MINUTES OF THE

CITY OF SANTA FE & SANTA FE COUNTY

BUCKMAN DIRECT DIVERSION BOARD MEETING

December 4, 2025

1. Call to Order

This regular meeting of the City of Santa Fe & Santa Fe County Buckman Direct Diversion Board meeting was called to order by Commissioner Justin Greene, BDD Board Chair at approximately 4:00 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:	**Member(s) Excused**:
Commissioner Justin Greene, Chair	None
Councilor Carol Romero-Wirth	
Councilor Jamie Cassutt	
Commissioner Hank Hughes	
Rolf Schmidt-Petersen, Citizen Member	
T. Egelhoff, The Club at Las Campanas, [non-voting member]	

BDD Board Alternate Members Present:
Peter Ives, Citizen Member Alternate

Others Present:
Bradley Prada Facilities Manager
Nancy Long, BDD Board Consulting Attorney
Kyle Harwood, BDD Board Consulting Attorney
Bernardine Padilla, BDD Public Relations Coordinator
Matt Sandoval, BDD Operations Superintendent
Brandi Martinez, BDD Administrative Assistance
Jesse Roach, City Interim Utilities Director
Peter Hunt, Glorieta Geoscience
Larry Pierce, Glorieta Geoscience
Wayne Lorenz, Wright Waters
John Sikora, AECOM

3. Approval of Agenda

Councilor Cassutt moved to approve the agenda as published. Her motion was seconded by Councilor Romero-Wirth. The motion passed by unanimous [5-0] voice vote.

4. Approval of Consent Agenda

Member Schmidt-Peterson moved to approve the Consent Agenda. Councilor Cassutt seconded and the motion passed by unanimous [5-0] voice vote.

a. Request for Approval to award ITB #26025 "BDD Granular Activated Carbon (GAC) Media Changeout" to Calgon Carbon Corporation, A Kuraray Company for a total amount of $472,500.00, inclusive of any applicable NMGRT for Fiscal Year 2026

5. Matters from the Public – None were offered.

6. Approval of Minutes

a. Approval of the November 6, 2025 Buckman Direct Diversion Board Meeting Minutes

Nancy Long, BDD Counsel provided the following statement for inclusion in the November 6, 2025 minutes: That the only matter discussed during the executive session of our last regular board meeting on November 6, 2025, was the matter as stated in the motion to go into executive session and no action was taken.

Councilor Cassutt moved to approve the minutes as amended. Commissioner Hughes seconded and the motion to approve the minutes passed by unanimous [5-0] voice vote.

7. Presentations and Informational Items

a. Monthly Update on BDD Operations

MATT SANDOVAL (BDD Operations Superintendent): Thank you, Chair Greene, members of the Board. This update summarizes our BDD operations for the month of November 2025. The BDD diversions and deliveries averaged in million gallons per day as follows: raw water diversion, 3.5 million gallons per day; drinking water deliveries through Booster Station 4A/5A, 3.19 million gallons per day; raw water delivered to Las Campanas at Booster Station 2A, .27 million gallons per day. And the BDD provided 44 percent of the water to the City and the County for the month of November 2025. And I will stand for questions.

CHAIR GREENE: Do we have any questions? Thank you.

MR. SANDOVAL: Thank you.

7. B. Report from BDD Facilities Manager

BRAD PRADA (Facilities Manager): Good afternoon, Chair, Board members and guests. I would like to begin by honoring Vice Chair Romero-Wirth as she attends her final BDD Board meeting as a Board member. Vice Chair Romero-Wirth has shown strong leadership and her expertise in water and sustainability issues provided this Board with valuable strategic insight. While are certain that we'll miss you, we are grateful to know that

you will remain a BDD advocate. We want you to know that you will never wear out your welcome as a member of the public at the BDD. Thank you for your service.

Now onto my report: we are well of recent media focus on public concerns surrounding hexavalent chromium 6 in the drinking water sources. BDD monitors this contaminant on a regular basis and we will confirm that all BDD testing to date has shown no hits of chromium at this point. And we will remain fully compliant with the regulatory standards.

Progress on our major repair and replacement, our MR&R projects, focusing on BDD mitigating operational downtime are continuing as usual. To modernize our ageing control system the high-priority RFP for PLC replacement has been posted.

BDD personnel continuing working with staff to address existing vacancies. We are directly addressing the concern regarding turnover in the accounting supervisor position which was a concern brought up by the Board last month. Following a high-level discussion with city staff, we have jointly decided to reclassify to an accounting manager. This is a strategic move to ensure the title reflects the high level of responsibility and helps us attract and retain high-caliber financial leadership. And I'll stand for questions.

CHAIR GREENE: Any questions? Yes.

COMMISSIONER HUGHES: What's the status of the chemist?

MR. PRADA: As you can see in my report, it's pending the department.

COMMISSIONER HUGHES: Meaning what?

MR. PRADA: We have interviewed and we haven't made a decision yet.

COMMISSIONER HUGHES: Okay.

CHAIR GREENE: An internal BDD thing not a City HR.

MR. PRADA: Yes.

CHAIR GREENE: Okay.

c. Update on the Buckman Direct Diversion Facility Rebuild Project with a presentation on River Intake Sedimentation and a Design Alternatives Overview from the BDD Owners Representative

[Discussion on preparing the slide show and advancing slides has been removed from this transcript.]

MR. PRADA: I will defer to John, AECOM, owners rep.

JOHN SIKORA (AECOM): And also today we have Wayne Lorenz, Wright Waters, to help answer questions. John Sikora with AECOM, I am the owners rep for BDD.

WAYNE LORENZ: Hello, my name is Wayne Lorenz. I am with Wright Water Engineers out of Denver. I am vice president of public works and have been working, I think as you all know, I was involved with the litigation as an expert and now following up with trying to improve the system as a result of that litigation. Happy to be here.

MR. SIKORA: So first of all this is just a high level discussion on sediment transport as it relates to the Rio Grande near the intake. I hope you've had a chance to look at your work packets. Hopefully, you have some questions. I like to work informally so please shout out and ask questions as we go through the slides.

This is a difficult topic and it kind of reminds me when I was in college studying river mechanics and sediment transport, our professor shared with us a story. And that story was

that some of the equations that we use in sediment transport are called Einstein Equation. They weren't developed by Albert but his son. And Albert said, why do you study something so hard? And it's not because sediment transport is mind bending like theory of relativity stuff but it's highly variable. And that's something that we're dealing with here.

In sediment transport we mainly talk about two types of sediment. One is called bedload and it's the sediment or the heavier particles that are rolling along the bottom of the river. And then suspended load is everything that's in the water column. And what you can see with higher turbulence flows is some of the bedload will then be transported as then suspended. So they kind of move in between. And this is what a concentration curve looks like with suspended sediment. So you see the bedload down at the bottom and you can see the cursor here where we have the differences. We have a flow going this way so we have higher sediment concentrations as we move through the water column.

This is a super important curve for the BDD intake. So on the right, we're showing the flow or an event that occurred and based on the sediment concentration this is where Brad is considering to turnoff the system because there's too much sediment in the river. What's important to look at is the concentration – so the average concentration is about 1,900 mg/l but when you look at the sand that's at the bottom of the river it's actually 3,600 and the top 6 inches of the water column is 200 mg/l. So less than 1/10 of the sediment is at the top of the water column. So the BDD intake is taking water from the entire water column and mainly from the bottom. So if we can take the top 6 inches of water we only get a 1/10 of the sediment into the intake. So the alternatives that we're going to focus on are that: how do we get water from the top.

One of the other challenges of the river near the BDD intake is that this is a plot of all of the data at the Otowi Bridge and so look at the variability in the sediment. This is what Einstein was talking about is that for the same flow we have different concentrations for sediment and this curve, based on our experience, is more variable than you would see in other places. And so we asked ourselves, why? So here's a sample of the data and so what you'll notice if you look through this data is that there's different concentrations of sand and very fine particles. Sand is easy for us to exclude from the intake and the finer grained materials are less or they're harder for us to exclude or to keep in the river.

So we started looking at why this may be. And you'll see in this plot, from left to right, is the different suspended or fine grain materials. So in winter months we have less fine grain materials than we do during the summer months. And so what that's indicating to us, not that we fully understand it yet, but that during rainfall events we're bringing in material from the watershed. So from the smaller tributaries that may not be contributing during the winter months and snowmelt. This is bringing finer material in. So there's going to be -- it's going to be more difficult to exclude sediment during the summer months than it will be during the winter months. So just an observation and something that we're going to have to deal with.

MEMBER SCHMIDT-PETERSEN: John, can I ask a question in there?

MR. SIKORA: You bet.

MEMBER SCHMIDT-PETERSEN: That makes sense to me on the river just from my experience. So I just have a question, this graphic makes sense to me from my experience on the river but I'm wondering if you guys have aligned what you're seeing in the river with what's been going on operationally because I believe we have data, at least with regards to the sediment that has been removed from the settling basins.

MR. SIKORA: Yes.

MEMBER SCHMIDT-PETERSEN: And what types of sediments there and how often it has to be removed and the volumes and try to relate those because it would be interesting to see what they've been able to do operationally given the situation as they've worked it for over 10 years. So, I'm just trying to tie those two things together.

MR. SIKORA: And one of the things that we're currently or that we have recommended to Brad and we're working on is to install a new meter at the intake. To actually look not so much at turbidity but what's the weight of the material that is actually coming in. And we'll be able to look at that by season after we get this meter installed. Good question.

So a river intake design, these are six features that we need to look at and all alternatives need to consider all six of these design elements. So we have in the next few slides, we have alternatives for each one of these design elements. Our process is going to be to discuss and combine the different alternatives for each one of these design elements. So I'm going to walk through the design elements.

First of all the location and configuration. In our opinion, the location of the BDD intake is actually pretty good. It's somewhat on the outside of the bend. It's located upstream from a relatively stable control feature that is in the river. So we're going to get the relatively constant head for various flow rates because of the naturally occurring ripple just downstream. And so what we'll look at is both in channels so maybe we can come up with an alternative where we actually put the intake more out into the river than on the bank. One of the unique issues that BDD has is depending on the flow rates there has been a lot of observation of sediment being up against the screen uptakes and the maintenance staff needs to go down and take it off. That's a naturally occurring issue in the river. As the energy drops in the river it deposits sediment and it's depositing sediment on the bank So can we actually move an intake out into the river a little bit more and get cleaner water? So we'll look at that. Off channel diversions which is pretty much out there right now. Off channel to the forebay so we can actually build a little bit of a forebay so get deposition of sediment before intake. A bank intake; a Ranney well option. You guys are probably pretty familiar with the Ranney well which is horizontal drilling underneath the river, pull the water down through the natural bed of the river. And so it removes a lot of the sediment. And so you actually use well screens to screen out the bed of the river so you're getting a lot cleaner water. The issues are with the Ranney well that with this geology we're not going to probably be able to take the entire amount that BDD needs. So probably more like 2 or 3 cfs per Ranney well is all we're going to be able to get.

COMMISSIONER HUGHES: What's that percentage of what we need?

MR. SIKORA: It's 25 cfs.

COMMISSIONER HUGHES: Twenty-five cfs we need and only 2 cfs through a Ranney well?

MR. SIKORA: Yes, so you we need to put 12 of them. Big footprint.

CHAIR GREENE: I know that we're using those up at the Pojoaque Basin.

MR. SIKORA: Yes.

CHAIR GREENE: Three of them; is that right?

MR. SIKORA: I believe so.

CHAIR GREENE: Doing the math, I think I see three being drilled and that makes sense because I think we're at 5 cfs.

MR. SIKORA: Okay. One of the other things we'll look at is an infiltration gallery so we can actually engineer materials to put on the bank like in an enclosed system and then pull the water through like a sand filter. Very similar to what is done in water treatment. So we'll look at that. And then this photo that's up here, we call it a submerged suction bell and what that is there's a pump to the right and you just suck off the top of the water column and those bells can move. So it'll bring a cleaner water off of the top it's just that you've got to find a way to move that suction as the river moves up and down.

MEMBER SCHMIDT-PETERSEN: John, the question I have, just from previous experience out on the San Juan, the Hogback diversion – I don't know if you've ever seen that. And they have a high crested weir that was put in that does essentially the same thing that you're talking about. It was put in for fish exclusion. But basically – just that first 3 inches of water over the top and basically most of the rest of the load is just carried through – and I was wondering if you guys were looking at anything like that or that had been discussed?

MR. SIKORA: Yes, and I actually have that a little later in a slide. We're classifying that as an intake gate.

MEMBER SCHMIDT-PETERSEN: Okay.

MR. SIKORA: I'll take about that in a lot more detail. So the silvery minnow is an issue at the site or it's part of the NEPA documents is that we need to exclude the silvery minnow and that's the main purpose of the screens that are on the current intake is to exclude the silvery minnow. Whenever you put those flat plate screens as has been observed at this intake there's a lot of maintenance associated with it so you end up having to clean the screens. We get sediment deposition against those screens. The space in between the screens is not great enough to actually exclude most of the sediment that is in the Rio Grande. So it's a challenge when you put those screens out in front. But that doesn't mean we can't move those screens inside of our intake.

There's other ways for screening for aquatic species. This picture in the middle is a Coanda screen and that is a screen that you would actually put out into the river and so the water in this photo, the water would be moving from left to right. So it turns the Coanda screen into self-cleaning. So the river has it falls over it pulls water into the screen, the spacing would probably be similar to the screen that is out there. The challenge with these are that they are difficult to maintain. And then over here on the left, we have what we call cylindrical screens, just a different way of screening out aquatic species.

One of the things that I think we're going to have the most success with on this intake is called a bio-acoustic fish fence. And that's what is shown on this upper photo. What a bio-acoustic fish fence is is a bubble screen. In addition to speakers that are underwater that repel fish and then they also use lights or strobe lights and the combination of the three will scare fish. And it's mainly the bubble curtain, fish don't like to swim through that. So we're currently designing the second one in the United States right now that will be installed up in Fort. Collins. And there's one right now in California.

Debris management is somewhat of an issue. During higher flow events you get woody debris that will float down. There are ways of dealing with that but one of the bigger issues is the algae. So when you get these narrowly spaced screens, algae can clog the screens and it's difficult or harder to remove that algae. There's different ways of doing it mainly these automated rakes, I'm showing at the top. So there could be a combination of floating debris booms that you're seeing in the photo there. Maybe some bollards in that

center photo that we would use.

These in channel features are another important component. So the two photos that are on the left are what we call Iowa Vanes or sediment vanes and they essentially act like airplane wings. So depending on how you turn those Iowa Vanes you can get sediment to deposit or you can get sediment to scourer. So we could actually put them in front of our gates to move some of the sediment away. So you would turn that plate so we're constantly scouring sediment and it wouldn't get deposited in front of the screens. One of the things that is nice about this is depending on what we do you can actually come back and install these later. So some of our design, we've included them, we see if there's an issue and if there is an issue we can come back and retrofit with these sediment banks.

In this photo on the right is one of the gates, I believe that you were mentioning. What's hard to see there underneath that bridge, that's called a hinged crest gate. This is a super low flow and I've got a better photo coming up. So the hinged crest gate, this concrete weir that you see on the left side of this photo that is designed so that at different flow rates we can deliver the water that we need to that hinged crest gate. So as you can imagine the river moves up and down depending on the flow rates and so that gate tilts so that we're only taking the top part of that water. So this hinged crest gate or the Obermeyer gate that I'll show in the next photo is looking pretty promising as a viable alternative for BDD.

And as I was mentioning, these in channel features are what guarantees us that we have the head that we need at the gate so that we get the flows that we need depending on how wide our gate is.

And these are the different types of intake gates that we would put at the intake to help control the flow. And this is one way, these two gates, on the left is the hinged crest gate and on the right is the Obermeyer gate. The Albuquerque diversion uses these Obermeyer gates. What those do is – and I'll just explain the one on the right – they have these pillows that you use an air-compressor to fill the pillow and if you want more flow over the gate you actually deflate those pillow so that you can get additional head over the top of the gate. So that allows you the flexibility to take the top 6 inches of water that are in the river depending on where the river is. In this example here if we fix a crest like this we know at what head that we'll have at different flow rates wherever the Rio Grande chooses to be that day and then you bury your intake gate so that you can get the top 6 inches of flow. Does that make sense?

MR. EGELHOFF: So what prevents the sediment in the river that isn't filtered or anything from wearing out all the works that put in the river?

MR. SIKORA: They do wear out over time. These Obermeyer gates have been installed in a similar river system on the South Platte so just north of Denver near Greeley, Colorado. So they have had pretty good luck with these. They've been in 30 years plus and so far it is still operating.

MR. EGELHOFF: One other question I had, the sediment report that you have here, I assume there was one originally done when the BDD was built or designed. Did anybody come across that and how does this compare to that?

MR. SIKORA: Wayne, have you seen that.

MR. LORENZ: Yeah. Wright Water focused on the problems. There were many problems with the current design. One is that the intake is too low. The bottom of the screen is right at the bottom of the bed. It was designed to be 6 inches above. So that was one of the big problems with the current screen. So are there a number of problems like that.

The screens are at an angle for various reasons. They should be vertical. Problems with the airburst system.

I'm not sure I'm answering your question specifically but there are problems with the current screening that we can learn off of and will and have to proceed with evaluating the alternatives.

MR. EGELHOFF: I'm thinking my question was, was there like a sediment report associated with intake so the design calculations show what they were doing.

MR. LORENZ: Yes. We have the basis of design of the regional screening. Then we did a number of reports to critique that, so, yes.

MR. EGELHOFF: I was wondering if the latest report is saying that there's a lot more sediment in the river than the initial report that was used to design the initial BDD intake?

MR. LORENZ: Not necessarily. The sediment varies over a wide range in the stream, of course, based on flow, based on season. So there's not a typical pattern.

MR. PRADA: If I may interject here. Mr. Egelhoff, to speak to your first question, we see the weather, we see the raw water system after the diversion because of the pressure that are through the booster stations. These gates that would be in the river they're not going to see the same pressures. So they won't see the same wear. Speaking – to how everything has worn down through the system – but to speak to the data, it's AECOM's interpretation of the historical data is what this report is. It could have been the design-build team's interpretation of the data when they built the initial BDD structure. But they should be very close to that.

CHAIR GREENE: Did that answer enough for you? It seemed like it was kind of – if I was understanding your question, you were asking if the same reports essentially generated and how are we making decisions based on differences in reports or did their analysis significantly differ from this beginning analysis where they made a different set of assumptions and design decisions versus we came up with the same basis of what the river is and we're looking at it, obviously, they should have made different decisions; is that it?

MR. EGELHOFF: Yeah, that's the idea.

MR. SIKORA: So the data we're looking at here goes back as far as 1973. This data was collected by the USGS at the Otowi Bridge. So in theory, they had the same data. There's been additional data since it was installed. But it's all the same data. And as Brad said, I think it comes down more to the interpretation of that data. And we're going into in my opinion, now, it's my opinion that the original design they felt that the Lakos separators were going to be able to take out the sediment. And that that was their mitigation strategy. Our opinion more in these alternatives that we're looking at are more to exclude the sediment. To keep it in the river and not take it in. We still believe that there's going to be a fraction that we still need to deal with. The Lakos separators are mainly designed for sands and we believe that if you take the top 6 inches or 8 inches whatever the design shows, we're going to exclude the sands and the Lakos separators they won't be effective. So what we'll end up having to do is look at settling basins to take out that remaining amount of sediment.

MR. EGELHOFF: Were the sediment basins going to be down there?

MR. SIKORA: What we're thinking, and again we've got to go through this alternatives analysis for everything, but you would at the booster station where we lift the water up 50 vertical feet or so, we would be the sediment basins up there and then in that way we could flush them and move the sediment back down to the river.

MR. EGELHOFF: It just seems odd to move all of the sediment through all the pumps, all the pipes, all the way to the top.

MR. SIKORA: Agree, and that's why we want to exclude as much of the sediment, keep it in the river that we can, and then the last fraction that we can deal with, we deal with it closer to the river.

MR. PRADA: And to speak to that. The raw water system, the actual raw water pump, the raw water lift station doesn't produce the pressures that cause the deterioration of the materials in the pump. So what I'm getting at is that we replace the raw water lift station pumps far less than we do 1A and 2A. So if we pump in there to another sediment basin it's not going to cause the detriment like it would if it were at 1A and 2A.

CHAIR GREENE: And you're saying that 80 percent, more or less, would be already taken out just by the design and taking the top 6 or 8 inches off the top so a lot of that volume will be gone. It's the small micro particles and those would go to sediment basins that are close to the river or up at the BDD treatment facility that they have up there?

MR. SIKORA: So one of the things that we have to work through, we would love to put them down there in the river, I'll start there. So some of the challenges will be from the NEPA documents and the footprints that we're allowed to put down there. So in the perfect world we build a big enough sediment basins down there that your high-lift pumps that are damaged by the sediment we've removed the sediment down by the river and we're able to dump it back in the river and therefore not mechanically handle it like they're currently doing up near the treatment plant.

CHAIR GREENE: Not mechanically handle it and dispose of it in special ways. So it's a win-win if it's close to the river?

MR. SIKORA: Exactly.

MR. EGELHOFF: Do the Lakos work now?

MR. PRADA: Yeah, currently they are working because we do see the increase in what's discharged. So we're actually seeing the difference in what we're bringing up comparable or not.

MR. SIKORA: And you can see the solids that are being taken out, it's very fine suspended solids taken out by the Lakos.

MEMBER SCHMIDT-PETERSEN: I have just two questions, I think, for both of you actually. Maybe I'm making an incorrect leap here but in this presentation I've been given the impression that you all are thinking kind of from the owners rep standpoint of this that we can have a design in that basically we just deal with the sediment intake and that's dealing with the problems.

MR. SIKORA: I'll be a little more careful in my statement is that I think we're going to deal a lot, we're going to significantly change our issues that we need to deal with. And so as I mentioned with all of the variability that we have in here I don't feel that we're going to turn the facility into a 365 facility. There's still going to be some days that we're not going to be able to operate but we're going to significantly reduce the number of days that we can't operate and –

MEMBER SCHMIDT-PETERSEN: And reduce the total amount of sediment that is actually arriving to the system that has to be disposed of.

MR. SIKORA: That's exactly it.

MEMBER SCHMIDT-PETERSEN: And I would just say with that looking at your graphic that – and I just looked at the diversion I'm talking about on the San Juan

River, Hogback, was actually designed by Reclamation so probably isn't with technical services division there in Denver. So probably isn't out there in the general public in construction framework. But it goes exactly again to that top amount of water and it would be really worthwhile to get the design for that entire facility and see if it fits. It's almost a little off channel type of diversion that goes into a big irrigation canal but they take sediment out and they have a lot. It's a really fine grain coming off the Chaco Wash there. Whenever I hear this, I think about those pieces, it's like that's something different that I don't think the general engineering firms and others have dealt with and it might be a good example for this.

CHAIR GREENE: Thank you for explaining.

MR. SIKORA: On this sediment removal, this last slide fraction that we'll need to deal if we can take the top portion of the water column, will be settling basins. This photo on the lower right is similar to what exist up there at BDD right now near the top. We've been trying to put this down by the river. The reason we put this either plate or tube settlers in there is as I mentioned in the NEPA documents are very specific as to our footprint that we can create down there at the river. And so to minimize that footprint you could look at plate or tube settlers. So they go into these existing basins to help improve deposition of the sediment in the basin. We're actually including the low pressure membrane filtration in here. There's also filters, this Lakos or hydrocyclones, like I said, those are probably designed more for heavier particles and we think we'll be excluding those. And then as part of any of these sediment removal options, we've got to look at how we can flush that sediment back to the river in the prescribed amounts that are in the NEPA documents but not have to mechanically handle that sediment.

With that, any other questions – oh, one other thing I would like to point out is an idea one of our people had is that there has been the approval for solar panels down there which has increased the footprint. So is there a way we can actually put sediment basins underneath those solar panels so to keep the same footprint that is there.

COUNCILOR CASSUTT: Thank you, Mr. Chair. Thank you, this is a lot of great information. I'm curious and if I'm understanding correctly, you mentioned the design has to include each of these six features, are these building blocks that you can mix and match as you will or do you need specific decisions on one aspect either lend itself to more appropriate in another part of the feature or eliminate that option. As you choose for location and configuration for one thing does that limit choices for debris management or some other aspect of this?

MR. SIKORA: We actually have to find a way that they all operate together. That's the challenge. The next step in this process is how do we take all of these alternative elements and get them to work together. So you can't forget about aquatic species exclusion so we've got to find a way to make them all work together. And that's the challenge of intake design right there.

COUNCILOR CASSUTT: Okay, so that's to be determined.

MR. SIKORA: That's our next steps.

COUNCILOR CASSUTT: And then in terms of, and I imagine that this is next steps as well, looking at upfront cost versus longevity versus maintenance cost and are these all relatively within the same range or are there some that might be much more expensive upfront but a better investment in the long run or is that also to be determined?

MR. SIKORA: That's also to be determined. And that's a huge part of it. And I feel really strongly about this, that's where we involve the BDD staff. One of the keys

to intake design is that you have to be able to maintain it in an easy manner. That's one of the challenges that they've had with the structure. So as part of this next phase would work in integrating the BDD staff on how they need to maintain the structure and talking through all of those options with the various alternatives. So the idea is that we'll put together, let's say three to five alternatives with all of these different design elements and we'll put together what's called a multi-criteria decision analysis and part of that is cost, part of that is operation and maintenance. And what will end up falling out of that is there will be alternatives that cost more up front but maybe cheaper to maintain over the long run and vice versa. So that's part of the decisions that come out of the alternatives analysis.

CHAIR GREENE: And there were some alternatives being proposed at some point that might have been great alternatives but given the location and the logistics of the diversion didn't work, right? So, it might work in a different situation and be great for operation and maintenance but you can't get there from here, right, and so I think there's a whole decision matrix that is going to have to be formulated in this.

And I kind of want to throw something out here for discussion here and just on how we move forward. So this is great and I think we should all discuss this over here when we get to a board like this. I'm wondering if we want to create a subcommittee that is sort of technically savvy but is made up of a little subcommittee of folks that want to help expedite decision making and be sort of brought up to speed in the decision making so we can come here and have a digested version when it comes to these things. I'm wondering if this is something that might help going forward? So folks, amateurs like myself, might come up to speed and educated on this. Folks like, member Schmidt-Petersen probably have some technical savvy in this conversation would be of great value on this committee – I'm not volunteering you, Rolf – but I'm just trying to think of the folks – so that next year when we're starting to make these decisions we can really dig into this instead of just being hand something and trying to digest it in 20 or 30 minutes.

COUNCILOR ROMERO-WIRTH: Can I comment on that?

CHAIR GREENE: Yes, of course.

COUNCILOR ROMERO-WIRTH: I'm a little worried. We are not the experts.

CHAIR GREENE: Of course.

COUNCILOR ROMERO-WIRTH: They are the experts.

CHAIR GREENE: I wouldn't say we are making the decision but just so we can become a little bit more knowledgeable and see, be in the room, when things like this happen. And not that we're making the decision but we would just have a few of us that would be –

COUNCILOR ROMERO-WIRTH: That worries me. If I can, the purpose of this presentation is to help us understand the alternatives and the fact that you guys are going to be working on an alternatives analysis and to understand the nature of the problem that you're trying to solve. Is that what the purpose of this was tonight?

MR. SIKORA: Correct.

COUNCILOR ROMERO-WIRTH: Okay. And I guess, I'm just a little wary of us meddling into something we know nothing about. And when you all come to something, you'll present it and we'll ask questions. I don't know. You guys do what you want. I won't be here but it makes me a little nervous**.** And I guess I do have one other question which you sort of touched on and I think I know the answer which is there's the

design considerations of how all of these things fit together to solve the sediment problem that we've been experiencing but then we also have to look at the constraints, the permitting and the environmental constraints that we're under. So when you said we'd need 12 Ranney wells and the footprint would be huge, I'm betting we couldn't even have that but I don't know very much. Again, I'm not the technical expert you are. But it just strikes me as maybe too much for the river. There's other consideration too that you're having to look at, I guess is the point.

MR. SIKORA: That's correct.

COUNCILOR ROMERO-WIRTH: Can you characterize them or did I just do that?

MR. SIKORA: I think you did a great job with that. You know, we have the environmental constraints, we have budget constraints, we have operational and maintenance constraints and we've got to meet the criteria of delivering water to BDD on a regular more consistent basis on a more consistent basis. As I was trying to point out here, we're going to get a lot better but I still don't think this is a 365-day operation.

And let me just follow that with one other thought. One of the things that we've talked to Brad about is we've got to be able to deliver water during construction. So we all have been through road construction when they're trying to build something and there's always a road block so how do we overcome that. One of the thoughts we had is these Ranney wells may not be a standalone option but what if we can put in one and what if that one Ranney wells can deliver water maybe 365. And maybe we can use that Ranney well, well, we would put it in prior to construction of this intake to help offset some of the loss of water. So in theory maybe we can work on maybe half of your intake while we're delivering only a portion of your water. So this Ranney well would help make that up. But also during high sediment days, maybe if you're off you're at least making some water. And then maybe there's a whole other set of days where we can blend that water and help reduce it down so you can treat water.

So there's a range of alternatives that are out there. One of the things that is very difficult and you've seen in the day and hopefully I've conveyed to you with my Einstein story is that there's a lot of variability here. So there's going to need to be a period of time after we get this in that Brad and his team are going to need to learn how to operate it and there's going to be tweaks to the system and different things we can do to help improve it. There's going to be a breaking period that we're going to need to learn how to navigate.

COUNCILOR ROMERO-WIRTH: Just one other question, Mr. Chair, which is how long do you think this alternatives analysis is going to take you?

MR. SIKORA: A few months.

COUNCILOR ROMERO-WIRTH: And then from there, what happens? What happens, I could speculate but –

MR. SIKORA: What you would do from that alternatives analysis depends on how you want to progress this design. So at that point we have to come back to the Board and try to decide if we're going to go out to bid, find, you know, engineering firms, design, bid, build; what kind of contracting mechanism. What this will help do depending on wherever we go into the future is that we have a set of alternatives that we all think are worth carrying forward to another level of design and help flesh out some additional alternatives. Likely we're going to come up with about five reasonable alternatives out of just building all these things. We may be able to eliminate a few of them but there's probably going to be

two or three that we want to carry forward to another level of design. So maybe a 30 percent design or so.

MEMBER SCHMIDT-PETERSEN: Mr. Chairman, I have a question because I am confused by this whole discussion. We don't have a design engineer. We have a owners rep. What John is talking about is being the design engineer and you can't have both of those hats. So I'm not understanding what's going on here.

CHAIR GREENE: So just, this was a discussion we had and yes there is definitely some aspect of that but it's an alternative matrix that they're trying to lay out all the different alternatives. I don't think we would qualify it as design engineering at this point but understanding the options at hand.

MEMBER SCHMIDT-PETERSEN: So maybe I should ask Nancy on this too, is it basically the owners rep pulling information together and saying, here we're going to do some alternative analysis or what? Because it just seems like is this a scope of work creep or something going on here because it's different roles and responsibilities in my experience.

MR. PRADA: Thank you, Mr. Chair and Mr. Schmidt-Petersen Board Member, the direction that we're moving in is to put some guardrails because we have so many different aspects that could solve these problems. So if we come up with an alternatives analysis ourselves and put some guardrails there to focus an engineering firm to step in for 30 percent design moving forward, that's the focus of this process right now.

MEMBER SCHMIDT-PETERSEN: Okay, is that part of this scope of work?

MR. PRADA: Yes.

MEMBER SCHMIDT-PETERSEN: Okay, because I can understand that then it would be moving towards, if I understand this correctly, instead of a progressive design build thing, we made a decision we want you to build this and design it; right, is that where we're heading?

MR. PRADA: Yeah.

COUNCILOR ROMERO-WIRTH: And to that point, I think my question which is just roaming around in the back of my head which is, if you all design it how do we know – did we contract with them to design it and –

CHAIR GREENE: It's not design.

COUNCILOR ROMERO-WIRTH: -- who oversees the design to make sure it's the right design?

MR. PRADA: Thank you, Vice Chair. This is alternatives analysis, we are not designing anything. We've coming up with ideas for a design that would then go out to RFP or RFQ.

COUNCILOR ROMERO-WIRTH: To do what? To tell us which of all of these things –

MR. PRADA: A 30 percent design would then engineer the ideas.

MEMBER SCHMIDT-PETERSEN: Excuse me, If I understand this correctly, you get that point and then you'd say we have to put out an RFP for this specific solution.

MR. PRADA: It's an approach to the design, is that it is. So we're developing the approach that you want to see. If we broaden those ideas and let anyone come in and design it, then we'd end up with something that we may not want.

MEMBER SCHMIDT-PETERSEN: Which is kind of the problem that we've

been having, right? I am just concerned there from an owners rep standpoint making sure it's really clear of what the different goals and responsibilities are because you can't be in a position where your owners rep is being the design engineer and then telling you, Hey, I'm your representative in this.

MR. PRADA: The owners rep is bringing information to us so we can make an educated decision on how we're going to move forward with the approach to the solutions.

MEMBER SCHMIDT-PETERSEN: Okay. And you're comfortable with this, Nancy, with regards to the way the scope of work is set up for both the engineer firm right now?

MS. LONG: Yes.

MEMBER SCHMIDT-PETERSEN: Okay, thank you.

MS. LONG: So it isn't the engineering work itself, as Mr. Prada was saying. It's the alternative to try and help narrow the scope so that we don't get something back that we spin our wheels on and take a year or so to say this didn't work. So with all the knowledge base that we have with Wright Water and with AECOM and with Brad then we know we can narrow it and we won't be dictating what they do and what will give them alternatives.

CHAIR GREENE: And it may not be one alternative that you have to do this. It may be, here are the five things, we have some pros and cons, and maybe it's a hybrid system but we're going to narrow it down based on our somewhat intimate knowledge of –

MEMBER SCHMIDT-PETERSEN: Operations.

CHAIR GREENE: -- operations, that's right. We've got so much expertise here and somebody coming in from the outside may add, certainly will add value, but has to come up to speed and say, well, we've done this in other places, and not understand our river.

MEMBER SCHMIDT-PETERSEN: Well, certainly Bradley and all basically all of the staff will understand what doesn't work, right. You've tried a bunch of those things so that knowledge should be part of this process without a doubt. And then obviously, the work that these two gentlemen have done on the rivers is tremendously helpful there. But it's just a different process that we've been talking about.

CHAIR GREENE: That was one of the reasons that I was thinking that maybe there should be some pre-vetting of some of this stuff from watching this but I'm okay if it just all happens here.

COMMISSIONER HUGHES: Yeah, I would like us all to be on the committee.

CHAIR GREENE: Sure, and here we are. Any other questions for the team? Thank you, Wayne and thank you very much. I appreciate the full complements of options and an analysis. Thank you.

MR. SIKORA: You are welcome.

8. <u>Action Items</u>: Consent Agenda [See Page 2]

9. <u>Action Items</u>: Discussion Agenda

a. Presentation and Request for Approval of the Memorandum of Understanding between the U.S. Department of Energy and the Buckman Direct Diversion Board Regarding Notification and Water Quality

Monitoring

CHAIR GREENE: So here we are, our parting gift to Councilor Romero-Wirth. Kyle, congratulations.

KYLE HARWOOD (BDD Board Counsel): I am happy to stand for questions.

COUNCILOR ROMERO-WIRTH: Mr. Chair, maybe he should go over the summary of the agreement that is in the packet for the public and the minutes. This is great news.

MR. HARWOOD: I actually meant that as a bit of a joke.

Chair and members of the Board, as many of you know we have had a longstanding relationship with Los Alamos National Lab to both have an early notification system for flood flows that come down LA Pueblo Canyon which intersects the Rio Grande approximately three miles up the stream at the intake. Also, as part of that long-term relationship dating back about 15 years, LANL has provided funding for sampling at the Buckman Direct Diversion intake in order to understand the contaminate mix particularly legacy down us from the lab at the Rio Grande where we divert.

We have operated, our LANL has operated and we have worked with LANL in their operation of that early notification system through calendar year 2025 without the MOU in place. We were unable to bring an MOU to you at the end of last year. We have been working throughout this year to try to reestablish that MOU and at this point in the calendar year, BDD staff and counsel feel that it is important to get under this new MOU before the coming calendar year begins in 2026.

So what you have in front of you is an MOU that has been revised in various ways for the coming three calendar years. It does not include any funding for sampling which has been a sticking point for a good part of the year. What this MOU does do better than previous MOUs is it does improve, we hope, the functionality of the gauge that is closest to the confluence of the LA Pueblo Canyon Rio Grande in order to address the problem that we hadn't foreseen but became evident two years ago with the high flows which is when the Rio Grande is at a high level it inundates up this arm of the tributary. So we are hoping that by making changes to the camera, pointing it upstream, giving it night vision capability that will address that issue that we learned of in using the gauge up in the new E110.7 location. I should note that that new improved E110.7 gauge will require the approval of the Pueblo of San Ildefonso on whose land that gauge is located.

We've also made some clarifications to the map exhibit. We have made some changes to the description of recording by LANL EMLA, it's Environmental Management Los Alamos, to NMED monitoring program and uploading to the publicly accessible and database and other minor edits that have been recommended by the parties.

With that, much of the language in the beginning of the MOU is language that has been used in previous MOUs with of course some updating to the current version. The primary objectives have not changes. The authorities have not changed. Many of the agreements and principles have not changed. But I believe I summarized the main changes in the memo and with my oral presentation now. And with that, I will stand for questions, Mr. Chair.

MR. PRADA: I'd like to say something real quick, Chair Greene. LANL has also negotiated in good faith by running the ENS system while this MOU wasn't in place this

last year.

MR. HARWOOD: Yes, and let me add one more thing I just thought of. We do have some hope that we will secure funding from LANL for the sampling program and Brad and I and others are working alternative options for securing funding for the sampling that we look forward to bringing back to the Board at a future Board meeting.

MEMBER SCHMIDT-PETERSEN: Kyle, Brad, nice job getting to this point. I think having LANL in a place where they're continuing to run that system is pretty important. Am I correct in assuming under this MOU they would continue to do that, operators would be made aware when there's a flow, you would stop operations under your current protocols but there would be a sampling as it exists right now but you would still be bypassing any water so we would be in a good position.

MR. PRADA; Yes, Board member, Chair.

MEMBER SCHMIDT-PETERSEN: Thanks.

CHAIR GREENE: Yes, Mr. Ives.

PETER IVES: Looking at page 3, I believe of the agreement, section E.2.B, it says, should force majeure destroy or render inoperable some or all of the indentified ENS system, then it says, if operational costs become excessive for some or all of the identified stations, EM-LA may utilize alternative cost-effective techniques to provide the BDD staff with equivalent streamflow data to meet the objective of the ENS. Nothing is really said there about how much –

MR. HARWOOD: The discussions on this part of the MOU mostly focus on the fact that LANL is planning to run the ENS system as it has been designed and currently installed. And they want a way, in this agreement, to not have to do it the way it is being done now for these various reasons but we insisted that the objectives of the ENS still be met which is that we get flow data in order to accomplish the intake shutoff that Member Schmidt-Petersen mentioned. This hasn't been triggered in the past. We hope it does not get triggered but it is seeking balance the unknown events that might occur. Some of this was driven by the large fires that have happened twice on the LANL plateau or the Pajarito Plateau where LANL is located. And bear in mind, when events of that size do occur sometimes alternative methods need to be used.

MR. PRADA: To add to that, in the event E199 gauge was inundated by a flood and so we worked together to figure out a way to still get us the appropriate data. So that's what this relates to and this has been in the MOU for awhile now.

MR. IVES: I suppose my one concern is there is no reference to timing. The equivalent streamflow data to meet the objectives of the ENS obviously involves timing issues. Do you think we are adequately covered there?

MR. HARWOOD: For a memorandum of agreement that we cannot sue to enforce, I think this language expresses the intent of the parties to commit to working together to provide the information so that the intake can be shut off when LA Pueblo Canyon is in flood.

MR. IVES: And then the other question is on page 5 under dispute resolution. It provides that parties will basically talk to each other and if they fail to resolve their differences within 30 days the BDD facilities manager and the EM-LA manager will prepare a written description of the dispute. The BDD Board Chair and the EM-LA Manager, along with appropriate staff, will meet in an effort to resolve the dispute. It just makes me want to ask the question; and assuming they don't resolve the dispute all bets are off?

MR. HARWOOD: Well, I think based on the 15 year history of our working relationship with LANL on this I feel, shouldn't say confident, I feel hopeful that we'll be able to work out any dispute that arises because we have done so in the past largely.

Again, this is not your typical binding contract with all sorts of consequences that come from breach. This is two neighbors coming together to agree on how to solve a common problem in an MOU format which is consistent with our history and working relationship with LANL and – other dynamic that is going on between our Board and the lab.

MR. IVES: Thank you, Mr. Chair.

CHAIR GREENE: So did we check the changes to the gauge with San I? Are those specific change okay? I know we discussed them here but has it gone back to them?

MR. HARWOOD: There has been some informal inquiries made with the pueblo to gage whether this is something that they can recommend to their governing body but we haven't initiated the process of seeking approval without a signed MOU.

CHAIR GREENE: And they're not a party to this MOU?

MR. HARWOOD: They are not a party to this agreement, no.

CHAIR GREENE: -- consideration and consultation.

MR. HARWOOD: Yes, everyone is very sensitive to that issue, both the City, the County, the Board and LANL all have a long-working experience with that dynamic and I think we are being very mindful of the importance of that relationship.

COUNCILOR ROMERO-WIRTH: I would move approval.

CHAIR GREENE: You should have the honor of that, of course.

COUNCILOR CASSUTT: I will second.

The motion passed by unanimous [5-0] voice vote.

10. Matters from the Board

Councilor Romero-Wirth was recognized for her leadership at the City and as a Board member of the Buckman Direct Diversion. She received a round of applause.

COUNCILOR ROMERO-WIRTH: I remember the first time I walked in to this meeting. It was very intimidating and I have learned a lot and really appreciate all the work you all and you all and you all provide in managing this really important facility for the benefit of the community.

Councilor Romero-Wirth was presented with flowers and a BDD hat.

Holiday cheers were exchanged.

11. Next Meeting

a. Thursday, January 8, 2026

12. Adjourn

Having completed the agenda and with no further business to come before the Buckman Direct Diversion Board, Chair Greene declared this meeting adjourned at 5:20 p.m.

Approved by:

_____
Justin Greene, Board Chair

Respectfully submitted:
Wordswork

ATTEST TO

_____
KATHARINE E. CLARK
Santa Fe County Clerk