MINUTES OF THE

CITY OF SANTA FE & SANTA FE COUNTY

BUCKMAN DIRECT DIVERSION BOARD MEETING

June 5, 2025

1. Call to Order

This meeting of the Santa Fe County & City Buckman Direct Diversion Board meeting was called to order by Justin Greene, BDD Board Chair, at 4:03 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 Justin Greene, Chair
Councilor Carol Romero-Wirth [virtually]
Councilor Jamie Cassutt
Commissioner Hank Hughes
Rolf Schmidt-Petersen, Citizen Member

Member(s) Excused:
T. Egelhoff, The Club at Las Campanas, [non-voting member]

Alternates Present:
Commissioner Adam Johnson, County Alternate [virtually]
Peter Ives, Citizen Member Alternate

Others Present:
Bradley Prada, Facilities Manager
Nancy Long, BDD Legal Counsel
Kyle Harwood, BDD Legal Counsel
Jesse Roach, City Interim PUD Department Director
Bernardine Padilla, BDD Public Relations Coordinator
Matt Sandoval, BDD Operations Superintendent
Jay Lazarus, Glorieta Geoscience, Inc.
Peter Hunt, Glorieta Geoscience, Inc.
Kurt Traverse, CLA Consultant

3. Approval of Agenda

BDD Counsel Long advised the Board that item 8.E. under Consent, Request for approval of a Services Agreement with B & D Industries, Inc., was withdrawn and would be presented in July or August.

Cassutt moved to approve the agenda as amended. Commissioner Hughes seconded and the motion passed by unanimous [5-0] roll call vote.

4. Approval of Consent Agenda

Councilor Cassutt moved to approve the Consent Agenda. Commissioner Hughes seconded and the motion passed by unanimous [5-0] roll call vote.

8. Consent Agenda

- **a. Request for approval of Amendment No. 3 to the Professional Services Agreement with Glorieta Geoscience, a Division of GZA GeoEnvironmental, to extend the term through FY2026 and add compensation for an amount not to exceed $65,000.00 plus applicable gross receipts tax**
- **b. Request for approval of Amendment No. 3 to the Legal Services Agreement with Long, Komer, and Associates, P.A. to extend the term through FY2026 and add compensation for an amount not to exceed $285,000.00 plus applicable gross receipts tax**
- **c. Request for approval of Amendment No. 2 to the Professional Services Agreement with Snell & Wilmer, LLP, to extend the term through FY2026 and add compensation for an amount not to exceed $200,000.00 plus applicable gross receipts tax.**
  - **i. Request for approval of a Budget Adjustment Request to utilize Settlement Funds for this expense**
- **d. Request for approval of Amendment No. 2 to the Professional Services Agreement with Wright Water Engineers, Inc. to extend the term through FY2026 and add compensation for an amount not to exceed $200,000 plus applicable gross receipts tax**
  - **i. Request for approval of a Budget Adjustment Request to utilize Settlement Funds for this expense**
- **e.** Withdrawn.

5. Approval of Minutes

- **a. May 1, 2025 Buckman Direct Diversion Board Meeting**

Mr. Schmidt-Petersen noted there were some words missing that referred to the New Mexico Interstate Stream Commission. He offered to advise staff of the change.

Councilor Cassutt moved to approve the minutes with the correction offered and Mr. Schmidt-Petersen seconded. The motion passed by unanimous [5-0] roll call vote.

5. Matters from the Public – None were presented.

6. Presentations and Information Items

- **a. Monthly Update on BDD Operations**

MATT SANDOVAL (BDD Operations Superintendent): Thank you, Chair Greene, members of the Board. I have the BDD diversions and deliveries for May 2025, average and million gallons per day as follows: raw water diversions, 9.57 mgd; drinking water deliveries through Booster Station 4A/5A, 8.65 mgd; and raw water delivery to Las Campanas at Booster Station 2A, .87mgd. The BDD provided approximately 86 percent of the water supply to the City and the County for the month of May 2025. And I'll stand for questions.

CHAIR GREENE: Any questions? Mr. Ives.

MR. IVES: Thank you, Mr. Chair. Just a quick question on section 2, it notes the BDD provided, as you just stated, 86 percent of the water supply, is it possible to get that broken down into the components of where that water is coming from? Obviously, presumably of the Rio Grande as it said the diversion but I wasn't sure if that was – do we always clarify the mix between San Juan-Chama water versus native water?

MR. SANDOVAL: Thank you, Mr. Ives and members of the Board, so it does break down in the chart on page 5, there is a breakdown of the native water that has been treated as well as SJC as called for. It's in that section and I can also include – the City does have the four sources. BDD is strictly Rio Grande water and then we have the two wellfields and then Canyon Road surface water plant. So if you'd like I could add it there.

MR. IVES: So much easier if it's in one spot; at least for me. That would be great. Thank you.

CHAIR GREENE: And then it's so much easier if it's in five spots. And sort of to that point, if it was possible for all of those things – we obviously have data on what last year was and the year before. If it was possible to do the 86 percent of the water this year but then last year it was 72 percent and the year before it was 73 percent. So we would just have in one place an apples-to-apple. We're talking about May and let's look at what May was the year before and the year before that so we can see a trend or see something that looks abnormal to us.

MR. SANDOVAL: Sure, I can do that.

CHAIR GREENE: Thank you. Any other questions or comments for Matt? Matt, thank you very much.

b. Report from BDD Facilities Manager

BRADLEY PRADA (Facilities Manager): Thank you, Mr. Chair. Good afternoon everyone. This report provides an update on our key facility projects, procurement progress and staffing status as of June 2025. We have made significant progress particularly with our major repair and replacement projects and our hiring efforts.

Regarding our major repair and replacement fund, the BDD team has finalized contracts for GAC media replacement with Calgon Carbon and membrane modules with Aria Filtra. These projects were already Board approved in the FY25 budget. The contracts are now ready for Board signature followed by City Finance approval and purchase order creation. It's critical that a special BDDB meeting be scheduled to secure these project approvals before the end of the fiscal year 2025. We weren't able to get these on the agenda for this meeting so hopefully we can pick out a date in the next coming weeks to get those approved. This should be 5, 15 minute meeting just need to make sure we have a quorum.

Moving on to staffing, BDD personnel are diligently with City personnel filling existing vacancies. We have had positive movement. Water operator advance, started May 7th. Accounting supervisor is starting June 7th. Two water operator entry candidates start on June 7th. Environmental compliance, automation and security administrator candidates have accepted and are pending start dates. We are processing candidates for both equipment repair and water operator ladder positions as well. Currently, opened or pending are journeyman electrician which closes or has closed May 31st, administrative assistant closes June 11th and contract administrator is pending a repost.

That concludes my update. Thank you and I'll stand for questions.

CHAIR GREENE: Questions?

MEMBER SCHMIDT-PETERSEN: Mr. Prada, I just have – well, a couple of things that I want to just recognize the inference with regards to hiring staff and moving that forward. It just seems to be constantly that you're putting positions out there for selection, getting candidates and hiring people and that's just great news across the board, and, also with these repair aspects that you're talking about.

I've got a question related to the approximate 9.7 million acre-feet per day of average diversions for May. Is that causing any O&M issues? It is significantly higher, I think than some of the projections and previous operations which I also think is a great thing but I'm just wondering if that's causing you any difference or problems in operations.

MR. PRADA: Thank you, Board Member Schmidt-Petersen, it has not.

MEMBER SCHMIDT-PETERSEN: Great, thank you.

CHAIR GREENE: Wonderful. Anybody else? Anybody on line? Commissioner Hughes.

COMMISSIONER HUGHES: I just wondered how many vacancies we have now not counting all the people that are hired and haven't started yet; how many openings are unfilled?

MR. PRADA: If I were to take a guess it would be about 11.

COMMISSIONER HUGHES: Okay, well, that's a lot better than last time. Thank you for your hard work.

CHAIR GREENE: Just as long as you're not taking anyone from Santa Fe County's operation. [laughter]

MR. PRADA: Not that I know of.

CHAIR GREENE: Just along those lines, I was going to mention this later but since we're talking about recruiting and such, I was at the Next Generation Water Summit today and a comment that came up from a Pojoaque Basin Regional Water system issue was is that we're going to be setting up this massive system, the size of BDD, in a few years and that we need to create the training pipeline so that we're not poaching a bunch of your people or BDD people and that we're not poaching City people or County people and we're just building our own. So one of the concepts that came up was helping to develop a curriculum and program at the Community College that we might be able to recruit and train people into that. At the Next Generation Water Summit today someone said, Oh, no, no, the curriculum is already there we just need to fund it. And most important, the hardest part was creating an internship program so that everybody that is in the program can work hands on immediately. So I'd like to discuss that later, some other meeting, to start to see how we can get that setup so that people can be hands on at your facility and the County's facility, at all of our facilities so we can cross train them and get them enticed into getting into the industry.

MR. PRADA: Chair, that conversation has been going around about collaborating on things like that between us and the City. I haven't communicated much with the County on that.

CHAIR GREENE: Good, thank you very much.

c. A BDD-Specific look at What's Up With Water in Santa Fe

JESSE ROACH (Interim Public Utilities Department Director): Thank you, Chair Greene, members of the Board. I'm going to go through some slides that are similar to slides that were given to the public last month but with a little focus on BDD.

Quick overview of the water system and this is sort of City specific but obviously BDD is arguably our most important single source of water so it will be heavy on BDD. But the City does have four different sources. In the order in which those were developed those are the Canyon Road Water Treatment Plant treating Santa Fe River water, the City wellfield, the Buckman wellfield, and then the Buckman Direct Diversion This visual is – the dark blue line is the Santa Fe River watershed and the two sources within the watershed are the Santa Fe River and the City wells and then outside of the watershed the Buckman wells and the Buckman Direct Diversion. There's also the purple-pipe system that takes effluent from the water reclamation facility near the airport and delivers it to Swan Park and golf courses and soccer fields.

A quick look at each of these – some photos. The Canyon Road Water Treatment Plan is located up at the top of Canyon Road. This is a drone view looking downstream from Nichols which is the lower of the two Santa Fe River reservoirs. It's the lower and the smaller of the two. It is approximately 4,000 acre-feet of storage up in the Santa Fe River Watershed about 600 of which is in Nichols and the rest of which is in McClure further upstream. And then an overview or bird's eye view of the water treatment plant itself down next to Canyon Road.

The City wells: there's about seven active production wells. The work horses of these are the northwest well which is actually up in the La Tierra trails, an Agua Fria well which is just north of the Indian School. And then this is a view of the Buckman wellfield or at least the lower nine wells from the Rio Grande and this is looking back to Santa Fe. And actually the Buckman Direct Diversion, you can see here and this is sort of where these different wells sit in relation to the Buckman Direct Diversion and the river in Santa Fe. The river here would be flowing from left to right from Española upstream to Cochiti downstream.

And then of course the Buckman Direct Diversion: here's some cool photos of the diversion itself when it was under construction with the cofferdam keeping the river away. So you can see the five intake cells that water flows through the screens into and then is pumped up to the raw water – and then a bird's eye view of the treatment plant.

This pipe here is the return pipe where after the water goes to the 1A facility it's sort of spun in some centrifuge Layco equipment and then a portion of the water which is more concentrated with sediment is returned immediately to the river and then the rest of the water is pumped from there up to the 2A pump station and then from the 2A up to the treatment plant.

The San Juan-Chama Project is a trans-boundary water project that delivers water from three tributaries on the San Juan side of the Continental Divide so the San Juan is a

tributary to the Colorado River. The tributaries are the Rio Blanco, the Little Navajo, and the Navajo. These tunnels flow by gravity from each of these river diversions and then under the Continental Divide still again by gravity, about 26 miles of tunnel, to divert water with no energy input or very little energy input other than operating the actual diversions to store it in Heron Reservoir.

This picture shows the production of water for Santa Fe municipal use for the last 100 years from 1925 through 2024. And it tells a story – a couple stories here. One is initially sort of exponential demand that the City utility kept up with by adding sources. At first it was just the Santa Fe River. Then in the 1950s which a historic drought the City wells were added but the demand continued to rise and in the 1970s the Buckman Wellfield was added. In 1995 at this peak point the utility which was at that point a private enterprise, a subsidiary of PNM, was purchased by the City and since 1995 there has been huge accomplishments in conservation such that today we use about one-third less water than we used in 1995 despite the fact that we've added about 25 percent more population.

And then the other story which is really where BDD figures in largely is the paradigm of water production has shifted from one that started out as surface water only and then became groundwater dominated to the point that the City was mining groundwater and it was not a sustainable rate of production of the groundwater.

In 2011 the BDD came online and since then it's about 80 percent surface water which is our renewable resource that we can see. We think about it as our checking account and we're resting the wells and using them just to make sure they're ready to go but sort of saving them for the drier years.

MEMBER SCHMIDT-PETERSEN: Jesse, can I ask you a question? I'm really intrigued by the '80s and '90s because it's like there's much greater consumption of water but it's also in a very wet time period. Do you have any ideas of why that was going on? Was it pricing or just growth?

MR. ROACH: Chair Greene, Member Schmidt-Petersen, that's a great question. I don't have a great sense of why the water use continued in that sort of exponential fashion but those are great questions. And as you mentioned the '80s and '90s were quite wet. Typically, what we see now is that in a wet year there is less water use outdoors so we see a reduction in the use of water. So we can see the seasonality a little bit of a wet year to a dry year. But it would be interesting to have a little bit more of a historical context on why the demand just continued to skyrocket. I can't even speculate.

So looking since 2011, this is when BDD came online and representative of our current water management paradigm, the bar on the left is our current production over those of a 14 year period. On average we use 7,000, a little more than 7,000 acre-feet of surface water and a little bit less than 2,000 acre-feet of groundwater for a total demand of about 9,000 acre-feet. And then on the right is a comparison of what was our estimate of what was sustainably available. So we weren't able to get all of the surface water that came into our system and this is largely because of reservoir evaporation. And the estimate of 4,500 here for groundwater is our estimate of what could be produced from the two wellfields without impacting their long-term ability to continue to produce at that rate. So we're sort of estimating that over the last 14 years we had about 1,200 acre-feet of sustainably available water resources and we used about 9,000. So we're using about 3/4s of our renewable portfolio currently.

And this chart or impact is a way to represent the split of water use – now this is just for 2024 – showing for the City 43 percent of the water came from the BDD. Of course, this doesn't include water produced for County use. About 1/3 came from the Santa Fe River and then the rest was made up for by pumping from the two wellfields.

This is a look at monthly through the year of how that split out. And you can see that BDD was pretty constant throughout the year. One thing I will say, sort of back to a question earlier about the impressive production at BDD in May is that typically, every year is different, but when we enter into a year we think about July and August potentially presenting problems for BDD because of the turbidity. Not that we couldn't treat it but we really prefer not to treat it when we have those monsoon events and the river turns really muddy. And so we like to lean on BDD and try and save some water in reserve for July and August in case we have trouble with turbidity. This year, as I'll talk about in a little bit, we have construction going on in the watershed and we have water in McClure up above that, but we've kind of been trying to guard it, trying to save it for if and when it gets really hot this summer. And BDD has stepped up and the work that they've done so that when we do our planning, which I'll talk about momentarily also, and say, are you guys at eight, are you good at nine, are you good at ten? And Brad and his team say, Yeah, we just got another pump on the shelf and we did this, we did that, we're good. And so it's been really great for us on the City side to have the reliability of BDD and the ability of them to meet that level of demand throughout May so we can sort of hoard the water up in McClure in case things get really hot and in case the Rio Grande turns muddy in July and August.

COMMISSIONER HUGHES: I have a question. Do you ever shutdown the BDD because of runoff from LANL?

MR. ROACH: Yeah, we do. And that's typically and I'll make a high level answer and then if Brad or Matt wants to jump in and correct me, they are welcomed to. We have a camera, at least one camera, on drainages coming from Los Alamos and when any water is seen in those drainages we shut down. And then we also sample the river during that period and then we don't bring the plant back on until that flow is complete.

Now that's typically a matter of hours or – typically a matter of hours, I'll say – once in awhile we'll see something longer and we'll have to evaluate. But that is part of protocol for BDD operations.

COMMISSIONER HUGHES: Thank you.

MR. ROACH: Sure. This is how we used the water in 2024. We kind of leaned on the wells in July and August. BDD production was pretty steady. And then this is our projection for this year. This was actual through April and you can see that BDD was the work horse and this continued into May. And I think the number that Matt had of over 80 percent from BDD, the actual in May is more than we had projected. It's been very helpful t the City to have BDD carrying the load right now.

Here's reservoir storage in Heron, El Vado and Abiquiu. And this is City San Juan—Chama project water. So 2024 is the year in blue, 2023 is in orange and 2022 is in yellow. So you can see that we ended the year with a little bit more water than we had in 2022 but a little less than 2023. The sort of interesting thing about this graph for the real wonky amongst us is we ended here at 14,192 in 2023 and then in 2024 we started with over 15,000. So there was an allocation on January 1st that is not shown well in this graph and then we paid on the 1st of March, we pay Albuquerque wet water for the right to store in their pool in Abiquiu and so we paid a chunk of water to Albuquerque in March. And then we had an

allocation, we're using it. Another allocation, using it; another allocation, etc. And then this little series of strange things going on here is because this is the sum of the water in the reservoirs but it doesn't count the water in the river and this is when they're moving water from Heron to El Vado or El Vado to Abiquiu. So you can pretty much ignore it but it's kind of interesting for wonks but you can ignore these little ups and downs.

MEMBER SCHMIDT-PETERSEN: Jesse, just a comment. It's good that we have that amount of water in storage or you do. Is there an allocation yet for 2025 or what's being projected?

MR. ROACH: I don't know the answer to that off the top of my head. They send an email will an allocation in it even when it's zero. So I've opened it up twice and been like, Why are you sending me an email with zero? I don't need to see that. So I don't think – there might have been one initial allocation and I don't know off the top of my head what the projections are for this year.

MEMBER SCHMIDT-PETERSEN: Thanks.

MR. ROACH: The City of Las Vegas water deliveries have been a big thing for City and for BDD in 2024 and again in 2025: 1.4 million gallons in '24 and 4.8 million gallons so far this year as a result of flash floods in 20024 and some issues with turbidity and a possible water main break in 2025.

I wanted also to point out that the City Water Division puts out an annual report every year and a lot of figures in this presentation are from that. It's available on our website and it is essentially written for you folks. It's written for the policy makers and maybe water division employees in five years who want to look back on what we're doing. We try and make it accessible. It may put you to sleep but I encourage any of you who are interested to take a look and if there's something that you'd like to see in there that's not in there we're open to that as well.

All right, here's a sort of BDD-specific piece and this is a very busy mess but essentially what it is trying to show is that we work on a daily, excuse me, every week on Tuesday we have a large zoom meeting. It includes City staff, BDD staff, County staff, Las Campanas staff and we essentially decide in that meeting for that week where is the water going to come from. There's a lot of fascinating discussions in this and so on the left we're showing the estimate of what the demands going to be and then how we estimate that we're going to split it up and the bold numbers are in black – so we work through this and every week we have another plan for that week and also for the first four or five months of the year we also put together a monthly plan for the year based on the snow melt projections. That's something that sort of happens once a week and is one of the more engaging and interesting meetings that I get to be involved in is this. It's sort of a brain trust from all the water folks sitting down and deciding what should we be thinking about, what's coming, how do we want to use the water this week and this month.

And then another BDD-specific operational constraint that I wanted to bring to the Board, this is way in the weeds and I've never presented this to any elected official but it is of interest to the BDD. So we have an environmental permit at the BDD which constrains the amount of native Rio Grande water that we can divert. It's required by a document called the Biological Opinion. We have experts in the room who can say more about how that was developed but the upshot of it for us operationally is that depending on the flow in the Rio Grande, and now this is the five-day average Rio Grande flow at Otowi Gage in any given month. If it's above 325 cfs – and again we work in all sorts of different units. When you're

talking about river flows it's cfs. When you're talking about plant operations it's million gallons per day, and when you're talking about City use or County use over the year it's acre-feet. So apologies for that. So when we're talking about river it's cfs. Three hundred and twenty-five cfs is a pretty low flow at BDD at the diversion. Typically the flows there are in the thousands and when we get below a thousand we start to pay attention. Really, these are going to be for low-flow years. But there is as you can see a fairly complicated set of constraints. Not only does it matter what month you're in not just the flow rate at Otowi. So the flow rate at Otowi, the total flow rate, anyone can go on USGS and see that in any 15 minute it'll tell you. You can go right now and find out what's the flow rate right now at Otowi. That has something to do with but it's not the same as the five-day average native flow at Otowi. So there's different colors of water at that gage and USGS doesn't know those colors of water. There's only tool that knows those colors of water and it's a tool called URGWOM/Upper Rio Grande Water Operations Model. It was a jointly developed model with the Corp of Engineers, the Bureau of Reclamation, the State of New Mexico are the three main parties to it and everyday it gets run and the things that go into are: Oh, hey, Matt over at BDD called us and he said they want 4 cfs out of Abiquiu now. So the input for URGWOM is there's 4 cfs of Santa Fe's San Juan-Chama water coming out of Abiquiu today. Alright, and that takes a day to get to Otowi so tomorrow they'll be, okay, that losing something. So that's where all of the accounting takes place.

Now we don't have the capacity to make those calculations. Luckily we have some partners at Bureau of Reclamation who have made this data available to us in not quite real time but pretty close. This graph is showing now on a very specific website maintained by the Bureau of Reclamation, this is showing the Rio Grande five-day average flow. So this is the native flow at Otowi and the black is the current year and this is a log scale. So our permit conditions would be in this area of the graph. Generally we're above them but when this line starts to come down and get close to that 325 cfs threshold then our operators start to pay attention and in those weekly meetings we start to pay attention and we start to predict. The problem with this is that it's a five-day average and usually these results from URGWOM are about two days delayed. So we also have to play a little bit of – we've got to be conservative here and when we get below 500 we're sort of going – tend to go toward San Juan-Chama only because we also have cooperative agreements between the City and County that allows us to use County water when it's abundant and City water when it's the only one available.

MEMBER SCHMIDT-PETERSEN: Jesse, can I just ask a little bit because this is one of the things I was wondering about having had some involvement with it in the past. And then looking at the Bureau of Reclamation projections from May – they were showing time periods this summer potentially where the flows would be below 300 cfs. And from what I'm understanding from you is that given the same San Juan-Chama water that is in storage, even if those flows do drop to that level, you can operate with San Juan-Chama water without restriction.

MR. ROACH: That's right. At that point the restriction becomes physical diversion capacity and we have taken some photos and gathered some data during the lowest flow events that we have seen in the last five years and my extrapolation of that data suggests that we could probably divert down to 100 cfs, maybe below. We have never experienced literally a physical diversion constraint on the river. And that's why we're blessed with having two different types of water and the ability to share because in the summer when we

go below 300 cfs, the San Juan-Chama water is what we can use. But in the spring or during a sediment plug, if the San Juan-Chama water gets locked into Abiquiu which means Abiquiu goes into flood control meaning all releases from Abiquiu have to be native only, the San Juan-Chama water is there but we can't get it downstream, in those conditions we can use – which sort of by definition means there's plenty of native in the river – we can use the native water then and we can use the San Juan-Chama water later in the summer. The constraints are significant but the ability to have two different types of water makes it operationally flexible for us.

MEMBER SCHMIDT-PETERSEN: Am I following you that your other backup beyond that is McClure with water you've been holding onto?

MR. ROACH: That's correct. That's right. But also we could turn BDD off completely because of this shared pool agreement that we have between the City and the County. But generally BDD is going to run, especially in the summer because Las Campanas needs to have their diversion. But, yes, from the City perspective and also from the County perspective with a backup from the City, McClure is in reserve.

I want to talk a little bit about long-range water resources planning. This slide shows eight different reports that have been done through the years just looking forward and estimating what demand will look like, estimating what supply will look like and making sure that we have enough supply to meet the demand. The two that I want to point out here specifically are the 2016 Santa Fe Basin Study which was the first attempt to use climate change hydrology in a water resources plan. And that did lead to – and this was a study that was a collaboration between the City and the County and the Bureau of Reclamation. The results from that suggested potential shortages in the not too distant future that led to a feasibility study in 2017 which is the one on the lower right there. The Santa Fe Water Reuse Feasibility Study that evaluated a whole bunch of different options of how do we want to try and reuse our effluent. And the reason that that's important is about 2/3s of the water that the City produces are used indoors and make it to the wastewater treatment facility. So that water source is larger than any one of our single sources and so looking at how do we take advantage of that was the purpose of that study. And we looked at everything from pumping it all the way through town and all the way back up into Nichols to aquifer storage recovery to direct bottled reuse and the thing that came out ahead under a triple-bottom line approach was the San Juan-Chama Return Flow Project. So I'll talk about that project for a second.

So we have been talking about Abiquiu, so in this figure, the red oval in the upper left here represents Abiquiu and right now if the City or if BDD wants 5 million gallons of San Juan-Chama water for diversion, then we have to release a little bit more than that the day before from Abiquiu. And then we divert it at the river and the idea is that we're not impacting the Rio Grande because we're putting San Juan-Chama in the river and then we're taking it out at the diversion.

The idea with the return-flow project is to take the portion of San Juan-Chama water that is used in the City and returns to the treatment plant and return it to the river at a location just below the diversion. And so the chart on the right – the diversion is the same size. The size of these arrows is representative of how big this diversion is. So the diversion hasn't changed but because we're returning water to the river right below the diversion we're still keeping the river whole but we're releasing a much smaller number from Abiquiu. So this is the water diverted from BDD comes from upstream reservoirs and then on paper it's coming

from effluent return keeping the river whole at that location. And I guess the big takeaway there is that there's no change in the Rio Grande flows below this BDD infrastructure and return-flow infrastructure before and after the project is in place. What's changing here is how much water we have to release from upstream to make that diversion.

Back to these charts, I showed that at about 9,000 acre-feet a year of demand. About 12,000 estimated as the sustainable availability and then with return-flow we expect to stretch the San Juan-Chama portion of our portfolio by about three times. So that takes us from 12,000 acre-feet approximately of renewable water availability up to 20,000. So you can see the value of this to us from a resiliency perspective and why this has been such a focus of our efforts.

The question then becomes, where is our demand going to go and where is our supply going to go? What will happen with demand in the next 50, 80 years and what will happen to supply in the surface of aridification or climate change. So those things are what we look at in our longer range planning and how do we address that.

We're currently in a new planning process. We started it in 2020. We sort of affectionately refer to it as Water 2100. And in 2020 we developed the process and we had public feedback and engagement in that. And then in 2022 we put out demand projections and so on our website you can find projected demand, projected population growth and associated water demand that we're planning around. And then last year in '24, we presented the model that we're going to use to put the supply and demand together. Initially, we had hoped to present or we expected to present supply before we presented the modeling. The supply we have to rely on big science and partnerships with large – especially with the Bureau of Reclamation – large organizations who can bring to bear significant expertise on how we take these global climate models and then downscale the output on them that we want to get them meaningful for the models that we run. We're still working on that and this year we're hoping to rollout the global climate model base supply projections, put those two together with this model we call STEWaRDS and then the community values come into play in looking at if there are gaps how do we want to address those gaps. What are our adaptation strategies and the formal water plans that will come out of this whole process.

This is an example of one of the runs that we have from the STEWaRDS model and notice now that BDD is represented by light blue. And with the return-flow project online you can see that the BDD is by far the most important source to the City and that the wells are generally backup. The things that we're seeing there in the 2090s are different vulnerabilities in this particular run that we play with like we can't use Canyon Road for 10 years because of a fire and loss of our reservoir. So these are things that we don't expect to happen but we are interested in seeing what's the impact on our system if they were to happen. So we're not predicting they're going to happen but we're trying to be prepared if they do happen. One of the powerful things about this model is that it can run 104 different climate runs very quickly and then roll it up into results that hopefully staff and policymakers can make some sense out of. So that's the goal of this project.

CHAIR GREENE: I like the planning study of risk analysis of that but when you present something like this it has – it can be a red flag for people that don't have those notes. So straight line scenario with everything working is what you want to sort of plan but then the risk analysis of if there was a watershed event, or if Canyon Road had to be rebuilt or something, right. All of those different variables what scope and of impact that would be

almost as a second line item so it's not – you're not predicting a major drought or major whatever this is, it isn't actually spelled out because this could freak some people out.

MR. ROACH: I couldn't agree more. In fact, I was texting with the folks who are more in the weeds and he was, Wait remind me, what's this red about? So I do agree with you. I've gotten far enough away from it that – I agree. Showing nothing wild happening base case is a good thing to show first.

CHAIR GREENE: And then show the magnitude of what the impact of taking Canyon Road off line or what all of those sort of god forbid situations come on line as to what that really means and then you can scenario plan of what happens if two of them happen cause that becomes a really –

MR. ROACH: I agree.

COMMISSIONER HUGHES: I have a question as well.

CHAIR GREENE: Yes, go ahead.

COMMISSIONER HUGHES: Have you taken into account that the San Juan-Chama water becomes much less if they take it away from us because of all of the discussion on the Colorado River? Is that one of runs you make?

MR. ROACH: Yes, that's one of the supply vulnerabilities or supply disruptions that we consider. And there's different ways to get at that one. We already see shortages in the San Juan-Chama, hydrologic shortages because these runs estimate what the flow would be in the tributary locations and we know the rules about diversion and so we already can incorporate that hydrologic risk but the institutional risk is difficult but we have talked about different games we could play of what happens if we just for some reason don't have any San Juan-Chama water for five years; what does that do to us and how can we work through it? But again I think it'll be important for us in the communication to show first the baseline and then here are the scenarios that we considered just to look at what the impact might be of something like that.

COMMISSIONER HUGHES: Yeah, but I mean it might not just be for five years, they could take it away forever.

MR. ROACH: I think we're in the realm of crystal ball and speculation. I will say that we have a framework that we've looked at on how might the Colorado River be reapportioned and what might that mean to San Juan-Chama. It gets politically tenuous to pretend like we're preparing for things like that. We do think about things like that. We are not quite sure how to present it or make it public.

COMMISSIONER HUGHES: Maybe not taken away but reduced quite a bit.

MR. ROACH: Yeah, we do thing of that as a possibility and that's why the San Juan-Chama return-flow project – if we can make this water goes 3x farther than hopefully we can stay ahead of the threats to reduction be they hydrologic or institutional.

COMMISSIONER HUGHES: Okay, thank you.

MR. ROACH: So the progress for this and this is kind of –

CHAIR GREENE: There is another question here

MR. IVES: On that particular point, at least when I pose the question, what's the status of the pipeline? I understand the permitting is still held up with the federal agencies. Is that still the case and what's your prognosis going forward?

MR. ROACH: Yeah, that is still the case. We do have a state return-flow permit or a return-flow credit permit. Then we're continuing to work on the engineering design, we're about 75 percent. And the federal permitting we're hoping to have. So a draft

EA is being circulated amongst the agencies. We're hoping to have something out to the public by September for that piece of the permitting.

MR. IVES: One other question. Norm Gaume put out, call it a warning, recently about – let's see let me just read it: The Middle Rio Grande's spiraling water debt is out of control. New Mexico is on track to violate the Compact soon. If that is the case, I presume Article 7 will come into play and what does that do to our planning? You mentioned earlier holding water in the reservoirs into the summer against potentially heightened use at that point in time.

MR. ROACH: I should probably just let Rolf answer that question. But the Rio Grande Compact does have some implications on Santa Fe River reservoir operations. One of them that you mentioned is Article 7 but I think going below 200,000 debt is a land we've never trotted and I think we have to expect a dramatic response. I think the state in some conversations that we've had with that considers that a place that they must do everything that they can to not go. So we might be constrained in ways that we don't even understand yet in order to avoid that 200,000 acre-foot debit.

But in terms of the reservoir operation restrictions that we're subject to now, we are fortunate when we go into Article 7 which means that there is less than a certain amount of water in Elephant Butte and Caballo we're not allowed to store native water. But we have two different ways to get around that. One of them is something called "relinquishment credits" which I'll be happy to explain to any of you over a beer at some point. And the other one is San Juan-Chama water stored by exchange. So we can say, actually we stored that water up there but we're calling it San Juan-Chama water because we released a like amount into the river from Abiquiu.

We have ways around Article 7. The other articles can constrain us as well and I guess I would also say about 1,000 acre-feet of the 4,000 that we have on the Santa Fe River is pre-compact so we can do whatever we want with that 1,000. So we have some wiggle room. It does constrain us but not to a degree that is really debilitating.

MR. IVES: Thank you.

MR. ROACH: And I think this is my last slide. Just kind of an overview of the Water 2100 for this year. As I mentioned, we presented the model and approach in '24. I think that presentation is on our website. And we're planning for resilience under a wide range of future conditions so again this was the base case and then extended supply disruptions due to a variety of causes and a range of climate change hydrology. We sort of proposed four criteria to define the goals of the water system. Those are reliability, sustainability, social and environmental. And we have tried to define those very tightly. So reliability is you turn on your water and it comes out in 2080 – you turn on the tap. That's all we're talking about. Turn on the tap and the water comes out. Sustainability is, are we using too much of our groundwater, really. If we're mining our groundwater than we are not sustainable. Social is how green is the City and how much of that green space is available to the community. So these are trade-offs, right. I think everyone wants to have a shady city full of pollinators. How much water will that take? Where is that trade-off? And then environmentally is how much water do we want flowing down the upper Santa Fe River and how much water do we want flowing down the lower Santa Fe River. These are the constraints that we try to play with to judge the quality of the adaptation strategies that we choose if we need any to avoid the future gaps. This is a very fascinating process and I will say that I think anyone who is interested in it really should be ready in 2026, at least if not

’25, but in 2026 this is when we’re really going to try and roll out how we see the future; the potential strategies and what other strategies we should consider and how we weight those different values in terms of deciding what other strategies we want to really consider for implementation.

Kyle informs me that I’m out of time [laughter]. No, he informs me that we have a 10 percent allocation of San Juan-Chama water already but we’re only expected to get a 30 percent allocation. And I believe that 30 percent will be the least that we have ever gotten, so that would be dramatic. I don’t know if that projection occurred before that wild May storm that changed everything for us but hopefully.

Then on the supply projections, again, we’re coordinating with the Bureau of Reclamation and UMass on these different climate hydrology projections. We’re working on the groundwater analysis of what climate change might do to groundwater and we’re hoping to present the supply projections late this year.

And that is the end of the presentation and I appreciate you all bearing with me.

CHAIR GREENE: Thank you very much. Questions from the Board? I have a question. Apologies as some of these relate to City specifically but since this is a City comprehensive sort of thing. There are a number of private wells in the city; do we have any plan to wean people off of those and is there any incentives or anything like that?

MR. ROACH: Yes and I’m not super well-versed on the specifics but there are wells in the City that are pre-1907 and we generally don’t have much to say about those. There are other wells – anytime someone wants to drill a well in the City limits or deepen a well or to drill a replacement well if it doesn’t fall under that 1907 blanket then we take a look and if they’re within a certain distance of a main, we don’t allow it. That’s within a certain distance of City water.

CHAIR GREENE: I ask because when I sat on the Planning Commission, St. Vincent’s hospital tried to – didn’t declare but we discovered that they were pumping something like 12 million gallons, one of the largest pumpers in the City. And they have gone for permit after permit after permit for extension of the hospital and I would have thought that somewhere along the line we would have got them off of pumping that much. I’m wondering if you know anything about that.

MR. ROACH: I am familiar with that issue and I know I have looked at it closely in the past but I don’t have the details on the top of my head.

CHAIR GREENE: Have you seen substantial recovery of the wellfields?

MR. ROACH: We have and I should – one of the slides that often I will show is showing that due to our shift to surface water dominated production over the last 15 years, we have seen significant recovery in both of the wellfields. The Buckman wellfield is a confined aquifer so it’s a pressure response and it’s dramatic the response that we have seen there. The City wellfield is unconfined so it’s a little easier to wrap your head around it and there is recovery. It’s not as dramatic. But I will make a point, if I make this presentation again to the Board, to include that figure.

CHAIR GREENE: And then reclaimed water is there sort of a statistic that would be useful for us to know comprehensively. Maybe it’s not a BDD issue but it’s a water issue. So to understand water resources comprehensively how much is going to the golf courses, to the soccer fields, and to all of those things just to understand the value of that of what otherwise would be potable water. So, good statistics. And then lastly, at Santa Fe County we are sort of starting to get our head around the idea that we pledged a lot of water

with hookups but we haven't actually seen the development. And I'm wondering – some pledges are decades old so it's sitting there and they're sort of squatting on the development rights with water and I'm wondering if the City has identified that as an aspect that you need to start looking at?

MR. ROACH: I'm not familiar with that as an issue in the city. In fact, for the City I would speculate and I'm happy to be corrected, that the City Water Bank represents a place where developers could speculatively move water rights from the Rio Grande into the Buckman Wellfield and then sell them to City developers who need them and then based on the prices in that water bank, I would say that it is supply constrained. There aren't a bunch of people sitting on a bunch of supply in that particular mechanism for sort of trading in water rights.

[The presentation was taken down to enable the online viewers access to the Board.]

CHAIR GREENE: Councilor Romero-Wirth, do you have a question or two or three?

COUNCILOR ROMERO-WIRTH: No, I thank Jesse for his presentation and thanks for taking the slides down so I could see you all.

CHAIR GREENE: Councilor Cassutt.

COUNCILOR CASSUTT: I just have one at this moment. Thank you for the presentation. I love that I keep getting this at different places because every time something clicks, although, constantly I am texting Councilor Romero-Wirth so that that amazing knowledge can come to me.

You said something about our renewable sources in our portfolio. I'm guessing that one of our non-renewable sources is to how we always add conservation onto there and that's our – whatever source it is. Are there other things that are considered not renewable sources that impact the system as a whole?

MR. ROACH: That's a good question. If I said renewable I probably meant to say sustainable.

COUNCILOR CASSUTT: You used those interchangeably.

MR. ROACH: Well, thank you for pointing that out. I think of surface water which is water floating down river and into the reservoirs as inherently renewable because it's sort of the annual water cycle. The amount that we get in the snow that year determines what we have in the reservoir. We might not get any next year but whatever we get is renewable. And then when we talk about groundwater I talk about sustainable meaning we could pump that amount without impacting the aquifers over time.

Groundwater is much more complicated and the folks who understand better than I do often point out that we still – there might be a little bit of a change of storage to the aquifer associated with that which means that we're sort of taking water that was there for a long time and is not inherently renewable. But at some point we would hit a stay state where we're pumping out more or less what is recharging each year. With groundwater it's harder, even for me, to really explain the difference between renewable sustainable. But when I was talking about the 4,500 it is based on a definition of sustainable from the perspective of the utility. That we could do that forever and the wellfields as they exist now and our ability to continue doing that wouldn't be negatively impacted because we're taking too much.

COUNCILOR CASSUTT: Thank you. I appreciate that. No further questions.

CHAIR GREENE: Jesse, I do want to thank you. This is a great presentation. And you give something that could be very mundane life and excitement and it is appreciated because you sell it with the enthusiasm of knowing what you're talking about and you're excited to come teach us, thank you.

MR. ROACH: Thank you for that.

d. Update of the Los Alamos National Laboratory Petition to the New Mexico Water Quality Control Commission to Establish a Segment-Specific Temperature Criterion for a Portion of the Upper Sandia Canyon Assessment Unit

CHAIR GREENE: Welcome back, Jay.

JAY LAZARUS (Glorieta Geoscience): Thank you, Chair. First of all I want to say that it's really hard to follow Jesse's presentation.

CHAIR GREENE: If anyone can do it, it's you.

MR. LAZARUS: Thank you very much. This is really information only. As many of you know, we go to all the Water Quality Control Commission meetings. At the last meeting, Los Alamos National Lab presented what's called, the Use Attainability Analysis -- [The microphone was not on and Mr. Lazarus restarted his comments] The Commission heard a petition from Los Alamos National Laboratory to adjust the temperature criteria for the upper reaches of Sandia Canyon. Sandia Canyon flows into the main stem Rio Grande below our diversion. But what is the important thing for the Board is the actual take a ways that we got from this. Now the Lab conducted and they've been doing this for many years, what's called the Use Attainability Analysis that when there's a certain standard for surface water quality that if an entity wants to request a change to that standard, they conduct what's called a use attainability analysis where they go through a whole variety of different scientific evaluations. And Sandia Canyon is divided into two segments. The upper portion which is effluent dominated and was previously classified as coldwater fishery. The lower portion of the canyon is ephemeral and was defined/designated as a coldwater fishery. The Lab did their studies and what they found is that the upper portion of Sandia Canyon is due to climate change and aridification they cannot naturally achieve the temperature standards that were in the Surface Water Regulations.

Generally, across the state if there's impaired reaches of any specific stream it is dominantly -- temperature is one of the primary factors that is being exceeded across the state not just here. So what I just wanted to inform the Board about or the take away that I have on the bottom of the memo is that over time as we continue on this unfortunate arch to a warmer climate, we're going to be experiencing warmer temperatures that are going to reflect warmer temperatures in our surface water bodies; streams and lakes. And I would imagine that down the line we'll be experiencing more requests for adjustments of these temperature-specific criteria for specific stream reaches. And that's really what I wanted to inform the Board about. I'll be happy to answer any questions.

MEMBER SCHMIDT-PETERSEN: Thank you, Jay. I was just wondering with temperature increases my experience with that is down south at Elephant Butte with reservoirs but with algo plumes and things like that. Are we talking about temperature increases that are that significant that might occur this far north and that might affect treatment or diversion in some way?

MR. LAZARUS: Algo plumes, Chair Greene, Member Schmidt-Petersen, that wasn't discussed. The Environment Department backed the Lab's petition which is really unique as you know. They got the upper segment of Sandia Canyon reclassified from coldwater to cool water. So if we're still with the cool water at the upper portion of the canyon, coldwater the ephemeral portion downstream we wouldn't be anticipating algo plumes for those kinds of conditions.

MEMBER SCHMIDT-PETERSEN: Thank you.

CHAIR GREENE: Anybody else in the room? Anybody on line? Thank you and you did great behind Jesse.

9. Action Items: Discussion Agenda

a. Request for Approval to Purchase a New Front-end Loader from 4 Rivers Equipment for the Amount of $228,711.29

i. Request Board's approval for a Budget Adjustment of $227,711.19 utilizing vacancy savings from FY25

MR. PRADA: Thank you, Chair Greene. Our request is pretty straightforward. We're seeking your approval to purchase a new front-end loader for approximately $229k.

Let me explain why this acquisition is essential for our operation. Acquiring a dedicated loader for solids management is crucial for operational efficiency and cost control. Our current backhoe which we use to move solids is an older unit and frankly is just not suited for the continuous high-volume solids production. This mismatch has led to frequent breakdowns. In fact, we incurred $25,000 in recent repairs just to keep its limited functionality. Beyond that, it's inability to keep pace forces us to spend over $15,000 annually renting additional equipment during peak hours. A new purpose-built front-end loader will likely address these issues. It will eliminate the significant and recurring rental expenses and drastically reduce unforeseen maintenance costs. Most importantly, it will provide the reliable, efficient capacity our solids handling operations. This isn't just an expense, it's an investment that will deliver substantially long-term financial savings and significantly improve our overall productivity and equipment reliability.

Therefore, staff recommends approval to purchase the front-end loader from 4 Rivers Equipment for approximately $229.000. For funding we propose to use vacancy savings from FY25. As of May 2025, our estimated full-year savings from vacancies is probably $1.1 million providing ample funding for this critical purchase. Thank you and I'll stand for any questions.

CHAIR GREENE: Thank you. Before I take questions; Nancy, you looked at me like I forgot to say letter i which is the budget request.

MS. LONG: Yes, Madam Chair.

CHAIR GREENE: So we'll discuss both at the same time. We are also at the same time requesting budget approval for a budget adjustment to match that $228,711.19 from vacancy savings. Questions from the team?

MEMBER SCHMIDT-PETERSEN: Just one question for Bradley. With a new-front loader, what kind of a life do you expect for its operations?

MR. PRADA: If you look back at the equipment we currently have, the backhoe that we have, we've had it for 15 years. Recently, we've been incurring some maintenance cost associated with the age of it.

MEMBER SCHMIDT-PETERSEN: I guess I'm assuming that if we didn't approve this that you would be doing rentals or repairs and that would be a continuing cost that could be $20,000 to $25,000 a year just to try and maintain something if it lasted. I'm just trying to balance that against the total cost and it seems reasonable to me.

MR. PRADA: If you balance between the rental and the costs that we've had recently, it's almost a wash. But what we're really getting out of this is operational efficiency.

CHAIR GREENE: Thank you. Anybody else?

COUNCILOR CASSUTT: I'm ready to make a motion; do I have to do one at a time?

MS. LONG: Yes, Councilor, you can make a motion to approve the purchase along with the budget adjustment request at the same time.

COUNCILOR CASSUTT: So moved.

COMMISSIONER HUGHES: Second.

CHAIR GREENE: Motion from Councilor Cassutt and second from Commissioner Hughes.

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

10. Matters from the Board

CHAIR GREENE: Councilor Cassutt.

COUNCILOR CASSUTT: My only matter is that I apparently am not going to be here at the next meeting. I will be at a family wedding.

CHAIR GREENE: Celebrate for us. Commissioner Hughes.

COMMISSIONER HUGHES: I intend to be here at the next meeting. I guess we're going to have a special meeting sometime at the end of June. I'll also try and make that. Maybe I can be virtual if it's only going to be 15 minutes.

MR. PRADA: Chair Greene, Commissioner Hughes, we will try and schedule something in the middle of June sooner rather than later.

CHAIR GREENE: Member Schmidt-Petersen.

MEMBER SCHMIDT-PETERSEN: Just to add, Chairman and for Brad, I'm going to be out the 13th through the 24th or something like that. I'll be happy to be at a 15 minutes meeting but I want to make sure we'll have a quorum for it.

CHAIR GREENE: Bernardine, you're going to coordinate this within the next few days.

BERNARDINE PADILLA (BDD Public Relations Coordinator): Chair Greene, yes. We're going to look at the calendar. I know that Brad wanted to do it earlier. I don't know if we can do it before the 13th, we can try. If it works out then we can do that.

COMMISSIONER HUGHES: People can zoom in from anywhere right, as long as it's not right in the middle of a wedding service.

COUNCILOR CASSUTT: That's in July.

CHAIR GREENE: Councilor Romero-Wirth.

COUNCILOR ROMERO-WIRTH: Thank you, Chairman. I'll just let you know that I'll be appearing remotely on July 10th.

CHAIR GREENE: Hope you're having as much fun as Councilor Cassutt. Commissioner Johnson.

COMMISSIONER JOHNSON: No announcements, thank you.

CHAIR GREENE: Another thing that I want to throw out there is that we talked about doing a tour at the Diversion. So we did our tour of the treatment facility a couple months ago for a bunch of new folks and even some of the old folks. We stuck around and came out and visited that. But I thought it would be nice to actually see the diversion facility.

We also celebrated our 20th anniversary a couple of weeks ago and I thought it would be nice to do a picnic of some sort. So if we can look at our calendars and we promise we won't talk – if a quorum is there, we won't speak about any business but I would like to invite everybody to think about doing this for a tour and then some sort of an appreciative event for all of our team and all of the staff. Bernardine will be working on those dates in the next few days as well.

MS. PADILLA: So the dates that we gave you were June 10th, 11th, 12th, 17th. 18th and 19th. But then I think we'll have to move it back.

CHAIR GREENE: Let's look at it for after the next meeting in July.

MS. PADILLA: Oh, so July now?

CHAIR GREENE: Yes.

MS. PADILLA: Okay. I'll look at July dates.

11. Next Meeting: Thursday, July 10**,** 2025 at 4:00 p.m**.**

12. Adjourn

Having completed the agenda and with no further business to come before the Board, Chair Greene adjourned this meeting at approximately 5:22 p.m.

Approved by:

_____
Justin Greene, Board Chair

Respectfully submitted:

Wordswork

ATTEST TO

_____
KATHARINE E. CLARK
Santa Fe County Clerk

D R A F T

- subject to approval -