ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY
Wednesday, March 22, 2017 5:05 p.m.

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

Before: Paul Baca
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

COUNCILOR KLARISSA PEÑA, Chair
COMMISSIONER DEBBIE O'MALLEY, Vice Chair, Excused
COUNCILOR PAT DAVIS, Member, Excused
COUNCILOR TRUDY E. JONES, Member
COMMISSIONER MAGGIE HART STEBBINS, Member
COMMISSIONER WAYNE JOHNSON, Member
MAYOR RICHARD J. BERRY, Member
TRUSTEE PABLO RAEL, Ex-Officio Member
MR. ROB PERRY, Admin. Officer, Alternate Member, Excused

CHAIRWOMAN PENA: Thank you, everyone. I call this March 22, 2017 meeting of the Albuquerque Bernalillo County Water Utility Authority to order.

Let the record reflect that Commissioner Debbie O'Malley, Councilor Pat Davis and Mr. Rob Perry, are excused. All other members are present.

Next item we have is the invocation, Pledge of Allegiance. Moment of violence and the Pledge of Allegiance led by Commissioner Johnson.

(Whereupon, there was a moment of silence.)

(Whereupon, the Pledge of Allegiance was led by Commissioner Wayne A. Johnson.)

CHAIRWOMAN PENA: Next item we have is the approval of the minutes. I make a motion to approve the January 25, 2017 minutes. Is there a second?

COMMISSIONER JOHNSON: Second.

CHAIRWOMAN PENA: There is a second on the floor. All those in favor say yes, please.

ALL MEMBERS: Yes.

CHAIRWOMAN PENA: Opposed, no.

Motion passes.

(5/0 Vote. Agenda Item 3 approved. Commissioner Debbie O'Malley, Councilor Pat Davis and Mr. Rob Perry not present for vote.)

CHAIRWOMAN PENA: Next items is proclamations and awards. We have the NACWA2017 Public Information and Education Award that is going to be presented by Ms. Katherine Yuhas.

MS. YUHAS: Madam Chair, Members of the Board, it is my privilege tonight to be here with Jack from our puppet show. He has been the star of the shows since we started him. He is wearing a little hat here that says Save 2, that is to remind all our customers to save two gallons of water per person per day.

We are here tonight to present this award from National Association of Clean Water agencies. It is the second award our education program has gotten this year. And this one is specifically for the conservation education program. So, thank you very much for your support of our programs for the education.

CHAIRWOMAN PENA: That is great, thank you. Thank you, Ms. Yuhas.

Councilor Jones.

COUNCILOR JONES: Ms. Yuhas, it is always fun to see you. You bring great friends with you and you are always entertaining. Thank you for everything do you for us.

MS. YUHAS: Thank you.

CHAIRWOMAN PENA: Thank you, Ms. Yuhas.

The next item we have is Item B, U.S. Water Prize Submittal Video. Mr. David Morris.

MR. MORRIS: Thank you very much, Madam Chair, Members of the Board. Of course, you're quite familiar with the Water 2120 Resource Management Strategy, which the Board approved last year.

To better inform the public and stakeholders about water 2120, we made it the featured element in our 2016 annual report which just came out, and we also produced the video about the plan which we will be posting in You Tube bearing on Gov TV and we have submitted in support of the Water Authority's candidacy for the 2017 U.S. Water Lands Water Price.

This prize is considered the preeminent national recognition program for sustainability efforts in the water arena.

So if technology will cooperate, I know we have been down this road before, but if technology will cooperate we would like to play the video for you now. And if it doesn't, we have a copy of the video for you on a little jump drive that is in your

packet along with some annual reports for your use. All right. Here we go.

(Whereupon a video was shown.)

MR. MORRIS: So thank you for your patience. If you have any questions I will be happy to try to answer them or if you have Water 2120 questions, we can bring up the subject matter expert on that.

CHAIRWOMAN PENA: Anybody? Councilor Jones.

COUNCILOR JONES: Not a question, but well done. Well done to all of you and David and Katherine and the entire company, Water Utility Authority. Thank you very much. This is something to be proud of.

MR. MORRIS: Thank you very much. I appreciate it.

CHAIRWOMAN PENA: Any other questions? If not, I just want to say congratulations, what an outstanding video. I want to compliment you, Mark, for really being a great leader and having the vision to have surrounded yourself with some even greater people that know how to accomplish this to really be able to regenerate the aquifer and, you know, for us to be at the place we are with the

issues that we have nationwide is pretty outstanding. So thank you.

Next item we have is public comment. Ms. Jenkins, how many people do we have signed up to speak.

MS. JENKINS: We have three.

CHAIRWOMAN PENA: Call the first speaker, please.

MS. JENKINS: Jennifer Thatcher followed by Elaine Hubbard.

MS. THATCHER: Hello, Jennifer Thatcher, chair of the Water Protection Advisory Board. I would like to read a letter from our Board in recognition of significant progress for corrective action activities at the Kirtland Air Force Base site.

For the last several years the Water Protection Advisory Board has been monitoring the status of corrective action activities for the Kirtland Air Force Base, bulk fuels facilities leak site. It's been the observation of the Water Protection Advisory Board members that over the last two years and specifically since in the involvement of the Air Force Civil Engineering Center, the Air Force has made great improvements in its cleanup

efforts. Of particular note is the seemingly use of extraction wells to capture the plume which is the closest threat to the Water Authority's Ridgequest well fields.

Water Protection Advisory Board members anticipate even greater progress once well planned extraction wells are in operation. The membership is also encouraged by the planned deployment later this year of additional technologies for mitigation of concentrated contamination and aquifer and the deep soil below the base. With this said the Kirtland Air Force Base BFF leak site remains the top priority for the Water Protection Advisory Board.

Members encourage continued steady engagement by the New Mexico Environment Department and the Air Force with stakeholders and local leaders on this critical effort to eliminate the threat to Albuquerque's drinking water supply.

Thank you.

CHAIRWOMAN PENA: Thank you.

MS. JENKINS: Elaine Hubbard followed by Tad Niemyjski.

MS. HUBBARD: My name is Elaine Hubbard and happy World Water Day. Actually it is great

following what Jennifer Thatcher was talking about because it is wastewater. And, of course, there is way too many things on the agenda for me to cover, so if I sound critical I don't mean to be it is that I have to shrink my comments into a really short sound byte.

I always try to make suggestions to improve the water utility. So today I would like to talk about something that I have talked about many times before, which are goals and objectives.

The memo says that the Water Authority established five-year goals in 2005, perhaps it is time, 12 years later, to relook at them.

The Water Authority uses the American Waterworks Association's benchmarking performance indicators for water and wastewater for its goals. It also uses effective utility management tools.

And those have been -- they were created in 2007 but they have been updated in 2016. My suggestion is that there be a presentation for your consideration on these new goals and objectives that are being presented by the federal -- the national groups.

Linking the goals and their objectives and evaluating them as a part of this process, do they

achieve the mission? Do they incorporate the aspirations of the ratepayers as expressed in the customer surveys? Are they helping us to achieve resiliency? What are the measurable metrics to show this? And I have -- the graphic here is to show that -- how those things between mission, goals, objectives, strategies all fit together, because I think it helps.

Again, I think that looking at the EPA's moving to our sustained ability, sustainable and effective practices for creating your water or utility roadmap would be a good presentation for the Board to consider. How does the Board know that success has been reached? On the agenda today is a second quarter report, performance report, but it says it is not actually linked to any specific objective. So how about having a report back on whether or not the objectives are actually met.

There should be metrics with those objectives. For example, there is Goal 1, Objective 6 to evaluate the project's progress. Well, that is nice but what are the metrics to evaluate or to show resilience.

Finally, the goals and objectives budget says that these are to be coordinated with the City

and the County governments, so in order to adopt the goals and objectives process that encourages active citizen participation, please make a process that encourages and sets these goals with the City and County as well.

Thank you.

MS. JENKINS: Tad Niemyjski.

MR. NIEMYJSKI: Thank you.

My name is Tad Niemyjski. Well, I have got many questions. For example, financing, self-financing and off Central Avenue associated with Central Art projects beginning 2015, 2016, and now 2017, especially like Broadway and First Street then Broadway and Central, of course, and even now First Street so all of this right here you can walk and see downtown.

So, anyway, that let's not forget about the UNM area has been dug out for a long time. Also Old Town, too, the water, sewer, storm, arroyo which is not your arroyo. Water from that arroyo flowing this direction to the river.

So, I would like to know, I would like to have some information about billing by TLC in Albuquerque underground.

Well, 2020, of course, it is around the

corner. You have been very quick, time goes fast. So, anyway, those are my many questions. I hope somebody can give me answer. I don't see -- Mayor Richard Berry is not present today or maybe too busy. It looks like three members missing. Anyway, that is all I got to say.

Thank you.

CHAIRWOMAN PENA: Thank you. Is that the last of the speakers? Thank you, I appreciate that.

The next item we have Announcements and Communication.

Next scheduled meeting is April 19 at 5:00 p.m. in the Vincent E. Griego chambers.

Now we are on introductions of legislation, so we have Item A, R-17-5 establishing one-year objectives for the Water Authority in fiscal year 2018 to meet five-year goals.

All right. Mr. Frank Roth.

MR. ROTH: Thank you, Madam Chair, Members of the Board. In front of you today for introduction is the FY18 goals and objectives.

The goals and objectives are a major component of the utility's strategic planning and budgeting improvement process. It helps guide and develop the operating budget which will be

introduced at the April meeting.

So part of these goals and objectives in the development of the budget, we rely on the performance plan, the American Waterworks Benchmarking Program and the EPA Effective Utility Management. With all of this hard data we also obtained an input from our customers through customer opinion surveys, our Advisory Committee and more recently our customer conversation, which you saw in the video, those engagement sessions which deal with hot important topics or issues that the utility is facing. We obtained, understand the customer's expectations through these meetings but also integrate the employees performance accountability through our employee expectations. All of this to hopeful fulfill the mission of the utility.

On this slide you will see the five-year goals. These -- under these goals we develop the guiding goal statements. These are longterm out of desired outcomes that we want to achieve in the longterm in each of these goal areas. And to measure our progress in each goal area, we have these key performance indicators that help evaluate our performance in each goal area. We rely on --

not only do we measure our performance every year, but we also benchmark our performance against other leading utilities. It is through this process of benchmarking and performance assessment that we identify performance gaps in operations and service delivery. We address those performance gaps through the budget process by allocating and prioritizing resources through these one-year objectives which relate to the performance measures, effective utility management, but also through the performance assessment that we conduct on every year.

There is 56 objectives in FY18. As I mentioned, that incorporate areas and improvement for benchmarking, also integrate through the performance plan but also the development and also the implementation of plans and programs. Some of these objectives are carryovers from this current fiscal year, whether it is setting targets that we established this year that we want to improve for FY18 or the projects that we want to continue implementing in the next phase.

I will cover just a few of these objectives, some of the key objectives in each of these goal areas. Looking at the water supply operations goal, you will see there are several

objectives related to operation improvement. They deal with planned maintenance activities and this is to improve or enhance or plan maintenance so that we reduce corrective maintenance over time which is more costly and also to reduce those catastrophic failures that we might see at our facilities or water rights.

As you saw in the video and as David Morris mentioned, this governing Board adopted the water 2120 last fall, and in FY18 we plan on beginning the implementation of that plan. We also began operation of the large scale aquifers and storage recovery project which is also located at the surface water plant.

In the wastewater collection operations goal, you will see other -- many operation objectives related to planned maintenance activities as well. This is dealing with our collection system and our wastewater treatment plant. Specifically at our wastewater treatment plant we have, as in the past, to continue implementation of our asset management plan, to continue the major rehabilitation and replacement of critical facilities at that plant.

In the customer service goal, as I have

mentioned, we have targets that we want to achieve. We set up those targets in this current fiscal year and we plan to continue to achieve certain targets at our call center operations.

We are going to be implementing Project Roundup to assist families who are having difficulty paying their bills which allow customers to safely round up their utility bill to the nearest dollar which will go towards these families.

We will continue with our customer conversation meetings that focus on important topics and issues that the utility is facing. But in addition to these meetings, we will conduct additional outreach meetings, site tours and activities that engage and educate our legislators and neighborhoods about services, policies or critical infrastructure projects in those areas.

We will implement Phase 5 of the automated meter infrastructure project to replace those old meters with smart meters. I think the target at the end of the year is to have 50 percent of our meters on AMI. This will help the utility be more efficient but also help our customers be more effective in their water use.

In the business planning and management

goal we have several objectives related around asset management.

You can see our CIP target where we want to spend on the renewal projects and this governing Board adopted in 2011 the Comprehensive Asset Management Plan we update that plan in FY18.

We will finalize our odor control measures at the wastewater plant and do some sidewalk improvements in landscaping as well along Second Street.

We will also conduct a water supply charge evaluation looking at different methodology for this charge. A few more objectives in this goal area include infra -- information technology systems. This is our billing system, work order system, where upgrading them to help us to be more efficient in our operations but also want to get more mobile technology into the hands of our employees so they can have the information at their fingertips to make better decision-making.

In 2011 we completed a pharmaceuticals and personal care studies project study. We will update this in FY18 and we have some targets around compliance ordinance as well. And in the last goal area is organizational development. We are going to

maintain the 5 percent vacancy rate to ensure that we have all of those employees working on these objectives but also reduce our injury hours. In fact, over the last ten years we have seen a 90 percent reduction n injury hours.

In 2015 we conducted our first ever employee engagement and satisfaction survey where we learn from the employees' point of view how we are doing at many of our areas but also give suggestions on areas of improvement. And over the last couple of years we have been working on those areas of improvement and will be conducting the second survey this fall to see where, if we make improvements into those areas.

And lastly we will continue to update our knowledge management strategy to make sure that we transfer knowledge from those employees who are retiring to those who will succeed them.

Any questions?

CHAIRWOMAN PENA: Thank you. Any questions? Commissioner Hart Stebbins.

COMMISSIONER HART STEBBINS: Thank you, Madam Chair. So I understand that there have been some additions made that might answer some of the questions that were raised during the legislative

session this year about outreach, better work on the odor control in the South Valley, so I saw those two in here. I understood there was also going to be something about funding, that is putting together a funding plan for the areas of the Valley that have not yet been served by the Valley Utilities Project. Is that here?

MR. ROTH: Correct. That is what we call the Los Padillas water system which is the South Valley drinking water project A7B, I think is the official name. We are going to try to coordinate and obtain some funding to complete that last segment of the South Valley drinking water project in terms of that portion of the South Valley down to where I-25 loops down and heads into the reservation.

COMMISSIONER HART STEBBINS: All right. So those have been added to the short-term, long-term goals?

MR. ROTH: Correct.

COMMISSIONER HART STEBBINS: And then in approving these, what entities had a chance to look at this Water Protection Advisory Board, TCAC, who -- any of our advisory boards have the opportunity to review this?

MR. ROTH: Yes. At the last Technical Customer Advisory meeting they looked at these objectives. They looked at a draft as we were still developing at the time, but for the most part will be presented at the Advisory Committee is very similar here.

COMMISSIONER HART STEBBINS: Was there any feedback from TCAC on these?

MR. ROTH: They were just very impressed with our work and making progress, especially in the planned maintenance. I hear that from -- not only from our advisory members but members of the public. They really understand the concept of planned maintenance and really improving reliabilities is the key topic that comes down, those types of discussions.

COMMISSIONER HART STEBBINS: Thank you. Thank you, Madam Chair.

CHAIRWOMAN PENA: Thank you, Commissioner. Thank you, Mr. Roth.

The next item we have is Item B, R-17-6, Authorizing an agreement for water and sewer service with Buglo Properties, LLC, for Paradise View Universal Apartments. Chris Cadena.

MR. CADENA: Madam Chair, Members of the

Board, I would like to make an introduction for development agreement entitled The Paradise Universal Apartments. Essentially a 12-unit apartment complex located east of Unser just on the south side of Pueblo Avenue. The reason we are coming for a development agreement is because it is located outside of the adopted service area but within the City of Albuquerque. The developer will be responsible for extending public water, public sanitary sewer as well as paying utility expansion charges and the water supply charges as well.

CHAIRWOMAN PENA: Thank you. Any questions?

Okay. Thank you. The next item we have Item C, R-17-7, Approving an amendment to the adopted operating budget of the Water Authority for the fiscal year ending June 30, 2017. Stan Alarid.

MR. ALARID: Madam Chair, Members of the Board. Jeff, was the first reading for amendment to the operating budget. It is a $1.5 million of the increased chemicals, 900,000 is for odor control throughout our system, and the other 600,000 is for treatment at our water treatment plan.

There is sufficient revenues in this year's operating budget to cover that additional

incorporation. We just need enough as we continue to wrap up the water treatment plant and try to control the odors across the City to get to that level. I stand for any questions.

CHAIRWOMAN PENA: Any questions? I just have one, Stan. With the reconstruction and realignment over there off of Central and Yucca, are we expected to have some significant reductions? I know you're still going to have to use chemicals, are we going to have any significant reduction in chemicals?

MR. ALARID: Madam Chair, Members of the Board, I am not an engineer in charge of that, but there will be significant reductions in the odors in that area. There will be significant reductions in chemicals in that area as well. I also say with this resolution is that this will be enough sufficient appropriation to carry until fiscal year 2018 without us requesting additional appropriations for chemicals in the next fiscal year budget.

CHAIRWOMAN PENA: Great. Thank you, Stan and stick around. Item D, R-17-8, Approving an amendment to the approved capital implementation program Water Authority for fiscal year ending June 30, 2017.

MR. ALARID: Madam Chair, Members of the Board, this is an amendment to our capital program to appropriate an additional $5 million primarily for the ASR project. Funding for that project was -- came from a State grant/loan and an additional bond borrowing that closed in January. This allows us to go ahead and go into contract work with the vendor and start this project. It gives us authority to spend for this project. And then there is also additional monies that -- to complete the maximals upgrade. Maximals are work order system for all our assets. It is going to assist us in further developing and defining our asset management program in the future, and then we had some -- it allows us to also incorporation for some critical equipment that is needed at the water quality lab that we needed to replace.

I stand for any questions.

CHAIRWOMAN PENA: Thank you, Stan. Any questions? Commissioner Hart Stebbins.

COMMISSIONER HART STEBBINS: So if I understood you correctly this is money that was not anticipated that has been added to the capital budget?

MR. ALARID: Madam Chair, Commissioner

Hart Stebbins and Members of the Board, it is an additional appropriation. So we didn't have an appropriation, so we don't have authority to spend the money on this project. So what we are asking for is an appropriation to begin this project. It was not appropriated in the FY17 original budget. I didn't think at that point in time we knew it was going to continue and how much the ASR project would cost for the large scale. We did find funding to do that project, so as we got the funding we now have come to the Board to appropriate to allow us to spend to complete this project.

COMMISSIONER HART STEBBINS: Was it in the capital plan?

MR. ALARID: Madam Chair, Members of the Board, it was not in the original capital plan. It was a project that came to us that we based on 2010, the water strategy was one of those things that we wanted to kind of complete and move forward with.

COMMISSIONER HART STEBBINS: So I guess my question is, if it wasn't in the existing plan is there going to be something that is delayed because of this spending, anything that was prioritized and we have a plan.

MR. ALARID: Madam Chair, Members of the

Board, this is an additional appropriation. There will be no deferments or anything of any other projects in the capital plan. This is just in addition to the plan. We have found additional funding to fund that plan.

COMMISSIONER HART STEBBINS: All right. Thank you. Thank you, Madam Chair.

CHAIRWOMAN PENA: The next item we have the Consent Agenda. There are three items I can read them all, but if not, if you have had the opportunity they are in your packets, I would ask for a motion.

COMMISSIONER HART STEBBINS: I move approval.

COMMISSIONER JOHNSON: Second.

CHAIRWOMAN PENA: We have a motion and a second. I will -- all those in favor say yes.

ALL MEMBERS: Yes.

CHAIRWOMAN PENA: Opposed, no.

Motion passes.

(5/0 Vote. Agenda Item 8 approved. Commissioner Debbie O'Malley, Councilor Pat Davis and Mr. Rob Perry were not present for vote.)

CHAIRWOMAN PENA: The next item is Approvals. So we have Item A, R-17-4, authorizing a

Memorandum of Agreement for watershed management with a major conservancy Katherine Yuhas and Laura McCarthy. Thank you.

MS. McCARTHY: Madam Chair, and Members of the Board, I am Laura McCarthy. You have met me in the video, so I will just go ahead and dive right in.

Beginning with the 2120 plan and focusing in on watershed management in particular, which we consider to be an insurance policy for the places that are our water sources. And at the bottom of this slide you can see Policy J which is in the 2120 plan and what I will be talking about is the context for why that policy is needed.

It is key to remember that protecting and restoring the watersheds of the San Juan-Chama and the Rio Grande has roots back in the things that happen on the land starting with fire and this, of course, is the Las Conchas fire on the day that it burned 43,000 acres in 14 hours.

So that is the threat. This is what it left behind, and the problem was when it rained just average size rainstorms on this burned area we ended up with massive debris flows in multiple watersheds and the bottom image there on the right showing a

sediment plug at the confluence of Cochiti Canyon and Land Canyon with the Rio Grande that is 70 feet of sediment that moved downstream in -- after two afternoons of rain. Cochiti reservoir the next day and it is not just a onetime problem. This photo was taken in Peralta Canyon three years after the fire, so the sediment keeps moving.

We don't want that to happen in our San Juan-Chama watersheds and in the upper Rio Grande in the places that are most important from a water source protection perspective.

And in 2012 before the plan was -- the 2120 plan was created we formed the Rio Grande Water Fund first as a concept to bring people together both from the upstream headwaters and the downstream water users of all sorts to work together to restore the headwater forests at a significant scale, at the size of impact that could actually make a difference in the case of another Las Conchas fire.

We have been overwhelmed by the interest in this collaborative solution. We formed a charter, we now have 57, 58 signatories. They keep getting added, two that are not shown here that might be of interest are the Bureau of Reclamation and the Trust for Public Lands. You can see just

incredible diversity of types of organizations and agencies that want to be part of a collective solution.

Starting last year we did a deep dive science analytical project looking at the Blanco and Navajo basins, the San Juan-Chama project basins and this was also collaborative with a number of partners. We looked at susceptibility to fires and human values at risk with water supply being the key value. And having now done this analysis, we have a proposal for actual restoration treatments in fiscal year 2018 and you can see them shown on this map. They are all in high priority locations.

This set of projects are all on private lands. And if you will look at where it says Rio Blanco and there are four circles, there is a lot of Forest Service land around that and they are actively working now on their NEPA clearances so that in 2019 we will also be able to restore the watershed across all boundaries not just private lands but also on to the public lands.

In this chart you can see where we have framed out the specific places for investment and the funding amount, the amount of funding that would be leveraged, the project management and monitoring

costs, and there is a total that is bigger than we would expect the Water Authority to pitch in and, in fact, the -- this exact same package of treatments has been shared with the Middle Rio Grande Conservancy District, which is also going through a process similar to yours and considered looking at including funding in their FY18 budget.

So, with that I think I will turn it to Katherine.

MS. YUHAS: Madam Chair, Members of the Board, first I would like to thank the Nature Conservancy for bringing together such a diverse group of partners to create the Rio Grande Water Fund and do the good science that is backing up the need for these incredibly important projects.

The Memorandum of Agreement before you tonight commits the Water Authority to providing $200,000 to the Rio Grande Water Fund each year for the next five years. We will have a seat on the executive board and be a part of making decisions on how these funds are spent.

And also I would like to offer to you that if any of you are interested in going on a field trip to see some of these projects on the ground, Laura and I would be happy to make those

arrangements. And with that we will both stand for any questions that you have.

CHAIRWOMAN PENA: Councilor Jones.

COUNCILOR JONES: Thank you, Madam Chair. I want to thank you for doing this. This is a very, very important project, and I can speak to that from personal experience. My husband and I used to own a cabin in Las Conchas Canyon and it was devastating, devastating to see what happens. Luckily no human life was lost, but it is a beautiful -- was a beautiful part of our state, both private and public lands that are devastated. I have pictures if anybody would like to see what it looked like a week afterwards. It is an unbelievably amazingly strong act of nature what this can do.

So thank you for some thought in trying to prevent this happening in other communities. Thank you very much.

CHAIRWOMAN PENA: Commissioner Hart Stebbins.

COMMISSIONER HART STEBBINS: Thank you, Madam Chair. Laura, I just want to thank you for all the work you have put into this. I know it is a multiyear -- I don't know when it was that you started, I know it's been several years since you

and I talked about this and I think it is just monumental that you have been able to bring together all of these different partners, all parts of our community. So, thank you for that.

I have to -- this is amazingly exciting. I think when you and I first met it seemed like a long way off. So, again, I just want to thank you for your work. I want to thank our Water Authority staff for looking into this and recognizing its importance, putting it in the hundred-year water plan. And, again, I thought this was something that I wasn't sure that I would ever see that the Water Authority would make this investment. So thanks to all of you.

CHAIRWOMAN PENA: Thank you. With that I will make a motion to accept -- to approve R-17-4.

COMMISSIONER HART STEBBINS: Second.

CHAIRWOMAN PENA: Motion and a second. All those in favor say yes.

ALL MEMBERS: Yes.

CHAIRWOMAN PENA: Opposed, no.

Motion passes.

(5/0 Vote. Agenda Item 9A approved. Commissioner Debbie O'Malley, Councilor Pat Davis and Mr. Rob Perry were not present for vote.)

CHAIRWOMAN PENA: Next item we have is Item B, C-17-4, FY2017 second quarter performance indicator report. Mr. Frank Roth.

MR. ROTH: Madam Chair, Members of the Board, in front of you is a snapshot of the utility's performance. These are categories of stakeholder interest so that they can easily gauge the utility's performance in these key areas.

These indicators, as I've mentioned earlier, are developed through the benchmarking and performance assessments, linked to the performance plan, our surveys, affected utility management. These indicators represent a fiscal year to date through the second quarter. You will see that of the 23 indicators, 14 are on target and nine of the 23 are still a work in progress, but at this point none of our targets are not at risk of being not met. I will answer any questions.

CHAIRWOMAN PENA: No questions. Thank you, Mr. Roth.

So next item -- we have to approve that. I make a motion to accept C-17-4. Is there --

COMMISSIONER JOHNSON: Second.

CHAIRWOMAN PENA: All those in favor say yes.

ALL MEMBERS: Yes.

CHAIRWOMAN PENA: Opposed, no.

Motion passes.

(5/0 Vote. Agenda Item 9B approved. Commissioner Debbie O'Malley, Councilor Pat Davis and Mr. Rob Perry not present for vote.)

CHAIRWOMAN PENA: Next item we have is C-17-7, FY2017 second quarter operating financial reports. Mr. Stan Alarid. It is scary when I am reading an agenda item and by the time I look up the person is standing there.

MR. ALARID: Madam Chairman, Members of the Board, before you is the second quarter financials. It is basically a quick snapshot of our dashboard. Revenues through the second quarter are about $3.31 million above the same level as last year. Consumption has basically -- had increased during that quarter. That is being indicated by the third quarter as consumption is beginning to decrease a little bit, revenues are coming back more in line with FY16 levels.

Expenditures are below appropriate levels. And we just ask for additional appropriation for chemicals to make sure that we end the fiscal year in that fashion.

CIP spending, all those amounts that have been appropriated either have cash spent against those or we have had an encumbrance or a commitment for cash for those projections, so 94 percent of those projects as of 12/31 have some cash commitment to those projects.

Consumption continues to be consistent with the last two prior years. Our debt coverage ratio still are above 2.0 through the second quarter.

Again, our covenant is 1.33 for senior and 1.20 for senior support, so it is well above that. Our cash on hand through the second quarter was approximately 280 days. We ended fiscal year 2016 at about 340 days. I anticipate that balance to be a little bit higher through the third quarter.

And I stand for any questions.

CHAIRWOMAN PENA: We went over this in the meeting we had the other day, so I don't have any questions. So with that I make a motion to approve C-17-7.

COMMISSIONER HART STEBBINS: Second.

CHAIRWOMAN PENA: There is a motion and a second. All those in favor say yes.

ALL MEMBERS: Yes.

CHAIRWOMAN PENA: Opposed, no.

Motion passes.

(5/0 Vote. Agenda Item 9C approved. Commissioner Debbie O'Malley, Councilor Pat Davis and Mr. Rob Perry not present for vote.)

CHAIRWOMAN PENA: Item 10, Other Business, Item A, OB-17-2, status update for the Kirtland Air Force Base bulk fuels facility fuel leak corrective action activities. Diane Agnew of New Mexico Ed and Kate Lynnes of the U.S. Air Force.

MS. LYNNES: Good evening. I am Kate Lynnes. I am the senior advisor for the Air Force on the bulk fuels facility cleanup at Kirtland, and this is Diane Agnew, she is a hydrologist for the Groundwater Quality Bureau and the technical lead for the New Mexico Environment Department.

We would like to share with you some good news about the cleanup at Kirtland and just kind of bring you up to speed on what we told you last year about this time.

The partnership success slide. We show this in every presentation we do. And it never gets old for us because I have been doing this for 34 years now and I have never seen such a group of diverse technical experts, local units of

government, federal government agencies, state government agencies, community members, you know, local academic leaders all come together to solve a problem.

And they don't do it to sit there and pontificate or to get published in some journal, they do it to get things done. And in this era where every time you pick up a newspaper everybody is always fighting with each other, I think it is really nice to see that we can all get together and fix something when we put our minds to it.

I am going to actually talk a little bit about the State strategic plan to share some of the progress we made and then Diane will talk about last year, or 2016, and Diane will bring you up to speed in 2017.

You will probably recall from Diane and Dennis McClellan's presentation to you last year that the State does a strategic plan every year that they then put out for comment to the public. It is not a regulatory document. The thing that drives our cleanup is our Resource Conservation Recovery Act permit, but the strategic plan is a roadmap of what the State's expectations for the Air Force are. And it is -- in fact, if you have someone who is new

to bulk fuels and you want a really good way to introduce them to what we are doing, send them to the State's website to the strategic plan. I do that with a lot of folks myself. There is one major goal in this strategic plan and that is to protect our community's aquifer and drinking water supply and all the wells in the area of the fueling.

There is four strategies to achieve that goal. And one is something I am sure you are all familiar with, is the robust site monitoring, the well monitoring, wellhead protection program. As you know, we monitor all drinking water wells that are part of community water supply systems whether it is, you know, part of the Bernalillo County Water Authority, whether it is the Veterans Administration Hospital wells or our wells on base.

And then we also -- the second strategy to achieve the goal is to figure out is going on in this source area and continue to find ways to clean it up. We have light nonaqueous phase, liquid, which is basically LNAPL, it is fuel, it is fuel that is lighter than water and it impacted soil and vapors and it feeds the plume. So there is groundwater contamination there, too. What we are all most familiar with is the fourth strategy to

achieve the goal which is to get the ethylene dibromide flow that has left the base and has gone under the neighborhoods cleaned up.

And last but not least, fourth strategy is to meet or exceed all the requirements in our permit for public outreach. We have done how many now, so we go to the next one and show you where we are at.

So Strategy 1, the monitoring, okay, to achieve the goal. We have now demonstrated that the plume is stable. And it is relatively stable and as you will find out a little bit later, the investigation is how we pretty much have the nature and extent of it defined. The central wells which are guardian wells that are between the contamination plume and the community water supply well have shown no detections of fuel constituents. And in addition the monthly testing of all the wells, whether it is for Water Authority, whether it is for the VA or whether it is on base have shown no detections of fuel constituents.

The highlights of meeting the second goal which is addressing contamination and source area include the work plan approval of the LNAPL interim measures. We have got three different pilots going on this year and it is kind of the year of the

source area while we continue to do a cleanup of the groundwater we are focusing attention with a lot of really cool science in cleaning up the source area. And that is what part of those working groups discussions led to, that is the second highlight of meeting this goal.

And then the third strategy that highlights and this is where Diane gets to really give you the big reveal tonight is, you know, the treated groundwater from our treatment plant shows no detections of fuel constituents. If we chlorinated it, you can drink it. In fact, one of the things we are looking at now in addition to other options is making it drinking water on base. Expanded ground and treatment system is we don't have just two big 20,000-pound vessels of gas down granulated we have four. We are also adding a sand filter so we have expanded our plant so it will be able to address if we need the up to eight extraction wells that my boss, Deputy Secretary Corel promised this community, we can treat it, we have capacity.

We have had two or three extraction wells operational through 2016 and as you will soon find out, we have another one.

And then last but not least we go anywhere anyone asks us to go. We are like the road show. If you have a community group that is interested in getting an update or has questions about what is going on with this cleanup, call us, let us know. We will go. We have done 51 tours of the treatment plant since it has opened. We do everything from the standard, we do the public meeting and people stand up and ask questions to technical working group deep dives where people come to the Christ United Methodist Church on a Saturday morning and asked detail questions about the RCRA facility investigation report and how remediation works and what is going on in the source area. So if you know of somebody who wants an update, please come see us.

We have also been doing a little bit of work in the neighborhood. We are no longer out there with a zillion drill rigs driving wing nuts. As we explained you to last year, we almost had the plume defined and we are going to put in a couple more monitoring wells nests. You can see on the map we did that last year. We put in two well nests in the corner of the plume that wasn't quite defined. And these two date gap wells, we are hoping and the initial data from them show was not detected. We

are hoping that we have defined that edge of the plume. We have to get multiple quarters of data to prove that, but we think we put them in the right spot. We think we have it nailed. And these wells are cool because they are a different design. When we go out and drill individual wells at different depths, keep in mind, our monitoring wells are at different depths because we want to catch where the plume is, we want to be a little bit below that, we want to make sure that part of the aquifer where water is taken out is protected. Well, if you drill individual wells for this, you are driving your neighbors nuts, and it costs more. So what we are doing now is we are doing it in one boring. We are putting multiple wells within that single boring which is a much less expensive. It is accepted. It is used all over but it is the first time we have done it on BFF. It really reduces the impact to the neighborhoods and they have been so remarkably patient with us and we do everything we can to make there lives better.

We also put a contingency well in here to address the fact that due to all the wonderful contributions from this community, the water table is rising and we want to make sure we have the

contingency well within that well nest to be able to sample that when our water table continues to rise because of all the good work that this community is doing. And as I have mentioned the first sample we collected in January from these two new well nests is non-detect. So we are keeping our fingers crossed it is going to stay that way and we have the plume defined.

MS. AGNEW: Madam Chair, Members of the Board, thank you for the opportunity to present to you tonight. I do want to pass along the apologies from Deputy Secretary. He thought he could be here tonight and then got called into meetings in Santa Fe, so he does send his apologies.

I am always given the fortunate slides of the good news of the pump and treat system, and I am going to take that as one of the main perks of being a hydrologist. A plume class this size should be getting more and more familiar. There are a couple of things I want to highlight. This is showing you the extent of the EDB plume based on fourth quarter 2016 data. So you can see it looks quite a bit different than what you have seen us present to you before.

The other thing I would like highlight on

here are these purple wells. These are what we call the central wells as Kate just mentioned. Those are sampled quarterly. Those are our guard wells that we use for early indications of the EDB plume moving. We have got four extraction wells highlighted on here. The first well Extraction 228 was one that went up first in June of 2015, and then the other two wells went online in 2016. The 233 is this box that has got the inset on here that we did take it off in June of 2016 due to fouling.

So the treatment system when it began operation, the pretreatment bag filters were switched out on the order of months. They could go three or four months without changing them and then all of a sudden they were having to change them weekly and daily and then it was hourly. At that point the Air Force called me and said we have got an issue and we decided to shut down the system and troubleshoot it.

We were able to -- and this is one of the places I want to give the Air Force credit. They pulled in a center of expertise with the Army Corps. These are microbiologists and chemical engineers who do this for a living and they sample the aquifer, they sample the bag filters, they did an extensive

evaluation of the monitoring wells. I would like to call it a census survey for bugs, and they were able to determine that this well was actually being fouled by both aquifer material and microorganisms. And so, that well remains off, we did identify the need to rehabilitate that well and it is kind of it sounds like we are currently treating it with chemicals to scrub out the microorganisms. It is also being scrubbed mechanically to screen out the screen to bring it back into action. So that work is ongoing it is a total five to six weeks to complete the work. It started in late February but it seems to be on track to come back online in early summer.

To date this actually -- this number is a week old, so to date we have treated 157 million gallons of groundwater, and I forgot to look at the update of EDB grounds, but if I was guessing it is probably 48.6 grams of EDB removed.

This again, this seems like a very small grams of EDB removed for the volume of water that we have treated, but to remind the Board as we have mentioned last time the concentrations in this part of the plume are pretty low. The average concentration is .1 micrograms per liter. The EPA

and CL .05 micrograms per liter, so it's just a little bit above that limit. And, a -- that's equivalent to like a tenth of a teaspoon in an Olympic size swimming pool. So it is a very small amount of EDB in a large volume of water. If we have a tenth of a teaspoon of EDB in an Olympic size swimming pool, we have to pull that whole swimming pool out before we could get to that tenth of a teaspoon. So that is what we are doing out here. It is effective, as I will show you here in the next couple of slides.

The Air Force did complete a fourth extraction well that was completed in January of 2017. They are almost complete with their design of a conveyance pipeline to connect that to the treatment system. That will undergo in EDB review and approval and the City of Albuquerque review and approval and hopefully come online in the summer.

Plume capture update, the EPA sets forth guidance as industry standard for how to evaluate plume cash in pump and treat systems. And the EPA guidance indicates suggested have multiple lines. So I am going to show two ways of looking at this, but there is actually a much more complex analysis that the Air Force has completed. But for time sake

and also just to not completely kick you out, we have picked the two that have good visuals and are easy to visualize.

The first way to look at it is what they call horizontal capture. This is just looking at the changes in the water table over time and to figure out which way the water is moving and then use that to estimate capture. So this is a really busy slide, but as I would like to pull your attention to are these purple lines. These purple lines are flow paths, how the water is moving and if you can really zoom in on your iPads you can see that there is little arrows on those purple lines.

The northernmost dot, that is Extraction 234, that is the well that came in line on December 31, 2015. You can see that there are several purple lines moving to the well and that is what I like to see as a hydrologist, you can see there is water moving into that well. You can see that there is a color coding on that little knob of EDB. And the green means complete capture, yellow green means partial capture and orange means no capture. You can see in that northernmost nodule of EDB we are capturing almost all of the EDB. In fact, 50 percent of it is getting captured in the

horizontal component.

There is this little wedge of orange that is not getting captured but none of this is actually concerning to me in the bigger picture of things because our extension wells remain non-detect of EBD. So I don't see the EDB moving even though it is not being captured by these extraction wells. It just means this is a piece of information we need to be considering as we proceed with the pump and treat system.

233, 50 percent capture because it is off line and 228 is showing 42 percent of the EDB plume is captured. You can see the entire nodule of EDB is created meaning it has got 100 percent capture and the horizontal scale. So when you put all of those together we are getting 99.5 percent of EDB is being captured on the horizontal plane and that means that all of the EDBs being fed into these extraction wells and we -- this is a success story.

233 when we get that back online the technical team is optimistic we will get to that wedge of orange. It may not, but that is something we won't know until that well is online and operates for a couple of quarters.

Another way to look at it is looking at

concentration trends or massive EDB. So this slide is showing you how we looked up plume reduction analysis. It is a little bit -- it is another really busy slide, but if you can -- but the very top of this box is the ground surface, so that dashed line is the water table. So you can see this is the EDB plume and to the left of the cross section there is an orange and red color of EDB, those are your high concentration areas in the source area. And as you move to the right of the slide and that top portion you can see where you have your first extraction well with the red dot and then the northernmost extraction well with the other red dot.

What we like to see is the pump and treat system is operating the way it should be is that we should see mass increasing at the extraction wells and then we should eventually see plume mass reduction over time. So this top cross section is from Q2 in 2016, and if you will look at the bottom of the slide you will see Q4 of 2016. And those circles are highlighting with key components, a take-home of the slide. The there is an increase of mass from Extraction Well 228 so again, that is exactly what you would want to see that that well is

pulling in mass. And then you can see that there is also a little bit of an increase of plume mass around the northernmost Extraction Well 234. And you can see there is a decrease in concentrations of EDB in source area and most notably a break in the EDB plume in the north. That is the first time we have seen that in this project.

The treatment system expansion as Kate mentioned they have expanded to 800 gallons per minute capacity. They have added the two new granulated activated carbon beds. Those will actually work in series or in parallel so you can run them through two different treatment trains at the same time. We also are showing in here two lessons learned. One of them on the left that sacrificial anode. We had 228 go down for a certain number of weeks because the pump corrupted. We have seen corrosion of pumps all through the plume actually for sampling. And there is something unique about the geochemistry that is in the plume as we pump on it. Part of us think that we are just adding so much oxygen in the water as we pump and move water that we are changing the chemistry enough that our pumps are corroding. But it is easy to address with operational things you can do. One of

those is installing a sacrificial anode and that is exactly what it sounds like. That strip of metal is being sacrificed. It will get corroded and it will preserve our pump.

The other thing the Air Force is doing is sand filters that Kate mentioned. Those are going on the pretreatment side of the treatment building so that they can filter out the aquifer material and the fog is coming from 233 when it comes back online. We will rehabilitate that well and we will redevelop it, but that will not fix the problem completely, so we need these sand filters to protect the treatment system and then also give us longevity in our operations of the system.

What is next, as I mentioned, rehabilitation and redevelopment of Extraction Well 233 is ongoing. The pipeline, as I have mentioned, is ongoing with the Air Force. They will come to me for review and then, we will have all four extraction wells online this year. It looks to me that the schedule for that is early summer, and then we will continue this plume capture evaluation it will be done quarterly. It will be submitted for my review quarterly and there will be an ongoing dialogue to see how things are evolving to make sure

we are meeting the target capture zone for the project and addressing the EDB.

The other thing that the project -- I think we mentioned last year is that we were going to start a pilot test to look at reinjection of the treated water into the aquifer. This is of beneficial use that the project team identified. We began the pilot test last year, and the well has done remarkably well. So we used that for several weeks through temporary permission from the Groundwater Quality Bureau. The most of an increase we have seen in that well and the water level 14 feet and that was when the system was inadvertently stressing the well. There was a miscommunication between the control panel and the well. And once they figured that out, they stabilized we have seen three to six feet now, which is really minimal. And actually most interestingly is that we don't see any response in the neighboring monitoring wells which means that the well and the aquifer has the capacity to handle more water.

So as we increased the treatment at the treatment system we should be able to handle sending more water to Kirtland 7. And with that discharge permit the Air Force has applied for an underground

permit to do this longterm at Kirtland 7 as well as they wrote in multiple injection wells that in case they are needed down the road.

That was initially submitted for 90-day public comment period in February, then based on comments received and discussions internally, we agreed, revised the district pretty significantly and we recently posted it for public comment review for another 30 days until April 3. And with that I will turn it over to Kate to update you on the RFI report.

MS. LYNNES: The RFI report again, you know, we love acronyms in our business. I am so excited when I can have an entire paragraph with absolutely no words in it and somebody else can read it and understand it.

But again it is Research Conservation Recovery Act. So that is the R. Facility Investigation Report, and what the heck is an RFI?

Well, it is the report a lot of you and we were waiting to get in and get done. And it is basically -- I call it a Dragnet report. It is just the facts. It summarized everything you did in the investigation and explained why you know it defined the nature and extent of the plume and the source

area contamination. And we submitted this at the end of January, this year, to NMED. I know Diane is reviewing it right now because she asked for a version with numbered lines, so I know she is looking at it. And it has 16 years of data with it from 1999 to the end of 2015. We had to cut it off at a point to be able to write the report. And it follows the regulatory process, the RCRA facility investigation report is -- there is a part of RCRA which normally addresses hazardous waste facilities, but operational facilities, but it also has a piece called corrective action that is what we are doing our cleanup under.

It is a way of outlining our report saying you have to show why you did what you did, you have to show the data, you have to interpret the data, you have to explain why you defy nature and extent.

It does it by media. We went back and forth a number of ways trying to figure out what is the best way to present this without being repetitive, without being confusing. We decided with the State, you know, it was concurrence to do it by media. So we talk about the soil, we talk about the vadose zone which is, as you will recall, the unsaturated soil above the water table. We

talked about the smears zone in the LNAPL or the source area and then we talked about the groundwater contamination in the dissolved face plume that goes off base. And this is a way of kind of going from the top down to the water table approach as you read through the report.

It also culminates in a conceptual site model. And a conceptual site model is not a static thing. We will continue to grow it. As you will hear in a second, we have a couple of data gaps. We learn more as we operate these new extraction wells, as we do new aquifer tests, as we look at the data and refresh the model. The conceptual site model will continue to be refined but it makes -- we have enough data now because we are at the RFI report stage to have a very robust conceptual site model that gives us a really good picture and roadmap for where we came from, what happened, how successful our interim measures are likely to be and where we need to go. And one of the -- you know, we tried very hard to write the executive summary of the RFI that is on the State's web page, it is on our web page. I can get you a hard copy if you want one. It is kind of big. There are a lot of maps and tables and figures and stuff and it is too much for

us to send all of that stuff by e-mail because the Air Force won't let us. We don't have big enough capacity. But what it shows you is that if you follow -- if you just look at the executive summary, we tried our best to write it in a way that was accessible to people that do this every day.

So if you want to get a feel for what we found in the RFI, I would encourage you to pull the executive summary and take a look at that. If you want to dive deeper and you want a hard copy, let me know and I will get you one.

Several key findings in the RFI. We pretty -- like I said, we pretty much defined it. We have a couple of data gaps, but particular for the dissolved -- the dissolved phase plume that is off base with the ethylene dibromide in it, we have got it pretty much nailed. We also are pretty -- we are certain that we understood where the release came from and the basically how it moved, the conceptual site model sh ows that we showed you before the four holes in the pipe and the vacuum pipe and how it went through the kind of circuitous tortious layers of permeable and nonpermeable soil and moved kind of sideways and then dissolved into the groundwater. We are sure that that is how it

happened.

We do have a couple of data gaps. One is those two new monitoring well nests I talked about earlier. And the first one of the data says we have got it but we need a lot more data than that to make a conclusion. And the other is the vertical extent of the LNAPL. In the source area one of the complications of defining the nature and extent of the fuel that smeared down there is the fact that this community has been so good with water conservation. The rising water table came back up and smeared that fuel a little bit and made it a little bit more complicated down there from our perspective in how to define it. So, what are we going to do? Well, we are going to continue to collect data from the two new monitoring well nests to see if indeed our assumptions are correct and we have got it defined. We are going to do a number of cores in the source area, continuous cores down 300 feet to really look at what is going on down there and figure out where those smear zones are, where things are hanging out, how things have weathered, how the chemistry has changed, what is going on so we can target interim measures and final remedies in the source area because every molecule

of fuel that we take out from the source area never ends up dissolved and gets to the groundwater. So we recognize how important this is.

We will take this additional information and we will put it in an RFI addendum that we will submit probably in 2018 and that will be the final piece of the RFI. One other thing I want to add is because we are kind of unique, a lot of sites like ours don't do what we call interim measures. But all of the things that Diane has been talking about and we talked to you before about the soil extraction system and the soil removal and the bioslurping and the groundwater treatment, those are all interim measures. The pre-final remedy. So the RFI report also does summarize the status of the interim measures at the cutoff point of the report. And we are also working on a risk assessment report, it will be submitted later this year, hopefully in early summer, and although we look at the data all the time we know there is not risk to people from this contamination. This is a document that is required by your permit and, again, it is a very formulated process. The State has guidance that tells you how to do one, we are following that and that is the document that is going to be able -- you

are going -- if a constituent asks you is it safe for me to plant a garden if I live above the plume, you will be able to open that up and tell them definitively yes. So that is coming soon, this year, and then I will turn it back over to Diane.

MS. AGNEW: So, again, the New Mexico environment posted a strategic plan or roadmap for the bulk fuels project. It was posted earlier this year for public comment and I am working on finalizing it now. We did receive comments from four different people on the strategic plan. One of the things I want to tell you is that the goal has not changed. The goal remains to keep fuel contamination from entering the drinking water supply wells of the Water Utility Authority, VA and Kirtland. One of the things that has changed is that we have gone from four strategies to three. And the reason for that is we felt like the Strategies 2 and 3 from the earlier versions really should be condensed into a single strategy to better represent the holistic data approach we're using for the remediation of the site. It is not necessarily always going to be just EDB and source area but that we really need to be looking at multiple technologies implemented simultaneously and

sequentially to remediate the site.

This is a timeline we have shown on many presentations. It is really our way of helping to quickly summarize everything that is happening on the project and where we are going and getting an idea of time. So on the top half is more like the RCRA process and you can see we have the RFI that was submitted earlier this year. The drilling is ongoing. We have the core sampling that Kate mentioned, the continuous course. And the RFI that will come in, in mid to late 2018.

Once the Air Force has submitted the RFI addendum and NMED has reviewed it and when we approve it, as part of the approval process we will instruct the Air Force to proceed with corrective measures and evaluation. That step cannot begin until the RFI is complete. And the reason for that is that that gives us kind of a gate that says that New Mexico Environment Department and the Air Force are working for the same approved data set for that evaluation and there aren't any curve balls on either side. So that is why that is set up that way and you can see that is looking like it will start late, 2018 and progress into 2019.

And you can see that this is a long --

that is a long process that you are looking at even two years from now before the CME is submitted. In the meanwhile those are the interim measures that we use. And those two reasons for using interim measures on a RCRA site, one of them is to allow you to get after contamination as opposed to an immediate threat like this is all EDB that is, you know, looks like it is heading towards water supply wells is downgraded from the source water. That is one reason to use interim measures to start treating that, getting it out of the water immediately. The other reason for interim measures is so you can get site specific data for technology. That you use that CME because it is -- there is often a big change from theory, to lab, to field scale of remediation technologies. I personally have seen that happen where something works in a textbook and then it works great in the lab and then you implement it out in the field and it tends to take a right turn only because there are other factors that are happening in the background in the natural environment that you can't account for in either one of those. That's the reason for these interim measures. As Kate mentioned, we have got the air lift remediation pilot test. We didn't spend any

time talking about that tonight, but that is a fairly innovative technology to remediate LNAPL in the source area.

We also have the other pilot test. That work is ongoing. They have installed the wells, and it looks like they are on track to begin it in May. And then there is also the bioventing pilot test. That is coming from the shutdown test the Air Force completed over the last year and a half. That is targeting hot spots of fuel contamination in the soil and they have a really solid data moving to that type of interim measure and no longer doing solely extraction.

And then you can see that we have the EDB plume to continue going. We will look at the fourth well online, rehab that 233, bring that online let that run for a couple of quarters, keep them from capturing analysis and see if we need a fifth or sixth extraction well.

To be transparent, we do have a fifth extraction well penciled in on the map. It is one we threw on there with technical discussions in the working groups. We said, hey, we might need this, so we are already forward thinking on those in case we need them but really at this point it is very

important for us to get data.

What to expect in 2017, plenty of progress, although we will be zeroing in on the source area. We will continue operation of the treatment system, so EDB will continue to be treated and we will continue expanding and making progress in that treatment system. But in the meanwhile continuous course, we will address the LNAPL data gap, we will keep collecting samples from those newly installed well nests. We will get the pilots up online, bioventing online, air lift remediation online and then we will continue our public outreach, so we will not letup on that. And with that here is our question montage site and we will stand for questions.

CHAIRWOMAN PENA: First question, Commissioner Hart Stebbins.

COMMISSIONER HART STEBBINS: Thank you, Madam Chair. Diane and Kate, I want to thank you for being here. Thank you for this presentation. It really is refreshing to see the progress you are making, the work that everybody is doing to reach out to the community, restore some of the trust that was lost in previous iterations of this project.

I think particularly since Colonel

Froehlich has been commander of the base he has just been remarkable in really reaching out to the community as a whole to build trust in the work that you are doing. In that context I just wanted to ask you questions so over the last year I have been at two different presentations that you have given, Kate, one at the Kirtland Partnership Committee and one at the presentation for honorary commanders and you gave a presentation regarding the pump and treat system about the cone of depression just that it was moving remarkably well, you know, that things were just really coming along and the cone of depression was developing faster than anybody had expected which is what we would all want to see for this pump and treat system was being remarkably effective.

Since then I have heard suggestions perhaps that cone of depression had existed before the pump and treat system was even in place. So I am wondering if you could address that particular issue just about what is being said at these meetings and some of the other evidence that is out there.

MS. AGNEW: Madam Chair, Members of the Board that is a very good question. There was -- last year I also attended a presentation where the

cone of depression was highlighted. There are preliminary things you would want to look at for pump and treat system.

Cones of depression are one of them that tells that you the extraction wells are extracting, that you're seeing water being lowered around and it is kind of an unexpected outcome. We have -- there is an existing cone of depression in the aquifer in this basin, it is created by the supply wells and those presentations, I believe you are referring to were small depressions localized on those extraction wells and those were just from the pumping of the aquifer and they were -- I meant to look before the meeting but they were not significant, you know, on the order of a couple of feet and then there is a larger cone of depression that is occurring in the aquifer. The cone of depression is not the right metric, to be very honest. The correct metric to be looking at is something like that what we have here, the reduction analysis. Those are quantifiable ways to look at how the plume is being captured by those extraction wells and treated.

A cone of depression can exist and you can be completely missing your contamination. And so, it is important to be looking at capture. I know

they have up here on the slide because that is actually quantifying what is happening hydrologically. And in this slide tells you what was happening chemically to verify that you actually are pumping and treating your contaminant in the target area, so I hope that answers your question.

COMMISSIONER HART STEBBINS: That does, thank you. And I raise that, I know it may seem like a very small sort of technical thing but I raise it in the context of that trust. You know, this community it has taken a lot of work to rebuild the trust and if there is something that is said that then turns out to be overly optimistic and not quite accurate, I think it -- there is always the potential for a setback. So I just want to make sure that we are really clear about, you know, what the situation really is.

MS. LYNNES: When we talk about the cone of depression, we were careful to say that it didn't mean what Diane is presenting tonight which starts to show, it is the first step to show -- we were excited because we saw the response to these extraction wells, I think, a little sooner than we thought we would. And we always said it doesn't show that we are starting to collapse it, it is not

showing the reduction in ethylene dibromide. The real proof in the pudding is what Diane talked about tonight. So all of these things are in a phased thing and it is hard to describe what is going on in smaller sound bytes without getting very, very technical and going through all of it. And so sometimes, I think it comes across and can be misinterpreted, we apologize for that. The intent was always to say, hey, we are seeing response in the aquifer, the extraction wells good, this is what we were looking for and this is what we will continue to monitor, and as we bring 233 back online, as we bring the fourth extraction well online, we will continue to do these analyses and not just the two that Diane showed today, but all the ways we slice and dice this to see if we are on the right track.

And one other thing I want to add about the extraction wells by boss Mr. Corel promised up to date, we have those funded. They are in a contract. I know people are nervous with everything that is going on, but they are contracted. And Number 5 is penciled in. But they are there. So if we need them, they will come.

COMMISSIONER HART STEBBINS: In your

slides you show in the plume capture, the dissolve base plume capture update, you talk about characterization of the horizontal extent. What about the vertical?

MS. AGNEW: Madam Chair, Members of the Board and Commissioner Hart Stebbins, that is a very good question. We do look at the vertical component. I don't have that in the presentation because it is a -- I will focus in for time but we have calculated the vertical capture it is more like 70 percent for Q4 2016 and before 233 went off line it was at 93 percent. So we know from that captured analysis 233 is really crucial to get back online and at 73 percent is lower than we were expecting but we -- I am optimistic when we get 233 online and this fourth extraction well we will see that number get close to 100.

COMMISSIONER HART STEBBINS: Again, this is the type of information I think makes us really optimistic that this is being addressed. I appreciate again your focus on the dissolved phase plume which has always been the concern of this Board and how it was going to affect our water supply wells. So thank you for that.

Just one last question. The LNAPL. I

think you said that the vertical -- that that has not been characterized yet, the vertical extent of the LNAPL plume. I guess that surprises me because after all the work that has been done, all the work by CP&I that was part of the first phase of the contract. Why is it that that is still an unknown.

MS. LYNNES: Madam Chair, Commissioner Hart Stebbins, it is -- we know where the area of release is. We know where the release was. We know the basic area where the free product used to be and where there is still little bits of it, but what we don't know a lot about is how it is distributed, where to target. We have a good idea but we want to target our remediations properly plus, you know, when the fuel was released it doesn't stay in the form that it is in. It is affected by physical chemical change. It is affected by biological changes. It's been affected by the rise in the water table. And in order to really target and also support the enter measures, we will also get a lot of information, like Diane mentioned, when we run these two pilots, you know, both -- both pilots for EDB treatment. We will find out so much more about how it will respond to treatment in the field and the cores will help us figure out the areas to focus

in on the most. So, do we have a box, do we have good ideas, do we know a lot, yes, we do. Is that effort wasted, of course, it was not. But to design a system like this with complex stratigraphy with fuel that is weathered and changed over time, it is smeared around, we need more information. And everyone has agreed that these cores are really a good way to get that information.

MS. McCARTHY: One of the analysis that just occurred to me, so we have got the soil confirmed, but we know we have these hot spots but it is very analogous to seeing smoke over the Jemez Mountains so you know you have a fire and you don't know exactly where, right? It's similar to that. You drive to the exact location, you know exactly where it is, the extent of it. So that's really what we're hoping to do with that rather than be looking at the cloud in the sky that we zero in on the exact location.

COMMISSIONER HART STEBBINS: I want to thank you both for being here. Thanks to the Air Force, to Colonel Froehlich to everybody who has been a part of this NMED. It is great to see this progress and we look forward to hearing from you again in six months. Thank you.

CHAIRWOMAN PENA: Any other questions?

Well, I haven't been here for the past year but since the last time it is really encouraging to see all the work that you have done and it seems like a lot of progress has been made. The only thing I have to do is brush up on my acronyms again, so thank you.

So the next item we have is Item B, OB-17-3, Water Report Mr. John Stomp. And as you are making your way up here, I just want to welcome our County Treasurer who decided to sit in and listen to that information. Thank you, Ms. Bearce.

MS. BEARCE: Thank you.

MR. STOMP: Good evening, Madam Chair, Members of the Board. This is your March water report. We -- I have added a water report at the request of the executive director. We will be making a water report every month. This is the March water report. I added three things to the water report to talk about the spring runoff that is occurring and just to let you to know some of the operations that are going to be affected, talk about the compact compliance, the Rio Grande Compact Compliance and drinking water operations.

So usually we use the April forecast to

try to predict what the runoff is going to be, but the runoff is already occurring as a result of the high temperatures and dry season we have had over the last few weeks. The runoff basin predictions for the Rio Grande are basically more than 100 percent. So this is going to be a pretty good year. On the Chama it is 140 percent, so we are going to be in flood operations in Abiquiu which means the channel capacity downstream of Abiquiu is not capable of handling the flows that are coming into Abiquiu so the flow on the Chama is estimated to be about 5,000 CFS. So Abiquiu is going to begin to start to fill up with floodwater and they are going to release it out of Abiquiu about 1,800 CFS.

That is important for us because we release our water out of Abiquiu for the drinking water project, so when they are in flood operations we are not allowed to release our San Juan-Chama water. Basically all the channel capacity is geared towards getting that floodwater out of Abiquiu. It doesn't mean we will have to stop the drinking water project operations, we will just make an exchange for our water as we divert it here out of water that we'll store in Elephant Butte. That is somehow how people have asked how do you use your water in

Elephant Butte, that's one way that we are going to be able to do it.

We think we're going to be in flood operations probably in about six weeks. So that just shows the huge amount of runoff that is going to be coming down the Chama. So, we are also going to plan on seeing about five or 6,000 CFS in the Middle Valley, which as unusual as you know, usually you drive over the Rio Grande it does not look like the Rio Grande, but this year it is going to be quite large. We are going to see 5,000 to 6,000 over the course of probably six to eight weeks. It is going to be pretty amazing runoff.

In terms of the compact compliance, we have been in credit status for more than 20 years. In getting your delivery obligations, New Mexico has a delivery obligation to Texas as Colorado does have a delivery obligation to New Mexico. We have been in credit status for 20 years. We have built up over hundreds of thousands of acre feet of credit. When we do build up a credit in Elephant Butte, Texas can ask for release of that water and we call it relinquishment water and that credit water then becomes usable water for Texas to use. So we give up that credit in exchange for future storage

upstream. So we have relinquish all of those hundreds of thousands of acre feet of credit water that we have had over the last 20 years. And the benefit of that is we are able to store water in dry years. The problem with that is you have no safety cushion. So this last year we under delivered by -- and it is a guess between which accounting method you're going to use, whether you are going to believe the Bureau's accounting or the State of New Mexico's accounting, but we have been in debit status, this is the first time in 20 years. What that also means is that whatever that debit is, that equal amount of native water is now held hostage in upstream reservoirs for Texas to call upon.

If we get 20,000-acre feet of water stored in a reservoir, for example, Texas could call for that water to be released. In other words, getting rid of the debit they hold us hostage for that water. Small debit 15 to -- 12 to 15,000-acre feet, so in terms of what that credit or that debit means this year it doesn't really mean that much. The problem is going to be we have a huge runoff this year and when you have a huge runoff this year Elephant Butte begins to fill, you have more evaporation in Elephant Butte as a result of that,

we pay the evaporative costs associated with that.

So sometimes when you have dry years and wet years in combinations when you get large debits. So we have been working with the State of New Mexico and MRGCD and others to figure out a way to manage the water this year in this year's operation so we can reduce the likelihood of a debit at the end of this year, specifically a large debit. We have been in Article 7, I apologize for talking about these articles and that way without you having the opportunity to know all about that. But Elephant Butte when it is below 400,000-acre feet we are not allowed to store water in New Mexico. We have been in Article 7 for about more than 15 years now because of the dry weather. We are going to get out of Article 7 this year with the runoff coming down. Elephant Butte will begin to fill, we will go above 400,000-acre feet, that means El Vado will begin -- the MRGCD will be able to start to fill the reservoir. There is going to be so much water it is possible that El Vado could actually this year. We haven't had a full El Vado for decades.

But of some of that water could be released later in the year to pay back some of this debt. So, it is complicated but the real story here

is we have been in debit for this year for the first time in a long time. It probably doesn't mean that much. What really could be a problem is if we enter into a debit situation two years in a row with a potential that this could be a very large debit. We have the Loomie lawsuit downstream with Texas that has not looked upstream but everybody is always looking upstream for water because Texas is always looking for more water. We can't pretend that that potential lawsuit isn't out there. But we obviously are paying attention to it.

So we will give you more information as we know and these water reports will help provide you an update. The State of New Mexico through the Interstate Stream Commission pays attention to the amount of water that we own Texas on a monthly basis so we have a really pretty good idea of how much water has been delivered during the year and how much water is left to be delivered. We will have an opportunity to talk to you throughout the year and give you an update on that.

In the drinking water project operations last year was the best we have ever done. We actually diverted 65 percent of our water last year was surface water that we drank from the drinking

water project. We were shut down during the month of October, so we could have achieved about 70 to 75 percent. We anticipate this year that there will be no water supply shortages throughout the entire summer, so it is possible that we could get up to 70 to 75 percent of our water supply coming from the drinking water project this year.

With these great flood flows come large sediment flows and so because we are in flood operations, we are going to see a huge challenge with that muddy water flowing down the river and us being able to treat that. That could have some impact on our potential ability to divert. We will come to you as we are required in our biological opinion with our annual operating plan next month in April to talk about what we anticipate how much surface water and how much groundwater we will be using this year. So that was a very fast report on a lot of information. I will be glad to answer any questions, Madam Chair.

CHAIRWOMAN PENA: Any questions. I appreciate the report. So thank you, Mr. Stomp.

So with that, seeing no further business this meeting is adjourned.

(Proceedings concluded at 6:46 p.m.)

STATE OF NEW MEXICO
COUNTY OF BERNALILLO

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I FURTHER CERTIFY that I am neither employed by nor related to any of the parties or attorneys in this matter and that I have no interest in the final disposition of this matter.

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