

Exhibit No.:

Issue:

Witness:

Type of Exhibit:

Sponsoring Party:

Case No.:

Return on Equity

Kathleen C. McShane

Rebuttal Testimony

Laclede Gas Company

GR-2002-356

FILED

AUG 02 2002

**Missouri Public
Service Commission**

LACLEDE GAS COMPANY

GR-2002-356

REBUTTAL TESTIMONY

OF

KATHLEEN C. McSHANE

August, 2002

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's)
Tariff to Revise Natural Gas Rate)
Schedules.)

Case No. GR-2002-356


AFFIDAVIT

Kathleen C. McShane, of lawful age, being first duly sworn, deposes and states:

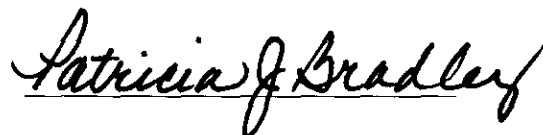
1. My name is Kathleen C. McShane. My business address is 4550 Montgomery Avenue, Suite 350-N. Bethesda, Maryland 20814; and I am Senior Vice President of Foster Associates, Inc.

2. Attached hereto and made part hereof for all purposes is my rebuttal testimony, consisting of pages 1 to 32, and schedules 1 to 5 inclusive.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.


Kathleen C. McShane

Subscribed and sworn to before me, the undersigned Notary Public, this 25th day of July, 2002, at Bethesda, Maryland.



My Commission Expires
10/14/02

1
2
3
4
5 **REBUTTAL TESTIMONY OF**
6 **KATHLEEN C. McSHANE**
7
8

9 Q. Please state your name and business address.
10

11 A. My name is Kathleen C. McShane and my business address is 4550 Montgomery
12 Avenue, Suite 350N, Bethesda, Maryland 20814.
13

14 Q. Are you the same Kathleen C. McShane who previously filed direct testimony and
15 schedules in this proceeding on behalf of Laclede Gas Company ("Laclede")?
16

17 A. Yes.
18

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

21 A. The purpose of my rebuttal testimony is to respond to the cost of capital testimonies of
22 Roberta McKiddy on behalf of the Missouri Public Service Commission Staff ("Staff")
23 and Mark Burdette on behalf of the Office of the Public Counsel ("Public Counsel").

1
2 **SUMMARY OF CONCLUSIONS**
3

4 Q. Please summarize the recommendations of these two witnesses and your conclusions
5 regarding the reasonableness of their recommendations.
6

7 A. Ms. McKiddy recommends a return on equity of 8.75% to 9.75%, with a mid-point of
8 9.25%. Ms. McKiddy employed Laclede's capital structure at March 31, 2002,
9 containing 41.85% common equity, with a resulting return on rate base of 7.37% to
10 7.79%. Mr. Burdette recommends a return on equity of 9.75% to 10.20%, with a mid-
11 point of 9.975%. Mr. Burdette utilized Laclede's capital structure as of November 30,
12 2001 structure, containing 38.71% common equity, with a resulting return on rate base of
13 7.88% to 8.06%.
14

15 Both Ms. McKiddy and Mr. Burdette's recommended rates of return on common equity
16 are well below a just and reasonable level. Ms. McKiddy's recommendation is based on
17 an inappropriate Laclede-specific DCF estimate, which, as discussed in detail below, is
18 inappropriate for several reasons, including circularity, potential measurement error, and
19 the well-accepted regulatory standard of comparability of returns. To avoid these
20 internal flaws, and adhere to the regulatory principle of comparability of returns, the fair
21 return should be estimated by reference to proxy groups. The fact that Mr. Burdette has
22 acknowledged the need to use a sample of comparable LDCs in deriving his higher, but
23 still inadequate, return recommendation is further evidence of the unreasonableness of
24 Staff's approach. Correcting Ms. McKiddy's and Mr. Burdette's test results, giving
25 weight to their results for the comparable LDCs analysis, and giving weight to all tests
26 the witnesses performed would increase their recommended ROEs for Laclede to
27 approximately 10.75% for Mr. Burdette and over 11% for Ms. McKiddy. The revised
28 results remain below a fair and reasonable level, inasmuch as no adjustment has been
29 made to transform the market-derived equity costs to a fair return on book value.
30

Table 1 below summarizes the witnesses' filed results and the corrected results.

TABLE 1

	Ms. McKiddy		Mr. Burdette	
	Filed Results	Corrected Results	Filed Results	Corrected Results
DCF-Laclede	8.75-9.75%	10.3%	9.8-10.2%	10.7-10.9%
DCF-Comparables	10.0-11.0%	10.6-11.3% (11% mid-point)	NMF ^{1/}	10.0-11.3% (10.7% mid-point)
Risk Premium-Laclede	10.43%	12.4-12.6%	N/A	N/A
Risk Premium-Comparables	11.06%	12.6-12.8%	N/A	N/A
CAPM-Laclede	9.41%	^{2/}	9.31%	^{2/}
CAPM-Comparables	9.71%	10.4%	9.68%	10.4%
RECOMMENDATION	8.75-9.75%	>11.0%	9.75-10.2%	Approx. 10.75%

^{1/} Not specified in testimony.

^{2/} Individual company CAPM results subject to measurement error in beta; results for comparable sample should be relied upon.

7 4

1

2 **STAFF TESTIMONY**

3

4 Q. Please summarize your understanding of the testimony of Ms. McKiddy with respect to a
5 fair return for Laclede Gas.

6

7 A. As noted above, Ms. McKiddy recommends a return on equity for Laclede Gas in the
8 range of 8.75% to 9.75%, with a mid-point of 9.25% and a return on rate base of 7.37%
9 to 7.79%, with a mid-point of 7.58%. Ms. McKiddy's recommended return on equity is
10 the result of her use of one methodology for estimating the required return on equity, the
11 discounted cash flow method ("DCF"), and its application to only one company. Ms.
12 McKiddy arrives at her rate of return on equity recommendation by relying exclusively
13 on the DCF method as applied solely to the parent of Laclede Gas.

14

15 Q. Do you have any general observations that indicate that the rate of return on equity
16 recommended by Ms. McKiddy is unreasonable?

17

18 A. Yes. First, if Laclede Group were only able to earn the 9.25% ROE (mid-point of her
19 recommended range) that Ms. McKiddy concludes is its cost of equity, the Company
20 would be precariously close to being unable to cover its dividend. A 9.25% return on the
21 2001 year-end book value per share of \$15.26 equates to earnings per share of \$1.41.
22 With earnings per share of \$1.41 and a 2001 dividend of \$1.34, the dividend payout ratio
23 would be close to 95%. If Laclede Group were to earn a return less than 9.25%, it could
24 be required to pay out more than 100% of earnings to maintain its current dividend. It is
25 of note that Laclede has not raised its dividend since the beginning of 1999; at an earned
26 return on equity of 9.25%, it is unlikely that Laclede could implement even minimal
27 increases in its dividend.

28

29 Second, a review of allowed returns in other jurisdictions shows that Ms. McKiddy's
30 recommended return on equity of 9.25% and return on rate base of 7.58% fall well short

of the returns which have been recently allowed by other state regulators. The following table summarizes the average returns on equity and rate base that have been allowed by state regulators for LDCs over the past two and a half years.

TABLE 2

Year	Average Allowed Return on Equity	Average Allowed Return on Rate Base
2000	11.49%	9.33%
2001	10.95%	8.51%
2002 (1Q-2Q)	11.22%	8.97%

Source: Regulatory Research Associates, Inc.
Regulatory Focus, Major Rate Case Decisions;
January 1990-December 2001, January 2002 and
Major Rate Case Decisions, January-June 2002,
July 2002.

Discounted Cash Flow ("DCF") Model

Q. Do you have any specific disagreements with Ms. McKiddy's application of the DCF model?

A. Yes. I have two basic disagreements. The first is her application of, and focus on, the DCF test results applied to Laclede alone, and the second is her reliance on historic growth rates as a key input to estimating investor expectations. Further, I believe her reliance on a six month historic average stock price would fail to capture fundamental changes in the equity market.

Q. Why do you have concerns with the application of the model to a single company?

1 A. In my direct testimony, at page 24, I provided a citation from a well-renowned finance
2 textbook that summarizes the rationale for not relying on the cost of equity estimate for a
3 single company. That citation bears repeating.

4
5 “Remember, [a company’s] cost of equity is not its personal property. In well-
6 functioning capital markets investors capitalize the dividends of all securities in
7 [the company’s] risk class at exactly the same rate. But any estimate of [the cost
8 of equity] for a single common stock is noisy and subject to error. Good practice
9 does not put too much weight on single-company cost-of-equity estimates. It
10 collects samples of similar companies, estimates [the cost of equity] for each, and
11 takes an average. The average gives a more reliable benchmark for decision
12 making.”¹ (emphasis added)
13

14 A more in-depth explanation is contained in Roger A. Morin, Regulatory Finance:
15 Utilities’ Cost of Capital, Arlington, VA; Public Utilities Reports, Inc., 1994. This text
16 provides the following reasons and explanations for not relying on a single company and,
17 specifically, for not relying on the company whose allowed return is being set by the
18 regulator.
19

20 (1) Consistency with the notions of fair and reasonable return promulgated in
21 the Hope and Bluefield cases. The basic premise in determining a fair
22 return is that the allowed return on equity should be commensurate with
23 returns on investments in other firms with comparable risk, hence the need
24 to extend the sample to firms of comparable risk. Moreover, the equity
25 costs of other firms represent economic opportunity costs that have a
26 direct impact on the cost of equity for the utility being studied.
27

28 (2) Added reliability. Confidence in the reliability of the estimate of equity
29 cost can be enhanced by estimating the cost of equity capital for a variety
30 of risk-equivalent companies. Such group comparisons not only act as a
31 useful check on the magnitude of the cost of equity estimate obtained from
32 a single company, but also mitigate any distortion introduced by

¹ Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance, Sixth Edition, Boston, MA: Irwin McGraw Hill, 2000, p. 69.

1 measurement errors in the two components of equity return, namely
2 dividend yield and growth. Utilizing a portfolio of similar companies
3 along with the company-specific DCF acts to reduce the chance of either
4 overestimating or underestimating the cost of equity for an individual
5 company. By relying solely on a single-company DCF estimate or for that
6 matter on a single methodology, a regulatory commission limits its
7 flexibility and increases the risk of authorizing unreasonable rates of
8 return. For example, in a large group of companies, positive and negative
9 deviations from the expected growth will tend to cancel out owing to the
10 law of large numbers, provided that the errors are independent. The
11 average growth rate of several comparable firms is less likely to diverge
12 from expected growth than is the estimate of growth for a single firm.
13 More generally, the assumptions of the DCF model are more likely to be
14 fulfilled for a group of companies than for any single firm.

15
16 (3) Abnormal conditions. When there is reason to believe that the standard
17 DCF model is inapplicable to a particular utility, or when a utility is
18 experiencing extraordinary circumstances, the use of a benchmark group
19 of companies is the only viable alternative to measure equity costs through
20 the DCF method. Appropriate risk adjustments must, of course, be
21 rendered. Such extraordinary circumstances would include a corporate
22 restructuring, a major plant cancellation, or situations such as those of
23 General Public Utilities following the Three Mile Island accident or of
24 Washington Power Public Service following the default on its bonds.

25
26 (4) Circularity problem. Stock price, hence cost of equity capital, depends on
27 investors' growth expectations, which in turn depend partially on
28 investors' perception of the regulatory process. The net result is that the
29 cost of equity depends in part on anticipated regulatory action, since both
30 components of equity return – yield and growth – are influenced by the
31 regulatory process. Carried to its extreme, this implies that regulation
32 would in effect deliver whatever equity return investors expect. (pp. 201-
33 202)
34

35 Q. What problems are encountered in using historic growth rates to measure investor
36 expectations?

37
38 A. At the outset it is important to underscore that a major objective of the exercise is to
39 capture investor growth expectations. The DCF model is an expectational model. The
40 price which is relied upon to estimate the dividend yield component of the DCF test

1 reflects what investors expect in the future. As stated by Dr. Bonbright et al. in one of
2 the most widely referenced texts on regulation:

3
4 It should be obvious that one can get any expected return on equity one
5 wants by simply picking a particular growth rate. ... The first point to
6 remember in evaluating the growth rate is that it is not what a witness thinks
7 the growth rate should be that matters. What matters is what investors
8 expect the growth rate to be.²
9

10 Clearly, if investor growth expectations are incorrectly inferred, the result will be an
11 over- or understatement of the equity return expected by investors. Since the DCF model
12 is intended to capture investors expectations, logically those expectations should be
13 inferred from forward-looking estimates of growth.
14

15 Q. Shouldn't historic growth rates be taken into account in estimating future expected
16 growth rates?
17

18 A. Yes. However, analysts' forecasts of growth, like those mentioned, already explicitly
19 factor in a company's historic growth rates. By averaging historic growth rates with
20 forecast growth rates, as Ms. McKiddy does, historic growth rates are effectively double-
21 counted. The problem is compounded if the forecast growth rates are systematically
22 different from historic growth rates. Consequently, averaging history and forecasts will
23 mis-estimate the forward-looking investor growth expectations that the DCF test is trying
24 to capture.
25

26 Q. Has any empirical analysis confirmed your understanding that forecasted growth rates,
27 and not historic growth rates, are a more accurate approach in DCF?

² James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, Principles of Public Utility Rates, Second Edition, Arlington, VA: Public Utilities Reports, Inc. 1988, p. 319.

1
2 A. Yes, as referenced at page 25 of my direct testimony, numerous studies have concluded
3 that analysts' forecasts are a better predictor of growth than naïve forecasts equivalent to
4 historic growth rates; moreover, analysts' forecasts have been shown to be more closely
5 related to investor's expectations. For example, among the academic studies that have
6 confirmed this notion is that of James H. Vander Weide and Willard T. Carleton who

7
8 "... found overwhelming evidence that the consensus analysts' forecast of future
9 growth is superior to historically oriented growth measures in predicting the
10 firm's stock price [and that these results] also are consistent with the hypothesis
11 that investors use analysts' forecasts, rather than historically oriented growth
12 calculations, in making stock buy-and-sell decisions."³
13
14

15 In this same context, I also note Mr. Burdette's reference (page 44) to Dr. Myron
16 Gordon's text, The Cost of Capital to a Public Utility, which "indicates that analysts'
17 growth projections are useful in estimating investors' expectations." In fact, in later
18 research, Dr. Gordon et al. concluded that forecasts of growth by security analysts
19 perform better than historic growth rates for estimating the growth component of the
20 DCF model. The authors state,

21
22 "...the superior performance by KFRG [forecasts of growth by securities
23 analysts] should come as no surprise. All four estimates [securities analysts' forecasts
24 plus past growth in earnings and dividends and historic retention growth rates] rely upon
25 past data, but in the case of KFRG a larger body of past data is used, filtered through a
26 group of security analysts who adjust for abnormalities that are not considered relevant
27 for future growth."⁴
28

29 Q. Are there systematic differences between the historic and forecast growth rates utilized
30 by Ms. McKiddy?
31

³ James H. Vander Weide and William T. Carleton, "Investor Growth Expectations: Analysts vs. History", The Journal of Portfolio Management, Spring 1988.

⁴ David Gordon, Myron Gordon and Lawrence Gould, "Choice Among Methods of Estimating Share Yield", The Journal of Portfolio Management, Spring 1989.

1 A. Yes. Table 2 highlights the differences in Ms. McKiddy's reported historic and forecast
2 growth rates for both Laclede and Ms. McKiddy's sample of comparables.
3

4 **TABLE 3**

	Ms. McKiddy's Historic Growth Rates	Ms. McKiddy's Forecast Growth Rates
Laclede Group	0.93%	4.38%
Comparable LDCs	4.47%	6.33%

5
6 Source: McKiddy Testimony, Schedules 15 and 24.
7

8 Q. What problems are there with utilizing Laclede's historic growth rates in particular?
9

10 A. Laclede's historic growth rates in earnings, dividends and book value relied on by Ms.
11 McKiddy in her DCF analysis were all negatively impacted by warmer than normal
12 weather. Ms. McKiddy's Schedule 14 shows that earnings per share declined in each
13 year from 1996 to 2000, leading to a negative 1996-2001 growth rate in earnings.
14 Negative growth in earnings makes it very difficult for a company to raise its dividend,
15 which leads, as in the case of Laclede, to very low dividend growth.
16

17 Investors no more base their long-term forecasts on the belief that earnings and
18 dividends will continue to be negatively impacted by warmer than normal weather than
19 Staff does in determining a weather normalized level of revenue for the Company.
20 However, Ms. McKiddy's reliance on Laclede's historic growth rates implicitly assumes
21 that they do. Effectively, Ms. McKiddy wants to penalize the Company twice, first in the
22 low actual earnings of the Company, and then in an allowed return derived from a DCF
23 estimate whose expected growth component is based on those low actual earnings.
24

1 Q. What would be the impact on the growth component of Ms. McKiddy's DCF estimates if
2 she had relied solely on forecast growth rates?

3
4 A. Based on Table 2 above, reliance on forecast growth rates alone would increase Ms.
5 McKiddy's DCF result for Laclede by approximately 1% (by raising the expected growth
6 rate from 3-4% to close to 4.5%) and for her sample of comparables by at least 50 basis
7 points (by increasing the expected growth rate from 5.75% to no less than 6.25%).

8
9 Q. Has Ms. McKiddy correctly calculated the dividend yield component of her DCF test?

10
11 A. No. The constant growth DCF model requires that the same growth rate forecast be
12 applied to each future cash flow. The constant growth DCF model is premised on the
13 notion that the current price of a stock is equal to the present value of the expected future
14 cash flows discounted by the investor's required rate of return, expressed as follows:

15
16
$$P_0 = \frac{D_1}{(1+k)^1} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_\infty}{(1+k)^\infty}$$

17
18
19 P_0 = current price

20 D_1 = next expected dividend

21 k = required rate of return

22
23 The model can be rearranged to be expressed in terms of "k"; when the rate of growth is
24 expected to be constant, the rearranged model reduces to:

25
26
$$k = \frac{D_1}{P_0} + g$$

27
28
29 where D_1 is equal to $D_0(1+g)$.

30
31 Unless the current dividend yield D_0/P_0 is increased to reflect the expected constant
32 growth rate, i.e.,

1

2

3

4

$$\frac{D_1}{P_0} = \frac{D_0(1+g)}{P_0},$$

5

the resulting DCF cost will be biased.

6

7

Q. What is the impact on the dividend yield component of Ms. McKiddy's DCF estimate for Laclede if the correct formulation of the dividend yield component had been used?

8

9

10

A. Ms. McKiddy utilized a dividend yield of 5.75% for Laclede based on a forecast 2002 dividend of \$1.36 and an average price of \$23.63. The correct implementation of the constant growth DCF model would have utilized the most recent dividend (\$1.34), increased by the full constant growth rate. For Laclede, based on Ms. McKiddy's average forecast growth rate of 4.4%, the dividend yield would be 5.9%.

11

12

13

14

15

16

Q. What would be the results of Ms. McKiddy's DCF analysis if only forecast growth rates were used and the dividend yield component were corrected?

17

18

19

A. Table 4 below summarizes the results:

TABLE 4

Company	Forecast Growth	Last Dividend Paid	Corrected Dividend Yield	Corrected DCF Result	McKiddy DCF Result
	%	\$	%	%	%
(1)	(2)	(3)	(4) Col. 3 x (1 + Col 2)	(5) Col. 2 + Col .4	(6)
LACLEDE	4.38	1.34	5.92	10.30	8.75-9.75
Comparables:					
AGL Resources, Inc.	8.31	1.08	5.15	13.46	13.06
New Jersey Resources	7.61	1.20	4.17	11.78	11.49
Northwest Natural Gas	5.68	1.26	4.85	10.53	10.27
Peoples Energy Corp.	6.36	2.08	5.82	12.18	11.83
Piedmont Natural Gas	5.33	1.60	4.83	10.16	9.92
South Jersey Ind.	5.78	1.50	4.84	10.62	10.35
WGL Holdings, Inc.	5.22	1.27	4.97	10.19	9.98
Average				11.27	10.99
Median				10.62	10.35

Sources:

Column 2: McKiddy Schedules 15 and 24
Column 3: Value Line (July 2002)
Column 4: McKiddy Schedules 16 and 25 (prices)
Column 6: McKiddy Schedules 17 and 26

Q. What does Table 4 above indicate?

A. Table 4 makes several points:

- Using forecast growth rates and corrected dividend yields for Laclede increases the Company-specific estimate by 1.0 percentage point, from 9.25% to 10.3%,

1 2. Ms. McKiddy's own comparable sample results, even without corrections, show a
2 return of 10.4%-11.0%, 115-175 basis points above her mid-point ROE
3 recommendation. These results should have signaled to Ms. McKiddy that her
4 Laclede-specific DCF calculation was unreasonably low.

5
6 3. With the same corrections as for the Laclede-specific test, the DCF comparable
7 sample cost of equity is in the range of 10.6% to 11.3%, with a mid-point of
8 11.0%, 175 basis points above Ms. McKiddy's mid-point ROE recommendation
9 for Laclede.

10
11 Equity Risk Premium Approach

12
13 Q. Ms. McKiddy uses an equity risk premium approach to derive an estimate of the return
14 requirement for Laclede as a check of the reasonableness of her Laclede DCF result. In
15 this test, she estimates the risk premium as the difference between the yield on 30-year
16 U.S. Treasury Bonds and the Value Line projected ROE for the current year. What are
17 your comments?

18
19 A. In past rate cases, Staff witnesses have applied the risk premium test using utility bond
20 yields. As recently as August 2000, Ms. McKiddy was using the differential between
21 projected ROEs and utility bond yields to estimate the risk premium.⁵ However, in recent
22 cases, Staff have switched to 30-year Treasuries, which has resulted in a downward bias
23 in the test results.

24

⁵ Roberta McKiddy, Direct Testimony on Behalf of Missouri Public Service Commission, Case No. GR-2000-512, AmerenUE.

1 Q. Is there a conceptual problem with comparing required or expected utility equity returns
2 to utility bond returns (or yields)?
3

4 A. No. The comparison of a utility's expected return on equity and utility bond yields is a
5 common-sense comparison. Utility bond yields contain a premium above the risk-free
6 rate for the risk that the company will default on those obligations. The default premium
7 provides compensation to bond investors for the business and financial risks to which
8 they are exposed. Hence, utility bond yields should track changes in the business and
9 financial risks faced by the companies, in contrast to government bond yields, which do
10 not. As a result, changes in utility bond yields should provide a more direct measure of
11 the changes in the return required by utility common equity investors than changes in
12 government bond yields.
13

14 Q. Was there any reason to switch to 30-year Treasuries in performing this test?
15

16 A. No. In fact, there are compelling reasons why Ms. McKiddy should not have switched.
17 In early 2000, the U.S. Treasury announced a debt buy-back program intended to pay
18 down the national debt. The announcement immediately increased prices of 30-year
19 bonds to the point where yields on 30-year bonds were lower than the corresponding 10-
20 year yields. This anomaly – 30-year yields are normally higher than 10-year yields due
21 to their higher risk – resulted from investors bidding up the price of what was believed to
22 become an increasingly scarce commodity. Due to this anomaly, by mid-2000, the
23 financial community had already decided that the 30-year Treasury bond could no longer
24 serve as the capital market benchmark.
25

26 If the abandonment of the 30-year Treasury bonds as a benchmark by the investment
27 community was not sufficient to cast doubt on Staff's decision to switch from utility bond
28 yields to 30-year government bonds, in October 2001, the Treasury Department
29 announced that it would no longer even issue 30-year Treasuries. On October 31, 2001,
30 the U.S. Treasury announced that it would no longer issue 30-year bonds. The

1 announcement, intended to direct downward pressure on long-term rates, and push
2 investors into short-term securities, again created an anomaly in the yield curve. The
3 anomaly has been most obvious in the spreads between 20- and 30-year Treasury yields.
4 On October 30th, the day before the announcement, the 20/30 year spread was 1 basis
5 point. Two days after the announcement, the spread was a negative 21 basis points. The
6 announcement that 30-year bonds would no longer be issued was the final death knell.
7 As of late July 2002, the spread with 20-year Treasuries remains negative, despite a
8 sharply upward sloping yield curve across all other maturities.

9
10 Q. What happens to Ms. McKiddy's risk premium results for Laclede and for her sample of
11 comparables if she had relied on utility bond yields as she has done in the past?

12
13 A. As shown on Rebuttal Schedule KCM-1 attached, page 2 of 9, the average risk premium
14 for Laclede over Aa rated utility bonds during the 1991-2002 period used by Ms.
15 McKiddy was 3.55%. The yield on Aa rated utility bonds at the end of May 2002 was
16 7.38%. Adding the 3.55% risk premium to a 7.38% Aa utility bond yield produces an
17 estimate of Laclede's return on equity of 10.9%. This result is close to 50 basis points
18 higher than Ms. McKiddy's risk premium result for Laclede of 10.43% based on the 30-
19 year Treasury yield of 5.64% and the corresponding average risk premium of 4.79%. (as
20 per Ms. McKiddy's Schedule 20).

21
22 Q. Did Ms. McKiddy also undertake a risk premium test for her sample of comparable
23 LDCs?

24
25 A. Yes. Ms. McKiddy reports the average risk premium result for her sample of
26 comparables using Treasury bond yields at 11.06%. However, her average risk premium
27 result should have, in fact, been 10.88%.⁶

28

⁶ The actual average risk premium calculated for 1991-2002 for New Jersey Resources was 6.23% rather than the 7.53% reported by Ms. McKiddy.

1 Q. What is the risk premium test result for the comparables using utility bond yields?

2
3 A. Using the utility bond yield corresponding to each of her comparable LDCs' Moody's
4 debt rating, the average return on equity for the sample is 11.5% (see Rebuttal Schedule
5 KCM-1, page 1 of 9 attached).

6
7 Q. What is the importance of this estimate?

8
9 A. The 11.5% estimate of the return on equity for the comparables is over 200 basis points
10 higher than Ms. McKiddy's recommended rate of return on equity (mid-point) of 9.25%.
11 That comparison lends further support to the conclusion that Ms. McKiddy's
12 recommendation is unreasonably low.

13
14 Q. Are there any other conceptual problems with Ms. McKiddy's risk premium test?

15
16 A. Yes. Ms. McKiddy uses only the current year's expected ROE as a proxy for investors'
17 expectations of the cost of equity.

18
19 In principle, the cost of equity should reflect longer-term expectations. Since any given
20 year's return can be influenced by events specific to that year, the reliance on a single
21 year's ROE can skew the results of the test.

22
23 Q. Can you provide a specific example of this in Ms. McKiddy's Laclede-specific risk
24 premium analysis?

25
26 A. Yes. In December 1999, Value Line forecast Laclede's 2000 ROE at 12%. By March
27 1999, it was clear that, due to warmer than normal weather, the 2000 return would be
28 considerably lower than 12%. Consequently, Value Line decreased its forecast of the
29 2000 ROE to 9.50%, and then decreased it further to 9.0% in June. Ms. McKiddy's
30 approach suggests Laclede's required risk premium declined from 6.6% to 3% (based on

1 Ms. McKiddy's Treasury bond yields), a more than a 3 percentage point decline over the
2 six month period, despite a minimal change in interest rates. Such a conclusion is
3 unrealistic.

4
5 Clearly, this example highlights the frailty of relying on a single year weather-impacted
6 ROE as a proxy for the equity investor return requirement. Using the longer-term
7 normalized ROE forecast by Value Line for the same period, rather than the current
8 year's ROE, would have produced an average 1999 risk premium of 7.38%, over 300
9 basis points higher than the 4.26% reported by Ms. McKiddy.

10
11 Q. What are the average risk premiums for Laclede and the comparable LDCs using the
12 Value Line longer-term forecast ROEs and Treasury bond yields and utility bond yields
13 respectively?

14
15 A. For Laclede, the average risk premium over Treasury bond yields is 6.2%; the average
16 risk premium over utility bond yields is 5.0%. Therefore, the indicated ROEs for Laclede
17 at Ms. McKiddy's 5.64% Treasury bond yield and the corresponding utility bond yield of
18 7.38% are 11.8% and 12.4% respectively (Rebuttal Schedule KCM-2 , pages 1-3). The
19 corresponding returns on equity for the comparables are as follows:

TABLE 5

RISK PREMIUM vs. TREASURY YIELD	TREASURY YIELD	COST OF COMMON EQUITY
6.3%	5.64%	12.0%

RISK PREMIUM vs. UTILITY BOND YIELD	MOODY'S UTILITY BOND YIELD (Sample Average)	COST OF COMMON EQUITY
4.9%	7.7%	12.6%

Source: Rebuttal Schedule KCM-2, pages 1 and 4-17.

Q. Do you have any other comments regarding Ms. McKiddy's equity risk premium test?

A. Yes. Ms. McKiddy assumes that the risk premium over Treasury bonds is the same, irrespective of Treasury bond yields. However, an analysis of her data shows that the risk premium is lower at higher levels of interest rates and vice versa. Table 6 below summarizes the relationship for Laclede and her sample of comparables over the period covered by, and using, Ms. McKiddy's data.

TABLE 6

U.S. Treasury Bond Yields	Risk Premium	
	Laclede	Comparables
5.0-6.0%	5.7%	6.3%
6.1-7.0%	4.8%	5.6%
7.1-8.0%	3.9%	3.7%
above 8%	3.5%	3.0%

Source: McKiddy Schedules 19 and 27.

At Ms. McKiddy's 5.64% yield on 30-year Treasuries, the risk premiums of 5.7% and 6.3% for Laclede and the comparables, respectively, are indicated. Use of these premiums would result in returns on equity of 11.3% and 11.9%, significantly higher than Ms. McKiddy's reported results.

Q. What are the risk premiums for Laclede and the comparables at the lower level of Treasury bond yields if the longer-term Value Line forecast ROEs had been utilized as the expected return on equity?

A. The Laclede risk premium of 5.7% at Treasury bond yields of 5.0-6.0% shown on Table 6 above increases to 7.0%, resulting in an equity return, at Ms. McKiddy's 5.64% long Treasury yield, of 12.6%. The average risk premium for the comparables increases from 6.3% to 7.1%, indicating an equity return of 12.8%.

Capital Asset Pricing Model

Q. What specific issues do you have with the application of the CAPM by Ms. McKiddy?

1 A. Both the risk-free rate and market risk premium are understated, which creates a
2 significant downward bias to the results.

3
4 (a) Risk-Free Rate
5

6 Q. Please discuss Ms. McKiddy's understatement of the risk-free rate.
7

8 A. At the time Ms. McKiddy prepared her evidence, long-term government interest rates
9 were expected to rise. Ms. McKiddy utilized a risk-free rate of 5.64%, equivalent to the
10 average of the high/low range for 30-year U.S. Treasury bonds for the 6-month period
11 ending May 31, 2002. However, the June consensus forecast anticipates an average yield
12 of 6.0% for long-term U.S. Treasury bond yields over the next five quarters (Blue Chip
13 Financial Forecasts, June 1, 2002). Therefore, Ms. McKiddy's historical average of
14 5.64% understates the expected yield by approximately 35 basis points.
15

16 (b) Market Risk Premium
17

18 Q. Ms. McKiddy uses a historic market risk premium of 7.0 percent calculated as the
19 "arithmetic mean for long-term government bonds (5.7 percent) from the arithmetic mean
20 for large company stocks (12.7 percent). [Source: *Ibbotson Associates Stocks, Bonds,*
21 *Bills, and Inflation: 2002 Yearbook* for the period 1926-2001 at page 31.]" (page 32) Is
22 this the correct estimate of the market risk premium from historic data?
23

24 A. No, Ms. McKiddy calculated the historic market risk premium as the differential between
25 total returns on stocks and total returns on bonds. The correct way to estimate the market
26 risk premium from historic data is to use the income, not total returns on government
27 bonds. Ibbotson Associates, the source of Ms. McKiddy's historic risk premium data,
28 provide the rationale for that practice:
29

1 Another point to keep in mind when calculating the equity risk premium is that
2 the income return on the appropriate-horizon Treasury security, rather than the
3 total return, is used in the calculation. The total return is comprised of three
4 return components: the income return, the capital appreciation return, and the
5 reinvestment return. The income return is defined as the portion of the total
6 return that results from a periodic cash flow or, in this case, the bond coupon
7 payment. The capital appreciation return results from the price change of a bond
8 over a specific period. Bond prices generally change in reaction to unexpected
9 fluctuations in yields. Reinvestment return is the return on a given month's
10 investment income when reinvested into the same asset class in the subsequent
11 months of the year. The income return is thus used in the estimation of the equity
12 risk premium because it represents the truly riskless portion of the return.⁷
13

14 At page 66 of Ibbotson Associates, Stocks, Bonds, Bills, and Inflation: Valuation
15 Edition, 2002 Yearbook, the long-horizon (1926-2001) market risk premium (based on
16 income returns as required) is specifically calculated to be 7.4%.

17
18 (c) Beta
19

20 Q. Do you have any comments concerning Ms. McKiddy's beta?
21

22 A. In principle, similar potential problems arise relying on a single company beta when
23 estimating the CAPM cost of equity as when estimating the DCF cost of equity for a
24 single company, e.g., reliability of the estimates. Further, care must be taken to ensure
25 that betas based on historic data are relevant going forward. In the particular case of
26 Laclede, the increase in financial risk over the past five years makes reliance on its
27 historic beta as the estimate of the forward-looking beta very suspect.
28

29 As a result, it would be most appropriate to rely on the median value of Ms. McKiddy's
30 comparable sample, which is 0.60 including or excluding Laclede.
31

32 (d) CAPM Result
33

⁷ Ibbotson Associates, SBJI Valuation Edition, 2001 Yearbook, Chicago: Ibbotson Associates, 2001, pp. 59-60.

1 Q. What is the indicated CAPM result given your corrections?

2
3 A. The revised CAPM result is 10.4%,⁸ compared to Ms. McKiddy's range of 9.4% to 9.7%.
4 The 10.4% return is almost 1.25 percentage points higher than Ms. McKiddy's ROE
5 recommendation.

6
7 Relative Risk of Laclede

8
9 Q. Ms. McKiddy claims that, because Value Line is projecting an earned return for Laclede
10 of 8.5% for 2002, versus 11.0% for the industry as a whole, that it is suggesting that the
11 market views Laclede as less risky. Is this a reasonable conclusion?

12
13 A. No, it is not. The forecast earned return for 2002 is in no way an indication of the cost of
14 equity. Rather, it is a reflection of the allowed return, in conjunction with company-
15 specific factors such as the impact of weather during the current fiscal year, the impact of
16 regulatory practices, and the economic cycle. Value Line specifically refers to the
17 impact of significantly warmer than normal weather in arriving at its June 2002 ROE
18 forecast of 8%. If anything, Laclede's inability to earn a return close to that of its peers'
19 is an indication, all else equal, of higher, rather than lower, risk.

20
21 PUBLIC COUNSEL TESTIMONY

22
23 Q. Please summarize your understanding of Mr. Burdette's testimony with respect to a fair
24 return for Laclede Gas.

25
26 A. Mr. Burdette recommends a return on equity of 9.75% to 10.2%, with a mid-point of
27 9.975%, resulting in an overall return on original cost rate base of 7.88% to 8.06%, well
28 below levels that are fair and reasonable. Similar to Mr. McKiddy's approach, Mr.
29 Burdette's recommended return is the result of his use of one methodology, the DCF

1 method, applied to one company. Although Mr. Burdette claims that he relies primarily
2 on the DCF results for a group of proxy companies, he also states that these analyses are
3 designed to “provide insight as to the reasonableness of any company-specific return
4 calculation.” (page 5) In fact, his recommendation is equal to his Laclede-specific DCF
5 result.

6
7 Discounted Cash Flow Test
8

9 Q. Please summarize your understanding of how Mr. Burdette arrives at his estimates of
10 expected growth.
11

12 A. Mr. Burdette’s estimates for Laclede and his comparable LDCs are primarily based on
13 forecast growth rates, including earnings, dividend, book value and earnings retention
14 growth rates.
15

16 Q. What are your concerns with Mr. Burdette’s approach to estimating expected growth?
17

18 A. While I agree that using forecasted growth rates is key to producing a realistic return
19 under the DCF model, I disagree with his reliance on forecast dividend and book value
20 growth rates as reasonable estimates of long-term investor growth expectations since
21 these particular measures can produce a skewed view of investors' true underlying growth
22 expectations.
23

24 Q. Why do you disagree with reliance on forecast dividend growth rates?
25

26 A. Mr. Burdette stated, at page 47 of his testimony,
27

28 “Q. IS HISTORICAL GROWTH IN DIVIDENDS AN ACCURATE
29 INDICATOR OF INVESTORS’ GROWTH EXPECTATIONS WHEN

⁸ 6.0% + 0.60 (7.4%).

1 THE HISTORICAL PAYOUT RATIO HAS BEEN ERRATIC OR
2 TRENDED DOWNWARD OVER TIME?
3

- 4 A. As stated, no. It can also be demonstrated that a change in our
5 hypothetical utility's payout ratio makes the past rate of growth in
6 dividends an unreliable basis for predicting investor-expected growth."
7

8 That conclusion is equally true for near-term future dividend growth. Near-term future
9 dividend growth will not be representative of investors' long-term growth expectations
10 when the payout ratio is expected to continue declining in the future, as it is for Mr.
11 Burdette's sample, as shown in Table 7 below.
12
13

TABLE 7

Dividend Payout Ratios for Mr. Burdette's Sample of LDCs		
Year	Sample Median	Sample Average
1998	77%	81%
1999	73%	81%
2000	69%	70%
2001	67%	68%
2002	66%	75%
2003	60%	64%
2005/7	53%	55%

14
15 Source: Rebuttal Schedule KCM-3.
16

17 Consequently, the forecast dividend growth rates cited by Mr. Burdette are not
18 representative of what investors would expect the long-term constant rate of growth to be.
19

20 Q. Can a similar conclusion be drawn about forecast book value per share growth rates?
21

22 A. Yes, book value per share growth rates are largely the complement of dividend growth
23 rates. Earnings per share can be divided into two components: dividends and retained
24 earnings per share. Retained earnings per share augment book value per share.

1 Consequently, if the rate of growth in dividends per share growth rates cannot be relied
2 upon when payout ratios are changing, neither can the rate of growth in book value per
3 share.

4
5 Q. Do you have any other concerns with Mr. Burdette's approach to estimating growth
6 expectations?

7
8 A. Yes. The DCF estimates should capture the expectations of the market as a whole. As
9 such, analysts' consensus projected growth rates should be given primary consideration,
10 not the forecast of a single analyst. Mr. Burdette uses five forecasts, the Value Line
11 dividend, earnings, book value and sustainable growth forecasts and the First Call
12 consensus growth forecasts. Each of the first four come from a single analyst; i.e., they
13 represent one person's view of the future. Because four of five of the forecasts come
14 from Value Line, Mr. Burdette's approach gives preponderant weight to the outlook of a
15 single person. Since the First Call consensus typically contains multiple forecasts, it
16 would be more appropriate to weight the single analyst Value Line forecast based on the
17 total number of individual forecasts available for each company.

18
19 Q. Are there consensus forecasts of growth in dividends, book value and retention growth?
20

21 A. No. However, a consensus view of dividend or book value growth would still be
22 unreliable, as discussed earlier since (1) it has been empirically demonstrated that
23 analysts' forecasts are more accurate predictors of future returns than historical growth
24 rates, and (2) the DCF test attempts to infer the market's consensus view, the focus
25 should be on consensus forecasts. For these reasons, cost of capital experts typically
26 focus on consensus earnings growth forecasts.

27
28 Q. What would Mr. Burdette's DCF results be for Laclede and for his sample of
29 comparables had he focused on the consensus earnings forecasts, weighting the Value
30 Line forecast as you indicated above?

1
2 A. As per Rebuttal Schedule KMC-4 attached, the cost of equity for Laclede is 10.9%, the
3 median and average DCF costs of Mr. Burdette's sample of comparables are 10.0% to
4 10.5%;⁹ and the median and average for the sample including Laclede are 10.0% to
5 10.6%.

6
7 Q. In the context of his discussion of retention growth rates, Mr. Burdette states that
8 "projected data on earnings retention and return on book equity are generally more
9 representative of investors' expectations" than historic data (page 9, emphasis added).
10 What would the DCF cost of equity for Mr. Burdette's sample have been had he relied on
11 his projected retention growth rates?

12
13 A. Rebuttal Schedule KCM-5 shows the DCF costs for the sample had Mr. Burdette relied
14 solely on forecast retention growth rates (which he calls projected "br+sv" growth).
15 These retention growth rates were calculated by Mr. Burdette as the product of the Value
16 Line forecast returns on equity and earnings retention rates, which he believes are more
17 representative of investor expectations. The DCF cost of equity for Laclede is 10.7%; the
18 average and median DCF cost for his proxy sample are 10.9% and 11.3% respectively;
19 the average and median including Laclede in the sample are 10.8% and 11.2%
20 respectively.

21
22 Q. Please summarize the DCF results for Laclede and Mr. Burdette's proxy sample based on
23 consensus analysts' forecasts and earnings retention growth rates.

24
25 A. Table 8 below summarizes the results:

⁹ Mr. Burdette's dividend yield component was also corrected, similar to Ms. McKiddy's, to include the same constant growth rate which appears in the growth component of the DCF model.

TABLE 8

	DCF Based on:	
	Consensus Analysts' Earnings Forecasts	Earnings Retention Growth
Laclede	10.9%	10.7%
Comparables:		
Median	10.0%	10.9%
Average	10.5%	11.3%
Comparables (including Laclede)		
Median	10.0%	10.8%
Average	10.6%	11.2%

Source: Rebuttal Schedules KCM-4 and KCM-5.

The summary table above indicates that a reasonable estimate of the DCF cost of equity for Laclede, based on Mr. Burdette's sample, would be in the range of 10.5%-10.75%, rather than Mr. Burdette's 9.8% to 10.2% recommendation.

Capital Asset Pricing Model

Q. Do you have any criticisms of Mr. Burdette's CAPM?

A. Yes, my principal concern is with his reliance on a "spot" risk-free rate (average of 10 and 30-year Treasury yields on June 14, 2002), rather than on a consensus forecast. As noted in my earlier discussion of Ms. McKiddy's testimony, the consensus forecast is for rising interest rates. As noted earlier, the June 2002 consensus Blue Chip Financial Forecasts anticipates that long-term Treasury bond yields will average 6.0% over the next five quarters. Consequently, a 6% risk-free rate is a more reasonable reflection of investor expectations than Mr. Burdette's "spot" 5.3% yield. Using Mr. Burdette's sample average beta of 0.60, his market risk premium of 7.3% and a risk free rate of

1 6.0%, Mr. Burdette's CAPM result for his comparables is 10.4%, rather than his reported
2 9.7%.

3
4 **APPLICATION OF MARKET-DERIVED COST OF EQUITY TO BOOK VALUE**

5
6 Q. With the exception of Ms. McKiddy's risk premium test, the methodologies employed by
7 Ms. McKiddy and Mr. Burdette are limited to tests that measure only the cost of
8 attracting capital. Moreover, the results of these tests, which measure the return
9 requirement on the market value of common equity, are then applied by the witnesses to
10 the book rather than market value of the common stock.

11
12 What basic principles have the witnesses ignored by relying solely on tests of the cost of
13 attracting capital without adjusting the results, derived from market values, before
14 applying them to book values?

15
16 A. The criteria that govern the determination of a fair return on equity include not only the
17 ability to maintain the financial integrity of the firm and to attract new capital but also to
18 earn a return on common equity that is commensurate with returns on investments in
19 other enterprises of corresponding risk. This third criterion has been basically ignored by
20 Ms. McKiddy and Mr. Burdette.

21
22 There are two ways in which the Commission can recognize the opportunity cost
23 principle and, in turn, the fairness principle. The first is to give weight to the comparable
24 earnings test results. The second is to recognize that the application of an unadjusted
25 market-value based discounted cash flow test result to the book value of common equity
26 significantly understates the fair return. My pre-filed direct testimony provides the basis
27 for making an appropriate adjustment that corrects for this fundamental deficiency (pages
28 28-30).

1 Q. Both witnesses employ the results of the discounted cash flow model applied to Laclede
2 as the primary test for estimating the fair return. These results become the witnesses'
3 recommendations for the allowed return on book value. In principle, what are the
4 implications of applying these expected returns on market value to book value?

5
6 A. The application of the DCF model results to book value equates to the investors'
7 expected return only when market price is equal to book value. When utility market
8 prices are above book value, the DCF test results understate a fair return. As the
9 divergence between market and book value grows, so does the divergence between the
10 investors' expected equity return and the DCF test result. Neither witness attempts to
11 correct for this deficiency.

12
13 Based on Value Line projections, the average expected return on common equity for Ms.
14 McKiddy's sample of seven natural gas distributors (2005-2007) is 12.2-12.5. However,
15 Ms. McKiddy would have the Commission set Laclede's return on book value at 8.75-
16 9.75%, ignoring the investors' expected returns of over 12.0%.

17
18 The application of an expected return, estimated by reference to market value, to book
19 value will tend to push the market/book ratio of Laclede's stock toward 1.0. At a recent
20 price of approximately \$23.00, Laclede's market/book ratio is approximately 1.43 times
21 (book value as of March 2002 of \$16.09). A reduction in price from \$23.00 to book
22 value is equivalent to a loss in shareholder value of over 30%.

23
24 Q. Is it your view that it is the function of the Commission to set a return that will either
25 sustain the Company's market value at recent levels or ensure that the relative market
26 valuation improves?

27
28 A. No. Simply put, it is the role of the Commission to set a fair return.
29

1 In setting a fair return, it is critical to recognize that the return estimated using the DCF
2 approach is in relation to market value; the allowed return is set on book value. A return
3 of 9.25% on market value does not produce the same cash flows to investors as a 9.25%
4 return on book value unless market value is equal to book value.

5
6 The application of a market-value determined return to book value is tantamount to
7 concluding that the fair value of utility investors' common equity shares is equal to book
8 value. There is no legal principle or precedent that suggests that the equity of a utility
9 should be treated differently than the equity securities of similar risk non-utilities. Non-
10 utilities are able to maintain the market value of their securities significantly above book
11 value. To illustrate, over the past decade (1992-2001), the average market/book ratio of
12 my sample of low risk industrials was over 3 times, compared to 1.52 times for Laclede
13 and 1.82 times for my sample of LDCs. Yet, Ms. McKiddy and Mr. Burdette would have
14 the Commission set a return that would deprive the utility of the ability to earn returns
15 commensurate with those available to enterprises of commensurate risk, reducing the
16 market/book ratio to 1.0.

17
18 Moreover, the idea that the appropriate market/book ratio should be 1.0 does not square
19 with either basic economic theory or the objective of regulation. The objective of
20 regulation is to simulate competition. Under pure compensation, theoretically, market
21 value should equal replacement cost. Replacement cost will generally exceed book value
22 because booked assets are not restated for experienced inflation. Since the average rate
23 of inflation over the past 25 years has been 4.7%, book values materially understate
24 utility asset replacement costs. One would, therefore, expect the fair market value of
25 utility shares to be well above book value. The original cost book value of the equity is
26 the base (or the point of departure) upon which the fair return is set, because the base can
27 be measured objectively. It is not, however, synonymous with the fair value of the
28 equity.

1 A return to an investor is, at the end of the day, a dollar return. It is clear that a 9.25%
2 return on a market value of \$20 is not the same as a 9.25% return on a \$10 book value.
3 Yet analysts that would take a DCF return (determined at a utility market/book ratio well
4 above 1.0) and apply it to book value would have the Commission believe an investor
5 would be satisfied with a 30% decline in shareholder value and the virtual inability of the
6 utility to ensure payment of the dividend. At a minimum, such consideration emphasizes
7 the reasonableness of the 11.75% return recommendation proposed by the Company in
8 this case.
9

10 Q. Does this conclude your testimony?
11

12 A. Yes.
13
14

**Ms. McKiddy's Equity Risk Premium Test
Using Utility Bond Yields**

<u>Company</u>	<u>Moody's Bond Rating</u>	<u>Moody's Bond Yield ^{1/}</u>	<u>Equity Risk Premium</u>	<u>Cost of Common Equity</u>
Laclede	Aa	7.38%	3.55%	10.89%
<u>Comparables</u>				
AGL Resources, Inc.	Baa	8.34%	3.46%	11.80%
New Jersey Resources	A	7.48%	4.84%	12.32%
Northwest Natural Gas Company	A	7.48%	2.97%	10.45%
Peoples Energy Corporation	A	7.48%	3.99%	11.47%
Piedmont Natural Gas Company, Inc.	A	7.48%	4.16%	11.64%
South Jersey Industries	Baa	8.34%	2.92%	11.26%
WGL Holdings, Inc.	Aa	7.38%	4.16%	11.54%
Average (Excluding Laclede)				11.50%

1/ Moody's Credit Perspectives, June 3, 2002

Sources: Moody's Credit Perspectives; Mergent Bond Record, May 2002; Schedule 1, pages 2-9.

Laclede Risk Premium Analysis Using "Aa" Rated Moody's Utility Bonds

Date	Expected ROE	Moody's AA Utility Bond	Risk Premium	Date	Expected ROE	Moody's AA Utility Bond	Risk Premium
Jan-91	12.50%	9.39%	3.11%	Jan-97	12.00%	7.68%	4.32%
Feb-91	12.50%	9.16%	3.34%	Feb-97	12.00%	7.60%	4.40%
Mar-91	12.50%	9.23%	3.27%	Mar-97	12.00%	7.84%	4.16%
Apr-91	11.50%	9.14%	2.36%	Apr-97	12.00%	8.00%	4.00%
May-91	11.50%	9.16%	2.34%	May-97	12.00%	7.85%	4.15%
Jun-91	11.50%	9.28%	2.22%	Jun-97	12.00%	7.68%	4.32%
Jul-91	11.50%	9.26%	2.24%	Jul-97	12.00%	7.43%	4.57%
Aug-91	11.50%	9.06%	2.44%	Aug-97	12.00%	7.46%	4.54%
Sep-91	11.50%	8.94%	2.56%	Sep-97	12.00%	7.54%	4.46%
Oct-91	11.50%	8.92%	2.58%	Oct-97	12.50%	7.28%	5.22%
Nov-91	11.50%	8.87%	2.63%	Nov-97	12.50%	7.15%	5.35%
Dec-91	11.50%	8.71%	2.79%	Dec-97	12.50%	7.07%	5.43%
Jan-92	12.00%	8.63%	3.37%	Jan-98	12.00%	6.94%	5.06%
Feb-92	12.00%	8.76%	3.24%	Feb-98	12.00%	6.99%	5.01%
Mar-92	12.00%	8.82%	3.18%	Mar-98	12.00%	7.03%	4.97%
Apr-92	12.00%	8.76%	3.24%	Apr-98	11.50%	7.02%	4.48%
May-92	12.00%	8.69%	3.31%	May-98	11.50%	7.02%	4.48%
Jun-92	12.00%	8.63%	3.37%	Jun-98	11.50%	6.91%	4.59%
Jul-92	10.00%	8.45%	1.55%	Jul-98	10.50%	6.91%	3.59%
Aug-92	10.00%	8.30%	1.70%	Aug-98	10.50%	6.87%	3.63%
Sep-92	10.00%	8.28%	1.72%	Sep-98	10.50%	6.78%	3.72%
Oct-92	10.00%	8.42%	1.58%	Oct-98	13.00%	6.80%	6.20%
Nov-92	10.00%	8.51%	1.49%	Nov-98	13.00%	6.89%	6.11%
Dec-92	10.00%	8.32%	1.68%	Dec-98	13.00%	6.78%	6.22%
Jan-93	13.00%	8.14%	4.86%	Jan-99	12.00%	6.82%	5.18%
Feb-93	13.00%	7.92%	5.08%	Feb-99	12.00%	6.94%	5.06%
Mar-93	13.00%	7.76%	5.24%	Mar-99	12.00%	7.11%	4.89%
Apr-93	12.00%	7.64%	4.36%	Apr-99	9.50%	7.11%	2.39%
May-93	12.00%	7.64%	4.36%	May-99	9.50%	7.38%	2.12%
Jun-93	12.00%	7.54%	4.46%	Jun-99	9.50%	7.67%	1.83%
Jul-93	13.00%	7.38%	5.62%	Jul-99	9.00%	7.62%	1.38%
Aug-93	13.00%	7.07%	5.93%	Aug-99	9.00%	7.82%	1.18%
Sep-93	13.00%	6.89%	6.11%	Sep-99	9.00%	7.82%	1.18%
Oct-93	13.00%	6.89%	6.11%	Oct-99	10.00%	7.96%	2.04%
Nov-93	13.00%	7.17%	5.83%	Nov-99	10.00%	7.82%	2.18%
Dec-93	13.00%	7.18%	5.82%	Dec-99	10.00%	8.00%	2.00%
Jan-94	12.50%	7.18%	5.32%	Jan-00	10.00%	8.17%	1.83%
Feb-94	12.50%	7.34%	5.16%	Feb-00	10.00%	7.99%	2.01%
Mar-94	12.50%	7.74%	4.76%	Mar-00	10.00%	7.99%	2.01%
Apr-94	12.00%	8.12%	3.88%	Apr-00	11.00%	8.00%	3.00%
May-94	12.00%	8.24%	3.76%	May-00	11.00%	8.44%	2.56%
Jun-94	12.00%	8.21%	3.79%	Jun-00	11.00%	8.10%	2.90%
Jul-94	11.50%	8.38%	3.12%	Jul-00	9.50%	8.10%	1.40%
Aug-94	11.50%	8.32%	3.18%	Aug-00	9.50%	7.95%	1.55%
Sep-94	11.50%	8.56%	2.94%	Sep-00	9.50%	8.11%	1.39%
Oct-94	11.50%	8.78%	2.72%	Oct-00	9.10%	8.08%	1.02%
Nov-94	11.50%	8.90%	2.60%	Nov-00	9.10%	8.03%	1.07%
Dec-94	11.50%	8.69%	2.81%	Dec-00	9.10%	7.79%	1.31%
Jan-95	11.50%	8.66%	2.84%	Jan-01	11.00%	7.73%	3.27%
Feb-95	11.50%	8.45%	3.05%	Feb-01	11.00%	7.62%	3.38%
Mar-95	11.50%	8.29%	3.21%	Mar-01	11.00%	7.51%	3.49%
Apr-95	10.00%	8.17%	1.83%	Apr-01	13.50%	7.72%	5.78%
May-95	10.00%	7.80%	2.20%	May-01	13.50%	7.79%	5.71%
Jun-95	10.00%	7.49%	2.51%	Jun-01	13.50%	7.62%	5.88%
Jul-95	9.00%	7.60%	1.40%	Jul-01	12.00%	7.55%	4.45%
Aug-95	9.00%	7.71%	1.29%	Aug-01	12.00%	7.39%	4.61%
Sep-95	9.00%	7.48%	1.52%	Sep-01	12.00%	7.55%	4.45%
Oct-95	9.00%	7.30%	1.70%	Oct-01	10.50%	7.47%	3.03%
Nov-95	9.00%	7.22%	1.78%	Nov-01	10.50%	7.45%	3.05%
Dec-95	9.00%	7.03%	1.97%	Dec-01	10.50%	7.53%	2.97%
Jan-96	9.00%	7.02%	1.98%	Jan-02	10.00%	7.28%	2.72%
Feb-96	9.00%	7.20%	1.80%	Feb-02	10.00%	7.14%	2.86%
Mar-96	9.00%	7.55%	1.45%	Mar-02	13.00%	7.42%	5.58%
Apr-96	12.00%	7.70%	4.30%	Apr-02	13.00%	7.38%	5.62%
May-96	12.00%	7.79%	4.21%	May-02	13.00%	7.43%	5.57%
Jun-96	12.00%	7.87%	4.13%				
Jul-96	13.00%	7.83%	5.17%				
Aug-96	13.00%	7.66%	5.34%				
Sep-96	13.00%	7.84%	5.16%				
Oct-96	14.00%	7.60%	6.40%				
Nov-96	14.00%	7.32%	6.68%				
Dec-96	14.00%	7.44%	6.56%				

Risk Premium 1991- May 2002 3.55%

Source: Mergent Bond Record and McKiddy Schedule 19.

AGL Risk Premium Analysis Using "Aa" Rated Moody's Utility Bonds

Date	Expected ROE	Moody's AA Utility Bond	Risk Premium	Date	Expected ROE	Moody's AA Utility Bond	Risk Premium
Jan-91	11.50%	9.96%	1.54%	Jan-97	14.50%	8.18%	6.32%
Feb-91	11.50%	9.68%	1.82%	Feb-97	14.50%	8.02%	6.48%
Mar-91	11.50%	9.74%	1.76%	Mar-97	14.50%	8.26%	6.24%
Apr-91	11.50%	9.64%	1.86%	Apr-97	14.00%	8.42%	5.58%
May-91	11.50%	9.64%	1.86%	May-97	14.00%	8.28%	5.72%
Jun-91	11.50%	9.79%	1.71%	Jun-97	14.00%	8.12%	5.88%
Jul-91	11.50%	9.69%	1.81%	Jul-97	14.00%	7.87%	6.13%
Aug-91	11.50%	9.47%	2.03%	Aug-97	14.00%	7.93%	6.07%
Sep-91	11.50%	9.35%	2.15%	Sep-97	14.00%	7.84%	6.16%
Oct-91	10.50%	9.32%	1.18%	Oct-97	13.50%	7.67%	5.83%
Nov-91	10.50%	9.28%	1.22%	Nov-97	13.50%	7.49%	6.01%
Dec-91	10.50%	9.07%	1.43%	Dec-97	13.50%	7.41%	6.09%
Jan-92	11.50%	8.98%	2.52%	Jan-98	11.50%	7.28%	4.22%
Feb-92	11.50%	9.09%	2.41%	Feb-98	11.50%	7.36%	4.14%
Mar-92	11.50%	9.16%	2.34%	Mar-98	11.50%	7.37%	4.13%
Apr-92	11.00%	9.11%	1.89%	Apr-98	11.00%	7.37%	3.63%
May-92	11.00%	9.01%	1.99%	May-98	11.00%	7.34%	3.66%
Jun-92	11.00%	8.90%	2.10%	Jun-98	11.00%	7.21%	3.79%
Jul-92	11.00%	8.69%	2.31%	Jul-98	10.50%	7.24%	3.26%
Aug-92	11.00%	8.58%	2.42%	Aug-98	10.50%	7.20%	3.30%
Sep-92	11.00%	8.54%	2.46%	Sep-98	10.50%	7.13%	3.37%
Oct-92	11.00%	8.76%	2.24%	Oct-98	10.50%	7.13%	3.37%
Nov-92	11.00%	8.86%	2.14%	Nov-98	10.50%	7.31%	3.19%
Dec-92	11.00%	8.69%	2.31%	Dec-98	10.50%	7.24%	3.26%
Jan-93	11.50%	8.57%	2.93%	Jan-99	12.00%	7.30%	4.70%
Feb-93	11.50%	8.31%	3.19%	Feb-99	12.00%	7.41%	4.59%
Mar-93	11.50%	8.10%	3.40%	Mar-99	12.00%	7.55%	4.45%
Apr-93	11.50%	8.11%	3.39%	Apr-99	12.00%	7.51%	4.49%
May-93	11.50%	8.18%	3.32%	May-99	12.00%	7.74%	4.26%
Jun-93	11.50%	8.05%	3.45%	Jun-99	12.00%	8.03%	3.97%
Jul-93	11.50%	7.93%	3.57%	Jul-99	11.50%	7.97%	3.53%
Aug-93	11.50%	7.59%	3.91%	Aug-99	11.50%	8.16%	3.34%
Sep-93	11.50%	7.35%	4.15%	Sep-99	11.50%	8.19%	3.31%
Oct-93	10.50%	7.27%	3.23%	Oct-99	9.50%	8.32%	1.18%
Nov-93	10.50%	7.69%	2.81%	Nov-99	9.50%	8.12%	1.38%
Dec-93	10.50%	7.73%	2.77%	Dec-99	9.50%	8.28%	1.22%
Jan-94	11.00%	7.66%	3.34%	Jan-00	9.50%	8.40%	1.10%
Feb-94	11.00%	7.76%	3.24%	Feb-00	9.50%	8.33%	1.17%
Mar-94	11.00%	8.11%	2.89%	Mar-00	9.50%	8.40%	1.10%
Apr-94	10.50%	8.47%	2.03%	Apr-00	10.00%	8.40%	1.60%
May-94	10.50%	8.61%	1.89%	May-00	10.00%	8.86%	1.14%
Jun-94	10.50%	8.64%	1.86%	Jun-00	10.00%	8.47%	1.53%
Jul-94	11.00%	8.80%	2.20%	Jul-00	10.50%	8.33%	2.17%
Aug-94	11.00%	8.74%	2.26%	Aug-00	10.50%	8.25%	2.25%
Sep-94	11.00%	8.98%	2.02%	Sep-00	10.50%	8.32%	2.18%
Oct-94	11.00%	9.24%	1.76%	Oct-00	10.50%	8.29%	2.21%
Nov-94	11.00%	9.35%	1.65%	Nov-00	10.50%	8.25%	2.25%
Dec-94	11.00%	9.16%	1.84%	Dec-00	10.50%	8.01%	2.49%
Jan-95	11.00%	9.15%	1.85%	Jan-01	11.50%	7.99%	3.51%
Feb-95	11.00%	8.93%	2.07%	Feb-01	11.50%	7.94%	3.56%
Mar-95	11.00%	8.78%	2.22%	Mar-01	11.50%	7.85%	3.65%
Apr-95	12.00%	8.67%	3.33%	Apr-01	12.00%	8.06%	3.94%
May-95	12.00%	8.30%	3.70%	May-01	12.00%	8.11%	3.89%
Jun-95	12.00%	8.01%	3.99%	Jun-01	12.00%	8.02%	3.98%
Jul-95	11.50%	8.11%	3.39%	Jul-01	13.00%	8.05%	4.95%
Aug-95	11.50%	8.24%	3.26%	Aug-01	13.00%	7.95%	5.05%
Sep-95	11.50%	7.98%	3.52%	Sep-01	13.00%	8.12%	4.88%
Oct-95	12.50%	7.82%	4.68%	Oct-01	12.50%	8.02%	4.48%
Nov-95	12.50%	7.81%	4.69%	Nov-01	12.50%	7.96%	4.54%
Dec-95	12.50%	7.63%	4.87%	Dec-01	12.50%	8.27%	4.23%
Jan-96	13.00%	7.64%	5.36%	Jan-02	13.00%	8.13%	4.87%
Feb-96	13.00%	7.78%	5.22%	Feb-02	13.00%	8.18%	4.82%
Mar-96	13.00%	8.15%	4.85%	Mar-02	13.00%	8.32%	4.68%
Apr-96	13.50%	8.32%	5.18%	Apr-02	13.00%	8.26%	4.74%
May-96	13.50%	8.45%	5.05%	May-02	13.00%	8.33%	4.67%
Jun-96	13.50%	8.51%	4.99%				
Jul-96	14.00%	8.44%	5.56%				
Aug-96	14.00%	8.25%	5.75%				
Sep-96	14.00%	8.41%	5.59%				
Oct-96	14.00%	8.15%	5.85%				
Nov-96	14.00%	7.87%	6.13%				
Dec-96	14.00%	7.98%	6.02%				
					</		

Risk Premium 1991- May 2002 3.46%

Source: Mergent Bond Record and McKiddy Schedule 2

New Jersey Resources Risk Premium Analysis Using "Aa" Rated Moody's Utility Bonds

Date	Expected ROE	Moody's AA Utility Bond	Risk Premium	Date	Expected ROE	Moody's AA Utility Bond	Risk Premium
Jan-91	10.00%	9.71%	0.29%	Jan-97	14.50%	7.77%	6.73%
Feb-91	9.00%	9.47%	-0.47%	Feb-97	14.50%	7.64%	6.86%
Mar-91	9.00%	9.55%	-0.55%	Mar-97	14.50%	7.87%	6.63%
Apr-91	9.00%	9.46%	-0.46%	Apr-97	14.00%	8.03%	5.97%
May-91	7.50%	9.44%	-1.94%	May-97	14.00%	7.89%	6.11%
Jun-91	7.50%	9.59%	-2.09%	Jun-97	14.00%	7.72%	6.28%
Jul-91	7.50%	9.55%	-2.05%	Jul-97	14.50%	7.48%	7.02%
Aug-91	8.00%	9.29%	-1.29%	Aug-97	14.50%	7.51%	6.99%
Sep-91	8.00%	9.15%	-1.15%	Sep-97	14.50%	7.58%	6.92%
Oct-91	8.00%	9.12%	-1.12%	Oct-97	14.50%	7.35%	7.15%
Nov-91	7.50%	9.05%	-1.55%	Nov-97	14.50%	7.25%	7.25%
Dec-91	7.50%	8.88%	-1.38%	Dec-97	14.50%	7.16%	7.34%
Jan-92	11.00%	8.84%	2.16%	Jan-98	14.50%	7.04%	7.46%
Feb-92	10.50%	8.93%	1.57%	Feb-98	14.50%	7.12%	7.38%
Mar-92	10.50%	8.97%	1.53%	Mar-98	14.50%	7.16%	7.34%
Apr-92	10.50%	8.93%	1.57%	Apr-98	14.50%	7.16%	7.34%
May-92	9.00%	8.87%	0.13%	May-98	14.50%	7.16%	7.34%
Jun-92	9.00%	8.78%	0.22%	Jun-98	14.50%	7.03%	7.47%
Jul-92	9.00%	8.57%	0.43%	Jul-98	15.00%	7.03%	7.97%
Aug-92	10.50%	8.44%	2.06%	Aug-98	15.00%	7.00%	8.00%
Sep-92	10.50%	8.40%	2.10%	Sep-98	15.00%	6.93%	8.07%
Oct-92	10.50%	8.54%	1.96%	Oct-98	15.00%	6.96%	8.04%
Nov-92	11.50%	8.63%	2.87%	Nov-98	15.00%	7.03%	7.97%
Dec-92	11.50%	8.43%	3.07%	Dec-98	15.00%	6.91%	8.09%
Jan-93	12.00%	8.27%	3.73%	Jan-99	14.50%	6.97%	7.53%
Feb-93	11.50%	8.04%	3.46%	Feb-99	14.50%	7.09%	7.41%
Mar-93	11.50%	7.90%	3.60%	Mar-99	14.50%	7.26%	7.24%
Apr-93	11.50%	7.81%	3.69%	Apr-99	14.50%	7.22%	7.28%
May-93	12.00%	7.86%	4.14%	May-99	14.50%	7.47%	7.03%
Jun-93	12.00%	7.75%	4.25%	Jun-99	14.50%	7.74%	6.76%
Jul-93	12.00%	7.54%	4.46%	Jul-99	14.50%	7.71%	6.79%
Aug-93	11.50%	7.25%	4.25%	Aug-99	14.50%	7.91%	6.59%
Sep-93	11.50%	7.04%	4.46%	Sep-99	14.50%	7.93%	6.57%
Oct-93	11.50%	7.03%	4.47%	Oct-99	14.50%	8.06%	6.44%
Nov-93	11.50%	7.30%	4.20%	Nov-99	14.50%	7.94%	6.56%
Dec-93	11.50%	7.34%	4.16%	Dec-99	14.50%	8.14%	6.36%
Jan-94	12.00%	7.33%	4.67%	Jan-00	15.00%	8.35%	6.65%
Feb-94	12.00%	7.47%	4.53%	Feb-00	15.00%	8.25%	6.75%
Mar-94	12.00%	7.85%	4.15%	Mar-00	15.00%	8.28%	6.72%
Apr-94	12.00%	8.22%	3.78%	Apr-00	15.00%	8.29%	6.71%
May-94	12.00%	8.33%	3.67%	May-00	15.00%	8.70%	6.30%
Jun-94	12.00%	8.31%	3.69%	Jun-00	15.00%	8.36%	6.64%
Jul-94	12.00%	8.47%	3.53%	Jul-00	15.00%	8.25%	6.75%
Aug-94	12.00%	8.41%	3.59%	Aug-00	15.00%	8.13%	6.87%
Sep-94	12.00%	8.64%	3.36%	Sep-00	15.00%	8.23%	6.77%
Oct-94	12.00%	8.86%	3.14%	Oct-00	15.00%	8.14%	6.86%
Nov-94	12.00%	8.98%	3.02%	Nov-00	15.00%	8.11%	6.89%
Dec-94	12.00%	8.76%	3.24%	Dec-00	15.00%	7.84%	7.16%
Jan-95	11.50%	8.73%	2.77%	Jan-01	14.50%	7.80%	6.70%
Feb-95	11.50%	8.52%	2.98%	Feb-01	14.50%	7.74%	6.76%
Mar-95	11.50%	8.37%	3.13%	Mar-01	14.50%	7.68%	6.82%
Apr-95	12.50%	8.27%	4.23%	Apr-01	14.50%	7.94%	6.56%
May-95	12.50%	7.91%	4.59%	May-01	14.50%	7.99%	6.51%
Jun-95	12.50%	7.60%	4.90%	Jun-01	14.50%	7.85%	6.65%
Jul-95	12.50%	7.70%	4.80%	Jul-01	12.50%	7.78%	4.72%
Aug-95	12.50%	7.83%	4.67%	Aug-01	12.50%	7.59%	4.91%
Sep-95	12.50%	7.62%	4.88%	Sep-01	12.50%	7.75%	4.75%
Oct-95	13.00%	7.46%	5.54%	Oct-01	12.50%	7.63%	4.87%
Nov-95	13.00%	7.43%	5.57%	Nov-01	12.50%	7.57%	4.93%
Dec-95	13.00%	7.23%	5.77%	Dec-01	12.50%	7.83%	4.67%
Jan-96	13.50%	7.22%	6.28%	Jan-02	14.50%	7.66%	6.84%
Feb-96	13.50%	7.37%	6.13%	Feb-02	14.50%	7.54%	6.96%
Mar-96	13.50%	7.73%	5.77%	Mar-02	14.50%	7.76%	6.74%
Apr-96	13.50%	7.89%	5.61%	Apr-02	14.50%	7.57%	6.93%
May-96	13.50%	7.98%	5.52%	May-02	14.50%	7.52%	6.98%
Jun-96	13.50%	8.06%	5.44%				
Jul-96	13.50%	8.02%	5.48%				
Aug-96	13.50%	7.84%	5.66%				
Sep-96	13.50%	8.01%	5.49%				
Oct-96	13.50%	7.77%	5.73%				
Nov-96	13.50%	7.49%	6.01%				
Dec-96	13.50%	7.59%	5.91%				

Risk Premium 1991- May 2002 4.84%

Source: Mergent Bond Record and McKiddy Schedule 27.

Northwest Natural Risk Premium Analysis Using "Aa" Rated Moody's Utility Bonds

Date	Expected ROE	Moody's AA Utility Bond	Risk Premium	Date	Expected ROE	Moody's AA Utility Bond	Risk Premium
Jan-91	12.50%	9.71%	2.79%	Jan-97	12.00%	7.77%	4.23%
Feb-91	12.50%	9.47%	3.03%	Feb-97	12.00%	7.64%	4.36%
Mar-91	12.50%	9.55%	2.95%	Mar-97	12.00%	7.87%	4.13%
Apr-91	12.50%	9.46%	3.04%	Apr-97	12.00%	8.03%	3.97%
May-91	11.50%	9.44%	2.06%	May-97	12.00%	7.89%	4.11%
Jun-91	11.50%	9.59%	1.91%	Jun-97	12.00%	7.72%	4.28%
Jul-91	11.50%	9.55%	1.95%	Jul-97	12.00%	7.48%	4.52%
Aug-91	12.00%	9.29%	2.71%	Aug-97	12.00%	7.51%	4.49%
Sep-91	12.00%	9.15%	2.85%	Sep-97	12.00%	7.58%	4.42%
Oct-91	12.00%	9.12%	2.88%	Oct-97	12.00%	7.35%	4.65%
Nov-91	12.50%	9.05%	3.45%	Nov-97	12.00%	7.25%	4.75%
Dec-91	12.50%	8.88%	3.62%	Dec-97	12.00%	7.16%	4.84%
Jan-92	12.50%	8.84%	3.66%	Jan-98	11.50%	7.04%	4.46%
Feb-92	12.00%	8.93%	3.07%	Feb-98	11.50%	7.12%	4.38%
Mar-92	12.00%	8.97%	3.03%	Mar-98	11.50%	7.16%	4.34%
Apr-92	12.00%	8.93%	3.07%	Apr-98	10.00%	7.16%	2.84%
May-92	11.00%	8.87%	2.13%	May-98	10.00%	7.16%	2.84%
Jun-92	11.00%	8.78%	2.22%	Jun-98	10.00%	7.03%	2.97%
Jul-92	11.00%	8.57%	2.43%	Jul-98	9.50%	7.03%	2.47%
Aug-92	9.00%	8.44%	0.56%	Aug-98	9.50%	7.00%	2.50%
Sep-92	9.00%	8.40%	0.60%	Sep-98	9.50%	6.93%	2.57%
Oct-92	9.00%	8.54%	0.46%	Oct-98	9.50%	6.96%	2.54%
Nov-92	7.50%	8.63%	-1.13%	Nov-98	9.50%	7.03%	2.47%
Dec-92	7.50%	8.43%	-0.93%	Dec-98	9.50%	6.91%	2.59%
Jan-93	7.50%	8.27%	-0.77%	Jan-99	11.00%	6.97%	4.03%
Feb-93	12.00%	8.04%	3.96%	Feb-99	11.00%	7.09%	3.91%
Mar-93	12.00%	7.90%	4.10%	Mar-99	11.00%	7.26%	3.74%
Apr-93	12.00%	7.81%	4.19%	Apr-99	8.50%	7.22%	1.28%
May-93	12.50%	7.86%	4.64%	May-99	8.50%	7.47%	1.03%
Jun-93	12.50%	7.75%	4.75%	Jun-99	8.50%	7.74%	0.76%
Jul-93	12.50%	7.54%	4.96%	Jul-99	9.50%	7.71%	1.79%
Aug-93	13.00%	7.25%	5.75%	Aug-99	9.50%	7.91%	1.59%
Sep-93	13.00%	7.04%	5.96%	Sep-99	9.50%	7.93%	1.57%
Oct-93	13.00%	7.03%	5.97%	Oct-99	10.50%	8.06%	2.44%
Nov-93	13.50%	7.30%	6.20%	Nov-99	10.50%	7.94%	2.56%
Dec-93	13.50%	7.34%	6.16%	Dec-99	10.50%	8.14%	2.36%
Jan-94	12.50%	7.33%	5.17%	Jan-00	10.50%	8.35%	2.15%
Feb-94	12.50%	7.47%	5.03%	Feb-00	10.50%	8.25%	2.25%
Mar-94	12.50%	7.85%	4.65%	Mar-00	10.50%	8.28%	2.22%
Apr-94	12.50%	8.22%	4.28%	Apr-00	10.00%	8.29%	1.71%
May-94	11.50%	8.33%	3.17%	May-00	10.00%	8.70%	1.30%
Jun-94	11.50%	8.31%	3.19%	Jun-00	10.00%	8.36%	1.64%
Jul-94	11.50%	8.47%	3.03%	Jul-00	10.50%	8.25%	2.25%
Aug-94	9.50%	8.41%	1.09%	Aug-00	10.50%	8.13%	2.37%
Sep-94	9.50%	8.64%	0.86%	Sep-00	10.50%	8.23%	2.27%
Oct-94	10.50%	8.86%	1.64%	Oct-00	10.00%	8.14%	1.86%
Nov-94	10.50%	8.98%	1.52%	Nov-00	10.00%	8.11%	1.89%
Dec-94	10.50%	8.76%	1.74%	Dec-00	10.00%	7.84%	2.16%
Jan-95	11.50%	8.73%	2.77%	Jan-01	10.50%	7.80%	2.70%
Feb-95	11.50%	8.52%	2.98%	Feb-01	10.50%	7.74%	2.76%
Mar-95	11.50%	8.37%	3.13%	Mar-01	10.50%	7.68%	2.82%
Apr-95	11.00%	8.27%	2.73%	Apr-01	10.50%	7.94%	2.56%
May-95	11.00%	7.91%	3.09%	May-01	10.50%	7.99%	2.51%
Jun-95	11.00%	7.60%	3.40%	Jun-01	10.50%	7.85%	2.65%
Jul-95	10.50%	7.70%	2.80%	Jul-01	9.50%	7.78%	1.72%
Aug-95	10.50%	7.83%	2.67%	Aug-01	9.50%	7.59%	1.91%
Sep-95	10.50%	7.62%	2.88%	Sep-01	9.50%	7.75%	1.75%
Oct-95	10.50%	7.46%	3.04%	Oct-01	9.50%	7.63%	1.87%
Nov-95	10.50%	7.43%	3.07%	Nov-01	9.50%	7.57%	1.93%
Dec-95	10.50%	7.23%	3.27%	Dec-01	9.50%	7.83%	1.67%
Jan-96	11.50%	7.22%	4.28%	Jan-02	10.00%	7.66%	2.34%
Feb-96	11.50%	7.37%	4.13%	Feb-02	10.00%	7.54%	2.46%
Mar-96	11.50%	7.73%	3.77%	Mar-02	10.00%	7.76%	2.24%
Apr-96	11.50%	7.89%	3.61%	Apr-02	10.50%	7.57%	2.93%
May-96	11.50%	7.98%	3.52%	May-02	10.50%	7.52%	2.98%
Jun-96	11.50%	8.06%	3.44%				
Jul-96	11.50%	8.02%	3.48%				
Aug-96	11.50%	7.84%	3.66%				
Sep-96	11.50%	8.01%	3.49%				
Oct-96	12.00%	7.77%	4.23%				
Nov-96	12.00%	7.49%	4.51%				
Dec-96	12.00%	7.59%	4.41%				

Risk Premium 1991- May 2002 2.97%

Source: Mergent Bond Record and McKiddy Schedule 27.

Peoples Risk Premium Analysis Using "Aa" Rated Moody's Utility Bonds

Date	Expected ROE	Moody's AA Utility Bond	Risk Premium	Date	Expected ROE	Moody's AA Utility Bond	Risk Premium
Jan-91	14.00%	9.71%	4.29%	Jan-97	12.00%	7.77%	4.23%
Feb-91	14.00%	9.47%	4.53%	Feb-97	12.00%	7.64%	4.36%
Mar-91	14.00%	9.55%	4.45%	Mar-97	12.00%	7.87%	4.13%
Apr-91	12.00%	9.46%	2.54%	Apr-97	12.00%	8.03%	3.97%
May-91	12.00%	9.44%	2.56%	May-97	12.00%	7.89%	4.11%
Jun-91	12.00%	9.58%	2.41%	Jun-97	12.00%	7.72%	4.28%
Jul-91	12.00%	9.55%	2.45%	Jul-97	12.50%	7.48%	5.02%
Aug-91	12.00%	9.29%	2.71%	Aug-97	12.50%	7.51%	4.99%
Sep-91	12.00%	9.15%	2.85%	Sep-97	12.50%	7.58%	4.92%
Oct-91	11.50%	9.12%	2.38%	Oct-97	14.00%	7.35%	6.65%
Nov-91	11.50%	9.05%	2.45%	Nov-97	14.00%	7.25%	6.75%
Dec-91	11.50%	8.88%	2.62%	Dec-97	14.00%	7.16%	6.84%
Jan-92	12.00%	8.84%	3.16%	Jan-98	12.50%	7.04%	5.46%
Feb-92	12.00%	8.93%	3.07%	Feb-98	12.50%	7.12%	5.38%
Mar-92	12.00%	8.97%	3.03%	Mar-98	12.50%	7.16%	5.34%
Apr-92	11.50%	8.93%	2.57%	Apr-98	11.50%	7.16%	4.34%
May-92	11.50%	8.87%	2.63%	May-98	11.50%	7.16%	4.34%
Jun-92	11.50%	8.78%	2.72%	Jun-98	11.50%	7.03%	4.47%
Jul-92	11.50%	8.57%	2.93%	Jul-98	11.00%	7.03%	3.97%
Aug-92	11.50%	8.44%	3.06%	Aug-98	11.00%	7.00%	4.00%
Sep-92	11.50%	8.40%	3.10%	Sep-98	11.00%	6.93%	4.07%
Oct-92	11.50%	8.54%	2.96%	Oct-98	11.00%	6.96%	4.04%
Nov-92	11.50%	8.63%	2.87%	Nov-98	11.00%	7.03%	3.97%
Dec-92	11.50%	8.43%	3.07%	Dec-98	11.00%	6.91%	4.09%
Jan-93	12.50%	8.27%	4.23%	Jan-99	12.00%	6.97%	5.03%
Feb-93	12.50%	8.04%	4.46%	Feb-99	12.00%	7.09%	4.91%
Mar-93	12.50%	7.90%	4.60%	Mar-99	12.00%	7.26%	4.74%
Apr-93	12.50%	7.81%	4.69%	Apr-99	10.50%	7.22%	3.28%
May-93	12.50%	7.86%	4.64%	May-99	10.50%	7.47%	3.03%
Jun-93	12.50%	7.75%	4.75%	Jun-99	10.50%	7.74%	2.76%
Jul-93	12.50%	7.54%	4.96%	Jul-99	10.50%	7.71%	2.79%
Aug-93	12.50%	7.25%	5.25%	Aug-99	10.50%	7.91%	2.59%
Sep-93	12.50%	7.04%	5.46%	Sep-99	10.50%	7.93%	2.57%
Oct-93	11.50%	7.03%	4.47%	Oct-99	10.50%	8.06%	2.44%
Nov-93	11.50%	7.30%	4.20%	Nov-99	10.50%	7.94%	2.56%
Dec-93	11.50%	7.34%	4.16%	Dec-99	10.50%	8.14%	2.36%
Jan-94	12.00%	7.33%	4.67%	Jan-00	12.00%	8.35%	3.65%
Feb-94	12.00%	7.47%	4.53%	Feb-00	12.00%	8.25%	3.75%
Mar-94	12.00%	7.85%	4.15%	Mar-00	12.00%	8.28%	3.72%
Apr-94	12.50%	8.22%	4.28%	Apr-00	11.50%	8.29%	3.21%
May-94	12.50%	8.33%	4.17%	May-00	11.50%	8.70%	2.80%
Jun-94	12.50%	8.31%	4.19%	Jun-00	11.50%	8.36%	3.14%
Jul-94	11.50%	8.47%	3.03%	Jul-00	12.00%	8.25%	3.75%
Aug-94	11.50%	8.41%	3.09%	Aug-00	12.00%	8.13%	3.87%
Sep-94	11.50%	8.64%	2.86%	Sep-00	12.00%	8.23%	3.77%
Oct-94	11.50%	8.86%	2.64%	Oct-00	12.00%	8.14%	3.86%
Nov-94	11.50%	8.98%	2.52%	Nov-00	12.00%	8.11%	3.89%
Dec-94	11.50%	8.76%	2.74%	Dec-00	12.00%	7.84%	4.18%
Jan-95	11.00%	8.73%	2.27%	Jan-01	12.50%	7.80%	4.70%
Feb-95	11.00%	8.52%	2.48%	Feb-01	12.50%	7.74%	4.76%
Mar-95	11.00%	8.37%	2.63%	Mar-01	12.50%	7.68%	4.82%
Apr-95	10.00%	8.27%	1.73%	Apr-01	13.50%	7.94%	5.56%
May-95	10.00%	7.91%	2.09%	May-01	13.50%	7.99%	5.51%
Jun-95	10.00%	7.60%	2.40%	Jun-01	13.50%	7.85%	5.65%
Jul-95	9.50%	7.70%	1.80%	Jul-01	13.50%	7.78%	5.72%
Aug-95	9.50%	7.83%	1.67%	Aug-01	13.50%	7.59%	5.91%
Sep-95	9.50%	7.62%	1.88%	Sep-01	13.50%	7.75%	5.75%
Oct-95	9.50%	7.46%	2.04%	Oct-01	13.50%	7.63%	5.87%
Nov-95	9.50%	7.43%	2.07%	Nov-01	13.50%	7.57%	5.93%
Dec-95	9.50%	7.23%	2.27%	Dec-01	13.50%	7.83%	5.67%
Jan-96	12.00%	7.22%	4.78%	Jan-02	12.50%	7.66%	4.84%
Feb-96	12.00%	7.37%	4.63%	Feb-02	12.50%	7.54%	4.96%
Mar-96	12.00%	7.73%	4.27%	Mar-02	12.50%	7.76%	4.74%
Apr-96	12.00%	7.89%	4.11%	Apr-02	12.50%	7.57%	4.93%
May-96	12.00%	7.98%	4.02%	May-02	12.50%	7.52%	4.98%
Jun-96	12.00%	8.06%	3.94%				
Jul-96	13.50%	8.02%	5.48%				
Aug-96	13.50%	7.84%	5.66%				
Sep-96	13.50%	8.01%	5.49%				
Oct-96	15.00%	7.77%	7.23%				
Nov-96	15.00%	7.49%	7.51%				
Dec-96	15.00%	7.59%	7.41%				
				Risk Premium 1991- May 2002			
				3.99%			
				Source: Mergent Bond Record and McKiddy Schedule 27.			

Piedmont Risk Premium Analysis Using "Aa" Rated Moody's Utility Bonds

Date	Expected ROE	Moody's AA Utility Bond	Risk Premium	Date	Expected ROE	Moody's AA Utility Bond	Risk Premium
Jan-91	13.50%	9.71%	3.79%	Jan-97	12.00%	7.77%	4.23%
Feb-91	13.50%	9.47%	4.03%	Feb-97	12.00%	7.64%	4.36%
Mar-91	13.50%	9.55%	3.95%	Mar-97	12.00%	7.87%	4.13%
Apr-91	10.00%	9.46%	0.54%	Apr-97	12.50%	8.03%	4.47%
May-91	10.00%	9.44%	0.56%	May-97	12.50%	7.89%	4.61%
Jun-91	10.00%	9.59%	0.41%	Jun-97	12.50%	7.72%	4.78%
Jul-91	9.50%	9.55%	-0.05%	Jul-97	12.50%	7.48%	5.02%
Aug-91	9.50%	9.29%	0.21%	Aug-97	12.50%	7.51%	4.99%
Sep-91	9.50%	9.15%	0.35%	Sep-97	12.50%	7.58%	4.92%
Oct-91	8.50%	9.12%	-0.62%	Oct-97	13.00%	7.35%	5.65%
Nov-91	8.50%	9.05%	-0.55%	Nov-97	13.00%	7.25%	5.75%
Dec-91	8.50%	8.88%	-0.38%	Dec-97	13.00%	7.16%	5.84%
Jan-92	11.50%	8.84%	2.66%	Jan-98	13.00%	7.04%	5.96%
Feb-92	11.50%	8.93%	2.57%	Feb-98	13.00%	7.12%	5.88%
Mar-92	11.50%	8.97%	2.53%	Mar-98	13.00%	7.16%	5.84%
Apr-92	13.00%	8.93%	4.07%	Apr-98	13.00%	7.16%	5.84%
May-92	13.00%	8.87%	4.13%	May-98	13.00%	7.16%	5.84%
Jun-92	13.00%	8.78%	4.22%	Jun-98	13.00%	7.03%	5.97%
Jul-92	13.00%	8.57%	4.43%	Jul-98	13.50%	7.03%	6.47%
Aug-92	13.00%	8.44%	4.56%	Aug-98	13.50%	7.00%	6.50%
Sep-92	13.00%	8.40%	4.60%	Sep-98	13.50%	6.93%	6.57%
Oct-92	13.00%	8.54%	4.46%	Oct-98	13.50%	6.96%	6.54%
Nov-92	13.00%	8.63%	4.37%	Nov-98	13.50%	7.03%	6.47%
Dec-92	13.00%	8.43%	4.57%	Dec-98	13.50%	6.91%	6.59%
Jan-93	13.50%	8.27%	5.23%	Jan-99	13.50%	6.97%	6.53%
Feb-93	13.50%	8.04%	5.46%	Feb-99	13.50%	7.09%	6.41%
Mar-93	13.50%	7.90%	5.60%	Mar-99	13.50%	7.26%	6.24%
Apr-93	13.50%	7.81%	5.69%	Apr-99	13.00%	7.22%	5.78%
May-93	13.50%	7.86%	5.64%	May-99	13.00%	7.47%	5.53%
Jun-93	13.35%	7.75%	5.60%	Jun-99	13.00%	7.74%	5.26%
Jul-93	14.00%	7.54%	6.46%	Jul-99	12.50%	7.71%	4.79%
Aug-93	14.00%	7.25%	6.75%	Aug-99	12.50%	7.91%	4.59%
Sep-93	14.00%	7.04%	6.96%	Sep-99	12.50%	7.93%	4.57%
Oct-93	13.00%	7.03%	5.97%	Oct-99	12.00%	8.06%	3.94%
Nov-93	13.00%	7.30%	5.70%	Nov-99	12.00%	7.94%	4.06%
Dec-93	13.00%	7.34%	5.66%	Dec-99	12.00%	8.14%	3.86%
Jan-94	10.00%	7.33%	2.67%	Jan-00	13.00%	8.35%	4.65%
Feb-94	10.00%	7.47%	2.53%	Feb-00	13.00%	8.25%	4.75%
Mar-94	10.00%	7.85%	2.15%	Mar-00	13.00%	8.28%	4.72%
Apr-94	10.00%	8.22%	1.78%	Apr-00	12.50%	8.29%	4.21%
May-94	10.00%	8.33%	1.67%	May-00	12.50%	8.70%	3.80%
Jun-94	10.00%	8.31%	1.69%	Jun-00	12.50%	8.36%	4.14%
Jul-94	11.00%	8.47%	2.53%	Jul-00	12.50%	8.25%	4.25%
Aug-94	11.00%	8.41%	2.59%	Aug-00	12.50%	8.13%	4.37%
Sep-94	11.00%	8.64%	2.36%	Sep-00	12.50%	8.23%	4.27%
Oct-94	11.50%	8.86%	2.64%	Oct-00	12.50%	8.14%	4.36%
Nov-94	11.50%	8.98%	2.52%	Nov-00	12.50%	8.11%	4.39%
Dec-94	11.50%	8.76%	2.74%	Dec-00	12.50%	7.84%	4.66%
Jan-95	11.50%	8.73%	2.77%	Jan-01	12.50%	7.80%	4.70%
Feb-95	11.50%	8.52%	2.98%	Feb-01	12.50%	7.74%	4.76%
Mar-95	11.50%	8.37%	3.13%	Mar-01	12.50%	7.68%	4.82%
Apr-95	12.00%	8.27%	3.73%	Apr-01	12.50%	7.94%	4.56%
May-95	12.00%	7.91%	4.09%	May-01	12.50%	7.99%	4.51%
Jun-95	12.00%	7.60%	4.40%	Jun-01	12.50%	7.85%	4.65%
Jul-95	11.50%	7.70%	3.80%	Jul-01	12.00%	7.78%	4.22%
Aug-95	11.50%	7.83%	3.67%	Aug-01	12.00%	7.59%	4.41%
Sep-95	11.50%	7.62%	3.88%	Sep-01	12.00%	7.75%	4.25%
Oct-95	11.50%	7.46%	4.04%	Oct-01	10.50%	7.63%	2.87%
Nov-95	11.50%	7.43%	4.07%	Nov-01	10.50%	7.57%	2.93%
Dec-95	11.50%	7.23%	4.27%	Dec-01	10.50%	7.83%	2.67%
Jan-96	12.00%	7.22%	4.78%	Jan-02	11.00%	7.66%	3.34%
Feb-96	12.00%	7.37%	4.63%	Feb-02	11.00%	7.54%	3.46%
Mar-96	12.00%	7.73%	4.27%	Mar-02	11.00%	7.76%	3.24%
Apr-96	12.00%	7.89%	4.11%	Apr-02	11.00%	7.57%	3.43%
May-96	12.00%	7.98%	4.02%	May-02	11.00%	7.52%	3.48%
Jun-96	12.00%	8.06%	3.94%				
Jul-96	12.50%	8.02%	4.48%				
Aug-96	12.50%	7.84%	4.66%				
Sep-96	12.50%	8.01%	4.49%				
Oct-96	12.50%	7.77%	4.73%				
Nov-96	12.50%	7.49%	5.01%				
Dec-96	12.50%	7.59%	4.91%				

Risk Premium 1991- May 2002 4.16%
Source: Mergent Bond Record and McKiddy Schedule 27.

South Jersey Industries Risk Premium Analysis Using "Aa" Rated Moody's Utility Bonds

Date	Expected ROE	Moody's AA Utility Bond	Risk Premium	Date	Expected ROE	Moody's AA Utility Bond	Risk Premium
Jan-91	12.00%	9.96%	2.04%	Jan-97	12.00%	8.18%	3.82%
Feb-91	12.00%	9.68%	2.32%	Feb-97	12.00%	8.02%	3.98%
Mar-91	12.00%	9.74%	2.26%	Mar-97	12.00%	8.26%	3.74%
Apr-91	12.00%	9.64%	2.36%	Apr-97	10.50%	8.42%	2.08%
May-91	12.00%	9.64%	2.36%	May-97	10.50%	8.28%	2.22%
Jun-91	12.00%	9.79%	2.21%	Jun-97	10.50%	8.12%	2.38%
Jul-91	12.00%	9.69%	2.31%	Jul-97	10.50%	7.87%	2.63%
Aug-91	10.50%	9.47%	1.03%	Aug-97	10.50%	7.93%	2.57%
Sep-91	10.50%	9.35%	1.15%	Sep-97	10.50%	7.84%	2.66%
Oct-91	10.50%	9.32%	1.18%	Oct-97	10.50%	7.67%	2.83%
Nov-91	9.50%	9.28%	0.22%	Nov-97	10.50%	7.49%	3.01%
Dec-91	9.50%	9.07%	0.43%	Dec-97	10.50%	7.41%	3.09%
Jan-92	12.50%	8.98%	3.52%	Jan-98	11.50%	7.28%	4.22%
Feb-92	10.50%	9.09%	1.41%	Feb-98	11.50%	7.36%	4.14%
Mar-92	10.50%	9.16%	1.34%	Mar-98	11.50%	7.37%	4.13%
Apr-92	10.50%	9.11%	1.39%	Apr-98	11.00%	7.37%	3.63%
May-92	10.50%	9.01%	1.49%	May-98	11.00%	7.34%	3.66%
Jun-92	10.50%	8.90%	1.60%	Jun-98	11.00%	7.21%	3.79%
Jul-92	10.50%	8.69%	1.81%	Jul-98	9.50%	7.24%	2.26%
Aug-92	12.00%	8.58%	3.42%	Aug-98	9.50%	7.20%	2.30%
Sep-92	12.00%	8.54%	3.46%	Sep-98	9.50%	7.13%	2.37%
Oct-92	12.00%	8.76%	3.24%	Oct-98	9.00%	7.13%	1.87%
Nov-92	12.00%	8.86%	3.14%	Nov-98	9.00%	7.31%	1.69%
Dec-92	12.00%	8.69%	3.31%	Dec-98	9.00%	7.24%	1.76%
Jan-93	11.50%	8.57%	2.93%	Jan-99	10.50%	7.30%	3.20%
Feb-93	11.50%	8.31%	3.19%	Feb-99	10.50%	7.41%	3.09%
Mar-93	11.50%	8.10%	3.40%	Mar-99	10.50%	7.55%	2.95%
Apr-93	11.50%	8.11%	3.39%	Apr-99	11.00%	7.51%	3.49%
May-93	11.50%	8.18%	3.32%	May-99	11.00%	7.74%	3.26%
Jun-93	11.50%	8.05%	3.45%	Jun-99	11.00%	8.03%	2.97%
Jul-93	11.50%	7.93%	3.57%	Jul-99	12.00%	7.97%	4.03%
Aug-93	11.50%	7.59%	3.91%	Aug-99	12.00%	8.16%	3.84%
Sep-93	11.50%	7.35%	4.15%	Sep-99	12.00%	8.19%	3.81%
Oct-93	10.50%	7.27%	3.23%	Oct-99	12.00%	8.32%	3.68%
Nov-93	10.50%	7.69%	2.81%	Nov-99	12.00%	8.12%	3.88%
Dec-93	10.50%	7.73%	2.77%	Dec-99	12.00%	8.28%	3.72%
Jan-94	10.50%	7.66%	2.84%	Jan-00	11.50%	8.40%	3.10%
Feb-94	10.50%	7.76%	2.74%	Feb-00	11.50%	8.33%	3.17%
Mar-94	10.50%	8.11%	2.39%	Mar-00	11.50%	8.40%	3.10%
Apr-94	10.50%	8.47%	2.03%	Apr-00	11.50%	8.40%	3.10%
May-94	10.50%	8.61%	1.89%	May-00	11.50%	8.86%	2.64%
Jun-94	10.50%	8.64%	1.86%	Jun-00	11.50%	8.47%	3.03%
Jul-94	9.50%	8.80%	0.70%	Jul-00	11.50%	8.33%	3.17%
Aug-94	9.50%	8.74%	0.76%	Aug-00	11.50%	8.25%	3.25%
Sep-94	9.50%	8.98%	0.52%	Sep-00	11.50%	8.32%	3.18%
Oct-94	9.50%	9.24%	0.26%	Oct-00	11.50%	8.29%	3.21%
Nov-94	9.50%	9.35%	0.15%	Nov-00	11.50%	8.25%	3.25%
Dec-94	9.50%	9.16%	0.34%	Dec-00	11.50%	8.01%	3.49%
Jan-95	12.00%	9.15%	2.85%	Jan-01	12.00%	7.99%	4.01%
Feb-95	12.00%	8.93%	3.07%	Feb-01	12.00%	7.94%	4.06%
Mar-95	12.00%	8.78%	3.22%	Mar-01	12.00%	7.85%	4.15%
Apr-95	12.00%	8.67%	3.33%	Apr-01	12.00%	8.06%	3.94%
May-95	12.00%	8.30%	3.70%	May-01	12.00%	8.11%	3.89%
Jun-95	12.00%	8.01%	3.99%	Jun-01	12.00%	8.02%	3.98%
Jul-95	12.00%	8.11%	3.89%	Jul-01	12.00%	8.05%	3.95%
Aug-95	12.00%	8.24%	3.76%	Aug-01	12.00%	7.95%	4.05%
Sep-95	12.00%	7.98%	4.02%	Sep-01	12.00%	8.12%	3.88%
Oct-95	13.00%	7.82%	5.18%	Oct-01	12.00%	8.02%	3.98%
Nov-95	13.00%	7.81%	5.19%	Nov-01	12.00%	7.96%	4.04%
Dec-95	13.00%	7.63%	5.37%	Dec-01	12.00%	8.27%	3.73%
Jan-96	10.50%	7.64%	2.86%	Jan-02	12.00%	8.13%	3.87%
Feb-96	10.50%	7.78%	2.72%	Feb-02	12.00%	8.18%	3.82%
Mar-96	10.50%	8.15%	2.35%	Mar-02	12.00%	8.32%	3.68%
Apr-96	10.50%	8.32%	2.18%	Apr-02	12.50%	8.26%	4.24%
May-96	10.50%	8.45%	2.05%	May-02	12.50%	8.33%	4.17%
Jun-96	10.50%	8.51%	1.99%				
Jul-96	10.50%	8.44%	2.06%				
Aug-96	10.50%	8.25%	2.25%				
Sep-96	10.50%	8.41%	2.09%				
Oct-96	11.00%	8.15%	2.85%				
Nov-96	11.00%	7.87%	3.13%				
Dec-96	11.00%	7.98%	3.02%				

Risk Premium 1991- May 2002 2.92%
Source: Mergent Bond Record and McKiddy Schedule 27.

WGL Risk Premium Analysis Using "Aa" Rated Moody's Utility Bonds

Date	Expected ROE	Moody's AA Utility Bond	Risk Premium	Date	Expected ROE	Moody's AA Utility Bond	Risk Premium
Jan-91	13.00%	9.39%	3.61%	Jan-97	14.50%	7.68%	6.82%
Feb-91	13.00%	9.16%	3.84%	Feb-97	14.50%	7.60%	6.90%
Mar-91	13.00%	9.23%	3.77%	Mar-97	14.50%	7.84%	6.66%
Apr-91	11.50%	9.14%	2.36%	Apr-97	12.50%	8.00%	4.50%
May-91	11.50%	9.16%	2.34%	May-97	12.50%	7.85%	4.65%
Jun-91	11.50%	9.28%	2.22%	Jun-97	12.50%	7.68%	4.82%
Jul-91	11.50%	9.26%	2.24%	Jul-97	13.00%	7.43%	5.57%
Aug-91	11.50%	9.06%	2.44%	Aug-97	13.00%	7.46%	5.54%
Sep-91	11.50%	8.94%	2.56%	Sep-97	13.00%	7.54%	5.46%
Oct-91	11.00%	8.92%	2.08%	Oct-97	13.50%	7.28%	6.22%
Nov-91	11.00%	8.87%	2.13%	Nov-97	13.50%	7.15%	6.35%
Dec-91	11.00%	8.71%	2.29%	Dec-97	13.50%	7.07%	6.43%
Jan-92	12.50%	8.63%	3.87%	Jan-98	13.50%	6.94%	6.56%
Feb-92	12.50%	8.76%	3.74%	Feb-98	13.50%	6.99%	6.51%
Mar-92	12.50%	8.82%	3.68%	Mar-98	13.50%	7.03%	6.47%
Apr-92	12.00%	8.76%	3.24%	Apr-98	12.00%	7.02%	4.98%
May-92	12.00%	8.69%	3.31%	May-98	12.00%	7.02%	4.98%
Jun-92	12.00%	8.63%	3.37%	Jun-98	12.00%	6.91%	5.09%
Jul-92	12.00%	8.45%	3.55%	Jul-98	12.00%	6.91%	5.09%
Aug-92	12.00%	8.30%	3.70%	Aug-98	12.00%	6.87%	5.13%
Sep-92	12.00%	8.28%	3.72%	Sep-98	12.00%	6.78%	5.22%
Oct-92	12.00%	8.42%	3.58%	Oct-98	11.50%	6.80%	4.70%
Nov-92	12.00%	8.51%	3.49%	Nov-98	11.50%	6.89%	4.61%
Dec-92	12.00%	8.32%	3.68%	Dec-98	11.50%	6.78%	4.72%
Jan-93	12.00%	8.14%	3.86%	Jan-99	10.50%	6.82%	3.68%
Feb-93	12.00%	7.92%	4.08%	Feb-99	10.50%	6.94%	3.56%
Mar-93	12.00%	7.76%	4.24%	Mar-99	10.50%	7.11%	3.39%
Apr-93	12.50%	7.64%	4.86%	Apr-99	9.00%	7.11%	1.89%
May-93	12.50%	7.64%	4.86%	May-99	9.00%	7.38%	1.62%
Jun-93	12.50%	7.54%	4.96%	Jun-99	9.00%	7.67%	1.33%
Jul-93	13.00%	7.38%	5.62%	Jul-99	9.50%	7.62%	1.88%
Aug-93	13.00%	7.07%	5.93%	Aug-99	9.50%	7.82%	1.68%
Sep-93	13.00%	6.89%	6.11%	Sep-99	9.50%	7.82%	1.68%
Oct-93	12.50%	6.89%	5.61%	Oct-99	10.00%	7.96%	2.04%
Nov-93	12.50%	7.17%	5.33%	Nov-99	10.00%	7.82%	2.18%
Dec-93	12.50%	7.18%	5.32%	Dec-99	10.00%	8.00%	2.00%
Jan-94	11.50%	7.18%	4.32%	Jan-00	12.00%	8.17%	3.83%
Feb-94	11.50%	7.34%	4.16%	Feb-00	12.00%	7.99%	4.01%
Mar-94	11.50%	7.74%	3.76%	Mar-00	12.00%	7.99%	4.01%
Apr-94	12.00%	8.12%	3.88%	Apr-00	12.00%	8.00%	4.00%
May-94	12.00%	8.24%	3.76%	May-00	12.00%	8.44%	3.56%
Jun-94	12.00%	8.21%	3.79%	Jun-00	12.00%	8.10%	3.90%
Jul-94	12.50%	8.38%	4.12%	Jul-00	12.00%	8.10%	3.90%
Aug-94	12.50%	8.32%	4.18%	Aug-00	12.00%	7.95%	4.05%
Sep-94	12.50%	8.56%	3.94%	Sep-00	12.00%	8.11%	3.89%
Oct-94	12.00%	8.78%	3.22%	Oct-00	12.00%	8.08%	3.92%
Nov-94	12.00%	8.90%	3.10%	Nov-00	12.00%	8.03%	3.97%
Dec-94	12.00%	8.69%	3.31%	Dec-00	12.00%	7.79%	4.21%
Jan-95	11.00%	8.66%	2.34%	Jan-01	12.50%	7.73%	4.77%
Feb-95	11.00%	8.45%	2.55%	Feb-01	12.50%	7.62%	4.88%
Mar-95	11.00%	8.29%	2.71%	Mar-01	12.50%	7.51%	4.99%
Apr-95	11.00%	8.17%	2.83%	Apr-01	13.50%	7.72%	5.78%
May-95	11.00%	7.80%	3.20%	May-01	13.50%	7.79%	5.71%
Jun-95	11.00%	7.49%	3.51%	Jun-01	13.50%	7.62%	5.88%
Jul-95	11.50%	7.60%	3.90%	Jul-01	12.50%	7.55%	4.95%
Aug-95	11.50%	7.71%	3.79%	Aug-01	12.50%	7.39%	5.11%
Sep-95	11.50%	7.48%	4.02%	Sep-01	12.50%	7.55%	4.95%
Oct-95	11.50%	7.30%	4.20%	Oct-01	11.00%	7.47%	3.53%
Nov-95	11.50%	7.22%	4.28%	Nov-01	11.00%	7.45%	3.55%
Dec-95	11.50%	7.03%	4.47%	Dec-01	11.00%	7.53%	3.47%
Jan-96	12.00%	7.02%	4.98%	Jan-02	10.50%	7.28%	3.22%
Feb-96	12.00%	7.20%	4.80%	Feb-02	10.50%	7.14%	3.36%
Mar-96	12.00%	7.55%	4.45%	Mar-02	10.50%	7.42%	3.08%
Apr-96	13.00%	7.70%	5.30%	Apr-02	8.50%	7.38%	1.12%
May-96	13.00%	7.79%	5.21%	May-02	8.50%	7.43%	1.07%
Jun-96	13.00%	7.87%	5.13%				
Jul-96	14.00%	7.83%	6.17%				
Aug-96	14.00%	7.66%	6.34%				
Sep-96	14.00%	7.84%	6.16%				
Oct-96	14.50%	7.60%	6.90%				
Nov-96	14.50%	7.32%	7.18%				
Dec-96	14.50%	7.44%	7.06%				

Risk Premium 1991- May 2002 4.16%
Source: Mergent Bond Record and McKiddy Schedule 27.

**Ms. McKiddy's Equity Risk Premium Test
Using Long-Term ROE Forecasts**

<u>Company</u>	Risk Premium vs. <u>Treasury Yield</u>	<u>Treasury Yield</u>	Cost of Common <u>Equity</u>	Risk Premium vs. Utility <u>Bond Yield</u>	Moody's Utility <u>Bond Yield</u>	Cost of Common <u>Equity</u>
Laclede	6.2%	5.64%	11.8%	5.0%	7.38%	12.40%
<u>Comparables</u>						
AGL Resources, Inc.	6.5%	5.64%	12.1%	4.8%	8.34%	13.1%
New Jersey Resources	7.7%	5.64%	13.3%	6.3%	7.48%	13.8%
Northwest Natural Gas Company	5.3%	5.64%	10.9%	3.9%	7.48%	11.4%
Peoples Energy Corporation	6.6%	5.64%	12.2%	5.2%	7.48%	12.7%
Piedmont Natural Gas Company, Inc.	6.8%	5.64%	12.4%	5.4%	7.48%	12.8%
South Jersey Industries	5.7%	5.64%	11.3%	4.0%	8.34%	12.3%
WGL Holdings, Inc.	6.0%	5.64%	11.6%	4.7%	7.38%	12.1%
Average (Excluding Laclede)	6.3%	5.64%	12.0%	4.9%	7.71%	12.6%

1/ Moody's Credit Perspectives, June 3, 2002

Sources: Moody's Credit Perspectives; Mergent Bond Record; McKiddy Testimony; Value Line.

30 Year Treasury Bonds

Date	Expected ROE	30 Year Treasury Bond	Risk Premium	Date	Expected ROE	30 Year Treasury Bond	Risk Premium
Jan-91	13.00%	8.27%	4.73%	Jan-97	12.50%	6.83%	5.67%
Feb-91	13.00%	8.03%	4.97%	Feb-97	12.50%	6.69%	5.81%
Mar-91	13.00%	8.29%	4.71%	Mar-97	12.50%	6.93%	5.57%
Apr-91	13.50%	8.21%	5.29%	Apr-97	12.50%	7.09%	5.41%
May-91	13.50%	8.27%	5.23%	May-97	12.50%	6.94%	5.56%
Jun-91	13.50%	8.47%	5.03%	Jun-97	12.50%	6.77%	5.73%
Jul-91	13.50%	8.45%	5.05%	Jul-97	12.50%	6.51%	5.99%
Aug-91	13.50%	8.14%	5.36%	Aug-97	12.50%	6.58%	5.92%
Sep-91	13.50%	7.95%	5.55%	Sep-97	12.50%	6.50%	6.00%
Oct-91	14.00%	7.93%	6.07%	Oct-97	12.50%	6.33%	6.17%
Nov-91	14.00%	7.92%	6.08%	Nov-97	12.50%	6.11%	6.39%
Dec-91	14.00%	7.70%	6.30%	Dec-97	12.50%	5.99%	6.51%
Jan-92	14.00%	7.58%	6.42%	Jan-98	12.00%	5.81%	6.19%
Feb-92	14.00%	7.85%	6.15%	Feb-98	12.00%	5.89%	6.11%
Mar-92	14.00%	7.97%	6.03%	Mar-98	12.00%	5.95%	6.05%
Apr-92	14.00%	7.96%	6.04%	Apr-98	13.00%	5.92%	7.08%
May-92	14.00%	7.89%	6.11%	May-98	13.00%	5.93%	7.07%
Jun-92	14.00%	7.84%	6.16%	Jun-98	13.00%	5.70%	7.30%
Jul-92	14.00%	7.60%	6.40%	Jul-98	13.00%	5.68%	7.32%
Aug-92	14.00%	7.39%	6.61%	Aug-98	13.00%	5.54%	7.46%
Sep-92	14.00%	7.34%	6.66%	Sep-98	13.00%	5.20%	7.80%
Oct-92	14.00%	7.53%	6.47%	Oct-98	13.00%	5.01%	7.99%
Nov-92	14.00%	7.61%	6.39%	Nov-98	13.00%	5.25%	7.75%
Dec-92	14.00%	7.44%	6.56%	Dec-98	13.00%	5.06%	7.94%
Jan-93	14.00%	7.34%	6.66%	Jan-99	13.00%	5.16%	7.84%
Feb-93	14.00%	7.09%	6.91%	Feb-99	13.00%	5.37%	7.63%
Mar-93	14.00%	6.82%	7.18%	Mar-99	13.00%	5.58%	7.42%
Apr-93	14.00%	6.85%	7.15%	Apr-99	13.50%	5.55%	7.95%
May-93	14.00%	6.92%	7.08%	May-99	13.50%	5.81%	7.69%
Jun-93	14.00%	6.81%	7.19%	Jun-99	13.50%	6.04%	7.46%
Jul-93	13.00%	6.63%	6.37%	Jul-99	13.00%	5.98%	7.02%
Aug-93	13.00%	6.32%	6.68%	Aug-99	13.00%	6.07%	6.93%
Sep-93	13.00%	6.00%	7.00%	Sep-99	13.00%	6.07%	6.93%
Oct-93	12.50%	5.94%	6.56%	Oct-99	13.50%	6.26%	7.24%
Nov-93	12.50%	6.21%	6.29%	Nov-99	13.50%	6.15%	7.35%
Dec-93	12.50%	6.25%	6.25%	Dec-99	13.50%	6.35%	7.15%
Jan-94	12.50%	6.29%	6.21%	Jan-00	13.50%	6.63%	6.87%
Feb-94	12.50%	6.49%	6.01%	Feb-00	13.50%	6.23%	7.27%
Mar-94	12.50%	6.91%	5.59%	Mar-00	13.50%	6.05%	7.45%
Apr-94	12.00%	7.27%	4.73%	Apr-00	14.50%	5.85%	8.65%
May-94	12.00%	7.41%	4.59%	May-00	14.50%	6.15%	8.35%
Jun-94	12.00%	7.40%	4.60%	Jun-00	14.50%	5.93%	8.57%
Jul-94	12.00%	7.58%	4.42%	Jul-00	14.00%	5.85%	8.15%
Aug-94	12.00%	7.49%	4.51%	Aug-00	14.00%	5.72%	8.28%
Sep-94	12.00%	7.71%	4.29%	Sep-00	14.00%	5.83%	8.17%
Oct-94	12.00%	7.94%	4.06%	Oct-00	13.00%	5.80%	7.20%
Nov-94	12.00%	8.08%	3.92%	Nov-00	13.00%	5.78%	7.22%
Dec-94	12.00%	7.87%	4.13%	Dec-00	13.00%	5.49%	7.51%
Jan-95	12.50%	7.85%	4.65%	Jan-01	11.50%	5.54%	5.96%
Feb-95	12.50%	7.61%	4.89%	Feb-01	11.50%	5.45%	6.05%
Mar-95	12.50%	7.45%	5.05%	Mar-01	11.50%	5.34%	6.16%
Apr-95	12.50%	7.36%	5.14%	Apr-01	11.50%	5.65%	5.85%
May-95	12.50%	6.95%	5.55%	May-01	11.50%	5.78%	5.72%
Jun-95	12.50%	6.57%	5.93%	Jun-01	11.50%	5.67%	5.83%
Jul-95	11.00%	6.72%	4.28%	Jul-01	11.50%	5.61%	5.89%
Aug-95	11.00%	6.86%	4.14%	Aug-01	11.50%	5.48%	6.02%
Sep-95	11.00%	6.55%	4.45%	Sep-01	11.50%	5.49%	6.01%
Oct-95	11.50%	6.37%	5.13%	Oct-01	11.50%	5.32%	6.18%
Nov-95	11.50%	6.26%	5.24%	Nov-01	11.50%	5.12%	6.38%
Dec-95	11.50%	6.06%	5.44%	Dec-01	11.50%	5.48%	6.02%
Jan-96	11.50%	6.05%	5.45%	Jan-02	13.00%	5.45%	7.55%
Feb-96	11.50%	6.24%	5.26%	Feb-02	13.00%	5.40%	7.60%
Mar-96	11.50%	6.60%	4.90%	Mar-02	13.00%	5.71%	7.29%
Apr-96	13.50%	6.79%	6.71%	Apr-02	12.00%	5.67%	6.33%
May-96	13.50%	6.93%	6.57%	May-02	12.00%	5.64%	6.36%
Jun-96	13.50%	7.06%	6.44%				
Jul-96	12.50%	7.03%	5.47%				
Aug-96	12.50%	6.84%	5.66%				
Sep-96	12.50%	7.03%	5.47%				
Oct-96	12.50%	6.81%	5.69%				
Nov-96	12.50%	6.48%	6.02%				
Dec-96	12.50%	6.55%	5.95%				

Risk Premium 1991 - May 2002

6.24%

Source: Federal Reserve, Value Line

**Laclede Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
"Aa" Rated Moody's Utility Bonds**

Date	Expected ROE	Moody's AA Utility Bond	Risk Premium	Date	Expected ROE	Moody's AA Utility Bond	Risk Premium
Jan-91	13.00%	9.39%	3.61%	Jan-97	12.50%	7.68%	4.82%
Feb-91	13.00%	9.16%	3.84%	Feb-97	12.50%	7.60%	4.90%
Mar-91	13.00%	9.23%	3.77%	Mar-97	12.50%	7.84%	4.66%
Apr-91	13.50%	9.14%	4.36%	Apr-97	12.50%	8.00%	4.50%
May-91	13.50%	9.16%	4.34%	May-97	12.50%	7.85%	4.65%
Jun-91	13.50%	9.28%	4.22%	Jun-97	12.50%	7.68%	4.82%
Jul-91	13.50%	9.26%	4.24%	Jul-97	12.50%	7.43%	5.07%
Aug-91	13.50%	9.06%	4.44%	Aug-97	12.50%	7.46%	5.04%
Sep-91	13.50%	8.94%	4.56%	Sep-97	12.50%	7.54%	4.96%
Oct-91	14.00%	8.92%	5.08%	Oct-97	12.50%	7.28%	5.22%
Nov-91	14.00%	8.87%	5.13%	Nov-97	12.50%	7.15%	5.35%
Dec-91	14.00%	8.71%	5.29%	Dec-97	12.50%	7.07%	5.43%
Jan-92	14.00%	8.63%	5.37%	Jan-98	12.00%	6.94%	5.06%
Feb-92	14.00%	8.76%	5.24%	Feb-98	12.00%	6.99%	5.01%
Mar-92	14.00%	8.82%	5.18%	Mar-98	12.00%	7.03%	4.97%
Apr-92	14.00%	8.76%	5.24%	Apr-98	13.00%	7.02%	5.98%
May-92	14.00%	8.69%	5.31%	May-98	13.00%	7.02%	5.98%
Jun-92	14.00%	8.63%	5.37%	Jun-98	13.00%	6.91%	6.09%
Jul-92	14.00%	8.45%	5.55%	Jul-98	13.00%	6.91%	6.09%
Aug-92	14.00%	8.30%	5.70%	Aug-98	13.00%	6.87%	6.13%
Sep-92	14.00%	8.28%	5.72%	Sep-98	13.00%	6.78%	6.22%
Oct-92	14.00%	8.42%	5.58%	Oct-98	13.00%	6.80%	6.20%
Nov-92	14.00%	8.51%	5.49%	Nov-98	13.00%	6.89%	6.11%
Dec-92	14.00%	8.32%	5.68%	Dec-98	13.00%	6.78%	6.22%
Jan-93	14.00%	8.14%	5.86%	Jan-99	13.00%	6.82%	6.18%
Feb-93	14.00%	7.92%	6.08%	Feb-99	13.00%	6.94%	6.06%
Mar-93	14.00%	7.76%	6.24%	Mar-99	13.00%	7.11%	5.89%
Apr-93	14.00%	7.64%	6.36%	Apr-99	13.50%	7.11%	6.39%
May-93	14.00%	7.64%	6.36%	May-99	13.50%	7.38%	6.12%
Jun-93	14.00%	7.54%	6.46%	Jun-99	13.50%	7.67%	5.83%
Jul-93	13.00%	7.38%	5.62%	Jul-99	13.00%	7.62%	5.38%
Aug-93	13.00%	7.07%	5.93%	Aug-99	13.00%	7.82%	5.18%
Sep-93	13.00%	6.89%	6.11%	Sep-99	13.00%	7.82%	5.18%
Oct-93	12.50%	6.89%	5.61%	Oct-99	13.50%	7.96%	5.54%
Nov-93	12.50%	7.17%	5.33%	Nov-99	13.50%	7.82%	5.68%
Dec-93	12.50%	7.18%	5.32%	Dec-99	13.50%	8.00%	5.50%
Jan-94	12.50%	7.18%	5.32%	Jan-00	13.50%	8.17%	5.33%
Feb-94	12.50%	7.34%	5.16%	Feb-00	13.50%	7.99%	5.51%
Mar-94	12.50%	7.74%	4.76%	Mar-00	13.50%	7.99%	5.51%
Apr-94	12.00%	8.12%	3.88%	Apr-00	14.50%	8.00%	6.50%
May-94	12.00%	8.24%	3.76%	May-00	14.50%	8.44%	6.06%
Jun-94	12.00%	8.21%	3.79%	Jun-00	14.50%	8.10%	6.40%
Jul-94	12.00%	8.38%	3.62%	Jul-00	14.00%	8.10%	5.90%
Aug-94	12.00%	8.32%	3.68%	Aug-00	14.00%	7.95%	6.05%
Sep-94	12.00%	8.56%	3.44%	Sep-00	14.00%	8.11%	5.89%
Oct-94	12.00%	8.78%	3.22%	Oct-00	13.00%	8.08%	4.92%
Nov-94	12.00%	8.90%	3.10%	Nov-00	13.00%	8.03%	4.97%
Dec-94	12.00%	8.69%	3.31%	Dec-00	13.00%	7.79%	5.21%
Jan-95	12.50%	8.66%	3.84%	Jan-01	11.50%	7.73%	3.77%
Feb-95	12.50%	8.45%	4.05%	Feb-01	11.50%	7.62%	3.88%
Mar-95	12.50%	8.29%	4.21%	Mar-01	11.50%	7.51%	3.99%
Apr-95	12.50%	8.17%	4.33%	Apr-01	11.50%	7.72%	3.78%
May-95	12.50%	7.80%	4.70%	May-01	11.50%	7.79%	3.71%
Jun-95	12.50%	7.49%	5.01%	Jun-01	11.50%	7.62%	3.88%
Jul-95	11.00%	7.60%	3.40%	Jul-01	11.50%	7.55%	3.95%
Aug-95	11.00%	7.71%	3.29%	Aug-01	11.50%	7.39%	4.11%
Sep-95	11.00%	7.48%	3.52%	Sep-01	11.50%	7.55%	3.95%
Oct-95	11.50%	7.30%	4.20%	Oct-01	11.50%	7.47%	4.03%
Nov-95	11.50%	7.22%	4.28%	Nov-01	11.50%	7.45%	4.05%
Dec-95	11.50%	7.03%	4.47%	Dec-01	11.50%	7.53%	3.97%
Jan-96	11.50%	7.02%	4.48%	Jan-02	13.00%	7.28%	5.72%
Feb-96	11.50%	7.20%	4.30%	Feb-02	13.00%	7.14%	5.86%
Mar-96	11.50%	7.55%	3.95%	Mar-02	13.00%	7.42%	5.58%
Apr-96	13.50%	7.70%	5.80%	Apr-02	12.00%	7.38%	4.62%
May-96	13.50%	7.79%	5.71%	May-02	12.00%	7.43%	4.57%
Jun-96	13.50%	7.87%	5.63%				
Jul-96	12.50%	7.83%	4.67%				
Aug-96	12.50%	7.66%	4.84%				
Sep-96	12.50%	7.84%	4.66%				
Oct-96	12.50%	7.60%	4.90%				
Nov-96	12.50%	7.32%	5.18%				
Dec-96	12.50%	7.44%	5.06%				

AGL Risk Premium Analysis Using Value Line's Long-Term ROE Forecast and 30 Year Treasury Bonds

Date	Expected ROE	Treasury Bond Yield	Risk Premium	Date	Expected ROE	Treasury Bond Yield	Risk Premium
Jan-91	12.50%	8.27%	4.23%	Jan-97	15.50%	6.83%	8.67%
Feb-91	12.50%	8.03%	4.47%	Feb-97	15.50%	6.69%	8.81%
Mar-91	12.50%	8.29%	4.21%	Mar-97	15.50%	6.93%	8.57%
Apr-91	13.50%	8.21%	5.29%	Apr-97	15.50%	7.09%	8.41%
May-91	13.50%	8.27%	5.23%	May-97	15.50%	6.94%	8.56%
Jun-91	13.50%	8.47%	5.03%	Jun-97	15.50%	6.77%	8.73%
Jul-91	12.50%	8.45%	4.05%	Jul-97	15.50%	6.51%	8.99%
Aug-91	12.50%	8.14%	4.36%	Aug-97	15.50%	6.58%	8.92%
Sep-91	12.50%	7.95%	4.55%	Sep-97	15.50%	6.50%	9.00%
Oct-91	12.50%	7.93%	4.57%	Oct-97	15.50%	6.33%	9.17%
Nov-91	12.50%	7.92%	4.58%	Nov-97	15.50%	6.11%	9.39%
Dec-91	12.50%	7.70%	4.80%	Dec-97	15.50%	5.99%	9.51%
Jan-92	13.00%	7.58%	5.42%	Jan-98	13.00%	5.81%	7.19%
Feb-92	13.00%	7.85%	5.15%	Feb-98	13.00%	5.89%	7.11%
Mar-92	13.00%	7.97%	5.03%	Mar-98	13.00%	5.95%	7.05%
Apr-92	13.50%	7.96%	5.54%	Apr-98	12.00%	5.92%	6.08%
May-92	13.50%	7.89%	5.61%	May-98	12.00%	5.93%	6.07%
Jun-92	13.50%	7.84%	5.66%	Jun-98	12.00%	5.70%	6.30%
Jul-92	13.70%	7.60%	6.10%	Jul-98	12.00%	5.68%	6.32%
Aug-92	13.70%	7.39%	6.31%	Aug-98	12.00%	5.54%	6.46%
Sep-92	13.70%	7.34%	6.36%	Sep-98	12.00%	5.20%	6.80%
Oct-92	13.90%	7.53%	6.37%	Oct-98	12.00%	5.01%	6.99%
Nov-92	13.90%	7.61%	6.29%	Nov-98	12.00%	5.25%	6.75%
Dec-92	13.90%	7.44%	6.46%	Dec-98	12.00%	5.06%	6.94%
Jan-93	12.00%	7.34%	4.66%	Jan-99	12.00%	5.16%	6.84%
Feb-93	12.00%	7.09%	4.91%	Feb-99	12.00%	5.37%	6.63%
Mar-93	12.00%	6.82%	5.18%	Mar-99	12.00%	5.58%	6.42%
Apr-93	12.00%	6.85%	5.15%	Apr-99	13.00%	5.55%	7.45%
May-93	12.00%	6.92%	5.08%	May-99	13.00%	5.81%	7.19%
Jun-93	12.00%	6.81%	5.19%	Jun-99	13.00%	6.04%	6.96%
Jul-93	12.00%	6.63%	5.37%	Jul-99	13.00%	5.98%	7.02%
Aug-93	12.00%	6.32%	5.68%	Aug-99	13.00%	6.07%	6.93%
Sep-93	12.00%	6.00%	6.00%	Sep-99	13.00%	6.07%	6.93%
Oct-93	12.50%	5.94%	6.56%	Oct-99	13.00%	6.26%	6.74%
Nov-93	12.50%	6.21%	6.29%	Nov-99	13.00%	6.15%	6.85%
Dec-93	12.50%	6.25%	6.25%	Dec-99	13.00%	6.35%	6.65%
Jan-94	12.00%	6.29%	5.71%	Jan-00	12.50%	6.63%	5.87%
Feb-94	12.00%	6.49%	5.51%	Feb-00	12.50%	6.23%	6.27%
Mar-94	12.00%	6.91%	5.09%	Mar-00	12.50%	6.05%	6.45%
Apr-94	12.00%	7.27%	4.73%	Apr-00	12.50%	5.85%	6.85%
May-94	12.00%	7.41%	4.59%	May-00	12.50%	6.15%	6.35%
Jun-94	12.00%	7.40%	4.60%	Jun-00	12.50%	5.93%	6.57%
Jul-94	12.00%	7.58%	4.42%	Jul-00	12.50%	5.85%	6.85%
Aug-94	12.00%	7.49%	4.51%	Aug-00	12.50%	5.72%	6.78%
Sep-94	12.00%	7.71%	4.29%	Sep-00	12.50%	5.83%	6.67%
Oct-94	12.00%	7.94%	4.06%	Oct-00	12.50%	5.80%	6.70%
Nov-94	12.00%	8.08%	3.92%	Nov-00	12.50%	5.78%	6.72%
Dec-94	12.00%	7.87%	4.13%	Dec-00	12.50%	5.49%	7.01%
Jan-95	12.50%	7.85%	4.65%	Jan-01	12.50%	5.54%	6.96%
Feb-95	12.50%	7.61%	4.89%	Feb-01	12.50%	5.45%	7.05%
Mar-95	12.50%	7.45%	5.05%	Mar-01	12.50%	5.34%	7.16%
Apr-95	13.00%	7.36%	5.64%	Apr-01	12.00%	5.65%	6.35%
May-95	13.00%	6.95%	6.05%	May-01	12.00%	5.78%	6.22%
Jun-95	13.00%	6.57%	6.43%	Jun-01	12.00%	5.67%	6.33%
Jul-95	13.00%	6.72%	6.28%	Jul-01	12.00%	5.61%	6.39%
Aug-95	13.00%	6.86%	6.14%	Aug-01	12.00%	5.48%	6.52%
Sep-95	13.00%	6.55%	6.45%	Sep-01	12.00%	5.49%	6.51%
Oct-95	13.00%	6.37%	6.63%	Oct-01	13.50%	5.32%	8.18%
Nov-95	13.00%	6.26%	6.74%	Nov-01	13.50%	5.12%	8.38%
Dec-95	13.00%	6.06%	6.94%	Dec-01	13.50%	5.48%	8.02%
Jan-96	13.00%	6.05%	6.95%	Jan-02	13.50%	5.45%	8.05%
Feb-96	13.00%	6.24%	6.76%	Feb-02	13.50%	5.40%	8.10%
Mar-96	13.00%	6.60%	6.40%	Mar-02	13.50%	5.71%	7.79%
Apr-96	14.50%	6.79%	7.71%	Apr-02	12.50%	5.67%	6.83%
May-96	14.50%	6.93%	7.57%	May-02	12.50%	5.64%	6.86%
Jun-96	14.50%	7.06%	7.44%				
Jul-96	15.50%	7.03%	8.47%				
Aug-96	15.50%	6.84%	8.66%				
Sep-96	15.50%	7.03%	8.47%				
Oct-96	15.50%	6.81%	8.69%				
Nov-96	15.50%	6.48%	9.02%				
Dec-96	15.50%	6.55%	8.95%				

**AGL Risk Premium Analysis Using Value Line's Long-Term ROE Forecas
and
"Baa" Rated Moody's Utility Bonds**

Date	Expected ROE	Baa Public Utility Bond	Risk Premium	Date	Expected ROE	Baa Public Utility Bond	Risk Premium
Jan-91	12.50%	9.96%	2.54%	Jan-97	15.50%	8.18%	7.32%
Feb-91	12.50%	9.68%	2.82%	Feb-97	15.50%	8.02%	7.48%
Mar-91	12.50%	9.74%	2.76%	Mar-97	15.50%	8.26%	7.24%
Apr-91	13.50%	9.64%	3.86%	Apr-97	15.50%	8.42%	7.08%
May-91	13.50%	9.64%	3.86%	May-97	15.50%	8.28%	7.22%
Jun-91	13.50%	9.79%	3.71%	Jun-97	15.50%	8.12%	7.38%
Jul-91	12.50%	9.69%	2.81%	Jul-97	15.50%	7.87%	7.63%
Aug-91	12.50%	9.47%	3.03%	Aug-97	15.50%	7.93%	7.57%
Sep-91	12.50%	9.35%	3.15%	Sep-97	15.50%	7.84%	7.66%
Oct-91	12.50%	9.32%	3.18%	Oct-97	15.50%	7.67%	7.83%
Nov-91	12.50%	9.28%	3.22%	Nov-97	15.50%	7.49%	8.01%
Dec-91	12.50%	9.07%	3.43%	Dec-97	15.50%	7.41%	8.09%
Jan-92	13.00%	8.98%	4.02%	Jan-98	13.00%	7.28%	5.72%
Feb-92	13.00%	9.09%	3.91%	Feb-98	13.00%	7.36%	5.64%
Mar-92	13.00%	9.16%	3.84%	Mar-98	13.00%	7.37%	5.63%
Apr-92	13.50%	9.11%	4.39%	Apr-98	12.00%	7.37%	4.63%
May-92	13.50%	9.01%	4.49%	May-98	12.00%	7.34%	4.66%
Jun-92	13.50%	8.90%	4.60%	Jun-98	12.00%	7.21%	4.79%
Jul-92	13.70%	8.69%	5.01%	Jul-98	12.00%	7.24%	4.76%
Aug-92	13.70%	8.58%	5.12%	Aug-98	12.00%	7.20%	4.80%
Sep-92	13.70%	8.54%	5.16%	Sep-98	12.00%	7.13%	4.87%
Oct-92	13.90%	8.76%	5.14%	Oct-98	12.00%	7.13%	4.87%
Nov-92	13.90%	8.86%	5.04%	Nov-98	12.00%	7.31%	4.69%
Dec-92	13.90%	8.69%	5.21%	Dec-98	12.00%	7.24%	4.76%
Jan-93	12.00%	8.57%	3.43%	Jan-99	12.00%	7.30%	4.70%
Feb-93	12.00%	8.31%	3.69%	Feb-99	12.00%	7.41%	4.59%
Mar-93	12.00%	8.10%	3.90%	Mar-99	12.00%	7.55%	4.45%
Apr-93	12.00%	8.11%	3.89%	Apr-99	13.00%	7.51%	5.49%
May-93	12.00%	8.18%	3.82%	May-99	13.00%	7.74%	5.26%
Jun-93	12.00%	8.05%	3.95%	Jun-99	13.00%	8.03%	4.97%
Jul-93	12.00%	7.93%	4.07%	Jul-99	13.00%	7.97%	5.03%
Aug-93	12.00%	7.59%	4.41%	Aug-99	13.00%	8.16%	4.84%
Sep-93	12.00%	7.35%	4.65%	Sep-99	13.00%	8.19%	4.81%
Oct-93	12.50%	7.27%	5.23%	Oct-99	13.00%	8.32%	4.68%
Nov-93	12.50%	7.69%	4.81%	Nov-99	13.00%	8.12%	4.88%
Dec-93	12.50%	7.73%	4.77%	Dec-99	13.00%	8.28%	4.72%
Jan-94	12.00%	7.66%	4.34%	Jan-00	12.50%	8.40%	4.10%
Feb-94	12.00%	7.76%	4.24%	Feb-00	12.50%	8.33%	4.17%
Mar-94	12.00%	8.11%	3.89%	Mar-00	12.50%	8.40%	4.10%
Apr-94	12.00%	8.47%	3.53%	Apr-00	12.50%	8.40%	4.10%
May-94	12.00%	8.61%	3.39%	May-00	12.50%	8.86%	3.64%
Jun-94	12.00%	8.64%	3.36%	Jun-00	12.50%	8.47%	4.03%
Jul-94	12.00%	8.80%	3.20%	Jul-00	12.50%	8.33%	4.17%
Aug-94	12.00%	8.74%	3.26%	Aug-00	12.50%	8.25%	4.25%
Sep-94	12.00%	8.98%	3.02%	Sep-00	12.50%	8.32%	4.18%
Oct-94	12.00%	9.24%	2.76%	Oct-00	12.50%	8.29%	4.21%
Nov-94	12.00%	9.35%	2.65%	Nov-00	12.50%	8.25%	4.25%
Dec-94	12.00%	9.16%	2.84%	Dec-00	12.50%	8.01%	4.49%
Jan-95	12.50%	9.15%	3.35%	Jan-01	12.50%	7.99%	4.51%
Feb-95	12.50%	8.93%	3.57%	Feb-01	12.50%	7.94%	4.56%
Mar-95	12.50%	8.78%	3.72%	Mar-01	12.50%	7.85%	4.65%
Apr-95	13.00%	8.67%	4.33%	Apr-01	12.00%	8.06%	3.94%
May-95	13.00%	8.30%	4.70%	May-01	12.00%	8.11%	3.89%
Jun-95	13.00%	8.01%	4.99%	Jun-01	12.00%	8.02%	3.98%
Jul-95	13.00%	8.11%	4.89%	Jul-01	12.00%	8.05%	3.95%
Aug-95	13.00%	8.24%	4.76%	Aug-01	12.00%	7.95%	4.05%
Sep-95	13.00%	7.98%	5.02%	Sep-01	12.00%	8.12%	3.88%
Oct-95	13.00%	7.82%	5.18%	Oct-01	13.50%	8.02%	5.48%
Nov-95	13.00%	7.81%	5.19%	Nov-01	13.50%	7.96%	5.54%
Dec-95	13.00%	7.63%	5.37%	Dec-01	13.50%	8.27%	5.23%
Jan-96	13.00%	7.64%	5.36%	Jan-02	13.50%	8.13%	5.37%
Feb-96	13.00%	7.78%	5.22%	Feb-02	13.50%	8.18%	5.32%
Mar-96	13.00%	8.15%	4.85%	Mar-02	13.50%	8.32%	5.18%
Apr-96	14.50%	8.32%	6.18%	Apr-02	12.50%	8.26%	4.24%
May-96	14.50%	8.45%	6.05%	May-02	12.50%	8.33%	4.17%
Jun-96	14.50%	8.51%	5.99%				
Jul-96	15.50%	8.44%	7.06%				
Aug-96	15.50%	8.25%	7.25%				
Sep-96	15.50%	8.41%	7.09%				
Oct-96	15.50%	8.15%	7.35%				
Nov-96	15.50%	7.87%	7.63%				
Dec-96	15.50%	7.98%	7.52%				

Risk Premium 1991- May 2002 4.78%

Source: Mergent Bond Record, Value Line

New Jersey Resources Risk Premium Analysis Using Value Line's Long-Term ROE Forecast and 30 Year Treasury Bonds

Date	Expected ROE	Treasury Bond Yield	Risk Premium	Date	Expected ROE	Treasury Bond Yield	Risk Premium
Jan-91	13.00%	8.27%	4.73%	Jan-97	16.50%	6.83%	9.67%
Feb-91	13.00%	8.03%	4.97%	Feb-97	16.50%	6.69%	9.81%
Mar-91	13.00%	8.29%	4.71%	Mar-97	16.50%	6.93%	9.57%
Apr-91	13.00%	8.21%	4.79%	Apr-97	15.50%	7.09%	8.41%
May-91	13.00%	8.27%	4.73%	May-97	15.50%	6.94%	8.56%
Jun-91	13.00%	8.47%	4.53%	Jun-97	15.50%	6.77%	8.73%
Jul-91	12.50%	8.45%	4.05%	Jul-97	15.00%	6.51%	8.49%
Aug-91	12.50%	8.14%	4.36%	Aug-97	15.00%	6.58%	8.42%
Sep-91	12.50%	7.95%	4.55%	Sep-97	15.00%	6.50%	8.50%
Oct-91	13.50%	7.93%	5.57%	Oct-97	16.50%	6.33%	10.17%
Nov-91	13.50%	7.92%	5.58%	Nov-97	16.50%	6.11%	10.39%
Dec-91	13.50%	7.70%	5.80%	Dec-97	16.50%	5.99%	10.51%
Jan-92	13.50%	7.58%	5.92%	Jan-98	16.00%	5.81%	10.19%
Feb-92	13.50%	7.85%	5.65%	Feb-98	16.00%	5.89%	10.11%
Mar-92	13.50%	7.97%	5.53%	Mar-98	16.00%	5.95%	10.05%
Apr-92	14.00%	7.96%	6.04%	Apr-98	15.00%	5.92%	9.08%
May-92	14.00%	7.89%	6.11%	May-98	15.00%	5.93%	9.07%
Jun-92	14.00%	7.84%	6.16%	Jun-98	15.00%	5.70%	9.30%
Jul-92	13.50%	7.60%	5.90%	Jul-98	15.00%	5.68%	9.32%
Aug-92	13.50%	7.39%	6.11%	Aug-98	15.00%	5.54%	9.48%
Sep-92	13.50%	7.34%	6.16%	Sep-98	15.00%	5.20%	9.80%
Oct-92	13.50%	7.53%	5.97%	Oct-98	15.00%	5.01%	9.99%
Nov-92	13.50%	7.61%	5.89%	Nov-98	15.00%	5.25%	9.75%
Dec-92	13.50%	7.44%	6.06%	Dec-98	15.00%	5.06%	9.94%
Jan-93	12.50%	7.34%	5.16%	Jan-99	14.50%	5.16%	9.34%
Feb-93	12.50%	7.09%	5.41%	Feb-99	14.50%	5.37%	9.13%
Mar-93	12.50%	6.82%	5.68%	Mar-99	14.50%	5.58%	8.92%
Apr-93	13.50%	6.85%	6.65%	Apr-99	14.50%	5.55%	8.95%
May-93	13.50%	6.92%	6.58%	May-99	14.50%	5.81%	8.69%
Jun-93	13.50%	6.81%	6.69%	Jun-99	14.50%	6.04%	8.46%
Jul-93	12.50%	6.63%	5.87%	Jul-99	14.50%	5.98%	8.52%
Aug-93	12.50%	6.32%	6.18%	Aug-99	14.50%	6.07%	8.43%
Sep-93	12.50%	6.00%	6.50%	Sep-99	14.50%	6.07%	8.43%
Oct-93	13.00%	5.94%	7.06%	Oct-99	14.50%	6.26%	8.24%
Nov-93	13.00%	6.21%	6.79%	Nov-99	14.50%	6.15%	8.35%
Dec-93	13.00%	6.25%	6.75%	Dec-99	14.50%	6.35%	8.15%
Jan-94	14.00%	6.29%	7.71%	Jan-00	16.00%	6.63%	9.37%
Feb-94	14.00%	6.49%	7.51%	Feb-00	16.00%	6.23%	9.77%
Mar-94	14.00%	6.91%	7.09%	Mar-00	16.00%	6.05%	9.95%
Apr-94	13.00%	7.27%	5.73%	Apr-00	16.00%	5.85%	10.15%
May-94	13.00%	7.41%	5.59%	May-00	16.00%	6.15%	9.85%
Jun-94	13.00%	7.40%	5.60%	Jun-00	16.00%	5.93%	10.07%
Jul-94	13.50%	7.58%	5.92%	Jul-00	15.50%	5.85%	9.65%
Aug-94	13.50%	7.49%	6.01%	Aug-00	15.50%	5.72%	9.78%
Sep-94	13.50%	7.71%	5.79%	Sep-00	15.50%	5.83%	9.67%
Oct-94	13.50%	7.94%	5.56%	Oct-00	15.50%	5.80%	9.70%
Nov-94	13.50%	8.08%	5.42%	Nov-00	15.50%	5.78%	9.72%
Dec-94	13.50%	7.87%	5.63%	Dec-00	15.50%	5.49%	10.01%
Jan-95	12.00%	7.85%	4.15%	Jan-01	15.50%	5.54%	9.96%
Feb-95	12.00%	7.61%	4.39%	Feb-01	15.50%	5.45%	10.05%
Mar-95	12.00%	7.45%	4.55%	Mar-01	15.50%	5.34%	10.16%
Apr-95	13.50%	7.36%	6.14%	Apr-01	15.00%	5.65%	9.35%
May-95	13.50%	6.95%	6.55%	May-01	15.00%	5.78%	9.22%
Jun-95	13.50%	6.57%	6.93%	Jun-01	15.00%	5.67%	9.33%
Jul-95	13.50%	6.72%	6.78%	Jul-01	13.50%	5.61%	7.89%
Aug-95	13.50%	6.86%	6.64%	Aug-01	13.50%	5.48%	8.02%
Sep-95	13.50%	6.55%	6.95%	Sep-01	13.50%	5.49%	8.01%
Oct-95	13.50%	6.37%	7.13%	Oct-01	13.50%	5.32%	8.18%
Nov-95	13.50%	6.26%	7.24%	Nov-01	13.50%	5.12%	8.38%
Dec-95	13.50%	6.06%	7.44%	Dec-01	13.50%	5.48%	8.02%
Jan-96	14.00%	6.05%	7.95%	Jan-02	14.50%	5.45%	9.05%
Feb-96	14.00%	6.24%	7.76%	Feb-02	14.50%	5.40%	9.10%
Mar-96	14.00%	6.60%	7.40%	Mar-02	14.50%	5.71%	8.79%
Apr-96	15.50%	6.79%	8.71%	Apr-02	14.50%	5.67%	8.83%
May-96	15.50%	6.93%	8.57%	May-02	14.50%	5.64%	8.86%
Jun-96	15.50%	7.06%	8.44%				
Jul-96	15.50%	7.03%	8.47%				
Aug-96	15.50%	6.84%	8.66%	Risk Premium 1991- May 2002			7.69%
Sep-96	15.50%	7.03%	8.47%	Source: Federal Reserve, Value Line			
Oct-96	15.00%	6.81%	8.19%				
Nov-96	15.00%	6.48%	8.52%				
Dec-96	15.00%	6.55%	8.45%				

**New Jersey Resources Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
"A" Rated Moody's Utility Bonds**

Date	Expected ROE	A Public Utility Bond	Risk Premium	Date	Expected ROE	A Public Utility Bond	Risk Premium
Jan-91	13.00%	9.71%	3.29%	Jan-97	16.50%	7.77%	8.73%
Feb-91	13.00%	9.47%	3.53%	Feb-97	16.50%	7.64%	8.86%
Mar-91	13.00%	9.55%	3.45%	Mar-97	16.50%	7.87%	8.63%
Apr-91	13.00%	9.46%	3.54%	Apr-97	15.50%	8.03%	7.47%
May-91	13.00%	9.44%	3.56%	May-97	15.50%	7.89%	7.61%
Jun-91	13.00%	9.59%	3.41%	Jun-97	15.50%	7.72%	7.78%
Jul-91	12.50%	9.55%	2.95%	Jul-97	15.00%	7.48%	7.52%
Aug-91	12.50%	9.29%	3.21%	Aug-97	15.00%	7.51%	7.49%
Sep-91	12.50%	9.15%	3.35%	Sep-97	15.00%	7.58%	7.42%
Oct-91	13.50%	9.12%	4.38%	Oct-97	16.50%	7.35%	9.15%
Nov-91	13.50%	9.05%	4.45%	Nov-97	16.50%	7.25%	9.25%
Dec-91	13.50%	8.88%	4.62%	Dec-97	16.50%	7.16%	9.34%
Jan-92	13.50%	8.84%	4.66%	Jan-98	16.00%	7.04%	8.96%
Feb-92	13.50%	8.93%	4.57%	Feb-98	16.00%	7.12%	8.88%
Mar-92	13.50%	8.97%	4.53%	Mar-98	16.00%	7.16%	8.84%
Apr-92	14.00%	8.93%	5.07%	Apr-98	15.00%	7.16%	7.84%
May-92	14.00%	8.87%	5.13%	May-98	15.00%	7.16%	7.84%
Jun-92	14.00%	8.78%	5.22%	Jun-98	15.00%	7.03%	7.97%
Jul-92	13.50%	8.57%	4.93%	Jul-98	15.00%	7.03%	7.97%
Aug-92	13.50%	8.44%	5.06%	Aug-98	15.00%	7.00%	8.00%
Sep-92	13.50%	8.40%	5.10%	Sep-98	15.00%	6.93%	8.07%
Oct-92	13.50%	8.54%	4.96%	Oct-98	15.00%	6.96%	8.04%
Nov-92	13.50%	8.63%	4.87%	Nov-98	15.00%	7.03%	7.97%
Dec-92	13.50%	8.43%	5.07%	Dec-98	15.00%	6.91%	8.09%
Jan-93	12.50%	8.27%	4.23%	Jan-99	14.50%	6.97%	7.53%
Feb-93	12.50%	8.04%	4.46%	Feb-99	14.50%	7.09%	7.41%
Mar-93	12.50%	7.90%	4.60%	Mar-99	14.50%	7.26%	7.24%
Apr-93	13.50%	7.81%	5.69%	Apr-99	14.50%	7.22%	7.28%
May-93	13.50%	7.86%	5.64%	May-99	14.50%	7.47%	7.03%
Jun-93	13.50%	7.75%	5.75%	Jun-99	14.50%	7.74%	6.76%
Jul-93	12.50%	7.54%	4.96%	Jul-99	14.50%	7.71%	6.79%
Aug-93	12.50%	7.25%	5.25%	Aug-99	14.50%	7.91%	6.59%
Sep-93	12.50%	7.04%	5.46%	Sep-99	14.50%	7.93%	6.57%
Oct-93	13.00%	7.03%	5.97%	Oct-99	14.50%	8.06%	6.44%
Nov-93	13.00%	7.30%	5.70%	Nov-99	14.50%	7.94%	6.56%
Dec-93	13.00%	7.34%	5.66%	Dec-99	14.50%	8.14%	6.36%
Jan-94	14.00%	7.33%	6.67%	Jan-00	16.00%	8.35%	7.65%
Feb-94	14.00%	7.47%	6.53%	Feb-00	16.00%	8.25%	7.75%
Mar-94	14.00%	7.85%	6.15%	Mar-00	16.00%	8.28%	7.72%
Apr-94	13.00%	8.22%	4.78%	Apr-00	16.00%	8.29%	7.71%
May-94	13.00%	8.33%	4.67%	May-00	16.00%	8.70%	7.30%
Jun-94	13.00%	8.31%	4.69%	Jun-00	16.00%	8.36%	7.64%
Jul-94	13.50%	8.47%	5.03%	Jul-00	15.50%	8.25%	7.25%
Aug-94	13.50%	8.41%	5.09%	Aug-00	15.50%	8.13%	7.37%
Sep-94	13.50%	8.64%	4.86%	Sep-00	15.50%	8.23%	7.27%
Oct-94	13.50%	8.86%	4.64%	Oct-00	15.50%	8.14%	7.36%
Nov-94	13.50%	8.98%	4.52%	Nov-00	15.50%	8.11%	7.39%
Dec-94	13.50%	8.76%	4.74%	Dec-00	15.50%	7.84%	7.66%
Jan-95	12.00%	8.73%	3.27%	Jan-01	15.50%	7.80%	7.70%
Feb-95	12.00%	8.52%	3.48%	Feb-01	15.50%	7.74%	7.76%
Mar-95	12.00%	8.37%	3.63%	Mar-01	15.50%	7.68%	7.82%
Apr-95	13.50%	8.27%	5.23%	Apr-01	15.00%	7.94%	7.06%
May-95	13.50%	7.91%	5.59%	May-01	15.00%	7.99%	7.01%
Jun-95	13.50%	7.60%	5.90%	Jun-01	15.00%	7.85%	7.15%
Jul-95	13.50%	7.70%	5.80%	Jul-01	13.50%	7.78%	5.72%
Aug-95	13.50%	7.83%	5.67%	Aug-01	13.50%	7.59%	5.91%
Sep-95	13.50%	7.62%	5.88%	Sep-01	13.50%	7.75%	5.75%
Oct-95	13.50%	7.46%	6.04%	Oct-01	13.50%	7.63%	5.87%
Nov-95	13.50%	7.43%	6.07%	Nov-01	13.50%	7.57%	5.93%
Dec-95	13.50%	7.23%	6.27%	Dec-01	13.50%	7.83%	5.67%
Jan-96	14.00%	7.22%	6.78%	Jan-02	14.50%	7.66%	6.84%
Feb-96	14.00%	7.37%	6.63%	Feb-02	14.50%	7.54%	6.96%
Mar-96	14.00%	7.73%	6.27%	Mar-02	14.50%	7.76%	6.74%
Apr-96	15.50%	7.89%	7.61%	Apr-02	14.50%	7.57%	6.93%
May-96	15.50%	7.98%	7.52%	May-02	14.50%	7.52%	6.98%
Jun-96	15.50%	8.06%	7.44%				
Jul-96	15.50%	8.02%	7.48%				
Aug-96	15.50%	7.84%	7.66%				
Sep-96	15.50%	8.01%	7.49%				
Oct-96	15.00%	7.77%	7.23%				
Nov-96	15.00%	7.49%	7.51%				
Dec-96	15.00%	7.59%	7.41%				

Northwest Natural Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
30 Year Treasury Bonds

Date	Expected ROE	Treasury Bond Yield	Risk Premium	Date	Expected ROE	Treasury Bond Yield	Risk Premium
Jan-91	13.00%	8.27%	4.73%	Jan-97	11.50%	6.83%	4.67%
Feb-91	13.00%	8.03%	4.97%	Feb-97	11.50%	6.69%	4.81%
Mar-91	13.00%	8.29%	4.71%	Mar-97	11.50%	6.93%	4.57%
Apr-91	13.00%	8.21%	4.79%	Apr-97	12.00%	7.09%	4.91%
May-91	13.00%	8.27%	4.73%	May-97	12.00%	6.94%	5.06%
Jun-91	13.00%	8.47%	4.53%	Jun-97	12.00%	6.77%	5.23%
Jul-91	13.00%	8.45%	4.55%	Jul-97	12.00%	6.51%	5.49%
Aug-91	13.00%	8.14%	4.86%	Aug-97	12.00%	6.58%	5.42%
Sep-91	13.00%	7.95%	5.05%	Sep-97	12.00%	6.50%	5.50%
Oct-91	12.50%	7.93%	4.57%	Oct-97	12.00%	6.33%	5.67%
Nov-91	12.50%	7.92%	4.58%	Nov-97	12.00%	6.11%	5.89%
Dec-91	12.50%	7.70%	4.80%	Dec-97	12.00%	5.99%	6.01%
Jan-92	12.50%	7.58%	4.92%	Jan-98	12.00%	5.81%	6.19%
Feb-92	12.50%	7.85%	4.65%	Feb-98	12.00%	5.89%	6.11%
Mar-92	12.50%	7.97%	4.53%	Mar-98	12.00%	5.95%	6.05%
Apr-92	12.50%	7.96%	4.54%	Apr-98	12.00%	5.92%	6.08%
May-92	12.50%	7.89%	4.61%	May-98	12.00%	5.93%	6.07%
Jun-92	12.50%	7.84%	4.66%	Jun-98	12.00%	5.70%	6.30%
Jul-92	13.00%	7.60%	5.40%	Jul-98	12.00%	5.68%	6.32%
Aug-92	13.00%	7.39%	5.61%	Aug-98	12.00%	5.54%	6.46%
Sep-92	13.00%	7.34%	5.66%	Sep-98	12.00%	5.20%	6.80%
Oct-92	13.00%	7.53%	5.47%	Oct-98	12.00%	5.01%	6.99%
Nov-92	13.00%	7.61%	5.39%	Nov-98	12.00%	5.25%	6.75%
Dec-92	13.00%	7.44%	5.56%	Dec-98	12.00%	5.06%	6.94%
Jan-93	13.00%	7.34%	5.66%	Jan-99	11.50%	5.16%	6.34%
Feb-93	13.00%	7.09%	5.91%	Feb-99	11.50%	5.37%	6.13%
Mar-93	13.00%	6.82%	6.18%	Mar-99	11.50%	5.58%	5.92%
Apr-93	12.00%	6.85%	5.15%	Apr-99	11.50%	5.55%	5.95%
May-93	12.00%	6.92%	5.08%	May-99	11.50%	5.81%	5.69%
Jun-93	12.00%	6.81%	5.19%	Jun-99	11.50%	6.04%	5.46%
Jul-93	12.50%	6.63%	5.87%	Jul-99	11.00%	5.98%	5.02%
Aug-93	12.50%	6.32%	6.18%	Aug-99	11.00%	6.07%	4.93%
Sep-93	12.50%	6.00%	6.50%	Sep-99	11.00%	6.07%	4.93%
Oct-93	12.50%	5.94%	6.56%	Oct-99	11.00%	6.26%	4.74%
Nov-93	12.50%	6.21%	6.29%	Nov-99	11.00%	6.15%	4.85%
Dec-93	12.50%	6.25%	6.25%	Dec-99	11.00%	6.35%	4.65%
Jan-94	12.50%	6.29%	6.21%	Jan-00	11.00%	6.63%	4.37%
Feb-94	12.50%	6.49%	6.01%	Feb-00	11.00%	6.23%	4.77%
Mar-94	12.50%	6.91%	5.59%	Mar-00	10.50%	6.05%	4.45%
Apr-94	12.00%	7.27%	4.73%	Apr-00	10.50%	5.85%	4.65%
May-94	12.00%	7.41%	4.59%	May-00	10.50%	6.15%	4.35%
Jun-94	12.00%	7.40%	4.60%	Jun-00	11.00%	5.93%	5.07%
Jul-94	12.00%	7.58%	4.42%	Jul-00	11.00%	5.85%	5.15%
Aug-94	12.00%	7.49%	4.51%	Aug-00	11.00%	5.72%	5.28%
Sep-94	12.00%	7.71%	4.29%	Sep-00	11.00%	5.83%	5.17%
Oct-94	12.00%	7.94%	4.06%	Oct-00	11.00%	5.80%	5.20%
Nov-94	12.00%	8.08%	3.92%	Nov-00	11.00%	5.78%	5.22%
Dec-94	12.00%	7.87%	4.13%	Dec-00	11.00%	5.49%	5.51%
Jan-95	12.00%	7.85%	4.15%	Jan-01	11.00%	5.54%	5.46%
Feb-95	12.00%	7.61%	4.39%	Feb-01	11.00%	5.45%	5.55%
Mar-95	12.00%	7.45%	4.55%	Mar-01	11.00%	5.34%	5.66%
Apr-95	12.00%	7.36%	4.64%	Apr-01	11.00%	5.65%	5.35%
May-95	12.00%	6.95%	5.05%	May-01	11.00%	5.78%	5.22%
Jun-95	12.00%	6.57%	5.43%	Jun-01	11.00%	5.67%	5.33%
Jul-95	12.00%	6.72%	5.28%	Jul-01	11.00%	5.61%	5.39%
Aug-95	12.00%	6.86%	5.14%	Aug-01	11.00%	5.48%	5.52%
Sep-95	12.00%	6.55%	5.45%	Sep-01	11.00%	5.49%	5.51%
Oct-95	12.00%	6.37%	5.63%	Oct-01	11.00%	5.32%	5.68%
Nov-95	12.00%	6.26%	5.74%	Nov-01	11.00%	5.12%	5.88%
Dec-95	12.00%	6.06%	5.94%	Dec-01	11.00%	5.48%	5.52%
Jan-96	12.00%	6.05%	5.95%	Jan-02	11.00%	5.45%	5.55%
Feb-96	12.00%	6.24%	5.76%	Feb-02	11.00%	5.40%	5.60%
Mar-96	12.00%	6.60%	5.40%	Mar-02	11.00%	5.71%	5.29%
Apr-96	12.00%	6.79%	5.21%	Apr-02	11.00%	5.67%	5.33%
May-96	12.00%	6.93%	5.07%	May-02	11.00%	5.64%	5.36%
Jun-96	12.00%	7.06%	4.94%				
Jul-96	11.00%	7.03%	3.97%				
Aug-96	11.00%	6.84%	4.16%				
Sep-96	11.00%	7.03%	3.97%				
Oct-96	11.50%	6.81%	4.69%				
Nov-96	11.50%	6.48%	5.02%				
Dec-96	11.50%	6.55%	4.95%				

Risk Premium 1991- May 2002 5.28%

Source: Federal Reserve, Value Line

**Northwest Natural Resources Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
"A" Rated Moody's Utility Bonds**

Date	Expected ROE	A Public Utility Bond	Risk Premium	Date	Expected ROE	A Public Utility Bond	Risk Premium
Jan-91	13.00%	9.71%	3.29%	Jan-97	11.50%	7.77%	3.73%
Feb-91	13.00%	9.47%	3.53%	Feb-97	11.50%	7.64%	3.86%
Mar-91	13.00%	9.55%	3.45%	Mar-97	11.50%	7.87%	3.63%
Apr-91	13.00%	9.46%	3.54%	Apr-97	12.00%	8.03%	3.97%
May-91	13.00%	9.44%	3.56%	May-97	12.00%	7.89%	4.11%
Jun-91	13.00%	9.59%	3.41%	Jun-97	12.00%	7.72%	4.28%
Jul-91	13.00%	9.55%	3.45%	Jul-97	12.00%	7.48%	4.52%
Aug-91	13.00%	9.29%	3.71%	Aug-97	12.00%	7.51%	4.49%
Sep-91	13.00%	9.15%	3.85%	Sep-97	12.00%	7.58%	4.42%
Oct-91	12.50%	9.12%	3.38%	Oct-97	12.00%	7.35%	4.65%
Nov-91	12.50%	9.05%	3.45%	Nov-97	12.00%	7.25%	4.75%
Dec-91	12.50%	8.88%	3.62%	Dec-97	12.00%	7.16%	4.84%
Jan-92	12.50%	8.84%	3.66%	Jan-98	12.00%	7.04%	4.96%
Feb-92	12.50%	8.93%	3.57%	Feb-98	12.00%	7.12%	4.88%
Mar-92	12.50%	8.97%	3.53%	Mar-98	12.00%	7.16%	4.84%
Apr-92	12.50%	8.93%	3.57%	Apr-98	12.00%	7.16%	4.84%
May-92	12.50%	8.87%	3.63%	May-98	12.00%	7.16%	4.84%
Jun-92	12.50%	8.78%	3.72%	Jun-98	12.00%	7.03%	4.97%
Jul-92	13.00%	8.57%	4.43%	Jul-98	12.00%	7.03%	4.97%
Aug-92	13.00%	8.44%	4.56%	Aug-98	12.00%	7.00%	5.00%
Sep-92	13.00%	8.40%	4.60%	Sep-98	12.00%	6.83%	5.07%
Oct-92	13.00%	8.54%	4.46%	Oct-98	12.00%	6.96%	5.04%
Nov-92	13.00%	8.63%	4.37%	Nov-98	12.00%	7.03%	4.97%
Dec-92	13.00%	8.43%	4.57%	Dec-98	12.00%	6.91%	5.09%
Jan-93	13.00%	8.27%	4.73%	Jan-99	11.50%	6.97%	4.53%
Feb-93	13.00%	8.04%	4.96%	Feb-99	11.50%	7.09%	4.41%
Mar-93	13.00%	7.90%	5.10%	Mar-99	11.50%	7.26%	4.24%
Apr-93	12.00%	7.81%	4.19%	Apr-99	11.50%	7.22%	4.28%
May-93	12.00%	7.86%	4.14%	May-99	11.50%	7.47%	4.03%
Jun-93	12.00%	7.75%	4.25%	Jun-99	11.50%	7.74%	3.76%
Jul-93	12.50%	7.54%	4.96%	Jul-99	11.00%	7.71%	3.29%
Aug-93	12.50%	7.25%	5.25%	Aug-99	11.00%	7.91%	3.09%
Sep-93	12.50%	7.04%	5.46%	Sep-99	11.00%	7.93%	3.07%
Oct-93	12.50%	7.03%	5.47%	Oct-99	11.00%	8.06%	2.94%
Nov-93	12.50%	7.30%	5.20%	Nov-99	11.00%	7.94%	3.06%
Dec-93	12.50%	7.34%	5.16%	Dec-99	11.00%	8.14%	2.86%
Jan-94	12.50%	7.33%	5.17%	Jan-00	11.00%	8.35%	2.65%
Feb-94	12.50%	7.47%	5.03%	Feb-00	11.00%	8.25%	2.75%
Mar-94	12.50%	7.85%	4.65%	Mar-00	10.50%	8.28%	2.22%
Apr-94	12.00%	8.22%	3.78%	Apr-00	10.50%	8.29%	2.21%
May-94	12.00%	8.33%	3.67%	May-00	10.50%	8.70%	1.80%
Jun-94	12.00%	8.31%	3.69%	Jun-00	11.00%	8.36%	2.64%
Jul-94	12.00%	8.47%	3.53%	Jul-00	11.00%	8.25%	2.75%
Aug-94	12.00%	8.41%	3.59%	Aug-00	11.00%	8.13%	2.87%
Sep-94	12.00%	8.64%	3.36%	Sep-00	11.00%	8.23%	2.77%
Oct-94	12.00%	8.86%	3.14%	Oct-00	11.00%	8.14%	2.86%
Nov-94	12.00%	8.98%	3.02%	Nov-00	11.00%	8.11%	2.89%
Dec-94	12.00%	8.76%	3.24%	Dec-00	11.00%	7.84%	3.16%
Jan-95	12.00%	8.73%	3.27%	Jan-01	11.00%	7.80%	3.20%
Feb-95	12.00%	8.52%	3.48%	Feb-01	11.00%	7.74%	3.26%
Mar-95	12.00%	8.37%	3.63%	Mar-01	11.00%	7.68%	3.32%
Apr-95	12.00%	8.27%	3.73%	Apr-01	11.00%	7.94%	3.06%
May-95	12.00%	7.91%	4.09%	May-01	11.00%	7.99%	3.01%
Jun-95	12.00%	7.60%	4.40%	Jun-01	11.00%	7.85%	3.15%
Jul-95	12.00%	7.70%	4.30%	Jul-01	11.00%	7.78%	3.22%
Aug-95	12.00%	7.83%	4.17%	Aug-01	11.00%	7.59%	3.41%
Sep-95	12.00%	7.62%	4.38%	Sep-01	11.00%	7.75%	3.25%
Oct-95	12.00%	7.46%	4.54%	Oct-01	11.00%	7.63%	3.37%
Nov-95	12.00%	7.43%	4.57%	Nov-01	11.00%	7.57%	3.43%
Dec-95	12.00%	7.23%	4.77%	Dec-01	11.00%	7.83%	3.17%
Jan-96	12.00%	7.22%	4.78%	Jan-02	11.00%	7.66%	3.34%
Feb-96	12.00%	7.37%	4.63%	Feb-02	11.00%	7.54%	3.46%
Mar-96	12.00%	7.73%	4.27%	Mar-02	11.00%	7.76%	3.24%
Apr-96	12.00%	7.89%	4.11%	Apr-02	11.00%	7.57%	3.43%
May-96	12.00%	7.98%	4.02%	May-02	11.00%	7.52%	3.48%
Jun-96	12.00%	8.06%	3.94%				
Jul-96	11.00%	8.02%	2.98%				
Aug-96	11.00%	7.84%	3.16%				
Sep-96	11.00%	8.01%	2.99%				
Oct-96	11.50%	7.77%	3.73%				
Nov-96	11.50%	7.49%	4.01%				
Dec-96	11.50%	7.59%	3.91%				
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**Peoples Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
30 Year Treasury Bonds**

Date	Expected ROE	Treasury Bond Yield	Risk Premium	Date	Expected ROE	Treasury Bond Yield	Risk Premium
Jan-91	14.00%	8.27%	5.73%	Jan-97	13.50%	6.83%	6.67%
Feb-91	14.00%	8.03%	5.97%	Feb-97	13.50%	6.69%	6.81%
Mar-91	14.00%	8.29%	5.71%	Mar-97	13.50%	6.93%	6.57%
Apr-91	13.50%	8.21%	5.29%	Apr-97	13.50%	7.09%	6.41%
May-91	13.50%	8.27%	5.23%	May-97	13.50%	6.94%	6.56%
Jun-91	13.50%	8.47%	5.03%	Jun-97	13.50%	6.77%	6.73%
Jul-91	14.00%	8.45%	5.55%	Jul-97	13.50%	6.51%	6.99%
Aug-91	14.00%	8.14%	5.86%	Aug-97	13.50%	6.58%	6.92%
Sep-91	14.00%	7.95%	6.05%	Sep-97	13.50%	6.50%	7.00%
Oct-91	14.00%	7.93%	6.07%	Oct-97	13.50%	6.33%	7.17%
Nov-91	14.00%	7.92%	6.08%	Nov-97	13.50%	6.11%	7.39%
Dec-91	14.00%	7.70%	6.30%	Dec-97	13.50%	5.99%	7.51%
Jan-92	13.50%	7.58%	5.92%	Jan-98	13.00%	5.81%	7.19%
Feb-92	13.50%	7.85%	5.65%	Feb-98	13.00%	5.89%	7.11%
Mar-92	13.50%	7.97%	5.53%	Mar-98	13.00%	5.95%	7.05%
Apr-92	13.50%	7.96%	5.54%	Apr-98	13.00%	5.92%	7.08%
May-92	13.50%	7.89%	5.61%	May-98	13.00%	5.93%	7.07%
Jun-92	13.50%	7.84%	5.66%	Jun-98	13.00%	5.70%	7.30%
Jul-92	14.50%	7.60%	6.90%	Jul-98	13.00%	5.68%	7.32%
Aug-92	14.50%	7.39%	7.11%	Aug-98	13.00%	5.54%	7.46%
Sep-92	14.50%	7.34%	7.16%	Sep-98	13.00%	5.20%	7.80%
Oct-92	14.50%	7.53%	6.97%	Oct-98	13.50%	5.01%	8.49%
Nov-92	14.50%	7.61%	6.89%	Nov-98	13.50%	5.25%	8.25%
Dec-92	14.50%	7.44%	7.06%	Dec-98	13.50%	5.06%	8.44%
Jan-93	13.50%	7.34%	6.16%	Jan-99	13.50%	5.16%	8.34%
Feb-93	13.50%	7.09%	6.41%	Feb-99	13.50%	5.37%	8.13%
Mar-93	13.50%	6.82%	6.68%	Mar-99	13.50%	5.58%	7.92%
Apr-93	13.00%	6.85%	6.15%	Apr-99	13.00%	5.55%	7.45%
May-93	13.00%	6.92%	6.08%	May-99	13.00%	5.81%	7.19%
Jun-93	13.00%	6.81%	6.19%	Jun-99	13.00%	6.04%	6.96%
Jul-93	13.00%	6.63%	6.37%	Jul-99	13.00%	5.98%	7.02%
Aug-93	13.00%	6.32%	6.68%	Aug-99	13.00%	6.07%	6.93%
Sep-93	13.00%	6.00%	7.00%	Sep-99	13.00%	6.07%	6.93%
Oct-93	12.50%	5.94%	6.56%	Oct-99	13.00%	6.26%	6.74%
Nov-93	12.50%	6.21%	6.29%	Nov-99	13.00%	6.15%	6.85%
Dec-93	12.50%	6.25%	6.25%	Dec-99	13.00%	6.35%	6.65%
Jan-94	13.00%	6.29%	6.71%	Jan-00	13.50%	6.63%	6.87%
Feb-94	13.00%	6.49%	6.51%	Feb-00	13.50%	6.23%	7.27%
Mar-94	13.00%	6.91%	6.09%	Mar-00	13.50%	6.05%	7.45%
Apr-94	14.00%	7.27%	6.73%	Apr-00	13.50%	5.85%	7.65%
May-94	14.00%	7.41%	6.59%	May-00	13.50%	6.15%	7.35%
Jun-94	14.00%	7.40%	6.60%	Jun-00	13.50%	5.93%	7.57%
Jul-94	13.50%	7.58%	5.92%	Jul-00	12.00%	5.85%	6.15%
Aug-94	13.50%	7.49%	6.01%	Aug-00	12.00%	5.72%	6.28%
Sep-94	13.50%	7.71%	5.79%	Sep-00	12.00%	5.83%	6.17%
Oct-94	13.50%	7.94%	5.56%	Oct-00	12.00%	5.80%	6.20%
Nov-94	13.50%	8.08%	5.42%	Nov-00	12.00%	5.78%	6.22%
Dec-94	13.50%	7.87%	5.63%	Dec-00	12.00%	5.49%	6.51%
Jan-95	12.50%	7.85%	4.65%	Jan-01	12.00%	5.54%	6.46%
Feb-95	12.50%	7.61%	4.89%	Feb-01	12.00%	5.45%	6.55%
Mar-95	12.50%	7.45%	5.05%	Mar-01	12.00%	5.34%	6.66%
Apr-95	12.50%	7.36%	5.14%	Apr-01	12.00%	5.65%	6.35%
May-95	12.50%	6.95%	5.55%	May-01	12.00%	5.78%	6.22%
Jun-95	12.50%	6.57%	5.93%	Jun-01	12.00%	5.67%	6.33%
Jul-95	13.00%	6.72%	6.28%	Jul-01	12.00%	5.61%	6.39%
Aug-95	13.00%	6.88%	6.14%	Aug-01	12.00%	5.48%	6.52%
Sep-95	13.00%	6.55%	6.45%	Sep-01	12.00%	5.49%	6.51%
Oct-95	13.00%	6.37%	6.63%	Oct-01	12.00%	5.32%	6.68%
Nov-95	13.00%	6.26%	6.74%	Nov-01	12.00%	5.12%	6.88%
Dec-95	13.00%	6.06%	6.94%	Dec-01	12.00%	5.48%	6.52%
Jan-96	13.00%	6.05%	6.95%	Jan-02	12.00%	5.45%	6.55%
Feb-96	13.00%	6.24%	6.76%	Feb-02	12.00%	5.40%	6.60%
Mar-96	13.00%	6.60%	6.40%	Mar-02	12.00%	5.71%	6.29%
Apr-96	13.00%	6.79%	6.21%	Apr-02	14.00%	5.67%	8.33%
May-96	13.00%	6.93%	6.07%	May-02	14.00%	5.64%	8.36%
Jun-96	13.00%	7.06%	5.94%				
Jul-96	14.00%	7.03%	6.97%				
Aug-96	14.00%	6.84%	7.16%				
Sep-96	14.00%	7.03%	6.97%				
Oct-96	14.00%	6.81%	7.19%				
Nov-96	14.00%	6.48%	7.52%				
Dec-96	14.00%	6.55%	7.45%				

Risk Premium 1991- May 2002 6.60%

Source: Federal Reserve, Value Line

**Peoples Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
"A" Rated Moody's Utility Bonds**

Date	Expected ROE	A Public Utility Bond	Risk Premium	Date	Expected ROE	A Public Utility Bond	Risk Premium
Jan-91	14.00%	9.71%	4.29%	Jan-97	13.50%	7.77%	5.73%
Feb-91	14.00%	9.47%	4.53%	Feb-97	13.50%	7.64%	5.86%
Mar-91	14.00%	9.55%	4.45%	Mar-97	13.50%	7.87%	5.63%
Apr-91	13.50%	9.46%	4.04%	Apr-97	13.50%	8.03%	5.47%
May-91	13.50%	9.44%	4.06%	May-97	13.50%	7.89%	5.61%
Jun-91	13.50%	9.59%	3.91%	Jun-97	13.50%	7.72%	5.78%
Jul-91	14.00%	9.55%	4.45%	Jul-97	13.50%	7.48%	6.02%
Aug-91	14.00%	9.29%	4.71%	Aug-97	13.50%	7.51%	5.99%
Sep-91	14.00%	9.15%	4.85%	Sep-97	13.50%	7.58%	5.92%
Oct-91	14.00%	9.12%	4.88%	Oct-97	13.50%	7.35%	6.15%
Nov-91	14.00%	9.05%	4.95%	Nov-97	13.50%	7.25%	6.25%
Dec-91	14.00%	8.88%	5.12%	Dec-97	13.50%	7.16%	6.34%
Jan-92	13.50%	8.84%	4.66%	Jan-98	13.00%	7.04%	5.96%
Feb-92	13.50%	8.93%	4.57%	Feb-98	13.00%	7.12%	5.88%
Mar-92	13.50%	8.97%	4.53%	Mar-98	13.00%	7.16%	5.84%
Apr-92	13.50%	8.93%	4.57%	Apr-98	13.00%	7.16%	5.84%
May-92	13.50%	8.87%	4.63%	May-98	13.00%	7.16%	5.84%
Jun-92	13.50%	8.78%	4.72%	Jun-98	13.00%	7.03%	5.97%
Jul-92	14.50%	8.57%	5.93%	Jul-98	13.00%	7.03%	5.97%
Aug-92	14.50%	8.44%	6.06%	Aug-98	13.00%	7.00%	6.00%
Sep-92	14.50%	8.40%	6.10%	Sep-98	13.00%	6.93%	6.07%
Oct-92	14.50%	8.54%	5.96%	Oct-98	13.50%	6.96%	6.54%
Nov-92	14.50%	8.63%	5.87%	Nov-98	13.50%	7.03%	6.47%
Dec-92	14.50%	8.43%	6.07%	Dec-98	13.50%	6.91%	6.59%
Jan-93	13.50%	8.27%	5.23%	Jan-99	13.50%	6.97%	6.53%
Feb-93	13.50%	8.04%	5.46%	Feb-99	13.50%	7.09%	6.41%
Mar-93	13.50%	7.90%	5.60%	Mar-99	13.50%	7.26%	6.24%
Apr-93	13.00%	7.81%	5.19%	Apr-99	13.00%	7.22%	5.78%
May-93	13.00%	7.86%	5.14%	May-99	13.00%	7.47%	5.53%
Jun-93	13.00%	7.75%	5.25%	Jun-99	13.00%	7.74%	5.26%
Jul-93	13.00%	7.54%	5.46%	Jul-99	13.00%	7.71%	5.29%
Aug-93	13.00%	7.25%	5.75%	Aug-99	13.00%	7.91%	5.09%
Sep-93	13.00%	7.04%	5.96%	Sep-99	13.00%	7.93%	5.07%
Oct-93	12.50%	7.03%	5.47%	Oct-99	13.00%	8.06%	4.94%
Nov-93	12.50%	7.30%	5.20%	Nov-99	13.00%	7.94%	5.06%
Dec-93	12.50%	7.34%	5.16%	Dec-99	13.00%	8.14%	4.86%
Jan-94	13.00%	7.33%	5.67%	Jan-00	13.50%	8.35%	5.15%
Feb-94	13.00%	7.47%	5.53%	Feb-00	13.50%	8.25%	5.25%
Mar-94	13.00%	7.85%	5.15%	Mar-00	13.50%	8.28%	5.22%
Apr-94	14.00%	8.22%	5.78%	Apr-00	13.50%	8.29%	5.21%
May-94	14.00%	8.33%	5.67%	May-00	13.50%	8.70%	4.80%
Jun-94	14.00%	8.31%	5.69%	Jun-00	13.50%	8.36%	5.14%
Jul-94	13.50%	8.47%	5.03%	Jul-00	12.00%	8.25%	3.75%
Aug-94	13.50%	8.41%	5.09%	Aug-00	12.00%	8.13%	3.87%
Sep-94	13.50%	8.64%	4.86%	Sep-00	12.00%	8.23%	3.77%
Oct-94	13.50%	8.86%	4.64%	Oct-00	12.00%	8.14%	3.86%
Nov-94	13.50%	8.98%	4.52%	Nov-00	12.00%	8.11%	3.89%
Dec-94	13.50%	8.76%	4.74%	Dec-00	12.00%	7.84%	4.16%
Jan-95	12.50%	8.73%	3.77%	Jan-01	12.00%	7.80%	4.20%
Feb-95	12.50%	8.52%	3.98%	Feb-01	12.00%	7.74%	4.26%
Mar-95	12.50%	8.37%	4.13%	Mar-01	12.00%	7.68%	4.32%
Apr-95	12.50%	8.27%	4.23%	Apr-01	12.00%	7.94%	4.06%
May-95	12.50%	7.91%	4.59%	May-01	12.00%	7.99%	4.01%
Jun-95	12.50%	7.60%	4.90%	Jun-01	12.00%	7.85%	4.15%
Jul-95	13.00%	7.70%	5.30%	Jul-01	12.00%	7.78%	4.22%
Aug-95	13.00%	7.83%	5.17%	Aug-01	12.00%	7.59%	4.41%
Sep-95	13.00%	7.62%	5.38%	Sep-01	12.00%	7.75%	4.25%
Oct-95	13.00%	7.46%	5.54%	Oct-01	12.00%	7.63%	4.37%
Nov-95	13.00%	7.43%	5.57%	Nov-01	12.00%	7.57%	4.43%
Dec-95	13.00%	7.23%	5.77%	Dec-01	12.00%	7.83%	4.17%
Jan-96	13.00%	7.22%	5.78%	Jan-02	12.00%	7.66%	4.34%
Feb-96	13.00%	7.37%	5.63%	Feb-02	12.00%	7.54%	4.46%
Mar-96	13.00%	7.73%	5.27%	Mar-02	12.00%	7.76%	4.24%
Apr-96	13.00%	7.89%	5.11%	Apr-02	14.00%	7.57%	6.43%
May-96	13.00%	7.98%	5.02%	May-02	14.00%	7.52%	6.48%
Jun-96	13.00%	8.06%	4.94%				
Jul-96	14.00%	8.02%	5.98%				
Aug-96	14.00%	7.84%	6.16%				
Sep-96	14.00%	8.01%	5.99%				
Oct-96	14.00%	7.77%	6.23%				
Nov-96	14.00%	7.49%	6.51%				
Dec-96	14.00%	7.59%	6.41%				

Risk Premium 1991- May 2002 5.21%

Source: Mergent Bond Record, Value Line

**Piedmont Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
30 Year Treasury Bonds**

Date	Expected ROE	Treasury Bond Yield	Risk Premium	Date	Expected ROE	Treasury Bond Yield	Risk Premium
Jan-91	17.50%	8.27%	9.23%	Jan-97	11.50%	6.83%	4.67%
Feb-91	17.50%	8.03%	9.47%	Feb-97	11.50%	6.69%	4.81%
Mar-91	17.50%	8.29%	9.21%	Mar-97	11.50%	6.93%	4.57%
Apr-91	17.50%	8.21%	9.29%	Apr-97	12.00%	7.09%	4.91%
May-91	17.50%	8.27%	9.23%	May-97	12.00%	6.94%	5.06%
Jun-91	17.50%	8.47%	9.03%	Jun-97	12.00%	6.77%	5.23%
Jul-91	13.50%	8.45%	5.05%	Jul-97	12.00%	6.51%	5.49%
Aug-91	13.50%	8.14%	5.36%	Aug-97	12.00%	6.58%	5.42%
Sep-91	13.50%	7.95%	5.55%	Sep-97	12.00%	6.50%	5.50%
Oct-91	13.50%	7.93%	5.57%	Oct-97	12.00%	6.33%	5.67%
Nov-91	13.50%	7.92%	5.58%	Nov-97	12.00%	6.11%	5.89%
Dec-91	13.50%	7.70%	5.80%	Dec-97	12.00%	5.99%	6.01%
Jan-92	15.00%	7.58%	7.42%	Jan-98	12.50%	5.81%	6.69%
Feb-92	15.00%	7.85%	7.15%	Feb-98	12.50%	5.89%	6.61%
Mar-92	15.00%	7.97%	7.03%	Mar-98	12.50%	5.95%	6.55%
Apr-92	15.00%	7.96%	7.04%	Apr-98	13.50%	5.92%	7.58%
May-92	15.00%	7.89%	7.11%	May-98	13.50%	5.93%	7.57%
Jun-92	15.00%	7.84%	7.16%	Jun-98	13.50%	5.70%	7.80%
Jul-92	14.50%	7.60%	6.90%	Jul-98	14.00%	5.68%	8.32%
Aug-92	14.50%	7.39%	7.11%	Aug-98	14.00%	5.54%	8.46%
Sep-92	14.50%	7.34%	7.16%	Sep-98	14.00%	5.20%	8.80%
Oct-92	14.50%	7.53%	6.97%	Oct-98	14.00%	5.01%	8.99%
Nov-92	14.50%	7.61%	6.89%	Nov-98	14.00%	5.25%	8.75%
Dec-92	14.50%	7.44%	7.06%	Dec-98	14.00%	5.06%	8.94%
Jan-93	14.50%	7.34%	7.16%	Jan-99	13.50%	5.16%	8.34%
Feb-93	14.50%	7.09%	7.41%	Feb-99	13.50%	5.37%	8.13%
Mar-93	14.50%	6.82%	7.68%	Mar-99	13.50%	5.58%	7.92%
Apr-93	14.50%	6.85%	7.65%	Apr-99	14.00%	5.55%	8.45%
May-93	14.50%	6.92%	7.58%	May-99	14.00%	5.81%	8.19%
Jun-93	14.50%	6.81%	7.69%	Jun-99	14.00%	6.04%	7.96%
Jul-93	15.50%	6.63%	8.87%	Jul-99	14.00%	5.98%	8.02%
Aug-93	15.50%	6.32%	9.18%	Aug-99	14.00%	6.07%	7.93%
Sep-93	15.50%	6.00%	9.50%	Sep-99	14.00%	6.07%	7.93%
Oct-93	15.00%	5.94%	9.06%	Oct-99	14.00%	6.26%	7.74%
Nov-93	15.00%	6.21%	8.79%	Nov-99	14.00%	6.15%	7.85%
Dec-93	15.00%	6.25%	8.75%	Dec-99	14.00%	6.35%	7.65%
Jan-94	13.00%	6.29%	6.71%	Jan-00	13.50%	6.63%	6.87%
Feb-94	13.00%	6.49%	6.51%	Feb-00	13.50%	6.23%	7.27%
Mar-94	13.00%	6.91%	6.09%	Mar-00	13.50%	6.05%	7.45%
Apr-94	13.00%	7.27%	5.73%	Apr-00	13.00%	5.85%	7.15%
May-94	13.00%	7.41%	5.59%	May-00	13.00%	6.15%	6.85%
Jun-94	13.00%	7.40%	5.60%	Jun-00	13.00%	5.93%	7.07%
Jul-94	13.00%	7.58%	5.42%	Jul-00	12.50%	5.85%	6.85%
Aug-94	13.00%	7.49%	5.51%	Aug-00	12.50%	5.72%	6.78%
Sep-94	13.00%	7.71%	5.29%	Sep-00	12.50%	5.83%	6.67%
Oct-94	12.50%	7.94%	4.56%	Oct-00	12.50%	5.80%	6.70%
Nov-94	12.50%	8.08%	4.42%	Nov-00	12.50%	5.78%	6.72%
Dec-94	12.50%	7.87%	4.63%	Dec-00	12.50%	5.49%	7.01%
Jan-95	12.50%	7.85%	4.65%	Jan-01	12.50%	5.54%	6.96%
Feb-95	12.50%	7.61%	4.89%	Feb-01	12.50%	5.45%	7.05%
Mar-95	12.50%	7.45%	5.05%	Mar-01	12.50%	5.34%	7.16%
Apr-95	12.50%	7.36%	5.14%	Apr-01	13.00%	5.65%	7.35%
May-95	12.50%	6.95%	5.55%	May-01	13.00%	5.78%	7.22%
Jun-95	12.50%	6.57%	5.93%	Jun-01	13.00%	5.67%	7.33%
Jul-95	12.50%	6.72%	5.78%	Jul-01	13.00%	5.61%	7.39%
Aug-95	12.50%	6.86%	5.64%	Aug-01	13.00%	5.48%	7.52%
Sep-95	12.50%	6.55%	5.95%	Sep-01	13.00%	5.49%	7.51%
Oct-95	12.50%	6.37%	6.13%	Oct-01	12.00%	5.32%	6.68%
Nov-95	12.50%	6.26%	6.24%	Nov-01	12.00%	5.12%	6.88%
Dec-95	12.50%	6.06%	6.44%	Dec-01	12.00%	5.48%	6.52%
Jan-96	12.50%	6.05%	6.45%	Jan-02	12.00%	5.45%	6.55%
Feb-96	12.50%	6.24%	6.26%	Feb-02	12.00%	5.40%	6.60%
Mar-96	12.50%	6.60%	5.90%	Mar-02	12.00%	5.71%	6.29%
Apr-96	12.50%	6.79%	5.71%	Apr-02	12.50%	5.67%	6.83%
May-96	12.50%	6.93%	5.57%	May-02	12.50%	5.64%	6.86%
Jun-96	12.50%	7.06%	5.44%				
Jul-96	11.00%	7.03%	3.97%				
Aug-96	11.00%	6.84%	4.16%				
Sep-96	11.00%	7.03%	3.97%				
Oct-96	11.50%	6.81%	4.69%				
Nov-96	11.50%	6.48%	5.02%				
Dec-96	11.50%	6.55%	4.95%				

Risk Premium 1991- May 2002 6.75%

Source: Federal Reserve, Value Line

"A" Rated Moody's Utility Bonds

Date	Expected ROE	A Public Utility Bond	Risk Premium	Date	Expected ROE	A Public Utility Bond	Risk Premium
Jan-91	17.50%	9.71%	7.79%	Jan-97	11.50%	7.77%	3.73%
Feb-91	17.50%	9.47%	8.03%	Feb-97	11.50%	7.64%	3.86%
Mar-91	17.50%	9.55%	7.95%	Mar-97	11.50%	7.87%	3.63%
Apr-91	17.50%	9.46%	8.04%	Apr-97	12.00%	8.03%	3.97%
May-91	17.50%	9.44%	8.06%	May-97	12.00%	7.89%	4.11%
Jun-91	17.50%	9.59%	7.91%	Jun-97	12.00%	7.72%	4.28%
Jul-91	13.50%	9.55%	3.95%	Jul-97	12.00%	7.48%	4.52%
Aug-91	13.50%	9.29%	4.21%	Aug-97	12.00%	7.51%	4.49%
Sep-91	13.50%	9.15%	4.35%	Sep-97	12.00%	7.58%	4.42%
Oct-91	13.50%	9.12%	4.38%	Oct-97	12.00%	7.35%	4.65%
Nov-91	13.50%	9.05%	4.45%	Nov-97	12.00%	7.25%	4.75%
Dec-91	13.50%	8.88%	4.62%	Dec-97	12.00%	7.16%	4.84%
Jan-92	15.00%	8.84%	6.16%	Jan-98	12.50%	7.04%	5.46%
Feb-92	15.00%	8.93%	6.07%	Feb-98	12.50%	7.12%	5.38%
Mar-92	15.00%	8.97%	6.03%	Mar-98	12.50%	7.16%	5.34%
Apr-92	15.00%	8.93%	6.07%	Apr-98	13.50%	7.16%	6.34%
May-92	15.00%	8.87%	6.13%	May-98	13.50%	7.16%	6.34%
Jun-92	15.00%	8.78%	6.22%	Jun-98	13.50%	7.03%	6.47%
Jul-92	14.50%	8.57%	5.93%	Jul-98	14.00%	7.03%	6.97%
Aug-92	14.50%	8.44%	6.06%	Aug-98	14.00%	7.00%	7.00%
Sep-92	14.50%	8.40%	6.10%	Sep-98	14.00%	6.93%	7.07%
Oct-92	14.50%	8.54%	5.96%	Oct-98	14.00%	6.96%	7.04%
Nov-92	14.50%	8.63%	5.87%	Nov-98	14.00%	7.03%	6.97%
Dec-92	14.50%	8.43%	6.07%	Dec-98	14.00%	6.91%	7.09%
Jan-93	14.50%	8.27%	6.23%	Jan-99	13.50%	6.97%	6.53%
Feb-93	14.50%	8.04%	6.46%	Feb-99	13.50%	7.09%	6.41%
Mar-93	14.50%	7.90%	6.60%	Mar-99	13.50%	7.26%	6.24%
Apr-93	14.50%	7.81%	6.69%	Apr-99	14.00%	7.22%	6.78%
May-93	14.50%	7.86%	6.64%	May-99	14.00%	7.47%	6.53%
Jun-93	14.50%	7.75%	6.75%	Jun-99	14.00%	7.74%	6.26%
Jul-93	15.50%	7.54%	7.96%	Jul-99	14.00%	7.71%	6.29%
Aug-93	15.50%	7.25%	8.25%	Aug-99	14.00%	7.91%	6.09%
Sep-93	15.50%	7.04%	8.46%	Sep-99	14.00%	7.93%	6.07%
Oct-93	15.00%	7.03%	7.97%	Oct-99	14.00%	8.06%	5.94%
Nov-93	15.00%	7.30%	7.70%	Nov-99	14.00%	7.94%	6.06%
Dec-93	15.00%	7.34%	7.66%	Dec-99	14.00%	8.14%	5.86%
Jan-94	13.00%	7.33%	5.67%	Jan-00	13.50%	8.35%	5.15%
Feb-94	13.00%	7.47%	5.53%	Feb-00	13.50%	8.25%	5.25%
Mar-94	13.00%	7.85%	5.15%	Mar-00	13.50%	8.28%	5.22%
Apr-94	13.00%	8.22%	4.78%	Apr-00	13.00%	8.29%	4.71%
May-94	13.00%	8.33%	4.67%	May-00	13.00%	8.70%	4.30%
Jun-94	13.00%	8.31%	4.69%	Jun-00	13.00%	8.36%	4.64%
Jul-94	13.00%	8.47%	4.53%	Jul-00	12.50%	8.25%	4.25%
Aug-94	13.00%	8.41%	4.59%	Aug-00	12.50%	8.13%	4.37%
Sep-94	13.00%	8.64%	4.36%	Sep-00	12.50%	8.23%	4.27%
Oct-94	12.50%	8.86%	3.64%	Oct-00	12.50%	8.14%	4.36%
Nov-94	12.50%	8.98%	3.52%	Nov-00	12.50%	8.11%	4.39%
Dec-94	12.50%	8.76%	3.74%	Dec-00	12.50%	7.84%	4.68%
Jan-95	12.50%	8.73%	3.77%	Jan-01	12.50%	7.80%	4.70%
Feb-95	12.50%	8.52%	3.98%	Feb-01	12.50%	7.74%	4.76%
Mar-95	12.50%	8.37%	4.13%	Mar-01	12.50%	7.68%	4.82%
Apr-95	12.50%	8.27%	4.23%	Apr-01	13.00%	7.94%	5.06%
May-95	12.50%	7.91%	4.59%	May-01	13.00%	7.99%	5.01%
Jun-95	12.50%	7.60%	4.90%	Jun-01	13.00%	7.85%	5.15%
Jul-95	12.50%	7.70%	4.80%	Jul-01	13.00%	7.78%	5.22%
Aug-95	12.50%	7.83%	4.67%	Aug-01	13.00%	7.59%	5.41%
Sep-95	12.50%	7.62%	4.88%	Sep-01	13.00%	7.75%	5.25%
Oct-95	12.50%	7.46%	5.04%	Oct-01	12.00%	7.63%	4.37%
Nov-95	12.50%	7.43%	5.07%	Nov-01	12.00%	7.57%	4.43%
Dec-95	12.50%	7.23%	5.27%	Dec-01	12.00%	7.83%	4.17%
Jan-96	12.50%	7.22%	5.28%	Jan-02	12.00%	7.66%	4.34%
Feb-96	12.50%	7.37%	5.13%	Feb-02	12.00%	7.54%	4.46%
Mar-96	12.50%	7.73%	4.77%	Mar-02	12.00%	7.76%	4.24%
Apr-96	12.50%	7.89%	4.61%	Apr-02	12.50%	7.57%	4.93%
May-96	12.50%	7.98%	4.52%	May-02	12.50%	7.52%	4.98%
Jun-96	12.50%	8.06%	4.44%				
Jul-96	11.00%	8.02%	2.98%				
Aug-96	11.00%	7.84%	3.16%				
Sep-96	11.00%	8.01%	2.99%				
Oct-96	11.50%	7.77%	3.73%				
Nov-96	11.50%	7.49%	4.01%				
Dec-96	11.50%	7.59%	3.91%				

Risk Premium 1991- May 2002

5.36%

Source: Mergent Bond Record, Value Line

South Jersey Risk Premium Analysis Using Value Line's Long-Term ROE Forecast and 30 Year Treasury Bonds

Date	Expected ROE	Treasury Bond Yield	Risk Premium	Date	Expected ROE	Treasury Bond Yield	Risk Premium
Jan-91	13.50%	8.27%	5.23%	Jan-97	12.00%	6.83%	5.17%
Feb-91	13.50%	8.03%	5.47%	Feb-97	12.00%	6.69%	5.31%
Mar-91	13.50%	8.29%	5.21%	Mar-97	12.00%	6.93%	5.07%
Apr-91	13.50%	8.21%	5.29%	Apr-97	11.50%	7.09%	4.41%
May-91	13.50%	8.27%	5.23%	May-97	11.50%	6.94%	4.56%
Jun-91	13.50%	8.47%	5.03%	Jun-97	11.50%	6.77%	4.73%
Jul-91	13.50%	8.45%	5.05%	Jul-97	12.00%	6.51%	5.49%
Aug-91	13.50%	8.14%	5.36%	Aug-97	12.00%	6.58%	5.42%
Sep-91	13.50%	7.95%	5.55%	Sep-97	12.00%	6.50%	5.50%
Oct-91	13.50%	7.93%	5.57%	Oct-97	12.00%	6.33%	5.67%
Nov-91	13.50%	7.92%	5.58%	Nov-97	12.00%	6.11%	5.89%
Dec-91	13.50%	7.70%	5.80%	Dec-97	12.00%	5.99%	6.01%
Jan-92	13.50%	7.58%	5.92%	Jan-98	12.00%	5.81%	6.19%
Feb-92	13.50%	7.85%	5.65%	Feb-98	12.00%	5.89%	6.11%
Mar-92	13.50%	7.97%	5.53%	Mar-98	12.00%	5.95%	6.05%
Apr-92	13.50%	7.96%	5.54%	Apr-98	11.50%	5.92%	5.58%
May-92	13.50%	7.89%	5.61%	May-98	11.50%	5.93%	5.57%
Jun-92	13.50%	7.84%	5.66%	Jun-98	11.50%	5.70%	5.80%
Jul-92	13.50%	7.60%	5.90%	Jul-98	11.50%	5.68%	5.82%
Aug-92	13.50%	7.39%	6.11%	Aug-98	11.50%	5.54%	5.96%
Sep-92	13.50%	7.34%	6.16%	Sep-98	11.50%	5.20%	6.30%
Oct-92	13.50%	7.53%	5.97%	Oct-98	12.00%	5.01%	6.99%
Nov-92	13.50%	7.61%	5.89%	Nov-98	12.00%	5.25%	6.75%
Dec-92	13.50%	7.44%	6.06%	Dec-98	12.00%	5.06%	6.94%
Jan-93	13.50%	7.34%	6.16%	Jan-99	12.00%	5.16%	6.84%
Feb-93	13.50%	7.09%	6.41%	Feb-99	12.00%	5.37%	6.63%
Mar-93	13.50%	6.82%	6.68%	Mar-99	12.00%	5.58%	6.42%
Apr-93	13.50%	6.85%	6.65%	Apr-99	12.00%	5.55%	6.45%
May-93	13.50%	6.92%	6.58%	May-99	12.00%	5.81%	6.19%
Jun-93	13.50%	6.81%	6.69%	Jun-99	12.00%	6.04%	5.96%
Jul-93	12.50%	6.63%	5.87%	Jul-99	12.00%	5.98%	6.02%
Aug-93	12.50%	6.32%	6.18%	Aug-99	12.00%	6.07%	5.93%
Sep-93	12.50%	6.00%	6.50%	Sep-99	12.00%	6.07%	5.93%
Oct-93	13.00%	5.94%	7.06%	Oct-99	12.00%	6.26%	5.74%
Nov-93	13.00%	6.21%	6.79%	Nov-99	12.00%	6.15%	5.85%
Dec-93	13.00%	6.25%	6.75%	Dec-99	12.00%	6.35%	5.65%
Jan-94	12.00%	6.29%	5.71%	Jan-00	11.50%	6.63%	4.87%
Feb-94	12.00%	6.49%	5.51%	Feb-00	11.50%	6.23%	5.27%
Mar-94	12.00%	6.91%	5.09%	Mar-00	11.50%	6.05%	5.45%
Apr-94	12.00%	7.27%	4.73%	Apr-00	11.50%	5.85%	5.65%
May-94	12.00%	7.41%	4.59%	May-00	11.50%	6.15%	5.35%
Jun-94	12.00%	7.40%	4.60%	Jun-00	11.50%	5.93%	5.57%
Jul-94	12.00%	7.58%	4.42%	Jul-00	11.50%	5.85%	5.65%
Aug-94	12.00%	7.49%	4.51%	Aug-00	11.50%	5.72%	5.78%
Sep-94	12.00%	7.71%	4.29%	Sep-00	11.50%	5.83%	5.67%
Oct-94	10.50%	7.94%	2.56%	Oct-00	12.00%	5.80%	6.20%
Nov-94	10.50%	8.08%	2.42%	Nov-00	12.00%	5.78%	6.22%
Dec-94	10.50%	7.87%	2.63%	Dec-00	12.00%	5.49%	6.51%
Jan-95	12.00%	7.85%	4.15%	Jan-01	12.00%	5.54%	6.46%
Feb-95	12.00%	7.61%	4.39%	Feb-01	12.00%	5.45%	6.55%
Mar-95	12.00%	7.45%	4.55%	Mar-01	12.00%	5.34%	6.66%
Apr-95	12.00%	7.36%	4.64%	Apr-01	12.00%	5.65%	6.35%
May-95	12.00%	6.95%	5.05%	May-01	12.00%	5.78%	6.22%
Jun-95	12.00%	6.57%	5.43%	Jun-01	12.00%	5.67%	6.33%
Jul-95	12.00%	6.72%	5.28%	Jul-01	12.00%	5.61%	6.39%
Aug-95	12.00%	8.86%	5.14%	Aug-01	12.00%	5.48%	6.52%
Sep-95	12.00%	6.55%	5.45%	Sep-01	12.00%	5.49%	6.51%
Oct-95	12.00%	6.37%	5.63%	Oct-01	12.00%	5.32%	6.68%
Nov-95	12.00%	6.26%	5.74%	Nov-01	12.00%	5.12%	6.88%
Dec-95	12.00%	6.06%	5.94%	Dec-01	12.00%	5.48%	6.52%
Jan-96	12.00%	6.05%	5.95%	Jan-02	12.50%	5.45%	7.05%
Feb-96	12.00%	6.24%	5.76%	Feb-02	12.50%	5.40%	7.10%
Mar-96	12.00%	6.60%	5.40%	Mar-02	12.50%	5.71%	6.79%
Apr-96	12.00%	6.79%	5.21%	Apr-02	11.50%	5.67%	5.83%
May-96	12.00%	6.93%	5.07%	May-02	11.50%	5.64%	5.86%
Jun-96	12.00%	7.06%	4.94%				
Jul-96	12.00%	7.03%	4.97%				
Aug-96	12.00%	6.84%	5.16%				
Sep-96	12.00%	7.03%	4.97%				
Oct-96	12.00%	6.81%	5.19%				
Nov-96	12.00%	6.48%	5.52%				
Dec-96	12.00%	6.55%	5.45%				

**South Jersey Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
"Baa" Rated Moody's Utility Bonds**

Date	Expected ROE	Baa Public Utility Bond	Risk Premium	Date	Expected ROE	Baa Public Utility Bond	Risk Premium
Jan-91	13.50%	9.96%	3.54%	Jan-97	12.00%	8.18%	3.82%
Feb-91	13.50%	9.68%	3.82%	Feb-97	12.00%	8.02%	3.98%
Mar-91	13.50%	9.74%	3.76%	Mar-97	12.00%	8.26%	3.74%
Apr-91	13.50%	9.64%	3.86%	Apr-97	11.50%	8.42%	3.08%
May-91	13.50%	9.64%	3.86%	May-97	11.50%	8.28%	3.22%
Jun-91	13.50%	9.79%	3.71%	Jun-97	11.50%	8.12%	3.38%
Jul-91	13.50%	9.69%	3.81%	Jul-97	12.00%	7.87%	4.13%
Aug-91	13.50%	9.47%	4.03%	Aug-97	12.00%	7.93%	4.07%
Sep-91	13.50%	9.35%	4.15%	Sep-97	12.00%	7.84%	4.16%
Oct-91	13.50%	9.32%	4.18%	Oct-97	12.00%	7.67%	4.33%
Nov-91	13.50%	9.28%	4.22%	Nov-97	12.00%	7.49%	4.51%
Dec-91	13.50%	9.07%	4.43%	Dec-97	12.00%	7.41%	4.59%
Jan-92	13.50%	8.98%	4.52%	Jan-98	12.00%	7.28%	4.72%
Feb-92	13.50%	9.09%	4.41%	Feb-98	12.00%	7.36%	4.64%
Mar-92	13.50%	9.16%	4.34%	Mar-98	12.00%	7.37%	4.63%
Apr-92	13.50%	9.11%	4.39%	Apr-98	11.50%	7.37%	4.13%
May-92	13.50%	9.01%	4.49%	May-98	11.50%	7.34%	4.16%
Jun-92	13.50%	8.90%	4.60%	Jun-98	11.50%	7.21%	4.29%
Jul-92	13.50%	8.69%	4.81%	Jul-98	11.50%	7.24%	4.26%
Aug-92	13.50%	8.58%	4.92%	Aug-98	11.50%	7.20%	4.30%
Sep-92	13.50%	8.54%	4.96%	Sep-98	11.50%	7.13%	4.37%
Oct-92	13.50%	8.76%	4.74%	Oct-98	12.00%	7.13%	4.87%
Nov-92	13.50%	8.86%	4.64%	Nov-98	12.00%	7.31%	4.69%
Dec-92	13.50%	8.69%	4.81%	Dec-98	12.00%	7.24%	4.76%
Jan-93	13.50%	8.57%	4.93%	Jan-99	12.00%	7.30%	4.70%
Feb-93	13.50%	8.31%	5.19%	Feb-99	12.00%	7.41%	4.59%
Mar-93	13.50%	8.10%	5.40%	Mar-99	12.00%	7.55%	4.45%
Apr-93	13.50%	8.11%	5.39%	Apr-99	12.00%	7.51%	4.49%
May-93	13.50%	8.18%	5.32%	May-99	12.00%	7.74%	4.26%
Jun-93	13.50%	8.05%	5.45%	Jun-99	12.00%	8.03%	3.97%
Jul-93	12.50%	7.93%	4.57%	Jul-99	12.00%	7.97%	4.03%
Aug-93	12.50%	7.59%	4.91%	Aug-99	12.00%	8.16%	3.84%
Sep-93	12.50%	7.35%	5.15%	Sep-99	12.00%	8.19%	3.81%
Oct-93	13.00%	7.27%	5.73%	Oct-99	12.00%	8.32%	3.68%
Nov-93	13.00%	7.69%	5.31%	Nov-99	12.00%	8.12%	3.88%
Dec-93	13.00%	7.73%	5.27%	Dec-99	12.00%	8.28%	3.72%
Jan-94	12.00%	7.66%	4.34%	Jan-00	11.50%	8.40%	3.10%
Feb-94	12.00%	7.76%	4.24%	Feb-00	11.50%	8.33%	3.17%
Mar-94	12.00%	8.11%	3.89%	Mar-00	11.50%	8.40%	3.10%
Apr-94	12.00%	8.47%	3.53%	Apr-00	11.50%	8.40%	3.10%
May-94	12.00%	8.61%	3.39%	May-00	11.50%	8.86%	2.64%
Jun-94	12.00%	8.64%	3.36%	Jun-00	11.50%	8.47%	3.03%
Jul-94	12.00%	8.80%	3.20%	Jul-00	11.50%	8.33%	3.17%
Aug-94	12.00%	8.74%	3.26%	Aug-00	11.50%	8.25%	3.25%
Sep-94	12.00%	8.98%	3.02%	Sep-00	11.50%	8.32%	3.18%
Oct-94	10.50%	9.24%	1.26%	Oct-00	12.00%	8.29%	3.71%
Nov-94	10.50%	9.35%	1.15%	Nov-00	12.00%	8.25%	3.75%
Dec-94	10.50%	9.16%	1.34%	Dec-00	12.00%	8.01%	3.99%
Jan-95	12.00%	9.15%	2.85%	Jan-01	12.00%	7.99%	4.01%
Feb-95	12.00%	8.93%	3.07%	Feb-01	12.00%	7.94%	4.06%
Mar-95	12.00%	8.78%	3.22%	Mar-01	12.00%	7.85%	4.15%
Apr-95	12.00%	8.67%	3.33%	Apr-01	12.00%	8.06%	3.94%
May-95	12.00%	8.30%	3.70%	May-01	12.00%	8.11%	3.89%
Jun-95	12.00%	8.01%	3.99%	Jun-01	12.00%	8.02%	3.98%
Jul-95	12.00%	8.11%	3.89%	Jul-01	12.00%	8.05%	3.95%
Aug-95	12.00%	8.24%	3.76%	Aug-01	12.00%	7.95%	4.05%
Sep-95	12.00%	7.98%	4.02%	Sep-01	12.00%	8.12%	3.88%
Oct-95	12.00%	7.82%	4.18%	Oct-01	12.00%	8.02%	3.98%
Nov-95	12.00%	7.81%	4.19%	Nov-01	12.00%	7.96%	4.04%
Dec-95	12.00%	7.63%	4.37%	Dec-01	12.00%	8.27%	3.73%
Jan-96	12.00%	7.64%	4.36%	Jan-02	12.50%	8.13%	4.37%
Feb-96	12.00%	7.78%	4.22%	Feb-02	12.50%	8.18%	4.32%
Mar-96	12.00%	8.15%	3.85%	Mar-02	12.50%	8.32%	4.18%
Apr-96	12.00%	8.32%	3.68%	Apr-02	11.50%	8.26%	3.24%
May-96	12.00%	8.45%	3.55%	May-02	11.50%	8.33%	3.17%
Jun-96	12.00%	8.51%	3.49%				
Jul-96	12.00%	8.44%	3.56%				
Aug-96	12.00%	8.25%	3.75%				
Sep-96	12.00%	8.41%	3.59%				
Oct-96	12.00%	8.15%	3.85%				
Nov-96	12.00%	7.87%	4.13%				
Dec-96	12.00%	7.98%	4.02%				

Risk Premium 1991- May 2002 4.00%

Source: Mergent Bond Record, Value Line

**WGL Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
30 Year Treasury Bonds**

Date	Expected ROE	Treasury Bond Yield	Risk Premium	Date	Expected ROE	Treasury Bond Yield	Risk Premium
Jan-91	13.00%	8.27%	4.73%	Jan-97	12.00%	6.83%	5.17%
Feb-91	13.00%	8.03%	4.97%	Feb-97	12.00%	6.69%	5.31%
Mar-91	13.00%	8.29%	4.71%	Mar-97	12.00%	6.93%	5.07%
Apr-91	13.00%	8.21%	4.79%	Apr-97	13.50%	7.09%	6.41%
May-91	13.00%	8.27%	4.73%	May-97	13.50%	6.94%	6.56%
Jun-91	13.00%	8.47%	4.53%	Jun-97	13.50%	6.77%	6.73%
Jul-91	13.00%	8.45%	4.55%	Jul-97	13.50%	6.51%	6.99%
Aug-91	13.00%	8.14%	4.86%	Aug-97	13.50%	6.58%	6.92%
Sep-91	13.00%	7.95%	5.05%	Sep-97	13.50%	6.50%	7.00%
Oct-91	13.00%	7.93%	5.07%	Oct-97	13.50%	6.33%	7.17%
Nov-91	13.00%	7.92%	5.08%	Nov-97	13.50%	6.11%	7.39%
Dec-91	13.00%	7.70%	5.30%	Dec-97	13.50%	5.99%	7.51%
Jan-92	13.00%	7.58%	5.42%	Jan-98	13.50%	5.81%	7.69%
Feb-92	13.00%	7.85%	5.15%	Feb-98	13.50%	5.89%	7.61%
Mar-92	13.00%	7.97%	5.03%	Mar-98	13.50%	5.95%	7.55%
Apr-92	13.00%	7.96%	5.04%	Apr-98	13.50%	5.92%	7.58%
May-92	13.00%	7.89%	5.11%	May-98	13.50%	5.93%	7.57%
Jun-92	13.00%	7.84%	5.16%	Jun-98	13.50%	5.70%	7.80%
Jul-92	13.00%	7.60%	5.40%	Jul-98	13.00%	5.68%	7.32%
Aug-92	13.00%	7.39%	5.61%	Aug-98	13.00%	5.54%	7.46%
Sep-92	13.00%	7.34%	5.66%	Sep-98	13.00%	5.20%	7.80%
Oct-92	12.50%	7.53%	4.97%	Oct-98	13.00%	5.01%	7.99%
Nov-92	12.50%	7.61%	4.89%	Nov-98	13.00%	5.25%	7.75%
Dec-92	12.50%	7.44%	5.06%	Dec-98	13.00%	5.06%	7.94%
Jan-93	12.50%	7.34%	5.16%	Jan-99	13.00%	5.16%	7.84%
Feb-93	12.50%	7.09%	5.41%	Feb-99	13.00%	5.37%	7.63%
Mar-93	12.50%	6.82%	5.68%	Mar-99	13.00%	5.58%	7.42%
Apr-93	12.00%	6.85%	5.15%	Apr-99	13.00%	5.55%	7.45%
May-93	12.00%	6.92%	5.08%	May-99	13.00%	5.81%	7.19%
Jun-93	12.00%	6.81%	5.19%	Jun-99	13.00%	6.04%	6.96%
Jul-93	12.50%	6.63%	5.87%	Jul-99	13.00%	5.98%	7.02%
Aug-93	12.50%	6.32%	6.18%	Aug-99	13.00%	6.07%	6.93%
Sep-93	12.50%	6.00%	6.50%	Sep-99	13.00%	6.07%	6.93%
Oct-93	12.50%	5.94%	6.56%	Oct-99	13.00%	6.26%	6.74%
Nov-93	12.50%	6.21%	6.29%	Nov-99	13.00%	6.15%	6.85%
Dec-93	12.50%	6.25%	6.25%	Dec-99	13.00%	6.35%	6.65%
Jan-94	11.50%	6.29%	5.21%	Jan-00	13.00%	6.63%	6.37%
Feb-94	11.50%	6.49%	5.01%	Feb-00	13.00%	6.23%	6.77%
Mar-94	11.50%	6.91%	4.59%	Mar-00	13.00%	6.05%	6.95%
Apr-94	11.50%	7.27%	4.23%	Apr-00	13.00%	5.85%	7.15%
May-94	11.50%	7.41%	4.09%	May-00	13.00%	6.15%	6.85%
Jun-94	11.50%	7.40%	4.10%	Jun-00	13.00%	5.93%	7.07%
Jul-94	11.50%	7.58%	3.92%	Jul-00	13.00%	5.85%	7.15%
Aug-94	11.50%	7.49%	4.01%	Aug-00	13.00%	5.72%	7.28%
Sep-94	11.50%	7.71%	3.79%	Sep-00	13.00%	5.83%	7.17%
Oct-94	11.50%	7.94%	3.56%	Oct-00	13.00%	5.80%	7.20%
Nov-94	11.50%	8.08%	3.42%	Nov-00	13.00%	5.78%	7.22%
Dec-94	11.50%	7.87%	3.63%	Dec-00	13.00%	5.49%	7.51%
Jan-95	11.50%	7.85%	3.65%	Jan-01	13.00%	5.54%	7.46%
Feb-95	11.50%	7.61%	3.89%	Feb-01	13.00%	5.45%	7.55%
Mar-95	11.50%	7.45%	4.05%	Mar-01	13.00%	5.34%	7.66%
Apr-95	11.50%	7.36%	4.14%	Apr-01	12.50%	5.65%	6.85%
May-95	11.50%	6.95%	4.55%	May-01	12.50%	5.78%	6.72%
Jun-95	11.50%	6.57%	4.93%	Jun-01	12.50%	5.67%	6.83%
Jul-95	11.50%	6.72%	4.78%	Jul-01	12.50%	5.61%	6.89%
Aug-95	11.50%	6.86%	4.64%	Aug-01	12.50%	5.48%	7.02%
Sep-95	11.50%	6.55%	4.95%	Sep-01	12.50%	5.49%	7.01%
Oct-95	11.50%	6.37%	5.13%	Oct-01	12.00%	5.32%	6.68%
Nov-95	11.50%	6.26%	5.24%	Nov-01	12.00%	5.12%	6.88%
Dec-95	11.50%	6.06%	5.44%	Dec-01	12.00%	5.48%	6.52%
Jan-96	11.50%	6.05%	5.45%	Jan-02	12.00%	5.45%	6.55%
Feb-96	11.50%	6.24%	5.26%	Feb-02	12.00%	5.40%	6.80%
Mar-96	11.50%	6.60%	4.90%	Mar-02	12.00%	5.71%	6.29%
Apr-96	12.00%	6.79%	5.21%	Apr-02	12.50%	5.67%	6.83%
May-96	12.00%	6.93%	5.07%	May-02	12.50%	5.64%	6.86%
Jun-96	12.00%	7.06%	4.94%				
Jul-96	12.00%	7.03%	4.97%				
Aug-96	12.00%	6.84%	5.16%				
Sep-96	12.00%	7.03%	4.97%				
Oct-96	12.00%	6.81%	5.19%				
Nov-96	12.00%	6.48%	5.52%				
Dec-96	12.00%	6.55%	5.45%				

Risk Premium 1991- May 2002 5.95%

Source: Federal Reserve, Value Line

**WGL Risk Premium Analysis Using Value Line's Long-Term ROE Forecast
and
"Aa" Rated Moody's Utility Bonds**

Date	Expected ROE	Aa Public Utility Bond	Risk Premium	Date	Expected ROE	Aa Public Utility Bond	Risk Premium
Jan-91	13.00%	9.39%	3.61%	Jan-97	12.00%	7.68%	4.32%
Feb-91	13.00%	9.16%	3.84%	Feb-97	12.00%	7.60%	4.40%
Mar-91	13.00%	9.23%	3.77%	Mar-97	12.00%	7.84%	4.16%
Apr-91	13.00%	9.14%	3.86%	Apr-97	13.50%	8.00%	5.50%
May-91	13.00%	9.16%	3.84%	May-97	13.50%	7.85%	5.65%
Jun-91	13.00%	9.28%	3.72%	Jun-97	13.50%	7.68%	5.82%
Jul-91	13.00%	9.26%	3.74%	Jul-97	13.50%	7.43%	6.07%
Aug-91	13.00%	9.06%	3.94%	Aug-97	13.50%	7.46%	6.04%
Sep-91	13.00%	8.94%	4.06%	Sep-97	13.50%	7.54%	5.96%
Oct-91	13.00%	8.92%	4.08%	Oct-97	13.50%	7.28%	6.22%
Nov-91	13.00%	8.87%	4.13%	Nov-97	13.50%	7.15%	6.35%
Dec-91	13.00%	8.71%	4.29%	Dec-97	13.50%	7.07%	6.43%
Jan-92	13.00%	8.63%	4.37%	Jan-98	13.50%	6.94%	6.56%
Feb-92	13.00%	8.76%	4.24%	Feb-98	13.50%	6.99%	6.51%
Mar-92	13.00%	8.82%	4.18%	Mar-98	13.50%	7.03%	6.47%
Apr-92	13.00%	8.76%	4.24%	Apr-98	13.50%	7.02%	6.48%
May-92	13.00%	8.69%	4.31%	May-98	13.50%	7.02%	6.48%
Jun-92	13.00%	8.63%	4.37%	Jun-98	13.50%	6.91%	6.59%
Jul-92	13.00%	8.45%	4.55%	Jul-98	13.00%	6.91%	6.09%
Aug-92	13.00%	8.30%	4.70%	Aug-98	13.00%	6.87%	6.13%
Sep-92	13.00%	8.28%	4.72%	Sep-98	13.00%	6.78%	6.22%
Oct-92	12.50%	8.42%	4.08%	Oct-98	13.00%	6.80%	6.20%
Nov-92	12.50%	8.51%	3.99%	Nov-98	13.00%	6.89%	6.11%
Dec-92	12.50%	8.32%	4.18%	Dec-98	13.00%	6.78%	6.22%
Jan-93	12.50%	8.14%	4.36%	Jan-99	13.00%	6.82%	6.18%
Feb-93	12.50%	7.92%	4.58%	Feb-99	13.00%	6.94%	6.06%
Mar-93	12.50%	7.76%	4.74%	Mar-99	13.00%	7.11%	5.89%
Apr-93	12.00%	7.64%	4.36%	Apr-99	13.00%	7.11%	5.89%
May-93	12.00%	7.64%	4.36%	May-99	13.00%	7.38%	5.62%
Jun-93	12.00%	7.54%	4.46%	Jun-99	13.00%	7.67%	5.33%
Jul-93	12.50%	7.38%	5.12%	Jul-99	13.00%	7.82%	5.38%
Aug-93	12.50%	7.07%	5.43%	Aug-99	13.00%	7.82%	5.18%
Sep-93	12.50%	6.89%	5.61%	Sep-99	13.00%	7.82%	5.18%
Oct-93	12.50%	6.89%	5.61%	Oct-99	13.00%	7.96%	5.04%
Nov-93	12.50%	7.17%	5.33%	Nov-99	13.00%	7.82%	5.18%
Dec-93	12.50%	7.18%	5.32%	Dec-99	13.00%	8.00%	5.00%
Jan-94	11.50%	7.18%	4.32%	Jan-00	13.00%	8.17%	4.83%
Feb-94	11.50%	7.34%	4.16%	Feb-00	13.00%	7.99%	5.01%
Mar-94	11.50%	7.74%	3.76%	Mar-00	13.00%	7.99%	5.01%
Apr-94	11.50%	8.12%	3.38%	Apr-00	13.00%	8.00%	5.00%
May-94	11.50%	8.24%	3.26%	May-00	13.00%	8.44%	4.56%
Jun-94	11.50%	8.21%	3.29%	Jun-00	13.00%	8.10%	4.90%
Jul-94	11.50%	8.38%	3.12%	Jul-00	13.00%	8.10%	4.90%
Aug-94	11.50%	8.32%	3.18%	Aug-00	13.00%	7.95%	5.05%
Sep-94	11.50%	8.56%	2.94%	Sep-00	13.00%	8.11%	4.89%
Oct-94	11.50%	8.78%	2.72%	Oct-00	13.00%	8.08%	4.92%
Nov-94	11.50%	8.90%	2.60%	Nov-00	13.00%	8.03%	4.97%
Dec-94	11.50%	8.69%	2.81%	Dec-00	13.00%	7.79%	5.21%
Jan-95	11.50%	8.66%	2.84%	Jan-01	13.00%	7.73%	5.27%
Feb-95	11.50%	8.45%	3.05%	Feb-01	13.00%	7.62%	5.38%
Mar-95	11.50%	8.29%	3.21%	Mar-01	13.00%	7.51%	5.49%
Apr-95	11.50%	8.17%	3.33%	Apr-01	12.50%	7.72%	4.78%
May-95	11.50%	7.80%	3.70%	May-01	12.50%	7.79%	4.71%
Jun-95	11.50%	7.49%	4.01%	Jun-01	12.50%	7.62%	4.88%
Jul-95	11.50%	7.60%	3.90%	Jul-01	12.50%	7.55%	4.95%
Aug-95	11.50%	7.71%	3.79%	Aug-01	12.50%	7.39%	5.11%
Sep-95	11.50%	7.48%	4.02%	Sep-01	12.50%	7.55%	4.95%
Oct-95	11.50%	7.30%	4.20%	Oct-01	12.00%	7.47%	4.53%
Nov-95	11.50%	7.22%	4.28%	Nov-01	12.00%	7.45%	4.55%
Dec-95	11.50%	7.03%	4.47%	Dec-01	12.00%	7.53%	4.47%
Jan-96	11.50%	7.02%	4.48%	Jan-02	12.00%	7.28%	4.72%
Feb-96	11.50%	7.20%	4.30%	Feb-02	12.00%	7.14%	4.86%
Mar-96	11.50%	7.55%	3.95%	Mar-02	12.00%	7.42%	4.58%
Apr-96	12.00%	7.70%	4.30%	Apr-02	12.50%	7.38%	5.12%
May-96	12.00%	7.79%	4.21%	May-02	12.50%	7.43%	5.07%
Jun-96	12.00%	7.87%	4.13%				
Jul-96	12.00%	7.83%	4.17%				
Aug-96	12.00%	7.66%	4.34%				
Sep-96	12.00%	7.84%	4.16%				
Oct-96	12.00%	7.60%	4.40%				
Nov-96	12.00%	7.32%	4.68%				
Dec-96	12.00%	7.44%	4.56%				

Risk Premium 1991- May 2002 4.71%

Source: Mergent Bond Record, Value Line

Dividend Payout Ratios for Mr. Burdette's Sample of Gas Utility Companies

<u>Company</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2005/7</u>
Laclede Group	83.5%	91.2%	97.8%	83.2%	113.3%	76.7%	64.4%
<u>Comparables</u>							
AGL Resources Inc	76.6%	118.7%	83.7%	72.0%	65.5%	60.0%	55.2%
Nicor Inc	64.1%	59.9%	56.5%	57.8%	57.5%	57.1%	50.9%
Northwest Natural Gas Co	119.6%	72.4%	69.3%	66.5%	58.6%	56.4%	51.9%
Piedmont Natural Gas Co Inc	65.3%	73.1%	71.6%	75.2%	82.1%	74.7%	63.9%
WGL Holdings Inc	77.9%	83.0%	69.3%	67.0%	110.4%	71.1%	53.1%
<u>Comparables</u>							
Average	80.7%	81.4%	70.1%	67.7%	74.8%	63.9%	55.0%
Median	76.6%	73.1%	69.3%	67.0%	65.5%	60.0%	53.1%

Source: Value Line (June 21)

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**DCF Cost of Equity for Mr. Burdette's Sample of Gas Utility Companies
Based on Consensus Earnings Forecasts**

Company	Current Dividend (1)	Average Price (2)	Current Dividend Yield (1)/(2)=(3)	First Call Consensus Growth (4)	First Call Number of Estimates (June 2002) (5)	Value Line EPS Forecast (6)	Weighted Average Earnings Growth Forecast (7)	Corrected Dividend Yield (3)*(1+(7))=(8)	DCF Cost (7)+(8)=(9)
Laclede Group	1.34	23.81	5.63	3.0	1	7.0	5.00	5.91	10.91
<u>Comparables</u>									
AGL Resources Inc	1.08	23.08	4.68	8.0	7	9.5	8.19	5.06	13.25
Nicor Inc	1.84	47.26	3.89	5.0	5	8.0	5.50	4.11	9.61
Northwest Natural Gas Co	1.26	29.09	4.33	4.6	4	7.5	5.18	4.56	9.74
Piedmont Natural Gas Co Inc	1.60	36.00	4.44	5.0	4	6.5	5.30	4.68	9.98
WGL Holdings Inc	1.27	26.23	4.84	4.5	5	7.5	5.00	5.08	10.08
<u>Comparables</u>									
Average									10.53
Median									9.98
<u>Comparables (Including Laclede)</u>									
Average									10.59
Median									10.03

Source by Column:

- (1) Value Line (June 21, 2002)
- (2) Burdette Testimony Schedule MB-8
- (4) Burdette Rebuttal Testimony Schedule MB-7
- (6) Burdette Rebuttal Testimony Schedule MB-7

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**DCF Cost of Equity for Mr. Burdette's Sample of Gas Utility Companies
Based on Earnings Retention Growth Forecasts**

Company	Current Dividend (1)	Average Price (2)	Current Dividend Yield (1)/(2)=(3)	Earnings Retention Growth (4)	Corrected Dividend Yield (3)*(1+(4))=(5)	DCF Cost (4)+(5)=(6)
Laclede Group	1.34	23.81	5.63	4.77	5.90	10.67
<u>Comparables</u>						
AGL Resources Inc	1.08	23.08	4.68	5.92	4.96	10.88
Nicor Inc	1.84	47.26	3.89	9.99	4.28	14.27
Northwest Natural Gas Co	1.26	29.09	4.33	5.51	4.57	10.08
Piedmont Natural Gas Co Inc	1.60	36.00	4.44	4.94	4.66	9.60
WGL Holdings Inc	1.27	26.23	4.84	6.25	5.14	11.39
<u>Comparables</u>						
Average						11.25
Median						10.88
<u>Comparables (Including Laclede)</u>						
Average						11.15
Median						10.77

Source by Column:

(1) Value Line

(2) Burdette Rebuttal Testimony Schedule MB-8

(4) Burdette Rebuttal Testimony Schedule MB-7

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