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Issue:	*Rate of Return*
Witness:	*Matthew J. Barnes*
Sponsoring Party:	*MoPSC Staff*
Type of Exhibit:	*Direct Testimony*
Case No.:	*WR-2006-0425*
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

MATTHEW J. BARNES

ALGONQUIN WATER RESOURCES OF MISSOURI, LLC

CASE NO. WR-2006-0425

Jefferson City, Missouri
December 2006

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Tariff Filing Algonquin Water Resources of Missouri, LLC to Implement a General Rate Increase for Water and Sewer Service Provided to Customers in Its Missouri Service Areas.	)))))	Case No. WR-2006-0425

AFFIDAVIT OF MATTHEW J. BARNES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Matthew J. Barnes, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Direct Testimony in question and answer form, consisting of 21 pages to be presented in the above case; that the answers in the foregoing Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

Matthew J. Barnes

Subscribed and sworn to before me this 30th day of November 2006.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
County of Cole
My Commission Exp. 07/01/2008

Notary Public

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DIRECT TESTIMONY

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MATTHEW J. BARNES

ALGONQUIN WATER RESOURCES OF MISSOURI, LLC

CASE NO. WR-2006-0425

Q. Please state your name.

A. My name is Matthew J. Barnes.

Q. Please state your business address.

A. My business address is P.O. Box 360, Jefferson City, Missouri, 65102.

Q. What is your present occupation?

A. I am employed as a Utility Regulatory Auditor III for the Missouri Public Service Commission (Commission). I accepted the position of Utility Regulatory Auditor I in June 2003 and have since been promoted.

Q. Were you employed before you joined the Commission's Staff (Staff)?

A. Yes, I was employed by the Missouri Department of Natural Resources (MDNR). Prior to MDNR I was employed by the Missouri Department of Conservation as an Auditor Aide.

Q. What is your educational background?

A. I earned a Bachelor of Science degree in Business Administration with an emphasis in Accounting from Columbia College in December 2002. I earned a Masters in Business Administration with an emphasis in Accounting from William Woods University in May 2005.

Q. Have you filed testimony in other cases before this Commission?

A. Yes. I filed Supplemental Direct Testimony in BPS Telephone Company (BPS) Case No. TC-2002-1076; Rebuttal Testimony in Sprint Nextel Case No. IO-2006-0086; Rebuttal Testimony in Alltel Missouri, Inc. Case No. TM-2006-0272 and Direct, Rebuttal, and Surrebuttal Testimony in Kansas City Power and Light Company (KCP&L) Case No. ER-2006-0314. I sponsored rate-of-return testimony in both the BPS and KCP&L cases. The BPS case is closed and the KCP&L is still pending with the Commission.

The issues I covered in Alltel Missouri Inc. Case No. TM-2006-0272 and Sprint Nextel Case No. IO-2006-0086 were the spin-off of the utilities' regulated landline operations into a new, separate company. I analyzed indicative credit rating reports from the three major credit rating agencies (Standard & Poor's, Moody's, and Fitch), which discussed the potential credit rating, a reasonable dividend payout ratio and cash flows from the new spin-off companies. I then used the indicative credit rating reports and compared the potential credit rating, dividend payout ratio, and cash flows of the spin-off companies to a group of similar telephone companies. These two cases were settled and presented to the Commission during an on-the-record presentation. My positions in both cases were approved by the Commission.

Q. Have you participated in other rate cases in the past?

A. Yes. I participated in AmerenUE Case No. GR-2003-0517, Aquila, Inc. Case No. ER-2004-0034, Empire Case No. ER-2004-0570, and Missouri-American Water Case No. WR-2003-0500. I was involved in preparing the schedules and review of testimony for the department manager and the Auditor IV concerning rate of return.

Q. Have you made recommendations in any other cases before this Commission?

A. Yes, I have made recommendations on finance, merger and acquisition cases before this Commission.

Q. Have you attended any schools, conferences or seminars specific to utility finance and utility regulation?

A. Yes. I attended The Rate Case Process in Missouri presented by the Staff of the Missouri Public Service Commission in March 2005. I have also attended the Financial Research Institute seminars in 2003 and 2004 which covered topics such as rate of return, restructuring of electric utility companies and the future operations of utility companies.

Q. What is the purpose of your testimony in this case?

A. I present the Staff's recommendation to the Commission of a fair and reasonable rate of return for the Missouri jurisdictional water utility rate base of Algonquin Water Resources of Missouri, LLC (AlgonquinMO or Company).

Q. Have you prepared a written analysis of the cost of capital for AlgonquinMO?

A. Yes. I am sponsoring a study entitled "An Analysis of the Cost of Capital for Algonquin Water Resources of Missouri, LLC, Case No. WR-2006-0425" consisting of 19 schedules which are attached to this direct testimony (see Schedule 1 for a list of these schedules).

EXECUTIVE SUMMARY

Q. Please provide an executive summary of your testimony.

A. I present the Staff's recommendation that the Commission authorize an overall rate of return (ROR) of 7.02 percent to 7.50 percent for AlgonquinMO. This rate-of-return recommendation is based on a recommended return on common equity of 8.06 percent

to 9.06 percent applied to a hypothetical common equity ratio of 47.88 percent based on the average common equity ratio of my comparable group. The recommendation is driven by my comparable company analysis using the discounted cash flow (DCF) model. I believe the DCF model is the most reliable model available.

Staff used a hypothetical embedded cost of long-term debt of 6.01 percent. Staff used a hypothetical capital structure as of December 31, 2005 as the basis for the Staff's capital structure recommendation for AlgonquinMO. This capital structure is based on the average capital structures of my comparable group. A complete and detailed explanation of the Staff's recommended capital structure starts on page 11, line 15 of this testimony.

Q. How did you determine the Staff's recommended cost of common equity?

A. I determined the Staff's recommended cost of common equity by applying the DCF model to a comparable group of water utility companies. I then evaluated a number of factors to test the reasonableness of this recommendation. A complete and detailed explanation of the Staff's recommended cost of common equity starts on page 14, line 19 of this testimony.

Q. How did you determine the Staff's recommended embedded cost of debt?

A. I determined an embedded cost of debt of 6.01 percent as of December 31, 2005 by calculating the comparable groups' stated cost of long-term debt and Missouri-American Water Company's (MOAWC) embedded and stated cost of long-term debt. Staff used MOAWC as a starting point to determine how much issuance costs should be included in the hypothetical embedded cost of debt for AlgonquinMO. A complete and detailed explanation of the Staff's recommended embedded cost of debt for AlgonquinMO starts on page 12, line 21 of this testimony.

LEGAL PRINCIPLES

Q. What legal principles do you understand constitute the basis for the assessment of the justness and reasonableness of rate-of-return recommendations?

A. I understand that the *Bluefield Water Works and Improvement Company* (1923) (*Bluefield*) and the *Hope Natural Gas Company* (1944) (*Hope*) cases have been cited as the two most influential cases for the legal framework to determine a fair and reasonable rate of return.

Q. What do you understand to be the teachings of the *Bluefield* case?

A. In the *Bluefield* case the Supreme Court ruled that a fair return would be:

1. A return "generally being made at the same time" in that "general part of the country;"

2. A return achieved by other companies with "corresponding risks and uncertainties;" and

3. A return "sufficient to assure confidence in the financial soundness of the utility."

The Court specifically stated:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes

> affecting opportunities for investment, the money market and business conditions generally.

Q. What do you understand to be the teachings of the *Hope* case?

A. In the *Hope* case, the Court stated that:

> The rate-making process . . . , *i.e.*, the fixing of "just and reasonable" rates, involves a balancing of the investor and the consumer interests. Thus we stated . . . that "regulation does not insure that the business shall produce net revenues" . . . it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock . . . . By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

The *Hope* case restates the concept of comparable returns to include those achieved by other enterprises that have "corresponding risks." The Supreme Court also noted in this case that regulation does not guarantee profits to a utility company.

Q. Do you have any further comments on the use of cost of capital models to determine a fair rate of return?

A. Yes. See Schedule A.

CURRENT ECONOMIC CONDITIONS

Q. What are the main aspects of the current capital and economic environment that the Commission should consider in determining a reasonable authorized return on common equity (ROE) for AlgonquinMO?

A. The Federal Reserve (Fed) has been steadily raising the Fed Funds rate by 25 basis points since June 30, 2004. This began after the Fed had kept the Fed Funds Rate at a 46-year low of 1.00 percent for a full year. The Fed has now raised the Fed Funds Rate

seventeen consecutive times to its current level of 5.25 percent and has kept it at that level since June 2006. According to a November 16, 2006, article in the *Wall Street Journal*:

> Federal Reserve officials remain firmly focused on inflation, minutes of their last policy meeting show, suggesting that a near-term cut in interest rates remains unlikely. Since the Oct. 24-25 meeting, markets have begun to see a greater probability of a rate cut by May, in part because of softer-than-expected data on wholesale prices, manufacturing activity and retail sales.
>
> Still, the meeting minutes, released yesterday with the usual three-week lag, suggest the central bank is sufficiently preoccupied with inflation that the latest data would have little effect on its rate intentions.
>
> …At the October meeting, the policy-making Federal Open Market Committee left its target for short-term interest rates at 5.25%, where it has stood since late June.

Q. How have utility bond yields responded to the tightening of U.S. monetary policy?

A. A review of Schedules 5-1 and 5-3 shows that since average utility bond yields fell to an average annual yield of 5.39 percent during June 2005, which was the lowest yield in the past 26 years, average utility bond yields had increased to an average of 6.39 percent in May and June 2006, but have since declined to an average of 6.01 percent in October 2006.

Q. Would you explain the changes in utility bond yields and Thirty-Year U.S. Treasury bond yields in a little more detail?

A. Cost-of-capital changes for utilities are closely reflected in the yields on public utility bonds and yields on Thirty-Year U.S. Treasury Bonds (see attached Schedules 5-1 and 5-2). Schedule 5-3, attached to this direct testimony, shows how closely the Mergent's "Public Utility Bond Yields" have followed the yields of Thirty-Year U.S.

Treasury Bonds during the period from 1980 to the present. The average spread for this period between these two composite indices has been 151 basis points, with the spread ranging from a low of 80 basis points to a high of 304 basis points (see attached Schedule 5-4). Although there may be times when utility bond yield changes may lag the yield changes in the Thirty-Year U.S. Treasury Bond, these spread parameters show just how tightly utilities' cost of capital is correlated with the level of interest rates on long-term treasuries. For a detailed explanation of historical economic conditions please see Schedule B.

Q. What is the significance of the current economic conditions for AlgonquinMO and what conclusions should the Commission draw from it?

A. The significance of the current economic conditions for AlgonquinMO is that yields on public utility bonds and yields on Thirty-year Treasury bonds are low by recent historical standards. An example of recent historical standards is the double-digit yields for long-term U.S. Government bonds and corporate bonds from the late-1970s to the mid-1980s. A lower interest rate environment means a lower cost of capital and a higher interest rate environment means a higher cost of capital for a utility. The current yields on U.S. Government bonds and corporate bonds are now more normal by historical standards. The Commission should take the lower and more normal yields on U.S. Government and corporate bonds into consideration when authorizing a rate of return for AlgonquinMO. For a history of long-term investment grade Baa (Moody's equivalent of S&P's BBB credit rating) corporate bond yields, please see Schedule 5-5.

ECONOMIC PROJECTIONS

Q. Do you have any information on economic projections?

A. Yes. See Schedule C for projections on inflation, interest rates and gross domestic product (GDP).

BUSINESS OPERATIONS OF ALGONQUIN POWER INCOME FUND

Q. Please describe Algonquin Power Income Fund's (Algonquin Power) business operations.

A. Algonquin Power, which is a Canadian company, 2005 Annual Report provides a good description of Algonquin Power's business operations:

> Algonquin Power Income Fund is an open-ended investment trust that owns or has interests in a diverse portfolio of power generating and infrastructure assets across North America, including 48 hydroelectric facilities, five natural gas-fired cogeneration facilities, 17 alternative fuels facilities and 15 water reclamation and distribution facilities. Algonquin Power was established in 1997 to provide unitholders with sustainable, highly stable and growing cash flows through a diversified portfolio of energy and infrastructure assets. The Fund's units and convertible debentures are traded on the Toronto Stock Exchange under the symbols APF.UN and APF.DB, respectively.

Q. What are Algonquin Power's divisions?

A. Algonquin Power has four operating divisions within its portfolio. They are the Hydroelectric Division, Cogeneration Division, Alternative Fuels Division, and the Infrastructure Division. AlgonquinMO's water operations operate under the Infrastructure Division. Algonquin Power reports its financial statements in Canadian dollars. Therefore, the following information is in Canadian dollars. Algonquin Power's total operating profit was C$84,031,000 for the 12 months ended December 31, 2005, versus C$76,826,000 for the 12 months ended December 31, 2004. These 2005 revenues resulted in cash available for

distribution of C$64,892,000 and earnings per trust unit of C$.93 as compared to the 2004 cash available for distribution of C$59,887,000 and earnings per trust unit of C$.87. These revenues and net incomes were generated from total assets of C$823,801,000 at December 31, 2005, and C$824,796,000 at December 31, 2004. These figures were taken from Algonquin Power's Annual Report for the 2005 calendar year from Algonquin Power's company website at www.algonquinpower.com.

Q. What is Algonquin Power's current credit rating?

A. Algonquin Power's current Standard & Poor's Corporation's (S&P) corporate credit rating is "BBB+" with a Negative outlook, which is three notches above non-investment grade, *i.e*. junk status.

Q. Please provide some comments from a recent S&P research report on Algonquin Power.

A. S&P's June 13, 2006 *Algonquin Power Income Fund Research Report* provided the following explanation of Algonquin Power's credit rating:

> The ratings on Algonquin Power Income Fund (APIF or the fund) reflect the fund's diversified electricity generation and water and waste-water utility portfolio; a large proportion of contracted or regulated revenue streams with investment-grade counterparties; and an average financial risk profile. APIF's exposure to fuel and technology risk, the complexity of its portfolio of investments, and the execution and integration risk associated with its ongoing aggressive acquisition strategy offset these strengths.

DETERMINATION OF THE COST OF CAPITAL

Q. How do you determine a utility company's cost of capital?

A. The total dollars of capital utilized by the utility company are determined as of a specific point in time. This total dollar amount is then apportioned into each specific

capital component, *i.e.* common equity, long-term debt, preferred stock and short-term debt. A weighted cost for each capital component is determined by multiplying each capital component ratio by the appropriate embedded cost or by the estimated cost of common equity component. The individual weighted costs are summed to arrive at a total weighted cost of capital. This total weighted average cost of capital (WACC) is synonymous with the fair rate of return for the utility company.

Q. Why is a total WACC synonymous with a fair rate of return?

A. From a financial viewpoint, a company employs different forms of capital to support or fund the assets of the company. Each different form of capital has a cost and these costs are weighted proportionately to fund each dollar invested in the assets.

Assuming that the various forms of capital are within a reasonable balance and are costed correctly, the resulting total WACC, when applied to rate base, will provide the funds necessary to service the various forms of capital. Thus, the total WACC corresponds to a fair rate of return for the utility company.

CAPITAL STRUCTURE AND EMBEDDED COSTS

Q. What capital structure did you use for AlgonquinMO?

A. The capital structure Staff used for AlgonquinMO is a hypothetical capital structure based on a selection of comparable companies, as of December 31, 2005.

Q. Why did Staff use a hypothetical capital structure and not a company-specific capital structure?

A. Staff used a hypothetical capital structure because AlgonquinMO's operations are part of a division of Algonquin Power. Consequently, AlgonquinMO does not have stock

that is publicly traded in the United States' capital markets. Although Algonquin Power has publicly traded stock, Algonquin Power's corporate offices are located in Oakville, Ontario Canada and the company's stock is traded on the Toronto Stock Exchange. The Staff is not familiar with Canadian markets. Staff cannot provide informed judgment as to whether the costs of capital in Canada are similar to those in the United States. Algonquin Power is also organized differently than water companies in the United States. Algonquin Power is organized under operating divisions rather than subsidiaries, which is unusual for a United States water company. Staff chose to use a hypothetical capital structure, consisting of American water companies' financial information, to determine a reasonable rate of return for AlgonquinMO's jurisdictional operations.

Schedule 11 presents Staff's proposed hypothetical capital structure. The resulting hypothetical capital structure consists of 47.88 percent common stock equity and 52.12 percent long-term debt. The amount of long-term debt outstanding as of December 31, 2005 for Staff's hypothetical capital structure was $1,599,818,178 and includes current maturities of long-term debt due within one year. The amount of long-term debt in the hypothetical capital structure is shown on Schedule 10-1 attached to this direct testimony.

Q. Did Staff include any short-term debt in its capital structure?

A. No. Staff did not include any short-term debt in the hypothetical capital structure because, as of December 31, 2005, each company in Staff's comparable group had Construction Work In Progress (CWIP) that exceeded its short-term debt balance.

Q. What was the embedded cost of long-term debt, as of December 31, 2005, for the debt in AlgonquinMO's hypothetical capital structure?

A. The embedded cost of long-term debt for the debt in AlgonquinMO's hypothetical capital structure as of December 31, 2005, was 6.01 percent.

Q. What is a stated cost of long-term debt?

A. The stated cost of long term debt is simply the stated coupon rate or interest rate for each issuance of debt. The stated cost of long-term debt for each comparable company can be found in Schedules 9-1, 9-2, 9-3, and 9-4.

Q. What is an embedded cost of long-term debt?

A. Staff utilizes the Simple Interest (Amortization) Method to determine the embedded cost of long-term debt. Page 5-4 of David C. Parcell's book The Cost of Capital-A Practitioner's Guide, provides a description of the Simple Interest (Amortization) Method to determine the embedded cost of long-term debt. "This method recognizes premium/discount and issuance costs in a more direct fashion, by including annual (usually equal) amortization as costs which are combined with interest payments to determine annual costs." Staff does not have premium/discount and issuance costs available for each comparable company, which is the reason Staff used the difference between MOAWC's embedded cost and stated cost of long-term debt and then added this amount to the comparable companies stated cost of long-term debt to determine the hypothetical embedded cost of long-term debt for AlgonquinMO. The calculation of the hypothetical embedded cost of long-term debt for AlgonquinMO is shown on Schedule 10-2.

Q. How did Staff calculate the embedded cost of long-term debt for the debt in AlgonquinMO's hypothetical capital structure?

A. In this case Staff could not directly determine the embedded cost of long-term debt for the comparable group, due to information that is not reasonably available to the

Staff. Therefore, Staff calculated the embedded cost of long-term debt for AlgonquinMO by starting with Staff's stated cost of long-term debt for my comparable companies of 5.88 percent. Staff then used the embedded cost of long-term debt of 6.10 percent for Missouri American Water Company (MOAWC) in Case No. WR-2003-0500. Staff used the embedded cost of long-term debt of MOAWC to determine how much of the company's embedded cost was attributed to debt issuance expenses, discounts, premiums, etc. Staff then calculated the stated cost of long-term debt for MOAWC to be 5.97 percent. Staff used the difference between MOAWC's embedded cost of long-term debt of 6.10 percent and MOAWC's stated cost of long-term debt of 5.97 percent to arrive at a spread of 13 basis points for debt issuance expenses, discounts, premiums, etc. The spread of 13 basis points was then added to Staff's comparable companys' stated cost of long-term debt of 5.88 percent to arrive at an embedded cost of long-term debt for AlgonquinMO of 6.01 percent.

Q. Was there any preferred stock that should be included in the hypothetical capital structure as of December 31, 2005?

A. No. None of the companies in Staff's comparable group had any preferred stock outstanding as of December 31, 2005. As a result, Staff did not include any preferred stock in AlgonquinMO's hypothetical capital structure.

COST OF COMMON EQUITY

Q. How did you analyze those factors by which the cost of common equity for AlgonquinMO may be determined?

A. In order to calculate the cost of common equity for AlgonquinMO, I performed a comparable company analysis of four companies. I have selected the DCF model (explained in detail in Schedule D) as the primary tool to determine the cost of common equity for AlgonquinMO, but I also used the CAPM (explained in detail in Schedule E) to check the reasonableness of the DCF results.

Q. Can you directly analyze AlgonquinMO's cost of common equity?

A. No. Staff can not directly analyze AlgonquinMO's cost of common equity because they do not have stock that is publicly–traded.

Q. How did you analyze AlgonquinMO's cost of common equity?

A. I analyzed the cost of common equity for a comparable group of water utility companies because these companies have similar water operations that are comparable to AlgonquinMO.

Q. How did you determine which companies were comparable water utility companies?

A. I first relied on the Edward Jones *Water Utility Industry Summary Quarterly Financial and Common Stock Information* as of September 30, 2006, which specifies companies that it considers to be water utilities. Schedule 7 presents a list of the eleven water utility companies that Edward Jones currently classifies as water utility companies. I then applied the following criteria to these eleven companies in order to select my ultimate proxy group:

1. Stock publicly traded: This criterion did not eliminate any companies;
2. Information printed in Value Line: This criterion eliminated three companies;

3. Ten years of data available: This criterion eliminated one additional company;

4. At least investment grade credit rating: This criterion eliminated two companies, because they are not rated by Standard and Poor's;

5. Two sources for projected growth available with one of those being from Value Line: This criterion eliminated one additional company.

6. Greater than 80 percent of revenues from water operations: This criterion did not eliminate any companies.

This resulted in a group of four publicly traded water utility companies, which are listed on Schedule 8.

Q. How did you determine the cost of common equity of each of the comparables?

A. I calculated a DCF cost of common equity for each of the comparables. The first step was to calculate a growth rate. I reviewed the actual dividends per share (DPS), earnings per share (EPS), and book values per share (BVPS) as well as projected EPS growth rates for the comparables. Schedule 12-1 lists the annual compound growth rates for DPS, EPS, and BVPS for the past ten years. Schedule 12-2 lists the annual compound growth rates for DPS, EPS, and BVPS for the past five years. Schedule 12-3 presents the averages of the growth rates shown in Schedules 12-1 and 12-2. Schedule 13 presents the average historical growth rates and the projected growth rates for the comparables. The projected EPS growth rates were obtained from three outside sources; I/B/E/S Inc.'s *Institutional Brokers Estimate System*, Standard & Poor's Corporation's *Earnings Guide*, and *The Value Line Investment Survey: Ratings and Reports*. The three projected EPS growth rates were averaged to develop an average projected growth rate of 6.53 percent, which was averaged with the historical growth rates to produce a historical and projected growth rate of 4.82 percent.

I decide to give the most weight to the average projected growth rate of 6.53 percent to arrive at a growth rate range of 5.18 percent to 6.18 percent.

The next step was to calculate an expected yield for each of the comparables. The yield term of the DCF model is calculated by dividing the amount of DPS expected to be paid over the next twelve months by the market price per share of the firm's stock. Even though a strict technical application of the model requires the use of a current spot market price, I have chosen to use a monthly average market price for each of the comparables. I used this averaging technique to minimize the effects on the dividend yield that can occur due to daily volatility in the stock market. Schedule 14 presents the average high / low stock price for the period of June 1, 2006, through September 30, 2006, for each comparable. Column 1 of Schedule 15 indicates the expected dividend for each comparable over the next 12 months as projected by *The Value Line Investment Survey: Ratings & Reports*, July 28, 2006. Column 3 of Schedule 15 shows the projected dividend yield for each of the comparables. The dividend yield for each comparable was averaged to calculate the projected dividend yield for the comparables of 2.88 percent.

As illustrated in Column 5 of Schedule 15, the average cost of common equity based on the projected dividend yield added to the average of historical and projected growth is 7.70 percent. However, this is not my recommendation. As I mentioned previously, I decided to use a range of growth of 5.18 percent to 6.18 percent. This range of growth is added to the projected dividend yield for the comparables of 2.88 percent to arrive at my DCF proxy group cost of common equity estimation of 8.06 percent to 9.06 percent.

Q. How did you verify the reasonableness of your DCF model-derived cost of common equity for the comparable company group?

A. I performed a CAPM cost-of-common-equity analysis for the comparables.

Q. What did you use for your risk-free rate?

A. For purposes of this analysis, the risk-free rate I used was the yield on Thirty-Year U.S. Treasury Bonds. I determined the appropriate rate to be the average yield for the month of October 2006. The average yield of 4.85 percent was provided on the St. Louis Federal Reserve website.

For the second variable, beta, I researched Value Line in order to find the betas for my comparable group of companies. Schedule 16 contains the appropriate betas for the comparables.

The final term of the CAPM is the market risk premium (R_m - R_f). The market risk premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk-free investment.

Q. Please explain your application of the CAPM using historical return differences.

A. The first risk premium used was based on the long-term, arithmetic average from 1926 to 2005, which was 6.50 percent. The second risk premium was based on the long-term, geometric average from 1926 to 2005, which was determined to be 4.90 percent. The third risk premium was based on a short-term, geometric average from 1996 to 2005, which was determined to be 1.48 percent. Although the short-term risk premium CAPM results are much lower than the long-term risk premium results, it is interesting to note the smaller spread between earned returns on equity versus earned returns on long-term treasury bonds. These risk premiums were taken from Ibbotson Associates, Inc.'s *Stocks, Bonds, Bills, and Inflation: 2006 Yearbook.*

Schedule 16 presents the CAPM analysis of the comparables using historical actual return spreads to estimate the required equity risk premium. The CAPM analysis produces an estimated cost of common equity of 9.97 percent for the comparables when using the long-term arithmetic average risk premium period; using the long-term geometric average produces an estimated cost of common equity of 8.71 percent and using the short-term geometric average produces an estimated cost of common equity of 6.02 percent. The long-term arithmetic average risk premium CAPM results would support a higher cost of common equity, which Staff believes is questionable. The long-term geometric average risk premium CAPM results supports a cost of common equity similar to what is currently produced in performing a DCF analysis.

Q. What is the difference between arithmetic and geometric mean return?

A. According to Ibbotson Associates, Inc.'s *Stocks, Bonds, Bills, and Inflation: 2006 Yearbook,* the definition of arithmetic mean return is, "A simple average of a series of returns." The definition of geometric mean return is, "The compound rate of return. The geometric mean of a return series is a measure of the actual average performance of a portfolio over a given time period."

Q. Please provide a simple example to illustrate why you don't believe investors use arithmetic means when determining the amount of risk premium they will require on a given stock or a portfolio of stocks.

A. Suppose that an investor makes a $1 stock investment over a three-year period. If an investor pays $1 for a stock in year 1 and in year 2 the stock increases to $1.50, then the investor would have a 50 percent growth rate. In year three the price of the stock decreases by 50 percent to $.75. If an investor performed a simple arithmetic average of

these two returns, then they would think that they received 0 percent [(50 percent + -50 percent)/2] growth in their investment over the three-year period. However, in reality the investor actually had a 25 percent decline in their investment over this three-year period. This is why Staff believes that using the arithmetic mean is questionable.

Q. Would you summarize your cost-of-common-equity analysis for AlgonquinMO?

A. I performed a DCF and CAPM cost of common equity analysis on a group of four comparable water utility companies applied to AlgonquinMO's hypothetical capital structure. The results are summarized below.

	DCF	**CAPM (Historical)**
Comparable Companies	8.06% - 9.06%	Historical – 9.97%; 8.71%; 6.02%

Q. Based on your analysis, what is your recommended return on common equity for AlgonquinMO in this proceeding?

A. I recommend a return on common equity in the range of 8.06 percent to 9.06 percent based on the results of my comparable-company-DCF analysis.

RATE OF RETURN FOR ALGONQUINMO

Q. How are the returns you developed for each capital component used in the ratemaking approach you have adopted for AlgonquinMO?

A. The cost-of-service ratemaking method was adopted in this case. This approach develops the public utility's revenue requirement. The cost of service (revenue requirement) is based on the following components: operating costs, rate base and a return allowed on the rate base (see Schedule 18).

It is my responsibility to calculate and recommend a rate of return that should be authorized on the Missouri jurisdictional water utility rate base of AlgonquinMO. Under the cost-of-service ratemaking approach, a weighted cost of capital in the range of 6.99 to 7.47 percent was developed for AlgonquinMO's water utility operations (see Schedule 19). This rate was calculated by applying a hypothetical embedded cost of long-term debt of 6.01 percent and a cost of common equity range of 8.06 percent to 9.06 percent to a capital structure consisting of 52.12 percent long-term debt and 47.88 percent common equity. Therefore, from a financial perspective, I am recommending that AlgonquinMO's water utility operations be allowed to earn a return on its original cost rate base in the range of 7.02 percent to 7.50 percent.

It is my expert opinion that, through my analysis I have developed a fair and reasonable return, which, when applied to AlgonquinMO's jurisdictional rate base, will allow AlgonquinMO the opportunity to earn the revenue requirement developed in this rate case.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

MATTHEW J. BARNES

TESTIMONY SCHEDULES A THROUGH E

ALGONQUIN WATER RESOURCES OF MISSOURI, LLC

CASE NO. WR-2006-0425

RECOMMENDED COST OF COMMON EQUITY

Q. Is your recommendation of the cost of common equity consistent with a fair rate of return on common equity?

A. Yes. It is my expert opinion that my recommendation as to the cost of common equity is consistent with a fair rate of return on common equity. It is generally recognized that authorizing an allowed return on common equity based on a utility's cost of common equity is consistent with a fair rate of return. It is for this very reason that the discounted cash flow (DCF) model is widely recognized as an appropriate model to utilize in arriving at a reasonable recommended return on equity that should be authorized for a utility. The concept of the DCF model is to determine the cost of common equity capital to the utility, which reflects the current economic and capital market environment. For example, a company may achieve a return on common equity that is higher than its cost of common equity. This situation will tend to increase the share price. However, this does not mean that this past, achieved return is the barometer for what would be a fair authorized return in the context of a rate case. It is the lower cost of capital that should be recognized as a fair authorized return. If a utility continues to be allowed a return on common equity that is not reflective of today's current low-cost-of-capital environment, then this will result in the possibility of excessive returns.

The authorized return should provide a fair and reasonable return to the investors of the company, while ensuring that ratepayers do not support excessive earnings that could result from the utility's monopolistic powers. However, this fair and reasonable rate does not necessarily guarantee revenues or the continued financial integrity of the utility.

It should be noted that a reasonable return may vary over time as economic conditions, such as the level of interest rates, and business conditions change. Therefore, the past, present and projected economic and business conditions must be analyzed in order to calculate a fair and reasonable rate of return.

HISTORICAL ECONOMIC CONDITIONS

Q. Please discuss the historical economic conditions in which AlgonquinMO has operated.

A. One of the most commonly accepted indicators of economic conditions is the discount rate set by the Federal Reserve Board (Federal Reserve or Fed). The Federal Reserve tries to achieve its monetary policy objectives by controlling the discount rate (the interest rate charged by the Federal Reserve for loans of reserves to depository institutions) and the Federal (Fed) Funds Rate (the overnight lending rate between banks). However, recently the Fed Funds Rate has become the primary means for the Federal Reserve to achieve its monetary policy, and the discount rate has become more of a symbolic interest rate. This explains why the Federal Reserve's decisions now focus on the Fed Funds rate. It should also be noted that on January 9, 2003, the Federal Reserve changed the way the discount window is administered. Under the changed administration of the discount window, an eligible institution does not need to exhaust other sources of funds before coming to the discount window, nor are there restrictions on the purposes for which the borrower can use primary credit. This explains why the discount rate jumped from 0.75 percent to 2.25 percent on January 9, 2003, even though the Fed Funds rate didn't change. Therefore, discount rates before January 9, 2003, are not comparable to discount rates after January 9, 2003.

At the end of 1982, the U.S. economy was in the early stages of an economic expansion, following the longest post-World War II recession. This economic expansion began when the Federal Reserve reduced the discount rate seven times in the second half of 1982 in an attempt to stimulate the economy. This reduction in the discount rate led to a reduction in the prime interest rate (the rate charged by banks on short-term loans to

borrowers with high credit ratings) from 16.50 percent in June 1982, to 11.50 percent in December 1982. The economic expansion continued for approximately eight years until July 1990, when the economy entered into a recession.

In December 1990, the Federal Reserve responded to the slumping economy by lowering the discount rate to 6.50 percent (see Schedules 2-1 and 2-2). Over the next year-and-a-half, the Federal Reserve lowered the discount rate another six times to a low of 3.00 percent, which had the effect of lowering the prime interest rate to 6.00 percent (see Schedules 3-1 and 3-2).

In 1993, perhaps the most important factor for the U.S. economy was the passage of the North American Free Trade Agreement (NAFTA). NAFTA created a free-trade zone consisting of the United States, Canada and Mexico. The rate of economic growth for the fourth quarter of 1993 was one the Federal Reserve believed could not be sustained without experiencing higher inflation. Therefore in the first quarter of 1994, the Federal Reserve took steps to try to restrict the economy by increasing interest rates. As a result, on March 24, 1994, the prime interest rate increased to 6.25 percent. On April 18, 1994, the Federal Reserve announced its intention to raise its targeted interest rates, which resulted in the prime interest rate increasing to 6.75 percent. The Federal Reserve took action again on May 17, 1994, by raising the discount rate to 3.50 percent. The Federal Reserve took three additional restrictive monetary actions, with the last occurring on February 1, 1995. These actions raised the discount rate to 5.25 percent, and in turn, banks raised the prime interest rate to 9.00 percent.

The Federal Reserve then reversed its policy in late 1995 by lowering its target for the Fed Funds Rate by 0.25 percentage points on two different occasions. This had the effect of

lowering the prime interest rate to 8.50 percent. On January 31, 1996, the Federal Reserve lowered the discount rate to a rate of 5.00 percent.

The actions of the Federal Reserve from 1996 through 2000 were primarily focused on keeping the level of inflation under control, and it was successful. The inflation rate, as measured by the *Consumer Price Index - All Urban Consumers* (CPI), was never higher than 3.70 percent during this period. The increase in CPI stood at 2.10 percent for the twelve months ending September 31, 2006 (see attached Schedules 4-1, 4-2 and 6).

The unemployment rate was 4.40 percent as of October 2006 (see Schedule 6). A lower unemployment rate probably provides the Fed with some comfort to continue to raise the Fed Funds rate if it believes this is needed to contain inflation.

The combination of low inflation and low unemployment had led to a prosperous economy from 1993 through 2000 as evidenced by the fact that real gross domestic product (GDP) of the United States increased every quarter during this period. However, GDP actually declined for the first three quarters of 2001, indicating there was a contraction in the economy during these three quarters. This contraction of GDP for more than two quarters in a row meets the textbook definition of a recession. According to the National Bureau of Economic Research, the recession began in March of 2001 and ended eight months later. Since the recession ended, GDP had been low up until the second quarter of 2003, but since the second quarter of 2003, GDP has been fairly healthy. GDP grew at a rate of 2.60 percent for the third quarter of 2006 (see attached Schedule 6).

INFLATIONARY ESTIMATIONS AND EXPECTATIONS FOR 2006-2008

Q. What are the inflationary estimations and expectations for 2006 through 2008?

A. *The Value Line Investment Survey: Selection & Opinion*, August 25, 2006, estimates inflation to be 2.00 percent for 2006, 2.50 percent for 2007 and 2.40 percent for 2008. The Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2007-2016,* issued January 2006, states that inflation is expected to be 2.80 percent for 2006, 2.20 percent for 2007 and 2.20 percent for 2008 (see attached Schedule 6).

Q. What are the interest rate forecasts for 2006, 2007 and 2008 and the current interest rates?

A. Short-term interest rates (those measured by three-month U.S. Treasury Bills), are estimated to be 4.80 percent in 2006, 4.70 percent in 2007 and 4.50 percent in 2008 according to *Value Line's* predictions. *Value Line* expects the long-term, Thirty-Year U.S. Treasury Bonds to average 4.90 percent in 2006, 4.80 percent in 2007 and 5.20 percent in 2008. The current rate for three-month U.S. Treasury Bills was 4.92 percent as of October 1, 2006, as noted on the St. Louis Federal Reserve website, http://research.stlouisfed.org/fred2/series/TB3MS/22. The current rate for Thirty-Year U.S. Treasury Bonds was 4.70 percent as of November15, 2006, as noted on the CBS MarketWatch website, http://www.marketwatch.com.

Q. What are the growth estimates and expectations for real GDP?

A. GDP is a benchmark utilized by the Commerce Department to measure economic growth within the U.S. borders. Real GDP is measured by the actual GDP, adjusted for inflation. *Value Line* stated that Real GDP is expected to increase by 3.20 percent in 2006, 2.30 percent in 2007 and 3.20 percent in 2008. The Congressional Budget Office's,

The Budget and Economic Outlook: Fiscal Years 2007-2016 stated that Real GDP is expected to increase by 3.6 percent in 2006, 3.4 percent in 2007 and 3.1 percent in 2008 (see attached Schedule 6).

Q. Please summarize the expectations of the economic conditions for the next few years.

A. In summary, when combining the previously mentioned sources, inflation is expected to be in the range of 2.00 percent to 2.80 percent, increase in Real GDP in the range of 2.30 percent to 3.60 percent, and long-term interest rates are expected to range from 4.90 percent to 5.20 percent.

Selected excerpts from *The Value Line Investment Survey: Selection & Opinion,* November 24, 2006, follow:

> The moderation in the economy is continuing as 2006 winds down. In some cases--notably housing--the deceleration in economic activity is intensifying. Otherwise, the picture is largely mixed. True, the sequential pattern in the gross domestic product is disturbing, with growth of 5.6%, 2.6%, and 1.6% respectively, in the first, second, and third quarters of this year. Moreover, the housing slump is deepening and we're seeing softness in manufacturing, auto production, and consumer spending. On the other hand, nonmanufacturing activity is picking up; personal income is on the rise; non-farm payrolls are increasing at a fairly good pace, on average; and the jobless rate is at a five-and-a-half year low.
>
> How serious is the slowdown in business activity likely to become? That is the principal question at this time. Our expectation is that the U.S. economy will remain on a generally slow track in the year ahead, with growth likely to average 2.0%-2.5% in the next few quarters, as the various economic sectors see their outlooks alternately brighten and dim as the business cycle unfolds. Our sense is that we are near the low point in the slowdown, with growth likely to be at the low end of the 2.0%-2.5% range in the current quarter and through the early part of 2007, before climbing back to the top of that range or a little

beyond by the second half of the new year. We do not expect a recession to unfold in 2007, unless the housing downturn accelerates, oil resumes its climb, retail spending falters, or the Federal Reserve Board miscalculates on the interest-rate front.

All eyes will be on the Federal Reserve, as the nation's central bank endeavors to maintain a balanced monetary approach. The objective is to keep interest rates low enough to sustain the economic up cycle (even at this modest rate), but high enough to discourage inflationary excesses in labor and raw materials from taking hold. It is a delicate balancing act, to be sure, but one in which the Fed will need to realize success over the next year given the concurrent softness in the economy and the selective uptick in inflation in recent months.

DCF MODEL

Q. Please describe the DCF model.

A. The DCF model is a market-oriented approach for deriving the cost of common equity. The cost of common equity calculated from the DCF model is inherently capable of attracting capital. This results from the theory that security prices adjust continually over time, so that an equilibrium price exists and the stock is neither undervalued nor overvalued. It can also be stated that stock prices continually fluctuate to reflect the required and expected return for the investor.

The constant-growth form of the DCF model was used in this analysis. This model relies upon the fact that a company's common stock price is dependent upon the expected cash dividends and upon cash flows received through capital gains or losses that result from stock price changes. The interest rate which discounts the sum of the future expected cash flows to the current market price of the common stock is the calculated cost of common equity. This can be expressed algebraically as:

$$\text{Present Price} = \underset{\text{Discounted by k}}{\text{Expected Dividends}} + \underset{\text{Discounted by k}}{\text{Expected Price in 1 year}} \qquad (1)$$

where k equals the cost of equity. Since the expected price of a stock in one year is equal to the present price multiplied by one plus the growth rate, equation (1) can be restated as:

$$\text{Present Price} = \frac{\text{Expected Dividends}}{(1+k)} + \frac{\text{Present Price } (1+g)}{(1+k)} \qquad (2)$$

where g equals the growth rate and k equals the cost of equity. Letting the present price equal P_0 and expected dividends equal D_1, the equation appears as:

$$P_0 = \frac{D_1}{(1+k)} + \frac{P_0(1+g)}{(1+k)} \quad (3)$$

The cost of equity equation may also be algebraically represented as:

$$k = \frac{D_1}{P_0} + g \quad (4)$$

Thus, the cost of common stock equity, k, is equal to the expected dividend yield (D_1/P_0) plus the expected growth in dividends (g) continuously summed into the future. The growth in dividends and implied growth in earnings will be reflected in the current price. Therefore, this model also recognizes the potential of capital gains or losses associated with owning a share of common stock.

The discounted cash flow method is a continuous stock valuation model. The DCF theory is based on the following assumptions:

1. Market equilibrium;
2. Perpetual life of the company;
3. Constant payout ratio;
4. Payout of less than 100% earnings;
5. Constant price/earnings ratio;
6. Constant growth in cash dividends;
7. Stability in interest rates over time;
8. Stability in required rates of return over time; and

9. Stability in earned returns over time.

Flowing from these, it is further assumed that an investor's growth horizon is unlimited and that earnings, book values and market prices grow hand-in-hand. Although the entire list of the above assumptions is rarely met, the DCF model is a reasonable working model describing an actual investor's expectations and resulting behaviors.

CAPM MODEL

Q. Please describe the CAPM.

A. The CAPM describes the relationship between a security's investment risk and its market rate of return. This relationship identifies the rate of return which investors expect a security to earn so that its market return is comparable with the market returns earned by other securities that have similar risk. The general form of the CAPM is as follows:

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

where:

k = the expected return on equity for a specific security;
R_f = the risk-free rate;
β = beta; and
$R_m - R_f$ = the market risk premium.

The first term of the CAPM is the risk-free rate (R_f). The risk-free rate reflects the level of return that can be achieved without accepting any risk. In reality, there is no such risk-free asset, but it is generally represented by U.S. Treasury securities.

The second term of the CAPM is beta (β). Beta is an indicator of a security's investment risk. It represents the relative movement and relative risk between a particular security and the market as a whole (where beta for the market equals 1.00). Securities with betas greater than 1.00 exhibit greater volatility than do securities with betas less than 1.00. This causes a higher beta security to be less desirable to a risk-averse investor and therefore requires a higher return in order to attract investor capital away from a lower beta security.

The final term of the CAPM is the market risk premium ($R_m - R_f$). The market risk premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk-free investment.

AN ANALYSIS OF THE COST OF CAPITAL

FOR

ALGONQUIN WATER RESOURCES OF MISSOURI, LLC

CASE NO. WR-2006-0425

SCHEDULES

BY

MATTHEW J. BARNES

UTILITY SERVICES DIVISION

MISSOURI PUBLIC SERVICE COMMISSION

DECEMBER 2006

Algonquin Water Resources
WR-2006-0425

List of Schedules

Algonquin Water Resources
WR-2006-0425

Federal Reserve Discount Rates Changes and Federal Reserve Funds Rates Changes

Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate	
07/19/82	11.50%		
07/31/82	11.00%		
08/14/82	10.50%		
08/26/82	10.00%		
10/10/82	9.50%		
11/20/82	9.00%		
12/14/82	8.50%		
01/01/83	8.50%		
12/31/83	8.50%		
04/09/84	9.00%		
11/21/84	8.50%		
12/24/84	8.00%		
05/20/85	7.50%		
03/07/86	7.00%		
04/21/86	6.50%		
07/11/86	6.00%		
08/21/86	5.50%		
09/04/87	6.00%		
08/09/88	6.50%		
02/24/89	7.00%		
07/13/90		8.00%	*
10/29/90		7.75%	
11/13/90		7.50%	
12/07/90		7.25%	
12/18/90		7.00%	
12/19/90	6.50%		
01/09/91		6.75%	
02/01/91	6.00%	6.25%	
03/08/91		6.00%	
04/30/91	5.50%	5.75%	
08/06/91		5.50%	
09/13/91	5.00%	5.25%	
10/31/91		5.00%	
11/06/91	4.50%	4.75%	
12/06/91		4.50%	
12/20/91	3.50%	4.00%	
04/09/92		3.75%	
07/02/92	3.00%	3.25%	
09/04/92		3.00%	
01/01/93			
12/31/93	No Changes	No Changes	
02/04/94		3.25%	
03/22/94		3.50%	
04/18/94		3.75%	
05/17/94	3.50%	4.25%	
08/16/94	4.00%	4.75%	
11/15/94	4.75%	5.50%	
02/01/95	5.25%	6.00%	
07/06/95		5.75%	
12/19/95		5.50%	
01/31/96	5.00%	5.25%	
03/25/97		5.50%	
12/12/97	5.00%		
01/09/98	5.00%		
03/06/98	5.00%		
09/29/98		5.25%	
10/15/98	4.75%	5.00%	
11/17/98	4.50%	4.75%	
06/30/99	4.50%	5.00%	
08/24/99	4.75%	5.25%	
11/16/99	5.00%	5.50%	
02/02/00	5.25%	5.75%	
03/21/00	5.50%	6.00%	
05/19/00	6.00%	6.50%	
01/03/01	5.75%	6.00%	
01/04/01	5.50%	6.00%	
01/31/01	5.00%	5.50%	
03/20/01	4.50%	5.00%	
04/18/01	4.00%	4.50%	
05/15/01	3.50%	4.00%	
06/27/01	3.25%	3.75%	
08/21/01	3.00%	3.50%	
09/17/01	2.50%	3.00%	
10/02/01	2.00%	2.50%	
11/06/01	1.50%	2.00%	
12/11/01	1.25%	1.75%	
11/06/02	0.75%	1.25%	
01/09/03	2.25%**	1.25%	
06/25/03	2.00%	1.00%	
06/30/04	2.25%	1.25%	
08/10/04	2.50%	1.50%	
09/21/04	2.75%	1.75%	
11/10/04	3.00%	2.00%	
12/14/04	3.25%	2.25%	
02/02/05	3.50%	2.50%	
03/22/05	3.75%	2.75%	
05/03/05	4.00%	3.00%	
06/30/05	4.25%	3.25%	
08/09/05	4.50%	3.50%	
09/20/05	4.75%	3.75%	
11/01/05	5.00%	4.00%	
12/13/05	5.25%	4.25%	
01/31/06	5.50%	4.50%	
03/28/06	5.75%	4.75%	
05/10/06	6.00%	5.00%	
06/29/06	6.25%	5.25%	

* Staff began tracking the Federal Funds Rate.
**Revised discount window program begins. Reflects rate on primary credit. This revised discount window policy results in incomparability of the discount rates after January 9, 2003 to discount rates before January 9, 2003.

Source:

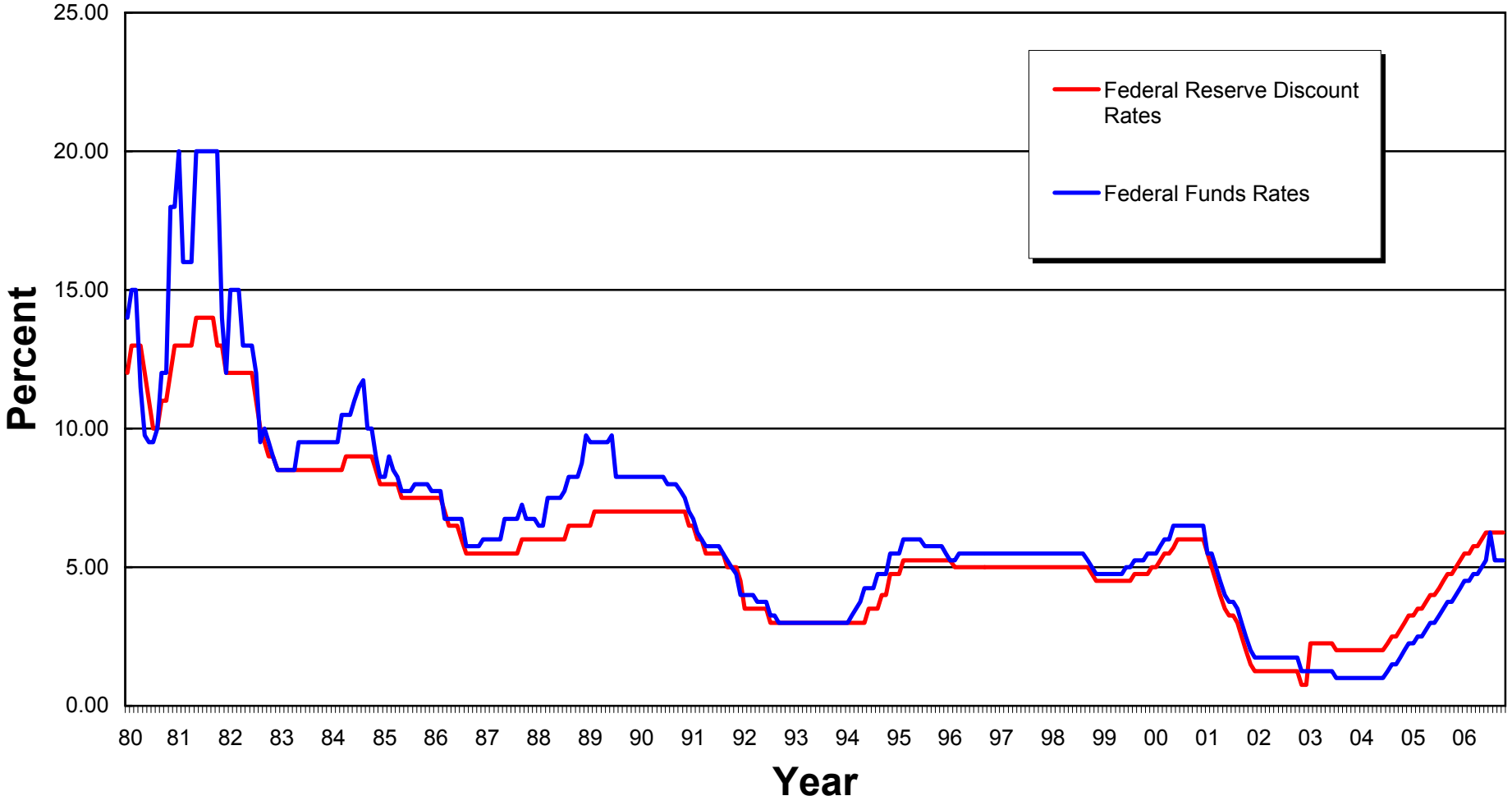
Federal Reserve Discount rate	http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html
Federal Reserve Funds rate	http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html

Note: Interest rates as of December 31 for each year are underlined.

Algonquin Water Resources
WR-2006-0425

Federal Reserve Discount Rates and Federal Funds Rates

1980 - 2006



Schedule 2-2

SCHEDULE 2-2

Algonquin Water Resources
WR-2006-0425

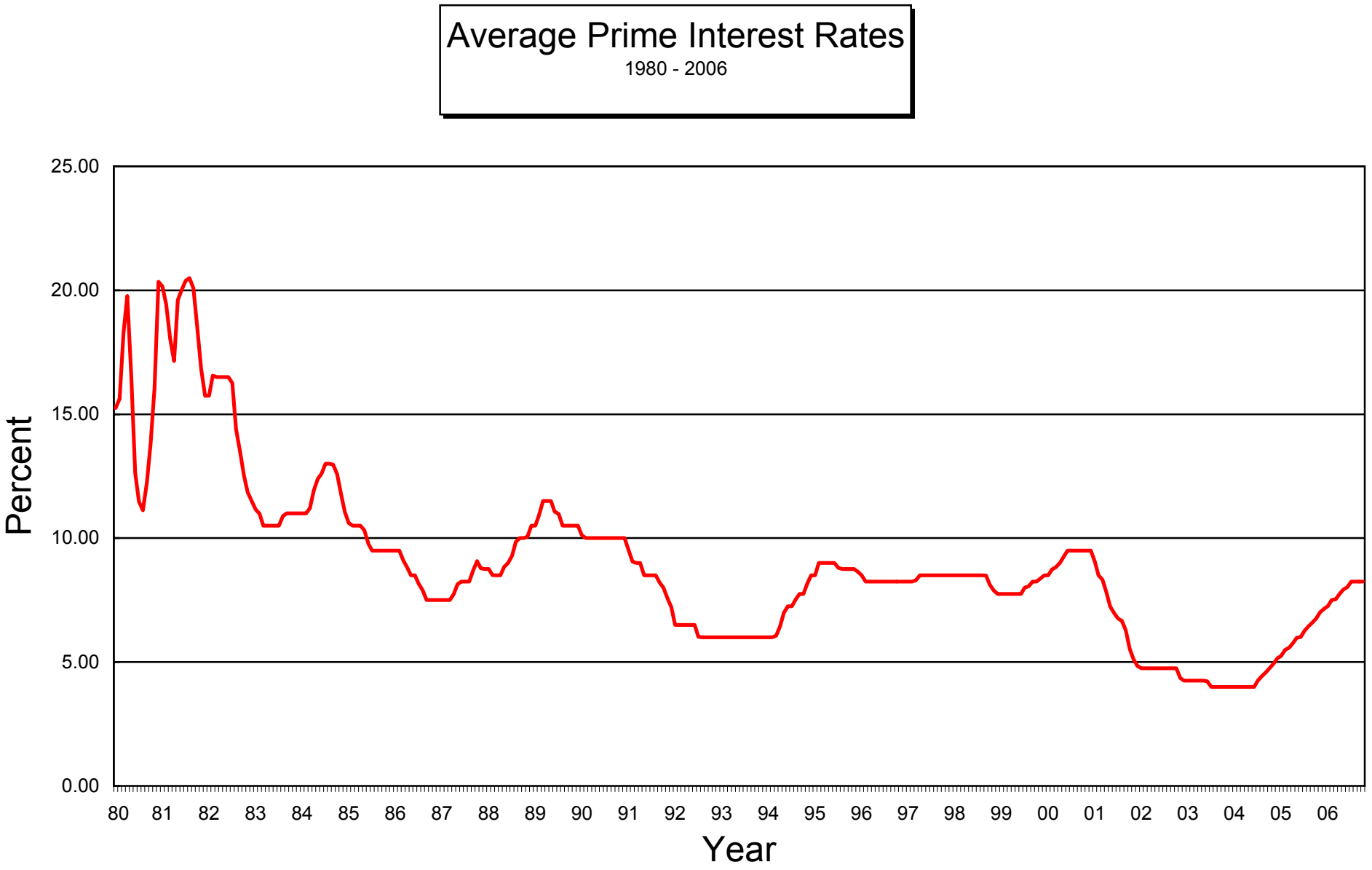
Average Prime Interest Rates

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	15.25	Jan 1984	11.00	Jan 1988	8.75	Jan 1992	6.50	Jan 1996	8.50	Jan 2000	8.50	Jan 2004	4.00
Feb	15.63	Feb	11.00	Feb	8.51	Feb	6.50	Feb	8.25	Feb	8.73	Feb	4.00
Mar	18.31	Mar	11.21	Mar	8.50	Mar	6.50	Mar	8.25	Mar	8.83	Mar	4.00
Apr	19.77	Apr	11.93	Apr	8.50	Apr	6.50	Apr	8.25	Apr	9.00	Apr	4.00
May	16.57	May	12.39	May	8.84	May	6.50	May	8.25	May	9.24	May	4.00
Jun	12.63	Jun	12.60	Jun	9.00	Jun	6.50	Jun	8.25	Jun	9.50	Jun	4.00
Jul	11.48	Jul	13.00	Jul	9.29	Jul	6.02	Jul	8.25	Jul	9.50	Jul	4.25
Aug	11.12	Aug	13.00	Aug	9.84	Aug	6.00	Aug	8.25	Aug	9.50	Aug	4.43
Sep	12.23	Sep	12.97	Sep	10.00	Sep	6.00	Sep	8.25	Sep	9.50	Sep	4.58
Oct	13.79	Oct	12.58	Oct	10.00	Oct	6.00	Oct	8.25	Oct	9.50	Oct	4.75
Nov	16.06	Nov	11.77	Nov	10.05	Nov	6.00	Nov	8.25	Nov	9.50	Nov	4.93
Dec	20.35	Dec	11.06	Dec	10.50	Dec	6.00	Dec	8.25	Dec	9.50	Dec	5.15
Jan 1981	20.16	Jan 1985	10.61	Jan 1989	10.50	Jan 1993	6.00	Jan 1997	8.26	Jan 2001	9.05	Jan 2005	5.25
Feb	19.43	Feb	10.50	Feb	10.93	Feb	6.00	Feb	8.25	Feb	8.50	Feb	5.49
Mar	18.05	Mar	10.50	Mar	11.50	Mar	6.00	Mar	8.30	Mar	8.32	Mar	5.58
Apr	17.15	Apr	10.50	Apr	11.50	Apr	6.00	Apr	8.50	Apr	7.80	Apr	5.75
May	19.61	May	10.31	May	11.50	May	6.00	May	8.50	May	7.24	May	5.98
Jun	20.03	Jun	9.78	Jun	11.07	Jun	6.00	Jun	8.50	Jun	6.98	Jun	6.01
Jul	20.39	Jul	9.50	Jul	10.98	Jul	6.00	Jul	8.50	Jul	6.75	Jul	6.25
Aug	20.50	Aug	9.50	Aug	10.50	Aug	6.00	Aug	8.50	Aug	6.67	Aug	6.44
Sep	20.08	Sep	9.50	Sep	10.50	Sep	6.00	Sep	8.50	Sep	6.28	Sep	6.59
Oct	18.45	Oct	9.50	Oct	10.50	Oct	6.00	Oct	8.50	Oct	5.53	Oct	6.75
Nov	16.84	Nov	9.50	Nov	10.50	Nov	6.00	Nov	8.50	Nov	5.10	Nov	7.00
Dec	15.75	Dec	9.50	Dec	10.50	Dec	6.00	Dec	8.50	Dec	4.84	Dec	7.15
Jan 1982	15.75	Jan 1986	9.50	Jan 1990	10.11	Jan 1994	6.00	Jan 1998	8.50	Jan 2002	4.75	Jan 2006	7.26
Feb	16.56	Feb	9.50	Feb	10.00	Feb	6.00	Feb	8.50	Feb	4.75	Feb	7.50
Mar	16.50	Mar	9.10	Mar	10.00	Mar	6.06	Mar	8.50	Mar	4.75	Mar	7.53
Apr	16.50	Apr	8.83	Apr	10.00	Apr	6.45	Apr	8.50	Apr	4.75	Apr	7.75
May	16.50	May	8.50	May	10.00	May	6.99	May	8.50	May	4.75	May	7.93
Jun	16.50	Jun	8.50	Jun	10.00	Jun	7.25	Jun	8.50	Jun	4.75	June	8.02
Jul	16.26	Jul	8.16	Jul	10.00	Jul	7.25	Jul	8.50	Jul	4.75	July	8.25
Aug	14.39	Aug	7.90	Aug	10.00	Aug	7.51	Aug	8.50	Aug	4.75	Aug	8.25
Sep	13.50	Sep	7.50	Sep	10.00	Sep	7.75	Sep	8.49	Sep	4.75	Sep	8.25
Oct	12.52	Oct	7.50	Oct	10.00	Oct	7.75	Oct	8.12	Oct	4.75	Oct	8.25
Nov	11.85	Nov	7.50	Nov	10.00	Nov	8.15	Nov	7.89	Nov	4.35		
Dec	11.50	Dec	7.50	Dec	10.00	Dec	8.50	Dec	7.75	Dec	4.25		
Jan 1983	11.16	Jan 1987	7.50	Jan 1991	9.52	Jan 1995	8.50	Jan 1999	7.75	Jan 2003	4.25		
Feb	10.98	Feb	7.50	Feb	9.05	Feb	9.00	Feb	7.75	Feb	4.25		
Mar	10.50	Mar	7.50	Mar	9.00	Mar	9.00	Mar	7.75	Mar	4.25		
Apr	10.50	Apr	7.75	Apr	9.00	Apr	9.00	Apr	7.75	Apr	4.25		
May	10.50	May	8.14	May	8.50	May	9.00	May	7.75	May	4.25		
Jun	10.50	Jun	8.25	Jun	8.50	Jun	9.00	Jun	7.75	Jun	4.22		
Jul	10.50	Jul	8.25	Jul	8.50	Jul	8.80	Jul	8.00	Jul	4.00		
Aug	10.89	Aug	8.25	Aug	8.50	Aug	8.75	Aug	8.06	Aug	4.00		
Sep	11.00	Sep	8.70	Sep	8.20	Sep	8.75	Sep	8.25	Sep	4.00		
Oct	11.00	Oct	9.07	Oct	8.00	Oct	8.75	Oct	8.25	Oct	4.00		
Nov	11.00	Nov	8.78	Nov	7.58	Nov	8.75	Nov	8.37	Nov	4.00		
Dec	11.00	Dec	8.75	Dec	7.21	Dec	8.65	Dec	8.50	Dec	4.00		

Source:
http://research.stlouisfed.org/fred2/data/MPRIME.txt

Schedule 3-1

Algonquin Water Resources
WR-2006-0425



Schedule 3-2

SCHEDULE 3-2

Algonquin Water Resources
WR-2006-0425

Rate of Inflation

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	13.90	Jan 1984	4.20	Jan 1988	4.00	Jan 1992	2.60	Jan 1996	2.70	Jan 2000	2.70	Jan 2004	1.90
Feb	14.20	Feb	4.60	Feb	3.90	Feb	2.80	Feb	2.70	Feb	3.20	Feb	1.70
Mar	14.80	Mar	4.80	Mar	3.90	Mar	3.20	Mar	2.80	Mar	3.70	Mar	1.70
Apr	14.70	Apr	4.60	Apr	3.90	Apr	3.20	Apr	2.90	Apr	3.00	Apr	2.30
May	14.40	May	4.20	May	3.90	May	3.00	May	2.90	May	3.20	May	3.10
Jun	14.40	Jun	4.20	Jun	4.00	Jun	3.10	Jun	2.80	Jun	3.70	Jun	3.30
Jul	13.10	Jul	4.20	Jul	4.10	Jul	3.20	Jul	3.00	Jul	3.70	Jul	3.00
Aug	12.90	Aug	4.30	Aug	4.00	Aug	3.10	Aug	2.90	Aug	3.40	Aug	2.70
Sep	12.60	Sep	4.30	Sep	4.20	Sep	3.00	Sep	3.00	Sep	3.50	Sep	2.50
Oct	12.80	Oct	4.30	Oct	4.20	Oct	3.20	Oct	3.00	Oct	3.40	Oct	3.30
Nov	12.60	Nov	4.10	Nov	4.20	Nov	3.00	Nov	3.30	Nov	3.40	Nov	3.50
Dec	12.50	Dec	3.90	Dec	4.40	Dec	2.90	Dec	3.30	Dec	3.40	Dec	3.30
Jan 1981	11.80	Jan 1985	3.50	Jan 1989	4.70	Jan 1993	3.30	Jan 1997	3.00	Jan 2001	3.70	Jan 2005	3.00
Feb	11.40	Feb	3.50	Feb	4.80	Feb	3.20	Feb	3.00	Feb	3.50	Feb	3.00
Mar	10.50	Mar	3.70	Mar	5.00	Mar	3.10	Mar	2.80	Mar	2.90	Mar	3.10
Apr	10.00	Apr	3.70	Apr	5.10	Apr	3.20	Apr	2.50	Apr	3.30	Apr	3.50
May	9.80	May	3.80	May	5.40	May	3.20	May	2.20	May	3.60	May	2.80
Jun	9.60	Jun	3.80	Jun	5.20	Jun	3.00	Jun	2.30	Jun	3.20	Jun	2.50
Jul	10.80	Jul	3.60	Jul	5.00	Jul	2.80	Jul	2.20	Jul	2.70	Jul	3.20
Aug	10.80	Aug	3.30	Aug	4.70	Aug	2.80	Aug	2.20	Aug	2.70	Aug	3.60
Sep	11.00	Sep	3.10	Sep	4.30	Sep	2.70	Sep	2.20	Sep	2.60	Sep	4.70
Oct	10.10	Oct	3.20	Oct	4.50	Oct	2.80	Oct	2.10	Oct	2.10	Oct	4.30
Nov	9.60	Nov	3.50	Nov	4.70	Nov	2.70	Nov	1.80	Nov	1.90	Nov	3.50
Dec	8.90	Dec	3.80	Dec	4.60	Dec	2.70	Dec	1.70	Dec	1.60	Dec	3.40
Jan 1982	8.40	Jan 1986	3.90	Jan 1990	5.20	Jan 1994	2.50	Jan 1998	1.60	Jan 2002	1.10	Jan 2006	4.00
Feb	7.60	Feb	3.10	Feb	5.30	Feb	2.50	Feb	1.40	Feb	1.10	Feb	3.60
Mar	6.80	Mar	2.30	Mar	5.20	Mar	2.50	Mar	1.40	Mar	1.50	Mar	3.40
Apr	6.50	Apr	1.60	Apr	4.70	Apr	2.40	Apr	1.40	Apr	1.60	Apr	3.50
May	6.70	May	1.50	May	4.40	May	2.30	May	1.70	May	1.20	May	4.20
Jun	7.10	Jun	1.80	Jun	4.70	Jun	2.50	Jun	1.70	Jun	1.10	June	4.30
Jul	6.40	Jul	1.60	Jul	4.80	Jul	2.90	Jul	1.70	Jul	1.50	July	4.10
Aug	5.90	Aug	1.60	Aug	5.60	Aug	3.00	Aug	1.60	Aug	1.80	Aug	3.80
Sep	5.00	Sep	1.80	Sep	6.20	Sep	2.60	Sep	1.50	Sep	1.50	Sep	2.10
Oct	5.10	Oct	1.50	Oct	6.30	Oct	2.70	Oct	1.50	Oct	2.00		
Nov	4.60	Nov	1.30	Nov	6.30	Nov	2.70	Nov	1.50	Nov	2.20		
Dec	3.80	Dec	1.10	Dec	6.10	Dec	2.80	Dec	1.60	Dec	2.40		
Jan 1983	3.70	Jan 1987	1.50	Jan 1991	5.70	Jan 1995	2.90	Jan 1999	1.70	Jan 2003	2.60		
Feb	3.50	Feb	2.10	Feb	5.30	Feb	2.90	Feb	1.60	Feb	3.00		
Mar	3.60	Mar	3.00	Mar	4.90	Mar	3.10	Mar	1.70	Mar	3.00		
Apr	3.90	Apr	3.80	Apr	4.90	Apr	2.40	Apr	2.30	Apr	2.20		
May	3.50	May	3.90	May	5.00	May	3.20	May	2.10	May	2.10		
Jun	2.60	Jun	3.70	Jun	4.70	Jun	3.00	Jun	2.00	Jun	2.10		
Jul	2.50	Jul	3.90	Jul	4.40	Jul	2.80	Jul	2.10	Jul	2.10		
Aug	2.60	Aug	4.30	Aug	3.80	Aug	2.60	Aug	2.30	Aug	2.20		
Sep	2.90	Sep	4.40	Sep	3.40	Sep	2.50	Sep	2.60	Sep	2.30		
Oct	2.90	Oct	4.50	Oct	2.90	Oct	2.80	Oct	2.60	Oct	2.00		
Nov	3.30	Nov	4.50	Nov	3.00	Nov	2.60	Nov	2.60	Nov	1.80		
Dec	3.80	Dec	4.40	Dec	3.10	Dec	2.50	Dec	2.70	Dec	1.90		

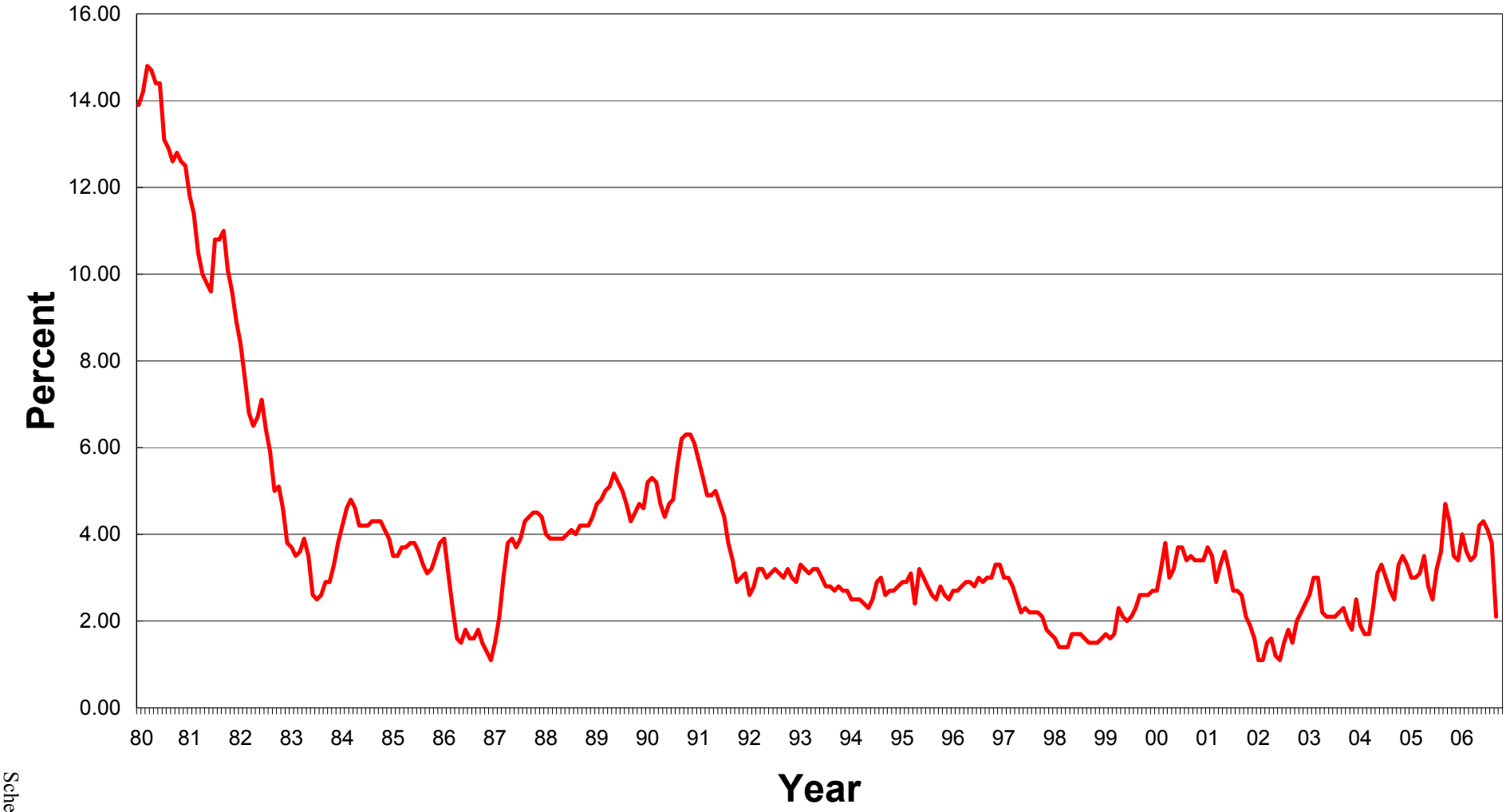
Source: U.S. Dept of Labor, Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers,
Change for 12-Month Period, Bureau of Labor Statistics,
http://www.bls.gov/schedule/archives/cpi_nr.htm

Schedule 4-1

Algonquin Water Resources
WR-2006-0425

Rate of Inflation

1980 - 2006



Schedule 4-2

SCHEDULE 4-2

Algonquin Water Resources
WR-2006-0425

Average Yields on Mergent's Public Utility Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	12.12	Jan 1984	13.40	Jan 1988	10.75	Jan 1992	8.67	Jan 1996	7.20	Jan 2000	8.22	Jan 2004	6.23
Feb	13.48	Feb	13.50	Feb	10.11	Feb	8.77	Feb	7.37	Feb	8.10	Feb	6.17
Mar	14.33	Mar	14.03	Mar	10.11	Mar	8.84	Mar	7.72	Mar	8.14	Mar	6.01
Apr	13.50	Apr	14.30	Apr	10.53	Apr	8.79	Apr	7.88	Apr	8.14	Apr	6.38
May	12.17	May	14.95	May	10.75	May	8.72	May	7.99	May	8.55	May	6.68
Jun	11.87	Jun	15.16	Jun	10.71	Jun	8.64	Jun	8.07	Jun	8.22	Jun	6.53
Jul	12.12	Jul	14.92	Jul	10.96	Jul	8.46	Jul	8.02	Jul	8.17	Jul	6.34
Aug	12.82	Aug	14.29	Aug	11.09	Aug	8.34	Aug	7.84	Aug	8.05	Aug	6.18
Sep	13.29	Sep	14.04	Sep	10.56	Sep	8.32	Sep	8.01	Sep	8.16	Sep	6.01
Oct	13.53	Oct	13.68	Oct	9.92	Oct	8.44	Oct	7.76	Oct	8.08	Oct	5.95
Nov	14.07	Nov	13.15	Nov	9.89	Nov	8.53	Nov	7.48	Nov	8.03	Nov	5.97
Dec	14.48	Dec	12.96	Dec	10.02	Dec	8.36	Dec	7.58	Dec	7.79	Dec	5.93
Jan 1981	14.22	Jan 1985	12.88	Jan 1989	10.02	Jan 1993	8.23	Jan 1997	7.79	Jan 2001	7.76	Jan 2005	5.80
Feb	14.84	Feb	13.00	Feb	10.02	Feb	8.00	Feb	7.68	Feb	7.69	Feb	5.64
Mar	14.86	Mar	13.66	Mar	10.16	Mar	7.85	Mar	7.92	Mar	7.59	Mar	5.86
Apr	15.32	Apr	13.42	Apr	10.14	Apr	7.76	Apr	8.08	Apr	7.81	Apr	5.72
May	15.84	May	12.89	May	9.92	May	7.78	May	7.94	May	7.88	May	5.60
Jun	15.27	Jun	11.91	Jun	9.49	Jun	7.68	Jun	7.77	Jun	7.75	Jun	5.39
Jul	15.87	Jul	11.88	Jul	9.34	Jul	7.53	Jul	7.52	Jul	7.71	Jul	5.50
Aug	16.33	Aug	11.93	Aug	9.37	Aug	7.21	Aug	7.57	Aug	7.57	Aug	5.51
Sep	16.89	Sep	11.95	Sep	9.43	Sep	7.01	Sep	7.50	Sep	7.73	Sep	5.54
Oct	16.76	Oct	11.84	Oct	9.37	Oct	6.99	Oct	7.37	Oct	7.64	Oct	5.79
Nov	15.50	Nov	11.33	Nov	9.33	Nov	7.30	Nov	7.24	Nov	7.61	Nov	5.88
Dec	15.77	Dec	10.82	Dec	9.31	Dec	7.33	Dec	7.16	Dec	7.86	Dec	5.83
Jan 1982	16.73	Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31	Jan 1998	7.03	Jan 2002	7.69	Jan 2006	5.77
Feb	16.72	Feb	10.16	Feb	9.66	Feb	7.44	Feb	7.09	Feb	7.62	Feb	5.83
Mar	16.07	Mar	9.33	Mar	9.75	Mar	7.83	Mar	7.13	Mar	7.83	Mar	5.98
Apr	15.82	Apr	9.02	Apr	9.87	Apr	8.20	Apr	7.12	Apr	7.74	Apr	6.28
May	15.60	May	9.52	May	9.89	May	8.32	May	7.11	May	7.76	May	6.39
Jun	16.18	Jun	9.51	Jun	9.69	Jun	8.31	Jun	6.99	Jun	7.67	June	6.39
Jul	16.04	Jul	9.19	Jul	9.66	Jul	8.47	Jul	6.99	Jul	7.54	July	6.37
Aug	15.22	Aug	9.15	Aug	9.84	Aug	8.41	Aug	6.96	Aug	7.34	Aug	6.20
Sep	14.56	Sep	9.42	Sep	10.01	Sep	8.65	Sep	6.88	Sep	7.23	Sep	6.03
Oct	13.88	Oct	9.39	Oct	9.94	Oct	8.88	Oct	6.88	Oct	7.43	Oct	6.01
Nov	13.58	Nov	9.15	Nov	9.76	Nov	9.00	Nov	6.96	Nov	7.31		
Dec	13.55	Dec	8.96	Dec	9.57	Dec	8.79	Dec	6.84	Dec	7.20		
Jan 1983	13.46	Jan 1987	8.77	Jan 1991	9.56	Jan 1995	8.77	Jan 1999	6.87	Jan 2003	7.13		
Feb	13.60	Feb	8.81	Feb	9.31	Feb	8.56	Feb	7.00	Feb	6.92		
Mar	13.28	Mar	8.75	Mar	9.39	Mar	8.41	Mar	7.18	Mar	6.80		
Apr	13.03	Apr	9.30	Apr	9.30	Apr	8.30	Apr	7.16	Apr	6.68		
May	13.00	May	9.82	May	9.29	May	7.93	May	7.42	May	6.35		
Jun	13.17	Jun	9.87	Jun	9.44	Jun	7.62	Jun	7.70	Jun	6.21		
Jul	13.28	Jul	10.01	Jul	9.40	Jul	7.73	Jul	7.66	Jul	6.54		
Aug	13.50	Aug	10.33	Aug	9.16	Aug	7.86	Aug	7.86	Aug	6.78		
Sep	13.35	Sep	11.00	Sep	9.03	Sep	7.62	Sep	7.87	Sep	6.58		
Oct	13.19	Oct	11.32	Oct	8.99	Oct	7.46	Oct	8.02	Oct	6.50		
Nov	13.33	Nov	10.82	Nov	8.93	Nov	7.40	Nov	7.86	Nov	6.44		
Dec	13.48	Dec	10.99	Dec	8.76	Dec	7.21	Dec	8.04	Dec	6.36		

Source:
Mergent Bond Record

Schedule 5-1

Algonquin Water Resources
WR-2006-0425

Average Yields on Thirty-Year U.S. Treasury Bonds

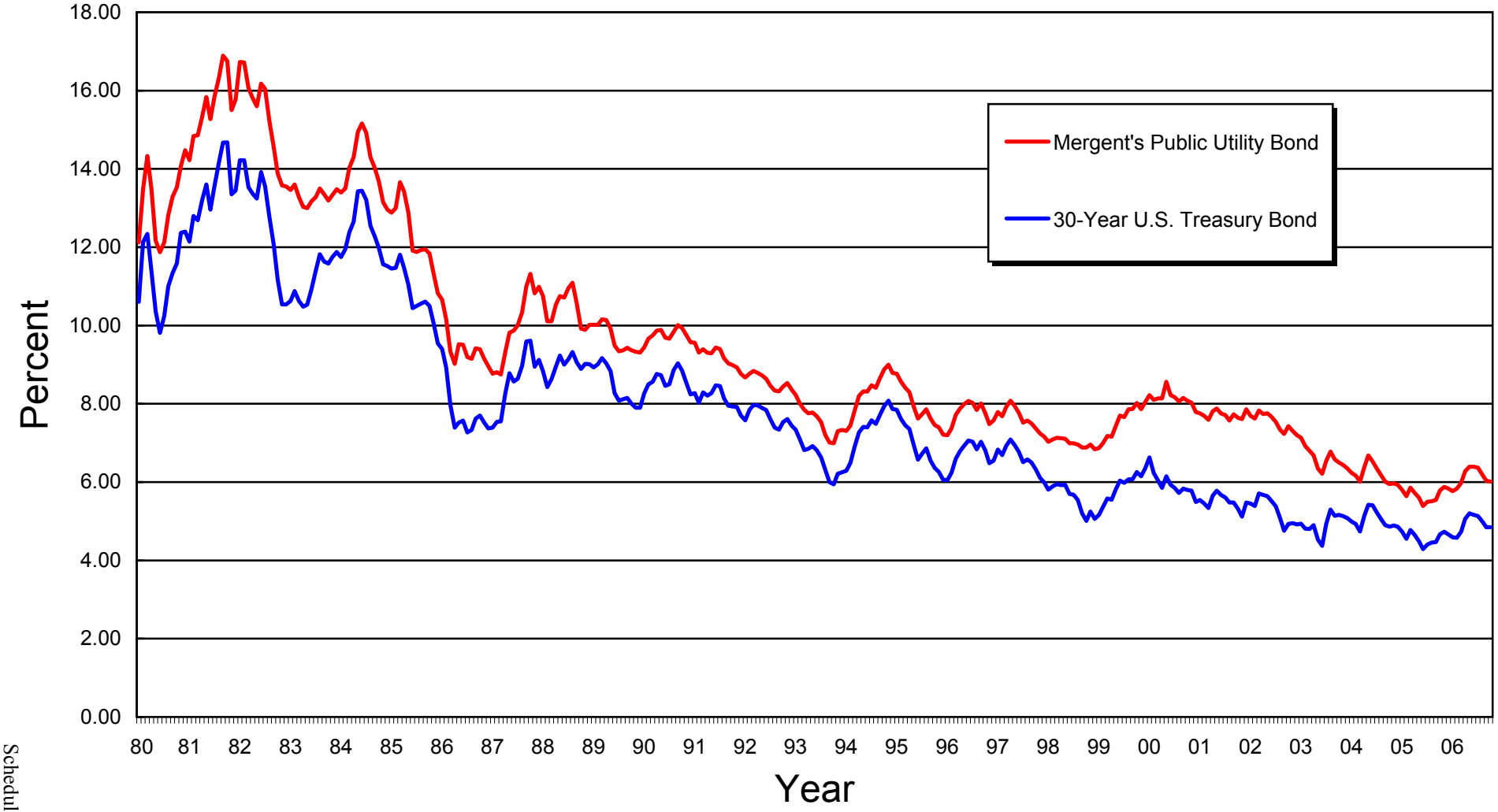
Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	10.60	Jan 1984	11.75	Jan 1988	8.83	Jan 1992	7.58	Jan 1996	6.05	Jan 2000	6.63	Jan 2004	4.99
Feb	12.13	Feb	11.95	Feb	8.43	Feb	7.85	Feb	6.24	Feb	6.23	Feb	4.93
Mar	12.34	Mar	12.38	Mar	8.63	Mar	7.97	Mar	6.60	Mar	6.05	Mar	4.74
Apr	11.40	Apr	12.65	Apr	8.95	Apr	7.96	Apr	6.79	Apr	5.85	Apr	5.14
May	10.36	May	13.43	May	9.23	May	7.89	May	6.93	May	6.15	May	5.42
Jun	9.81	Jun	13.44	Jun	9.00	Jun	7.84	Jun	7.06	Jun	5.93	Jun	5.41
Jul	10.24	Jul	13.21	Jul	9.14	Jul	7.60	Jul	7.03	Jul	5.85	Jul	5.22
Aug	11.00	Aug	12.54	Aug	9.32	Aug	7.39	Aug	6.84	Aug	5.72	Aug	5.06
Sep	11.34	Sep	12.29	Sep	9.06	Sep	7.34	Sep	7.03	Sep	5.83	Sep	4.90
Oct	11.59	Oct	11.98	Oct	8.89	Oct	7.53	Oct	6.81	Oct	5.80	Oct	4.86
Nov	12.37	Nov	11.56	Nov	9.02	Nov	7.61	Nov	6.48	Nov	5.78	Nov	4.89
Dec	12.40	Dec	11.52	Dec	9.01	Dec	7.44	Dec	6.55	Dec	5.49	Dec	4.86
Jan 1981	12.14	Jan 1985	11.45	Jan 1989	8.93	Jan 1993	7.34	Jan 1997	6.83	Jan 2001	5.54	Jan 2005	4.73
Feb	12.80	Feb	11.47	Feb	9.01	Feb	7.09	Feb	6.69	Feb	5.45	Feb	4.55
Mar	12.69	Mar	11.81	Mar	9.17	Mar	6.82	Mar	6.93	Mar	5.34	Mar	4.78
Apr	13.20	Apr	11.47	Apr	9.03	Apr	6.85	Apr	7.09	Apr	5.65	Apr	4.65
May	13.60	May	11.05	May	8.83	May	6.92	May	6.94	May	5.78	May	4.49
Jun	12.96	Jun	10.44	Jun	8.27	Jun	6.81	Jun	6.77	Jun	5.67	Jun	4.29
Jul	13.59	Jul	10.50	Jul	8.08	Jul	6.63	Jul	6.51	Jul	5.61	Jul	4.41
Aug	14.17	Aug	10.56	Aug	8.12	Aug	6.32	Aug	6.58	Aug	5.48	Aug	4.46
Sep	14.67	Sep	10.61	Sep	8.15	Sep	6.00	Sep	6.50	Sep	5.48	Sep	4.47
Oct	14.68	Oct	10.50	Oct	8.00	Oct	5.94	Oct	6.33	Oct	5.32	Oct	4.67
Nov	13.35	Nov	10.06	Nov	7.90	Nov	6.21	Nov	6.11	Nov	5.12	Nov	4.73
Dec	13.45	Dec	9.54	Dec	7.90	Dec	6.25	Dec	5.99	Dec	5.48	Dec	4.66
Jan 1982	14.22	Jan 1986	9.40	Jan 1990	8.26	Jan 1994	6.29	Jan 1998	5.81	Jan 2002	5.44	Jan 2006	4.59
Feb	14.22	Feb	8.93	Feb	8.50	Feb	6.49	Feb	5.89	Feb	5.39	Feb	4.58
Mar	13.53	Mar	7.96	Mar	8.56	Mar	6.91	Mar	5.95	Mar	5.71	Mar	4.73
Apr	13.37	Apr	7.39	Apr	8.76	Apr	7.27	Apr	5.92	Apr	5.67	Apr	5.06
May	13.24	May	7.52	May	8.73	May	7.41	May	5.93	May	5.64	May	5.20
Jun	13.92	Jun	7.57	Jun	8.46	Jun	7.40	Jun	5.70	Jun	5.52	Jun	5.16
Jul	13.55	Jul	7.27	Jul	8.50	Jul	7.58	Jul	5.68	Jul	5.38	July	5.13
Aug	12.77	Aug	7.33	Aug	8.86	Aug	7.49	Aug	5.54	Aug	5.08	Aug	5.00
Sep	12.07	Sep	7.62	Sep	9.03	Sep	7.71	Sep	5.20	Sep	4.76	Sep	4.85
Oct	11.17	Oct	7.70	Oct	8.86	Oct	7.94	Oct	5.01	Oct	4.93	Oct	4.85
Nov	10.54	Nov	7.52	Nov	8.54	Nov	8.08	Nov	5.25	Nov	4.95		
Dec	10.54	Dec	7.37	Dec	8.24	Dec	7.87	Dec	5.06	Dec	4.92		
Jan 1983	10.63	Jan 1987	7.39	Jan 1991	8.27	Jan 1995	7.85	Jan 1999	5.16	Jan 2003	4.94		
Feb	10.88	Feb	7.54	Feb	8.03	Feb	7.61	Feb	5.37	Feb	4.81		
Mar	10.63	Mar	7.55	Mar	8.29	Mar	7.45	Mar	5.58	Mar	4.80		
Apr	10.48	Apr	8.25	Apr	8.21	Apr	7.36	Apr	5.55	Apr	4.90		
May	10.53	May	8.78	May	8.27	May	6.95	May	5.81	May	4.53		
Jun	10.93	Jun	8.57	Jun	8.47	Jun	6.57	Jun	6.04	Jun	4.37		
Jul	11.40	Jul	8.64	Jul	8.45	Jul	6.72	Jul	5.98	Jul	4.93		
Aug	11.82	Aug	8.97	Aug	8.14	Aug	6.86	Aug	6.07	Aug	5.30		
Sep	11.63	Sep	9.59	Sep	7.95	Sep	6.55	Sep	6.07	Sep	5.14		
Oct	11.58	Oct	9.61	Oct	7.93	Oct	6.37	Oct	6.26	Oct	5.16		
Nov	11.75	Nov	8.95	Nov	7.92	Nov	6.26	Nov	6.15	Nov	5.13		
Dec	11.88	Dec	9.12	Dec	7.70	Dec	6.06	Dec	6.35	Dec	5.08		

Sources:
http://finance.yahoo.com/q/hp?s=^TYX

Schedule 5-2

Algonquin Water Resources
WR-2006-0425

Average Yields on Mergent's Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2006)

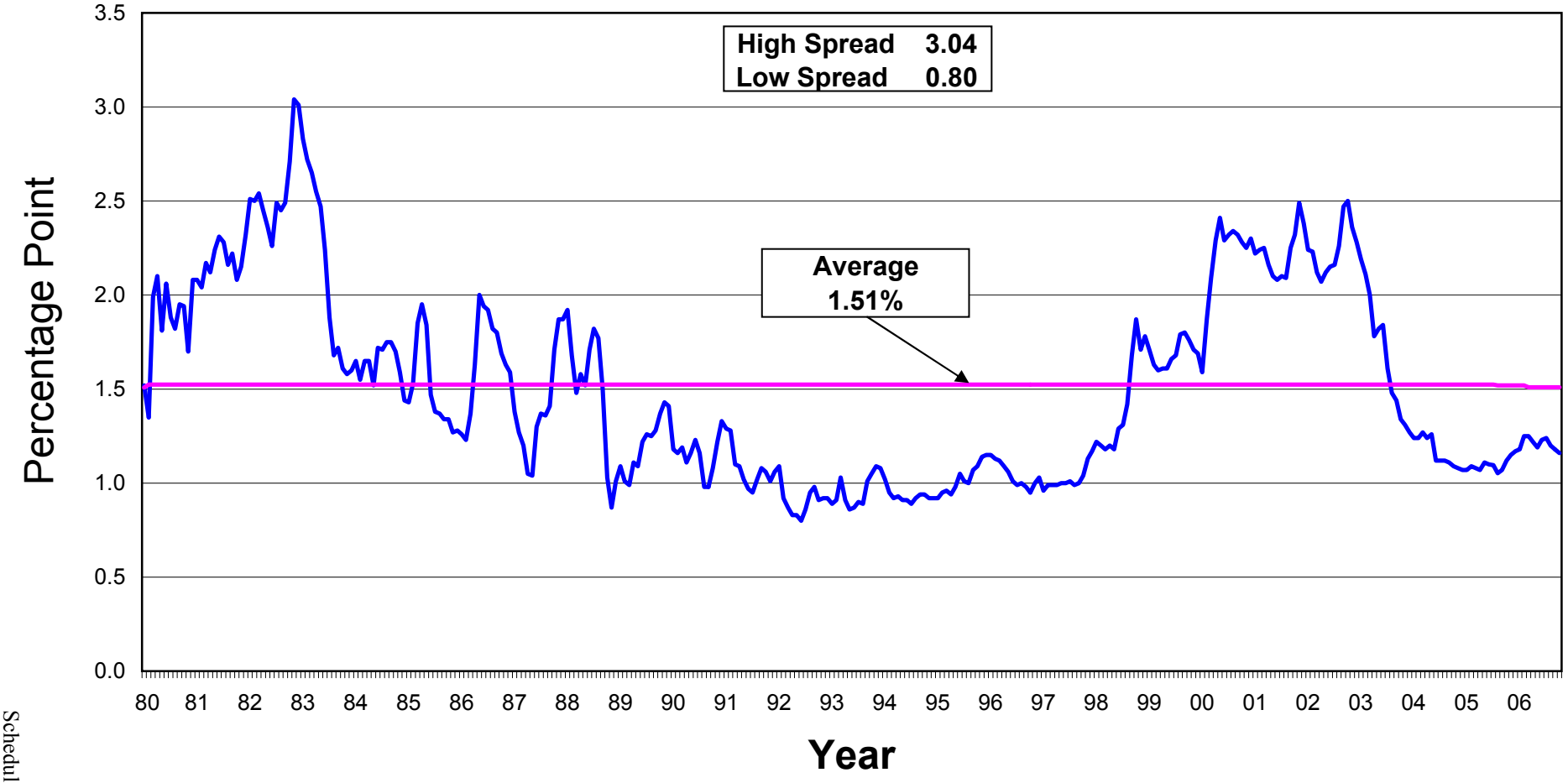


Schedule 5-3

SCHEDULE 5-3

Algonquin Water Resources
WR-2006-0425

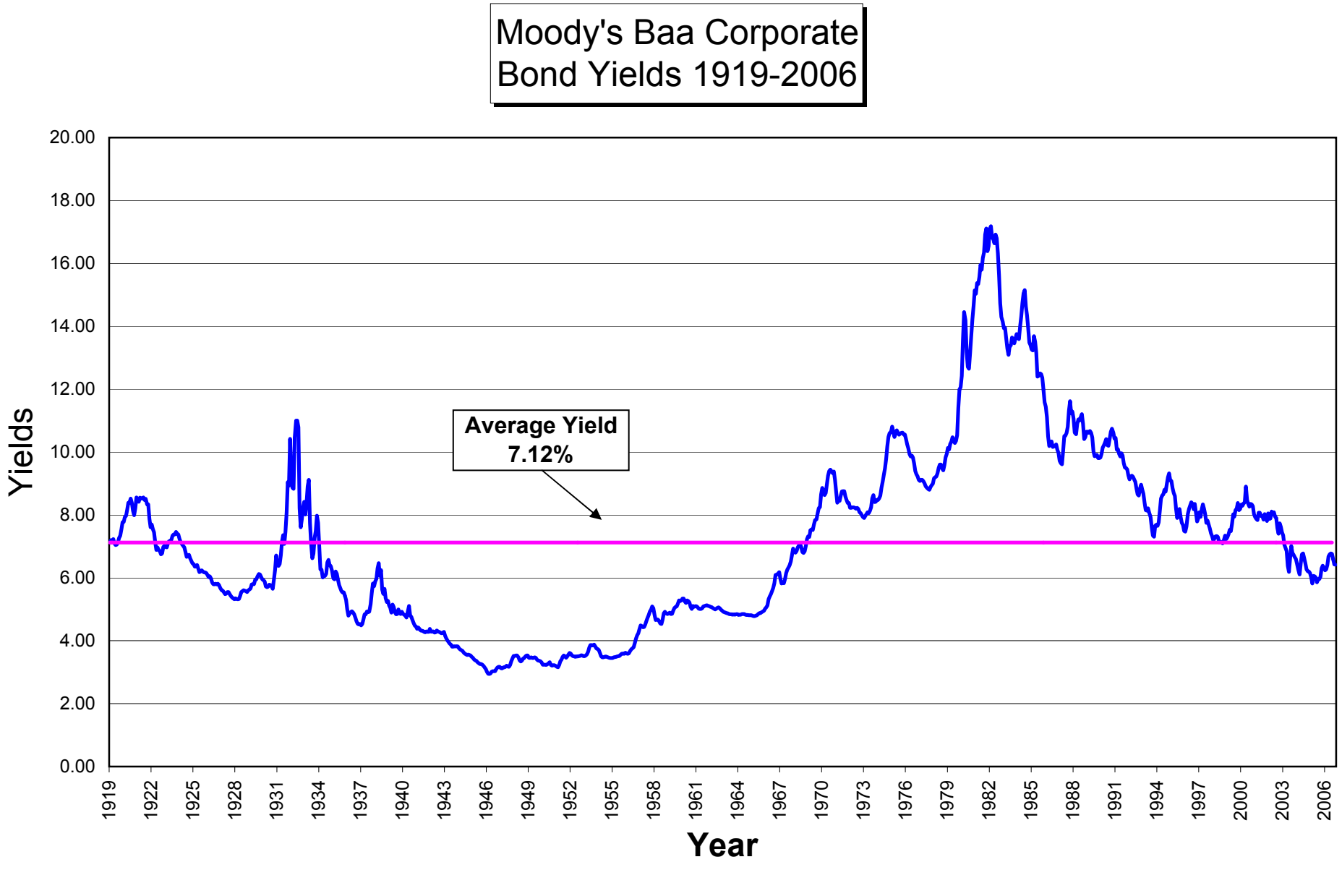
Monthly Spreads Between Yields on Mergent's Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2006)



Schedule 5-4

SCHEDULE 5-4

Algonquin Water Resources
WR-2006-0425



Schedule 5-5

Source: St. Louis Federal Reserve Website: http://stlouisfed.org

Schedule 5-5

Economic Estimates and Projections, 2006-2008																								
	Inflation Rate			Real GDP			Unemployment			3-Mo. T-Bill Rate			30-Year T-Bond Rate		
Source	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
Value Line Investment Survey -- Selection & Opinion (11-24-06, page 813)	2.00%	2.50%	2.40%	3.20%	2.30%	3.20%	4.60%	4.80%	4.90%	4.80%	4.70%	4.50%	4.90%	4.80%	5.20%
The Budget and Economic Outlook FY2007-2016	2.80%	2.20%	2.20%	3.60%	3.40%	3.10%	5.00%	5.00%	5.20%	4.50%	4.50%	4.40%	N/A	N/A	N/A
Current rate	2.10%			2.60%			4.40%			4.92%			4.70%		

Notes: N.A. = Not Available.
Value Line data for 2006-2008 are estimated.
CBO data for 2006 and 2007 are forecasted, data for 2008 is projected.

Sources of Current Rates:

Inflation: The Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, 12-Month Period Ending, July 31, 2006 (see first paragraph).
http://www.bls.gov/schedule/archives/cpi_nr.htm

GDP: U.S. Department of Commerce, Bureau of Economic Analysis for the Quarter Ending September 30, 2006 (see first paragraph).
http://www.bea.gov/bea/newsrel/gdpnewsrelease.htm

Unemployment: The Bureau of Labor Statistics, Economy Situation Summary - Unemployment Rate, October 2006.
http://www.bls.gov/news.release/empsit.nr0.htm

3-Month Treasury: St. Louis Federal Reserve website for October 1, 2006.
http://research.stlouisfed.org/fred2/series/TB3MS/22

30-Yr. T-Bond: CBS MarketWatch website on November 15, 2006.
http://www.marketwatch.com/tools/marketsummary/default.asp?site=mktw

Other Sources (2006 - 2008): ValueLine Investment Survey Selection & Opinion, August 25, 2006, page 961.

The Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2007-2016, January 2006, page 46.
http://www.cbo.gov/ftpdocs/70xx/doc7027/01-26-BudgetOutlook.pdf

Schedule 6

Algonquin Water Resources
WR-2006-0425

Criteria for Selecting Comparable Water Utility Companies

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Water Utility Companies(Ticker)	Stock Publicly Traded	Information Printed In Value Line	10-Years of Data Available	At Least Investment Grade Credit Rating	Two Sources for Projected Growth Available, with One from Value Line	>80% of Revenues from Water Operations	**Comparable Company Met All Criteria**
American States Water Company (AWR)	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Aqua America Inc. (WTR)	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Artesian Resources Corporation (ARTNA)	Yes	No					
BIW Ltd. (BIW)	Yes	No					
California Water Service Group (CWT)	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Connecticut Water Service, Inc. (CTWS)	Yes	Yes	Yes	Yes	No		
Middlesex Water Company (MSEX)	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Pennichuck Corporation (PNNW)	Yes	No					
SJW Corporation (SJW)	Yes	Yes	Yes	N.R.			
Southwest Water Company (SWWC)	Yes	Yes	Yes	N.R.			
York Water Company (YORW)	Yes	Yes	No				

Sources: Column 1 and 7 = Edward Jones Water Utility Industry Summary Quarterly Financial and Common Stock Information for September 30, 2006.
Columns 2 and 5 = Standard & Poor's RatingsDirect.
Columns 3, 4 and 6 = The Value Line Investment Survey: Ratings & Reports, July 28, 2006.
Columnn 6 = November 2006 Earnings Guide and I/B/E/S Inc.'s Institutional Brokers Estimate System, October 19, 2006.

Notes: N.R.=Not Rated by Standard and Poor's

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Comparable Water Utility Companies for Algonquin Water Resources of Missouri

Number	Ticker Symbol	Company Name
1	AWR	American States Water Company
2	WTR	Aqua America Inc.
3	CWT	California Water Service Group
4	MSEX	Middlesex Water Company

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American States Water Company's
Stated Cost of Long-Term Debt
as of December 31, 2005

Common Shareholders Equity:		
Common Shares, no par value, no stated value:		
Authorized: 30,000,000 shares		
Outstanding: 16,797,952 shares in 2005	$	166,529,000
and 16,752,128 shares in 2004		
Earnings reinvested in the business	$	101,121,000
Accumulated other comprehensive loss	$	(3,556,000)
Total Shareholder's Equity	**$**	**264,094,000**

Long-Term Debt

Notes/Debentures:	Stated Interest Rate		Amount Outstanding		Interest Expense
6.64% notes due 2013	6.64%		$ 1,100,000	$	73,040
6.80% notes due 2013	6.80%		$ 2,000,000	$	136,000
6.87% notes due 2023	6.87%		$ 5,000,000	$	343,500
7.00% notes due 2023	7.00%		$ 10,000,000	$	700,000
7.55% notes due 2025	7.55%		$ 8,000,000	$	604,000
7.65% notes due 2025	7.65%		$ 22,000,000	$	1,683,000
6.81% notes due 2028	6.81%		$ 15,000,000	$	1,021,500
6.59% notes due 2029	6.59%		$ 40,000,000	$	2,636,000
7.875% notes due 2030	7.88%		$ 20,000,000	$	1,575,000
7.23% notes due 2031	7.23%		$ 50,000,000	$	3,615,000
Private Placement Notes:					
9.56% notes due 2031	9.56%		$ 28,000,000	$	2,676,800
5.87% notes due 2028	5.87%		$ 40,000,000	$	2,348,000
Tax-Exempt Obligations:					
5.50% notes due 2026	5.50%		$ 7,920,000	$	435,600
Variable Rate Obligation due 2014		*	$ 6,000,000		
State Water Project due 2035			$ 4,941,000		
Other Debt Instruments:					
8.50% fixed rate obligation due 2013	8.50%		$ 1,174,000	$	99,790
Variable Rate Obligation due 2018		*	$ 448,000		
Capital lease obligations			$ 252,000		
Chaparral City Water Company:					
4% to 4.85% serial bonds due 2007	4.43%	*	$ 470,000	$	20,821
5.20% term bonds due 2011	5.20%		$ 1,000,000	$	52,000
5.40% term bonds due 2022	5.40%		$ 4,610,000	$	248,940
4.65% term bonds due 2006	4.65%		$ 40,000	$	1,860
5.30% term bonds due 2022	5.30%		$ 1,015,000	$	53,795
3.34% repayment contract due 2006	3.34%		$ 70,000	$	2,338
Net Amount Outstanding			$ 269,040,000		
Plus: Current maturities			$ 635,000		
Total Amount Outstanding			**$ 269,675,000**	**$**	**18,326,984**
Total Capitalization			**$ 533,769,000**		

Cost of Long-Term Debt **6.80%**

Source: American States Water Company 10-K for December 31, 2005.

Notes: *The cost of long-term debt does not include Variable Rate Obligations interest rate.
The total amount of long-term debt outstanding includes current maturities.

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Aqua America Inc.'s
Stated Cost of Long-Term Debt
as of December 31, 2005

Common Shareholders Equity:		
Common Stock, $.50 par value	$	64,829,000
Capital in excess of par value	$	478,508,000
Retained Earnings	$	285,132,000
Treasury Stock, at cost	$	(12,914,000)
Accumulated other comprehensive loss	$	(3,082,000)
Unearned compensation	$	(550,000)
Total Common Stockholders' Equity	**$**	**811,923,000**

Long-Term Debt

Long-term debt of subsidiaries (substantially secured by utility plant): Interest Rate Range	Average Stated Interest Rate	Amount Outstanding	Interest Expense
0.00% to 2.49%	1.25%	$ 21,574,000	$ 269,675
2.50% to 2.99%	2.75%	$ 28,684,000	$ 788,810
3.00% to 3.49%	3.25%	$ 17,380,000	$ 564,850
3.50% to 3.99%	3.75%	$ 6,748,000	$ 253,050
4.00% to 4.99%	4.50%	$ 30,695,000	$ 1,381,275
5.00% to 5.49%	5.25%	$ 262,588,000	$ 13,785,870
5.50% to 5.99%	5.75%	$ 79,000,000	$ 4,542,500
6.00% to 6.49%	6.25%	$ 88,504,000	$ 5,531,500
6.50% to 6.99%	6.75%	$ 32,000,000	$ 2,160,000
7.00% to 7.49%	7.25%	$ 15,878,000	$ 1,151,155
7.50% to 7.99%	7.75%	$ 25,012,000	$ 1,938,430
8.00% to 8.49%	8.25%	$ 26,507,000	$ 2,186,828
8.50% to 8.99%	8.75%	$ 9,000,000	$ 787,500
9.00% to 9.49%	9.25%	$ 46,764,000	$ 4,325,670
9.50% to 9.99%	9.75%	$ 40,933,000	$ 3,990,968
10.00% to 10.50%	10.25%	$ 6,000,000	$ 615,000
Unsecured notes payable, 4.87%, maturing in various installments 2010-2023.	4.87%	$ 135,000,000	$ 6,574,500
Unsecured notes payable, 5.01%, due 2015	5.01%	$ 18,000,000	$ 901,800
Unsecured notes payable, 5.20%, due 2020	5.20%	$ 12,000,000	$ 624,000
Notes payable, 6.05%, maturing in 2006 through 2008	6.05%	$ 816,000	$ 49,368
Net Amount Outstanding		$ 903,083,000	
Plus: Current maturities		$ 24,645,000	
Total Amount Outstanding		**$ 927,728,000**	**$ 52,422,748**

Total Capitalization	**$**	**1,739,651,000**
Cost of Long-Term Debt	**5.65%**	

Source: Aqua America Incorporation's 10-K for December 31, 2005.

Notes: The total amount of long-term debt outstanding includes current maturities.
The average stated interest rate is the high and low interest rate stated in the first column.

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California Water
Stated Cost of Long-Term Debt
as of December 31, 2005

Common Shareholder's Equity	
Common stock, 0.01 par value; 25,000 shares authorized,	
18,390 and 18,367, outstanding in 2005 and 2004, respectively	$ 184,000
Additional paid-in capital	$ 131,991,000
Retained earnings	$ 162,968,000
Accumulated other comprehensive loss	$ (1,202,000)
Total Common Stockholders' Equity	**$ 293,941,000**

Long-Term Debt	Stated Interest Rate	Amount Outstanding	Interest Expense
First Mortgage Bonds:	8.86%	$ 3,600,000	$ 318,960
	6.94%	$ 5,000,000	$ 347,000
	9.86%	$ 18,100,000	$ 1,784,660
Senior Notes:	7.28%	$ 20,000,000	$ 1,456,000
	6.77%	$ 20,000,000	$ 1,354,000
	8.15%	$ 20,000,000	$ 1,630,000
	7.13%	$ 20,000,000	$ 1,426,000
	7.11%	$ 20,000,000	$ 1,422,000
	5.90%	$ 20,000,000	$ 1,180,000
	5.29%	$ 20,000,000	$ 1,058,000
	5.29%	$ 20,000,000	$ 1,058,000
	5.54%	$ 10,000,000	$ 554,000
	5.44%	$ 10,000,000	$ 544,000
	4.58%	$ 10,000,000	$ 458,000
	5.48%	$ 10,000,000	$ 548,000
	5.52%	$ 20,000,000	$ 1,104,000
	5.55%	$ 20,000,000	$ 1,110,000
California Department of Water Resources loans 3.00% to 7.40%:	5.20%	$ 2,546,000	$ 132,392
Net Amount Outstanding		$ 269,246,000	
Plus: Current maturities		$ 1,133,000	
Total Amount Outstanding		**$ 270,379,000**	**$ 17,485,012**
Total Capitalization		**$ 564,320,000**	
Cost of Long-Term Debt	**6.47%**		

Source: California Water Service Company's 10-K for December 31, 2005.

Notes: The total amount of long-term debt outstanding includes current maturities.
The interest rate for the California Department of Water Resources loans is an average 3.00% and 7.40%.

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Middlesex Water Company's
Stated Cost of Long-Term Debt
as of December 31, 2005

Common Shareholder's Equity		
Common stock, no par value; 20,000 shares authorized,		
11,584,499 and 11,358,772, outstanding in 2005 and 2004, respectively	$	76,160,949
Retained earnings	$	23,638,301
Accumulated other comprehensive loss	$	(206,925)
Total Common Stockholders' Equity	**$**	**99,592,325**

Long-Term Debt	Stated Interest Rate		Amount Outstanding	Interest Expense
8.05%, Amortizing Secured Note, due December 20, 2021	8.05%		$ 2,983,384	$ 240,162
6.25%, Amortizing Secured Note, due May 22, 2028	6.25%		$ 9,415,000	$ 588,438
6.44%, Amortizing Secured Note, due August 25, 2030	6.44%		$ 6,906,667	$ 444,789
6.46%, Amortizing Secured Note, due September 19, 2031	6.46%		$ 7,000,000	$ 452,200
4.22%, State Revolving Trust Note, due December 31, 2022	4.22%		$ 754,164	$ 31,826
3.30% to 3.60%, State Revolving Trust Note, due May 1, 2025	3.45%	*	$ 3,018,254	$ 104,130
3.49%, State Revolving Trust Note, due January 25, 2027	3.49%		$ 278,144	$ 9,707
4.00% to 5.00%, State Revolving Trust Bond, due September 1, 2021	4.50%	*	$ 760,000	$ 34,200
0.00%, State Revolving Fund Bond, due September 1, 2021	0.00%		$ 614,436	$ -
				$ -
First Mortgage Bonds:				$ -
5.20%, Series S, due October 1, 2022	5.20%		$ 12,000,000	$ 624,000
5.25%, Series T, due October 1, 2023	5.25%		$ 6,500,000	$ 341,250
6.40%, Series U, due February 1, 2009	6.40%		$ 15,000,000	$ 960,000
5.25%, Series V, due February 1, 2029	5.25%		$ 10,000,000	$ 525,000
5.35%, Series W, due February 1, 2038	5.35%		$ 23,000,000	$ 1,230,500
0.00%, Series X, due September 1, 2018	0.00%		$ 700,280	$ -
4.25% to 4.63%, Series Y, due September 1, 2018	4.44%	*	$ 870,000	$ 38,628
0.00%, Series Z, due September 1, 2019	0.00%		$ 1,567,367	$ -
5.25% to 5.75%, Series AA, due September 1, 2019	5.50%	*	$ 1,990,000	$ 109,450
0.00%, Series BB, due September 1, 2021	0.00%		$ 1,926,956	$ -
4.00% to 5.00%, Series CC, due September 1, 2021	4.50%	*	$ 2,185,000	$ 98,325
5.10%, Series DD, due January 1, 2032	5.10%		$ 6,000,000	$ 306,000
0.00%, Series EE, due September 1, 2024	0.00%		$ 7,715,909	$ -
3.00% to 5.50%, Series FF, due September 1, 2024	4.25%	*	$ 8,920,000	$ 379,100
Net Amount Outstanding			$ 130,105,561	
Plus: Current maturities			$ 1,930,617	
Total Amount Outstanding			**$ 132,036,178**	**$ 6,517,705**
Total Capitalization			**$ 231,628,503**	

Cost of Long-Term Debt 4.94%

Source: Middlesex Water Company's 10-K for December 31, 2005.

Notes: The total amount of long-term debt outstanding includes current maturities.
*These are an average interest rate.

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Stated Cost of Long-Term Debt
for the Four Comparable Water Utility Groups
as of December 31, 2005

Company Name	Amount Outstanding	Interest Expense	Stated Cost of Long-term Debt
American States Water Company	$ 269,675,000	$ 18,326,984	6.80%
Aqua America Inc.	$ 927,728,000	$ 52,422,748	5.65%
California Water Service Group	$ 270,379,000	$ 17,485,012	6.47%
Middlesex Water Company	$ 132,036,178	$ 6,517,705	4.94%
Total	**$ 1,599,818,178**	**$ 94,752,449**	**5.96%**

Cost of Long-Term Debt **5.96%**

Schedule 10-1

Hypothetical Embedded Cost of Long-Term Debt
for Algonquin Water Resources of Missouri

		Principal Amount Outstanding	Interest
Missouri-American Water Cost of Debt		$3,662,685,671	$218,812,512
(1) Embedded Cost of Debt for Missouri American Water	6.10%		
(2) Stated Cost of Debt for Missouri American Water	5.97%		
(3) Spread due to issuance costs	0.13%		
(4) Hypothetical embedded Cost of Debt for Algonquin Water Res	**6.09%**		

Source: Direct Testimony of Staff witness David Murray
in Missouri-American Water Case No. WR-2003-0500

Notes: (3) = (1) - (2)
(4) = (4) + (3)

Schedule 10-2

Algonquin Water Resources
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Hypothetical Capital Structure as of December 31, 2005
for Algonquin Water Resources of Missouri

Capital Component	Dollar Amount (000's)	Percentage of Capital
Common Stock Equity	$ 1,469,550,325	47.88%
Preferred Stock	$ -	0.00%
Long-Term Debt	$ 1,599,818,178	52.12%
Short-Term Debt	$ -	0.00%
Total Capitalization	**$ 3,069,368,503**	**100.00%**

Water Utility Financial Ratio Benchmarks
Total Debt / Total Capital - Including Preferred Stock

Standard & Poor's RatingsDirect July 7, 2000	Lower Quartile	Median	Upper Quartile
	A	**A**	**A**
	53%	56%	61%

Source: American States Water Company 10-K for December 31, 2005.
Aqua America Incorporation's 10-K for December 31, 2005.
California Water Service Company's 10-K for December 31, 2005.
Middlesex Water Company's 10-K for December 31, 2005.

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Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates
for the Four Comparable Water Utility Companies

	---------- 10-Year Annual Compound Growth Rates ----------			
Company Name	DPS	EPS	BVPS	Average of 10 Year Annual Compound Growth Rates
American States Water Company	1.00%	0.00%	4.00%	1.67%
Aqua America Inc.	6.00%	9.00%	9.50%	8.17%
California Water Service Group	1.50%	0.50%	2.50%	1.50%
Middlesex Water Company	2.18%	0.43%	4.13%	2.25%
Average	**2.67%**	**2.48%**	**5.03%**	**3.40%**
Standard Deviation	1.97%	3.77%	2.66%	2.77%

Source: The Value Line Investment Survey: Ratings & Reports, July 28, 2006.

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Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Four Comparable Water Utility Companies

	---------- 5-Year Annual Compound Growth Rates ----------			
Company Name	DPS	EPS	BVPS	Average of 5 Year Annual Compound Growth Rates
American States Water Company	1.00%	-2.50%	4.50%	1.00%
Aqua America Inc.	6.50%	8.50%	11.00%	8.67%
California Water Service Group	1.00%	-4.00%	1.50%	-0.50%
Middlesex Water Company	2.00%	1.00%	3.50%	2.17%
Average	**2.63%**	**0.75%**	**5.13%**	**2.83%**
Standard Deviation	2.27%	4.83%	3.56%	3.50%

Source: The Value Line Investment Survey: Ratings & Reports, July 28, 2006.

Schedule 12-2

SCHEDULE 12-2

Algonquin Water Resources
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Average of Ten- and Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share of Growth Rates for the Four Comparable Water Utility Companies

Company Name	10-Year Average DPS, EPS & BVPS	5-Year Average DPS, EPS & BVPS	Average of 5-Year & 10-Year Averages
American States Water Company	1.67%	1.00%	1.33%
Aqua America Inc.	8.17%	8.67%	8.42%
California Water Service Group	1.50%	-0.50%	0.50%
Middlesex Water Company	2.25%	2.17%	2.21%
Average	**3.40%**	**2.83%**	**3.11%**

Schedule 12-3

SCHEDULE 12-3

Algonquin Water Resources
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Historical and Projected Growth Rates
for the Four Comparable Water Utility Companies

Company Name	(1) Historical Growth Rate (DPS, EPS and BVPS)	(2) Projected 5-Year EPS Growth IBES (Mean)	(3) Projected 5-Year EPS Growth S&P	(4) Projected 3-5 Year EPS Growth Value Line	(5) Average Projected Growth	(6) Average of Historical & Projected Growth
American States Water Company	1.33%	6.00%	6.00%	4.50%	5.50%	3.42%
Aqua America Inc.	8.42%	10.50%	11.00%	11.00%	10.83%	9.63%
California Water Service Group	0.50%	7.33%	7.00%	4.50%	6.28%	3.39%
Middlesex Water Company	2.21%	3.50%	3.50%	N.A.	3.50%	2.85%
Average	**3.11%**	**6.83%**	**6.88%**	**6.67%**	**6.53%**	**4.82%**

Proposed Range of Growth for Comparables: 5.18% - 6.18%

Sources: Column 1 = Average of 10-Year and 5-Year Annual Compound Growth Rates from Schedule 12-3.

Column 2 = I/B/E/S Inc.'s Institutional Brokers Estimate System, July 21 and September 14, 2006.

Column 3 = Standard & Poor's Earnings Guide, September and November 2006.

Column 4 = The Value Line Investment Survey: Ratings and Reports, July 28, 2006.

Algonquin Water Resources
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Average High / Low Stock Price for June 2006 through September 2006
for the Four Comparable Water Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	-- June 2006 --		-- July 2006 --		-- August 2006 --		-- September 2006 --		**Average High/Low Stock Price (6/06 - 9/06)**
Company Name	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	
American States Water Company	$38.380	$33.180	$38.900	$34.910	$39.180	$35.700	$38.950	$36.060	**$36.908**
Aqua America Inc.	$23.620	$20.130	$23.180	$21.130	$23.820	$21.500	$23.930	$21.500	**$22.351**
California Water Service Group	$40.000	$32.770	$37.840	$33.750	$38.480	$34.250	$39.190	$35.430	**$36.464**
Middlesex Water Company	$19.070	$16.500	$19.150	$17.580	$20.500	$17.590	$20.500	$18.410	**$18.663**

Notes:

Column 9 = [(Column 1 + Column 2 + Column 3 + Column 4 + Column 5 + Column 6 + Column 7 + Column 8) / 8].

Sources: S & P Stock Guides: July, August, September, and October.

Schedule 14

Algonquin Water Resources
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Discounted Cash Flow (DCF) Estimated Costs of Common Equity
for the Four Comparable Water Utility Companies

	(1)		(2)	(3)	(4)	(5)
Company Name	2007 Expected Annual Dividend		Average High/Low Stock Price	Projected Dividend Yield	Average of Historical & Projected Growth	Estimated Cost of Common Equity
American States Water Company	$0.92		$36.908	2.49%	3.42%	5.91%
Aqua America Inc.	$0.49		$22.351	2.19%	9.63%	11.82%
California Water Service Group	$1.16		$36.464	3.18%	3.39%	6.57%
Middlesex Water Company	$0.68	*	$18.663	3.67%	2.85%	6.52%
Average				**2.88%**	**4.82%**	**7.70%**

Proposed Dividend Yield: **2.88%**

Proposed Range of Growth: **5.18%-6.18%**

Estimated Proxy Cost of Common Equity: **8.06%-9.06%**

Notes: Column 1 = Estimated Dividends Declared per share for 2007 from Value Line.

Column 3 = (Column 1 / Column 2).

Column 5 = (Column 3 + Column 4).

Sources: Column 1 = The Value Line Investment Survey: Ratings and Reports, July 28, 2006.

Column 2 = Schedule 14.

Column 4 = Schedule 13.

Note *Middlesex was calculated by taking the 2005 dividend of $0.67
times the average historical 5-year and 10-year dividend growth rate.

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Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates
Based on Historical Return Differences Between Common Stocks and Long-Term U.S. Treasuries
for the Four Comparable Water Utility Companies

Company Name	(1) Risk Free Rate	(2) Company's Value Line Beta	(3) Arithmetic Average Market Risk Premium (1926-2005)	(4) Geometric Average Market Risk Premium (1926-2005)	(5) Geometric Average Market Risk Premium (1996-2005)	(6) Arithmetic CAPM Cost of Common Equity (1926-2005)	(7) Geometric CAPM Cost of Common Equity (1926-2005)	(8) Geometric CAPM Cost of Common Equity (1996-2005)
American States Water Company	4.85%	0.75	6.50%	4.90%	1.48%	9.73%	8.53%	5.96%
Aqua America Inc.	4.85%	0.80	6.50%	4.90%	1.48%	10.05%	8.77%	6.03%
California Water Service Group	4.85%	0.80	6.50%	4.90%	1.48%	10.05%	8.77%	6.03%
Middlesex Water Company	4.85%	0.80	6.50%	4.90%	1.48%	10.05%	8.77%	6.03%
Average		**0.79**				**9.97%**	**8.71%**	**6.02%**

Sources:

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for October 2006 which was obtained from the St. Louis Federal Reserve website at http://research.stlouisfed.org/fred2/series/GS30/22.

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by the Value Line Investment Survey: Ratings & Reports, July 28, 2006.

Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2005 was determined to be 6.50% based on an arithmetic average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2006 Yearbook.

Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2005 was determined to be 4.90% based on a geometric average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2006 Yearbook.

Column 5 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1996 - 2005 was determined to be 1.48% as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2006 Yearbook.

Column 6 = (Column 1 + (Column 2 * Column 3)).

Column 7 = (Column 1 + (Column 2 * Column 4)).

Column 8 = (Column 1 + (Column 2 * Column 5)).

Schedule 16

Algonquin Water Resources
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Selected Financial Ratios for the Four Comparable Water Utility Companies

Company Name	(1) 2005 Common Equity Ratio	(2) 2005 Long-Term Debt Ratio	(3) Funds From Operations Interest Coverage	(4) Funds From Operations to Total Debt	(5) Market-to-Book Value	(6) 2005 Return on Common Equity	(7) 2006 Projected Return on Common Equity	(8) Bond Rating
American States Water Company	49.60%	50.40%	5.60 x	27.9%	2.49 x	8.50%	9.50% *	A-
Aqua America Inc.	48.00%	52.00%	4.30 x	17.0%	3.58 x	11.20%	11.50% *	A+
California Water Service Group	51.40%	48.60%	3.70 x	17.8%	2.39 x	9.30%	9.50% *	A+
Middlesex Water Company	45.00%	55.00%	N.A. x	N.A.	2.22 x	8.20%	N.A. *	N.R.
Average	**48.50%**	**51.50%**	**4.53** x	**20.9%**	**2.67** x	**9.30%**	**10.17%**	**A**

Sources:

The Value Line Investment Survey Ratings & Reports, July 28, 2006: for columns (1), (2), (6) and (7).
Standard & Poor's RatingsDirect for columns (3), (4) and (8).
AUS Utility Reports, November 2006 for column (5).

Note: * Estimated.

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Public Utility Revenue Requirement

or

Cost of Service

The formula for the revenue requirement of a public utility may be stated as follows :

Equation 1 : **Revenue Requirement = Cost of Service**

or

Equation 2 : **R R = O + (V - D) R**

The symbols in the second equation are represented by the following factors :

R R	=	Revenue Requirement
O	=	Prudent Operating Costs, including Depreciation and Taxes
V	=	Gross Valuation of the Property Serving the Public
D	=	Accumulated Depreciation
(V - D)	=	Rate Base (Net Valuation)
(V - D) R	=	Return Amount ($$) or Earnings Allowed on Rate Base
R	=	i L + d P + k E or Overall Rate of Return (%)
i	=	Embedded Cost of Debt
L	=	Proportion of Debt in the Capital Structure
d	=	Embedded Cost of Preferred Stock
P	=	Proportion of Preferred Stock in the Capital Structure
k	=	Required Return on Common Equity (ROE)
E	=	Proportion of Common Equity in the Capital Structure

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Weighted Cost of Capital as of December 31, 2005 for Algonquin Water Resources of Missouri, LLC

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of: 8.06%	8.56%	9.06%
Common Stock Equity	47.88%	-----	3.86%	4.10%	4.34%
Preferred Stock	0.00%	0.00%	0.00%	0.00%	0.00%
Long-Term Debt	52.12%	6.09%	3.17%	3.17%	3.17%
Short-Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
Total	**100.00%**		**7.03%**	**7.27%**	**7.51%**

Notes:

See Schedule 11 for the Capital Structure Ratios.

SCHEDULE 19