

REBUTTAL TESTIMONY

OF

MICHAEL McNALLY

FINANCE DEPARTMENT

FINANCIAL ANALYSIS DIVISION

ILLINOIS COMMERCE COMMISSION

ILLINOIS-AMERICAN WATER COMPANY
PROPOSED GENERAL INCREASE IN WATER RATES

DOCKET No. 00-0340

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1

Witness Identification

2 1. Q. Please state your name and business address.

3 A. My name is Michael McNally. My business address is 527 East Capitol
4 Avenue, Springfield, IL 62701.

5 2. Q. Are you the same Michael McNally who previously testified in this
6 proceeding?

7 A. Yes, I am.

8 3. Q. Please state the purpose of your rebuttal testimony in this proceeding.

9 A. The purpose of my rebuttal testimony is to respond to the rebuttal testimony
10 of IAWC witnesses Ronald D. Stafford and Paul R. Moul.

11

Response to Mr. Stafford

12 4. Q. Mr. Stafford asserts in his rebuttal testimony that you are willing to include the
13 increase in test year retained earnings resulting from the approved rate
14 increase in this proceeding.¹ Is that true?

¹ Company Exhibit R-1, page 3.

15 A. Yes, I am willing to reflect the effect of Commission authorized rates on the
16 proposed capital structure.

17 5. Q. How do you recommend that the Commission authorized rates be reflected
18 in the proposed capital structure?

19 A. Schedule 8.02 shows the calculation of the adjustment to common equity
20 using Staff's proposed rates as a proxy for the Commission authorized rates.
21 Schedule 8.03 provides further explanation of the data presented in
22 Schedule 8.02. The resulting revised capital structure would consist of
23 55.26% long-term debt, 0.20% preferred stock, and 44.54% common equity
24 as shown on Schedule 8.01.

25 6. Q. Why did you assume that the rates authorized in this proceeding will not be in
26 effect until April 2001?

27 A. The Company's assumption that it will begin to experience increased
28 revenues generated from the rates authorized in this proceeding beginning
29 January 1, 2001² is not realistic, given the 11-month timeframe of rate
30 proceedings. Thus, based on the initial filing date in this proceeding of April
31 17, 2000, it is reasonable to assume that the rates authorized in this
32 proceeding would not go into effect, and that the Company would not begin
33 to receive any corresponding increase in revenues, until approximately April
34 1, 2001.

35

Response to Mr. Moul

36 7. Q. Please evaluate Mr. Moul's rebuttal testimony.

37 A. Mr. Moul's rebuttal contained nothing to change my opinion of IAWC's cost of
38 common equity. In my judgment, the investor required rate of return on
39 common equity for IAWC ranges from 9.9% to 10.5% with a midpoint of
40 10.2%.

41 8. Q. Mr. Moul claims that adopting Staff's proposed overall cost of capital would
42 result in a pre-tax interest coverage ratio that "would be inadequate for IAWC
43 to attain reasonable credit quality, especially if there were any erosion in the
44 Company's return."³ Please comment.

45 A. My calculation of IAWC's pre-tax interest coverage ratio based on my cost of
46 capital recommendation is 2.85 to 2.97, with a midpoint of 2.91. That is
47 within the range required by S&P for an A rating, which is indicative of a
48 company with a strong financial position. The midpoint is also above the
49 mean and median values for A rated water utilities of 2.81x and 2.89x,
50 respectively.⁴

² Company response to Staff data request MGM 2.09.

³ Company Exhibit R-7, page 3.

⁴ Standard & Poor's, *Financial Medians Water Utilities*, http://www.ratingsdirect.com/cgi-bin/gx.cgi/AppLogic+GetArticle?article_id=161989, July 7, 2000.

51

Sample Selection

52 9. Q. In his rebuttal testimony Mr. Moul suggests that Connecticut Water,
53 Middlesex Water, and Pennichuck should be removed from both of your
54 proxy groups⁵. Do you agree?

55 A. No. My recommendation is based upon a representative sample, rather than
56 any individual company's estimate. As stated on page 25 of my direct
57 testimony, "estimates for a sample as a whole are subject to less
58 measurement error than individual company estimates." It is improper to
59 eliminate companies on the basis of their individual DCF results without
60 regard to the effects of such action on the overall sample. That would defeat
61 the purpose of using a sample. While the DCF cost of equity estimates for
62 Connecticut Water Service, Middlesex Water and Pennichuck are below the
63 current yield on A-rated public utility bonds, individual DCF estimates for
64 other sample companies are well-above the yield on A-rated public utility
65 bonds. The average cost of equity for the sample used is reasonably above
66 the yield on A-rated utility bonds. An analysis of the samples used indicates
67 that both are similar in risk, overall, to IAWC. Therefore, the results of my
68 analysis are appropriate.

69 10. Q. Mr. Moul claims that including Connecticut Water, Middlesex Water, and
70 Pennichuck in both of your samples over-weights their results and biases
71 your analysis⁶. Do you agree?

91 decides to prepare his/her study,” and “introduces gamesmanship into the
92 rate of return.”⁷ Please comment.

93 A. The use of current market data versus historical data has already been
94 addressed on pages 11, 13, and 27-30 of my direct testimony. The market
95 value of common stock equals the cumulative value of the expected stream
96 of futures dividends after each is discounted by the investor required rate of
97 return. Every day new information becomes available and investors rethink
98 their projections of future cash flows and the risk level of the company. Thus,
99 only a current stock price will reflect all information that is available and
100 relevant to the market. As to the “vagaries” of the market, I employed
101 samples to minimize the effects of any such vagaries, as estimates for a
102 sample as a whole are subject to less measurement error than individual
103 company estimates. Mr. Moul claims that my use of spot market data is
104 dependent upon the time when I decided to prepare my study and implies
105 that I resorted to gamesmanship. Since Mr. Moul provided no explanation of
106 how gamesmanship was introduced, I am left to interpret Mr. Moul’s
107 statement as implying that the date of my analysis was chosen, by design, to
108 produce the results I desired. That was not the case. The date of my
109 analysis, August 9, 2000, was chosen simply to provide the most recently
110 available information possible while still allowing me time enough complete
111 my analysis and testimony by the August 24th deadline. I did not compare my
112 results to the results of any other date before deciding to use the August 9th
113 data. The date was chosen without knowledge of, or regard to, the final

⁷ Ibid., at 10.

114 outcome. Finally, the only alternative to using spot market data is to use
115 historical data, which is fraught with problems, as discussed at length on
116 pages 27 through 30 of my direct testimony.

117 **DCF Analysis**

118 12. Q. Mr. Moul criticizes your DCF analysis because you did not include Value-
119 Line earnings per share (“EPS”) forecasts.⁸ Please comment.

120 A. Mr. Moul implies that any analysis that does not consider the Value Line EPS
121 forecasts is doubtful. Mr. Moul states that “*to the extent that Value Line’s*
122 *earnings forecasts influence investor expectations*, it is essential that those
123 forecasts be incorporated in the DCF model.” Mr. Moul does not, however,
124 provide evidence of the extent to which Value Line’s earnings forecasts
125 influence investor expectations and fails to demonstrate that the Value Line
126 EPS forecasts are universally employed. Furthermore, I am not aware of any
127 evidence that the investment community regards as doubtful any analysis that
128 does not consider the Value Line EPS forecasts. In fact, there are several
129 reasons for not including the Value Line EPS forecasts. First, the
130 methodology Value Line uses to normalize its EPS forecasts is flawed in that
131 the models employed are simplistic and mechanistic. Second, Value Line’s
132 growth forecasts are for a shorter time horizon (3-5 years) than the five-year
133 IBES and Zacks forecasts. Finally, the testimonials of both Warren Buffet
134 and Fischer Black, to which Mr. Moul points in support of the use of Value

⁸ Ibid., at 13.

135 Line EPS forecasts, seem to be referring to the Value Line “system” in
136 general rather than the Value Line EPS forecasts specifically. Value Line
137 provides a great deal of information, including EPS forecasts. However, to
138 say that someone holds the overall Value Line product in high regard, does
139 not mean that he is recommending every individual aspect of the Value Line
140 service. I do not dispute the value of the Value Line product, only the
141 absolute need to include the Value Line EPS forecasts in my analysis.

142 **CAPM Analysis**

143 13. Q. Mr. Moul criticizes your CAPM analysis because the betas you used do not
144 “conform with the data used by investors,” recommending, instead, the use of
145 Value Line betas.⁹ Please comment.

146 A. First, validity of Staff’s beta estimation methodology is not a function of
147 whether investors consult Staff on beta estimates. Rather, the validity of the
148 methodology is a function of whether it is generally accepted. The
149 methodology used by Staff in calculating beta is the same methodology used
150 by Merrill Lynch and is widely accepted. Second, Value Line does not
151 publish betas for all of the companies included in my samples, whereas
152 Staff’s methodology directly measures the sample beta, incorporating all
153 companies in the samples. Third, Value Line does not provide regression
154 statistics that are necessary for evaluating the validity of its beta estimates.

⁹ Ibid., at 15-16.

155 14. Q. Mr. Moul criticizes your use of Treasury bonds to represent the risk-free
156 rate.¹⁰ Please comment.

157 A. First, Mr. Moul's criticism of my use of T-bond yields seems disingenuous
158 since he uses T-bond yields in his own analysis. Second, Mr. Moul was
159 misinformed regarding Staff's "traditional" determination of the risk-free rate.
160 Staff "traditionally" has used a methodology for determining the risk-free
161 rate, not a particular instrument as Mr. Moul indicates. This methodology
162 was outlined on pages 17-21 of my direct testimony.

163 15. Q. Mr. Moul claimed that you seemed tentative in selecting Treasury bonds to
164 represent the risk-free rate.¹¹ Please comment.

165 A. Yes, I was tentative in my selection of either Treasury bills or Treasury bonds,
166 as the yields on both seemed high relative to WEFA and *Survey of*
167 *Professional Forecasters* forecasts. Thus, after careful consideration, I
168 reluctantly chose the Treasury bond yield without an adjustment to remove the
169 interest rate risk premium imbedded in its yield.

170 **Historical Data**

171 16. Q. In defense of his use of historical data Mr. Moul, points out that "most notable
172 research has used historical data."¹² Please comment.

¹⁰ Ibid.

173 A. Of course, researchers study historical data. They certainly cannot study the
174 future. The fact that academic researchers use historical data for
175 “investigating and testing theories” is irrelevant to estimating a company’s
176 cost of capital. The investor required rate of return is based on investors’
177 expectations of the future, not the experiences of the past.

178 17. Q. Mr. Moul points out that you used historical data extensively in the process of
179 selecting your comparable utility companies.¹³ Please comment.

180 A. I did use historical data to determine which companies have been,
181 historically, the most similar in risk to IAWC. The comparable sample was
182 developed using current accounting data, which is historical by nature, since
183 expectational, market-based indicators of risk are not directly measurable.
184 However, historical data was not directly used in determining the cost of
185 equity, as it was in Mr. Moul’s analysis. The development of my comparable
186 sample and his computation of his cost of equity recommendation are based
187 on entirely different principles. The DCF model is a time-sensitive, forward-
188 looking and market-based estimator of the investor-required rate of return on
189 the security in question. To validly calculate the current investor-required rate
190 of return, current stock prices are necessary. The use of accounting data in
191 developing my comparable sample assumes certain relative historical
192 relationships among companies remain reasonably unchanged. To compute

¹¹ Ibid.

¹² Ibid., at 20.

¹³ Ibid., at 21.

193 my cost of equity recommendation I applied current data to those
194 relationships. That is, the use of accounting data in developing my
195 comparable sample is based on relative values while the use of market data
196 in computing my cost of equity recommendation is based on absolute values.
197 It is reasonable to assume that relative relationships among utilities remain
198 similar. In contrast, absolute market expectations data changes quickly and
199 often, making the latest spot prices the best current estimates of market
200 expectations.

201 17. Q. Mr. Moul claims that using historical data avoids the “vagaries” of the market
202 and avoids the gamesmanship that can occur with the use of spot data.¹⁴ Do
203 you agree?

204 A. No. The “vagaries” of the market would not apply to growth rate projections
205 or dividends. In fact, such “vagaries” would at best apply only to stock price
206 information. As discussed on pages 27-30 of my direct testimony, using
207 historical data in pricing stocks presents many problems. First, as
208 discussed previously, every day new information becomes available and
209 investors rethink their projections of future cash flows and the risk level of the
210 company. Any information reflected in historical prices, as well as new
211 information that is not, is reflected in current prices. Thus, only a current stock
212 price will reflect all information that is available and relevant to the market.
213 Using historical data gives undue weight to information that may be obsolete.
214 Second, the magnitude of historical risk premiums depends upon the

¹⁴ Ibid.

215 measurement period used. Since there is no proven method for determining
216 the appropriate measurement period to use, any measurement period
217 chosen would be arbitrary. That is, use of historical data in determining
218 required rates of return renders such estimates susceptible to manipulation,
219 the same “gamesmanship”, I believe, which Mr. Moul claims spot prices
220 introduce and historical prices avoid.

221 18. Q. Mr. Moul claims that using historical data captures expectations of future
222 market returns.¹⁵ Please comment.

223 A. As discussed above, historical data only captures information about the past,
224 which may not continue into the future. The implication is that there exists
225 some mean to which prices will revert. That assumption is false, as
226 discussed on page 27 of my direct testimony.

227 19. Q. Please respond to Mr. Moul’s comments regarding the calculation of the risk
228 premium for the S&P Public Utilities.¹⁶

229 A. Mr. Moul argues that any discrepancy between my results and his is due to
230 my use of a less detailed, annual approach as compared to his use of a
231 more detailed, supposedly theoretically correct monthly approach, implying
232 that his approach was superior to mine. I am not aware of any empirical
233 support, much less theory, that shows that using monthly data is superior to

¹⁵ Ibid.

¹⁶ Ibid., at 22.

234 using annual data. Even so, the fact that using monthly data produces
235 significantly different results from using annual data simply reveals the
236 “vagaries” of using historical data.

237 **Leverage Adjustment**

238 20. Q. Please respond to Mr. Moul’s comments regarding his use of a leverage
239 adjustment in his DCF and CAPM analyses.¹⁷

240 A. In his rebuttal testimony Mr. Moul states that his “leverage adjustment is not
241 intended, nor was it designed to address the reasons that stock prices are
242 different from book values.” That was exactly my point. The leverage
243 adjustment is used to justify higher rates based on the fact that market values
244 have deviated from book values, yet it ignores the reasons for those
245 differences. As explained in my direct testimony, the Commission should not
246 reward the Company for alleged differences between its market and book
247 values.

248 21. Q. In his rebuttal testimony Mr. Moul states that neither you nor Mr. Gorman
249 dispute that using market values produces equity ratios of 63.62% and
250 66.24% for Mr. Moul’s Water Group and Public Utility Group, respectively.¹⁸
251 Please comment.

¹⁷ Ibid., at 22-23.

¹⁸ Ibid.

252 A. Since the market value of IAWC's common equity is above that of its book
253 value, it obviously follows that the resulting equity ratio would be higher when
254 based on market values than when based on book values. Naturally, I did not
255 dispute that simple mathematical fact. However, as I stated on page 38 of
256 my direct testimony, using market values to calculate the equity ratio does
257 nothing to change the risk level of a company.

258 **Size Adjustment**

259 22. Q. Please respond to Mr. Moul's defense of his size adjustment.¹⁹

260 A. Mr. Moul's argues that because Ibbotson's size-based premium study
261 included utilities, the study applies to utilities. Unfortunately, his logic is not
262 sound. Just because a study includes some utility companies does not
263 mean that the average results apply to utilities specifically. As explained on
264 page 40 of my direct testimony, public utilities differ significantly from
265 industrial companies. Furthermore, the only evidence of which I am aware
266 that pertains specifically to utilities, indicates that no size-based premium is
267 warranted for utilities.²⁰ Mr. Moul has failed to repudiate those findings.

268 Mr. Moul also claims that "the adjustment for the betas relates to regression
269 bias and has nothing to do with the issue of size." I presume that this
270 statement is meant to counter my argument that a size-adjustment should not

¹⁹ Ibid., at 24.

²⁰ Wong, "Utility Stocks and the Size Effect: an Empirical Analysis," *Journal of the Midwest Finance Association*, 1993, pp. 95-101.

271 be used in conjunction with adjusted betas. But again, Mr. Moul's logic is
272 flawed. Ibbotson calculated size premiums based on a finite time period
273 during which smaller companies realized returns in excess of that predicted
274 by the CAPM using unadjusted ("raw") betas. Since use of adjusted betas in
275 the CAPM would result in higher predicted returns for utilities than if raw
276 betas were used, then a size premium for utilities, if it existed, would be
277 smaller if adjusted betas were substituted for raw betas. This is an
278 incontrovertible result of mathematics. Thus, since Ibbotson bases its size
279 premium on raw beta, it is inappropriate to add that size premium to an
280 adjusted beta.

281 Finally, even if a size-based risk premium were warranted, which it is not, it
282 should be based on the size of American Water Works ("AWW"). As
283 explained on page 39 of my direct testimony, to the extent that a correlation
284 between firm size and return exists, that relationship is likely the result of
285 some other factor or factors that are related to both size and return, such as
286 liquidity or information costs. Conceivably, a higher return on publicly traded
287 companies similar in size to IAWC may be required in order to offset these
288 higher trading costs. However, IAWC is not publicly traded; therefore, IAWC
289 incurs no trading costs. As the market-traded entity that raises common
290 equity for IAWC, any trading costs, if they exist to a measurable degree,
291 would be incurred by IAWC's parent, AWW.

292

Correction

293 23. Q. Are there any corrections and/or editions you would like to make to your
294 Direct Testimony?

295 A. Yes. In my direct testimony I inadvertently omitted one of the criteria I used in
296 selecting my water sample. Companies that are targets of acquisition were
297 also excluded from my water sample. E'Town and United Water Resources,
298 which have recently been acquired by Thames Water and Suez Lyonnaise
299 des Eaux, respectively, were excluded from my water sample for that reason.

300 23. Q. Does this conclude your rebuttal testimony?

301 A. Yes, it does.

Illinois-American Water Company

Weighted Average Cost of Capital
 Average for 2001 Test Year

Company Proposal

	<u>Amount</u>	<u>Percent of Total Capital</u>	<u>Cost</u>	<u>Weighted Cost</u>
Long-term Debt	\$170,643,270	54.60%	6.97%	3.81%
Preferred Stock	\$627,454	0.20%	6.25%	0.01%
JDITC	\$2,263,661	0.72%	8.88%	0.06%
State Investment Tax Credit	\$967,582	0.31%	8.88%	0.03%
Common Equity	<u>\$138,036,412</u>	<u>44.17%</u>	<u>11.25%</u>	<u>4.97%</u>
Total Capital	\$312,538,379	100.00%		

Weighted Average Cost of Capital **8.88%**

Staff Proposal

	<u>Amount</u>	<u>Percent of Total Capital</u>	<u>Cost</u>	<u>Weighted Cost</u>
Long-term Debt	\$170,681,887	55.26%	6.96%	3.85%
Preferred Stock	\$627,454	0.20%	6.25%	0.01%
Common Equity	<u>\$137,573,848</u>	<u>44.54%</u>	<u>9.9-10.5%</u>	<u>4.41-4.68%</u>
Total Capital	\$308,883,189	100.00%		

Weighted Average Cost of Capital **8.27-8.54%**

Sources: Staff Schedule 3.1
 Staff Schedule 8.2

Illinois-American Water Company

Month	Common Equity	Change in	Change in	Payout Ratio	Change in	Change in	Common Equity	Average
	Month-End	Earnings:	Earnings:		Dividends	Common	Month-End	
	Balance: Present Rates (A)	Company Proposed Rates (B)	Staff Proposed Rates (C)		Paid: (E)	Equity: Staff Proposed Rates (F)	Balance: (G)	
December 2000	135,217,828	-	-		-	-	135,217,828	-
January 2001	135,894,677	-	-		-	-	135,894,677	135,556,253
February	136,422,836	-	-		-	-	136,422,836	136,158,757
March	134,622,427	-	-		-	-	134,622,427	135,522,632
April	135,363,153	461,296	332,594	75%	-	332,594	135,695,747	135,159,087
May	136,352,467	461,296	332,594	75%	-	332,594	137,017,655	136,356,701
June	135,753,154	461,296	332,594	75%	-	332,594	136,750,936	136,884,296
July	137,199,310	461,296	332,594	75%	249,446	83,149	138,280,241	137,515,588
August	138,534,795	461,296	332,594	75%	249,446	83,149	139,698,874	138,989,557
September	137,547,147	461,296	332,594	75%	249,446	83,149	138,794,375	139,246,624
October	138,607,090	461,296	332,594	75%	249,446	83,149	139,937,466	139,365,920
November	139,387,053	461,296	332,594	75%	249,446	83,149	140,800,578	140,369,022
December 2001	137,226,220	461,296	332,594	75%	249,446	83,149	138,722,893	139,761,735
Average:								<u>137,573,848</u>

Notes:

Column (C) = Column (B) X (Staff Proposed ROE Deficiency / Company Proposed ROE Deficiency)

ROE Deficiency = Weighted Rate of Return on Common Equity X Rate Base - Operating Income under Present Rates -
 (Weighted Costs of Debt and Preferred Stock X Rate Base)

Sources: Company responses to Staff data requests MGM 2.04, 2.09, and 5.01.
 ICC Staff Exhibit 6, Schedules 6.1 and 6.3 for each division.
 ICC Staff Exhibit 3, Schedule 3.1.

ILLINOIS-AMERICAN WATER COMPANY

Explanatory Notes to Common Equity Schedule

Column A - Common Equity Month-End Balance: Present Rates

The month-end balances of common equity shown in Column A were provided by the Company in response to Staff data request MGM 5.01 and represent the Companies projections of common equity, assuming present rates.

Column B - Change in Earnings: Company Proposed Rates

Because the suspension period in this proceeding does not end until mid-March of 2001, Staff has assumed that the new rates authorized by the Commission will not be instituted until April 1, 2001. Therefore there will be no change in earnings for the months of January through March. Each monthly balance from April through December 2001 is calculated by dividing the Company's proposed \$5,535,458 adjustment to utility operating income under present rates¹ by twelve.

Column C - Change in Earnings: Staff Proposed Rates

The monthly balances in Column C are determined by multiplying each month's corresponding monthly balance in Column B by the ratio of Staff's proposed ROE deficiency to the Company's proposed ROE deficiency (i.e., \$3,991,290 / \$5,535,458, or 72.1%). The Staff ROE deficiency of \$3,991,290 is computed as follows:

Weighted Cost of Common Equity * Rate Base - (Company estimate of Operating Income Under Present Rates - (Company Weighted Costs of Long-Term Debt & Preferred Stock * Company estimated Rate Base))

where:		ROE Deficiency	
		<u>Staff</u>	<u>Company</u>
Weighted Cost of Equity	=	4.54%	5.02%
Proposed Rate Base	=	\$296,296,866	\$298,727,804
Operating Income Under Present Rates	=	\$20,991,481	\$20,991,481
		(Company Estimate)	
Weighted Cost of Debt and Preferred Stock	=	3.86%	3.86%
		(Company Estimate)	

¹ Company Exhibit 12.0, Schedule C-1, page 1, line 7.

Column D - Payout Ratio

The payout ratio is equal to one minus the Company's annual average retention ratio of 25%.²

Column E - Change in Dividends Paid: Staff Proposed Rates

The Company indicated that current quarter dividends are based on previous quarter earnings.³ Thus, the change in dividends paid each month equals the dividend payout ratio (Column D) multiplied by the change in earnings three months (i.e., one quarter) prior (Column C).

Column F - Change in Common Equity: Staff Proposed Rates

The change in common equity each month is equal to the change in earnings for the month (Column C) minus the change in dividends paid that month (Column E).

Column G - Common Equity Month-End Balance: Staff Proposed Rates

For each month, the common equity month-end balance is equal to the common equity month-end balance from the preceding month plus 1) the change in equity at current rates (i.e., the difference between the common equity balance in Column A for that month and the preceding month) plus 2) the change in common equity for the month at Staff proposed rates (Column F).

Column H - Average Common Equity Balance

The average common equity balance for each month is the average of the beginning and ending balances of common equity for that month. The average monthly balances are then averaged to obtain an average common equity balance for the year.

² Company responses to Staff data requests MGM 2.04 and 2.09.

³ Company response to Staff data request MGM 2.09.