ALBUQUERQUE/BERNALILLO COUNTY GOVERNMENT CENTER
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ALBUQUERQUE, NEW MEXICO 87102

Before: Paul Baca
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APPEARANCES

COMMISSIONER ART DE LA CRUZ, Chair
COUNCILLOR TRUDY JONES, Vice Chair
COMMISSIONER MAGGIE HART STEBBINS, Member
COUNCILLOR REY GARDUNO, Member (Excused)
COUNCILLOR KEN SANCHEZ, Member
COMMISSIONER MICHELLE LUJAN GRISHAM, Member (Excused)
RICHARD J. BERRY, Mayor (Excused)
TRUSTEE PABLO RAEL, Ex-Officio Member
MARK SANCHEZ, Executive Director
ROB PERRY, Chief Administrative Officer, Alternate Member
CHAIRMAN DE LA CRUZ: Welcome, everyone, to the March 23rd, 2011 meeting of the Albuquerque Bernalillo County Water Utility Authority. I'm calling this meeting to order at this time.

Let the record reflect that Councillor Garduno is excused and Commissioner Lujan Grisham is also excused. All other members are present.

Also, we'd like to welcome Chief Administrative Officer Rob Perry. He's the mayor's representative.

Mr. Perry, welcome.

MR. PERRY: Thank you, Mr. Chair.

CHAIRMAN DE LA CRUZ: First we'd like to have a moment of silence, followed by the Pledge of Allegiance. And, Mr. Perry, since it's your first meeting, we'd like you to lead that.

(Whereupon, there was a moment of silence.)

(Whereupon, the Pledge of Allegiance was led by Mr. Rob Perry.)

CHAIRMAN DE LA CRUZ: Thank you.

I'd like to move approval of the January 26, 2011 minutes. Do I have a second?

COUNCILLOR JONES: Second.

CHAIRMAN DE LA CRUZ: We have a motion and a second.
All those in favor, say aye.

ALL MEMBERS: Aye.

CHAIRMAN DE LA CRUZ: Opposed?

Motion carries unanimously.

(5-0 vote. Agenda Item 3 approved.)

CHAIRMAN DE LA CRUZ: Next, Ms. Jenkins, we'd like to have public comment. Do we have a list?

MS. JENKINS: Yes. We have three people signed up.

CHAIRMAN DE LA CRUZ: Okay. Since we have three folks signed up, we will have three minutes allowed.

MS. JENKINS: Elaine Hebbard, followed by Geraldine Amato.

MS. HEBBARD: Good afternoon. My name is Elaine Hebbard. I'm here today as a volunteer with the water assembly. And we helped with the Middle Rio Grande Council of Governments, Mid Region Council of Governments, to create the regional water plan, which I'm sure you've all read in detail.

One of the recommendations to close the gap between supply and demand was aquifer storage and recharge. And so we are having a free forum on April 9th at the law school, Room 2402, "Aquifer Recharge, Storage and Recovery: Boon Or Boondoggle?"

And I have a copy of the flyer up so that people can
see it.

We will have speakers from the Water Utility and from Rio Rancho to talk about their projects, as well as from agriculture recharge and from smaller scale, like homes and businesses. And then we will have somebody talk from Arizona about what they're doing. And then some of the issues: Energy costs, quality -- water-quality issues, permitting. We have somebody from NMED and from the state engineer.

So I'd like to invite all of you to come. It's a Saturday morning. We will have free breakfast starting at 8:30. Program is from 9:00 to 1:00. Parking is free on Saturday at the UNM Law School.

Any questions?

CHAIRMAN DE LA CRUZ: Thank you.

MS. JENKINS: Geraldine Amato, followed by Andrew Padilla.

MS. AMATO: Good evening. There was an article in the February 25th Journal quoting some folks on the vast system that we have from the Colorado River basin, and that beneath New Mexico is LA and San Francisco, above it is Denver, Colorado. And the problem, one expert was quoted as saying we do not have the political institutions and policies in place to manage this vast system and there will come a time,
more than likely, that things will wind up in litigation. And New Mexico particularly will be asked to reduce its consumption because of who is above and who is below. So unless we face that reality right now, we can see that we're going to be left in a lurch. We continue to build more and add more demands on the water networks while the water network itself is not expanding.

And when they mention political institutions and policies, we can observe in many different arenas that our political institutions are quite corrupt and the policies reflected from this are arbitrary, discriminatory and bolster the people with the most political power; namely those with the money power. Their agendas come before the better interests of the people in need of water. We have already seen a squeeze on agriculture in this state, people complaining that agriculture gets too much water. To me, that's madness. Because as we remove away from -- as we move away from the natural economy for the purpose of development, we are destroying the resources that our lives depend upon and not having direct control on them, water, land, which works into food production at the local level. We cannot afford to continue to do what we're doing. In these
development projects, water is used for other than raising food for people. And by doing so, that scarce water resource is being taken away from the natural economy and the resources of providing plant life and livestock for human food. So it depends on whether we want to look that far ahead or not. And I guess most of us in this room may not be around should the whole thing come to a halting, screeching stop. But if we have anybody following us that we care about, I think we need to consider where we are at this time and how we need to proceed from here without just going along with mandates from above. And it's clear that the people at the top do not care for any of us. They show their lack of respect for liberty or integrity, for anything --

CHAIRMAN DE LA CRUZ: Thank you, Ms. Amato.

MS. AMATO: -- for any of the people in this nation. We need to resist what is going on and move in a different direction than where we're headed.

Any questions?

CHAIRMAN DE LA CRUZ: Thank you.

MS. JENKINS: Andrew Padilla.

MR. PADILLA: Good evening, Chairman De La Cruz and Members of the Water Authority Board. I'm Andrew Padilla and AFSCME Local 3022 president.
I come tonight to talk about a little bit of the rules and regulations of the Water Authority. We -- you may or may not know that we promulgated rules and regulations in the Water Authority that were recently changed. They addressed different issues. Some of the concerns are the nepotism part of the policy of the rules and regulations. They're different than the city rules and regulations, which were adopted earlier as the Water Authority.

So my request to the Board is this: Those rules and regulations, we -- I would like to request a committee of both labor and of management of the Water Authority to have that committee have some -- not just input, but talk about those rules and regulations and how they affect the employees, especially when it comes to wages, terms and conditions of employment and the makeup of who's in bargaining units. Those specifics, it's a much longer issue if I go into it, and so that I think a committee made up of -- that this Board puts together would help in the harmonious relationship between labor and management.

Now, I understand in the collective bargaining agreement there is a part for just input. In the City of Albuquerque we have public hearings on those types of rules and regulations. I understand
the position of the executive director that we've already had some input and we were sent to him. But what I'm asking for this time is, because we do have some grievances, litigation that could come of this, is a stay on the rules and regulations and a stay on taking those hearings forward until this committee had full input. Or not input. Again, some sort of recommendations to the Board and to management together so that we could, you know, again, create that harmonious relationship between labor and management.

So this is my request that I'm asking from this Board. And if there's any questions, I'd be happy to answer them.

CHAIRMAN DE LA CRUZ: Councillor Jones.

COUNCILLOR JONES: Thank you.

Mr. Sanchez --

CHAIRMAN DE LA CRUZ: I apologize. I wasn't sure if you wanted me to call on the executive director or if you wanted to speak.

COUNCILLOR JONES: I wanted to call on the executive director.

CHAIRMAN DE LA CRUZ: Okay. Sorry about that.

COUNCILLOR JONES: Thank you, Mr. Chair.

CHAIRMAN DE LA CRUZ: Councillor Jones.
COUNCILLOR JONES: Mr. Sanchez, does that get us in an area where we are negotiating contract, which of course is beyond the purview of this Board?

MR. SANCHEZ: Mr. Chairman, Councillor Jones, with all due respect to Mr. Padilla, I think we have a harmonious working relationship with labor. And we've just negotiated, as you all know, all of our collective bargaining agreements for three years forward through 2013.

I think what Mr. Padilla is asking of you is that we continue the negotiations process, which I would advise against. We have a merit system ordinance that sets out the basic policy that this Board has adopted. And in that merit system ordinance, it delegates the authority to the executive director to issue personnel rules and regulations to operate the business of the utility on a day-to-day basis. To the extent that those regulations conflict with the collective bargaining agreement, the collective bargaining agreement would prevail. So there should -- there's really not any issues there.

From time to time, we see the need to make changes as a business, and we do that. We're required to provide these documents to labor, which we've done, for their input. The document which Mr. Padilla is
referring to are the personnel rules and regulations.

They were issued on December 1st, 2010, and we're operating under those today. And I would not advise what he has suggested to the Board.

COUNCILLOR JONES: Thank you.

CHAIRMAN DE LA CRUZ: Mr. Sanchez, for clarification, when we talk about the rules and regulations, who's covered by those?

MR. SANCHEZ: Mr. Chairman, every employee would be covered by those rules and regulations.

CHAIRMAN DE LA CRUZ: Represented and nonrepresented?

MR. SANCHEZ: Correct. But to the extent that there's a collective bargaining agreement representing a particular group of employees, that collective bargaining agreement would prevail to the extent that it differs from the rules and regulations.

CHAIRMAN DE LA CRUZ: What percentage of our employees are represented versus nonrepresented?

MR. SANCHEZ: I think about half.

Eighty percent?

Eighty percent of the employees, theoretically, are represented, but not 80 percent are members.

CHAIRMAN DE LA CRUZ: Okay. Thank you.
Ms. Jenkins, that's it?

Okay. Next let's move on to the next scheduled meeting. Let me just announce that our next meeting is scheduled for April 20th, 2011, in these chambers.

Moving on to Item 7A, WUA R-11-4, establishing one-year objectives for the Water Utility Authority in fiscal year 2012 to meet five-year goals.

MR. ROTH: Thank you, Mr. Chairman, Members of the Board. In front of you today are the FY12 goals and objectives. This is a major component of the Water Authority strategic planning, budgeting and improvement process. This process also includes our long-range goals, the objectives in front of you tonight, performance measures and our participation in the American Water Works Qual-Serve programs, which include benchmarking with other utilities on performance, performing a self-assessment that gathers employees' opinions about the Water Authority's operations, and also the peer review, which is an on-site, in-depth review of the Water Authority's operations by a team of voluntary utility professionals.

This diagram illustrates the process. It
starts out with the five-year goals and one-year objectives. And they are aligned with the performance plan, which contains the performance measures, and the goals, objectives and performance measures all help guide the operating capital budgets. We also perform a customer-opinion survey every two years. In fact, we conducted one last year.

And then on the bottom of this diagram is the Qual-Serve components: Benchmarking, self-assessment and peer review. We also get outside input from our customer advisory committee and internal direction from our asset management steering committee to help guide our agenda for improvement.

As I mentioned, it starts with the five-year goals. Each goal has a guiding goal statement which describes what our long-term desired result is and for that particular goal. And to help measure our progress in these goal areas are performance measures, and there’s 25 in all. And as the example, the water supply and operation goal area has six performance measures. That’s the drinking water compliance rate, distribution water loss, distribution system integrity, ONM cost ratios, plan maintenance ratios, and water conservation savings. And so I point this out because I'll be referring back to these particular
performance measures when I talk about the objectives.

So we use the objectives and measures. They're aligned to help identify performance gaps. So when we benchmark with other utilities, we see that we have certain performance gaps when we compare with other utilities of the same -- a comparable size or utilities in the western United States. And we address those performance gaps during the budget process by allocating and prioritizing resources. And then we develop improvement processes. And these are the one-year objectives that are in front of you tonight. These are policy directives that set metrics to help us close those performance gaps.

There's 37 objectives in the five goal areas. They may represent implementation of plans and programs. They incorporate areas of improvement that are identified in the Qual-Serve program that we participate in. As I mentioned earlier, they're integrated with the performance plan, with those performance measures. Sometimes they are carryovers from this current fiscal year because they take more time to complete, where there may be ongoing issues. And these objectives may be tied to resources contained in the proposed budget, which will be introduced at the next meeting.
So as an example, I'm not going to review all the objectives, but I thought it might be helpful to review one of the goal areas and look at the objectives and how they're aligned with some of the performance measures.

So the first objective is to increase groundwater maintenance, plan maintenance at the groundwater facilities by 2200 hours. And this is tied to the plan maintenance ratio performance measure. So as we do more plan maintenance, we can reduce our corrective maintenance and extend the life of our assets so that we don't have to replace those assets before their life cycle expires.

The second objective is to complete and close 80 percent of all inoperable meter work orders within three months. And this is tied to the water-loss performance measure. Also tied to the water-loss performance measure is to begin -- develop and begin implementation of a valve exercising program to help minimize property damage and water loss.

There's two other objectives tied to the water loss performance measure and they're closely related in terms of leak detection. So on the small diameter waterlines, we want to survey a certain number with our current leak-detection equipment, and
then conduct a pilot project on our large diameter
group, to see what available technologies -- or
technologies are available and what would be the best
methodology for the Water Authority.

And then the last two objectives in this
goal area is to join the Partnership for Safe Water
for the treatment and distribution programs to
optimize our water system operations. And this is
tied to three performance measures: Water compliance,
water loss and water system integrity. So this is --
the first step is to join this program. In order to
qualify you have to be a surface water provider. So
now that we've reached a certain benchmark, over
50 percent of our water is through the surface water,
we're able to join this program and then go through
their step process of collecting data, doing detailed
surveys and then comparing that to best practices to
help us optimize our water system.

And lastly, to achieve a water use of 155
gallons per person per day by the end of the second
quarter, which is the end of this calendar year, 2011.
And this is tied to the water conservation savings
performance measure.

So overall, our goals and objectives are
aligned with our performance measures. We identify
our performance gaps with a benchmarking. Our performance measures address those performance gaps through the objectives. And then these help guide our budget process.

Any questions on the resolution?

CHAIRMAN DE LA CRUZ: Mr. Roth, are we being asked to adopt these or accept them this evening?

MR. ROTH: No. This is for introduction.

CHAIRMAN DE LA CRUZ: Thank you. I just wanted to make sure. When will be the final adoption?

MR. ROTH: It will be next month. It will be the second-reading consideration for your approval. And this is the whole process of being a performance-based budget, so the goals and objectives come before the budget is presented to see -- to show you where we're heading, what we need to achieve. And this is something that the Board, from the inception, back in 2003 or 2004, wanted to see.

CHAIRMAN DE LA CRUZ: Is this going to be online for the public to review?

MR. ROTH: The goals and objectives are online for public viewing, yes.

CHAIRMAN DE LA CRUZ: And, I guess, Councillors, Commissioners in the interim?

MR. ROTH: Yes, that's correct. If you have any
comments or questions, you can direct them to me.

CHAIRMAN DE LA CRUZ: Thank you.

Next, moving on to the consent agenda. We have a motion to approve the consent agenda. Do we have a second?

COUNCILLOR JONES: Second.

CHAIRMAN DE LA CRUZ: We have a motion and a second.

All those in favor, say aye.

ALL MEMBERS: Aye.

CHAIRMAN DE LA CRUZ: Thank you. Opposed?

Motion carries unanimously.

(5-0 vote. Agenda Item 8 approved.)

CHAIRMAN DE LA CRUZ: Moving on to approvals, Item 9A, WUA R-11-3, approving and authorizing a U.S. Bureau of Reclamation grant in the amount of $295,502 for the Southwestern Willow Flycatcher Habitat Restoration Project Collaborative Program.

Mr. Allred. You look different, Mr. Allred.

MR. STOMP: I'm a lot bigger than Mr. Allred, but I won't go there.

Mr. Chairman and Members of the Board, this is a grant agreement with the bureau of reclamation. It's part of our ongoing environmental efforts in the Middle Rio Grande. We have environmental projects
that we're working on. This project happens to tie
directly to one of the projects that we're doing on
the west side of the bosque, just near Montano Road,
near the -- just south of the Oxbow. So this is a
project working with the bureau of reclamation and
we're using federal dollars from this grant to go out
there and do habitat improvements for the Willow
Flycatcher.

I'll be glad to answer any more questions if
there are any.

CHAIRMAN DE LA CRUZ: Would it be possible for
Members of the Board to tour the facility or the area?

MR. STOMP: Mr. Chairman, when the project gets
ready, that would be awesome. We'll be doing tree
plantings and it will be a beautiful time to be in the
bosque. So I'll ask Rick Billings to schedule the
tours if you guys are interested in going out and
seeing. And you'll also be able to see some of the
other projects we're going to be doing in that area.

CHAIRMAN DE LA CRUZ: Great. And I hope the
public has access as well.

MR. STOMP: Absolutely.

CHAIRMAN DE LA CRUZ: Okay. I'm assuming that
we have to take a vote on this.

MR. PERRY: Mr. Chairman, I move for a motion to
1 approve R-11-3.

2 CHAIRMAN DE LA CRUZ: We have a motion.

3 COMMISSIONER HART STEBBINS: Second.

4 CHAIRMAN DE LA CRUZ: We have a motion and a

5 second.

6 All those in favor, say aye.

7 ALL MEMBERS: Aye.

8 CHAIRMAN DE LA CRUZ: Opposed?

9 Motion carries unanimously.

10 (5-0 vote. Agenda Item 9A approved.)

11 CHAIRMAN DE LA CRUZ: Next, moving on to Item

12 9B, WUA C-11-8, customer advisory committee

13 recommendation. Mr. Roth.

14 MR. ROTH: Mr. Chairman, Members of the Board,

15 in front of you are three appointments to the customer

16 advisory committee. It was established back in 2006

17 to help provide input to the Water Authority's plans,

18 policies and programs. The three members who are

19 currently on the board, their terms have expired and

20 they're not eligible to be reappointed. And so the

21 three members in front of you today, David Richey,

22 Jesse Roach and Will Gleason, they represent the same

23 areas as the current members who are leaving, so we'll

24 be filling that gap. They're all highly qualified and

25 certified in their field of work.
CHAIRMAN DE LA CRUZ: Thank you.

Do we have a motion?

COUNCILLOR SANCHEZ: So moved.

CHAIRMAN DE LA CRUZ: We have a motion.

COMMISSIONER HART STEBBINS: Second.

CHAIRMAN DE LA CRUZ: We have a motion and a second.

All in favor, say aye.

ALL MEMBERS: Aye.

CHAIRMAN DE LA CRUZ: Opposed?

Motion carries unanimously.

(5-0 vote. Agenda Item 9B approved.)

CHAIRMAN DE LA CRUZ: Moving on to Item 9 -- I'm sorry, 10A, rate study presentation. Mr. Allred and Carol Malesky.

MR. ALLRED: Mr. Chairman, Members of the Board,

I shrunk a little bit, but...

I just want to introduce Carol Malesky.

She's our rate consultant with Red Oak Consulting. In 2004, when the Water Authority became the Authority, we did the rate study, and it's the rates that we currently use today. And Carol was part of that study. She also had worked with the City of Albuquerque since 1998 doing the rate studies for the City of Albuquerque for water and sewer.
And so she currently works for Red Oak Consulting. She's worked with us for a long time. She's very knowledgeable. She has a master's degree in economics and her specialty now is water and sewer rate economics. And I'll turn it over to Ms. Malesky.

MS. MALESKY: Thank you, Mr. Allred.

Good evening, Members of the Board and Mr. Chairman. I'm happy to be back here presenting some more rates to you tonight. And I see a lot of new faces.

So what I would like to discuss with you today is basically a background of rate setting and why we did the rate study. And we're going to go over some of those rate alternatives that we're going to ask you to think about and review for implementation in the future.

So I'd like to start first with why we did this rate study. The rate study was conducted in 2010 and it is for the fiscal year 2012 rates. So that means the rates beginning in July of this year -- of next year, excuse me. So we wanted to make sure that we conducted a formal rate study process and determined how to set the rates so that we could maintain rate equity across your customer classes and within your customers classes. So that was an
important goal for us, rate equity. So you could also think of the words fairness, and there are other things that come to mind when you think of the words equity.

We also wanted to make sure that you recover your fiscal year 2012 revenue requirements. It's important that the Authority makes enough money from its customers in order to keep running, keep running the system and running it at an optimal level.

And then finally, we did want to review an additional block for lower water users. So the message is, if you're a water conserver, you get a little bit of a break on your rates. But if you are a large user or maybe an inefficient user of water, you will see a larger bill.

This next slide shows a timeline of our study, so in a little different format. These would pop up individually, but I'm going to show you all of the key elements all at once. So if we start from the left, back in the fall of last year, we started requesting data. So a formal rate study includes a lot of data. So we got a lot of customer data. We were able to define how your customers use their water and know what their consumption patterns did through a year.
Then we developed the rate revenue requirements to put into the computer models that we run. And you'll see the term "COS." That stands for cost of service. So the COS models that we use help us to calculate the rates. At the beginning of December, we met with the customer advisory committee and we talked about these COS or cost-of-service principles. So we started formulating how the rates would look for your water and your sewer customers. Then after that, we wanted to look at different rate options, different ways to recover your revenue requirements from your customers, but not departing too far from your current rate structure. In fact, you'll see and you probably know that one of the options is the same rate structure that you have today.

We met again with the customer advisory committee and went over some preliminary options, and then last month, we presented the preliminary options that we're going to discuss with you tonight. In a little spoiler, you know already that the customer advisory committee and your staff do like Option 3 out of the three options. So we'd like -- we're interested to know what option you prefer. So now we're here tonight. I'd like to go through some of
the details on these options and answer any questions you might have.

So the cost-of-service rate study was conducted to make sure that we are legally and fiscally following your bond covenants. We want to make sure that the debt -- the outstanding debt that you have meets all of the requirements that -- established by the bondholders. So they want to make sure that they're going to get paid back. So that's one of the reasons why we do these formal studies every two years. We also want to make sure that the users pay their proportionate cost of service. So that's a key point in a cost-of-service study, is that each user class, so your residential customers versus your commercial customers pay their fair share. And that's why we go through such a detailed analysis.

And then when we get to the art of rate making, so when we get to the art of rate design, we want to make sure that we're creating equitable rates for your customers and that those rates are based on standards within the industry. You're probably familiar with the American Water Works Association and the Water Environment Federation. Those are the two agencies that provide guidelines for doing rate studies, so we followed those guidelines.
And then finally, we want to make sure that we maintain what you, or the Board, approved previously in terms of your policy to pay for your debt service, so to satisfy your bondholders with those service-charge revenues. So your service-charge revenues need to be sufficient enough to pay back your bondholders. So you've already included in your ordinance a five percent rate increase on these service charges.

Now we're going to talk about the other end of your rate structure, those commodity rates. When we're doing a formal cost-of-service study, we don't make things up. We follow a step-wise process and we start with the revenues required for operations of your water and sewer utilities. So we're looking at your CI -- what we call the CIP, the capital improvement program, we look at your operations plan and we look at the debt management plan and make sure that all of those are covered through the rates. The cost-of-service process is a formal allocation of cost to users. So that's that big box in this graphic that you're looking at. The rate design comes out of those cost allocations. And that's how we send that signal back to your customers to help them decide how much water they're going to use.
Before we start talking about those options, I'd like to just remind you what you currently have in place for your current users. So I've joined three components in this table to a water and sewer bill. We have the water component of the bill, we have a strategic implementation component, and that's the San Juan Chama project, and that's the long-term water resource part. And I would like to add that, in working with a lot of utilities in the west, you are one of the few that have a jump on the long-term sustainable water supply. So you've made plans and your predecessors made plans ages ago to secure this long-term water supply. A lot of utilities are just ramping up and just getting started. So it's excellent that you have this component in your rate to ensure that your users will have water for the long term. And then you have your sewer component. The sewer component is also critical to maintain your sewer system.

So the table shows your existing fiscal year 2011 rates. And in total, a typical residential user will pay $18.90 a month for that service charge. So that covers debt service requirements, it covers billing costs and customer service costs. The remaining costs are handled on the commodity side.
And then what you've got approved, so it's on the books for the next fiscal year, are the five percent increases on each one of these fees. So that will go up to $19.84.

We could also look at the commodity charges. So these are the charges per unit of use. So this is a very simple look at what you're currently charging your customers. On the water side, the water commodity rate is broken down into several components, and you're probably familiar with some of these. A base charge that recovers a lot of the operations costs. The WRMP is the water resource management program, so you get that dedicated source of funds. Then the sustainable water supply program, that 37.1 cents that goes for the long-term water supply. And then the state water conservation fee. All that combines to be that total commodity charge of $1.40.9.

So when a user uses one unit of the water, which is 100 cubic feet, or you'll see me abbreviate that as one CCF, they pay $1.40.9. And then on the sewer side, they pay 82.2 cents for a typical residential customer.

You may not have seen your commodity rate structure in this type of format before, so I'd like to walk you through it, because I use this when we're
talking about the different options. So here we have a -- what we call a block graph. We have blocks of usage. So a customer's usage can be characterized into blocks of use, and each block of use is charged at an increasing rate per unit of use. So as a user uses more water, more units of use in a month, they pay a higher unit cost. So they pay surcharges if they're using an excess amount of use. So with this graph, the little blue box shows a discount block. Certain residential users who are really good at conserving water get a break on their water bill. So they get a 20 percent discount on their rates for water and they pay about $1.13.2 total for their usage.

Now, their usage within a month has to be less than 150 percent of the class average winter consumption. So you might have seen that before, that AWCs, average winter consumption. So we base your rate structure on what a customer uses during the winter months because that represents indoor use, or basic domestic use. So here, we're talking about how are we going to charge them for usage over and above that. So this discount block is for usage less than 150 percent of the class, AWC. Then, if they use more than that, up to 300 percent of average winter
consumption, they pay that base block of $140.9. So then we take off from there. If they use above 300 percent of their average winter consumption, then they get assessed surcharges. So you have two more surcharges up to 400 percent of AWC, then anything over that. And what that does, it sends a price signal to the users that are using an excess amount of water, over and above what they typically use indoors and it sends them a higher price signal, their bill gets increased. Their bill is higher as a result.

Moving forward, we wanted to take this rate structure and tweak it a little to see if we could send a better price signal and give the message that water is an important resource that needs to be handled properly and needs to be conserved. So at the same time I have to mention recovering the right amount of revenues. Every option that we are going to look at is what we call "revenue neutral." You're not -- as a public utility you cannot collect over and above what your revenue requirements are. You cannot earn a profit. So we want to make sure that you're earning the right amount of money.

I'm going to discuss three options, and you've had a chance to look at these, I believe. For every option, the service charges remain the same.
Service charges for fiscal year 2012 have that five percent increase added on to them, but each of the options are slightly different. The first option is what the rates turn out to be when you just -- when you don't change your rate structure, when you don't change those blocks of tiers, or consumption blocks.

The second option adds a new block. So we're looking at adding another tier of consumption from zero to 200 percent of average winter consumption. And that actually is helping out your -- again, your lower water users. And we'll take a look at that.

Then finally, in Option 3, we build on that additional water block and we're increasing a discount for those really low water users. So we're saying: We appreciate you saving water. We're going to give you a 30 percent discount on your bill.

So here's what Option 1 looks like. We have the same -- you've seen this just a few minutes ago. We have the same discount block in that little blue -- that same blue block. And that would be priced at $130.6. Then you go to your next rate block, zero to 300 percent of average winter consumption, and then the surcharges get added on to there.

There's something that I forgot to mention,
and that is that you have some caps on average winter consumption. A few years ago, we took a look at some users who actually were using so much water in the winter, that they were never -- they were using so much water that they would never hit their thresholds of average winter consumption. And we thought that that wasn't a really good price signal to these types of users because they could be doing -- you know, flushing a lot in the winter, probably more than that, but whatever measures they would take to artificially increase their average winter consumption so that in the summer they'd get a break on their water bill. So we did take a look at all these and we established a cap of 15 units, 15 CCF, on an average winter consumption for these users. If they used over and above that, they would get double the surcharge in the summer. So all of those -- all those policies that were adopted a few years ago are still in place with these alternatives.

Let's take a look at what the impact would be on typical customers' bills. This graph shows -- I'm not used to an iPad, please excuse me. This is the first time I've really used one. I'm behind the times. So this graph shows a number of different users. On the left-hand side, we have your very low
water user. So this user is a residential customer. They use eight units during the summer, so eight 100 cubic feet during the summer. And their bills, the blue bars, represent the water portion of a total bill. The red bars represent the sewer portion of the bill. So that in total, with the change in Option 1 of this structure, this smaller customer would see an increase in their summer bill of $5.48 for that month. So with this option, their bill would go up $5.48 total. A larger user, so a user who is using 20 units in the summer, would see $6.09 of an increase. So they would -- since they're a larger user, they get subjected to those surcharges, and therefore, their total bill is higher as a result and that increase is a little bit higher. We can also show the same effects on the option for commercial customers, industries and some institutional customers, who you can see on the graph that each one of these users would see an increase in their bill to varying degrees. It really depends on how much water they use. And this is just a sample for this option. And then that way, at the far right, we have our multi-family customers. And this is -- you know, over the scheme of things, it's a relatively new customer class, but for this type of customer, their bill would
be -- their increase in their bill would be very
similar to what a large residential customer would
see, given Option 1.

So let's take a look at what happens when we
use Option 2. So Option 2 has a nice new bar, that
purple rate block, of zero to 200 percent. This
option has the effect of reducing the first two rates.
So the rate for the discount block is now $1.24. And
then if you are still using less than 200 percent of
your average winter consumption, you would pay $1.54.4
for your units of use. And then we have the
surcharges. Then again, give that price signal to the
higher water users that their water is going to be a
little pricier.

We can look at the same types of customers
and what would happen to their bills in a summer
month. So when they're irrigating other when they're
using water for other outdoor uses, now we see that by
adding that additional block, a small residential
user's bill will go up by a little bit over $4. So
we're seeing that their increase is coming down a
little bit because of that additional block. And why
is that? It's because now the -- remember what I
said, we have to recover the same amount of revenue,
so that means the rate in the top tiers have to
increase. So this has the effect of increasing the
bill for those larger water users. So this larger
user, the larger residential user of 20 units, their
bill will go up by almost $10 a month because of this
type of rate structure. So as long as they're
conserving water, they get less of an increase. But
if they choose to use quite a bit of water, then their
bill will go up correspondingly.

And lastly, we have Option 3. Option 3
still has that additional rate block of zero to
200 percent of AWC, but we are saying to the lowest
water users, you get an extra ten percent discount.
So you get 30 percent off your bill if you're using
less than 150 percent of the class average winter
consumption. So with this, they're -- on the graph,
you can see that that 150 percent block, the unit cost
is $1.09.6. So that's come way down. And then, as I
keep saying, what happens is our larger water users'
rates or that -- those tiers in the surcharge blocks
have to go up. That has the effect of increasing the
bills of the larger water users. In this example now
for Option 3, we see that our low water user that are
using eight units during the summer will see an
increase in their water bill of about $2.88 under this
option. But if you are a 20-unit user in the summer,
your bill will approach -- the increase in your bill will approach the $10 increase.

Now, there's a concept in economics called "price elasticity of demand." I'm not sure if you're familiar with that concept. But what it means is that as we raise prices to people, they should demonstrate a decrease in their usage of a commodity. So they're going to respond to that increase in price. We have built into our model an estimate of how customers will respond to these price changes. So we're estimating that customers are going to conserve water.

This is just an example of how much water we think that could be conserved with each of these options. And it is a direct result of how high those rates have to go for the top tiers, you know, so for the higher water users, in order to incentivize them to decrease their water usage. So we have a little under one percent of expected water conservation for Option 1. And then it goes up from there. So we have about 1.6 percent for Option 2 and then a little bit higher, 1.65 percent conservation from Option 3. So there are some -- there are positive results of each of these alternatives.

Now I'd like to move into a bill comparison session here. We've got some comparisons of total
water and sewer bills against the local area and a region, the region. We have three examples -- well, two in addition to the Authority here in this first graph. And here we're looking at what a total water and sewer bill would be for Santa Fe, Rio Rancho and Albuquerque if you were a low water user. So one of those low users of eight units per month. If you look at the graph, it's evident that right now you want to be living in Albuquerque if you're a low water user because that total bill is much lower than the folks in Santa Fe and the folks in Rio Rancho. And, again, this is really -- this is dependent on how much water is used and where you're located. If you are a higher water user, the Authority's rates are still lower than Rio Rancho and Santa Fe. But you can see the big impact of being a large water user in Santa Fe.

I'd like to talk about the region. You know, the -- you can debate on what is the region, but in looking at your neighbors and in the area, we decided to look in Colorado and in Texas and in Arizona. And the first thing that you might see is, oh, gee, Phoenix is really, really low, and so is Denver. But, you know, we have a larger population in Denver to spread those costs across. And in Phoenix, I believe they get a federal subsidy for some of their
water costs. So that's -- you have to work that into this comparison. But in this comparison, Albuquerque's total bill is about right around in the middle of this sample. And this is for the lower water user. When we look at the larger water user, now all of a sudden Albuquerque drops to the bottom of the list. So in these other communities, if you're a large water user, your water and sewer bills reflect that.

I thought that another interesting comparison would be to look at what you've done over the years in terms of raising rates in the Authority's service area and then compare that against what's been going on with the consumer price index when we look at water and sewer utilities. So this first graph shows over the past ten years what types of rate increases have been in place. And look at the last time the rates were increased by just one percent was in 2007, fiscal year 2007.

I have to mention, too, that these do not include a series of seven rate increases for the San Juan Chama project. So those were dedicated rate increases to pay for that sustainable water supply program. And that was I think a cumulation of 30 two percent increases over a seven-year period. So
these graphs don't reflect that. This is just the
water -- water and sewer rates.

So now I've added on top of that Authority
increase graph what the CPI has done when we look at
just water and waste water services throughout the
U.S. So, obviously, those are much higher than what
has been going on here. And I thought it's
interesting to look on a cumulative basis. Naturally,
if we're going to be going cumulatively, the rate
increases over the last ten years reach about almost
70 percent when we're looking at the CPI. That's the
red line. But when we add the blue line, you've been
relatively stable on a cumulative basis. So in
comparison to the rest of the country, you've done a
good job of managing your rate increases.

So I'm going to bring you back to these
three options and show you a little bit different way
of looking at the three alternatives and how they
might differ a little bit. We have run an analysis of
the percentage of bills that exhibit a certain
increase, so we can look at -- we can run an analysis
and say, all right, certain amount of bills are going
to go up by a certain percentage. So if we're looking
at a bill impact of six percent or less, and that was
just one number that we picked, six percent or less,
we're looking at almost 30 percent of your bills under Option 1 will have less than a six percent increase, with Option 1. That number gets larger as you move to the Options 2 and 3. And it becomes more apparent why the customer advisory committee and staff actually are preferring Option 3, because even though you're changing the rate structure slightly, so Option 3, you are adding that rate block and reducing -- or increasing the discount for those low water users, you're still limiting the impact you have on more customers. So more customers will see less of a six percent increase with that option.

The rates and the rate design are only part of the story when you do a rate study. And there are other aspects of the Authority's rates and fees that we did not touch in this last study. So I have to mention that in your move to make sure that your rates and fees are based on cost of service, there are other items that need to be reviewed, such as the restaurant surcharges, the utility expansion charges. Your water supply surcharge has been increased at the -- I think at the rate of ENR, engineering news record index, but it should be looked at again. And then also some miscellaneous charges, so ancillary charges, like turn-on fees and shut-off fees. Those sorts of fees
should be reviewed to make sure that they're based on cost of service. That is what is coming up in the future.

But other than that, I thank you for your attention and would be happy to answer any questions.

CHAIRMAN DE LA CRUZ: No questions?

Thank you.

MS. MALESKY: Thank you.

CHAIRMAN DE LA CRUZ: Executive Director, go ahead.

MR. SANCHEZ: Mr. Chairman, just by way of feedback, we will have to prepare a rate ordinance in subsequent months for introduction and consideration. We, I think, would recommend Option 3 as the best alternative for us, for all our customers, by giving an incentive for those very low water users, an additional ten percent, and inserting a new price block, if you will, price signal for those that are consuming much higher than normal. I guess we need to know, is the Board comfortable with that concept? If it is, we'll prepare that. If it's not, we can analyze it further.

Again, I think what Carol mentioned in her presentation was that our ten-year financial plan called for two rate increases in the future that the
Board has already preapproved. One would take place in July of 2011 for fiscal year '12, and the second one would be two years from now, in fiscal year '14. But what she focused on today is the commodity charge, or the amount you get charged for your consumption. And we think Option 3 sends the best signal to all of our customers, because it impacts our customers the least, but it rewards if you consume less and it penalizes you if you consume much more.

CHAIRMAN DE LA CRUZ: Mr. Sanchez, when do we need to -- when are you going to bring this back to us?

MR. SANCHEZ: It will probably be in May in terms of the rate ordinance itself.

CHAIRMAN DE LA CRUZ: I think I'd prefer -- and I'll call on Councillor Sanchez in a minute. I think I'd like to see the Board study this a little bit and meet with staff if necessary. It looks good at this time, but I think it would be wise to do that. Councilor Sanchez.

COUNCILLOR SANCHEZ: Thank you, Mr. Chairman. Mr. Sanchez, we are looking at a rate increase for those residents that would be effective July the 1st?

MR. SANCHEZ: Correct.
COUNCILLOR SANCHEZ: And the percentage, overall percentage, because we're talking about two different increases, consumption use and also basic service.

MR. SANCHEZ: Mr. Chairman, Councillor Sanchez, the five percent that's referred to that's being approved is to the base charge. That was one of the first graphs that Carol pointed to about going from $18 to $19, just over a dollar for the base charge. And every customer's total bill would depend on how much water they consume, much like today. The base charge is just one component. So the presentation she gave you was more on the commodity side, or the consumption, and the options on how to structure that. And the last option, she recommended was where we give the low water users, those consuming 150 percent or less of the average, a 30 percent discount instead of a 20 percent discount on their base charge.

COUNCILLOR SANCHEZ: One of the concerns I have, and I support probably Option 3, is this winter we had some major problems with the weather where there was a lot of breakage in some of the plumbing for a lot of our seniors that live in older homes. And being that they base a lot of this information during the winter, would that have an impact on those seniors?

MR. SANCHEZ: In fact, it would inflate their
average winter use, so that would, in a way, prevent them from getting surcharged as a higher user. So it's counterintuitive to what you're thinking. It wouldn't increase their bills. It would actually decrease their ability to be surcharged.

COUNCILLOR SANCHEZ: Because in the wintertime they had a --

MR. SANCHEZ: Correct, higher -- higher usage.

COUNCILLOR SANCHEZ: And higher rate. Thank you.

CHAIRMAN DE LA CRUZ: Councillor Jones.

COUNCILLOR JONES: Thank you, Mr. Chair.

Mr. Sanchez, Carol, that was a really good presentation. And I think it's what we're all looking to do, and that is to, without being punitive, all of us take a good look at our water consumption, because it's what we have to do as a city. But I think it gives us options and I always like having options rather than being dictated to. And I really like the portion of this that helps and rewards the really low water users. I think it was Number 3. Option Number 3 just seems to be a great way to go for us to try to get where we're going without hopefully having to ration water, set dates of watering and the things that we know happen if we don't take care of
ourselves.

So, Mr. Sanchez and Carol, thank you so much for all the staff. I think this was a really interesting, good, eye-opening study, and we appreciate it. Thank you.

CHAIRMAN DE LA CRUZ: This is just a presentation. There's no action necessary. And so I urge the Councillors and Commissioners and trustee to visit with staff if they need any more information. I think it's pretty self-evident which way the Board will go.

Next we have Item 10B, the pharmaceutical report presentation, Jane De Rose Baman.

MS. BAMAN: Chairman De La Cruz, Members of the Board, my name is Jane De Rose Baman. I'm the Water Authority's program manager for water quality. And I'm here to provide you with a briefing on our voluntary monitoring for pharmaceuticals and personal-care products that occurred between September of 2009 and June 2010. I'm going to give you a brief introduction of the subject, give you a few of our aspects of our monitoring protocol, and then also go into some of the details -- highlight some of the details of our report.

Pharmaceuticals and personal-care products,
or PPCPs, for short, it's really not a new issue. They have probably, mostly likely, been found in surface waters and potentially in drinking water in low concentrations ever since we've been using pharmaceuticals and personal-care products in our own lives. As a matter of fact, in New Mexico, they studied drug residues in ambient waters, the New Mexico Environment Department, along with the state department of health scientific laboratory division, and they issued a report in 2002. So it's really an at least more-than-decades-old issue. However, at this time, PPCPs, or pharmaceuticals, are not regulated by the U.S. EPA.

With that said, the Water Authority, offering the treated surface water to our customers through the San Juan Chama Drinking Water Project, really wanted to know what type of, if any of these pharmaceuticals and personal-care products we would be finding in our water system.

Pharmaceuticals and personal-care products include thousands of substances. They generally are categorized by prescription drugs and over-the-counter drugs, veterinary drugs, fragrances, lotions, cosmetics. So we put them on, we use them, and then they are discharged from our bodies into the sewer
lines down to the waste water treatment plant. And then through the treatment process, some of them are removed but also lowered in the discharge to the ambient waters. You may reflect today how many PPCPs have you used. If you take medications, lotions, shampoos, soaps, all of those are included.

Some of the questions we wanted to answer through our monitoring are, are the pharmaceuticals and personal-care products present in the source water contributed from upstream communities or are they present in our finished drinking water; what is the community contribution of pharmaceutical and personal-care products that would enter the waste water treatment plant; and then how effective is our waste water treatment plant at removing these pharmaceuticals and personal-care products.

Our monitoring protocol included quarterly sample collection. We were trying to account for seasonal variation, 24-hour composite sample so we could account for any changes throughout a day, and then the five monitoring locations; those being three on the water system side, a source location, a process location at the treatment plant and then also the finished drinking water, and two on our waste water side, the Southside Water Reclamation Plant influent
to detect the community contributions, and also the
effluent from that treatment plant to monitor what's
being discharged to the Rio Grande.

This map generally shows the locations of
those monitoring sites. Again, the red dot at the
top, which is closest to the blue line. That blue
line of course you probably know is -- represents the
Rio Grande. So from that point, we monitor what's
coming in from the north, from upstream users or
communities. And then from there, the water is pumped
to the surface water treatment plant, the red dot in
the center part of the map.

Once the water is treated, the water gets
disseminated through pipelines out to the system both
on the east and west side of the river. And then from
there, as we use the water, the water is conveyed
through the sewer lines down to the location on the
bottom part of the map, the Southside Water
Reclamation Plant, where we monitor the influent and
then also the effluent which is discharged to the Rio
Grande at that point.

Analytical methods have changed over the
years. They've gotten more sensitive and they've
helped us to discern different types of
pharmaceuticals and personal-care products. But there
are no required methods at this time. However, EPA does allow and has approved two methods that are available. And we chose those two methods for this monitoring. They provide for extremely low detection levels in the nanogram-per-liter level. That's really low, very low, very sensitive. That's orders of magnitude lower than we typically deal with in terms of our monitoring results now. But the problem is, very few laboratories are qualified to run those analyses, and also the tests are very expensive, close to $3,000 per sample. The two analytical methods we chose covered 113 substances, 86 pharmaceuticals, things like acetaminophen, caffeine and ibuprofen. Also 27 sterols and hormones.

The results from the monitoring showed very low occurrence in our source water and in the finished drinking water. The highest occurrence of pharmaceuticals and personal-care products were found in this influent to the Southside Water Reclamation Plant. And then there was a reduction in the concentrations for pharmaceuticals and personal-care products after the treatment at the Southside Water Reclamation Plant.

This chart --

CHAIRMAN DE LA CRUZ: Let me interrupt you for a
second. So you were monitoring what was coming into the plant as well as what was being discharged at the plant?

MS. MALESKY: Mr. Chair, that is correct.

CHAIRMAN DE LA CRUZ: Thank you.

MS. MALESKY: This chart, graph, provides the results for four of the 113 substances over the four quarters at each location, the five locations. The four substances, campesterol, stigmasterol, those are two plant sterols, it's often found in vegetable oil or olive oil, sulfamethoxazole is an antibiotic, and testosterone is a hormone. So over the four quarters, you can generally see the first three sample locations were on the water side. They're very low or no detections of those substances. And then the next location is the influent to the water -- the waste water treatment plant, and the concentrations increase significantly. And then in general, when we look at the results, the monitoring results for the effluent from the treatment plant, they generally decrease. And that's TP 2.7.

I want to focus on the finished drinking water because I don't have time tonight to give you every single aspect of the report. So in the finished drinking water, I wanted to show you the frequency of
occurrence for the pharmaceuticals. We had 113 of them that we were analyzing for. We monitored four different quarters. And so during that quarter -- I'm sorry, during that period, 91 of the 113 were never detected. So zero out of those four times. Thirteen of them were detected once, four were detected twice and five were detected three times. None of the pharmaceuticals and personal-care products were detected in all four quarters.

These analytical methods are -- they're very sensitive. So it's really subject to contamination to some extent. The laboratories run lab blanks so that they can detect if there's any contamination in the laboratory. Many of these pharmaceuticals and personal-care products were detected in laboratory blanks. So these are such low levels that it's hard to just not have little things affect your results.

The finished drinking water for the blank corrected results take into account what was found in the blanks. The range of pharmaceuticals and personal-care products was between 0.167 to 4,060 nanograms per liter. And on average, it was 117 nanograms per liter detected in the finished drinking water, of the total substances that were detected.

We don't have any EPA standards to compare
this to. I mentioned at the very beginning, EPA does not regulate these at this time. So what's reasonable for us to understand how significant are these numbers. So I provide a perspective for you.

Cholesterol was the substance that was detected at 4,060 nanograms per liter. A recommended daily dietary target for cholesterol is 200 milligrams. If a person drank two liters of than finished drinking water containing 4,060 nanograms per liter of cholesterol, it was take 67 years to consume 200 milligrams of cholesterol. And by the way, there's 200 milligrams of cholesterol in an egg. So how many of you had eggs today for breakfast, or this week? So often our -- you're going to get -- consume or be exposed to these pharmaceuticals at different levels, probably much higher levels than what we'll see in our drinking water from this study. But another analogy. Ibuprofen was also detected in the finished drinking water. That was detected at one time at 50.8 nanograms per liter. That also has a -- not a dietary target, but actually a recommended dose of 200 milligrams per day or so. So if you drank two liters of the finished drinking water that contained 50.8 nanograms per liter of ibuprofen, it would take you more than 5,000 years to consume 200 milligrams of
ibuprofen. So we provide other comparisons like that in the report just to help people have some sense of what these levels mean.

The report has been posted to the Water Authority web site. We will continue monitoring in 2011 and then annually update the report as appropriate. And key piece here, we will monitor developments with EPA, their research and also any updates in their regulations.

And I'd be happy to take any questions.

CHAIRMAN DE LA CRUZ: I'm curious, how -- obviously, it's high as it comes into the plant, the reclamation plant, and it leaves clean, relatively speaking. What causes the breakdown of those substances?

MS. MALESKY: The treatment plant -- and I'm not as -- if you asked me about the water treatment plant, I could respond to that very easily. I'm not as familiar with all of the processes that we use at the treatment plant. But typically the -- the biological -- and I'll be happy to pass the baton to another member of our Water Authority management or staff to help me respond to that point. But we do have the biological treatment. And also we will be adding ultraviolet disinfection, which is another
method that should help us to reduce any residuals that are in the finished water at this point.
Ultraviolet disinfection is a good means for reducing.

CHAIRMAN DE LA CRUZ: Well, we've had, for about two years now, almost every meeting, presentations from members of the public who have been very concerned about pharmaceuticals in the water, and this is pretty good news. Thank you.

I'm sorry. Councillor Sanchez.

COUNCILLOR SANCHEZ: I have one question. So you are saying that the Albuquerque Bernalillo County Water Authority's water is safe to drink?

MS. MALESKY: Yes.

CHAIRMAN DE LA CRUZ: Unless you're going to live a really long time, then the acetaminophen is going to get you.

MS. MALESKY: Thank you for your attention.

CHAIRMAN DE LA CRUZ: Thank you for your presentation.

Moving on to Item 10C, the Kirtland Air Force Base update, David Jordan, with INTERA.

MR. JORDAN: Mr. Chairman, Members of the Board, thank you for having me tonight. We were brought in by the Water Utility Authority to take a look at some of the work that's being done and proposed out at

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Kirtland Air Force Base to deal with the contamination there. And we really looked at two different questions primarily, what is an extent of the contamination. And there are really three elements to that. If you can imagine, this fuel spill happened from a series of underground pipes, and so there's an element of the free-phase fuel in the subsurface, and it doesn't just sink straight down to the water table, which is at about 500 feet down, because these are ancestral river deposits, and there's gravelly areas and silty areas, there's preferential flow paths through the subsurface. So there's this element of the fuel being caught up in what's called the vadose zone, and there's about 500 feet of that, so it's quite a large area. Then the fuel itself is lighter than water, it tends to float on the water table once it reaches it. But then portions of it also dissolve into the water itself. So there's kind of three pieces.

Now, we also looked at the remedy as proposed, and the remedy has to address all of those three components so our scope of work was to review some work plans that have been developed by Kirtland Air Force Base's contractor and submit it to NMED. NMED has approved some of these. Some of them are
being reviewed at this time. We've also met twice
with the Water Authority Utility staff and with NMED
as well. The four work plans focused on the dissolved
phase plume extent, so that's the part of the fuel
that's actually dissolved in the water; the fuel mass
and distribution in the vadose zone; some activities
to stop the migration of fuel floating on the water
table; and also to identify and remediate some of the
very obvious shallow contamination in the source area
itself.

What's been proposed is 78 groundwater
wells. And you all had a presentation about a month
ago by Kirtland Air Force Base and they went into
quite a bit of detail about the well installation.
And we had some comments. We felt that during the
well installation -- by the way, it's ongoing right
now. It is due to be done at the end of May. We
wanted to see some additional soil samples above and
beyond what they had proposed collected to more fully
characterize some of that vadose zone contaminated
area. We'd also like to see some soil samples
collected at more frequent intervals. I believe that
they indicated that they wanted to do 50-foot
intervals. We'd like to see samples collected perhaps
every ten feet. Again, because there's this large
area between the ground surface and the water table
that really needs to be characterized in terms of what
fuel is caught there.

The screened intervals for these wells, so
in other words the area that these groundwater wells
were going to be sampling, was somewhat arbitrarily
set. There's a shallow, a middle and a deep zone.
And the focus of that, the reason behind that, is to
try and identify, really, the top and the middle and
the bottom of that dissolve plume. If you can
imagine, it's a three-dimensional plume in the
groundwater and subsurface. And what -- as I
mentioned previously, there can be some preferential
pathways in the subsurface. So we'd like to see those
screened intervals focus on those preferential
pathways.

We also noted that they're not going to do
any aquifer testing. And that's important for the
design of the remediation. Because in order to pump
the groundwater and remediate it, you have to know
some of the physical properties of the aquifer itself.
And so it's important to do testing to determine that.

Now, on the vadose zone, and I should
mention that these have actually already been done,
and so we're a little bit after the fact here, again,
we wanted to see some additional sampling above and
beyond what they had recommended. We also would like
to see some estimates of the total mass and the
distribution in the vadose zone, which could
potentially be a very large and continuing source into
the future.

We'd also recommend that some soil samples
be collected to get some properties with respect to
how the fuel moves in the subsurface. And we had also
recommended to the Water Utility Authority that there
was some -- there would be some acceleration in the
soil vapor extraction part of the remediation.

The interim containment work plan was a work
plan to really get out fairly quickly and try and keep
the fuel floating on the water table in particular
from migrating any further. In our review, we again
felt that they needed to collect some additional
information about the properties of the aquifer in
order to know how much to pump to be able to capture
that fuel, particularly that free-phase fuel. And so
our recommendation was that some additional pump
testing be done to be able to do that.

So just in summary, we've met twice with
NMED and Water Utility Authority staff, and NMED for
now has elected to essentially keep things status quo
for the time being in this first phase. But they indicated that they may act on our comments during the second phase. We do understand, though, that NMED may be requiring some revisions to the interim containment plan and may require some additional aquifer testing as well.

I've got an overhead I'd like to show that's got some recent data. And this is data that was collected in the fall of last year and the -- the yellow line is the outline of what was previously thought to be the dissolved phase plume. And the yellow dots that you can see north of that outline are proposed wells --

CHAIRMAN DE LA CRUZ: Let me interrupt you for about second, before you continue. For the viewers, can you please identify the area and any major cross streets, intersections.

MR. JORDAN: Certainly, certainly. This is Gibson Boulevard right here. Kirtland Air Force Base. This is the source of the fuel spill right here. And so the dissolve contamination as it was thought to exist until relatively recently is shown by the yellow line. The yellow dots here show proposed wells. But contamination has been detected in a sentry well quite a bit north of Gibson Boulevard, at this well here,
1 KAFB 10626. So that almost immediately indicates that
2 there's going to have to be additional investigation
3 north of what has been proposed at this time.
4 So with that, I'd be happy to stand for
5 questions.
6 CHAIRMAN DE LA CRUZ: Commissioner Hart
7 Stebbins.
8 COMMISSIONER HART STEBBINS: Thank you, Mr.
9 Chair.
10 I'd like to ask you about that last point
11 that you made. So I'm assuming what you're saying is
12 the sentry well at I think it's Anderson and
13 Florida --
14 MR. JORDAN: That's correct, it's on Anderson.
15 COMMISSIONER HART STEBBINS: -- did detect
16 contamination.
17 MR. JORDAN: Mr. Chairman, Commissioner
18 Stebbins, they detected toluene and EDB, which are
19 both components of fuel, at that location.
20 COMMISSIONER HART STEBBINS: So that's clearly
21 not what anybody had hoped to find at that well. What
22 does that mean for the overall plan for, I guess,
23 determining the extent of the contamination and
24 remediation?
25 MR. JORDAN: Well, it means that at the very
least, additional wells at that location and perhaps north and east of that location.

COMMISSIONER HART STEBBINS: Okay. Would that have a significant impact on the current plan? So I know part of it is to just begin trying to remove the NAPL at the leading edge of the source of that. How does that new finding change that plan, or will it change that plan?

MR. JORDAN: Well, it doesn't necessarily change our understanding about the leading edge of the NAPL plume, but it does change our understanding of the leading edge of the dissolve plume, which is much, much further along than what we had estimated.

COMMISSIONER HART STEBBINS: Okay. And one last question. Thank you very much. I think it's great having your input into this question of the extent and the correct remediation procedures.

What is the mechanism for conveying your findings to NMED and Shaw?

MR. JORDAN: Well, we've been writing technical memoranda to the Water Utility Authority and we've been sending those to New Mexico Environment Department, and I believe they've been reviewing those. And as I've mentioned, we met twice with New Mexico Environment Department staff as well.
COMMISSIONER HART STEBBINS: Okay. Thank you.

CHAIRMAN DE LA CRUZ: Councillor Sanchez.

COUNCILLOR SANCHEZ: Thank you, Mr. Chairman.

Based on the dollar amount that the federal government allocated for the remediation of the contamination, how much more are they looking at now that you've looked extensively into what is the problem, and how much more are we looking at in cost to remediate the issue and the problem?

MR. JORDAN: Mr. Chairman, Councillor Sanchez, that's a good question and it's an interesting one that perhaps the Air Force could answer better than I. But as you know, this is a performance-based contract that the cleanup is being done under. There are certainly cleanup metrics that are required to be met for a dollar amount that has been agreed to at present. And so as I understand it, and I certainly don't claim to be an expert on the contract or on their agreement, that, you know, the end point is the same regardless of these new findings.

COUNCILLOR SANCHEZ: Thank you.

CHAIRMAN DE LA CRUZ: Let me ask. You said that these contaminants were detected at that particular well. When you say "detected," what does that mean? Obviously, there's at some point where it becomes a
harmful -- a very harmful situation if you drink the water. And for lay folks, what does that mean, "detected"? Is it a significant amount, minor amount?

MR. JORDAN: I would say, Mr. Chairman, at very low levels. But, you know, the other thing I would say about it is that before this plume was there, that water was clean, that water was pristine. It had no level, not even very low levels of these constituents. So I think that's an important issue.

CHAIRMAN DE LA CRUZ: And my assumption is that these findings are being shared, besides NMED, also with the base folks, they're working on this?

MR. JORDAN: Mr. Chairman, yes, that's correct. I believe all of our materials have been shared with the Air Force.

CHAIRMAN DE LA CRUZ: And how far out or how far north at least, I think that's what you said earlier, would you recommend that new wells be placed? Or are you making that recommendation?

MR. JORDAN: Mr. Chairman, we haven't made that recommendation yet, but in order to be prudent about determining where the plume boundary is, you would need to be somewhat north of -- north and east of Anderson and Florida. Perhaps some some hundreds of feet.
CHAIRMAN DE LA CRUZ: Thank you.

Executive Director, one of the things that I'd like to request is, first of all, I want to applaud the base. They've been doing a great job working with us and trying to mitigate this issue, this problem. But I'd like to know and I think the public needs to know, what does it mean to have these contaminants in the groundwater if they ever got to the aquifer? I don't know that we have that answered, and I think we need to at least have a heads-up. I think the community need a heads-up what that means if that happened, and what would we do, what steps would we take to make sure everybody is okay.

Mr. Perry.

MR. PERRY: Mr. Chairman, Mr. Jordan, where are we at with interim measures as relates to the vapor extraction techniques and the like to address some of these issues?

MR. JORDAN: Mr. Chairman, Mr. Perry, as I understand it, there's actually been vapor extraction going on for a number of years right in the source area fairly aggressively. And as I understand it, there are some limitations to that based on the -- actually, the air permit that is allowed. The way that these materials are -- you're essentially getting
gasoline vapor or fuel vapor out of the subsurface. It's run through an engine, and it runs a series of engines. And those engines have a particular -- they have exhaust. And there's a permit associated with the amount of exhaust that you're allowed to emit. And my understanding is there may be some limitations associated with that, but there's some uncertainty there.

MR. PERRY: Am I correct in assuming, Mr. Jordan, that this is an initial step by the Air Force to begin trying to address the problem, certainly not the ultimate solution, and that that recommendation will be done by New Mexico Environment Department as far as a recommendation for final remediation findings?

MR. JORDAN: I believe so. I believe we're in the initial phases now, which provides us an opportunity for comment.

MR. PERRY: Thank you, Mr. Jordan.

Mr. Chairman.

CHAIRMAN DE LA CRUZ: Thank you.

Commissioner Hart Stebbins.

COMMISSIONER HART STEBBINS: Thank you. Mr. Jordan, I think maybe for some of our viewers, we should probably distinguish the sentry well where
this -- where these chemicals have been detected from
our actually -- our water source wells, because -- can
you just explain that difference, that this is not
drinking water we're talking about.

MR. JORDAN: Some of the closest wells are the
Ridgecrest well field, which is probably about 4,000
feet from this sentry well, approximately. So some
thousands of feet. So there's certainly a time delay
in terms of how long it takes for this material to
move to any known wells. And, of course, with the --
with the surface water project now, there's less
pumping, no less groundwork pumping that's occurring
from these wells. And so as time goes on and the cone
of depression that's been created by this well field,
that will begin to relax and there will be less of a
tendency for these materials to flow in that
direction.

COMMISSIONER HART STEBBINS: Thank you. I just
think it's important to distinguish that a sentry well
is very different from the wells that produce our
drinking water. So you aren't thinking that we've got
these chemicals in our water system yet, correct?

MR. JORDAN: Correct.

COMMISSIONER HART STEBBINS: Okay. Thank you.

CHAIRMAN DE LA CRUZ: Thank you, Commissioner.
I think that's a very, very important point so that people understand that we're talking about monitoring wells versus water production wells. Thank you, Commissioner.

Any other questions, comments?

Thank you.

MR. JORDAN: Thank you.

MR. SANCHEZ: Mr. Chairman, Members of the Board, if I could just point out, we have also provided these technical memoranda to Kirtland Air Force Base, and they inform us they will be responding to the Authority. When they do, we will certainly provide you that information and periodic updates on this issue.

CHAIRMAN DE LA CRUZ: Thank you. I think it's important to note that they have been very, very responsive and have been working very diligently and have dedicated a very significant amount of money to mitigate this problem.

MR. SANCHEZ: We agree.

CHAIRMAN DE LA CRUZ: Thank you.

Moving on to Item 10D, Water Protection Advisory Annual Report. Mike Bitner, chairman, is he here?

Mr. Bitner.
MR. BITNER: Hi. My name is Mike Bitner. I'm the chair of the water protection advisory board. As you may know, the advisory board was formed in the early '90s by city and county ordinances and then subsequently by the Water Authority in 2003. We were charged with overseeing the implementation of, originally, the groundwater protection policy and action plan and then subsequently the surface water quality protection plan. We're also charged with reporting annually to the Board on our progress and our assessment of how the overall program is going. And we've -- staff has submitted that annual report to you. This presentation simply offers a few of the highlights.

Over the last year, our focus has been on some emerging water quality topics. We looked, for example, at an interesting study done by the U.S. Geologic Survey in partnership with the Authority that's shed some interesting insight into how these contaminants that we're talking about actually move in a detailed fashion within the aquifer. We've looked at watershed management tools, such as Middle Rio Grande water budget models, trying to stay abreast of changing rules and regulations and ongoing water quality research in the basin. And we've focused
quite a bit on specific cleanup projects, like the
Kirtland project we just heard about.

Some of our key accomplishments, 2010 saw
the Board accepting the new surface water protection
policy and action plan, and our advisory board worked
closely with staff in developing that new program. So
the Water Authority now has a nicely integrated
especially source water protection policy that covers
both the groundwater supply and the surface water
supply. We've advocated for the city, county and the
Authority with EPA and the environment department on
issues like the Kirtland Air Force Base spill, and I
think we'd agree that we're seeing much better
progress in efforts to deal with that. 2010 also saw
the adoption and our endorsement of a watershed
restoration action strategy that deals with issues on
a watershed basis.

Looking forward, we see our priorities, and
this year and next focus -- watching the efforts to
deal with the Kirtland fuel spill, implementing the
details of the surface water protection measures.
Right now we have established an action plan,
responsibilities and general milestones. And so we'll
be watching to see how that unfolds. And fostering
intergovernmental coordination among state federal and
regional agencies.

And, of course, one of our other charges is to foster public involvement and education as part of the overall program. So we'd offer that to the extent you have constituents or concerned citizen groups coming to you with concerns about water quality, we'd be happy to meet with them and try to understand their concerns and work with them for you.

Thank you.

CHAIRMAN DE LA CRUZ: Thank you.

Executive Director, any other business?

Then we will adjourn this meeting at this time. Thank you.

(Whereupon, the meeting adjourned.)
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2 COUNTY OF BERNALILLO
3
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