Buckman Direct Diversion

AGENDA

The City of Santa Fe
And
Santa Fe County

Buckman Direct Diversion Board Meeting

THURSDAY, DECEMBER 5, 2019
4:00 PM
CITY HALL
CITY COUNCIL CHAMBERS
200 LINCOLN

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF CONSENT AGENDA
5. APPROVAL OF MINUTES FROM THE NOVEMBER 7, 2019 BUCKMAN DIRECT DIVERSION BOARD MEETING
6. REPORT ON DECEMBER 3, 2019 FISCAL SERVICES AUDIT COMMITTEE (FSAC)

INFORMATIONAL ITEMS

7. Monthly Update on BDD Operations. (Randy Sugrue, BDD Operations Superintendent, rcsugrue@santafenm.gov, 955-4501)
8. Report from the BDD Facilities Manager. (Rick Carpenter, Interim BDD Facility Manager, rrcarpenter@santafenm.gov, 955-4206)
9. City of Santa Fe Compliance with Safe Drinking Water Act Drinking Water Standards. **VERBAL** (Alex Puglisi, Environmental Compliance Specialist, aapuglisi@santafenm.gov, 955-4232)
10. Report on 1st Quarter Financial Position for Fiscal Year 19/20. (Mackie Romero, BDD Financial Manager, mmromero@santafenm.gov, 955-4506)

11. Update on Solar Investment Grade Audit (IGA), possible arrays for BDD and next steps. **VERBAL** (Regina Wheeler, Public Works Director, rawheeler@santafenm.gov, 955-6622)

CONSENT AGENDA

12. Request for approval of payment to the Bureau of Land Management in the amount of $68,407.01 for BDDB Right-of-Way rental fees. (Mackie Romero. BDD Financial Manager, mmromero@santafenm.gov, 955-4506)

DISCUSSION AND ACTION

13. Citizen Member and Alternate Citizen Member Selection process. (Nancy R. Long, BDD Legal Counsel, nancy@longkomer.com, 982-8405)

14. Request for approval of Amendment No. 4 to the contract with Alpha Southwest for the BDD Raw Water Pump Project, Bid No. '16/38/B to increase the contract sum by $68,974.37 for a total contract amount of $1,144,692.61 and an extension of the contract term. (Mackie Romero, BDD Financial Manager, mmromero@santafenm.gov, 955-4506 and Bryan Armstrong, BDD Maintenance Superintendent, bfarmstrong@santafenm.gov, 955-4516)

    a) Request of approval to authorize funding of $68,974.37 from the Major Repair and Replacement Fund to cover the additional cost.

15. Report and possible action on BDD Board 2019 communications regarding Water Quality Topics. (Kyle Harwood, BDD Counsel, kyle@eagolflaw.com, 986-9641)

MATTERS FROM THE PUBLIC

MATTERS FROM THE BOARD

NEXT REGULAR MEETING: Thursday, January 9, 2019 at 4:00pm

ADJOURN

PERSONS WITH DISABILITIES IN NEED OF ACCOMODATIONS, CONTACT THE CITY CLERK'S OFFICE AT 505-955-6520, FIVE (5) WORKING DAYS PRIOR TO THE MEETING DATE

RECEIVED AT THE CITY CLERK'S OFFICE	
DATE:	November 22, 2019
TIME:	2:22 PM

MINUTES OF THE

THE CITY OF SANTA FE & SANTA FE COUNTY

BUCKMAN DIRECT DIVERSION BOARD MEETING

December 5, 2019

This meeting of the Santa Fe County/City Buckman Direct Diversion Board meeting was called to order by Commissioner Anna Hamilton, Chair, at 4:02 p.m. in the Santa Fe City Council Chambers, 200 Lincoln Avenue, Santa Fe, New Mexico.

Roll was called and the following members were present:

BDD Board Members Present:
Commissioner Anna Hamilton, Chair
Councilor Peter Ives
Commissioner Anna Hansen
Citizen Member Denise Fort
Councilor Michael Harris [4:20 arrival]

Member(s) Excused:
None

Mr. Tom Egelhoff [non-voting]

BDD Board Alternate Members Present:
Mr. J.C. Helms [Citizen alternate]
Ginny Selvin [Las Campanas alternate]

Others Present:
Rick Carpenter, Acting BDD Facilities Manager
Nancy Long, BDD Counsel
Mackie Romero, BDD Finance Manager
Bernardine Padilla, BDD Public Relations Coordinator
Randy Sugrue, BDD Operations Superintendent
Jamie-Rae Diaz, City Administrative Assistant
Alex Puglisi, City of Santa Fe
Bryan Armstrong, BDD Maintenance Supervisor
Regina Wheeler, City Public Works
Kyle Harwood, BDD Counsel
Dan Frost, S & W
Joni Arends, CCNS
James P. Bearzi, Glorieta Geoscience
Jay Lazarus, Glorieta Geoscience
Rachel Brown, Interim County Attorney

3. APPROVAL OF AGENDA

[*Exhibit 1: Agenda*]

CHAIR HAMILTON: I wanted to ask if we could move Matters from the Board, to an earlier point in the agenda, maybe after either approval of the agenda or after approval of Consent. Nancy or Jamie or anybody or Rick, are there any other changes?

RICK CARPENTER (Acting Facilities Manager): Madam Chair, I do not have any changes but Jamie-Rae Diaz has one minor change she would like to make.

CHAIR HAMILTON: Thank you Jamie-Rae.

JAMIE-RAE DIAZ (Administrative Assistant): For the next regular meeting it states Thursday, January 9, 2019. It should be Thursday, January 9, 2020.

CHAIR HAMILTON: Circling back would be exciting, wouldn't it?

COMMISSIONER HANSEN: But it's still January 9th.

MS. DIAZ: It is.

COMMISSIONER HANSEN: Will you please send out a new request? I can't delete the request I have on mine that was sent out by Nick Schiavo.

MS. DIAZ: Yes, I will.

COMMISSIONER HANSEN: Thank you.

CHAIR HAMILTON: So what's the pleasure of the Board?

COMMISSIONER HANSEN: I move to approve with changes. So you want to move Matters from the Board after Consent?

CHAIR HAMILTON: Yes.

COUNCILOR IVES: Second.

CHAIR HAMILTON: Thank you. I have a motion and a second.

The motion passed by unanimous [4-0] voice vote. [Councilor Harris was not present for this action.]

4. APPROVAL OF CONSENT AGENDA

12. Request for Approval of a Payment to the Bureau of Land Management in the Amount of $68, 407.01 for BDDB Right-of-Way Rental Fees

CHAIR HAMILTON: Are there any items that people have questions about or that they want pulled? Or what's the pleasure of the Board?

COUNCILOR IVES: Move to approve.

MEMBER FORT: Second.

CHAIR HAMILTON: So is there any discussion? I have a motion and a second for the Consent. There's only one item.

The motion passed by unanimous [4-0] voice vote. [Councilor Harris was not present for this action.]

MATTERS FROM THE BOARD

CHAIR HAMILTON: So that takes us to Matter from the Board. The first thing I want to do just to get it out of the way is my statement. I'll state for the record and

for our minutes, that the only matter discussed during executive session of our last Board meeting on November 7, 2019 was the matter as stated in the motion to go into executive session, and no action was taken.

And so then in other Matters from the Board I wanted to maybe – well, actually, this is awkward because Councilor Harris isn't even here.

COMMISSIONER HANSEN: So do you want to wait?

CHAIR HAMILTON: I suppose we should try to give him a few minutes. Now that I formally moved Matters from the Board, do any other Board members have any matters to discuss?

NANCY LONG (BDD Counsel): Madam Chair, I did see Councilor Harris in the hallway earlier so I know he plans to be here. He just maybe got caught up in another meeting.

CHAIR HAMILTON: I would beg everybody's – I hear a voice. Is everybody looking to the door for a reason?

COMMISSIONER HANSEN: We could do it after the minutes.

CHAIR HAMILTON: If I can ask everybody's indulgence and maybe we can do approval of the minutes.

5. APPROVAL OF MINUTES: November 7, 2019

COMMISSIONER HANSEN: Madam Chair. I have changes to the minutes. On page 4, line 28, the $120,000 needs a comma instead of a period.

CHAIR HAMILTON: Very nice.

COMMISSIONER HANSEN: Okay. That's all I have.

CHAIR HAMILTON: So with that change, what's the pleasure of the Board?

COMMISSIONER HANSEN: I move to approve with changes, unless there's any changes from staff on the minutes.

MR. CARPENTER: Staff has no changes.

COUNCILOR IVES: Second.

CHAIR HAMILTON: I have a motion and a second.

The motion passed by unanimous [4-0] voice vote. [Councilor Harris was not present for this action.]

CHAIR HAMILTON: So we've approved the minutes and we still don't have Councilor Harris.

COUNCILOR IVES: Madam Chair, I would move that we postpone Matters from the Board until the arrival of Councilor Harris.

CHAIR HAMILTON: Thank you.

COMMISSIONER HANSEN: Second.

CHAIR HAMILTON: Thank you.

The motion passed by unanimous [4-0] voice vote. [Councilor Harris was not present for this action.]

5. REPORT ON DECEMBER 3, 2019 FISCAL SERVICES AND AUDIT COMMITTEE

MACKIE ROMERO (BDD Financial Manager): Madam Chair, members of the Board, a Fiscal Service and Audit Committee meeting was held on Tuesday, December 3, 2019. In attendance was myself, BDD Financial Manager, Rick Carpenter, Interim BDD Facilities Manager, Commissioner Hamilton, Councilor Harris. From the Las Campanas we had Tom Egelhoff, Jeannie Sullivan and Linda Spingler. I provided an update on the fiscal year 18/19 audit and financial statements in which our auditors, Clifton Larson Allen, have submitted a letter on behalf of BDD to the State Auditor informing them that the submission of the financial statements was going to be late.

The City of Santa Fe as our fiscal agent is having difficulties with certain matters that have impacted the audit and financial statement preparation of the Buckman Direct Diversion but I am working closely with the City and our auditors for a timeline of deliverables to achieve a submission date to the State Auditor of March 31, 2020. I will continue to provide updates during our monthly FSAC meetings and to the Board.

In FSAC we discussed the first quarter financial report which I will provide additional details during my presentation of that item. The members had no major issues or concerns as we discussed timing of expenses and encumbrances due to the new accounting system and next year budget contributions to the major repair and replacement fund. We also discussed Consent Agenda item #12 and this is the annual payment to the BLM which is for our right-of-way rental agreement. This is done every year and is part of our operating budget.

We discussed our action item #14 and that will be discussed later by me and Bryan Armstrong. Are there any other questions or notes from our FSAC meeting?

CHAIR HAMILTON: I didn't have any. Does anybody have questions? There was certainly a little bit of discussion about having another late audit and I don't know if anybody had questions about that. Mackie is doing everything she can to get that in, but I don't know if there are any additional concerns.

MS. ROMERO: Okay. Thank you.

CHAIR HAMILTON: Thanks so much.

INFORMATIONAL ITEMS

7. Monthly Update on BDD Operations

RANDY SUGRUE (Operations Manager): Madam Chair, members of the Board, BDD diversions and deliveries for the month of November averaged – raw water diversions, approximately 3.6 million gallons per day; drinking water deliveries through the booster stations, 3.4 million gallons combined per day; Las Campanas just had a single daily pumping day so I did note that as an average. It was about 150,000 early in the month; onsite treated and non-treated water was about .2 million gallons per day on average, so BDD was providing approximately 58.8 percent of the water supply to the City and County for the month.

Canyon Road has eased off on their production a bit as we go through November, so BDD production is balancing that by picking up our production a bit as December begins. That's essentially it and I stand open for questions.

CHAIR HAMILTON: Thank you very much. Are there any questions? Yes,

Councilor Ives.

COUNCILOR IVES: Thank you, Madam Chair. Looking at page 2 of the report, the chart there on the San Juan-Chama in storage, I just wanted to say that I really enjoy the clarity in this particular chart, that sort of step function in the blue at the bottom, which is the water in Heron showing basically the releases of San Juan-Chama water into the system. And then of course it being pulled out and going into storage in Abiquiu. So this provided in my mind a really crystal clear picture of the movement of that water within the system which I really appreciate.

MR. SUGRUE: That compliment goes to Mr. Carpenter and Mr. Roach who assisted with updating this and adding that clarity to that page.

COUNCILOR IVES: Loving it.

MR. SUGRUE: Very good.

CHAIR HAMILTON: Just for the record, that's Dr. Roach.

MR. SUGRUE: Dr. Roach. Correct.

CHAIR HAMILTON: Are there other questions? Thank you.

MR. SUGRUE: Thank you very much.

8. Report from the BDD Facilities Manager

MR. CARPENTER: Thank you, Madam Chair and members of the Board. At the last Board meeting there was a request made that what had previously been a verbal report from the facilities manager now be in the form of a memo to the Board, so that's why you see it in your packet now. So getting to it, all three BDD entry level operator positions have been filled. Basic operator and intermediate operator positions have also been filled and training for those new employees and orientation has begun and it's going very well.

The lead operator position is still open. We're working on that. We have not made an offer at this time but we expect to be able to use the existing list of eligibles so that should speed things up.

CHAIR HAMILTON: So there are adequate options there?

MR. CARPENTER: Yes, Madam Chair.

CHAIR HAMILTON: Thank you.

MR. CARPENTER: Mackie and I, mostly Mackie, have been working on filling those two financial administrative positions. I have an update to that. The contract administrator position did advertise as of today, so we've had some success there as well as the new facility manager advertisement went out today as well. I don't think it's been posted on the City's website but it is out there.

CHAIR HAMILTON: Excellent. Are there questions? Member Fort.

MEMBER FORT: I had missed the last meeting. I saw there was some discussion of the process. By what amount has the salary been increased? If it's not too repetitive, can you say anything more about the advertising for that position?

MR. CARPENTER: Madam Chair and Member Fort, yes. We made a number of changes that hopefully make the position more attractive, not the least of which is to increase the salary and to post the minimum salary an applicant might expect which is $102,000, so that's a significant increase over the previous amount. Other changes that were made which won't appear in the job announcement but we have authorization from HR to make these offers which is to potentially cover any moving costs. I think it's up to $5,000, and authorization to use a talent recruiter as well. We've got efforts underway to get that implemented as well. So those are the major changes that we requested and were granted.

EXHIBIT 2 PAGES RECORDED 02/21/2020

MEMBER FORT: And Madam Chair, is the position open until filled or what is the nature of the posting?

MR. CARPENTER: Thank you for reminding me. It's a little more complicated. The City is in the process of switching over from its old system to a system called Munis, which runs pretty much everything, including HR functions. That system is slated to close out on December 13th. So this position, the facility manager position, would also close necessarily on December 13th, which isn't a very long run time. However, Munis is expected to be up and running on December 18th so the position will repost at that time for a period of 30 days.

MEMBER FORT: Thank you.

CHAIR HAMILTON: Are there other questions? Thank you.

9. City of Santa Fe Compliance with Safe Drinking Water Act Drinking Water Standards *[Exhibit 2: City Water Quality Report]*

CHAIR HAMILTON: Welcome, Alex.

ALEX PUGLISI (Environmental Compliance Specialist): Thank you, Madam Chair. Before I go onto that I want to take care of the Los Alamos permit application. [Mr. Puglisi distributed copies of the application on CD, which otherwise would be overly bulky.] The City of Santa Fe will be looking at that and making comments, if appropriate. I also have copies of what we call our annual water quality report, commonly referred to as the consumer confidence report, which is required by the Safe Drinking Water Act. It actually goes over a lot of the concentrations and pollutants that I'm going to be discussing today.

I heard there were some concerns on the Board with relation to a certain interview that occurred recently and it was publicized on radio. And just to let you know, there was a similar interview that was actually published in the paper several years ago basically trying to compare the City of Santa Fe's water to public health goals issued by the State of California. And we said it was inappropriate to make that relationship in the past and we still consider it inappropriate to basically use public health goals – which are goals – to basically determine what is considered the safeness of drinking water.

So let me just –

MEMBER FORT: Madam Chair, may I interrupt? If you had a handout – I didn't receive that.

MR. PUGLISI: It's not a handout. These are notes from myself. This is a verbal –

MEMBER FORT: I thought you had a little pile of the City report.

MR. PUGLISI: These are the annual report. Did you get a copy of this?

MEMBER FORT: No. Madam Chair, I receive my bill electronically and pay online so I don't get a lot of –

MR. PUGLISI: Actually, it may be good for everybody to have a copy.

MEMBER FORT: Thank you.

MR. PUGLISI: Because I will be pointing out one or two things on the report that haven't been mentioned in the interview. Let me read something from the State of California's website for the office that was referenced in this interview. "As long as drinking water complies with all MCLs it is considered safe to drink, even if some contaminants exceed public health goal levels. A public health goal represents a health

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protective level for a contaminant that the State Water Resources Control Board and California's public water supply systems should strive to achieve if it is feasible to do so. However, a public health goal is not a boundary line between safe and dangerous levels of contaminants in drinking water. Drinking water can still be considered acceptable for public consumption even if it contains contaminants at levels exceeding the public health goal."

So this is basically a prelude to the public health goals that were being referenced in that interview. Basically, it's funny that they only referenced California's public health goals because EPA also establishes public health goals and they're called maximum contaminant level goals. So EPA regulates water systems under MCLs which are maximum contaminant levels but EPA has a set of goals that basically are associated with each MCL. And basically both EPA and the State of California have to start with a goal, and then EPA and the State and of California, another agency possibly, have to try to establish MCLs as close to that public health goal as technologically and economically feasible.

One of the things I would point out is some of the levels that were actually referenced in this interview are not even achievable through the best available technology, or any available technology, and that was not mentioned in the interview whatsoever.

MEMBER FORT: I'm sorry, Madam Chair, again to interrupt. I don't know to what interview. I missed –

MR. PUGLISI: I'm sorry. I thought the Board was aware of this.

CHAIR HAMILTON: Yes. Most of us were.

MR. PUGLISI: So apparently – was it two months ago – there was an interview on KSFR radio with the Environmental Working Group.

CHAIR HAMILTON: It was probably about six weeks ago. Six or seven weeks ago.

MR. PUGLISI: The Environmental Working Group is an advocacy organization that advocates for mostly standards that apply to organic foods, to pesticide levels in foods. They've actually recently gotten very involved in drinking water and they've used the California public health goals as a reference for their comparisons of drinking water around the nation for several years now. I would mention that part of why they do this is to raise funding for their organization.

I find it interesting that they seem to focus on Santa Fe so much. I'm not sure why, because there are a number of systems in New Mexico that actually have levels of contaminants in their drinking water much higher than ours and they never talk about those water system. Now twice in the last three years they've actually focused on Santa Fe for some reason, and that's what I'm referring to here.

So during that interview they were referencing California public health goals as a standard that should be met. And basically, I'm saying that standard is inappropriate and even the State of California recognizes that comparing standards to public health goals is not only inappropriate but not the way they do business.

So I really wanted to just stand for questions but I thought that some items should be pointed out. First, EWG made this comment that legal is not necessarily safe. Well, I'm not sure what they do consider safe then because under the system that we have to deal with in terms of all environmental regulation, legally is considered safe. And so

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considering the levels that we have met in our drinking water, which are usually significantly below any contaminant levels, I would consider the City of Santa Fe's water safe, as well as the source water coming from BDD, which we have to cover in our report since we take that water and we distribute it throughout our system and wheel it to the County system also.

The other – I heard a comment on the way over here on the radio that it's not the facts, it's who delivers them. They do present some facts but they present them in a very misleading way. For example, they were pointing out numbers that if you look at our table, the numbers they were referring to are the maximum numbers that were obtained at any one source in our system. For example, they were using a number for nitrates that was 8.4. Well, that sample was a one-time sample taken from a well that was run maybe two weeks out of the entire year in 2018. And we have to sample that well. As soon as we put water into the distribution system, that well must be sampled. That is not reflective of what the citizens of Santa Fe or the County of Santa Fe are drinking on a daily basis. Number one, because that well serves a very limited geographic area, and number two, because that water is mixed in the distribution system, and number three, it accounts for 1/150 of the time that you're drinking water throughout the year. And so it's neither representative geographically or in the matter of time.

Public health goals are actually based on consumption of water every day of a person's life for 70 years at a rate of about four to six liters per day. So the fact that even if everybody in Santa Fe were exposed to the water coming from this particular well, which by the way, is below standard, below Safe Drinking Water Act standards, for two weeks out of the year, there would be no adverse impact on that person's health anticipated under the public health goal.

And so I think they're somewhat misleading in the way they presented their numbers, very misleading. The other thing they reference was the disinfection byproducts. They talked about the highs that were noticed in the disinfection byproducts. They never talked about the lows, which were 1/50 of the highs, and actually 1/50 of the standard. And so to basically give the people of Santa Fe the impression that they're drinking these high levels – still below standard – 365 days a year is totally misleading and it's misleading in the fact that that level, the levels that we have achieved have never been shown to cause cancer, even for somebody drinking that water every day of their life for 70 years.

And so I don't disagree with some of the information they cited; I disagree with the manner in which it was cited.

So I would also mention that EWG never mentioned the fact that most sources sampled during 2018 were non-detect for most contaminants regulated under the Safe Drinking Water Act, and so didn't even appear on this table. So you can see, this table is very limited. We're actually required to sample over 80-something contaminants a year. I forget the exact number – 88 – I think it's going up almost every year. But out of the total number of contaminants we sampled for, only about 13 of them showed up at some level within our system and at some source. You have to remember, we have four primary sources of water – two surface water and two well fields.

And when these numbers showed up, they didn't show up in all sources. You can see for nitrates the well fields were non-detect, the ten million gallon tank was non-detect, and the same for other constituents such as gross alpha. They never mentioned

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that fact.

So they gave the impression that all the water in our system basically had this high level of contamination when our very own annual report and the numbers that they've obtained from EPA show that most of our sources were non-detect for most of the year, and that only a few sources actually had some levels of contaminants below Drinking Water standards but present for a certain period of time during the year.

The surface water sources actually came out very – if you were to give it a clean versus less clean, surface water actually showed the least number of contaminants out of all our sources, and that's because we have contaminants that are naturally occurring basically within the soil, and so a lot of our wells actually pick up these contaminants because we're basically pulling water that has been leaching these contaminants from soil over time and so the surface water numbers are very low.

Basically, I could go on and on about the data. I sat up last night thinking about this point and that point, but I think they misrepresenting our report. They misrepresented the information from EPA, mainly to give people the impression that the water supply is unsafe and it is definitely not unsafe. In fact we're one of the cleaner systems in New Mexico, if you were to rank in terms of how close to the standards you got. And with that, I would actually just stand for questions.

CHAIR HAMILTON: Excellent. Thank you. Very much appreciated that you did this. And put so much time into it. Are there questions from the Board?

MEMBER FORT: Could you remind me with the California – has California actually set new MCLs, did you say? Or they're still using the federal MCLs? Have they set MCLs, or only MCLGs?

MR. PUGLISI: California sets public health goals, which is –

MEMBER FORT: Just goals.

MR. PUGLISI: And they're required to – I actually worked for the State Water Resources Control Board in California and the Office of Environmental Health Hazard Assessment is required to set these public health goals. They're required to review them once every five years. That does not mean they will change those. They will only change those goals if there is new information that warrants a change. Most often, there is no change in those five-year periods. It's much the same way EPA reviews its standards every five years and actually EPA goes a step further and there's a rule that was passed under the Safe Drinking Water Act. It's called the Unregulated Contaminant Monitoring Rule. So EPA will look at new contaminants every five years that have not been looked at before. And so what they'll do is they'll make almost every system in the United States sample for these contaminants to see if there's a predominance of that contaminant out there in water systems and whether it should be due for regulation.

So for example, we had to do, under UCMR 3 hexavalent chromium, which is cited by EWG, was the first time EPA actually required drinking water systems to sample for hexavalent chromium. By the way, that's one of the concentrations they brought up and on a regular basis we do not sample for hexavalent chromium; we sample for total chromium. That is the EPA standard at the current time. The number they used actually came from our UCMR sampling, and it was one source, and once again, it was a well in the Buckman wellfield.

MEMBER FORT: Thank you. So California, while it has a large epidemiological staff and toxicologists and so on, has not advanced from EPA's MCLs,

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is your statement. They have goals but they have not adopted stricter MCLs.

MR. PUGLISI: I would say that some of their levels have become more stringent that EPA's levels but they have not been adopted as standards by the State Water Resources Control Board.

MEMBER FORT: Okay. Thank you. And then I have a question about the total trihalomethanes on the report. This would be – I think actually there aren't page numbers but you know where the trihalomethanes numbers are showing. It's on the other side here. So the trihalomethanes, so in the second, you've got the MCL of .08, and we have had a range of .004 to .060. This would be surface water, I'm assuming, where the trihalomethanes are showing up?

MR. PUGLISI: Yes. Trihalomethanes and haloacetic acids are basically part of the Surface Water Rule, and so basically we're required to sample under that rule. So it deals with mainly surface water sources. The reason for that being that's where you have total organic carbon that can actually be converted into trihalomethanes.

MEMBER FORT: And has –Madam Chair, if I could ask a question. I've been interested because there was a time that we were quite high, way back in the day, for trihalomethanes. How have we changed chlorination practices, or what have we changed with regard to surface water supplies to keep that number lower?

MR. PUGLISI: One of the things that I've tried to achieve and we as a system have tried to achieve, and in fact we had conversations about this this week is trying to keep the chlorine level as low as possible while still achieving disinfection as a residual at the end of the line. So what we're required to do is sample at the customer's tap for disinfection residual and so they actually recommend we try to achieve a .2, which is not necessary but recommended. We've actually tried to adjust our levels where we're still seeing disinfection at the end of the line but adding as little chlorine as possible.

Now, I'm not saying that we're always consistent in that. Sometimes the chlorine levels get a little bit high and we try to bring them down immediately when we see that happening. The other thing you could do is you could probably chlorinate in different areas instead of chlorinating at a large storage tank and sending water throughout the distribution system, because trihalomethanes go up in your distribution system. And the reason for that is because of the longer contact time you get more production of trihalomethanes.

However, your haloacetic acids actually go down, and so it's a trade-off. Haloacetic acids, which are also carcinogens are highest in the early part of the system because they peak rapidly and then decline after that. Trihalomethanes, it's a curve that eventually peaks but it's a long curve throughout the distribution system. So the longer the contact time the more THHMs.

MEMBER FORT: Thank you. And I wanted to ask about unregulated contaminants but maybe others do.

CHAIR HAMILTON: Go ahead and ask.

MEMBER FORT: So in terms of EPA, which as we know is not now setting standards, and we understand the State will be setting standards for the new class of unregulated contaminants and what is the City doing with respect to those?

MR. PUGLISI: The State of New Mexico has told us that there will be a rulemaking process. They haven't told us the specifics of that rulemaking process. We've been asking them for the last year when they announced it. They announced it about a

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year ago and we still haven't seen anything in terms of the revision of their standards or their regulations.

EPA as of yet has not promulgated any new rules or standards and without making a political comment here I don't think you'll see that for a few years.

MEMBER FORT: I think I understand your political comment without your making it. And so my question would be, what is the position of the City with respect to – I would tell you I'm a supporter of the Environmental Working Group. I didn't hear the interview, however, but in an instance like that where there is not an MCL, what does the City do with respect to those contaminants?

MR. PUGLISI: So one of the things that under UCMR we looked at when we took our samples and got our results back is we actually compared them to California's standards and the public health goals. And only, like I said, in one instance, did we actually exceed the hexavalent chromium standard that was actually developed by the State of California. So that was very encouraging. The same thing for PFAs and PFAOs, the two classes of contaminants you're hearing a lot about these days. We looked at ours in comparison to some of the guidance that was out there and we found that in most instances we saw none. I think there was one instance where we saw some and it was at such low levels it was hard to determine whether that was even a real number of not. Part of the problem with the California public health goals is that those detection levels cannot even be achieved through current laboratory methods and they push it down below current laboratory detection levels, method detection levels. And so you can get a non-detect but that does not mean that you meet a California public health goal.

MEMBER FORT: Thank you.

CHAIR HAMILTON: Commissioner Hansen.

COMMISSIONER HANSEN: So with the hexavalent chromium found in moderate, low levels, is there any way that we can include that in our sampling from LANL so that they start paying for some of our sampling on the wells, since they have such a huge plume up above us?

MR. PUGLISI: Are you talking about with respect to the chromium plume?

COMMISSIONER HANSEN: Yes. If we found it in some of our wells.

MR. PUGLISI: One well.

COMMISSIONER HANSEN: Okay. One well.

MR. PUGLISI: And we attributed it to naturally occurring sources. Hexavalent chromium is naturally occurring in the environment.

COMMISSIONER HANSEN: Okay.

MR. PUGLISI: And what we have entered into with Los Alamos and we've actually been doing this for a number of years, but we actually changed – it's a good question, because we actually asked Los Alamos to change their method from total chromium to hexavalent chromium at the three wells that are being sampled under an agreement between us and LANL, so we have a memorandum of understanding in place with LANL for them to sample wells 1, 6, and 8 – Buckman wells 1, 6, and 8, because those are the closest to the river, and if we're going to see an impact from LANL it will be at those wells first. So we're using them kind of as sentinel wells for the rest of the wellfield , and we have not seen high levels of hexavalent chromium that can be attributed to LANL in those wells.

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COMMISSIONER HANSEN: Okay. Thank you. I did see the monitoring of LANL-derived contaminants and it says wells 1, 2, 6, and 8, with the memorandum of understanding we're testing those wells for other contaminants.

MR. PUGLISI: Right. We're also testing those wells for radionuclides – tritium and other radionuclides. But we've actually dropped well 2 from that mix because we felt that wells 1, 6, and 8 were more representative.

COMMISSIONER HANSEN: Okay. Thank you.

CHAIR HAMILTON: Thank you. Councilor Ives.

COUNCILOR IVES: Thank you, Madam Chair. So just looking at the EWG website they do identify for Santa Fe – they have a page that covers contaminants detected and they compare this utility to the EWG health guideline. So they don't appear to reference California, at least here that I'm seeing quickly. So they base theirs on California?

MR. PUGLISI: I went into that page and actually looked up their comparison of our numbers to the EWG guidelines. So their numbers are mostly based on California public health goals and in a few instances they deviate from those, and those instances are instances where they have disagreement with the California public health goals. And so in a number of instances they're saying that they're most appropriate goals out there but where they disagree, like fluoride, for example, they deviate from those California public health goals.

The California public health goal for fluoride is 0.7, which is the CDC recommended level, and the EWG doesn't accept that number. They have a different number.

COUNCILOR IVES: And the numbers on this page, at least for this utility, are those presumably the high samples taken for these particular compounds over the course of a year?

MR. PUGLISI: That's correct.

COUNCILOR IVES: And not an average.

MR. PUGLISI: Because those numbers that you're seeing there are basically the numbers that are compiled by EPA in the database that we use to produce this report. The drinking water database, I go in there and I pull out these numbers and basically where we had hits we have to present a low, a high or an average if appropriate. For example, the disinfection byproducts – disinfection byproducts are actually based on a long-range actual average. And so it's not just one sample but it's our samples averaged over a year's time.

COUNCILOR IVES: And I notice they do cite then a legal limit and certainly all the measurements from our utility are beneath those legal limits so they do appear at least here to confirm that we are within limits that have been established for safe drinking water at this point in time.

MR. PUGLISI: Board member Ives and other Board members, yes, they do. But however, if you listen to the interview, the prelude was that legal is not safe.

COUNCILOR IVES: Right. And they do have that statement on the website as well, and not knowing more about how they establish their own guidelines and establish those as the safe limits, I can't comment further.

MR. PUGLISI: They basically used the California public health goals for most of the guidelines. They use some of the EPA MCLGs and then they went elsewhere

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for those that they disagreed with.

COUNCILOR IVES: Very good. Thank you.

CHAIR HAMILTON: Councilor Harris.

COUNCILOR HARRIS: Thank you, Mr. Puglisi. You make a very convincing case, so my question is, will you consent to an interview at KSFR? I say that with a smile on my face but the fact of the matter is there's I think some misunderstanding that comes from these types of conversations or interviews that really our drinking water is unsafe. I feel it is very safe indeed. I think that as a representative and the man who really is responsible for understanding, gathering and conveying the data, I would encourage you to consent to some interviews.

The other thing too, I've read this at home. It's in wide circulation throughout the city in our utility bills. I think personally that this report can make a stronger assertion in fact that our water is safe. I mean really and truly. When you look at this, this is hard for me to really pull out kind of the affirmation that you provided that in fact our drinking water is safe. In fact it talks – it's too – I don't want to say it's too bland but it just is too straightforward almost. I really think that the City of Santa Fe should in fact make a stronger statement about our water quality and what we do. That's all I have to say.

So anyway, would you consider interviews? KSFR? KSWV I think is a great place.

MR. PUGLISI: I actually have gone on KSWV and talked about the report every year that it comes out.

COUNCILOR HARRIS: Good.

MR. PUGLISI: And I have consented to an interview with KSFR in the past but it never materialized.

COUNCILOR HARRIS: That's too bad. All right. Well, thank you. Thank you for your work.

MR. PUGLISI: You bring up a good point though. Basically, the City of Santa Fe's format for this is a format that's been mandated by EPA, so these things that we repeat year after year after year are repeated only because we have to. We have to talk about arsenic. We have to talk about voluntary monitoring. We wish we had more leeway. What we could do, and other cities have gone to doing because they're heard comments such as yours, is they're spending a lot more money on their report now and they're making a narrative to go along with it, a narrative that actually explains how the water is safe, why it's safe, and how it affects them.

And so I've noticed a lot of the California reports because this drove me to look at some of their annual reports. By the way, very few of them are meeting California public health goals in all instances, and they actually have to report that out in their California requited CCR. So the State of New Mexico doesn't have a separate requirement for a CCR other than an EPA requirement. They adopted EPA's regulation by reference, but the State of California has their own regulation that applies to the annual report.

We could certainly – basically, this fits in an envelope that can go out with your bill. Something more extensive than this would have to be sent out separately. But I agree with you that it may be worth the extra expense of mailing this out to 26,000 households, I believe.

COUNCILOR HARRIS: I believe it would, because people – what does the City provide? Really and truly, of all the service, we absolutely have to provide safe

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drinking water. And if we're doing that we need to tell that and make sure the people understand it. So that would be my point of view.

MR. PUGLISI: Thank you. So when I come to the council for some additional funding I will look to you.

COUNCILOR HARRIS: Seriously, I think there's a real audience amongst the governing body and others that we need to be clear. If in fact we're doing what we're supposed to do, well, let's say it.

MR. PUGLISI: I agree.

CHAIR HAMILTON: I just had one quick question, because I actually looked for it and I didn't have that much time to look, but on the EWG site to try to find out what they used as a basis for some of the numbers where they deviated from MCLGs and what not. Do you have a sense for where they get some of the numbers, like the fluoride number for example?

MR. PUGLISI: They've looked different guidelines off of different scientific sources.

CHAIR HAMILTON: Do they present that?

MR. PUGLISI: No. They never footnote it that this was obtained for the New York Department of Environmental Quality, or – so it does make it difficult to track down exactly where that number is coming from.

CHAIR HAMILTON: I was wondering if I was just missing it, but I wanted to be able to get that off the site and I couldn't.

MR. PUGLISI: Yes. For whatever reason they do not do that and it could be a little bit more in depth and I understand or realize why they're not doing that. One of the criticisms, you can actually find a lot of criticisms about how EWG presents their number is that they often look for relationships. Instead of looking for cause and effect, they look for relationships.

CHAIR HAMILTON: Correlations. Yes.

MR. PUGLISI: And so they often cite scientific studies that will say something like fluoride causes brain damage in your children and they're citing studies that were done on children right next to a coal-fired power plant and they fail to mention the fact that mercury is being emitted by that coal-fired power plant, which has a direct relationship between learning disabilities and neurological problems. But they'll use it to justify the fluoride level. So I have a feeling that the fluoride level comes from one of those studies.

CHAIR HAMILTON: Okay. Thank you very much.

MEMBER FORT: Madam Chair, if I could just comment on that. I think that we might agree on this Board and citizens that we would like an EPA that updates its standards more often than every two decades or every 40 years, every 20 years, and that we haven't. EPA has been slow to do this, very slow under current conditions. New Mexico is way too small to do it ourselves and the kind of resources that would be required. I guess I'm agnostic on whether EWG is in California but in the national committees I've been on we actually worked and relied on California standards. I think I wasn't clear that they were goals, not standards at the time, but we relied on California epidemiologists because they have a much bigger staff than any state except – than anything but the EPA.

And so I'm not negative on EWG. I'd like to see – and I'm not positive, I don't

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have the background. I looked at one point for toxicologists to advise the Board when we were doing the source water review questions and couldn't find any toxicologists who were available to us to do this. So I would just say we're not going to write another letter as a Board but I hope EPA under a future administration will start doing more standard setting and reviewing standards so that we don't have to rely on a no doubt poorly funded environmental group to say here's what the standard should be, but that we can really rely on the EPA standards.

I second would say that I agree with Councilor Harris oddly enough about putting out some of the word. There's an environmental cost to people who think they're getting better water when they buy plastic bottled water, or even when they buy bulk water and they don't actually know what's in that water. It's less regulated than the City water system and it has an environmental cost for people to be using the plastic bottle or driving around filling up the big ones. So our telling the public that as far as we know, this is pretty good quality drinking water. You don't need to get an at-home treatment system that wastes a lot of water and you don't need to buy plastic bottles. I'm very much in favor of that.

CHAIR HAMILTON: Thank you.

MR. PUGLISI: And Board Member Fort, I would not give the impression that I'm totally in opposition to the public health goals that EWG has presented as being legitimate. I certainly believe that the California public health goals are legitimate goals, but they are goals. And they're not standards. And the fact that most water systems in the country right now could not either economically or technically meet those goals gives me cause to say that it's incorrect to evaluate water systems in public in that manner.

CHAIR HAMILTON: Thank you.

MR. PUGLISI: Thank you for your time.

CHAIR HAMILTON: We really appreciate the input. Well done.

MATTERS FROM THE BOARD (cont.)

CHAIR HAMILTON: So I think this can move us back to the remainder of Matters from the Board. I was going to initially – we have two Board members who are for totally inexplicable reasons leaving us, and I think I would initially turn to Rick to give them trouble about this.

MR. CARPENTER: Thank you, Madam Chair. Yes, we're sorry to see you both go. You've provided a great value and great service to the duties and the business of this Board and the way that it conducts its business. We are better off for having you on the Board. We're sorry to see you go. From a staff perspective we've always valued your input and your oversight and we thank you for your time on the Board. We do have a couple of things for you that staff has put together that are in the blue bags there. You may want to take a look, and I'm sure that the Board members would like to have a few words.

CHAIR HAMILTON: Exactly. Shall we start at the end? Do you guys want to start?

[Away from the microphones, Ginny Selvin thanked the Councilors for their wit and wisdom and stated she learned a lot from them. J.C. Helms indicated they were great colleagues and he was sorry to see them go.]

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MEMBER FORT: I've also very much appreciated both of your work and I must say the seriousness about all of this. That's been impressive.

CHAIR HAMILTON: Commissioner.

COMMISSIONER HANSEN: Councilor Harris and I got off to a little rocky start in the beginning of our tenure together and we have worked through that and become quite good friends, at least I think of you as a good friend, and I am going to be very sorry to see you leave this Board. I have learned a lot from you. I appreciate your detail in contract reading and I think you could have a long career in teaching people how to read contracts, especially in this city, we could use that input. So I will miss you and thank you.

Councilor Ives, I have known you for a very long time. We have worked together for many, many, many, many years. I am sorry to see you stop being the Councilor for the City. I think you have brought your own unique perspective and I am grateful for all of your hard work and dedication to the City.

COUNCILOR IVES: Thank you, thank you.

CHAIR HAMILTON: Thank you. God, that comes to the Chair. OMG. It really has been a pleasure working with you. It is really one of the awards, both of you, of working people who have expertise and who bring all of that and dedication of service and just a congenial way of even arguing on things that we – I can't think of things we had great disagreements with. I can really only think of all the input of information and the support for whatever we need to do and it's been a pleasure and a pleasure to see all you contribute to the City and to the BDD.

Actually, before they get to say anything, is there anybody else in the audience who would like to say anything to these gentlemen: Okay, we got a thumbs up for them. That's good.

COUNCILOR IVES: Let me jump in first. When Mike and are in any other meetings together we sit side beside in the second and third chair over there, so it has been just a pleasure to be doing the City and of course this Board as well with him. You can only ask for folks who are attentive to the information that is provided, that ask probing and germane questions and have a passion for service, really, to the people of the City of Santa Fe, and the Buckman and the County as well and Las Campanas, and so for all of those reasons Mike has been a great colleague and just a delight to be able to work with over the past four years.

And for me, the service to the City is something that I have been actually thankful for having had the opportunity to do because the City as a construct is this close relationship between the government and the governed and you have capacity to actually have impact on people's lives in positive ways. And learning about the issues, figuring out what we can do with the resources available to try and address them, because there are inevitably a host of competing things as both intellectually engaging and really fun at some level. So for me it's been an honor and a privilege to be able to serve in all of the capacities I have while a City Councilor.

And Buckman is a great example of one of those significant constructs in this area that is critical the City's sustainability, the City's resiliency and will remain so and I am always impressed tremendously with the foresight that led to its creation and the fact that the Buckman is utilized to provide additional waters, 5,200 acre-feet to the City of Santa Fe and of course is the diversion point for the raw water and the County's water as well.

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So significant, and to have been able to serve with all of you and deal with those issues as colleagues has been tremendously meaningful and delightful. So I am appreciative for all of you for having had that opportunity.

CHAIR HAMILTON: Thank you so much, Councilor Ives. Councilor Harris.

COUNCILOR HARRIS: So first of all, I need to talk about the gentleman – truly a gentleman to my right. Peter and I have known one another at a lot of different levels, not just as colleagues on the City Council and Buckman Direct Diversion Board, but as parents with children in the same schools, and the Trust for Public Land when he so admirably provided services throughout the West. My company several years ago provided services to TPL on the Railyard Park. So we've had a long-standing work relationship and appreciation for one another.

And it's true that we don't always agree on things but that's kind of beside the point. One thing we do agree on is what we consider is our refined sense of humor. Don't think we're talking about you when we're nudging one another. We're making some glib comment of some sort. But really, Peter is a real gentleman and a real intellect and I've always appreciated working with Peter.

To me, Buckman Direct Diversion, this Board has been extremely important and I think that from my own personal development, again, working in a capacity on behalf of the citizens of Santa Fe which for many years was on the Planning Commission and chairing that and that's one level of work that gets done and lessons that get learned. And certainly kind of dispute resolution almost when you're on any Planning Commission.

And then the City of Santa Fe, being a member of the governing body takes it to another level, but what I think is really important about this body, and quite frankly the Solid Waste Agency too is the professional attitudes that everybody brings: the County Commissioners, the City Councilors, Citizen Member Fort. This to me is kind of a model of other areas where there should be greater cooperation between the City and the County, and Commissioner Hansen and I have particularly talked about this, and actually, in my, what the Mayor calls exit memo, I will cite some areas that I think there should really be further involvement.

But Buckman Direct Diversion is a tremendous example of how you tackle a very complex situation – a lot of money on the table, technically difficult, but really is only – I think is best served by what we have now, with citizen members, Las Campanas, because they have an ever increasing seat at the table, which is very important, but actually in many ways it boils down to the elected officials, the County Commissioners and the City Councilors.

So this is what's extremely important, I believe, for the future of our region and trying to really tackle all the things that we need to do. When it comes to the Board and the staff, I've always been impressed from day one when I took the tour and started to understand what the system was about and the problems that were inherent almost from day one. It's been a long road; there's still a ways to go, but I think that the staff has really done an admirable job at the financial level, at the technical level. I hope we can really get all the positions filled that we need to so we can really – as well as get some of the other technical problems behind us.

So anyways, I really want to thank everybody for allowing me to participate and allowing my voice to be heard because, yes, Commissioner Hansen and I have disagreed

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on occasion but we have a tremendous amount of respect for one another and appreciation. Certainly Commissioner Hamilton and Member Fort, thank you once again and Mr. Helms, you were right. You were right on the big one several years ago. I won't go into the details but you know what I'm talking about. So thank you for what you've accomplished as well as well as Ms. Selvin and Mr. Egelhoff, that really understands things. Tom understands things quite frankly on a technical level far better than I do. But anyways, thank you very much.

CHAIR HAMILTON: Well, we can't thank you enough. It's going to be hard shoes to fill. Is that the expression? Moving forward.

10. Report on First Quarter Financial Position for Fiscal Year 19/20

MS. ROMERO: Madam Chair, members of the Board, this report is to update the BDD Board and its partners on the first quarter financial position as of September 30, 2019. As I do every year I provided budget overviews and partner contributions, so I will just go over a few numbers and see if you have any questions. In the first quarter we've spent $1,265,204. Of that we've billed back to the partners for reimbursement. I do have a graph there that shows how that allocation is getting reimbursed by our partners. The variable and the project-wide costs are projected based on water usage. I have encumbrances and projections through 6/30/2020.

There is some timing delays with expenses and encumbrances as we were in a new accounting system so it took us a little bit over two months to get invoices out and contracts encumbered, but with that we're looking at to spend about 90 percent of our budget. That does include some vacancy savings and some additional contracts that still need to get execute in our materials and supplies. We have some RFPs that got to get issued within the next six months to help spend down some of that money.

On page 2 of the report I do show the other funds. We have our emergency reserve fund and our major repair and replacement fund. We have cash balances and funds that have been authorized by the Board for expenditure. So we have $576,000 authorized by the Board for expenditure which will occur by the end of the fiscal year. Are there any questions on any of those specific numbers here?

CHAIR HAMILTON: Thank you. Does anybody have any particular questions? Okay. We're good.

MS. ROMERO: Thank you.

CHAIR HAMILTON: Thank you. Well done. That was quick.

11. Update on Solar Investment Grade Audit (IGA), possible arrays for BDD and next steps *[Exhibit 3: Preliminary Solar PV Survey]*

CHAIR HAMILTON: Welcome, Regina.

REGINA WHEELER (City Public Works Director): Hello, Madam Commissioner, members of the Board. Thank you so much for having me to talk about the solar project. As I was telling people when I walked in, I have two megawatts of good news for you.

CHAIR HAMILTON: Well framed.

MS. WHEELER: So I'll give you a little bit of an overview of what it is

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we're talking about here. So the City has undertaken an investment grade audit as you said and that is part of an energy service contract. Our goal of this project is to put solar behind every City meter where it makes financial and physical sense.

So we evaluated 20 facilities approximately and approximately 20 pumping stations for feasibility for solar. So that for a survey they looked at the utility bills for at least 12 months if not up to three years to take a look at the financial feasibility, and then actually visited the sites to take a look at the physical feasibility. And what our criteria was for what made sense was if the payback is 15 years or less on a solar array, that's a really excellent investment, because the array's life is 40 years.

The warranty on the panels is 25 years. The warranty on the inverters, standard is ten years. Inverters can easily be swapped out after 10 of 15 years when they fail. The model that we're looking for for this project is ownership, so the City or Buckman Direct Diversion or the utility would own the arrays, and actually you might be thinking to yourself that with the 30 percent federal tax credit which actually just went down this December – next year it will be less – that you would want privates to own it. That's why we do the PPA things. Actually, with the low cost of capital for the public entity and for the lower transaction fees for the public entity and the control that we have, ownership is actually a better financial deal as well as a physical deal for us. So that's the model we're looking at is ownership model.

The City will definitely be using bond financing for their arrays. The Utility Department might have other resources that they might want to consider investing depending on the price here and we can talk a little bit about the prices. As part of this project and this process that we've undertaken for this project, the State of New Mexico Energy, Minerals and Natural Resources Department will review in detail every single array that's proposed and valid the proposed savings based on our analysis, so they'll do their own analysis, and what that does is that gives us a statewide stamp of approval to take with us to go get bonding on or loans on, and this is being done quite a bit throughout the state. In fact this is our second energy services contract here at the City of Santa Fe. So that's a nice piece of the process.

So that's kind of the background and the summary of the context and then one of the things we'll have to undertake as we move forward with the projects. The process would be that we'll finalize this list. The engineers will dive in a little bit more. We actually met with Rick and the other utility leaders today to go through and look at each array and have them raise issues that they might see with the siting or the usage patterns that we've done our evaluation on and got their feedback, so the engineers do have some follow-up from that, the solar engineers.

Once we get this list finalized it will come back to the governing body. We're targeting like end of January, and again, also to the Buckman Direct Diversion Board again of course, for approval as a project and a contract that will get us underway. We're actually already under contract for the project so there's no further procurement required, but the next step in an energy services contract, the first step is the IGA, and then the second step is a construction contract. And so that would have the scope of the list of solar arrays as well as we're doing lighting retrofits, water conservation retrofits and some energy envelope retrofits to really have a really good package of energy saving measures.

So then right after the governing body approves, then we would undertake the

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process of preparing to construct the arrays. Of course with Buckman Direct Diversion as usual there'll be agreements for leasing land from the – it says it here, Forest Service, which is good news because the BLM leasing is a longer process. We had to do that for the booster station 2-A array. And so that would be – and then PNM interconnection is another pretty big lead time. That could take up to six months. So what we're recommending is that we don't actually pull our financing out of whatever mechanism it is, whether it's a loan or a bond or a savings account until after we get past these first hurdles of the land acquisition or lease and the PNM interconnection agreement, and then there'll be one other piece that's going to be important in the process for the Buckman Direct Diversion arrays, which is the public response to any visibility issues from across the canyon.

So we can move on to this list that I've handed you out. This is the big master list that you get to see and we're actually scooping the Mayor on this because he hasn't seen it yet. But the two arrays that are on here for BDD have stars next to them. They're about three-quarters of the way down the page. You can see one is proposed for the lift station, and that is a 281-kilowatt array. The Forest Service owns the land and the payback looks like about 12.7 years, which is really excellent. It means you're making money fast on that.

And then the second array that was identified was BDD booster state 1-A, which is an 875-kilowatt array, and it has an 11.9-year payback, which is really great. This one actually has an extra operational benefit which is working with booster station 2-A solar array, and then when you get booster station 1-A on the solar then you can move operations to daytime and have both of the booster stations running off of solar power during the daytime rather than buying expensive power from the utility, whereas right now, they have to pump at night to get the cheap energy and save operational money.

And so these both I think have some visibility sensitivity because of their proximity to the river and so that would be another – so there'd be three sort of longer lead time and maybe gating criteria that we have to cover before we could move forward with these arrays and we'd be carefully walking through those steps.

And then there's one additional array that's not on here which thankfully Mr. Carpenter pointed out to us today, which is another megawatt for the plant itself. And that one is probably very feasible in most ways except for that we will have to really have PNM see their way clear to having us connect another megawatt to that plant without losing our 15 cent per kilowatt-hour REC on the existing megawatt array. That's maybe about $350,000 a year. So that's really important to preserve that REC and PNM will try to say that you lose the REC if you connect another array but there's a separate meter at the plant. We've done it once before so there is precedent for hooking up another megawatt to the other meter without losing the REC but if it were to lose the REC then that probably makes that array not feasible.

So with all of that, I'm happy to answer any questions.

CHAIR HAMILTON: Fabulous. Are there questions or comments?

COMMISSIONER HANSEN: Thank you, Regina. This is exciting and I'm excited to see the numbers and see what you're planning to do and I support this wholeheartedly. We get more solar out at Buckman, so thank you for working on this.

MS. WHEELER: You're so welcome. Thank you for your support.

MEMBER FORT: I wanted to thank you, Madam Chair, and I wanted to

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thank you and apologize. I looked at the agenda and didn't see Regina was here, so this is great. For the ones that aren't asterisked, the ones that are below, it says COSF does not own the land. So what is the reason? That's a physical issue but can you say more about each of those?

MS. WHEELER: Actually, so those are not BDD. Those are Buckman wells so they're the Water Department, so I only thought we would talk about the Buckman Direct Diversion ones. Even though the City of Santa Fe doesn't own the land on that one you pointed out, anything that has an X in the far right-hand column we are planning to include in the project and work through the issues. I think one or two of them might have fallen off because when we looked at the renderings it ended up that the Water Division is using the land for other things or it really has other challenges, but we're really trying to make all of these happen. I think we only nixed a 50-kilowatt, that Buckman well #1 is probably the one that's at most risk right now, but I think all the rest of them looked pretty good. They may change in size.

MEMBER FORT: I also just want to thank you so much for getting on this, and then I would assume there will be some questions about the use of the water fund or bonding and so on in terms of how they're paid for, but it's a great thing to thing that we'll be cutting our emissions.

MS. WHEELER: Yes. Great. And I might just foreshadow that a little bit. Mr. Carpenter and I have begun that conversation because the finances of the City are significantly separate from BDD, which is also separate from the utility, and so I think each of those entities will be making some decisions about how to fund it and we'll see how we partner to leverage the best result for everybody.

MEMBER FORT: Thank you.

CHAIR HAMILTON: Councilor Ives.

COUNCILOR IVES: Thank you, Madam Chair. Regina, just a quick question. On the right-hand side you have two columns, base and enhanced. What's the difference?

MS. WHEELER: Yes. Thank you so much for that question. The base is what we have to do. You'll see that some of those that are marked down actually have the great payback, like one particular one is miserable. The public library, Southside. It's on the bottom of the top third there, has a 42-year payback. But we had actually listed that array in the grant from the state that we got last year and plus it's super high visibility. We really want to put solar on that Southside Library. So that's what base was. It's stuff we had to do. And then we could add to that all the things that made financial sense.

COUNCILOR IVES: And then the other question is the timing of everything. What's the pathway, and at least for the ones that we're talking about here, of particular interest to BDD, when would we expect construction to start and when would we think it would be complete?

MS. WHEELER: Thank you so much for that question. I can try to give you an estimate of that. So we're expecting to come back to the boards and the governing body for approval in early February. Then we would undertake those gating items, like having some public meetings to talk about visibility issues, submitting interconnection applications to PNM and starting to pursue the land acquisition. We would probably need to give that six months. PNM will easily take that long. I think the land acquisition would too, so that's February. That's puts us in August. And then if everything was a go, we

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would probably go for funding at that point. So it would take us a couple of months to get our money in our hand, because we don't want to get the money if we can't do the project.

So then September/October, some of these can be constructed in the winter and it actually might be ideal out here, as long as we weren't in a muddy winter moment like we are right now. So depending on constructability, certainly over the next year from that date, I would say.

COUNCILOR IVES: Great. Thank you. And thank you for bringing this to us.

CHAIR HAMILTON: Councilor Harris.

COUNCILOR HARRIS: Well, although my other Board members seem to know Ms. Wheeler, all I want to say is that I'm glad always that Regina is on the job because she's the perfect person to drive this forward. She has been driving it forward and she will follow through, so, again, thank you.

MS. WHEELER: Thank you so much.

CHAIR HAMILTON: Thank you. And no other questions? Excellent. Thank you so much, Regina. Excellent to see.

DISCUSSION AND ACTION

13. Citizen Member and Alternate Citizen Member Selection process

MS. LONG: Yes, Madam Chair and members of the Board. The current citizen member and alternate citizen member and thank you to Citizen Member Fort for hanging on another year when she thought she was out of here last year. Their terms expire March 3, 2020, so with that in mind the BDD staff advertised for these positions and extended that advertising for the position until the end of November. There have been six applications of interest, as I understand it, so it is timely now for the Board to set up the process for selecting that member and citizen member.

What I would recommend is that the Chair appoint a committee with the appropriate representation to include a County member. I think last year the Chair was on there so that could be fulfilled by the Chair. The City member, obviously you would have to wait until after the first of the year and staff and whoever the Chair would think would be appropriate on that committee. Hopefully conduct the interviews in January and bring recommendations to the Board at your February meeting so that they can commence their two-year term in March of next year.

CHAIR HAMILTON: So could you just – you went over the general timing, but the applications are already in, and so presumably we would sit the panel and have meetings and do interviews, and we would do it presumably between January when there are new City members. So after the holidays, so January, February timeframe? Is that the target?

MS. LONG: Yes, Madam Chair. Hopefully the interviews and review of applications could occur in the month of January with recommendations from that committee coming to the Board at your February meeting. Then we would be right on time for when the terms expire of the existing citizen members in March. Although if that doesn't happen by then, the current citizen members, if they agree, obviously continue to serve until their replacements are appointed.

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CHAIR HAMILTON: Excellent. And so is it our task tonight to name the review committee. You mentioned me as Chair for the County representative, the City member, but you didn't mention anybody else. I certainly have had some ideas and we've talked about them. Do we want to do that tonight?

MS. LONG: Madam Chair, you could do that tonight. The Board could simply say that the Chair will appoint that committee and we'll find out if those members are willing to serve on the committee and that would happen presumably early January.

CHAIR HAMILTON: Councilor Ives.

COUNCILOR IVES: I have submitted as a possibility, so I could recuse myself from any consideration of how the process is to move forward, and make that disclosure. So I'm happy to step out. Whatever is appropriate because I don't know what is contemplated in terms of –

CHAIR HAMILTON: I had a recommendation but I'm happy to hear – and I will present that. Commissioner Hansen.

COMMISSIONER HANSEN: I feel that in reality in January Commissioner Hamilton and myself will be the only two members who have actually served on this Board. There will not be anyone else. I mean possibly Denise might be interested in serving on the committee. But I would be interested in serving on the committee to see whoever is there.

CHAIR HAMILTON: Councilor.

COUNCILOR HARRIS: Thank you, Madam Chair. I think that as alternate, Councilor Vigil Coppler should receive consideration. I would imagine – I have no idea. I don't think anybody does of how the committee assignments will roll out after January 1 when new people are sworn in, but I have to believe that Councilor Vigil Coppler will be asked to serve as the transition person.

COMMISSIONER HANSEN: Excuse me, Madam Chair. I hope so, and I didn't mean to ignore her but –

CHAIR HAMILTON: To be honest, to have a small committee for doing the review, we were talking about having one County person, one City person, the Water Utility Director, which would be Jesse Roach, the facility director, which would be Rick, and Nancy as the attorney, as representative of all the functions. So that's just putting that out on the table as a possibility.

COUNCILOR HARRIS: I think that's workable, certainly. I don't think you need any more than that but those are kind of the key stakeholders in this. So if you would like a motion – do you need a motion?

CHAIR HAMILTON: I have no idea.

MEMBER FORT: Madam Chair, I would offer, as the oldest person here, that I was interviewed by Liz Stefanics and Joe Maestas and that was – the committee consisted of those two.

CHAIR HAMILTON: Of two people.

MEMBER FORT: I think the applicants may have consisted of one, who didn't actually apply. That would be me. So there were two people on the committee and one applicant.

CHAIR HAMILTON: That's so interesting. I heard rumors that the very first citizen member was interviewed in public by everybody. Like that just seems horrible plus it would take a lot of time to do that.

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MEMBER FORT: Madam Chair, in the interests of telling anecdotes, could I say that my predecessor warned me that it was a very uncomfortable position. You sat between the City and the County and you decided. So I'm happy to say I was not in that position. I have not had to make the City and County unhappy. She said it was rather sweating.

CHAIR HAMILTON: So, Nancy, what do we need to do to proceed with this because I think the idea of keeping the committee down. I think having staff and legal, it's just a diversity of points of view. Otherwise having two County and two City are only – it's just numbers that we're talking about. So the intent was to do the Chair and Vice Chair, but we're losing a Vice Chair so we have no way to do that.

MS. LONG: Madam Chair, I think you also want to avoid a quorum issue as well. So Board members, there's a maximum, and then I think a motion to have the Chair appoint a committee along the lines of what the Chair has proposed, to interview the applicants and bring recommendations to the Board would be appropriate.

COUNCILOR HARRIS: Then if I may, Madam Chair, I'd like to make a motion that as Chair of the Buckman Direct Diversion Board Chairwoman Hamilton be allowed to engage one City Councilor, the Water Division Director, Mr. Roach, our interim facility director, Mr. Carpenter, and Ms. Long in her capacity as our legal counsel in arranging and conducting the interviews for the citizen members.

CHAIR HAMILTON: Excellent. I have a motion. Do I have a second? For appointing a committee? I guess not. I guess the motion dies.

MS. LONG: You can also second the motion.

CHAIR HAMILTON: Well, then I'll second the motion. So I have a motion and a second. I didn't know I could do that. Thank you, Ms. Long. Ms. Fort, are you abstaining?

MEMBER FORT: I'm sorry to be so weak on parliamentary procedure. This would not be the time for discussion?

CHAIR HAMILTON: I thought we had discussion, but it would be. You're absolutely right. Before the vote there is time for discussion. Please.

MEMBER FORT: And I would offer, because of the City-County issues, which really have not been major issues, but if one were to have the Water Division Director in addition to a City Councilperson, that would be two City people and one County person. And so that was my reluctance. There could be an additional staff person from the County.

CHAIR HAMILTON: I consider them staff, not elected representation but that's certainly a valid point. What would your suggestion be?

MEMBER FORT: And additional person from the County who could be – I really don't want to speak for the County, but the Sustainability person would be the person I know, Claudia Borchert.

COMMISSIONER HANSEN: The Utility Director of the County would be a possibility.

MEMBER FORT: Or, Madam Chair, you have a Water Advisory Committee and a member from that could be appropriate.

CHAIR HAMILTON: That's a good point. Would you consider – because there are two City water people. Would you consider adding the County Water Utility person?

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COUNCILOR HARRIS: Well, certainly I'd consider it. It just seems a little cumbersome to me. I'd almost drop the City Water Division Director and just leave it at County Commissioner, City Councilor, interim facilities director Carpenter and Ms. Long and everybody gets to keep doing the other work they have to do during the day.

CHAIR HAMILTON: So is that a revised motion?

COUNCILOR HARRIS: That's a revised motion.

MEMBER FORT: Second.

CHAIR HAMILTON: Okay, so is there further discussion? So I have a motion and a second.

The motion passed by unanimous [4-0] voice vote with Councilor Ives having recused himself.

CHAIR HAMILTON: Thank you. And thank you for the points. Very well made.

14. Request for approval of Amendment No. 4 to the contract with Alpha Southwest for the BDD Raw Water Pump Project, Bid No. 16/38/B to increase the contract sum by $68,974.37 for a total contract amount of $1,144,692.61 and an extension of the contract term

a) Request of approval to authorize funding of $68,974.37 from the Major Repair and Replacement Fund to cover the additional cost

MS. ROMERO: Madam Chair, members of the Board, in 2016 the Buckman Direct Diversion Board awarded RFP to Alpha Southwest to construct and install four raw water pumps at booster station 1-A and four raw water pumps at booster station 2-A. Over the past couple years we have several change orders. This particular change order will be to provide funding to continue with the oil lubricated mechanical seal setup with an added heavy seal to prevent any material from getting through the new seal. This will be done on three more pumps, in addition to the purchase of four vertical clamp couplings to allow for seal replacement.

This request will increase our contract by $68,974.37 for a total contract amount of $1,144,692.61. This request also includes authorization from the major repair and replacement fund to cover the additional cost of the contract.

I also have Bryan Armstrong here if you have any technical questions about this change order. Thank you.

CHAIR HAMILTON: Excellent. Does anybody on the Board have questions? Yes, Councilor.

COUNCILOR HARRIS: Thank you, Madam Chair. I don't have any questions but at FSAC – please step up, sir. No, I think people need to hear. We got some very good information from Mr. Carpenter at our FSAC meeting just about what this means, what's been done and what this means for these pumps and I just think it's important to hear. It seems to be, with any luck, a solution to a long-standing problem. At least a solution that will last for a few years.

BRYAN ARMSTRONG (Maintenance Superintendent): Madam Chair and members of the Board. I cannot say that this is a permanent fix.

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COUNCILOR HARRIS: I understand.

MR. ARMSTRONG: This is a fix that we are trying. If it will last six months I will be happy. We have not seen a six-month run in quite some time. So far everything we're seeing points to, yes, this is a good idea. In two months, I may say, oh, boy, what a mistake, but what I'm seeing now, no more oil we're using on a regular basis and the fact that we don't have the pressure vessel down there anymore makes me think that, yes, we're on the right road. As we move forward I want to see after six months how the shaft looks and tell you whether or not, hey, we did a good thing.

COUNCILOR HARRIS: If I understand, again, from Mr. Carpenter's comments on Tuesday, Alpha Southwest and others were kind of out of really good ideas of what would be the next attempt, what the next attempt would look like. So we need to hopefully get some dependability out of this solution.

MR. ARMSTRONG: If this does not end up working the possibility of using a clean water seal and having to come up with a water supply would be an option, because I've worked on the other side of the fence with Canyon Road and took care of the wells out there I know the issues with the clean water seals also. It's not 100 percent fix. Nothing is 100 percent fix.

COUNCILOR HARRIS: Right. Thank you, Madam Chair.

CHAIR HAMILTON: That was good. Appreciate it.

COUNCILOR HARRIS: What our expectations are. Thank you, sir. If there are no more questions I'll move to approve, Madam Chair.

COMMISSIONER HANSEN: Second.

CHAIR HAMILTON: Thank you. So is there any further discussion? So I have a motion and a second.

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

CHAIR HAMILTON: Thank you very much and thank you for giving us the information.

15. Report and possible action on BDD Board 2019 communications regarding Water Quality Topics

KYLE HARWOOD (Board Counsel): Thank you, Madam Chair. As you all know, in the packet is a summary of the activities over the last 14 months or so and I'm happy to orientate you to that. So we described here in this memo the letters to the congressional delegation regarding LANL cleanup priorities and a second letter also described there. We had a letter also regarding the LANL MOU number two. We had some letters regarding the WOTUS proposed rule, as you all remember, from earlier in the spring. We had a letter more recently in the fall regarding Section 401 of the Clean Water Act. We had initially a presentation and then updates and then I provided you by email a very late-breaking memorandum, opinion and order on the NukeWatch case. We've also discussed the MS4 designation for Los Alamos County, and then over the summer again the DOE order 140.1.

So I was asked to bring this summary forward so the Board could decide what it's priorities are for the coming year. This may be a little out of order given that we've got

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the composition of the Board changing. I don't know how you want to address that but certainly I stand for questions and any direction you wish to give myself or the other staff. As you all know, I work a lot with Alex on the water quality issues that he's described and I think you also know the Board is engaged with Glorieta Geoscience to provide substantial technical expertise in supporting this whole set of water quality issues. So I'll stand for questions.

CHAIR HAMILTON: Excellent. So do people have questions? Commissioner Hansen.

COMMISSIONER HANSEN: I have asked to possibly have some limited comment on the consent decree. There is going to be a public hearing on the consent decree on December 16th at Los Alamos City Council hearing. So I am planning on attending. I am concerned about cleanup happening at a more rapid rate and that actually, fees being charged for late coming or not fulfilling their obligation to cleanup and any of the dumpsites that would be affecting the Buckman Direct Diversion.

MR. HARWOOD: Very good. Yes, I suspect that's going to be a weighty topic in 2020 in general, kicked off by this hearing in Los Alamos.

CHAIR HAMILTON: Does anything else flow from this in terms of direction for next year, which I don't think we necessarily have to finalize tonight. This can be an informational discussion and we can have a January and even February meeting where we generate additional – it's just informational at this point.

COMMISSIONER HANSEN: Yes. And then also I have one other – I'm going to attend a webinar that NACo is holding on WOTUS on the 11th. So that will be from a state perspective and a national perspective on how WOTUS is affecting states and what the waters of the US and how they are affecting it. NACo EELU, Environment, Energy and Land Use, is very concerned about the definitions and how they affect us in the West.

MEMBER FORT: I want to thank Mr. Harwood. It's great to have this and it's great to see how much, in our earlier discussion about what we're serving people in the drinking water and it's just great to see this level of concern about what we're doing on our source water. So it's good. So thank you for all the work that this represents and expertise, and I guess my personal interest might be in TMDLs, getting those established, but I need a discussion about that too to know.

COMMISSIONER HANSEN: Also, I want to thank Mr. Harwood and Glorieta Geoscience.

MR. HARWOOD: Thank you. Thank you, Professor.

COUNCILOR HARRIS: Yes. Member Fort mentioned it. It's really just a follow-up from Mr. Puglisi's presentation, his discussion, and really what may call out of our State Environment Department. I think it's very important. I know he's been in touch and although Mr. Harwood has already mentioned he works closely with Mr. Puglisi but I think that is something that we really need to pay close attention to. So I would agree.

MR. HARWOOD: I have a suggestion. We did receive a response letter from NMED right on top of, I believe it was the September Board meeting, and so one thing to consider is how you want to follow up on that invitation. There were a couple of slightly askew comments in that letter, if you all remember reading through it, so that is one area. Obviously, Ms. Roose, who has could and spoken to us several times is very open to hearing from the Board and staff if we have any concerns at all. Those lines have

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been opened, both with the new staff under the new administration but also their acceptance of invitations by this Board to come address the Board and many of us have built a relationship with some of those folks. So there's a lot there that could be done, but I also know this Board has wrestled with what the appropriate level of engagement is on some of these topics.

COUNCILOR HARRIS: I was just saying, I appreciate what Mr. Harwood just said and he's correct in acknowledging that they've been generous with their time in coming in front of us, but I think this is something we need to be fairly pro-active on, would be my suggestion. As a follow-up, accepting the invitation for comment. Really being pro-active. Again, I think we had a very good presentation. I think Mr. Puglisi and others have a lot of credibility in the field and I think that they can represent our interest, but really to do it effectively, I think we need to be out ahead of it and help frame the discussion and what the determinants may be. But anyways, I would encourage the Board to do that next year.

CHAIR HAMILTON: Thank you. That's a good point. Councilor Ives and then Commissioner Hansen.

COUNCILOR IVES: Thank you, Madam Chair. So Kyle, at our last meeting I had asked for the memo –

MR. HARWOOD: I have an answer for you I have not gotten to yet.

COUNCILOR IVES: Okay.

MR. HARWOOD: Sorry. I should have mentioned that earlier. I apologize, Councilor.

COUNCILOR IVES: No worries. In that case, I'll wait. Thank you.

CHAIR HAMILTON: It's a never mind. Commissioner Hansen.

COMMISSIONER HANSEN: So I would like to suggest that possibly Commissioner Hamilton and myself go and meet with Secretary Kenney and Mr. Harwood included. I have met with Mr. Kenney a couple times already and have worked on developing a good relationship with him with respect to this Board, and I also want to thank Alex for all the work that he has been doing. I really appreciate it, especially WOTUS and everything. So thank you.

CHAIR HAMILTON: Excellent. An excellent suggestion. Anybody else. Thank you. I think if we keep up with this, because there are some other rolling things that early in the year we'll also want some report outs on, more broadly having to do with water quality issues. But this was clearly line the ongoing studies.

MR. HARWOOD: I think it's fair to say that with the short session in January it's going to be hard to get NMED folks' attention and with our new –

CHAIR HAMILTON: Triennial review.

MR. HARWOOD: We'll track the triennial review through – I believe that's supposed to kick off in the summer. If I can suggest, perhaps I should come back to the March meeting with some briefing for the new Board members and hopefully by then we can get on maybe the calendar to revisit with them. So if it's okay, I'll plan on that as a work plan for the first quarter.

CHAIR HAMILTON: Sure.

COMMISSIONER HANSEN: That's good with me.

CHAIR HAMILTON: Excellent.

MR. HARWOOD: Very good. Councilor Ives did present me with a

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question at the last meeting that I'd like to just spend one minute on. So the question was whether – how to support the sentence in one of the letters that I've already mentioned, which was that the Buckman Direct Diversion supports NukeWatch's position that the 2016 order on consent does not sufficiently protect the BDD project from potential impacts of contaminated LANL runoff. And I just wanted to make a couple of points to hopefully explain the context within which that sentence was written.

The first thing to note, of course, which you've heard from myself and other presenters through this past year is that the 2005 order on consent prioritized cleanup based on human health and the environment. This was mutually agreed upon after many years of tough negotiations and that those priorities were established and pursued until the site is cleaned up. By contrast, the 2016 order and consent allows the DOE to identify its own work plan for one to three years out and NMED has very little influence over that list.

So I think that is one of the biggest differences between the two orders on consent and really slow down cleanup, to be honest. Second of all, the earlier, the 2005 order on consent had stipulated penalties as we know. That's the whole basis of the NukeWatch case, and the 2016 order on consent literally – and I won't give you the citation, but it is a quote from the consent order – targets are not enforceable and not subject to penalties. So that is another massive change affecting the pace and duration of the cleanup.

And then lastly, this is something that I hadn't fully appreciated until our experts at GGI had sort of walked me through this is that the contaminated sites – the acronyms I will not bore you with – but those contaminated sites remained in investigation, monitoring and cleanup so long as stormwater monitoring revealed that the contaminant migration was still coming from the site, and then under this 2016 order on consent, it literally – again, I won't give you the citation but the quote is this consent order shall establish no requirements for the releases of contaminants from SMUs or AOCs. SMUs and AOCs are acronyms for different kinds of sites.

So that is again a very significant departure between the two consent orders. So I hope that context gives you comfort, Councilor and the rest of the Board, that the sentence in our letter is well founded. And I know you'll tell me if I'm not giving you comfort, but I hope I have.

COUNCILOR IVES: I understand the comfort from the perspective of if there were no wastes up there, clearly there would be no opportunity for those wastes to impact the Buckman. Earlier we were talking about EWG's report and they do have radium identified and they note that the EWG health guide is .05 – I'm not sure how to describe the monitoring unit. And that this utility reports .35

CHAIR HAMILTON: Picocuries per liter.

COUNCILOR IVES: Picocuries per liter. There we go. And so ours is seven times the EWG health guide, but the legal limit is 5 picocuries per liter, so ours is about roughly 1/15 of that. So we seem to be well under any of those limits and that's why I struggle with – it doesn't seem that they're doing anything that's going to necessarily increase the amount of radium, which seems to be the most significant contaminant of worry from Los Alamos.

So again, I certainly appreciate the larger points and would I have give up on the penalties? Probably not. Would I have – I'm still struggling to understand how that change definitively impacts us given reported levels.

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MR. HARWOOD: I appreciate going to the numbers, because we are concerned with the numbers and this Board has always been very consistent about how it produces safe drinking water. But I think, and perhaps this is the part that was missing in the sentence, the regulatory structure is less protective under the newer order.

Let me finish with one final point, which is our MOU between the Board and LANL was initially conceived of and negotiated under that 2005 construct and we have an opportunity in 2020 as the Board knows, to do a new MOU, because we're coming to the end of our existing three-year MOU and we need to be mindful of negotiating an MOU that fits under the much more relaxed 2016 order on consent structure. That's going to be, I think, the Board's challenge next year is what direction you give us and how successful we are at getting those concessions frankly from the National Nuclear Safety Administration. So that's all to be determined.

CHAIR HAMILTON: I just want to add because I just can't control myself that the water quality numbers aren't static. So the concern about cleaning up the material is because materials are mobilized in storms and what not. We don't withdraw water in storms because of association of contaminants with sediments, so there's a dynamic process that helps us keep our water quality good. But that is the reason for being interested in what is there to potentially be mobilized, because it's a potential threat. If anybody wants to correct me.

COUNCILOR IVES: And I certainly don't disagree. Again, I just struggle with the positive affirmation against unclear, speculative future events. That said, I do have many strong opinions about the memorandum and what we should be doing to try and improve that and make it a more useful relationship in terms of the information that's provided to NMED.

CHAIR HAMILTON: I know we're pushing our time limit and I think this brings us to Matters from the Public.

MATTERS FROM THE PUBLIC

CHAIR HAMILTON: Is there anybody here from the public? If you'd please come forward and welcome, but for the record just identify yourself.

JONI ARENDS: Good evening. Joni Arends, Concerned Citizens for Nuclear Safety. The Environment Department has put out proposed increases to the hazardous waste fees. The public hearing is taking place on Friday, December 16 at 9:00 in Room 309 at the Roundhouse. And it would be great if somebody could come and support those fee regs. They haven't been raised in 18 years. The proposed regs have cost of living increases. They have a new name now but it's a COLA that allows for an increase. That's really an important point to support.

So let me just back up and say that these haz waste regs fee increases will support ongoing work by the Environment Department, which is very important as we keep our eye on LANL. And so it would be beneficial to the Board to be at the hearing at least for some period of time to show support for those fee regs. Industry is – some of the industry filings are very dismissive of the increases, including oil and gas. So it could be a fight and it could not be. But the information is on the right side of the Environment Department front page where it says Boards and Commissions. It's under the Environmental Improvement Board and then there's a listing of four cases that are

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outstanding right now, and the fee regs are one of them and you can read the industries filings that were filed on Monday.

CHAIR HAMILTON: Could you clarify the date of the meeting, because the 16th is a Monday, not a Friday.

MS. ARENDS: It's the 20th. I'm sorry.

CHAIR HAMILTON: Thank you.

MS. ARENDS: I was going to clarify the meeting that Commissioner Hansen referred to is a public meeting required under the new consent order to talk about what their plans are for 2020. So it's not a hearing; it's a meeting. And the lab, I just attended a public meeting last night with regard to the hazardous waste permit. They are backsliding to periods that I haven't seen in decades in terms of public participation. It's important for our elected officials to talk to them and say this is unacceptable. We were only given 5 ½" by 8" cards to make public comments. There was no ability to talk to the whole group. It was very stifling. The backsliding is tremendous by these new contractors that are running both the legacy and the operations right now. So thank you for your time.

CHAIR HAMILTON: Thank you very much. Is there anybody else here from the public who wanted to address the Board? Seeing none, I'm going to close public comment.

NEXT REGULAR MEETING: Thursday, January 9, 2020 @ 4:00pm

ADJOURNMENT

Having completed the agenda, Chair Hamilton declared this meeting adjourned at 6:01 p.m.

Approved by:

Anna Hamilton, Board Chair

Respectfully submitted:

Debbie Doyle, Wordswork

BUCKMAN DIRECT DIV MIN
PAGES: 36

COUNTY OF SANTA FE)
STATE OF NEW MEXICO) ss

I Hereby Certify That This Instrument Was Filed for Record On The 21ST Day Of February, 2020 at 09:13:35 AM And Was Duly Recorded as Instrument # 1909763 Of The Records Of Santa Fe County

Witness My Hand And Seal Of Office
Geraldine Salazar
Deputy County Clerk, Santa Fe, NM

ATTEST TO:

GERALDINE SALAZAR
SANTA FE COUNTY CLERK

2/20/2020

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EXHIBIT 1

Buckman Direct Diversion

AGENDA

The City of Santa Fe
And
Santa Fe County

Buckman Direct Diversion Board Meeting

THURSDAY, DECEMBER 5, 2019
4:00 PM
CITY HALL
CITY COUNCIL CHAMBERS
200 LINCOLN

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF CONSENT AGENDA
5. APPROVAL OF MINUTES FROM THE NOVEMBER 7, 2019 BUCKMAN DIRECT DIVERSION BOARD MEETING
6. REPORT ON DECEMBER 3, 2019 FISCAL SERVICES AUDIT COMMITTEE (FSAC)

INFORMATIONAL ITEMS

7. Monthly Update on BDD Operations. (Randy Sugrue, BDD Operations Superintendent, rcsugrue@santafenm.gov, 955-4501)
8. Report from the BDD Facilities Manager. (Rick Carpenter, Interim BDD Facility Manager, rrcarpenter@santafenm.gov, 955-4206)
9. City of Santa Fe Compliance with Safe Drinking Water Act Drinking Water Standards. **VERBAL** (Alex Puglisi, Environmental Compliance Specialist, aapuglisi@santafenm.gov, 955-4232)
10. Report on Ist Quarter Financial Position for Fiscal Year 19/20. (Mackie Romero, BDD Financial Manager, mmromero@santafenm.gov, 955-4506)

SFC CLERK RECORDED 12/21/2019

11. Update on Solar Investment Grade Audit (IGA), possible arrays for BDD and next steps. **VERBAL** (Regina Wheeler, Public Works Director, rawheeler@santafenm.gov, 955-6622)

CONSENT AGENDA

12. Request for approval of payment to the Bureau of Land Management in the amount of $68,407.01 for BDDB Right-of-Way rental fees. (Mackie Romero. BDD Financial Manager, mmromero@santafenm.gov, 955-4506)

DISCUSSION AND ACTION

13. Citizen Member and Alternate Citizen Member Selection process. (Nancy R. Long, BDD Legal Counsel, nancy@longkomer.com, 982-8405)

14. Request for approval of Amendment No. 4 to the contract with Alpha Southwest for the BDD Raw Water Pump Project, Bid No. '16/38/B to increase the contract sum by $68,974.37 for a total contract amount of $1,144,692.61 and an extension of the contract term. (Mackie Romero, BDD Financial Manager, mmromero@santafenm.gov, 955-4506 and Bryan Armstrong, BDD Maintenance Superintendent, bfarmstrong@santafenm.gov, 955-4516)

    a) Request of approval to authorize funding of $68,974.37 from the Major Repair and Replacement Fund to cover the additional cost.

15. Report and possible action on BDD Board 2019 communications regarding Water Quality Topics. (Kyle Harwood, BDD Counsel, kyle@eagolflaw.com, 986-9641)

MATTERS FROM THE PUBLIC

MATTERS FROM THE BOARD

NEXT REGULAR MEETING: Thursday, January 9, 2019 at 4:00pm

ADJOURN

PERSONS WITH DISABILITIES IN NEED OF ACCOMODATIONS, CONTACT THE CITY CLERK'S OFFICE AT 505-955-6520, FIVE (5) WORKING DAYS PRIOR TO THE MEETING DATE

RECEIVED AT THE CITY CLERK'S OFFICE	
DATE:	November 22, 2019
TIME:	2:22 PM

SFC CLERK RECORDED 12/21/2018

EXHIBIT 2

2018 Water Quality Report

City of Santa Fe Water Division P.O. Box 909, Santa Fe, NM 87504 Customer Service (505) 955-4333 Administration (505) 955-4202

The City of Santa Fe's Water Division (the City) is pleased to provide the 2018 Water Quality Report. A safe and dependable water supply is vital to our community and is the primary mission of the City. This report is provided annually and contains information on the quality of water obtained throughout the calendar year. In 2018, the City's drinking water met all U.S. Environmental Protection Agency (EPA) and State drinking water quality limits. The report contains additional details about where your water comes from, what it contains, and how it compares to standards set by federal and state regulatory agencies. It also provides educational information on contaminants which may be a concern.

Sources of Supply

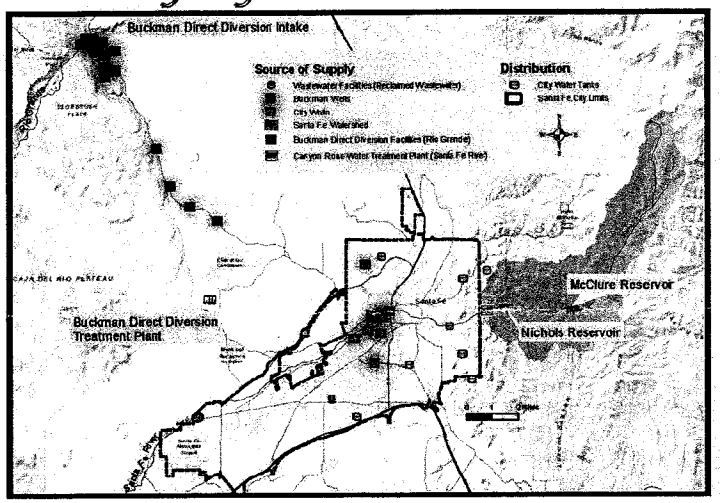
The City was served by four distinct sources of supply in 2018. The 17,000 acre Santa Fe Watershed provides surface runoff to the Santa Fe River where it is stored in the McClure and Nichols Reservoir prior to treatment. Surface water from the Santa Fe River and Rio Grande is treated through conventional and advanced treatment processes at the Canyon Road Water Treatment Plant and Buckman Regional Water Treatment Plant (BRWTP), respectively. The City Well Field is mostly located in close proximity to the Santa Fe River and consists of 8 active wells located within the City limits of Santa Fe. The Buckman Well Field consists of 13 wells located near the Rio Grande, approximately 15 miles northwest of Santa Fe. All four sources are treated with chlorine for protection of customers against disease-causing microorganisms (pathogens), including bacteria and viruses. Fluoride is added to the water supply to benefit the community as recommended by public health professionals.

In 2011, the Buckman Direct Diversion (BDD) Project surface water supply was successfully integrated into the municipal distribution system and operated in conjunction with the City's pre-existing sources of supply throughout 2018. The surface water treated at the BRWTP is taken directly from the Rio Grande. BDD not only improves sustainability for the area but also increases the City's resilience under drought conditions, replacing current groundwater pumping that cannot be sustained, and making the City's wells available as drought and emergency reserves rather than sources used to meet daily water demands.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Map of Water Sources



Source Water Assessment and its Availability

The New Mexico Environment Department (NMED) completed a Source Water Assessment for the City of Santa Fe. This assessment includes a determination of source water protection areas and an inventory of pollution sources within the areas of concern. NMED concluded: "The Susceptibility Analysis of the City of Santa Fe water utility reveals that the utility is well maintained and operated, and the sources of drinking water are generally protected from potential sources of contamination based on an evaluation of the available information. The susceptibility rank of the entire water system is "moderately low". A copy of the Assessment is available by contacting NMED at 505-476-8638.

City ordinances adopted in 2005 built upon the recommendations in the Source Water Assessment. The "Safe Drinking Water and Source Water Protection" and the "Stormwater Illicit Discharge Control" ordinances provide additional controls and protections for the City's ground and surface water supplies. In addition, the City established a Stormwater Program with the goal of reducing pollutant discharged to the Santa Fe River. Please contact 505-955-5644 to report illegal dumping in storm drains, streets and arroyos.

En Espanol

Este reporte contiene información importante sobre la calidad del agua en Santa Fe. Si tiene alguna pregunta o duda sobre este reporte puede hablarle a Patricio Pacheco al teléfono 505-955-4220 o Mario Torres at 505-955-4228 o escribe a la dirección de arriba.

Contacts for Additional Information:

If you have any questions, comments, or suggestions regarding this report please contact Alex Puglisi at 505-955-4232 or write to the above address.

City of Santa Fe 2018 Water Quality Table

Regulated Compliance Monitoring

Contaminant	Units	MCL	MCLG	City Well Field[f]	Sample Date	Buckman Tank	Sample Date	Canyon Road WTP	Sample Date	Buckman RWTP	Sample Date	Violation	Typical Source
Synthetic Organic Contaminants (SOCs)[c]													
Di(2-ethylhexy) Phthalate	ppb	6	0	1.14 (ND-1.14	2017	ND	2017	ND	2018	ND	2018	No	Discharge from rubber and chemical factories.
Inorganic Contaminants[c]													
Arsenic	ppb	10	0	3.5 (ND - 3.5)	2017	ND	2017	ND	2018	ND	2017	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	ppm	2	2	0.73 (ND - 0.73)	2017	0.039	2017	0.03	2018	0.05	2018	No	Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	ppm	4	4	0.1 (ND - 0.1)	2017	0.37	2017	0.17	2018	0.37	2017	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [as N]	ppm	10	10	8.4 (2.4 - 8.4)	2018	ND	2018	ND	2018	ND	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion from natural deposits
Selenium	ppb	50	50	2 (0 - 2)	2017	ND	2017	ND	2018	ND	2017	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Radioactive Contaminants[c]													
Gross Alpha Emitters[d]	pCi/L	15	0	0.8 (0.2 - 0.8)	2017	0.5	2017	NA	NA	6.9 (0.5 - 6.9)	2018	No	Erosion of natural deposits
Gross Beta/Photon Emitters	pCi/L	50[a]	NA	1.4 (ND - 1.4)	2017	3.5	2017	NA	NA	2.6	2018	No	Decay of natural and man-made deposits.
Radium 226/228	pCi/L	5	0	0.75 (0.39 - 0.75)	2017	0.03	2017	NA	NA	0.03	2018	No	Erosion of natural deposits
Uranium	ppb	30	0	1	2017	2	2017	NA	NA	8	2018	No	Erosion of natural deposits;
Surface Water Contaminants[c]													
Turbidity (highest single measurement)	NTU	TT = 1.0	0	NA	NA	NA	NA	0.26	2018	0.19	2018	No	Soil Runoff
Turbidity (lowest monthly % meeting limits)	NTU	TT = % <0.3 NTU	0	NA	NA	NA	NA	100%	2018	100%	2018	No	Soil Runoff
Total Organic Carbon (removal ratio) (TOC) - TREATED	NA	TT[b]	NA	NA	NA	NA	NA	1.2[g] (1.2 - 1.3)	2018	NA	NA	No	Naturally present in the environment

Note:

a) EPA considers 50 pCi/L to be the level of concern for beta particles.

b) Alternative compliance criteria used to meet TOC removal requiremer (running annual average of TOC removal ratio must be >1 each month).

c) The range represents the highest and low values within the Complian Period indicated, if more than one sample was collected.

d) Gross Alpha Emitters, excluding Radon and Uranium

e) City wellfield: Alto, Agua Fria, Ferguson, Osage, Santa Fe, St. Mikes Torreon.

f) Buckman Wells 1-13 and Northwest Well.

g) Running annual average (RAA) of TOC removal ratio for each month duri 2018 - minimum ratio was 1.2 (as per 40 CFR 141.135 (c) 2006).

Key to Units, Terms and Abbreviations

NA: Not Applicable.

ND: Not Detected.

NTU: Nephelometric Turbidity Units.

ppm: parts per million, or milligrams per liter (mg/L).

ppb: parts per billion, or micrograms per liter (µg/L).

pCi/L: picocuries per liter (a measure of radioactivity).

µg/L: Number of micrograms of substance per liter of water.

mg/L: Number of milligrams of substance per liter of water.

TT: A Treatment Technique standard was set instead of an Maximum Contaminant Level

(Range): The range represents the highest and low values. Range values a not provided if only one sample was taken during the range period.

AL: Action level: The concentration of a contaminant, which, if exceede triggers treatment or other requirements, which a water system must follow.

LRAA: Locational running annual average - the average of analytical resul for samples at a particular monitoring location during the previous four calend quarters. LRAA at each sampling location must be below the MCL (0.060 mg for Total Haloacetic Acids and 0.080 mg/L for Total Trihalomethanes)

Maximum Contaminant Level (MCL): The highest level of a contaminant th is allowed in drinking water. MCL's are set as close to the MCLGs as feasib using the best available treatment technology.

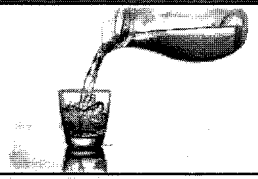
Maximum Contaminant Level Goal (MCLG): The level of a contaminant drinking water below which there is no known or expected risk to health. MCLC allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) – The highest level of disinfectant allowed in drinking water. There is convincing evidence that additic of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of drinking water disinfectant below which there is no known or expected risk health. MRDLGs do not reflect the benefits of the use of disinfectants to contr microbial contaminants.

Secondary MCL (SMCL): Non-mandatory water quality standards for certa contaminants established as guidelines to assist public water systems managing their drinking water for aesthetic considerations, such as taste, col and odor. These contaminants are not considered to present a risk to huma health at the SMCL.

TT: Treatment Technique: a required process intended to reduce the level of contaminant in drinking water.



Voluntary Monitoring

For the results of additional voluntary monitoring for the Canyon Road WTP, Buckman Wells and City Wells, please see the City's Water Quality page at ***www.santafenm.gov/water_quality***. To view voluntary monitoring results, go to link for "2015 Water Quality Report" on - https://www.santafenm.gov/water_quality then click the "Water Quality and Compliance" link and go to "2015 Water Quality Report". "Voluntary Monitoring" data on the website lists results from voluntary monitoring at entry points into the distribution system associated with BRWTP, and the Canyon Road WTP. Since these samples are collected at the point of entry of water into the City's distribution system, the reported concentrations of contaminants may be further diluted in the distribution system through mixing with water from other City sources.

EPA has established secondary maximum contaminant levels (SMCL) for certain contaminants. Secondary Standards are non-enforceable standards that serve as guidelines to assist public water systems in managing their drinking water. The presence of these contaminants typically results from the erosion of natural deposits. Aluminum and manganese containing materials are used as treatment aids in the water treatment process.

For the results of additional voluntary monitoring see the Buckman Direct Diversion website at www.bddproject.org. To view voluntary monitoring results click the "Quality" tab and then go to "Monitoring, Testing, and Reporting" followed by "Water Quality Sampling Reports."

Monitoring for LANL Derived Contaminants

In cooperation with Los Alamos National Laboratory (LANL) and the New Mexico Environment Department, the City currently monitors Buckman Wells 1, 6 and 8 for LANL derived contamination on a quarterly basis. Samples are analyzed for radionuclides, general inorganic chemicals, metals, high explosives and organics. This repeat sampling has occurred during the years 2001 – 2015 and has indicated that Laboratory-derived radionuclides are not present in the Buckman Wells 1, 2, 6 and 8. The results do indicate detectable levels of radionuclides associated with natural sources. These wells are part of the 13 wells that make-up the Buckman Wellfield. When these wells are used, water from these wells is delivered to the Buckman Tank prior to distribution into the system.

Microbial and Disinfection Byproducts Rule

The Microbial and Disinfection Byproducts (M/DBP) Rules are a set of interrelated regulations that address risks from microbial pathogens and disinfectants/ disinfection byproducts (DBPs). The Stage 2 Disinfectants and Disinfection By-Products Rule (DBPR) focuses on public health protection by limiting exposure to DBPs (known carcinogens), specifically total trihalomethanes (TTHM), five haloacetic acids (HAA5), and bromate which can form in water through disinfectants used to control microbial pathogens.

The City of Santa Fe system has eight compliance sampling locations for TTHM and HAA5. Each location is sampled once per quarter. The average of analytical results for DBPs at a given location during the previous four quarterly samples is called the locational running annual average (LRAA). The LRAA at each location must be below the MCL (0.060 mg/L for HAA5 and 0.080 mg/L for TTHM). Results shown in the Table below indicate that the individual quarterly values during 2018 ranged from 0.003 to 0.032 mg/L for HAA5 and 0.004 to 0.060 mg/L for TTHM. The highest LRAA was 0.023 mg/L for HAA5 and 0.058 mg/L for TTHM, indicating that the system is in compliance.

	MCL†	MCLG†	Sample Year	Highest LRAA†	Range 2018 ‡ Low †	Range 2018 ‡ High †	Typical Source
Haloacetic Acids (HAA5s)	.060	NA	2018	0.023	0.003	0.032	By-product of drinking water chlorination
Total Trihalo-methane (TTHMs)	.080	NA	2018	0.058	0.004	0.060	By-product of drinking water chlorination

† = units are ppm (mg/L) ‡ = individual samples at all locations

Bromate monitoring is required at the entrance to the distribution system whenever ozone is used to treat drinking water. BRWTP is the only treated water source that supplies ozonated water to the City of Santa Fe. Compliance is based on the running annual average (RAA) of monthly samples collected from BRWTP finished water. In 2018 the highest RAA was 0.0052 mg/L, which is lower than the 0.010 mg/L MCL, indicating that the system was in compliance with bromate requirements for all of 2018.

	MCL†	MCLG†	Sample Year	Highest LRAA†	Range 2018 ‡ Low †	Range 2018 ‡ High †	Typical Source
Bromate§	.010	ZERO	2018	0.0052§	0.0045	0.0052	By-product of drinking water disinfection

† = units are ppm (mg/L)
‡ = individual monthly samples
§ = monitoring required at BRWTP only. Compliance value is based on running annual average (RAA) of monthly finished water results.

The Stage 2 DBPR also regulates the maximum residual for disinfectants: chlorine dioxide, free chlorine, and chloramines. The disinfectants are water additives used to control microorganisms, particularly as a residual disinfectant in distribution system pipes.

The City of Santa Fe water system uses free chlorine as a disinfectant. For the year 2018, sampling was performed at 80 monitoring locations each month. The results are summarized in the table below:

	MRDL†	MRDLG†	Sample Year	Maximum RAA†	Range 2018 Low †	Range 2018 High †	Violation	Typical Source
Chlorine Residual	4.0	4	2018	0.4	0.01	1.04	NO	Water additives used to control microbes

† = units are ppm (mg/L)

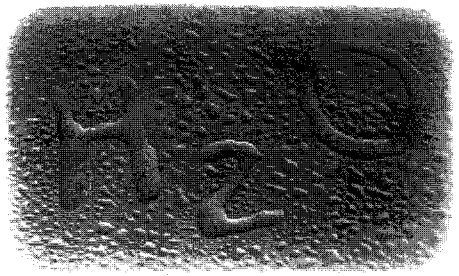
Lead and Copper Rule

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Santa Fe is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800) 426-4791or at ***http://www.epa.gov/safewater/lead***.

Tests for lead and copper are taken from customer taps located throughout the City once every three years. The most recent round of lead and copper testing took place in September 2018. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

Inorganic Contaminants	MCLG	AL**	City Water Levels (90th percentile)*	# of Sample <AL	Sample Date	Exceeds AL	Typical Source
Copper (ppm)	1.3	1.3	0.37	31 of 31	September 2018	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead (ppm)	0	.015	0.0018	31 of 31	September 2018	No	Corrosion of household plumbing systems; Erosion of natural deposits

*Results of monitoring are used to determine the concentration at the 90th percentile (e.g., if 100 samples analyzed, the concentration at the 90th highest sample). Based on the number of samples analyzed in 2018 the 90th percentile is the 28th ranked sample for copper and lead.
** AL = Action Level



2018 City of Santa Fe Water Quality Table

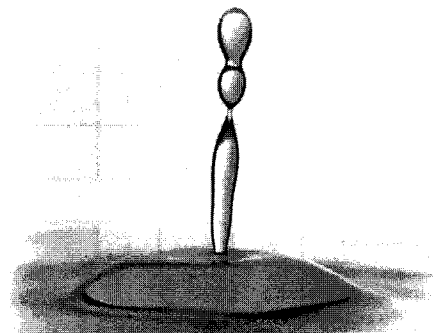
The table on the following page lists contaminants which:

1) have associated primary Maximum Contaminant Levels (MCLs) that are regulated and
2) were detected in testing conducted by the City and New Mexico Environment Department.

The table includes only those constituents found above detection limits during 2018 sampling, or during sampling in previous years if not analyzed during 2018. The EPA requires monitoring for certain contaminants less than once per year because the concentrations are not expected to vary significantly from year to year. The City is required to test for over 80 contaminants, and the vast majority of these contaminants were not found above detection limits Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800) 426-4791, or visiting www.epa.gov/safewater.

Please view separate 2018 Water Quality Table

Conserve Water... every drop counts



For information regarding the City's water conservation program, ways to conserve, and rebates, please contact the City's Water Conservation Hotline at (505) 955-4225.

Why are there Contaminants in my Drinking Water?



Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants in drinking water may include:

Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals can be naturally-occurring or result from urban storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, may come from a variety of sources, such as agriculture, urban storm-water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring, man-made from nuclear facilities and atmospheric deposition from former above ground testing, or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Nitrates



City of Santa Fe drinking water meets the federal drinking water standard of 10 ppm for nitrates (10 mg/L as N). Nitrates have been detected in some of the City Wells up to 8.4 ppm. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Arsenic

The drinking water standard for arsenic is 10 µg/L. The City's drinking water continued to meet this standard throughout 2018. Arsenic occurs naturally in the earth's crust. When these arsenic-containing rocks, minerals, and soil erode, they release arsenic into ground water. While our drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. The EPA standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.



Cryptosporidium

Cryptosporidium is a protozoan parasite that is common in surface waters. The oocyst is the transmission stage of the organism. *Cryptosporidium* is introduced into our source waters via wild animal populations. Although the organism is readily removed by the conventional treatment process utilized at the Canyon Road Water Treatment facility, the oocyst is resistant to chemical disinfectants like chlorine and the primary reason to determine if additional treatment is required. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection.

In April 2007 the City began a two-year study to determine the average *Cryptosporidium* concentration in source water entering the Canyon Road Water Treatment facility. The sampling portion of the study was completed in March of 2009. The study was part of the requirements contained in the 2006 USEPA Long-Term Enhanced Surface Water Treatment Rule. *Cryptosporidium* was detected in a single untreated sample in each of the following months: December of 2007, September 2008 and October 2008. The highest 12-month consecutive mean for this study was 0.018 oocysts/L. Since the concentration is <0.075 oocysts/L, no additional treatment at the Canyon Road Water Treatment Facility was necessary. The City began a second round of sampling, one sample a month, starting in October 2015 and completed in September 2017. No *Cryptosporidium* oocysts were detected during the second round of sampling during the October 2015 to September 2017 period, and consequently no additional treatment at the Canyon Road Water Treatment Facility is necessary. As with *Cryptosporidium* oocysts, no Giardia Lamblia cysts have been detected in the October 2015 to September 2017 time period at the Canyon Road WTP.

Any new water system treating surface water such as BDD is required to monitor *Cryptosporidium* for 24 consecutive months. At the BDD the untreated raw Rio Grande water *Cryptosporidium* test results ranged from 0 to 0.4 oocysts/L. BDD began a second round of sampling, one sample a month, starting in October 2015 and ending September 2017. No *Cryptosporidium* oocysts were detected during the second round of sampling (October 2015 to September 2017, except July 2017 (0.1 oocysts/L)), and consequently no additional treatment at the Buckman Regional Water Treatment Facility is necessary.

City of Santa Fe

Preliminary Solar PV Summary

December 5, 2019

YEAROUT ENERGY

Facility	Account Service	Account No	Meter No	Rate	Year 1 Production kWh	PV System Size kW (DC)	Mounting	Fencing Included	Additional Comments	Price	Year 1 Savings	Simple Payback Years	Scenarios: Base	Scenarios: Enhanced
Bi-Centennial Park	Head Start Orginal	041257901-0453671-2	63271	2A	2,391	1.60	Roof	-----		$8,022	$296	27.1		
Bi-Centennial Park	Pool	042811500-0466425-0	526169	2A	73,304	53.33	Carport	-----	YE to Evaluate Impact from Seasonal Use	$173,645	$9,064	19.2		X
Bi-Centennial Park	Head Start Addition	043564500-0472091-8	760012	2A	31,478	20.54	Roof	-----		$59,645	$3,892	15.3		X
Bi-Centennial Park	Senior Center	039050301-0434786-0	947566	3D	63,302	41.08	Roof	-----		$112,574	$3,133	35.9		
Canyon Road Water Treatment Plant	-----	040489203-0447256-0	413488	11B	195,621	113.76	Ground Ballasted	-----	High Probability for Supplemental Review	$368,020	$22,739	16.2		X
Fire Station #2	-----	115942762-0462227-1	594570	2A	52,309	33.97	Roof	-----		$97,050	$6,468	15.0	X	X
Fire Station #8	-----	115942916-1269792-6	662544	2A	52,034	26.86	Carport / Ground	Yes		$87,311	$5,791	15.1	X	X
Fort Marcy Recreation Center	-----	039986902-0442716-2	947565	3D	83,387	54.12	Roof	-----		$149,166	$4,128	36.1		
La Familia Medical Center	-----	115657953-1261988-5	947567	3D	116,167	71.89	Carport	-----		$231,884	$5,750	40.3		
Municipal Recreation Complex	MRC Maintenance Building	043468801-0471344-4	688796	2A	48,874	33.18	Roof with Trenching	-----		$111,434	$6,043	18.4	X	X
Municipal Recreation Complex	MRC Softball Lights Conces Stnd	043679900-0472931-6	418845	3E	9,648	5.53	Ground	Yes		$31,045	$1,044	29.7		
Municipal Recreation Complex	MRC Restaurant Proshop Cart Brn	043680100-0472932-9	947623	3D	38,346	24.89	Roof	-----		$69,393	$1,898	36.6		
Municipal Recreation Complex	MRC Administration Bldg	043929700-0474586-2	360455	2A	2,327	1.58	Roof	-----		$7,940	$288	27.6		
Police Admin	-----	115942800-0448065-3	947609	3D	136,400	87.30	Carport	-----		$272,834	$6,752	40.4	X	X
Public Library - Main	-----	040919201-0450981-0	947564	3D	67,562	43.85	Roof	-----	Roof would be maxed out by proposed	$119,295	$3,344	35.7		
Public Library - Southside	-----	115727805-1262782-9	947588	3D	120,105	78.21	Carport	-----		$253,085	$5,945	42.6	X	X
SF Regional Airport	Airport Maintenance Shop South	041908800-0459100-7	17209	2A	17,455	11.85	Roof	-----		$36,400	$2,158	16.9	X	X
SF Regional Airport	Airport Runway Lights X Terminal	042013301-0459988-3	446691	2A	69,114	43.45	Carport	-----	Includes Electric Charging Stations	$150,971	$8,546	17.7	X	X
SF Regional Airport	Airport Main Terminal Bldg	115564459-1229994-4	947574	3D	40,240	24.89	Carport	-----		$85,617	$1,992	43.0	X	X
SF Water Department	Conservation Bldg	115942923-0472071-5	364935	2A	4,869	3.16	Roof	-----		$13,121	$602	21.8		
SF Water Department	Maintenance Bldg	115942942-1244171-6	650396	2A	3,519	2.37	Roof	-----		$11,636	$435	26.7		
SF Water Department	Back Bldg	115942944-1244172-1	650399	2A	17,009	11.46	Roof	-----		$35,260	$2,103	16.8		X
Southside Transit	-----	115727805-0420091-0	446431	2A	22,521	14.62	Roof	-----		$44,142	$2,785	15.8	X	X
Pump Sites														
10MG 1048 Las Montoyas	Pump	115942933-0445032-8	0619725	11B	117,150	67.15	Ground	Yes	COSF owns land	$194,472	$13,617	14.3		X
Agua Fria Well La Canada	Pump	115907013-0447225-5	0752370	11B	63,399	36.34	Ground	Already Fenced	COSF owns land	$100,044	$7,369	13.6		X
Cristo Rey Church	Pump	040246003-0445030-5	0752364	11B	230,166	131.93	Ground Ballasted	-----	Available Land Limited	$427,836	$26,754	16.0		X
Dempsey Booster Station	Pump	115942925-1272244-5	0644839	3D	73,047	41.87	Ground	Yes	Available Land Limited	$135,306	$3,616	37.4		
NW QDRT Booster 1 10MGal	Pump	115942954-1340724-9	0496019	3D	41,347	23.70	Ground	Yes	COSF owns land	$72,409	$2,047	35.4		
NW Well Los Montoyas	Pump	115942947-1170495-1	0438752	11B	111,637	63.99	Ground	Yes	COSF owns land	$190,217	$12,977	14.7		X
Wtr Summit Booster 1212	Pump	115591332-0465925-5	0758240	3E	31,700	18.17	Ground	Yes	COSF owns land	$71,916	$3,430	21.0		
BDD / 0 Buckman Rd (Lift Station)	Pump	115915784-1347614-1	0418853	11B	490,652	281.24	Ground	Yes	Forest Dept owns land	$726,794	$57,033	12.7		X
BDD / 01 Booster Station 1A	Pump	115915784-1347615-0	0438753	11B	1,525,709	874.53	Ground	Yes	Forest Dept owns land	$2,108,345	$177,347	11.9	X	X
Buckman Booster D & Well 10	Pump	115942924-1233530-3	0537827	11B	143,337	82.16	Ground	Yes	COSF does not own land	$236,535	$16,661	14.2		X
Buckman Booster Sta 1	Pump	115942932-1234139-9	0407084	11B	117,150	67.15	Ground	Yes	COSF does not own land	$193,653	$13,617	14.2		X
Buckman Booster Sta 4	Pump	115942938-1234140-3	0473413	11B	702,901	402.90	Ground	Yes	COSF does not own land	$1,010,551	$81,704	12.4		X
Buckman Well 1	Pump	040246303-0445033-6	0619555	11B	95,099	54.51	Ground	Yes	COSF does not own land	$161,902	$11,054	14.6		X
Buckman Booster 3 & Well 13	Pump	115942926-1233031-2	0752383	11B	720,818	413.17	Ground	Yes	COSF does not own land	$1,035,883	$83,787	12.4		X
MRC Pump Stat. Hill Pond Soccer Irrigation	Pump	043554000-0472017-2	947578	3E	13,783	7.90	Ground	Yes	COSF owns land	$38,369	$1,491	25.7		
MRC Pump House Great 28 Golf CRS	Pump	043554101-0472018-7	473503	3E	30,321	17.38	Ground	Yes	COSF owns land	$56,308	$3,281	17.2		X
												kW DC	1,229	3,046
												kWh	2,084,759	5,224,800
												Cost	$3,247,189	$8,217,955
												Savings	$223,827	$589,479
												SPB	14.5 Years	
												$/Watt	$2.64	

SFC CLERK RECORDED 12/21/2021

tabbies EXHIBIT 3