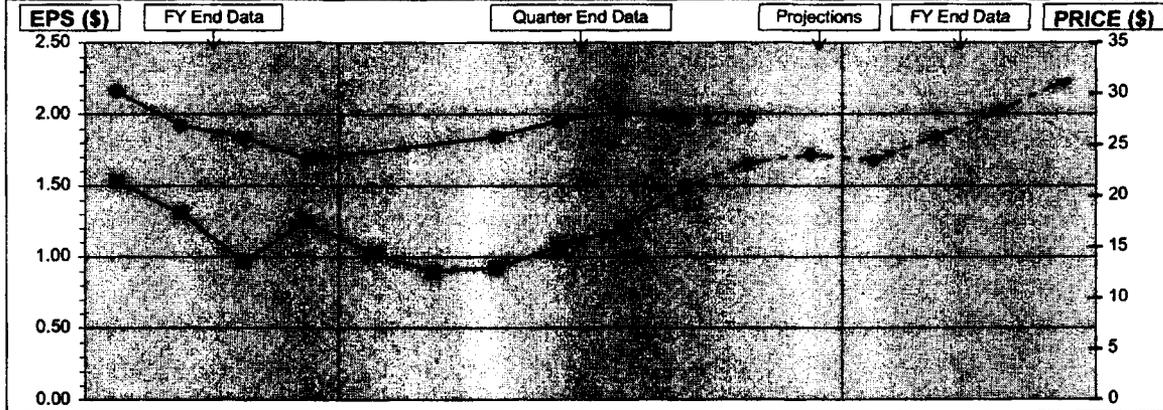
California Water Service Company's business, which is carried on through its operating subsidiaries, consists of the production, purchase, storage, purification, distribution and sale of water for domestic, industrial, public and irrigation uses, and for fire protection. It also provides water related services under agreements with municipalities and other private companies. The nonregulated services include full water system operation, and billing and meter reading services.

#Up	#Dn
0	0

Broker Recommendations
4

STR BUY BUY HOLD SELL STR SELL

Price/Volume Data		EPS, P/E and Growth Rates			
52-Wk High	\$30.15	FY	EPS	P/E	Yr/Yr
Low	\$25.20	12/03 Act	1.02	26.9	-18%
PriceChg-YTD	-0%	12/04 Est	1.60	17.1	57%
-YTD(Rel)	4%	12/05 Est	1.68	16.3	5%
Avg Dly Vol	35 000s	Last 5Yr	-6%		
Exp Return/Risk		Next 3-5Yr (Est)	10%		
Impl Ret=Yld+Gr	14%	Other Key Measures		5-Year	
Beta	-0.11	P/E (12 Mo)	Current	Avg	
Shareholder Data		Rel P/E	94%	22.2	
Shares Out	18.2 MM	Net Margin	9%	7.5%	
Institutions	21.39%	ROE	9.9%	9.2%	
Insiders	1.00%	LT Debt/Cap	49%	51%	



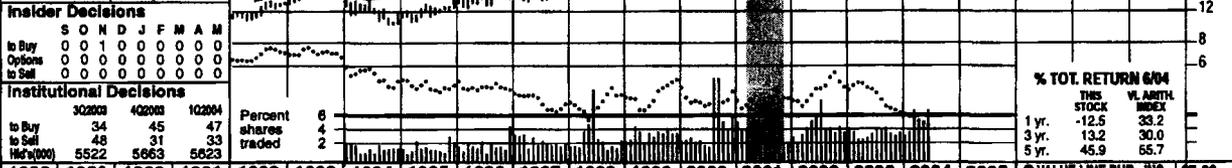
UTIL-WATER SPLY		Industry Comparables										
Industry #	196	Pr Chg YTD	P/E (12Mo)	EPS Gr 5Yr Est	Price/Book	Price/Sales	Price/CF	Impl Ret/P/E	Div Yield	Net Margin	ROE	Debt/Cap
CALIF WATER SVC		-0%	18.4	10%	1.8	1.6	11.7	0.76	4.1%	8.8%	10%	49%
INDUSTRY AVG*			24.1	8%	2.1		12.7	0.48	3.3%	9.7%	10%	
S&P 500		-4%	19.5	10%	4.1				1.8%		26%	

* 14 Companies in industry group.

Latest Splits: 01/26/98 2.000 11/02/87 2.000 05/04/84 2.000 Ex-Div. Date: 05/06/04

AMER. STATES WATER NYSE-AWR

RECENT PRICE 22.62	P/E RATIO 18.1 (Trailing: 34.3 Median: 16.3)	RELATIVE P/E RATIO 1.02	DIV'D YLD 4.0%	VALUE LINE											
TIMELINESS 4 Raised 11/7/03	SAFETY 3 New 2/4/00	TECHNICAL 3 Lowered 7/16/04	BETA .65 (1.00 = Market)	2007-09 PROJECTIONS											
High: 18.3	14.7	14.0	16.1	17.1	19.5	20.5	25.3	26.4	29.0	29.0	26.8	Target Price Range	2007	2008	2009
Low: 13.1	10.2	10.5	12.5	13.5	14.1	14.8	16.7	19.0	20.3	21.6	20.8				



1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	VALUE LINE PUB. INC.	07-09
8.58	9.12	9.58	9.15	10.10	9.27	10.43	11.03	11.37	11.44	11.02	12.91	12.17	13.06	13.78	13.98	14.40	15.00	Revenues per sh	15.55
1.13	1.44	1.49	1.78	1.81	1.67	1.68	1.75	1.75	1.85	2.04	2.26	2.20	2.53	2.54	2.08	2.60	2.90	"Cash Flow" per sh	3.40
.65	.92	.84	1.19	1.15	1.11	.95	1.03	1.13	1.04	1.08	1.19	1.28	1.35	1.34	.78	1.25	1.55	Earnings per sh A	2.00
.67	.69	.72	.73	.77	.79	.80	.81	.82	.83	.84	.85	.86	.87	.87	.88	.88	.90	Div'd Decl'd per sh	.86
2.39	2.46	2.53	2.77	2.31	1.90	2.43	2.19	2.40	2.58	3.11	4.30	3.03	3.18	2.68	3.76	4.00	4.45	Cap'l Spending per sh	3.60
7.07	7.31	7.54	8.39	8.85	9.95	10.07	10.29	11.01	11.24	11.48	11.82	12.74	13.22	14.05	13.97	15.00	16.75	Book Value per sh	17.50
9.35	9.39	9.43	9.91	9.96	11.71	11.77	13.33	13.44	13.44	13.44	13.44	15.12	15.12	15.18	15.21	16.00	17.00	Common Shs Outst'g	19.00
14.2	9.7	10.2	8.8	10.6	13.4	12.8	11.6	12.6	14.5	15.5	17.1	15.9	16.7	18.3	31.9	31.9	31.9	Avg Ann'l P/E Ratio	13.0
1.18	.73	.76	.56	.64	.79	.84	.78	.79	.84	.81	.87	1.03	.86	1.00	1.85	1.85	1.85	Relative P/E Ratio	.85
7.4%	7.7%	7.5%	7.0%	6.3%	5.3%	6.6%	6.7%	5.8%	5.5%	5.0%	4.2%	4.2%	3.9%	3.6%	3.5%	3.5%	3.5%	Avg Ann'l Div'd Yield	3.7%

CAPITAL STRUCTURE as of 3/31/04		2002	2003	3/31/04	Leases, Uncapitalized: None		Pension Assets-12/03 \$46.7 mil.		Oblig. \$58.9 mil.		Pfd Stock None.		Common Stock 15,244,928 shs. as of 5/10/04		MARKET CAP: \$350 million (Small Cap)	
Total Debt \$277.4 mil.	Due in 5 Yrs \$60.0 mil.	122.7	129.8	151.5	43.5%	46.6%	41.9%	55.5%	52.5%	57.3%	213.5	230.6	256.0	9.5%	10.0%	9.0%
LT Debt \$229.6 mil.	LT Interest \$16.5 mil.	11.3	12.2	13.5	43.9%	41.9%	43.3%	314.9	335.0	357.8	79.5	95.90	82.4	1.6%	2.1%	2.4%
(Total interest coverage: 2.0x)		43.9%	41.9%	43.3%	84%	79%	73%	84%	79%	73%	84%	79%	73%	84%	79%	73%

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Southern California Water Company, it supplies water to 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to approximately 22,000 customers in the city of Big Bear Lake and in areas of San Bernardino County. Acquired Chaparral City Water of Arizona (10/00); 11,400 customers. Has about 520 employees. Off. & dir. own less than 1% of common stock (4/04 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.

ANNUAL RATES	Past 10 Yrs.	Past 5 Yrs.	Est'd '01-'03 to '07-'09
of change (per sh)	3.5%	4.0%	3.0%
Revenues	3.0%	5.0%	7.0%
"Cash Flow"	-	1.5%	9.5%
Earnings	1.5%	1.0%	1.5%
Dividends	4.5%	4.0%	4.0%

Cal-endar	QUARTERLY REVENUES (\$ mil.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2001	40.3	49.9	59.4	47.9	197.5
2002	44.5	52.8	61.6	50.3	209.2
2003	46.7	51.8	63.7	50.5	212.7
2004	46.7	59.0	69.0	55.3	230
2005	53.0	66.0	76.0	60.0	255

Cal-endar	EARNINGS PER SHARE A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2001	.21	.33	.63	.18	1.35
2002	.25	.36	.50	.23	1.34
2003	.20	.13	.51	0.12	.78
2004	.08	.34	.59	.24	1.25
2005	.27	.38	.63	.27	1.55

Cal-endar	QUARTERLY DIVIDENDS PAID B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2000	.213	.213	.213	.217	.86
2001	.217	.217	.217	.217	.87
2002	.217	.217	.217	.217	.87
2003	.221	.221	.221	.221	.88
2004	.221	.221	.221	.221	.88

(A) Primary earnings. Excludes nonrecurring gains: '91, 73¢; '92, 13¢. Next earnings report due late Oct. (B) Dividends historically paid in early-March, June, September, December. Div'd reinvestment plan available. (C) In millions, adjusted for splits.

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Company's Financial Strength	B+
Stock's Price Stability	85
Price Growth Persistence	65
Earnings Predictability	70

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commission that will provide for increased revenues in the Region II customer service area of SCW, anticipated to begin in September. The rate case should generate an additional three year increase in revenues of \$15 million. We believe that the current administration's focus on delivering more timely decisions augurs well for AWR's top line going forward. **A tighter regulatory environment, though, will probably dilute some of these gains in 2005.** With regulatory and infrastructure costs on the rise, AWR is looking to a share offering to fund the needed upkeep. About \$30 million in stock will likely be offered within the next year. As such, we are leaving our 2005 bottom-line estimate untouched at \$1.55 a share. **We do not recommend American shares.** They are ranked to underperform the broad market in the year ahead and they offer little in the way of appreciation potential out to 2007-2009. In addition, the company will be hard-pressed to increase its dividend payment substantially as cash flow will likely continue to be limited by the rising maintenance costs. *Andre J. Costanza July 30, 2004*

AQUA AMERICA NYSE-WTR

RECENT PRICE **19.37** P/E RATIO **22.8** (Trading: 24.8 Median: 20.6) RELATIVE P/E RATIO **1.29** DIV YLD **2.5%** VALUE LINE

TIMELINESS 4 Lowered 6/04
SAFETY 3 Lowered 8/03
TECHNICAL 4 Lowered 7/304
 BETA .75 (1.00 = Market)

High: 5.3 5.0 5.5 7.8 11.4 15.4 15.4 16.0 19.7 20.0 22.4 22.8
 Low: 4.0 4.4 4.4 5.2 5.9 9.7 10.1 8.4 12.5 12.8 15.8 19.0

LEGENDS
 1.50 x Dividends p sh divided by Interest Rate
 Relative Price Strength
 3-for-2 split 7/96
 4-for-3 split 1/98
 5-for-4 split 12/00
 5-for-4 split 12/01
 5-for-4 split 12/03
 Options: Yes
 Shaded area indicates recession

2007-09 PROJECTIONS
 Price 30 Gain (+55%) Ann'l Total Return 14%
 High 20 Low 20 (+5%) 4%

Insider Decisions
 S O N D J F M A M
 to Buy 0 0 0 0 0 0 1 0 0
 to Sell 1 0 2 0 0 0 0 0 1
 Net 1 0 1 0 0 0 0 0 2

Institutional Decisions
 3Q2003 4Q2003 1Q2004
 to Buy 93 85 93
 to Sell 57 86 73
 Net 36 8 20



1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	VALUE LINE PUB., INC.	07-09
4.45	4.53	2.70	2.85	2.43	2.27	2.42	2.45	2.48	2.69	2.79	3.21	3.29	3.59	3.79	3.97	4.65	4.85	4.85	Revenue per sh	6.00
.66	.65	.58	.59	.52	.56	.56	.63	.67	.74	.81	.96	1.01	1.15	1.26	1.28	1.45	1.60	1.60	"Cash Flow" per sh	2.00
.30	.27	.33	.33	.31	.33	.35	.39	.40	.46	.53	.56	.62	.68	.72	.76	.85	.95	.95	Earnings per sh A	1.20
.24	.24	.26	.26	.27	.27	.28	.29	.30	.32	.34	.36	.38	.40	.43	.46	.48	.52	.52	Div'd Decl'd per sh B=C	.64
.88	1.15	1.01	.72	.80	.63	.61	.69	.64	.77	1.09	1.20	1.55	1.45	1.60	1.76	1.60	1.76	1.60	Cap'l Spending per sh	1.50
2.88	2.92	2.80	2.76	2.79	3.05	3.21	3.28	3.59	3.79	4.28	4.57	5.13	5.53	5.81	7.12	7.55	7.95	7.95	Book Value per sh D	9.60
28.27	29.45	30.48	31.06	38.40	44.55	44.83	47.81	49.31	50.60	54.15	60.10	63.87	65.48	84.90	92.59	95.00	98.00	98.00	Common Share Outst'g E	100.00
12.3	12.9	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	24.5	24.5	24.5	Cap'l P/E Ratio	21.0
1.02	.98	.76	.69	.76	.85	.89	.80	.98	1.03	1.17	1.21	1.18	1.21	1.29	1.42	1.42	1.42	1.42	Relative P/E Ratio	1.40
6.5%	6.9%	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%	2.5%	2.5%	2.5%	Avg Ann'l Div'd Yield	2.6%
CAPITAL STRUCTURE as of 3/31/04																			600	
Total Debt \$846.2 mill. Due in 5 Yrs \$230.0 mill.																			125	
LT Debt \$686.3 mill. LT Interest \$45.0 mill.																			40.0%	
(Total interest coverage: 3.5x)																			4.0%	
Pension Assets-12/03 \$108.7 mill. Oblig. \$150.1 mill.																			54.0%	
Pfd Stock None																			46.0%	
Common Stock 92,845,523 shares as of 4/29/04																			2100	
MARKET CAP: \$1.8 billion (Mid Cap)																			2300	
CURRENT POSITION (MILL.)																			7.5%	
Cash Assets 49.7 39.2 37.8																			13.0%	
Receivables 57.7 62.3 58.5																			10.4%	
Inventory (AvgCst) 4.6 5.8 6.2																			10.3%	
Other 2.7 5.1 5.1																			2.1%	
Current Assets 114.7 112.4 107.4																			3.5%	
Accts Payable 31.1 32.3 11.6																			7.1%	
Debt Due 149.4 135.8 159.9																			2.8%	
Other 46.0 63.9 66.8																			75%	
Current Liab. 226.5 232.0 238.3																			4.5%	
Fix. Chg. Cov. 347% 344% 309%																			4.3%	
ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '01-'03 to '07-'08																			60%	
Revenues 4.0% 7.5% 8.0%																			65%	
"Cash Flow" 8.5% 10.5% 8.5%																			60%	
Earnings 8.5% 9.5% 9.0%																			60%	
Dividends 5.0% 6.0% 7.0%																			60%	
Book Value 8.0% 9.5% 7.5%																			60%	
QUARTERLY REVENUES (\$ MILL.)																			60%	
Cal-ender Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			60%	
2001 70.2 77.3 84.7 75.1 307.3																			60%	
2002 71.7 76.6 91.9 81.8 322.0																			60%	
2003 80.5 83.4 102.1 101.2 367.2																			60%	
2004 99.8 105 120.2 115 440																			60%	
2005 105 115 130 125 475																			60%	
EARNINGS PER SHARE A																			60%	
Cal-ender Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			60%	
2001 .14 .18 .22 .14 .68																			60%	
2002 .14 .16 .25 .17 .72																			60%	
2003 .15 .18 .24 .19 .76																			60%	
2004 .17 .21 .25 .22 .85																			60%	
2005 .19 .23 .27 .26 .99																			60%	
QUARTERLY DIVIDENDS PAID B=C																			60%	
Cal-ender Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			60%	
2000 .092 .092 .092 .099 .38																			60%	
2001 .099 .099 .099 .106 .40																			60%	
2002 .106 .106 .106 .112 .43																			60%	
2003 .112 .112 .112 .12 .46																			60%	
2004 .12 .12																			60%	

BUSINESS: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately 2.5 million residents in Pennsylvania, Ohio, New Jersey, Illinois, Maine, North Carolina, Texas, Florida, Kentucky, and five other states. Divested three of four non-water businesses in '91; telemarketing group in '93; and others. Acquired Consumers Water, 4/99; AquaSource, 7/03; and others. Water supply revenues '03: residential, 59%; commercial, 17%; industrial & other, 24%. Officers and directors own 1.4% of the common stock (4/04 Proxy). Chairman & Chief Executive Officer: Nicholas DeBenedictis. Incorporated: Pennsylvania. Address: 782 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Telephone: 610-525-1400. Internet: www.aquaamerica.com.

Aqua America continues to grow through acquisitions. The company recently announced the completion of its purchase of Heater Utilities, adding more than 50,000 new customers in North Carolina to its total. A deal was also finalized to purchase water and wastewater systems that will add 40,000 customers in Florida, thereby more than doubling its customer base in the state. Combined with various smaller purchases, the company is more than half way to management's goal of 30 acquisitions for the year. We expect annual revenue growth of approximately 7% for the next 3 to 5 years as acquisitions from 2003 forward are integrated. However, Margins are being pressured by integration expenses and higher interest rates. As new management is put in place, redundant operations are being trimmed, but not before a period of overlapping operations. Pension expenses and severance costs associated with downsized labor forces also pressure margins. Too, as interest rates rise, the cost of debt for acquisitions may hurt results.

Rate negotiations are ongoing for regulated subsidiaries in various states. Operations in Illinois were recently granted a 21% increase in rates, totaling approximately \$2.1 million. Applications have been filed in Pennsylvania, New Jersey, and Texas for annual revenue increases of \$25 million, \$2.6 million, and \$12 million, respectively. Management has also revealed plans to file for increases in Ohio, North Carolina, and Florida. Traditionally, rate negotiations take a number of months, and the rate increase that is awarded is subject to change based on an expected return on equity and capital improvements. Therefore, we do not expect new rates to take effect until the second half of the year, but they should help revenue growth for the next few years.

Aqua America shares offer little appreciation potential through 2007-2009. Growth through acquisition should continue to improve results, but the regulated nature of the industry may well limit the speed at which new businesses become accretive to earnings. But this unfavorably ranked stock does offer predictable returns and a growing dividend.

Matthew B. V. Albrecht July 30, 2004

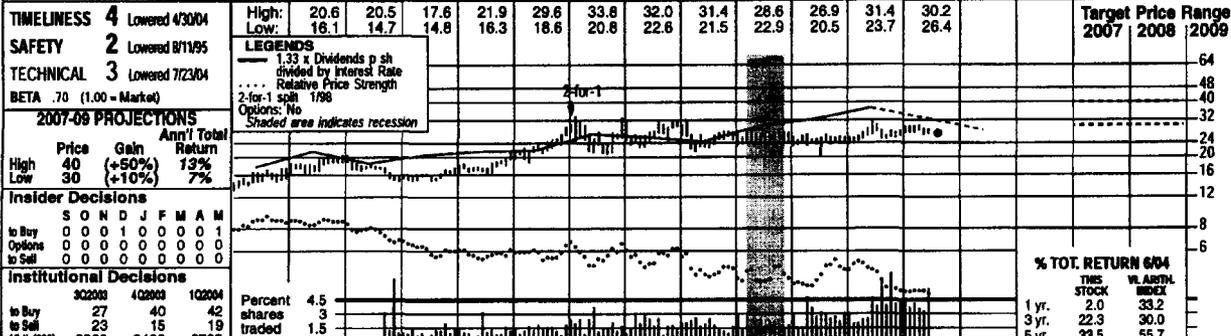
(A) Primary shares outstanding through '96; diluted thereafter. Excl. nonrec. gains (losses): '90, (38e); '91, (34e); '92, (38e); '99, (11e); '00, 2e; '01, 2e; '02, 5e; '03, 4e. Excl. gain from disc. operations: '96, 2e. Next earnings report due early August. (B) Dividends historically paid in early March, June, Sept. & Dec. = Div'd reinvestment plan available (5% discount). (C) In millions, adjusted for stock splits. (D) Incl. deferred charges. In '03: \$34.3 mill., \$0.37/sh. 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 **27.00** P/E RATIO **16.9** (Trading: 20.5 Median: 17.0) RELATIVE P/E RATIO **0.95** DIV YLD **4.2%** VALUE LINE



Year	1998	1999	2000	2001	2002	2003	2004	2005	07-09
Price	10.33	10.93	11.18	12.29	13.34	12.59	13.17	14.48	15.48
Gain	1.87	1.89	1.97	1.98	1.92	2.02	2.07	2.50	2.92
Return	1.23	1.20	1.25	1.21	1.09	1.36	1.22	1.17	1.51
High	40	40	42	40	40	40	40	40	40
Low	30	30	30	30	30	30	30	30	30

Year	1998	1999	2000	2001	2002	2003	2004	2005	07-09
Revenue per sh	10.33	10.93	11.18	12.29	13.34	12.59	13.17	14.48	15.48
Cash Flow per sh	1.87	1.89	1.97	1.98	1.92	2.02	2.07	2.50	2.92
Earnings per sh	1.23	1.20	1.25	1.21	1.09	1.36	1.22	1.17	1.51
Div'd Decl'd per sh	0.80	0.84	0.87	0.90	0.93	0.99	1.02	1.04	1.06
Cap'l Spending per sh	2.12	2.40	2.36	3.03	3.09	2.53	2.26	2.17	2.83
Book Value per sh	9.30	9.66	10.04	10.36	10.51	10.90	11.56	11.72	12.22
Common Sh Outst'g	11.34	11.38	11.38	11.38	11.38	11.38	12.49	12.54	12.82
Avg Ann'l P/E Ratio	11.5	10.6	10.4	11.2	14.1	13.6	14.1	13.7	11.9
Relative P/E Ratio	0.95	0.80	0.77	0.72	0.86	0.80	0.92	0.92	0.73
Avg Ann'l Div'd Yield	5.7%	6.6%	6.7%	6.6%	6.1%	5.2%	5.8%	6.4%	5.8%

CAPITAL STRUCTURE as of 3/31/04
 Total Debt \$282.6 mill. Due in 5 Yrs \$10.7 mill.
 LT Debt \$272.0 mill. LT Interest \$16.0 mill.
 (LT Interest earned: 2.8x; total int. cov.: 2.7x)

Pension Assets-12/03 \$88.4 mill. Oblig. \$63.2 mill.
 Pfd Stock \$3.5 mill. Pfd Div'd \$1.5 mill.
 139,000 shares, 4.4% cumulative (\$25 par).

Common Stock 16,932,046 shs.
 as of 5/3/04
MARKET CAP: \$450 million (Small Cap)

Year	2002	2003	3/31/04
Cash Assets	1.1	2.9	2.1
Other	41.9	40.6	41.4
Current Assets	43.0	43.3	43.5
Acc'ts Payable	23.7	23.8	18.3
Debt Due	24.8	7.3	10.6
Other	43.0	32.5	36.6
Current Liab.	91.5	63.6	65.6
Fix. Chg. Cov.	250%	218%	202%

Year	2002	2003	2004	2005
Revenue	46.6%	49.2%	47.4%	45.4%
"Cash Flow"	52.2%	49.7%	51.4%	53.5%
Earnings	276.9	296.0	299.9	306.7
Dividends	407.9	422.2	443.6	460.4
Book Value	7.1%	6.8%	8.3%	9.4%

Year	2001	2002	2003	2004	2005
Revenue	47.0	67.0	76.3	56.5	246.8
"Cash Flow"	51.7	69.2	81.4	60.9	263.2
Earnings	51.3	68.0	88.2	69.6	277.1
Dividends	60.2	77.8	100	82.0	320
Book Value	70.0	85.0	105	85.0	345

Year	2001	2002	2003	2004	2005
Earnings	0.01	0.34	0.39	0.20	0.94
"Cash Flow"	0.12	0.43	0.50	0.20	1.25
Earnings	0.05	0.30	0.53	0.41	1.21
Dividends	0.08	0.41	0.73	0.38	1.60
Book Value	0.11	0.43	0.76	0.40	1.70

Year	2000	2001	2002	2003	2004
Revenue	275	275	275	275	1.10
"Cash Flow"	279	279	279	279	1.12
Earnings	28	28	28	28	1.12
Dividends	281	281	281	281	1.12
Book Value	283	283			

BUSINESS: California Water Service Group provides regulated and nonregulated water service to over 2 million people (461,200 customers) in 98 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, '03: residential, 70%; business, 18%; public authorities, 5%; industrial, 4%; other, 3%. '03 reported deprec. rate: 2.2%. Has about 815 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's results are improving. The company reported earnings of \$0.08 a share in the second quarter, compared to a loss of \$0.05 last year and our estimate of \$0.03. The outperformance was revenue driven, as the firm's top line increased 17% on a year-over-year basis, due primarily to favorable rate increase rulings by the California Public Utility Commission (CPUC). Indeed, approximately \$7 million of the top-line advance was a result of rate increases, with the majority stemming from the 2001 general rate case. On a down note, the higher water usage rate hurt CWT's operating margin, as it forced the company to purchase water to meet demand.

The fragmented industry is producing opportunities. In fact, CWT subsidiary New Mexico Water Service Company recently bought National Utility Company. National serves 700 customers next to New Mexico Water's Middle Rio Grande water system and 950 customers south of Albuquerque. The deal increases New Mexico Water's customer base by 40%. **A stock offering is likely.** The company announced plans to sell 1.25 million shares of common stock at \$27.25 a share in the second quarter. The nearly \$34 million in proceeds are slated to be used to pay for the aforementioned purchase, escalating infrastructure costs, and additional acquisitions.

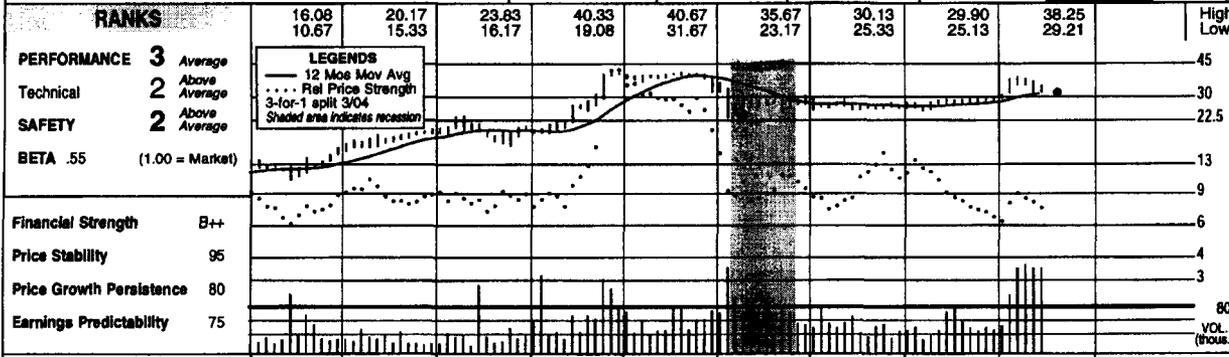
Favorable general rate case rulings augur well for California. The company received a \$4.4 million step-rate increase in January, which likely went into effect during the second quarter. Plus, a decision on the 2002 general rate case was awarded by the CPUC in April, allowing for an increase of \$3.5 million on an annualized basis. As such, we have added a dime onto our 2004 share-net call. Still, **These untimely shares offer little appeal at this time.** Any gains we foresee from further CPUC rulings and the robust population growth of the state of California will likely be diluted by additional equity and debt offerings necessary to fund growing capital expenditures. However, CWT may be attractive to income-oriented investors because of its solid dividend yield.

Andre J. Costanza July 30, 2004

(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (7¢); '01, 4¢; '02, '02, 8¢. Next earnings report due late Oct. (B) Dividends historically paid in mid-Feb., May, Aug., Nov. = Div'd reinvestment plan available. (C) Incl. deferred charges. In '03: \$38.0 mill., \$2.25/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 95
Price Growth Persistence 80
Earnings Predictability 75

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Q VALUE LINE PUBLISHING, INC.	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005/2006
SALES PER SH	10.79	11.57	11.16	12.81	13.48	14.90	15.94	16.39	--	
"CASH FLOW" PER SH	2.86	2.53	2.52	2.86	2.46	2.98	3.09	3.50	--	
EARNINGS PER SH	1.92	1.60	1.51	1.73	1.17	1.53	1.56	1.83	NA	NA/NA
DIV'DS DECL'D PER SH	.74	.76	.78	.80	.82	.86	.92	.97	--	
CAP'L SPENDING PER SH	2.11	2.54	3.62	3.53	3.77	5.25	4.12	6.82	--	
BOOK VALUE PER SH	12.62	14.04	15.06	15.75	15.80	16.35	16.80	18.21	--	
COMMON SHS OUTST'G (MILL)	9.51	9.51	9.50	9.14	9.14	9.14	9.14	9.14	--	
AVG ANN'L P/E RATIO	6.8	11.2	13.1	15.5	33.1	18.5	17.3	15.4	NA	NA/NA
RELATIVE P/E RATIO	.43	.65	.68	.88	2.15	.95	.94	.88	--	
AVG ANN'L DIV'D YIELD	5.7%	4.3%	3.9%	3.0%	2.1%	3.0%	3.4%	3.5%	--	
SALES (\$MILL)	102.6	110.1	106.0	117.0	123.2	136.1	145.7	149.7	--	<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>
OPERATING MARGIN	34.4%	34.8%	36.0%	33.2%	30.2%	64.4%	63.7%	56.0%	--	
DEPRECIATION (\$MILL)	8.7	8.9	9.6	10.2	11.9	13.2	14.0	15.2	--	
NET PROFIT (\$MILL)	18.6	15.2	14.4	15.9	10.7	14.0	14.2	16.7	--	
INCOME TAX RATE	32.8%	39.9%	40.2%	35.9%	41.0%	34.5%	40.4%	36.2%	--	
NET PROFIT MARGIN	18.1%	13.8%	13.6%	13.6%	8.7%	10.3%	9.8%	11.2%	--	
WORKING CAP'L (\$MILL)	11.9	7.0	9.4	d3.0	d11.4	d3.8	d4.9	12.0	--	
LONG-TERM DEBT (\$MILL)	75.0	75.0	90.0	90.0	90.0	110.0	110.0	139.6	--	
SHR. EQUITY (\$MILL)	120.0	133.6	143.2	143.9	144.3	149.4	153.5	166.4	--	
RETURN ON TOTAL CAP'L	11.0%	8.7%	7.4%	8.2%	5.9%	6.7%	6.9%	6.9%	--	
RETURN ON SHR. EQUITY	15.5%	11.4%	10.1%	11.0%	7.4%	8.4%	9.3%	10.0%	--	
RETAINED TO COM EQ	9.5%	6.0%	4.9%	5.9%	2.2%	4.1%	3.6%	4.7%	--	
ALL DIV'DS TO NET PROF	39%	48%	52%	46%	70%	56%	59%	53%	--	

Note: No analyst estimates available.

ANNUAL RATES					
of change (per share)	5 Yrs.	1 Yr.			
Sales	7.0%	3.0%			
"Cash Flow"	4.0%	13.0%			
Earnings	-0.5%	17.0%			
Dividends	4.0%	5.5%			
Book Value	4.0%	8.5%			
QUARTERLY SALES (\$mill.)					
Fiscal Year	1Q	2Q	3Q	4Q	Full Year
12/31/02	27.7	38.7	46.2	33.1	145.7
12/31/03	27.8	38.0	49.3	34.6	149.7
12/31/04	31.1				
12/31/05					
EARNINGS PER SHARE					
Fiscal Year	1Q	2Q	3Q	4Q	Full Year
12/31/01	.07	.46	.70	.30	1.53
12/31/02	.19	.44	.63	.30	1.56
12/31/03	.36	.48	.65	.34	1.83
12/31/04	.19				
12/31/05					
QUARTERLY DIVIDENDS PAID					
Cal-ender	1Q	2Q	3Q	4Q	Full Year
2001	.205	.217	.217	.217	.86
2002	.23	.23	.23	.23	.92
2003	.243	.243	.243	.243	.97
2004	.255	.255			
INSTITUTIONAL DECISIONS					
	3Q'03	4Q'03	1Q'04		
to Buy	24	20	25		
to Sell	15	15	11		
Hld's(000)	2250	723	2195		

ASSETS (\$mill.)			
2002	2003	3/31/04	
Cash Assets	.3	10.0	10.0
Receivables	13.9	13.7	15.2
Inventory	.5	.5	.0
Other	4.0	2.9	1.9
Current Assets	18.7	27.1	27.1
LIABILITIES (\$mill.)			
Accts Payable	.4	2.2	7.1
Debt Due	11.5	.2	.1
Other	11.7	12.7	12.4
Current Liab	23.6	15.1	19.6
LONG-TERM DEBT AND EQUITY as of 3/31/04			
Total Debt \$144.1 mil.		Due in 5 Yrs. NA	
LT Debt \$143.9 mil.			
Including Cap. Leases NA		(46% of Cap)	
Lessee, Uncapitalized Annual rentals NA			
Pension Liability None in '03 vs. None in '02			
Pfd Stock None		Pfd Div'd Paid None	
Common Stock 9,135,441 shares		(54% of Cap)	

INDUSTRY: Water Utility

BUSINESS: SJW Corp. operates as the holding company of San Jose Water Company, SJW Land Company, and Crystal Choice Water Service, LLC. San Jose Water provides water service to a population of approximately one million people in an area comprising 138 square miles in the metropolitan San Jose area. Its principal business consists of the production, purchase, storage, purification, distribution, and retail sale of water. It also provides nonregulated water-related services under agreements with municipalities. SJW Land owns and operates parking facilities, which are located adjacent to San Jose Water's headquarters and the HP Pavilion in San Jose, California. It also owns commercial buildings and other undeveloped land, primarily in the metropolitan San Jose area; and a 70% limited partnership interest in 444 West Santa Clara Street, L.P., a real estate limited partnership that owns and operates an office building. Has 301 employees. Chairman: Drew Gibson. Inc.: CA. Address: 374 West Santa Clara Street, San Jose, CA 95196. Tel.: (408) 279-7800. Internet: <http://www.sjwater.com>.

July 30, 2004

TOTAL SHAREHOLDER RETURN					
<i>Dividends plus appreciation as of 6/30/2004</i>					
3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.	
-1.13%	16.08%	23.60%	30.76%	47.42%	

Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

PSC-I-18. Refer to the Direct Testimony of Dr. J. Randall Woolridge at 22 and Exhibit JRW-7 at 1. Describe how the "Adjustment Factor" used to adjust the dividend yield was derived.

Response:

As discussed in the testimony, according to the DCF model, the appropriate dividend yield is obtained by multiplying the expected dividend over the coming quarter by 4, and dividing this dividend by the current stock price. However, in practice, this procedure is complicated because firms tend to announce changes in dividends at different times during the year. Hence, the dividend yield computed using expected growth over the coming quarter as opposed to the coming year can be quite different. One common approach to dealing with this issue is to adjust the dividend yield by some fraction of the expected growth rate.

In addition, the adjustment to the dividend yield is further complicated in the regulatory process when the overall cost of capital is applied to a projected or end-of-future-test-year rate base. The net effect of this application is an overstatement of the equity cost rate estimate derived from the DCF model because both the adjusted dividend yield and the growth component are overstated.

As a conservative approach to account for these two issues, I have adjusted the spot or current dividend yield by $\frac{1}{2}$ the expected growth rate.

Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

PSC-I-19. a. State whether Dr. Woolridge is aware of the AG's recommendation of a return on equity ("ROE") of 10.3 percent for a local gas distribution company in Case No. 2004-000672 in July 2004.

b. Identify any event or occurrence since July 2004 that lowers or lessens ROE expectations for a regulated utility.

Response:

a. Yes.

b. Whereas Dr. Woolridge has not reviewed the record of the case in question, a return on equity of 10.3 percent as of July 2004 would appear to be excessive for a water company. Since that time, interest rates have declined which would, all else equal, lower the required ROE.

Kentucky-American Water Company
Case No. 2004-00103
Information Request Response to Commission Staff
Respondent: OAG Witness Dr. J. Randall Woolridge
Set I

PSC-I-20. Describe how the expectation of increasing interest rates would affect Dr. Woolridge's recommendations regarding the cost of equity.

Response:

If interest rates were are truly expected to rise, then such as change would be reflected in current interest rates and therefore the current cost of equity.