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AGENDA

The City of Santa Fe And Santa Fe County

Buckman Direct Diversion Board Meeting

THURSDAY, APRIL 6, 2017
4:15 PM
CITY COUNCIL CHAMBERS
CITY HALL
200 LINCOLN AVENUE

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES FROM THE MARCH 2, 2017
BUCKMAN DIRECT DIVERSION BOARD MEETING
5. REPORT ON APRIL 4, 2017 FISCAL SERVICES AUDIT
COMMITTEE (FSAC)

INFORMATIONAL ITEMS

6. Monthly Update on BDD operations. (Michael Dozier)
7. Report on completed "Financial Statements with accompanying
Independent Auditor's Reports" for Buckman Direct Diversion facility
operations as of fiscal year ended June 30, 2016. (Mackie Romero)
8. Presentation on Surface Water Monitoring in Los Alamos Canyon by
DOE Oversight Bureau. (Dr. Chelsea Crenshaw) **VERBAL**
9. Report from the Executive Director. (Charles Vokes) **VERBAL**

DISCUSSION AND ACTION

10. Request for approval to purchase two variable frequency drives from Border States Electric Supply, for a total amount of \$49,820.22. (Mackie Romero)
 - a. Request for approval of a Budget Amendment Resolution (BAR) for authorization of \$49,820.22 from the Major Repair and Replacement Fund.
11. Election of Chair and Vice-Chair of the Buckman Direct Diversion Board. (Nancy Long)

MATTERS FROM THE PUBLIC

MATTERS FROM THE BOARD

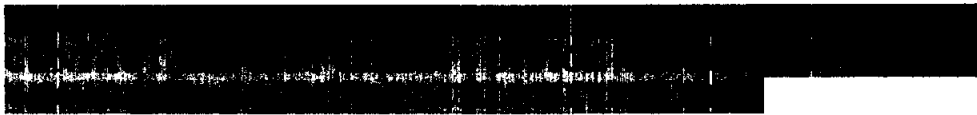
NEXT REGULAR MEETING: Thursday, May 4, 2017 @ 4:15pm

ADJOURN

Executive Session

In accordance with the New Mexico Open Meetings Act NMSA 1978, §10-15-1(H)(7), discussion regarding threatened or pending litigation in which the BDDB is, or may become a participant, including without limitation: Discussion regarding Diversion Structure issues. (Nancy R. Long)

End of Executive Session



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

April 6, 2017

This meeting of the Santa Fe County/City Buckman Direct Diversion Board meeting was called to order by Councilor Carmichael Dominguez, Chair, at approximately 4:19 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:

Councilor Carmichael Dominguez, Chair
Commissioner Henry Roybal
Councilor Peter Ives
Ms. Denise Fort
Mr. Tom Egelhoff [non-voting]

Member(s) Excused:

None

BDD Board Alternate Members Present:

Commissioner Anna Hansen [County alternate]
Councilor Michael Harris [City alternate]
Mr. J. C. Helms [citizen member alternate]
Ginny Selvin [Las Campanas alternate]

Others Present:

Charles Vokes, BDD Facilities Manager
Nancy Long, BDD Board Consulting Attorney
Greg Shaffer, County Attorney
Mackie Romero, BDD Finance Manager
Danielle Bowman, BDD Staff
Michael Dozier, BDD Staff
Adrian Garcia, BDD Staff
Mike Kelley, County Public Works Director
Marcos Martinez, Assistant City Attorney
Bruce Frederick, Assistant County Attorney
Erminia Tapia, BDD Administrative Assistant
Rick Carpenter, City of Santa Fe
Kyle Harwood, BDD Board Counsel
Chelsea Crenshaw, NMED- DOB
Mary Chacon, Las Campanas Co-op
Paul Karas, CDM Smith

[Exhibit 1: Sign-in Sheet]

BUCKMAN DIRECT DIVERSION BOARD MEETING
APRIL 6, 2017

3. APPROVAL OF AGENDA

[Exhibit 2: Agenda]

CHAIRMAN DOMINGUEZ: Are there any changes you want to make, Chuck?

CHARLES VOKES (BDD Facilities Manager): Mr. Chair, I'd just like to mention, because I was looking for tabs 8 and 9, but those are verbal items, so you won't have tabs for those. And then on item 8 we left out the NMED designation in front of the DOE Oversight Bureau. So if you could add that, put the New Mexico Environment Department in front of that on number 8. And also on number 8 we're having some technical problems. We should have another computer here in about 10 minutes, but if it's not here, if we could move that as needed I would appreciate it.

CHAIRMAN DOMINGUEZ: Okay, when we get there we'll decide whether or not we want to move it after number 9, before 10. Okay, what are the wishes of the Board?

COMMISSIONER ROYBAL: Mr. Chair, I'd like to make a motion to approve the agenda.

COUNCILOR IVES: Second

CHAIRMAN DOMINGUEZ: We have a motion and a second by Councilor Ives. Any discussion? Hearing none.

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

5. APPROVAL OF MINUTES: March 2, 2017

CHAIR DOMINGUEZ: Any changes from staff?

MR. VOKES: Mr. Chair, I happened to be looking through it today and I found a word that's misspelled on page 6 in the middle of the paragraph under my report. It should be superintendent instead of superintend. So just a minor change there.

CHAIR DOMINGUEZ: Okay. Commissioner Hansen

COMMISSIONER HANSEN: I have a correction on page 4. Commissioner Hamilton says actually my thought was that, and it has a d there, so I don't know what it was supposed to be. It just jumped out at me.

CHAIR DOMINGUEZ: Commissioner Hamilton, any clarification or clarity you want to bring to that?

COMMISSIONER HAMILTON: Yes. I was referring – out of context, it's probably correct but it's out of context. I was referring to there were items in the water budget that were labeled and if you see in the thing I said above that it says b and c add up but d – it was in reference to a specific item that we were referring to at the time.

CHAIR DOMINGUEZ: All right. Anything else from the Board? What are the wishes of the Board?

COUNCILOR IVES: Move to approve as amended.

COMMISSIONER ROYBAL: I'll second.

CHAIR DOMINGUEZ: We've got a motion and a second. Any discussion? Hearing none.

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

5. REPORT ON APRIL 4, 2017 FISCAL SERVICES AND AUDIT COMMITTEE

MACKIE ROMERO (BDD Financial Manager): Mr. Chair, members of the Board, a Fiscal Services and Audit Committee meeting was held on Tuesday April 4th. In attendance was myself, BDD Financial Manager, Charles Vokes, BDD Facilities Manager, Erminia Tapia, BDD Administrative Assistant. From the City we had Andrew Erdmann, Water Resource Coordinator. From the County was Commissioner Hansen, Greg Shaffer, County Attorney, and Jeanette Duran, County Accountant. And from Las Campanas entities we had Mary Chacon and Tom Egelhoff.

We discussed the completed financial statement where bound copies were distributed to our partners for their records. We also discussed Action Item number 10, which is the purchase of our variable frequencies drives which will be discussed later. During this meeting. Are there any additional questions?

CHAIR DOMINGUEZ: Ms. Selvin.

MS. SELVIN: I wasn't present at the meeting by my cohort here reported to me, and I know this as a customer, that the partners have not been billed this fiscal year, which means from July to March. And I'm just hoping that there's a priority to getting those bills out. For some of us partners it's rather difficult to keep our accounting records up to date when we're so far behind for such large amounts for us.

MS. ROMERO: Mr. Chair, members of the Board, you are correct; the bills are behind and I am working on them as fast as I can. Like I stated, the change to project-wide and separation of the co-up and the Club in the financial accounting systems has caused some issues or difficulties on my part but they are a top priority and I do plan on getting those out as quickly as possible. Thank you.

MS. SELVIN: Thanks, Mackie.

CHAIR DOMINGUEZ: Any other questions? Comments? Concerns? All right. Thank you, Mackie.

6. Monthly Update on BDD Operations

MICHAEL DOZIER (Interim Operations Superintendent): Mr. Chair, members of the Board, I did have one thing really fast on our report here. The total on the Las Campanas raw water deliveries should be an average. I was trying to maintain the averaging throughout this first section. Raw water deliveries are averaging 5.87 million gallons a day. Our finished water average, the two combined for 4A and 5A are 5.15, is our average between the two combined. We are also providing for Las Campanas at an average of .445 million gallons, and we did add this part of onsite treated and non-treated storage that gives an average a day of .275. That will be averages held in pre-sed basins or finished water storage.

Now, when the report was made we were at about 75 percent of production. This

was due to other production maintenance in the city. Right now we are currently about 60 percent. In the Section 2 area here, the year-to-date totals, we added also letter c which is the 2015, just to give the view on the fluctuation of how much a year-to-date total can move. I stand for any questions.

CHAIR DOMINGUEZ: Thank you very much. Chuck, anything you want to add to that? Questions? Board Member Fort.

BOARD MEMBER FORT: Mr. Chair, and I think this would maybe be a comment for Mr. Vokes. On page 5 of the minutes we had asked about having a comparison. I was hoping it would be in maybe chart form as our utility bills are, so we could look at what it is on a monthly basis and in particular for example what it was last month compared to last month the year before. You've got the data here but is it possible to lay it out as it would be? I think we had asked for that on page 5 and there didn't seem to be disagreement.

MR. VOKES: Mr. Chair and Member Fort, previous to you coming on the Board we did have a whole separate page that had a number of charts. The current Chair asked us to remove those because – anyway, it was his desire to remove them. Anyway, Mr. Dozier added a number and I guess what I'll probably need is maybe I could send out some examples of the data so that we cover the Board's needs so that they're getting all the information that they desire.

BOARD MEMBER FORT: I think, Mr. Chair, the last comments were sort of directed to you in terms of what sort of information we'd like to get and not get, and so maybe we can discuss this offline. I think it would just be useful to know. Seventy-five percent sounds like a whole lot of the City and County water supply and you just amended that it's gone down but it would be to my mind useful to just know where we're going on a year by year basis but I've understood that would be too much information, Mr. Chair.

CHAIR DOMINGUEZ: Did I say that?

BOARD MEMBER FORT: Just saying.

CHAIR DOMINGUEZ: Well, I think that in my experience different people like their information presented differently. And so I have no problems in presenting it in whatever way the Board feels is appropriate. If you threw me under the bus there, Chuck, that's okay. I'll let that one slide. But no. I think if we need to get that information and we need to have it so that really the public can understand it even better I think that's the direction we should go. I'll work with the incoming Board Chair and staff to make sure we kind of get there. Anything else on item number 6? Thank you, Michael.

7. Report on completed "Financial Statements with Accompanying Independent Auditor's Reports" for Buckman Direct Diversion Facility Operations as of Fiscal Year Ended June 30, 2016

MS. ROMERO: Mr. Chair, members of the Board, we are pleased to present the completed financial statements with the accompanying independent auditor's report for BDD operations as of June 30, 2016. In my memo, which is pages 2 and 4 of the financial item number 7 I have highlighted the final numbers that are presented in the financial statements. So I would just like to quickly go over them so I can answer any questions that you may have.

The financial statements present four fund types that BDD uses to account for its fiscal activities. So let's go over the first fund. On page 3 of my memo our first fund is our enterprise fund. This is our main operating fund, which includes partner reimbursements, other revenue contributions such as PNM rebate revenue and Department of Energy funds, and then we also have our operating expenses. The table is presented as a schedule of revenue and expenditures based on a budgetary basis of our major categories.

So in this presentation you'll see our original budget was about \$6.9 million. Our final budget was roughly about \$7.9 million. We expended \$6,361,582 and we had unexpended funds of \$1,541,818. All these numbers are presented within the financial statements. Here I am showing you by major category.

Our next fund is our special revenue fund. This is used to account for expenditures approved by the BDD Board from our agency funds, the major repair and replacement fund, and the emergency fund. For fiscal year 2016 the Board authorized \$80,125 from these funds which was used for our engineering agreement, purchase and replacement of an impeller.

Our next fund is our capital projects fund which is on page 4. The fund currently accounts for our habitat restoration project, which is also known as the carve-out budget. The carve-out budget was approved in 2012 and has carried forward as part of the required restoration. So in my presentation you'll see the original approved budget of \$1,558,772 and then you'll see the expenditures we've incurred over the past several years. The balance in the carve-out budget is \$380,556. These funds will continue to be carried forward for required maintenance and environmental support.

Our fourth and final funds are our agency funds. These funds are held in trust for our partners until it is needed and authorized for emergencies and repairs. In my presentation you'll see balances for the emergency reserve fund at June 30th, which was \$2,012,857. We no longer receive contributions for this fund but it does accrue interest on an annual basis.

Our next fund is the major repair and replacement fund, which at June 30th had a balance of \$1,577,035. This fund does receive yearly contributions from our partners as part of our budget request.

The financial statements also include our independent report from the auditors as it is the auditor's responsibility to express an opinion on the financial statements based on the audit. The audit is designed to obtain reasonable assurance about whether the financial statements are free of material misstatement. The auditor's opinion was that the financial statements were presented fairly in all materials respects and in accordance with generally accepted accounting principles. The auditors did not report any findings that materialize to a level of significant deficiency.

Before I see if you guys have any questions I did want to apologize. There are some pages in your packet that are at the end of the financial statements that are not relevant to this report but they did get included. Therefore if you can please cross out pages 60 to 70. Those are not part of the audit report. The financial statements are available on our website. We've also distributed bound copies to staff and if anybody wants a copy I also have copies here with me. Are there any questions?

CHAIR DOMINGUEZ: In our emergency reserve fund you said that we accumulate interest. How much interest did we accumulate?

MS. ROMERO: I'll have to double-check. We accumulate every year based on the cash balances that are in that fund. For last –

CHAIR DOMINGUEZ: It's probably gone down then.

MS. ROMERO: Yes, it has gone down and I can get you the number. Give me one second.

CHAIR DOMINGUEZ: That's okay. You don't need to give me a number. Maybe you can email it to me later.

MS. ROMERO: Yes. I can email you what the yearly interest was for this fiscal year.

CHAIR DOMINGUEZ: In terms of the audit, I know that in your report it says there were no findings that materialized to a level of significant deficiency, but that doesn't mean that there weren't any findings, right?

MS. ROMERO: If there were any findings that possibly could have been noted it was the late report of the financial statements, which we've gotten that in the past but given that the support entity agreement has a specified date and we all have acknowledged that date is really not enough time for us to get these financial statements completed, given the fact that we're also linked to the City of Santa Fe which has to report retirement contributions, and so all that data takes time. And so in the new agreement we will definitely – we're going to work on changing that language to extend that, but other than that they did not report anything to me that I'm aware of that they were concerned with.

CHAIR DOMINGUEZ: Just so that the Board knows, the City of Santa Fe actually has the same finding because it's just kind of a sequence thing that happens to us. And so I think City staff is working on trying to fix that at the City level and hopefully that trickles down to this level as well.

MS. ROMERO: Yes.

CHAIR DOMINGUEZ: Okay, questions.

COMMISSIONER ROYBAL: Mr. Chair.

CHAIR DOMINGUEZ: Commissioner Roybal.

COMMISSIONER ROYBAL: I don't have a question but I was wondering. We did talk about a rolloff truck that was wanting to be purchased this coming year. Is that correct? And I was wondering, would that be included in any of these line items?

MS. ROMERO: Mr. Chair, members of the Board, the rolloff truck is in our budget for next year, so right now I believe the budgets are getting approved by our governing bodies and once those do get approved then they would be incorporated in these major categories but it's not presented here because we have not made the purchase yet.

COMMISSIONER ROYBAL: Okay, and just a suggestion is the County does have a rolloff truck that we are currently surplus and I think that the distance that is driven by this truck, I think this truck is in good operational condition, so that's something that we could probably look at transferring to the BDD. So it's something to consider.

CHAIR DOMINGUEZ: So we'll have that discussion, Chuck, at the time pretty much that the preliminary budget will get approved. If you could just make sure to make a note of that and whatever justification you come up with one way or the other that

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it's clearly articulated there.

MS. ROMERO: Thank you.

COMMISSIONER ROYBAL: Thank you.

CHAIR DOMINGUEZ: Any other questions on this? Councilor Ives.

COUNCILOR IVES: Thank you, Mr. Chair. Just looking at our packet materials and I think you addressed this briefly. 59 to 60 is a flip from page 55 and presumably what the auditor produced to 133. So about 80, plus or minus pages that were in between there.

MS. ROMERO: That is correct.

COUNCILOR IVES: What did those pages cover and would it be possible just to get a full copy of it?

MS. ROMERO: Yes. We do have copies here. I can provide you a copy of the full financial statement. There are other reports of financial statements that again are not relevant to this financial statement. But I will provide this for you.

COUNCILOR IVES: Thank you. And then I notice – and you said that pages 60 to 70 are not relevant?

MS. ROMERO: Yes. Those are the ones we're talking about.

COUNCILOR IVES: And tell me again why they weren't relevant. I'm sorry.

MS. ROMERO: Mr. Chair, members of the Board, we are not sure how those pages got incorporated into the report but as you can see they are not relevant because they're not for BDD. So we apologize and we will make sure that we look at the packets more closely before they do go out to print. And so we did just want to note that, have you cross those out, and we'll provide you a clean report of the financial statement so you'll have it for your records.

CHAIR DOMINGUEZ: There are no secrets in there, is there?

MS. ROMERO: No, they're just – they're standard audit report letters that accompany financial statements.

COUNCILOR IVES: It appears that many of those pages actually are in the other section.

MS. ROMERO: Yes, that is correct. There are some duplicates in there and some other ones. Yes.

COUNCILOR IVES: That's part of my confusion.

MS. ROMERO: That's why we said if you just cross out after page 59, you should have the whole report.

COUNCILOR IVES: And I noticed that in – for instance on page 52 of the report, which is 57 in the packet they note that it's talking about internal control over financial reporting and it says, Our consideration of internal control is for the limited purpose described in the first paragraph, not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies, and given these limitations we did not identify any such deficiencies in internal control or material weaknesses. But they say, Material weaknesses may exist that have not been identified. Is it worthwhile in ensuing years to ask for an assessment of internal controls so we eliminate the possibility of any such deficiencies?

MS. ROMERO: Mr. Chair, members of the Board, I believe this language is pretty standard of auditors. They state that because they literally cannot go through

every single thing, but if there's a fraud questionnaire that gets delivered to each Board member at the beginning of an audit and there are any concerns or weaknesses you identify those and the auditors can focus their audit on those particular internal controls or different aspects of what BDD does. They'll focus their audit on those so that they can come back and report to the Board on any weaknesses or recommendations. I can definitely in the future talk to them about maybe some more audit procedures towards our internal control processes.

COUNCILOR IVES: I think it might add to the report and certainly wouldn't be much more burdensome on the auditors, other than righting it up vis-à-vis those internal controls. Because what this tells me is that the limited scope of their audit did not include these particular findings. So they looked at these issues for the purposes of verifying that the financials were appropriate, which is great, but presumably it might be a simple matter to simply roll that into a report on internal controls. So personally I'd love to see us to it because I think that gives us a greater confirmation that we're doing everything right.

MS. ROMERO: Mr. Chair, members of the Board, yes. I agree. We'll definitely look into that.

COUNCILOR IVES: Thank you.

CHAIR DOMINGUEZ: Anyone else have any questions on this? All right, Mackie. Thank you very much.

MS. ROMERO: Thank you.

9. Report from the Executive Director

MR. VOKES: Thank you, Mr. Chair, members of the Board. Good afternoon. I have three quick items to report. One of the things – I don't know whether you all have experienced this this week but the hard drive on my laptop at work melted down and so I've been working off rebuilding my life, so to speak at work. So it's been an interesting month, I would say.

I'll start with our vacancy update. There are currently five vacant positions. These are the operations superintendent, which we talked about last Board meeting. This has been posted and we're waiting for Work Keys testing to be completed on April 14th. After this the City of Santa Fe Human Resources Department will create a list of eligibles and we will begin that process to get that filled. I am hoping for a realistic date of June 1st that we will have a permanent operations superintendent in place.

We have a new position, a fiscal administrator position, which is non-union. It's a little higher position than what currently Mackie is in. We posted that on Indeed and we got 30 applications, 20 of which were qualified. So I spent about 15 hours in the last few days sorting through those applications and rating them, but I must say we got some very highly qualified candidates, so I'm very excited and looking to fill that position.

We've done interviews for both the journeyman industrial electrician and the BDD mechanic. We've made selections for those positions and we're waiting for signatures and approvals. So those two should be off the list by the next Board meeting. And then the fifth position is the BDD repairman and we sent that back to Human Resources for advertisement. So those are our five vacancies. Any question on vacancies from the Board? Okay.

It seemed like it was four months at the BDD. We hosted four different tours. Just to give you the flavor of it, Santa Fe Community College, students interested in careers in water utilities was one of the tours. The environmental science class from St. Michael's High School came on a tour. A group of junior level geology majors from New Mexico Highlands University also came on a tour, and then finally there was a tour by a group from the Bureau of Reclamation, a number of their engineers, and staff from the Navajo Tribal Utility Authority who were in the process of building a water treatment plant as part of the \$1 billion Navajo Gallup water supply project. So they wanted to come and talk about lessons learned at the BDD. So that was our list of tours. As I said, it seems like it's been a busy month. Any questions, comments on that? Okay.

And then the last item, I just wanted to let you know that on March 23rd Kyle Harwood and I met with Mr. Doug Hintze and two other Los Alamos National Laboratory staff members to continue our conversation on the new MOU. I will include updates on the progress at these meetings. We are going to do them at least monthly because of course we need to get a new MOU in place before the end of this year. So that's my report. Any other questions or comments from the Board?

CHAIR DOMINGUEZ: Questions or comments?

BOARD MEMBER FORT: Mr. Vokes, I have a question. Two months ago, I believe it was, the Board approved a new lighting system or LED lights project-wide. I just wondered if that had gotten completed and if they work and if everybody's happy with them.

MR. VOKES: Certainly, Mr. Chair and member. I don't know – did you get an update from them today, Mackie? The equipment has been ordered, approximately three or four weeks ago, and so as soon as it gets in they probably should have the project done before the next Board meeting, I would expect. But we're just waiting for the 90 or so lights to come in to the supplier in Albuquerque so they can start installing those. So I guess I'll send an email out to the Board and let you know that we've gone dark out there with the new LED lighting. So thank you.

BOARD MEMBER FORT: Thank you.

CHAIR DOMINGUEZ: Anyone else? Any other questions? All right, Chuck. Thank you very much.

8. Presentation on Surface Water Monitoring in Los Alamos Canyon by NMED-DOE Oversight Bureau

MR. VOKES: If I may, this is Dr. Chelsea Crenshaw and she has recently joined the NMED and so she's agreed to give a presentation on what their program looks like.

CHAIR DOMINGUEZ: Welcome, Dr. Crenshaw.

CHELSEA CRENSHAW: Thank you. So I'm working with the New Mexico Environmental Department in the Oversight Bureau and we're in Los Alamos. And what we do is we work with LANL, actually, and we do an independent verification of sampling and stormwater flows in and around the area to determine the background baseline migration and the presence of inorganic, organic, and radionuclide contaminants. Now, this includes metals as well as the radionuclides. We look for plutonium, uranium, PCBs, and pesticides.

This is a picture of Los Alamos Canyon before and during a flood, during the 2013 flood. It was actually on a Friday the 13th – 13 – 13. So on the left side is right before we breached our dam and on the right side is when it breached the dam. This is a process that happens but this can also take all those contaminants from upstream and bring them down into the Rio Grande.

So this is the map of our locations that we use, where we have our sampling sites. It would be easier with a laser pointer. I wonder if I can use the pointer pointer. Can you see that? This is Los Alamos Canyon which is the most contaminated canyon. This is where they buried all their contaminants during the weapons production. Pueblo Canyon is right above that and it's not as contaminated but we do see some contaminants at it. This is the Guaje Canyon up on the top and it is pristine. Not pristine because there's heir stuff but it's not like contaminated where they buried stuff down below that.

So our sites – this is the Los Alamos – one of our sampling sites and I'll get into more detail about them. We have two in the Los Alamos Canyon, one in below our weir, which you just saw, and the Pueblo Canyon has at the base of its canyon we have a sampling site and one at the base of the Guaje Canyon, and one near the Otowi bridge where all these sites come together. So all three canyons will drain right into that. And then we have one at the Rio Grande at the Otowi bridge above all that. And then we have three sampling sites at the BDD intake.

So what we do is we have automatic samplers, and they're either on a timer or they're on a bubbler, which means they will trigger at a certain level when the river rises. So if we have a cfs, a cubic feet per second of five, then it will trigger on and we'll be able to sample continuously automated at each one of these sites.

BOARD MEMBER FORT: Mr. Chair, I'm sorry to interrupt. Would you like questions during this or after?

CHAIR DOMINGUEZ: Let's get through the whole thing and then take questions. [inaudible]

DR. CRENSHAW: Feel free if you'd like. So this gives us a way to understand what's coming from which canyon. So for example, if the Guaje Canyon is flowing and that's the only one, because we know how the monsoons work in New Mexico. You can have a storm ten miles away and it won't hit anywhere else, and we can see that that is fresher water coming down and we don't need to turn the intake off at the Rio Grande. Now, if we get those big floods like we did previously, the Los Alamos Canyon could be draining off some contaminants in the suspended sediments as it goes down into the Rio Grande.

And just to reiterate, this is just an example of watershed variability during a storm event, and we're not going to really look at the data into big detail but on your left Y-axis is your LANL discharge in cfs and then this is where the BDD transducers picked up the discharge, and those are the green dots. But what I really want to emphasize is the big, the higher discharge here is in Los Alamos Canyon. The ones down below in the green, that's Pueblo Canyon and that's just to show that there is huge variability during rainstorms.

And this is the same Friday the 13th 2013 monsoon season. The left panel is during and it's almost actually at the end because you can see the washout on the inner side of the screen. So the flow is coming down. On the right side is the aftermath of this. This is our equipment and our samplers, and it got completely washed out. So we didn't

get good data on that one but we did move this system upstream a ways after this flood.

And this is at the Buckman Direct Diversion and we have three samplers there, two on telemetry samplers so we know when it strikes up above on stream. If it's going to hit with contaminants then it will come down and they can turn the intake off and so that's what's important here. And then we have another one up there that's on a bubbler and it continuously samples.

And so what we're here to do is to go forward and think about our priorities. We haven't sampled in two years. We were doing it from 2010 to 2015 and we still have the equipment out there but we're not sampling currently. We would like to maintain our collaboration with the Buckman and our presence above the Buckman and around LANL and the drainages of those particular canyons and we do want to consider input from you guys and we have a five-year grant and we need to start planning for that grant. And we will continue to get high quality data and share that with you what we have.

The two pictures on the right are both from a monsoon season after the fire in 2015 and my husband and I go kayaking down near the intake because we live right there, but this is a picture of the ash that's been draining off after one of the fires. So we have also problems not just with the stormwater but we have contaminants in the form of ash during these fires coming down off of Los Alamos.

I do want to thank my team. These are all oversight workers that have been really helpful in my recent coming around and thank you. If you guys have any questions; I'm sure you do.

CHAIR DOMINGUEZ: Thank you very much for this information and for the presentation. And thank you to your team as well. I'll go ahead and open it up to questions, comments. Let me get Board Member Fort and then Commissioner Hamilton.

BOARD MEMBER FORT: Thank you. I'm sure I'll have more questions but just to begin on this. So the Environment Department's budget for this is paid for by DOE? Is that correct?

DR. CRENSHAW: Yes.

STEVE YANICAK: My name's Steve Yanicak. I'm the manager of the Los Alamos Oversight Section and Chelsea works for us. She's brand new, and as far as our budget goes, we're 100 percent funded by the Department of Energy, but we're under the New Mexico Environment Department. We are a bureau of the Environment Department. Specifically we do oversight on Los Alamos National Laboratory. Our section – we have another section down at WIPP and we have another section down in Albuquerque that oversees Sandia National Laboratories.

BOARD MEMBER FORT: Thank you. And one of the things I wasn't sure if we were going to cover in this presentation but we've had some discussion of water quality exceedances in, I suppose, the tributaries to the Rio Grande as well as the Rio Grande. Is that data available to us now? Would you be the entity or would it be the regular Environment Department collecting that?

MR. YANICAK: So all the data that we collect, have collected through 2015, at all these sites that Chelsea went over, they're all available on Intellus New Mexico and we can provide you a website. It's also provided to Danielle Bowman of the BDD and she gets other information besides the data such as – Chelsea went over what canyons flow. Was there a monsoon up in Los Alamos proper? Did that enter the Rio Grande? So she gets that information and she has access to the telemetry also as we do.

She gets information such as Los Alamos did not flow during a storm event. It was just from the Otowi bridge north, picking up points like Espanola and points – that information is needed to make a determination on whether they shut the intake off.

BOARD MEMBER FORT: Thank you for that. My question, Mr. Chair, was partly about what the data are indicating about water quality and so that's present on the Environment Department website, but when you said you haven't sampled for a couple of years, what kind of data are present.

MR. YANICAK: She went over that. It's basically we do inorganics, organics, radionuclides, and basic water quality. For the radionuclides it's the process – radionuclides would have used, like the uranium chain, plutonium, americium, some fission products, and of course what we see, what we're concerned about mostly is PCBs, dioxins, furans, some pesticides and what we call TAL metals, antimony through zinc. It's a chain, a suite of metals that we do. The ones we're concerned about are prominently mercury.

BOARD MEMBER FORT: Understanding, the sampling is done, so you're collecting samples at what frequency and analyzing them at what frequency? I'm still –

MR. YANICAK: Frequency would be during a storm event.

BOARD MEMBER FORT: Every storm event.

MR. YANICAK: Yes. Pretty much every storm event. We try to target about two or three storm events per year for our analytics, pending our budget. As far as the Buckman Direct Diversion down here, I don't know what their frequency is but pretty much a lot of the storms are targeted.

BOARD MEMBER FORT: So I think maybe I misunderstood you. You are sampling now. I thought you said you're not sampling.

MR. YANICAK: We sampled at Buckman, specifically through 2015, but we've been sampling at these other sites up on Los Alamos continuously.

BOARD MEMBER FORT: I see. So if we were to look at the map of where you've got sites, you're collecting and giving to DOE the data from above Buckman but Buckman has not been sampled.

MR. YANICAK: She's going to put the point on the ones that we're looking at, from the river all the way up.

DR. CRENSHAW: Okay, so we start here and then it flows this way into Guaje into here and then it hits here. And then we have about two miles before Buckman. So we're still currently sampling here.

MR. YANICAK: Yes.

DR. CRENSHAW: And all the way down to here. But we don't have any samplers currently at BDD.

BOARD MEMBER FORT: But they do.

MR. YANICAK: Does that make sense?

CHAIR DOMINGUEZ: What I hear is they're sampling everywhere but Buckman.

DR. CRENSHAW: Yes.

BOARD MEMBER FORT: I think, Mr. Chair, it may be time for a PhD to take over.

CHAIR DOMINGUEZ: Commissioner Hamilton.

COMMISSIONER HAMILTON: In that regard I want to mention that Chelsea and I did our PhDs under the same major professor. At different times but the same major professor, so you got someone very good. It's very exciting. I didn't realize the data from all three other canyons are continuously available? That's what we're hearing. That's interesting.

MR. YANICAK: It's available – it goes into a database. It's called Intellus New Mexico.

DR. CRENSHAW: We'll send you a link.

COMMISSIONER HAMILTON: Fabulous. So two pretty minor questions. One was where – what transducer, which sampling point is used to determine whether or not to shut down the intakes.

MR. YANICAK: It used to be E110. She's point them out. Then that was washed out completely.

DR. CRENSHAW: That was the one flood that I showed you.

MR. YANICAK: The ones that are now doing that are E050 and E060.

DR. CRENSHAW: These are on Pueblo and Los Alamos below. So Los Alamos Canyon and Pueblo.

MR. YANICAK: The Pueblo one is E060.

COMMISSIONER HAMILTON: Okay. And so it's having to peak at either of those two, which are also the more contaminated of the two of three canyons that will trigger a close-down.

MR. YANICAK: Generally, historically when we've been monitoring Los Alamos Canyon and Pueblo Canyon, they're they canyons that received the legacy waste from the Manhattan Project through the Cold War. Again, Guaje Canyon is pretty much – it's not contaminated. But it does junction further down.

COMMISSIONER HAMILTON: So there's real time data reporting on the flow status, right?

MR. YANICAK: Yes.

COMMISSIONER HAMILTON: And are you using flow times? Transport times downstream to know what time period, what time you have between you get these data and when you have to shut down the intake?

MR. YANICAK: Yes. There's a couple mile lag and I don't know if it's a half hour or forty – what's the time lag for the early warning system over E050 and E060? When they send the signal down? Is that like a half hour? Immediate?

MR. VOKES: Mr. Chair, if I may. One of the things we brought the NMED here to discuss their program, and of course we're linked to that program. Our decision making processes are basically our own because they're also involved with turbidity, so if after this presentation if the Board would like a presentation on our program we would be certainly willing to get that, maybe at the next Board meeting, where you've listened to the NMED program and then we will share with you how our program integrates with their program. The reports that you were referring to, Member Fort, those include the data that they're providing and also our sampling data that we do independently from the BDD in those reports. So that's just how it ties together. So I can certainly discuss the BDD program but I think if the focus would be on the NMED program and then we can bring forth our information and how that ties together.

COMMISSIONER HAMILTON: I appreciate that.

MR. VOKES: That's a suggestion. I totally appreciate that. I do have one more question. When we're thinking about sampling for the next five years, are we thinking about sampling in all three of these canyons as per previous sampling?

MR. YANICAK: Together, our work plans, we solicit input from NMED, DOE, Buckman Diversion, tribal and entities.

DR. CRENSHAW: And LANL.

MR. YANICAK: Of course Los Alamos County, Santa Fe County, and then based on our budget and priorities and we will do work plans for stormwater. And because these are the ones of most concern and they concern Buckman, these do get a priority.

COMMISSIONER HAMILTON: That's good to hear.

CHAIR DOMINGUEZ: Okay, I'll go Councilor Ives, Commissioner Hansen.

COUNCILOR IVES: Thank you, Mr. Chair. Sorry to walk back through this but to make sure I'm clear. The two stations – there are two stations along Los Alamos Canyon, one on Pueblo Canyon, and you said two of those are used to trigger something. So which one of the two on Los Alamos, the one to the east or the west?

MR. YANICAK: Specially, they are on the map. It's – maybe Chelsea can point to it.

COUNCILOR IVES: One is E042 and the other is E050.1.

MR. YANICAK: E050.1 and above that it says Pueblo, E060.1. Those are the two. They have telemetry. Not only that they have video cameras where you can see flowing coming.

COUNCILOR IVES: Is there telemetry or video flow on any of the other measuring stations?

MR. YANICAK: Those are the ones I'm familiar with. I'm sure there are but as far as concern with Buckman, they're the only ones that I know if.

COUNCILOR IVES: And so are samples collected at all the different stations?

MR. YANICAK: If there was a flow event and it comes down through one of those canyons, those samplers that are strategic placed will pick up flow. They'll engage and they'll collect samples.

COUNCILOR IVES: and that includes all of the ones indicated with the exception of Buckman. Correct?

MR. YANICAK: Repeat that.

COUNCILOR IVES: And that includes all with the exception of Buckman.

MR. YANICAK: Yes. If the flow – they trigger at five cfs. Then it's going to be – pretty much it's going to get down to the Rio Grande. So every sampler in that string, down to the Rio Grande will pick up that flow and collect samples.

COUNCILOR IVES: How about the ones on the Rio Grande?

MR. YANICAK: And the ones on the Rio Grande. Of course by the time that pulse gets down to Buckman the Buckman will kick in too and they'll start sampling.

COUNCILOR IVES: So you do have one indicated at the Otowi upper bank, which is above the inflow of the Los Alamos, Pueblo and Guaje Canyons, correct?

MR. YANICAK: Yes.

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COUNCILOR IVES: And that would be collecting sampling too. So you would have a sense of what the ambient condition of the river was before any inflow from Los Alamos.

MR. YANICAK: Yes. Again, let me – maybe I wasn't clear. We know when there's a rain event, a monsoon up on the Pajarito Plateau. We know which canyons it goes down, which ones it passes. We've got that telemetry. And we can let Danielle know that either Los Alamos flowed or a combination of Pueblo and Los Alamos flowed and they merged, or going further down, none of those flowed and what we have is Guaje, which is not impacted, and it still made it to the Rio Grande, so we can get all that information down to the BDD. Also, if there's a monsoon event, that doesn't affect the Pajarito Plateau, let's say it's going up by above Espanola, we have that information too and the sampler down at Buckman, there's a bubbler sampler down there that just picks up the river stage. And so they get that information also. A lot of information comes from the way we have these samplers set up.

COUNCILOR IVES: Right. And in terms of – was there an initial study done that established that we were at these elevated levels of concern, if there were flows in Los Alamos and Pueblo Canyons, but not so much in the other, like Guaje Canyon.

MR. YANICAK: Yes. Initially – we've been up there for 20+ years and we targeted every canyon along the Rio Grande, White Rock Canyon all the way down to Chaquehi, Frijoles. So we systematically samples all those canyons in that time and based on the data that we've seen we targeted Pueblo Canyon and Los Alamos Canyon, and it makes sense; those are the ones that received material from Manhattan.

COUNCILOR IVES: Understood. And is that historic information also in the website that you referenced?

MR. YANICAK: I think so, on our website and check BDD, their website.

COUNCILOR IVES: Okay.

MR. YANICAK: And you can always contact us too.

CHAIR DOMINGUEZ: On that point, Commissioner Hamilton

COMMISSIONER HAMILTON: Just a prolonged question.

CHAIR DOMINGUEZ: Okay, go ahead.

COUNCILOR IVES: And when flow triggers the sampling based on flow?

MR. YANICAK: Five cfs, basically. And that's based on knowing that flow test that we've done, it's likely or very highly likely that will reach the Rio Grande.

COUNCILOR IVES: And you mentioned, or at least one of the pages here says there are pressure bubblers or synchronized with early warning triggers.

MR. YANICAK: So the pressure bubblers, slide 4, that different methods how to tell a flow. One is a bubbler, it's like a pressure transducer. One's an ultrasonic, which is actually like a radar wave, gets to the top of the channel. Based on the channel geometry, we can, with the different methods we can tell what the flux is or flow at that point. Then the other one, the shaft encoder, I think that's a traditional – you've seen those by culverts, those USGS gauges. That's one of those. So the combination of these gives you a more accurate determination of what that flow is. And they're like paired up.

COUNCILOR IVES: Then I'm looking at page 5 in the handout, on the slides which is the watershed variability during a storm event, which is certainly interesting. When I look at that it suggests that the peak of the storm event, or at least

what's depicted here happened at approximately four in the afternoon. And then if you follow those lines down there's a point where it says 6:48, 18:48 estimated arrival of E050.1 flow peak. I presume that's at Buckman.

MR. YANICAK: Yes. The red line is Buckman and it's sampling at that point, but it's picking up the flow event that happened up at Los Alamos from E050, from that peak. That's the time lapse of getting from Los Alamos down to the Rio Grande and then the pulse finally gets down to Buckman. And that's one of the points that we were sampling.

COUNCILOR IVES: Yes. So it just suggests it's about a three-hour travel time from E050.1, the gauge there, down to Buckman.

MR. YANICAK: That's depending on, again, other variables, like the type of monsoon it was, the type of flow, whether something happened, whether there was mixing from up by Espanola.

[Audio problems were experienced.]

COUNCILOR IVES: Can you do a graph like this for each circumstance where there is a triggered flow of about 5 cfs.

DR. CRENSHAW: Yes. At each sampling points we do have we can create these graphs. We just didn't present them today; we weren't going to get into the data. But yes, they are there and are available.

COUNCILOR IVES: Because I'm really trying to figure out what information is available. It would be interesting, for instance, just to see a number of events, how this chart changes that you described and a number of other factors.

MR. YANICAK: We do these singular. Like we could do the E050, E060, we could show you hydrographs there, just a singular hydrograph. We can show you the time lapse of when it gets down to Buckman, and we can show you the river pulse. It won't be as great, but you'll see a nice hydrograph. And then depending on the amount of the storm, it will be a long pulse, or if it's a very short storm it will be a nice tight one.

DR. CRENSHAW: And Don may have already done that. We might already have those created.

MR. YANICAK: We have a lot of that stuff.

COUNCILOR IVES: Then I know on page 6 was the monsoon in 2013. [inaudible] monitoring station.

MR. YANICAK: It's working again. We had a lot of restoration to do because we lost about \$11,000 of equipment and LANL, I think Los Alamos lost over \$50,000, \$60,000 worth of equipment. It was a big pulse.

COUNCILOR IVES: Good. That's all I have for now.

CHAIR DOMINGUEZ: We'll go to Commissioner Hansen and Board member Fort.

COMMISSIONER HANSEN: We don't have any microphones?

CHAIR DOMINGUEZ: You have to speak up.

MR. YANICAK: We can shout.

COMMISSIONER HANSEN: What is the radionuclide level now? This is all 2013. That's like four years ago so I want to know why we're not having more recent data.

MR. YANICAK: You are getting recent data.

COMMISSIONER HANSEN: 2013 is recent data?

MR. YANICAK: Above the diversion they have to keep sampling. So just our three samplers and BDD intake have not been operating since then. We're still collecting up on the plateau.

DR. CRENSHAW: So Buckman is still collecting Buckman. We removed our equipment at Buckman. So we're sampling everything above that. But your group is sampling Buckman. So that is continuing.

COMMISSIONER HANSEN: Right. But what they're showing, I would like to see the monitoring stations today. What do they look like today? This is 2013 and the last time I saw the monitoring station at San I it looked pretty bad.

MR. YANICAK: So at San Idefonso Pueblo we have one right down on the river, right by Otowi Bridge. We have one at E110. These are operational and they're and they're operational during the monsoon season. Then we have the series of ones - E050, E060, and we have one at the diversion, up in Pueblo Canyon, so they're all operational. And this year we didn't have such a big monsoon season but everything above Buckman that we are operating is in operation. The only one that got pulled recently, and the only reasons why we pulled it was they were doing some work down at the intake. I think they had to put a coffer dam in there. They had to clean it out. And so there were some issues with the [inaudible] with us, and so basically what we did is we let BDD basically take the lead on that and we just said when we're all set for [inaudible]

CHAIR DOMINGUEZ: We'll make sure to get that on the next agenda. Commissioner Hansen.

COMMISSIONER HANSEN: Also, I would like to see recent pictures, like in Los Alamos Canyon, like you have before, you have after when the dam was breached, and like what does it look like today? And what's the level of intake, and what's the sampling showing you of the PCBs and the radionuclides? Like what is the data?

MR. YANICAK: Yes, we didn't bring data here with us. We just gave an overview of our program. But as I say, the data is all available on Intellus and we share our data, 100 percent of our data is shared with the BDD. So all that data is available and as far as what we - anytime there's a storm event, whether it's up above the Otowi Bridge in Espanola or Pajarito Plateau, that murky water that does have suspended sediments in and does have stuff like PCBs and that stuff, that's what we're monitoring for.

DR. CRENSHAW: And yes, we can get you pictures.

MR. YANICAK: We can get you pictures too.

COMMISSIONER HANSEN: I'm curious to see what they look like today.

MR. YANICAK: So you want a picture of that weir showing the water coming over the top? It's pretty much restored.

COMMISSIONER HANSEN: They've restored it.

MR. YANICAK: Yes, they have. And we fixed all the equipment. We bought new equipment and it's all operational. And we do collocate with LANL. What we didn't mention I think was that we have our samplers at these locations, they're collated with Los Alamos National Laboratories samplers. So we're getting dual information there. And all that information is also available on Intellus.

COMMISSIONER HANSEN: So you say that you do your own sampling