I N D E X

## PAGE NO.

80Opening Statement by Mr. May86

Opening Statement by Mr. Beck 93
Opening Statement by Ms. Bradley

STEPHEN F. ANZALDO

Direct Examination by Mr. May99 Prefiled Direct Testimony Inserted 101 Cross Examination by Mr. Beck

106

JAMES A. ROTHSCHILD

Direct Examination by Mr. Beck 118
Prefiled Direct Testimony Inserted
121
Cross Examination by Ms. Bradley162

PROCEEDINGS
(Transcript follows in sequence from Volume 1.)
CHAIRMAN CARTER: We are back on the record. And the
last time we left, we were giving staff an opportunity to
collect the exhibits that have been marked for identification,
Exhibits 172 through 178.
Commissioners, just by way of housekeeping, we will
make a placeholder Number 179 -- Mr. May, that will be 179,
that will be a placeholder for you for your late-filed exhibit
to respond to those matters that were presented, 172 through
178.
(Late-filed Exhibit 179 marked for identification.)
MR. MAY: Thank you.
CHAIRMAN CARTER: Staff, are there any other
preliminary matters before we proceed to the technical portion
of the hearing?
MS. FLEMING: Chairman, there are several preliminary
matters. If you would like, we can take those up at this time.
CHAIRMAN CARTER: You're recognized.
MS. FLEMING: We would like to note that several
witnesses have been excused from the hearing. There has been a
document provided that is titled "Order of Witnesses." We
would note that there is one change to this document. On Page
3, Katherine walker is noted as being stipulated and excused
from the hearing. She will now be providing testimony on Wednesday.

CHAIRMAN CARTER: One second here.

MS. FLEMING: With respect to the stipulated prefiled testimony of the exhibits of the witnesses, we ask that they be taken up in turn as they are on the list, and the parties can move in the respective prefiled testimony and exhibits when we get to that witness on the list.

CHAIRMAN CARTER: Okay. Let me back up for a second. So, Katherine Walker -- Commissioners, on your witness list, Page 3, she was listed initially as being excused, but will be available for questions and what have you on that. That is Part A. Now, what was -- you can't give me -- I can't multi-task, you've got to give me one at a time.

MS. FLEMING: The second part was just that we would recommend that any of the stipulated prefiled testimonies and exhibits of the witnesses that have been excused just be taken up in turn as they are identified on this list, it would help with clarity for the record.

CHAIRMAN CARTER: Okay. You're recognized.

MS. FLEMING: The second item, staff would ask that the Staff's Stipulated Exhibit Number 65 be moved into the record.

CHAIRMAN CARTER: Without objection show it done.
(Staff's Stipulated Exhibit Number 65 admitted into the record.)

MS. FLEMING: Staff will also ask at this juncture that --

CHAIRMAN CARTER: You guys know that that is the composite, right? All right. Show it done.

MS. FLEMING: At this juncture, Staff would ask that we identify Hearing Exhibit Hearing Number 180, which would consist of Aqua's MFRs.

CHAIRMAN CARTER: Are there any objections? Without objection show it done.
(Exhibit Number 180 admitted into the record.)
MS. FLEMING: Thank you.
Next, it is our understanding that Aqua intends to identify two additional stipulated hearing exhibits, so I would defer to Aqua.

CHAIRMAN CARTER: Okay. Mr. May, you're recognized.
MR. MAY: I'm going to defer to Ms. Rollini.
CHAIRMAN CARTER: You're recognized. Good morning.
MS. ROLLINI: Good morning, Mr. Chairman,
Commissioners.
Aqua has a composite exhibit that includes Florida's Commission on Ethics Advisory Opinion CEO-08-21 and request for this advisory opinion. This would be Exhibit 181.

CHAIRMAN CARTER: 181.
Commissioners, this would be the ethics opinion, that would be the short title for it. Okay.

MS. ROLLINI: And I have copies. Would you like me to provide them at this time?

CHAIRMAN CARTER: Yes.
You may proceed.
MS. ROLLINI: Aqua also has a composite exhibit demonstrating its compliance with the applicable notice requirements contained in Rules 25-22.0407 and 25-30.4345 of the Florida Administrative Code pertaining to Aqua's application, AFPI, MFRs, rate case synopsis, initial customer notice, notice of interim rate increase, and notice of this hearing.

This would be Exhibit Number 182 and includes four affidavits and their corresponding attachments.

CHAIRMAN CARTER: Exhibit 182 are the notices. Any objection, any concerns? Without objection show it done.
(Exhibit Number 181 and 182 marked for identification and admitted into the record.)

MS. ROLLINI: Mr. Chairman, should we provide those at this time?

CHATRMAN CARTER: Yes, you may.
MS. ROLLINI: Thank you. And with that, that concludes our preliminary exhibits.

CHAIRMAN CARTER: Okay. Commissioners, let's take one second to allow the company to get those exhibits passed out, and then, staff, I will come back to you for further
preliminary matters.
This takes us through Exhibit Number 182.
Thank you.
Staff, you're recognized.
MS. FLEMING: Chairman, at this time I think we need to address the exhibits that were introduced during the public testimony portion of the hearing, Exhibits 172 to 178; 179 is a late-filed exhibit.

So at this time staff would recommend we move the Exhibits 172 to 178 into the record if there are no objections.

CHAIRMAN CARTER: Hang on a second here.
Before we recognize you for that motion, we were going to give time for the parties to have an opportunity to look at -- have the parties had an opportunity? Mr. May?

MR. MAY: Yes, Your Honor, we have done that.
ChAIRMAN CARTER: Mr. Beck? Ms. Bradley?
MS. BRADLEY: Yes, sir.
CHAIRMAN CARTER: Okay. Staff, you're recognized.
MS. FLEMING: Staff would recommend that we move Exhibits 172 to 178 into the record if there are no objections.

CHAIRMAN CARTER: Commissioners? Without objection show it done.
(Exhibit Numbers 172 through 178 admitted into the record.)

MS. FLEMING: And I believe that takes care of all
the exhibits at this juncture. The remaining exhibits in the Comprehensive Exhibit List are related to prefiled testimony which we will take up in turn as the witnesses appear.

CHAIRMAN CARTER: Okay.
MS. FLEMING: The next item, preliminary matter that we have, there is a handout that is titled "Proposed Stipulations." There are proposed stipulations of Issues 5, 8, 15, 26, 33, 35, 37, and 56, as well as stipulations based on the audit findings.

CHAIRMAN CARTER: Are there any objections,
Commissioners? Without objection show it done.
MS. FLEMING: So staff recommends that the proposed
stipulations be approved by the Commission.
COMMISSIONER EDGAR: Mr. Chairman, I can make a
motion to that effect.
CHAIRMAN CARTER: Commissioner Edgar makes a motion.
COMMISSIONER SKOP: Second.
CHAIRMAN CARTER: Seconded by Commissioner Skop. All
those in favor, let it be known by the sign of aye.
(Simultaneous aye.)
CHAIRMAN CARTER: All those opposed, like sign.
Show it done.
Staff, you're recognized.
MS. FLEMING: There is an additional handout that is
titled "Additional Stipulations," and we would note here that
the proposed stipulations with respect to Issues 7, 9, 10, and 11 are stipulated to certain systems within each issue. As such, there are still some systems still in dispute, so those issues will remain live for discussion.

In addition, there is a proposed stipulation on
Issue 47, so staff would --
CHAIRMAN CARTER: Whoa, whoa. Back up. Hang on.
Let's just deal with this one first.
Commissioners, the additional stipulation as it
relates to Issues $7,9,10$, and 11 as recommended by Staff for approval of the stipulation. Any further concerns on it?

Commissioner Edgar, you're recognized for a motion.
COMMISSIONER EDGAR: Mr. Chairman, I would move that we approve the stipulations, recognizing that they are partial stipulations for Issues 7, 9, 10, and 11 as described by Staff, and on the document before us.

COMMISSIONER SKOP: Second.
CHAIRMAN CARTER: Moved and properly seconded. All
those in favor, let it be known by the sign of aye.
(Simultaneous aye.)
CHAIRMAN CARTER: All those opposed, like sign.
Show it done.
Staff, you're recognized.
MS. FLEMING: There is also a proposed stipulation on
Issue 47, and staff recommends that the stipulation be

CHAIRMAN CARTER: Commissioners, any questions?
Commissioner Edgar, you're recognized.
COMMISSIONER EDGAR: Mr. Chairman, I make a motion to approve Stipulated Issue 47.

COMMISSIONER SKOP: Second.
CHAIRMAN CARTER: It's been moved and properly seconded. All those in favor, let it be known by the sign of aye.
(Simultaneous aye.)
CHAIRMAN CARTER: All those opposed, like sign.
Show it done.
Staff, you're recognized.
MS. FLEMING: And the final preliminary matter that I have here is the parties have agreed that Issue 49 can be dropped as the positions within Issue 49 are either addressed in other stipulations or addressed in other issues.

CHAIRMAN CARTER: All right. Commissioners?
Commissioner Edgar, you're recognized.
COMMISSIONER EDGAR: Mr. Chairman, I would concur with staff, and make a motion that Issue 49 be removed.

COMMISSIONER SKOP: Second.
CHAIRMAN CARTER: Moved and properly seconded. All
those in favor, let it be known by the sign of aye.
(Simultaneous aye.)

CHAIRMAN CARTER: All those opposed, like sign.
Show it done.
Staff, are there any further preliminary matters?
MS. FLEMING: I am not aware of any other preliminary matters at this time.

CHAIRMAN CARTER: Commissioners, pursuant to the agreement that I made with our court reporters, I'm kind of maybe 14 minutes over time that I have promised the court reporter. But let's do this -- before we get into opening statements and all like that, let's get an opportunity to break out, let staff take care of some preliminary matters, and get us ready for this afternoon as well as get ready for our court reporter, and let's come back around 1:15.

We are in recess.
(Lunch recess.)
CHAIRMAN CARTER: We are back on the record. And when we last left, we took care -- Staff, are there any further preliminary matters?

MS. FLEMING: Chairman, I am not aware of any other preliminary matters.

CHAIRMAN CARTER: Commissioners, we have completed with all of our preliminary matters. We had our public testimony this morning, and we're about ready to move into our opening statements of the parties. And based upon our pre-trial order, each of the parties have been given ten minutes each for their opening. Anything further?

Okay. Let's proceed. Mr. May, you're recognized.
MR. MAY: Thank you, Mr. Chairman.
Commissioners, I'm Bruce May with the law firm of Holland and Knight representing Aqua in this case. This has been a long process. Since filing its application last May, the Commission has conducted nine service hearings around the state; your staff has received thousands of pages of documents; my client has responded to massive volumes of discovery served by OPC; pages and pages of testimony have been filed by the parties.

We are now at the end of that process, and I want to take a brief opportunity to commend your Staff and the Office of Public Counsel and the Attorney General for the work they have done on this case. Although Mr. Beck and I don't agree on all the issues, I do have the utmost respect for his professionalism. He is a worthy advocate, and I admire what he and the Office of Public Counsel do for the citizens of the state. I have the same respect for Ms. Bradley.

Commissioners, as you begin to hear the evidence today and through the course of the hearing over the next several days, I would ask that you keep in mind that this is a rate case just like the rate cases that you are going to sit on and hear for electric utilities and gas utilities and other water and wastewater utilities. And just like an electric
utility or a gas utility, my client, Aqua, is only asking to be given an opportunity to earn a reasonable return on its investment in this state.

Although there are a number of standard issues in this rate case, this case also has unique aspects. For example, there is no dispute that Aqua came into Florida and acquired a very large number of Commission-regulated utility systems. Aqua currently operates 57 water systems and 25 wastewater systems in 16 different counties, all of which are under your jurisdiction. The case is also unique in that none of Aqua's 82 systems have had a rate case or a base rate increase in over 12 years. The case is also unique in that there is really no dispute as to whether my client is operating at a loss in Florida. There is no dispute about that. Clearly Aqua is operating at a loss in Florida. And there is no dispute as to whether Aqua is entitled to a rate increase. The disagreement between OPC and Aqua centers around the amount of that rate increase. And I don't want to mislead you; there is a significant disagreement on that point, the amount of the rate increase.

Commissioners, raising rates is not something that my client takes lightly, especially in current economic times. My client's decision to come before you today was not made in haste and it was not prompted by greed. The evidence will show that the decision to seek additional revenues was made out of
necessity in order for my client to remain a viable company and continue to provide safe, adequate, and efficient services to its customers.

Now, this morning and throughout the course of the proceeding, you have heard a tremendous amount of testimony about quality of service. And you are going to hear more testimony about quality of service, that is absolutely appropriate. Quality of service is a critical issue in any rate case. However, as you listen to that testimony, I would respectfully ask that you take into account two important factors. First, the evidence will show that Aqua fully understands that it has an obligation to provide quality water and wastewater services to its customers, and it will not shirk from that responsibility.

Second, the evidence will show that quality of service issues have come up. Where those issues have come up, my client has and will continue to make good faith efforts to correct those issues. I would also respectfully ask that you reflect on the fact that at the end of the day no one likes a rate increase. And while it is certainly the prerogative of customers to object to a rate increase, customer complaints in a rate case proceeding are not unusual.

As we move forward with this hearing, there is no doubt in my mind that $I$ will make mistakes. And I'm sure that you will quickly see that I am far from perfect. And I'm sure
that you will hear testimony that indicates that Aqua is not perfect, either. However, I have spent the last six months of my life with this company, and $I$ know that it is a very competent utility with honest folks that want to do the right thing. But I've been around long enough, Commissioners, to know that what $I$ think really doesn't matter in a rate case. What matters is the evidence. And in that regard, I firmly believe that the evidence will show that Aqua is committed to providing its customers with quality service and to improving that service where needed. The evidence will also show that in response to customer concerns about meter accuracy, Aqua has installed new radio frequency meters throughout this state, and Aqua's quality of service has improved as a result of that conversion to RF metering.

In addition, the utility has established a number of customer relations initiatives specifically designed to improve customer service quality. The evidence will also show that Aqua continues to be committed to addressing the indigenous water supply challenges in central Florida, particularly in the Chuluota area. We've heard the citizens from Chuluota. We understand their concerns. I think the evidence will show that those water treatment challenges that exist in Chuluota have existed long before Aqua came into the state.

And, Commissioners, let me be clear, that is not an excuse. The evidence will show that Aqua is not using that
preexisting condition as an excuse, it is a reality that Aqua recognizes and will have to continue to work with. The evidence will also show that Aqua has made a good faith effort to reach innovative solutions to the Chuluota situation, including efforts to sell the system to the City of Oviedo.

While you heard Oviedo officials at the service hearings express an interest in acquiring the system, the city's interest in the acquisition has waned. Although Oviedo's acquisition of the system may no longer be a viable option, the evidence will show that Aqua has not given up on other potential solutions. In fact, Aqua is working diligently on other alternatives, including an interconnection alternative to purchase bulk water from the City of Oviedo.

The evidence will also show that Aqua has hired a renowned water quality expert and scientist, Dr. James A. Taylor, to assist it in continuing to reach an effective water treatment solution for Chuluota and the surrounding areas. Commissioners, I mentioned earlier several unique aspects of this case, and $I$ would be remiss if $I$ didn't mention two other unique areas that are involved in this case. First, by acquiring the 82 systems that are part of this rate case, Aqua inherited multiple water and wastewater rate structures that are complicated and very difficult to administer. The evidence will show that some of those systems have had rate structures that were crafted over 12 years ago and were
developed with the express assumption that the cost of those systems would be subsidized from the rates of other larger systems. However, those other larger systems have since been bought by nonregulated utilities which have left the remaining systems with rate structures that are substantially below cost and out of date.

The other unique factor in this case stems from the fact that each of Aqua's 82 systems has its own rates. This has caused this proceeding to morph into what is essentially 82 mini-rate case proceedings. Which, in turn, has lead to massive discovery, and this massive discovery has dramatically driven up the rate case expense in the proceeding.

To address and resolve these issues, Commissioners, my client has proposed a uniform rate and a single cost of service. This proposal from the utility's perspective is perhaps the most important part of this case. The evidence will show that the utility's uniform rate and single cost of service proposal will allow Aqua's investment in infrastructure improvements to be spread over a much broader customer base and this will allow for more affordable rates and minimize rate shock to customers.

The evidence will also show that you have adopted uniform rates for other utilities under your jurisdiction, and there is nothing in Florida law to prohibit you today from adopting a uniform rate structure in this case. The courts are
clear on that.
Finally, the evidence will show that Aqua's single cost of service proposal will make future rate cases and regulation more simple, more straight-forward, more efficient, and less costly to the customers and to the utility. As you sit here over the next several days and listen to the witnesses that come before you, I would respectfully ask that you keep in mind two other factors that no one disputes. As I mentioned earlier, Aqua continues to operate at a loss in Florida. And, second, Aqua has requested an increase it its rates for systems that haven't had a rate increase or a base rate increase for over 12 years.

Finally, as you consider the evidence in this proceeding, we would respectfully ask that you keep in mind that Aqua is not asking you for special treatment. It is simply asking to be treated like every other regulated utility and to be provided the same guarantees of regulatory certainty, precedent, and an opportunity to earn a fair return on its investment.

With that, Commissioners, we are prepared to put on our case, and I thank you for your time.

CHAIRMAN CARTER: Thank you, Mr. May.
Mr. Beck, you're recognized.
MR. BECK: Thank you, Mr. Chairman, and good
afternoon, Commissioners. I want to thank Mr. May for his kind
comments at the beginning of his opening statement, and say similarly that we have found it very good to work with Mr. May. We have certainly had our difference of opinion, but we have managed to get through them all. There has been one motion to compel filed in the case, and it has been a hard fought case, but a good one.

And I would also, Mr. Chairman, like to thank you for letting the customers appear here today. It was important to them and we appreciate the Commission doing that.

Now, Mr. May started off with a comment that this is a case just like the other cases that the Commission hears in electric and gas and other rate cases. I would like to start off by pointing a comparison to another case to this case. After a recent service hearing in Panama City concerning a rate increase by Peoples Gas Company, Chairman Carter was interviewed by WJHG-TV about the fact that not a single person appeared to testify in that case. In fact, the same thing happened in Jacksonville a bit later.

During that interview, Chairman Carter told the reporter that it really depends on the relationship between the customer and the company. He said that some places you go to and you will have a full house and some places you will go to and you will have no house. I would ask you what does that say about the relationship between the company and the customers in this case as compared to what you have seen in Peoples Gas. We have had an outpouring from consumers in this case like any other case before the commission. And we have heard certain recurring themes no matter where we have gone. One of those recurring themes is about customer service and the way that customers of Aqua are treated when they call the company for help or assistance. They have told us time and time again that they have been treated rudely by the company's customer service representatives. They ask to talk with a supervisor, but they are either not allowed to talk with a supervisor or they are told they will be called back by a supervisor, but then they are not called back, or they are disconnected after being put on hold.

Customers call about bills that are ten times the usual amount they receive, and they are told that they must have a leak. Customers have testified they have lost sleep worrying about their water that would be shut off when there is no cause for that. No customer of a regulated water or wastewater company should be treated the way we have heard customers tell the Commission that they have been treated. Aqua tells you, and as has Mr. May that they bought poorly maintained systems in need of work, but this kind of treatment by customer service representatives has nothing to do with that. In fact, topnotch treatment should be one of the things you would expect by ownership of a utility by a New York Stock Exchange company, but what you have gotten instead is awful
treatment by customer service representatives far disconnected from customers here in Florida.

Another topic that we heard recurringly is the quality of service. Now, certainly Chuluota has some acute problems. You heard more about that today and we heard a lot about it during the two service hearings we had in Oviedo. In Chuluota, the quality of the water is so bad that customers tell you they can't sell their houses. You heard Nancy Evans tell you about that again today. Customers in Chuluota had their own housing crisis well before the subprime loan market tanked the housing market.

People are afraid to drink the water and spend large amounts of money on water filtration systems for their homes, on bottled water, or on both. You have heard about particles in the water. That people can't wash their clothes using the water. You have heard that it smells, that it looks bad, and you have heard that people are afraid for their health.

Customers have stated that they feel like they live in a third-world country solely because of the service and the water they are receiving from Aqua. Bad water quality, as acute a problem as it is in Chuluota, it is not an issue you have only heard about in Chuluota. You have heard about bad water from the panhandle in Sunny Hills, to customers in the New Port Richey area, to customers living in Lakeland and Sebring. You have heard the same thing about billing issues.

You ever heard time after time the billing issues that people have had and the trouble they have had with customer service representatives.

Aqua has let its customers down and now they face the prospect of paying $\$ 130$ for 5,000 gallons of water and wastewater service if you approve Aqua's request for what is perhaps the worst service provided by a water company in Florida. At last Tuesday's agenda, Commissioner Argenziano put a question to Patty Christensen in our office, because she had mentioned she would like to take the -- for the Commission to take into account water quality in the Wedgefield rate case. And, Commissioner Argenziano, I know you are listening. You told her to give specifics, to give you a number. Well, we have specifics in this case, and in order to partially offset the completely unsatisfactory quality of service provided by Aqua, we have proposed a reduction of 150 basis points to the return on equity Aqua would otherwise receive.

On the topic of return on equity, you will be hearing this afternoon, today about what a reasonable return on equity is for a company providing good service. We believe the return requested by Aqua is too high. Our Witness James Rothschild will testify that a fair return on equity is 9.47 if you use the capital structure that the parent company, Aqua America, uses in its business. It uses a capital structure with an equity ratio of approximately 44 percent, but the parent company has created an artificial capital structure for the Florida company that contains more than 62 percent equity. Since companies generally need more equity when there is higher financial risk, it is just backwards to think that a regulated water and wastewater company would require an equity ratio far higher than the one that the parent company uses for its business.

The issue relating to capital structure is important because equity is a very expensive source of capital to customers. Equity is more costly than debt and it must also be grossed up for taxes, unlike what debt is. We hope you will agree with us on using the 9.47 percent return on equity with an equity ratio of 44 percent for a company that provides good service, but if you let the company use a 60 percent equity ratio, Mr. Rothschild will tell you that the return on equity should be no more than 8.75 percent.

At a time when people are struggling to make ends meet, Aqua is asking you to provide high-end treatment for themselves. They are requesting pro forma adjustments to their test year expenses for pay increases. And not just cost of living increases, but also extra pay increases for a number of positions. They want customers to pay for a new rates manager position in Tallahassee. They want customers to pay for Aqua connects meetings that are designed as image enhancement forums for Aqua. At a time when companies around Florida, the U.S.,
and even the world are tightening their belts to face difficult economic conditions, Aqua wants you to act like this is a time of great prosperity for them by approving an expansion of their budgets and salaries all paid for by the customers. None of this should be allowed by the Commission.

Aqua is simply a high cost company providing bad service. You will hear testimony from our Witness Kimberly Dismukes who will likely appear tomorrow comparing the costs incurred by Aqua to the costs incurred by other Class A utilities regulated by this Commission. You will see that the cost per equivalent residential connection for Aqua are dramatically more than they are for the other Class A companies regulated by the Commission. Customers are burdened by diseconomies of scale resulting from Aqua's ownership, not economies of scale, and Ms. Dismukes will sponsor an adjustment for affiliate charges to help correct this.

Now, in addition to Ms. Dismukes I have mentioned, and Mr. Rothschild, we are also presenting testimony by Andrew Woodcock. I think he will be here this afternoon concerning engineering issues, Mr. Earl Poucher about customer service, and there will also be stipulated testimony of Patricia Merchant from our office.

Commissioners, thank you for your time, and we look forward to presenting our case to you.

CHAIRMAN CARTER: Thank you, Mr. Beck.

Ms. Bradley.
MS. BRADLEY: Thank you, sir.
I too want to thank you for letting the customers speak. We have been getting constant e-mails and phone calls from these people and they are extremely distressed about what is going on. They are fearful. You know, you are getting pretty bad when you have to worry about whether or not it is safe to wash your child in the Aqua water, or if $I$ let them drink some of it am I killing them, poisoning them. And this is the feelings these people have. They are fearful. And now they are being asked to pay 100 percent or more for that same water that they don't feel is safe to use now.

I thought it was interesting the comment that was made about the police officers who compared it to going to McDonald's and getting a tainted Happy Meal. And she said if you take it back and you are given another tainted Happy Meal and charged three times the amount, you know, that is just not right. And that is essentially the situation we have here. They are still getting bad water.

We are still getting complaints from people. I can honestly say the last complaint I saw was a few minutes before midnight last night when representative Adams forwarded me one of the complaints she had gotten a few hours earlier, and it was the same thing. Terrible customer service, bills that are not accurate. People are still upset. They are still having
problems. And one of the complaints was saying -- she was actually complimentary of the company. Ms. Dirks (phonetic) had a problem, and she actually called the company that made the meters, and they explained to her that there was some numbers, and the last zero which was a painted on number should not be read. And they wanted to dispute that at first, and finally she got them to call the people that made the meter, and I guess they convinced them you really don't read that last zero. But that was a complaint we heard again and again at the service hearings, and it was really throwing things off and people were getting charged a lot more than they had actually used.

That should have been a very quick simple problem to fix. A very quick training issue for somebody that would have resolved a lot of those complaints. And it is beyond me why the company did not fix that quickly. You know, those are the kind of things. We like all of our companies to be productive companies in Florida. It is good for the economy. We need that. But we can't do it at the expense of the citizens.

You heard them mention today, and I have heard a number of complaints about the sewage and the fact they have sewage bubbling up in the street. Now, that is just not pleasant or healthy for anybody, and none of us would want to be in that situation. None of us would want to have to drink the water that they are expected to drink. A lot of these
people have spent a lot of money trying to fix this, because a lot of times when they would call Aqua would say, well, there is something wrong in your house. Something is leaking. Something is not right. And they would hire companies to come in to fix the problem.

But, yet, after spending a lot of money trying to fix the problem, they still had the same problem, and the companies would say, well, I guess it's the water. And those are what these people are dealing with, but every one of those people that have spent a lot of money on their homes will tell you we are lucky, we can afford it. The people that are really being hurt are the people on fixed incomes that can't afford it. They can't afford to buy the culligan water. They can't afford to even pay their bills sometimes, and yet they are talking about increasing it nearly 100 percent. If they can't pay for the bad or afford the bad water now, what are they going to do when it goes up 100 percent? Ms. Evans said they had turned off her water because of a dispute over a bill. I am afraid we are going to be seeing that a lot more because some people just can't afford it.

There was talk about the sewage plant, and the fact that Ms. Sullivan said it was built for a lot more people than are in that area. Why are they having to pay for what is much more than they can ever use? And she also mentioned the fact that a lot of the people in the older section of chuluota, they don't even use the sewage system. They have septic tanks. So the number of people that are actually taking advantage of using this sewage plant, this great new plant are way less than what it was built for. And yet despite this great new plant they still have sewage backing up in the middle of the street. That is of concern to the people and you can understand that. You heard people that have come to the hearings and were here today and they tell terrible stories about, you know, their dogs have died. And to some of those people that is their family, and it was heartbreaking to see some of those people, especially some of the older people talking about having lost their pet. One lady talked about the fact -- I think it was Ms. Neece (phonetic) talked about the fact she lost her dog, the cat's hair was falling out, she started using bottled water and all of a sudden the cat was doing better. So, it may just be circumstantial, but obviously these people feel like they are justified in their feelings. And they are fearful, and they shouldn't be fearful of drinking the water. There was something mentioned, and we have heard some of the citizens talk about this is like being in a third-world country, the water. But it is really not because in third-world countries they may have this bad water, but they don't have to pay these exorbitant prices for it. So it is a little bit different from a third-world country. In some ways it is worse.

And I mentioned Ms. Neece and the fact she was talking about the animals and being concerned about the animals, but she also talked about her granddaughter when we were in Oviedo. And then later the daughter came and testified that she had had a baby that was born with a horrible cyst. She had never had any problems before, but this baby was born and she couldn't even nurse the baby for the first few months. In fact, for the first few days she couldn't even see the baby because they had to rush it to another hospital. And there are still people that are having medical problems that they associate with the water, because it is like all of a sudden, like Ms. Evans said, 15 out of the 45 people in their neighborhood are having serious kidney and liver problems.

The pediatricians, the vets are telling them not to use the water, not to even bathe the kids in the water, and this is a serious concern. And I know Public Counsel has more experts than we do, they have more information than we do, but it is just not right to ask people to pay more for something they can't use, something they are afraid to use. And we would urge you in places like Chuluota and some of the other places where they have bacteria, and excessive TTHMs, and this type of thing, we would encourage you to make them fix it before they get a rate increase.

You know, they knew going in what the water condition was. They did their due diligence and they knew how much they
were paying, and we assume they paid a better price because they were getting these problems. But now to make the customers pay for this before they fix things is just not right. It is like the police officer said, you can't expect me to come back and get the same bad thing and pay more for it. And we shouldn't ask these citizens to do that, and we would urge you to not approve the rate increase for people in Chuluota and the other areas where they have bacteria and excessive TTHMs until they get that fixed. Thank you.

CHAIRMAN CARTER: Thank you, Ms. Bradley.
Let's see, Commissioners, we have had the opening statements of the parties, and at this point in time, Mr. May, you're recognized to call your first witness. Hang on a second. Before we do that, do we have the witnesses available that will be testifying today that are here in the room? If so, would all the witnesses stand so I can swear you in as a group.
(Witnesses sworn.)
CHAIRMAN CARTER: Thank you. Please be seated.
Mr. May, you're recognized.
MR. MAY: Aqua Utilities Florida calls it's first witness, Mr. Steven Anzaldo. STEVEN ANZALDO
was called as a witness on behalf of Aqua Utilities Florida, and having been duly sworn, testified as follows:

DIRECT EXAMINATION
BY MR. MAY:
Q Good afternoon, Mr. Anzaldo.
A Good afternoon.
Q Have you previously been sworn in this proceeding?
A Yes, I have.
Q Would you please state your name and business address for the record?

A Certainly. My name is Steven Anzaldo, and $I$ work at 762 -- excuse me, I work for Aqua Services, Incorporated, and the location is 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania.

Q What is your position with Aqua Utility Services?
A I am the Treasurer.

Q Did you prepare and cause to be filed prefiled direct testimony in this proceeding?

A Yes, I did.
Q Do you have that prefiled direct testimony before you today?

A I do.
Q Do you have any corrections or revisions to that testimony?

A There is one minor correction to make, and it appears on Page 1, Line 20, where it states that I was promoted to Treasurer in July of 2008, and the correct date is July of

Q Mr. Anzaldo, with that correction, if I were to ask you the questions that are contained in your prefiled direct testimony today, would your answers be the same?

A Yes, they would.
MR. MAY: Mr. Chairman, I would ask that the prefiled direct testimony of Mr . Anzaldo be inserted into the record as though read.

CHAIRMAN CARTER: The prefiled testimony of the witness will be inserted into the record as though read.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
AQUA UTILITIES FLORIDA, INC.
DIRECT TESTIMONY OF STEPHEN F. ANZALDO
DOCKET NO. 010121-WS
Q. Please state your name and business address.
A. My name is Stephen Anzaldo. My business address is 762 W. Lancaster Avenue, Bryn Mawr, Pennsylvania 19010.
Q. By whom are you employed and in what capacity?
A. I am employed by Aqua Services, Inc. as Treasurer for all of the subsidiaries of Aqua America, Inc. ("Aqua America"), including Aqua Utilities Florida, Inc. ("AUF" or "Company").
Q. Please describe your education and business experience.
A. I graduated from St. Joseph's University in 1981 with a Bachelor of Science degree in Accounting. I have received my C.P.A. Certificate from the Commonwealth of Pennsylvania in 1990. In addition, I received a Masters of Business AdministrationFinance from St. Joseph's University in 1998.

At Aqua America, I was hired as a Financial Analyst in May 2004 and promoted to Assistant Treasurer in 2005. I was promoted to Treasurer in July 2008. Prior to joining Aqua America I wâs employed by Trigen-Philadelphia Energy Corporation from 1991 to 2003 as the Manager of Financial Planning, where I was also responsible for the preparation of three rate cases, and then as Accounting Manager
for the Cogeneration Facility. I was employed by General Waterworks Corporation from 1985 to 1991 as a regional accountant and corporate accountant where my duties included consolidated financial reporting and assisting in the SEC reporting. I was employed by two certified public accounting firms in the Philadelphia area from 1981 to 1985 where my assignments included manufacturing, financial and insurance clients.
Q. Are you involved in any outside professional activities?
A. Yes, I am a member of the American Institute of Certified Public Accountants and the Pennsylvania Institute of Certified Public Accountants.
Q. What is the purpose of your testimony?
A. The purpose of my testimony is to present the capital structure for AUF and the cost of debt and the cost common equity as determined by application of the Florida Public Service Commission ("Commission") 2007 leverage formula to the capital structure of AUF.
Q. In connection with your responsibilities with AUF, were any portion of the Minimum Filing Requirements ("MFRs") filed in connection with AUF's rate case prepared by you or under your supervision?
A. Yes
Q. Please identify the specific MFRs filed in connection with AUF's rate case that you are sponsoring.
A. I am sponsoring Schedule D-1 through D-7 in Volume 1 of the MFRs.
Q. Please explain the capital structure of AUF.
A. The capital structure of AUF at December 31, 2007 based on a thirteen month
average consists of Common Equity of $\$ 37,220,000(62.31 \%)$ and Long-Term Debt of $\$ 22,517,000(37.69 \%)$.
Q. How is the above thirteen month average capital structure applied in determining the appropriate overall rates of return for the Water and Wastewater systems included in this rate filing?
A. The consolidated capital structure noted above is applied as part of the overall cost of capital determination for each system included in this rate filing. The total rate base for each system is first funded with the customer deposits and accumulated deferred income taxes applicable to that individual system, and then the remaining balance is funded by long term debt and equity.
Q. What is the cost of capital for each component of the capital structure and how has it been determined?
A. The composite cost of long term debt is $5.10 \%$ and represents the weightedaverage interest rate of the note between Aqua America and AUF.

The cost of Customer Deposits is $6.00 \%$, which is the rate set by the Commission.

Deferred Taxes are included in the capital structure at zero cost, because deferred taxes are funds provided as a result of the deferral of federal and state income taxes.

The cost of Common Equity is determined using the Commission leverage formula, which provides a method of calculating the cost of common equity based on the capital structure of the company.
Q. What is the return on common equity produced by the Commission's
leverage formula when applied to the capital structure of AUF?
A. In this case, the Company accepts and has applied the current leverage formula as discussed in Docket 070006-WS, which is set forth below:

Return on Common Equity $=7.1 \%+1.961 / 62.31 \%=$

$$
7.1 \%+3.15 \%=10: 25 \%
$$

AUF will accept the leverage formula in effect at the time of the Commission's final vote.
Q. How has the AUF consolidated capital structure been allocated to each of the systems included in the current filing?

Long term debt and equity for each system represents each system's rate base with $36.37 \%$ debt and $60.12 \%$ equity for the Water systems and $36.72 \%$ debt and $60.69 \%$ equity for the Wastewater systems after adjustment for deferred taxes and customer deposits. Deferred taxes have been allocated to each system based on Plant-In- Service balances. Customer Deposits are the actual deposit balances for each system.

## Q. Is the capital structure of AUF reasonable?

A. Yes. We believe that a capital structure of approximately $36 \%$ debt and $60 \%$ equity (with $4 \%$ accounting for deferred taxes and customer deposits), is appropriate for AUF. The required capital expenditures as well as the size and lack of growth in most of the systems dictate more equity than a typical water company would carry in order to support a $5.1 \%$ cost of debt.
Q. Does that conclude your testimony at this time?
A. Yes, it does.

BY MR. MAY:

Q Mr. Anzaldo, have you attached any exhibits to your prefiled testimony?

A I did not.

Q Have you prepared a summary of your prefiled direct testimony?

A Yes, I have.

Q Would you please provide the parties and the Commission with that summary at this time?

A I will.

Good afternoon, Commissioners and staff. My name is Steven F. Anzaldo, and I'm Treasurer for Aqua Services, Inc., and all the subsidiaries of Aqua America, Inc., including Aqua Utilities Florida, known as AUF. AUF is a separate wholly-owned subsidiary of Aqua America, Inc.

My direct testimony presents the capital structure for AUF as well as the cost of debt and the cost of common equity. AUF has requested to use the Commission's leverage formula in effect at the time of the Commission's vote to establish the cost of common equity for this rate case. Using the Florida Commission's 2007 leverage formula, the cost of common equity for AUF is 10.25 percent.

That concludes my opening statement.

MR. MAY: Thank you, Mr. Anzaldo.

Mr. Chairman, Aqua Utilities Florida would tender Mr.

Anzaldo for cross-examination.
CHAIRMAN CARTER: Thank you.
Mr. Beck, you're recognized.
MR. BECK: Thank you, Mr. Chairman.
CROSS EXAMINATION
BY MR. BECK:
Q Mr. Anzaldo, good afternoon.
A Good afternoon.
Q My name is Charlie Beck and I'm with the Office of Public Counsel.

A Yes, sir.
Q Mr. Anzaldo, at the very bottom of Page 2 of your testimony and the top of Page 3, you tell the Commission that the capital structure for AUF at December 31, 2007, consists of 62.31 percent common equity and 37.69 percent long-term debt. Is that correct?

A That is correct.
Q And on Page 3 of your testimony at Line 6, you describe that capital structure as the consolidated capital structure noted above. Do you see where I am referring to?

A Line 6. Yes.
Q Okay. By referring to that as the consolidated capital structure, you are not meaning to say that is the consolidated capital structure of Aqua America?

A No, I am not. That is the consolidated capital
structure for this filing.

Q So in consolidated, is each of the systems consolidated into a Florida capital structure to which you are referring?

A Yes, it is consolidated into the Aqua Utilities -what we are referring to as Aqua Utilities Florida.

Q Okay. And that is not the capital structure that applies to Aqua America?

A That is correct.
Q Okay. On Line 13 of Page 3, you say the cost of long-term debt is 5.1 percent. Is that correct?

A That is correct.
Q And is that just a note between -- or is that reflected by a note between Aqua Utilities of Florida and the parent company, Aqua America?

A That is correct.
Q Is there any other long-term debt for Aqua Utilities of Florida in its capital structure other than this note to the parent company?

A No, that is all.
Q On Page 4 of your testimony at the top --
A Yes.
Q -- you describe the leverage graph formula in effect for the year 2007, is that right?

A That is correct.

Q And you make the calculation of a return on equity of 10.25 percent using the 2007 leverage graph, is that right?

A That is correct.
Q Now, you have also said AUF will accept the leverage formula in effect at the time of the Commission's final vote. Is that what you actually proposing that the Commission do?

A Yes, that is what we were doing.
Q Okay. Are you familiar with the staff's recommendation for a 2008 leverage graph?

A Yes, I am. I saw the recommendation on Friday and made the calculation based on that formula, and the return on equity would be 10.77 .

Q So that is actually what the company is requesting, is that right?

A If the 2008 has been approved.
Q Now, the rates that were noticed to the customers, they were all based on a 10.25 percent return on equity?

A That is correct. Yes, that was at the time of the filing.

Q With the 62 percent equity ratio, as well.
A Correct.
Q Okay. Now, just to make it clear how we get there, you show the 2007 leverage graph on Line 4 of Page 4 of your testimony, 7.1 percent?

A Yes.

Q Okay. Under the staff recommendation that was issued last Thursday, that 7.1 would change to 7.36 , is that right?

A I believe so. Like I say, we did the calculation. 7.36 .

Q And the 1.961 that you show in your testimony, that changes to 2.123 , is that right?

A That is correct.
Q Okay. You are familiar that our office disputed the 2008 leverage graph and took it to hearing, is that right?

A That is correct.
Q And it is your understanding that the staff recommendation issued proposes that there be no changes whatsoever to their proposal?

A That I am not aware of at this point.
Q Well, they are proposing in the staff recommendation issued last Thursday that the same leverage graph they propose in their PAA be applied, do they not?

A I am not aware of that.
Q Okay. But you have calculated the new return on
equity of 10.77?
A As a side schedule just to see where we are.
Q And, so if the Commission were to adopt that, the rates proposed by Aqua would actually be higher than contained in your petition, is that right?

A That is correct.

Q Do you know how much higher?
A I do not.
Q How much additional revenue would the company be entitled to under a 10.77 return on equity with a 60 percent equity ratio?

A I do not have that number at the present time. This was done quickly just to see where we stand in this proceeding. But we filed the testimony based on the 10.25 percent that was in effect at the time the testimony was prepared with the understanding that if the leverage formula was accepted by the Commission that we would make -- that an adjustment would be made.

MR. BECK: Mr. Anzaldo, thank you. That is all I have.

CHAIRMAN CARTER: Thank you, Mr. Beck.
Ms. Bradley.
MS. BRADLEY: No questions of this witness, Your Honor.

CHAIRMAN CARTER: Commissioners, I'm going to go to staff before coming back to the bench if that is okay.

Staff, you're recognized.
MR. JAEGER: Staff has no questions, either. CHAIRMAN CARTER: Commissioner Skop, you're recognized.

COMMISSIONER SKOP: Thank you, Mr. Chairman.

And I guess Mr. Beck asked most of the questions that I would have asked, so that should expedite things significantly.

With respect to the capital structure, I would like to hear from Aqua to the extent as to why the corporate structure would not be the more appropriate capital structure to use for rate setting purposes over the capital structure that has been used for AUF.

MR. MAY: Commissioner Skop, if I may. He addresses that at length in his rebuttal testimony. I don't know if you wanted to --

COMMISSIONER SKOP: I will defer. Thank you.
CHAIRMAN CARTER: Commissioners?
I was going to ask a question. As you did the new calculations where you came out to 10.77 percent, why would you not determine what that amount of increase would be? I mean, knowing that you were going to be doing recalculations on that, wouldn't the logical thing be to take it out to --
the witness: Yes, but I did a quick calculation last evening to be honest.

CHAIRMAN CARTER: Do you have a ballpark off the top of your head, you think?

THE WITNESS: Not at the present time, I don't, but I could get something together quickly, maybe by my rebuttal testimony if that is acceptable.

CHAIRMAN CARTER: That's acceptable.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Mr. Chairman.

Just also a point of information or point of clarification either Mr. May or OPC might be able to provide, but $I$ believe in opening statements from OPC they mentioned that the Commission -- there was a difference between the two ROEs, but I seem to have thought, or I might have been mistaken, that OPC was advocating for a downward adjustment based upon quality of service, and which witness would address that, or which witness would be the appropriate one?

MR. BECK: Commissioner, Kimberly Dismukes will address the downward adjustment, the 150 basis points. Our witness who is coming up next, Jim Rothschild, will testify to what a return on equity would be absent any service quality issues.

COMMISSIONER SKOP: Thank you.

And just to Mr. May, then on rebuttal testimony, he will address why the capital structure is appropriate versus the AUF versus the --

MR. MAY: Yes, Commissioner skop. We have two witnesses. Mr. Anzaldo will discuss why the AUF capital structure is appropriate this instance, and then we also have our cost of equity expert, Mr. Paul Moul, who will discuss why the Office of Public Counsel's expert calculation of ROE is not
appropriate. So we will have two witnesses to address that and there will be a chance, I think, for a good discussion.

COMMISSIONER SKOP: Thank you both.
CHAIRMAN CARTER: Thank you.

And also, Mr. May, Mr. Anzaldo said he could get that during the rebuttal. I was just asking if he could carry his equation out. You remember, the 10.77. We don't need another exhibit or anything like that, I just want to follow up and see what the implications of that number would be.

MR. MAY: Sure.

CHAIRMAN CARTER: Commissioner Skop.
COMMISSIONER SKOP: Thank you, Mr. Chair.

Just a brief follow-up question with respect to the prefiled testimony that AUF will accept the leverage formula in effect at the time of the Commission's final vote. I thought I also heard something mentioned that as it was previously communicated to consumers, and maybe Mr. Beck can clarify that, that their was a discrepancy in what number would be used. Is that correct?

MR. BECK: All the numbers that have been presented at the customer hearings were based upon a 10.25 percent return on equity at the 62 percent equity ratio, and Aqua is requesting that the new leverage graph be applied to it. If the Commission approves the leverage graph that staff has proposed, they issued the recommendation last Thursday, you
will be taking it up at agenda next Tuesday. If the Commission were to approve that, the rate increase would be larger than customers have been notified about. Mr. Anzaldo, I guess, will get us the figure. I'm guessing the figure is about $\$ 350,000$. I could be wrong. The 10.77 percent is what they are requesting, but the rates that were put out there are based on the 10.25 .

Again, these events have been unfolding. 10.25 is what was existing at that point, but, in fact, that is the effect right now if the Commission were to approve the leverage graph proposed by Staff and approved rates on that.

COMMISSIONER SKOP: Thank you.
And, Mr. May, if you could add to that, please.
MR. MAY: I don't disagree with what Mr. Beck just explained, however I would point out that is a necessary function of the leverage graph. It is not -- the company was up front at the front end of this process. We had always articulated that we wanted to use the leverage graph in order to minimize rate case expense. The purpose of the leverage graph formula is to avoid Aqua having to hire Mr. Paul Moul to come to Tallahassee to testify, so we were trying to use that opportunity or that tool to minimize rate case expense. OPC objected to that, which required both sides to go hire their own outside consultants.

But we have always been clear at the front end of
this process that what we were proposing is to use is the leverage graph in effect at the time of the Commission's vote, and that was our position. And if the leverage graph were to produce a higher ROE, that would be the ROE that we would suggesting at least at this time.

COMMISSIONER SKOP: And equally if it suggested an lower ROE that would be --

MR. MAY: That was the risk we took, I think, yes.
COMMISSIONER SKOP: Thank you.
CHAIRMAN CARTER: Thank you.
Commissioner McMurrian.
COMMISSIONER MCMURRIAN: Thank you, Chairman. And some of this discussion we just had helped clarify some of what my question was, but I guess before I ask Mr. Anzaldo a little bit more follow up on that. I wanted to make sure which page numbers we are supposed to be using in our testimony. There are page numbers at the bottom and at the top right corner of the page.

MR. MAY: Commissioner, I apologize. The appropriate page number to use $I$ think is the page number at the bottom of the page.

COMMISSIONER MCMURRIAN: Thank you, Mr. May.
Mr. Anzaldo, on the top of Page 4 where you have the 10.25 percent and you show the breakdown in the calculation of ROE there, and I realize from the discussion we just had that
now you are proposing 10.77. Can you point out to me which numbers in that calculation there of the 7.1 plus 1.961 divided by 62.31, which numbers there change and to what? What would be the new numbers for the 10.77 calculation?

THE WItNESS: AS I have stated previously, 7.1 would become 7.36 , the 1.961 would become 2.123 , and the 62.31 remains the same.

COMMISSIONER MCMURRIAN: Okay, thank you.
MR. MAY: Commissioner McMurrian, I just wanted to clarify one thing. Aqua Utilities is not proposing an ROE of 10.77. We are proposing to adopt whatever you select as the appropriate ROE graph.

CHAIRMAN CARTER: You're recognized.
COMMISSIONER MCMURRIAN: Let me ask one more follow-up then. As your attorney just said, you are asking to use whatever the leverage formula produces, but with the newer leverage -- or the leverage formula that is in the staff recommendation that hasn't been adopted by the Commission, but the one in the staff recommendation, and I think that you said would produce a 10.77 -- I lost my train of thought. Is that what you are proposing? You are proposing that the leverage formula that the Commission adopts be used, but is that also -is the way the Commission -- well, let's see how to state this.

Do you agree with the calculations in the staff recommendation, I guess, are the same that we have been using
in the past?
THE WITNESS: We filed it with the assumption that we would be using the AUF formula, and as I said, we used the 10.25 because that was what was in effect at the time. I stated in my testimony that AUF will accept the leverage formula in effect at the time of the Commission's final vote, so we will accept that calculation.

COMMISSIONER MCMURRIAN: I guess I'm just trying to be clear because of what Mr. May said. Are you asking for a formula that results in 10.77 or are you asking for whatever formula is in place at the time? I know it may be splitting hairs, but I'm just trying to make sure I understand.

THE WITNESS: Whatever is in place at that time. COMMISSIONER MCMURRIAN: Okay, thank you.

CHAIRMAN CARTER: Thank you. Commissioner Skop. COMMISSIONER SKOP: Thank you, Mr. Chairman.

Just one more follow-up question for the witness. With respect to the leverage formula itself, you would agree, would you not, that the capital structure is directly proportional to what ROE is suggested by the leverage formula, is that correct?

THE WITNESS: Yes.
COMMISSIONER SKOP: Thank you.
CHAIRMAN CARTER: Thank you.
Commissioners, anything further? Mr. May.

MR. MAY: No redirect.

CHAIRMAN CARTER: And there are no exhibits for this witness, correct?

MR. MAY: No, sir, there are not.
CHAIRMAN CARTER: Commissioners, just kind of a
heads-up. The way we have it kind of organized is that next OPC will call a witness, and we have it kind of broken down by issues for ease for the parties here.

So, Mr. Beck, you're recognized.
MR. BECK: Thank you, Mr. Chairman.
The Citizens call James A. Rothschild to the stand.
CHAIRMAN CARTER: Give us one second. Mr. Beck, you may proceed.

MR. BECK: Thank you, Mr. Chairman.
JAMES A. ROTHSCHILD
was called as a witness on behalf of Office of Public Counsel, and having been duly sworn, testified as follows:

DIRECT EXAMINATION
BY MR. BECK:
Q Mr. Rothschild, would you please state your full name and business address for the record?

A James A. Rothschild, business address, 115 Scarlet Oak Drive, Wilton, Connecticut.

Q Mr. Rothschild, did you file prefiled direct testimony in this case consisting of 38 pages?

A Yes, I did.
Q Do you have any changes or corrections to make to your testimony?

A No.
Q If I were to ask you the same questions here today, would your answers be the same?

A Yes.
MR. BECK: Mr. Chairman, I would ask that Mr.
Rothschild's direct testimony be inserted into the record as though read.

CHAIRMAN CARTER: The prefiled testimony of the witness will be entered into the record as though read. BY MR. BECK:

Q Mr. Rothschild, you also have two exhibits labeled JAR-1 and 2 attached to your testimony, do you not?

A Yes.
Q And JAR-1 consists of nine different schedules, is that correct?

A Yes.
MR. BECK: And, Commissioners, I would note that under the Comprehensive Exhibit List provided by Staff earlier, JAR-1 has been identified as Exhibit 93 for identification.

BY MR. BECK:
Q And, Mr. Rothschild, your Exhibit JAR-2 is your resume, is that correct?

DIRECT TESTIMONY
OF

## JAMES A. ROTHSCHILD

On Behalf of the Office of Public Counsel
Before the
Florida Public Service Commission
Docket No. 080121-WS
I. STATEMENT OF QUALIFICATIONS

## Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is James A. Rothschild and my address is 115 Scarlet Oak Drive, Wilton, Connecticut 06897.

## Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I am testifying on behalf of the Office of Public Counsel to provide my recommendations to the Commission regarding the determination of (1) the cost of capital; (2) the cost of equity; and (3) the appropriate capital structure for Aqua Utilities Florida, Inc. I also respond to Aqua Utilities Florida, Inc.'s witness Paul Anzaldo's prefiled direct testimony.

## Q. WHAT IS YOUR OCCUPATION?

A. I am a financial consultant specializing in utility regulation. I have experience in the regulation of electric, gas, telephone, sewer, and gas utilities throughout the United States and Nova Scotia, Canada.

## Q. PLEASE SUMMARIZE YOUR UTILITY REGULATORY EXPERIENCE.

A. I have been a consultant specializing in utility ratemaking since 1972. Initially, I was employed by Touche Ross \& Co. Touche Ross \& Co. later merged to form Deloitte Touche. I then provided similar consulting services while with J. Rothschild Associates, Georgetown Consulting Group, and Rothschild Financial Consulting. While associated with the above firms, I have worked for various state utility commissions, attorneys general, and public advocates on regulatory matters relating to regulatory and financial issues. These have included rate of return, financial issues, and accounting issues. (See my resume at Exhibit JAR2).

## Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I received an MBA in Banking and Finance from Case Western University (1971) and a BS in Chemical Engineering from the University of Pittsburgh (1967).

## II. SUMMARY OF CONCLUSIONS

## Q. PLEASE SUMMARIZE YOUR TESTIMONY

A. I recommend an overall cost of capital of $7.05 \%$ for Aqua Utilities Florida ("AUF") based upon a cost of equity of $9.47 \%$. This $9.47 \%$ cost of equity is only applicable to the cost of capital computed based upon the actual capital structure of Aqua America, Inc. which contains $44.03 \%$ common equity.

If the Company's requested common equity ratio is used it would lower the cost $f$ equity to $8.75 \%$. Despite this decrease in the cost of equity the overall cost of capital would increase to $7.37 \%$ and balloon higher once taxes are considered
because this $62.31 \%$ common equity in the Company proposed capital structure would be grossed up for income taxes. If my recommendation is adopted only $44.03 \%$ of the capital structure would be grossed up for income taxes.

The derivation of my recommended $9.47 \%$ cost of equity is summarized on my Exhibit __JAR-1, Schedule 2 and is based on a DCF result of between $9.28 \%$ and $9.71 \%$. As part of my determination process I also considered my Risk Premium/CAPM result of $8.68 \%$.

I performed two sensitivity analyzes as a check on my primary recommendation. In one of them I removed Equity Resources from the group of 10 gas companies because it has substantial non-regulated activities related to energy production. If Equity Resources is excluded from the DCF analysis, the indicated cost of equity is between $9.79 \%$ and $9.81 \%$. My second sensitivity analysis was to apply the DCF method directly to the financial data of Aqua America, Inc. The DCF indicated cost of equity for Aqua America Inc. alone is between 9.07\% and $9.23 \%$.

Aqua America Inc has requested a cost of equity of $10.25 \%$ for AUF, which is based on the leverage formula in effect at the Commission's final vote with an overall cost of capital of $8.10 \%$ for water and $8.02 \%$ for sewer. (See page 1 of 2 of Schedule of Requested Cost of Capital in Mr. Anzaldo's direct testimony.) On page 2 of 2 of this schedule the overall cost of capital is $8.12 \%$ for water and $8.06 \%$ for sewer based upon 13 month average balance ending December 31, 2006. Rather than base his recommended capital structure on the actual capital structure being used by Aqua America Inc., Mr. Anzaldo based his recommended capital structure on the thirteen month average of AUF. (See page 2, line 23-24 and page 3, lines 1-2 of Mr. Anzaldo's direct testimony.) It would be inappropriate to assign a higher level of common equity to the capital structure AUF than it is actually using unless such an assignment could be shown to result in a lower, not higher, revenue requirement. I will show later in this testimony that much of what AUF has recorded as equity on its books was really provided by debt that was issued by Aqua America, Inc. and was therefore acquired at a cost rate considerably lower than the cost of equity.

## III. COST OF DEBT

## Q. WHAT COST OF DEBT IS THE COMPANY REQESTING?

A. The Company has requested a $5.10 \%$ cost for long-term debt. According to the Direct Testimony of Mr. Stephen Anzaldo and the Schedule of Requested Cost of Capital, the Company is not requesting any short-term debt. This $5.10 \%$ cost of long-term debt is reflective only of the cost of debt that was directly issued by AUF but fails to include the impact on the cost of debt caused by debt issued on AUF's behalf by its parent Aqua America, Inc. As explained elsewhere in this testimony, the debt issued by Aqua America, Inc. that is financing part of AUF's assets should not only be included in the true capital structure of AUF, but should also be included in the embedded cost of debt computation. The $2{ }^{\text {nd }}$ quarter of 200810 Q of Aqua America, Inc. shows that of this parent issued short-term debt, $\$ 135$ million was issued at a cost rate of $4.87 \%$, and another $\$ 207$ million was issued at cost rates between $5.00 \%$ and $5.99 \%$. Since no specific breakdown by interest rate of this $\$ 207$ million debt issuance is available in the $10 \mathrm{Q}, \mathrm{I}$ cannot make an accurate revision to this $5.10 \%$ embedded cost rate. Therefore, for purposes of preparing this testimony, I have used the $5.10 \%$ debt cost rate. Based on the interest rate information that is available, it appears that the change to the embedded cost of debt caused by including the parent issued debt would be minimal. However, if the Company chooses to provide a more precise computation of the embedded cost of debt that takes into account an allocation of this parent issued debt, it could be more appropriate to use this revised cost of debt computation.

## IV. CAPITAL STRUCTURE

## Q. WHAT CAPITAL STRUCTURE HAVE YOU RECOMMENDED IN THIS CASE?

A. I recommend that the cost of capital for Aqua Utilities Florida be based upon the actual fully arms-length capital structure selected by management, i.e. the actual consolidated capital structure of Aqua America, Inc. This capital structure contains $44.03 \%$ common equity, $0.00 \%$ preferred stock, $52.53 \%$ long-term debt and $3.43 \%$ short-term debt. See Exhibit $\qquad$ JAR-1, Schedule 8. This actual Aqua America, Inc., capital structure should be adjusted to reflect the Florida regulatory basis capital structure. I arrived at this recommended capital structure based on the actual capital structure being used by Aqua America Inc. on a consolidated basis as of June 8, 2008, that I obtained from the Aqua America Inc. Form 8-K, as of June 8, 2008.

## Q. HOW DOES YOUR RECOMMENDED CAPITAL STRUCTURE

 COMPARE WITH THE CAPITAL STRUCTURE REQUESTED BY THE COMPANY?A. Aqua Utilities Florida has requested a financial basis capital structure that contains $62.31 \%$ common equity and has used that in its implementation of the leverage formula. See page 4, line 4 of Mr. Anzaldo's direct testimony.
Q. WHY DOES AQUA UTILITIES FLORIDA HAVE OVER 62\% COMMON EQUITY ON ITS BOOKS WHEN ON A CONSOLIDATED BASIS AQUA UTILITIES, INC. HAS ONLY ABOUT 45\% COMMON EQUITY?
A. What is happening can be seen by reviewing the financial statements of Aqua Utilities, Inc. I examined the Aqua America Inc. Form 10-Q quarterly report for the period ended June 30, 2008 that the Company prepared pursuant to section 13 or 15 (d) of the securities exchange act of 1934. Of special interest is the information contained on pages 2 and 5 of this report. Page 2 shows that the total debt of Aqua America, Inc. was
$\$ 1,212,423,000$. It is this number plus the $\$ 7,002,000$ current portion of long-term debt that is exactly the same number I used for long-term debt when computing Aqua America's actual capital structure. Page 5 of this same report provides a breakdown of this $\$ 1,212,423,000$. It shows that of this amount, only $\$ 827,121,000$ is "Long-term debt of subsidiaries (substantially secured by utility plant)". In addition, the Company also has "Notes payable to bank under revolving credit agreement, variable rate, due May 2012" for \$50,000,000; "Unsecured notes payable" due between 2010 and 2037 for a total of \$342,132,000 and Notes due in 2008 for $\$ 172,000$. These notes that total over $\$ 392$ million are debt financings that the Company has issued, but are not reflected on the books of any of Aqua America, Inc's subsidiaries.
Q. IS THIS \$392 MILLON OF DEBT THAT HAS NOT BEEN REFLECTED ON THE BOOKS OF THE REGULATED WATER UTILITY SUBSIDIARIES OF AQUA AMERICA, INC. ACTUALLY FINANCING THE REGULATED UTILITITY OPERATIONS OF AQUA AMERICA, INC?
A. Yes. While no detailed breakdown of utility assets is provided in the 6/30/08 10 Q report, the 200710 K report Aqua America, Inc. does provide a breakdown. The 12/31/07 balance sheet for Aqua America, Inc. shows
that the total "Net property, plant and equipment" Aqua America, Inc. had at the time was $\$ 2,792,794,000$. Page 20 of this same 10 K report provides a detailed breakdown of this amount. It shows that all of this property, plant, and equipment is allocated to the regulated water utility subsidiaries of Aqua America, Inc., leaving nothing for unregulated activities. Additionally, page 4 of the same 10 K report shows that of the total $\$ 602,499,000$ of revenues earned by Aqua America, Inc., $\$ 589,743,000$ or $97.9 \%$ of the total revenues of Aqua America, Inc., were earned by its regulated subsidiaries.
Q. IF THE DEBT ISSUED BY AQUA AMERICA, INC. IS ACTUALLY FINANCING THE UTILITY ASSETS ON THE BOOKS OF THE REGULATED SUBSIDARIES, HOW WAS AQUA AMERICA, INC. ABLE TO AVOID SHOWING THE $\$ 392$ MILLION OF DEBT ON THE BOOKS OF ANY OF ITS REGULATED WATER SUBSIDIARIES?
A. When Aqua America, Inc. issues debt at the parent level, it can take the proceeds of that debt and invest it in its subsidiary companies. If it so chooses, it can use the proceeds of the debt issuance to purchase common stock of its subsidiaries rather than make a loan to its regulated subsidiaries. This procedure has the advantage of making the regulated subsidiaries appear to have more common equity than they actually do.

In the case of Aqua America, Inc. the amount of debt that is masquerading as common equity on the books of the regulated entities totals $\$ 392$ million.
Q. DOES THE COMMON EQUITY OF THE SUBSIDIARIES APPEAR AS EQUITY ON THE CONSOLIDATED BOOKS OF AQUA AMERICA, INC?
A. No. Because equity that was purchased with debt.
Q. HOW SHOULD THE COMMISSION DETERMINE THE CAPITAL STRUCTURE TO USE IN THE DETERMINATION OF THE OVERALL COST OF CAPITAL APPLICABLE TO THE REGULATED WATER OPERATIONS OF AUF?
A. Especially in these times where the public has lost so much trust in the financial industry, it is important to use the capital structure that fully reflects the actual capital structure financing a utility unless such a capital structure is shown to be more expensive than appropriate. Ideally the Commission should use the capital structure that will balance safety and economy. However, how to determine the capital structure that will produce the lowest overall cost of capital is controversial. Therefore, commissions frequently look to actual capital structures as an indicator of
what capital structures will produce the lowest overall cost of capital. Utility rate regulation is a substitute for competition. Competition puts continual pressure on companies to provide services desired by its customers at the lowest price. To provide services at the lowest price, competitive companies have to minimize all costs, including the cost of capital. The cost of capital can be highly influenced by the capital structure a company uses.

It cannot be stressed strongly enough that the reported capital structure of wholly owned subsidiaries such as AUF does not provide insight into what capital structure management believes will produce the lowest overall cost of capital. I have explained earlier that the subsidiary capital structures of the regulated water companies owned by Aqua America, Inc. contain $\$ 392$ million of what is reported to be common equity that was actually raised by its parent in the form of debt, not equity. Holding companies with regulated subsidiaries have a special incentive to put extra equity on the books of such regulated subsidiaries when the only point to such excess equity is to rationalize a higher than appropriate revenue requirement.

Please note that Standard \& Poor's is specifically aware of the weakest link in the chain of problems associated with a high reported common equity ratio reported on the books of regulated subsidiaries when such extra equity disappears at the consolidated level:

Utilities are often owned by companies that own other, riskier businesses or that are saddled with an additional layer of debt at the parent level. Corporate rating criteria would rarely view the default risk of an unregulated subsidiary as being substantially different from the credit quality of the consolidated economic entity (which would fully take into account parent-company obligations). Regulated subsidiaries can be treated as exceptions to this rule - if the specific regulators involved are expected to create barriers that insulate a subsidiary from its parent. Corporate Rating Criteria obtained from the Standard \& Poor's

Myron J. Gordon, famous as the first person to use the DCF model in utility rate proceedings, said the following regarding capital structure in his direct testimony in an American Telephone and Telegraph case:

For a regulated company increasing the debt ratio is a heads-you-win-tails-I-lose proposition. The consumers enjoy the benefits in reduced revenue requirements of a high debt ratio, while the management and stock-holders suffer the increased risk. The consequence is that the management of a regulated company will want the lowest possible debt ratio that it can persuade the regulatory commission to accept, and a commission that simply accepts the debt ratio advocated by a utility subject to its regulation is derelict in its responsibilities to consumers. Re American Telephone and Telegraph Company. CC Docket No. 79-63, 1980

## V. DISCOUNTED CASH FLOW METHOD

## Q. WHAT IS THE DISCOUNTED CASH FLOW (DCF) METHOD?

A. The DCF method is a mathematical formula that is used to value a stock and to calculate the cost of equity. It recognizes that investors who buy a stock due so to receive cash dividends and/or capital gains in the future, considering the time value of money.

## Q. WHAT IS THE TIME VALUE OF MONEY?

A. The time value of money is just another way of saying that money can earn interest. The concept recognizes that because money can earn interest, a dollar received today is worth more than a dollar received tomorrow, a dollar received tomorrow is worth more than a dollar next year, and so on. For example, if an investor puts $\$ 100$ in a bank account that offers a $3 \%$ annual compounded interest rate, the investor will have $\$ 103$ a year later and $\$ 106.09$ in two years. If the only investment opportunity is to put money in this bank offering a $3 \%$ interest rate then that $\$ 103$ next year is worth $\$ 100$ today.

If a company offers an investor $\$ 100$ in ten years or $\$ 80$ today, the DCF method helps answer the question of which amount the investor should take. If the only investment opportunity for the investor is to put the money in a bank earning 3\%
interest, it is known that $\$ 100$ in ten years is equivalent to $\$ 74.40$ today $\left(\$ 100 /(1.03)^{\wedge} 10\right)$. The DCF method guides the investor to the correct answer, which is to take the $\$ 80$ because it is higher than the $\$ 74.40$.

In the above example the discounted cash flow (DCF) method discount rate was $3 \%$.
Q. IS THE DISCOUNT RATE HIGHER WHEN AN INVESTOR VALUES A STOCK THAN WHEN INVESTING IN AN FDIC INSURED BANK ACCOUNT?
A. Yes. The FDIC insured bank account is virtually certain to pay the interest and not default on the investor's deposit. On the other hand investing in stocks involves risk because the quality of management, competitive surprises or overall economic conditions all impact a company's ability to generate cash flow in the future.

## Q. WHAT IS THE RELATIONSHIP BETWEEN THE DISCOUNT RATE AND THE COST OF EQUITY?

A. The discount rate investors' use when calculating the value of a stock is equal to the cost of equity.

## Q. HOW ARE INVESTORS PAID THE COST OF EQUITY?

A. In addition to receiving dividends the investor has the option to sell the stock. The profit investors receive from selling stock is generally referred to as capital gains.

## Q. WHAT ARE CAPITAL GAINS?

A. A capital gain, or loss, is the difference between what an investor pays for a stock and the final selling price. For example, if an investor pays $\$ 20$ for a stock this year and sells it for $\$ 21$ in three years time, the capital gain is equal to $\$ 21-\$ 20$ or $\$ 1$.

## Q. IS IT ACCEPTABLE TO ARRIVE AT A COST OF EQUITY FROM THE DCF MODEL THAT COULD CAUSE THE STOCK PRICE OF A COMPANY TO CHANGE?

A. Yes. This principle is a key point of the City of Cleveland vs. Hope Natural Gas U.S. Supreme Court decision. In this landmark case, the U.S Supreme Court said: The fixing of prices, like other applications of the police power, may reduce the value of property which is being regulated. But the fact that the value is reduced does not mean that the regulation is invalid. It does, however, indicate that "fair value" is the end product of the process of rate-making not the starting point.... The heart of the matter is upon "fair value" when the value of the going enterprise depends on earnings under whatever rates may be anticipated.

## Q. WHAT IS THE PRINCIPLE BEHIND THE DCF METHOD?

A. An investor parts with his or her money to receive dividends and then sells the stock to someone else. The price the new owner is willing to pay for the stock is related to the future flow of dividends and future selling price he or she expects to receive. The value of a company is recognized to be the discounted value of all future dividends continuing until the stock is sold, plus the value of the stock sale proceeds when it is eventually sold.

For example, if the cost of equity is $9 \%$ and the dividend is $\$ 1$ per share then that one-dollar dividend paid out next year is worth $\$ 1 /(1+.09)$ or $\$ 0.92$ today. This means that the $\$ 0.92$ of the current stock price is accounted for by the dividend expected to be paid one year from today. In addition to receiving a dividend for next year an investor might also expect a dividend in the second year of owning the investment. If that dividend were also $\$ 1$ then in terms of today's value of that dividend in the second year that $\$ 1$ is now worth $\$ 1 /(1.09)^{\wedge} 2=\$ 0.84$. If by the third year it's expected the dividend will jump to $\$ 1.50$ then the contribution to today's stock price from this $\$ 1.50$ is $\$ 1.50(1.09)^{\wedge} 3=\$ 1.16$. This analysis continues year by year for as many years as the investor expects to own the stock. This relationship can be generalized by the following mathematical equation:

The current stock price P is equal to: $\mathrm{D} 1 /(1+\mathrm{k})+\mathrm{D} 2 /(1+\mathrm{k})^{\wedge} 2+\mathrm{D} 3 /(1+\mathrm{k})^{\wedge} 3+\ldots$. $(\mathrm{Dn}+\mathrm{Pn}) \mathrm{X}(1+\mathrm{k})^{\wedge} \mathrm{n}$.
$\mathrm{P}=$ Current stock price
D1 = Dividend paid out in the first year
D2 $=$ Dividend paid out in the second year
D3 = Dividend paid out in the third year
$\mathrm{Dn}=$ Dividend paid out in the nth year
$\mathrm{k}=$ the opportunity cost of capital or the require return.
$\mathrm{Pn}=$ the sale price of the stock

This complex version of the DCF equation can be used to solve for the cost of equity by estimating the dividend each year and what price the stock will be sold for and then having the computation solve for the cost of equity, $k$.

## Q. DOES THE POTENTIAL FOR A CHANGE IN THE FUTURE EXPECTED

 RETURN ON BOOK EQUITY MAKE THE DCF MODEL CIRCULAR?A. No. It is not circular because the DCF computations are all taken from a point in time before investor expectations change. Such an approach is therefore no more circular than a ship captain who, by looking at his compass, determines that his ship is sailing 10 degrees too far South, so he turns the ship to have the very same compass turn back to the true course.

## Q. IS IT ALWAYS NECESSARY TO USE THIS COMPLEX FORM OF THE DCF METHOD?

A. No. If the best estimate for future growth in earnings, book value, dividends and stock price is the same estimate then and only then does the complex formula becomes mathematically identical to the answer obtained by the following equation:

$$
\mathrm{k}=\mathrm{D} / \mathrm{P}+\mathrm{g} .
$$

## Q. WHAT IS THE SIMPLIFIED VERSION OF THE DCF METHOD?

A. In the simplified version the cost of equity k is equal to the dividend yield plus growth.
$\mathrm{k}=\mathrm{D} / \mathrm{P}+\mathrm{g}$
$\mathrm{k}=$ Cost of equity
$\mathrm{D} / \mathrm{P}=$ Dividend $\mathrm{Yield}(\mathrm{D}=$ dividend and $\mathrm{P}=$ stock price $)$
g = Growth in earnings, dividends, book value and stock price expected by investors. In the mathematical duration of this simplified DCF model growth, $g=$ Future Expected Return on Book Equity (ROE) X Retention Rate + SV. SV is the growth caused by the sale of new common stock at a price different from book value.

The retention rate is the percentage of earnings not paid out as a dividend. If a stock price is $\$ 20$ per share and the investor receives a $\$ 1$ dividend per year the dividend yield is $5 \%(\$ 1 / \$ 20)$.
$k=5 \%+g$

If there was no growth then we could say that $\mathrm{k}=5 \%$.
$\mathrm{k}=5 \%+0 \%$

When a company generates earnings it chooses how much to pay out to stockholders and how much to re-invest in the company. In the above example the retention rate is zero and $100 \%$ of the earnings are paid out as a dividend.

Companies usually do not pay $100 \%$ of earnings as a dividend. The percentage of earnings not paid out as a dividend benefits investors because this portion is reinvested in the company. Whatever percentage of earnings that are re-invested in the company is called the retention rate. For example, if half the earnings are reinvested the retention rate is $50 \%$. The retained earnings are re-invested in the
company because management presumably believes there are good investments they can make with that money. The investors' expectation of the returns on this re-invested money is the Return on Book Equity (ROE), not the cost of equity r.

As stated earlier, growth is equal to ROE X Retention Rate. For example if investors expect an ROE of $8 \%$ and a $50 \%$ retention rate the growth is equal to $4 \%$ ( $50 \%$ X $8 \%$ ).
Q. IS IT ALWAYS APPROPRIATE TO USE THE SIMPLIFIED VERSION OF THE DCF METHOD?
A. No. In order to use the simplified version, our best estimate must be that the following factors will grow at the same rate:
a) Earnings
b) Book Value
c) Dividends
d) Stock Price

If these are all expected to grow at the same rate, then growth ( g ) will be equal to ROE X retention rate.

## Q. CAN YOU PROVIDE AN EXAMPLE WHERE IT IS NOT

## APPROPRIATE TO USE THE SIMPLIFIED VERSION OF THE DCF

## METHOD?

A. Yes. If our best estimate is that earnings per share and stock price will grow at $6 \%$ per year while dividends per share will grow at $3 \%$ per year and book value
per share will grow at 4\% per year then the simplified version of the DCF method should not be used.

In Exhibit $\qquad$ JAR-1, Schedule 9, I have attached a Table 1 that reflects that the dividend yield decreases from $5.30 \%$ in 2007 to $4.73 \%$ in 2011. In this case it is not proper to use either the $5.30 \%$ or the $4.73 \%$ in the simplified formula. Taking an average over any given time period is also improper because the dividend yield keeps decreasing in the future. In the Table 1 shown on Schedule 9, return on book equity increases from $10.19 \%$ in 2007 to $11.00 \%$ by 2011. It is unrealistic to expect any company, let alone a regulated public utility, to have a return on book equity that increases indefinitely.

## Q. PLEASE PROVIDE AN EXAMPLE OF A CONDITION WHERE IT IS APPROPRIATE TO USE THE SIMPLIFIED VERSION OF THE DCF METHOD.

A. In Table 2 from Exhibit __JAR-1, Schedule 9, the growth rate is equal to $4 \%$ for earnings per share, book value per share, stock price and dividend per share. The $4 \%$ is calculated by multiplying ROE X Retention Rate. The starting point of the table shows earnings per share at $\$ 1$, book value per share is $\$ 10$, stock price is $\$ 11$ and dividends per share is $\$ 0.60$. The retention rate r is equal to $40 \%$. It was calculated by taking $\$ 1$ (earnings per share) minus $\$ 0.60$ (dividends per share) and then dividing by $\$ 1$ earnings per share. The ROE is equal to $10 \%, \$ 1$ (earnings per share) divided by $\$ 10$ (book value per share). So, ROE X Retention Rate is equal to $4 \%$ ( $40 \%$ retention rate $\times 10 \%$ ROE ).

Table 2 on Schedule 9 shows that if earnings per share, book value per share, stock price and dividends per share all grow at $4 \%$ then book value per share grown at $4 \%$ is equal to earnings per share minus dividends per share plus the last year's book value for every year.

All of the components must grow at a rate equal to ROE X Retention Rate. If any of these components grow at a different rates, or anything other than ROE X Retention Rate then problems such as permanently increasing or decreasing dividend yield can occur, creating problems that ensure an inaccurate answer from the DCF model.

## Q. IS IT ALWAYS NECESSARY TO REJECT THE CONSTANT GROWTH FORM OF THE DCF METHOD FOR A COMPANY WITH ANY FORECASTED NON-CONSTANT GROWTH FACTORS? <br> A. No. It can be possible to still arrive at a reasonable estimate for the cost of equity using the constant growth form of the DCF model so long as the inputs are treated in a manner consistent with constant growth. For example, if the dividend rate used to compute the dividend yield is used to determine the retention rate, then the computation is the same as if dividends were to grow at the same rate as earnings, dividends and book value.

Q. IS THE APPROACH YOU HAVE DESCRIBED TO MAKE THE INPUTS INTO THE CONSTANT GROWTH DCF AN ABSOLUTELY PERFECT SOLUTION?
A. No. However, it is the most accurate way to fit a non-constant growth situation into a constant growth DCF formula. It is considerably more accurate than haphazard approaches such as adding a five-year earnings per share growth rate to the current dividend yield. Being true to the mathematical demands of the constant growth DCF model is an essential step to using it properly and therefore maximizing its accuracy.

Note the self-correcting nature of the approach to the constant growth DCF that I have described:
A) Suppose a company is expected to grow dividends less rapidly than earnings simply because management plans to invest a larger portion of earnings in the future. This change would lower the expected dividend yield and raise future growth. The least accurate way to handle this situation would be to use the higher expected growth without making a corresponding reduction to the dividend yield. The approach I have used does not make that mistake, while a simplistic approach of merely adding a five-year earnings per share growth rate to an historical dividend yield does make that mistake.
B) Suppose a company is expected to undergo a temporary rapid increase because the base period has a lower than sustainable earned return on book equity, by equating the retention rate based not only on the actual dividend but on the earnings rate that would have existed if the future expected earned return on equity had been earned, the higher and more sustainable growth rate is computed. However, unsustainable transitional growth derived from a time when return on equity is changing substantially, i.e. earnings on book is non-constant. The approach I have used remains correct, while a simplistic approach of merely adding a five-year earnings per share growth rate to an historical dividend yield would be invalid.
Q. DOES THE CONSTANT FORM OF THE DCF MODEL ASSUME THAT THE STOCK PRICE WILL BE EQUAL TO BOOK VALUE?
A. No. Stock price and book value are modeled to grow at the same rate. If book value and stock price grow at the same rate, the market-to-book ratio must be expected in the DCF model to remain constant rather than gravitate to some higher or lower value in the future.

## Q. IS THE ACCURACY OF THE ANSWER OBTAINED FROM THE DCF

 MODEL INFLUENCED BY THE MARKET -TO-BOOK RATIO PREVAILING AT THE TIME OF THE ANALYSIS?A. No. The accuracy of the DCF result is driven by the accuracy of future cash flow estimates. There is no reason to believe the accuracy of a future cash flow projection is inherently more or less difficult to make for a company with a market-to-book ratio of $0.80,1.0$ or 2.0 .

## Q. IF THE COST OF EQUITY COMPUTED BY THE DCF MODEL IS

DIFFERENT THAN THE RETURN ON EQUITY USED TO COMPUTE GROWTH, DOES THIS CAUSE ANY PROBLEMS?
A. No. The cost of equity is the return investors expect to receive on their investment at market price, while the return on equity used to compute growth is equal to the return investors expect a company will be able to earn on its book value at the time the DCF computation was being made. Since market-to-book ratios are rarely exactly equal to 1.0 , the return on market price expected by investors is rarely equal to the return on equity investors expect will be achieved on book value.
Q. COULD A COMMISSION'S COST OF EQUITY DECISION CHANGE INVESTOR'S EXPECTATION FOR THE FUTURE RETURN ON BOOK VALUE?
A. Yes. However, it is highly unlikely that any one commission's decision could have a material impact on the future expected return on equity for a comparative group of utility companies. Nevertheless, if a commission's decision were to change investors' expectation of future return on book equity, it could cause numerous inputs in the DCF model to change. The stock price would change in response to a higher or lower dividend rate and an increased or decreased expected growth could cause investors to change their future expected return on book equity.

## Q. HOW DID YOU OBTAIN THE GROUP OF COMPARATIVE

 COMPANIES THATA YOU USED IN THIS CASE?A. I used the same companies that this Commission has selected for use in the determination of the leverage formula. In reviewing this group of gas companies, I was especially concerned that Equitable Resources was significantly different than the rest of the group. It has a much higher market-to-book ratio, a considerably higher future expected return on book equity, and its overall
business is indicated by Value Line to be oriented towards the production, storage and drilling. In Value Line's September 12, 2008 issue it says, "Equitable Resources has been performing well. Leading the way has been Equitable's production unit," and "Drilling activity has yielded promising results."

## Q. HOW DID YOU CALCULATE THE DIVIDEND YIELD, D/P?

A. I obtained the most recent quarterly dividend for each of the gas companies. For each company I estimated their annual dividend payments by multiplying the most recent quarterly dividend by 4 .

From Yahoo Finance I obtained the monthly closing prices for all of the comparative gas companies. For every company, I divided the annual dividend payments by their closing stock price for the year ending 8/31/08 to get the dividend yield per company. The dividend yields for these gas companies is based on the year end stock price averaged $3.61 \%$ (See Exhibit $\qquad$ JAR-1, Schedule 4, page 1).

I also calculated the average dividend yield for the year for the gas company group by dividing the same dividend payment by the average of the high and low monthly closing stock prices of the past 12 months to get dividend yields. The average dividend yield computed on this basis was 3.70\% (See Exhibit $\qquad$ JAR1, Schedule 4, page 1)

## Q. HOW DID YOU CALCULATE THE GROWTH (g) PORTION OF YOUR DCF ANALYSIS?

A. For each company I calculated growth component by solving for Future Expected Return on Book Equity multiplied by Retention Rate. I then added an allowance for growth caused by the sale of new common stock above book value.

## Q. HOW DID YOU ESTIMATE THE FUTURE RETURN ON BOOK EQUITY EXPECTED BY INVESTORS?

A. I estimated the future expected return on book equity by reviewing the return on book equity published by Value Line, and considering that forecast in the context of historic actual returns on equity.

## Q. HOW DID YOU DETERMINE THE RETENTION RATE?

A. I calculated the dividend yield on book by multiplying the dividend yield on market price by the market to book ratio. I multiplied this dividend yield on book number by the future expected return on book equity to get the retention rate. (See Exhibit $\qquad$ JAR-1, Schedule 3)

## Q. HOW DID YOU DETERMINE THE SALE OF NEW COMMON STOCK?

A. I used the most current issue of Value Line to obtain the amount of stock outstanding in 2007 and the number of shares forecasted to be outstanding in 2011-2013. I calculated the compound annual growth rate between 2007 and the 2011-2013 time frame for the comparative gas group. (See Exhibit $\qquad$ JAR-1, Schedule 5.)

## Q. PLEASE SUMMARIZE YOUR DCF RESULTS?

A. The results of my DCF analysis can be seen on Exhibit $\qquad$ JAR-1, Schedule 2. The average dividend yield for the comparative gas companies is $3.61 \%$ to $3.70 \%$. The average growth rate of these companies is between $5.83 \%$ and $6.31 \%$. To account for dividend growth for next year, 0.11 is added. The DCF method is indicating a cost of equity of between $9.64 \%$ and $10.03 \%$. (See Exhibit $\qquad$ JAR1, Schedule 3.)

## VI. CAPTAL ASSET PRICING MODEL

## Q. WHAT IS THE CAPITAL ASSET PRICING MODEL (CAPM)?

A. The capital asset pricing model is a method for calculating the cost of equity for a stock by adding a risk premium to a risk free rate. The risk premium appropriate for a group of companies is proportional to the "beta" of that group.
$C O E=R f+B X(R m-R f)$

COE = Cost of equity
Rf = Risk free rate
B $=$ Beta
$\mathrm{Rm}=$ the expected return on the market

## Q. WHAT IS A RISK FREE RATE?

A. The risk free rate is theoretically a rate that investors receive for investing in a security that has no chance of unexpected price fluctuations. Short-term U.S. government treasury bills are often used to estimate this risk free rate because their default risk is close to zero and because the time to maturity is so short that unexpected price fluctuations from changes in the interest rates are minimal.

## Q. CAN THE RATE OF A LONGER TERM BOND YIELD LIKE A 20-YEAR TREASURY BILL, ALSO BE USED AS A RISK FREE RATE?

A. While a longer-term Treasury bond could be used in a risk premium analysis, a 20-year Treasury bond is not truly risk free because it is subject to interest rate risk. For example, an investor buys a 20 -year U.S. Treasury bond that is yielding $5 \%$ and then interest rates rise to $6 \%$ the price of a 20 -year Treasury bond will decrease, substantially. Therefore, if a 20-year Treasury bond is used in a CAPM analysis, it should be used in a way that recognizes the non-risk-free nature of this 20-year U.S. Treasury bond.

## Q. WHAT IS A RISK PREMIUM?

A. The risk premium is the return that investors demand to take on additional risk. The risk premium can be the difference between any financial instrument in different risk categories such as the difference between U.S. Treasury bonds, corporate bonds, preferred stock or common stock.

## Q. WHY DO INVESTORS DEMAND A RISK PREMIUM TO INVEST IN STOCKS?

A. Investors prefer avoiding uncertainty. They will seek investments with uncertainty if an opportunity is perceived to receive adequate compensation for taking on the additional risk.

## Q. FOR WHAT TYPE OF RISK DO INVESTORS DEMAND COMPENSATION?

A. The only type of risk that investors demand compensation for is the risk that cannot be eliminated through diversification. Investors buy stocks as part of a diversified portfolio. The portfolio effect causes the diversifiable risks of each company to cancel out - unexpected problems are offset by unexpected success. After all of the diversifiable risks of all the companies in an investor's portfolio cancel out, then only non-diversifiable risk remains. Even a well-diversified portfolio can be harmed by a worldwide recession or a sudden shortage of oil.

## Q. WHAT IS BETA?

A. Beta is a measurement of the correlation between a given stock and the market as a whole. A portfolio made up of companies with a beta that averages 1.0 tends to have price swings that match the market in magnitude. A portfolio with an average beta of 1.5 tends to move $1.5 \%$ for every $1 \%$ the market moves. A portfolio with average beta of 0.8 tends to move $0.8 \%$ for every $1 \%$ the market moves.

## Q. DO ALL COMPANIES REQUIRE THE SAME RISK PREMIUM?

A. No. There are companies that are more sensitive than others to non-diversifiable risks such as changes in the economy. A portfolio more heavily weighted with companies that are especially impacted by the market will generally require a higher risk premium than a low risk portfolio. For example, a portfolio heavily weighted with stocks that sell luxury items may be harmed dramatically if disposable income goes down because such products are the first to go in hard
times. Conversely, a portfolio heavily investing in companies that make a staple products like utilities, corn flakes or soap is likely to be less susceptible to changes in the economy, have more stable stock prices and therefore require a lower risk premium.

## Q. HOW DID YOU APPLY THE CAPM?

A. I compared the actual compounded annual returns earned by each of 10 groups of companies from 1926-2007 with an average beta of each group. In this way, I effectively examined the returns on ten different portfolios, each with a different average beta. Graph 1 shows that on average from 1926-2007, companies with a beta of 1.0 earned a compounded annual return of $10.40 \%$ for its equity investors. The average beta for the comparative gas companies is 0.83 , indicating that the non-diversifiable risk for these gas companies is $83 \%$ of the average risk. The least squared equation indicates that the earned return to stockholders who invested in a portfolio with a beta of 0.83 earned a compounded annual return of 8.68\% from 1926-2007.

The $10.40 \%$ compounded annual average historical actual return earned by companies with a beta of 1.0 and a $9.42 \%$ historical actual return earned by companies with 0.83 occurred over a time when the compound annual rate of inflation averaged $3.0 \%$. However, the current inflation expectation demanded by investors is $2.26 \%$ (see Exhibit $\qquad$ JAR-1, Schedule 6, page 1), or $0.74 \%$ lower than the inflation rate embedded in the historical actual return numbers. Therefore, to make the historical returns consistent with investors' current inflation expectations, the $9.42 \%$ should be reduced by $0.74 \%$. This $9.42 \%$ return adjusted for the current inflation expectation results in a $8.68 \%$ CAPM indicated cost of equity for gas companies with a beta of 0.83 .

## Q. ARE COMPOUNDED ANNUAL RETURNS THE SAME AS THE

 GEOMETRIC MEAN?A. Yes
Q. IS THE COMPOUND ANNUAL AVERAGE RETURN, OR GEOMETIC MEAN, A BETTER MEASURE OF ACTUAL HISTORICAL RETURNS AND WHAT INVESTORS EXPECT TO EARN IN THE FUTURE THAN THE ARITHMETIC MEAN?
A. Yes. Page 24 of Stocks for the Long Run, Third Edition contains the following: Investors can be expected to realize geometric returns only over long periods of time. The average geometric return is always less than the average arithmetic return except when all yearly returns are exactly equal. The difference is related to the volatility of yearly returns.

A simple example demonstrates the difference. If a portfolio falls by 50 percent in the first year and then doubles (up 100 percent) in the second year, "buy and hold" investors are back to where they started, with a total return of zero. The compound or geometric return rG , defined earlier as $(1-.5)(1+1)-1$, accurately indicates the zero total return of this investment over two years.

The average annual arithmetic return rA is +25 percent $=(-50$ percent +100 percent $) / 2$. Over 2 years, this average return can be turned into a compound or total return only by successfully "timing" the market, specifically increasing the funds invested in
the second year and hoping for a recovery in stock prices. Had the market dropped again in the second year, the strategy would have been unsuccessful and would have resulted in lower total returns than achieved by the buy-and-hold investor.

## Q. WHAT GROUP OF COMPANIES DID YOU USE IN YOUR CAPM ANALYSIS?

A. I relied on the Ibbotson Associates data from their 2008 Yearbook that includes 3,901 companies.

## Q. HOW DID YOU DIVIDE THESE COMPANIES INTO TEN

 PORTFOLIOS?A. The only data available in the Ibbotson Associates report with the companies it covers divided into separate portfolios are these ten groups that were divided by size. Since these ten groups all had significantly different betas and because the actual historical earned returns for these groups was also quantified, it was possible to use these groups to show how beta related to the actual earned return earned by each of these groups. It was acceptable to use the portfolios consisting of different size companies in this analysis because:

1) By CAPM theory, size is a diversifiable risk and therefore does not impact the cost of equity.
2) The results themselves confirm that size does not matter because the least squares trend line projects to a credible risk-free rate. If size, in addition to beta, did actually influence the cost of equity, then the projection of the data would be
substantially different than the cost rate expected for a zero risk security (i.e., a security with a beta of zero.)

## Q. WHAT DID YOU USE FOR A RISK FREE RATE?

A. The most accurate risk free rate to use with this analysis is the one that is defined by the data itself. That way, the true historical actual relationship between beta and the cost of equity is maintained.
Q. WHAT IS THE RELATIOSHIP BETWEEN THE COMPOUNDED ANNUAL EARNED RETURN AND BETA FOR THE GROUP OF
COMPANIES YOU SELECTED?
A. The data points in the graph shown on Exhibit JAR-1, Schedule 6, are numbered from highest to lowest beta, with number 1 being the group with the lowest beta and number 10 being the group with the highest beta. A least squared line was used to fit a line to the data points and the derived equation was used to calculate the returns for a given beta. Historically a company with a beta of 1 has earned a return of about $10.40 \%$. A company with a beta equal to 0.83 , the average beta of the comparative gas companies, has earned approximately $9.42 \%$.
Q. DOES THE GRAPH OF THE RELATIONSHIP BETWEEN BETA AND RETURNS SHOWN ON SCHEDULE 6 HELP CONFIRM THE CAPM THEORY?
A. Yes. The equation of the least squares line is $Y=.059922 \mathrm{X}+0.0445$ so the line indicates a y-intercept (or security with a zero beta) of $4.45 \%$. Theoretically a firm with a zero beta is a risk free security. The compound annual return actually achieved by investors in U.S. Treasury Bills from 1926-2007 was $4.70 \%$, or only 25 basis points higher than the result consistent with the actual return versus actual beta data used in my CAPM analysis. This small difference is an excellent confirmation of the integrity of the CAPM theory.

## Q. DO THESE HISTORICAL ACTUAL RETURNS FROM 1926-2007 AUTOMATICALLY EQUATE TO THE COST OF EQUITY?

A. No. The cost of equity at any given risk level is directly influenced by investors' expectations of future inflation rates, while the historical data is a product of the inflation rates that existed in the past. The compounded annual rate of inflation between 1926 and 2007, the time period from which that data used to construct this graph was compiled, inflation averaged $3.0 \%$. Currently however the bond market shows that investor's inflation expectation is $2.26 \%$. Since the returns demanded by investors include an allowance for inflation, it is appropriate to update the historical actual returns to be consistent with what investors currently demand for inflation. Since inflation expectation is $0.74 \%$ lower than it was from 1926-2007, the cost of equity is appropriately estimated to be $0.49 \%$ lower at all risk levels than it was on average from 1926 to 2007. The current cost of equity for the gas group with a beta of 0.83 is $8.68 \%$.

## Q. HOW DID YOU CALCULATE WHAT THE MARKET EXPECTS INFLATION TO BE AS OF 8/31/08?

A. I took the difference between 20-year US treasury bonds and the long-term inflation indexed treasury bonds. The yield on the 30 -year US Treasury bonds is
4.43\% (www.bloomberg.com/markets/rates/index.html) and the yield on the inflation-indexed bonds is $2.17 \%$.
(www.bloomberg.com/markets/rates/index.html). Since the market is willing to accept a $2.17 \%$ yield instead of a $4.43 \%$ yield in return for protection against inflation, the market expects inflation to be $2.26 \%(4.43 \%-2.17 \%)$.
Q. DOES THEORY AND EMPIRICAL DATA SUPPORT YOUR FINDINGS?
A. Yes. The CAPM theory says the relationship between the cost of capital and beta is linear. In the financial textbook Investments (McGraw-Hill/Irwin 2005), by Bodie, Kane and Marcus it states on page 290 that "...fairly priced' assets plot exactly on the SML..." and, "...all securities must lie on the SML in market equilibrium. " As seen in Graph 1 on Schedule 6, page 3 of 4, the stock based empirical data is consistent with the theory that higher betas correlate with higher returns. The term Security Market Line (SML) is given to the expected returnbeta relationship.

If this historical actual earned return being is consistent with what investors' expected and if the CAPM theory is correct, it is possible to estimate the risk-free rate that existed on average over the 1926-2007 period by making a linear projection of the historical stock returns. As shown on my graph \#1, the stock based empirical data results in a computed risk-free rate of $4.45 \%$ (note: Because of the limitations the graph it appears $4.00 \%$ but the formula clearly shows the intercept to be $4.45 \%$ ). This is very close to the actual $4.6 \%$ compounded annual return of U.S. Treasury Bills.

## Q. IS THE U.S. TREASURY BILL YIELD A GOOD ESTIMATE OF THE RISK FREE RATE?

A. On average for the long-term, it is. However spot distortions are common. The current rate on the 90 -day U.S. Treasury is $1.72 \%$ as of $8 / 31 / 08$, and $0.92 \%$ as of 9/30/08. It is lower than the long-run average because Fed Chairman, Ben Bernanke, has been reducing interest rates in an attempt to stimulate the economy.

## Q. HOW DOES YOUR CAPM RESULT COMPARE TO THE RESULTS STATED IN IBBOTSON ASSOCIATES?

A. On page 179 of "Stocks, Bonds, Bills and Inflation" Ibbotson SBBI/Morningstar 2008 yearbook, the authors conclude:

The supply side model estimates that stocks will continue to provide significant returns over the long run, averaging around $9.66 \%$ per year, assuming historical inflation rates. The equity risk premium, based on the supply side earnings model, is calculated to be $4.24 \%$ on a geometric basis and $6.23 \%$ on an arithmetic basis.

In the above statement, the $9.66 \%$ return expected by Ibbotson SBBI/Morningstar is based on a stock of average risk. Based on historical inflation rates the expected return I calculate for a company of average risk at $10.4 \%$ is higher than the $9.66 \%$ concluded by Ibbotson SBBI/Morningstar. Considering that inflation expectations are lower than the historical average and the group of 10 gas companies has a lower risk than the company of average risk, my finding of a $8.68 \%$ CAPM cost of equity is consistent with both the historical data and the SBBI/Morningstar's forecast.

## Q. IS THERE ANOTHER IMPORTANT VERIFICATION OF THE CAPM CONCLUSION YOU HAVE RECOMMENDED?

A. Yes. Page 12 of Stocks for the Long Run by Wharton Professor, Jeremy Siegel, concludes that " $\ldots$ the real after-inflation, compound annual rate of return on stocks...real return on stocks... averaged 6.9 percent per year since 1926." The book also points out that this real after-inflation return on stocks has been "...extraordinarily stable..., averaging 6.6 percent from 1871 through $1925 \ldots$... and the book mentions that the return since World War II was 7.1 percent. Recognizing that the return data prior to 1926 contains many fewer companies and is in a much less mature economy than the data since 1926, I will concentrate on the inflation premium data after 1926 and will therefore conclude that the equity premium in excess of inflation for the average common stock in the U.S. is ${ }^{*}$ $7.1 \%$. Adding the current inflation expectation derived from the bond market of $2.26 \%$ results in a cost of equity estimate of $9.36 \%$ for a company of average risk. This result is virtually identical to the $9.66 \%$ estimate made by Ibbotson Associates, further confirming that my 10.4\% CAPM estimate based on the results for the average stock is conservatively high.

## VII. EVALUATION OF THE TESTIMONY OF MR. ANZALDO

## Q. PLEASE EXPLAIN WHAT MR. ANZALDO RECOMENDS.

A. Mr. Anzaldo, on page 4 of his direct testimony, has recommended that AUF be allowed a return on equity of between $10.25 \%$ based on the leverage formula in effect at the time of the Commission's final vote. On page 4, lines 17-21 Mr. Anzaldo's direct testimony that approximately $60 \%$ common equity and $36 \%$ debt
is "appropriate for AUF." And that AUF's size and lack of growth dictate a higher common equity ratio than a "typical water company."

## Q. DO YOU AGREE WITH MR. ANZALDO'S COST OF EQUITY RECOMMENDATION?

A. No. As explained earlier in my testimony I believe that the cost of equity for AUF is $9.47 \%$ with a common equity ratio of $44.03 \%$. If the Commission chooses to use a higher than justifiable common equity ratio of $62.31 \%$ the cost of equity would decrease to $8.75 \%$. Such a low percentage of debt in the capital structure would have significantly lower risk than the proxy group of 10 case companies I used to calculate the cost of equity in my.

## Q. DO YOU AGREE WITH MR. ANZALDO'S CAPITAL STRUCTURE RECOMMENDATION?

A. No. Mr. Anzaldo See page 4 of Mr. Anzaldo's direct testimony uses a 13-month average basis for AUF. The parent, Aqua America Inc.'s operations are almost $100 \%$ regulated. Also, as explained earlier in this testimony, the books of Aqua America, Inc. contain $\$ 392$ million of debt financing that has been used to finance the equity of its regulated water utilities. Therefore, the cost of that portion of what has been reported on the books of AUF has been obtained at a cost of debt rate, not a cost of equity rate. As of June 8, 2008 Aqua America Inc. has a common equity ratio of $44 \%$ and that is the ratio that should be used in this proceeding.

## Q. PLEASE RESPOND TO MR. ANZALDO' COMMENT ON THE SIZE OF

## AUF HAVING AN INFLUENCE ON THE COMMON EQUITY RATIO.

A. Mr. Anzaldo presented no evidence that capital structure is related to size. He did not even claim that capital structure is somehow a function of size among the various regulated water subsidiaries of Aqua America, Inc. AUF is part of the Aqua America, Inc. system. Its effective capital structure and capital cost rates are therefore a function of the overall system. If the savings from creating the entire system were not passed on to Florida ratepayers, the effect would be for Aqua America, Inc. to earn a considerably higher return on equity than was intended by the Commission.

## VIII. CONCLUSION

## Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS IN THIS CASE.

A. The overall cost of capital that should be allowed to AUF in this proceeding is $7.05 \%$ ( $9.60 \%$ pre tax). See Exhibit $\qquad$ JAR-1, Schedule 1. This 7.05\% overall cost of capital is based upon a cost of equity of $9.47 \%$ with a $44.03 \%$ common equity ratio. Alternately, if a higher common equity ratio were used, then the cost of equity would be lower.

## Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

BY MR. BECK:
Q Mr. Rothschild, have you prepared a summary of your testimony?

A Yes, I have a brief summary.
Q Would you please provide it?
A Yes, thank you. Good afternoon. Thank you, everybody. I'm glad to be here again.

Just very briefly, because I know that you all have seen my prefiled testimony, just to focus everybody's attention on the highlights. I am recommending that for the consolidated capital structure, which is the capital structure that AUF is using, that before making any adjustments for whatever the Commission might or might not find is appropriate for other items, for a normal cost of capital situation the cost of equity should be 9.47 percent. This is based upon both my DCF finding of a range between 9.28 and 9.71 percent and a CAPM result of 8.68 percent, and this would be applicable to the consolidated capital structure of Aqua America, which contains 44.03 percent common equity. And this is the starting point before making the regulatory adjustments that Florida does for deferred taxes and customer deposits.

If for whatever reason the Commission should prefer
to use the Aqua Florida capital structure of 62.31 percent common equity, then the appropriate cost of equity for that capital structure would be a cost of equity of 8.75 percent.

This compares -- as you have just heard for Mr. Anzaldo, this compares to the 10.25 percent that he computed based upon the leverage formula that was in effect as of that time. I have recommended the 5.10 percent company requested cost of debt be adopted, so there is no dispute in that area.

And I would just like to focus the Commission's attention on what is I think a very important issue in this case, as I specifically highlight in my testimony on Page 6, that when you look at the capital structure of Aqua America, you can see that there is $\$ 392$ million of debt that the company has acquired and is using to fund its utility operations, but has not allocated at all to any of the regulated utility operations. And that is a major, major area of concern that $I$ have, and hopefully the Commission has and will give its careful attention to.

And if I can just focus your attention in closing on Page 10 of my testimony where I have highlighted starting on Line 9, it cannot be stressed strongly enough that the reported capital structure of wholly-owned subsidiaries such as AUF does not provide insight into what capital structure management believes will produce the lowest overall cost of capital, and with that $I$ thank you for hearing my points and would be happy to answer any questions that you might have.

MR. BECK: With that, Mr. Chairman, Mr. Rothschild is available for cross-examination.

CHAIRMAN CARTER: Thank you.
Commissioner Skop, you're recognized.

COMMISSIONER SKOP: Thank you, Mr. Chairman.
Just trying to follow along, Mr. Rothschild. On Page

2 where you provide a summary on Line 23 under the alternate, or the company's requested equity ratio, would that correctly read at the end of the sentence cost of equity? I guess there appears to be a typo.

THE WITNESS: I'm sorry, Page --

COMMISSIONER SKOP: Page 2, Line 23 at the end. If you could take a look at that.

THE WITNESS: Actually that should be cost of equity. COMMISSIONER SKOP: All right. And then with respect to Page 7, Lines 10 through 12 where you speak to the 392 million debt financing that the company has issued and did not reflect in the books of any of the Aqua America subsidiaries. Are you suggesting that by virtue of that that the debt portion of the capital structure would be understated by virtue of not recording that, or can you elaborate on the significance of --

THE WITNESS: If you are looking at only the AUF reported capital structure, yes, the debt is understated. Of course, not all of the 392 million goes to AUF, it is used throughout the entire Aqua America system, so its proportional share would go to AUF.

COMMISSIONER SKOP: Thank you.
CHAIRMAN CARTER: Thank you.
Anything further from the bench? Ms. Bradley, you're recognized.

MS. BRADLEY: Thank you, sir.
MR. MAY: Mr. Chairman.
CHAIRMAN CARTER: One second. Nevermind, I'm sorry.
I apologize. My apologies.
Ms. Bradley.
MS. BRADLEY: Thank you.
CROSS EXAMINATION
BY MS. BRADLEY:
Q Mr. Rothschild, in Mr. Moul's testimony he mentions your failure to take into account the tremendous volatility in the capital markets that has resulted from the current financial crisis, and refers to the turmoil in the credit markets. I am trying to understand the distinction here, and is there some reason you didn't address that or didn't take that into consideration?

A Well, the obviously reason why I didn't address it as of when I had written my testimony it hadn't happened yet, so that would be the reason why it is not addressed.

Q Well, would this what he calls turmoil in the markets and volatility, does that affect your testimony in any way?

A Well, it does to the extent that I certainly think it
is appropriate to mention it at this point in time and to consider it, but I would come to a very different conclusion than Mr. Moul has. Since I filed my testimony in this proceeding, the interest rates as reflected in the highest quality ratings, which would essentially be the U.S. government ratings, the interest rates are across the board much lower. When you look at long-term interest rates in U.S. Treasuries, you see now what is a clear continuation of the drop in long-term interest rates that began somewhere around 1982.

How much longer it will continue and to what level, and if and when it will turn around, I certainly don't know, but we see it as a continuation of the lowering of the risk free rate, and there is a temporary -- hopefully temporary distortion where the very high risk securities now as measured by the higher risk bonds, corporate bonds, have seen higher interest rates. They were a lot higher a few weeks ago and they are tempered quite a bit. But, still when you get to lower risk, corporates even, you are still seeing very low interest rates.

I know, for example, when I was looking around for potential short-term investment Wal-Mart bonds that had about six months or a year to go, the interest rates on those was roughly was under 3 percent, somewhere between 2 and 3 percent, I don't remember what. So what is perceived as the lower risk corporates are still paying very low rates.

And so when I put this all together, what I see is that the drop in equity cost rates that would be reflected by utility companies which are the low risk end of equity securities, especially something like a water company which is providing such a vital service, I don't care how bad the economy gets, people still need to drink water and flush the toilets. So, this is needed and it is time, it is time to expect to see equity returns get into single digit numbers, that the time of the double digit numbers are over. I know when the equity cost rates started to drop there was a lot of what was going on in the early part of that cycle from the 1980s of Commissioners and other witnesses saying, well, the interest rate drop is temporary, it is temporary, it is temporary. We will slow up the drop. And now what tends to happen a lot is Commissioners are looking over their shoulder and saying, well, nobody else has gone below 10 percent, or just a few Commissions --

MR. MAY: Mr. Chairman, I am going to object to this. I have a very difficult time seeing how Mr. Rothschild has suddenly morphed into rebutting Mr. Moul's testimony. The witness has filed testimony, and I think the questions need to be confined to the prefiled testimony. He is not here to rebut Mr. Moul.

MR. BECK: Mr. Chairman, if I may.
CHAIRMAN CARTER: Mr. Beck.

MR. BECK: I think if I understood Ms. Bradley's question is does the recent turmoil since he filed his testimony, would that change Mr. Rothschild's recommendation, which is certainly a fair enough question when the testimony was filed in October, and he is simply providing the answer to that. So I don't see that there is anything unfair about that, and I think he should be allowed to finish his answer.

CHAIRMAN CARTER: Ms. Helton.
MS. HELTON: I'm wondering if Ms. Bradley has anything she wants to add before I make my comment.

CHAIRMAN CARTER: Ms. Bradley, you're recognized.
MS. BRADLEY: Well, I think to some extent Mr. Beck, you know, explained I guess what he understood I was trying to do, and that is trying to understand how that effects what Mr. Rothschild -- obviously there has been a lot of bad things that have happened in the last couple of months, and I wanted to know if that would, and if so, how that would affect his statements earlier. And I think this is -- I don't believe he is doing any further testimony, so this is kind of my only chance to ask that.

MS. HELTON: It does seem to me that the current state of the economy and recent events is something that you may want to take into consideration in your deliberations and that you do have the discretion to hear, but perhaps, you know, if we can just stick to what he recommended in his prefiled
testimony and have him elaborate on what changes he would make to that and go from there.

MS. BRADLEY: I apologize. I probably messed up by mentioning Mr. Moul, but $I$ was trying to get the correct terminology for what he had termed the turmoil in the market and some of the volatility.

CHAIRMAN CARTER: Okay. Let's kind of keep it tight because we do have some questions from the bench. You may proceed.
the witness: Thank you. I will be very brief. My answer was almost completed anyway. Now, I just wanted to point out that so often what has been happening in this overall decline in interest rates is that one commission is looking over its shoulder to see what another commission is doing, and with the turmoil in the markets, and as we see low risk returns having such low returns with -- go out and buy a 30 -day treasury and see what you get, annualized rates of 0.01 percent, that it is time, it is time to see -- to step up and see the cost of equity in the 9 percent range is appropriate, and especially these days where companies are struggling to earn profits at all to see a water company that comes in be given a reasonable opportunity to earn in the nines is a good return today, and I think that is brought out by looking at all the factors in the current turmoil.

MS. BRADLEY: Let me ask you one more question.

CHAIRMAN CARTER: One moment. Commissioner Skop. COMMISSIONER SKOP: Thank you, Mr. Chairman. Just one quick question. Mr. Rothschild, with respect to the discussion of the reduction in the risk free rate as a result of recent events, is that reduction of risk free rate effectively negated in any part by an increase in the risk premium as a result of the tight credit markets?

THE WITNESS: I think that when you are looking at the more risky securities, the answer is yes, it is. That when you get to lower rated bonds, and certainly when you move to unregulated corporates, you see situations where the spread is higher than it was. So, in that sense it is more. But when you look at -- as I was trying to explain, when you look at something like a Wal-Mart, which is based upon the interest rate that was quoted on those bonds, what the marketplace is demanding now is I believe Wal-Mart is going to be there and is still willing to provide debt to a Wal-Mart at low rates. And when you follow through on that, I think when you get to a regulated water utility, you either say it is more risky, and if you think is more risky then it should be participating in the down drop here as many companies are struggling to earn a return plus rather than a minus, or you say, no, just what we are doing here is with regulation providing an opportunity for the company to keep earning, then by definition it is lower risk, and so that the return should be proportional to that.

And in this environment with treasuries paying such a small amount, boy, an awful lot of investors would love to see a return of 9, 9-1/2 percent.

COMMISSIONER SKOP: Thank you for that clarification. And the reason I asked is just that even well capitalized corporations right now, I mean, the Commission I think has heard in other proceedings that no matter how sound financially a company is it is still difficult at best to attract capital for capital projects in such a market. And so if you would just briefly elaborate on that, whether that is across the board or would be negated by virtue of a regulated entity.

THE WITNESS: Well, I think this -- I have to be very careful here of what is -- you know, if you get back a few weeks ago, the crisis was really very much hopefully at a peak, and things are easing from there, and I think that as we get through and the TARP money gets out and people get a little bit more comfortable, I would expect that the extreme turmoil that you are seeing now will hopefully continue to quiet down as the days and weeks pass rather than the months and years. And so I would take that into consideration rather than merely just pricing for a one-time event that hopefully is very short lived.

And capital markets are changing so rapidly. When I was looking -- as I said, was looking around for bonds to buy and saw that the yields were low, it would suggest to me that
if the markets haven't opened up yet in terms of being able to issue new debt then they will soon. I can't tell you for sure, I haven't tried to see whether somebody was successful or not in issuing new debt right now today. It might take a little bit longer than today, but things are improving. We have had rally in the stock market for a few days, and as we know with this volatile market a few day rally doesn't mean we are out of the woods yet.

I don't mean to tell you I am smart enough or have a clear enough crystal ball to be able to promise that. But as we get through the crisis and people understand what the new rules are going to be it will help, and especially water utilities that are regulated by responsible caring commissions such as this, we will be able to get financing.

COMMISSIONER SKOP: And just one more brief
follow-up. And I apologize, this is taking a little bit longer than I thought it would. With respect to the current condition we are in in a recessionary environment, would it be reasonable to expect that coming out of a recession there could be inflationary pressure?
the witness: Well, that is the --
COMMISSIONER SKOP: Briefly.
THE WITNESS: All I can tell you is that experts who study that every day have a tremendous difference of opinion.

There are those who say don't worry about inflation, let's get
the economy going again. And others say no, we have to worry about that inflation. So all I can tell you in complete honesty is I don't know and I don't think anybody else knows either.

COMMISSIONER SKOP: Thank you.
CHAIRMAN CARTER: Thank you. Ms. Bradley.
BY MS. BRADLEY:
Q Let me just ask you real quickly about a statement you made during your summary. And I'm not sure I completely understand, but it was something about you had chosen or based your calculations because AUF is a wholly-owned subsidiary of Aqua America. Did I get that right or did I mess that up?

A No, that sounds right. What you said is correct, it is.

Q Well, how did that affect, though, your calculation?
A Well, it means that when you are looking at what is the real capital structure that is being used, the capital structure is where you have the true and complete interchange between the outside equity investors and the outside debt investors. It occurs at the consolidated Aqua America level, not at the Aqua Utilities Florida level, and so that is where you can see what as -- when you use less equity, the cost of equity goes up, the cost of debt goes up. Where that trade-off is really occurring and where good management is really looking at it is at that consolidated level, and that is what $I$ meant.

MS. BRADLEY: Okay. No further questions, sir. CHAIRMAN CARTER: Thank you.

Mr. May.
(Transcript continues in sequence with Volume 2.)

STATE OF FLORIDA )

I, JANE FAUROT, RPR, Chief, Hearing Reporter Services Section, FPSC Division of Commission Clerk, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that $I$ stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that $I$ am not a relative, employee, attorney or counsel of any of the parties, nor am $I$ a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 9th day of December, 2008.


JANE FAUROT, RR
Official FPSC Hearings Reporter
(850) 413-6732

