CITY OF PHILADELPHIA
PHILADELPHIA WATER DEPARTMENT PRESENTATION
RATE BOARD HEARING
Monday, February 22, 2016
MINUTES of FORMAL HEARING

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LOCATION: 1515 Arch Street, 18th Floor
Philadelphia, Pennsylvania

REPORTED BY: ANGELA M. KING, RPR
Registered Professional Reporter

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HELD BEFORE:

NANCY BROCKWAY - HEARING OFFICER
BERNARD BRUNWASSER - CHAIR
FOLASADE A. OLANIPEKUN-LEWIS, BOARD MEMBER
SONNY POPOWSKY, BOARD MEMBER
MICHAEL CHAPMAN, BOARD MEMBER
LEE HUANG, BOARD MEMBER

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HEARING OFFICER BROCKWAY: Good morning. My name is Nancy Brockway, Hearing Officer for the Hearing Board. This is, as you know, a presentation by the company -- excuse me, by the Department of its quest for rate increase. And primarily, an opportunity for the Board to ask, inquire about things which may not be clear from what they read or from what is said.

And after the Board has had it's opportunity, the active participants will also have their opportunity. We are going to go until 5:00. I will be here until 5:00. I'm not sure that everybody has to be here until 5:00. I think the first thing we might want to do is just go around the room, go around the table, anyway and have folks just say who they are and where they are from.

MS. BECKLEY: I'm Frances Beckley. I work for the City of Philadelphia Law Department. And I'm counsel to the Board.

MR. BAKARE: My name is Ade Bakare. I'm a lawyer working in Harrisburg. I represent the Philadelphia Large Users Group of Industrial

Customers and the Large Department Service Territory.

MS. OLANIPEKUN-LEWIS: I'm Folasade Olanipekun-Lewis, Board Member.

MR. POPOWSKY: I'm Sonny Popowsky. I'm a Member of the Board.

MR. CHAPMAN: Michael Chapman.

MR. BRUNWASSER: Bernie Brunwasser, Member of the Board, former Water Commission.

HEARING OFFICER BROCKWAY: Chairman of the Board.

MR. BRUNWASSER: Chairman.

MR. HUANG: Lee Huang, Econsult Solutions.

MS. PICKENS: Good morning, everyone. I'm Josie Pickens. I'm an attorney with Community Legal Services here on behalf of the Public Advocate.

MR. GOULD: George Gould, also Community Legal Services, Public Advocate.

MS. TRAN: Good morning. Thu Tran, CLS, the Public Advocate.

MR. BALLENGER: Good morning. Robert Ballenger, CLS for the Public Advocate.

MS. KUMAR: I'm Prabha Kumar from Black & Veatch.

MR. JAGT: Dave Jagt with Black and Veatch.

MS. McCARTY: Debra McCarty, Water Commissioner.

MS. BUI: Ann Bui, Black & Veatch.

MR. DASENT: Andre Dasent, outside counsel Philadelphia Water Department.

MS. ALLEN: Valarie Allen from Ballard Spahr.

HEARING OFFICER BROCKWAY: Can everybody speak up a little bit?

MR. HARVEY: Mark Harvey, Director of Operations for the Revenue Bureau.

MS. BETHEL: Michelle Bethel, Deputy Revenue Commissioner for the Water Revenue.

MS. CROSBY: Susan Crosby, Law Department, counsel to the Water Revenue Department.

MS. LABUDA: Melissa LaBuda, Deputy Water Commissioner.

MR. SCHWARZ: Scott Schwarz, Law Department. Counsel for the Water Department.

MS. DAHME: I'm Joanne Dahme, Public Affairs Manager, Water.

(Dan from PECO/Exelon also present. Couldn't hear full name.)

MS. CLUPPER: Kathy Clupper, Public Financial Management.

HEARING OFFICER BROCKWAY: I think it would be helpful for people who are going to talk, even ask questions, would give their business card or write out that information for our court reporter.

Anybody else want to --

MR. HELBING: Mike Helbing. I represent PennFuture.

MR. DAVIS: Jon Davis with Raftelis Financial Consultants working with the Water Department.

MS. LOCKLEAR: Henrietta Locklear, also with Raftelis.

MR. KREPS: Bart Kreps with Raftelis.

MR. MARKUS: Ed Markus, Amawalk Consultant.

MR. PALLADIN: James Palladin.

HEARING OFFICER BROCKWAY: Anybody else?

You don't have to.
(No further introductions made.)
HEARING OFFICER BROCKWAY: Thank you.
The Water Rate Board Ordinance provides for this day to consist of an opportunity for the Department to present its case in general terms and to respond to questions. The way we are going to do this is we're going to let the Department start off. I have already told Mr. Dasent that the Board is going to be -- feel free and do feel free to say wait, please, can you go over that again or here is this question I have related to that. So what might have been an hour or so of the presentation is going to go on somewhat longer. But my own view is that if you try remember what your question was from 45 minutes ago, you have forgotten it.
So, we will try that and see how it goes, but the Board should feel free. This is -- at this point which is the presentation by the Department and the chance for the Board to ask questions. We are going to have a break in the morning. We're going to have a lunch break and a break in the afternoon. If anybody needs any

other consideration, please let me know.

So I think we are ready. Without further ado, Mr. Dasent, would you present your Department.

MR. DASENT: Thank you, Madam Hearing Officer. We have a PowerPoint presentation here today. It we will lead with Commissioner McCarty. We will present various segments of our presentation by different members of our team.

HEARING OFFICER BROCKWAY: You should talk directly to the Board.

MR. DASENT: As a consequence -- I'm sorry.

HEARING OFFICER BROCKWAY: That's okay. Pay no attention to the Hearing Officer.

(Laughter)

MR. DASENT: Just so you're aware, we have various participants on the panel. We will at various sections switch the panel so that in our limited seating arrangement, we might make the best presentation for you.

Debra McCarty will start our conversation today with a slide concerning our mission.

HEARING OFFICER BROCKWAY: Do we need to turn down the lights?

MR. BALLENGER: Let me see if I can figure that out.

HEARING OFFICER BROCKWAY: Rob is our technical consultant.

(Lights dimmed as presentation begins.)

MS. McCARTY: Good morning. Again, my name is Debra McCarty. And want to tell you a little bit about the Department.

So stepping right in, who we are, going over our mission, core services, regulatory requirements. And am I supposed to be switching this? Sorry.

(Referring to slides)

Cost of service, some of the building blocks for the rate setting, overview of our rate concepts. Study results, some of our key assumptions, objectives, cost of service results, and then the proposed rates and the bills. And then our proposed rates, so the impact on the bills, rate comparison, customer assistance.

So who are we?

We provide the City with integrated

water and wastewater services. We are the City's -- one of the City's ten operating departments. And we serve under a dedicated water fund established pursuant to the City Charter. We operate, maintain, repair and improve the water and wastewater systems throughout the City. We are fully funded by our customers, again, as per charter and not any taxes. Our rates are fixed by a Rate Board, you all. As you know, we are funded by the Mayor and City Council.

So what does Philadelphia Water do?

As I mentioned, we are integrated water, stormwater and wastewater system. And we treat and deliver, collect and treat. And there is some storage and management throughout the City.

So who do we serve?

Predominantly, the City of Philadelphia. Then we do have some wholesale customers outside of the City. The drinking water, our retail is 1.6 million people, and then we have one wholesale customer.

HEARING OFFICER BROCKWAY: May I -- sorry to interrupt. When you say people, I always get confused. Do you mean meters or individual customers with bills?

MS. McCARTY: People

MR. BRUNWASSER: Population.

MS. McCARTY: The total population of Philadelphia is about 1.6 million people.

HEARING OFFICER BROCKWAY: Okay. Thank you.

MS. McCARTY: It's people.

HEARING OFFICER BROCKWAY: Thank you.

MS. McCARTY: Wastewater, again, it's 1.6 million people. But we also have ten wholesale customers.

So the drinking water, 58 percent of the water comes from the Delaware River; and the balance, 42 percent, is supplied by the Schuylkill River. We have about 3,000 miles of water mains, a lot of pumping stations, valves, 25,000 fire hydrants. And we have three large drinking water plants. You can see them on the map there. Some of our larger facilities, pumping stations, storage is also by the dots.

So we supply in Fiscal 15, 236 million gallons per day to our customers. The wastewater side, we have 3,700 miles of sewers that deliver the wastewater to our treatment plants. We also have a centralized biosolids recycling center also known as Sludge. And we have three large wastewater treatment plants. Again, they are on this map. You can see the drainage sheds for those facilities. The average daily wastewater treated was 397 million gallons per day in Fiscal 15.

We do have award winning facilities drinking water. We are very proud of the fact that we have 15 Year Directors Award for the Partnership for Safe Water. We have received the Governor's Award for Environmental Excellence. And our drinking water quality which is why -- one of our -- top notch. We need or do better than the Safe Drinking Water Act requires us to do.

On the wastewater side, again, we are award winning. And we have received the NACWA, National Association for Clean Water Agencies peak performance awards. Two of our facilities we received platinum awards, meaning that five years or greater they've achieved 100 percent compliance with their discharge permits. The Gold Award is 100 percent compliance. And actually, this coming year for 2015 we will be receiving five platinum awards. So, each facility will receive a platinum award. We are very proud of that. Of course, we comply with local and state and federal standards. So, that we believe is a big achievement.

Regulatory compliance, we are subject to the Clean Water Act and have a consent Water Agreement for our combined overflows, the Clean Water Air Act and the Safe Drinking Water Act. And we can't do that without skilled workforce, advanced technologies and effective programs and financial plans.

And I will turn it over to --

MS. BUI: Thank you. Good morning, Members of the Board, visitors going through. What I would like to do --

HEARING OFFICER BROCKWAY: Excuse me, I'm sorry. For those of us who are not familiar, could you repeat your names before you start?

MS. BUI: Sure. My name is Ann Bui, that's B-u-i. I am the Managing Director for the

Water Industry. We are the rate consultants for the Department. What we have always found, as you can tell from Debra's presentation, is that the Department manages a very, very complex systems, both the water and wastewater. What I am going to present now is an overview of how we use that information to conduct a cost of service.

If we can go to the next slide, basic building blocks of when you conduct such a study consist of three elements. We want to start from the bottom and move our ways up to the top. The first part is essentially financial planning. That's where we take a look at our revenue requirements. So, that composes -- consists of your operating costs, your capital costs, your reserve costs. In addition to, on the other side as you've got expenses, is our rate revenues. Where does our revenue come from and miscellaneous revenues.

I like to think of that bottom element kind of like balancing your budget at home. I have income coming in. I have expenses going out. We have got to balance that. That's the purpose of that bottom element.

HEARING OFFICER BROCKWAY: May I interrupt you again? I'm sorry. This an issue that may come up. I'm not shy about interrupting.

MS. BUI: Yes.

HEARING OFFICER BROCKWAY: Can you explain to us the financial planning arrangement?

I see that here, who drafts the plan? Who looks at the plan? What is the effect of the plan?

MS. BUI: Yeah. What ends up happening is that we sit down with everybody. And what you are looking at are all the expenses that utilities has to look at.

HEARING OFFICER BROCKWAY: I'm not actually asking that question.

MS. BUI: For Philadelphia it would be the Finance Department.

HEARING OFFICER BROCKWAY: I'm sorry to interrupt, but I'm not being very clear about my question. The finance plans lays out a plan.

MS. BUI: Correct.

HEARING OFFICER BROCKWAY: Who approves

that in the City, if anybody? And what effect does it have on the obligations of the Department?

MS. BUI: That I will refer to --

MS. LABUDA: What it is --

HEARING OFFICER BROCKWAY: Sorry, we can't hear you.

MS. LABUDA: Melissa LaBuda, I'm with the City of Philadelphia. So, it depends which plan you are speaking to. As you know, most of our assumptions came from the City of Philadelphia's -- City of Philadelphia's Five Year Plan which we submit to PICA, which is a state-approved plan. That was the basis of many of our assumptions.

From there, we then had to look at what additional items or expenses might not be captured in that plan. Which would be debt service, what is our borrowing plans, how much do we have to borrow to fund our infrastructure, regulatory requirements and any additional hiring that we might have to do.

HEARING OFFICER BROCKWAY: May I inquire on the debt service? I'm trying to get a -- I have a vague picture of various components, but I'm trying to get it all clear in my mind.

So to get an estimate for debt service, you not only take care -- you not only look at what bonds and the other encumbrances you have outstanding, but you project the capital requirements?

MS. LABUDA: Well, I'm not sure. When I speak to debt service, I don't speak of an encumbrance. I speak of actual, physically issued debt, actually that 1.9 million of debt outstanding predominantly issued under our water and wastewater bond ordinance.

Then you add to that PENNVEST. That's our actual debt service to date. Then from there you are going to add projected debt service, which is additional borrowing we would need to fund renewal and replacement and ongoing improvements to the system, the water and wastewater system.

HEARING OFFICER BROCKWAY: So, you would do that kind of planning of capital investment and use the results of that to inform the amount of debt service you are going to have to make?

MS. LABUDA: Correct. In the financial planning, the various tables in the proceeding you will see existing debt service, which is from our currently outstanding 1.9 million of debt plus projected issuance over the planning period.

HEARING OFFICER BROCKWAY: And for that -- for the things that drive the costs of those, that debt service and projected debt service, do you have a plan or a budget for those items? And if you do, does anybody approve it besides -- within the Department?

MS. LABUDA: So, of course there is a capital plan which our chief engineer in the room Steve Bertoc, which is submitted every year and is approved and is presented to City Council, approved by City Council. So yes, it is approved outside of the Department.

HEARING OFFICER BROCKWAY: In other words, by outside do you mean the City Council approves it?

MS. LABUDA: Correct.

MR. BRUNWASSER: Also, the City Planning Commission.

HEARING OFFICER BROCKWAY: Are you bound

by that? In other words, this is your plan and
you've got to stick to it?
MS. LABUDA: There is probably
incredible risks if we don't do what we said we'd
do to repair our infrastructure or renew our
infrastructure. It is a plan that is based on
engineering studies and needs of the system. So,
I would think there would be risks to the system
if we don't improve and renew the system, of
course.
HEARING OFFICER BROCKWAY: Thank you
very much.
MR. BALLENGER: Madam Hearing Officer, I
just heard from folks on the phone that they're
having really hard time hearing? Are these
microphones decorative or --
MS. LABUDA: This is my mistake. If
everyone -- while there is a green button, you
actually have to hit to be heard. Again, I'm
sorry about that.
MR. BALLENGER: Going forward it -- it
would be helpful. I know we have three or four
people on the phone with us today.
MS. LABUDA: I think the other part of

the financial plan, we touched on expenses predominantly driven by PICA, the City's Five Year Plan. We have talked about debt service. Of course, the other part of the plan is, you know, how are we going to use our reserves? And if you look at the proceeding, you will see that we are using reserves to bridge FY16 without a rate increase and to mitigate rate increases in '17 and '18.

Also, the other part of it is the expense projection, revenue projection, debt services projection and also how we are utilizing current reserves to limit the impact in '17 and '18 and, of course, the fact that we didn't have a rate increase in '16.

HEARING OFFICER BROCKWAY: Thank you. I apologize for the interruption. We probably will come back to that topic later.

MS. LABUDA: I'm happy to answer questions.

MS. BUI: So after we established our revenue requirements, what we want to do is take a look at cost of service, which is the second element. Oftentimes, the way I look at that is what does it cost to provide service to our different customers? That's the way we want to take a look at it whether they are wholesale or retail. And we typically look at testers. We are going to go into more detail for that later on.

But simply put, if you want to take a look at one year at a time to determine what does your cost of service look like. How are your costs that are incurred by the Department allocated out, okay? From there we go into rate design. And that is, as you all know, is how exactly are we going to recover those costs from our customers. You know, what mechanism are we going to use? And that simply put is the rate setting process.

It is something of an industry standard that we use going forward. Let's talk a little bit about what those industry standards are. Our guidance documents out there which pretty much every rate consultant follows. The American Water Association, that is the predominant one. It's called the M1 Manual. You will hear that many, many a time. Then on the wastewater side, we have the Water Environmental Federation, WEF. They also have a guideline for that. And then finally, there is new one that's out with respect to guidelines on stormwater and how you want to allocate those costs and design rates and some of those rates and policies. Those are some of the predominant standards we use within the industry.

Our next slide here goes a little bit more into financial planning, which I'm not sure exactly that we need to spend a lot of time on because we answered some of those questions. Fundamentally, anybody doing a cost of service study, when we take a look at financial planning, what you are trying to do here is based upon reasonable assumptions, take a year, look at a multi-year plan, okay?

So, you want to build financial solvency. You need financial stability. Everybody I think would agree with that. Even personally financial stability will be great. We need to be able to provide the bond capacity. You have a very, very large system here. It's very complex. It needs to be worked upon. There needs to be investments made to make sure it's

going to renewal as well as additional capital
investment. In order to do that, we need to take
a look at potentially issuing debt to meet that.
When you borrow money, as we all know,
there are requirements that are placed upon that.
Those are known as the bond and insurance
covenants. We have to meet those requirements.
That's not an if. We must meet those
requirements because it does affect the credit
rating of the City.
And then finally --
HEARING OFFICER BROCKWAY: May I
interrupt you here?
MS. BUI: Yes.
HEARING OFFICER BROCKWAY: Credit rating
of the City. In other words, the credit rating
of the Department has an impact on the credit
rating of the City?
MS. BUI: Yes.
MR. BRUNWASSER: And vice versa.
HEARING OFFICER BROCKWAY: Thank you.
MS. BUI: You're very welcome. And then
the other thing we want to take a look at is we
want to make sure that if we need to have revenue

adjustments, that we try to levelize those out. And I think all of us can understand that. When you're looking at your own bills at home, the last thing you want are bills going up and down in pricing. You want to be able to mitigate that. That is really important for our customers.

So having gone through that, let's take a look at those particular elements in a little bit more detail. What we have done for the Department is a six-year studies period. And this -- what this flow chart does is it shows what the different elements are that we take a look at, the operation and the maintenance expense, the capital expenditures, our debt service.

And from those three large elements, we come up with what our total revenue requirements are.

HEARING OFFICER BROCKWAY: What are the six years we are looking at in this case?

MS. BUI: It starts from Fiscal 15, I believe.

MR. JAGT: We have to project for FY15

because we don't have end-of-year data. We have
to go through 15/16 all the way through 20/21.
HEARING OFFICER BROCKWAY: Thank you.
MS. BUI: And the reason why we do that
for a number of variety of reasons, one of which
is you don't -- for utilities or for agencies for
companies, you want to take a look at what that
overall plan is so that you can make adjustments
also to make sure that if revenue adjustments are
needed, they are not going up and down. You can
levelize things. If you take a very short view,
it's very difficult then to make sure that you
can mitigate that impact to your customers.
Questions?
Okay. Very good.
MR. BALLENGER: I heard, Mr. Jagt say
that you --
HEARING OFFICER BROCKWAY: I'm sorry.
We are going to hold questions from anybody but
the Board.
MR. BALLENGER: Oh, I'm sorry. My
apologies.
MS. BUI: The requirements on -- we know
what we need from an expense side. Our total

Revenue Department side, right? We sort of know what our revenues are already because we have revenues under our current rate plus we have some miscellaneous revenues that the Department can generate. We know what our money is coming in the door. That gives us year-by-year what our financial planning is going to be.

Now on top of that, once you established that, you still have to take into consideration those other requirements that I mentioned before: The general bond ordinance, the insurance covenants, and the Rate Board requirements. So, that's the final element going through.

Now, we always get this question. What exactly is the cost of service?

Cost of service is what you are trying to do here is take the total system revenue requirements and allocate them to the users of the system in proportion to how they -- the services they receive, okay? That's a very simple way of putting it, but it's a lot of work that goes into that.

So, what kind of costs do you allocate? Well, the costs or -- let me put it this way.

Why do we want to allocate those costs?

First off, different customers have different characteristics. They use the system in a different fashion. If you think about it, a residential customer uses water and wastewater in one way compared to a commercial customer or an industrial customer. There is different usage patterns there and characteristics, and that's what we try to reflect. There needs to be a reasonable nexus between the fee that you charge and the cost or the service that's being provided. It needs to make sense. It needs to be fair.

We have to meet our regulatory requirements. And when I say that, it's like, for example, there are federal grants that the Department has been very lucky to receive. But there's also requirements on those grants that we must comply with that, as well. Again, what you try to do is establish fair and reasonable basis so that you can defend your rates.

This particular graph or picture illustrates how we go about allocating the costs of developing the actual cost of service, okay?

We start with our revenue requirements and we take it one year at a time. We start with our revenue requirements. And for the Department, we have water system costs and we have wastewater system costs, all right? You have to separate them out because they serve different customers at times, but they also have different cost drivers. And then within those two categories you also have your retail and your wholesale again. Both sides.

Then what you do on the water side is you look at the different customer types. You allocate those various costs out to the different customer types after you've established the different functional components, and then you drive the user rate charges.

HEARING OFFICER BROCKWAY: I looked ahead to see if you had more on this.

MS. BUI: You're not supposed to do that. Yes.

HEARING OFFICER BROCKWAY: As you know, rate design -- cost allocation and rate design are, some people call it an art rather than science. It's driven by assumptions made about what's the fair way of allocated rates.

How does the Department do it? I get the feeling that you use historic costs or embedded costs. In other words, you don't look to see what the incremental costs would be in the future. You take a picture of what the costs have been or are today, and you figure out what those costs are used for and that's how you allocate. You allocate the costs to those who use it for the purpose that is used -- that is.

MS. BUI: That is why you need to allocate the way you do. We are looking at future years as a basis for the projection of those costs and patterns. Certain things it is adjusted.

HEARING OFFICER BROCKWAY: It's an adjusted --

MS. BUI: This is forward looking.

HEARING OFFICER BROCKWAY: How far forward do you go for this one year?

MS. BUI: Well, it's each year. So, we had to make estimates for Fiscal 15. As Dave pointed out, it's not final yet. So, there are estimates involved in there. And then you project to the ensuing years.

MR. JAGT: Just to clarify. We have the preliminary audited numbers for FY15. And we have used the Department's financial statements, the unaudited financial statements for developing FY15. There will be significant adjustments from that for the audit, but until the audit's complete, we won't really know. But they are like 99 percent.

HEARING OFFICER BROCKWAY: Looking through, I'm not seeing that you come back to this. Am I correct that this is our discussion of cost allocation?

MS. BUI: No, no, no, no. There will be more.

MS. LABUDA: Can I just make a clarifying statement? Just so you know, the City has not released it's Fiscal 15 certified financial report. We are one tax ID. We are one entity. We are called the City of Philadelphia. Our component unit or our Department will release its set of statements when the City releases. We don't have the audit yet. We anticipate the statements will be released. All the numbers utilized by Black & Veatch represent unaudited numbers because the audit is not yet complete.

MS. BECKLEY: I'm sorry. Didn't understand. Sounded to me, you said -- sounded to me like the numbers are 99 percent but they are going to change significantly. I'm trying to understand. Are we close or we not close?

MS. LABUDA: It's not -- what we are speaking of is Black & Veatch sets -- the Water Department's rates and charges are set on a budgetary or legal basis. Those statements were released in some time in October. The City also released it's Quarterly City Manager's Report last week which also had budgetary or the legal statements in those. Those numbers are on the PICA website and Director of Finance's website.

The statements that are currently under audit and the audits not received are the GAAP financial statements. We do not set rates and charges on the GAAP basis. Our bond works on a cash basis.

HEARING OFFICER BROCKWAY: Generally Accepted Accounting Principles.

MS. LABUDA: Thank you. I'm sorry. Not

trying to speak in code.

I do not anticipate material shifts. But until we have an audit letter, I can't opine in either direction if there will or will not be changes between my sitting in the room at this table and Wednesday when they release. But on a budgetary basis, on a cash basis, those statements were released in October for an audit. And they are 99 percent complete.

MR. HUANG: I had a few questions about the reserves that Ms. LaBuda mentioned. Where does that -- you mentioned that the existence of the reserves allowed the Water Department to not increase rates in '16 and to minimize the increase imposed in '17. Series of questions about the reserves.

Where do they come from? And what is the purpose of their existence besides what -- besides that use, or is that the only purpose?

MS. LABUDA: We will touch on this later in the presentation. But the reserves are a flow of funds or the accounts that we have are very clearly defined in our General Bond Ordinance. So oftentimes, I advise most individuals to figure out our flow of accounts through our General Bond Ordinance because there are a very specific set of accounts that we have. The two reserves that our General Bond Ordinance allows us to have are the Rate Stabilization Fund and the Residual Fund.

It's the Rate Stabilization Fund that allow us to withdraw revenues from this account to bridge any deficiencies between expenses and revenues. The Residual Fund is the bond and bucket. It's the last place monies go. And we cannot use anything in that account to bridge a structural deficit. We can make a payment out of it, but we can't use those funds to meet one of our coverage or compliance matters.

MR. HUANG: Is it fair to call them a buffer in a sense then?

MS. LABUDA: Absolutely. The Rate Stabilization Fund is really the key fund to how we can -- how we can have funds set aside for unforeseen or unexpected emergencies that aren't covered by rates and charges.

MR. HUANG: Do industry standards give you some guidance on how much the reserves should be held back versus essentially giving back to the rate --

MS. LABUDA: The rating agencie -- and I know Kathy Clupper from PFM will also speak to this. I don't want to misstep here.

But yes, of course. The rating agency provides significance guidance on the days cash on hand, the amounts of cash we should have to help balance the budget or mitigate or manage unforeseen emergencies. That numbers, most of our peers are anywhere from -- please, I am going to have to fact check on this -- 250 days to 400 days cash on hand.

MR. HUANG: Last question. Does that -- the size of that buffer, can that be smaller if this rate process happens more often?

MS. LABUDA: If you look through the proceeding, we are talking about taking our rate stabilization fund down to $110 million. I don't believe the Department could manage with anything less than that. And that is due to the level of our budget that rates and charges cover.

MR. HUANG: Thank you.

MR. POPOWSKY: Excuse me. Are you going

to address the questions that we ask to be
forwarded or --
MR. DASENT: The plan was to answer as much as we can today as a part of the presentation. We have written responses are also possible. The Board directs us, we will --
MR. POPOWSKY: I'm just not sure. I just can't tell if you are going to specifically answer those questions.
MR. DASENT: Yes, we are.
MR. POPOWSKY: For example, I think we asked about the Rate Stabilization -- the Rate Stabilization Fund grew, didn't it, over the last few years?
MS. LABUDA: The Department made deposits into the Rate Stabilization Fund. Based on the last rate proceeding, we managed a very specific metric when revenues differed from the financial plan as submitted at the last rate proceeding, it drove deposits to be made to the Rate Stabilization Fund in FY14 and FY15. However, if you were to step into what the City's projections are, the Black & Veatch projections, you will see that we are taking money out in

FY16.

And just to answer your question, the presentation does address most of the questions. It might be helpful if we maybe reference the page numbers as we're stepping through them and which question it addresses.

MR. POPOWSKY: Thank you.

MR. DASENT: At the end, those questions that are not directly addressed can be captured in our Q and A at the end.

MS. BECKLEY: But I would remind the Board that this presentation really is for you. So to the extent that there's anything that you want -- you should not hesitate to interrupt and to ask questions. Because the whole point of this is for the five of you to get what you need as a basis for going forward in the proceeding.

HEARING OFFICER BROCKWAY: Before -- excuse me. Mr. Popowsky, I'm not clear what you were looking for. Is the transcript of today sufficient, or are you saying any time there's a question from the Board they ought to take it down and they ought to memorialize the answer?

MR. POPOWSKY: No. I just wanted -- we

gave a list of questions. I didn't know if they were all going to be covered in this. I don't want to interrupt every five minutes if you are going to get to it.

MR. BRUNWASSER: I think what you are showing here are very summary documents and graphs. And obviously, there's a tremendous amount of detail behind them. And I'm sure you will clarify much of this as you go along.

MS. BUI: After my section, which is pretty much the end of the sort of overview and the general principles. Because I believe that you are fairly knowledgeable already about the cost of service studies, in general, but there are others who are not including those in the public. That is really the purpose of this.

And then we are going to go into a little bit more detail with respect to study results, the assumptions that are used which I believe will also address a number of the questions that the Board provided.

MR. POPOWSKY: Thank you.

MS. OLANIPEKUN-LEWIS: In what instances would you have the ability to draw down the residual fund?

MS. LABUDA: There is -- I'm going to just have to read the very explicit provisions. The Residual Fund is to maintain revenues after all items have been paid through the water. What technically goes through Residual Fund is we pay the City the interest earnings on our Debt Service Reserve Fund. It's called the Scoop. It's capped at $4.9 million.

At the end of the year, there is evaluation done on the Debt Services Reserve Fund. It moves of the Debt Service Reserve Fund, flows to residual, then comes out of residual and goes to the City Con Cash Account.

Another amount of monies that will flow through, through the terms of the General Bond Ordinance through the residual account will be the additional payments we make to our capital trust. There is two components of the capital trust. There is the bond proceeds account and then there is a self-generated capital. We have a required transfer and discretionary transfer.

Discretionary transfer per the terms of the General Bond Ordinance will flow from Water

Revenue Account to the Residual from the Residual back up to the Capital Trust.

The other use of the Residual Fund was related to something that predates me, so I will which have to double check myself on all of the specifics. There was an ordinance passed sometime in 2007 or 2008 that set up a subaccount of the residual account called a special infrastructure. It was to do improvement at the Naval Yard. It was to pay for capital rate of expenditures at the Naval Yard.

MS. OLANIPEKUN-LEWIS: Thank you.

MR. BRUNWASSER: There was -- there is one other thing that historically, obviously, predates Ms. LaBuda. The Water Department gave fees of approximately $20 million of old debt, picked off the high coupons and we fees out the 20 million with the Residual Fund. And that was approved by bond counsel Ballard Spahr.

MS. BUI: If we move to the next slide, which is the last slide on my section, it is the purpose of rate design. Really, I think it's important here that we look at what we're trying to do is, again, recover the cost providing service to our different customers in that fashion. And that's how we design our rates. Thank you very much.

Now before we move onto our next session which is going to address a number of the questions that the Board has sent us, the study results, we are going to make a change out in personnel so we can bring speakers for those particular sections up here.

HEARING OFFICER BROCKWAY: Go off the record.

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(At this time, a brief break was taken.)

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HEARING OFFICER BROCKWAY: We will go back. And now additional people are going to present?

MR. DASENT: Yes. David Jagt from Black & Veatch will be our next presenter.

MR. JAGT: At this point, after having an overview of the cost of service in the financial plan and the process that we followed in doing such, we are going to go over some of the study results of the cost to service analysis. And we will do a quick review of the objectives, a review of the key assumptions for the financial plan, and a brief review of the cost of service results.

So, this question's been brought up a number of times. We will go through it very briefly on Slide 21. One of the big assumptions you have to make is what is our study period for the study?

The main focus of the study was the first two years that we looked at the rates for which were FY 2017 and 2018 for which we are making the rate requests. However, as we know based on Ann's discussion, we need to do a projection of the longer term impact of the financial plan and look at the impact of the rates and the longer term outlook for the utility. You don't want to make an assumption of very low revenue increases now only to have rate shock on the customers later on. So, it's a good practice and the best practice in the industry to do a longer term outlook. And that's why we did the six-year financial plan, which corresponds to the time frame for the Capital Improvement

Program Budget.

(Continues to refer to slides)

Take a brief look at the Study Objectives. One of the key objectives is to continue to provide safe and service to the customers. Want to be able to continue to provide safe drinking water and wastewater services to our customers. And we also want to make sure we cover -- meet the financial investment or the bond holder's requirements. We want to meet the Rate Board's requirements and also the utility in general, what the revenue requirements of the utilities are.

We have a complete list of the requirements off to the right, but the main ones I want to point out for today is we go ahead and identify what the General Bond Ordinance minimum requirements are in this slide where we identify that senior debt service coverage per the bond ordinance needs to be at least 1.2. And the total debt service coverage needs to be 1.0.

HEARING OFFICER BROCKWAY: I'm sorry to interrupt. But can you very, very briefly discuss how you calculate the coverage ratio?

MR. JAGT: Okay. For the coverage ratio for the bonds, we look at the projection of revenues. And that's all the incoming revenues into the fund that's identified acceptable in the general ordinance as acceptable project revenues. We net from that the operating, the O&M expense to come up with the net project revenues.

Net project revenues are compared to the senior debt service to develop the senior debt coverage. You want to make sure that you have enough -- after -- the revenues that come in the door in the year after adjusting for rate stabilization as well, you want to make sure you have at least 1.2 times the debt service. And you have to otherwise you are in technical default and a big issue with the financial agencies and the bonds.

You also need to make sure you meet a 1.0 coverage on the total revenue requirement, so that means that your net revenues, your revenues coming in plus rate stabilization minus O&M has to be enough money to cover all your revenue requirements going out. So, that has to meet your O&M and your capital account deposit. That has to be at 1.0.

We also have some requirements that were in the ordinance that created the Rate Board. We will cover those, as well. The key ordinance, the key requirement we looked at was that total revenues can't exceed total appropriations.

Do you have any questions? Want to make sure before we go on.

MR. POPOWSKY: The Rate Stabilization Fund is included in the numerator in both of the coverages; is that right?

MR. JAGT: It is included in the numerator in both of the coverages because revenues have to -- you can adjust the revenues by what you put in or take out of the rate stabilization form. And that money can be used towards coverage again. Revenues can only be used one time and the rate stabilization is a rainy day fund or a fund that if money is put aside in the rate stabilization, it was not used for coverage. But when it's strong back in, it can be used for coverage in that year.

Another key principle of the General Bond Ordinance is the fact that when we do our analysis, we have to do the analysis in terms of receipts as -- revenues as receipts. Revenues are not reflected as bills going out the door, but as revenues that we receive and collect from the customers.

HEARING OFFICER BROCKWAY: You're not on a cash basis, though?

MR. JAGT: We are on a cash basis. That's correct. And it's based on revenues that we receive are collected from our customers.

MR. BRUNWASSER: Mr. Jagt, isn't there another requirement on the Rate Stabilization Fund as far as the maximum that could be pulled out?

MR. JAGT: That's right. We do cover that later in the presentation. But I will go ahead and cover this now.

In addition to the General Board Ordinance[sic], throughout the years the Water Department had established or provided insurance on some of the bonds. And with the insurance companies, we have an agreement or a covenant that the water fund will meet 90 percent of debt service from current revenues. So basically, this rule or the insurance covenant puts a limit on how much money we can withdraw from the Rate Stabilization Fund in a specific year. So, we can't suppress rates so low that we have to pull more than -- we are not recovering 90 percent of revenue or debt service from the current revenues.

On the next slide, there is a brief review of all the water fund accounts in the funds. We went over this briefly. Missy went through the funds, the key funds. The Revenue Fund is the main driver for the utility. The revenues come into the Revenue Fund. And debt, O&M debt services paid out of -- funds are -- payments are made to other funds out of the Revenue Fund.

The Rate Stabilization represents a fund off to the side. It's a reserve or a rainy day fund. That any year if we determine or the water fund determines that it can defer some of its revenue in that year to a future year, or it requires a withdrawal from the Rate Stabilization to meet its annual requirements, it can do so.

The Construction Fund is where all our

capital costs are met. It's where the bond proceeds are put and capital costs are funded from. The Debt Service Fund covers the debt service. And there's also the debt service reserve that provides for one-year maximum principal and interest to make sure we have reserve to meet debt service payment if we ever have to.

We also have the residual fund which is the -- after making all the payments to the other funds, the net revenues comes out into the residual fund. And the residual fund can be used to make deposits into debt service reserve or meet capital requirements. This reviews the requirements or the possible uses of the residual fund.

Take a brief look at our financial plan. Basically, this slide is presenting the fact that in order to meet the projected revenue requirements for the utility, we have to do a mix of withdrawals from rate stabilization and revenue increases. These are our planned revenue increases in the bulleted list or cumulative revenue increases that we projected through the financial plan from FY 2017 to 2021 to meet the revenue requirements of the system. During our rate period and in the initial year for FY17, we projected a 34.7 million increase in revenues. And in FY18 from the increases in '17 and '18, we are proposing to increase revenues by 70.9 million.

HEARING OFFICER BROCKWAY: First, you said cumulative. And now it sounds like these are year-to-year increases.

MR. JAGT: It's cumulative. So what we've present as FY18 is the result of the increased revenues as proposed in '17 and '18.

HEARING OFFICER BROCKWAY: Okay. So Fiscal 17, 34.7 million.

MR. JAGT: Correct.

HEARING OFFICER BROCKWAY: And then I can't do the math, but --

MR. JAGT: A portion of the 70.9 is an increase from the FY17 increase.

HEARING OFFICER BROCKWAY: Okay. So the other -- you can figure out what the increase in 2018 is by subtracting 34.7 from 70.9?

MR. JAGT: Yeah. Because there is some

other impacts involved with the projection and the changes.

HEARING OFFICER BROCKWAY: But in that sense, these are cumulative. You don't add -- in other words, the 179.6 -- is 179.6 relative to the base that you started with?

MR. JAGT: Right. The best way to look at that line item is the amount over -- it's the additional revenues above the revenues under existing rates. We do a projection of revenues under existing rates or FY16 rates. And these are the additional revenues we need above the FY16 revenues.

MR. BALLENGER: Annual?

MR. JAGT: Correct. Along with these planned increases from rates they are from the revenues, we also have planned withdrawals from the rate stabilization to help meet the projected revenue department. We will review this in detail in some of the graphs coming up.

As Ann reviewed, in Slide 17 you will recall we did -- our approach is we are going to take a projection of the revenue under existing rates and then we are going to look to compare that to the projection of revenue requirements with the -- and we developed the revenue requirements based on the components that were outlined in Slide 17. Each of these slides that we go through, we are going to review some of the key assumptions that we used in those steps as we work through the process presented in Slide 17.

So the first step we are going to look at is the projection of revenue requirements or revenues. The main source for the projection of revenues is the historical billing data we do. We have to look at the record of historical billing data which we got from the new reports that were developed from RFC which provide us with the projected number of accounts or the historical number of accounts and historical water sales volumes and sewer billed revenue as well as the stormwater we got from the stormwater database.

HEARING OFFICER BROCKWAY: Can you -- I apologize. Can you sound out what RFC stands for.

MR. JAGT: Raftelis Financial Consultants.

HEARING OFFICER BROCKWAY: Thanks.

MR. JAGT: We do a projection of revenues under existing rates for FY 2016 through 2021. Again, the revenues are projected based on receipts as per the General Bond Ordinance, so reflects the amount of the revenues -- basically, the collections from the customer. As the customers pay the bill, we recognize them as receipts or revenues in the door.

For each year in order to do that, we have an assumed collection factor or a series of collection factors. The cumulative effect of collection factors are that in each fiscal year, we will receive 96 percent of the billings. For the City, we assume we are going to collect 100 percent of the billings. The City billings reflects the general serve of the water, sewer and stormwater service provided to the general fund which includes all the City Departments as well as the Aviation Fund.

MS. OLANIPEKUN-LEWIS: I have a question. When you said 96 percent of using the total retail, is that based on all the billings on the -- those that you assume are collectibles?

I know that when you're looking at accounts receivable, the assumptions are you're going to get a hundred percent, but the percent is pretty solid. That 96 percent of that amount you receive to be collectible or the total billing that you get?

MR. JAGT: It's 96 percent of the total billings. So, it reflects a 4 percent is uncollected.

MS. OLANIPEKUN-LEWIS: Okay.

MR. JAGT: This addresses some of the questions we had from Council or the Board the next few bulleted items. In our projections we have an assumption there is reduction to water revenues from the wholesale customers.

In the recent year 2015 Bucks County had provided notice that they were no longer continuing their water rate contract or water service contract with the Department. We are not -- you know, I know the Board's question asked in detail what the drivers were. Unfortunately, we -- not being on Bucks County Board or not really knowing the -- what their key drivers were, but we know that they just desired to terminate the contract with the City, and we had to reflect that in the financial plan.

MR. POPOWSKY: Do you know where they went?

MR. HARVEY: They built their own transmission system. (Rest of response trails off.)

MS. BROCKWAY: He's saying they built their own water transmission system. I think it's out of the Chalfont.

MS. OLANIPEKUN-LEWIS: What's that revenue loss?

MR. JAGT: That's 7 or 8 million per year.

HEARING OFFICER BROCKWAY: Did you have something else?

Did the Department try to negotiate with Bucks County to keep them?

MS. McCARTY: Bucks County essentially gave us notice. And given the relationship that really wasn't -- we would have wanted to keep them, of course, because they helped us in the fixed costs. They were pretty definitive. Certain that they just wanted to stop using our water. We still believe that we are the best deal and provide excellent quality. By the way, the rates have gone up in Bucks County.

HEARING OFFICER BROCKWAY: Thank you very much.

MR. JAGT: Then in addition to the reductions from Bucks County, we also reflect a recent reduction from Aqua PA. We also think Aqua PA has been cutting back -- their initial contract was set up for drought use, and they continued to use the water that way. And they have cut back their recent demands to a lower level. And we reflect the lower level in the financial plan.

Our projection also reflects a reduction to the retail cost projections. The annual decrease of 0.6 percent per year is reflected in the projected volumes for retail. That's primarily driven by the reduction in the demand from the 5/8" customers. That's an industry wide issue that other utilities have seen and, you know, water utilities are dealing with nationally.

HEARING OFFICER BROCKWAY: You don't

have water efficiency programs? You don't try to encourage your customers to cut down?

MS. McCARTY: We have conservation programs for low income. But you know without -- but yeah.

HEARING OFFICER BROCKWAY: I'm not trying to make a point. I am just trying to clarify.

MS. McCARTY: You know, it's the -- you see this over the years because of low flow fixtures of the toilets, low flow shower heads, things like that. You see this reduction through the years. As Dave said, the industry's fixing this.

MR. JAGT: Done with that slide.

MR. DASENT: Jon Davis will speak next on the new --

MR. JAGT: Jon is going to give details later on in the presentation. We are going to go ahead and at this point just give a brief overview in the cost and the revenue requirement impact to the new affordability program.

The Affordability Program was mandated by Council. And the Water Department has investigated setting up the Affordability Program in accordance with the bill that was passed by Council. And these are the revenue and revenue requirement impacts associated with this. It's supported from Jon's analysis of the setting up and establishing what the program and costs are involved.

Again, we are following the slide or review as per Slide 17. We will look at the revenue requirement or the revenues first. When we project that based on the level of discounts provided in our customer base, we are going to provide a projected amount of discounts equivalent to 16.1 million to 18.6 million from FY 2018 at the introduction of the program to FY 2021. So, that's 16.1 in FY18 and 18.6 in FY 2021.

That revenue impact will be offset by the discontinuation of the WRAP Program which will decrease -- we will see a decrease in grant costs of 2.7 million per year. The net revenue impact for FY18 is 13.4 million. In addition to the revenue impact for the projection of discounts, we also have the increased costs for the support and implementation of the program which includes personnel costs, which will increase from 1.6 to 2.4 million. And that's driven by the need for additional -- the addition of 22 staffing positions to manage and implement the program. That's a 9 percent overall increase to the Water Revenue Bureau staffing. And it includes the pension-to-pension obligations and the benefits associated with that.

We also have some services costs associated with it. And that includes the improvements to basis2 or of the billing system that handled the program, and also the office space to support the additional staffing. And that 1.3 million increase in FY 2017 as we prepare for the startup of the program. And an additional 0.7 to 0.8 beginning for FY18 to 2021.

Moving onto other key assumptions within the program or the projected financial plan. For O&M, we have looked at the key driver, the Department organizer or the fund has their program, the cost by personnel services, power and chemicals and transfers to other departments. The personnel costs are presented on Slide 27.

And we have a projection of the additional staffing as we need for the increase to programs and to meet the regulatory requirements. There is a projection of additional staffing of 21 staff between FY17 and FY 2021.

HEARING OFFICER BROCKWAY: So this -- I apologize. This is in addition to the additional 22 from the Affordability Program?

MR. JAGT: Yes, it is. This reflects the additional staff in the Water Department itself.

HEARING OFFICER BROCKWAY: And is --

MS. McCARTY: Water Revenue. The affordability staffing increases -- the affordability staffing increases are under Water Revenue.

HEARING OFFICER BROCKWAY: This is for some --

MS. McCARTY: This is within the Water Department.

HEARING OFFICER BROCKWAY: It's for some of the bills?

MS. McCARTY: Right.

MR. JAGT: The additional -- again, it

includes any increase to staffing. We have to reflect the increase to pension, pension obligation and benefits. It increases as well there. We have the annual increase of salary of 3 percent, and also the average increase of fringes and benefits increase 3 percent per year.

Again, the primary driver for the increase in the fringes and the benefits were from the City's Five Year Plan which was recognized by PICA and approved.

HEARING OFFICER BROCKWAY: Was recognized by what?

MR. JAGT: The PICA. They are submitted to the State.

The projected financial plan also reflects additional cost for services or Class 200 in the budget. The additional funding is driven by regulatory compliance. We have the increase in the grant programs of 3.5 million per year, and that's for the Smith and Guard programs for stormwater. And the regulatory compliance for O&M were 0.6 million to 1.12 million for FY17 to FY 2021.

There is also some additional support

for an increased infrastructure renewal, the mark out of the utilities out in the field that will drift increase costs from 0.6 million to 0.7 million per year from FY17 to FY 2021.

Another key assumption or driver for the Water Department is the power and chemicals. The power costs with the purchases that the Department has planned, advanced power purchases it makes through its like energy plan. We were able to not have any increase for power cost in FY17. However, we need to recognize the fact that that can't continue to go on based on longer term experience. We anticipate a 5 percent annual increase in '18.

Chemical costs are projected based on 3.3 percent annual increase.

HEARING OFFICER BROCKWAY: Is that inflation and chemical costs or -- go ahead.

MR. HUANG: That's my question. The power costs and the chemical costs, how much of that is inflation and how much of that is volume?

MR. JAGT: It reflects the overall increase for the Department's cost over the past several years. So it would increase -- it would reflect the changes in volume as well as the annual purchase cost, so inflation and the volume.

MR. HUANG: That was my other question. It is anticipated that volume will increase?

MR. JAGT: Well, actually the volume is decreasing. It's a slight decrease over time, so 0.6.

MR. HUANG: Okay.

MR. POPOWSKY: Do you have contracts for purchasing electricity? I mean, 5 percent seems pretty high.

MS. LABUDA: So, we are part of the City. And we utilize the Office of Sustainability for our energy purchases. For FY17, the answer is yes. Approximately, 80 percent of our power costs have been purchased forward where the price has been looked in. The remaining 20 percent in laymens term how you pay your electrician.

The FY18 purchases have not yet occurred, but I can't speak to the timing of when the City will enter into the market and hedge our FY18 power purchases. So, this is an

inflationary assumption at this point.
(Barking heard over the phone connection.)
HEARING OFFICER BROCKWAY: Sounds like there is somebody on the phone trying to make a comment.
(Laughter)
MR. JAGT: Continuing on with Slide 28. The department also has in the budget transfers to other departments, they're interfund transfers. And then they -- basically, it's services provided by other departments that's paid for by transfers in the finance and admin portion of the budget. And that's projected to increase from Fiscal -- it also includes in the projection an increase that's going to -- that's in the projection reflects some additional upfront payments that have to be made to the general fund to reimburse them for the construction of a combined sewer outflow.
So the projection includes 1.8 million in FY 2017 and 3.5 million in FY 2018. The portion of the projection of interfund transfers that reflects the services provided by other City Departments reflects the annual increase or

inflationary increase of 3 percent per year. Again, that reflects the services provided from other departments. And they're primarily driven by City personnel costs.

MR. CHAPMAN: Just a question. On page 27, the 21 additional staff members, you told us on 26 what it was for the 22 and the Affordability Program. But you didn't detail out what it was going to be -- increased costs was going to be in operations and maintenance.

MR. JAGT: I can -- we can pull that out and provide that -- I don't happen to have it right on my sheet right here. I can provide an answer to that in a response.

MR. BRUNWASSER: Ms. LaBuda, would that be in the operation budget for -- well, that's right. It's year end flex.

MS. LABUDA: Right. We haven't yet -- the City hasn't released it's Fiscal 17 operating budget yet. The specific details that would show where the positions would occur that we are hiring FY17 hasn't yet been released. The 22 positions that Dave is speaking of are over the planning horizon and not just in year Fiscal 17.

I think -- I am working from memory here, so please forgive me if I'm wrong. Very few of those are in Fiscal 17.

MR. JAGT: That's correct.

MS. LABUDA: We will get back to you with that amount.

MR. JAGT: Just to go over, what we presented is an overview. Within the documents for the rate filing, you had within the supplemental papers to the B&V's testimony, I think it's PWD Statement 9B, there is an assumptions document that includes in more detail or a lot more detail for each of the assumptions presented. And there is a table, Figure 6 provides a projection of the additional staffing costs by department and gives the overall or more details as far as the backup for those numbers.

MR. CHAPMAN: Thank you.

MR. JAGT: It's within PWD's Statement 9B, which is the Black & Veatch supplemental testimony. The BV-S1 is the supplemental document one after the testimony. Has all the assumptions for financial planning.

Following again Slide 17, we have

completed a review of the O&M requirements. And going to shift over to the capital requirements in the system.

This graph is a presentation of the projected capital budget costs for the program. And it also presents the funding plan of how those revenue require the capital programs being met. Now for each year, there is a green bar of how -- or green and grey bar. And the blue bar represents the projected expenses.

The green and grey bar represent how those expenditures are being met from the funding plan or the mix of bond issuance and cash funded capital. The grey represents cash funded capital. And the green represents projected bond issues.

Now that FY16 looks a little funny because it has all expenses and very little on the funding side. The reason why that is, is because in FY15 we had a bond issue that is providing the funding to make it through FY16 in the capital fund. So, all the revenue requirements presented in '16 are being met from the bond issuance plus the cash funding that's being provided from the residual and the capital account deposit.

So the plan, as you can see, it increases the grey bar or the cash funded capital over the planning period as we increase from 20 to 25 percent to try and increase the amount of cash funding that we are doing in the -- for the water fund. And that's to move the water fund to best, you know, improve the position of the utility and improve liquidity in the system and meet the industry-wide best practices.

I think this addresses one of the questions from the Board of how the residual fund is used. It's reflected in the transfers and the funding of the capital spending there. As we stated, the other -- within the financial plan we reflect the O&M, the capital requirements which includes fund transfers. The cash funded capital, which we are already mentioned, were moving from 20 to 25 percent to increase the cash funding in the department to improve liquidity which will happen in a long period of time. To move them, the Department needs to make to improve its position and improve it's bond ratings.

The additional transfer from residual fund to construction fund is necessary to achieve that goal. It also includes -- there is two portions of the capital fund transfer, capital fund. One is the required capital account deposit. The General Bond Ordinance in addition to the bond coverages that we've already reviewed in the required debt service coverage, it requires a transfer of 1 percent of net asset value or original cost less depreciation of the system's assets be transferred from the residual fund to the capital account each year. So, 1 percent of the net value of assets is transferred there, and that's required by the bond ordinance.

In addition to that, the Department makes an elective amount of funding from the residual fund. So, it's the combined cash funding of the capital account deposit plus the residual fund transfer that represents the cash funded capital from the capital.

MS. OLANIPEKUN-LEWIS: What drives the elected contributions from the residual account?

MR. JAGT: It's basically the amount

available to meet the 20 to 25 percent. But we basically been the financial plan presented, we presented a minimum balance that we wanted to maintain in the fund of 15 million a year. And we transferred as much out as we could based on the projected financial plan maintaining that 15 million per year. And it did meet the target of moving it from 20 to 25 percent over the five-year period.

As we spoke before several times, three is also the rate stabilization transfer. That provides additional funding necessary. We will review that in a slide coming up of how it helps meet the revenue requirements for each of the fiscal years projected.

Again, as we presented in Slide 17, we do a projection of revenues and revenue requirements. And we look at the additional needs of the system. And this graph, it presents that projection of flow of funds that we looked at. So on the left side with the blue and the greys, this is your revenue into the system -- that's your revenue requirements into the system reflecting O&M, the debt service and the capital account deposits and the transfers. On the right side, we have the projection of the revenues including the service revenues, the miscellaneous revenues and the withdrawals from the rate stabilization.

So, this graph answers the question from the Board of how are you planning to use the rate stabilization fund. You can see that with our projection of revenue increases in addition to the increased revenues that we have requested, we also need to draw from the rate stabilization to meet the annual revenue requirements in the system. And that's 19 million is drawn in FY17 in addition to the revenue increase requested. And 39 million is withdrawn in FY18 in addition to the revenue increase that's been requested.

MR. HUANG: What will the balance be at the end of '18?

MR. JAGT: The balance at that point at end of '18 will be 111 million, which is the targeted 110 million minimum balance for the fund.

One key thing to point out here is this projection reflects our projection of cost on the system. So, O&M reflects our projection of actuals. During the process or each annual budget review, the Department also has to be able to meet the coverage and projections based on actual spending, which is why we need -- we would need even more money from rate stabilization. And that's one of the reasons or the drivers for having the 110 million in the Rate Stabilization Fund, sorry. Needed to take a breath.

Because the revenue requirement side would be higher based on 100 percent of budget, so we would have to increase the revenue side to meet that which comes from available balances for budgeting purposes in the Rate Stabilization Fund.

Continuing a projection for FY19 through '21, we already cheated and jumped ahead. At FY 2018 we are at minimum of 111 million or just above the 110 million, so we can't continue to withdraw from the Rate Stabilization Fund. Here the revenues are increased to meet the revenue requirements in each year and provide the deposit-to-rate stabilization to rebuild the fund or maintain the minimum balance.

On Slide 33, we have got a projection which we've already reviewed of the rate stabilization and the residual fund balances. This addresses the Board's question which was how we are utilizing the funds and the projected balances as a result of the proposed plan. As we have already reviewed, that with the planned increases from the rate increased, proposed rate increases. We are going to be at a drawdown to -- from the beginning balance of FY14 at 185 million.

During FY15, we project we are going to see an increase to 206 million, but then subsequently be drawn down in '16, '17 and '18 down to 111 million. Which is just of the --

MS. OLANIPEKUN-LEWIS: This is with no action taken?

MR. JAGT: This is with action taken.

MS. OLANIPEKUN-LEWIS: With action?

MR. JAGT: Yes, ma'am.

MS. LABUDA: Dave, can I step in?

MR. JAGT: Yes.

MS. LABUDA: That's an excellent question. Really based on review of the General

Bond Ordinance, of course these withdrawals all factor in revenue increase. Without the revenue increase we requested, the withdrawals are much higher which would lower the balance.

MS. OLANIPEKUN-LEWIS: Sure.

MR. POPOWSKY: Excuse me. I'm sorry. The 110 million self-imposed target or is that one of the mandatory --

MS. LABUDA: Well, there is two parts. The General Bond Ordinance was written in 1989 and took effect in 1993. And in that document was a required amount in the RSF to cover any unforeseen emergencies. And that General Bond Ordinance provides for $45 million.

Here we are in 2016. I have nearly an $800 million operating budget, $45 million is woefully light. We don't separate charges to cover a hundred percent of the budget. So when you think of rates don't cover budget and the minimum balance, the 110 is both trying to balance our original budget and to cover any unforeseen emergencies plus meet the minimum requirement.

MR. JAGT: The projection on the graph

on the table with the combined Residual Fund and the Rate Stabilization Fund essentially reflects the operating reserves of the utility.

Moving on, sort of the what's the net impact? One of the weighs of measuring or definitely the financial -- the financial industry looks at our projection and seeing how we meet our performance. And one of the drivers is meeting the bond ordinance requirements. So, we will look at the projected debt service coverage senior and total debt service coverage final from the financial plan.

You will see the plan as proposed by the policies of the Department increases the senior debt service coverage from 1.24 in '16 to 1.25 in '17, 1.26 in '18 and 1.35 coverage from there after and 2019 and beyond. And the overall total debt service coverage ranges from 1.13 and increases to 1.22 over the period.

MS. OLANIPEKUN-LEWIS: Why did they jump in coverage between '18 and '19?

MS. LABUDA: Really, the only way we can begin to de-leverage the utility, if you read our financial statements, we have 1.9 billion of debt and the value of our assets after depreciation is 2 billion. We are nearly a hundred percent leveraged. The only way we can begin to de-leverage the utility and reduce the debt burden on the account per customer is by growing coverage and beginning to do more pay-as-you-go capital, which would be inline with best industry industry practices with our peers but it also benefit our base.

MR. JAGT: As Board Member Bernie Brunwasser pointed out, there is also insurance covenant requirement, which is that 90 percent of the debt service is funded from current revenues. So, that is where we are providing the insurance coverage test. And you can see each year -- the closest year where we have the largest draw from rate stabilization, we are at 107 percent of debt service. And the rest of the years we are improved coverage from above that. We are meeting the insurance covenant requirement.

Rate Board Ordinance included a coverage requirement that the revenues not exceed total appropriations of the Water Fund. And we did a projection based on our financial plan. And we see that based on the proposed financial plan with the proposed rate increases, that we continued to meet the Board Ordinance requirement.

So far, we reviewed the projected assumptions and the financial plan results. At this point, we are going to shift our review from the review of the financial plan to the results of the cost of service study.

So as Ann pointed out in her review, we go through numerous allocations of the costs to the total Water Department or water fund costs from total water fund to to the costs of providing water service. Wastewater service included the total combined total of sanitary and stormwater service.

Those costs are allocated through the industry accepted principles from AWWA for the water utility. Then the net result of the cost distribution is the residential customer classes being allocated 156 million of revenue requirement. The non-residential class being allocated 83 million. The PHA stands for the Philadelphia Housing Authority. Allocated 6.3

million. City services, water services provided to the City is 8 million. And total fire including private fire and public fire protection is 10.9 million. Total of 264.2 million for FY17.

HEARING OFFICER BROCKWAY: Do you provide in your filing the same type of breakout for earlier and later fiscal years?

MR. JAGT: Yeah. Within our department and within our filing, we do provide the distribution of the existing revenues by class, so you can compare the distribution under the existing rate and what the resulting distribution of service or the proposed rates are.

HEARING OFFICER BROCKWAY: Is this, the Fiscal 17, maybe it doesn't make any difference. Are you going -- are you assuming -- you can assume anything with respect to the breakout for Fiscal '18 and '19?

MR. JAGT: We only did a projection for FY17 and '18. And the work papers provide the distribution for FY17.

Next slide we do a presentation of the wastewater cost of service allocation between the sanitary, sewer and the stormwater cost to service. It's the same breakdown between residential and non-residential of Philadelphia Housing Authority, the City services, so services provided to the general fund and the aviation fund. And the fire includes fire and public fires. So that's -- there is no public fire in the sewer because that's all under the water service.

Total wastewater distribution cost is 216.2 million for FY17. The distribution is presented between customer classes. And the rates are subsequently designed to cover these costs. Stormwater is projected to be 157.2 million. Again, the primary breakdown, the distribution is between residential and non-residential or residential picks up 46 percent of stormwater. And non-residential picks up 46 in equal part. The City picking up 7 percent and 1 percent for PHA.

Just a brief review of the cost drivers. That the key components that were driving the cost increases for the Department. Some of the challenges we had were including the declining water usage. As we said, we lost Bucks County. And we are also seeing in the projection base of the water fund, a decrease in sales to 5/8" meters. And as presented in the assumptions, that reflects a 0.6 percent decrease in the water sales over the steady period.

HEARING OFFICER BROCKWAY: Before we move on from this, do you project that there is a point at which the extent of the deficiency implemented by customers levels off, or do you project -- what do you project going forward as far as the change, if any, in water?

MR. JAGT: Within the projection period that we have, we project that the decrease to continued through the study period. We have -- with each update we have done this. And for a longer term projection, we do show a trailing off or not continuing. But for the five-year or six-year projected outlook, we continue to reflect a reduction.

HEARING OFFICER BROCKWAY: Does the filing include details on the derivation of the assumptions with regard to impact of various features like this on the consumption?

MR. JAGT: Not a breakdown at this level. It mean, it gives the basis of what the -- what the decrease was for the 5/8". It does give a projection by class of the consumption for each customer type.

HEARING OFFICER BROCKWAY: Do you have that information handy, or is that something you have to do a study for?

MR. JAGT: No. We can pull it up and put a summary together. I will give you work paper references where we can find that.

HEARING OFFICER BROCKWAY: Yeah. That would be great.

MR. JAGT: I know for sure it's in the customer portion of the financial plan, but I have to look up and see what page number it would be.

HEARING OFFICER BROCKWAY: Thank you.

MR. JAGT: We pointed this out before, but the declining usage is projected as customer basis uses more efficient appliances and fixtures, and also conservation awareness and ongoing efforts to decrease the water demand in the system.

MR. POPOWSKY: Excuse me. What about the number of customers? Isn't the City growing again, I guess?

MR. JAGT: Over the recent three years, we haven't seen very -- a strong enough increase in the accounts to suggest continuing to increase the number of accounts. In fact, it's relatively stable. The one difficult thing is in one of the test years or in three years ago at the introduction of stormwater, some of the increase in the accounts is believed to be the introduction of the stormwater only accounts and conversion to that. So, the tracking of the accounts is believed that it's remained stable. But the increase in the accounts is actually the reflect the increase in accounts for stormwater only.

Some of the other cost drivers we have is the increasing efforts for the Department to address the aging infrastructure needs with increasing the capital reinvestment in the system. Customer assistance programs are continuing to be expanded to provide services or continued excellent service to the customers for the discounts and grants programs that we currently have in place and the introduction of the new Affordability Program to meet the mandates of the bill recently passed by City Council. You also have the environmental -- the environmental regulations put on utility by the safe -- by the State and Federal requirements such as the Safe Drinking Water Act, the Clean Air Act and the Clean Water Act.

We also have the driving policy or the increase in personnel calls which, in addition to being the inflationary increases that we have, it's the new positions required to meet all the other bulleted items on this list. In order to meet the regulatory requirements and provide the increase in customer service and meet the requirements of aging infrastructure, we have to increase the staff costs.

Again, this slide addresses one of the Board's questions about the key drivers for the cost increases.

MR. HUANG: I have a question. I am surprised you didn't include some of the things that were stated earlier about making sure that the utility is fiscally sound. Can someone talk about how close we are to a downgrade per these ratios and what would the costs be of the downgrade?

MS. CLUPPER: What was the question again?

MR. HUANG: We were looking at some ratios on page 34, and we were trying to have them go in the right direction. So if they go in the wrong direction, at some point the rating agencies punish you. So, what does that look like? And what is the cost consequence in terms of cost of capital.

MS. CLUPPER: My name is Kathy Clupper from Public Financial Management. There is not a real specific actual answer. You understand that there is trends. So currently, if you look at the credit spreads between A, AA and BBB the current Water Department is in the main category. Between just looking in recent -- I have to make my presentation on the slide and see my information.

If you want to compare the AA rate at 20-year revenue spread to the A rated, it's about

35 basis points. If you look between -- that's if you look between the AA and BBB, it's about 40 basis points. And this, of course, changes when credit spreads change. A year or so ago between the A and AA, it was 44 basis points. There is a cost.

In addition, there is also a cost to the Department would like to do their bonds or have other types of structure, the cost to the liquidity facility also significantly increases as the ratings go down.

MR. HUANG: And 35 basis points off of -- what's the -- what am I multiplying that to?

MS. LABUDA: Sure. Kathy is speaking to --

MS. CLUPPER: Sorry. 0.35 percent.

MR. HUANG: Right.

MR. CHAPMAN: Off of what base?

MS. LABUDA: We issue tax exempt debt. And so, it would not be the U.S. Treasury curve. It would be the U.S. Treasury curve less some factor, 0.6/0.7. It's called the municipal market index, MMD. And I'm not sure. When Kathy gives her presentation -- I can't recall where 30 year MMD is right now.

HEARING OFFICER BROCKWAY: I don't think that's the question.

MR. HUANG: Yeah. How much of the debt becomes more expensive?

MS. CLUPPER: Oh. Any new money that you issue -- if you are issuing 250 million a year, you can either issue that at cost of capital of 4 percent or 4.5 percent depending on where rates are.

HEARING OFFICER BROCKWAY: So, you go through this in your testimony in the filing of what the different bond issuances are and what rates they're at and projected issuances?

MS. CLUPPER: I mean, the discussion of ratings is more than just the cost of capital. It's also the ratings are a reflection of the financial stability of the system which allows you to do a lot more. If you want to have a created debt structure, if you want to create subordinate debt, if you want to have a CIP program, if you want to really tightly manage the cost of your debt, you need to be at higher rate than credit and you need to have certain amount of liquidity and financial stability within your system. So, it's more than just if I issue this bond and A rating versus a AA I will save 1, 2, 3 million dollars a year. It's a bigger issue. And it also, I mean, ratings reflect the underlying financial strength of the system. You want to have a higher rating because you want to be a strong system. It's not a discreet discussion.

MR. HUANG: Thank you.

HEARING OFFICER BROCKWAY: Are you going onto -- let's go off the record.

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(At this time, a discussion was held off the record.)

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HEARING OFFICER BROCKWAY: On the record. We will take a break until 11:00.

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(At this time, a break was taken.)

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HEARING OFFICER BROCKWAY: We are back on the record.

What are your next presentations, Mr. Dasent?

MR. DASENT: Black & Veatch continues, so Dave and --

HEARING OFFICER BROCKWAY: Do we have up here at the desk everybody who is going to be answering the questions?

MR. DASENT: Yes.

HEARING OFFICER BROCKWAY: Please proceed.

MS. KUMAR: Good morning, again. We are now going to go to the kind of the last part of this discussion this morning that we've been having.

HEARING OFFICER BROCKWAY: Your name again?

MS. KUMAR: I'm Prabha Kumar from Black & Veatch.

Dave here, my colleague, talked about really the building, two building -- the first two building blocks which are financial plan and cost of service. He talked about the financial plan projections of the revenue, the revenue requirements and all the obligations that they daily have to meet in terms of not only it's operation and capital program but also general bond coverages, the insurance coverage and rate requirement later the plan, the six-year plan. And then from there we went more specifically into the two years, which was the rate being requested which is the FY17 and FY18 where they talked about the cost of service analysis, how you take the revenue requirement and then you break it down into service time between retail and wholesale. And within retail, how you break it down within service type.

Why do you do that? Because based on that, you really set the rates. If you look at Philadelphia rate structure, it really has primarily on the water side it has the fixed charges which are based on meter side and then you have the volume rate. Those rates are defined based on the detail cost of service analysis. And intention with that, Philadelphia also has on the retail side stormwater rates. The stormwater rates are also defined based on the detail cost of service that Dave kind of talked about.

That brings the logical question, what is the impact of all these rates on the customer. In this section, we are going to talk about what are the impact on bills. And when we talk impact on bills, we typically talk about residential customers because they are more of a homogenous group. We are going to talk about that.

And then also the question is that how does Philadelphia compare with other municipalities, other utilities. We will get a glimpse of that, as well. When we talk about rate and rate impact, a logical question also is can something be done for customers who are in need? We will talk about the customer assistance program.

What is the impact of the rate increase if you're talking specifically in FY17? That is a snapshot here. The current year, which is '16, there was no rate increase. Currently, if you tape a typical residential customer. When we use the word typical in this context, we are really talking about a residential customer that uses 6 ccf or 600 cubic feet of water and 5/8" customer. That's the predominant customer base in

Philadelphia.

When you look at that group of 5/8" meters with 600 cubic feet of water usage, which is what we call typical, the monthly bill currently the customer is paying for water and sewer and stormwater included is $67.40. Now, with the proposed rate increase that has been filed, the additional monthly charge expected is $4.20. The charge would go up to $71.60 for a customer who does not have any discount like a senior discount. If it's a senior citizen, it will go from $50.60 to $53.07 in '17.

Then in '18 there is additional rate requested that is being asked for. With that there will be an additional increase of $3.19 if you look at from our monthly standpoint. The bill is expected t go to $75.50. These numbers are rounded to the nearest 10-cents. This is what is expected for a typical residential customer in Philadelphia with the rate increases that have been filed.

How does this compare when you look at it from a national --

HEARING OFFICER BROCKWAY: Sorry to

interrupt. Does the rate filing have a bill frequency analysis?

MS. KUMAR: Mean different levels of usage?

HEARING OFFICER BROCKWAY: Yes.

MS. KUMAR: Yes, it does.

How does this compare when you compare Philadelphia nationally in terms of water, sewer and stormwater? How does that compare?

The chart actually shows utilities from highest to the lowest in this group that we are presenting here. And you can see Philadelphia is more on the lower end of the spectrum. All the utilities presented here, their rates are FY16 charge. It's not FY17. So what we have done for Philadelphia, we are showing the FY16. And here it is not the rounded number. Here it is the actual, which is $63.43. We are also showing at '17 where it will be. You really get both view in the same one bar for Philadelphia.

One thing to point out here, when we talk about comparing Philadelphia with other utilities of any benchmark that we talk about, it's not really apples to apples on risk. Why is that? It's because there are significant differences on utilities as to where they draw their water. If you take water utility, for example, where do they draw their water? Is it surface water? Do they use a combination of surface and well waters? What kind of frequent processes they have? Do they have frequent process, or do they use more chlorination? There are differences like that. And the level of the aging infrastructure, not all of the municipalities, even though some of them are large like municipalities like Philadelphia, not all of them have the same level of aging infrastructure.

And also, if you look at how they have historically funded their capital program, how leveraged they are, what kind of bond and insurance requirements they have and even what their rates setting processes are, they are significantly different. All of those factors go into water utility and how they recover those costs and ultimately what their bills look like. That's why we say it's not always apples to apples. However, it just gives you a high level guidance of where does Philadelphia fall.

So while we can't interpret too much from this in terms of operational performance or cost efficiencies, it just gives you a broader look at where Philadelphia stands.

Now, how does Philadelphia compare regionally? We also took a much closer look at Philadelphia and the neighboring utilities. In this, we also looked at utilities of Pennsylvania American and Aqua Pennsylvania and New Jersey American. And here again Philadelphia, compares very favorably both in terms of the current rates in '16 and the '17 proposed bill when you look at the typical bill.

MS. LABUDA: We can pause. I believe we need to redial them.

HEARING OFFICER BROCKWAY: We are off the record.

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(At this time, a discussion was held off the record to dial back in people on the phone.)

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HEARING OFFICER BROCKWAY: We will go back on the record. We are having some telephone issues that are now corrected.

MS. KUMAR: We also took a look at how do the proposed residential bills compare when looking at from regional perspective. It still compares very favorably. And especially you can see on the sewer side Philadelphia, even the current rate, we are actually the lowest. So something to, again, keep in mind when we are looking at these proposed request for rate increases.

On the stormwater side, the reason we had to pull stormwater out into separate analysis is because not many municipalities have stormwater fees. We took a look at some of the large utilities that do have stormwater fees. There again, Philadelphia's stormwater charges, even the current and the proposed are extremely favorable despite the large program we have for long term plan and other programs.

When we talk about the financial plan and the cost of service and the rates and the impact, so while we have emphasized importance of the revenue requirement and the utility meeting all of its obligations, the obligations also include the customer side. We really have two sides of the coin, the utility side and also the customer side. That is why we need to take a balanced approach when we are trying to establish both the financial plan and the cost of service rate. One of the ways to establish is not only trying to maintain the financial solvency of the utility, but also is there anything that can be done to protect customers from a perspective of affordability.

The Water Department actually has a number of programs as you can see here from senior citizens discount to some discounts from charitable organizations to the Assistance Program and Home Emergency Loan Program. There are different types of program and the Conservation Assistance Program, so there are different types of program that are already in place to help low income customers. When you look at these programs in aggregate and in FY15, the Water Department provided over $24 million of assistance just for these programs.

Now on top of these programs that Dave alluded to, there is going to be new

Affordability Program as passed by the counsel. That Affordability Program and its needs are coming on top of this assistance that's already being provided. And the Affordability Program Jon Davis from Raftelis is instrumental in helping the City work through the program. He will talk about that.

MR. POPOWSKY: Just before you do that. The senior citizen discount, is that for low income senior citizens? It's not for all?

MS. KUMAR: It's income tested, that is correct. It's income tested.

MR. BRUNWASSER: The assumption is that the new program -- I mean, the new requirements passed by City Council will not be -- the 25 percent discount for eligible seniors will continue over and above the new program?

MS. KUMAR: That is correct. That is the assumption.

MR. BRUNWASSER: Right. Right. That program went into effect over 30 years ago. Every senior was grandfathered in regardless of income at that time. So, I doubt there's too many left that don't meet the requirements.

MS. OLANIPEKUN-LEWIS: I just wanted to be clear. The new program accounts recently enacted would be on top of the senior citizens program?

MS. KUMAR: On top of all these different assistance programs that you are seeing on the screen.

MS. OLANIPEKUN-LEWIS: Okay.

HEARING OFFICER BROCKWAY: But it may not result in a different rate because depending on the design of the program, this is what's called a burden-based program. You try to get the rate to meet to determine percentage of the customer's income. And there's a whole lot of options there about how you define income and how you define what the percentage is and how you define what the usage is. But putting all of those things aside, you end up with a target bill for the customer.

MS. OLANIPEKUN-LEWIS: Would the new program result in additional discounts, i.e., less revenues to the Water Department I guess is where I'm trying to go?

MS. KUMAR: This is a good time to

transition to Jon Davis. He was instrumental in helping the City with the program. He's going to provide details on the program.

MS. OLANIPEKUN-LEWIS: Even though I was a councilperson, I didn't help the council who put this together, for the record. I was not part of the drafting of this program, so you'll be informing me.

MS. LABUDA: If I may go on the record with just a clarifying comment, I apologize for not stepping in earlier. But in terms of senior citizens, they will have the option to either stay in the 25 percent discount or apply for the new program. There is not a scenario I foresee where they would get both the discount an --

MS. OLANIPEKUN-LEWIS: That's what I was trying to understand.

MS. LABUDA: -- and the new Affordability Program. I apologize for not jumping in there.

MR. DAVIS: Good morning. My name is Jon Davis. I'm with Raftelis Financial Consultants. We had the opportunity over the past several months to work with the Water

Department, the Water Revenue Bureau and the City Council to help draft a new customer Affordability Program that better meets the needs of economically disadvantaged customers within the system.

The general structure of the program is captured in the existing city ordinance which we alluded to. A lot of the details, the implementation details of the program, have yet to be fully thought through and established. In fact, a lot of the details of the program rely pretty heavily on the outcome of this rate filing. So over the next few months, we will be working on this.

However, we do have some of the program details, and we'd like to share some of those with you here today. For instance, the program is going to be divided into three income tiers as we see here on the slide. That is based on federal poverty level. And it's available for customers at or below 150 percent of the federal poverty level.

Within each of the income tiers, we have usage levels which try to capture customers that are existing in different level of consumption currently. We have a low, medium and high usage. And you see the development of those here. This program is consistent with the EPA guidelines on the development of affordability. It's also consistent with industry practice in this regard, so that's kind of in the basis of some of that discussion.

MS. OLANIPEKUN-LEWIS: With each tier you have a utilization analysis. Is that what you're saying?

You have three income tiers. Within each tier, then, you would look at consumption utilization?

MR. DAVIS: That's correct. First, you'd be placed in tiers. Then you look at historical consumption to place you in.

Like to look at kind of the scope of the program as we're -- as we analyzed it. The potential is here for us at 56,000 PWD accounts for about 13 percent of the residential population that fall within this program with respect to the income tiers that have been set up. Additional assistance above the discount tiers that we set up. We have additional assistance for payment plans for other qualifying customers, so it's just not limited to 150 percent or below of the federal poverty level.

And finally, the implementation of the program as we mentioned, the details of it depend on the outcome of this rate filing.

The table here at the bottom of the slide shows some of the ways that the tiers and the usage levels are divided up. And then the resulting -- the resulting discounts that customers would receive if they fall into these tiers and usage levels. You see some pretty significant discounts here. We also, if the discounted bill falls below the minimum bill that we have in the far right-hand corner, the customer would receive a minimum bill. So, we do have that.

So based on the result of the rate filing, based on some of the technical issues that are inherent in a program of this complexity and the size, we will be working through a lot of the implementation issues going forward. I know the -- there were some questions from the Rate

Board regarding the details of implementation. And we will be working through those over the coming months.

MS. OLANIPEKUN-LEWIS: In no instance would a customer pay 0. They will pay at least $12?

MR. DAVIS: Yes. There is a minimum bill concept.

MR. POPOWSKY: Earlier slide you were projecting a revenue decrease of 16.1 to 18.6 million. I assume, first of all, that is when the program is fully in effect.

When is that? Is that 2018 or --

MR. DAVIS: Yes. 2018 is the implementation.

MR. POPOWSKY: You wouldn't see that in 2017?

MR. DAVIS: Correct. You would see some ramp up in costs resulting in the additional personnel that you saw discussed in the costs of service earlier. You also have some implementation with respect to system design.

MR. POPOWSKY: What's -- what percentage of customers, eligible customers, what's the assumption as to what percentage of the customers will take you up on it.

MR. DAVIS: That was one of the major questions in developing the cost that we showed earlier. This is a real -- really a unique program. There are certainly instances of customer affordability programs both within the water and wastewater industry and within other utility industries. But every one is unique in that once it's put in place, there is no certainty with respect to what's subscription rate or the number of customers who qualify will actually apply.

So, we made some assumptions from that. We have used benchmarks from other utilities, other regional utilities. We have tried to make sure that the risk to PWD and to the City are manageable risks. Those assumptions would be fine tuning subsequent rate cases once the program is in place.

MR. POPOWSKY: That was my question. What is the assumption basic? To get to 16 to 18 million, you must have made an assumption.

MR. DAVIS: We have some assumptions

there. I can refer you to how exactly they are handled within the work papers. What we wanted to do is create a situation where 80 percent of the time, the loss revenues would fall at or below a certain market. That's how we came to the numbers side of it.

MR. POPOWSKY: That's why I still don't understand. That was the simulation you did so that 80 percent of the time you'd cover your cost. I still don't know what percentage of customers you expect to participate.

MR. DAVIS: I would have to walk through those details with you. It's consistent with what other regional utilities are doing.

MR. HUANG: Isn't income eligibility based on eligibility for gas?

MR. DAVIS: For this --

MR. HUANG: Or is it separately determined?

MR. DAVIS: It's separately determined.

MR. HUANG: Okay.

MR. DAVIS: But they use similar criteria.

HEARING OFFICER BROCKWAY: Did you have

a question?
MS. OLANIPEKUN-LEWIS: I was just feeling Sonny's frustration here. Of the 56,000 accounts, you are making some assumption as to who is participating. I think that's what you're trying to get at. Is it 70, 50, 30 percent? What is that number?
MR. DAVIS: It depends on the income level. We see different subscription rates at different income levels. Basically, if I have a lower income and I'm eligible for a larger discount, I am more likely to apply. So roughly speaking, I would put it between 50 and 75 percent subscription.
HEARING OFFICER BROCKWAY: If it's acceptable to the Board, I would think we might be helped if we invite Mr. Ballenger to ask questions if he has them right now about this. I expect their witness Mr. Holden will be putting on some testimony regarding, or we could wait. It's up to you, Mr. Ballenger.
MR. BALLENGER: I might refer to Ms. Pickens, as well. Yeah. I guess we can have a couple of -- maybe just a couple of quick

questions.

Just for purposes of determining the percentage discounts on page 46, Mr. Davis, we have spoken before. I am just guessing, is this based on the mid point of each tier again?

MR. DAVIS: Yes. It's based on the middle -- the median income within the tier and the median consumptions within the usage.

MR. BALLENGER: Okay. Is it also based on a hypothetical family size of 2.5 persons or thereabout that I think we dealt with in the past?

MR. DAVIS: Under those circumstances, the family size wouldn't play into that.

HEARING OFFICER BROCKWAY: How could it not?

MR. BALLENGER: You have to determine the amount of the actual household income.

MR. DAVIS: I'm sorry. I misunderstood your question.

MR. BALLENGER: Okay.

MR. DAVIS: It is based on the average household size for the City of Philadelphia.

MR. BALLENGER: Okay. Just in

calculating those discounts. Okay. As Ms. Brockway mentioned, this is a burden-based piece of legislation. What were the burdens used that underlie these particular tier calculations as a percentage of household income?

Do you happen to know what those were?

MR. DAVIS: I'm sorry. Are you talking about the thresholds?

MR. BALLENGER: Yeah. Sort of the affordability targets. We use different language for them. I think Ms. Brockway referred to them as burdens. We have talked about them in different ways in the past.

Do you happen to know what those are?

MR. DAVIS: Generally, I think the target is set by counsel for tier one is 2 percent of income; for tier 2 it was 3 percent of income; and for tier 3 it was 4 percent of income.

MS. BECKLEY: Clarify, the final version of the bill I believe council left that to the Rate Board. There was an earlier version of the bill that included some of these.

MR. BALLENGER: But for purposes of the

proposal, those were the tiers. I just wanted to -- I don't want to go into too many details because this can, as you know, take on a life of its own.

MS. PICKENS: Wasn't anticipated that in years after the implementation year, that the discounts will remain where they are on your chart?

MR. DAVIS: I don't think we made specific assumptions as to how that would be handled. It seems like that would be reviewed periodically to make sure those are still within the intent of the original.

HEARING OFFICER BROCKWAY: I don't mean to say that you need to ask questions all now or all today, I just wanted to make sure that the Board was brought up to speed on any issues hanging out there that would be important to look at as we look at the program.

MR. BALLENGER: Yeah. I think those were sort of some of the bigger issues that we touched upon is what sort of -- behind the scenes here, what are we looking at what is affordable is one thing we wanted to get at. What Josie was getting at is that the percentage of it remains the same forever, wouldn't necessarily meet the objective. We are going to do some more discovery and have some more conversations about this I think as we go on. I will leave it at that.

MR. BAKARE: My name is Ade Bakare, Counsel for the Philadelphia At Large Interest Group. Mr. Popowsky asked about the revenue in the assistance program. It wasn't clear to me if the figure that was given in the 16 to 18 million-dollar figure, is that you have same customer option out of the senior citizens discount program. Is that just on the cost side of the new program?

MS. KUMAR: Just a minute. Let me go back to that slide so that we can answer that question.

HEARING OFFICER BROCKWAY: What's the number of that?

MR. HUANG: Slide 26.

MS. KUMAR: Slide 26. This is Ms. Kumar from Black & Veatch. Slide 26 we kind of touched upon the revenue. So, we mentioned the decrease of 16 to 18 million. But if you look at specifically at 18, because there is an assumption that the City grants portion of the WRAP Program will be eliminated, therefore, the net revenue decrease in '18 is 13.4 million. So to your question, yes. Some of the other offsets were looked into before driving the net revenue decrease.

MR. BAKARE: Then just as a follow up then, is there an isolated number that shows just the cost of the new assistance program aside from City's overall revenue decrease?

MS. BROCKWAY: I'm not sure I understand the question.

MR. BAKARE: I'm wondering if the new assistance program, I'm wondering what the cost of that program itself is aside from just the wholistic revenue decrease the Department will experience at FY18. I think the Board would benefit from isolating the cost of that specific program just to get an idea of what the -- what that line item impact is for the Department.

HEARING OFFICER BROCKWAY: By cost, if I can just clarify, I think you mean revenues foregone plus net additional administrative costs.

MR. BAKARE: Correct.

HEARING OFFICER BROCKWAY: And I say net because there may be some savings. I don't know whether that's going to be argued. But some have argued there are administrative savings because you make bills affordable.

But actually, did you look into that question whether or not there was any administrative savings from making bills affordable?

MR. DAVIS: We did not make any assumptions as to that in 2018 because we wanted to see how the program would be implemented. Keep in mind that a lot of the development of this was -- was done while the discussions were going on. The City can also -- details being finalized. So, we do not have assumptions with respect to any savings on that area.

The cost of the -- the cost in lost revenue associated specifically with the customer Affordability Program are captured on this slide. The increase in costs and the assumptions for lost revenue were used in the cost of service.

MS. KUMAR: The revenue portion shows the revenue decrease, but then the personnel and citizen shows the cost increase the cost of administering the program. So, those are the personnel costs and the services cost.

MR. BAKARE: Okay. I guess that what I hear is that at this point in time, that isolated cost of this program doesn't -- isn't available at this point in time.

MS. KUMAR: That is the -- the personnel costs and the services cost are the cost of the program when you're talking about isolated cost. That 22 staff positions with the cost of 1.6 or 2.4 million projected for the study period and the additional 1.3 million just in '17 for the basis2 billing system to get it up and running to accommodate this program and the 0.7 to 0.8 million in '18 through '21 to again support this program. Those are the isolated costs from the cost side of the fence.

So that is in addition to the revenue decrease of 13.4 million they are showing in '18.

MR. BAKARE: Yup. That makes sense.

Thank you.

HEARING OFFICER BROCKWAY: I do have one more question. What assumption is made about outreach and intake for the program?

How are customers advised that the program exists? Who does the intake?

MR. DAVIS: With respect to the cost of that, we did look at those costs. And the assumption would --

HEARING OFFICER BROCKWAY: Pardon me. I'm not looking at costs.

MR. DAVIS: You're just looking at implementation?

HEARING OFFICER BROCKWAY: Yeah. How that was done. What assumption was made about how it was done?

MS. BETHEL: Hi, I'm Michelle Bethel. I'm the Deputy Revenue Commissioner for Water Revenue.

Specific assumptions for how we're going to do outreach, we are actually waiting to put the whole implementation plan together. So, we don't have specific numbers on actually how we would roll that out at this time.

MS. OLANIPEKUN-LEWIS: You would at least do it a year out before sometime.

MS. BETHEL: Oh, yes. Yes. I think a lot of this comes when we have a final decision from the Board. We will be able to move forward on what we are actually going to be pushing out to our customers.

MR. HUANG: If my math is right, the FY17 outlay is 1.6 million plus 1.3 million. The first number is for personnel and the second number is for the IT. And that's in the year prior to the roll out of the actual discount.

MS. LABUDA: Correct. So in our '17 budget submission that we're currently working on that aren't yet public, you are absolutely correct that the Water Revenue Bureau's budget does contemplate the additional hiring of the full-time staff during FY17. It does also -- the Water Revenue Budget as well as the Water Department Budget also capture the additional incremental cost related to basis2 changes as well as additional support measures that we need.

MR. BRUNWASSER: Is it a safe bet even now to say that at a very low minimum, this would be actually printed on the bill these -- this program could be -- the alert could be printed on the bill and also billing inserts which would not cost the Water Department or the Revenue Bureau any extra postage as they would insert that into the bill? I mean, that I think we can probably assert now.

MS. BETHEL: Yes. That's an accurate assumption. You said the billing inserts and putting the messages on the bill, that's something that we have control of right now. That it's not going to be an additional cost.

MR. BRUNWASSER: Correct.

MS. BETHEL: For the bill messaging.

MR. MARKUS: Is the Department looking to outsource --(trails off.)

HEARING OFFICER BROCKWAY: This is Ed Markus, a financial consultant. The question is, has the Department looked at whether to outsource the intake of customers?

MS. BETHEL: We have not settled on exactly how we will do that. We are open to taking that into consideration to outsource that process.

HEARING OFFICER BROCKWAY: If I could follow up on that, my assumption is that at this point, the Department of Revenue personnel would take payments and receive applications and determine who would be eligible.

MS. BETHEL: If I'm understanding your question, the personnel that take payments are not the personnel that will be taking the applications. Payment processing, which is within Revenue on the tax side, handle all of our payments. They do not handle or process the WRAP current applications.

HEARING OFFICER BROCKWAY: So that --

MS. BETHEL: It's a different group of personnel.

HEARING OFFICER BROCKWAY: Still under Revenue.

MS. BETHEL: Still under Revenue, yes.

HEARING OFFICER BROCKWAY: Just to alert you that some of the things that I think would be useful to get into before the Board makes a decision will be to what extent somebody is deemed eligible by virtue of their receipt of some other means tested benefit. And.

MR. MARKUS: Do the 22 positions reflect the assumption that the review is done in-house?

MS. BETHEL: Yes.

MR. MARKUS: No decision has been made yet.

MS. BETHEL: Has not. But we would be prepared that it if were handled in-house, that's how we would -- as I said, we are up for thinking differently for processing of those additional pieces of paper that would come in through the program.

HEARING OFFICER BROCKWAY: Does the Board want to pursue this further at this time?

(No further questions from the Board.)

HEARING OFFICER BROCKWAY: You will have more on this. At this point --

MR. DAVIS: That's all I have.

HEARING OFFICER BROCKWAY: Let's go off the record.

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(At this time, a discussion was held off the record.)

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HEARING OFFICER BROCKWAY: Back on the

record.

MS. McCARTY: Now we're at the Rate Board questions that we received. Those were numbered. Hopefully, you can follow along.

Questions 1 through 6, we believe we addressed in sections of this presentation, 1 through 3 in the cost of service presentations. Question 7, which is describe the major factors effecting the order of bond ratings. That will be addressed in Kathy Cuppler's presentation from PFM.

And Question 10 is -- we believe, again, is addressed in the cost of service presentations, section four. And that's the proposal to implement the low income payment, excuse me, the low income program.

So Question 9 and 11, I will try to address right now. So Question 9, for those of you who don't have the question, I will read it first.

"Why is the Department switching from automatic meter reading, AMR, to advance meter reading infrastructure, AMI? What are the anticipated quantifiable costs and benefits of that decision and when is it supposed to be implemented?"

This is no longer a part of our rate filing. But I wanted to note that moving to AMI will provide our customers with better service, will allow the Department to address service issues in a more timely manner, should streamline the shutoff process. And that it will -- we're eventually going to have to replace the ERTs, the encoded radio transmitters because they are coming to the end of their useful life.

This contract will need to be approved by City Council. The final contract for AMI will need to go before City Council. It's a long term contract and it will need to be approved by them.

So going on to -- if there is no -- yes?

MS. OLANIPEKUN-LEWIS: I'm dating myself. I was actually working for the Finance Director when the first AMIs were installed. I was detailed to Board of Water Revenue Bureau. The big issue was, I did a subcommittee on theft of services.

Can you talk a little bit about how the new AMI is going to, I guess, better detect theft of services relative to the current AMRs?

MS. McCARTY: So currently, we get a reading once a month when the Itron truck, if you will, that had PW on it as well drives by and picks up the reads from the various groups that it does on a monthly basis. And so, it's basically every 30 days plus or minus you get a reading. AMI will provide the data, you know, pretty much instantaneously. We will be able to see what's going on.

The goal is the technology is evolving as we speak even. The goal is to be able to detect if the meter is taken offline. We will know, for instance, if we shut off a delinquent customer, if they start using water again, that means -- and they are not supposed to, they illegally restored themselves, we will get that the next day once we start seeing consumption again. A shut off customer should be zero consumption. We will see that pretty much instantaneously.

MS. OLANIPEKUN-LEWIS: You are not using a radio signal anymore? What type of technology do you use to capture that data?

MS. MCCARTY: It --

MS. OLANIPEKUN-LEWIS: Let me rephrase it. Under the AMR it's a radio frequency.

MS. McCARTY: Right. The truck has to drive by.

MS. OLANIPEKUN-LEWIS: What technology will you use under AMIs?

MS. McCARTY: We are looking at fixed network where you'll have receivers placed throughout the City. Depends upon the vendor. Some need more, some need less. Again, we're in the preliminary stages of figuring all of this out. But fixed network will be -- you know, there will always be contact with that. That's the goal.

MR. POPOWSKY: Do you know, are there Pennsylvania water utilities using AMI? Aqua PA? Pennsylvania American that are going to AMI?

MS. McCARTY: Off the top of my head, couldn't tell you. I think Aqua is moving toward it. I can't tell you off the top of my head.

MR. POPOWSKY: Do you know how much it's going to cost? 10 million? 50 million? A hundred million?

MR. BRUNWASSER: Yes.

(Laughter)

MS. McCARTY: Right now we don't have a -- I mean, it's hard to say. Again, this is out of the rate filing period. But for the, you know, 17/18. But it will cost something, I can assure you. What that is, you know, we haven't even begun to -- we have an idea, but it's difficult to say until we know exactly what we want. We are still in the preliminary stages of figuring that out, looking at what's out there, working with vendors, figuring it all out.

I really can't give a good answer to that right now.

MR. POPOWSKY: I think PECO got a 200 million-dollar grant from the Federal Government to just pay part of their switch to AMI for electric. So I just -- before you spend this money, I was just hoping to get some sense of how much this will cost. I mean, what are the -- the question is what are the quantitative benefits -- I realize it's no longer part of this case. I certainly hope at some point we will find out what the quantitative costs and the quantitative benefits are. I understand the benefits of automated meter reading for water utility.

MR. BRUNWASSER: I think moving to AMR back in 1996, it meant the elimination of up to 130 meter readers from the Water Revenue Bureau. And at the time, they were successful in reading a meter perhaps only once every three times. And they tried to read on a quarterly basis. So, the typical house was read once a year leading to lots of disputes, lots of phone conversations between the customer and the Revenue Bureau.

So, there was a tremendous savings. And of course, the savings of employees' continues. All of those people were phased out. They were not laid off.

HEARING OFFICER BROCKWAY: Can I ask the question this way. Do you yet have even a draft business case for the investment? By which I mean, what the Member Popowsky was talking about, there is all the anticipated cost. Here is all the anticipated savings.

What's the relationship between cost and savings?

MS. LABUDA: There has been some preliminary work done. It would be disingenuous to say there wasn't some work done. We are coming fast upon the end of the contract of our current technology. We have no choice but to do something different. And I don't want to get the year wrong on the record. I don't know if it's '19. But there are preliminary analyses. And I think that's why we are pausing on this.

We are not trying to hold something back. I think it's just all very preliminary, and we are still reviewing it. I respect your request to come back at some point and talk about this further. But I think today it's very preliminary.

MR. POPOWSKY: That's fine. I was hoping at some point before you spent hundreds of millions of dollars --

MS. LABUDA: I think it's a very fair and valid request. I just -- I think we need -- I am looking at our legal counsel and our CEO. I think we need a little more time to really do our homework and do a more formal presentation.

HEARING OFFICER BROCKWAY: One of the

reasons that I ask is because you already got the -- as Chair Brunwasser says, the labor savings. In addition to new meters, my understanding of AMI is that you need this new two-way communication system. And you need a new back office system for meter reading management. Both of those are part of the big cost drivers for electric and gas when they go to AMI.

MS. McCARTY: Well, what I can tell you is that we have looked at our meters and then done extensive testing. And believe that we will not need to replace the meters as part of this. So, that's a substantial savings to our customers.

HEARING OFFICER BROCKWAY: If you don't -- that's interesting. If you don't need to replace the meters, the contract is coming to an end. Would it not be possible to extend the contract, there is then an alternative that you are looking for?

MS. McCARTY: There are two one-year options to renew on an existing contract. We are anticipating being able to, you know, do the roll out in conjunction with taking those two things, two one-year options to renew. Those two extensions. The -- the contract we have is an excellent contract. Our lawyers served us well. And we would have to renegotiate costs with the current vendor and do not expect to get as attractive rates as we currently have. And in fact, we pretty much been told good luck with that.

HEARING OFFICER BROCKWAY: Right. And so, that would go into any temporary hypothetical or preliminary business case as I was using.

MS. McCARTY: Right. As I think I mentioned, we do need to replace the ERT. Their additional life is coming to an end. We have to do something.

HEARING OFFICER BROCKWAY: The ERTs meaning the module on the meter.

MS. McCARTY: Exactly. There are three components of what I could consider a meter. There is the meter, measuring the flow, then there's a register recording that consumption, and then register is sending a signal to the ERT. The ERT is what sends the signal to the trucks that drives by.

HEARING OFFICER BROCKWAY: I don't want to take time now. Sounds as if you're not there yet in your study of this. But just to raise the issue of -- I don't want an answer now, but just to raise the question. Will there be a difference in the cyber security of Department functions if you go to AMI as opposed to extending ERT?

MS. McCARTY: Well, security is one of the issues that we are concerned about of course.

HEARING OFFICER BROCKWAY: Any more questions on the AMI at this point?

(No questions from the Board at this time.)

MS. McCARTY: Moving to Question 11: "Please briefly discuss the Department's efforts to ensure the safety of the City's water supply particularly with respect to the level of lead in the drinking water."

If you haven't figured out already from what I said previously, we take our commitment to provide safe drinking water to our customers very, very seriously. As such 24/7, 365 days a year, our employers are working to ensure we live up to that commitment. The two plants utilized best available technology to treat the river waters while still controlling costs. Treatment of water is, I like to tell folks, is a chemical/physical process. You add some chemicals and things physically happen. You remove things. The pollutants basically is what we are hoping to remove. And, you know, so physically through sedimentation and filtration.

We have monitors throughout our distribution system or conveyance system. And that allows us to monitor and maintain quality to each of our customers to their tap. Speaking specifically to the lead issue, as part of the treatment process to control corrosion in the conveyance system, we add safe orthophosphate.

This practice creates a thin coating inside the pipe. The coating prevents water from coming in contact with the lead solder or the lead pipe. It's important to note that the Water Department does not have any lead pipes. Remember, that our customers own from the connection to the water main up to and including, you know, to the meter. And then, of course, inside. The remainder of the inside plumbing.

The meter is already inside.

So, the idea is that that coating when your water was sitting in there, doesn't -- keeps the water from coming in contact with the lead solder and the lead pipe. Water is universal solvent, so you don't want it dissolving -- the lead dissolving in our water. And we estimate about 50 to 60,000 properties do have lead pipes or lead solder.

MR. BRUNWASSER: And the water that we get, the water that leaves the pre-water treatment plants is lead-free?

MS. McCARTY: Yes.

MR. DASENT: I believe we have one final question on the regulatory compliance.

MS. McCARTY: Scott Schwarz will handle that question.

MR. SCHWARZ: I'm Scott Schwarz, general counsel for the Water Department. The question was as follows: "the federally mandated unfunded long term control plan seems to be the major challenge for the Department both now and in the future. Are there new and more stringent federal or state rules on the horizon which may impact future revenue requirements?"

The answer is yes. We have talked already about the three major acts. Let me give you some examples under each act.

First act would be the Clean Water Act. And under that act, there presently on the horizon some new water quality standards for both Wissahickon Creek and the Delaware River. EPA proposed new standards for Wissahickon Creek in May of 2015 that would control the total amount of the phosphorous entering the watershed.

That kind of rule is called a total maximum daily load or TMDL. It would set limits on phosphorous entering the Wissahickon Creek Watershed from both wastewater treatment plants, stormwater and other sources. That document is still in draft form and we don't know when it's going to be finalized.

On the Delaware, the Delaware River Basin Commission recently mentioned strengthening the dissolved oxygen standard in the Delaware. And that may be revised to better protect fish in the Delaware. Again, that's very preliminary. And we don't have a good date on when that may happen.

Also under the Clean Water Act, there are some other ways that more stringent requirements go into a place. One is through our permits. All of our permits have expired, so we are operating under automatic renewals. And we have some drafts of the new requirements. There are some new requirements in the draft permits. For example, the stormwater draft permit for a stormwater system would require us to do additional monitoring and take certain remedial actions that would monitor for certain results.

There is a lot of new requirements at our treatment plant. Draft permits. Just to give you an example, the new draft permit for our Northeast Plant requires us to do a study of trash in the Tacony-Frankford Creek. If it turns out that our system is contributing to the trash, take certain remedial actions. Those permits are not finalized yet, but they are on the horizon.

And finally, under the Clean Water Act, there is EPA guidance and policy interpreted continuously under our consent order or agreement. We just got a letter from EPA a month ago that asked for a new analysis of alternatives for providing for overflow controls. That's due January 2017. We also have a major filing under the current consent order due in October. It's called -- well, there are various things required. But the major filing is called an Evaluation Adaptation Plan. And the consent order provides that we will make changes to the long term control plan if necessary based on that.

Those are the Clean Water Act changes. It's both a water quality standard permit requirements and EPA interpretation of the policy and guidance. Under the Clean Air Act, the big issue following, it's been in the news lately, is the EPA's plan for reducing greenhouse gas emissions from electric generation units. City is actually a party in that case. It's been appealed in the DC Circuit by about 200 parties. There's tons of parties involved.

The Supreme Court states that rule a few weeks ago, five to four vote. The rules stayed. But the rule is now being created for DC Circuit. All the first briefs were filed on Friday, briefings done in April. The outcome of that case may have some long term impact on energy crisis. It's not a direct impact to us, but it could have a direct impact.

And finally, under the Safe Drinking Water Act, we already mentioned lead and copper. There is a number of rules under the Safe Drinking Water Act that may be revised and are on the horizon for revision. One is the Unregulated Contamination Modicum Rule. That rule was proposed by EPA in December for comment. The comment period closed February 9, and that rule required us to monitor for 30 unregulated contaminants beginning in 2017.

Another rule, drinking water rule, is the Revised Total Pollen Form Rule. EPA published that rule some time ago and requires us to monitor for pollen-formed bacteria. Takes effect April 2016. There's a parallel effort in the state to do a state rule that would be more stringent. And that was proposed October 3 of 2015 and is currently being reviewed at the state for implementation in 2017.

And if accepted, briefly mentioned lead

and copper. It's entirely possible we will have not only a new rule for lead and copper but some new guidance on how to monitor for lead and copper.

That is kind of an overview. I don't think I covered everything on the horizon. But those are the ones that potentially could impact over the next couple of years or beyond that in the long term horizon.

MS. McCARTY: If I may add to the lead and copper, we test every three years as per the regulation. Next year in 2017, which is FY18, we will sample in the warmer weather, spring and summer. Will be -- if those regulations change, it will likely impact that sample and/or the guidelines.

MR. BRUNWASSER: Are you done with the questions so far?

MS. McCARTY: Right.

MR. BRUNWASSER: I have one. I think I mentioned it in the written portion. Clearly, the Department has lowered its revenue requirements somewhat by refinancing old debt which is with lower interest than has effected the Fed service to the benefit of lowering the revenue requirement. But there are other things that the Department has done. I think the solids handling was a major factor in the Department. The City wastewater side does created a tremendous amount of solids each and every day, 24/7.

I'd kind of like to get an update on that improvement and what that has resulted in, in lowering of revenue requirements over the past few years and how that's going today.

MS. McCARTY: I apologize. I don't have those numbers off the top of my head. We can provide that.

I can tell you that it continues to be very successful. And is -- does save us a lot of money every year. It's been a good partnership with the vendors. We can get you those numbers.

MR. BRUNWASSER: Yeah, that would be great. That would also address the clean air problem.

MS. McCARTY: Yes.

MR. BRUNWASSER: Near the Southwest Plant or near the airport for those of you used to experience those odors.

HEARING OFFICER BROCKWAY: I was thinking it as a procedural matter that if you have questions that you have taken, that Mr. Dasent can put them in the form of discovery. Call it the record reflects, whatever you want. Answer them that way and then the answers will be posted in due course on the website.

MS. LABUDA: I believe there was one more question from the Board that we haven't yet answered if I may address it. The question related to why is -- I apologize.

"Please describe and quantify any expected payments to be made from the Department to the City's general fund during FY17 and 18."

Earlier in the presentation I described the interest earnings on the Debt Service Reserve Fund. We're required to transfer those from the Debt Service Reserve Fund to the Residual Fund and from the Residual Fund to go to the City's Con Cash. Outside of that, we make payments to the general fund for services that they provide. In the filing, the projection for the general fund, our payment for services I believe in FY17 was approximately 8.5. And in '18 it's 10.4. But inclusive in those numbers, and I'm sure our consultants will double check me on this, are our portions of the payment for the construction of a combined sewer outflow. That is why there is slightly higher than prior years.

MS. MCCARTY: If there are no more questions.

HEARING OFFICER BROCKWAY: There any more questions from the Board?

MR. BRUNWASSER: I also had a question about, you know, obviously the Department and the City Treasurer met with bond rating agencies when the question of a Rate Board came up. And changing the rate making policy of the Water Department, you know, which have been in effect about 65 years. I was wondering -- I read the two reports by Fitch and Moody's.

I was wondering what they may have said verbally to the Department and the City regarding the Board itself?

MS. LABUDA: Kathy Clupper and I will address that question.

MR. BRUNWASSER: Oh, that's fine.

MS. CLUPPER: As you know, historically the rating agencies have given the City a pass or it's been a credit positive that the Commissioner can ultimately set the rate. So the City has historically set the rates close to 1.2 and has used the rate stabilization fund to maintain coverages. Which I will talk about in my presentation. That's on the low side of kind of utility 1.2 and 1.21 coverage. The City kind of has gotten a pass.

The new Rate Hearing Board which was presented during the last rating presentations, we did an outline, what was the new rule, we gave them the legislation. We basically said this was a new construct. I think we articulated it was an opportunity to kind of have a long kind of ongoing relationship with the Rate Hearing Board which is typical in other municipalities who had independent Rate Boards. It's very much of here is a presentation. Here is information. And then they deliberate and they, you know, either improve or whatever.

So, that's how it was presented. It was an opportunity. They understand what the rules are, what was in legislation or the ordinance. Fitch in particular did raise it as a credit concern because it's an unknown. Anything that's an unknown in the world of rating agencies is credit negative because they always default to the worst possible scenarios.

So in this case, I think they're -- and investors are anticipating what's going to happen. They are going to see what comes back. It's also a trend. I think it's a "to be determined" whether it's ultimately a credit positive or credit negative.

MS. LABUDA: I think on the other side, though, to address your question is that during the financial crisis, there was something called Dodd-Frank Act. Rating agencies in their reports and in our discussions paralleled their concerns. The discussions in the room were paralleled in the rating presentations. It's not as if there's some offset discussion that wasn't captured in those reports. If you read the reports, you can highlight the concern, the uncertainty on many fronts on rising capital program. And, of course, the uncertainty with the Department's ability to achieve requested rate increases.

MS. CLUPPER: The public conversion, if you refer to the last official statement, does outline what's in the rate for this Board. And I did go back after because of the question and looked at the rating presentation. There was a couple slides that basically just outlined what was in there and kind of what's going to happen. That was really the extent of the conversation.

Nobody knows what's going to happen, so that's basically it.

MR. BRUNWASSER: Thank you.

HEARING OFFICER BROCKWAY: Go off the record.

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(At this time, a discussion was held off the record.)

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HEARING OFFICER BROCKWAY: Go back on the record.

MS. MCCARTY: The Department believes that the proposed plan and rate request will sustain us and our mission of providing integrated water, wastewater, stormwater services to our customer. So, it provides the financial sufficiencies, the stability that a large utility such as us, ourselves, require, supports equitable cost recovery, provides customer assistance as responsible utilities should do, and meets our General Bond Ordinance and insurance covenants.

So, all those requirements are met in our request. And then I am actually done.

HEARING OFFICER BROCKWAY: We will go off the record.

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(At this time, a discussion was held off the record.)

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HEARING OFFICER BROCKWAY: Let's go back on the record. We are going to push through until 1:00 a.m -- 1:00 p.m.

(Laughter)

MS. CLUPPER: Thank you very much. I was asked to provide a presentation on credit ratings, some of the impact on the hearing on the Water Department's credit rating. So, what I would like to do is just to go through this presentation. And please feel free to interrupt me.

So starting on page 2, I thought it might be a good idea just to kind of talk about what the credit rating agencies, what they view their role is, what they are and what they aren't. As Missy alluded to, Dodd-Frank has changed kind of a lot of their approaches. They are much more uptight about their presentations and information flow.

So what they are, credit ratings are opinions about essentially credit risks. They are supposed to be forward-looking opinions. They express opinions about the ability and the willingness of an insurer to meet its financial obligations in full and on time. They are not a recommendation or prognosis, but are intended to provide market participants with information about relative credit lists.

They express relative opinions about credit worthiness related to debt from the strongest to the weakest and with the universe -- within the universe of credit risk. They also take a global view, too, as well just in comparing credits within the United States. They do not constitute investment advice. Credit ratings are not indications of market liquidity in the debt security or its price in the secondary market. They are not guarantees of credit quality or future credit risk.

Feel like I'm a commercial.

They are not absolute measures of default probability, but they are at the end of the day to speak about the likelihood of default. So when they do the analysis, the credit analysts are generally sector specific. There are some credit analysts that also rate the City, but generally there is at least one credit analyst that is specific to the utility sector.

They look at the sources of funding, security, revenue diversity and stability. They are going to look at financial flexibility, the ability to meet obligations, strength in the operations for maintenance, you know, when they deliver the product, liquidity investments and cash flow, debt structure. They are going to look and see how much fixed rate you have, how much variable rate you have, do you have derivatives.

The strength of the management team is an important quality. That is something the City has generally rated very high on both in the City general funds as well as water. They are going to look at historic performance current year and look at future. They look at trends. If you change something this year that might be a credit positive, but it's not necessarily going to translate into an upgrade. They are going to want to see a trend in later years.

The rating agencies provide a lot of written material on kind of their view of different sectors. That material was connected to my or part of my testimony, so I would encourage you to read it. It's very informative. I think it's very interesting.

So when you look at the sector credit on utilities, there is just a couple things that they have a concern about. Economic climate. I mean, the water utility sector provides a central service. That's a credit positive. Everybody needs to have sewer water. That's a good thing.

The economic cycle has been a big

conversation over the last several years. There is a more positive growth in the economy, but they don't really necessarily think that the current expansion is just going to have a marginally positive impact on operation, which is interesting. It's not a boom kind of scenario.

Cost recovery remains a challenge. Total cost recovery is a challenge because most of the utility rely on consumer usage to fund fixed costs. So you have when consumer usage is down, obviously, you have less revenue. That is a problem when a part of your expenses are fixed debt service, potential liability and other things. That's a concern.

Changes in the environmental regulations, of course, is a concern that's going to lead to increased operating and capital costs. And I think there's going to be wastewater utilities faced individual pressures from enhanced discharge requirements.

Another theme is the delayed capital spending. This is a theme not just in water utilities, but all over municipal sector. Long term capital spending remains moving either unchanged or slightly lower despite aging infrastructure. It takes a while for municipalities to gear up and give the constituency buy in, political buy in. At the end of the day, increased capital requires increased revenue.

Those are some of the things that are indicated in some of the sector writeups. The next page talks a little bit about the key rating drivers. When we are advising our clients on what to do as far as rating agencies, we spend a lot of time going through these computations to help our clients provide their information in a way that's going to be beneficial to outcome.

Moody's has recently in '14 released a scorecard to try to make the process a bit more transparent. The scorecard scores certain metrics, the system characteristics which would include asset conditions, service area, system size, financial strength. Some of the key ratios are debt service coverage, cash on hand and debt to operating revenue. Management is an important component. And then legal provisions, which would include the rate covenant and some of the debt service reserves fund requirement.

This is all put into an Excel spreadsheet. It spits out a scorecard which is then qualitatively changed or adjusted depending on, you know, certain factors. So they -- it only assists in the analysis and provide kind of a point of conversation. So if you have a scorecard that shows you have a rating of A and you end up getting a rating of A-minus, then you have a point of contention to talk to the rating agency about.

S&P more recently in January of 2016 finally released their analytical framework which is a similar attempt to try to make the process more transparent. There's is a little more complicated. They take enterprise risk profile and financial risk profile, and then they apply overlapping factors and rating caps. So, rating cap might be the rating of the underlying municipality. So, they take what could be a very simple framework and made it more complicated. At least it gives a lot of really more detailed guidance.

They will, for instance, look at the

economic fundamentals, look at the underlying economic conditions, industry risk, external factors of the sector, market position, operational management. And then the financial risk profiles look at these different areas, some of the key ratios. And there's obviously a theme with all the rating agencies on the ratios, liquidity ratios or these cash on hand, debt to capitalization, which is your long term debt -- short/long term debt over your debt position, debt service coverage and then sort of contingency liabilities over long term debt.

These are key ratios that they look at. And then Fitch has not really come up with a scorecard yet. They're writeup is much more qualitative. I think there's really, if you have a chance to read it, there's a lot of written material and best practices. They have their ten C's of analytical framework.

They do actually do a good job in writeup. Talking about attributes for strong systems, medium and weaker system. It's a really good kind of guideline, you know, to see where you fit in. Because these are all -- even though there is a scorecard which makes it easier, you do need to look at peer comparisons.

At the end of the day, you put all this information in and you need a point of reference. So page 6 just gives you an idea of larger systems. There was a question about some of the -- that I received about why certain peers were selected.

You know, what we do and we do this with Missy. We spend a lot of time talking about what are good peers. You obviously want to look at an urban area, larger area. You want to look at a peer that's maybe on the east coast because they're going to have the same kind of water issues and combined sewer overflow issues versus the west coast, which is lack of water.

And, you know, you want to pick some peers such as DC Wasser, which is best practice kind of peer. They do a lot of cutting edge. They do the first green bond and they do year century bonds. They do a lot of interesting things. That is sort of what we think about when we think about peers. It really needs to be a dynamic process. You know, we look at the rating presentations or the rating writeups of different peers. Because maybe some one peer might be changing their debt structure, so it throws off the ratio. It's important to see this as a dynamic process, but it's also your requirements in the ordinance that you do consider peer comparisons. We want to make sure we gave you this information.

So, you can see in this page 6, that overall most water utilities and large systems are in the AA category. And that is, you know, pretty typical. I mean, it's just all three rating systems, most of them are AA credits. It's essential service. Most of them have a degree of liquidity and coverage that allows them to fall in the AA category.

HEARING OFFICER BROCKWAY: Just a clarification. The ratings that you have in the column, there are three different ratings. Typically, those are the three different ratings. Can you just share which is which?

MS. CLUPPER: The first one typically is Moody's. You will know Moody's ratings because it's an A with a small letter or B with a small letter. The middle one is Standard & Poor's. And then Fitch is usually last. And when there's just two ratings, typically it's Moody's and Standard & Poor's.

So for instance, Baltimore does not have Fitch. It's also important to note that once you are rated by a rating agency that a debt is outstanding, they will continue to hold that rating until the rating no longer exists. You can't -- it's not as easy to pick and choose rating agencies once your debt is rated with a Moody's A. Even if you didn't call them up with the next issue, that issue will always have a Moody's A rating. The investors know that. It's not as easy to kind of go shopping.

On page 7 shows where the Water Department ratings are. Just for point of reference, Water Department are the highest rated credit in the suite of Philadelphia's ratings. That would include general obligation credit rating, airport and PGW. It is probably considered -- it is considered the strongest of the four rating categories. So, that's good news. I think there was a question a little bit about what's the relationship between the underlying City rating and the water rating? There is a relationship. It's one of those caps or factors that they add to it.

For instance, if the City's rating -- and it does reflect the underlying, you know, wealth or poverty of the household income -- if that's on the low side, that would be a credit negative. The pension, unfunded pension liability is a huge issue for the City of Philadelphia. Philadelphia Water Department has a, you know -- is a percent of that unfunded liability, so they carry their own unfunded liability.

They also have to pay a percentage about 45 million. I think it would be minimum MMO that the City pays. They also pay another $26 million of debt service for the pension fund. There is a connection there. It is a City Department. There is a connection. It's not to say that the Water Department if they all the sudden had 1.5 times coverage over a period of years when they get through their increases, but there is a connection there.

On page 8, we try to outline sort of these are key facts or quotes from the most recent rating reports in 2015. Just in general, not to read them through, but there are some themes there. Credit positives are, you know, there's a large -- you serve a large and diverse service area. Management has always been cited as a credit positive. You have ample water supply, which is important.

Some of the challenges would include the legal covenants, the fact that you don't have to have 1.2 times coverage without using the Rate Stabilization Fund would be a weaker real covenant. There is zero debt service coverage levels. The weak demographics, as I said, does present a challenge, obviously.

Then sort of the -- in past writeups, the last writeup, we did have days cash on hand because you had just gone through the rate increase. You did not have additional revenue that was, you know, available. And the rating agencies in the past, they start to now include the Rate Stabilization Fund in their calculation of these cash on hand which we think is appropriate. Not all due. That sort of, you know, something that the Department's been encouraging kind of over a period of years.

There is another concern, of course, is the large capital improvement budget. I think these are pretty much consistent across the Board. What the rate agency will look for this time will be continued increasing debt service coverage. We spent a lot of time talking to them in the past several years about trying to move from that 1.2 to a higher debt service coverage. We're going to look at, you know, days cash on hand. They are going to, frankly, look at the result of Rate Hearing Board. They are going to continue to look at trends.

They are also going to look at the City's unfunded pension. You know, how is the City addressing that? That is an important issue. You know, I think that they will be interested in what happens here.

What we have done, I'm hope I'm not talking too fast. Everybody is hungry, I know.

On page 9, what we did was we tried to identify some key rating metrics. And I mean, I think it's also important to know that these can change. I mean, we spend lot of time with the Water Department financial staff thinking about what we should include, you know, read this. You know, it's a work -- work in process. I want to point out a couple sort of themes that are critical. This is mentioned before. That's the debt ratio, which is your debt to assets.

You are highly leveraged system. You do have for your assets of 2 billion an outstanding debt of 1.8 billion. It would be better if that was -- your debt was a lot lower than your assets. That means you funded your projects. So, that's a ratio that we kind of looked at. Debt service coverage is another one, and then days cash on hand. Those are three really critical ratios.

What we talked about in the past is sort of honing down on those and creating an ongoing Philadelphia Water Department scorecard. I think -- those would be three things that we would harp on or continue to raise.

Just to talk a little bit about why -- what my -- you know, my recommendation is when I submitted my testimony, spent some time discussing Pay Go. If you increase the Pay Go, I know that the Department is looking at 20. I think 40 percent Pay Go would be a great goal to have. If you do that, if you start to fund your capital with a higher percentage of current revenues, these other ratios will fall in line. You will have debt service coverage. You will have the liquidity that you need. You will then be stronger and more financially stable system because you're not -- every capital project is not funded by debt.

And while now, you know, we are just looking -- what we do is we look at more than five years. You need to look, 10, 20 years and you can have an idea that you are going to be borrowing 200 to 250 a year pretty much. I mean, you have a significant capital plan. And if you do that and take that out over a period of years at 20 percent Pay Go or 40 percent Pay Go, it's a significant difference. And it allows the system to have a financial flexibility to address, you know -- I think on the next page 10, which is the graph that I alluded to, illustrates this very well.

I mean, it allows the Department to address those things and habit which are economic crisis, increase the cost of materials. So, what this chart is, it's just the revenue spread to the AAA. MMD is an industry -- it's a basket of rates that are set. Our industry uses that to price transactions off of the MMD. It's a yield curve. There's an MMD rate for every year 1 through 40. This looks to 20 years and the revenue MMD. And it's spread to the AAA.

So AAA MMD is like the gold standard. And then it's A rated. And if you are AA rated credit throughout this crisis, you had consistent spreads. I mean, it went up after '08, but it didn't spike. If you were an A-rated credit after '08, you see the, you know, space between the spread is, you know, significantly higher in '08 and it's starting to come down. And of course if you're a BBB rated credit, it really spiked.

I think what this table tries to illustrate is so that rating -- credit ratings are not just about the next bond issue. They certainly are. They help buy down the cost of credit. They are also a reflection of your ability to maintain financial stability during different periods of the economy. So, it does lower your cost to borrow to have a higher credit rate. It also helps on certain other products that you can do liquidity facilities, bank facility. It allows you, as I mentioned before, to create different structures within your debt structure, commercial paper.

So, subordinate debt structure would allow you to issue bonds on a subordinate basis with a debt service fund that allows you to borrow more money. You know, you don't have to fund 10 percent or debt to service fund. That's positive. You are able to have a more complex debt structure if you're in the higher rating category.

So, that is my spiel for having 40 percent Pay Go. I think the Department seems to be going in the right direction. And we support the financial plan, you know, moving higher debt service coverage, more Pay Go, and more cash on hand, as well.

MR. HUANG: Roughly, what is the AAA MMD rate right now?

MS. CLUPPER: The AAA MMD rate for GO, this is like being the State of Maryland, 30 year right now is 2.78 percent. The 10-year average, I knew you would ask this question, so I looked it up -- that's 4 percent. That's 10-year average for the AAA MMD. The Water Department prices when they do a bond issue now and they rate in their level is about -- can be between 70 -- you add another 70 basis point, 7 percent to 80 or 90. That does get you when you're doing projections up to 5 percent, 5 and a half because you have to be conservative projecting out.

Just as a point of interest, the credit spread for the Department has decreased in the last couple years from 2013 for the longer end. It was like 90 -- 0.9 percent. The last transaction was 0.7 percent. You do get a benefit from kind of the increase. The ratings didn't change necessarily, but there was better coverage. And you know, there's a lot of reasons.

The credit spread is a dynamic

situation. When we're asked what interest rate we should use to project, we usually default to 5 percent. I mean, another little interesting fact that I looked up, the MMD in the 30 year has been lower than where it is now less than 1 percent since 1986. I mean, we are at incredibly low rates. It's just so unusual. And so, I think when you're doing future projections, you have to be mindful of the fact --

MR. HUANG: It's only going to go up.

MS. CLUPPER: Yeah.

MR. MARKUS: Can you explain, they talk about why the Department is not historically in use.

MS. CLUPPER: When you create a subordinate structure, we did look at this a couple years ago. You have your senior lien. Like say, for instance, just City of Baltimore for example.

In their documents, right, a senior lien of 1.4 percent. And then their subordinate lien would be 1.15 percent. Well, if you have a 1.2 percent coverage, you don't have any room to create a subordinate debt. That's what I'm talking about when you create and have a higher coverage level, obviously, then you are able to create different structures within your debt structure. At this point the Water Department doesn't have the coverage history to create a subordinate lien.

MR. MARKUS: Also, behind why not more variable rate?

MS. CLUPPER: Yes. I think the Department has a pretty good debt structure. There's not a lot of variable rate.

MS. LABUDA: From a classical theory, given the level of interest rates over the past five years, we are best poised to enter into long term fixed rate debt because it's natural. When does variable rate debt make sense?

Variable rate debt will make sense is a rising interest rate environment. So, I think we have taken a classical approach. We've issued our most recent financing, we went long. And I think as market conditions changed and the ratings improve, we will look to add more variable rate. Right now for the interest rate environment we are in, given what we are in, when we issued the 2015 A deal, the best practice was to issue long day to debt to lock in low interest rates. And that was to the benefit.

MS. CLUPPER: I also want to mention that Standard & Poor's is really concerned about variable rate debt because they are totally concerned about liquidity facilities. When you have a lot of variable rate debt, you not only have interest rate risk as a municipality, you now have bank risk and corporate risk. You can see that in 2008, those issuers that were in the BBB and A category, including the City of Philadelphia, had difficulty replacing their letter of credits because there were banks who just didn't want to do that anymore.

That's a really critical risk that you don't want to take unless you are pretty sure you are cream of the crop in the rating category.

MS. LABUDA: It might make sense when you issue variable rate debt, you have to have the ability the bond can be put back and given back to you at any point in time. What Kathy is talking about liquidity facility, you take a step back. It's almost like the price we pay to maintain somebody to provide the ability for the Department to absorb or buy back, take back all of its bonds at some point in time because the rates ten to reset at some frequent period, weekly, daily, quarterly. You have to have the capacity at any point in time to be able to buy all of those bonds back. And there is a price to pay for that flexibility because we do not have enough cash to do that ourselves.

MR. MARKUS: In the CIP, there's a very small amount for PENNVEST in the next five years or so. Curious as to why not more?

MS. LABUDA: I mean, PENNVEST actually creates rate pressures. Let's be honest here. PENNVEST has a very short useful life. You amortize it over 20 years. I have no control or no ability to set the pattern of my principal with the pattern of my infrastructures, so I'm putting a new water main in and it has a useful life of 50 years. PENNVEST says that doesn't matter. Your useful life, you have to amortize the debt over 20 years. That fact pattern puts pressure on current rate payers today.

The other problem with PENNVEST in this

five-year planning period is also that we have a Debt Service Reserve Fund requirement. PENNVEST is on parody with all other debt. I do not have a tool or a means via this debt structure to pay for my reserve fund requirement. And what has happened with prior PENNVEST loans is I have had to take it out of the operating side and fund my debts service reserve fund.

So in this rate period, PENNVEST would only increase our rate request through the issuance pattern, very short useful life, how you have to pay for the Debt Service Reserve Fund. It just doesn't -- from that very simple financial perspective, it doesn't make sense.

Now five years out, we can talk about it again. But in the next two years, three years, I just don't see that making sense unless we're going to raise our rate.

HEARING OFFICER BROCKWAY: So, does the Board have any more questions on this topic?

Let's go off the record.

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(At this time, a discussion was held off the record.)

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HEARING OFFICER BROCKWAY: I have got about 12:40. We will come back at 1:45 and pick up with questions from the active participants.

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(At this time, a break was taken.)

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HEARING OFFICER BROCKWAY: We have discussed off the record the order of questioning by active participants. We would like to bring up first Mr. Tim Carney who is a tenants' rights specialist from the Tenant Unit Representative Network.

MR. CARNEY: Thank you, Madam Chair person and Members of the Board. My name is Tim Carney. I'm a staff worker at the Tenant Unit Representative Network, TURN. I'm here today because I have two major concerns that I wanted to question about this rating increase -- proposed rate increase.

The first concern is that so much of Philadelphia is poor and I don't see them paying the rate increase. And the second concern is in the area of customer service. Whereas, on a weekly basis as an advocate for tenants which is 47 percent of the households in the City of Philadelphia, I'm constantly bumping heads with the Staff of the Water Department or the Water Revenue Bureau with respect to USTRA.

HEARING OFFICER BROCKWAY: With respect to what?

MR. CARNEY: USTRa, Utility Services Tenant Rights Act, which is a state law to protect rate payers from being shut off when it's not their fault, it's the landlord's fault. We're an organization -- a tenant advocacy organization. We deal with tenants but overwhelmingly we deal with low income tenants on a daily basis. Being able to pay rent and utilities is a constant difficulty for so large a section of the population.

Although, I applaud City Council's Affordable Rate Program, I'm not sure it's enough. So my first question is that, is that I would ask that the rate increase be tailored in such a way that the income of the households is very specifically taken into effect before they could be issued the rate increase. Because despite the WRAP program and the new City Council Custom Affordability Program, though I saw the discounts were incredible in some of the percentages of poverty, they weren't extended above 150 percent of poverty. In some families they are still needed.

Two, as I learned in my long work in social services, that an overwhelmingly large percentage of people when you have to apply for the program never apply for the program, therefore, don't guess use of it. While you may have wanted to keep the 16 million as a low figure, I certainly stood and sat in the back and wanted it to be an extremely high figure. Because I would have hoped that every single eligible person would apply for it and cost you a lot more than what you're projecting in your 16 million or 13 million.

My first question is, please don't extend the rate increase unless you are going to monitor people's ability to pay carefully, which means you may have to restructure very considerably.

And the second question I have is, how

are you going to use any of the money that you have now or you would get in a rate increase to improve customer service? Because on a weekly basis, myself and my coworkers on behalf of Philadelphia tenants are battling your staff. And we're all paid for by the City. We are all on the same team. And yet, it seems like sometimes we run into staff people at the Water Department who think that USTRA was never passed or doesn't exist.

And you ask to talk to supervisors. You ask to talk to folks. And the hurdles and the burdens that are put in front of tenants just keep piling up higher and higher even though the water shut off came from the Water Department, it's the Water Department that broke the law. And yet, the staff people tend to make the poor and low income tenants as though they're the thieves of water.

My question is, how are you going to improve customer service so that people who apply for USTRa can be treated fairly and very, very quickly because we can waste four hours and in some cases days, fourteen days trying to get somebody's water reconnected when insurmountable hurdles are put in somebody, like, when demand a lease when this part of the City has verbal leases and people don't have lease. Yet, that's the only thing you'll take.

People are beaten down and they're not getting the service we need. We need somebody in the Water Department that we can call up who understands USTRA and is going to effectively administer on behalf of our citizens.

My question is, and I will stop, how are we going to improve the customer service specifically around USTRA so a agency like ours who is advocating for tenants every single day can have somebody you can talk to get this done, especially when the water is being metered and, therefore, the water companies knows they are never going to lose a pay.

MR. DASENT: If I might, Madam Hearing Officer, authority to pay issues that are raised by Mr. Carney are very important to us and are addressed in the filing. We are happy to address those. Customer service issues, although very important to us, related to USTRA or other issues, probably fall outside of the purview of this proceeding but nonetheless must be addressed. We will have someone at WRB interact with Mr. Carney and make sure between the Law Department and our people at other personnel at WRB that we address this issue and hear his concern.

HEARING OFFICER BROCKWAY: Why do the customer service issues fall outside the proceeding in our view?

MR. DASENT: Because the statute establishing the report deals specifically with rate issues as opposed to customer service and other related issues that would remain under the public utility code and not specifically addressed in Water Rate Boards.

HEARING OFFICER BROCKWAY: So, let's not -- let me see if I can break this down.

With respect to the 150 percent, my understanding from the discussion this morning was that the Department is not fixed on that as an upper limit but has chosen that as the basis for the planning?

MR. DASENT: The ordinance also

addresses the various thresholds, so we need look too much further than Bill No. 140607 creating the program to see that the various tiers, various thresholds we must address.

HEARING OFFICER BROCKWAY: You must address those. Doesn't say you're not allowed to address others is my understanding. But anyway, that whole question is going to be taken up.

What I would do is I would treat Mr. Carney's question as a statement request. And we'll make sure to get at that question when we get further into those details.

MR. BALLENGER: Madam Hearing Officer, I was just taking some notes. I don't have a microphone. I will try to use my outside voice.

HEARING OFFICER BROCKWAY: Is this on the 150 percent?

MR. BALLENGER: No, ma'am.

HEARING OFFICER BROCKWAY: Because I had more to say.

MR. BALLENGER: I was taking some notes when Mr. Carney was speaking. I thought I heard him ask was how will you improve customer service with these new rates, which to me seems to be relevant to rates and charges. I just, you know, in all fairness to Mr. Careny, his issues as well as others issues, are in some ways relative to rates and charges.

HEARING OFFICER BROCKWAY: If you had not interrupted me, that's what I would have said. I don't see that it's off limits to talk about those. How exactly that's going to come up, I don't know. I also understand the Department is not prepared today to answer that question.

MR. DASENT: Yes. That's certainly true. I was taking it a step further because of the limited time that we do have before the Rate Board that we would devote it to issues that are specifically, according to the Rate Board Ordinance, in your purview so that we accomplish those things that we need to accomplish.

HEARING OFFICER BROCKWAY: Well, I would say to that is absolutely. But as I manage the hearing process, I'm on the lookout for where are their disputes. Probably 90 percent of the filing is not in dispute. And so we don't need to spend much time on it. What we are looking for is where are those areas where people disagree and might have an impact on the outcome. I'm not prepared to say we don't have time to get into this. I would urge the Department to be thinking along the lines of what is their budget for customer service and what is their relationship to those who actually give it service. If there is time, we will definitely get into it.

Anything else from the Board on this?

(No Board response.)

HEARING OFFICER BROCKWAY: With that, we can't answer your questions today, but we have taken them down. And the first one is definitely going to be addressed. Second one sounds like there is disagreement about how far we can get into it. We will -- I think if you want to talk to Mr. Ballenger, he is leading the charge for customers. And you can talk to him about the extent to which you need.

Is that all right?

MR. CARNEY: (Nods head.)

HEARING OFFICER BROCKWAY: Thank you very much, Mr. Carney.

Mr. Bakare.

MR. BAKARE: Yes. Thank you. First, my name is Adeolu Bakare. I'm counsel for the Philadelphia Law Coalition for ad hoc customers in the Law Department Service. As in the initial segue, I have a very similar customer service issue, so just to frame my perspective on that.

The Water Department's filing itself discusses the customer's service structure in the Department utilizes with the Water Revenue Board being responsible for dealing with customer payment issues and the Water Department itself not performing those functions. So as I understand from a general utility standpoint, a customer service issue in a rate case context is individual service issue. A customer may not be able to come here and say, hey, you didn't fix the leak in my house last Tuesday. But a structural customer service issue that effects the Department on the whole is, from in my understanding, a rate related issue because that is a wholistic customer service issue that relates the way the customers paid for service. That's how I would frame those customer service issues from my perspective.

So the issue that I would like to raise to ask the Department is for large industrial customers whose services are more complex than other smaller customers, when they call the water Revenue Board to raise issues in terms of rate complaints, bill inaccuracies and other bill disputes, there is often a lot of confusion with the Water Revenue Board because they're not intimately familiar with these customers' facilities and services as a Water Department would be, especially with the new stormwater rates coming in and have been coming in over the past few years.

To that end, would the Department consider instituting a new position where you would have someone on the Department side that's sort of an industrial customer service representative to field those complaints? That's an interesting standard other water utilities, even municipal utilities, generally implement. Water Department historically does not.

MR. DASENT: Mr. Bakare, you should be aware of the fact that the Water Department has a team of people who are directly related to stormwater management or larger customers to communicate with directly and deal with those particular issues that you've highlighted in your comment. Historically, we have had other folks in the Department that are designated to receive calls for larger customers also, so there is not a sort of bureaucratic runaround.

MR. BAKARE: That's correct. And I will clarify that a little bit because my members have reported the Water Department is actually very good and very responsive to the stormwater mitigation measures and the operational side of stormwater program. The problem is with billing disputes related to stormwater issues and sewer rates and water rates. As I mentioned, those issues are handled by the Water Revenue Board.

So the customers between a rock and hard place. They have the billing dispute to call the Revenue Board and say that there is something wrong here. The Revenue Board really does not have the knowledge of their systems and their individual facilities to address the issues that generate those rate and billing disputes.

MS. McCARTY: Are you talking about -- for the stormwater that is online is the, you know, the manual for and it goes through how you can appeal, et cetera. As Mr. Dasent mentioned, there is a whole team that will review those if there are any disputes with the stormwater.

Are you talking for, you know, like the surcharge customers?

MR. BAKARE: Not just that. Even if the customer is able to reach the Department and express stormwater safe credit not properly calculated, the Department will look at that. But the Revenue Board at the same time isn't part of that process. They still want the payment even though the billing dispute is being addressed on the Department side, the Revenue Board is not necessarily involved in that process. They are still demanding payment.

MS. McCARTY: You're saying that the account isn't being put in dispute. And Water Revenue Bureau is acting on the delinquency? Is that what you're saying?

MR. BAKARE: Yes. I'm saying there could be better communication between the

Department and the Water Revenue Board. I think the solution would be for large industrial customers to have not just stormwater personnel within the Department, but actually transfer billing dispute responsibility for large industrial customers from the Revenue Board to the Department.

MS. WILLIAMS: Erin Williams, Philadelphia Water Department. Just to address the stormwater related issues. Similar to water and billing sewer water disputes, for stormwater you are correct the staff handling the customers service issues are housed as Water Department as opposed to Water Revenue Bureau. We do follow similar procedures that customer service representatives at the WRB follow. We do raise a call and we document the dispute in the basis2 billing system and follow then customer service interaction. That's online that Commissioner McCarty mentioned earlier.

We do make sure we have adequate communication with WRB so that when our customers call WRB to bring up stormwater billing issues, it's documented in a database that's accessible to both WRB and PWD.

MR. BAKARE: That's a helpful explanation. We don't have to address this. I will just make the point that that -- I think considering how seeing sort of centralizing the responsibility for all industrial customers, something the Department should consider whereas a further centralizing beyond what the present structure offers.

MS. DAHME: Joanne Dahme. We have been working on a call center initiative for about two years now. We are with Revenue Michelle Bethel. The goal of that is to cross transfer. Now we have two different call centers. Customer call when center for one type of thing. They call the Water Revenue Bureau for the other issues.

We are looking to cross train representatives so that both of our reps will have knowledge on both sides of the business. I think that will help address some of that. We are looking to more formalize some of the training regiment so higher so higher levels of information about operations and services and that type of thing. We are hoping to launch that some time in the spring as sort of like a pilot. But our ultimate goal is really to make sure no matter what number a customer calls, they will get a representative who can address billing and service issues and be able to answer all those question.

I think there will always be something to bump up. I understand there is a need and who would you bump that up to? That is also something we are looking at.

MR. BAKARE: Specifically, although I understand all customers are important, regarding industrial customers because they are so few of them and their issues are so specialized, some particular consideration for that customer service pipeline could be advisable.

MS. McCARTY: Again, if it's the surcharge customers, you know they have a pipeline to our industrial waste unit who is responsible for that program.

MR. BAKARE: When you say surcharge customers, I'm not --

MS. McCARTY: Customers that get billed on basically the strength of the wastewater they

discharge to our system.
MR. BAKARE: Right. Okay.
MS. McCARTY: Like a Pepsi or Coca-Cola.
MR. BAKARE: I did mention stormwater, but this issue isn't limited to stormwater issues. It's really a billing issue across the board for sanitary stormwater and wastewater.
MS. McCARTY: I mean, offline if you have a specific customer, I'm happy to speak to you, as well.
MR. BAKARE: Thank you.
I think earlier in the presentation we mentioned importance of cost of service. The question that I had is the Water Department, as I read the filing, doesn't separately allocate it's unaccounted or nonrevenue water costs as you calculate this system-wide range. That percentage is not applied across the Board to all customer classes; is that correct?
MR. DASENT: Going to ask Black & Veatch to field that question.
MR. JAGT: Just to clarify, it's true that we don't have -- there's not a difference in the collection factor for customer type, but

there is by customer service because that's -- that's where one of the fundamental differences about whether the bill gets paid is reflected. Because stormwater only customers, PWD has limited from less -- they can't shut off water and get -- and have more response to paying a bill as the water and sewer customer.

As such, we reflect a lower collection factor for stormwater only customers. And that's stormwater only, city and water and sewer general serve retail billing are the only three factors that we reflect.

MR. BAKARE: So for water customers, strictly water, every water customer pays the same rate -- I'm sorry, not unaccounted for water. I apologize -- for non-revenue water in terms of the billing standpoint? Customer rearages, those no-revenue percentages for non-payment, late payment, all customers pay the same non-revenue percentage?

MR. JAGT: Now in the fact that it's a collection of factors, so we're projecting collections or revenues from the customers and we're not actually projecting the expense of the non-payment. So, it's reflected in our financial plan in that we only reflect the revenues coming in and receipts on that basis. But it's not like you'll see a revenue requirement for the non-payment.

MR. BAKARE: You don't project a certain percentage of unpaid pills in your projection.

MR. JAGT: To clarify, we do. I'm just pointing out the fact that it would be in the fact that it's not in our receipts. And that's how we reflect it as like -- in the bottom line, it ends up as like a requirement. But it's not like you can go down the revenue requirements and see uncollected as a revenue requirement. It's a cost.

MR. BAKARE: Then my question is, has the Department ever considered looking at the uncollectibles on a customer class in either size basis and allocating that across different customer classes of either size?

MR. JAGT: Over the years, it's been considered and it's been looked at. There's never been -- the variation between it has never been considered enough to show the difference between customer classes. And there are some policy issues that go along with that to drive. For one thing, we don't track the reps and rate stabilization is system wide. It's not like we do a detailed, true up by customer class to see how much rate stabilization is associated with each class.

Another factor is the fact that we use the same -- currently under the current rate structure, all of the meters, there is the same charge for all customer classes by meter size. And as such, to introduce a new factor that would vary across customer classes, we would almost have to consider introducing another or rate structure to address the cost recovery difference among the customer types.

MR. BAKARE: Okay.

MR. JAGT: The level of difference, I don't know what that would be. It's rather de minimus compared to the total revenue.

MR. BAKARE: That may actually address my next question, too, which is I was wondering how the Department would allocate the cost of the new Affordability Program?

Would that be also sort of across the Board, or would that be tilted more towards residential less than non-residential?

MR. JAGT: At this point, it's across the board. That's consistent with EPA standards for affordable low income programs.

MR. BAKARE: I think I was promised 15 minutes of fame here. I will try to wrap this up.

MR. JAGT: One point, this approach to do it across the board is also consistent with how we currently recover the discount programs that we have in place right now. So, the non-residential discounts and the senior citizen discounts that are -- well, PHA, the discounts for non-residential for charitable customers and the discounts for senior citizens -- the non-residentials also includes schools. They're all recovered across the entire customer base.

MR. BAKARE: Thank you.

One question that I had -- again, I don't want to go too far down into this issue. But there was a discussion on the switch from automatic meters to AMI. The question that got raised for me -- is something for the Department to just hear and keep in mind in the future. The issue that I saw in that discussion was the fact that if you discuss the installing AMI at City Council and there's a City Council mandate to move forward before the rate considerations have been addressed, that rate could put customers in a situation where it's sort of -- you're moving ahead before we really discuss what the rate impact begins.

What mr. Popowsky hinted at earlier, I would wonder how will the Department interact with City Council for establishing the cost basis for the AMI program?

Remember, I said this is not -- we don't have to go into the details now.

MS. McCARTY: It is in the future. Of course, whatever we would take before City Council and the Rate Board, of course, we would have our numbers. We just don't right now have what those numbers are. As I mentioned, we have looked at if we had to replace the meters. And at this point, we don't believe we do from our testing. So that will save a lot of money for our rate payers. But what it will look like with AMI in terms of vendors that have been provided, we don't have that right now. But we are working on it. And it will be part of probably the next rate case.

MR. BAKARE: Thank you.

And I think my final question relates back to the 5 percent annual increase in purchase power costs. And the question there is the Department would have a very different electric file than other City buildings and accounts, so this is sort of two part question.

The first part is, does anybody here know whether the City really separately looks at the Department in terms of how -- going to rephrase.

Has the Department ever looked at buying power on its own apart from the city and weighed those costs and benefits of going on the market or undergoing and then buying power as opposed just going in the City? I would wonder if the Department specific load profile would lead to more beneficial power contract than being lumped in with other City accounts with very, very different low profiles.

MR. SCHWARZ: Scott Schwarz again.

The energy buying policy is set on citywide level. Three separate prices the city charges the Department. One price for airport, one for water and one for general fund. We do believe that what you are suggests has been taken into account.

MR. BAKARE: We can move onto Mr. Ballenger.

HEARING OFFICER BROCKWAY: Okay. Thank you very much. Okay. Mr. Ballenger.

MR. BALLENGER: Thank you. To start with, I'd like to again apologize for the interruption earlier, Madam Hearing Officer. I wasn't being impolite. I'm sorry for it.

Just sort of a preliminary comment, I just -- I'm appreciating seeing how attentive and interested everyone is here today, particularly the Board Members and appreciated all of your questions. I hope that as this process moves forward, we will not be in the same position to have witnesses here to answer your questions directly. I'm hopeful that we can hear from you in other ways. Maybe you can attend technical hearings, follow-up questions as this case moves forward. But we appreciate the opportunity to ask some questions here today of the Department as we really get underway.

I guess the first question as the Department's focused, we have had a lot of discussion on the bonds. And I'm not a bond buyer. But I just -- as the matter of curiosity wanted to know when the last downgrade was of the Water Department's bonds if anyone recalls?

MR. BRUNWASSER: I can answer that. Water Department didn't -- just slight background.

The Water Department up until 1974 was dependent on the City's general obligation debt to fund its capital program. The Water Department, of course, was the one that paid the debt service on its share of the GO Debt at the time. What happened beginning in 1974, the Water Department was allowed under state -- under change in state law to issue revenue bonds for the first time, backed up by the full, of the rates and revenues of the Department and not the general pledge of the city.

From 1974 to 1990, the bonds were rated A, single A. In 1990, the City had some major dropping off of revenue. And the result was the downgrading of all City credit by all three bond rating agencies at the time. And those were single digit numbers like D or C or whatever they were, but it was certainly way below investment grade.

In 1991, Water Department was the first City credit to go out into the marketplace again. The way it was done -- by the way, at the same time we were doing this, the state was beginning to organize PICA, the Pennsylvania Intergovernmental Cooperation Agency. It's still here today because there's probably still some PICA debt out there.

PICA was designed to raise capital for the City which it could not go into the capital markets. But the Water Department was able to go into the capital markets in June of '91 and receive BBB or BBB minus. I forget right now. Low investment rate level. And we sold and issued roughly $300 million from which the proceeds of we paid off consolidated cash of the City, got ourselves out of consolidated cash for the City, which is one of the requirements. And also, we paid back the capital fund of the City the con cash, consolidated cash accounts of the City. So, we actually had some infusion of money into the city which we owed the City because everybody was riding on -- I think the Airport capital fund at that time.

Anyway, in order to sell these bonds, the rating agencies had to be convinced that the City could not dip their hands into any Water Department funds. And later on the Airport did the same thing in order to be able to access the capital markets. In order to sell the bonds, we had to go on a tour of institutional investors in cities like Boston, Chicago, San Francisco, Philadelphia and New York to explain why people could invest in Philadelphia bonds.

What we discovered was the further out from Philadelphia we were, the more marketable the bonds were. But in any event, it was a big success and it was very important to the City because a little later on the City came within $5 billion of blowing payroll. So, the City had to issue script since 1929 but we were almost there.

But that was the last downgrade. And it was a slow but steady improvement to get to the ratings that we have today, which are actually the highest ratings the Department's ever had.

MR. BALLENGER: Thank you. That was my recollection from the financial statements was the ratings have definitely come up.

I wanted to ask a little bit about the rate methodology. I think Dave and Prabha maybe can help me out a little bit here. I just wanted to see if you would note any -- from a very high level, any changes to the models since the last rate case in terms of how -- this is the first time we have seen the, you know, the model itself. But it seems as though the presentations style has changed. We have Table C1 instead of Table 11 for, example.

But are there any changes sort of in how you construct the model now as compared to how it was constructed three and a half years ago?

MR. DASENT: Let me interject one thought. If you'll remember, the rate model was proprietary model provided to you by confidentiality agreement. I'm not sure on the public record if there is best way to vet that concern as opposed to ask them offline the very same questions. You have signed the confidentiality agreement and no one else has.

MR. BALLENGER: I wasn't talking about the manner in which it works. I meant in terms of meeting the City's needs.

MR. DASENT: Just trying to protect Black & Veatch any way I can.

HEARING OFFICER BROCKWAY: Seems to me if the answer is yes or no, that that would not violate the confidentiality agreement. I agree going beyond that, we start getting into details.

MS. KUMAR: Technically, the model is not different. It's following the same industry guidelines and principles. The naming of the tables is a little more granular breaking it between water tables, wastewaters tables, wholesale tables and stormwater tables. One continues in numbers that used to be there before.

MR. BALLENGER: Okay. Thank you. What

I was looking for.

I don't have everything in front of me, so I may be slightly wrong about the numbers. I trust you'll all correct me. I believe in 2012 when the last three cases settled, there was an expectation that the combined rate stabilization Residual Fund balances will be maintained at approximately the hundred million dollar level as of the end of Fiscal 15.

MR. DASENT: The settlement agreement on that point will speak for itself subject to check. Mr. Jagt can answer it.

MR. JAGT: Subject to check 115.

MR. BALLENGER: I knew it was ballpark. Okay. And I just -- we're now looking at the FY15 numbers and we're saying about double that in the combined balances, right?

MR. JAGT: Uh-huh.

MR. BALLENGER: You talked a little bit about the use of those various funds before. And my understanding was that rate stabilization and Residual Fund and even construction fund, all of those are available as a source of borrowing to meet operating expenses. Subject to check, it says that in the official statements.

MR. DASENT: If that's a legal conclusion I'm not sure.

MS. LABUDA: I would call up Ballard Spahr.

MR. DASENT: Valarie Allen from Ballard Spahr is here. That will give authoritative source.

MR. BALLENGER: Sure.

HEARING OFFICER BROCKWAY: Off the record.

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(At this time, a discussion was held off the record.)

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HEARING OFFICER BROCKWAY: While we've been off the record, I had a question on the side as to what is the evidentiary weight to be given to the statements here?

Just to remind everybody, there will be no oaths taken at any point in the proceeding so you're all on Scout's honor to tell the truth. But we definitely do expect that you are telling the truth. So anybody -- anything that you say now somebody else could rely upon with the usual, oh, I made a mistake or I had to clarify, yadda, yadda, yadda. But we don't have oaths and we don't have certainly speaking evidence, but we do have information. And I appreciate the forthcoming and honesty of everybody involved.

MS. ALLEN: Is it working? I've been watching everybody do this all morning. Still good. Okay. Great. My name is Valarie Allen I'm a lawyer at Ballard Spahr hear in Philadelphia. We are counsel to the Water Department.

I'm sorry. Can you repeat the full question?

MR. BALLENGER: I just wanted -- and this is sort of the least consequential part of the question. I wanted to confirm that rate stabilization Residual Funds and construction fund balances are available for borrowing to cover expenses if necessary?

MS. ALLEN: Yes. Rate stabilization is available to transfer to the revenue fund, and then can be used for operating expenses. Physical fund monies can be transferred and used for operating expenses directly. Construction fund money is not available for operating expenses.

MR. BALLENGER: Well, I don't have it in front of me, but I believed -- subject to check, I believe it was available at least for borrowing to cover expenses.

MS. ALLEN: For borrowing, but it would have to be reimbursed.

MR. BALLENGER: Sure.

MS. ALLEN: Just to reiterate from this morning, there is limitation on the amount of money that can be used from the --

MR. BALLENGER: For coverage purpose, yes. In the past there's been a sort of historical practice to borrow on an annual basis, a fairly substantial amount from the Rate Stabilization Fund. I believe it was $45 million.

Has that process continued to date or is that discontinued?

MS. LABUDA: I think what you're referring to is the procedural practice where the RSF makes a loan to water operating to cover any deficiencies. As you might be aware, December is a pretty tough month for the Water Department. We make our pension payment in December as well as pay our largest debt service payment. So, that loan between RSF and water operating is booked and rebooked at the start of every fiscal year.

MR. BALLENGER: There is still a 45 million a year loan?

MS. LABUDA: The 206 loan includes the 45 million loan. It's not added into.

MR. BALLENGER: No.

MS. LABUDA: Just so we're clear.

MR. BALLENGER: I didn't believe it was. I just wanted to sort of track where the money is moving to from time to time. I think we're going to have more to explore about that later.

I wanted to ask, in a lot of public utility rate cases, and this has been the case also in the past with the Department, we have looked at certain expenses and seen a statement from the Department as to whether those projected expenses were non-recurring or continuing. Seems like there's a few in this case. And I don't

have, you know, again, the whole file here.
Think there's a start up costs associated with new loan income program, for example. Think it was $1.3 million.

Would the Department consider that it would be fair to amortizing that cost as opposed to including it in year one?

MS. LABUDA: I don't mean to go back to the bond ordinance, but how would we amortize an expense that would occur in FY17? Our bond ordinance is on a cash basis. The cash for the obligation or expense in occurs in year. I don't have the ability to amortize expense. That's not how General Bond Ordinance works. That's on cash basis.

MR. BALLENGER: But coverage or --

MS. LABUDA: Coverage in --

MR. BALLENGER: You move money out of rate stabilization fund to make sure you maintain. We have talked about managing to the 1.2, 1.21, 1.22. These are costs that customers would be asked to pay $1.3 million in rates in perpetuity for a program that gets billed only once. It's built into the rates.

HEARING OFFICER BROCKWAY: Before you answer the question, what 1.3 million in perpetuity? Is that every year?

MR. BALLENGER: It's built into the rates is all I'm saying.

MR. DASENT: Please note this isn't an objection, but it's very close. In perpetuity assumes the Board will never act on it, and that's just not --

MR. BALLENGER: For a period of two years when it only gets spent in the first.

HEARING OFFICER BROCKWAY: If the Department could break this up into we absolute can't do it legally or we can do it, but it's a stupid idea.

MS. ALLEN: I just wanted to make sure I understood your point about the fact that the Department makes transfers from rate stabilization but then it pays itself back. That all happens within one fiscal year. That is not something that once that loan is made, they don't have the ability under the ordinance to amortize that over --

MR. BALLENGER: I understand.

MS. ALLEN: If that is the analogy you are drawing, I'm not quite sure what you're asking them to do.

MR. BALLENGER: I'm just asking whether it would be fair to amortize the non-recurring expenses for purposes of accounting for those costs.

MS. ALLEN: Unfortunately, they would be able to -- for ordinance purposes, there is no way to do that. There is no mechanism to do that. They have to recognize expense as it occurs to see what is available to pay debt service in the given year.

HEARING OFFICER BROCKWAY: Let me back up, if I might, to see if this helps. I actually had a question about why the 1.3 million or all of it was an expense item as opposed to a capital item because I don't know what it's being used for. But my guess is that some of it for benefits that will extend beyond the year.

MS. LABUDA: You have to read City's capital guidelines. The question is, is it greater than the limited amount to meet capital eligible? Yes. But does it meet the definition of capital? I don't believe they do because they are really on the operating level. So, it doesn't feel to me as it would be with -- those expenses would meet the terms of capital guidelines as provided by the City of Philadelphia.

HEARING OFFICER BROCKWAY: Go ahead.

MS. KUMAR: Chairman, if I may answer, just for clarity, the 1.3 million that is being referred, it's really the basis2 system modeling cost and the office business associated with that. But the primary cast is basis2 in the 1.3 million. It's not recording cost. It's only incurred in '17 not in '18. Just for clarity.

HEARING OFFICER BROCKWAY: But doesn't that -- that to me suggests because it's going to be used for many years after. That's why it's strange to me that's capital cost and not an expense -- an expense, not a capital costs.

MS. LABUDA: It would have to -- I don't have the guidelines in front of me. I will say to fact check. If that lasts greater than '17 year, hard to know if this one-time implementation will extend the life of the system. Does not meet capital guidelines as per the standards.

MR. BALLENGER: Sort of skipping around. Sorry. We talked a little bit about usage reduction sort of on a population basis and that being one of the drivers of this case. I was looking at the numbers of residential customers since 2010. It seemed to me there had also been a fairly significant decline in the number of residential customers over the last five years.

I mean, does the Department have an idea as to why that would be the case? I believe it's about 30,000 or so. I don't know which table, I'm sorry.

MS. LABUDA: I think we may have to follow up on this one because I do not have total recall, nor do I have the privilege of work for the City in 2010 to attempt to answer that. May we get back to you?

MR. BALLENGER: Absolutely. Thank you. I just wonder if there is portion of -- one question we had about the usage and we talked about that. I think the Board at its last meeting and even today, I think, is aware that

Philadelphia is really in a lot of ways coming up. And it was a concern of ours that I would like it if you follow up.

MS. LABUDA: Can I just repeat the question back.

MR. BALLENGER: Sure.

MS. LABUDA: The question is, can we articulate the shifts in customer accounts since 2010, specifically the drop, the decrease in residential accounts.

MR. BALLENGER: Yeah. Not the numbers, just the reason why there's been a decline.

MS. LABUDA: Thank you.

MR. JAGT: Is that in reference to usage?

MR. BALLENGER: I'm not talking about usage. Talking about number of residential accounts. I think it started, don't quote me, 440. It's now down to 410 or thereabouts ballpark.

One other thing, and I'm going back a little bit to the conference call that we had back in December. I'm probably -- my memory is suspect a little bit, but I'm starting from one of the pages in the presentation.

MR. DASENT: This the workshop presentation?

MR. BALLENGER: That's where the question originated from. I want to make sure we were clear. On page 25 of the cost of service presentation, it says that fiscal year cash receipts reflect 96 percent of fiscal year billings. And I just wasn't quite sure how that correlated with the collection factor that was designated in the December filing? I think we were looking at 84 and change percent of current year collections.

Is this the sum of all.

MR. DASENT: Are you talking about a rolling twelve months or collection factor?

MR. BRUNWASSER: That's a current collection factor.

MR. BALLENGER: Yeah.

HEARING OFFICER BROCKWAY: I'm sorry, folks. One at a time.

MR. BRUNWASSER: By definition that's what's billed beginning July 1, the beginning of a fiscal year and what's collected in that year by June 30. And of course, a lot of the bills that were sent out in June are not due. The due date falls beyond the fiscal year. So roughly, you collect historically approximately 85 to 86 percent of current billings. Historically, 7 to 9 percent of the immediate prior year billings, and historically, 2 to 3 percent of all prior year to that. All prior to that. And the end you, you've collected roughly 96 percent on average.

MR. BALLENGER: Is that more or less?

MR. JAGT: Correct. The details of all the specific collection factors for the three years -- the current year, first year prior and second year prior -- and also the breakdown between the collection factor for water and sewer and stormwater only are provided in the assumptions document. And while it's being presented is the effective collection -- total collections for retail for that fiscal year.

MS. KUMAR: It's 96.3 percent per the document.

MR. BALLENGER: Okay. Thank you. I thought it was probably just a rounding issue.

MS. KUMAR: Yes.

MR. BALLENGER: This may be more for Water Revenue, but I will let anyone answer it who is so inclined.

As we talked about during that December call, the 84 and change is down a little bit from where we were three years ago with about 85.5 being the collection amount. Are there -- does the Department set sort of performance goals at the beginning of the year as to our goal is to collect 86 percent or next year we want to go to 87 percent?

Does the Department do that kind of planning from year to year? If so, how? And how would it measure its performance if it did?

MS. BETHEL: Michelle Bethel again.

Our goal is always to collect every penny that we bill. But as we stated historically, what we collect during the fiscal year is, it is what it is. Of course, we always want to collect more. But historically, that is what we have been able to collect.

MR. BALLENGER: Okay. I think I've gone through questions that I had in my mind. I'm looking to my team to see if there's anything --

HEARING OFFICER BROCKWAY: Let's go off the record.

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(At this time, a discussion was held off the record.)

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MS. PICKENS: Hi, everyone. Josie Pickens again. I have a general question about the new staffing and what factors went into the calculation in the numbers of people you need both for the WRAP and for the new Water Department positions?

MS. BETHEL: For the 22 positions that we were projecting for WRB, it's going with amounts of pieces of paper that we would anticipate perhaps receiving based on what we get right now. So right now that unit deals in like 12,000 pieces of paper. If we went with that assumption of 50,000 and, of course, if it's not a hundred percent adoption, we still have to -- just for -- in a perfect scenario, if we got all that, then we did the calculations based on that. So, that's what got us to our staffing.

With the IT, same thing they did. They knew how long, projected how long this project would take. And they broke it out how many people they would need for that many of hours.

MS. LABUDA: For the Water Department positions, I will give you an example. I will speak about the Finance Division. We looked at current projects we needed to complete in house. We look at civil service regulations. Identified positions, identified the salary, figured out what the job specs would be based on the work we needed to get done. That's how it -- that would be the formula for most of the -- all of the Water Department positions.

Just looking back to the document, human resources that we provided as part of the filing and also as part of the proceeding, each division it talks about the position with human resource and admin and how many people, what they were going to do and the estimate of the salary. It's same type of formula. What's the work that needs to be done? What's the civil service code it correlates to. What's the salary. Of course, in addition to salaries paid for pension.

MS. MCCARTY: If I may, you know there is 21 positions for the Water Department. You know, they are scattered around for compliance purposes like a concept order agreement. But some of those positions are related to inspection of our sewer connections, connection to the sewer system which is protection of our infrastructure. We find plumbers maybe don't do the best job. We are going to be changing some things around so there is better inspection of them. And our goal is for the Water Department to perform those inspections. Sewer system integrity is prolonged either further. That's an example.

MS. PICKENS: You mentioned new initiatives. Are there things that you haven't covered in the presentation that you anticipate would be contemplated by that?

MS. MCCARTY: What I -- what I just mentioned is a new initiative.

MS. LABUDA: That's really it. When I speak about finance, I think of things like just reconciliations.

MS. PICKENS: Thank you.

MR. BALLENGER: I think at this point I

would like to ask if they are on the phone with us, if anyone from Exeter or otherwise would like to have any questions. If so, they would chime in on.

MR. MIERZWA: I'm good right now.

MR. MORGAN: This is Lafayette Morgan. I have a couple of questions. One deals with -- can you hear me okay?

MR. BALLENGER: Yes.

MR. MORGAN: One deals with electric power. And I realize someone just asked a question on this, but the audio was bad so I couldn't quite get the full gist of the question.

First question is, I'm trying to see if I can find out from whom does the Department get it's electric power?

HEARING OFFICER BROCKWAY: It's what?

MR. BALLENGER: Electric power.

MR. SCHWARZ: This is Scott Schwarz again. The Department does not by power directly. The City buys power. The Department is not a separate legal entity. We cannot enter into contracts. The City's buys power through a low service provider directly off the grid.

We're a member of PJM. And there's procedure City Council set up for buying power directly off the grid.

MR. BALLENGER: Did you hear him?

MR. MORGAN: Yes. Yes. In other words, not a specific rate schedule that it uses to get power if I'm understanding correctly?

MR. SCHWARZ: That's correct. We are required to get three quotations. And usually the purchase is executed within a few minutes.

HEARING OFFICER BROCKWAY: The "we" as I understand it in that sentence was the City, not the Department?

MR. SCHWARZ: That's correct. All power is purchase by the City of Philadelphia through the Procurement Department. From that, there is separate account for the airport, water and the general fund. They each charged a separate rate by the City.

MR. MORGAN: How does the power get a apportioned to the Department? It's some metered or?

MR. SCHWARZ: We don't have meters for all our facilities. But there is a load profile.

The Water Department is not involved in that. It's a different office. But there's an energy consultant these quarterly meetings. The load profiles are examined, and the prices are set based on load profiles.

MR. MORGAN: Okay. The other area I had input intentions. And my understanding is that the Department, the employees of the Department participate in the City's pension plan; is that correct?

MS. LABUDA: Yes, that is correct. We're a part of the City of Philadelphia's pension plan.

MR. MORGAN: Can you help me understand again how those costs are apportioned to the Department?

MS. LABUDA: Again, I'm going to cite my favorite phrase today, I think, which is fact check. I'm speaking from memory, and I don't want to misstate something on the record.

The Department is charged its pension cost based on the Department's allocable share of pension which is really the number of Department or Water Fund employees over total City employees. It also looks at our retirees versus city retires. That table, those metrics, are best displayed in the most recent city general obligation offering in the back of the document. There's a table that just shows the calculation of Water Department or Water Fund employees versus overall city employees.

MR. MORGAN: Okay. That's all I have.

MR. BALLENGER: Thank you, Lafayette. With that, I believe the Public Advocate will turn it over to anyone else who has questions.

HEARING OFFICER BROCKWAY: As far as I know, no one else has questions, but we will give people one last shot. Yes. Do come on up. Good.

MR. HELBING: Good afternoon. Promise to keep this short. My name is Mike Helbing for PennFuture. One of the participants in this case. PennFuture is an environmental organization, our focus on this case is slightly different than some of the other groups. We are focused primarily on -- we are very supportive of the Water Department's Green City Clean Waters program. That is where a lot of our focus is. I just had two specific questions about some things that came up in the last rate case that I saw also in some of the document here, but I just wasn't sure. I didn't see a lot of analysis.

The first is the credit program. This is in statement 9B from the Black & Veatch. It talks about on page 13 it allows for credit of -- depending on the circumstances, 80 percent, 90 percent IAGA credit. And at the bottom says credit program -- no changes are proposed to this current credit program.

My question is, was there any further analysis done on in this rate case versus any data gathered in the interim since the last rate case? Or was it just carried forward for these.

MS. KUMAR: In terms of the percentages which are regulation, these are in the regulations. And so, these were all vetted during the last rate case proceedings. So, these percentages were not changed. Because one of the things that also came in the last citizens advisory committee during the last rate case, one of the questions raised was what is the guarantee that we are doing this current program and what is the guarantee this credit program will be there next time? And the Department wanted to honor that. This was all decided on doing that last rate case. It's only fair to retain that for a period of time.

So with that in mind, this was reviewed by the percentages. And decide these will still be valid for these rate proceedings.

MR. HELBING: You said the numbers were reviewed. Is that in the documents made available? Is that part of the formal notice the review?

MS. KUMAR: They are there in the regulation, as well.

MR. HELBING: Okay. Similar question about enhanced program. In the document it say it's basically being carried forward as in the last rate case. Was that being reevaluated based on data gathered since the last rate filing?

MS. KUMAR: That is true. The enhanced capital program, it's in the statistics there in the testimony itself.

HEARING OFFICER BROCKWAY: Can you slow down just a tad.

MS. KUMAR: Statistic is there in the testimony, but there is also additional responses given in the interrogatory questions that were raised in terms of pattern. The program is officially closed, was closed in September of 2013 to the normal new enrollees. The existing enrollees will continue to be in the program as long as they meet the eligibility requirements.

MR. HELBING: Okay. Thank you. That's all I have.

HEARING OFFICER BROCKWAY: Okay. Anybody else?

Seeing none, I want to thank the Department very much for subjecting yourself to all these questions and to the participants for asking questions. And I want to thank the Members. Feels cheeky to do that.

This is adjourned and this Presentation day is closed.

(Presentation adjourned at 3:00 p.m.)

C E R T I F I C A T I O N

I, hereby certify that the proceedings and evidence noted are contained fully and accurately in the stenographic notes taken by me in the foregoing matter, and that this is a correct transcript of the same.

ANGELA M. KING, RPR
Court Reporter - Notary Public

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