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ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY
WEDNESDAY, APRIL 18, 2012 5:08 P.M.

ALBUQUERQUE BERNALILLO COUNTY GOVERNMENT CENTER
ONE CIVIC PLAZA, NW
ALBUQUERQUE, NM 87102

Before: Kelli A. Gallegos
PAUL BACA PROFESSIONAL COURT REPORTERS
500 Fourth Street, NW, Suite 105
Albuquerque, New Mexico 87102

A P P E A R A N C E S

- COUNCILLOR KEN SANCHEZ, Chairman
- COMMISSIONER WAYNE A. JOHNSON, Vice Chairman
- MAYOR RICHARD BERRY, Member (Excused)
- COUNCILLOR REY GARDUNO, Member
- COMMISSIONER ART DE LA CRUZ, Member
- COUNCILLOR TRUDY E. JONES, Member
- COMMISSION MAGGIE HART STEBBINS, Member
- TRUSTEE PABLO RAEL, Ex-officio Member (Excused)
- MR. ROB PERRY, Admin. Officer, Alternate Member

1 CHAIRMAN SANCHEZ: I'd like to call this meeting
2 to order on April the 18th of 2012, the meeting of the
3 Albuquerque Bernalillo County Water Utility Authority.
4 I'll let the record show that all members are present,
5 with the exception of Trustee Pablo Rael. He is
6 excused for this evening.

7 The next order of business will be a silent
8 invocation, followed by the Pledge of Allegiance,
9 which will be led by Rob Perry.

10 (Whereupon, there was a moment of silence.)

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

13 CHAIRMAN SANCHEZ: And Councillor Garduno should
14 be here shortly.

15 The next order of business is the approval
16 of the minutes. I make a motion to approve the March
17 21st, 2012, minutes. We have a motion, and a second
18 by Commissioner De La Cruz. Any questions?

19 Seeing none, all those in favor signify by
20 saying yes.

21 ALL MEMBERS: Yes.

22 CHAIRMAN SANCHEZ: Opposed, no.

23 That carries unanimously.

24 (6-0 vote. Agenda Item 3 approved.)

25 CHAIRMAN SANCHEZ: Next item on the agenda is

1 proclamations and awards, and it's Item A, quarterly
2 employee awards. And I would ask the recipients to
3 move to the front and get the awards, and wait to move
4 through the line of individuals. We've got Robert
5 Marquez. Please come to the podium. Magdalena
6 Bojorcas-Ponce, Joe Bailey, Lorraine Nunez, Floyd
7 Pena, Scott Salvas, and Richard Torres.

8 And we'll start with Robert Marquez. He
9 will be receiving a \$250 award. And Robert's
10 dedication and personal excellence helped him become
11 the top call-taker for 2011 in customer service.
12 His attention to detail and willingness to resolve
13 customer service questions and inquiries efficiently
14 has placed his performance above all fellow team
15 members.

16 Robert, thank you very much for your effort.

17 COMMISSIONER DE LA CRUZ: Next we have Magdalena
18 Bojorcas-Ponce, who's going to be receiving \$250.
19 Magdalena is the top call-taker for the fourth quarter
20 of 2011. Her attention to detail and willingness to
21 resolve customer questions and inquiries efficiently
22 has placed her performance above that of her fellow
23 team members.

24 CHAIRMAN SANCHEZ: Congratulations.

25 Next we have Joe Bailey. He is receiving

1 \$300 plus eight hours. Joe has significantly
2 increased the amount of compost sold. He goes out of
3 his way to resolve customer complaints and to keep the
4 public perception of the Water Authority beyond
5 reproach. Joe was instrumental in analyzing the 503
6 regulations and preparing the EPA annual report.

7 Mr. Bailey, congratulations for all your
8 work.

9 Lorraine Nunez will be receiving \$500 plus
10 24 hours. Lorraine has taken an outdated contract
11 system for on-call construction work and turned it
12 into a system of several contracts bidding and
13 rotating the work assigned. This process is
14 innovative and saves time and money for the Water
15 Authority. This has allowed for a much quicker
16 response to water issues.

17 Lorraine Nunez, congratulations for all your
18 work.

19 The next recipient is Floyd Pena, it's \$300
20 plus eight hours. Floyd assisted in the recent
21 customer service division Itron upgrade. The project
22 included an upgrade for software, disassembling the
23 old equipment and assembling and setup of all new
24 equipment, testing the upload and downloading
25 capacities. Floyd is dependable, trustworthy and is

1 an extremely competent information technology resource
2 to the customer service division.

3 Thank you very much for your time and
4 service.

5 The next recipient is Scott Salvas. It's a
6 \$250 award. Scott started assisting the water
7 reclamation plant and obtaining the emergency air
8 quality permit to operate the new Kangen engine and
9 the UV emergency generator. These two facilities are
10 vital to the effective operations of the plant. Scott
11 performed the required technical reviews, management
12 and operations of the plant. He is also -- the permit
13 was granted in 2011 thanks to the efforts of Mr.
14 Salvas.

15 Thank you very much.

16 Richard Torres is receiving \$250 award.
17 Richard has excellent troubleshooting skills and
18 superior job knowledge. Richard caught on very
19 quickly to the advanced treatment process and goes out
20 of his way consistently to make sure the treatment
21 plant stays in compliance with the MPDES permit.
22 Richard had shown a strong work ethic and has a true
23 commitment to the success of the plant.

24 Richard, thank you very much for your time
25 energy.

1 And let's have all of you come up and get a
2 congratulations from this authority. Again, to those
3 recipients, thank you for all of your work and effort,
4 and appreciate all your time in work for the Water
5 Authority.

6 Okay. The next item on the agenda is public
7 comment. Ms. Jenkins, how many individuals do we have
8 signed up to speak this evening.

9 MS. JENKINS: We have four signed up, Dave
10 McCoy, followed by Elaine Hebbard.

11 CHAIRMAN SANCHEZ: Okay. Once your name has
12 been called, you can come to the front. You will be
13 given two minutes to speak. A warning bell will go
14 off at one minute and thirty seconds, so let's have
15 you go ahead and proceed and come forward, please.

16 MR. MCCOY: Good evening. My name is Dave
17 McCoy, Citizen Action. Citizen Action invites the
18 Water Utility Authority to make clear its intentions
19 to the public my initiating a comprehensive emergency
20 response for the Kirtland Air Force jet fuel
21 contamination of Albuquerque's drinking.

22 The Water Utility Authority should make a
23 motion that would include the following: One,
24 recognize that an immediate full-scale emergency
25 response is necessary; two, the WUA will immediately

1 retain at a nationally recognized expert to
2 independently evaluate what the City of Albuquerque
3 can do right to set in motion the necessary emergency
4 response plan; three, the emergency plan must be for
5 the purpose of pumping jet fuel out of the ground.

6 The focus of the WUA should be to stop the
7 movement of the liquid jet fuel plume before it
8 reaches a tipping point toward the Ridgecrest well so
9 that it can be remediated. A proposal for how to stop
10 the liquid jet fuel plume and an emergency plan of
11 action must be provided.

12 After 12 years of Air Force inaction for
13 characterization and remediation, two-thirds of the
14 jet fuel plume is within the city. No remediation or
15 protection for Albuquerque's wells is occurring. The
16 tipping point has already occurred for the dissolved
17 plume of ethylene dibromide that will reach and
18 contaminate Albuquerque's drinking wells.

19 Because the jet plume has left KAFB and
20 immediately threatens Albuquerque wells, the WUA as a
21 stakeholder, has a legal authority under the Hazardous
22 Waste Management Act to initiate the above independent
23 actions and pass the expense on to the Air Force.
24 Current operations at Kirtland are calling for more
25 planning, study and installation of 33 more monitoring

1 wells that do not provide remediation. More
2 monitoring wells only allow the plume to travel
3 further towards KAFB Number 3 and Ridgecrest wells.

4 The Water Utility Authority should
5 categorically reject the risky proposed pump and treat
6 testing plan that will pull the liquid jet fuel more
7 toward the northern tipping point. I have some
8 handouts here with a little more detail.

9 CHAIRMAN SANCHEZ: Okay. Leave that with the
10 staff and they will hand it out to the members of the
11 commissioner.

12 MR. MCCOY: I did. Are there any questions?

13 CHAIRMAN SANCHEZ: Thank you.

14 Councillor Garduno.

15 Mr. McCoy, we have a question for you.

16 COUNCILLOR GARDUNO: Mr. McCoy, are you saying
17 that the Water Authority should be asking for another
18 study of this?

19 MR. MCCOY: No.

20 COUNCILLOR GARDUNO: I thought we already had
21 that.

22 MR. MCCOY: To. I'm saying that the Water
23 Utility Authority should make a motion that an
24 emergency response plan, boots on the ground,
25 equipment there yesterday, 24/7 drilling, you know

1 should be made; that you need an independent expert of
2 international or national stature to conduct this,
3 and, if necessary, you might think about going to the
4 EPA and consider that option.

5 You know, nothing has happened here in 12
6 years. And there's been political compromise of the
7 New Mexico Environment Department, and there simply is
8 no removal of jet fuel occurring at the present time.
9 The liquid and the dissolve plume, they haven't run
10 the extractors for many months out there, even for the
11 dissolved portion, you know, the soil vapor in the
12 vadose zone.

13 So I think it's incumbent on the Water
14 Utility Authority to make a plan to take matters into
15 their own hands, as I described, specifically for the
16 purpose of getting the jet fuel out of the ground now,
17 and a plan be put in place. And Shaw is not providing
18 that right now. If you look at their contract, it
19 says their supposed to be doing continuous remediation
20 to the plume. They haven't provided continuous
21 remediation. And Water Utility should suggest that
22 that contract be no longer in place. They have
23 nothing in their remediation arsenal at the present
24 time to stop the jet fuel plume. So the Authority
25 should urge cancellation of that contract and get

1 their own expert on board. This plume is within the
2 city right now, you know, and we can't afford to have
3 those wells shut down and that's only plan that's in
4 place at the moment, if the contamination hits. And,
5 you know, where's the water treatment plant? Nothing
6 is on board to protect the citizens and the City of
7 Albuquerque from what is an impending disaster.

8 COUNCILLOR GARDUNO: Mr. Chair, if I may.

9 Mr. McCoy, we will be having a presentation,
10 as I understand it, according to the agenda, by
11 Kirtland Air Force Base remediation status report.
12 Are you saying that that may not be up to date or
13 won't be...

14 MR. MCCOY: What I'm saying is that we've got
15 plans for more plans, we have plans for more studies,
16 we have study after study, we have plans that have
17 been rejected by the New Mexico Environment
18 Department, we've had plans that have been approved,
19 but there's nothing out there that's removing the jet
20 fuel. You know, it's not happening.

21 And more studies -- and I understand, you
22 know, it's good intentions to find out how far that
23 plume has gone. But you're putting in 33 more
24 monitoring wells when you know that plume is going to
25 hit. A dissolve plume; it moves with the groundwater.

1 There's no way of stopping it. It's a mile long, a
2 half a mile wide and it's very thick and it's at a
3 deep depth and it's dissolve. So it's moving with the
4 groundwater and question is: What are you doing now
5 to stop this, the liquid portion at least? And that's
6 not occurring. And by the time they get and approved
7 plan, a final remediation plan, we're looking at
8 2014, 2015. Who knows how long it's going to take for
9 this plume to reach your wells.

10 And if that liquid plume hits a tipping
11 point, like the dissolve plume already has, you're
12 going to be in big trouble. You're not going to save
13 any of those wells out there, and you're going to lose
14 your wells to the north potentially, in addition to
15 the Ridgecrest wells.

16 So what I'm saying is, plans and studies and
17 all that are not going to get it. What you need is an
18 emergency response right now. You need a really -- an
19 environmental expert that can tell you what that
20 emergency response plan needs to be and it needs to be
21 put into effect. And the Water Utility Authority
22 needs to demand that these state and federal agencies
23 cooperate in this. And if you can't get that
24 cooperation, then you need to go upstairs to the EPA
25 or something, you know.

1 I mean, this is serious stuff. And you're
2 out of time on it, you're out of time. You've had
3 studies, you've had the opportunity for studies to be
4 done since 1997, when they discovered this. And
5 you're not getting the removal of jet fuel from
6 sitting on your aquifer.

7 COUNCILLOR GARDUNO: Mr. Chair.

8 Thank you, Mr. McCoy.

9 I really believe that when we have that
10 presentation, those are certainly some of the
11 questions that I'd like to ask, and I'd like to
12 reserve that.

13 CHAIRMAN SANCHEZ: Okay. Let's go on to the
14 next speaker.

15 Mr. McCoy, thank you for your time.

16 MS. JENKINS: Elaine Hebbard, followed by
17 Willard Hunter.

18 MS. HEBBARD: Good afternoon. I'm here to talk
19 about the item on the drought management strategy.
20 I'm asking that it be postponed, any action on it.
21 Right now, on Item 10B, you'll see there's an item
22 developing a water conservation plan for the next ten
23 years. Drought management is a part of conservation,
24 and I would ask that you it would be part and parcel
25 of the topics that would be included in developing a

1 water conservation plan for the next ten years.

2 Furthermore, there are some real problems
3 with the indicators that have been chosen, both the
4 gallons per capita per day and the annual operation
5 plan. There are, for example, with the last one,
6 annual operation plan that just finished up last
7 month, we pumped two and a half times more than what
8 we said we were going to, even knowing that we were
9 going into a La Nina year with potential curtailment.

10 So using those two things as indicators
11 probably are not real robust. I would suggest
12 probably following the permit that was given to the
13 Water Utility for water flows which would be a more
14 robust one because it actually limits you by cubic
15 feet per second. Another one would be with a water
16 pumping plan. And I think that what Mr. McCoy just
17 talked about, with the jet fuels, we're going to need
18 to have a water pumping plan as to how much you can
19 withdraw from various well fields.

20 So, again, I would like to suggest that
21 matter be postponed, that included in those topics
22 would be dealing with the water budget so you can have
23 some scenarios, and it's in keeping with the public
24 policy, part of the water management strategies. I'd
25 be delighted also to help in the design of those

1 workshops.

2 Thanks. Any questions?

3 CHAIRMAN SANCHEZ: Thank you.

4 Councillor Garduno.

5 COUNCILLOR GARDUNO: Ms. Hebbard, are you saying
6 that there's a possibility of causing permanent damage
7 to the aquifer if we continue doing what we're doing?

8 MS. HEBBARD: Yes. I think that we have the
9 best intentions right now, but that if we had a plan
10 that said okay, we want to be withdrawing from these
11 various wells, and it's actually sort of a planned
12 response strategy rather than ad hoc, which it appears
13 to be right now, would be more in keeping. And that,
14 you could utilize the water budget model that you
15 have, I think. I haven't actually seen the budget
16 model itself. It was developed in-house for in-house
17 use. And I think that it would be great to take it
18 out to the public, and especially to this jet fuel,
19 and show people what some of those strategies might
20 be, so that you can help allay some of those fears.

21 COUNCILLOR GARDUNO: Mr. Chair.

22 Also on that, I thought that the
23 administration, or certainly -- Mr. Sanchez, there had
24 been some agreement that we would go out to the public
25 and certainly, you know, have this discussion.

1 MS. HEBBARD: Well, and I think there. Sorry.

2 MR. SANCHEZ: Mr. Chairman, Councillor Garduno,
3 that, in fact, is also on the agenda. Katherine Yuhas
4 will report on that later on your agenda. And she'll
5 also discuss some of the issues Ms. Hebbard is
6 raising, which we disagree with.

7 COUNCILLOR GARDUNO: Anxious to hear that.

8 Thank you, Mr. Chair.

9 CHAIRMAN SANCHEZ: Thank you, Ms. Hebbard.

10 MS. HEBBARD: It's hard to explain all of them
11 when you've got two minutes.

12 CHAIRMAN SANCHEZ: Next speaker, Ms. Jenkins.

13 MS. JENKINS: Willard Hunter, followed by
14 Geraldine Amato.

15 CHAIRMAN SANCHEZ: Mr. Hunter, welcome.

16 MR. HUNTER: Good evening. My name is Willard
17 Hunter, and I want to talk about a national security
18 issue tonight involving this Water Authority although
19 board. Specifically I'm talking about the Kirtland
20 Air Force Base jet fuel leak threatening the security
21 of our community. It is the largest underground jet
22 fuel spill in U.S. history. The Air Force has known
23 about this problem for more than a decade and has done
24 little. The Air Force and NMED have been dancing
25 together for years; that type has passed.

1 The quality of drinking water for a
2 significant portion of Albuquerque is threatened by
3 chemical contamination from this Air Force leak. You,
4 the Water Utility Authority board need to act now. In
5 the Air Force meetings I've attended, there seems to
6 be a little sense of urgency. I've seen lots of fancy
7 charts and future plans. Well, that time has passed.
8 We need action.

9 And OSHA website reported a woman ingested
10 four and a half milliliters, not much, of ethylene
11 dibromide and died after experiencing vomiting and
12 nausea, diarrhea and kidney failure. At autopsy,
13 massive liver and kidney damage was seen. And that is
14 one chemical approaching the Ridgecrest wells. If you
15 know a tsunami is coming, you take action. Well, an
16 environmental tsunami is coming and you know it.
17 There is a national security threat right here in
18 river city. It has been caused by the continuing
19 negligence of Kirtland Air Force Base management over
20 the decades. This is an emergency.

21 You are the Water Authority board and you
22 need to exercise your authority. Thank you.

23 CHAIRMAN SANCHEZ: Thank you.

24 MS. JENKINS: Geraldine Amato.

25 CHAIRMAN SANCHEZ: Welcome, Ms. Amato.

1 MS. AMATO: I wish to affirm what attorney Dave
2 McCoy spoke of, as well as the previous speaker. And
3 it also references what's not being done with the
4 Sandia Lab unlined chemical nuclear waste dump. There
5 should be immediate excavation, not millions of
6 studies and nothing being done. It's like an inertia
7 but plenty of words. And typical of this area here,
8 the top front page of the Albuquerque Journal will
9 feature pigeons and mention in there that pigeon
10 droppings are polluting the storm water going to the
11 river. Well, this story won't get the top front page
12 of the Albuquerque Journal because there's an inertia
13 there. And it difficult for a local government, who's
14 actually a subsidiary of the federal government to
15 tells the feds anything.

16 Something needs to be done. There has to be
17 an open uprising I think to get anything done when
18 federal officials refuse to move. There has to be
19 people within the federal bureaucracy as well willing
20 to risk their jobs in order to save their lives. This
21 area here is becoming overwhelmingly polluted with
22 chemical and industrial nuclear both water and in the
23 air and in the land.

24 And as far and pigeons are concerned, we
25 should bring them back in. All over the world they're

1 used as a resource. They're a domesticated bird
2 thrown away. If you give them a place to roost those
3 droppings can be used for fertilizer.

4 And instead of discouraging people from
5 having gardens here and watering every day to keep
6 food growing on their premises, we should be
7 encouraging people to water gardens. And it seems to
8 me, if these moisture going up towards a cloud that
9 might have some, there could siphon some little more
10 rain down. If you just have concrete and asphalt
11 burning in the sun and the heat going up there, if
12 there is any water in those aboveground clouds,
13 they'll just evaporate.

14 And then we have chemicals on the golf
15 courses. They water it, but they also overdose it
16 with chemicals and herbicides. And those things are
17 not being monitored either.

18 CHAIRMAN SANCHEZ: Thank you, Ms. Amato.

19 MS. AMATO: And you're stingy, Mr. Sanchez.

20 CHAIRMAN SANCHEZ: Your time is up.

21 MS. AMATO: Four people lined up to speak and
22 you give them a measly two minutes. You're a rude
23 person, and arrogant person and a disrespectful
24 person.

25 CHAIRMAN SANCHEZ: Thank you, Ms. Amato. Your

1 time is up.

2 MS. AMATO: And you shouldn't even be the chair
3 of such an agency here.

4 CHAIRMAN SANCHEZ: You're welcome. Thank you.

5 Next item on the agenda is announcements and
6 communications. Item A is the next scheduled meeting,
7 which is May 23rd of 2012 at 5:00 p.m.

8 And Item B, we have a 2011 water quality
9 report, which will be given by Jane DeRose Baman. And
10 she is here to say a few words.

11 Welcome.

12 MS. BAMAN: Chairman Sanchez, Members of the
13 Board, my name is Jane DeRose Baman. I'm the Water
14 Authority's program manager for water quality. And
15 I'm just here to announce that we did issue our water
16 quality report for 2011. It was mailed earlier this
17 month to our water service customers, nearly 200,000,
18 and it's based on a mandate by EPA to issue a consumer
19 confidence report. So sometimes it's referred to as
20 that.

21 And information about the report as well as
22 other monitoring we've done is available on our
23 website, the Water Authority website, as well as we
24 would appreciate questions from our customers to
25 directed to our water quality information line, which

1 is (505) 857-8260.

2 Also I have for those of you who did not
3 receive one or if you would like another copy, we have
4 extra copies on the back table.

5 CHAIRMAN SANCHEZ: Thank you.

6 Are there any questions?

7 Thank you for your time.

8 MS. BAMAN: Thank you.

9 CHAIRMAN SANCHEZ: The next item on the agenda
10 are introductions, and it will be the first reading of
11 the legislation, and that is going to be Item A, WUA
12 R-12-9, establishing one-year objectives for the Water
13 Utility Authority in fiscal year 2013 to meet the
14 five-year goals. And Frank Roth will be making that
15 presentation.

16 MR. ROTH: Mr. Chair, Members of the Board, the
17 FY13 goals and objectives are a part of the Water
18 Authority's strategic planning, budgeting and
19 improvement process, which includes long-range goals,
20 short-term objectives, performance measures, and the
21 Water Authority's participation in the American Water
22 Works Qual-Serve program, which includes benchmarking
23 with other utilities on operations and service
24 delivery, gathering employees' opinions about the
25 operations through a self-assessment, and lastly,

1 through the peer review, and on-site, in-depth review
2 of the Utility's operations by a team of professional
3 volunteers trained in this program.

4 This diagram illustrates the improvement
5 process. It starts with the five-year goals and
6 one-year operatives which are integrated and aligned
7 with the matrix in the performance plan which helps
8 guide the operating budget.

9 Also, every two years we do a customer
10 opinion survey with questions that are tied directly
11 to the matrix in the performance plan. As I mentioned
12 earlier, the Water Authority participates in the three
13 Qual-Serve programs. We also receive external input
14 from the customer advisory committee and internal
15 input from the asset management steering committee to
16 help drive our agenda for improvement, and also to
17 fulfill the Water Authority's mission.

18 The five-year goals include guiding goal
19 statements, which describe the long-term desired
20 outcome in each goal area. And to measure the
21 progress in each goal area, we have performance
22 measures, 25 in all, to show us where we are and where
23 we want to go.

24 So with the performance objectives in front
25 of you tonight, they are tied, as I mentioned earlier,

1 to our performance measures. They identify
2 performance gaps in operations and service delivery
3 when we benchmark with other utilities. We address
4 those performance gaps through the budget process by
5 allocating and prioritizing resources and then develop
6 improvement processes in order to be more efficient
7 and effective in our operations and service delivery.
8 And these are the one-year objectives, which are
9 policy directives from the board to help address those
10 performance gaps identified during the benchmarking
11 process.

12 So the FY13 objectives, there's 46 in the
13 five goal areas. They show implementation of plans
14 and programs that the Water Authority is working on.
15 They incorporate areas in improvement identified in
16 the Qual-Serve process. They are integrated with the
17 performance plan, as I mentioned earlier, with the
18 performance identified through the benchmarking
19 process, and some are carryovers from this fiscal
20 years and our past fiscal years as many of the plans
21 or programs are done in phases. Or if we're doing
22 operational improvement, we only set targets for each
23 year to reach a certain level of performance.

24 So I thought it would be good to show just a
25 couple of examples of how the objectives and

1 performance measures are tied together, so I picked
2 the water supply and operations goal. Here you can
3 see that we have a few objectives related to plan
4 maintenance to increase our plan maintenance, our
5 groundwater and surface water facilities, as compared
6 to total maintenance or the plan maintenance to
7 corrective maintenance ratio. And this is tied to our
8 plan maintenance ratio performance measure, these two
9 objectives.

10 Another one is to maintain water use at 150
11 gallons per capita, which obtaining community input on
12 setting a new reduction goal. And this is tied to the
13 water conservation saving performance measure. And
14 also Katherine Yuhas will be talking about this later
15 in the meeting.

16 Two other objectives I'd like to point out
17 are reducing water loss through our leak detection
18 program. This is tied to our water loss and water
19 integrity performance measures. So we have objectives
20 to reduce water loss in our small diameter system
21 using our different leak detection methodology, and
22 then also next year conduct a pilot project on looking
23 at different methodologies on our large diameter water
24 lines. So these are just a few examples of the
25 objectives that are being introduced and how they're

1 tied to our performance measures.

2 And so in summary, through our performance
3 improvement process, it includes the five-year goals
4 and one-year objectives with the objectives and
5 performance measures measuring our progress along the
6 way in each of the goal areas and to help guide the
7 budget process, which is the next agenda item, unless
8 you have any questions.

9 CHAIRMAN SANCHEZ: Are there any questions?

10 Seeing none, thank you for your time.

11 Next item on the agenda for introductions is
12 Item B, WUA R-12-10. That is appropriating funds for
13 operating the water authority for fiscal year
14 beginning July 1 of 2012 and ending June 30th of 2013.

15 Mr. Sanchez.

16 MR. SANCHEZ: Mr. Chairman, Members of the
17 Board, I'll cover Items B and C, the operating and
18 capital, with your permission.

19 I won't dwell on the budgeting process since
20 Frank Roth just explained that to you.

21 In terms of the highlights, first and
22 foremost, no rate increases proposed or incorporated
23 into this budget document. That includes a 2 percent
24 step adjustment for employees, based on existing
25 collective bargaining agreements. \$2 million is added

1 to our rate reserve fund, which, if you recall, for
2 those of you have been on the board for some time, it
3 is intended to be there as a safety valve in the event
4 of huge revenue fluctuations or as an attempt to
5 postpone rate adjustments.

6 Thirty million is for our CIP basic rehab
7 program, three million for our non-basic capital
8 projects. It continues the board approved
9 conservation surcharge for high residential water
10 users, which represent the top 7 percent of our
11 customers. It also includes a 30 percent discount to
12 residential customer using 150 percent of less of
13 their conservation average.

14 In terms of our assumptions, nominal growth
15 in the surface area. We're assuming a 2 percent
16 decrease in consumption based on conservation. Growth
17 and operating expenses include only essential items.
18 Increased capital spending for our south side
19 reclamation plan going forward. In terms of comparing
20 FY12 and FY13 that's before you, revenue increases by
21 about 1.1 -- decreases, actually, by \$1.1 million,
22 from sixth-tenths of 1 percent. Expenditures go up by
23 four million, or by 2.2 percent. At the end of FY13,
24 we project to have \$10 million fund balance. In FY12,
25 we ended up with a \$2.2 million fund balance, which

1 was due in large part to expenses to bringing the San
2 Juan Chama project online.

3 In terms of expenditures, personnel, the
4 2 percent step adjustment cost about \$452,000. Eleven
5 -- FY12 midyear position annualized, \$645,000.
6 Operating expenditures, increase in barricade and
7 paving cost, about \$2.1 million. And \$700,000 to
8 improve the actual costs for postage, filing of liens,
9 training and unemployment compensation.

10 In terms of internal services and transfers,
11 our debt service cost increased by \$5 million and UEC
12 transfer to CIP for three million for growth-related
13 projects. And that's essentially reimbursing
14 developers who have fronted the cost of utility
15 extensions that are development agreements. As others
16 connect to that, we receive revenues from that and
17 transfer that into that fund.

18 In terms of a pie chart about how our
19 revenues are derived, interest of about \$750,000;
20 miscellaneous revenue of 1.8 million, which includes
21 things like sale of compost, connection fees, not UECs
22 but the fees themselves; water revenue of 83 million;
23 water resources management of 4.5 million, which is a
24 dedicated conservation part of our rate; sewer revenue
25 of 62 million; CIP employees, which is a transfer of

1 \$650,000; solid waste transfer of 1.1 million, which
2 is the solid waste contribution for the Water
3 Authority sending its billing and staff-related costs
4 and collections; franchise revenue of about 7.1
5 million; and San Juan Chama related rate of 30
6 million. So the total is \$191million.

7 In terms of how that breaks down to
8 expenses, debt service to the largest component, \$66
9 million; wages and benefits, 47 million; operating
10 expense, 45 million; transfer to other funds,
11 8.2 million; franchise fee, approximately 6.5 million;
12 risk charges, 3.2 million; other, which is fuels,
13 radio and other capital, 2.3 million; indirect
14 overhead paid to the city, 1.5 million; workers'
15 compensation, 754 million, for the total 181 million,
16 plus the fund balance of 10 million gives you the 191
17 in terms of the revenues.

18 In terms of our finance plan going forward,
19 you can see 2013 highlighted. That tracks with the
20 numbers we just provided. Going forward into about
21 2017 through 2021, you can see that our fund balance
22 falls below one-twelfth. Last year, the board
23 approved in our rate ordinance having one-twelfth as
24 our fund balance target as opposed to \$10 million or 7
25 to 8 percent. And the rating agencies lately have

1 said, "You really need to shore up that fund balance."
2 So you can tell going forward, with nothing changing,
3 our fund balance starts to fall far below the
4 one-twelfth.

5 In terms of CIP, there's an appropriation of
6 42 million, 33 million for our basic water and sewer
7 program, 30 million is for rehab and replacement, two
8 million is for implementing a financial ERP system
9 going forward in FY14, three million for special
10 project, two million of that is for automated meter
11 infrastructure, starting the phases going forward, one
12 million is for steel line replacement, four million is
13 to close out the San Juan Chama project, 2.3 million
14 for the surface water treatment plant, and 1.7 million
15 for habitat restoration of the bosque that's required
16 as part of our permit.

17 In terms of CIP planned spending,
18 9.9 million for basic pipe renewal, 5.1 million for
19 basic plant renewal, three million for growth
20 projects, two million for the financial enterprise
21 system, 15 million for the south side water
22 reclamation plant, one million for steel line
23 replacement, four million for special projects and two
24 million for the automated meter infrastructure, for
25 the total of \$42 million.

1 Going forward, some of our financial
2 challenges are the substantial improvements we need to
3 make at the south side reclamation facility. We've
4 talked about an estimate of \$250 million over the next
5 decade to get our plant up to where it needs to be to
6 be fully compliant with our discharge permit, EPA
7 regulations and certainly the Isleta Pueblo
8 expectations that we meet their conditions for that
9 water use. Also increasing and maintaining our
10 reserve to one-twelfth as opposed to 7 to 8 percent.
11 The increasing cost of power, fuel and chemicals are a
12 constant challenge because they tend to rise at double
13 digits. And also financing our asset management plan,
14 Dave Price soon will talk about where our CIP spending
15 needs to be. Historically, we've been about 41, \$42
16 million, and we really need to be in the 71 plus
17 million dollars annually, not only to take care of our
18 backlog, but to stay in front of the risk going
19 forward of our capital infrastructure.

20 At this point, I'd like to call up Dave
21 Price. He's the chief engineer responsible for our
22 capital program. After Dave, Paul Cassidy will talk
23 about bonding ratings and the expectations. And then
24 I'll close with what we project going forward.

25 MR. PRICE: Mr. Chairman, Board Members, my name

1 is David Price. I'm the manager of the water
2 resources planning and engineering division for the
3 Water Authority.

4 I'm going to talk a little bit about our
5 asset management plan and the CIP program. First I
6 want to talk about what assets we're talking about.
7 The drinking water assets, they include the San Juan
8 Chama drinking water plant, our wells, booster pumping
9 stations, reservoirs, water pipelines. Wastewater
10 assets includes the sewage collection pipelines,
11 sewerage lift and vacuum stations, the south side
12 water reclamation plant and our soil amendment
13 facility.

14 Other assets include the reclaimed water
15 assets. We have a north side nonpotable water system
16 that's been in service for almost a decade now. And
17 we're just completing the construction startup of the
18 south side nonpotable water system that will be
19 treating the effluent from the wastewater plant,
20 filtering it, disinfecting it and allowing it to be
21 used for parks in the southeast portion of the city.

22 The compliance division also has assets
23 including the analytic laboratory and the south side
24 water reclamation plant, and also they have a small
25 process laboratory up at the San Juan Chama water

1 treatment plant.

2 You might recall at last April's board
3 meeting, Mr. Stomp presented the asset management plan
4 that was developed by for the Water Authority by our
5 consultant, GHD. This plan, this study went on for
6 about two years. They did a very thorough evaluation
7 of all of our assets, including over 200,000 asset.
8 They scheduled what the renewal needs are for each of
9 those assets on an annual basis.

10 Our asset management plan uses a concept of
11 risk for prioritizing the renewal of our different
12 assets, and risk is simply the probability of failure
13 of an asset multiplied by the consequence of failure.
14 For instance, a pipe, an old pipe has a high
15 probability of failure. Its location within the city
16 influences its consequence of failure, a pipe in front
17 of a hospital or through a business district has a
18 higher consequence of failure. It would be more
19 disruption if that pipe fails. So we try to target
20 those higher risk assets for renewal first.

21 This is the pie chart that categories our
22 different assets into four different categories,
23 including water, drinking water pipes. The
24 replacement cost of those would be about \$1.9 billion.
25 Our wastewater or sewer pipes, they have a replacement

1 cost of about \$1.8 billion, and then our sewer plant
2 and our water plants, which includes The drinking
3 water plant, plus all the wells and whatnot, each have
4 a replacement cost of about \$6 billion. So we have a
5 total -- if you were to go out and try and replace all
6 of our assets right now, it would cost over cost over
7 \$5 million.

8 This i kind of a busy chart. It comes from
9 the GHD asset management plan. What it shows is
10 the -- their estimated or recommended asset renewal
11 spending by year for the next hundred years. And you
12 can see it's color coded, and those refer to the four
13 colors on that previous pie chart that looks at the
14 field water, field sewer, plant water, plant sewer.
15 But the overall chart, the thing that looks like a
16 mountain, a set of mountain peaks, is the overall --
17 it's the sum of those different components. And it's
18 just shows the amount of spending that they think we
19 need to do on an annual basis for the next hundred
20 years to keep our system in good working order.

21 They estimated an average renewal need of
22 \$76 million over that hundred-year period; that's in
23 2010 dollars. And as Mr. Sanchez just mentioned,
24 we're currently spending about \$41 million, so there's
25 a \$35 million gap between what we should be spending

1 what we actually are spending.

2 Quality behind an asset management results
3 in failures of our assets. For instance, sewer
4 collapses and waterline breaks. You can see here a
5 couple of examples where sinkholes have developed due
6 to a sanitary sewer pipeline failure. You see in the
7 one picture we actually see a City of Albuquerque
8 utility vehicle. It's been swallowed up by the
9 sinkhole.

10 This is from -- these are two photos from
11 last April, when we had an interceptor collapse along
12 Broadway, which backed up sewage in the interceptor
13 and it came out along Broadway and Pacific Avenue
14 here. This is actually raw sewage pouring onto the
15 city streets.

16 Here is a recent waterline break at a
17 charter school nearby, and it made the news pretty
18 dramatically. And the other photo is actually nearby
19 essentially at the corner of 5th and Marquette, right
20 outside the city hall. It was last December when he
21 had to actually shut down city hall for a day in order
22 to restore water service.

23 One of the issues is our level of service
24 that the Water Authority provides to its customers
25 will go down if we don't keep up with our asset

1 management.

2 In addition to the hundred-year asset
3 management plan and GHD prepared for us, we are also
4 doing what we call tactical ten-year asset management
5 plans, which are much more focused on different
6 categories of our assets and only look at a ten-year
7 period, and look at it in much more detail, evaluating
8 the actual conditions that the -- of the different
9 assets. And we've so far completed a ten-year asset
10 management plan for our sewer interceptors and also
11 our small diameter water and wastewater pipelines.
12 And these asset management plans are actually being
13 used to target the higher risk assets for renewal in
14 fiscal year '12.

15 Currently underway is the sanitary sewer
16 lift and vacuum station asset management plan, and
17 then an asset management plan for water storage
18 reservoirs. And in the coming years, we'll start one
19 for our water booster pumping stations, our large
20 diameter water pipelines and our wells.

21 Also at last April's board meeting,
22 Mr. Stomp presented the decade plan. It was just
23 recently developed. This identifies our capital
24 improvement projects for a ten-year period. We
25 develop one every two years, and it incorporates data

1 analysis from the asset management plans, both the GHD
2 plan and the two 10-year asset management plans we've
3 so far developed. And then it's directly linked to
4 the Water Authority's financial plan.

5 This chart just shows our spending, our
6 projected spending for the next ten years; again,
7 based on the decade plan that's been approved and it
8 shows a column for each fiscal year, starting with
9 fiscal year '12 all the way through fiscal year '21.
10 And it's color coded. The blue portions of the
11 columns at the bottom are the moneys targeted for
12 rehab the south side water reclamation plant. And
13 then the red portions of the bars are for the other
14 assets. And at the very top, you can see a little bit
15 of green, and that's the \$1 million special funding
16 that's used for rehabbing steel waterlines.

17 You can see that in the initial several
18 years, we have a budget of about \$41 million. It goes
19 up and down by year a bit, but then in 2017 we start
20 ramping up by \$3 million a year. And eventually, by
21 2028, at this rate, we'll reach that \$76 million
22 renewal spending requirement that GHD identified in
23 their asset management plan.

24 This chart just shows our current status as
25 of last month, March, of our committed renewal

1 spending on our asset renewals. The top horizontal
2 line is \$44.1 million. That's just our total renewal
3 budget plus the \$1 million special funding. The green
4 horizontal line is the budget for fiscal year '12 for
5 the renewal of the south side water reclamation plant.
6 And then the blue horizontal line is for the other non
7 south side water reclamation plant we have.

8 You can see that we've so far committed
9 about \$37 million renewal spending for this year. Our
10 commitments for spending on the south side reclamation
11 plant, as indicated by the green curve at the bottom,
12 we're a little bit behind schedule on that. We hope
13 to ramp up that spending for next fiscal year. But we
14 are compensating for that by spending a little bit
15 more this year on our non-south side water reclamation
16 plant spending.

17 Just some of the examples of what we're
18 spending our money on this year. For groundwater and
19 surface water production facilities, treatment,
20 pumping and storage, about four and a half million
21 dollars; drinking water pipelines, about \$9 million;
22 sanitary sewers, five million; lift and vacuum
23 stations, about 1.1 million; odor control stations,
24 one and a half million; the south side reclamation
25 plant, 12 million; and the franchise fee compliance is

1 about \$3 million, and what that involves in anytime
2 the city or county is installing storm drains,
3 oftentimes our infrastructure is in the way and we
4 have to move it and we have to actually pay the city's
5 contractor to move our infrastructure.

6 Asset infrastructure renewal backlog.

7 During development of the 2012-2021 decade plan, staff
8 identified a backlog of over \$355 million in unfunded
9 renewal projects. Essentially, these are projects
10 that we've identified but we don't have the budget to
11 do in the next decade. That included unfunded sewer
12 pipelines at 70 million, unfunded drinking water
13 pipelines at 141 million, unfunded drinking water
14 plant facilities, 119 million, unfunded lift and
15 vacuum and odor stations, seven million, and the
16 unfunded soil amendment facility assets, about six
17 million.

18 This is a chart that actually Frank Roth
19 helped me develop. It just shows our backlog based on
20 information that was developed by the GHD's asset
21 management plan. And, again, it shows -- it's similar
22 to what staff came up as a backlog. It actually show
23 our backlog is actually higher when you look at it
24 from an asset management standpoint. And the chart
25 just shows -- at the bottom there is our backlog, and

1 you can see how it grows or gets lower as we progress,
2 and it reaches about \$200 million at 2021. Again,
3 these are projects that we've identified that need to
4 be rehabbed, we just don't have the budget to do it.

5 And you can see in 2017, our actual budget,
6 the bars at the top of the chart actually start to
7 ramp up at \$3 million a year. And at 2028, it reaches
8 that \$76 million a year figure. But you can see even
9 over the 20-year period, we never get rid of the
10 backlog. We're always going to have a backlog
11 currently.

12 This is the same graphic, but shows what
13 would happen if we advanced the increase in our CIP
14 spending by two years, from 2017 to 2015. Again, that
15 would be -- in 2015, increase our CIP renewal budget
16 by \$3 million and then advance it by \$3 million every
17 year after that until we reach \$76 million. And you
18 can see a dramatic drop in the of backlog. It never
19 gets much above \$100 million. And then by 2027, the
20 backlog is basically taken care of.

21 With that, do you have any questions?

22 CHAIRMAN SANCHEZ: Are there any questions?

23 Councillor Garduno.

24 COUNCILLOR GARDUNO: Did you have a question,
25 Mr. Perry? Go ahead.

1 MR. PERRY: Mr. Sanchez, this question might be
2 directed to you as well. It seems that the capital
3 program is in no way capable of keeping up with the
4 needs as the current projections are for a
5 hundred-year need and reaching the \$76 million per
6 year. But that changes in 2028, I understand.

7 MR. SANCHEZ: Mr. Chairman, Mr. Perry, I think
8 what Dave Price is alluding to is to get to that
9 \$76 million threshold, we need -- we cannot bridge
10 that financial gap in a short term. So our plan would
11 be over a decade to incrementally add \$3 million to
12 our capital spending.

13 So right now we're assuming 2017, \$3
14 million, 2018 would be \$6 million, 2019, \$9 million,
15 and it would keep compounding. If we can get to that
16 \$76 million figure and maintain that going forward, we
17 not only could take care of the backlog but we stay
18 current with our rehab and replacement going forward.

19 MR. PERRY: And how does the revenue side of
20 picture keep up to be able accommodate that type of
21 commitment on the capital side?

22 MR. SANCHEZ: Mr. Chairman, Mr. Perry, I think
23 that's the end of the presentation. I can answer that
24 now, if you'd like.

25 MR. PERRY: No, I don't want to take

1 Mr. Cassidy's thunder away. Thank you.

2 CHAIRMAN SANCHEZ: Councillor Garduno, then
3 we'll have Mr. Cassidy come up and give his
4 presentation.

5 COUNCILLOR GARDUNO: Thank you, Mr. Chair.

6 I had a simple questions, and I think it was
7 partially answered. But how -- are we going to have
8 to bond for this gap, if you will?

9 MR. PRICE: Mr. Chair, Board Member Garduno, I'm
10 really not the best person to answer that.

11 MR. SANCHEZ: Mr. Chairman and Councillor
12 Garduno mit would be a combination. The board policy
13 for our basic capital program is 50 percent is funded
14 with bonds and 50 percent is matched with cash. So
15 going forward, that would continue to be the case.
16 And it's a 12-year term for financing, except for
17 special projects like the San Juan Chama Water
18 Treatment Plant or the south side reclamation plant,
19 which are 20-year term projects -- 25 year, I'm sorry.

20 COUNCILLOR GARDUNO: But those are cumulative.
21 In other words, those bonds have to go out to be able
22 to garner that money?

23 MR. SANCHEZ: Correct. And Mr. Cassidy in this
24 next presentation will show you our total indebtedness
25 and the rate of repayment and what our debt structures

1 will look like over time.

2 COUNCILLOR GARDUNO: And rate structures?

3 MR. SANCHEZ: Yes. Well, our debt structure.

4 CHAIRMAN SANCHEZ: Let's go ahead and proceed
5 and conclude the presentation, then we'll open it up
6 for questioning.

7 Mr. Cassidy.

8 MR. CASSIDY: Good evening, Mr. Chair, Members
9 of the Board. What I'm going to begin with is a
10 summary of the current outstanding debt of the Water
11 Authority. And just for the purpose of those viewing
12 and in the audience, the bonds and loans that the
13 Water Authority obtains are repaid from net revenues
14 generated from operation of the water and sewer
15 system, the Authority's system, not from property
16 taxes, not from gross receipts taxes. So we need to
17 set rates and charges sufficient to pay principal and
18 interest, pay operating expenses and pay for capital
19 replacements, as Mr. Sanchez just described.

20 You have board policies in place that
21 require a number of things to happen. We try to
22 target that 50 percent of your capital needs on basic
23 needs program, just replacement, normal expansions to
24 be paid with Authority cash generated from rates and
25 balance from bonds.

1 The basic need program -- I'll actually go
2 to the slides here. We have 690.9 million of
3 outstanding bonds, with an average rate of a little
4 over 4 percent. It's fixed rate debt. There's no
5 variable rate debt, no interest rate swaps on any of
6 the debt. We do have senior lien debt and subordinate
7 lien debt, all of the debt or loans that we take out
8 from state or state agencies, we put it at subordinate
9 lien level so that debt that is outstanding in public
10 investors hands and rated by rating agencies enjoy a
11 senior lien.

12 We have a senior lead debt broken down to
13 669 million, 20.4 million a subordinate lien and 1.5
14 million a super subordinate lien debt. \$173 million
15 of the \$690 million of debt is for basic needs, those
16 normal things that you have to do every year to fix
17 and replace. That's the 12-year maturity debt. Final
18 maturity currently on all of that debt is 2023. The
19 average rate is about 3.74 percent. The average life
20 of that debt is just under five years, about four
21 years.

22 We have, however, \$495 million of special
23 needs project debt, senior lien debt that's rated that
24 was originally issued with a 25-year final maturity.
25 The average life of this debt is a little under ten

1 years. The average rate, 4.63 percent and the final
2 maturity 2037. I'm sorry for the detail.

3 We do have -- and I'll get to a graph that
4 will help you put this all in order in your minds.
5 But we do have the subordinate lien debt that's been
6 taken out for various purposes through the New Mexico
7 Environment Department or the New Mexico Finance
8 Authority drinking water loan program or the water
9 trust board for various special needs projects, like
10 the valley utilities project or the Santa Barbara
11 project or the Carnuel project. And the Carnuel
12 project, that loan of 1.5 million was accompanied by a
13 state match of 3.9 million.

14 Here's the picture that we need to get to.
15 And what we've done here is break down the basic needs
16 debt, the special needs debt by principal and
17 interest. And this probably doesn't work, but the
18 dark blue area is the principal that matures on your
19 basic needs debt. The light blue is the interest on
20 that debt over the times 2012 to 2024, and in the
21 special needs debt for San Juan Chama and also the
22 very costly projects that we've put in place as a
23 community, the dark brown is the principal payment,
24 the light brown is the interest on that debt, and
25 you'll notice over time, as principal pays down,

1 interests decreases and principal increases.

2 We've also layered in here, if you can see
3 it, debt for future basic needs borrowings that we
4 anticipate every two years. As was described to you,
5 we try to finance about 30 or a little -- thereabouts
6 every year for basic needs. But we really borrow ever
7 two years about 60 to \$62 million. Those are layered
8 in to show you that, over time, our debt service
9 requirements, principal and interest, will grow. And
10 what this is going to do, along with your operating
11 expenditures, is drive your rate structure and rate
12 increases. Hopefully, you know, that is obvious. And
13 if it's not, we'll be happy to slow down and go back.

14 So we do have publicly sold debt and we do
15 apply for ratings from Standard & Poor's and Moody's &
16 Fitch, I think as you all are very aware, last July
17 Fitch, which rated us at the A-plus level downgraded
18 the Water Authority primarily because of declining
19 debt service coverage numbers, that is when you
20 compare your net revenues available for debt service
21 to your actual principal and interest payments. We
22 fell below a covenant we made to bond holders; that is
23 that coverage would be 1.33 times debt service. We
24 fell below that, and also our liquidity really fell
25 substantially as well.

1 The board, however, having put in place the
2 two rate increases that you have done, one was
3 effective July 1st, 2011 and the other July 1st, 2013,
4 has helped, and, you know, as we monitor the cash,
5 we're rebuilding liquidity again. But we did have
6 that rating downgrade, if you will, last July. But
7 Fitch still, you know, rates us in a double A
8 category, which is still a high quality rating. And
9 other utility groups across the country that have
10 similar righting would be the District of Columbia,
11 Houston, Fresno, Pima County, Arizona, and San Diego
12 on Fitch. Standard & Poor's, this last month, as I
13 think all of you are now aware, did also downgrade us
14 from a very stellar Triple A rating to a Double A plus
15 for the same reasons, declining debt service coverage
16 and weak liquidity, and also the fact that you haven't
17 timely put rate increases into place the way we may
18 wanted to have put them in place had we known what was
19 going to happen with the declining expansion of
20 housing markets and so forth. You know, a lot of our
21 revenues do come from UECs, and when housing
22 development stops, our revenues decline.

23 With that said, City of El Paso, San Antonio
24 and Los Angeles Department of Water and Power have a
25 Double A plus rating, same as our rating now, as does

1 the U.S. government; they have Double A plus from
2 Standard & Poor's. Not that we want to compare
3 ourselves.

4 Moody's has rated us historically as Double
5 A-1. El Paso, Phoenix, Tucson, Denver and Dallas have
6 a similar rating from Moody's. We included on this
7 page the definitions of those ratings. And again,
8 we're in among the highest rating categories, even so.
9 Again, you know, for bragging rights, you always to be
10 Triple A. For borrowing purposes, you want to be
11 Triple A. Having a Double A plus, Double A-1 rating
12 will still allow you to access the public markets, but
13 that doesn't correct our need to rebuild liquidity and
14 meet our debt service covenant coverage, covenant
15 requirement that we made historically to bond holders
16 and we're measured against in the public market.

17 So we created this next graph to put this
18 hopefully in a little more perspective. There is a
19 solid yellow line across the top, and this is the
20 board's policy. We want our debt service coverage
21 target to be 1.5 times coverage. And, again, this is
22 net revenues, not counting noncash items, depreciation
23 measured against your annual debt service requirement,
24 1.5.

25 Our legal covenant, if you will, in all the

1 bond resolutions, is the green line at 1.33, and you
2 can see the red line is the coverage that we actually
3 achieved, and you see we fell below the green line in
4 three years. In 2012, you know, we hope to be above
5 that. Your staff has said that we will indeed be
6 above that.

7 And then there's a dotted red line that
8 shows how we're going to get back to the 1.5 times
9 coverage. And this does include all the future
10 borrowings. If I could, there are a number of other
11 key ratios the rating agencies target and look at when
12 they're rating us, and investors look at when they buy
13 your bonds. One is the age of plant. And what we've
14 done here is compare, for the last six years, where
15 our age of plant, the calculation that determines how
16 old our system is, compares to Triple A, Double A and
17 A rated utilities across the country. And this is
18 where we outperform a lot of the other Double A and
19 Triple A rated credits. They have a 13-year average
20 life and ours is nine and ten years.

21 This reflects the fact that you've spent a
22 lot of moneys, especially San Juan Chama, rebuilding
23 the system. As this goes up, it's a bad number. The
24 senior debt service coverage number, the senior lien
25 debt service coverage is shown here, and most Double A

1 and Triple A rated utilities are over two times
2 coverage, seeing two and a half times coverage. In
3 the last three years, we've been below what we've
4 historically done. Again, this is the reason we were
5 downgraded, because our coverage has fallen.

6 Projected water rate increases I think tells
7 the story of what got us here. We have been adopting
8 a rate strategy that results in an average rate
9 increase over time of about 2 percent; whereas, Triple
10 A rated and Double A rated utilities are 5 and
11 6 percent on average, historically.

12 The next chart, which is the ten-year bond
13 principal payout reflects how much of our debt is
14 repaid within ten years. And when we issue debt, we
15 amortize it every year and we want it to pay off as
16 rapidly as possible. And your 12-year rule on basic
17 needs really helps this. And you can see, I think
18 that number -- about 52 percent of our debt is paid
19 off within ten years, which is really admirable.

20 From a liquidity standpoint, there are a
21 couple things here that are of concern. The days cash
22 on hand calculation shows that in 2011, we fell to 77
23 days cash on hand when our Double A and Triple A rated
24 counter parties or comparables or peers were many
25 times above that. Our day's working capital also

1 declined, reflecting the fact that we do need
2 additional revenues. Our operating margin, however --
3 and I'll highlight this for those of you who can't see
4 it on the screen here -- you know, we're about
5 35 percent, which is great. And what we're spending
6 that money on is capital and debt service. And our
7 reserves have diminished and need to be rebuilt.

8 With that said, I'll stop there and stand
9 for questions or turn it over to Mark.

10 CHAIRMAN SANCHEZ: Are there any questions?

11 MR. SANCHEZ: Mr. Chairman, if I could answer
12 Mr. Perry's question. Going forward, this is the
13 finance plan. Assuming we maintain our reserves at
14 one-twelfth going forward for the next decade,
15 assuming we start spending \$3 million a year for our
16 asset management ramp-up program in 2015, and that we
17 maintain a \$10 million annual spending for our south
18 side reclamation plant, assuming those three items, we
19 see the need for a rate adjustment in 2016 and 2018.

20 We have never managed for rating from
21 Standard & Poor's, Fitch or Moody's. The reason for
22 that is the rating agencies, as Mr. Cassidy showed,
23 they want you to have almost a year of cash on hand.
24 That would require staggering rate increases for our
25 customers just to satisfy a particular rating agency.

1 They have always looked at us in terms of board
2 policies, in terms of our water supply and in terms of
3 delivering what we say we're going to do in the future
4 each year. Councillor Jones, Councillor Garduno --
5 I'm sorry, De La Cruz, were with us at this last
6 rating agency presentation and they could attest to
7 the some of the dialog and the feedback we got from
8 the rating agencies.

9 However, we've always tried to manage on the
10 margin, quite frankly, and only go to the ratepayers
11 when absolutely necessary. That has come to roost
12 basically in this last year and the rating agencies
13 have sent a signal saying: You're still highly rated,
14 but you need to shore up a few things going forward if
15 you don't want additional downward pressure on your
16 rating. And I think today, we're still very highly
17 rated. There's nothing to be ashamed of. But going
18 forward, we do see a need unfortunately for rate
19 adjustments into the future.

20 Now, if you ask what's the consequence of
21 not doing it, would it affect our day-to-day
22 operations? Not substantially. However, the deferred
23 maintenance of our capital projects, as Mr. Price
24 showed, would just continue to mount going forward.
25 So we would see more emergencies, more of our capital

1 spending would be shifted to operating expense in
2 terms of emergency repairs with water and sewer line
3 repairs, and more distribution in the roadways and our
4 reserves would continue to decline.

5 At this point we'd be happy to answer any
6 questions. But quickly, let me just give you some
7 comparable, because as we're looking for additional
8 revenues, in your mind you have to be asking the
9 question: Are we bloated in bureaucracy? How do we
10 compare to other utilities?

11 As Frank Roth mentioned earlier, we
12 benchmark ourselves against other water and wastewater
13 utilities in the western United States, serving a
14 population of a half a million plus. When we do that,
15 our water operation maintenance costs are comparable
16 to peers, despite the fact that we're literally
17 operating two water systems. We have a groundwater
18 based system and a surface water based system.

19 On the wastewater side, we're less than our
20 peers, and when we look at our customer water accounts
21 per employee, we're higher than our peers, meaning we
22 manage more accounts than they do. So we're more
23 efficient. And the same holds true on the wastewater
24 side. When we look at our rate structure and how we
25 compare to metropolitan areas in New Mexico and in the

1 region, you can see Santa Fe and Rio Rancho are
2 substantially more than we are today and they have
3 rate increases that they're proposing going forward.
4 Colorado Springs, substantially higher. We're
5 comparable to El Paso and slightly more than Denver
6 and a little bit higher than Phoenix, although Phoenix
7 is highly subsidized.

8 So this is a low water user. When you look
9 at a high water user, the picture is almost the same.
10 The difference is Colorado Springs jumps to the top
11 and Phoenix exceeds El Paso as well as Denver based on
12 their tiered rate structure.

13 At this point, all three of us would be
14 happy to answer any questions you might have. Again,
15 this is for introduction only. There is nothing
16 before you to approve. These rate increases in the
17 future, we do see a need for that if we are to get a
18 better handle on our capital program and maintain our
19 reserves going forward.

20 CHAIRMAN SANCHEZ: Are there any questions?

21 Commissioner De La Cruz.

22 COMMISSIONER DE LA CRUZ: Thank you, Mr.
23 Chairman.

24 Mark, what percentage of the total, if
25 that's the appropriate question, will apply itself to

1 the south side reclamation plant?

2 MR. SANCHEZ: Of the total increase going
3 forward?

4 COMMISSIONER DE LA CRUZ: As projected.

5 MR. SANCHEZ: Well, if you assume \$30 million
6 over the next decade going to additional basic rehab
7 spending, and approximately \$200 million will go to
8 the south side reclamation facility, the lion's share
9 of it is. However, most of that will be bonded; that
10 will not be cash.

11 COMMISSIONER DE LA CRUZ: And that will be
12 within the next decade?

13 MR. SANCHEZ: Oh, yes. If we don't ramp up our
14 spending at the south side reclamation plant and do
15 the improvements that we have planned, we'll see EPA
16 sanctions because we will violate our discharge
17 permit.

18 COMMISSIONER DE LA CRUZ: Can you generally
19 describe the improvements that you're talking about.

20 MR. SANCHEZ: For those of you that have visited
21 the plant, it's literally everything incrementally
22 going forward. We return, on average, 55 million
23 gallons of water a day back to the river, so that's --
24 every time someone flushes the toilet, there's a
25 septage hauler that brings sewage that's pumped from a

1 septic tank. We have to treat all of that and return
2 it to the river. And unfortunately, unlike the water
3 treatment plant that we can turn off, we cannot shut
4 off the sewer treatment plant. There is no way to
5 stop the gravity flow of sewer and returning that to
6 the river. So the consequence of that is permanent
7 exceedances in terms of contaminants to the river,
8 which it's not in our interest to do that, and not in
9 the downstream users' interest of us doing that.

10 COMMISSIONER DE LA CRUZ: Thank you, Mr.
11 Chairman.

12 CHAIRMAN SANCHEZ: Councillor Garduno.

13 COUNCILLOR GARDUNO: Thank you, Mr. Chair. So
14 from your presentation, and I see here the finance
15 plan, spending is proposed for 2012, 2014 '16 and 18,
16 is that correct, at 5 percent?

17 MR. SANCHEZ: Mr. Chairman, Councillor Garduno,
18 that's correct. However, the 2012 and the 2014 are
19 rate increases that have already been approved. 2016
20 and 2018 have not.

21 COUNCILLOR GARDUNO: Right. And you're thinking
22 that that will take care of the need, as it were, that
23 you just described?

24 MR. SANCHEZ: Mr. Chairman, Councillor Garduno,
25 we believe that's the case. And in going forward, the

1 reason you don't see a rate adjustment after 2018 all
2 the way through 2021, if you go back to Mr. Cassidy's
3 graph of our debt service payment over time, as our
4 debt declines, it will provide additional revenue
5 going forward to fortunately help us push out
6 additional rate increases into the future.

7 So we think at this point we could probably
8 go at least four years after 2018 without the need for
9 an additional rate adjustment and spending the \$76
10 million a year and taking care of the south side
11 reclamation plant and maintaining a one-twelfth fund
12 balance, which we need to do.

13 COUNCILLOR GARDUNO: And, Mr. Chair, if I could.

14 So going forward, you feel comfortable that
15 this will take care of it. However, is there any
16 contingency for, heaven forbid, some kind of a
17 catastrophic situation.

18 MR. SANCHEZ: Mr. Chair, Councillor Garduno,
19 yes. It's the rate reserve fund. If you recall, some
20 years ago this board -- and we had that conversation
21 about our conservation efforts, about climate change
22 that could effect our revenues, about the downturn in
23 the economy, so each budget cycle we put in \$2 million
24 in a rate reserve fund which accumulates over time,
25 and that's kind of our rainy-day fund for these

1 emergencies outside of the rate reserve, so outside of
2 our fund balance.

3 COUNCILLOR GARDUNO: Right. And I remember the
4 conversation, but it's not that many years back. So
5 two million a year doesn't accumulate that quickly.
6 Do we know where we're at at this point?

7 MR. SANCHEZ: Well, keep in mind, spent the rate
8 reserve fund to postpone our rate increase to 2012, so
9 today, we would probably have about \$4 million after
10 this budget.

11 COUNCILLOR GARDUNO: But going to 202, we would
12 only have --

13 MR. SANCHEZ: Well, going forward, we don't
14 anticipate using that here, so, you know, if you had a
15 decade of rate reserve fund, that's \$20 million. So
16 that's our contingency plan for a huge swing in some
17 emergency situation.

18 COUNCILLOR GARDUNO: And the hope is that we
19 don't have smaller swings yearly or bi-yearly.

20 MR. SANCHEZ: Correct. And we feel 99 percent
21 confident with the numbers we're presenting to you
22 today. These are not estimates. The assumptions
23 going are forward are that we can maintain or
24 expenditures at no more than 2 percent, even though
25 power, fuel and chemicals are rising exponentially.

1 We still identify and budget efficiencies each year.
2 We are constantly looking in the organize, trying to
3 do things differently and better and cheaper, but as
4 effectively. And we're assuming our revenues, outside
5 of these rate adjustments, are about one and a half
6 percent.

7 COUNCILLOR GARDUNO: And, Mr. Chair.

8 Mr. Sanchez, what worries me is that --
9 these are, I'm sure, solid numbers and based on, you
10 know, not predictable but projections. But if these
11 disasters were to happen, you know, consecutively for
12 five years, where you're needing to spend five
13 million, there goes your 20 million that you had hoped
14 for in reserve that hadn't been accounted for.

15 And what I worry about is that we're getting
16 into the kind of debt that someday, 2020, we're going
17 to have to go to our ratepayers if we don't take care
18 of it now and say, "You know what? We're going to
19 have to ask for 20" -- a la PNM, we're going to have
20 to ask for a 25 percent increase.

21 MR. SANCHEZ: Mr. Chair, Councillor Garduno,
22 actually, it's the opposite. There are many ways to
23 push that debt out into the future. We do not
24 subscribe to that philosophy, we've never recommended
25 that to the board. There's many creative financing

1 techniques that would allow us to not have rate
2 adjustments. But that would in fact push that debt --
3 that mount of debt would grow, it would not decline.
4 And as Mr. Cassidy showed you, our debt is declining,
5 even though we're highly leveraged. And the main
6 reason for that is the San Juan Chama project. We had
7 to borrow \$500 million to bring that project online.
8 But the consequence of not bringing it online would
9 have foregone the equivalent of \$5 billion in water
10 rights and it would not allow us to preserve the
11 aquifer for future drought. I mean, I think we're
12 doing the right thing, but it comes at a cost.

13 COUNCILLOR GARDUNO: Mr. Chair, that brings me
14 to another concern that I have, which is the San Juan
15 Chama project, which is, again, sort of the
16 predictable with present day knowledge.

17 But with future knowledge, that may not be
18 an asset that we can go to if there is a back claim.
19 Is that true?

20 MR. SANCHEZ: Mr. Chairman, Councillor Garduno,
21 I'm not sure I'm following you.

22 COUNCILLOR GARDUNO: Well, if one of these days
23 the Colorado compact says, "You know what, New Mexico,
24 California, Nevada? You're not getting what you used
25 to get," just because that's the way it is, and it

1 doesn't matter what piece of paper we present, it's
2 not going to, you know, stand because there's no
3 water.

4 MR. SANCHEZ: Well, Mr. Chair, Councillor
5 Garduno, I think that will occur at some point in the
6 future. There will be variability in supply. Not
7 because of the compact, just because of the Colorado
8 River. And that's part of the strategy, that we will
9 maximize surface water and minimize groundwater
10 pumping. When that occurs, we will have to pump more.
11 There's no question about that.

12 But to give you the context, the entire
13 Colorado River supplies seven states and about 15
14 million acre feet of water. We have rights to
15 48,200 acre feet. So that's a fraction of 1 percent
16 of that total. New Mexico gets about 11 percent
17 roughly of the upper Colorado as part of that compact.
18 So the compact in and of itself will not have
19 shortages. It's if there's a shortage of Colorado
20 River water due to climate change or variability, then
21 there will be equal sharing of shortages.

22 COUNCILLOR GARDUNO: And percentage of shortage
23 is still referencing the shortage.

24 MR. SANCHEZ: Certainly.

25 COUNCILLOR GARDUNO: It doesn't matter that we

1 have 11 percent, but if we had 11 percent of a bucket
2 and now we have a cup, 11 percent is not that much.

3 MR. SANCHEZ: Mr. Chairman, Councillor Garduno,
4 on the flip side, we're very fortunate that we have
5 two supplies of water for this area that we can use
6 going forward. I think the prudent strategy that we
7 have undertaken is minimizing our pumping, allowing
8 the aquifer to recharge itself, which we've documented
9 by USGS. That is occurring at a pretty rapid clip and
10 because of what we're going.

11 COUNCILLOR GARDUNO: And, Mr. Chair, I promise
12 it's the last statement, question.

13 Which brings us back to earlier discussion
14 about what happens to the groundwater if it's
15 contaminated and we can no longer draw from it and
16 we're in the scenario that I just described?

17 MR. SANCHEZ: Mr. Chair, Councillor Garduno, I
18 assume you're talking about Kirtland Air Force Base.
19 Worst case scenario, this contamination proceeds,
20 contaminates one of the Ridgecrest wells. We either
21 shut that well off, we can treat it at the wellhead;
22 it's not uncommon, there's technology to the that; or
23 we can relocate the well. Those would be the
24 strategies. Now, that one well is not our water
25 supply. It is simply one well and one source of our

1 groundwater portfolio. We move water daily from east
2 to west, north to south. Our system can accommodate
3 that. On average we consume 90 million gallons of
4 water a day. And regardless of variability of wells,
5 that consumption and that production occurs, and that
6 would occur in the future.

7 CHAIRMAN SANCHEZ: Thank you. I have one
8 question regarding the rate increases. We are looking
9 at one in 2013 and that is a 5 percent increase to the
10 ratepayers. And then again now we are looking at 2016
11 and 2018. What is going to be the average dollar
12 amount per ratepayer in those increases if we do go
13 through as a board and request those increases.

14 MR. SANCHEZ: Mr. Chairman, today the average
15 water and sewer bill is about \$45, and that does not
16 include the solid waste component that we bill for
17 with the city. Each increment of 5 percent would be
18 rounding up about \$3. So next year that \$45 average
19 bill would be 48. If the board were to agree with our
20 projections and the needs, in 2016, it would be 51,
21 and in 2018, it would be \$54.

22 CHAIRMAN SANCHEZ: And I have one question for
23 Mr. Cassidy, or Mr. Sanchez, maybe you can answer that
24 question. Looking at the 495.7 million for the San
25 Juan Chama project, we're looking at an average annual

1 rate of 4.63 percent, are any of these bonds callable,
2 and can we get a better rate? Because I know it's a
3 long term bond.

4 MR. SANCHEZ: Mr. Cassidy is probably the better
5 person to answer that.

6 MR. CASSIDY: Mr. Chairman, there is debt that
7 is callable. I think there is one that's option
8 redeemable 2013. We've been monitoring that with your
9 staff. And you can expect, over the next four or five
10 months, we'll come with a recommendation to refinance
11 that. And as other debt becomes callable and it makes
12 sense to do it, we'll also recommend to the board.
13 But we actively monitor for you and happy to share it
14 you need it.

15 CHAIRMAN SANCHEZ: Okay. Thank you.

16 Any other questions?

17 COUNCILLOR GARDUNO: One very quick question.
18 And this is just edification.

19 Storm drain, is that Water Authority or is
20 that city or who does that go to?

21 MR. SANCHEZ: Mr. Chairman, Councillor Garduno,
22 that's City of Albuquerque. The storm system is the
23 City of Albuquerque's. We operate two pump stations
24 on behalf of the city, but the storm drain system, as
25 a whole, is owned and operated by the city.

1 COUNCILLOR GARDUNO: And I know that if you do
2 that -- then are you charging back to the city the
3 cleaning up of that storm drain water, or how does
4 that work?

5 MR. SANCHEZ: Mr. Chairman, Councillor Garduno,
6 that storm drain water does not flow through the south
7 side reclamation facility. It goes directly into the
8 river.

9 COUNCILLOR GARDUNO: That was my concern. Are
10 we ever going to look at that?

11 Thank you, Mr. Chair.

12 CHAIRMAN SANCHEZ: Okay. Let's go ahead and
13 proceed to Item C, WUA R-12-11.

14 Mr. Sanchez, go ahead and proceed.

15 MR. SANCHEZ: Mr. Chairman, I believe we've
16 covered both of those items.

17 CHAIRMAN SANCHEZ: Okay. Next item is Item D,
18 WUA R-12-12, and we have Allan Porter that will make
19 that presentation.

20 MR. PORTER: Mr. Chairman, Members of the Board,
21 this is a presentation of the first reading of a
22 development agreement with the Eagle Vista, Limited
23 Liability Corporation, for water and sewer services
24 for the Eagle Ranch Road apartment complex development
25 Eagle Ranch -- Eagle Vista, LLC, recommend desires a

1 200-unit apartment complex on the site just north of
2 the Eagle Ranch Road and Irving Boulevard intersection
3 this site is located outside the Water Authority's
4 service area. Eagle Vista has requested the water and
5 sewer service from the Water Authority. They have
6 gone through our availability process that is included
7 in the development agreement.

8 The water system to this site will consist
9 of a public extension of non-master planned water, and
10 it will be a private wastewater collection system that
11 discharges to our system in the Eagle Ranch vicinity.
12 The development agreement is required to allow the
13 proposed work to proceed. All costs of required
14 infrastructure will be borne by Eagle Ranch, LLC, and
15 there will be no reimbursement by the Water Authority
16 for the water and sewer infrastructure constructed.
17 All UECs and water supply charges will be imposed on
18 this development.

19 The proposed development agreement outlines
20 the terms and conditions to enable this project to
21 proceed and it is recommended by staff for board
22 approval. Do you have any questions?

23 CHAIRMAN SANCHEZ: Are there any questions?
24 This is to only for introduction, so it will not be
25 voted on this evening.

1 COUNCILLOR GARDUNO: Is that correct?

2 CHAIRMAN SANCHEZ: That's correct. There's no
3 motion.

4 COUNCILLOR GARDUNO: Okay.

5 CHAIRMAN SANCHEZ: Okay. Let's go ahead and
6 proceed to approvals of the consent agenda. There are
7 no consent agenda items this evening.

8 Our next item on the agenda is approvals.
9 And that is WUA R-12-7, adopting the drought
10 management strategy as the Water Authority drought
11 management policy. I move approval.

12 COMMISSIONER DE LA CRUZ: Second.

13 CHAIRMAN SANCHEZ: We have a motion and a
14 second. And to make that presentation will be
15 Katherine Yuhas. Welcome.

16 MS. YUHAS: Thank you, Mr. Chair, Members of the
17 Board. The drought management strategy is being
18 updated tonight for several reasons. And the first is
19 that the original drought management strategy was
20 written when the Utility was a part of the city. And
21 so many of the water use reduction methods that were
22 proposed at that time are not things that the
23 Authority has the ability to enact. Another reason is
24 that the drought management strategy called for an
25 update every five years, so it's timely for us to do

1 it now. We want it to conform with the 2007 water
2 resources management strategy. And, finally, we had
3 droughts in 2006 and 2011 when we used the drought
4 management strategy and we learned things from that,
5 so it's seemed appropriate to move forward with the
6 new strategy.

7 We worked with the customer advisory
8 committee on development of the new drought management
9 strategy starting last fall, and we met with them for
10 a brainstorming session before we ever even wrote
11 anything, and they helped us come up with both the
12 criteria and the water use reduction methods. And
13 then we worked with them again when a draft had been
14 put together and they were very helpful in developing
15 the chart that we've used for the criteria, which you
16 have in your packet.

17 What I would like to say about the two
18 criteria is that by developing two criteria, we have
19 the ability to get our customers involved in being
20 part of the solution of drought management. In the
21 drought management strategy everything that we do to
22 reduce water use during a drought is about getting our
23 customers to use less water, and so it makes sense to
24 have one of the criteria be how well are our customers
25 doing at reducing their usage, are they responding to

1 the message that we're putting out there.

2 The other criteria is to maintain that same
3 environmental criteria that we had previously, which
4 is the criteria of groundwater pumping. And that
5 actually is a more stringent groundwater pumping
6 standard than was in the original drought management
7 strategy. And when you couple those two together on
8 your chart, you can see that, you know, you find where
9 you are in terms of groundwater pumping, you find
10 where you are in terms of GPCD and then you follow
11 that along to figure out what stage we're going to be
12 in.

13 For instance, last year, using the current
14 -- this proposed drought management strategy, we would
15 have been in Stage 1 drought. That is not what we did
16 last year. Last year we never got to Stage 1. Last
17 year we were just in a drought advisory. So this
18 strategy would be a little more stringent than what we
19 did last year.

20 And with that, I'll stand for any questions.

21 CHAIRMAN SANCHEZ: Are there any questions?

22 Commissioner Hart Stebbins.

23 COMMISSIONER HART STEBBINS: Thank you, Mr.

24 Chairman.

25 Ms. Yuhas, I notice that using the criteria

1 on percentage of groundwater pumping goal, that under
2 these new criteria, we wouldn't reach Stage 1, in some
3 cases, until we're more than 140 percent. That
4 doesn't seem as if it puts a lot of emphasis on our
5 groundwater pumping goal. And we talk on this board
6 about the aquifer as our savings account, as water for
7 future generations. Why wasn't there more emphasis
8 put on the rate at which we're pumping out of the
9 aquifer?

10 MS. YUHAS: Mr. Chair, Commissioner Hart
11 Stebbins, this actually puts more emphasis on the rate
12 at which we are pumping water out of the aquifer. We
13 worked with CH2M Hill on developing this criteria, and
14 by using a percentage rather than a flat amount, which
15 is what the old strategy did, this actually links it
16 more tightly.

17 So for instance, if the goal was to pump
18 20,000 acre feet out of the aquifer in a given year,
19 we would have enter drought stages when we got to
20 24,000 acre feet, which is, you know, only 4,000 acre
21 feet more. That's really not that much, given that
22 the old strategy looked at 10,000 acre feet before you
23 went into an additional strategy.

24 COMMISSIONER HART STEBBINS: Thank you. And I
25 appreciate that this is a great improvement over what

1 we have in place now. I think just in terms of moving
2 forward, it seems that you're putting a greater
3 emphasis on the gallons per capita per day than the
4 percentage -- than the pumping goal, how much we're
5 over the pumping goal.

6 Again, it seems that if we're not going to
7 Stage 1 until we're already at 140 percent in some
8 case, that we're not really making as big an effort to
9 protect the aquifer.

10 MS. YUHAS: Mr. Chair, Commissioner Hart
11 Stebbins, I think that this puts them in equal, you
12 know, importance in terms of the response we're
13 getting from our customers. And the reason we
14 included GPCD is because if our customers are doing a
15 great job in terms of reducing their water use and
16 responding to drought, which is what we did see in
17 2006 and 2011, we see that our customers do a00 good
18 job with a conservation message that we get out to
19 them, then we don't to be penalizing them with
20 additional very difficult measures. Some of these
21 things are going to be very hard on our customers if
22 we implement them, and so we want to make sure that
23 we're having a balance.

24 COMMISSIONER HART STEBBINS: So what are the
25 steps? So we go to Stage 1. What does the entail?

1 Do you have that?

2 MS. YUHAS: I do.

3 COMMISSIONER HART STEBBINS: Like Stage 1, Stage
4 2, Stage 3.

5 MS. YUHAS: If you just wait one second. I'm
6 sorry that I don't have that up here.

7 The very first stage is a drought advisory,
8 and if you look on your chart, that's the areas that
9 green. In a drought advisory, we would enter into --
10 no matter what water usage patterns are, a drought
11 advisory is what we did last year, and all that is is
12 raising awareness with our customers. It's switching
13 all of our messaging to look out, it's a drought,
14 reduce the usage, getting that up on the billboards
15 and on TV.

16 We would do that without approval from the
17 board whenever the majority of Bernalillo County is
18 Stage 3 drought. And the reason that stage doesn't
19 require board approval is that we're anxious to get
20 that message out as soon as possible. We don't want
21 to have to wait for a board meeting, we want to get it
22 done.

23 All of the next stages, the drought warning,
24 the drought watch and the drought emergency are all
25 board approved, of course. And the first one, we

1 would be enacting a doubling of water waste fees and
2 we would be offering a Drought Smart class rebate.
3 That would be a \$20 credit on customers's water bills
4 for attending a Drought Smart class. And we are
5 unique among I think all the cities in the nation in
6 having positive measures in place in our drought
7 management strategy for our customers, to give them
8 assistance in doing the right thing during drought.
9 So that's the one that would take place during a
10 drought warning.

11 As we move to the next drought stage, we
12 would add more measures that are mandatory to this
13 list. The first of those would be doubling the
14 surcharges. Now, the surcharges are what a customer
15 gets on their water bill when they're using more than
16 their winter average. And so those are going to go up
17 and that's going to be pretty hard on our customers.
18 We would also change the time-of-day watering
19 restrictions. Right now, they're 11:00 to 7:00. That
20 would change from 9:00 a.m. to 9:00 p.m., no watering
21 during those time periods.

22 We would also stop offering variances to the
23 time-of-day watering restriction. The time-of-day
24 watering restrictions can have a variance if you are
25 installing sod or reseeding. Of course during a

1 drought, it's not appropriate top sod or reseed, so we
2 wouldn't offer a variance except for athletic fields,
3 and that would be for the public schools and for the
4 parks department, and we've talked with them about
5 that variance. We have someone from the public
6 schools on our customer advisory committee.

7 And finally, we would be distributing
8 low-flow showerheads to our customers and advocating
9 five-minute showers. And that's the positive
10 incentive for them at that level.

11 Finally, when we get to a drought emergency,
12 we would be tripling surcharges. Yeah, I hope we
13 don't get to a drought emergency. I hope we don't
14 have to do that. And we would be reducing the
15 mandatory day-of-the-week watering restrictions by one
16 day per week. So for instance, if we're in July,
17 normally you could water three days per week in July,
18 we would only allow you two days per week.

19 And finally, the positive incentive in a
20 drought emergency is we would have a 20 percent
21 reduction rebate. And that would be structured for
22 our customers so they could sign up to voluntarily
23 reduce their usage by 20 percent and get some amount
24 of rebate. The exact structure of that rebate program
25 would depend on when it was enacted, you know, what

1 time of year and how we would base that in terms of,
2 you know, how much they needed to reduce and compared
3 to what period and the amount of the money we'd give
4 them.

5 CHAIRMAN SANCHEZ: Commissioner De La Cruz.

6 COMMISSIONER DE LA CRUZ: Thank you, Mr.
7 Chairman.

8 Ms. Yuhas, this is a program that clearly
9 affects the public. How was the public allowed to be
10 involved and helped develop this, or at least to
11 review it?

12 MS. YUHAS: Mr. Chair, Commissioner De La Cruz,
13 we put out a public notice before the last board
14 meeting, in March, to let our customers know. This
15 has been on our website for months now. It was
16 advertised as part of the customer advisory committee
17 meetings and we did have members of the public attend
18 those meetings when the board was hearing -- when the
19 committee, I should say, was hearing those, and
20 members of the public participated in those
21 discussions.

22 COMMISSIONER DE LA CRUZ: And so with the ideas
23 that you received, were any implemented?

24 MS. YUHAS: Mr. Chair, Commissioner De La Cruz,
25 most of what you see here is a result of input from

1 the customer advisory committee at their meetings.
2 Much of this was developed by them. That whole chart
3 that you see of the drought stage criteria, that was
4 put together at a meeting. I didn't even draw it. It
5 was a member of the committee who did it. So, really,
6 this has been a very collaborative process for us.

7 COMMISSIONER DE LA CRUZ: Thank you, Mr.
8 Chairman.

9 CHAIRMAN SANCHEZ: Thank you.
10 Councillor Garduno.

11 COUNCILLOR GARDUNO: Thank you, Mr. Chair.

12 Ms. Yuhas, I want to compliment the entire
13 community in the service area for doing a lot of what
14 you have asked folks to do, and I think it's done
15 things. But it's one of those things where it's kind
16 of double-edged sword, I guess. The more we conserve,
17 the less money we bring in, the less money we have to
18 pay the debt we've just been talking about.

19 So, I mean, I certainly would not, you know,
20 encourage folks to not conserve because we need money,
21 but how are we going to, you know, come to that nexus
22 of those two things?

23 MS. YUHAS: Mr. Chairman, Councillor Garduno,
24 you have asked a really big question of me with that
25 one. Certainly, there needs to be a balance in terms

1 of water usage. And one of the things we looked at
2 with the drought management strategy is that during
3 drought, we are trying to manage not just the river or
4 not just the aquifer but the aquifer, the river and
5 our entire community and the needs of the people here.
6 We have enormous infrastructure that people have put
7 money into. We have parks, we have landscaping, we
8 have people who want to turn on their swamp coolers so
9 they're not too hot. And we need to be able to
10 provide at some level for all of that. And this tries
11 top take that into account in addition to maintaining
12 the environmental issues also.

13 COUNCILLOR GARDUNO: Thank you. What about
14 shorter showers, but more expensive? That's something
15 that sort of the bothers me, because I don't know --
16 you know, I certainly want to encourage all of us to
17 conserve, but maybe the -- instead of 5 percent, it
18 will have to go to higher percentage.

19 I don't know, Mr. Sanchez, if you want to
20 even entertain that thought. Thank you.

21 CHAIRMAN SANCHEZ: Let's go ahead and proceed.
22 I mean, that will be a policy decision if there's a
23 rate increase.

24 We have a motion and second on the floor to
25 adopt WUA R-12-7. All those in favor, signify by

1 saying yes.

2 ALL MEMBERS: Yes.

3 CHAIRMAN SANCHEZ: Opposed, no.

4 That carries unanimously.

5 (7-0 vote. Agenda Item 9 approved.)

6 CHAIRMAN SANCHEZ: Thank you, Ms. Yuhas.

7 Next item is other business. The first item
8 is the Kirtland Air Force Base jet fuel spill
9 remediation status report, and to give that report
10 will be Colonel Connelly.

11 Welcome, sir. Go ahead and proceed.

12 COLONEL CONNELLY: Mr. Chair, Members of the
13 Board, thank you for having us tonight.
14 Unfortunately, I am here to talk about fuel on the
15 aquifer which originated from Kirtland Air Force Base.
16 But I'm also here to tell you that the Air Force is
17 taking full responsibility for this. And I'm also
18 here to tell you that we're getting after it and
19 taking measures to get it cleaned up.

20 So on my first chart -- and what really
21 brings me here, I think what you requested me to come
22 here for is to brief you the results of our fourth
23 quarter round of sampling in our groundwater and our
24 soil vapor concentration wells. But I'm going to
25 focus on the results of the groundwater monitoring

1 right now.

2 And the first chart you see is a map of the
3 EDB plume, ethylene dibromide, which is the
4 constituent that goes into solution and stays in
5 solution and travels away from the origin of the fuel
6 spill seemingly the longest. On this is chart you can
7 see the horizontal line on the map going horizontally
8 across the middle of the map. That Gibson Boulevard,
9 just to orient you. And then to the south of that is
10 the neighborhood Siesta Hills. Then it continues
11 south across Bullhead Park. And then you can see the
12 darker line there, boundary of Kirtland Air Force
13 Base. And as you can see, the plume then extends
14 about three blocks north of Gibson Boulevard. So I
15 just wanted to orient you to what you were looking at
16 on the map. And you are seeing the extend of EDB that
17 is registering above the maximum contaminant limit of
18 .05 micrograms per liter, or parts per billion.

19 The lighter blue dots are locations of our
20 groundwater monitoring wells. And then the dots that
21 are black with the yellow ring inside them represent
22 monitoring wells where we've actually seen raw fuel,
23 fuel in its liquid form, floating on the surface of
24 the aquifer in the fourth quarter, in the shallow
25 wells. So that's what this chart is.

1 CHAIRMAN SANCHEZ: Let's go ahead and proceed.

2 Councillor Garduno, did you have a question?

3 COUNCILLOR GARDUNO: I have a question, because
4 I don't know if I'm oriented or if I heard you wrong.
5 But did you say the diagonal line is Gibson?

6 COLONEL CONNELLY: The horizontal line, sir, is
7 Gibson.

8 COUNCILLOR GARDUNO: At the very bottom. Okay.
9 Thank you.

10 COLONEL CONNELLY: The horizontal line going
11 across the middle of the chart, straight across the
12 mid way of the chart is Gibson.

13 One more time on this, on this chart. In
14 each of these light blue dots, in most of those light
15 blue dots, you're seeing a location where there are
16 actually three wells, a shallow well, which is at the
17 surface of the water table, an intermediate well,
18 which is about 15 feet deeper than the shallow well,
19 and then a deep well, which is about 50 feet into the
20 aquifer itself. So there are three wells at most of
21 those locations. You're seeing the results of the
22 shallow here.

23 The next slide is the results of the
24 intermediate wells. Those, about 15 feet below the
25 surface of the aquifer. We're showing you also the

1 EDB concentrations we're seeing in the intermediate
2 level there. The outermost line just outside the
3 shading area represents the maximum contaminant limit
4 observed for EDB in the intermediate level.

5 And then continuing on to the deep wells,
6 there are only two deep wells, and those are the light
7 blue dots you see, one on either side of Gibson Avenue
8 that had any EDB at all detected.

9 So with EDBs not the only thing down there,
10 of course, we have raw fuel and the constituents of
11 the raw fuel. What this map shows you, and it doesn't
12 show you very well because we've got everything
13 overlaying on it all at once, but we have, of course,
14 all the BTEX compounds, benzene, ethylene, toluene,
15 xylene. And those are all referenced there, but the
16 key to those compounds is that it appears to us that
17 micro degradation, bio degradation is occurring, and
18 so we're not seeing those constituents travel as far
19 from the original fuel site as EDB. So we think
20 biodegradation is acting to be keep those constituents
21 contained.

22 We also put total petroleum hydrocarbons in
23 the gasoline range organics and the diesel range
24 organics on there, the GRO and DRO. Those are not
25 regulated. Those have no standards. But we like to

1 test for them because they're indicators that -- if
2 you find a TPH, DRO or GRO, it tells you you better be
3 testing in this location for your constituents of
4 concern, your benzene, your tolulene, your xylene.
5 And by the way, we did test at all of those locations
6 for those constituents of concern and they are
7 reporting as you see here.

8 In every lotion where we found the TPH DRO
9 and GRO, we did not find BTEX in every one of those
10 locations. So it's just and indicator for us. And we
11 don't find it everywhere we find those items.

12 I want to call your attention to the big,
13 huge green blob to the northwest of the fuel area. We
14 suspected that was a data anomaly in our fourth
15 quarter sampling. Took a peek at the first quater
16 sampling and we were right, it does not show up in our
17 first quarter sampling. So you can essentially
18 disregard that big ugly green blob there.

19 So this chart sort of ties everything we're
20 doing together. We have the characterization
21 activities that we've undertaken with the 78
22 groundwater wells, additional soil vapor wells. We're
23 doing direct push technique sampling along our former
24 fuel offloading rack. So all along the lines that
25 were leaking, we've taken soil samples. And we've

1 also done some new log well testing. It's a
2 proprietary method of characterizing subsurface soil
3 vapor in greater measure than just regular soil vapor
4 monitoring.

5 Of course you also know we're doing
6 additional groundwater wells for EDB testing. And
7 this all goes into the evaluation phase. All this
8 stuff is feeding back to us. All the while we're
9 evaluating these characterization efforts, and along
10 the bottom, while we're doing this characterization,
11 we're still doing some initial treatment. And we have
12 been doing some initial treatment for years. It isn't
13 as robust as I know laypersons would want us to do,
14 and for me, I can't wait to get after this stuff.
15 I've been here since July of 2010 and I'm amazed at
16 the progress I've seen since I've been here. I'm
17 excited about the technologies we're getting ready to
18 put in place and to start sucking some of this fuel
19 out of the ground.

20 And it's all aiming at the final remedy.
21 Our goal here is to come up with a final design to --
22 the final long term design to get this stuff out of
23 the groundwater and prevent drinking water well
24 contamination, which so far we've done.

25 Looking at the path forward, we are getting

1 ready to install three -- additional monitoring wells
2 at three locations in the sort of northeastern portion
3 of the plume area. Because you can see our fourth
4 quarter reveals that there's a data gap, because this
5 thing is going to the northeast and then all of a
6 sudden, it stops. We've got to know what else is
7 going on up there. So to do that, we asked the New
8 Mexico Environment Department to install three
9 additional wells at those locations. You can see two
10 on either side of Louisiana and one near or our
11 Kirtland Air Force Base Well Number 3.

12 The New Mexico Environment Department agreed
13 that that was a good idea, and they said, in fact,
14 "Why don't you drill three wells at each location,
15 shallow, intermediate and deep." We completely agree
16 with that because it will us reveal the presence of a
17 phenomenon known as a plunging plume. But I don't
18 care about the reason. It's prudent and we're going
19 to do it.

20 And we're going to allow the data from those
21 wells to help us figure out what we do next, more
22 wells, let us figure out where we're going to put
23 those wells. So we're going to continue our
24 characterization efforts. We're also going to
25 continue our remediation efforts and we're going to

1 continue working with the New Mexico Environment
2 Department on an iterative approach to get this thing
3 characterized. All the while, we're pressing ahead
4 with our remediation efforts.

5 In fact, we just recently installed -- okay.
6 So I just talked about the installation of the
7 additional monitoring wells. We're going to start
8 that drilling by mid June. We are just drilled two
9 soil vapor extraction wells right in sort of the sweet
10 spot of the fuel plume on Kirtland Air Force Base. We
11 hit the area of highest soil vapor concentration,
12 which also corresponds to the highest levels of raw
13 fuel on the water table that we've seen. And we're
14 going to start running those soil vapor extraction
15 units on Monday.

16 We're also working toward a very robust soil
17 vapor extraction unit, so we're going to put those
18 engines that we've had running for quite some years
19 back on on Monday. By the fall, and we're hoping to
20 do it earlier, we're going to have a newly designed,
21 more robust soil vapor extraction system pulling a
22 greater amount of fuel out of the ground right there
23 at that location.

24 And then finally, we're going to start our
25 soil excavations here pretty quick that our sampling

1 revealed where we need to dig up the soil and treat
2 it, along our old fuel offloading rack.

3 So with that, Mr. Chair, I will entertain
4 questions.

5 CHAIRMAN SANCHEZ: Are there any questions?
6 Commissioner Hart Stebbins.

7 COMMISSIONER HART STEBBINS: Thank you, Mr.
8 Chairman.

9 And thank you for being tonight to share
10 this information with us. I was recently looking at
11 the contract that Kirtland has with Shaw
12 Environmental. And I understand that's a performance
13 based contract.

14 COLONEL CONNELLY: Mr. Chair, Commissioner Hart
15 Stebbins, yes, it is.

16 COMMISSIONER HART STEBBINS: Okay. And at least
17 the draft that I saw, the one that was online,
18 contained a number of benchmarks, and some at a year.
19 And I guess I'm not really clear what the date was for
20 notice to proceed. Can you tell me that?

21 COLONEL CONNELLY: Mr. Chair, Commissioner Hart
22 Stebbins, it was 30 September of 2010.

23 COMMISSIONER HART STEBBINS: So one of the
24 benchmarks, one of the performance measurements was at
25 one year there would be a complete installation of

1 interim measures to contain the NAPL footprint so it
2 doesn't expand or move. So that would have been due
3 by September of 2011. Do you feel that Shaw has met
4 that goal.

5 COLONEL CONNELLY: Mr. Chair, Commissioner Hart
6 Stebbins, the Air Force submitted a work plan in
7 November of 2010 to do just that, to the New Mexico
8 Environment Department. In response to some of their
9 comments, we modified that plan in July of 2011, and
10 have actually yet to receive approval to do that. But
11 it is KK there's reason for it. There are technical
12 reasons for it, which we've actually only recently
13 come to fully understand. And we need to allow our
14 soil vapor extraction results to sort of tell us
15 whether that's the next prudent approach or not.
16 Because it is thought that this very robust SVE unit
17 we're going to install hopefully before the fall will
18 start changing the dynamics of this fuel plume
19 immediately and dramatically, potentially negating the
20 need for that, which would alleviate that contractor
21 of that requirement by direction of the regulating
22 agency.

23 COMMISSIONER HART STEBBINS: Okay. Thank you.
24 So if you were to describe the containment plan as it
25 exists, you've got a new well that's been drilled,

1 you're saying it's going to go online Monday, is that
2 the extent of the existing -- what you would refer to
3 as an initial treatment plan? Is that sort of what's
4 in place now for the NAPL?

5 COLONEL CONNELLY: Commissioner Hart Stebbins,
6 yes. That would -- that would -- when they start
7 operating on Monday, they would be the extent right
8 now of that. It isn't the extent of everything we've
9 ever done.

10 COMMISSIONER HART STEBBINS: I understand. And
11 then you've got the more robust, the more powerful SVE
12 unit that would be coming in in the fall sometime.
13 And would that be implemented in the fall? Is that
14 the plan? Is it that would actually begin drawling
15 out the fuel sometime in the fall of 2012?

16 COLONEL CONNELLY: Yes, ma'am, absolutely.

17 COMMISSIONER HART STEBBINS: Okay. Great. And
18 then I wanted to just switch to the dissolve phase
19 question. And I know that's the one that has sort of
20 recently been in the -- been given a lot of attention.
21 What is the plan? So I know that right now you're in
22 the phase where you're still characterizing that.
23 You've had a discussion, you're going to install some
24 new monitoring wells. Is there any talk about the
25 containment plan? I mean, right now it looks from

1 your data that it's within about 3300 feet of our
2 closest well, and not really clear actually the
3 extent, right? So right now you know that it has gone
4 at least that far, but do you have a well that has
5 come up clean yet, where you can actually say we know
6 it has not reached this point?

7 COLONEL CONNELLY: Mr. Chair, Commissioner Hart
8 Stebbins, we thought we did. In the north, along --
9 you'll see just to the very north of that plume,
10 there's a well at Florida and Anderson. That's clean
11 right now for EDB. But that doesn't help us because
12 it doesn't look like that's the direction of travel.
13 So the answer is no, ma'am, we need to get some in the
14 ground to help be our sentries. We need to know in
15 those locations identified where -- whether there's
16 EDB present or not.

17 Now, there are different theories on what
18 this EDB is doing. It clearly is going into solution
19 and migrating away from the site. We don't know at
20 what rate it's doing that. If it does, it should be
21 traveling at the speed of travel of the regional
22 groundwater movement. We don't know if it -- once it
23 gets out there, does it somehow become static? We
24 don't know those things and we need to find that out.

25 COMMISSIONER HART STEBBINS: Great. Thank you.

1 And, Mr. Chairman, just one more question.

2 Has there been discussion of an interim
3 containment plan for the dissolve phase, so EDB
4 specifically?

5 COLONEL CONNELLY: Mr. Chair, Commissioner Hart
6 Stebbins, yes. That's LNAPL containment system you've
7 heard. And essentially the theory is that you place
8 this extraction well at the toe, of the historic
9 northern toe of that observed liquid NAPL product, and
10 you get those water flow nets coming into that well
11 thereby catching anything that's going into solution
12 from that liquid phase fuel and up the well.

13 But there are lots of catches with that.
14 What do you do with the water? What does that do to
15 the liquid fuel sitting behind it? Does it make it
16 start moving? There's some evidence that it could do
17 that. So that's why we're going to work with NMED
18 before we implement that. We're going to look at the
19 results of the soil vapor extraction and see what it
20 does to this thing, and then we'll let the data advise
21 us on when and if we start -- we implement that
22 containment system.

23 COMMISSIONER HART STEBBINS: Okay. Thank you.
24 Bus as far as the product, the fuel constituents that
25 have already dissolved into the groundwater, are there

1 strategies for that kind of remediation or an interim
2 plan for addressing that, or is it really going to be
3 at this point keeping more from getting into the
4 groundwater?

5 COLONEL CONNELLY: You mean removing it?

6 COMMISSIONER HART STEBBINS: Right. Or what
7 you've described, if you can stop the spread of the
8 plume it's going to hopefully slow the spread of the
9 EDB.

10 COLONEL CONNELLY: Mr. Chair, Commissioner Hart
11 Stebbins, it's -- there's no plan to actually go in
12 and remove the dissolve constituents. The plan is run
13 these SVEs and slow the rate at which the dissolve
14 contaminants dissolve and go into solution.

15 COMMISSIONER HART STEBBINS: Thank you very
16 much.

17 COLONEL CONNELLY: Thank you, ma'am.

18 CHAIRMAN SANCHEZ: Councillor Garduno.

19 COUNCILLOR GARDUNO: Thank you, Mr. Chair.

20 Thank you -- for some reason I can't
21 remember if it's colonel.

22 COLONEL CONNELLY: Yes, sir.

23 COUNCILLOR GARDUNO: Colonel Connelly, thank you
24 for being here. Looking at not -- I think it's your
25 last -- it's your last slide, there's kind of a time

1 -- well, not a timeline, but an explanation of when
2 things might happen. What bothers me is that the SVE
3 unit installation says fall 2012, but it's design in
4 progress. Does that mean that it's going to be
5 finished by then or it's going to take till then to
6 design it, or it may take longer than that?

7 COLONEL CONNELLY: Mr. Chair, Councillor
8 Garduno, that is our -- that is our target, to have it
9 in place and running.

10 COUNCILLOR GARDUNO: So if it's not ready by
11 then, again, we won't be extracting anything until
12 that happens?

13 COLONEL CONNELLY: We will actually. We have --
14 beginning Monday, this coming Monday, the 23rd, we are
15 going to put those soil vapor extraction unit --
16 internal combustion engine unites on our two soil
17 vapor extraction wells we've dug.

18 The difference between the running of the
19 soil vapor extraction units in the past to now is that
20 those soil vapor extraction units have been sitting on
21 top of just monitoring wells trying to pull fumes out
22 of the ground. Monitoring wells were not meant for
23 that; they were never built and designed to do that.
24 So it wasn't very efficient. We weren't really doing
25 as good a job as we could. So we dug these two new

1 ones, like I said, in the sweet spot and we designed
2 them specifically for this eventual large scale soil
3 vapor extraction system. So now, by putting these
4 internal combustion engine unites back on those two
5 new wells, until we get the big robust one in place,
6 we're still going to be pulling product. And our
7 estimate we should be able to pull about 200 gallons a
8 day per well with those internal combustion engine
9 units. So starting Monday, we're expecting 400-ish
10 gallons a day coming out of the ground.

11 COUNCILLOR GARDUNO: I don't know how quick my
12 math is, but that's about 60 or 70 years at that rate.

13 COLONEL CONNELLY: Again, sir, it's an interim
14 measure. We're going to put this big one on. We're
15 hoping to bump that up to about 1,000 gallons a day
16 and then have a look at what the fuel plume is doing,
17 how that effects the fuel plume. And then, again,
18 this is another -- the key to this is that this
19 especially is an iterative approach. This could be
20 part of the final remedy, we don't know yet. But one
21 thing is for sure, it's an interim measure to start
22 pulling things out of the ground.

23 But if it proves to be really successful,
24 we'll start looking at other areas around it that have
25 also high concentrations of soil vapor and maybe punch

1 some new wells. But we've just got to let the data
2 tell us what's going on there. And we'll work with
3 NMED and we'll start doing that. So this is -- I
4 don't think this is anywhere near close to the final
5 remedy, sir.

6 COUNCILLOR GARDUNO: Mr. Chair.

7 Colonel Connelly, fall 2012 is what we just
8 talked about. But then if you come down to the next
9 column, horizontal column, it says summer 2012 is soil
10 excavation. So you're going to start soil excavation
11 this summer.

12 COLONEL CONNELLY: Mr. Chair, Councilman
13 Garduno, yes, we are. We've already done some soil
14 excavation in the immediate vicinity of the fuel
15 offloading rack, but now we've sampled along those old
16 lines and found out where we had leaking lines and we
17 have high concentrations of soil vapor by using those
18 push soil testing methodologies, and where we had
19 those hits, we're going to dig it up and we're going
20 to do that this summer.

21 COUNCILLOR GARDUNO: And, Mr. Chair.

22 This is complete soil excavation; in other
23 words, you're going to go trench and remove all that
24 soil?

25 COLONEL CONNELLY: That is correct.

1 COUNCILLOR GARDUNO: And how far out into the
2 city, or just stay within base?

3 COLONEL CONNELLY: Mr. Chair, Councilman
4 Garduno, no, no. This is strictly within the confines
5 -- it's all on base and it's strictly within the
6 confines of along those lines where the old fuel lines
7 were from our previous system.

8 COUNCILLOR GARDUNO: So just in that vicinity?

9 COLONEL CONNELLY: Yes, sir. Yes.

10 COUNCILLOR GARDUNO: And then I wanted to ask
11 also about why aren't we removing liquid fuel?

12 COLONEL CONNELLY: Mr. Chairman, Councilman
13 Garduno, we -- by removing -- when you say why aren't
14 we removing liquid fuel, if you're referring to
15 sticking a well down there and starting to pump fuel
16 out, to do that, you've got to pump a lot of water
17 out. It's called pump and treat. And the technology
18 shows and the experience of the New Mexico Environment
19 Department and its difficult bureaus have shown that
20 it doesn't work very well.

21 The way to do it is to start drawing as much
22 vapor out as you can because you need to coax that raw
23 fuel to essentially turn into vapor so it will come
24 out. And there are methodologies by which we pump it
25 real hard and leave it sit for a second and let it all

1 build back up, and then we pump it real hard again.
2 You know, we're creating a vacuum and we're coaxing it
3 out of it's liquid form into its gas form, and the
4 technology is such that it removes thousands of
5 gallons in short order.

6 Clearly, there -- I mean, it's estimated
7 there are millions of gallons down there, so, again,
8 this is the interim measure. We don't know what the
9 final remedy is going to be here, but our regulator
10 prefers the SVE, we prefer the SVE because we're just
11 going to get better results. The fuel is coming out
12 of the ground quicker, and, frankly, with less other
13 effects like, you know, discharge problems and
14 contaminated water problems coming up out of the
15 ground. This doesn't have all those problems and it
16 removes a lot more fuels. So this is the method we
17 prefer and we think we're on the right track.

18 COUNCILLOR GARDUNO: At what depths are you
19 doing this, do you know?

20 COLONEL CONNELLY: Yes. These wells were
21 drilled clear to the water table, because the fuel
22 sitting on the --

23 COUNCILLOR GARDUNO: So 500, 500 feet.

24 COLONEL CONNELLY: Yes, that's correct.

25 COUNCILLOR GARDUNO: Are there any pump that can

1 do that, can draw from that depth? I was told that
2 250 is pushing any kind of pump.

3 COLONEL CONNELLY: Well, Mr. Chairman,
4 Councillor Garduno, your drinking water wells are
5 drilled far deeper than that, and they're pumping --

6 COUNCILLOR GARDUNO: No, no. For doing what you
7 want to do, do we have the technology and the soil
8 vapor extraction pumps that can do that, they can draw
9 from that far --

10 COLONEL CONNELLY: Oh, we absolutely do.
11 Absolutely. And in fact, as we -- it's essentially
12 going to be one big system that's going to be plumbed
13 to these different wells, and it's -- just to give you
14 an idea, it's going to move ten times the air that
15 just those internal combustion engine SVE units will
16 move. So it moves an incredible amount of air through
17 that unsaturated zone, which is pretty porous, and it
18 allows for the capture of those vapors to be brought
19 to the surface and treated.

20 COUNCILLOR GARDUNO: Now, from other
21 presentations, and I think I've heard it recently,
22 that a couple of the Kirtland Air Force Base water
23 wells, water supply wells were shut off. Is that
24 true? Do we know?

25 COLONEL CONNELLY: Mr. Chairman, Councilman

1 Garduno, it's -- none of our wells are shut off as a
2 result of this, as a result of the bulk fuel plume.

3 COUNCILLOR GARDUNO: So you're still drawing
4 from 1 and 3.

5 COLONEL CONNELLY: We are.

6 COUNCILLOR GARDUNO: Aren't they in the --

7 COLONEL CONNELLY: I may need to correct the
8 record.

9 UNIDENTIFIED AUDIENCE MEMBER: The closest wells
10 are 3, 14 and 15.

11 COLONEL CONNELLY: Have we shut any down?

12 UNIDENTIFIED AUDIENCE MEMBER: 1 and 3 failed.
13 They're 50-year-old wells and we shut them down years
14 ago.

15 COLONEL CONNELLY: So I do not need to stand
16 corrected. So no wells were shut off as a result of
17 this fuel spill. Three is the one closest to it and
18 it, so far, is a non-detect for any constituents.

19 COUNCILLOR GARDUNO: All right. Another thing
20 is I wanted to say thank you for being at that meeting
21 last night at Cesar Chavez. The thing that was
22 disappointing to me was that only ten minutes was
23 allowed for questions, and I don't think people had an
24 opportunity to really ask the questions they wanted.
25 So I was wondering if we could someday separate DOE

1 and Kirtland Air Force Base presentation so that, you
2 know, more time would be allowed for questions.
3 Because I think the community was disappointed,
4 understandably, that they didn't have the time to ask
5 some fairly pointed questions, I think, and some
6 questions that needed to be asked.

7 COLONEL CONNELLY: Mr. Chairman, Councilman
8 Garduno, you're not the first one I've heard that
9 from. Your point is taken, sir. And we do allow for
10 our citizens advisory board meetings to focus pretty
11 much exclusively on this subject, which are held
12 quarterly. But I take your point, sir.

13 COUNCILLOR GARDUNO: And then, Mr. Chair.

14 Colonel, did you say that NMED has not
15 approved some of permits that you've asked for?

16 COLONEL CONNELLY: They've not approved some of
17 our work plans, sir.

18 COUNCILLOR GARDUNO: So is that holding you up?

19 COLONEL CONNELLY: Mr. Chairman, Councilman
20 Garduno, no. We discussed the issue of the
21 containment system and we understand NMED's
22 methodology in delaying us from doing that. They want
23 the SVE units to do their thing and they want to see
24 what the plume does in response to those. It's
25 expected the plume is going to -- the plume is going

1 to react very quickly to this. We expect some wells
2 on the periphery will start coming up below the MCLs.
3 I mean, it's just conjecture but we think the plume
4 may contract some. That's the theory. We're just
5 going to wait and see what happens.

6 If after we've seen the results of the soil
7 vapor extraction activity that we -- that it would be
8 prudent to install a containment system to halt the
9 migration of EDB from the plume, then that's something
10 we'll work with the NMED to address at that point.

11 COUNCILLOR GARDUNO: And your plans have in
12 them?

13 COLONEL CONNELLY: They do. Actually, sir, that
14 extraction well is already dug, it's already
15 installed. New Mexico Environment Department has
16 given us the go-ahead to perform what's called
17 enhanced well development on that, which will allow us
18 to examine the porosity of the surrounding strata so
19 we know how much water we're going to be able to pull
20 out of that thing.

21 So although they haven't said, no, you're
22 not doing it, and they said, no, you're not going to
23 turn it on, they haven't said you're not doing it all.
24 They've allowed us to proceed so that if and when that
25 decision eventually comes, that well is going to be

1 ready immediately to turn on and start doing its
2 thing.

3 COUNCILLOR GARDUNO: Mr. Chair.

4 Colonel, do you think NMED understands the
5 gravity of this situation?

6 COLONEL CONNELLY: Mr. Chairman, Councilman
7 Garduno, I do. There's no question in my mind they
8 understand the gravity of this thing.

9 COUNCILLOR GARDUNO: Why would they not, I
10 wonder -- this is the conjecture on my part, and I
11 know that things don't happen in minute, especially in
12 government, but why would they not okay a plan they
13 would think would work to do something that is
14 absolutely necessary right now, not in a while or when
15 bureaucrats get a chance to look at plans, but right
16 now? We've heard, and I think you would agree,
17 estimates of eight million gallons, concerns that this
18 may not be able to be taken care of at the speed that
19 it's being dealt with, and concerns that if we don't
20 act, that we may be at a tipping point, at a place
21 where there's no turning back. Those Ridgecrest wells
22 will have to be closed off.

23 And i know that I asked the director and he
24 assured us that if they were closed off that we still
25 had plenty of other straws in the aquifer, but it

1 seems to me that's not good science. And if this is
2 the biggest fuel spill in the country, not in the area
3 or in the last ten years, but in the country ever, I
4 would like that the Air Force would be putting every
5 single effort into making this and going somewhere
6 else, maybe EPA, to move NMED off the dime.

7 Thank you, Mr. Chair.

8 Thank you, Colonel.

9 CHAIRMAN SANCHEZ: There's still another
10 question, Colonel.

11 Commissioner Hart Stebbins.

12 COMMISSIONER HART STEBBINS: Thank you, and I
13 apologize. First I wanted to say thank you, really my
14 sincere thanks, and I think from all of the board, for
15 being here tonight, and for Kirtland's addressing our
16 concerns. I think you have taken our concerns very
17 seriously, and Tom Berardinelli has always been very
18 responsive whenever we have a concern, a question, and
19 I think that we all feel that we are partners with you
20 in this. We share the same concerns, we share the
21 same goal, and it's certainly my intent to be as
22 supportive as possible. And you have always included
23 us at the table as a stakeholder when you're making
24 decisions about where to go next and I really
25 appreciate that.

1 And at this point you include our staff at
2 the technical committee meetings. But I also
3 understand that you have what you call a tiger team
4 where you are making some technical decisions before
5 they get to the technical committee. Would it be
6 possible for our staff to be a part of that tiger
7 team, to be part of those discussions on, you know,
8 which way this is going to go?

9 COLONEL CONNELLY: Mr. Chairman, Commissioner
10 Hart Stebbins, that tiger team -- actually, the word
11 tiger team I believe is Secretary Martin's term. It
12 is NMED's tiger team with us. Don't know if that's
13 possible, but we will certainly raise that issue with
14 the New Mexico Environment Department and see what
15 they think.

16 COMMISSIONER HART STEBBINS: Well, thank you for
17 clarifying that. And I'll raise with the secretary as
18 well. So thanks again for being here.

19 Thank you, Mr. Chairman.

20 CHAIRMAN SANCHEZ: Thank you.

21 Thank you, Colonel, for your time.

22 COLONEL CONNELLY: Thank you.

23 CHAIRMAN SANCHEZ: Next item is Item B, the new
24 water conservation goal. And to make that brief
25 presentation will be Katherine Yuhas.

1 MS. YUHAS: Mr. Chair, Members of the Board, I
2 heard that, brief presentation. Okay.

3 As you know from last month, we reached our
4 goal of 150 gallons per person, per day, and so now
5 we're in the process of figuring out what we'd like to
6 do for the next ten years.

7 And so for the next three months, I'll be
8 meeting with various stakeholder groups and getting
9 lots of input on where we want to go from here, what
10 do we to conserve for, how do we want to conserve,
11 what should the goal be, and I'll be analyzing those
12 approaches and putting together some presentations for
13 the public, along with surveys for the public to
14 complete.

15 Then we'll be holding public meetings from
16 July through December, district coalitions,
17 neighborhoods. We'll be having something online for
18 customers who can't get to a meeting. We'll have some
19 focus groups. All of that to generate the final
20 presentation at a town hall meeting next spring. From
21 that town hall meeting, we'll develop a conservation
22 plan for the next ten years and I will bring it to you
23 all sometime next spring for approval.

24 CHAIRMAN SANCHEZ: I wasn't expecting it to be
25 that brief.

1 Are there any questions?

2 Thank you, Ms. Yuhas.

3 Next item is the water loss, the non-revenue
4 water presentation, and to make that presentation will
5 be Angelique Maldonado.

6 Welcome.

7 MS. MALDONADO: Thank you. Mr. Chair, Members
8 of the Board, my name is Angelique Maldonado. I am
9 the research analyst for the Water Authority. And I'm
10 going to be talking about our water balance and our
11 water audit in relation to non-revenue water. I'm
12 sure you all have heard the term "unaccounted-for
13 water," which is the way that we used to gauge, or at
14 least it was a performance indicator for our
15 infrastructure efficiency. And recently we have
16 merged away from that and we are focusing a little
17 more on the non-revenue water. It's a little more of
18 an appropriate term and indicator.

19 So in terms of a water balance or water
20 budget, they're typically done on large scale,
21 according to a specific watershed. This water budget
22 and water audit is more focused on our distribution
23 system. It still takes into account inputs and
24 outputs. So to narrow the scope, we're going to focus
25 on our drinking water resource inventory, which is

1 focusing on our well fields and our San Juan Chama
2 water.

3 So a little bit of history so you can be a
4 little bit more reassured that non-revenue water is
5 not something completely new that has not been tested.
6 In 1990, the United Kingdom developed and applied
7 these new policies and practices, which lead to
8 leakage reduction. Between '97 and 2000, and
9 International Water Association, in conjunction with
10 the American Water Works Association established the
11 best management practices for watering auditing
12 methodology. In 2003, the water loss control
13 committee advocated the use of this methodology in the
14 Journal of AWWA. Then in 2010 established their own
15 software that walks you through and outlines the
16 process of the water auditing methodology.

17 So performance indicators, the reason why we
18 went away from unaccounted-for water, it was only
19 based on two numbers, production and consumption, only
20 focusing on metered use. So there was a lot of margin
21 for estimating leakage and estimating numbers along
22 those lines, quantifying volumes that were just based
23 in large on estimates. So that was proven to be
24 obsolete and reliable and imprecise, and AWWA touches
25 on a form of gamesmanship where it reflect poorly on

1 the water industries, where underestimate those leaks
2 can be detrimental to your system. So non-revenue
3 water is a more elaborate approach where they take
4 into account into apparent and real losses. Apparent
5 losses would be more on the line of metering and
6 accuracy data issues, or real losses, which are
7 physical losses, leaks and like breaks. And then it
8 also takes into account unbilled meter volumes and
9 unbilled unmetered volumes.

10 So to look at our production, you can see
11 here that we're focusing on our system totals for
12 groundwater production and drinking water production.
13 So I've just included 2010 and 2011 numbers here
14 because we just employed the 2010 numbers with the new
15 water auditing software.

16 Billed meter consumption, you can see that
17 there's a little bit of a difference in footprint.
18 2010, the explanation there was that was when we took
19 New Mexico Utilities under our wing and incorporated
20 all of those service points, so there was a little bit
21 of a jump in billing and then it kind of stabilized
22 and went back to our normal footprint.

23 So unbilled meter consumption focuses on
24 authorized usage where -- where we're allocating it
25 with arsenic treatment, surface water treatment, high

1 hydrant flushing, pressure reduction whenever they're
2 going to work on a line, where they have to reduce the
3 pressure and turn on a hydrant, reservoir storage and
4 also reservoir drainage.

5 The graph here is just illustrating our well
6 wash. Every time we turn on one of our wells, it has
7 a run time to prime the pump, so there is an amount of
8 water that gets lost for operational purposes. So
9 even though it's non-revenue, it's still for
10 operational purposes.

11 Billed unmetered is going to focus on
12 customer billing inaccuracies, estimated accounts and
13 stocked meters. Unbilled unmetered is broken into the
14 two categories, which is authorized and unauthorized.
15 Authorized, we're focusing on firefighting, which is
16 on the order of -- well, at least in 2010, it was on
17 the order of 136 million gallons. And in 2011, it was
18 192 million gallons. And this is -- these modest
19 estimates, and really not even so much an estimate.
20 The way that we calculated these numbers were based on
21 the water audit methodology and their manual for loss
22 control programs.

23 Field operations, that would be considered
24 authorized, unbilled, unmetered, would be in the event
25 that we did have to open up a fire hydrant and we

1 didn't put a meter on to meter the line. Unauthorized
2 would be theft, unreliable customer meter reads, meter
3 tampering, illegal use of hydrants, misuse of fire
4 lines, or employing a bypass on your meter.

5 So our water losses, as I said before are
6 broken down into apparent loses, which include theft,
7 metering inaccuracies and data handling errors. Real
8 loses are leaks and overflows, et cetera. So this is
9 going to give you a little idea of our loss prevention
10 and leak detection, where we focus on our metaloid
11 pipes and age of pipe, and then we also look at our
12 distribution failures in terms of line breaks and
13 leaks.

14 So this is the spreadsheet that is the
15 output from the water auditing methodology. So this
16 is from 2010 and it focuses on a kind of top-to-bottom
17 approach. So if you look in the left column, with out
18 own sources, it's going to focus on our drinking water
19 source, groundwater and surface water, and then it
20 starts to break it down in large by revenue water and
21 non-revenue water. And you can see how it gives us
22 the ability to parse out the volumes of data that are
23 known. So it's not so much like 14 percent
24 unaccounted for water.

25 So you can see here that in going through

1 the process and incorporating all our metered use,
2 unmetered use and real losses and apparent losses, our
3 non-revenue water was down to 6.5 percent of
4 production, which is very good. In 2010, when the
5 AWWA put this software out, they invited us to
6 participate in statistical analysis and a survey where
7 we benefit because they validate our data. So it's
8 validated by a third party, and just that reassurance.

9 So 2011, the numbers similar from the
10 top-to-bottom approach. You can see here that our
11 non-revenue water did increase a little. It's at 8.2
12 percent, and mostly that is attributed to real loses
13 and apparent loses. And the real losses, which is
14 kind of encouraging, is that the real losses actually
15 decreased, but the apparent losses increased. So my
16 explanation for that is there is a little bit of lag
17 time when it comes to billing data. And in the event
18 there was a discrepancy on a customer meter reading
19 bill and they call it in, we verify, validate the
20 numbers, and if we have to go back and rebill, then if
21 it was our error and we overcharged, then we take the
22 loss. So that is where those metering inaccuracies or
23 billing inaccuracies come into play.

24 So long term, because the water audit
25 actually is not something that's just cut and dry, you

1 know, done January 1st, it actually takes time, it's
2 an ongoing process, but it's just a reassurance that
3 we're taking the initiative to provide stewardship so
4 you can see and quantify the values and the volumes of
5 water and how we're applying them, and a little bit
6 more reassurance that it's not so much of
7 unaccounted-for water of 14 percent.

8 So that's the pepped of my presentation.
9 Any questions.

10 CHAIRMAN SANCHEZ: Are there any questions?
11 Councillor Garduno.

12 COUNCILLOR GARDUNO: Thank you, Mr. Chair.
13 And maybe both of you can answer this. I
14 notice that you had fire hydrants or firefighting.
15 What kind of water are we using in fire hydrants
16 these?

17 MS. MALDONADO: The firefighting --

18 COUNCILLOR GARDUNO: I mean, is it potable water
19 or is it --

20 MS. MALDONADO: OH, it's potable water. We do
21 have some reuse hydrants that they use for just
22 strictly reuse purposes, but that's separate from our
23 distribution system.

24 COUNCILLOR GARDUNO: So I don't know, Mr.
25 Sanchez, is that an area that we ought to look at?

1 Because I can't imagine -- I don't know what the
2 gallons of use it is, but if it's potable water, it
3 seems to me like nonpotable water would put out a fire
4 just as well.

5 MR. SANCHEZ: Mr. Chairman, Councillor Garduno,
6 I would agree, however, we have over 15,000 fire
7 hydrants. So piping nonpotable water to those
8 hydrants would be quite expensive and take quite a
9 long time.

10 COUNCILLOR GARDUNO: Right. But there must be
11 some distribution points that could be interrupted,
12 you know, and go to a fire hydrant as opposed to, I
13 don't know, residential, you know, commercial use.

14 I just -- you know, all the time that I've
15 been on the water board, that has been a nagging
16 question for me, why do we use absolutely pristine
17 water to put out a fire. And I don't know where we go
18 with it, but it's a question.

19 MR. SANCHEZ: I think we see more of the reuse
20 in our future in terms of parks and open space, and I
21 think the logical extension of that would be
22 evaluating some segment for firefighting as well.

23 COUNCILLOR GARDUNO: Thank you.

24 Thank you, Mr. Chair.

25 CHAIRMAN SANCHEZ: And I have one quick question

1 regarding the non-revenue water from 2010 to 2011.
2 That went from 6.52 percent to 8.22 percent. How do
3 we compare to other parts of the country?

4 COUNCILLOR O'MALLEY: Regionally, other systems
5 that are participating in this methodology
6 specifically, they're on the order of 12 to
7 15 percent, so -- comparable to the system our size.
8 So we're going really well, we're doing really well.
9 And on a high note, when we had the third-party
10 validation, AWWA was pretty impressed with our rates
11 because they were regionally low, significantly low.

12 CHAIRMAN SANCHEZ: Do we have any other
13 questions for Ms. Maldonado?

14 Thank you very much for your presentation.

15 MS. MALDONADO: Thank you.

16 CHAIRMAN SANCHEZ: If there's no further
17 business before this Water Authority, this meeting is
18 adjourned.

19 (Proceedings adjourned at 7:38 a.m.)
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1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

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