BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. UNDOCKETED

In the Matter of

WATER RATE DESIGN
WORKSHOP.
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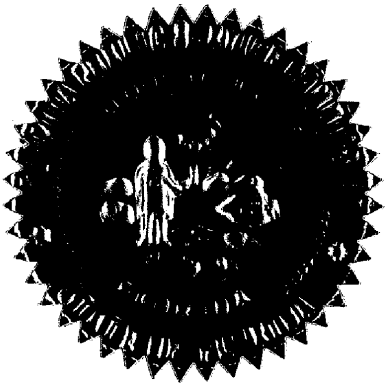

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PROCEEDINGS:	WORKSHOP
BEFORE:	CHAIRMAN LISA POLAK EDGAR COMMISSIONER J. TERRY DEASON COMMISSIONER ISILIO ARRIAGA COMMISSIONER MATTHEW M. CARTER, II COMMISSIONER KATRINA J. TEW
DATE:	Wednesday, February 1, 2006
TIME:	Commenced at 10:00 a.m. Concluded at 2:15 p.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR LINDA BOLES, RPR, CRR Official FPSC Reporter (850) 413-6732

INDEX

P R O C E E D I N G S

CHAIRMAN EDGAR: Good morning.

Mr. Jaeger, will you please read the notice.

MR. JAEGER: Notice of Commission workshop to Florida Department of Environmental Protection, the Southwest Florida Water Management District, the St. Johns River Water Management District, the South Florida Water Management District, the Northwest Florida Water Management District, the Suwannee River Water Management District, and all other interested persons. Re: Undocketed water rate design issued January 6th, 2006.

Notice is hereby given that the Florida Public Service Commission will conduct a workshop at this time and place. The purpose of this workshop is to present a comprehensive package of information to the Commissioners on the procedures used in designing water rates.

CHAIRMAN EDGAR: Thank you.

Commissioners, as you will recall, last fall, I believe, we had an item that generated a lot of questions about conservation rate methodology and water ratemaking in general. There was an expression of interest and desire at that time by the Commission to get together and delve into those issues in more detail, and asked the staff to help us give more breadth and depth of knowledge and information on those issues, so that is why we are here today.

So thank you to the staff for putting this together

for us. We are also joined by representatives of three of the water management districts. We will have Mr. Dwight Jenkins, Ms. Angela Chelette, and Mr. Jay Yingling who are with us, again, from the water management districts. So thank you for joining us.

And with that -- any other comments? Okay. Then I will turn it over to the staff. Thank you.

MR. STALLCUP: Thank you, Chairman Edgar, Commissioners.

My name is Paul Stallcup, and I'm the supervisor in the section responsible for calculating water rates. The purpose of this workshop is to present you with a comprehensive description of how staff calculates the water rates that we recommend to you at our agenda conferences. In particular, we will focus on water rate structures that are designed to use price signals to encourage water conservation.

Before we begin our discussion of conservation-oriented rate structures, Mr. Marshall Willis of the Commission will present an overview of the overall water and wastewater ratemaking process. From this presentation, you will see that the calculation of water rates is a last step of many that need to be considered in a water rate-setting proceeding.

Following Mr. Willis' presentation, we will begin our discussion on water conserving rate structures by addressing

how the Commission staff interacts with the five water management districts. To help us with this area, we have three representatives of the districts with us today. First, we have Mr. Dwight Jenkins of the St. Johns River Water Management District. Mr. Jenkins is a director of water use regulation for the district, and he will give a presentation describing the responsibilities the districts have in managing Florida's water resources. He will also describe how these responsibilities interact with the Commission's responsibility to set rates for the utilities subject to its jurisdiction.

We also have with us Ms. Angela Chelette and Mr. Jay Yingling. Ms. Chelette, who I believe is running a few minutes late and will be here shortly, is the Bureau Chief of Ground Water Regulation for the Northwest Florida Water Management District. She has extensive experience in managing water resources in Florida's panhandle.

Mr. Yingling is a senior economist with the Southwest Florida Water Management District. He has considerable experience in measuring the effectiveness of water conserving rate structures, not just within his own district, but across the entire state, as well.

Ms. Chelette and Mr. Yingling are here to help answer any questions you may have, as well as provide insights to particular circumstances within their home districts.

The remaining three parts of the workshop we will

present today will be handled by Ms. Jennie Lingo. As you know, Ms. Lingo is the Commission's in-house expert on water rate design. The first area Ms. Lingo will cover will be basic water ratemaking concepts and the history of water conserving rate structures that the Commission has approved to date. We present this information to provide you with a historical context on how the various components of water conserving rate structures became part of what staff typically recommends to the Commission.

Next, Ms. Lingo will discuss the actual steps that staff goes through to calculate water rates. I would hope that following this portion of Ms. Lingo's presentation, you will see that the rate design process is not simply a rote mathematical procedure, but rather is a reasoned process that includes a good portion of professional judgment to design rates that are appropriate for the particular utility in question.

In the fifth and final portion of the workshop, Ms. Lingo will describe how repression adjustments are made. Repression adjustments are important because they are the mechanism through which the effects of conservation rates are factored into the final rates that we recommend to you.

Unless you have any questions, Commissioners, we can now turn the workshop over to Mr. Willis.

CHAIRMAN EDGAR: Okay. Mr. Willis, before you begin,

I meant to say a few minutes ago, we do want to keep this informal. We want this to be useful to everybody. So if you've got questions, comments, want further discussion on an item, I'm going to say just jump right in. Okay.

Mr. Willis.

MR. WILLIS: Thank you, Chairman.

Chairman, Commissioners, I get the pleasure of kicking off the presentation today. I've been asked to give a broad overview of the components that go into the revenue requirement calculation. It's the basis for the rate design itself.

To start with, I have thrown up a basic formula. The basic formula for calculating a revenue requirement is simply the calculation of rate base times the rate of return, and that amount added to the operating expenses, and that is going to give you the revenue requirement. And what I'm going to do is just run through the components themselves, starting with the basic component to me, or one of the most important aspects, which is the use of the test year concept.

You'll see in all the cases that we bring before you that we use what is called a test year. A test year is a 12-month period of time. The test year itself can be historic, it can be projected. The determination of whether it is historic or projected depends on how you are trying to use that test year and when the rates are going to go into effect. It

depends on --

CHAIRMAN EDGAR: Marshall, I'm sorry, can I stop you for a minute. Mike, I think I may have -- I'm sorry, I think I may have the same question, a technical question, a technology question. Can we get the slides here or in front of us?

(Off the record.)

CHAIRMAN EDGAR: All right, Marshall. Thank you.

MR. WILLIS: The concept of what test year you use, whether it is historic or projected, is all the same. It depends upon the issues that are involved, whether they be growth factors, addition to plant. The concept of the test year is very important to me, because you are trying to design rates for when those rates will go into effect. It's not designing rates for a year past, but for the future in all cases.

First, starting with rate base, I'm just going to run down all the components and just give you a broad subscription of what is there and highlight some of the issues you might see in the future. First is utility plant in service. Utility plant in service includes all plant facilities that a utility owns, whether it be the treatment plants, infrastructure, and your general administrative plant, trucks, vehicles. It also includes an acquisition adjustment on occasion.

Just to explain what an acquisition adjustment is, it is when the utility purchases another utility company, and in

that purchase they purchase it for either less than or more than rate base. If they purchase it for less than, the amount that you're going to see included in rate base is going to be a positive number. If they purchase it for less than, and the Commission approves a negative adjustment, then you will see a negative amount, a reduction of rate base for that acquisition adjustment. The Commission currently has a rule on acquisition adjustments. It was adopted three years ago, I believe, right around that time, which basically outlines how acquisition adjustments are calculated and when they are to be included.

The next component is non-used and useful. Now, that is something you're going to see in every water and wastewater rate case. The Commission is obligated by statute to only include the amount of plant in service which is actually used and useful to current customers. And the statute also outlines that when you do that you have to include a projection of five years past the test year that is used in the case. And that test year is done based on customer growth, and that growth factor cannot exceed more than five percent a year, or 25 percent in total.

The statute also goes a little further and it outlines other components that the Commission is not allowed to do used and useful on at all. The statute outlines that if there are items that they call environmental compliance costs, and the statute identifies environmental compliance costs as

costs that are mandated by a state agency, in essence. If the Department of Environmental Protection comes in and requires a new and better treatment process, and requires the company to build that, that asset has to be 100 percent used and useful, and the expenses for running that asset have to be 100 percent used and useful included in rates by the Commission.

It also requires that all --

CHAIRMAN EDGAR: Marshall. Commissioner Carter.

MR. WILLIS: Commissioner Carter.

COMMISSIONER CARTER: What you were saying about if it is purchased for less than the rate base, then the company making the purchase, then they are allowed to recapture that through the prices that they charge to the customers?

MR. WILLIS: Yes. When I was talking about the acquisition adjustment and purchased less than rate base --

COMMISSIONER CARTER: Right.

MR. WILLIS: -- if the Commission deems it appropriate, and there were valid reasons that the Commission wants to approve a negative acquisition adjustment, by doing that you are not really allowing them to recover rate base at that point. You're allowing them to recover rate base less the amount that is representative of the difference between the purchased price and rate base.

In other words, in my example, if they purchased this utility company and the rate base was $42,000, but they

actually paid, say, $40,000, there is a $2,000 difference there. If the Commission deemed it wise to actually say we are going to go ahead and we are going to approve a negative acquisition adjustment because the plant that you purchased, really, the value is only 40,000, not 42,000, there would be an actual adjustment shown in the rate base to lower that amount to 40,000. It would be shown as an acquisition adjustment, a negative acquisition adjustment there.

Now, there are other occasions where the Commission would look at a company's purchase and say this was a purchase which was in the customers' benefit. And because of that, we may recognize a positive acquisition adjustment. And instead of recognizing the 42, you include a positive adjustment to maybe make it 45 or 50,000. It can go both ways, depending on the purchase itself.

COMMISSIONER CARTER: Okay.

MR. WILLIS: Back to the used and useful. The last part I want to talk about, the used and useful aspect, is the statute has one more requirement that says any reuse facilities to take wastewater and treat it for reuse purposes, those facilities themselves are 100 percent used and useful, and there shall not be a used and useful adjustment made to those.

So, basically, the statute dictates a lot about how the Commission has to treat used and useful. Used and useful itself, we are going to be drafting, hopefully by the end of

this year, rules which will be proposing to codify what the Commission has been doing in the last two to three years on used and useful, and hopefully that will be before you before the year is out.

The next thing, the next component of rate base deals with contributions in aid of construction, it's a term we call CIAC. Contributions in the water industry are a lot more material than you will see in other industries as far as rate base. You might see that electric companies collect more, but that is because of their size. But the materiality I'm talking about is the ratio of contributions to the total rate base. In my example here I have thrown in that $40,000, this utility would have $40,000 of contributions compared to a plant of 100,000, or a 40 percent contribution level.

You're going to see a lot of that, because a lot of developers of water systems and developments of territories to expand into like to keep the water and wastewater rates low. And that is one form that the water industry and wastewater industries has used since I have been involved in it to try and achieve that, to keep rates low to its customers. That is one of the reasons you will actually see contributions in rate base itself. In other industries you will not see this terminology because it is booked net of contributions, especially in the electric industry.

The next component is accumulated amortization.

Accumulated amortization is just like accumulated depreciation, but it is in the opposite direction. You want to write off the contributions at the same rate you are writing off the assets of the company. Because when the assets that these contributions relate to expire their useful life, you want the contributions to be gone also before that next replacement comes on.

Working capital is normally the last component of rate base. And working capital itself is nothing more than the funds needed by a company to meet its daily obligations, the operating expenses of the company on a daily basis. It's something they have to invest in, and it's something we include in rate base. And, of course, that is going to give you your bottom line rate base, or the company's investment. That is what they are entitled to earn a rate of return on.

And that brings us to the next slide. Mike.

COMMISSIONER ARRIAGA: Mr. Willis, in one of the cases I saw last year, there was a -- and I can call it regulatory asset, and it was transferred from one company to another. And I don't remember exactly -- how does a regulatory asset come into place? Is that part of the rate base?

MR. WILLIS: Yes, sir. A regulatory asset can only be created by the Commission. If a utility has something that they wish to write off over a longer period of time, an example -- and Florida Water, which is the one you are talking

about, really isn't one that is a really good example, but rate case expense is an example of a regulatory asset. In every case the Commission looks at the amount of rate case expense that is to be passed on by the Commission. They do that by not allowing it all in one year. The statute actually provides that it be done over a four-year time frame. So the Commission, by issuance of an order, establishes a regulatory asset that is written off over four years. And once it's written off, it's gone. But the only way a company can get recovery of something like that over time is by coming to the Commission and requesting the establishment of a regulatory asset.

In real life, if a company is doing this as far as normal accounting prescriptions, they are normally required to write it off in one year. If you have abandonment of a facility that you are having to do an early abandonment on, that is another example. You have a loss on that abandonment, you can come to the Commission as a company and say this is beyond my control, I'm now under new standards, and I had to abandon this facility and build a brand new one. There is a loss. I would like to recover this over a period of time. And if the Commission agrees, they create a regulatory asset, which is then amortized off over that period. And so much of that amortization would flow through the income statement each year.

If you are doing that for financial purposes,

financial reporting, if you are not following what we call FASB 71, which allows utilities to do these regulatory assets, you would have to write that off in one year. That is the big difference between the financial reporting and reporting to the Commission following FASB 71 which allows these type of transactions to be set up.

Does that answer your question, Commissioner?

COMMISSIONER ARRIAGA: Yes. Thank you.

MR. WILLIS: In the next slide I talk about the rate of return and how that is calculated. We call it cost of capital. What I have tried to show here is -- not to make this slide too busy, but I tried to show how normal capital structure is calculated and the type of components you are going to see. You are going to see that all the different types of things that -- the instruments that a company uses to invest in its plant are included in the cost of capital and that is going to include your long-term debt, short-term debt, preferred stock, which in this case I showed there wasn't any. You are going to have the actual equity investment of the company that is included.

You will have a component called deferred income taxes. And deferred income taxes are a component that arises because of the difference between, for instance, regulatory accounting and your normal accounting. You are usually going to see deferred tax as a result of accelerated depreciation for

tax purposes versus your straight line depreciation for regulatory purposes. And it creates a timing difference in your income taxes, and that is what is reflected here, is that amount of timing difference.

The next item will be customer deposits. That's the amount of customer deposits the company is actually holding, and we require by rule what that cost rate is going to be for those customer deposits. When you get down to the bottom line, the 42,000, you're going to see that is exactly equated to the company's investment in rate base. These components make up how the investment has been made over the years, or actually for the test year that we are looking at, because everything is done for that 12-year or 12-month period of time, that test year concept.

That third column there shows the actual weight of each component, which actually makes up to 100 percent. The second to the last column you will see in all of our recommendations will reflect the cost rate that has been assigned to those components.

Long-term debt. Normally in water and wastewater companies you are going to see that our companies are able to get one percent to two percent above prime, that is the normal amount that you will see for water and wastewater companies. Usually in cases you'll see a lower rate when they have a parent company who is able to go out and get a better debt

cost.

Equity. Equity cost is determined by what we call our equity leverage graph. By statute, we are required, the Commission is required once a year, and it usually happens in May, are required to establish a return on equity leverage graph, we call it, in which there is a minimum return on equity and a maximum return on equity which is based on a simple calculation, and it's based upon your equity-to-debt ratio. And all you have to do is apply your equity-to-debt ratio, plug it into the calculation, and it is going to produce the return on equity that the Commission would at that point allow.

I would point out that the company, if they don't like what the equity leverage graph produces by statute, can actually come forward with their own witnesses in a rate case and present their own cost of capital experts, but that has rarely happened in our industry.

Most companies actually do prefer this method because it simplifies the cost. The financial experts are pretty expensive for a water and wastewater company to hire, and that is one of the reasons that the legislature went with this idea.

Customer deposits, the 6 percent. That's the current rate that our rules require a company pay. The last column is nothing more than the weighted cost by applying the weighted amount times the cost rate produces a weighted cost. When you add that up, the 8.1 percent in this case would be the rate of

return that you are going to multiply the company's investment or rate base by, and that is how you get that component in the formula. If you will go to the next slide, Mike.

The last component of operating expenses is the income statement. You start out with the operating maintenance expenses. That covers a wide range of expenses. It's going to cover your payroll costs, it's going to cover your testing requirements, your power bills, your chemical bills, outside consultants, your billing, meter reading costs, and it's going to cover that one component of rate case expense.

Rate case expense I'll just dwell on for a minute because it is a component you are going to see in every case, and in many cases it's controversial. It's controversial because in water and wastewater it can mean a large component of the customer's bill. The Commission in the past, as I indicated before, has made every attempt to lower the cost toward a company filing a rate case. They have gone to the leverage equity graph. We have had indexing and pass-through provisions implemented.

We've tried to simplify filing. We have done a lot of things in the past to try and simplify things for the industry to make it cheaper to file these cases, but these costs keep piling up, and it's something that you will see that you will have to make a decision on in every rate case as to what is the prudent amount of rate case expense to be recovered

for a company to file a case before you.

The next thing would be depreciation. Depreciation is nothing more than the annual amount that the utility is allowed to recover of their assets, their utility plant in service. That for the water and wastewater industry is done by rule. We have guideline lives that actually we review often to assure that they are up to date. And if they're not, we'll come forward with rule revisions, but these are all by rule. And the company has to do nothing more than look at our rules, look at the account they are depreciating and the amortization rates are given. It's pretty standard now.

The amortization amount that is shown here would be for things such as your acquisition adjustments. This would be either a positive or negative amount, depending on whether it's a positive or negative acquisition adjustment. Or it could be for regulatory assets, amortization of those assets.

The taxes other than income is going to be for your regulatory assessment fees. It is going to be for your intangible property taxes, your ad valorem taxes. I would point out here is something you might see in a rate case. If you do several of these during the year, you may see that one company's intangible, their ad valorem taxes were a lot higher than another company of a similar size. And if they are in different counties, there is sometimes a good reason for that, because some counties in Florida will actually tax contributed

property, where other counties consider that not to be taxable. And that is one of the big reasons you will see a much higher, besides the ad valorem rate, but you will see that causes differences in the amount to be collected by a company through their income statement.

Income taxes. If a company actually has no loss carry forwards, you will have to include income taxes. Of course that is federal rate. And in our companies you are going to see it is a little different because we have to go through the actual different rates for income taxes, because we do have a lot of very small companies who will have to go through the tiers before they get to the maximum corporate tax rate.

We only allow income taxes for 1120 corporations. At this point the Commission has made that determination. In the past they do not allow it for sole proprietorships, they don't allow it for partnerships, and that is basically because there is only one level of taxation there. The Commission has decided in the past that only corporations, not your Subchapter S Corporations, but only your 1120 corporations receive income taxes because of the double layer of taxation that is received, once as a company and once as a stockholder.

And when you add all of that up, you get down to the bottom line of the operating expenses, and that takes me to the next slide. We're back to the calculation. And at this point,

all you have to do is plug in those bottom-line components. You get your rate base of 42,000 in this case, times your rate of return of 8.1 percent, which produces your return, which is going to be included. Now, that is your net operating income. It's not your income. It's your net operating income before interest and everything else.

In this case it is $3,402. You add your operating expenses to that, and you get your bottom-line revenue requirement of 109,000. And that 109,000 is the basis that our rate people use to design rates. And at that point I'm going to shift it over to Ms. Lingo, who is going to tell you how she comes up with those base facility charges, gallonage charges.

COMMISSIONER ARRIAGA: One second, please. Go ahead. You're going to do it?

CHAIRMAN EDGAR: I was going to say, any questions before we move on?

COMMISSIONER ARRIAGA: Thank you. I took your word about being informal. That is why I'm jumping in.

COMMISSIONER EDGAR: Please. Absolutely. Go right ahead.

COMMISSIONER ARRIAGA: But if you prefer I can always go to you.

CHAIRMAN EDGAR: Go.

COMMISSIONER ARRIAGA: Thank you.

Please go back a little bit to the calculation of

equity, how you came up with that 11.7 percent on equity, the cost of equity.

MR. WILLIS: Yes.

COMMISSIONER ARRIAGA: Would you repeat, again, how you calculate that number.

MR. WILLIS: The 8.1 percent?

COMMISSIONER ARRIAGA: No, the 11.7 percent, the cost of equity.

MR. WILLIS: The 11.7 percent is derived from our equity leverage graph, and I wish I would have had a little more time --

COMMISSIONER ARRIAGA: Equity leverage graph?

MR. WILLIS: Yes. The equity leverage graph is the actual recommendation that you are going to approve sometime around May. It has to be done annually by statute. And what that does is actually set a range of return on equity, and it is usually capped at 40 percent on the high end as far as equity/debt rate structure goes.

The high end, you know, the more heavily weighted you are as far as debt, the higher your return is going to be. The more equity you have, the lower your return is going to be. That is the way the equity leverage graph works. It's designed so that companies don't really have to put forth experts and come forward to the Commission to ask for what kind of rate of return they ask. All they have to do is take that formula that

you will be looking at sometime in May, and apply their equity/debt ratio to that formula, and it will produce either the 11.7 percent or something much lower.

For this company it's 11.7 based on the equity leverage graph, and that was done by memory last night when I put this together. So it actually might be higher or lower. If you had a much higher equity ratio, such as this company may have been 100 percent equity, this would have produced something much lower around the 8 percent range as far as the return on equity using the equity leverage graph. I will be happy to talk to you about that later. I can actually show you the order that came out last year and how that's supplied.

COMMISSIONER ARRIAGA: My confusion comes from the more equity you have the less return. It shouldn't be the other way around? The more I invest the more I should make money on?

MR. WILLIS: Well, you actually will. The more you invest, the less risk you have. The more in debt you are, the more risk there is that you won't meet those debt obligations, especially in the water and wastewater industry. And that's how the sliding returns work in the industry.

COMMISSIONER ARRIAGA: Thanks.

MR. WILLIS: Uh-huh.

MR. STALLCUP: Thank you, Mr. Willis. If it's your pleasure, at this point we could either proceed directly to the

comments from the water management districts, or we could shift to Ms. Lingo to discuss some of the basics of the ratemaking process.

As you know, we kind of inserted here at the last minute the basics of the ratemaking process. Ms. Lingo is prepared to discuss the basics of that process either as part of her presentation or as part of, or following the water management districts. It would be your pleasure.

CHAIRMAN EDGAR: Commissioners, is there a preference?

COMMISSIONER ARRIAGA: (Inaudible.)

CHAIRMAN EDGAR: Okay. All right, then we would like to hear from our friends with the water management districts.

Thank you.

MR. JENKINS: Good morning, Commissioners. As Paul said, my name is Dwight Jenkins, and I am the Director of Water Use Regulation for the St. Johns River Water Management District. It is my pleasure to be here and be able to participate in this workshop this morning. When Jennie called me up and asked me if I would be willing to participate in this workshop, I very eagerly accepted. And while I understand that my primary goal here is to convey the information that your Staff directed me to do regarding the water management district's concerns/role when it comes to conservation rate structures, I will very willingly admit to you that I have an

alternative motive for being here today, and that alternative motive is very self-serving, and that is to convey to you how valuable and necessary we feel it is, the assistance that's provided by your Staff and the very good relationship we feel we have with the PSC in achieving our water conservations goals.

I have held my position with the district for close to ten years. And when I started in my position as the Director of Water Use Regulation, one of my first goals was to contact your Staff and to start to achieve what I felt was a heightened relationship with them so that we could coordinate more together to achieve the water conservation goals that are a critical part of the water management district mission.

I will take a moment to commend, if I may, your Staff too, in that relationship that we have had over the last ten years. In my dealings with other agencies, other groups, I have seldom had such a good and easily developed relationship that I feel that we have had with your Staff. They have always been extremely eager to assist us and to help us in whatever means it is that we need. So I would like to say thank you very much for the last ten years of assistance that we have had, and to convey that I sure hope we can continue to have this excellent relationship, because I think it is extremely valuable and it has been a great assistance to us.

And with that little opening, I'll jump right into my

presentation. I want to give an overview from the water management district perspective as to why we feel that this relationship is so important, and our concern with rate setting, which really comes down to conservation rate structuring, if I could have the next slide.

Just to start out, I'll give you a brief overview of the water management districts. There are five water management districts within the State of Florida, and they are shown here on this overhead. The green one is the one that I am involved with, and I'm going to try to keep my comments as generic as possible to all five. Even though we all have our only little uniqueness and peculiarities when it comes to dealing with this issue, we have many more similarities, so I think my comments can be said to apply pretty much to all five water management districts.

We were created by the Florida Water Resources Act of 1972, and we are agencies of the state. We are not state agencies, we are agencies of the state. We get our primary source of revenue from ad valorem taxes, and I could go ahead and go to the next slide. Here is the district mission shown. There are four primary goals, which are water supply, surface water resource protection, flood protection, and then organizational effectiveness. I'm going to focus today on just one of those missions, which is our water supply mission.

Our water supply mission can be summed up that it is

to implement a regional strategy to provide sufficient water for users and the environment. And that mission, those goals are often contradictory in nature. We are placed in a situation where we are -- that our goal is to provide sufficient water for all the users within the State of Florida, but at the same time we are trying to preserve and protect water resources to ensure that there is no environmental harm involved with it.

And, the primary ways that we try to achieve this mission is shown in the second bullet here, through our water supply planning efforts, through alternative water supply cost share programs, through water use regulation, and that's primarily consumptive use or water use permitting and water well construction regulation, and then finally through water resource acquisition. We acquire lands that have very beneficial recharge aspects or otherwise have environmentally important water type resources, things like wetlands and such on them.

When it comes to conservation rate structuring, the role of that is in our regulatory program, which is primarily in our water use or consumptive use permitting program, so I thought I would give you a real quick introduction to that. I know I'm whipping through some of this information very quickly. Feel free to ask questions if you have them.

The water management districts' consumptive use

permitting programs come originally from a document that is known as the Model Water Code, which is a document that was produced by the University of Florida in the early 1970s. If you ever want to get probably more than you really want, an understanding of Florida's water management history, I would recommend that you get a copy of this and read it. Because it was an academic exercise that was done by the University of Florida by the College of Law there, whose goal was to take all the best stuff of western water law, all the best stuff of eastern water law, and come up with an administrative structure for managing water.

And if you look at Florida's water management structure, it very closely follows what was developed in the model water codes. And the Model Water Code is actually the Model Water Code with commentary, so it has a lot of explanation about why they chose this or why they chose that. It is an excellent source for sort of getting at the heart of how we do what we do today.

Our water use regulatory programs actually come -- primarily the consumptive use permitting program comes from Part II of Chapter 373, Florida Statutes, which is the Florida Water Resources Act. And implementation of consumptive use permitting is actually required by Florida Statutes. In our districts we implemented the program in 1977, and all the rules governing consumptive use permitting in the state are in Title

40 of the Florida Administrative Code. For the St. Johns River Water Management District it is Title 40C. But they are basically A through E, are the various titles for all the water management districts.

And then, finally, all the water management districts have -- almost all the water management districts have what we call a bases of review, or applicant's handbook, which is supposed to be the more user friendly guide to the permitting.

The purpose of the consumptive use permitting is shown here. The governing board or the department, it refers to the Department of Environmental Protection, they require such permits for consumptive use of water, and they impose such reasonable conditions as are necessary to assure that such use is consistent with the overall objectives of the district or department, and is not harmful to the water resources of the area. If you look at the second bullet here, to make it a little bit clearer, the basic goal in the consumptive use permitting program is to allocate water to meet all reasonable beneficial needs while protecting and ensuring sustainability of water resources and natural systems. And that goes back to our water supply mission, is we are supposed to be able to allocate water to meet people's water needs, entities' water needs, but at the same time we have to ensure that the environment water-related resources are protected.

I'm not going to spend much time on this. If you

look at how we regulate water use within the water management districts, it is actually a very comprehensive regulatory program. And we have very well-defined, very comprehensive evaluation criteria. We generally refer to this criteria in the state as the three-pronged test. And the three-pronged test is that it has to be a reasonable beneficial use. Reasonable beneficial use is a term of art that is defined in Chapter 373. Ninety percent or more of all of our criteria is contained within that reasonable beneficial use prong of the three-pronged test.

The second prong is that it cannot interfere with existing legal uses of water. And then finally it has to be consistent with the public interest. I'm going to focus in on the reasonable beneficial use prong, and you will see a list of criteria that we apply there. The one that is of concern today is what I have highlighted here in red, which is conservation. And that criteria in our rules is where water conserving rate structures basically comes in. That is sort of getting to the meat of the matter.

If you look at our conservation criteria, it requires that all available water conservation measures be implemented unless an applicant comes to us and demonstrates that implementation is not economically, environmentally, or technically feasible. What we have seen in practice is that when it comes to water conservation, it generally doesn't have

environmental concerns, and just about anything is technologically feasible, it all comes down to a matter of economics, whether it economically feasible.

We issue permits for -- or our regulatory structure covers all water use. We have chose to exempt -- all the water management districts have chosen to exempt some types of uses from regulation. Florida Statute exempts one type of water use, which is self-supplied indoor domestic use. But pretty much our regulatory structures cover all water use within the state.

If you look specifically at the regulation of public water supplies, which I think is the water user that would be of primary interest to you, our rules set forth very specific conservation requirements that are designed to achieve what is shown in our -- what I just went over in the first bullet. And one of the requirements that we have for utilities is that an applicant must submit a written proposal and implement a water conservation promoting rate structure, again, unless the applicant demonstrates it is not justified or it is not feasible either technologically, environmentally, or economically, or if they show that the rate structure is not justified because it just won't have any affect on achieving conservation. In looking at the conservation promoting rate structures that are submitted to us, we consider customer demographics, the potential for effectiveness, appropriateness

to particular circumstances, and certain other relevant factors.

Information sources that we look at. We rely very heavily on your staff and the information they can provide us when it comes to service area statistics, demographics, and a lot of the information we get specifically from your staff when it comes to, like, the economics of the utility and such like that. We have a lot of studies and reports that have been developed in-house, and I think Jay may be talking about some of these that go to the effectiveness of conserving rate structures, what type of structures will achieve the greatest conservation benefit, things like that. Of course, we have a lot of information provided by the applicant, and we have other sources. One of the primary sources is DEP data regarding water use.

Acceptable rate structures to at least the St. Johns River Water Management District, and I'm not sure if this is the same throughout all the districts, we don't require any one type of structure. We are flexible and open to being convinced that any type of structure will adequately promote water conservation. Structures that we have accepted and allowed in the past are multiple-tiered type structures, three, four, or five-tiered type structures, seasonal surcharge structures. I don't know if these are the same terms that your staff use with you. These are the way we generally refer to them.

Single-tiered structures are allowed if sufficient gallonage rate. If you have a structure that has basically from zero on, a gallonage rate of five or six dollars per thousand gallons, we consider that to be a conservation-promoting rate structure and we would allow that.

One of the key points that I want to make today, and I think this is one of the reasons that there is a need for coordination between the water management districts and the PSC, is the fact that under our authority what we look at is the structure. We don't set specific rates. We don't evaluate the financial impact it's going have on the utility. All that stuff is outside of our purview.

What we look at, we really have a very narrow concern, and that narrow concern is that do you have a rate structure that will promote water conservation. And so all the concerns that the PSC does have with how is it going to affect earnings, and things like that, are things that we just don't look at.

Well, the final thing here is -- and I will talk about that in a minute -- is there is a memorandum of understanding between the water management districts and the PSC that we have that allow us to work together with your staff and with you to address these financial earning concerns, which are the concerns of the PSC. I mean, you know that much better than I do. At the same time, while your staff and you are

working to meet your needs, it allows you to coordinate with us to help us achieve our goal, which we just couldn't do. Before there was that relationship, what we would see is that we would require that a utility develop a water-conserving rate structure, and then as a condition of their consumptive use permit, we would say they have to implement it.

Those utilities, if they are PSC-regulated, would then come to the PSC. And then many times, due to limitations that you have, or just the fact that there wasn't coordination between the agencies, that they would get direction in their PSC dealings that they couldn't do, what we are mandating to do on their permit. In the past, we saw that these utilities were often caught in sort of a Catch-22 between us and the PSC.

Through our coordination efforts, we have seen that we have been able to deal with a lot of the problems that could develop in that. And, at the same time, the PSC has helped us deal with utilities that are particularly problematic when it comes to being inefficient and wasteful when it comes to water use.

Besides just water conservation, also I wanted to mention when it comes to implementation of reclaimed water that is a big goal of the water management districts is to get the maximum implementation of reuse, reclaimed water possible. And, that often is an issue tied very much to the finance and economics of the utility. And we have found that our

coordination relationship with the PSC has been extremely helpful when it comes to getting utilities to commit and actually implement reuse projects, so it's key part of this. It is sort of outside of rate structuring, but I just wanted to mention that.

COMMISSIONER DEASON: I have a question for you before you leave this slide.

MR. JENKINS: Sure.

COMMISSIONER DEASON: Under the single-tiered structure, as an acceptable rate structure you indicate that there needs to be a sufficient gallonage rate, and you mentioned five to six dollars per thousand gallons. Is that something that is in rule, or is that just a rule of thumb, or is it case-by-case, the five to six dollars?

MR. JENKINS: The five to six was just an example. It is not in our rules. Actually our rules do not set forth details as to the structures themselves. Our rules are fairly qualitative and narrative in nature, and I don't know if you can jump back to that slide, but if you recall the slide that -- yes, this is pretty much the detail that is set forth within our rules.

The next one, actually if you would, please. This one.

They have to submit one, and we have a lot of discretion, a lot of leeway when it comes to what we will

accept or not. When I threw out the five or six dollars per thousand gallons, I meant that to just be an example. It could be actually less and still be a conserving rate structure that we would accept. Our goal in -- when we look at the conservation rate structures, what we want is a rate structure that is designed to send a price incentive to have water users cut back on discretionary water use. And Jay can go into this in much more detail than I can, but the key is that if you look at the larger water users that are generally the ones that have the more discretionary water use, we want the structure to be such that it will really just encourage them to cut back on that discretionary water use.

At the same time, we try to maintain equity and fairness among utilities within a region. So we are not going to -- we have to consider what current charges are in a region, and how other utilities and their charges are going to relate to others. You know, we are not going to require a utility to charge three or four times for water what other similar utilities in the area are. And that can get difficult, because a lot of them are government utilities, some of them are PSC-regulated utilities.

But with a single -- when it comes to the single-tiered type structure, we want it to be high enough that -- we don't want it to be 30 cents per thousand gallons, or 50 cents per thousand gallons, but we want it to be at a

level that if there are tiered rate structures in the area, that it would be at the upper tier. At least consistent or similar to upper tiered in tier rate structures, that is sort of the way we look at.

I can tell you, it's not a black and white evaluation for us. It is a lot more qualitative. And we have to consider a lot of factors in the area when making that decision. We can jump back to the MOU.

COMMISSIONER ARRIAGA: Would you go back to that one a minute, please, to the last one?

Can you give me a quick example of a case where a utility or an applicant demonstrates that the cost of implementing such a rate structure is not justified because it will have little or no affect on reducing water use. To me the more expensive the water, the less I'm going to use it.

MR. JENKINS: I have to tell you, I don't think we have ever had that case. It is in the rule to allow an out if a utility could come and make that demonstration, but, to my knowledge, we have never had a utility attempt even to make that demonstration. And Jay can talk more about this, too. There has been a lot of studies done in the state as to the effectiveness of conservation rate structures, and our experience has been that they are very effective. That is actually one of the comments that I wanted to make.

If you look at the tool box that the water management

districts have, the tools we have available in achieving water conservation, conservation rate structures are only one tool. I mean, we have public education, and there's all sorts of things we have. But conservation rate structures is one of our more valuable tools, because it is the tool we can apply to a sector of the water-using public that we can't get with our other tools.

As a government agency, we prefer to use what I would call the kinder, gentler approach. We want to use public education and encouragement to get water users to conserve water, and we have found that to be very effective. Most water users do want to do that. But there are a percentage, a sector of water users that we sometimes refer to internally as scofflaws, that the kinder, gentler education approach doesn't work. And so we have to use other regulatory tools to get them to conserve water. And we found that the conserving rate structures is the main tool.

If you looked at the portion of people that public education doesn't work on, there is a small percentage of that sector that even conservation rate structures won't work on. They just don't care. They are going to pay for the water because they want it. But that is a very small percentage of those water users. The vast majority will respond to an economic incentive to conserve, and we have seen it to be an extremely valuable tool because of that.

Just to mention the memorandum of understanding. This is a memo between the PSC and all five water districts. It was effective in 1991. And I think pretty much what I have talked about here today is set forth in the MOU. Parties recognize that it is in the public interest that we engage in a joint goal to ensure efficient and conservative utilization of water resources, and that joint cooperative effort is necessary to implement an effective statewide water conservation policy.

And, again, not to belabor the point, but in the ten years that I have been involved in it, the cooperative effort has achieved what I would consider to be extraordinary results that we have seen in dealing with some real problematic utilities. And very much similar type of stuff is, you know, to foster conservation and reduction of withdrawal through measures that include employment of conservation rate structures.

A comment I want to make is that the cooperation goes both ways. Although I feel sometimes that we are getting the bigger bang for the buck, we are also always willing to assist your staff and you anyway that we possibly can in helping you achieve your goals, too.

The final thing I wanted to say, and then I will be done, is that the goal of water conservation has always been a major part of the water management district mission, but we are seeing today that that goal is becoming much more important

than it has been in the past. Through our regional water supply planning efforts, we have identified that we are getting very near the limit of available ground water to meet demand. The water management districts, some of them have different names for them, but we have all identified areas within our district that are what we call water resource caution areas, or in our district, our entire district is a water resource caution area, and we have identified other areas, subareas as priority water resource caution areas. These are areas that we have identified ground water will not be adequate to supply demand for the next 20 years. In many cases, we are almost at that limit right now or we are past that limit right now.

We are at a point now in the history of water use in the state where we are having to develop alternative water supplies. We have always relied on good old potable Floridan ground water and Biscayne ground water to meet our potable water demands. Well, we are having to look at more expensive alternatives now, things like surface water, seawater desalination, brackish brown water desalination, things like that. And in order to extend the amount of time we have to develop and build these alternative water supplies as well as help keep the cost down by extending the ability of potable ground water to meet demands, we have found that water conservation is becoming even more critical a tool.

It is such a critical tool to our district that we

very recently adopted two-day-a-week watering restrictions as mandatory throughout our whole district. That was a big step for us. The Southwest Florida Water Management District already has them. South Florida does to some extent, too. But we are starting to implement more and more regulations to help deal with this issue of development of alternative water supplies.

Well, conservation is a very important tool for us to achieve these goals. I wanted to point that out. And we are going to see it becoming even more and more important. So the issue of achieving water conservation through implementation of conserving rate structures is something that we are actually going to be looking at even more and more in the future. I anticipate we will probably have more rigorous requirements for implementation of those type of structures.

That's pretty much it for my presentation. I will be glad to answer any questions. Again, I would like to sort of complete by saying that I will feel that our relationship has been extremely valuable in achieving the goals of water conservation. I don't think we would be able to do it nearly to the extent that we have without the assistance of the PSC, so I would like to convey the desire that I sure hope we can continue to have that coordination, because I think it is to the public's interest, and it definitely goes far to help us with Florida water resource management.

Thank you very much.

CHAIRMAN EDGAR: Mr. Jenkins, thank you.

As a former DEP employee, it's music to my ears to hear some of the things that you are saying. And, of course, I know it is to all of us to hear how favorable, in your opinion, the goals of our different agencies are coordinated and are working together. So, thank you.

Commissioners, comments, questions, before we move on?

COMMISSIONER ARRIAGA: I want to thank you so much for the comments about the staff and the good relationship you have with the Commission. We will do our best to keep it going that way.

MR. JENKINS: Thank you.

COMMISSIONER ARRIAGA: And we, I think -- Mr. Willis correct me if I'm wrong, we are a small player, the PSC, in regulating the state. I think the counties have a much more important role in this. Does the same thing apply to counties as far as rate structures and regulations and relationship and all of that?

MR. JENKINS: Yes, it does. Our requirements when it comes to conservation rate structures apply to all water users within our district. We have our different battles that we fight when it comes to the governmental utilities, but we apply our rules the same way, and we look for pretty much the same

type of conservation rate structures, be it a government utility, be it a private utility.

COMMISSIONER ARRIAGA: And, there are times when there is overlapping of counties that they may want to use the same water resource. How do you work that out? County A wants to permit something, but wants to use the water that is under ground in County B.

MR. JENKINS: Those issues are -- that is an issue of great concern to the water management districts. And to deal with that, we have implemented what we call facilitated decision-making processes. It is mainly dealt with through our water supply planning efforts. One of our goals is to not have competition among users. Because generally when you have competition you end up with litigation, which doesn't help anybody, a long expensive process. So through our water supply planning programs, we work with all the water users, primarily utilities in a region, and try to get them to work together to come up with regional strategies for water resource development.

In our district we have major ones going on in the Lake County area, the Central Florida area, Volusia County area, and until recently up into the Jacksonville area. And the goal is really to let's all work together and come up with an agreed-upon process for going forward, you know, in developing Florida water resources, bringing on alternative

water supplies.

Unfortunately, we can't prevent a utility from making an end run and coming in and requesting a permit. And we have had that happen. But it generally doesn't work to anybody's benefit, because every other utility is very quick to petition for an administrative hearing and we end up in litigation.

But we have actually found that our facilitated decision-making processes are very effective. We have one major alternative water supply project, the Taylor Creek project down in Central Florida right now, which is the result of -- it is a development of St. Johns River surface water. It is the development of one of these processes, the outcome of it, so that is what we try to do.

COMMISSIONER ARRIAGA: Thank you.

COMMISSIONER CARTER: Madam Chair, you have mentioned briefly desalination. Do we do a lot of that in Florida, a lot of desalination plants throughout the districts?

MR. JENKINS: We do a lot. I would say there is probably 100 to 200 desalination facilities in the state. But most of those facilities desalt brackish ground water. We have a lot of ground water in the state that is not potable, but it is only barely not potable. And it is very easy to withdraw that water and through, like, a reverse osmosis type process to desalt that water and use it.

Since it is so very pure, even though it's

nonpotable, it is a low-cost process. What we are seeing is unfortunately a lot of those resources are coming close to be tapped out, if you would, and now we have more entities that are considering seawater desalination. But the only facility right now that does that, of course, is the Tampa Bay facility. A lot more expensive process, a lot bigger construction. So it is being considered. We have several areas in our district that are being considered for seawater desalination collocated with power facilities.

It is probably the most expensive alternative there is. So everybody is looking at surface water options and other options like that before seawater desalination. I think it will come, though, it is just going to be a few more years.

COMMISSIONER CARTER: Thank you, Madam Chairman.

CHAIRMAN EDGAR: Commissioners, we did have a short break planned on the agenda here. I kind of have a preference to keep moving, unless there is a need for a stretch. Okay. Let's move right ahead.

MR. STALLCUP: Thank you, Madam Chairman. Next on the agenda is the first component of Ms. Lingo's presentation where she will discuss basic water ratemaking concepts, and then also provide a history of water conserving rate structures the Commission has approved to date.

MS. LINGO: Good morning, Commissioners. Jennie Lingo for staff. Before I actually get started with the

history of the conservation rates as you have approved them here at the agency, I think it would be helpful for you -- Mr. Jenkins has given a broad overview of water supply problems in general, and he pointed to specific water supply concerns in his district. And before we move on to my presentation, I think it might be helpful for you to see where other water resource caution areas in the state exist. So Ms. Angela Chelette with the Northwest Florida Water Management District would like to discuss the maps that are labeled 1A and 1B.

MS. CHELETTE: Good morning. I am glad to be here this morning.

Unlike St. Johns, we have not in Northwest Florida quite reached the critical juncture where we have made the entire district a water resource caution area. We do have two in the state, one that stretches along the coastal areas of Okaloosa, Santa Rosa, and Walton Counties. Everything basically south of Eglin there and south of Highway 20. We have another in Gadsden County that is primarily associated with the surface water use, but also extends to ground water because of the source availability.

While these are the only two areas currently a water resource caution area, we do have some areas of further concern along the coast. We are looking at, right now, potentially doing a water resource master plan, a regional water supply plan for Franklin County in the district. And right now by

62-40, the DEP formerly called the water policy, I can never remember the long name they have tacked on to it now, but if we do a regional water supply plan, if we foresee them being critical enough and having the need within the next 20 years that we need to do a regional water supply plan, we have one year to declare them a water resource caution area. So that may be something that's coming up.

The second map that you have shows other areas of concern that we have. Because while those were the water resource caution areas, those that are termed and that have some other permitting requirements and things attached to them, we still do have some areas of heightened concern that have not been termed water resource caution areas, and those are Permit Area A, everything along the coast there. The barrier islands, obviously them being surrounded by salt water, generally having salt water underneath them, water resource is always a concern for them when they are withdrawing ground water.

And as Dwight said, and you all know I'm sure by now, doing conservation-oriented rate structures and all of the conservation measures that we possibly can in these areas is very important to us. Across the district it is important to us, but in these areas in particular, having an appropriate rate structure to promote conservation is very important. Most of these areas are already having alternative water supply issues looked at. Mostly inland sources still of ground water,

but it is causing a lot of extra cost for the utilities and the state, you know, as the state makes contributions towards them developing alternative water supplies for them to have to move inland, when if they could get a portion of that need through conservation, we always see that as being the easiest option and the most cost-effective option.

COMMISSIONER DEASON: Madam Chairman, I have a question. It is very seldom we get the experts here to ask these kind of questions, so I would like to take advantage of that. The question I have pertains to Liberty County.

MS. CHELETTE: Yes, sir.

COMMISSIONER DEASON: It is in your Permit Area B.

MS. CHELETTE: Correct.

COMMISSIONER DEASON: It is not a coastal county. It is probably, if not the least populated county, one of the least populated counties per square mile, so it is not overdevelopment. Why is Liberty County with its -- what is unique about that that it is in your Permit Area B?

MS. CHELETTE: It's in Area B. And you are correct, there is no stress right now as far as population growth. However, water availability is quite limited in Liberty County. It is in the embayment area where the limestone is not very porous. It doesn't move a lot of water. So there it is simply a water resource issue. And it is a case of we are watching that just because if there is population growth, which there

shouldn't be since most of it is federal and state lands, we will have the mechanisms in place to just more carefully monitor what is going on with growth there.

COMMISSIONER DEASON: And could you repeat again about -- the aquifer is affected by limestone? What was the --

MS. CHELETTE: The limestone aquifer. The ground water that is used primarily for all uses in that county, drinking water and the industrial uses at the woodchipping plant there and everything, are drawn from ground water from limestone aquifer, the Floridan aquifer. And in some places water moves freely through the aquifer. I usually compare it to you can have a wet sponge or you can have a wet brick, and under Liberty County you are drawing water out of a wet brick.

Over here in Tallahassee, in Leon County and Wakulla County, typically, it is more like the sponge. Water moves readily through it, there is a lot of water available. However, Liberty County is not working under those good graces. They have a little more trouble getting water.

COMMISSIONER DEASON: That is just -- that's surprising to me that that is the case. Liberty County is really known for its woodlands and its sandy soil. I thought water would just percolate right through the sandy soil and go to an aquifer. But that is not necessarily the case.

MS. CHELETTE: There is a fairly competent confining unit between the upper sandy portions, the surficial aquifer,

and the Floridan. So there is some downward percolation, but largely not a lot of that surface -- the sand and surficial aquifer water discharges into the rivers and streams there.

COMMISSIONER DEASON: Thank you.

COMMISSIONER CARTER: So these three rivers in Liberty County, the water just passes through that basically, is that what you are saying?

MS. CHELETTE: Yes, sir. Quite a bit of the water that falls in Liberty County, the rainfall that falls there into the surficial aquifer, it moves laterally, sideways and discharge into these rivers and streams. There is a lot of surface water there. And, yes, the woods are beautiful in Liberty County. I love driving through there.

COMMISSIONER CARTER: It just defies logic with three rivers, doesn't it?

MS. CHELETTE: Well, they may, as Dwight is finding in his district, they may at some point, if there was other development, end up being a source for someone for drinking water.

COMMISSIONER CARTER: Thank you, Madam Chair.

MS. LINGO: Commissioners, the next map is of the Suwannee River Water Management District. We don't have a representative from that district here today. But as you can see from the map, according to the district they have no water resource caution areas.

MR. JENKINS: Jennie, if I could add a little bit of clarification, it may help, too. Designation of water resource caution areas is a designation that is actually set forth in Florida Statutes. And what it is, it's an area that is designated because of water resource management concerns as an area that the district is going to complete a regional water supply plan for. So the fact that it is a water resource caution area does not in and of itself mean that there is identified major problems or something that is going to be there. It is sort of an area of concern that the district is designating for the purpose of doing regional planning in that area.

Most of the districts -- well, I know the three big districts have designated big parts, like our district is designated, the entire district, a water resource caution area, because we just planned on doing a water supply plan for that whole area. What you will see, though, is within that designation will be smaller areas generally that are areas that are identified as being of real concern for some resource issue. In our district we have just called them priority water resource caution areas. But I wanted to make sure you understood that the water resource caution area is really for the purpose of planning, it's not an automatic resource impact designation.

MS. LINGO: Thank you, Mr. Jenkins.

Commissioners, the next map is of the St. Johns River Water Management District. And Mr. Jenkins went through a discussion of his district's concerns in his presentation. The next map would be of the Southwest Florida.

COMMISSIONER CARTER: Madam Chairman. Mr. Jenkins, you have -- I mean, you mentioned about the desalination that are currently in use, is that what you have in your district? Are you using a lot of that for the ground water?

MR. JENKINS: We are using a lot of that. Today still our primary source of supply is the Floridan aquifer. Our alternative water supplies that we are looking at, probably the biggest one is the St. Johns River, upper and lower stretches. We have a lot of brackish ground water that is going on within the district, and we have a few utilities that are starting to talk about seawater desalination.

If you look on the map you see the yellow areas that are the priority water resource caution areas. The main concern, resource concern that we have in those areas are unacceptable impacts to wetlands and lakes. It seems to be the trigger in our district, is wetland impacts. They are very sensitive to water changes. Coastal, though, we do have some saltwater intrusion issues. And in those areas, a lot of the resolution solution is going to be desalination and blending.

COMMISSIONER CARTER: Thank you.

MS. LINGO: Commissioners, the next map is of the

Southwest Florida Water Management District, and Mr. Yingling will explain his district's concerns.

MR. YINGLING: Good morning. We are kind of the district that got caught behind the eight ball. Water use in various parts of our district were exceeding what we would consider to be acceptable levels in distribution of use even before our permitting program started. So we started with water use caution areas before they were called water resource caution areas, and the first one that was designated, I believe, was the Highlands Ridge Water Use Caution Area. That is that portion that is dark and crosshatched there in Polk and Highlands County.

The primary resource concern there was lowered lake levels. Very dramatically lowered lake levels from excessive withdrawals from the Floridan aquifer. Basically where you saw docks high and dry, lakes that were used for recreation in the past were useless for recreation. There were very severe impacts there.

The next area of concern was the Eastern Tampa Bay Water Use Caution Area. This is that portion of Hillsborough County and Manatee and Sarasota Counties where the primary resource concern there is saltwater intrusion. It has been moving in for years. It has been overpermitted in that area. It was overpermitted -- there was excessive use prior to there even being a permitting program.

The third water use caution area that was adopted was that portion in Pasco, Hillsborough, and Pinellas County. The water resource issue there, again, is lowered lakes, a very leaky confining unit between the surficial and the Floridan aquifers, and so when the big well fields up there that served the Tampa Bay area cranked up their big pumps, the lakes and the wetlands went down almost proportionately.

And recently we have proposed new rules that would combine the Highlands Ridge, the Eastern Tampa Bay, and then that center area of the inland counties into one water use caution area called the Southern Water Use Caution Area. On paper it already exists, and there is some rules related to that. But it is clear that because of the hydrologic conditions and the geology in the area, it acts pretty much as one unit. There are not three separate areas.

But because we got kind of caught behind the eight ball, water conservation became an issue for us right from the get go. As soon as we adopted our water use caution areas, the first ones in 1993, one of the first things we did was put in a requirement for the use of a water conserving rate structure, because we had to use every tool we had at our disposal at that time to start working on these problems before they got out of control. And it has been very effective. This in combination with other regulatory requirements, we have had very little, if any, growth in permitted quantities, for example, in the

Southern Water Use Caution Area, and that has been since the early 1990s. So it has been one of our most important tools in the tool box.

It is a nonmandatory type of conservation program. We could say you can only water 20 square feet of your lawn. Well, that wouldn't be very popular. We could tell people exactly what kind of plants they had to grow. That wouldn't be very popular. But if we tell you here is how much water is going to cost, and if you use it inefficiently, it is going to become more expensive. And so it gives the consumer the choice. Do I really want to spend money on using water on this thing, or that thing, or should I just cut back water use and save on my bill. It's basically more of a choice decision for the consumer.

And so we have seen with these water conserving rate structure requirements that we have pretty much eliminated all declining block rate structures, we have eliminated the flat rate structure where you are just charged an amount per month regardless of how much water you use. And now the majority in our water use caution areas have inclining block rate structures, and have been very happy with them.

How important are water conserving rate structures to us? In 1993, when we implemented the requirement in the first water use caution areas, we spent over $150,000 in research on the impacts of water conserving rate structures, on rate

structures on water use for multiple sectors, commercial, hotel/motels, apartments, single family residential. And that was a very important study and kind of guided us along for many years.

In the last few years, we engaged in another study in which we had the cooperation of the St. Johns District, the Northwest District, and the South District, and funded a study for $235,000 that focused mainly on single-family residential water use and pricing, and it turned out to be a very valuable study. In the past we always knew that there was a relationship between price and water use, in particular among single-family residential users. And there was a lot of anecdotal evidence out there that water conserving rate structures, the structure itself, helps to promote conservation, but there was very little hard evidence out there.

Utilities don't go out and study their rate structure after the fact. You know, it's sunk, it's over with. You know, if we save some water, fine. But in this study that was one of the things we specifically looked at was does the structure itself make a difference? And the answer is yes. And it was statistically significant. I won't go into the statistical details trying to explain it, because I have a hard time explaining it to myself sometimes, but it does work. They are effective.

There are more and more -- there has never been a credible study that I know of that doesn't show that there is a negative relationship between price and water use. The question, though, was the rate structure, and now we have that answer, solved as well.

COMMISSIONER CARTER: Madam Chairman, excuse me. It is fascinating to listen to your rate structure, but do you still have a capacity problem? I mean, it seems like that's what I'm picking up from what you were saying. Am I misreading that?

MR. YINGLING: No, you're not. We have, in fact, had to implement a lot of alternative sources in the northern Tampa Bay area. The well fields in the northern Tampa Bay area have been cut back in pumpage from something like 156 million gallons per day to 90 million gallons per day. They have switched to more use of the Hillsborough River, more use of the Tampa Bypass Canal, a large reservoir was recently constructed for water from the Alafia River and the Bypass Canal.

In the southern part of the district, our district has funded a significant portion of the cost of the Peace River/Manasota Regional Water Supply Authority facilities that include facilities such as the aquifer storage and recovery, so it's making the best use of the water in the Peace River. At high periods when it is above what we would consider to be the minimum flow, they take water out, they treat it, they pump it

underground, and then at periods when they can't withdraw from the river, they pump the water back out.

We have funded a desalination plant that will also serve the Tampa became area. So, yes, we are still having capacity problems and we are addressing them, but conservation is still the least expensive of all the alternatives. And can I go a little further, Jennie?

MS. LINGO: It's (indicating).

MR. YINGLING: Why do we prefer the inclining block rate structures in many cases? Although our implementation is similar to that of St. Johns, we don't tell you what your rate has to be. We focus primarily on the structure. And the reason for that is what we want to do is to give the price signal to those who are using a lot of nonessential use, primarily irrigation. And why do we think that is important, why is that a big target?

Let me give you an example from the study that we just completed, the evaluation of single-family rates. Is that 50 percent of the 3,500 homes that were in the mail survey indicated that they had an irrigation system with an automatic timer. These tend to be the biggest users of water. Set it, forget it. They irrigate through times when it's raining in the summer time, they irrigate through the winter when the grass is dormant. They consistently in studies have shown that residential irrigation systems are poorly designed, poorly

managed, poorly maintained. They have a distribution efficiency of less than 50 percent.

And when you compare that to how we permit agriculture, we require a 75 percent irrigation efficiency. If they can't meet that 75 percent irrigation efficiency, the distribution efficiency, they aren't going to have enough water to irrigate their crops. So residential irrigation is a lot less efficient than agricultural.

So you have less than 50 -- well, you have 50 percent of your customers that have these automatic systems. Less than 25 percent of those even have a working rain sensor on the system, which is required by statute on all new ones since 1992. So by providing the price signal in the upper blocks, those people who are really inefficient with their nonessential uses, that is the price incentive that gets them to do very inexpensive things. They could actually go out and use catch cans and test to see how evenly their water is being distributed by their irrigation system, or how long it should actually run. That is very rarely done by anybody. It is very inexpensive, but there is no incentive for them to do it. It's just part of their living expenses.

They could install a new rain sensor. They're proven to work. They are not as efficient as some other things, but they have to have the incentive. They could install soil moisture sensors which are becoming a lot more widely known.

They are very, very efficient. They are more efficient than using a rain sensor. But there has to be an incentive for them to do this.

And this is one of the reasons why we've focused so much on providing data on the price elasticity, or what you call repression, so that utilities can look at this and see, okay, if we change our rates, how will this affect our revenue. We have provided them with that kind of data. We have provided them with models that they can use to model the impact of changes in rates and rate structures on their usage and their revenues. So we have invested a lot of money that we feel that the pay off has been very high. And we very much appreciate the cooperation of the PSC staff.

Sometimes we go back and forth about a few things, you know, we would like to see things done one way, and it can't necessarily be done under the PSC rules, but it's a very good working relationship. Some of it is very mundane. I mean, just general data about a utility. You know, what you got from the utility sounded funny, so they call us and say is this really true, and we do the same with them. And it has been very, very helpful to both sides, I think, and we very much appreciate it. So if you have any questions on that, I would be glad to answer them.

COMMISSIONER CARTER: Thank you.

COMMISSIONER DEASON: Do you consider what I refer to

as a base facility charge rate structure, that being a single-tier rate structure that was referred to earlier, do you consider that a conservation rate or no?

MR. YINGLING: It's a conservation rate structure from the perspective that, yes, it does have a variable rate. There is some payoff to the customer who conserves. The question then becomes is an inclining block better. Yes, it is. But we will accept a single-tier rate structure if they are in compliance with their per capita requirements, they are in compliance with all of their environmental requirements.

For example, sometimes you'll have a utility that they are within their per capita requirement, because we regulate based on per capita, but they may be exceeding their permitted withdrawals at certain facilities, and they may be damaging wetlands, they may be damaging lakes. And we will tell them, you have to go to something more stringent. You have to go to asking that is more water conserving. Because they can't just shut the people's taps off that are already there. But we can work with them to make them more efficient and to address these concerns.

So, generally we do like to see a water conserving rate structure, but if they are in compliance with everything else, then we will usually say that a single tier is okay.

CHAIRMAN EDGAR: Commissioner Arriaga.

COMMISSIONER ARRIAGA: Lots of red flags I have been

hearing. Caution areas in all the water management districts, five-year supply, that is what we have got left approximately before we go into a crisis. That's what I heard. Necessary investments will have to be made very soon or they have already started. Question: Who is making the investments, and will those eventually be passed on in rates to the consumer?

MR. YINGLING: There are red flags out there. I don't think that -- I don't recall the five years, maybe I didn't hear that, but we have been facing this situation for some time where we had to decide that we can't use this source any longer.

The investments are being made both by the utilities and by the water management districts. And so to the extent that what is left over in cost that the water management districts doesn't pay, then, yes, that will go to the ratepayer.

COMMISSIONER ARRIAGA: Is there a possibility that a county that owns a utility will subsidize this so it is not a pass-through to the consumer?

MR. YINGLING: I haven't heard anything like that. That's not the typical policy. Usually they are self-sustaining units of government that don't usually get subsidized.

COMMISSIONER ARRIAGA: Well, maybe that's because the investments are not there yet. But eventually they have to

start thinking about surface water, desalination, all those kinds of things that will eventually be a burden on the self-sustaining company. Then who pays after that, when it becomes a burden on the self-sustaining company because of potentially large investments that have to be made because our water supply is running out?

MR. YINGLING: We haven't found, really, in the statements of estimated regulatory cost that we have prepared, even though it is not required that we look at the impact on ratepayers, we haven't found to date where the impact on the ratepayer is excessive. Certainly not by EPA standards. What we look at is a percentage of the median household income. And through the investments that we have made with the utilities we have been able to keep those down. But you certainly wouldn't want to lower the cost of water by subsidizing it, because people don't conserve what they don't value.

If you make water less expensive, then you're going to have the issue of you aren't going to have the conservation. But we haven't seen very high increases in rates. One thing you have to consider is that when you add an alternative source to your mix of sources, that doesn't become the new base for the rate. It is actually blended with all of your other sources. And so, the rate -- it's not a proportional rate increase, you know, the cost of one plant versus another plant. So it gets blended in. And so you don't see that huge rate

increase. Plus, also, when there is an increase in the rates, that's when people conserve. This is that conservation effect you see from prices. So they don't pay the full impact of that.

Now, if someone chooses to use the same amount of water as prices increase, then, yes, they will pay the full impact. But what you generally see, and what has been proven in all the studies before is customers do respond to that and cut back their use. So it's not an absolutely proportional increase in what the customer pays.

CHAIRMAN EDGAR: Commissioner Tew.

COMMISSIONER TEW: Mr. Yingling, I was struck by the efficiency numbers on the residential irrigation that you mentioned. And I was wondering does anyone know of any utilities that perform some type of audits for customers of their irrigation systems, similar to energy audits that electric companies do?

MR. YINGLING: Yes, they do. And we usually cofund those types of activities.

MR. JENKINS: The Soil Conservation Service, they have what is called mobile irrigation labs. And all the water management districts, to some extent, fund those labs, as well as utilities do, too. It's a common tool when we are settling enforcement cases to make them join in in funding a mobile irrigation lab. And they'll go out and do these detailed tests

that they have on catchcan type tests, but even much more technical in detail, to determine efficiencies and how systems can be upgraded and better designed and maintained, et cetera.

MR. YINGLING: Just another example of that is recently I had a meeting with the City of Lakeland, who is trying to improve their rate structure, but they are also looking at other conservation programs, and one of them is to potentially hire an irrigation expert. They would target their highest use customers, and this person would go out and they would check their irrigation clock to see that it's set properly, that there aren't broken heads, that it was actually switched from establishment quantities of water when they first water in the lawn to normal usage, regular irrigation.

Because that is a real problem in new communities. They put in the sod, they turn the irrigation system on full bore, and it is only supposed to be for 30 days, but nobody ever goes back to recheck it, reset the clock. And the customer thinks, oh, it's supposed to be watered every day. And so these are things that a lot of utilities are doing in that conservation arena.

MR. JENKINS: We also recognize the issue of irrigation system design, O&M efficiency. And, Angela, I don't know if you recall the law, but I think it was even last year the legislature mandated that the water management districts, along with a whole list of identified parties, get together and

develop irrigation system design standards that once they are developed are mandatory to be implemented by local governments. And we are working on that right now. But where conservation rate structures are one tool in the conservation tool box, we have got a lot of other things going on, and a lot of them are targeted right at the issue of irrigation system inefficiency. It is a big issue for us.

CHAIRMAN EDGAR: Commissioner Carter.

COMMISSIONER CARTER: You know, I can gulp the water out of this cup or I can sip it. I'm still going to eventually run out of water. You have still got a capacity problem. I mean, pricing will force me not to gulp it. But I still need water to drink, so I will just sip it. But eventually there is a bottom here. So there is a convergence, wouldn't you think, about what you can get out of efficiencies from conservation and the fact that you have a capacity, particularly considering that we have got 1,000 people a day moving to Florida, and your area is one of the hot areas where they are going to.

So, I mean, then what Commissioner Arriaga is saying, I'm not speaking for him, but I'm trying to connect the dots, is that you are going to need a tremendous infusion of capital then to bring about the necessary capacity to water the homes, to water the fields, to water the hospitals, to water the schools, you know.

MS. CHELETTE: If I could talk to that for just a

moment. One of the things, you know, Commissioner Arriaga was saying the five years. Well, for some people it's going to be five years on their current source. I mean, there is a big ocean out there if they want to go to desal. But it's not like in five years, boom, they're got to hit that wall and have to suddenly go to desal.

These are slower more long-term kind of things that we see coming on. The water quality, when you have saltwater intrusion, starts to change slowly. The saltwater increases to the point that, okay, now it no longer meets the drinking water standard, and some additional steps are going to have to be taken.

The water is still there, it is just going to have to go through a more costly or expensive process to meet drinking water standards. Like I said, it is the same thing, if you go to surface water, you are going to have to go to a more costly treatment system and go through some extra processes before you can provide that to the public.

COMMISSIONER CARTER: More expensive.

MS. CHELETTE: Exactly. It is going to be more expensive.

COMMISSIONER CARTER: A major infusion of capital.

MS. CHELETTE: Well, the thing is, as I was saying, it is not going to be sudden. These things are being stepped in over time. And, yes, the burden does become greater. But

we are still not to the point, I don't think, that it is like gasoline.

You know, if people had to pay gasoline prices, you wouldn't see them hosing their driveways down with gasoline. They would be a lot more conscious and careful. Because water in Florida, ground water has been so plentiful for a very long time, and it has been the primary source. Very simple to treat. You add a little chlorine to it and provide it to the customer. That is the standard people are used to.

Whereas, as they go forward into these further processes and further treatments that they are going to have to do, there is going to be some increase, but it is still not an unreasonable amount to pay for such a resource.

MR. JENKINS: And it is not as big an increase as I think you may be thinking. In our water supply plan we actually set up what we think to be the best options for developing alternative water supplies. And if you look at the cost of those water supplies versus the good old traditional Floridan aquifer ground water, we are talking maybe double. So instead of a dollar per thousand gallons, two dollars per thousand gallons.

The most expensive alternatives that we have identified are in like the four dollars per thousand gallon range. So, even though they are more costly than our traditional ground water, we are not talking way more

expensive, they are just slightly more expensive.

And I also wanted to make a comment on the funding. Of course, we have Senate Bill 444, which is providing some big money now for our district, $25 million per year, I think it is, towards alternative water supply development. Our board, and I can only speak for the St. Johns River Water Management District, is also committing to cost sharing on that. But to get back to some of your questions, sir, a little bit earlier, I know that the direction of our board is that ultimately the costs for those will -- they are looking at it being borne by the water users.

COMMISSIONER ARRIAGA: Thank you for saying that. Because you finally got to the nitty-gritty of my question that, and Commissioner Carter was carrying on. We have to do a balancing act and dance here all the time. You know, the needs of the consumer and how much the consumer has to pay for that. And every time we approve a rate increase, even if it is a little tiny bit, the consumer will jump up and down. So, no matter how you put it, it's going to be solved, it is over a year, it is going to mean rate increases because of the investments that are required. I just wanted to know what is coming up, Mr. Willis, because eventually --

MS. CHELETTE: We take those calls all the time.

MR. JENKINS: We are very clear on that, that to continue developing in Florida and protecting the environment

and water resources, water is going to become more expensive. Our goal, though, and I think what we have identified is it is not going to become tremendously more expensive. Actually, the alternative water supplies that we are looking at developing are the standard water supplies for most of the country. That is what they are already doing. You know, you look at most of the country they are using surface water and stuff like that. So we are just going from -- one of the favorite sayings of some of our executives, is it is going from free to cheap.

COMMISSIONER ARRIAGA: Wait until the rates start going up, and then you are going to see the county politicians turning all these water companies back to us.

MR. YINGLING: Let me just say, too, that you were concerned about the supply, and just so you know, all of the water management districts are required to develop regional water supply plans if they have an area of concern. And we have to outline what we think will be the sources of water that will need to be developed to meet reasonable demands through 2025. And we also have to say how much they are going to cost, and where the money is going to come from, and so on.

So it is not like we are sitting back just saying, oh, we have a terrible problem. There are plans that are on the boards. Most of the sources have been identified. I can't think of a place in our district where we haven't identified some type of source. But, it is true that it will get more

expensive, but it is not going to be terribly so. Like I said, we have looked at those costs, and we have analyzed them, and they are not going to be tremendous increases. But to the extent that we can stretch our free to cheap supplies, that is all the better. That benefits the customers, it benefits the counties, everybody.

MR. JENKINS: That is one of the common misconceptions, and we try to be careful about stating this because it is easy to misconstrue it, is there is not a water quantity problem in the state. We have enough quantity and different water resources in the State of Florida to meet our demands for definitely the near and long-term future even. The constraints that are limiting development on ground water, environmental impact constraints, there is enough ground water available in the state to supply our needs for thousands of years if we didn't care about the environment. But the problem is we have lakes and wetlands and saltwater intrusion issues that set the limit on how much ground water.

But we have so much available alternatives when you look at surface water and brackish ground water and things like that that there is no problem quantity-wise. The problem really comes down to economics. Which is we have got to go from that good old cheap Floridan ground water and start developing more expensive, not tremendously more, but slightly more expensive alternatives. Plus there is resistance because

it is change in technology. We know the easy technology of providing ground water. Now we are starting to get into surface water and stuff like that which is new technology, but it is not a quantity issue. I think all the water management districts agree on that.

CHAIRMAN EDGAR: Jennie, are we at a natural breaking point?

MS. LINGO: We are as soon as I say that the South Florida District, which is Map Number 5, wasn't drawn in very well, but they have identified over 90 percent of their district as a water resource caution area. Again, which as Mr. Jenkins explained, means that there is a need for regional planning for additional water supplies.

And, yes, ma'am, now we are at a logical breaking point.

CHAIRMAN EDGAR: Thank you. And I did not mean to leave the South Florida Water Management District out of the discussion, of course.

Commissioners, I'm thinking 1:15? Okay, lunch break until 1:15.

MS. LINGO: Thank you, Commissioners.

(Lunch recess.)

CHAIRMAN EDGAR: Okay. Welcome back. Let's see. I think I had two housekeeping things. The first is I understand that we have a sign-up sheet in the back. If there's anybody

who did not see that this morning, if you would, please, sign and put your contact information. That would be greatly appreciated. And we are running just a little behind on the agenda, so we'll see how the afternoon goes. If we're in the middle of good discussion, I have no problem running over a little bit, but just wanted to draw that to everybody's attention. Okay. And back to you.

MR. STALLCUP: Thank you, Commissioner. I believe where we left off before, before lunch was Jennie Lingo was preparing to start her presentation.

MS. LINGO: Thank you, Mr. Stallcup. Again, Jennie Lingo for staff.

Commissioners, when I started putting these presentations together, it is not my intent nor do I believe it would be useful to make you all rate analysts in one session. What I'm trying to do here is capture general overview concepts of what we do, and in that way I believe that can be used as building blocks for future sessions if you believe they're appropriate and if you would find them useful.

My first presentation is on our history of conservation rates. And really in this session I'd like to accomplish three things, and that's to accomplish what conservation rate structures are, define them; why is it that we design them; and how long have we been doing them?

When I say conservation rate structure, it comes to

mind that I should probably define first what a water rate structure is. And really all it is is a schedule of fees that are designed to recover the utility's costs, and a water rate structure typically contains three different elements. It contains the different customer classifications of the utility, it establishes how frequently the utility bills and it also identifies the different charges for each classification that the customers will be assessed.

Let me stop here and explain in the monthly charges for service, that would be really from Item Number 3, monthly charges for service are broken out into two component parts: One is a base facility charge, and the other component part is a gallonage charge.

The gallonage charge is fairly straightforward. It's based on the number of gallons that you use in any particular billing period.

The base facility charge is going to depend on the size of your meter in your, in the front lawn of your house. The base facility charge for an equivalent factor of one, most residential customers have a 5/8- by 3/4-inch meter. The size of the meter that's in anyone's residence or anyone's place of business, that determines the anticipated demand that that customer might place on the system. So the larger the meter size, the more equivalent factors that that meter is assessed whenever we start to design rates.

So again, for example, a typical residential customer, their meter size would be assigned a factor of zero -- of one. But if you're a general service customer, you may have a two-inch meter size and those are assigned a factor of eight. Those are just examples.

Since we've defined what a conservation, what a water rate structure is, I think it's also important now to define what conservation is. And looking at the Florida Statutes, it gives us some direction in that regard. It says conservation -- for conservation goals that the overall conservation goal of the state, and I'm paraphrasing this, is to prevent and reduce the wasteful use of water resources.

If you also look in the Florida Administrative Code, it helps us more in that regard in that we should be preventing and reducing the wasteful or unreasonable use of the resources.

So if you, if you put those definitions together and try to come up with a, with a definition of a conservation rate structure, I believe this one works very well for us, and that is one that results in a net reduction of the water use solely due to economic incentives, and the rates are designed to discourage inefficiency and promote efficiency.

The portion of the definition that says "solely due to economic incentives" I believe is important because we're the economic regulators of the utility.

The two most common forms of conservation rate

structures are inclining block rates and seasonal rates. We typically don't design seasonal rates. In fact, I'm unaware of any seasonal rate structure that this Commission has approved, but I have it in there because it is one of the most common that's used throughout the nation.

An inclining block rate structure is defined as a fixed customer charge per month plus two or more usage blocks, with the price per unit increasing in each subsequent block.

And for a seasonal rate it's a fixed customer charge per month plus a fixed usage charge for each unit of water sold, but the unit charge for the water sold is greater during the peak season.

Commissioners, these rate structures are conservation promoting because the price signals that are sent to the customers discourage wasteful use and promote efficient use. And, again, you can tie that back to our definition of what we're striving for when we consider designing conservation rate structures. These two fit very well.

And, Commissioners, because we still, believe it or not, have some utilities with these rate structures, I've included definitions of what are nonconserving rate structures. And those would be unmetered rates, declining block rates, and a base facility charge that has some allotment for gallons included in the base facility charge. All of these rates are considered nonconservation promoting because customers don't

receive a price signal for each and every unit of water they consume.

We know what conservation rates are now, so really the next question is why do we set them? I believe I mentioned earlier that over half of the state is classified as a water resource caution area. So it's important to work with the water management districts, especially when a water conservation rate structure is required by the district on the utility's consumptive use permit. And we work with the district, as Mr. Jenkins described this morning, through the memorandum of understanding.

The next two items describe really what the conservation rate structures should accomplish. The water rates should be designed to send the message to users that water is a valuable resource, and also the water rate structures again should promote efficient use while discouraging wasteful use.

The last two numbers, four and five, really go to the positive effects or the positive results of a conservation rate structure, and that are -- and that is that reducing wasteful use will prolong the availability of better quality, cheaper water. And, again, we heard from the water management districts this morning that that is their goal in sustaining water supply for this, for this state.

In addition, Commissioners, a rate structure that

reduces wasteful use is going to be more cost-effective in the long run than spending additional capital to develop alternative sources of water. Conservation rate structures don't cost anything to implement, but they yield tremendous return in terms of conservation.

Now when we work with the water management districts to implement conservation rate structures, our rate structure of choice has been the inclining block rate structure. General information about this rate structure is that it's the most commonly used and best known rate structure. And the keys to designing this rate structure include, but certainly are not limited to, the appropriate number of usage blocks, the gallonage break points and the number of gallons that are billed in each usage block, as well as establishing an appropriate rate differential between each block.

This rate structure is typically applied only to the residential class, and this rate structure is most commonly found in the Southeast and in the West. These areas are experiencing the greatest areas of population growth and, therefore, the associated increases in water demand that goes with that population growth.

The next page is just a graph as an example of how a conservation rate structure looks. Commissioners, if you use from zero to ten gallons, you're going to be paying one, one rate, and that's the rate in the first block. So you would be

paying $2 for each 1,000 gallons that you use; whereas, if you use 20,000 gallons or more, you would be paying three different rates because you would be using water in three different blocks. And, again, the inclining block rate structure is a fixed customer charge per month with two or more usage blocks, and the price per unit increases in each subsequent block.

The next page is just showing mathematically how the inclining block rate structure affects the total gallonage charge that you pay. I won't walk you through the math, but the point I'd like for you to see is that at 10,000 gallons of usage, your gallonage charge, your effective gallonage charge that you're paying is $1 per kgal. But if you go all the way -- if you go up to 40,000 gallons, instead of paying $1 per kgal, your effective gallonage charge increases to $2.25. So you're paying over two times greater than you would be paying if you were using water in just that first block. That's the, that's the incentive the customers have to reduce their consumption.

Commissioners, you've approved the inclining block rate structure for over 15 years now or about 15 years now. The first instance was a Hobe Sound case, it was a 1990 docket, and in that case you approved a two-tier inclining block charge for the residential class for Hobe Sound Water Company. And in that case, the per capita consumption for those customers exceeded 500 gallons per day, which, believe me, is truly

extraordinary consumption. The district, the South Florida Water Management District was hoping for a targeted per capita consumption of 150 to 200 gallons per day. So when this rate case came about, they approached us and said, you know, please help us out. And you approved that rate structure in 1991.

Sanlando Utilities is a somewhat different case. You approved a three-tier inclining block rate structure, but it was really to fund construction and improvements of Sanlando's reclaimed water system. But I put that in there because it's, it was a three-tier structure slightly, for a slightly different purpose.

And then the third example I have where you approved an inclining block rate structure on a three-tier basis for purely reducing the average demand of residential water customers was another Hobe Sound case in 1994. The third usage block was designed to send price signals to residential customers to reduce their consumption. Their -- Hobe Sound consisted of three very distinct service areas: It had its Jupiter Island, and then on the mainland there was an upper middle class residential customer base and then a customer base of lower income customers. And what was driving that rate case was Hobe Sound's need to install an additional transmission main so that they could pump more water to the island. But for the customers' extraordinary use on the island and the wells, the two wells that were going bad because of the extraordinary

use, there probably would not have been the need for that rate case. So when we designed that third tier, it was designed with the cost causer in mind, and that is we tried to target the, the highest consumption with the greatest percentage increases. And this also represented the first time that the Commission approved what we call a conservation adjustment, which is removing revenues from the fixed charges to the gallonage charges so that we can make the gallonage charge more conservation oriented.

Implementing the conservation rate structures and inclining block rate structures would not solve all of the state's water supply problems, and that led to the Water Conservation Initiative being brought about. Remember, I have said that over half the state had been -- has been classified and is classified as a water resource caution area. So in response to growing supply and demand problems, as well as the severe droughts that just gripped this state in 1999 and 2000, the DEP led the Water Conservation Initiative, and the purpose was to improve water efficiency in all categories of use. Now major participants in the Water Conservation Initiative, governmental agencies that is, besides the DEP were this agency, the five water management districts and the Florida Department of Agriculture and Consumer Services.

The Water Conservation Initiative, the work done on that initiative was done over a several-year period and the

final document was printed in 2002. This agency is following up on that. This agency is a signatory on a document that's called the Joint Statement of Commitment. And what that document is is it's a work plan of how to implement the specific findings and recommendations that were included in the Water Conservation Initiative.

Three specific findings of the Water Conservation Initiative that I believe are especially pertinent is they found that water pricing is fundamentally important. The second one is that the fixed portion of the bill should generally not recover more than 40 percent of the utility's total revenues. And the third important aspect is that inclining block rates should be used unless there are very specific circumstances that would warrant using some alternative rate structure.

Finally, Commissioners, the conclusions and the benefits of the conservation rate structure is that, again, it can significantly reduce the water use without ex -- without additional expenditures, without additional regulations, while it helps protect the quality and the quantity of our natural resource. It can benefit both current and future generations, and it can also help delay the implementation of the need for additional, more costly water supplies.

And the white page indicates that I'm done with the first presentation.

CHAIRMAN EDGAR: Jennie, I have, I think, a question.

MS. LINGO: Yes, ma'am.

CHAIRMAN EDGAR: And I was going to ask this this morning and I waited, and now you've covered it, so thank you. But with the drought conditions that portions of the state did experience in the four to five to six years ago, is that about the right time frame, I see these comments or statements of principle on Page 13. But not -- since I was not at the Commission at that point in time, that Joint Statement of Commitment and these pieces, pieces of it or principles contained in it, were there changes in the way the Commission approached rate structure as a result of those drought conditions or was it just a recommitment to the direction that this Commission was already performing in?

MS. LINGO: Madam Chairman, I don't believe it resulted in changes. I believe that it just underlined and underscored what we had been trying to do all along, and that is -- one thing we had been trying to do since the late 1990s was to have no greater than 40 percent of the utility's revenue recovery recovered through the fixed costs. And that resulted from a Southwest District water management study that's called Recommendations on Defining Water Conservation Rate Structures.

We do not always, however, have 40 percent as the ceiling whenever we're designing the rates for cost recovery. There are instances in which 70 percent, for example, of fixed

cost, of cost recovery is in the, is in the fixed cost. But, again, ma'am, it just underscores what we have been trying to do. And the inclining block rate structure being used -- working with the water management districts, if the inclining block rate structure is specifically listed as a requirement in the utility's consumptive use permit, that's what we would try to design unless we were convinced or we believed that it would cause a revenue stability problem to the utility, in which case we would let them know that we believed a BFC gallonage rate structure is more appropriate.

And I know, I know Mr. Jenkins and Mr. Yingling will agree that, you know, sometimes they don't get what they want, but we, we try to accommodate them.

CHAIRMAN EDGAR: Neither do I.

MS. LINGO: We try to accommodate them to the extent we can.

MR. JENKINS: Jennie, if I could make one comment. What -- the Water Conservation Initiative, what came out of that was what Jennie refers to as a Joint Statement of Commitment. And what came out of that is a process that's currently going on right now that's been called Conserve Florida, that's the name of it. And the goals of Conserve Florida right now are to develop consistent metrics and approaches to deal with this whole issue of water conservation.

You find out when we're talking about water

conservation and we throw out terms like "per capita" and "conservation rate structures" and that, that there's not a lot of consistent definition for those. So we're doing that. The water management districts along with the utilities are getting ready to implement a water conservation clearinghouse, which is, looks like it's probably going to be housed at the University of Florida, the new water institute. That's going to be a, a repository for, like, utility-specific conservation information. If a utility wants to see what other utilities in the state, how they deal with water conservation measures and questions and that, they'll go there. And I think one of the biggest things that is going to come out of it, and it's going to take a little bit longer, is right now all the water management districts' approach to requiring water conservation is sort of a BMP approach where we want you to do this laundry list of BMPs and get the biggest bang for the buck of conservation you can. We're trying to develop a more goal-based approach where we can actually identify these are going to be the best measures to get a 15 percent type reduction, you know, in this sector of your water use. So that's continuing right now, that's where we're headed, and we're making some real good progress with it.

MS. LINGO: Thank you, ma'am.

The next discussion or set of slides will be on an overview of the water rate design process and the steps that

staff goes through in designing water rates.

Commissioners, when we design water rates, we keep five main objectives in mind: And that is that we set the rates so that the utility recovers the costs to, to provide service; we also keep in mind the revenue stability of the rate structure in that the rate structure makes -- the rate structure provides a sufficiently stable revenue stream to the utility; the rates should send appropriate price signals that relays to the customer the value and the scarcity of the water that they're using; the rates should be equitable on a cost-causer basis; and customers should easily understand and accept that rate structure. We keep all five things in mind whenever we're designing rates, and one, one aspect is really no more important than the others.

So when we design --

CHAIRMAN EDGAR: Jennie, just a moment. Commissioner Arriaga.

COMMISSIONER ARRIAGA: Thank you.

MS. LINGO: Sir.

COMMISSIONER ARRIAGA: I've heard you twice say that one of the objectives is to make sure that the utility recovers the cost. That's fine. That's understandable. But what about the profit to the utility?

MS. LINGO: Sir, when I say recover the cost, that's, I apologize, a shorthand version of saying cost of service,

which is synonymous with revenue requirement, which is the total expenses of the utility plus the return to the utility as well.

COMMISSIONER ARRIAGA: All right. Thank you.

MS. LINGO: Yes, sir.

So when we begin to design the rates, there's two things that are -- there's two processes that we go through: One is the legwork that we do, and the other is the in-house work.

So our legwork, before actually designing the rates, first it involves a review of the customer data. We would get this customer consumption data from the audit if it's a Class C utility, or if it's a Class A or B, we would get that data from the minimum filing requirements. Specifically we're looking at consumption trends or how the consumption data falls out with respect to calculating the average consumption per customer.

We're also looking for evidence of seasonality. For example, we would look at how many bills or what percentage of bills are at 0, at 0 consumption or at 1 kgal or less.

Seasonality is probably the most difficult thing for us to, to ensure we've done right with regard to setting the rate structure. Because, again, we want the rate structure to provide a stable revenue stream. With the seasonal customer base, as you may imagine, the revenues are jammed into a certain number of months during the year when the customers are

all there. So seasonality is extremely important.

And we're also looking at usage distribution. And by that I mean are there -- is there a certain percentage of customers, say, like 10 percent of the customers, are they using the last 30 percent of the highest -- of water? If you have 10 percent of the customers using 30 percent of the water, that's a real usage distribution that probably should be addressed by something other than a BFC gallonage rate structure. Otherwise, you probably could not target that, that disparate usage appropriately.

More legwork includes our interaction and discussions with the water management districts. We all -- we always talk about the utility's history with the district and whether they're having any compliance problems. We always talk about the utility's service area and whether there are any problems that are cropping up in that service area that did not, that were not in place whenever the district entered -- issued the utility their consumptive use permit. And then any rate structure requirements that the district may have imposed on the utility in the consumptive use permit; for example, a rate structure.

A critical aspect to our legwork, if you will, is our evaluation of the service area. And, Commissioners, that really falls into two parts: One is the customer meeting, and the other is our visual, our careful visual inspection of the

service area. At the customer meeting we discuss the rate structure, the current rate structure with the customers. We also discuss with them how receptive they might be to a change in the rate structure, especially if the district has mandated on the consumptive use permit that a more aggressive inclining block rate structure be implemented. And we also talk to the customers about the average number of people per household. This is important, this is important when we are trying to calculate what total nondiscretionary use is for the, for the utility because the nondiscretionary use is something that you can't, you can't reduce any more than what you absolutely need.

When we're driving around the service area, for each service area that we go to we're looking at different housing types, whether it's a single family, whether it's manufactured housing, whether it's a duplex, and we're also estimating, believe it or not, the total square footage of the houses, the average square footage of the houses. Again, Commissioners, this gets to the heart of trying to figure out what we believe total nondiscretionary consumption is.

We're also looking for indicators of discretionary use: Whether the lawns are landscaped, whether there's evidence of swimming pools or the percentage of homes with swimming pools, or the percentage of homes where we can see the, the pop-up irrigation heads. This helps us, you know, in the back of our mind when we come back and we are designing the

rate structure and then the repression adjustment. How much gallon, you know, how many gallons do we really believe the customers will be able to cut back? And then if there's any customer growth in the area, we want to look at what types of growth that is. Again, you want, you want to look at housing types, try to get a feel for the number of people per household, things of that nature.

Our in-house work begins when we come back from the customer meeting. And the first thing we need to do when we come back and we're sitting back down at our desk is we need to consider the unique circumstances of the utility. There may be supply or storage or treatment or metering circumstances that need to be taken into consideration when we're designing the rate structure. We also think about the customers' attitudes and usage patterns. We will have found out a lot about the customers' attitudes at the customer meeting. Also, we will have found out a lot about their usage patterns through our visual inspection of the service area.

We also want to consider again the seasonality of the customer base. And, again, I can't emphasize enough the seasonality of the customer base is really the most important aspect because it has a direct effect on revenue stability. And also, to the extent we can estimate this, customer income levels.

And then there are also any identified conservation

goals that may be out there, for example, to try to reduce average demand.

We also consider the structural form of the rate that we might be looking at designing and whether a specific rate structure is required in the utility's consumptive use permit.

We discussed the inclining block and the seasonal rates earlier, and Mr. Jenkins mentioned that the base facility uniform gallonage charge might be considered a conservation rate structure if the gallonage charge was sufficiently great.

And then we look at also the proportion of the fixed versus variable cost recovery. Again, we have been, for a number of years, trying to design rates such that the fixed cost recovery is somewhere between 25 and 40 percent. But with a seasonal customer base --

CHAIRMAN EDGAR: Ms. Lingo, hang on. Commissioner Arriaga.

COMMISSIONER ARRIAGA: Thank you. Nonconservation promoting rate structures, we're still using them, correct, the BFC?

MS. LINGO: We are not approving them, but we still have utilities out there that have nonconservation rate structures who have not come in for a rate case or what have you, so we haven't been able to change their rate structure.

COMMISSIONER ARRIAGA: Now in our policy of going to a conservation rate, can we call them in to make the changes?

MS. LINGO: May I please pass that off to our staff counsel?

COMMISSIONER ARRIAGA: Yes.

MR. JAEGER: I believe it's a very difficult deal, but we can on our own motion -- I think the Commission does have the power, but it's -- when you start doing this, it makes our rate increase, you know -- the cost of putting on a rate case. But we've had revenue neutral rate restructurings, we've had one or two already, I think, where it was just rate restructuring is all we did. I don't believe we actually call them in. I think it's because the utility asks for that or the water management district. Marshall?

CHAIRMAN EDGAR: Mr. Willis, additional information?

MR. WILLIS: Yeah. Let me just add one thing real quick. We haven't actually done that in the past because it's very costly for a company to put forward a filing when they don't need to. The utilities who have because of their consumptive use permit requirements actually have filed with us restructuring dockets that do nothing but that, especially if they're earning a fair rate of return. The only thing they'd be coming in for was a rate restructuring to put that conservation rate into effect. Usually what drives it is the requirements in their consumptive use permit, and that's when they come forward to us.

COMMISSIONER ARRIAGA: I'm still a little bit lost.

There is a policy mandated by the DEP or a request suggested by the DEP, water management districts are pushing for it, we are also. We have cases, companies that do not abide by this policy. You say that this may be a little too expensive for them. Expensive in what sense? Expensive to the consumer, expensive to the utility?

MR. WILLIS: Well, it's expensive to the company to file. But their circumstances at that point may not require them to because their usage factors per customer, per household aren't high enough where they're being pushed forward to come in for a conservation rate at that point.

COMMISSIONER ARRIAGA: So we have no cases whereby there are companies, utilities that are exceeding the consumption but they're still under the BFC rate structure?

MR. WILLIS: There might be. There might be.

MR. JENKINS: One of the situations that we run into not uncommonly, especially with PSC-regulated utilities, are these really small utilities that in most cases are manufactured housing type developments that actually in the agreement with the homeowners as part of the sale of the house have set it up that they will get their water for a flat rate. And in trying to deal -- those have been a real, real headache to us because when we're trying to get them to go to a conservation rate structure, we have this additional issue of contract problems between the utility and the homeowners. In

most cases the per capita usage for those -- there's not that many of them and the per capita usage, being a manufactured type community, is pretty low anyway. So we haven't made a big push. However, that's an issue that occasionally we run upon one that we would actually like to impose a conservation rate structure, and for that problem alone we've sort of let them slide. And I know we've talked with your staff about that and it's just a real headache because it's -- not only is it costly to the utility, but it actually puts them in a default of contract type situation. And that's the only case I can think of that we've really dealt with like that.

COMMISSIONER ARRIAGA: So when you're talking about manufactured type houses, you're talking about trailer parks?

MR. JENKINS: Yes.

COMMISSIONER ARRIAGA: Okay. I understand. Thank you. Thank you, Madam Chair.

MS. LINGO: Commissioners, again, our typical method of designing rate structures and that we are targeting 25 to 40 percent of the cost recovery through the fixed charge, again, was originated through a study by the Southwest District, and this concept was reiterated in the Water Conservation Initiative.

When we look at nondiscretionary versus discretionary consumption, really we're looking -- what we're trying to determine is the minimum number of gallons that each person

needs on a daily basis. The World Health Organization has said that's around 50 gallons per day per person. The Southwest District, I believe, uses a number somewhere closer to 70. But correct me if I'm wrong, Mr. Yingling, that also takes into account a small percentage of outdoor usage as well. So it's not truly indoor usages.

MR. YINGLING: Yes. And it's, it's from a nationwide study, and so it, it includes areas outside of the state of Florida. But we look at that same range too, somewhere between 50 and 70 as -- I think that in the past a lot of conservation studies have said that an indoor conserving use, not nondiscretionary, but an indoor conserving use is about 60 to 65 gallons per capita a day. So it's all in that range.

MS. LINGO: The, the assessment of nondiscretionary consumption is important because, again, it represents the minimum amount of water that can be used by customers. Once they're using the minimum amount, they can't conserve anymore. It really doesn't matter what price signal they're sent, they can't conserve anymore. So these people are not targeted with severe substantial price increases.

And the other reason it's important is it helps staff determine how many gallons should be included in that first usage block. We would not want to design the first usage block such that it is below what we would consider nondiscretionary consumption because we would be penalizing folks who could not

conserve any more than they're already using.

Again, talking about revenue stability, we look at how stable the revenue stream will be from month to month. And, again, the more seasonal the utility's customer base, the more problematic the assessment of stable revenue streams become. And a rate structure that's weighted more heavily to the variable charge instead of the fixed charge is going to increase revenue stream instability. So then we might want to actually move revenue, move cost recovery the other way. The conservation adjustment, you may remember, moves cost recovery from the fixed charge to the variable charge to make the rates more conservation oriented. If we have an exceptionally seasonal customer base and we were worried about revenue stability, we might actually move dollars of cost recovery the other way. We might actually move them from the gallonage charge to the fixed charge, thereby making the revenue stream more stable. And instead of calling that a conservation adjustment, we just call that a negative conservation adjustment.

Once the rate design staff has been given the recommended revenue requirement by the accounting staff, we sit down and start calculating the rates. The methodology that we use to adjust for the anticipated consumption reduction due to price changes is repression, and we'll speak more about repression in just a few minutes. We actually began repression

calculations and the Commission started approving our repression adjustments in 1998.

So in conclusion, our legwork and our work in the office, we set initial rates, then we make a repression adjustment, if necessary, and that results in final rates. And what we believe that does, what we believe our work does, along with the accounting staff's work, is that the rates are designed to be the very best possible fit for each individual utility because each utility is different. Each utility has different circumstances, different types of customers. So this work is necessary in order for the rates to be the best fit possible.

COMMISSIONER ARRIAGA: In doing your legwork, I don't know if you've been to Miami, the Coral Gables area. There are some beautiful houses there, as you probably know. And nearby or almost at the limits you'll find trailer parks by a cemetery, several cases, and South Miami is like that. When you do these calculations and you see that these beautiful houses have beautiful pools and gardens and landscape, you're going to say these people consume a lot, and that's reasonable to assume. But what about the little trailer park that is right next to Coral Gables and it's served by the same utility?

MS. LINGO: Well, those, those customers' usage patterns we should also be able to pick up in the billing distribution. Not 100 percent of the customers will have

excessive usage. Those customers will show up in the higher end of the consumption range whenever we're looking at the billing data. The customers living in the smaller manufactured homes or trailer homes, their usage is going to be considerably less per customer per month. Their usage will be -- their usage will show up at the lower end. When we're trying to design the rates, we keep that, we try to keep that disparity in mind, especially when it comes to the break point between what we believe nondiscretionary and discretionary usage is. And also when we're designing our repression adjustment, it helps us -- you know, the larger homes will be able to conserve more, but the smaller ones will be able to conserve maybe not at all. So that billing distribution or the number of customers, we always, we're always working with that so that we don't over- or underestimate the consumption change hopefully. And as I'm reminded, it also helps us set the break points for the usage blocks and the inclining block structure as well.

MR. JENKINS: Jennie, one comment is we have seen, and you've probably seen it a lot more than I have, is because of the earnings issue and desire to sometimes keep the revenue neutral, that we've seen one of the unattended aspects of developing conservation rate structures is that that first lowest rate, you'll see a reduction in gallonage. So you're targeting the high discretionary water use for that price incentive, and the nondiscretionary lower use may actually get

a break. I don't know how often you guys see that, but --

MS. LINGO: It does, it does happen actually. If you're -- if the customer's income is great enough, it really doesn't charge how much -- it doesn't matter how much those customers are charged for their water. They're going to use the water no matter how much it costs. We always have to keep in mind or it's a balancing act, what kind of experience have we had with certain types and certain sizes of homes? Again, that's why our visual inspection of the service area is so important.

MR. YINGLING: I'd just like to add to that that even though you do have those customers, the super wealthy, you might want to term them, that it doesn't really make any difference to them what they're charged. Basically their accountant sees their bill and pays it.

But the vast majority of customers who we would consider well off, and this is well reflected in the study that we did, even those conserve. So it's not just like we're raising the rate and collecting extra money and so on. There is conservation that goes on even among the more wealthy. And, in fact, percentage-wise it's greater. So it's just not a case of you can't impact their usage. They actually do. But there are certain areas where people are just so wealthy that no matter what you charge them, it really wouldn't make much difference.

MS. LINGO: Commissioners -- I'm sorry, ma'am. Go ahead.

CHAIRMAN EDGAR: I was just going to say I think you caught us up.

MS. LINGO: I do what I can.

CHAIRMAN EDGAR: We're ready, if you are.

MS. LINGO: So the last presentation is on repression. And you've heard the word repression and price elasticity quite a bit during the, during the workshop today. And repression is the way that the customers react to price changes. And the reaction is based on the concept of the price elasticity of demand.

The actual definition of the price elasticity of demand is that it's the percentage change in quantity demanded that results from a 1 percent change in price, if you keep all other factors constant. And there's the swell little formula for price elasticity.

But really why is it important to us? It's important because we need some way to take into account the customers' consumption reductions that result from the targeted conservation rates that we've placed, that we have placed into effect. You've heard from the water management districts that conservation rate structures are one of their best tools in terms of incenting folks to use less water. If they use less water, then if we don't have some way to capture that and make

that adjustment, then the utility won't be afforded the opportunity to really earn the, the revenues that they were authorized. If we ignore repression, the two things that will happen really is that it will result in revenue instability and revenue shortfalls.

And an example on the next page, it's a very basic example where we have -- if we assume the Commission approved rates for the base facility in the gallonage charge and a certain number of gallons that the utility sold during the test year, you would generate $325,000 in revenues. But if you, if you didn't adjust for the, for the repression, you would assume the 50,000 gallons that would be sold annually. But actual usage may be 85 percent of what they, of what they sold during the test year because the customers have reacted to the price increases because of the conservation rate structure. So instead of, instead of selling 50,000 gallons, now they're only able to sell 85 percent of that 50,000 gallons. So instead of generating revenues of $325,000, the actual revenues generated is closer to $306,000, which results in that revenue shortfall of almost $19,000 that you see. So, again, without that repression adjustment, the utility isn't afforded the reasonable opportunity to earn its approved revenue.

Mr. Yingling may have some thoughts on -- he does. Mr. Yingling.

MR. YINGLING: On repression?

MS. LINGO: Yes.

MR. YINGLING: Well, it's real. Every study has shown it. And as I've said before, we're not really interested in increasing -- or maybe I didn't get to this before, but we're not really interested in increasing people's rates or increasing the utility's revenues. In fact, we've come to the Commission and said before that we're interested in revenue neutral rate structure changes, ones that just provide a different set of incentives, a more conservation oriented set of incentives in the, in the rate structure itself. And the values that are used for repression, this is some of the data that has come from the studies that we have conducted, and they're very stable over, over the studies in reality when you look at the average numbers. So we feel that we've got a real good handle on that, but it is important to look at. And that's the, and that's the other side of water conserving rate structures is that although they may see an increase in the actual rate figure, when you look at what is actually used times those new rates, sometimes there is a reduction overall in revenue. And that's, that's the effect where they are conserving and not paying the full impact of that rate increase.

MS. LINGO: And in closing, regarding repression, I'd just like to point out that there have been over 200 studies done, most of them on the residential class, and I'm unaware of

any of those studies that have said price elasticity or repression does not occur. The district has -- all of the studies conducted by the district has shown that it's real, our data that we've been collecting indicates that it's real. So we just believe that it's, it's a very important aspect of rate design that we can't ignore and should continue.

Commissioners, with that, that includes the prepared materials. Before, before we conclude though, I'd like to recognize the efforts of staff member Sonica Bruce. She's worked very hard to put this material together, did a lot of research, and I would certainly be remiss if I didn't recognize her efforts.

CHAIRMAN EDGAR: Commissioners, questions or discussion? No? Okay. We got through all of that much quicker than I expected. A lot of really, really good information. Thank you, of course, to our wonderful staff for putting this together.

Commissioners, thank you to each of you for your interest and participation. And a special thank you to our friends and our experts from the water management districts: Mr. Jenkins, Ms. Chelette and Mr. Yingling. Thank you for joining us here today. And we are adjourned.

(Workshop adjourned at 2:15 p.m.)

STATE OF FLORIDA)

: CERTIFICATE OF REPORTERS

COUNTY OF LEON)

WE, JANE FAUROT, RPR, and LINDA BOLES, RPR, CRR, Official Commission Reporters, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

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

WE FURTHER CERTIFY that we are not a relative, employee, attorney or counsel of any of the parties, nor are we a relative or employee of any of the parties' attorneys or counsel connected with the action, nor are we financially interested in the action.

DATED THIS 7TH DAY OF FEBRUARY, 2006.

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