

**MINUTES OF THE
THE CITY OF SANTA FE & SANTA FE COUNTY
BUCKMAN DIRECT DIVERSION BOARD MEETING**

July 6, 2023

1. CALL TO ORDER

This regular meeting of the Santa Fe County & City Buckman Direct Diversion Board meeting was called to order by County Commissioner Anna Hamilton, BDD Board Chair, at approximately 4:10 p.m. in the Council Chambers, City Hall, 200 Lincoln Avenue, Santa Fe, New Mexico.

2. ROLL CALL: Roll was called and a quorum was present as shown:

BDD Board Members Present:

Commissioner Anna Hamilton
Councilor Carol Romero-Wirth
Commissioner Anna Hansen
J.C. Helms, Citizen Member
Tom Egelhoff, Las Campanas [non-voting]

Member(s) Excused:

Councilor Renee Villarreal

Alternate(s) Present:

Peter Ives, Alternate for Citizen Member

Others Present:

Rick Carpenter, BDD Facilities Manager
Nancy Long, BDDDB Legal Counsel
Kyle Harwood, BDDDB Legal Counsel
Bernardine Padilla, BDD Public Relations Coordinator
Delfin Peterson, BDD Administrative Assistant
Antoinette Armijo-Rougemont, BDD Accounting Supervisor
Randy Sugrue, BDD Operations Superintendent
Michelle Hunter, County Water Resources Manager
James Bearzi, BDDDB Consultant
Jay Lazarus, BDDDB Consultant, Glorieta Geoscience, Inc.
Michael Mikolanis, EM-LA (Environmental Management-Los Alamos)
Stephanie Gallager, EM-LA
John Evans, EM-LA
Joni Arends, Concerned Citizens for Nuclear Safety
Greg Bohannon, Citizen



BUCKMAN DIRECT DIV MIN
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COUNTY OF SANTA FE)
STATE OF NEW MEXICO) ss

I Hereby Certify That This Instrument Was Filed for
Record On The 12TH Day Of September, 2023 at 03:18:39 PM
And Was Duly Recorded as Instrument # 2019544
Of The Records Of Santa Fe County

Witness My Hand And Seal Of Office
Katharine E. Clar

Katharine E. Clar
Deputy County Clerk, Santa Fe, NM

SFC CLERK RECORDED 09/12/2023

[Chair Hamilton read the agenda captions throughout the meeting.]

3. APPROVAL OF AGENDA

With no changes from staff, Councilor Romero-Wirth moved to approve and second by Commissioner Hansen the agenda was unanimously approved.

4. APPROVAL OF CONSENT AGENDA

[See Page 21 for item a.]

COMMISSIONER HANSEN: Madam Chair.

CHAIR HAMILTON: Yes.

COMMISSIONER HANSEN: I don't have a lot of questions about the Item 7.a. but I just don't want to vote for the approval of the fiscal year budget on a consent.

CHAIR HAMILTON: Okay, so we'll pull 7.a. off. What's the pleasure of the Board for 7.b?

COMMISSIONER HANSEN: Move to approve.

MR. HELMS: Second.

CHAIR HAMILTON: Any discussion?

The motion passed by unanimous [4-0] voice vote.

5. APPROVAL OF MINUTES: June 1, 2023

COMMISSIONER HANSEN: Madam Chair.

CHAIR HAMILTON: Yes.

COMMISSIONER HANSEN: I just have one small change and I get why it says Chair Hamilton and not me. It's on page 4, down towards the bottom, Mr. Roach says it should get better starting next week for them, and then it actually went back to me, Commissioner Hansen instead of Chair Hamilton. And that's the only change I have.

Move to approve with the change.

MR. HELMS: Second.

The motion passed by unanimous [4-0] voice vote.

6. PRESENTATION/INFORMATIONAL ITEMS

a. Monthly Update on BDD Operations

RANDY SUGRUE (BDD Operations Superintendent): Madam Chair, members of the Board, this is my monthly for BDD operations for the month of June 2023. Operations for the month of June included approximately 5.08 million gallons per day. Drinking water deliveries through our booster stations 4A/5A, approximately 4.19 million gallons per day. Raw water delivery to Las Campanas approximately 1.36 million gallons per day. Our onsite treated and non-treated water was a negative number of .47 million gallons per day and that's because of the additional water to Las Campanas

throughout the month, it's kind of ongoing. And it has do with the amount of storage on site and things like that and our increased output due to increased City demand. The BDD is providing approximately 35 percent of the water supply to the City and the County for the month. Our monthly diversions are noted below. We're still somewhat under our 10-year average and that's because they are maximizing flows to Canyon Road Water Treatment Facility to keep the reservoir levels down.

A regional demand summary on page 2 includes regional demand of approximately 12 million gallons per day. That has gone up in the last few weeks due to the dry conditions and summertime irrigation usage. Rio Grande flows in June approximately 4,000 cubic feet per second. Because the runoff season is essentially over, Rio Grande has now dropped to, I think, around 1,500 cubic feet per second at Otowi and that has to do with the reservoirs Abiquiu reducing their outflow. During the previous month in May the reservoirs have been what you call "flood operations" in order to keep from overflowing especially in a year with such good runoff like this year. So now that the melt-water has stabilized they keep some of that water in place. As of July 1st they're out of what's called flood operations and so they let the reservoir stabilize and keep that water through the summer for release later in the fall and during that period we were only allowed to divert native water out of the river. We couldn't take any SJC water actually since back in about April. We began right in July 1st they went out of flood operations and began calling for SJC water and because of that confluence of events we've essentially utilized the entire County annual native water allotment – pretty much right down to the wire. Out of 2,374 acre-feet available we went at I think 2,352 acre-feet so we cut it and managed it right down to where we wanted it to be with just a little bit left over, but we didn't want to go over because that's frowned upon to use more native water than is available without agreements in place. So that's where we're at at this point. Canyon Road reservoirs are Nichols at 90 percent, McClure 98 percent and 97 percent combined. The watershed inflow at that time was 12.8 million gallons per day and because of the runoff has subsided, I think it is significantly less than that at this time probably in the vicinity of 2 to 4 million gallons per day.

They did update our City-County allotment for the year which brought our SJC allotment in Abiquiu up to 12,471 feet. As of June 1st the City has been allocated 4,512 acre-feet out of 4,230. The County, 323 acre-feet out of 375. So those allotments should continue I'm thinking to 100 percent his year because of the runoff. There's a graph of that storage in Abiquiu and the El Niño summary shows we certainly are in El Niño conditions and that's expected to strengthen in the northern hemisphere through the winter of 23 to 24 – so a strong El Niño effect in place. That's my report. I stand for questions.

CHAIR HAMILTON: Any questions from the Board? Commissioner Hansen and then Mr. Ives.

COMMISSIONER HANSEN: Thank you, Randy. So since we have utilized the pool agreement that we agreed with and used up the County native water, we won't have any more native water available until next year; is that correct?

MR. SUGRUE: That's essentially how it works, yeah, the County's got that allotment. Now they can transfer just as the City potentially can transfer, say ground water and utilize more back and forth. But those agreements are not in place at this time. And we're fine we've got lots of SJC water because we didn't use any for the last almost

four months. But that's essentially where we're at at this point so we'll utilize strictly SJC water through the rest of the year and we have a little buffer of native of about 30 acre-feet that we can sort of use for accounting purposes as we move forward.

COMMISSIONER HANSEN: Okay. I'm interested on how this works and how the San Juan-Chama water gets allocated as we go forward. I'll be interested in seeing how because this is the first year of the agreement –

MR. SUGRUE: The shared pool agreement, are you saying?

COMMISSIONER HANSEN: Yeah, I think maybe it is the second year – they all run together.

MR. SUGRUE: That's the County and outside of my purview, really. But the water resources people that work for Jesse could give a lot more detail as the question has come up.

COMMISSIONER HANSEN: Okay, thank you, Madam Chair.

CHAIR HAMILTON: Thank you. Mr. Ives.

MR. IVES: Thank you, Madam Chair. Question on the current storage in the reservoirs. Those numbers in the paper reported today that as of July 1st there was 94 percent and your report indicates 97 percent.

MR. SUGRUE: My report is compiled about two weeks before our meeting and so there's going to be a little bit of discrepancy certainly.

MR. IVES: So those numbers seem higher than ever that I can remember which I thought might be a combination of the fact that there's been a potential settlement reached with Rio Grande Compact and Article 7 hasn't been in place for awhile. But why so much now and not the prior years?

MR. SUGRUE: I'm not really a water resources person but my understanding of the last few months was just a really good year for snow. So Canyon Road generally doesn't maximize production in the colder months because of cold weather and so the reservoir just collected all of that water.

MR. IVES: Fair enough.

MR. SUGRUE: And they are, as a side note, they're working on raising their production through the summer but the more water they get in the reservoirs the higher the flows into the reservoirs the higher the turbidity and solids that are carried in and so that can affect their ability to go four, five or six above that. The capacity is 9 to 10 million a day but to get there, water quality issues affect them.

MR. IVES: Just coming back to the point you made about on-site treated and non treated water storage, I'm just scratching my head when there's a negative number.

MR. SUGRUE: Me too.

MR. IVES: Even if it's an average across some period of time –

MR. SUGRUE: Yeah, it's affected by Las Campanas diversion at 2A, because that has nothing to do with our onsite. We've got about 8 million of untreated water, 4 million of treated water and if we are at 4A/5A combined between 6 and 8 million a day, it can just throw the numbers off. And the untreated, that number in a way has always been a question in my mind, treated and non-treated water in storage, is a very very fluid number because at the end of the month if we had pumped down our pre-set basins which can hold 8 million and we're down to the 1 million marker and there's a 7

million gallon offset at the end of the month and that can skew the numbers.

MR. IVES: So it would still seem to be positive in terms of the water in storage.

MR. SUGRUE: Well, on that day. When you do it as an average, then the average can be skewed and obviously in an odd way. That number is just based here -- you know, when I average the numbers of the average 5.08 million per day for 30 days in 4A/5A using that average and 1.36 for Las Campanas it is just simple subtraction at that point. So, again, I don't like to use the word imaginary number, but it's just an indicator of production and onsite storage.

MR. IVES: Maybe we should describe it as something other than just "storage."

MR. SUGRUE: We could actually look into it a little bit and make it a more meaningful number.

MR. IVES: There were none at what seemed to be zero but then again.

MR. SUGRUE: I would hate to look out the window of my office and see the tank and the preset basins actually less than completely dry.

MR. IVES: Interesting, and I won't pursue that. Thank you, Madam Chair.

CHAIR HAMILTON: You're welcome. I'm still not sure how we got the negative number even averaging but I guess I'll think about it. You can explain it again next time.

MR. SUGRUE: I will look into it and see if I can come up with a more creative answer.

CHAIR HAMILTON: Okay, that sounds good. Are there any other questions? Yes, go ahead.

MR. IVES: Thank you, Madam Chair, one other question. The paper noted today that total consumption was 14.436, reported by the City Water. Isn't it at 15 million gallons that we begin to look at restrictions or significant restrictions of water usage?

MR. SUGRUE: I don't have an answer for that. I'm not sure what the water conservation has in their resolutions at this point.

MR. IVES: Maybe we can just be reminded of those at the next meeting to see if we're pushing that boundary. I'd love to know what that means. Thank you.

CHAIR HAMILTON: That's a good idea. I appreciate that. Thank you.

MR. SUGRUE: Thanks very much.

b. Report from the Facilities Manager

RICK CARPENTER (Facilities Manager): Thank you, Madam Chair and members of the Board. I don't have a whole lot to report out to the Board for this Board meeting but I did want to call attention to what Randy and I hope will be two very large projects that we can report out on at the next meeting. We're going through the procurement steps right now. Those projects will be replacing some of the granulated activated carbon and also two of the pressure membrane racks -- about \$1.3 million total and that will come out of the major repair and replacement fund and I hope to be reporting that out to the Board at the next Board meeting. I thought I'd call your attention to it because they're big projects.

CHAIR HAMILTON: Excellent, thank you. Are there questions for the facilities manager.

c. Presentation by Michael Mikolanis, Manager of the Environmental Management, Los Alamos Field Office, LANL regarding the BDD LANL MOU and related Rio Grande water quality issues

KYLE HARWOOD (BDDDB Counsel): Good afternoon Chair and Board. We spoke to Mr. Mikolanis months ago about addressing this Board on an irregular basis and that landed on today. So I'm going to turn over the microphone to Michael here and let him introduce himself.

CHAIR HAMILTON: Thank you very much for being here and welcome.

MICHAEL MIKOLANIS: Thank you very much and I really appreciate the first speaker working out the microphone problems for me. I really do appreciate that. I always struggle with that.

I'll introduce myself first. I am Michael Mikolanis. I used to introduce myself as the new Environmental Management Field Office Manager for the legacy waste cleanup at Los Alamos. But I've been here almost two years now and I don't think I can use the term "new" anymore.

I want to begin by thanking the Board for the invitation to come and provide an update. We appreciate it. It was one of the early things that I recognized, the relationship that we have with the Board and the importance of the Board and what support we provide to the Board means to the community so it's a pleasure to be here tonight to come and speak. And I'm happy to come back at any time and provide irregular updates at the Board's interest.

So there were two items I wanted to come and provide an update to the status of and I'm happy to answer any questions at any time through the process. So, Madam Chair, at the pleasure of the chair members can interrupt and I can pause in-between the two different items I want to discuss.

The first item I wanted to discuss was the gaging station. This was my first introduction to Buckman and one of the first issues and challenges I tackled as a new field office manager when I arrived in August of 2021. The former chair, Commissioner Hansen, called me to explain the importance of this to the Board and gave me a little bit of a history of what happened to the previous gaging station so I had a little bit of an understanding. And we worked very closely with the Board then and the Pueblo de San Ildefonso to develop and implement the project. It went operational in August of 2022, the real time streaming station began transmitting data and was declared operation in August. And I'll share a little bit of the background on that. But first I also want to give a shout-out to and kudos and acknowledgment – it would be remiss if I didn't recognize Nuke Watch of New Mexico's involvement in this as well because while the Board brought this to my attention, it was also in the attention of Nuke Watch – and we were currently in litigation at the time – and they understood the importance to the community as well and they included it in the settlement discussion that we had. So I had two drivers to do this: the settlement that I had with Nuke Watch as well as the interest of the community and the Board. So working together we accomplished that milestone about 18 months in advance of the date that I had negotiated with Nuke Watch of New Mexico. And although not probably of interest to the

Board, it would be to taxpayers, we also did it for under projected cost as well. And I would be remiss also if I didn't acknowledge and thank the leadership and people of Pueblo de San Ildefonso for allowing us to go in and remove some of the previous station and put a new gaging station on their tribal lands. With that, that's pretty much the – and finally we are coordinating a date with the Board for a tour of the gaging station. We're going to have to coordinate that with your availability, the pueblo's availability and my own team to be able to work that, so we're working to coordinate that so we can get you up there to visit. And with that I'll take any discussion or question or I can move to the next topic? Sorry my microphone is cutting out – I guess we didn't work all of the problems out.

CHAIR HAMILTON: Thank you. Commissioner Hansen.

COMMISSIONER HANSEN: Thank you, Michael Mikolanis for talking about the flow station. I'm really grateful that we could get it in on time or way above time and that we are being able to monitor that. That was something important to the Board. And I'm looking forward to the tour. Kyle sent out some dates and I responded and hope others have responded but I look forward to seeing how it is working and hearing more about it.

MR. MIKOLANIS: Thank you.

CHAIR HAMILTON: Excellent, any other questions? Going ahead would be great, thank you.

MR. MIKOLANIS: The next item I wanted to provide the Board with a status on is the chromium interim, and just as a preface I will probably slip into saying "chromium" for the chromium plume. But I just want to be clear, it's hexavalent chromium and I don't want anybody to think we're talking about the benign version of chromium 3. We're talking about the toxic hexavalent version of chromium. So, as a preface, Madam Chair, I was planning on talking to what the status – updating the status from when we received the regulatory direction to shutdown the interim measure but I just wanted to check with the Board. I can provide a little bit of a background further behind that depending upon the Board's familiarity with the chromium plume, the interim measures that were put in place to contain it and where we are today.

CHAIR HAMILTON: To be honest, I think the Board while they are educated about this, having enough to have context in a logical flow would be probably helpful, really appreciate it.

MR. MIKOLANIS: Okay, well this is my first quiz of the night and we'll see how I do on a pop quiz. Going back for just a little bit of a primer for some context, the hexavalent chromium plume was created in the early years of operating the national lab. It's a chemical that was used for inhibiting corrosion in the steam plant that provided electricity and steam for processes in the Manhattan Era and the early Cold War days. At the time, we didn't understand that when it released in the environment it would turn into a toxic chemical. So it was released into the canyon and it has made its way down to the aquifer. It was discovered in around 2004, 2005 through a groundwater well that was put in, installed in Mortandad Canyon and the Department of Energy through the consent order put in interim measures to – that entails an approach of extracting the contaminated water from the plume, treating it and reinjecting the clean water downstream of the plume to create a hydraulic barrier and to use a – I'm not going to turn you into environmental scientists or hydro engineers but I use the analogy of, if we were all sitting around a campfire having a discussion and we got some neighbors 100 feet or so away with their own campfire and the smoke is kind of blowing into ours and we don't want the smoke in our face, the hydraulic

barrier would be the analogy of taking a couple big industrial-size fans and blowing them upwind back to the other campfire. The wind or the air coming from the fans fights against the natural wind blowing and it'll stop hydraulically, in this case air hydraulically, the smoke where the other campfire is. That's a temporary solution. Air like water will find its way around any kind of hydraulic barrier like that. We designed an approach as an interim measure not a remedy to contain the plume on national lab lands because at the time it was discovered and we spent years looking at the extent, we discovered that it was almost on the boundary of the lab with Pueblo de San Ildefonso. So an interim measure went into place to start extracting, treating and reinjecting as a hydraulic control as a temporary interim measure whose primary objective was to confine the plume on lab property while we did the additional characterization and investigation to character the nature and the extent of the plume and propose a remedy.

So that's a little bit of the history. We've been operating – the interim measure began operations in the 2017, 2018, 2019 range. There were 10 extraction and injection wells, five of each kind that do this hydraulic barrier. They have been operating since, like I said, 2018, 2019 timeframe as a solid hydraulic barrier and we the data that we have shows that we have been successful in pushing the plume right from the southern boundary of the lab with Pueblo de San Ildefonso another 500 feet away. That's really good news because that was the whole point of the interim measure was to confine it and prevent it from migrating and moving onto tribal lands, into the aquifer to tribal lands.

Now that's a little bit of the background what the interim measure is to the chromium hexavalent plume. The groundwater is moving in a direction if you will, mostly towards the southeast and east so there's kind of part of the plume that is heading towards the Pueblo, our boundary with the Pueblo. But there's also an edge of the plume that is heading eastward. Now that would be of concern to the residents of Santa Fe and Buckman because eventually the aquifer will come out and interrupt into where the water is of the Rio Grande. I just had my folks do a very simplistic, how long is that – and that's if you're physics 101, high school physics, if you divide distance by velocity you'll get a time. So measuring the distance from where we know the eastern plume, the edge of the plume is now, to the Rio Grande and then dividing by the groundwater velocity it's about 180 years before it makes it to the Rio Grande. So you have a little bit of time before it – but if it found a natural spring or something like that, it could get out of the aquifer. Otherwise, it's locked about 1,000 feet below ground.

So that's the context. Because of the aquifer, the source of the drinking water it has been of significant concern to the Board before and I wanted to provide an update as to where we are now. Last year, I had to shut down – last year we were – we heard some concern from the New Mexico Environment Department about our hydraulic barrier and how it was working. They wanted to explore operating the interim measure in a different way. And the Department of Energy was setting up some meetings to first share and make sure that the regulator understood the technical basis that we've been developing over the years which includes years worth of groundwater well data, groundwater mapping, calculations on how far out the extraction wells reach and we call that a zone of capture/ radius of capture, our model itself. We were setting up a meeting, a series of meetings to go through that then brainstorm, collaborate with the regulator as we can to look at different ways to operate the interim measure that might address their concerns while still being

protective of the interim measures primary function which is to contain the plume on government property while we work for a remedy.

We were setting it up in early fall in October we had to take six of the ten wells down for corrective maintenance and in November we received the first of a set of two regulatory directions that eventually culminated in the shutdown – the entire shutdown of the interim measure. In November we were directed not to restart the six wells that went down for corrective maintenance and we continued to operate the four that were remaining, two extraction, two injection. And fortunately, those two injections and extractions were along the southern part of the plume so that even though I couldn't operate the entire interim measure under the regulatory direction, we were still able to partially operate it. And the data that I have very recently shows that we may have pushed the plume even further back from the 500 feet that we've done in the previous four to five years: that's good news. Then in December we received – that first regulatory direction came from New Mexico's Environment Department their Hazardous Waste Bureau. There's another bureau in a different division that we receive regulatory direction from the next month. That direction came as a follow-on to a Notice of Non-Compliance which eventually became a Notice of Violation regarding rising trends on two of the groundwater wells that had higher increasing trends of chromium. While our models explain this we responded to the Groundwater Quality Bureau who was concerned but eventually they sent us regulatory direction in December that said, you need to complete the actions that you laid out on the action plan for the Notice of Violation or/and come and have a discussion with us by April 1st or you have to shut down the entire interim measure. Now, the action plan we sent the Groundwater Quality Bureau had a two-year timeframe so essentially when they sent us the direction it was a direction to shut down the interim measure by April 1st.

While the Groundwater Quality Bureau's regulatory direction has an endpoint that we're driving to try and address and resolve their issues, I've had several discussions with the bureau chief and I understand I believe what he is looking for. The other direction did not have an end point, the resumption of those six wells. So I am hoping to at least in the near term address the Groundwater Quality Bureau's issues and be allowed to start up the four other wells as we await any additional guidance from the Hazardous Waste Bureau and the end date for their suspension.

When the regulatory direction came out, it is worth noting that neither DOE nor Pueblo de San Ildefonso who is the group of people most principally affected by this because it is right at the edge of their boundary, neither of us were consulted on the regulatory direction prior to being told to turn off the injection wells. And since being given that direction rather than exercising some of the rights that we have in the consent order which is directing all of my environmental remediation or at least the bulk of that cleanup that we're doing up in Los Alamos, rather than evoking the dispute resolution process, I deferred to my regulators' regulatory authority and ceased all operations. But we did operate those four wells right up to the very last day.

We have since then shared all of our scientific data, analysis, modeling that I alluded to earlier, with New Mexico Environment Department. And we set up a series of summits, a series of meetings, let's call them a summit, where we shared that background of data and we were working to try to identify: what can the Department of Energy do to turn back on the interim measure because I'm very uncomfortable with the interim measure being off because it is the item that was agreed to in the consent order that I'm doing the cleanup

under and the longer it stays off the more the groundwater is going to move that plume when I turn off the extraction and injection wells it's going to move that plume.

We set up a summit with the two branches from the New Mexico Environment Department. DOE and our contractor participated. But since the pueblo was also a principal and going to be affected by this, we invited the leadership of Pueblo de San Ildefonso to listen and participate as they chose. They're a sovereign nation and they can choose to discuss and interject at their pleasure but we wanted to give them that opportunity to have their voice heard in the process.

We had about five meetings. We were making significant progress but at this point we do not have an agreement or resolution yet with our regulator as to how do we get out of this impasse and be able to restart the interim measure. And some of the things I'm going to say I just want to also clarify that I am not advocating – not character – I am not going to speak to what NMED does believe or not because I can't speak for my regulator. But I will share what my takeaways from the discussion were with that distinction, if you will, because it is my understanding but I do not speak for my regulator I would not – I would probably get a call in the next couple of days if I left you with the impression that I was trying to. We came together in the spirit of collaboration. We offered a number of things, let's say we all four parties, and put a number of things on the table. But one of the things that we reached an impasse in, the regulator very, very much wants to transform the interim measure into something different. They would like to put another injection well outside the plume. Their primary concern is that they feel originally injecting into the plume was a bad idea. They changed their mind since 2017/18 when it was created because they approved the measure we put in place and that plume isn't there anymore where we are injecting but as we work with them on that, we could put a well off to the side. However, as I have tried to explain to the regulator, if it was simply a matter of let's go drill an injection well in a different place and resolve their concern, I'd do that in a minute. Yes, it's going to cost more money. Yes, it's not a planned expenditure but if it lets us put the interim measure back up and run it would be a good thing because I'd be containing the plume on the side.

However, it is much more complicated than that and I'll use a football analogy. If I don't do the hydraulic while I'm extracting, treating and reinjecting down at – and kind of causing that reverse water flow or at least slow – stopping the water flow between in that area. If I now do just the extraction and inject somewhere else I don't have that reverse water flow. My zone of capture has changed because now the water flow is moving at a different speed. Imagine two football teams, the defensive line has a number of big-beefy guys on the line to prevent the offense from running through and running with the football or catching it down but if you take half those linesmen out because I don't have the extraction wells spaced correctly to have vertical and horizontal coverage so that any of the plume that moves past those extraction wells gets swept up. The extraction wells are not spaced and designed to in and of themselves treat the plume: that's why it's an interim measure. And as we discussed this one of the things that I proposed was while we don't have enough knowledge now to the nature and extent of the plume to make a final design of a remedy, RCRA doesn't require that. So one of the things that I proposed to my regulatory was, okay, let's consider a super interim measure like that. We can put something off to the side but how I, where I locate that new injection, what I have to do with putting new extraction wells and trying to redesign the system, we're essentially moving to a remedy. Let's accelerate the remedy. I can get there now. And we propose accelerating the remedy.

That's what the Department of Energy wants. I am reminded, we put some NEPA action for this and other recently public comment and we received a comment from our regulator that said, I'm paraphrasing it a little bit, a cleanup delayed is cleanup denied. I want to accelerate the remedy. But that's the sticking point that we currently have with our regulator. They want to continue to characterize the nature and extend of the plume and we have to do that. We do not know enough about the vertical depth of it nor where the eastern edge of the plume might lie.

In general, the Department of Energy and our regulator are in agreement on, I would say, 80 to 90 percent. It's the fundamentals of what are model shows us and telling us is happening and they're concerned with where we were previously injecting and the need to study more is where we are differing on these things. We are still working with our regulator. I've had like I said a series of meetings. We took a month off to go back and reflect and see if we can think of something else to bring to the table on their side and in the meantime I am working with their leadership to try and move this forward as well. But this is not a situation that can remain as it is indefinitely because I have an obligation under the consent order to operate the interim measure to confine it. And while I chose not to enter the dispute resolution process I also can't keep the interim measure off indefinitely without the plume now starting to migrate and damage other parts of the aquifer.

So it's a little bit of a mess that I'm in that I'm sharing with the Board. There's nothing that the Board can do directly for me. But given the Board's historical interest in the hexavalent chromium, what we're doing to treat it, the interim measure, moving to remedy, I thought and there has been a lot of interest in our cleanup forums and the strategic vision – that's a whole other thing that I think I mentioned to the Board in previous engagements. There's been a lot of public interest in what's happening. You can imagine, Los Alamos County is also responsible for their own drinking water is very interested in the chromium plume. So I thought I would also share the fact of where we were with this plume. While the interim measure is currently shutdown, our analysis shows that it is not an imminent hazard to the aquifer and damaging the aquifer under the Pueblo lands and we have time to work our way through this. At this point, I seek a regulatory resolution with my regulator respecting their authority as a regulator and trying to find something that hopefully will advance the cleanup. I want to listen to what NMED said about "cleanup delayed is cleanup denied," and I want to accelerate the cleanup and move into remedy as soon as I can. We can adjust it as time goes on. The RCRA process allows that but I wanted to make the Board aware of our situation and address any questions you might have about the current impasse and the fact that we're working together. And I also want to say that what I've shared is not intended in any way to be a criticism of our regulator. They're subject matter experts, they're supervisors. We have an honest differing professional opinion. This happens in science all the time. There are actual processes on how to go resolve differing professional opinions and we're kind of working our way through a process much like that which involves you're working at the lowest level first and begin to elevate the issue if you can't – if the differing professional opinions can't be merged or resolved. We're in that process. And I'm not – while I'm not critical of the regulator and what they're trying to do, we do need to find a solution to this and that's what I wanted to update you on tonight. I'm ready to answer any questions you might have because I have talked an awful lot.

CHAIR HAMILTON: Thank you. No, we really appreciate the information and before I open it up to other Board members could you clarify cause you mentioned a

couple of times wanting to accelerate the final solution – which in another context would have a completely different implication – and is that a redesign, expanded or otherwise but similar process of withdrawal, treatment and reinjection or is it something completely different?

MR. MIKOLANIS: Probably and let me explain why I'm going to be a little – I don't want to get put in RCRA or NEPA jail so whatever remedy is proposed and selected goes through a RCRA process as well as has to have NEPA coverage. So I will speak hypothetically of the process and what I think most likely, without any judgments, as to what the remedy should be. When we're ready to propose a remedy we go through something called a corrective measures evaluation where we look at all the technologies, all of the options. We subject them to a set of threshold criteria that if it doesn't pass the threshold criteria it is not even considered. So only those that pass the threshold then get considered further and they get applied what are called "balancing criteria" which are weighted based on that particular remedy and cleanup situation being phased. So the Department of Energy does all of that. We identify the remedies, potential remedies, the options will apply the criteria to them and then we recommend a remedy to the state. The state evaluates that and they select the final remedy and then we go implement it. So at this point, with the technologies that we've developed and there aren't many technologies that can go treat a groundwater plume about 900 feet below the ground, pump and treat is most likely going to be one of the more viable technologies for recommending as a remedy. Now the design of it and now many of them, where they would be located, the size of them all of that depends – that's an engineering design problem. I'm an engineer and I love that kind of stuff.

So pump and treat is most likely going to be a remedy and if it were, yes, we would not throw away the extraction and injection capability that we currently have. Maybe we could turn some of the extraction if they were – excuse me – the injections and extractions if they were close to the plume and would help with the remedy that would be a design problem. There are also some other things that could be considered. Amendments, you can inject things into the ground. Microbes that'll eat chromium and change it from hexavalent to the benign trivalent chromium. So all of that goes through the CME process and all of the things I just said could be changed when we actually do the CME process. And so, yes, indeed, pump and treat could be the remedy. And from my engineering background experience it is the most likely one. I have worked with systems like this in Savannah River for four years before coming out here as an executive. So I am quite familiar with the pump and treat process and a graduate degree helped a little bit with that too.

CHAIR HAMILTON: Great. So just for clarity, what you're looking to – what you were trying to do is get the process of getting to that final solution sped up, do that quicker. It's not that it has been selected already and could be implemented faster.

MR. MIKOLANIS: Yes, ma'am. And I haven't been following protocol very well, thanking the Board and the Chair for the question but, yes, ma'am, that's exactly it. And from my understanding of the state's reluctance to have us accelerate the remedy at this point is it gets back to the characterization, the nature and extent. I mentioned that we worked collaboratively with our regulator last year to define what were the data gaps in our understanding of the nature of the plume. One of the data gaps was how deep is this? We have some data that shows it was deeper than we originally expected so we're going to have to drill some more wells to kind of bound where the lower depth might be because when

you design a system you're going to have to design it to extract low enough to pull the entire plume. There's also the eastern site so where do I stop putting extraction wells in to make sure I'm ahead of the plume. You want to put the extraction wells ahead of the plume to be like catchers so that none of the plume gets past those linesmen, remember I used the football analogy. The state feels that we should be doing – they want more characterization done and more understanding of some of those unknowns before a remedy is even proposed. Now the kind of information that we're lacking at this point is really more applicable to the final design not necessarily the type of remedy that would be picked like pump and treat versus amendments or some combination of the above. I was particularly concerned it was pushing for the remedy because at the same time this is going on another regulator that we have to work with, the Office of the State Engineer, they saw some of the data and the concerns that the other regulator has identified. They were – where previously we'd been drilling one well into the ground with two screens so we could sample at two different depths, in general they have, except for the shallowest of wells, want only one screen. So that means twice as many wells, twice as much time to go get the data. So the characterization could take a lot longer and I don't want to – I would just as soon move to the remedy given the state's concerns with how we were injecting. So let's move to the remedy right now. So that's kind of where the tug of war has been going on between my organization as the licensee/permittee and my regulator. Honest intentions I think on both sides but at differing professional opinions fundamental of that. I am pushing as hard as I can to advocate for an earlier start of a remedy because I understand the point that NMED made about not doing cleanup. I hope that answered your question, Madam Chair.

CHAIR HAMILTON: It did but it emphasized the next question I was going to ask and you've made a couple of references to locations of extraction and injection wells making it sound like they're very close together so that you're extracting at the edge of the plume and reinjecting just a little bit further away as opposed to extracting like from the center of the plume or from the highest concentration area; is that accurate or am I misunderstanding?

MR. MIKOLANIS: It's close but I'll clarify it. They're not that close together. They can be separated by – I'd have to give you the exact dimensions but 100 of feet if not more than 100 or 200 yards. The hydraulic effects can be felt underground quite a ways. So when we began the hydraulic control back in 2017, 2018, 2019 the extraction was more from where the center – towards the lower part of the center of the plume and the injection was in the plume but kind of at the edge where the 50 parts per billion state limit lies. But it was in the plume itself and that's the crux of the state's concern is that in general injecting in the plume – for injecting in the plume for the sake of injecting they'd want to go find a different place. But as part of a hydraulic control, which is why they accepted it when it was originally proposed, the two injection and extraction wells have to work in concert. And some of the injection actually we did dye tests, you could inject it in one place and extract it another place – a benign dye – but it didn't all go one for one. One injection went to one extraction and vice versa but the hydraulic wall slowed the water down so that now it wasn't pushing the plume through that area more. It was kind of bunching up the plume and groundwater was finding its way around – it kind of mounds up the level of water under the ground and makes the, temporarily, enough time it will find its time around it. It has been effective in bunching up that contaminated plume.

I probably gave you more information than you wanted. I'm sorry it's the science in me.

CHAIR HAMILTON: No, that's okay. It's my field of expertise work. So that's what always surprised me and is this what surprised the regulators that you're injecting back into the plume and not slightly beyond the edge?

MR. MIKOLANIS: No. Thank you for the question, Madam Chair. No, that did not surprise the regulator. The regulator was involved. We proposed the hydraulic control back when before we even put it in place and it was reviewed and approved by the regulator. It was recently, since I've arrived, shortly after I arrived that I think there were some new SMEs some fresh eyes that we looking at it in late '21 early '22 timeframe that started to raise the concern of why are we doing this. And then the whole decision in the past have started to be revisited and well, here I am or here we are.

CHAIR HAMILTON: Thank you. And just to translate if anybody doesn't know what an SME is, it's a subject matter expert. I apologize to my Board for just taking advantage of the situation and asking the first question so – Commissioner Hansen and anybody else?

COMMISSIONER HANSEN: Thank you, Madam Chair. I am happy that you asked those questions being it's your background and not mine; never claimed to be an engineer or a scientist.

I am concerned about this issue. I thought it was an interesting idea that there are microbes, so have you explored that idea any further?

MR. MIKOLANIS: Thank you for the question, Madam Chair and Commissioner Hansen. Yes, we have explored it. We did two campaigns of adding amendments prior to my arrival. One of them plugged up the well. One was injecting molasses to go feed the microbes that are below there and another was injecting a chemical that would actually chemically interact with the chromium in the water. The molasses plugged up the well. We had to plug and abandon it. We were able to recover the second well after adding the amendment but neither of them – one of them proved unsuccessful. The other one marginally successful because the injection didn't stay fixed in the ground. We didn't get any indication that it would move and be something that would move the groundwater itself. So we've had limited success with amendments and that was tried in collaboration with our regulator. We all thought it might work but we had to test it.

COMMISSIONER HANSEN: So microbes was the molasses phenomena. So that didn't pan out. So what about mushrooms or other different kinds of microbes that might have a different effect and now plug up your well?

MR. MIKOLANIS: Thank you for the question, Madam Chair, Commissioner Hansen, we did not inject the microbes themselves. The microbes occur in the groundwater naturally. They're bugs, microscopic bugs that will eat things and one of them is chromium. We injected food, molasses, to go feed and make them grow. And the idea was that we would feed the microbes and I've seen this work at Savannah River but it didn't work here and it plugged the screen themselves. The screens are very very small. It's not like a screen you might find in a window, it's very small. And the chemical amendments that were added, which were chemicals, didn't work either. So chemicals and feeding the microbes that naturally occur, neither of those two strategies were successful with limited success in just one.

COMMISSIONER HANSEN: So you're still trying to figure out the interim approach?

MR. MIKOLANIS: Uh-huh.

COMMISSIONER HANSEN: And the regulators, NMED, do not want you injecting back into the plume. So have you come up with a solution that will allow you to do the injection far enough away from the plume to satisfy the regulator and help remove the chromium 6 from the plume?

MR. MIKOLANIS: Thank you for the question, Madam Chair, Commissioner Hansen. We are still working to that. We are currently at an impasse. We took kind of a month off from the summit, the summits that we have had. The state wants what I call the super IM where we put injection outside the plume somewhere a bigger injection. As I mentioned earlier, that in of itself won't sufficiently contain the plume because I don't have the extraction well size to contain it and to make sure it doesn't keep migrating down south to the pueblo lands and then we've damaged their natural resources and you can imagine what the governor of San Ildefonso would say if I let that happen as a result of this. So I want the remedy. They want the super IM and I'm trying to help them understand it is not just as simple as drilling another injection well and we're working to try to find some common ground.

That's what we're still doing. We took a month off to kind go back and look and working on a leadership level as well. We're working on many different levels. Thank you for the question.

COMMISSIONER HANSEN: Thank you. I want to ask you something a little bit off topic but related to BDD. I'm wondering what your plans for the MOU which we will need to work on in the next calendar year. I don't know if you were planning to speak about that tonight. I have other questions also but –

MR. MIKOLANIS: Thank you for the question, Madam Chair, Commissioner Hansen. I wasn't planning on speaking. I know that we had a really good discussion in April at the staff level. I intend to engage in those discussions and work with the Board as you helped me do when I first arrived here.

COMMISSIONER HANSEN: That sounds great. Just know that it is coming up. I also kind of wanted to speak to the WIPP issue and the new agreement, the 10-year agreement deal that was reached. I'm looking forward to getting more information on that, especially getting waste off the hill and having a more regular reporting of how much waste you're getting off. I believe that the 2021, 2022 amount of waste that you have removed from the hill has not been released or has just been released – maybe the 2022 has been released or 2021, but it would be interesting to know when you do start this WIPP removal and this permit is finalized, how much waste you have removed since and what your intention is to remove in the future.

MR. MIKOLANIS: Thank you, Madam Chair and Commissioner Hansen for the question. I could spend another 40 minutes just talking about all of that and with respect for the Board's time and what you're given me and generously and probably over given me, I would be happy to schedule an appointment, Commissioner, to meet with you. I can bring some of that information. We do have what we've been shipping and what we've been processing since I've been here and what our progress this year so far. I would be happy to sit down with you and share what we're doing, how we're shipping, the change that my leader, Ike White, the acting senior advisor for the Office of Environmental

Management, a fancy way of saying a non-politically appointed head of Office of Environmental Management and how he changed the priorities so that any time there is legacy waste for Los Alamos to ship, the truck is going to be coming up here and shipping it. So I would be happy to sit down with you and have a more lengthy discussion or come back to the Board if the entire Board has a general interest in it. I can't speak to the permitting because that really wasn't my purview. I know we had a great 17 party engagement on the permit. I'm happy to say positive results came out of it but I am happy to share the cleanup as it relates to that.

COMMISSIONER HANSEN: I'm grateful that a 10-year deal has been reached with milestones and moving forward. And, yes, I know this is a much lengthier discussion. But I did want to bring it up and I do have concerns and I look forward to a more in-depth conversation about that. So, thank you, Madam Chair.

MR. MIKOLANIS: Thank you I'll reach out and schedule something.

CHAIR HAMILTON: Thank you. Mr. Ives.

MR. IVES: Thank you, Madam Chair. So just touching on some of the things I was curious about. Which was have your annual budgets from Congress remained fairly constant in terms of hitting some of the anticipated goals for the cleanup as a whole matter, probably excluding Area G. And is the work on the chromium plume going to change or redirect funds significantly in any way away from other cleanup aspects?

MR. MIKOLANIS: Thank you, Madam Chair, Board members for the question. Excellent question. I am happy to tell you, no, my funding has not been stable. It's actually increased since I've been here, not a story that I often get to say. When I arrived, my Congressional appropriation was \$226 million. My cleanup contractor received about \$180 million of that and the balance is for work that DOE directly manages itself. In 2022 we got a plus-up to nearly \$292 million. That equated to an increase from about \$180 to almost \$240 million for cleanup of the transuranic mission as well as the environmental remediation. The environmental remediation which is groundwater, cleaning soils and things like that, that's about 40 percent of the budget that the cleanup contractor gets. The transuranic mission is about 60 percent. So, yes, sir, if we moved to remedy earlier that will certainly change my funding profile because I'm trying to accelerate something.

But I currently -- I've been asked this question when I presented to the legislature, if you had more money how much faster -- how much more could you do? And at this point, it's not about the money. I actually am carrying over quite a bit of funding that I can apply to a remedy and get an early start on the design and installation of some of these things that the state wants. So that's a good place to be. My limiting factor right now is more of people. It's a very difficult employment market right now. I can't wait for the academic study in a few years that goes back and looks at the post-COVID work place and tries to explain why people coming out into the job market has changed since before then. There's clearly some factors that changed. So that's really more my limiting component. It's the attrition as folks age and retire and not entering the job market as fast. So I need people first. I look forward to the day when money is the challenge. I don't want Congress to hear that because I don't want Congress to take it away.

MR. IVES: Thank you. Thank you, Madam Chair.

CHAIR HAMILTON: Thank you. Councilor Romero-Wirth.

COUNCILOR ROMERO-WIRTH: Thank you, Mr. Mikolanis. I think that's the first time I said your name and I know Commissioner Hansen loves the sound of it. She says it very well.

I appreciate the question. It's not about money. The limiting factor is people. It seems to me that time is also of the essence. I'm curious what is the time horizon here? You mentioned fear of this plume moving without the interim measure in place. You mentioned an impasse. You mentioned taking a month off for everybody to kind of regroup and think differently or see what occurs. How long can this go on?

MR. MIKOLANIS: Thank you for the question, Madam Chair and Board members. I thought your question was more to the duration of the cleanup so I think your question if I'm understanding correctly is how long can I continue to leave the interim measure shutdown; was that your question?

COUNCILOR ROMERO-WIRTH: Yes. I mean while you have an impasses and things are moving which are serious and, again, it seems that time if of the essence here and something needs to be done for the professional impasse to be overcome so that we're working back at whatever it is. Either keeping the plume from moving even temporarily and then moving more long term towards whatever the remedy is.

MR. MIKOLANIS: Great question. I understand where you're coming from now. I'll give you two answers. The quick one is and the short one it's not an imminent issue that I need to – it's not a matter of a few weeks or months. The interim measure has been completely shut down since April 1st which we're now several months into that and we've been looking as we take monthly samples from all of the wells and we're looking for a rebound of the chromium coming as the plume moves it over and making sure that that will be one of the signs that our work to push it back is reversing itself. But I've also tasked our cleanup contractor, they have a subcontractor that does the modeling for us and before the regulatory direction forced us to shutdown we directed another model run to be done with predicting the results with the entire injection and extraction shutdown and running the partial for the routing – to give us a sense of exactly how long. I don't have the results of that back yet but I know I have months to go before this becomes something where it is more of a crisis where, okay, I need to go look at something significantly different. It's not something that I can let go for years. I needed to push this boundary back 500 feet or more because when we do the final remedy at some point I'm going to have to shut down the interim measure to make the modifications to connect and transform it into remedy. I might have the interim measure shutdown for a year or two. And I'm going to need that 500 foot clean zone, if you will, between the pueblo and where it is now in order to buy me the time to make those modifications without the plume reentering its way back over closer to the pueblo boundary.

It's the best answer I can give you. I wish I had a definitive number. It's not weeks and months. But it's also not years.

COUNCILOR ROMERO-WIRTH: And I just to continue your sports and your football metaphor, I don't want to see you be in a hurry up offense. So that I think would not be ideal.

MR. MIKOLANIS: I thank the Board for recognizing that. When I came out here one of my primary goals and priorities for me was to build stronger relationships with the communities particularly with my regulator. Our relationship with our regulator was more – was not a collaborative one. And I do not enjoy being in a situation where I am

in a significant and differing professional opinion. I would much prefer going back in the collaboration and trying to work the cleanup because my regulator is working to the best interest of the state and the residents and so am I. So I look forward to the day of getting past this and continuing to rebuild the relationship. In the meantime I have to make sure that this difference of opinion does not destroy the progress I've made so far in trying to establish a more transparent and trusting relationship with my regulator because you absolutely need that to do the cleanup mission at the hill.

CHAIR HAMILTON: Thank you. Yes, J.C.

MR. HELMS: If you had the opportunity to design the Buckman facility with a clean slate and you were locating the intake manifold, I guess that's what it is called, how far up the river would you put it to avoid all of these pollutions problems coming out of Los Alamos?

MR. MIKOLANIS: Thank you, Madam Chair, Board members for the question, good one. I haven't studied this myself, but you'd want to move it upstream of where all of the water plains are established because we don't get continuous flow generally from the [inaudible] that makes it down to the river. It is seasonal when the monsoons happen that you'll have the potential for moving contamination. I will caveat since I'm answering a hypothetical, the Department of Energy has measures in place to prevent these rains from allowing any contaminants, radioactive or chemical from migrating or moving during those seasonal water flows. But if you were to redesign from Greenfield you'd want to move it upstream more towards where Santa Clara is and even some of the watersheds impact the –

MR. HELMS: But how far up would you go?

MR. MIKOLANIS: I'd have to have a map to tell you that. But I'll tell you the engineering aspects of that and the cost of pumping water that far because your electric costs would increase significantly for pumping the volumes of water that you remove from the river that distance. We'd be talking miles.

MR. HELMS: Yeah, sure. But is it 5 miles or 10 miles or what?

MR. MIKOLANIS: I'd have to have a map, sir, to tell you that.

MR. HELMS: But you do believe there would be some point that it would work from an engineering point of view, never mind from financial. But you could sidestep the pollution topic by putting the intake farther up the river.

MR. MIKOLANIS: There is a point along the Rio Grande where you could locate an intake structure like where the watersheds coming from the mesa where the lab is are downstream of the intake. But since you asked if there's a physical place, I would never advise the Board to go do that because while there are contaminants that are resident there, the controls that are in place, the analysis that we do, the sampling as part of the MOU we fund testing and sampling that the Board conducts to provide that assurance. All of the engineering and science shows that even if a small amount does move it's not going to impact the water nor the water quality of what you extract. Now, that's a platitude and I certainly understand that and why we do the testing and we pay for that at this point through the MOA, but I would not advocate moving it further up because –well, I understand the fate and transport of contaminants in the environment and the impact of extracting it, I do not see the potential for anything that would come from the mesa the way that it is currently designed unless something significantly changed. an earthquake or something let's say, that significantly changed the landscape that would pose a threat to the water supply here.

MR. HELMS: Thank you.

MR. MIKOLANIS: Yes, sir.

CHAIR HAMILTON: Thanks. SO I can't help but ask one more question. We recently, I'm sure you've talked a lot about it, had a decision the Sackett decision that really is in my thinking is going to change the permitting and regulatory context that we're working in. Have you and your people been talking about that? How do you see this impacting your requirements for permits and the way you respond and some of the things you do around – since in the past there's been a regulatory hook requiring certain actions

MR. MIKOLANIS: Thank you for the question, Madam Chair, members of the Board. I hadn't paid attention to the lawsuit as it worked its way through the courts but once the Supreme Court rendered its decision it got my attention. I've read the basis of the lawsuit and the basis of the decision, an interesting case. At this point, it's my understanding that the Environmental Protection Agency is revising the definition of Waters of the U.S. rule and they're anticipating that revision to be out in the September timeframe. I don't have any real insight as to what that provision might look like. We've had some internal discussions but in my field office for my part of it and understand that there's two field offices in Los Alamos and I run the cleanup and I do the permit. I am responsible for the permits that are associated with where I'm doing my work. My colleague, Ted Wyka who runs the NNSA has similar duties on a much bigger part of the lab. At this time, I don't envision any change to the permits while the Environmental Protection Agency – for my scope of work at least, that's all I'm authorized to speak to – while the Environmental Protection Agency revisits the rule and the definition.

So I have absolutely no intention or desire to leap out ahead of them, the EPA, taking its action and do something forward looking and leaping in the regulatory environment in terms of our permits. I'm going to maintain the status quo until the EPA does [inaudible] puts out a revised definition and we have time to understand and assess the impacts of it. How is that for an answer?

CHAIR HAMILTON: It only pushes it out a few months. That's part of – I respect the answer but I have to say, I would at least bet my infamous hot fudge sundae which is not that much to lose, that there is some discussion of how much the regulatory hook, the requirement for permits drives the money that is spent on compliance and if the EPA redefines WOTUS in accordance with the Sackett rule it's going to take that away from all waters that LANL discharges into.

MR. MIKOLANIS: Yes, ma'am. And we have been looking and thinking a little bit about that. But I'll note that we're currently regulated under the NEDPS, the national effluent discharge permit, an effluent system. There are many other environmental laws, even if that system were changed, there are many other laws that would come into play that would have to be evaluated. It's like a critical path of a schedule. When you do a project management, a project has a critical path through it and if you reduce the schedule from that critical path so it's no longer the critical path, another thing jumps up into the critical path. I kind of view the universe of environmental laws as a series of critical paths in parallel with each other. And even if something were to change there, and that's why I gave you the – we have to look and see and evaluate what is changing. Depending upon what they change and how they change it we'd have to look at, well, what would change because indeed we don't have continuous waters we have season flow of water so it certainly has a nexus with the ruling from the court. But how the EPA would change that

and what other laws might apply in the existence of a new change is something I would even hesitate to speculate on and we've done enough conceptual thinking to know this is not going to be a trivial thing to go deal with when it comes out and it's going to be very controversial I'm sure.

CHAIR HAMILTON: Well, it's surely going to be controversial. We definitely agree on that. And I appreciate that –

MR. MIKOLANIS: I mean the nation, not my site. I mean the nation as a whole. I'm not trying to do anything controversial. I'm actually trying to build relationships.

CHAIR HAMILTON: No, no, I understood how you meant it. I mean there are an infinite number of things that are going to take its place. I think that that analysis would be – is going to be made eventually. So maybe you feel it is a little bit of a preemptive question but maybe I can ask it again the next time.

MR. MIKOLANIS: Thank you again for the question. I wasn't completely surprised by it.

CHAIR HAMILTON: I didn't think you were.

MR. MIKOLANIS: I am interested in it myself and given how the watersheds impact the Rio Grande which impacts the city's water supply; I am not surprised by the question. I wish I could give you a better answer but it would be irresponsible.

CHAIR HAMILTON: Yeah, I wish so too. In that context, that same context, PFAS is the other thing that is a tremendous – but I don't think we have anything in place for that now. What's going on with that?

MR. MIKOLANIS: Thank you for the question on PFAS. I don't have anything unique to my field office that does – as I mentioned we have two offices. The National Nuclear Security Administration that does national defense mission, the research on the newly generated waste. I do the cleanup. The other larger field office, they're the landlord. The landlord has the lead for Los Alamos National Lab itself for PFAS. We follow their lead and are working with them as they work the issue. But I don't have the lead for that. That's going to be another significant environmental issue on the horizon that I look forward to dealing with as another challenge in the legacy waste cleanup.

CHAIR HAMILTON: Thanks. I'm looking forward to my root canal also.

MR. MIKOLANIS: Yes, ma'am, you got my message.

CHAIR HAMILTON: Just joking.

COMMISSIONER HANSEN: Thank you so much, Mr. Mikolanis for spending all of this time with us. Maybe we possibly need to invite Ted Wyka to speak about the PFAS issue since that is under his purview and –

CHAIR HAMILTON: That's a good idea.

COMMISSIONER HANSEN: I would suggest that.

CHAIR HAMILTON: Thank you. Does anybody else have questions? Thank you so much for spending all the time. Really, really appreciate it for an ongoing understanding of relationships and whatnot.

MR. MIKOLANIS: Thank you again for the opportunity to speak with the Board. I've spoken over the computer many times and it's really wonderful to be here in three dimensions and having a discussion. You were very gracious with the extra time. I feel like a thief walking on the night with all the time I have taken from you all. But thank

you very much and I'll get the heck off the stage so you can get back to your regular schedule.

CHAIR HAMILTON: Excellent. Thank you so much.

MR. HARWOOD: One quick comment. I have heard back from most of you about the proposed tour dates. I'll be calling folks in the morning – I also heard back from Councilor Villarreal so that's great. So I'll try and coalesce that information so we can schedule with Michael's staff that site visit. And with that, I think we're done with this item.

CHAIR HAMILTON: We are. Thank you so much.

7. ACTION ITEMS: CONSENT

- a. **Request formal adoption of the fiscal Year 2024 Annual Operating Budget in the amount of \$8,290,553, plus \$1,787,500 in contributions to the Major Repair and Replacement Fund**

COUNCILOR ROMERO-WIRTH: Move to approve.

MR. HELMS: Second

CHAIR HAMILTON: Okay. I have a motion and second. Under discussion I'll go to you. You wanted it pulled.

COMMISSIONER HANSEN: [microphone temporarily off] What I was asking about is the County Conservation Fee of \$13,500; what exactly is that?

COUNCILOR ROMERO-WIRTH: Madam Chair, can the Commissioner tell us what page she is on?

COMMISSIONER HANSEN: I'm on page 13. It's the last table.

ANTOINETTE ARMIJO-ROUGEMONT (BDD Accounting Supervisor): Madam Chair, members of the Board, that conservation fee is administered by the State Engineers Office, by the state, so it's a pass through.

COMMISSIONER HANSEN: So the OSE –

MS. ARMIJO-ROUGEMONT: I believe it's the OSE; right, Rick?

COMMISSIONER HANSEN: So it's not Santa Fe County –

MS. ARMIJO-ROUGEMONT: No, it's a pass-through so we collect it from Santa Fe County.

COMMISSIONER HANSEN: And pay it to OSE?

MS. ARMIJO-ROUGEMONT: We pay it to Water and Water pays it.

COMMISSIONER HANSEN: And what's it for? I'm just curious. I don't remember seeing it before

CHAIR HAMILTON: We've always paid it and it think it is an administrative fee that they use to fund some of their programs.

MR. SUGRUE: A brief answer to that is that the Water Conservation Fee is charged through and the City also pays it but they pay it directly not through BDD. Conservation funds are just a few cents per thousand gallons of treated water and those funds go towards the sampling that NMED does for compliance at BDD and they come and they sample a storage tank for various contaminants of concern and they do that throughout the city annually. And the City doesn't have to pay that fee because it's paid for by this Water Conservation Fee Fund. So it funds sampling by the state for water quality.

COMMISSIONER HANSEN: Okay, thank you.

CHAIR HAMILTON: Okay. Tom.

MR. EGELHOFF: I have a question about page 3. I'm trying to figure out the fixed and what costs are associated with capacity and what are associated with volume metric usage? For instance, the co-op on personnel is being charged \$64,620 for personnel and they don't have any volume metric charges because they don't take water. That must be based off of their capacity in the BDD. I'm just trying to figure out how the club – we have less capacity in the BDD compared to the co-op so I am assuming our 125,118 is associated with volume metrics so it's – I didn't remember that some fixed and variable costs. So I don't understand it.

MS. ARMIJO-ROUGEMENT: We have a spreadsheet where we figure that out. I can send that to you if you'd like with the formulas that we use.

CHAIR HAMILTON: Maybe you could get that to Tom and if – and review the formulas and then bring it just as a – and report back next time. If there's actually a problem with it, something that – we can always amend something.

MR. EGELHOFF: I know electricity for sure because we're pumping water but it seemed odd and I never remember us having different like fixed – we've always been less fixed and more variable than the co-op and I don't know. If unless somehow personnel gets funding from both a capacity and a volume metric. You know, because we have less capacity and less than the co-op. They're at 6 percent and we're at 5 percent. But somehow –

CHAIR HAMILTON: Almost all of the categories are higher for the club than the co-op.

MR. EGELHOFF: I understand that but generally speaking there are some that are supposed to be lower. Like if you look on page – I don't know where it's at – on page 2. If you look at fixed 61 compared to 79 and then variable is 65. Sixty-five is variable cost – I don't know. I'll follow up with you.

MS. ARMIJO-ROUGEMENT: Okay.

CHAIR HAMILTON: That's a great idea and like I said if there are problems – [audience outburst] well, you definitely want to clarify it. It would be nice to get a brief report back just for everybody's information. You know, learn something as we go along. If there's a problem we can – I mean, I don't see this holding up the budget since we've been working on this for months and it's something that could have been clarified earlier. So we should maybe consider doing a revision if it's necessary. Do you have further questions on it though that should get out on the table?

MR. EGELHOFF: No, we'll just follow up.

CHAIR HAMILTON: Okay, great, thank you. Thank you, Antoinette. Commissioner Hansen?

COMMISSIONER HANSEN: Who seconded the motion?

MR. HELMS: I did.

CHAIR HAMILTON: J.C. I have a motion and a second.

The motion passed by unanimous [4-0] voice vote.

COUNCILOR ROMERO-WIRTH: I think you have to have a roll call here.

CHAIR HAMILTON: Not for budget.

COUNCILOR ROMERO-WIRTH: When you pull something off consent?

CHAIR HAMILTON: Nancy?

NANCY LONG (BDDDB Counsel): No, we don't. But it sounds like that's what you do at the Council.

COUNCILOR ROMERO-WIRTH: I think we do.

MS. LONG: I'll take a look at it.

COUNCILOR ROMERO-WIRTH: We should do that. We should follow this lead. Sorry.

CHAIR HAMILTON: No, no, I appreciate it. Because if we did then that would be important to know.

[The Board re-voted and the motion again passed by unanimous [4-0] voice vote.]

8. ACTION ITEMS

None were presented.

9. MATTERS FROM THE PUBLIC

CHAIR HAMILTON: Is there anyone from the public that would like to speak to the Board; yes, please come down and introduce yourself. We know who you are and appreciate your presence.

JONI ARENDS: Good afternoon. My name is Joni Arends and I'm with Concerned Citizens for Nuclear Safety. Excuse my outburst, I was concentrating on writing my comment for you all and was just surprised.

To begin, last night the New Mexico Environment Department presented to the Los Alamos County Board of Public Utilities specifically about the chromium plume and they explained – it was both the Groundwater Quality Bureau and the Hazardous Waste Bureau technical experts explaining their concerns about the chromium plume. In an effort to provide equal time I would recommend or CCNS would recommend that the Board ask for that presentation to occur here as well. Some of the concerns that you all brought up in terms of accelerated cleanup, we've done that before and that's how WIPP got blowup. That's how the framework agreement got created in 2011.

We know that when DOE gets in a hurry they make mistakes and some of the terms that were expressed last night, NMED's concerns and I am not speaking for them, but that actually what's happening is that through the injection the chromium plume used to be at 50 feet, you know, 1,000 feet down but at the top 50 feet. Now it's 150 feet, the top 150 feet. So something has changed dramatically to cause more contamination and as a Board you have responsibilities to ensure that this water is safe that comes – this whole aquifer, this sole-source drinking water aquifer and this part of it.

So I think for clarity it would be really good for the NMED to come in give their presentation about the chromium plume and their concerns and provide equal time. Thank you.

CHAIR HAMILTON: Thank you, Joni. That makes a lot of sense. Is there anybody else here from the public who would like to speak? Seeing none, I'm going to close public hearing.

10. MATTERS FROM THE BOARD

CHAIR HAMILTON: Yes, Commissioner Hansen.

COMMISSIONER HANSEN: I completely agree. I think getting NMED here to speak about the chromium plume and numerous other things might be really good and especially since they have a number of new people over there. And then, Ted Wyka on PFAS from Triad that would be another person who would be good for us to hear from. And that's all that I have.

CHAIR HAMILTON: Excellent. Any other Board members with items?

11. NEXT MEETING: Thursday, August 3, 2023 at 4:00 p.m.

12. ADJOURN

Having completed the agenda and with no further business to come before the Board, Chair Hamilton declared this meeting adjourned at approximately 5:40 p.m.

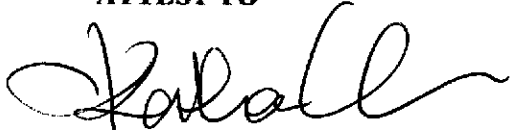
Approved by:


Anna Hamilton, Board Chair

Respectfully submitted:

Karen Farrell, Wordswork

ATTEST TO


KATHARINE E. CLARK
SANTA FE COUNTY CLERK

