Exhibit No.:	_____
Issues:	Reasons for Increase, Test Year, Capital Structure, Cost of Capital, Acquisition Adjustment, Revenues, Expense Adjustments, Rate Base, Rate Design, and Proposed Tariff
Witness:	Larry W. Loos
Exhibit Type:	Direct
Sponsoring Party:	Algonquin Water Resources of Missouri, LLC
Cases Nos.:	WR-2006-0425 SR-2006-0426
Date:	May 5, 2006

MISSOURI PUBLIC SERVICE COMMISSION

CASES NOS. WR-2006-0425
SR-2006-0426

DIRECT TESTIMONY

OF

LARRY W. LOOS

ON BEHALF OF

ALGONQUIN WATER RESOURCES OF MISSOURI, LLC

JEFFERSON CITY, MISSOURI

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Before the Missouri Public Service Commission

Cases Nos. WR-2006-0425

SR-2006-0426

Direct Testimony of Larry W. Loos

QUALIFICATIONS

Q. Please state your name and business address.

A. Larry W. Loos, 11401 Lamar, Overland Park, KS 66211.

Q. What is your occupation?

A. I am employed by Black & Veatch Corporation (Black & Veatch). I am currently assigned to the Company's Enterprise Management Solutions Division, where I serve as a Director.

Q. How long have you been with Black & Veatch?

A. I have been employed by the company continuously since 1971.

Q. What is your educational background?

A. I am a graduate of the University of Missouri at Columbia, with a Bachelor of Science Degree in Mechanical Engineering and a Masters Degree in Business Administration.

Q. Are you a registered professional engineer?

A. Yes, I am a registered Professional Engineer in the State of Missouri, as well as the states of Colorado, Indiana, Kansas, Iowa, Louisiana, Nebraska, and Utah.

Q. To what professional organizations do you belong?

A. I am a member of the American Society of Mechanical Engineers, the National Society of Professional Engineers, the Missouri Society of Professional Engineers, the Society of Depreciation Professionals, and the Company's representative to the American Gas Association.

Q. What is your professional experience?

A. I have been responsible for numerous engagements involving electric, gas, and other utility services. Clients served include both investor-owned and publicly owned utilities; customers of such utilities; and regulatory agencies. During the course of these engagements, I have been responsible for the preparation and presentation of rate cases and of studies involving valuation, depreciation, cost of service, allocation, rate design, pricing, financial feasibility, cost of capital, and other engineering, economic and management areas.

Q. Please describe Black & Veatch Corporation.

A. Black & Veatch has provided comprehensive engineering, consulting, and management services to utility, industrial, and governmental clients since 1915. The Company specializes in engineering and construction associated with utility services including electric, gas, water, wastewater, telecommunications, and waste disposal. Service engagements consist principally of investigations and reports, design and construction, feasibility analyses, rate and financial reports, appraisals, reports on operations, management studies, and general consulting services. Present engagements include work throughout the United States and numerous foreign countries. Including personnel assigned to affiliated companies. We currently have a staff of about 6,000 people.

Q. Have you previously appeared as an expert witness?

A. Yes, I have. I have presented expert witness testimony before this Commission on a number of occasions. In addition, I have presented expert witness testimony before the Federal Energy Regulatory Commission as well as before regulatory bodies in the states of Colorado, Illinois, Iowa, Indiana, Kansas, Minnesota, New York, North Carolina, Pennsylvania, South Carolina, Texas, Utah, Wyoming, and Vermont. I have also presented expert witness testimony before District Courts in the states of Colorado, Iowa, Kansas, Missouri, and Nebraska; and before Courts of Condemnation in Iowa and Nebraska. I have also served as a special advisor to the Connecticut Department of Public Utility Control.

PURPOSE

Q. For whom are you testifying in this matter?

A. I am testifying on behalf of Algonquin Water Resources of Missouri, LLC (“Algonquin” or “Company”).

Q. What is the purpose of your direct testimony?

A. Algonquin requested that I prepare on its behalf testimony and exhibits supporting Algonquin’s request for rate increases applicable to its Missouri water and sewer utility properties. Through this testimony and the accompanying schedules, I set forth the details underlying Algonquin's request. Specifically I address the following:

- a brief description of Algonquin and its Missouri operations
- special considerations
- cost of capital
- proforma operations
- revenue deficiency
- proposed rates and tariff

Q. Do you sponsor any schedules?

A. Yes, I do. I sponsor the following schedules which are attached to this direct testimony:

Schedule LWL-1:	Resort Layouts
Schedule LWL-2:	Customers, Sales, and Revenues —Twelve Months Ended September 30, 2005
Schedule LWL-3:	Proposed Book Adjustments to Plant in Service
Schedule LWL-4:	Cost of Capital
Schedule LWL-5:	Proforma Adjustments
Schedule LWL-6:	Proposed Tariff Sheets
Schedule LWL-S:	Sewer Utility Proforma
Schedule LWL-W	Water Utility Proforma

I also sponsor Schedule LWL-0 which contains information required by 4 CSR 240-3.030. Although this information is not required of Algonquin by virtue of its small size, I have included it for the convenience of the Commission.

ALGONQUIN MISSOURI OPERATION

Q. Please describe Algonquin.

A. Algonquin Water Resources of Missouri, LLC (Algonquin) is a Missouri limited liability company. Algonquin Water Resources of America (AWRA), a Delaware Corporation, owns a 100% ownership interest in Algonquin. AWRA is an indirect, wholly owned subsidiary of the publicly traded entity Algonquin Power Income Fund. This fund was established to own energy and infrastructure related assets in the United States and Canada.

Q. Please describe the water and sewer service provided by Algonquin.

A. Silverleaf Resorts, Inc. (Silverleaf), and AWRA entered into an Asset Purchase Agreement dated August 29, 2004. This agreement provided for the purchase of certain water and sewer systems owned by Silverleaf in the states of Texas, Illinois, and Missouri. The systems in Missouri include the water system at the Holiday Hills Resort (near Branson) and the water and sewer systems at the Ozark Mountain Resort (near Kimberling City) and Timber Creek Resort (near DeSoto). The utility systems, under both Silverleaf and Algonquin, are commonly referred to as “Resort Utilities.” The total purchase price amounted to $13.2 million dollars of which $3.8 million dollars is attributable to the Missouri properties acquired.

In Missouri, Algonquin provides service to various residential and commercial customers. However, Silverleaf represents by far the largest market for the water and sewer service Algonquin provides. At Timber Creek, Silverleaf is the only customer. At Ozark Mountain and Holiday Hills, Silverleaf represents about one-half of the total number of accounts, and exclusive of untreated water (used for golf course irrigation at Holiday Hills), about 75 percent of water use. Overall at the three resorts, Silverleaf represents about 50 percent of the water accounts, 60 percent of the sewer accounts and 90 percent of water and sewer sales. The current effective rate went into effect in 1998. Available information indicates that rates were initially established in 1994.

Q. Please describe Silverleaf.

A. Silverleaf is a developer, marketer, and operator of timeshare resorts. Incidental to its timeshare focused business, Silverleaf also develops and sells condominium properties and single family lots within the resort boundaries.

In connection with its timeshare business, Silverleaf constructed water and sewer systems to serve its timeshare needs and other “on resort” customers. Silverleaf constructed both water and sewer systems at all three resorts. However, in 1998 Silverleaf sold the sewer system serving Holiday Hills.

Q. How does Algonquin operate its Missouri properties?

A. Algonquin operates its Missouri properties by contract with Algonquin Water Resource Services. A manager is responsible for the daily operation of the three Missouri systems. This manager works out of a small office rented from Silverleaf and located within the Holiday Hills Resort. The manager is responsible for selecting, contracting, and directing the day to day activities of an independent contractor who performs routine field activities, including meter reading. This contractor is also responsible for completion of small capital projects. Algonquin plans to separately bid larger capital projects.

In addition to management responsibility, the manager prepares and sends out monthly bills, is responsible for collections, accepts payments, and performs routine book keeping functions.

Q. Please describe the three resorts and the utility systems located on each.

A. Ozark Mountain Resort is the oldest of the three. It is located on 116 acres along the south shore of Table Rock Lake on Highway 13 immediately south of Kimberling City. Ozark Mountain is a mixed-use development of timeshare and condominium units. Silverleaf began timeshare sales at Ozark Mountain in 1982. Silverleaf has time share units in 28 fourplexes and four sixplexes and is constructing two additional sixplexes. Silverleaf plans no further development.

In Schedule LWL-1, I have included layouts of each of the three resorts. I obtained these layouts from Silverleaf. Silverleaf uses these to show guests where they will be staying. The diagram for Ozark Mountain is included as Page 1 of Schedule LWL-1. The timeshare units are located on the southern two thirds of the resort. The fourplex units are numbered 13 through 124, and the sixplex units have duplicate numbers of 101 through 124.

In the northern third of the diagram are somewhat larger boxes numbered 1 through 14. These are sixplexes (condominiums) which are owned by individuals independent of Silverleaf, though Silverleaf developed and built them. These sixplexes are similar to the timeshare sixplex buildings. Thus in total there are currently 136 timeshare units (with an additional 12 under construction) and 84 condominium units.

I also show in Schedule LWL-1 the approximate location of the water and sewer treatment facilities. These facilities are located in the southwest corner of the resort property.

In Schedule LWL-2, I show the numbers of customers (bills), sales, and revenues for the twelve months ended September 2005. As I show in this Schedule, for the twelve month period ended September 30, 2005, Silverleaf represented 56 percent of the water and 58 percent of the sewer bills and consumed 80 percent of the water sold at Ozark Mountain.

Q. Are there similarities between Ozark Mountain and the Holiday Hills Resort?

A. Yes, there are a number of similarities. However, despite these similarities, their "character" differs. Holiday Hills, though situated in a wooded area, has a more urban, “polished” feel than Ozark Mountain. Ozark Mountain is more rustic and feels more rural. Ozark Mountain activities tend to center around Table Rock Lake and hiking whereas Holiday Hills seems more centered around golf and Branson attractions. Both have typical resort activities such as swimming and tennis.

Holiday Hills is also a mixed use development, but in addition to timeshare and condominium units, there are about 60 lots for single family detached housing as well as a small hotel. Silverleaf began timeshare sales at Holiday Hills in 1984.

I include a diagram of the Holiday Hills Resort in Schedule LWL-1, Pages 2 and 3. In this diagram, timeshare units are numbered whereas condominium units are designated by letter. In addition to the timeshare and condominium units, Silverleaf has developed an area that includes about 60 lots for detached single family housing and has a camp ground area.

In Silverleaf’s 2004 Form 10-K, Silverleaf reports 392 timeshare units completed with plans to develop 396 more. The timeshare units include duplex, fourplex, sixplex, and twelveplex buildings. The four, six, and twelveplex buildings are similar in layout to the sixplex buildings at Ozark Mountain. The condominium units at Holiday Hills are similar to the condominium units at Ozark Mountain.

On page 2 of Schedule LWL-1, I show the approximate location of the two water treatment plants and of Algonquin’s administrative building. On this diagram, I also show the approximate location of an irrigation pumping house used by Silverleaf to irrigate the resort's golf course. As I show in Schedule LWL-2, Silverleaf used 62.3 million gallons of water for irrigation purposes during the twelve month period ended September 30, 2005. Algonquin (as did Silverleaf before) meters the use of this untreated water. This use, however, is not billed because no rate schedule is currently in effect to do so. Algonquin proposes in this rate case a new rate schedule for the sale of this untreated water.

As I show in Schedule LWL-2, excluding irrigation deliveries, for the twelve month period ended September 30, 2005, Silverleaf represented 42 percent of the accounts and consumed 73 percent of the water sold at Holiday Hills. Of the total water delivered (including irrigation), deliveries to Silverleaf represented nearly 90 percent of the total.

As with Ozark Mountain, Silverleaf's time share units represent the majority of the resort property. Holiday Hills is much larger in terms of area and number of units than Ozark Mountain. Overall, Ozark Mountain appears more densely developed.

Holiday Hills is located approximately 3 miles east of Branson on Highway 76.

Q. Does the fact that Silverleaf consumes 73% of the water sold at Holiday Hills, but only 42% of the number of bills indicate that Silverleaf is using water less efficiently than the non-Silverleaf customers?

A. Not necessarily. The number of Silverleaf residential bills amounts to 1,676 (140 accounts). However, as I previously indicated, Silverleaf reports 392 time-share units. Some of the difference between the number of timeshare units and number of accounts is attributable to master metered timeshare buildings. The condominium units are not master metered. If the timeshare units were not master metered, the number of Silverleaf residential accounts might approach 390 (4,680 bills), or as much as about 60% of the total, which is more in line with the sales to Silverleaf.

Q. How does Timber Creek compare?

A. Timber Creek is by far the newest of the three resorts. This resort consists solely of timeshare units, but does have an area for recreational vehicles and camping. The existing development at Timber Creek relates solely to Silverleaf's timeshare and rental business. At the present time, Silverleaf plans no further development at Timber Creek. At one time, Silverleaf envisioned developing Timber Creek to about eight times its present size.

Timber Creek fits in someplace between Ozark Mountain and Holiday Hills. Timber Creek does not have attractions such as Branson and Silver Dollar City. There is a small onsite lake for fishing as well as a small (short) five-hole golf course. Limited nature (hiking) trails are on site.

The timeshare units at Timber Creek consist of six twelveplex buildings. These buildings are the same design as the twelveplex buildings at Ozark Mountain and Holiday Hills. Silverleaf is the only customer served by Algonquin at Timber Creek. Timeshare sales began at Timber Creek in 1997.

Timber Creek is located near DeSoto, and has the distinction of being the only "drive to resort" of the three. Silverleaf develops two types of resorts:

"drive to resorts" are resort properties located near large metropolitan areas (St. Louis). Their close proximity to major urban areas is intended to attract people to "conveniently get away" from the city. Silverleaf considers Holiday Hills and Ozark Mountain to be "destination resorts." These resorts are more remotely located and are intended to attract people to nearby activities such as those offered by Branson and Silver Dollar City.

SPECIAL CONSIDERATIONS

Q. Are there unusual circumstances that arise in this case?

A. Yes, there are a number. Some of these circumstances include:

1) This is the first rate case filed by Algonquin.

2) Algonquin's currently effective rates were approved by the Commission, but were never evaluated and tested based on rate of return on rate base during a pro forma test year.

3) Algonquin only recently acquired the property.

4) Algonquin acquired the property from an entity (Silverleaf) that operated it as a convenience for the benefit of its primary business not as a self standing utility.

5) Algonquin acquired the property from an entity (Silverleaf) that is also the predominate customer.

6) Silverleaf operated the property for a number of years prior to the Commission approving rate schedules.

Q. Was Silverleaf considered a public utility?

A. When Silverleaf owned and operated the systems at the three resorts, I understand that it was treated as a public utility in so far as providing water and sewer service. As such, the charges and terms under which services were provided were pursuant to rate schedules initially approved in August 1994 by the Missouri Public Service Commission (Commission).

While treated as a public utility, Silverleaf was not (and is not) in the utility business. The water and sewer systems under its control were established, owned, and operated to support Silverleaf's development and operation of resort property. Most of this resort property was, and is, owned and operated by Silverleaf for the purpose of time interval vacation sales.

Q. Do you consider Silverleaf to have been a public utility?

A. I understand and agree that most of the property sold to Algonquin falls under the legal definition of a public utility. Not withstanding this legal definition, I do not consider Silverleaf a public utility from an operational standpoint. Silverleaf is in the timeshare and resort development business. The corporate culture at Silverleaf in no way resembles the corporate culture of utilities I have worked with.

Q. Does Silverleaf's corporate culture have a bearing on this case?

A. Yes, it does. The biggest impact on Algonquin relates to the manner in which systems developed over time and in record keeping. I expect utilities to maintain records and follow certain accounting conventions that are not normally followed by non-utility entities. In many respects, Silverleaf likely viewed the utility property not much differently than the swimming pool(s) at the resort. Both are incidental to facilitating the sale of timeshare units, condominiums, or land.

A utility such as Algonquin on the other hand has an entirely different culture. As a utility, Algonquin is driven by the needs of customers and the requirements imposed by virtue of rate and environmental regulation. Silverleaf is driven by its need to sell timeshare intervals.

Q. What bearing does this difference in culture have in this case?

A. When I began this engagement, I expected that any information that originated within Silverleaf would be incomplete and likely inconsistent. I do not normally encounter these kind of problems when dealing with mature utility systems and operators. As I will subsequently demonstrate, I was correct in my initial assessment. Algonquin has operated the systems for only about six months. The records it "inherited" from Silverleaf leave a great deal to be desired. However, they are what they are. Recognizing these limitations, I find it necessary to depart somewhat from the rigorous detail and "cookbook" approach normally relied upon to prepare and execute a rate case.

Further, I believe it important to recognize the implications on utility operations and records when the largest customer, the operator, the developer, and the owner are one in the same. While Algonquin does not provide service to itself, Algonquin inherited records from an owner that did.

Q. Recognizing these implications, what do you consider the biggest challenge in preparing this case?

A. Based on my work in preparing the material filed in this case, the greatest challenge relates to plant in service. By agreement dated August 29, 2004, Algonquin acquired <u>all of the utility property</u> owned by Silverleaf in Missouri for $3.8 million. However, the books and records maintained by Silverleaf, and provided to Algonquin, indicate that net utility plant amounts to something less than that.

When I examined plant information provided by Silverleaf to Algonquin, I find that as of August 15, 2005, total plant amounted to $4,635,010. On further investigation, I find that Silverleaf reported plant additions each year since 1993 for Holiday Hills, 1994 for Ozark Mountain, and 1996 for Timber Creek. This timing would appear more than coincidental. Recall that Silverleaf's initial rates were approved in August 1994. Silverleaf began reporting investment in plant in 1993 and the investment reported appears as a lump sum with no designation as to the type of investment. With this timing, it would appear that Silverleaf may not have separately accounted for its utility property until the need surfaced in connection with establishing its initial rates. I understand that following normal accounting practice, a developer such as Silverleaf would not separate its investment related to utility property from the balance of its development cost.

Q. Where is the investment prior to 1993 at Holiday Hills, and 1994 at Ozark Mountain?

A. As I indicated above, Silverleaf began sales at Ozark Mountain in 1982, and in 1984 at Holiday Hills. The issue then becomes:

1) Were utility facilities in service prior to the early to mid-nineties?

2) If so, should adjustment be made to reflect the initial cost of these facilities? and

3) If the answer to 1 and 2 above is yes, what adjustments should be made?

In addition, I noted that Silverleaf reported sewer system investments at Holiday Hills in several years beginning in 1996. The total of this sewer investment amounts to about $200,000. However, since Silverleaf sold its property in 1998, no sewer related investment should be shown.

Q. Were utility facilities in service prior to 1993-1994?

A. Yes, they were. Silverleaf indicates in its 1997 Form 10-K that sales began in 1984, and that 24 units were in inventory at Holiday Hills as of December 31, 1997 (the first year information is available).With timeshare sales beginning in 1984, utility property must have been in service prior to the date of the first reported additions.

In that same Form 10-K, Silverleaf indicated that 124 timeshare units were in inventory at Ozark Mountain and that time share sales began in 1982. My family and I stayed at Ozark Mountain on two occasions during the mid-eighties. At that time, a great deal of the infrastructure was in place. Though I don't recall seeing the sewer treatment plant, I do recall seeing the water treatment plant during our second stay.

Q. Do you have any observations regarding the lack of investment reported prior to 1993?

A. In light of the fact that Silverleaf apparently operated without Commission oversight until mid-1994, I do not consider the lack of reported investment prior to 1993 surprising.

Q. If facilities were in place prior to 1993 and 1994, should adjustment be made to reflect investment associated with these facilities?

A. Yes, reasonable adjustments should be made to the plant balances recorded by Silverleaf and now reported on Algonquin's books. Algonquin purchased <u>all of the utility assets</u> of Silverleaf for $3.8 million. According to Commission utility accounting convention, Algonquin would include the cost of property acquired when first devoted to public service as plant in service. To the extent the amount paid exceeds net book, the excess would be recorded as an acquisition adjustment. For a number of years, Silverleaf operated these facilities without the benefit of rate schedules approved by the Commission. Even when rate schedules were approved, I understand the rates set were approved by Commission without the benefit of detailed analysis of plant, expenses and return requirements.

Q. Does the lack of a detailed analysis supporting the underlying rate levels have a bearing?

A. Yes, it does. The Commission has never "tied" rates to an investment level. As such, no cost was ever defined as that when first devoted to public service.

Q. Do you propose a proforma adjustment to reflect investment that you find missing?

A. No, I do not. <u>I propose an adjustment to the plant balances provided by Silverleaf and recorded on Algonquin's books.</u> The distinction that I make in this regard is that I propose Algonquin's books be adjusted permanently. A proforma adjustment tends to have effect only during the test period associated with that case.

Q. What specific adjustments to plant balances do you propose?

A. In my review of the plant records which originated with Silverleaf, I find three types of problems. These are:

1) Investment associated with distribution and collection facilities placed in service during the years prior to 1993 (Holiday Hills) and 1994 (Ozark Mountain). Investment subsequent to 1993 and 1994 appears reasonable.

2) Investment associated with supply, disposal, and treatment facilities that either has never been recorded, or only a portion of the total was recorded.

3) Investment shown in the books associated with utility facilities that Algonquin did not in fact acquire.

Q. Is there a similar problem at Timber Creek?

A. No, the Timber Creek investment appears complete and reasonable. Since the resort was constructed subsequent to 1994, this is not surprising.

Q. How do you propose to adjust investment associated with distribution and collection facilities?

A. I inquired of Algonquin's manager regarding what portion of the Ozark Mountain and Holiday Hills resorts were completed prior to about 1993. Since this was about the time she started, she was able to do so with some confidence.

Based on the somewhat limited detail shown on the utility maps provided to Algonquin by Silverleaf, I first supplemented existing detail by adding system facilities sufficient to serve the entire resort today. Based on this layout, I then identified those lines which would have been required to serve resort facilities which the manager identified as completed prior to about 1993. With this information, I then identified the pipe length required to serve the pre-1993 development and the total length of pipe, currently in service.

In this regard, I found that for Holiday Hills, of the total of about 37,000 feet of water lines, 7,700 feet (21%) were required to serve pre-1993 development. For Ozark Mountain, of the total of about 9,400 feet of water lines, 5,400 feet (57%) were required to serve pre-1993 development. Similarly, of the total of about 14,000 feet of sewer collection lines, about 7,700 feet (56%) were required to serve pre-1993 resort facilities.

Q. Have you prepared a schedule summarizing the adjustment you propose?

A. Yes, I have. I show this information in summary form in Schedule LWL-3.

Q. Please describe Schedule LWL-3.

A. Schedule LWL-3 consists of two sheets. On Lines 1 through 4 of Sheet 1, I show the footages of mains that I developed based on my detailed analysis of the existing systems.

Silverleaf provided detailed plant investment information to Algonquin in a file containing about 1,150 records. In this file, Silverleaf identified net additions (surviving) by year. The earliest record relates to 1993. Consistent with the file name and confirmed by the records, I conclude the information is limited to transactions booked through July 31, 2004 I add additions for the period August 1, 2004 through August 14, 2005, to develop the reported plant balance as of August 14, 2005. Since Algonquin did not add any plant during August and September 2005, the reported plant balance at September 30 is equal to the balance on August 14.

On lines 5 through 9 of Schedule LWL-3, I summarize reported investment as of September 30, 2005. In this regard, I have separated investment between that relating to plant installed prior to 1993, and that installed after 1992. I further separate investment into three categories. These categories are: supply and treatment, distribution and collection, and general.

As I show on Line 9, total investment reported (as of September 30) amounts to $4,635,010 (combined water and sewer) of which none relates to property installed prior to 1993.

Q. Do you have any additional observations concerning the information set forth in Lines 5 through 9?

A. Yes, I do. Not only do the records show no investment prior to 1993, I note that:

- The water supply and treatment investment reported for Ozark Mountain does not appear reasonable when compared with the other two resorts.
- There is investment shown related to sewer properties at Holiday Hills even though Silverleaf has not owned sewer property at Holiday Hills since 1998, and hence, could not sell sewer property to Algonquin.

Q. Based on the summary information you show, do you have any additional observations?

A. Yes, I do. Silverleaf (Algonquin) reports the earliest investment at any of the resorts in 1993. Based on other information, including my personal observations, I know that Silverleaf had made investment in the utility system properties acquired by Algonquin considerably before that date.

With regard to Ozark Mountain, while the earliest investment reported is for 1994, available information indicates that a large portion of the property acquired by Algonquin went into service in about 1982. In addition, Silverleaf (Algonquin) not only reports no source of supply related investment prior to 1993, the investment subsequent to 1992 is clearly not indicative of the cost incurred in connection with the well, treatment and storage facilities relied on to provide water service. While Silverleaf made some investment in sewer treatment and disposal facilities in recent years, the level of investment is insufficient relative to the cost shown for Timber Creek, or Holiday Hills for that matter.

With regard to Holiday Hills, the earliest investment reported is for 1993, notwithstanding evidence that the water system went into service in the mid-1980's. In addition, while the amounts shown indicate investment associated with water supply facilities, Algonquin purchased from Silverleaf two separate water supply systems including separate wells, treatment, and storage facilities. Clearly the records provided by Silverleaf do not include the investment cost associated with the first system they installed that was purchased by Algonquin.

Q. What adjustments do you propose to correct for these deficiencies?

A. My proposed adjustments are set forth in Lines 12 through 14 of Schedule LWL-3. As shown, I propose three adjustments. These adjustments reflect:

1) Investment associated with distribution and collection facilities placed into service prior to 1993 (Line 12) acquired by Algonquin for which no investment cost is recorded. This adjustment increases plant by $729,427.

2) Investment associated with water supply and treatment and sewage treatment facilities placed into service prior to 1993 (Line 13). Algonquin acquired these facilities from Silverleaf, but no investment is

reported to reflect their cost. I propose adjustments in this regard for the Holiday Hills water system and for the Ozark Mountain water and sewer systems. The adjustment increases plant by $1,184,606.

3) Investment associated with sewer system properties reported for Holiday Hills. Algonquin did not acquire sewer system properties at this resort. This adjustment decreases plant by $238,072 (Line 14).

Q. How do you develop the $729,427 adjustment you propose for distribution and collection facilities?

A. I first restate the original cost reported by Algonquin to 2005 cost levels. I restate original cost by applying the appropriate "Handy Whitman Index" to the investment reported in each year for each account.

Q. Doesn't the use of these indices violate the Commission's normal use of original cost in setting rates and the NARUC requirements for reporting costs incurred at the time of construction?

A. No, it does not. I convert the historical cost to 2005 levels in order to eliminate the effects of inflation so that I can use this historical information in developing adjustments to reflect the missing investment. I subsequently convert the investment stated in 2005$ back to nominal dollars in a manner that preserves the historical cost reported by Silverleaf (Algonquin) while at the same time including allowance for investment not reported at historic cost levels.

Q. What is your next step?

A. I include the level of investment (2005$) for property installed prior to 1993 based on the average unit cost per foot of main installed after 1992. For example, as I show on lines 1 and 2, at Ozark Mountain, I estimate that 5,355 feet of water mains were placed into service prior to 1993, and 4,075 feet after 1992. Thus, the ratio of pre-1993 mains to post-1992 mains amounts to 1.31 to 1 (5,355ft / 4,075ft). I therefore include investment associated with pre-1993 distribution at 1.31 times post-1992 investment (2005$). The final step in my development of this adjustment is the restatement of 2005$ to nominal amounts.

Q. How do you develop the $1,184,606 adjustment you propose for supply and treatment you show on Line 13?

I first identify the capacities associated with the various components. In this regard, I rely on information set forth in Attachments to the Rebuttal Testimony filed by staff witness James A. Merciel, Jr. in Case No. WO-2005-0206. I obtained estimates of the cost to construct facilities of this size from Black & Veatch professionals whose primary function is the preparation of construction cost estimates for water and wastewater treatment facilities.

The adjustments I show on Line 13 reflect these current cost estimates adjusted back to 1982, and 1984 cost levels.

Q. In Case No. WO-2005-0206, Mr. Merciel provided these capacities in connection with his calculation of excess capacity. Do you agree with Mr. Merciel that there is excess capacity in these systems?

A. No, I do not. Even if there were, Algonquin should not be required to bear the burden of any investment relating to excess capacity. Silverleaf, the system's largest customer, caused any excess capacity to be installed. If Algonquin does not recover the price paid Silverleaf for these properties, Algonquin will be forced to directly subsidize Silverleaf for such excess. Silverleaf was compensated for any excess through the price Algonquin paid. If the price Algonquin paid is reduced through some adjustment for excess capacity, the rates that Silverleaf pays will not include the full investment, Silverleaf will receive a windfall at Algonquin's expense.

Q. What does the adjustment shown on Line 14 represent?

A. On Silverleaf's books, $238,072 were reported as sewer investment, primarily collection mains placed into service in 1996 and 1999 at Holiday Hills. Since Silverleaf sold these properties, Algonquin did not acquire them. I eliminate the investment reported by Silverleaf by this adjustment.

Q. Please explain the balance of Schedule LWL-3 Sheet 1.

A. In the balance of this Schedule, I show several things. On Lines 20 through 24, I show the development of the reserves for depreciation (as of August 15, 2005) associated with the adjusted book plant as of that same date of $6,310,970. On Lines 25 through 30, I show the development of the reserve for depreciation associated with the adjusted book plant as of September 30, 2205 of $6,310,970. On Lines 25 through 30, I show the development of the depreciation reserve balance as of September 30, 2005.

Q. What depreciation reserve balance did Silverleaf report as of August 15, 2005?

A. Total depreciation reserve reported amounts to $1,631,308. This depreciation reserve balance is based on use of a depreciation rate of about 5%.

In my opinion, a 5% overall depreciation expense rate is considerably in excess of a reasonable rate for water and sewer system property. Based on my experience, I believe that a reasonable overall rate will fall around the mid point of the range of 2% to 3%. In Case No. WO-2005-0206, Staff Witness Rosella Schad recommended adoption of a set of depreciation expense rates. These rates would result in an overall composite depreciation expense rate within that range.

In Schedule LWL-3, Sheet 2, I test the reasonableness of the rates recommended by Ms. Schad in connection with the Algonquin (Silverleaf) property. In Column C, I show the depreciation expense rates recommended by Ms. Schad. In Column D, I show the average service life indicated by Ms. Schad's recommended rate assuming no net salvage. Based on the average age of the property (Column B), I calculate the indicated reserve ratio (Column E).

As I show in Column E, the indicated reserve ratios appear generally reasonable. For mass accounts, I expect that reserve ratios should generally fall below 50%, and well below 50% for systems which exhibit recent growth. In this regard, I find several accounts which exhibit excessive reserve ratios if I use Ms. Schad's recommended rates to construct depreciation reserve balance to correspond to my adjusted plant balance. For those accounts with reserve ratios in excess of 50%, I generally recommend reducing Ms. Schad's recommended rate by 50%.

In Column F of Sheet 2, I show my recommended depreciation expense rates. I use these recommended depreciation expense rates to calculate the depreciation reserve balance as of August 15, 2005 of $2,202,252 I show on Line 20 of Sheet 1.

Q. What does the net plant figure of $4,108,718 you show on Line 21 (Sheet 1) represent?

A. This figure represents the resulting net plant investment acquired by Algonquin as of August 15, 2005. However, since Algonquin paid only $3.8 million, I further adjust reserve (Line 22) to limit net plant as of August 15, 2005 to $3.8 million. In the remainder of Sheet 1, I adjust August 15, 2005 balances to balances as of September 30.

Q. Please summarize Schedule LWL-3.

A. Based on my analysis in this Schedule, I find that a reasonable original cost investment associated with the property acquired by Algonquin from Silverleaf amounts to $6,310,970 as of August 15, 2005. The reasonable depreciation reserve allowance associated with the $6,310,970 plant balance amounts to

$2,510,970. I recommend that Algonquin adjust its books and records to reflect these adjusted amounts as of the date of acquisition.

Q. Are there any implications associated with contributed plant?

A. No, there is not. Though Silverleaf's tariffs provide for the collection of contributions in aid of construction, I am informed that Silverleaf never collected any monies. I can find no evidence of any collections in the records I reviewed.

Q. Should the plant balances you developed be adjusted to reflect an impact on contributions?

A. No, they should not. As I previously discussed, about 90 percent of the water and sewer utility business is for the benefit of Silverleaf as a customer. If Silverleaf as the owner were to charge Silverleaf as a customer, Silverleaf would be charging itself. Charging one's self a contribution is a concept I find difficult to comprehend.

I understand that over the years, a number of standards in utility accounting and rate making have evolved. These standards all seem to point in the same direction. They all seem directed toward charging customers fairly and equitably. When the utility, the developer, and the customer are separate and distinct entities, utility regulators have developed a number of conventions directed toward treating the utility and customers (including developers) fairly. However, these conventions and rules may breakdown when the utility and developer are the same and even more so when the utility represents the predominate customer.

I believe by definition, a utility which serves itself does so fairly and equitably. In short, there is no need to interject the complexities of price regulation. However when the utility and customer are independent entities, price regulation is necessary in order to insure that the customer(s) are fairly treated. I believe the standard that must be employed in this case is simply whether <u>customers other than Silverleaf</u> are treated fairly and equitably.

Even had Silverleaf collected money from customers under the guise of a contribution, the money collected goes to Silverleaf. The money collected goes to Silverleaf in the same manner as the money these same customers paid to Silverleaf as the developer.

Q. In your prior response, you refer to Silverleaf as a customer taking service from Silverleaf the utility. Was Silverleaf a customer of Silverleaf the utility?

A. No. According to the definitions set forth in Silverleaf's (Algonquin's) tariff, Silverleaf was not a customer of Silverleaf the utility.

TEST PERIOD OPERATIONS

Q. What test period do you propose to use in this case?

A. I propose to rely on the twelve month period ended September 30, 2005 as the test period in this case.

Q. Are there challenges in using the twelve month period ended September 30, 2005 as the test period?

A. Yes, there are. Some challenges include:

1) This is the first rate case filed by Algonquin in Missouri.

2) This is the first full rate case filed in connection with this property.

3) Since Algonquin started operating the systems in August 2005, operating expense is not available specific to Algonquin.

4) There are a number of perceived deficiencies or limitations associated with operating data maintained by Silverleaf. However this is the only data available.

Q. Regarding deficiencies in the data, how do you develop test period amounts?

A. I start with operating data which was reported by Silverleaf during the 10½ month period ended August 15, 2005. I add operating data reported by Algonquin for the 1½ month period beginning August 15 to determine amounts applicable to the twelve month period ended September 30. I adjust this data to reflect typical proforma rate case adjustments as well as rely on other available information to reflect anticipated costs under Algonquin operation.

COST OF CAPITAL

Q. Do the difficulties you noted above extend to cost of capital issues?

A. No, a different set emerges. Algonquin Water Resources of Missouri has no capital structure. Algonquin is financed solely through equity capital. As such, I rely on the capital structure and cost of debt reported by Algonquin's "ultimate" parent, Algonquin Power Income Fund.

Q. Have you developed an appropriate capital structure for the purpose of this case?

A. Yes, I have. I show the development of my recommended capital structure on Sheet 2 of Schedule LWL-4. As I show in Column C, my recommended capital structure consists of 17.5 percent long term debt at a cost rate of 6.54 percent, 12.14 percent convertible debentures at a cost rate of 6.65 percent, and 70.72 percent equity capital. This capital structure reflects the capitalization of Algonquin Power Income Fund as of December 31, 2004. The cost rates reflect the capital cost of Algonquin Power associated with this same debt.

Q. What is your recommended cost of equity capital?

A. I recommend for the purpose of this case, a cost of equity capital of 12.50 percent. My recommendation in this regard is based on the application of a Discounted Cash Flow Model (DCF). I develop my recommended cost of equity capital on Sheet 3 of Schedule LWL-4.

Q. Please describe the DCF Model.

A. The theory underlying the DCF model is that the value of equity capital is equal to the present value of the expected future stream of net cash flows. The theory suggest that when an investor buys a stock, the investor expects a return derived from cash flows received in the form of dividends plus appreciation in market price (the expected growth rate). Thus the divided yield on market price plus a growth rate equals the return on equity expected by investors. On Sheet 4 of Schedule LWL-4, I show how I develop the allowance I include for dividend yield, and on Sheets 5 and 6, my recommended allowance for growth.

Q. What conclusion do you reach regarding dividend yield?

A. As I show on Sheets 3 and 4 of Schedule LWL-4, I find a dividend yield in the range of 3.00 to 6.25% to be reasonable in this case. The lower figure (3.00%) relates to the market yield, whereas the higher figure (6.25%) relates to the required yield on book equity in order to produce that market yield. In developing this range, I rely on the group of companies that comprise the ValueLine Water Utility Group. I show the dividend yields for this group on Sheet 4 of Schedule LWL-4.

Q. What conclusion do you reach regarding growth rate?

A. I recommend a growth term in the range of 6.00% to 9.00%. On Sheets 5 and 6 of Schedule LWL-4, I show the various data that I consider in reaching this conclusion. In connection with this growth rate term, I examined long-term historical and ValueLine forecast increases in per share cash flow, market price, earnings, dividends, and book value.

Q. In Pages 4 and 5, you show two groups of companies. What is the distinction between these two groups?

A. As I have previously indicated, the ValueLine Water Industry Group consists of eight utilities. For four of these companies (Group 1) ValueLine shows a complete history from 1989 through 2004 of data, as well as forecasts for 2005 through 2008-10 for many factors. For three of the other companies (Group 2) historic data is provided only since 1997. Forecast information for this second group is quite limited. ValueLine reports even less historic and forecast information for the eighth company (York). As the result of the limited data, I did not analyze York with the others.

I separate the data into Groups in order to avoid potential problems that might arise when different data sets are combined.

Q. What is your recommended rate of return on common equity capital?

A. I summarize my development on Sheet 3 of Schedule LWL-4. Combining the dividend yield component of 3.00% to 6.25% with the growth component of 6.00% to 9.00%, the indicated return on equity capital falls within the wide range of 9.00% to 15.25%. These wide range values are developed by adding the low range value of dividend yield (3.00%) with the low range value for growth (6.00%). I develop what I consider a more reasonable overall range by combining the low value with the high value. By doing so, I conclude that the return on common equity realistically falls in the range of 12.00% to 12.25% for the proxy companies. Based on consideration of the higher risk associated with Algonquin's extremely small size, lack of diversity in customer base, and nearly exclusive dependence on resort and time share property, my final recommended rate of return on common equity amounts to 12.50%.

PROFORMA OPERATIONS

Q. Do you propose any proforma adjustments in this case?

A. Yes, I do I propose eight proforma adjustments. I list these adjustments in Schedule LWL-5. I believe that the explanation of the individual adjustments set forth in Schedule LWL-5 are reasonably complete and do not require further explanation in direct testimony.

REVENUE DEFICIENCY

Q. Have you prepared any schedules which summarize test period operating results?

A. Yes, I have. I prepared two. Schedule LWL-S consists of eight sheets and summarizes proforma operations for sewer service. Schedule LWL-W likewise consists of eight sheets and summarizes proforma operations for water service. I have attempted to reference these schedules so that they are reasonably self explanatory.

Q. Please explain the organization of Schedules LWL-S and LWL-W?

A. These two schedules are laid out identically.

In Sheet 1, I summarize revenue requirements and the revenue deficiency. As shown on Line 13, the overall increase to meet test year revenue requirements for the sewer utility amounts to 241 percent and 269 percent for the water utility.

On Sheet 2, I summarize the development of rate base. In developing rate base, I show in Column C, plant investment as reported September 30, 2005 before my recommended book adjustments, my recommended book adjustments, and adjusted book amounts. To the adjusted book amounts, I add proforma adjustments. These proforma adjustments are summarized and described in Schedule LWL-5. For the purpose of this case, I include in rate base the unamortized portion of rate case expense based on a five year amortization.

On Sheet 3, I detail the adjustments to plant in service. I show both my recommended book and proforma adjustments by account. I also show my proposed adjustments to depreciation reserve (both book and proforma).

On Sheet 4, I summarize my determination of proforma operating income and rate of return under existing and proposed rates. Due to the magnitude of the overall increases required, I am recommending rates be increased in two steps. I propose the first increase become effective June 4, 2006, and the second November 1, 2007. I show rates of return associated with each rate level.

On Sheet 5, I summarize the development of proforma numbers of bills, sales, and revenues. As I show on Sheet 5, the only adjustment I propose to sales relates to irrigation service. This service to Silverleaf has not been previously billed. I adjust the volumes actually delivered to reflect average deliveries over the past 3 years. I am recommending a rate for this service to be applied upon Commission approval. The adjustment to revenues under existing rates is required in order to synchronize test period customers, sales, and rate levels.

On Sheet 6, I show proforma operating expense adjustments in additional detail. The proforma adjustments I propose for operation and maintenance expense, administrative and general expense, and taxes other than income taxes reflect adjusting expense levels primarily reported by

Silverleaf to levels budgeted by Algonquin. In this regard, overall expense levels are reduced (see Schedule LWL-5, Line 34). Also note that most expenses are now related to services provided by contract with Algonquin Water Resource Services.

On Sheet 7, I show the calculation of income taxes at various rate levels. In calculating income taxes, I rely on statutory tax rates.

On Sheet 8, I show my calculation of revenues under existing and proposed rates. I have included proposed tariff sheets in Schedule LWL-6.

RATE DESIGN

Q. In the design of the proposed rates do you reflect any special considerations?

A. Yes, I do. I reflect two. First the utility (Silverleaf and now Algonquin) has supplied nonpotable water to Silverleaf. This water is withdrawn from one of the two wells at Holiday Hills used to supply potable water but is not treated. This untreated water is used by Silverleaf to irrigate the golf course located on the resort. Since Silverleaf began metering this water in November 2002, annual consumption has generally been on the order of 70 million gallons. Silverleaf has never been billed for this water use. I am proposing a separate rate of $1.25 per thousand gallons for this nonpotable water plus a customer charge based on the size of the meter. Since Silverleaf has been receiving this service from Algonquin at no charge since August of last year, I do not propose a phase in of this rate.

The second consideration relates to the overall magnitude of the required increase. Because of this magnitude, I propose a two step phase in. In phasing in the increase, I have endeavored to increase rates in two steps which produce comparable percentage increases. By so doing, I am able to meet revenue requirements in two steps with the increases in each step of less than 100 percent. I propose the first increase go into effect on June 4, 2006. I propose in this increase, to increase customer charges by 50 percent and approximately double the commodity charge. The second step, I propose to become effective November 1, 2007 will result in a further increase in customer charge of 33 percent and a 75 to 90 percent increase in commodity charge.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.