



Buckman Direct Diversion



AGENDA

The City of Santa Fe
And
Santa Fe County

CITY CLERK'S OFFICE

DATE 12/22/16 TIME 10/20/16

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Buckman Direct Diversion Board Meeting

THURSDAY, JANUARY 5, 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 CONSENT AGENDA
5. APPROVAL OF MINUTES FROM THE DECEMBER 1, 2016 BUCKMAN DIRECT DIVERSION BOARD MEETING

INFORMATIONAL ITEMS

6. Monthly Update on BDD operations. (Erick LaMonda)
7. Report on status of Amendments to BDD Partner Agreements. (Nancy Long)
 - a. First Amendment to the Facilities Operations and Procedures Agreement for the Buckman Direct Diversion Project between the City of Santa Fe, Santa Fe County and Las Campanas LP (FOPA).

- b. Second Amendment to the Joint Powers Agreement between the City of Santa Fe and the County of Santa Fe Governing the Buckman Direct Diversion Project (JPA).
- 8. Report on the Biological Opinion for the Rio Grande Silvery Minnow issued by the United States Fish and Wildlife service on December 5, 2015. (Kyle Harwood)

DISCUSSION AND ACTION

- 9. Consideration and possible action on Resolution 2017-1, Determining Reasonable Notice for Public Meetings of the Buckman Direct Diversion Board. (Nancy Long)

MATTERS FROM THE PUBLIC

REPORT FROM THE EXECUTIVE DIRECTOR

MATTERS FROM THE BOARD

NEXT MEETING: Thursday, February 2, 2017 @ 4:15pm

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

COUNTY OF SANTA FE)
STATE OF NEW MEXICO) ss

BUCKMAN DIRECT DIV MIN
PAGES: 21

I Hereby Certify That This Instrument Was Filed for
Record On The 23RD Day Of March, 2017 at 09:05:01 AM
And Was Duly Recorded as Instrument # 1821136
Of The Records Of Santa Fe County

Witness My Hand And Seal Of Office
Geraldine Salazar

Deputy *Laura Harand* County Clerk, Santa Fe, NM



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

January 5, 2017

This meeting of the Buckman Direct Diversion Board was called to order by
Councilor Carmichael Dominguez, Chair, at approximately 4:15 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
Councilor Peter Ives
Commissioner Henry Roybal
Ms. Denise Fort
Mr. Tom Egelhoff [non-voting]

Member(s) Excused:

[One County member]

BDD Board Alternate Members Present:

Mr. J. C. Helms [Citizen Alternate]
Ginny Selvin [Las Campanas alternate]

Others Present:

Charles Vokes, BDD Facilities Manager
Nancy Long, BDD Board Consulting Attorney
Stephanie Lopez, City Public Utilities Department Office Manager
Mackie Romero, BDD Financial Manager
Erminia Tapia, BDD Administrative Assistant
Erick LaMonda, BDD Interim Operations Superintendent
Bernardine Padilla, BDD Public Relations
Kyle Harwood, BDD Board Counsel
Rolf Schmidt-Petersen, NM Interstate Stream Commission
Greg Shaffer, Santa Fe County Attorney
Bruce Frederick, Santa Fe County Assistant Attorney
Michael Kelley, Santa Fe County
Erik Aaboe, Santa Fe County

Anna Hansen, Santa Fe County Commissioner
Maria Rotunda, Santa Fe County
Paul Karas, CDM Smith
Will Kessler, CH2M Hill
Mary Erpelding-Chacon, Las Campanas Co-op
Bryan Romero, Las Campanas Water/Sewer Co-op

STATEMENT FROM CHAIR: Regarding Las Campanas Representatives

CHAIR DOMINGUEZ: We now have representatives from the Club at Las Campanas and from the Las Campanas Water and Sewer Cooperative serving as non-voting members of the Board.

So just for a little bit of history, upon the creation of the BDD, Las Campanas, LP, the developer of the Las Campanas subdivision, assumed the role of a limited partner in the project but with no seat on the Board. Las Campanas, LP, later assigned its interests to the Club and the Co-op. Last summer – it's been that long – as part of a global agreement among the City, the County and the Las Campanas entities, the parties agreed that Las Campanas would have a seat on the Board as a non-voting member with an alternate non-voting member.

Las Campanas has selected Tom Egelhoff as their regular member and Ginny Selvin as the alternate member. So welcome to the both of you.

Tom has been the Superintendent at the Club at Las Campanas since 2002. He has been instrumental in implementing water conservation measures at the Club and has become knowledgeable in BDD operations.

Ginny has an extensive background in banking and accounting and has volunteered her skills for many non-profits in Santa Fe. She worked for the Las Campanas Water and Sewer Co-op as the Controller where she acquired an understanding of operational and finance issues of the BDD.

We welcome the Las Campanas representatives to our Board and look forward to their valued participation. Maybe if you have anything you'd like to say, Tom and Ginny.

TOM EGELHOFF: I'll speak for Ginny. The Club and the Co-op are very pleased that we've been given this opportunity to sit on the Board and Ginny and I have worked on BDD issues for the Club since 2007. So we go way back and we're just looking forward to working with staff and the Board to see this through and help anyway we can.

CHAIR DOMINGUEZ: Ginny? Okay, thank you.

3. APPROVAL OF AGENDA

CHAIR DOMINGUEZ: Any changes from staff?

NANCY LONG (BDD Board Counsel): Mr. Chair, there is no consent agenda so you may remove number four from the agenda today.

CHAIR DOMINGUEZ: Okay, what are the wishes of the Board?

COUNCILOR IVES: Move to approve as amended.

COMMISSIONER ROYBAL: Second.

CHAIR DOMINGUEZ: There's a motion and a second. Any discussion?

The motion passed by unanimous voice vote.

4. APPROVAL OF CONSENT AGENDA: Removed

5. APPROVAL OF MINUTES: December 1, 2016

CHAIR DOMINGUEZ: Anything from staff?

CHARLES VOKES (BDD Facilities Manager): Mr. Chair, members of the Board, no changes.

CHAIR DOMINGUEZ: Okay, what are the wishes of the Board?

COUNCILOR IVES: Move to approve..

MS. FORT: Second.

CHAIR DOMINGUEZ: We've got a motion and a second; any discussion?

The motion passed by unanimous voice vote.

INFORMATIONAL ITEMS

6. **Monthly Update on BDD Operations**

ERICK LAMONDA (Interim Operations Superintendent): Mr. Chair, members of the Board, the BDD production for December averaged 3.5 million gallons per day. This is roughly 54 percent of the water that the City and County utilize. We have also provided no water to Las Campanas this month through the 2A Booster Pump Station. The 2016 year to date raw water diversion total is 1.77 billion gallons which is roughly 110 million gallons more than last year. And I will enter any questions or comments on these items.

CHAIR DOMINGUEZ: Thank you. Councilor Ives.

COUNCILOR IVES: Thank you, Mr. Chair. Just a couple of short questions on some of the numbers. I noticed the raw water was 3.54, finished drinking water was 3.—well, in that b and c the finished drinking water and finished drinking water deliveries through two booster stations totaled 3.55. So I was just wondering how we do our rounding because there's a 10,000 million gallon difference there just adding up the numbers?

MR. LAMONDA: I usually round from the third number whether it is — if it's higher than 5 then we go higher. If it's lower, then we go lower.

COUNCILOR IVES: Okay, and then that 110 million gallon difference between 2015 and 2016, what factors accounted for that and I know that, of course, that that prior year was a much wetter year so there might have been less demand. But I'm curious about what those operating the system determined resulted in that not insignificant difference.

MR. LAMONDA: What I would say is that this year Canyon Road was off line for a longer period of time with the equipment that they were fixing at the dams

and other areas so BDD was actually able to produce a lot more of the water that was utilized for the City and the County when normally Canyon Road may be utilized in those areas, this past year BDD was utilized a lot more.

COUNCILOR IVES: Question on the monsoon and storage.

CHAIR DOMINGUEZ: Are we on that as well?

COUNCILOR IVES: It's all under that particular tab number six.

CHAIR DOMINGUEZ: That's fine.

COUNCILOR IVES: I know Article 7 obviously has been triggered and our pre-compact pool of 1,061 acre-feet which of course is probably about 3,000 acre-feet less than our reservoirs will hold, have we relinquished any rights below on the Rio Grande or the Rio Chama and transferred any of those up to provide for additional storage; if you know?

MR. VOKES: Mr. Chair, Councilor Ives, normally Mr. Carpenter and his group would have a representative here but he had a doctor's appointment today so he's not present. But they manage all of those rights for us so they would have the answer to that. So I can pass the question along and have them communicate with you.

COUNCILOR IVES: Yeah, I'll actually see some of them tomorrow so no worries, just curious.

MR. VOKES: Okay, thank you.

COUNCILOR IVES: And then on the chart which was page 4 of four of the materials which is the City of Santa Fe 2016 San Juan-Chama project storage; I was just trying to understand – for instance, the acre-feet on the left hand side. So those are actual acreage figures in terms of storage in the three reservoirs throughout the course of December 15 to December – or through November 2016.

MR. LAMONDA: Through November '16, correct.

COUNCILOR IVES: Okay. So El Vado looks like it was bone dry and certainly in terms of our storage. Are other people storing water in there?

MR. LAMONDA: As far as I understand there should not be other people storing water. That is a place that we usually utilize for our storage.

COUNCILOR IVES: And the only other thing I thought would be interesting is to see the City of Santa Fe's storage versus total storage in those reservoirs over that same course of time. It might be nice to simply add an additional line or maybe a dotted line in each respective color that shows that. I'm just curious, really, what those storage figures are.

MR. LAMONDA: So the difference between BDD's SJC and the total storage in the actual reservoir?

COUNCILOR IVES: Yes.

MR. LAMONDA: Okay.

COUNCILOR IVES: That's all I had. Thank you.

CHAIR DOMINGUEZ: Anyone else? All right.

7. REPORT: Status of Amendments to BDD Partner Agreements

- A. First Amendment to the Facilities Operations and Procedures Agreement for the Buckman Direct Diversion Project between the City of Santa Fe Santa Fe County and Las Campanas, LP (FOPA)**

B. Second Amendment to the Joint Powers Agreement between the City of Santa Fe and the Santa Fe County Governing the Buckman Direct Diversion Project (JPA)

CHAIR DOMINGUEZ: Both A and B, we'll just do them both together.

MS. LONG: Yes, Mr. Chair, members of the Board. As the City Councilors, County Commissioners, and Las Campanas representatives are all aware due to their recent approval of these amendments, the Facilities Operations and Procedures Agreement, known as the FOPA, and the Joint Powers Agreement have been amended to provide for the agreements that were made by these parties last summer.

The amendment to the FOPA was necessary in order to bring in the Club at Las Campanas and the Water and Sewer Cooperative substituting those entities in for Las Campanas, LP, which had assigned their capacity to those entities. So we updated the numbers for all of the parties in terms of their capacity in the project.

We also dealt with the issue of project wide costs. As you recall, this had been an issue and an issue with the audit that project wide costs were not defined in the FOPA and so we have now amended the FOPA to provide for that. Also, to provide for how litigation fees and costs would be treated. Those will be treated as basically project wide costs and the date that those will be billed to the partners back from the inception of our contract with Sheehan. We substituted in the exhibit that shows the separate and shared facilities to the FOPA.

The JPA has been amended. It has not been approved by the City Council yet but is expected to be next week. The County Commission has approved both the JPA and the FOPA amendment. And the JPA amendment allows for, as you heard at the beginning of the meeting, the Las Campanas member and an alternate Las Campanas member to serve on this Board, again, as part of all the parties' agreements that were reached last summer. So the Board is not a party to these agreements but we wanted to bring it to the Board's attention and as I said most all of you are certainly aware of these agreements due to your respective service on your Board.

The only other thing I wanted to mention as part of the partner agreements is that I am taking a look at the Rules of Order for the Board and will bring back proposed revisions next month, I hope. One of the issues now that we have non-voting members, sort of a new type of member on our Board, I believe that we should include quorum to exclude non-voting members for your quorum requirements now instead of three with the additional members you're up to four. But that non-voting member cannot effectuate any policy, vote on any matters, so it makes logical sense to me and I'm checking into whether we can do that, to exclude the non-voting members from quorum and see where else I might need to do that. So that would be my recommendations; it's up to you all of course.

CHAIR DOMINGUEZ: So also you'll be looking at the requirements to call a special meeting?

MS. LONG: Yes, Mr. Chair, I will address that when we get to the Open Meetings Act Resolution. Our current resolution allows two members to call a special meeting or an emergency meeting. Since we have an additional member, non-voting members is a member and so I would suggest that we change that from two to three and we can address that when we get to the Open Meetings Act Resolution. Since you have

more members now and we're accounting for some of these changes that are occurring to your Board.

CHAIR DOMINGUEZ: Okay, very good. Any questions on these two, 7a and 7b? Councilor Ives.

COUNCILOR IVES: Thank you Mr. Chair. Nancy, did you say that you anticipated additional action by the City Council on these agreements at its next meeting?

MS. LONG: Yes, Mr. Chair, Councilor Ives, I understand that the Joint Powers Agreement amendment, it's amendment number 2, will be considered by the Council at your meeting next week, next Wednesday the 11th. However, the Council did approve in December the FOPA amendment.

COUNCILOR IVES: Just wanted to make sure that I understood which one you were talking about. And I must admit, whenever anybody says the FOPA agreement I always look up to see if somebody in the audience is laughing. I wish we could call it the FO-PA.

MS. LONG: We could.

CHAIR DOMINGUEZ: SOPA. [laughter] Okay, any other questions? Okay. .

8. Report on the Biological Opinion for the Rio Grande Silvery Minnow issued by the United States Fish and Wildlife Service

KYLE HARWOOD: Thank you, Councilor. Good evening, everybody. I would like to introduce a colleague of mine and someone that many of you may know, Rolf Schmidt Petersen; he's with the Interstate Stream Commission and has had substantial responsibilities in the silvery minnow area as well as helping the City and County manage Rio Grande water supplies. And, he has been a friend of project since inception. He is here to assist me with any of your questions. I'm going to propose to go through my memo for you first and then let Rolf give a couple of minutes of state perspective since the project, obviously, operates in a fairly complex water resource environment upstream and downstream and then Rolf has provided that I would like to talk for a couple of minutes about our project specific biological opinion that we secured in 2007, I believe it was – 9, excuse me. And just talk with you for a couple of minute about that history and then open it up for questions if that's okay.

There is a memo in your packet. This is fairly big news in the Rio Grande water world to have a new biological opinion that covers the activities of the Bureau of Reclamation, the Bureau of Indian Affairs and also certain non-federal actions which we take in shorthand to be the Middle Rio Grande Conservancy District and the activities of the Interstate Stream Commission undertakes on the Rio Grande. And this – if you're familiar with the silvery minnow fights of the last 15 years you'll perhaps remember that it is only one species among a group of species that are the threatened and endangered species list. And I've added in the first paragraph here of the memo, RGSM is our shorthand acronym for the Rio Grande silvery minnow, but this biological opinion and the previous one is consulted on the actions of these agencies, would affect both the minnow and the fly catcher and the yellow-billed cuckoo. The BO also concluded that these actions are not likely to adversely affect the jumping mouse, the Pecos sunflower

and will have no impact on the rather unfortunate named interior least tern. So all of those species were addressed in this biological opinion.

So there was a biological opinion back in 2003, it expired in 2013 and was extended under a rather unusual mechanism that was included in the 2003 biological opinion that said if reinitiation was started before the end of this biological opinion, this being the 2003 biological opinion, its coverage would continue until replaced which is what happened on December 2nd of last year, about a month ago.

The 2003 Biological Opinion and its extension from 2013 through 2016 is the topic of a lawsuit by Wildearth Guardians. We did come to the Board December of '15 and brief you on that lawsuit. It continues to make its way through the Federal District Court and it is quite possible that this new biological opinion from last month will add to that story. We've not seen yet any official action by Wildearth Guardian but it is quite likely that they will be equally displeased, let's put it that way, with this biological opinion. Again, this litigation doesn't affect our project directly. We are not a defendant. Our biological opinion stands on its own for coverage of the project activities but the environment of the minnow and these other species and how these actions by federal and non-federal agencies affect these listed species is very much a part of the reality for our project. And will get to that after Rolf's presentation, how our project biological opinion addresses these issues.

Okay, so back to the news from last month. This biological opinion that was issued last month is a non-jeopardy biological opinion, -- I am now on the third paragraph of my memo -- it's for a term of 15 years which I think is shorter than we were all hoping it would be but it seems to be the amount of time that the Service was willing to embrace the set of actions and see how it affects the species.

There are 86 required conservation measures which is a lot. Those required conservation measures are largely things that the action agencies had been discussing with the Service as things that were either going to do or were willing to do and they have now been included in the opinion as required actions. And, so, while they were sort of developed cooperatively having them be requirements is perhaps a little different than how they were originally thought of by the action agencies. But I think everyone has reconciled to the fact that they will be on the hook for completing these actions. I should say part of the punch-line which I don't think I get to until a little later is that both the Middle Rio Grande Conservancy District and the Interstate Stream Commission have essentially voted to endorse this biological opinion, which is, I think very important. I'm sorry that I am not looking over here enough. It's a new part of the landscape here --

Perhaps the most unique thing about this biological opinion and which I have noted in my memo is the first time we've seen it nationally is that under the Endangered Species Act if your activities will harm or otherwise kill or harass one of these listed species it's called "take," that's the shorthand -- taking a species. And typically take is measured by finding dead individuals of the species. In this case, under this biological opinion, the take statement is actually going to be densities of fish at specific locations in the critical habitat and I should remind everyone that the critical habitat for particularly the silvery minnow, which is the one that drives a lot of water resource decisions, doesn't come up to the Buckman Direct Diversion intake spot. It is from the Cochiti Reservoir downstream. So within that critical habitat area there are specific locations where densities will be measured in October and if the density is below a magic number there

are consequences, and if it is at the magic number, you continue and if it is above the magic number everybody celebrates. And those magic numbers are going to be critical and the methodology for sampling and what that means about the health of that species has all been evaluated in terms of identifying those density numbers. But there is some question, I think it is fair to say, on how this is all going to work because it's new and some of the triggers in the biological opinion are fairly – very acute, let me put it that way. If we go below this one fish in 100 meters twice in the 15-year period, not even consecutively, then the biological opinion gets busted and there has to be a reinitiation and a reopening of the analysis. So that is going to be a critical number going forward. So let me just finish going through the memo quickly so we can give you all the basic information.

Adaptive management is a common technique in environmental monitoring and species management. It's another way of saying that if more science comes forward and we learn more about how and what affects these listed species then elements of the plan can change. So it is just taking in information and letting it change the plan that is being implemented to address the species. And exactly how adaptive management is going to function or how flexible it's going to be is also a little bit of an unknown because the service while it has adopted adaptive management in other areas it is not entirely clear what problems we're going to run into or how adaptive management might be used to address those.

Included in this memo is both the press release which came out back on December 5th after the decision was released on the 2nd. That's a very digestible page and a half. I've also provided the cover memo which is basically just alerting people that this is out there. The opinion itself, which I will say is fascinating reading and I commend to all of you, it runs about that thick – it's pretty good stuff and it's integrated with federal reg which is not simple and [Mr. Harwood's microphone went down momentarily]

With that, I think what I'd like is to give the Rolf the podium for a couple of minutes just so you can understand this effort in the larger state context. By way of letting Rolf come up let me remind folks things that you may or may not know from your briefing when you became Board members but the BDD project biological opinion that we have from the service – which we consulted on in 2007 and got an opinion and special use permits in 2009, asks the BDD project to participate in the Rio Grande Endangered Special Act Collaborative Program and we do so in coordination with the State since the BDD project has never been a signatory to the Collaborative Program because we've never known what it might require of the Board or the participating entities that have responsibilities for cost sharing. So we've coordinated with that collaborative program through the good offices of the Interstate Stream cc and Rolf has really made a lot of that possible so we are very grateful for his help. So I'm going to let Rolf give you that perspective and then we're going to come back and talk a little bit more about our project specific biological opinion. Rolf.

ROLF SCHMIDT-PETERSEN: Good afternoon. So first let me just say a few words about what I do on the Rio Grande. I'm the Interstate Stream Commission's Rio Grande Basin Manager within New Mexico. So when it comes to Interstate compact issues and a number of other related issues anywhere in New Mexico in the Rio Grande Basin I have some responsibility in those areas. In addition, I serve as New Mexico's engineer advisor under the Rio Grande Compact with Texas and Colorado that apportions

the surface waters, the natural surface waters of the Rio Grande amongst those three states. And within that boundary, the San Juan-Chama water that you use for your diversion comes into play and the Rio Grande Company Commission has an oversight role and New Mexico has an oversight role of the management of that water daily, monthly, annually, through time. So my staff, you know, are involved on a day-to-day basis of whose water is where in what reservoir, when Article 7 timing is in place and so on. In 1999 our commission through resolution and really it started with Governor Johnson at that time, got engaged in endangered species issues in the Middle Rio Grande and it was all focused on the silvery minnow. And pretty quickly got involved in that Rio Grande silvery minnow litigation in Federal District Court. And through that process there's been kind of an evolution, I think, in the thinking of the State of New Mexico and particularly our Commission on how to address water users, water use, and endangered species issues. Initially, it was we need to go out there and we just need to fight and we need to fight. These are people's waters rights. San Juan-Chama water was on the table to be taken and particularly just used for endangered species not for the Buckman Direct Division and others. And that just was not conscionable through our Commission. And we're not in that position today and, in fact, through the efforts of the commission and numerous other parties, 16 to 18 of them, this Middle Rio Grande Endangered Species Collaborative Program was formed and within that program the goal of the program and I think also our commission was to do things on the river that could be beneficial to endangered species, to the environment, overall ecosystem and do that in a way that allowed water users to go forward and to implement activities that would stretch water supplies for people and for endangered species. And our commission over the last 15 years has expended maybe \$22, \$23 million on specific activities in that regard.

When it came to this new biological opinion the direction that we received from the Commission was to continue on that process of let's try to do good things for the species. Let's make sure that our water users can go about doing their business – the Buckman Direct Diversion and others can. Now, you, under the Buckman Direct Diversion have your own biological opinion that sets forth, you know, how you can operate your surface water diversion. But as a Board member for BDD, you need to be aware that the federal agencies, the Bureau of Reclamation in particular, but also the US Army Corps of Engineers that operates upstream reservoirs also has to be in compliance with the Endangered Species Act. They need to do that on a daily basis just to do their activities, it is a requirement of federal law, and by this new biological opinion being in place, the Bureau of Reclamation can go through and continue its operations at El Vado Reservoir and in fact, even though the Corps is not a part of this, the US Army Corps of Engineers is not a part of the biological opinion, they can go about their activities at Abiquiu Reservoir subject I think ultimately to the outcomes of some the litigation that is currently going on relative to the Corps, but have compliance with the Endangered Species Act. In addition, as Board members of different water users, this biological opinion provides broad endangered species compliance, not just for the Bureau of Reclamation, the Middle Rio Grande Conservancy District and the ISC, it has a component of it that looks at water rights transactions going out 15 to 20 years in the future, projects what effects those would have on the river and basically seeks coverage for those. So to the extent that, for example, there's a water rights transfer that is coming into Buckman Direct Diversion that would be covered under this new biological opinion.

In fact, also the effects of groundwater pumping by Santa Fe County and the City of Santa Fe on the Rio Grande are also covered on this as well as everybody else. And that was a big, big part of the engagement of my Commission, the Interstate Stream Commission doing this. We felt like if we can move forward and get endangered species compliance, do good things for the species, make sure that our water users can go about their business, that would be the best way to go forward. That's what this biological opinion does. And it is intricate in how it does it but it puts that in place and it says, that as we as parties, the biological assessment partners which is again, the Bureau of Reclamation, Interstate Stream Commission, Middle Rio Grande Conservancy District, if we can do things on the river that keep these population densities up for the fish, that increase habitat for the yellow-billed cuckoo, for the southwest willow flycatcher, help with meadow jumping mouse issues particularly down in Bosque del Apache, we can do all of those things and make that happen, and we have flexibility in how we go about doing it well, then people can go about their regular water management business. You guys can and others can. And that's why our Commission thinks this is important. Why they have made commitments to allocate funding and do projects for 15 years to the tune of anywhere from \$1 to \$3 million a year that don't relate to any reliability that the ISC or the State has – it has to do with our water users.

So with regards to the aspect of water rights transfers we've looked at the ability to transfer through the Middle Rio Grande and then separately also in the Upper Rio Grande because those are two different water right areas within the Rio Grande Basin from the State Engineer's perspective, 20,000 acre-feet of water right transfers over the next 15 to 20 years which is about equivalent to the highest rate of transfer that ever occurred. It's actually lower than that now.

MR. HARWOOD: So we're just going to touch on a couple more things and then see if you have any questions. I just want to share with you a couple of other basic facts to keep in mind. First of all, one of the most important things under this new biological opinion that I think I may have mentioned earlier but I just want to emphasize, the Buckman Direct Diversion Project is now in the baseline of the analyses that are done on these species. It's because it has its own biological opinion and it is acknowledged in this new biological opinion. That was a big effort, particularly led by Rick Carpenter two and a half years ago with Rolf's help is making sure that this project is in baseline. It's very important when it comes to future changes to this project or changes to the biological opinion if the biological opinion gets reopened. It is very important that our project be postured in that way in the environmental baseline. So I just wanted to emphasize that.

We're here at the beginning of the new year and everybody is thinking about how time passes by and I have a date for you to put on your personal calendars and that date is December 31, 2029, which is right around the corner. Well, not really, but time does by very quickly and the Chair and I were talking about earlier. So, December 31, 2029 is when the special use permit from the Forest Service for the intake structure for our project, that's when that special use permit expires. And when it expires, the project staff, Chuck won't be here then I think, managing the paperwork for the project and he will need to apply for a new special use permit one year before that deadline and that will trigger a Forest Service review process which will grab consultation as part of its compliance. And so one of the reasons why this biological opinion would transfer 15

years from last month which expires in 2031, so just two years after we'll be wrestling with these same issues. So the way that this new biological opinion adopted last month functions over the coming 15 years will have a material effect on the environment on which this project gets consulted on and gets coverage.

Now, why this is important: under our current biological opinion we have low-flow constraints where if the Rio Grande gets below a certain level the project must cut back and curtail its diversions. That math the actual reductions in cfs, million gallons per day, is triggered off of the Otowi index gage which is the gage just upstream of the Buckman Direct Diversion which is actually used for Rio Grande Compact compliance and those numbers are a translation of old silvery minnow flow requirements under the 2003 biological opinion from down in Albuquerque where the critical reach under the old biological opinion. So our current biological opinion which was analyzed and discussed and drafted and approved in 2007 and 2008 was built upon the old minnow system, the old minnow regime. So, one of the reasons why it is very important going forward is the minor regime has now changed with this density measure and all of these 86 required activities and so there are a couple of scenarios under which this becomes important.

Every biological opinion at the back of it has four, what we call, reopeners where the Service can choose to send us a letter and reopen our biological opinion for reconsultation. And so we're always wondering whether or not there have been enough changed circumstances or enough new science or enough of these four triggers to get a letter requiring reinitiation of our biological opinion. We've been told, we've been given indications, that under this biological opinion that came out last month, our project biological opinion will not be reopened. But as this new biological opinion from last month goes forward, if there are problems meeting the densities and things kind of unravel over the coming years it will potentially precipitate that conversation. There is no reason to be concerned about it today because we don't know how things are going to go but it is a risk that has always been there and it continues to be there to the future. So that's reinitiation.

The second is if there are any changed project operations that were desired by the parties going forward that would almost automatically require reconsultation if we were to deviate from the current coverage parameters. And then the other is the natural timeline that I've mentioned running through the special use permit and needed to reconsult when reconsultation is required under these federal permits.

There were many other things that we needed to before project operations back in 2010 and 2011 that were related to endangered species. There were habitat restoration projects and other things that were tied to our projected effects on species. Those things have all been done. But these low flow constraints on diversions which is part of the old way of thinking about the minnow is really the thing that could change and we don't know whether it will be a problem or whether it will even change but it is the reason why we monitor the topic.

So I think with that – I probably talked longer than you thought I would. So I'll stand for questions.

CHAIR DOMINGUEZ: Okay, there's a few questions that we have. Let me just ask one real quick. In your memo, Kyle, it's the third paragraph, the first sentence, non-jeopardy biological opinion; what does that mean?

MR. HARWOOD: Jeopardy is the Fish and Wildlife Service's way of sort of capturing when you harm a species. So if they issue you a jeopardy opinion and they say your proposed actions are likely to take or harm a species, that's a jeopardy opinion. Then they give you a bunch of things to do to avoid that harm under the law. In this case, the Service, somewhat controversial I think it's fair to say, has said that you must do these 86 things and we're giving you a non-jeopardy opinion. Which I think, as Rolf and I think about it, it really changes the posture of the Service as a regulator which I think is helpful for water management activities and if we can manage to maintain the densities and the species continues to be healthy which I think everyone wants to see, then that's a great posture to be in.

If you have a jeopardy opinion and you've got these mandated things to do then the Service is a little more of a heavy-handed regulator, more like a cop is the way we think about it. So it changes a little bit their disposition in monitoring and ensuring compliance but because they have mandated these 86 things to go along with their non-jeopardy opinion it's sort of almost become like a jeopardy opinion functionally. And I apologize if I've gone a little too far in the details in that answer.

CHAIR DOMINGUEZ: Yeah. Okay, questions. I'll go Board member Fort, Board member Egelhoff, and then Councilor Ives.

MS. FORT: Thank you both for the presentations. Is the BDD playing an affirmative role in helping restore the minnow populations?

MR. HARWOOD: Board member, I think that the activities that were done initially on habitat restoration you can draw a pretty straight line from the activities that we were required to do by the Service and habitat restoration in helping the overall health of the Rio Grande. It was a modest effort in terms of acreage but I think we told ourselves it was commensurate with our effect on the river.

There have been actions that the City and the County have taken as water right owners on the Rio Grande in terms of making water available for silvery minnow flows that I think should not pass the answer without mentioning those things. But those are not really BDD Board activities. Those are the activities of the entities that own the water rights and obviously receive service from the project.

Beyond that, we have been supportive and involved at a staff level with ensuring and supporting the State's goals in making sure that the federal management of the species works for New Mexicans generally. But that is not a direct action.

MR. FORT: Mr. Chairman, I guess my question is whether the Board has had opportunity over the years that this has been pending to make any statements on behalf of the principles of either the Board, the City or the County in terms of the public's interest in seeing the river restored and the species restored. So I very much appreciate the change in perspective the Interstate Stream Commission was pretty much resolutely opposed to environmental protection for many years in the river. It has evidentially changed its position which is a good thing to hear that there's been that change but I'm not – I'd like to know if we've taken a position as the Board with respect to supporting species recovery.

CHAIR DOMINGUEZ: I'm not sure, at least in my time, whether or not the Board has made any statement or any specific policies even. I know that we have at the Council level generally speaking. But I'm not sure of the Board; I don't know if anyone wants to chime in there?

MR. HARWOOD: I feel like there were some efforts with Alan Hamilton a number of years ago in terms of improving the riparian corridor and changing – a lot of discussion with the Forest Service about changing the clientele down at the river to decrease trash and improve understanding. Of course, a lot of that was also done with the work with CCNS and others on making that a welcoming space as well as the intake for the facility. So I feel like the Board has made a number of statements over the years about the riparian health in that little area, but I think if your question is more of a bigger sort of landscape scale, I don't think the Board has gotten into those issues as much as the City and County as their own entities.

MS. FORT: Thank you, and that would be a question, I suppose, Mr. Chairman, if there are not challenges to the biological opinion and if then this question may not be raised; if there are challenges coming from Wildearth Guardians and if the other affected parties begin to participate in that then I would certainly want to have some discussion of what our role might be in that in the future. Thank you.

Could you describe, either of you perhaps, what the basis of the Guardian's lawsuit is in terms not so much of the legal issues but really the physical issues and restoring the populations.

MR. SCHMIDT-PETERSEN: It's complex. But the first issue really has to do with the discretion of the Bureau of Reclamation and the US Corps of Engineers relative to operations of their facilities and what is classified as one of the facilities or not. And so that is in front of a judge in southern New Mexico, Federal Judge, Judge Brack, the substantive claims went to basically statements about various aspects of the 2003 biological opinion, the elements of the reasonable and prudent alternative that the Wildearth Guardians basically said these were not addressed and therefore this biological opinion wasn't valid. And so above and beyond the discretionary issues there's three or four items like that that are in play. And then most recently I think with the new biological opinion going in place, I'm not sure what kind of perspective or approach the Bureau of Reclamation and the Middle Rio Grande Conservancy District will take because they are parties to that litigation but I think that they would say that the new biological opinion replaces the old so many of those claims shouldn't go forward.

But the US Army Corps of Engineers is out there separately. They chose not to participate in this new biological opinion consultation. And their position is that they don't need any further consultation. And I think that would be it.

MR. HARWOOD: Thinking rather – it's funny to get part of the legal summary from the engineer and then I was going to give the philosophical summary from the lawyer.

When I think of it at a 30,000 foot level what Wildearth Guardians is fundamentally upset about is that the federal agencies are conveniently defining their discretion narrowly and they think their discretion is much broader. And that's a huge philosophical question nationwide – very present here in New Mexico, very present in California and Arizona. And then how then those actions function and are complied with under ESA and the – because ESA is, of course, just one rule, there are all these other public laws about operating reservoirs. And what's particularly going, if I channel the Wildearth Guardians for a moment, is that the Army Corps of Engineers took themselves out of this consultation and they said that they had no discretion so there was nothing to consult for their actions. And that was seen as a very aggressive move and a nationwide

precedent frankly. So I think they find that all very alarming to the way that they see federal actions and how these federal agency activities affect endangered species.

As I said, a year and month ago we did a briefing for the Board on the more legal technical aspects of the case and we can – I can certainly send you materials by email or we can do another presentation or have a small group conversation. Everyone comes to these topics with a different background and they're fairly multi-headed topics. So, whatever you prefer for more information.

MS. FORT: Thank you very much. I guess, Mr. Chairman, the question I had was partly about the physical status of the minnow and whether we know what the Guardians – just what in general the different opinions are about where minnow recovery stands. We have an engineer and a lawyer to talk about the biology –

MR. HARWOOD: He's got biologists that work for him.

MS. FORT: Okay.

MR. SCHMIDT-PETERSEN: And lawyers and others. But so recovery by its – at its minimum requires here three different self-sustaining populations of silvery minnow. So from that terminology the Middle Rio Grande can't do that but itself. And so from a perspective of broad recovery of that species, that's bigger than what this biological opinion is about or the Middle Rio Grande water activities or even the species status.

Now within the Middle Rio Grande the densities that Kyle was talking about are tied to some of the Fish and Wildlife Service recovery goals particularly this one silvery minnow per 100 meters squared -- number is what was initially looked at in the earlier version of one the silvery minnow recovery plans as a downlisting number. So what the Fish and the Wildlife Service has really done with water managers and others and says if you can do things on the river that get those numbers up that high where we can downlist in the Middle Rio Grande or consider it, then, go ahead and you can do your activities. I consider that to be a high threshold.

MR. HARWOOD: We should add that downlisting in this context is a good thing. It might sound like a bad thing but downlisting is actually coming off the list.

MR. SCHMIDT-PETERSEN: Endangered to threatened, right. And with regards to densities this year, I think largely due to actually 10 years of habitat restoration in the Middle Rio Grande and a coordinated water management activity in May that was initiated by the Rio Grande Compact Commission, the silvery minnow density number this last fall was about six, so it was well above that number one number. And that compares to .3 the year before which was actually a bigger snowmelt runoff. So it tells us that there's some activities that we can do that we might be able to manage a little bit and do better for the species.

MS. FORT: Just one last question. The status of the collaborative process, I understand that the ISC was unhappy with Reclamation running the process or could you say something more about that? Is there going to be a change of the management of the collaborative process?

MR. SCHMIDT-PETERSEN: So within the Collaborative Program I think there's actually a meeting coming up with the BDD Board, Santa Fe and others I am hoping will be there – the non-federal participants in the Collaborative Program, to take a look at this new biological opinion and say how do we want to try and move that

forward. And, yes, I think the Interstate Stream Commission was a – and the Attorney General's Office actually probably was the biggest lead on this, was saying we want a neutral party in the role of the manager of the Collaborative Program so that the executive committee, the governing board can make decisions and actually have those decisions implemented. And there were a number of issues going on where the program manager worked for the Bureau of Reclamation and as a result it was hard to move the committee's agenda forward. And so the Bureau of Reclamation has now hired a third-party manager and we're going to get started in that process in January.

MS. FORT: Thank you.

MR. ENGELHOFF: I promised Kyle I wouldn't ask him any special questions about species of the birds. But the one question I had on low-flow with the biological opinion, did that go up or down as far conservation measures for taking water at the BDD?

MR. HARWOOD: It didn't change. So our biological opinion hasn't changed and this new biological opinion which moves away from minimum flows and uses fish densities instead did not impose any sort of new requirements on our project.

MR. ENGELHOFF: Is the way they determined native flows the same?

MR. HARWOOD: Yes, none of that changed. I know you're intimately familiar with those low-flow constraints because they often affect Las Campanas disproportionately. At this point nothing about the project low-flow constraints has changed with this biological opinion. But it does give us a glimpse as to what might be the future.

COUNCILOR IVES: Thank you, Mr. Chair. First just a quick question on the fly catcher, I think it was back in the fall we started to see published reports about the potential delisting of the flycatcher; what's the status of that and if something like that happens with any of these species that are affected or addressed in the biological opinion what are the next steps?

MR. SCHMIDT-PETERSEN: Yeah, I've seen those kind of requests out there. It calls for looking at Southwestern Willow Flycatcher. I think a lot of that is related specifically to the Middle Rio Grande where the – I don't know the full numbers of them but the successful territories of the Southwestern Willow Flycatcher have been greater than the required number for now five or more years. In reality where that goes though depends more broadly of what's happening with the Southwestern Willow Flycatcher across southwestern United States. So I think the reality is that we're doing really well with that bird in the Middle Rio Grande and our goal is to try and maintain those numbers if not improve them and maintain that overall. Hopefully, we can get on a trajectory that we have even more birds and then we maintain those and we'll be doing pretty good. And then at that point in time it won't matter if it's downlisted or not. We're doing good in the Middle Rio Grande and the constraints really won't be there.

COUNCILOR IVES: Although the broader question is if any species were delisted is that a reinitiation under the BO?

MR. SCHMIDT-PETERSEN: I'll defer that one to Kyle, but I would think no.

MR. HARWOOD: Not typically, no, sir.

COUNCILOR IVES: Just curious. I've never dealt with that issue in anything I've done. Just curious.

Second question, I know that within the City there often discussions with regards to the impact on the Wildearth Guardians' litigation and whatnot on the City's San Juan-Chama water and our understanding has always been that it was not a part of that litigation and that at least I think the inference was that there would be no impact but to some degree of what you're suggesting, Rolf, on the federal jurisdiction and operation of reservoirs under the various management agreements am I understanding you to say that that's not necessarily the case.

MR. SCHMIDT-PETERSEN: Board member Ives. what I would say in that regard is – actually, go back to 2001, 2002, San Juan-Chama water was definitely on the table. And, in fact, Judge Parker at that point in time directed its use for endangered species. And it was the efforts of Senators Bingaman and Domenici, it was both of them that basically came in and inserted federal law to say that if the federal agencies had discretion over that water they could not exercise it. And that federal law stands today, okay. So when it comes to water that makes it to the Buckman Direct Diversion and the San Juan-Chama portion of it, that, I think is safe. It's not involved in any of these activities. But the discretion issue relative to an upstream reservoir and what the federal agencies may or may not do with regard to releases and when they can send water down and what does that mean for you State Engineer permit for diversions has always been a question to me. And, in fact, in this most recent lawsuit Wildearth Guardians did seem to make San Juan-Chama water a part of that claim particularly related the water authority and then through a number of stipulated actions, withdrew that.

COUNCILOR IVES: Right, right. Okay, I'm just trying to make sure what I've heard and what my understanding has been is sort of –

MR. SCHMIDT-PETERSEN: I would say right now as long as we're in compliance with the biological opinion the federal agencies can go about their operations, you can go about yours.

COUNCILOR IVES: Yes. And then I think also another question for you, Rolf, I know the City of Santa Fe has certain relinquishment rights and just looking at the biological opinion I know they say there's relinquishment credits, sorry, are generated when water delivery to Texas is above compact delivery requirements. Certain of those have been allocated to the City.

MR. SCHMIDT-PETERSEN: That's correct.

COUNCILOR IVES: Do you know the extent of those, what the number is?

MR. SCHMIDT-PETERSEN: The total number was a little over 6,000 acre-feet that were allocated to the City of Santa Fe for storage in Nichols and McClure a small amount of that was and I don't know if Marcos is in the room too, but there's well over 5,000 acre-feet that is still available for that use by storage of native Rio Grande water and Nichols and McClure when Article 7 is in effect.

COUNCILOR IVES: Yes, and that was the sort of question I was getting to earlier.

Another question then in terms of those relinquishment rights is whether or not they could be used by any third-party, i.e., not the City towards satisfying requirements under the biological opinion? In other words, can anybody in the City once those have been credited to the City, does anyone else have the right or authority to direct those to other purposes?

MR. SCHMIDT-PETERSEN: My position on that would be no because those are tied specifically to the City for storage under an existing permit and right now there are really three parties that have post-compact storage rights. The City of Santa Fe is one, MRGCD and Reclamation is the other party. So those are the only parties out there right now that have native water storage rights that are suggest to these conditions.

COUNCILOR IVES: Good. Thank you.

CHAIR DOMINGUEZ: Any follow-up questions? Board members you have any questions?

All right, Kyle, that was a lovely lesson of the BO that replaces the BO – opinion, wait how does it go – the BO for the RGSM.

MR. HARWOOD: Thank you.

DISCUSSION AND ACTION

9. Consideration and possible action on Resolution 2017-1, Determining Reasonable Notice for Public Meetings of the Buckman Direct Diversion Board

MS. LONG: Mr. Chair, members of the Board, annually this Board, like all public bodies in New Mexico, must determine what they consider to be the reasonable and adequate notice for their public meetings in compliance with the New Mexico Open Meetings Act. I noted in my memo, that this Board has an additional requirement in its resolution, that has been carried forward for the last several years, and that is in order to participate by telephone it must be because a quorum is needed. So if there's already a quorum in the room, this Board has not allowed participation by telephone. We've never, I don't think in my memory had an issue where we needed to call someone to make a quorum. That could happen and it's allowed. But we don't allow regular participation by telephone and I think that was because of the Board's awareness of the difficulty of full participation by telephone really to be a part of the meeting. So that is in the resolution. It is not required by law. It is required by law that if you want to participate by telephone we allow that, but not just to meet a quorum requirement.

And then the issue I brought up earlier was in our resolution and the one that is in your packet, in order to call a special meeting or an emergency meeting that must be done by the chair or by any two members. Now that we have an additional member, my proposal would be that we up that to three members so that there are three concerned members that could call for a special meeting or an emergency meeting but that would be up to you all. That would just be my recommendation.

CHAIR DOMINGUEZ: That would include alternates because they're considered members as well.

MS. LONG: Mr. Chair, I do not believe it would include alternates but it would include non-voting members. So now you've gone up to a six member board. So half of the board would need to weigh in on and agree that a special meeting or emergency meeting was needed. That has never occurred and it's not likely to occur but it is something to consider. And other than that, the resolution is as you approved it last year.

CHAIR DOMINGUEZ: So I know on page 2 of the bill, item number 3 on line 23, that would need to be changed to three right?

MS. LONG: Yes, Mr. Chair, and above it in Special Meetings, paragraph 2, line 14 would be changed from two members to three and 15, the line right below it would be three as well as on the next page, line 3 would also need to reflect three members if that is the Board's wish.

CHAIR DOMINGUEZ: Okay, any questions?

MS. FORT: Mr. Chair.

CHAIR DOMINGUEZ: Yes, go ahead.

MS. FORT: Mr. Chair, Nancy, would it be appropriate to use voting members or non-voting members or have a definition section there for members?

MS. LONG: We will handle that in our Rules of Order, we are proposing to call out these new members and then recite that they will not be counted as part of the quorum. We could also include here that members includes members and non-members. We certainly could do that within the resolution if you think that would be clearer.

CHAIR DOMINGUEZ: Anything else? Councilor.

COUNCILOR IVES: Thank you, Mr. Chair. A couple of quick questions, Nancy, on the telephone provision.

MS. LONG: Yes.

COUNCILOR IVES: You said that if there's a quorum present somebody calling by telephone cannot participate. Does that mean they can't be present even though – in other words, if one couldn't attend but nonetheless wanted to hear what was being said and in that sense perhaps not vote by way of participation but it sort of changes the status to a non-voting member, that seems more reasonable than saying you can't listen in and the phone gets hung-up if there's a quorum in the room.

MS. LONG: The interpretation has been that you may not be on the phone at all. So if there's a quorum present there is no listening in as opposed to participation. It has been seen as the same thing. So if there is a quorum present, then you do not participate by telephone you just read the minutes later. Now you certainly could do that you could listen but not participate but it seems to me that it should really go one way or another. If you want people to participate or not because there is already a quorum present rather than have sort of that murky ground of that person can't say anything.

COUNCILOR IVES: Well, of course, you know, this is kind of like being in law school. So the next hypothetical is that the alternate is present at the meeting but the regular meeting is on the phone –

MS. LONG: The regular member cannot be on the phone because the alternate takes the place of the regular member and makes the quorum.

COUNCILOR IVES: But if you're allowed to participate as a regular member to create a quorum your presence on the phone arguably creates the quorum. So you don't need the alternate.

MS. LONG: That's right so the alternate would not participate in the meeting. The alternate could not vote. The alternate could be present and ask questions but could not vote.

COUNCILOR IVES: These are things that run through my mind as we're talking about it.

MS. LONG: Well, these are scenarios that could happen.

COUNCILOR IVES: Yes, I know. And those are all the questions I have.

CHAIR DOMINGUEZ: Other questions. Okay, what are the wishes of the Board on this item?

COUNCILOR IVES: I would move to approve with the amendment that three members which would include non-voting members are required to call a special meetings in those areas identified during our discussion.

CHAIR DOMINGUEZ: Okay, do we have a second?

MS. FORT: Second.

CHAIR DOMINGUEZ: Do you want to include in there any clarification of the language on the –

MS. FORT: Chairman, I think that Councilor Ives just did with the parenthetical.

CHAIR DOMINGUEZ: All right. Any other discussion? Hearing none, all those in favor.

The motion passed by unanimous voice vote.

CHAIR DOMINGUEZ: All right, thank you very much.

MATTERS FROM THE PUBLIC

CHAIR DOMINGUEZ: Is there anyone from the public that would like to address the Board? I'll call it twice; is there anyone from the public who would like to speak? .Okay, three times. All right, thank you very much we're going to go ahead and close matters from the public.

REPORT FROM EXECUTIVE DIRECTOR

MR. VOKES: Mr. Chair, members of the Board, three quick items. Our monthly vacancy update, we're down to seven vacant positions. We have filled a position with a BDD operator. I'm very optimistic that in the next two months we will fill three additional positions. We have done some interviews and it's looking like we will be filling those positions and that would be the maintenance superintendent and two BDD repairmen. That will leave us with our fiscal administrator, our electrician, maintenance mechanic and operations superintendent. We continue to work on those with the HR department and I feel like we're gaining traction on the vacancies. So that's a good thing.

I wanted to mention to the Board that we will be completing the first part of the biofiltration optimization project that began a couple of months ago. On January 25th there will be a presentation of results and recommendations by Dr. Jess Brown who we hired of Carollo Engineers. Dr. Brown is one of the foremost experts in biofiltration in the United States and his recommendation along with some new analyses that will begin performing will help our BDD staff optimize our biofiltration process. So we're always looking for improvements. In addition, we will be starting a similar project with another expert to look at optimization in our ozone processes. So, we continue to optimize the

In addition, we will be starting a similar project with another expert to look at optimization in our ozone processes. So, we continue to optimize the project and also educate the staff on this technology, which of course, is a very advanced technology.

I also wanted to point out that we had a couple of tours at the BDD. On December 19th we hosted Commissioner-elect Hansen and Moreno and then on December 29th we hosted Commissioner Roybal and his guests and also Commissioner-elect Hamilton. So we're getting the new Commissioners up to speed quickly. So, that's my report and at this point I'll take any questions or comments.

CHAIR DOMINGUEZ: Questions? Councilor Ives.

COUNCILOR IVES: Just one and forgive the ignorance but could you describe the nature of the biofiltration process.

MR. VOKES: Certainly. As you're aware the BDD is really a combination of two facilities. It's a conventional treatment plant and then our advanced processes which consist of the membrane systems, the ozonation prior to the biofiltration. What biofiltration is, is really the ultimate green technology in that we're using natural biology to remove any minor organic products that are left after going through the treatment processes. It's a very complex process. It's only been within about the last 15 years that there has been a lot of research on it.

How do you optimize the biology? In essence if you think of a biofilter as your lawn and you're pouring the water through it, some facilities are actually fertilizing the biology. They're looking at how do we alter the biology to have more effective removal and most of the products that we're looking at removing are in very, very minute quantities. It's really a polishing of the water; removing parts per trillion quantities.

Our current TREAT Study that we're doing, our treatability study, we're actually looking at those processes throughout the whole plant process. So, what falls out in the first settling process, what is taken out by membranes, what is taken out by the ozone and then what's removed by the biofilters. And, again, in previous times when they implemented ozone the engineers said you have to have a biofilter because it's just the way it's done. But the understanding of those processes, the research has been ongoing and hopefully we will learn some things from our study. It will help the operations staff manage the biofilters in a more effective manner. And my intent is, hopefully, we can share our research with the community as a whole in say a conference, so that we all learn as one entity learns.

COUNCILOR IVES: I guess I would only ask for a copy of that report once it's delivered so I can understand it because I wasn't sure if the biology was the nature of remediation or what it was being – what was being remediated and it was the former, if it was screening active molecular – there's so many possibilities. I'll wait for the full report.

MR. VOKES: Our biofilters are simply a big tank that is full of carbon that is growing and we're passing the water through there. You are old enough, I guess, to remember the Pac-Man game, and it's almost like that little pac-man where it's going out and grabbing those small amounts of substances within the water and then converting them to their elemental nature.

CHAIR DOMINGUEZ: Okay, any other questions? No.

MATTERS FROM THE BOARD

CHAIR DOMINGUEZ: Let me state record and our minute, that the only matter discussed during the executive session of our last Board meeting on December 1, 2106, was the matter as stated in the motion to go into executive session and no action was taken. The executive session concluded at approximately 6:30 p.m. And I'll provide this to the record keeper there.

I wanted to also recognize Commissioner Hansen. Who have you brought with you?

COMMISSIONER HANSEN: I have with me my constituent liaison, Maria Rotunda. Thank you very much.

CHAIR DOMINGUEZ: You're very welcome. I'm not quite sure what's going to happen with the Commission, but if you are going to be part of the Board, we certainly look forward to your work and participation. So thank you for being here.

Anything else from the Board?

COMMISSIONER ROYBAL: Mr. Chair, I just want to thank the BDD staff that did give us the visit to BDD. There was Chuck, Bernardine, Rick – you guys did a great job and it was very informative and educational. I really appreciate the tour.


CHAIR DOMINGUEZ: We look forward to get the rest of the County Commission onboard and little bit more change of scenery after tonight but it will be all good. Anything else from the Board?

NEXT MEETING: Thursday, February 2, 2016 @ 4:15 pm


ADJOURNMENT

Having completed the agenda, Chair Dominguez declared this meeting adjourned at approximately 5:40 p.m.

Approved by:


Carmichael Dominguez, Board Chair

Respectfully submitted:


Karen Farrell, Wordswork

FILED BY:

GERALDINE SALAZAR
SANTA FE COUNTY CLERK


YOLANDA SANCHEZ
SANTA FE COUNTY CLERK