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CASE NUMBER: 2019-CV-000005

**APPENDIX B: DEPOSITION OF DAVID BARFIELD**

*[See attached]*

DAVID BARFIELD, P.E.

<p style="text-align: right;">Page 1</p> <p>1 .</p> <p>2 IN THE TWENTY-FOURTH JUDICIAL DISTRICT</p> <p>3 DISTRICT COURT, EDWARDS COUNTY, KANSAS</p> <p>4 .</p> <p>5 .</p> <p>6 WATER PROTECTION ASS'N OF</p> <p>7 CENTRAL KANSAS,</p> <p>8 Plaintiff,</p> <p>9 .</p> <p>10 vs. Case No. 2019-CV-000005</p> <p>11 .</p> <p>12 DAVID BARFIELD, PE, in His Official</p> <p>13 Capacity as Chief Engineer, Division</p> <p>14 of Water Resources, Kansas Department</p> <p>15 of Agriculture,</p> <p>16 Defendant,</p> <p>17 .</p> <p>18 vs.</p> <p>19 THE CITY OF HAYS, KANSAS, et al.,</p> <p>20 Intervenor.</p> <p>21 .</p> <p>22 .</p> <p>23 DEPOSITION OF</p> <p>24 DAVID BARFIELD, P.E.</p> <p>25 .</p>	<p style="text-align: right;">Page 3</p> <p>1 APPEARANCES</p> <p>2 .</p> <p>3 .</p> <p>4 ON BEHALF OF THE PLAINTIFF:</p> <p>5 .</p> <p>6 Mr. Micah Schwalb</p> <p>7 Roenbaugh Schwalb</p> <p>8 4450 Arapahoe Avenue, Suite 100</p> <p>9 Boulder, Colorado 80303</p> <p>10 720.773.0970</p> <p>11 micah.schwalb@roenbaughschwalb.com</p> <p>12 .</p> <p>13 Mr. Aaron L. Kite</p> <p>14 Kite Law Firm</p> <p>15 PO Box 22</p> <p>16 Dodge City, Kansas 67801</p> <p>17 620.255.2673</p> <p>18 aaron@kitelawfirm.com</p> <p>19 .</p> <p>20 .</p> <p>21 .</p> <p>22 .</p> <p>23 .</p> <p>24 .</p> <p>25 .</p>
<p style="text-align: right;">Page 2</p> <p>1 taken on behalf of the Plaintiff, pursuant to</p> <p>2 Notice to Take Deposition, beginning at 9:03 a.m.</p> <p>3 on the 28th day of January, 2020, at the Kansas</p> <p>4 Department of Agriculture, 1320 Research Park</p> <p>5 Drive, in the City of Manhattan, County of Riley,</p> <p>6 and State of Kansas, before Ksenija M. Zeltkalns,</p> <p>7 RPR, Kansas CCR No. 1461.</p> <p>8 .</p> <p>9 .</p> <p>10 .</p> <p>11 .</p> <p>12 .</p> <p>13 .</p> <p>14 .</p> <p>15 .</p> <p>16 .</p> <p>17 .</p> <p>18 .</p> <p>19 .</p> <p>20 .</p> <p>21 .</p> <p>22 .</p> <p>23 .</p> <p>24 .</p> <p>25 .</p>	<p style="text-align: right;">Page 4</p> <p>1 ON BEHALF OF DEFENDANT</p> <p>2 DAVID BARFIELD, P.E.:</p> <p>3 .</p> <p>4 Mr. Aaron Oleen</p> <p>5 Ms. Kelly Navinsky-Wenzl</p> <p>6 Kansas Department of Agriculture</p> <p>7 1320 Research Park Drive</p> <p>8 Manhattan, Kansas 66502</p> <p>9 785.564.6715</p> <p>10 aaron.oleen@ks.gov</p> <p>11 kelly.navinskywenzl@ks.gov</p> <p>12 .</p> <p>13 .</p> <p>14 ON BEHALF OF DEFENDANT</p> <p>15 CITY OF HAYS, KANSAS:</p> <p>16 .</p> <p>17 Mr. David M. Traster</p> <p>18 Foulston Siefkin, LLP</p> <p>19 1551 North Waterfront Parkway, Suite 100</p> <p>20 Wichita, Kansas 67206</p> <p>21 316.267.6371</p> <p>22 dtraster@foulston.com</p> <p>23 .</p> <p>24 .</p> <p>25 .</p>



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<p>1 Mr. Daniel J. Buller</p> <p>2 Foulston Siefkin, LLP</p> <p>3 32 Corporate Woods, Suite 600</p> <p>4 9225 Indian Creek Parkway</p> <p>5 Overland Park, Kansas 66210</p> <p>6 913.498.2100</p> <p>7 dbuller@foulston.com</p> <p>8 .</p> <p>9 .</p> <p>10 ON BEHALF OF DEFENDANT</p> <p>11 CITY OF RUSSELL, KANSAS:</p> <p>12 .</p> <p>13 Mr. Kenneth L. Cole</p> <p>14 Woelk &amp; Cole</p> <p>15 PO Box 431</p> <p>16 4 S. Kansas Street</p> <p>17 Russell, Kansas 67665-0431</p> <p>18 785.483.3711</p> <p>19 woelkandcole@hotmail.com</p> <p>20 .</p> <p>21 .</p> <p>22 ALSO PRESENT:</p> <p>23 .</p> <p>24 Mr. Jon Quinday</p> <p>25 .</p>	<p>1 No 4 June 2015 Change of Use Application 38</p> <p>2 No 5 Keller-Bliesner R9 Ranch Consumptive</p> <p>3 Use Analysis Report 44</p> <p>4 No 6 Figure 33 Modeled Recharge Zones 58</p> <p>5 No 7 9/24/2018 Burns and McDowell Report 63</p> <p>6 No 8 K.A.R. 5-5-9 (1994 Version) 77</p> <p>7 No 9 Public Informational Meeting</p> <p>8 PowerPoint Slides 110</p> <p>9 No 10 Hays/Russell Changes - Process</p> <p>10 Ahead PowerPoint Slide 112</p> <p>11 No 11 April 2016 Letters from Kansas</p> <p>12 Department of Agriculture 121</p> <p>13 No 12 February 19, 2018, Letter 128</p> <p>14 No 13 March 9, 2018, Letter 130</p> <p>15 No 14 May 4, 2018, Letter 133</p> <p>16 No 15 Summary of Contingent Approval 135</p> <p>17 No 16 July 11, 2018, Letter 142</p> <p>18 .</p> <p>19 .</p> <p>20 .</p> <p>21 .</p> <p>22 .</p> <p>23 .</p> <p>24 .</p> <p>25 .</p>

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<p>1 INDEX</p> <p>2 .</p> <p>3 .</p> <p>4 Certificate ----- 182</p> <p>5 .</p> <p>6 .</p> <p>7 WITNESS</p> <p>8 ON BEHALF OF PLAINTIFF: PAGE</p> <p>9 DAVID BARFIELD, P.E.</p> <p>10 Direct-Examination by Mr. Schwalb 8</p> <p>11 Cross-Examination by Mr. Oleen 121</p> <p>12 Cross-Examination by Mr. Traster 142</p> <p>13 Cross-Examination by Mr. Cole 154</p> <p>14 Redirect-Examination by Mr. Schwalb 157</p> <p>15 Recross-Examination by Mr. Oleen 173</p> <p>16 Redirect-Examination by Mr. Schwalb 174</p> <p>17 Recross-Examination by Mr. Traster 175</p> <p>18 .</p> <p>19 .</p> <p>20 EXHIBITS</p> <p>21 BARFIELD DEPO EXHIBIT NO.: MARKED</p> <p>22 No 1 Time Line from Kansas Department of</p> <p>23 Agriculture Website 11</p> <p>24 No 2 Articles from Hays Daily News 21</p> <p>25 No 3 Partial Transcript of Public Meeting 32</p>	<p>1 DAVID BARFIELD, P.E.</p> <p>2 called as a witness on behalf of the Plaintiff,</p> <p>3 having been duly sworn, testified as follows:</p> <p>4 DIRECT-EXAMINATION</p> <p>5 BY MR. SCHWALB:</p> <p>6 <b>Q. All right. Thank you, Mr. Barfield. If</b></p> <p>7 <b>you could just tell us what your name is, even</b></p> <p>8 <b>though I already said it.</b></p> <p>9 A. David W. Barfield.</p> <p>10 <b>Q. How do you spell your last name, sir?</b></p> <p>11 A. B as in boy, A-R, field, F-I-E-L-D.</p> <p>12 <b>Q. Okay. What's your current role, sir?</b></p> <p>13 A. I am chief engineer of the Division of</p> <p>14 Water Resources of the Kansas Department of</p> <p>15 Agriculture.</p> <p>16 <b>Q. And I know even though we're sitting at</b></p> <p>17 <b>your business address, if you could still let us</b></p> <p>18 <b>know what it is just for the record.</b></p> <p>19 A. 1320 Research Park Drive in Manhattan,</p> <p>20 Kansas.</p> <p>21 <b>Q. All right. And have you ever done a</b></p> <p>22 <b>deposition before?</b></p> <p>23 A. I have.</p> <p>24 <b>Q. Okay. Tell me about that.</b></p> <p>25 A. Well, I've done a number of them in</p>



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<p style="text-align: right;">Page 9</p> <p>1 connection with our interstate dispute with  2 Nebraska. Most of them have been in connection  3 with trial and/or arbitration trials.  4 <b>Q. Okay.</b>  5 A. I've done at least, I've done one on the  6 Cochran case, sort of an internal matter, and  7 possibly another one or two.  8 <b>Q. Okay. And so I'm guessing you're kind of</b>  9 <b>familiar with the ground rules for depositions?</b>  10 A. I believe I am.  11 <b>Q. No head shakes or anything like that.</b>  12 A. I understand. Yes.  13 <b>Q. All right.</b>  14 A. It has to be on the record.  15 <b>Q. Yep. And let's just make sure we're</b>  16 <b>audible otherwise, you know, the gesticulations</b>  17 <b>won't show up, so grunts, nods, that sort of</b>  18 <b>thing, you know, please just speak for Ksenija</b>  19 <b>here and then we'll kind of cook along here and</b>  20 <b>hopefully we can get out of here early. And if</b>  21 <b>-- I'll try not to interrupt you but I can't make</b>  22 <b>any guarantees, and if you need any breaks, you</b>  23 <b>know, just let us know, or if you need me to</b>  24 <b>restate a question that's okay too. Just stop me</b>  25 <b>and I'll rephrase.</b></p>	<p style="text-align: right;">Page 11</p> <p>1 you're speaking about.  2 <b>Q. Yes, sir.</b>  3 A. Right. Well --  4 MR. TRASTER: One thing. I don't have --  5 I don't know what document you're looking at.  6 Could you identify it before you testify?  7 THE WITNESS: Yes, I certainly can.  8 MR. TRASTER: Just the document you're  9 look at.  10 THE WITNESS: Right. And it's a copy of  11 our web page with respect to the City of Hays R9  12 Water Right Change Applications. At the end of  13 that page is a time line, it's not comprehensive  14 but it has some of the key -- key dates with  15 respect to this process.  16 MR. SCHWALB: Okay.  17 MR. TRASTER: So it's a time line that's  18 posted on the web page?  19 THE WITNESS: That's correct.  20 MR. TRASTER: Thank you very much.  21 Sorry.  22 MR. SCHWALB: Can we mark that one as an  23 exhibit, please. Thank you. We can just get that  24 one marked as Exhibit 1.  25 (THEREUPON, the court reporter marked</p>
<p style="text-align: right;">Page 10</p> <p>1 <b>What did you, just to get started here, what</b>  2 <b>did you do to prepare for the deposition?</b>  3 A. Mostly I attempted to review pertinent  4 parts of the master order.  5 <b>Q. Um-hm.</b>  6 A. A bit of the modeling report, our staff  7 review of water level documents, you know, sort of  8 assembled this notebook that I spoke to you about  9 before we went on the record.  10 <b>Q. Okay.</b>  11 A. Some of the key documents related to the  12 decision.  13 <b>Q. Okay. And so you're talking about the</b>  14 <b>decision a little bit. Can you kind of walk me</b>  15 <b>through maybe a little bit of the time line of</b>  16 <b>maybe from change applications to present date,</b>  17 <b>kind of what the major processes look like from</b>  18 <b>your perspective?</b>  19 A. This is where the web page that I made a  20 copy of --  21 <b>Q. Um-hm?</b>  22 A. -- in my notebook here gives me a little  23 bit of help with, with respect to the overall.  24 <b>Q. Okay.</b>  25 A. Large time frame, which I assume is what</p>	<p style="text-align: right;">Page 12</p> <p>1 Barfield Deposition Exhibit No 1 for  2 identification.)  3 BY MR. SCHWALB:  4 <b>Q. All right. So if you can just kind of</b>  5 <b>walk me through the time line of events here,</b>  6 <b>maybe from the original applications all the way</b>  7 <b>through present day, kind of major milestones from</b>  8 <b>your perspective? I think that will help.</b>  9 A. Okay. Well, the cities purchased the  10 ranch in the mid 1990's. City of Hays and Russell  11 submitted their applications to change the water  12 rights from irrigation to municipal use in -- on  13 June 26th, 2015. On January 6th, 2016, the cities  14 provided application for the proposed water  15 transfer. We had some back and forth with the  16 city in 2016 and beyond with respect to  17 discussions about necessary conditions for the  18 change applications. The next major event listed  19 is in 2018 the cities provided their modeling  20 report, and that was posted on our website. On  21 May 7th, 2018, we transmitted drafts of the  22 proposed master order with exhibits to GMD5 for  23 review and posted that on our website. On June  24 21st, 2018, we held a public informational meeting  25 to discuss the change applications in Greensburg,</p>



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1 Kansas.  
 2 **Q. Uh-huh.**  
 3 A. That followed by a period of accepting  
 4 public input on the proposed changes. We received  
 5 comments from GMD5 on the change applications on  
 6 August 30 of 2018 and supplemental comments on the  
 7 change applications from GMD5 on September 14th of  
 8 2018. The cities provided an updated modeling  
 9 report on October 5, 2018. I issued my contingent  
 10 approvals of the change applications on March 27,  
 11 2019, then we've had the judicial review process  
 12 -- well, I guess secretarial review.  
 13 **Q. Yep.**  
 14 A. Fairly shortly thereafter he declined and  
 15 then that started the judicial review process from  
 16 there.  
 17 **Q. Okay. And have you been keeping an eye**  
 18 **on the -- the judicial review since that time?**  
 19 A. How do you define keeping an eye on?  
 20 **Q. Is it reflected on this Exhibit 1 in some**  
 21 **way, shape or form?**  
 22 A. The judicial -- there's a number of  
 23 documents. We've attempted to keep the website up  
 24 to date with the pleadings, at least the major  
 25 pleadings with respect to that. I have not

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1 necessarily studied them.  
 2 **Q. Okay.**  
 3 A. It's been a fairly wild period of time  
 4 here on many issues.  
 5 **Q. Understood. Have you looked at any of**  
 6 **the -- the recent orders or memos back and forth**  
 7 **on this deposition in particular?**  
 8 A. Yes. I mean, I've -- I've not studied  
 9 them but I'm generally aware of the parameters  
 10 surrounding this.  
 11 **Q. Okay. All right. In terms of -- thanks**  
 12 **for kind of going through all that. In terms of**  
 13 **these different milestones, as a general matter**  
 14 **who's been involved in terms of the parties or the**  
 15 **commentors or folks that have weighed in on this**  
 16 **proceeding to date?**  
 17 A. In total?  
 18 **Q. Yeah.**  
 19 A. Well, obviously I've been involved in  
 20 discussions with the city and its consultants,  
 21 both legal and technical.  
 22 **Q. Uh-huh.**  
 23 A. And some of the city, you know, Toby  
 24 Dougherty and those types in terms of -- so  
 25 they've been quite involved. G5 obviously has had

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1 a role. I've mentioned their specific interests.  
 2 They've not only provided recommendations but  
 3 comments on -- on the technical work and work by  
 4 various parties, Water PACK has weighed in,  
 5 obviously, with comments and its -- its  
 6 consultants' analysis.  
 7 **Q. Okay.**  
 8 A. And other individuals in the area that  
 9 believe they're being affected by the change,  
 10 obviously through the public comment period have  
 11 provided oral comments at the public meeting and  
 12 written comments as well.  
 13 **Q. So folks around the ranch?**  
 14 A. Folks around the ranch, yes.  
 15 **Q. Okay.**  
 16 A. Those are the major ones that come to  
 17 mind.  
 18 **Q. Any communications with state officials,**  
 19 **either governor's office or legislators?**  
 20 A. A limited amount. You know, yes.  
 21 **Q. Okay.**  
 22 A. A limited amount. And we can speak to  
 23 that in more detail if you like.  
 24 **Q. Yeah. Sure. Go ahead.**  
 25 A. So what do you want to know specifically?

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1 **Q. Which legislators have you chatted with**  
 2 **or members of the governor's staff or what was the**  
 3 **-- well, let's start with that and then we can dig**  
 4 **into the conversation.**  
 5 A. So which one do you want me to start  
 6 with?  
 7 **Q. Legislators is fine.**  
 8 A. Legislators, the only one that has  
 9 requested a visit specifically, Representative  
 10 Phelps requested that we come and sort of brief  
 11 him on the matter early in 2019. So we had a  
 12 discussion with him and he was -- he was actually  
 13 a mayor or city commissioner back in when they  
 14 purchased the ranch.  
 15 **Q. Um-hm.**  
 16 A. And he was -- he was essentially wanting  
 17 a status update, what's the status of the matter.  
 18 **Q. Okay.**  
 19 A. Senator Billinger, I don't recall any  
 20 specific -- I mean I bump into him once in a  
 21 while. I don't recall him asking specifically  
 22 about it, but Lane Letourneau, my program manager,  
 23 is more engaged in legislative matters and sees  
 24 him from time to time, and he's told me that he's  
 25 asked for status updates from time to time as



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1 well.  
 2 **Q. Okay.**  
 3 A. Those are the only specific ones that I  
 4 recall.  
 5 **Q. Okay. In terms of legislators, how about**  
 6 **either staff or governor at the time, governor or**  
 7 **the executive.**  
 8 A. So I believe -- I believe I had a  
 9 discussion with Governor Colyer at some point in  
 10 his tenure just again, in briefing him on  
 11 different water issues, this is one of them.  
 12 Again, status of the matter. And then Governor  
 13 Kelly in January of '19, I went over and met her  
 14 and spoke to her on a sort of the status of  
 15 several of the major issues, but this was one of  
 16 particular interest to her and gave her  
 17 essentially a, again, a status update in terms of  
 18 where we were at that time.  
 19 **Q. Okay.**  
 20 A. With respect to the process.  
 21 **Q. Anybody encourage you to push this thing**  
 22 **along at the governor's office?**  
 23 A. I don't recall specifically but I, you  
 24 know, I do believe that that was some of the  
 25 sense, yes, that, you know, it wasn't seeking to

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1 determine my decision but just let's get this  
 2 done.  
 3 **Q. Um-hm.**  
 4 A. I've been encouraged in that way,  
 5 certainly.  
 6 **Q. Get this done meaning let's get it over**  
 7 **and done with and approved or?**  
 8 A. Let's, you know, I had made some  
 9 commitments to get the decision made in the fall  
 10 of 2018.  
 11 **Q. Um-hm.**  
 12 A. And I did not get that done. Several  
 13 other pressing matters, in particular Quivira, but  
 14 not just Quivira, Wichita's aqua storage and  
 15 recovery issue just got bigger than I expected and  
 16 so I wasn't able to meet those commitments.  
 17 **Q. Uh-huh.**  
 18 A. To work through the record and to make a  
 19 decision, and that resulted in some impatience by  
 20 elected officials.  
 21 **Q. Okay. Mainly the ones you've talked**  
 22 **about?**  
 23 A. Them and elected officials in Hays.  
 24 **Q. Okay.**  
 25 A. As well.

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1 **Q. Tell me about those -- those**  
 2 **conversations and what those entailed.**  
 3 A. So again, those occurred sort of January-  
 4 February of 2019.  
 5 **Q. Uh-huh?**  
 6 A. And I had made some, you know -- I had  
 7 talked to the city early in the year is my  
 8 recollection, 2019, about how to get the process  
 9 on track to -- to get it done but to give me time  
 10 to go through the record and make an informed  
 11 decision. We'd sort of agreed upon a schedule  
 12 that had me going through March but with some  
 13 milestones along the way. Somehow the  
 14 communication between Mr. Dougherty and the  
 15 mayor/city council, they weren't entirely on board  
 16 with that schedule and they just were -- were  
 17 wanting to make sure that I was giving this  
 18 adequate priority.  
 19 **Q. Okay.**  
 20 A. In terms of juggling all the  
 21 responsibilities that I was still dealing with at  
 22 the time, so.  
 23 **Q. Okay. But there was sort of an agreed**  
 24 **upon date in March?**  
 25 A. Yes.

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1 **Q. Okay. I'll pass this one over here and**  
 2 **let me give that to you, Ksenija. What I'm going**  
 3 **to put in front of you, and if you don't mind**  
 4 **passing a copy of this, here. I've got it marked**  
 5 **as Exhibit 19 for Water PACK purposes but I think**  
 6 **we can just mark it as Exhibit 2 for depo**  
 7 **purposes. That is a series of articles from the**  
 8 **Hays Daily News. You'll see at the top there, I**  
 9 **think, that pretty much all of these are from the**  
 10 **Hays Daily News.**  
 11 MR. TRASTER: Aaron, or I'm sorry, Micah?  
 12 MR. SCHWALB: Yes, sir.  
 13 MR. TRASTER: So you've marked them with  
 14 deposition exhibit numbers but you want to change  
 15 the numbers?  
 16 MR. SCHWALB: Yeah. I think it will just  
 17 be easier to have it be sequential as we'll  
 18 introduce it. I didn't know what the sequence was  
 19 going to be relative to what Mr. Barfield was  
 20 talking about.  
 21 MR. TRASTER: So this is what?  
 22 MR. SCHWALB: That will be Exhibit 2 for  
 23 deposition purposes. And I'm sorry if that's  
 24 confusing.  
 25 MR. TRASTER: All right. Very good.



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<p style="text-align: right;">Page 21</p> <p>1 Thank you.  2 (THEREUPON, the court reporter marked  3 Barfield Deposition Exhibit No 2 for  4 identification.)  5 BY MR. SCHWALB:  6 <b>Q. Okay. Just take some time to review that  7 and there's some highlighting in there that you'll  8 see.</b>  9 A. What level of review do you want me to  10 do, here.  11 <b>Q. Oh, just the -- if you just want to look  12 at the titles of the articles, the dates and the  13 highlighted portions.</b>  14 MR. TRASTER: Micah, one of these doesn't  15 seem -- most of these are Hays Daily News but  16 there's one in the middle that I can't tell, Hays  17 Post. Never mind. I see it now.  18 MR. SCHWALB: Yep. That will be on page  19 eight, I believe, of that exhibit.  20 A. All right. I believe I've perused them  21 as you requested.  22 BY MR. SCHWALB:  23 <b>Q. All right. Thank you, sir. If I can  24 summarize what's in here, between February 15th  25 and February 22nd, there's a series of articles</b></p>	<p style="text-align: right;">Page 23</p> <p>1 A. I don't recall anything specific. You  2 know, these statements here about putting pressure  3 on me to get it done by next Friday are just not  4 -- not the reality of what I got back. Again, I  5 sort of laid out what I needed to get this done.  6 <b>Q. Uh-huh.</b>  7 A. To complete the review, to draft the  8 master order, to be able to push out a product  9 that I could stand behind --  10 <b>Q. Uh-huh.</b>  11 A. -- early on, and I pretty much stuck with  12 that schedule.  13 <b>Q. Okay. Other than the shift from fall of  14 '18?</b>  15 A. Right. Right.  16 <b>Q. Through March of '19?</b>  17 A. Correct.  18 <b>Q. Okay. Were you aware that Hays had hired  19 a -- or had a lobbyist working on this?</b>  20 A. I don't believe I was until I --  21 MR. TRASTER: Object to the form of the  22 question. States facts not in evidence.  23 BY MR. SCHWALB:  24 <b>Q. You can go ahead and answer.</b>  25 A. Not that I was aware of before reading</p>
<p style="text-align: right;">Page 22</p> <p>1 <b>within this Exhibit 2 that describe conversations  2 between Hays representatives, governor's office,  3 legislators, as well as I believe there's a  4 reference to a lobbyist in here. Did you have  5 communications with the governor's office after  6 these February dates or in the same time frame,  7 February 15th to February 22?</b>  8 A. I don't recall any communications with  9 the governor's office. Again, I briefed the  10 governor on the issue in later January. My, you  11 know, I -- I have regular updates with the  12 secretary of ag being the current one and previous  13 one, and the secretary updates the governor.  14 <b>Q. Uh-huh.</b>  15 A. So obviously I'm updating, so they're  16 getting updates that way.  17 <b>Q. Through the secretary?</b>  18 A. Through the secretary.  19 <b>Q. And then are you hearing back feedback  20 through the secretary?</b>  21 A. I can at times.  22 <b>Q. Okay.</b>  23 A. Yeah.  24 <b>Q. Was there any feedback in this February  25 period from Secretary Beam regarding the order?</b></p>	<p style="text-align: right;">Page 24</p> <p>1 the article.  2 <b>Q. Okay. Thank you. All right. So let's  3 -- do you need some water?</b>  4 A. I've got it here.  5 <b>Q. Okay.</b>  6 A. I'm good.  7 <b>Q. Let's -- earlier in your testimony you  8 referenced meetings with the City of Hays, City of  9 Russell, their representatives, engineers, what  10 have you. Were these meetings posted somewhere  11 publicly?</b>  12 A. No.  13 <b>Q. Okay. All right. Other than the  14 Greensburg meeting?</b>  15 A. Correct.  16 <b>Q. Okay. Let's talk about the Greensburg  17 meeting for a little bit. What was the intended  18 purpose of that meeting?</b>  19 A. Well, it was to inform interested,  20 affected water right holders, landowners of the  21 area about this significant package of change  22 applications that were under consideration.  23 <b>Q. Uh-huh</b>  24 A. And to seek to inform them about what was  25 being requested, and by that point we had</p>





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1 developed a draft proposed approval documents.  
 2 **Q. Okay.**  
 3 A. That we thought would help them to  
 4 understand specifically what was being proposed  
 5 and to -- to facilitate public feedback on those  
 6 documents.  
 7 **Q. How'd you get the word out for the**  
 8 **meeting?**  
 9 A. It was obvious on our web page. I  
 10 believe we did a press release, at least that's my  
 11 recollection. Obviously informed GMD5 and Water  
 12 PACK.  
 13 **Q. Any other folks in the vicinity of the**  
 14 **ranch?**  
 15 A. I don't recall.  
 16 **Q. Okay.**  
 17 A. Specifically what we did beyond that.  
 18 **Q. Okay. Do you recall the general topics**  
 19 **that were covered by you at that -- at that**  
 20 **meeting?**  
 21 A. Well, I'm looking at the copy of my  
 22 presentation. So the outline of the meeting was a  
 23 welcome and overview by me that provided just a  
 24 general overview of the change applications, that  
 25 it was a second water transfer in state history

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1 and the first undercurrent requirements, generally  
 2 what they were proposing with respect to the  
 3 changes from municipal -- from irrigation use to  
 4 municipal. There was a presentation by the city  
 5 on -- on what they were seeking to accomplish in  
 6 the change and its importance to them.  
 7 And then I came back and basically walked  
 8 through a summary of the draft proposed approval  
 9 documents, again stepping through sort of the  
 10 major provisions of those documents and then had a  
 11 time of questions and answers, a break, and then  
 12 an opportunity for public comment to be received.  
 13 **Q. Okay. You mentioned the major topics**  
 14 **there. What are the major regulations or statutes**  
 15 **here that you might have touched on?**  
 16 A. Well, change applications are provided  
 17 for in K.S.A. 82a-706b that allows water right  
 18 holders to make changes in place of use, point of  
 19 diversion, or use made of water or any combination  
 20 thereof, so obviously the statutory requirements  
 21 that are provided in 708b and then obviously we  
 22 have a large body of regulations that are also in  
 23 play.  
 24 **Q. Okay.**  
 25 A. That I'm -- that are also considered that

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1 govern things like changes in use made of water,  
 2 consumptive use requirements, as well as spacing  
 3 and then many other attributes.  
 4 **Q. Okay. So you referenced I think 708b?**  
 5 A. Correct.  
 6 **Q. Is that right?**  
 7 A. Yeah.  
 8 **Q. Can you maybe focus on 708b(a)(2), to the**  
 9 **extent that it's in your new presentation, here.**  
 10 **Can you read for me just into the record?**  
 11 A. Certainly.  
 12 MR. OLEEN: I'm going to object, or  
 13 actually I will ask for clarification, Micah. Are  
 14 you asking him to read his paraphrasing of 708b or  
 15 are you asking him to actually read the statute?  
 16 MR. SCHWALB: Whatever's in the  
 17 presentation.  
 18 MR. TRASTER: Whatever's in what?  
 19 MR. KITE: The presentation. He's asking  
 20 him to read the section of 708b.  
 21 MR. TRASTER: Okay.  
 22 A. Okay. I'll read what's in the  
 23 presentation which is in fact the full statement  
 24 of what's in the statute as well, so. K.S.A. 82a-  
 25 708b, paragraph (a)(2): Demonstrate to the chief

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1 engineer that any proposed change is reasonable  
 2 and will not impair existing rights.  
 3 BY MR. SCHWALB:  
 4 **Q. Okay. In the context of the Greensburg**  
 5 **meeting, do you recall any sort of conversation or**  
 6 **statements around impairment of existing rights**  
 7 **that may have occurred?**  
 8 MR. TRASTER: I'm going to I guess not  
 9 really object but for the record note that the  
 10 transcript of the informational meeting on June  
 11 21st, 2018, is in the record and so it can -- it  
 12 says what it is.  
 13 MR. SCHWALB: We'll get there.  
 14 A. So can you restate the question.  
 15 BY MR. SCHWALB:  
 16 **Q. Sure. Do you recall any discussion of**  
 17 **impairment of existing rights or any sort of**  
 18 **statements you might have made in the Greensburg**  
 19 **meeting?**  
 20 A. Well, I did state that no decision had  
 21 been made and that we were getting public inputs  
 22 to ensure that the proposed changes that the draft  
 23 proposed documents met statutory requirements, but  
 24 there could have been a statement that we believed  
 25 that those documents did meet the requirements of





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1 82-708b.  
 2 **Q. Okay. With respect to impairment?**  
 3 A. With respect to impairment.  
 4 **Q. Is an impairment viewed, at least by you,**  
 5 **on an annualized basis or over some period of time**  
 6 **beyond a year?**  
 7 A. Repeat the question again.  
 8 **Q. Okay. So from your perspective when**  
 9 **you're, as chief engineer and you're thinking**  
 10 **about impairment, are you looking at it over on an**  
 11 **annualized basis or over some longer period of**  
 12 **time, like when you have to say an existing right**  
 13 **is impaired like what it says here are you looking**  
 14 **at it within a one year period or something longer**  
 15 **than that?**  
 16 A. Well, with respect to the change  
 17 evaluation.  
 18 **Q. Uh-huh?**  
 19 A. Which I assume is the context of which --  
 20 **Q. Yes?**  
 21 A. Because -- because we have to do -- we  
 22 have to deal with impairment with respect to real-  
 23 time water administration.  
 24 **Q. Uh-huh?**  
 25 A. That's a different sense of impairment in

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1 my view than the impairment requirement here.  
 2 **Q. Why is that different?**  
 3 A. Well, when I make an application, a  
 4 decision with respect to impairment in a new  
 5 application or a change, I'm essentially saying am  
 6 I -- does -- is my approval ensuring that the  
 7 impairment will not occur, and that includes the  
 8 ability to administer water rights as needed.  
 9 **Q. Um-hm?**  
 10 A. You know, we approve, for example,  
 11 surface water rights that -- that have conditions  
 12 in it so that I can curtail that use when it's  
 13 interfering with a senior appropriator.  
 14 **Q. Okay.**  
 15 A. So my approval includes my ability to  
 16 administer that right as needed. But to answer  
 17 your initial question, you know, we have to look  
 18 at both, but the principal looking at it I guess  
 19 with respect to this impairment requirement in  
 20 82a-706b, you know, in a -- in this groundwater  
 21 decision, the long-term sort of dominates the  
 22 considerations.  
 23 **Q. Okay. So multi-year?**  
 24 A. Multi-year.  
 25 **Q. Okay. What do you think a policy is here**

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1 **with this impairment language in this statute?**  
 2 **What is it -- what is it driving towards?**  
 3 MR. OLEEN: I object. I think it calls  
 4 for a legal conclusion. You may answer.  
 5 MR. TRASTER: I object on the -- I don't  
 6 understand the question.  
 7 BY MR. SCHWALB:  
 8 **Q. Why are you looking at impairment for a**  
 9 **change application?**  
 10 A. Well, people are allowed to change their  
 11 water rights, place of use, point of version, use  
 12 made of water or any combination thereof. That's  
 13 their entitlement under 708b.  
 14 **Q. Um-hm?**  
 15 A. Subject to change being feasible and not  
 16 interfering with existing water rights, so I need  
 17 to make sure that as we let people make those  
 18 changes.  
 19 **Q. Um-hm?**  
 20 A. We're not creating a problem for  
 21 neighboring existing rights that's not addressed  
 22 in the approval.  
 23 **Q. Okay. Are you looking at senior rights?**  
 24 A. Well, senior rights obviously are the  
 25 principal concern but this language says existing

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1 rights.  
 2 **Q. Which refers to who?**  
 3 A. Other water rights besides senior.  
 4 **Q. So junior?**  
 5 A. Junior.  
 6 **Q. Okay. Thank you. The consideration of**  
 7 **senior and junior rights that you just referred**  
 8 **to, was that described at the meeting in**  
 9 **Greensburg or discussed at the meeting in**  
 10 **Greensburg?**  
 11 A. I don't recall specifically.  
 12 **Q. Okay. Would it help you if I handed you**  
 13 **a transcript of the --**  
 14 A. It might.  
 15 **Q. All right. Let's get this one in, I**  
 16 **think as, are we up to Exhibit 3?**  
 17 (THEREUPON, the court reporter marked  
 18 Barfield Deposition Exhibit No 3 for  
 19 identification.)  
 20 BY MR. SCHWALB:  
 21 **Q. So I'll ask you to turn to page four,**  
 22 **should be highlighted at the bottom.**  
 23 A. Page ... the fourth page?  
 24 **Q. Sorry. It's the fourth page of the one**  
 25 **you've got in front of you. It should be, the**



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1 **internal pagination is page 12.**  
 2 A. Okay. Okay.  
 3 **Q. So in essence what did you say?**  
 4 MR. TRASTER: I'm going to object -- no,  
 5 I'm not. Withdraw the objection.  
 6 MR. SCHWALB: Okay.  
 7 A. So I believe the summary is, I mean I'm  
 8 speaking about juniors and senior water rights.  
 9 Seniors are allowed to interfere with juniors or  
 10 juniors cannot interfere with seniors as a general  
 11 matter. But with respect to a change in  
 12 conditions, I have to consider all water rights.  
 13 BY MR. SCHWALB:  
 14 **Q. What do you look at when you're**  
 15 **considering all water rights? What are the --**  
 16 **what are the factors that you -- that you**  
 17 **consider?**  
 18 A. To -- I mean I'm basically try to ensure  
 19 that the change does not expand use.  
 20 **Q. What kind of use?**  
 21 A. Well, expand use of the water rights.  
 22 You know, we speak about consumptive use is a part  
 23 of that consideration of impairment.  
 24 **Q. Okay.**  
 25 A. It's not the whole of it. I mean, we

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1 consider well spacing is, withdraw rates, just the  
 2 actual physical condition and I'll -- I have  
 3 reference to that in the master order in my  
 4 findings with respect to when considering all of  
 5 these factors, I found that these changes do not  
 6 -- would not be expected to lead to impairment of  
 7 the neighboring water rights.  
 8 **Q. The junior water rights?**  
 9 A. Well, all.  
 10 **Q. All water rights?**  
 11 A. All water rights.  
 12 **Q. And you mentioned net consumptive use or**  
 13 **just consumptive use?**  
 14 A. Well, that's one of the pieces that --  
 15 one of the sets of conditions that allows me to  
 16 get to that conclusion.  
 17 **Q. Okay. What are some of the other**  
 18 **conditions that you look at?**  
 19 A. Well, again, spacing.  
 20 **Q. Um-hm?**  
 21 A. Is -- maintaining sufficient spacing is  
 22 very critical to reducing, ensuring that there's  
 23 not inappropriate interference between wells,  
 24 pumping rates, again, just the physical -- the  
 25 particulars of the physical system.

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1 **Q. Okay. Did you discuss this consideration**  
 2 **of impact on adjacent users with the cities?**  
 3 MR. TRASTER: In what time frame?  
 4 BY MR. SCHWALB:  
 5 **Q. Just in general. I mean, we've talked**  
 6 **about meetings.**  
 7 A. So are you asking if I discussed my  
 8 impairment analysis with the cities?  
 9 **Q. Correct, with juniors, seniors, this**  
 10 **consumptive use assessment.**  
 11 A. You know, I don't recall any detailed  
 12 discussions of that evaluation. I'm certainly --  
 13 we had some general discussions, I am sure, along  
 14 the way. A lot of my evaluation of the potential  
 15 for impairment came as I waded through the record  
 16 from the public meeting and the various critiques  
 17 that were received from -- from Doctor Keller and  
 18 Balleau Groundwater so I formulated that  
 19 evaluation largely in that setting.  
 20 **Q. Okay. But no direct discussions of**  
 21 **junior impairment with the cities?**  
 22 A. We've had a lot of discussions so I can't  
 23 say definitively. I just don't recall any  
 24 substantive discussions with them on that subject,  
 25 so.

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1 **Q. What about within the context of the**  
 2 **consumptive use?**  
 3 A. Again, I'm not recalling any specific  
 4 discussion that weighed into my decision here.  
 5 **Q. Okay. Let's focus on consumptive use for**  
 6 **a little bit. What do you look at when you're**  
 7 **considering consumptive use? What are some of the**  
 8 **data points?**  
 9 A. Well, we have a body of regulations that  
 10 lays out specifically what we consider in our  
 11 consumptive use evaluations.  
 12 **Q. Okay.**  
 13 A. Which in the case of changes in use made  
 14 to water looks at the maximum acres that were  
 15 irrigated under a particular water right.  
 16 **Q. Um-hm?**  
 17 A. Times the net irrigation requirement for  
 18 the crop that's irrigated.  
 19 **Q. Okay. Where do you get the data for the**  
 20 **crop that was irrigated?**  
 21 A. Well, the default is corn in the  
 22 regulation.  
 23 **Q. Um-hm?**  
 24 A. So we'll use corn, but the regulations do  
 25 provide for us to consider other crops if a record



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<p style="text-align: right;">Page 37</p> <p>1 demonstrates that there was a crop that was  2 irrigated that was other than corn and had a  3 higher consumptive use value.  4 <b>Q. Okay. Was that determined here, that</b>  5 <b>there was something higher?</b>  6 A. In many of the water rights alfalfa was  7 irrigated.  8 <b>Q. Okay. And what was your data point?</b>  9 <b>What was the evidence supporting that?</b>  10 A. So one of my staff in Stafford field  11 office went through the records to determine, you  12 know, what was reported.  13 <b>Q. Um-hm?</b>  14 A. And according to how we do that and she  15 -- she reviewed the records and determined what  16 the crop was in the year of record.  17 <b>Q. Reported by the irrigator?</b>  18 A. Correct.  19 <b>Q. Okay. Did the cities provide any</b>  20 <b>additional data on this?</b>  21 A. I'm not recalling it.  22 <b>Q. Would it be helpful if I could provide</b>  23 <b>you with some of that data?</b>  24 A. You might.  25 <b>Q. All right. This is a federal one. I</b></p>	<p style="text-align: right;">Page 39</p> <p>1 MR. OLEEN: Does it also have a Hays  2 Bates number, the first page?  3 MR. SCHWALB: It does. It's Hays 4907  4 through 4911.  5 MR. BULLER: Yeah. I believe the bottom  6 of the -- the bottom -- the KBA Bates number might  7 be cut off on some of these pages.  8 MR. SCHWALB: Oh, on the print-out. Oh,  9 my apologies.  10 MR. BULLER: Which is why the Hays Bates  11 number is also helpful.  12 MR. SCHWALB: Okay. Thank you.  13 BY MR. SCHWALB:  14 <b>Q. Have you had a chance to review?</b>  15 A. Generally.  16 <b>Q. Okay. Based on your quick review was</b>  17 <b>there something other than corn and alfalfa grown</b>  18 <b>in program year 1985?</b>  19 MR. TRASTER: Object to the form of the  20 question as what are we talking about when, where  21 and how? I mean, I don't know what we're asking  22 about.  23 BY MR. SCHWALB:  24 <b>Q. Within pages 4907, I'm using the Hays</b>  25 <b>Bates stamps here, through 4911, is there any</b></p>
<p style="text-align: right;">Page 38</p> <p>1 <b>believe that will be Exhibit 4. Please take a</b>  2 <b>moment to take a look through that.</b>  3 (THEREUPON, the court reporter marked  4 Barfield Deposition Exhibit No 4 for  5 identification.)  6 BY MR. SCHWALB:  7 <b>Q. I will represent to you that that was</b>  8 <b>included as an appendix to one of the change</b>  9 <b>applications -- well, it has the change</b>  10 <b>application that's the front page and then as an</b>  11 <b>exhibit to that we've cut out some interweaving</b>  12 <b>pages but there is an exhibit there that shows FSA</b>  13 <b>cropping records from 1985.</b>  14 MR. OLEEN: Micah, which page did you say  15 we're looking at here?  16 MR. SCHWALB: If you would turn to.  17 MR. BULLER: Might be helpful to refer to  18 the Bates number.  19 MR. SCHWALB: For sure. So if you want  20 to, at the very bottom it's marked KDA2265 and  21 it's a Report of Acreage. And if you look in the  22 upper left hand corner, it shows a program year of  23 1985, and then beneath that you will see different  24 crops identified and the column headers, and that  25 continues through Bates stamp 2269.</p>	<p style="text-align: right;">Page 40</p> <p>1 <b>indication that something other than alfalfa or</b>  2 <b>corn was grown?</b>  3 A. Just generally?  4 <b>Q. Yes, sir?</b>  5 A. Yeah. I mean there's some wheat  6 indicated, possibly, in some rotation, and  7 alfalfa. Am I answering your question?  8 <b>Q. Yes, sir.</b>  9 A. Okay.  10 <b>Q. Thank you. And then on the page with</b>  11 <b>Hays Bates stamp 4907, at the very bottom do you</b>  12 <b>see that Section II Operator's Certification, the</b>  13 <b>bottom left hand corner?</b>  14 A. I believe so.  15 <b>Q. Okay. Would you mind reading that into</b>  16 <b>the record?</b>  17 MR. OLEEN: I object to this line of  18 questioning. I think it's outside the scope of  19 this limited deposition. You may answer.  20 A. Are you asking me to read the -- attempt  21 to read the operator's signature?  22 BY MR. SCHWALB:  23 <b>Q. No, just the certification language there</b>  24 <b>underneath Section II.</b>  25 A. Oh. I certify to the best of my</p>



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<p style="text-align: right;">Page 41</p> <p>1 knowledge and belief that the acreage of crops and  2 land uses listed herein are true and correct.  3 Further, my signature constitutes authority for  4 ASCS personnel to enter my farm for making any  5 program determinations.  6 <b>Q. Thank you. Did you review these records</b>  7 <b>in connection with processing the change</b>  8 <b>applications?</b>  9 A. I didn't personally.  10 <b>Q. Do you know if your staff did?</b>  11 A. Well, I've relied on my staff to evaluate  12 the records to make these determinations as is  13 typically done.  14 <b>Q. Um-hm?</b>  15 A. So I relied on that work.  16 <b>Q. Okay.</b>  17 A. I believe their work is -- was provided  18 as part of the agency record.  19 <b>Q. Okay. So I think we talked about how</b>  20 <b>this record refers to wheat. Does wheat use more</b>  21 <b>water or less water to grow than corn?</b>  22 A. Well, it would typically require less.  23 Often wheat is done as part of rotation with other  24 crops.  25 <b>Q. What about milo? Does milo use less</b></p>	<p style="text-align: right;">Page 43</p> <p>1 MR. OLEEN: Again, renew my objection.  2 This line of questioning is outside the scope as  3 this deposition was limited by the court. You may  4 answer.  5 A. I'm not certain.  6 BY MR. SCHWALB:  7 <b>Q. Okay. Now, in connection with putting</b>  8 <b>together this consumptive use analysis you</b>  9 <b>mentioned the input of Doctor Keller; is that</b>  10 <b>correct?</b>  11 A. Well, he provided his comments and  12 suggestions on consumptive use.  13 <b>Q. Okay. Was that in the form of a report</b>  14 <b>of some kind?</b>  15 A. It was.  16 <b>Q. Did you have a chance to review that</b>  17 <b>report?</b>  18 A. I did.  19 <b>Q. Do you remember if that report showed any</b>  20 <b>discrepancies between the growing crops in the</b>  21 <b>master order and the records that he reviewed?</b>  22 A. He, as I recall, I believe he did believe  23 there were some differences.  24 <b>Q. Okay. Do you recall what those</b>  25 <b>differences were?</b></p>
<p style="text-align: right;">Page 42</p> <p>1 <b>water or more water than corn or alfalfa?</b>  2 A. My understanding is typically less.  3 <b>Q. Okay. Do you know if the -- these other</b>  4 <b>crops were accounted for in the consumptive use</b>  5 <b>analysis?</b>  6 A. Well, again, I relied on staff to -- to  7 do this determination pursuant to the normal  8 procedures.  9 <b>Q. Okay. You mentioned you have a copy of</b>  10 <b>the master order in front of you.</b>  11 A. Um-hm.  12 <b>Q. Would you turn to, I believe it's table</b>  13 <b>B?</b>  14 A. Table B? As in boy?  15 <b>Q. I think so. Yep?</b>  16 A. Do you know where it is?  17 <b>Q. It has the gray at the top there. Right</b>  18 <b>there. Maybe that's, I'm sorry, Appendix B, Table</b>  19 <b>1.</b>  20 A. Yes.  21 <b>Q. Is there any reference in this table to</b>  22 <b>wheat or milo?</b>  23 A. I don't see any.  24 <b>Q. Okay. So if there's no wheat or milo</b>  25 <b>here, what would be the reason for that?</b></p>	<p style="text-align: right;">Page 44</p> <p>1 A. I don't recall now.  2 <b>Q. Would it be helpful if I provided that to</b>  3 <b>you?</b>  4 A. It would.  5 <b>Q. All right. This is Exhibit 5.</b>  6 (THEREUPON, the court reporter marked  7 Barfield Deposition Exhibit No 5 for  8 identification.)  9 BY MR. SCHWALB:  10 <b>Q. You're right there on the right page.</b>  11 <b>It's marked KDA 967 is the table I'd like to focus</b>  12 <b>on just for a little bit and I believe that</b>  13 <b>carries over to KDA 968, so it should just be the</b>  14 <b>two pages there, and the highlighted portions in</b>  15 <b>particular that are highlighted in yellow. Please</b>  16 <b>take a moment just to review that.</b>  17 A. Okay.  18 <b>Q. And then I believe, just to be clear,</b>  19 <b>there's a notation at the bottom on the second</b>  20 <b>page of the table, it says values in red were</b>  21 <b>assumed. Have you had a chance to look at that?</b>  22 A. Well, I've just generally perused it. It  23 depends on your question whether I need more time.  24 <b>Q. Okay. So I think you'll see at the top</b>  25 <b>of the columns Doctor Keller has identified</b></p>



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<p style="text-align: right;">Page 45</p> <p>1 different column headers, the circle number, the  2 number of acres for GIS. What does GIS stand for?  3 A. Geographic Information System.  4 Q. Okay. And then the next column I think  5 is chief engineer acres, and as you go through it  6 kind of describes the different data points that  7 Doctor Keller was looking at. As you look at this  8 table are there any differences between what's  9 labeled chief engineer crop, 1984 FSA crop, metric  10 Ks, I don't know what that means, 1985 FSA crop,  11 are there any differences there between what the  12 FSA data showed and what's listed as chief  13 engineer crop?  14 A. There are some differences, yes.  15 Q. Okay. Are they the highlighted rows --  16 or, yes, highlighted rows?  17 MR. TRASTER: I'm going to object to the  18 form of the question. These -- these all state --  19 the questions are assuming facts not -- withdraw  20 the objection.  21 A. Yes, there are differences with respect  22 to the highlighted rows.  23 BY MR. SCHWALB:  24 Q. Okay.  25 A. In chief engineer crop versus other</p>	<p style="text-align: right;">Page 47</p> <p>1 MR. SCHWALB: I'm sorry. Table 1, that  2 was in Appendix B to the master order.  3 A. I don't see anything other than a blank  4 for water right 30-44.  5 BY MR. SCHWALB:  6 Q. Okay. Let's focus on that one in  7 particular. If nothing's there in that field, is  8 there a net consumptive use?  9 A. I believe this one may only have  10 additional rate attached to it or -- there's  11 something unique about this water right that I  12 don't remember the details anymore.  13 Q. Okay.  14 A. So.  15 Q. So let's keep going with this consumptive  16 use question. Earlier you testified, if I can  17 rephrase just for a second, that you look at  18 impairment over a multiyear period for a change  19 application with respect to junior users; is that  20 correct?  21 A. Yes.  22 Q. And are you also looking at a multiyear  23 period for impairment of senior users in  24 connection with a change application?  25 A. Yeah. We're looking at is this going to</p>
<p style="text-align: right;">Page 46</p> <p>1 records.  2 Q. Okay. Let's focus just for a second on  3 circle No. 15 which I think is the third  4 highlighted row. If you go off to the right there  5 under 1984 FSA crop, what does that say?  6 A. Not farmed.  7 Q. Okay. And then 1985 FSA crop?  8 A. N/A, which I assume means not available.  9 Q. Okay. So according to this were any  10 fields fallow in 1984?  11 A. That's what would be indicated.  12 Q. Okay. Did you review this table in  13 connection with your consumptive use analysis?  14 A. Again, I don't know to what extent staff  15 reviewed this table.  16 Q. Okay. But earlier you testified that the  17 Table 1, Exhibit B, just shows corn and alfalfa?  18 MR. OLEEN: Objection. Where in the  19 table? Maybe you could say which water right  20 we're talking about.  21 BY MR. SCHWALB:  22 Q. Is there anything other than corn or  23 alfalfa indicated as the growing crop in any of  24 these fields?  25 MR. OLEEN: For which table, please.</p>	<p style="text-align: right;">Page 48</p> <p>1 create a problem in the long-term future.  2 Q. Um-hm. And that ties to the consumptive  3 use?  4 A. Consumptive use is a part of the analysis  5 to essentially reduce the water right to -- as one  6 piece to make sure that impairment will not occur.  7 Q. Okay. Does that consumptive use analysis  8 account for a change in the cropping or movement  9 of water off the point of diversion in the change  10 application?  11 A. No. Repeat the question. I didn't  12 follow.  13 Q. Okay. When you're looking at the change  14 application and you're thinking about the  15 consumptive use over a longer period of time, are  16 you accounting for the change in crops that will  17 be grown after, assuming the change application is  18 approved?  19 A. I'm still not quite sure what you're  20 getting at. So here we're looking at a change  21 from irrigation.  22 Q. Um-hm?  23 A. To something else.  24 Q. And the irrigation accounts for the crop  25 that was grown in the year of perfection?</p>





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1 A. Correct.  
 2 **Q. Okay. If the crop will change at --**  
 3 MR. TRASTER: I'm going to object to the  
 4 form of the question. Misstates the statute. Go  
 5 ahead.  
 6 BY MR. SCHWALB:  
 7 **Q. If the crop will change, does the**  
 8 **consumptive use analysis account for that changed**  
 9 **crop post approval?**  
 10 A. Again, I'm just not following what you're  
 11 asking.  
 12 **Q. Okay. We've looked at corn. We've**  
 13 **looked at alfalfa. We've looked at wheat. We've**  
 14 **looked at milo. You testified that crops have**  
 15 **different consumptive uses; is that correct?**  
 16 A. Yes.  
 17 **Q. Okay.**  
 18 A. That's right.  
 19 **Q. For lands that are converted to**  
 20 **grassland, would that have a different consumptive**  
 21 **use, depending upon what's grown there? The type**  
 22 **of grassland?**  
 23 A. Well, we do not consider the post change  
 24 use, if that's what you're asking. So our  
 25 consumptive use is designed to -- to provide water

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1 usage for making a change, the ability to change a  
 2 reasonable quantity of water. This is a property  
 3 right.  
 4 **Q. Um-hm?**  
 5 A. And so -- and we look at, you know,  
 6 certificate represents the maximum they can divert  
 7 in any calendar year. We look at the maximum  
 8 acres that was irrigated during the perfection  
 9 period.  
 10 **Q. Um-hm?**  
 11 A. And apply the NIR to it to determine  
 12 what's reasonable to change with respect to  
 13 consumptive use, so.  
 14 **Q. Is that referred to as the net**  
 15 **consumptive use?**  
 16 A. I believe so.  
 17 **Q. Okay. And so earlier you testified that**  
 18 **you don't look at what happens after.**  
 19 A. Yeah. We never have.  
 20 **Q. Okay. But your -- you testified earlier**  
 21 **that you're considering impairment on junior users**  
 22 **over some period of time?**  
 23 A. As we do the evaluation I must find that  
 24 it does not impair. That's right.  
 25 **Q. Okay. And you said that it's a property**

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1 **right relative to the change application. What**  
 2 **about the property rights of the adjacent users?**  
 3 MR. OLEEN: Object to the form of the  
 4 question.  
 5 A. And again? Ask it again.  
 6 BY MR. SCHWALB:  
 7 **Q. Okay. You testified earlier that the**  
 8 **water right is a property right and you're looking**  
 9 **at the change application?**  
 10 A. Um-hm.  
 11 **Q. As a property right?**  
 12 A. Um-hm.  
 13 **Q. When you're considering the change**  
 14 **application and its impact on junior users, they**  
 15 **have a property right as well?**  
 16 A. Um-hm.  
 17 **Q. What is that property right relative to**  
 18 **the changed application?**  
 19 MR. OLEEN: I again object to the form of  
 20 the question. You may answer.  
 21 A. Okay. Well again, the senior can  
 22 interfere with the junior's use as a general  
 23 matter.  
 24 BY MR. SCHWALB:  
 25 **Q. Um-hm?**

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1 A. That's what our law provides, but I do  
 2 need to ensure that the change does not impair  
 3 that junior use.  
 4 **Q. The existing use.**  
 5 A. The existing use.  
 6 **Q. Okay. By engaging in a consumptive use**  
 7 **analysis?**  
 8 A. Yeah. By the overall terms and  
 9 conditions that are applied, that includes the  
 10 reduction of consumptive use. That's certainly  
 11 not the only consideration.  
 12 **Q. Okay. So if they're growing alfalfa**  
 13 **before, there's one consumptive use before the**  
 14 **change application?**  
 15 A. Um-hm.  
 16 **Q. And if they're growing alfalfa after,**  
 17 **it's probably the same consumptive use?**  
 18 A. After a change from irrigation to some  
 19 other use?  
 20 **Q. Say you have a partial change in the**  
 21 **water right on -- on a given -- on a given ranch.**  
 22 **You're growing alfalfa but you're permitting some**  
 23 **portion of the water to be taken away and moved**  
 24 **somewhere else, the consumptive use for the**  
 25 **alfalfa there on the ground would be the same?**



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<p style="text-align: right;">Page 53</p> <p>1 A. For the part that remains?  2 <b>Q. Correct.</b>  3 A. I presume so.  4 <b>Q. Okay. What if they convert it to</b>  5 <b>grassland? Is that a different consumptive use?</b>  6 A. We -- I don't follow. We don't do  7 changes of that nature.  8 <b>Q. Okay. Does the model account for any</b>  9 <b>sort of change, all this modeling work that was</b>  10 <b>done, a change from irrigation to a grassland use?</b>  11 A. Well, the modeling work, you're talking  12 about the modeling work to support the long  13 term --  14 <b>Q. The net consumptive use.</b>  15 A. Now what modeling work -- the modeling  16 work that was done was to determine the long-term  17 yield of the ranch.  18 <b>Q. Um-hm?</b>  19 A. As a ten-year average constraint.  20 <b>Q. Um-hm?</b>  21 A. That wasn't directly a consumptive use  22 analysis.  23 <b>Q. But you did a consumptive use analysis</b>  24 <b>using the model?</b>  25 A. We did. Our consumptive use analysis was</p>	<p style="text-align: right;">Page 55</p> <p>1 <b>other models to develop his specific model?</b>  2 A. He looked at past modeling work that had  3 been done in the -- in the area as he developed  4 the model, but that -- the firm developed, I mean,  5 it's its own model. They obviously looked at all  6 the previous work as part of their process to  7 develop the model.  8 <b>Q. Previous work within GMD 5?</b>  9 A. Yeah. Really a broader area than that.  10 The model goes well beyond GMD 5 in terms of  11 geographic extent, so.  12 <b>Q. What else does it cover?</b>  13 A. It goes to the west a considerable  14 distance to areas that contribute.  15 <b>Q. So --</b>  16 A. As --  17 <b>Q. How far west are we talking? To the</b>  18 <b>extent you know.</b>  19 A. Not to the state line but well into GMD  20 3. I mean, 50 to 100 miles, I suppose.  21 <b>Q. So you've reviewed this model?</b>  22 A. Yeah. I was part of the -- there's a  23 modeling committee that was established to sort of  24 provide input to Balleau as he built the model,  25 and I was on that modeling committee.</p>
<p style="text-align: right;">Page 54</p> <p>1 pursuant to our rules.  2 <b>Q. Okay. What about the model? Was the</b>  3 <b>model -- use of the model pursuant to your rules?</b>  4 A. The groundwater model?  5 <b>Q. Yes.</b>  6 A. The use of the groundwater model was done  7 to determine the reasonable long-term yield for  8 the ranch that I used as a limitation on our  9 approvals.  10 <b>Q. Okay. Who helped prepare that model?</b>  11 A. Well, Burns and McDonnell's, the cities'  12 consultants.  13 <b>Q. Um-hm?</b>  14 A. Did the modeling work.  15 <b>Q. Okay. And where did they get the inputs</b>  16 <b>for the model, for their modeling work?</b>  17 A. Well, they used the GMD 5 groundwater  18 model that was developed by Balleau Groundwater.  19 <b>Q. Okay. And that -- sorry. Just have to</b>  20 <b>get through who's -- where all this comes from.</b>  21 <b>Where did Balleau's -- what is the genesis of</b>  22 <b>Balleau's model? What's the basis for it?</b>  23 A. Balleau Groundwater developed the model  24 for GMD 5's use.  25 <b>Q. Did he rely upon any, to your knowledge,</b></p>	<p style="text-align: right;">Page 56</p> <p>1 <b>Q. Who else was on that modeling committee?</b>  2 A. I'm pretty sure Jeff Lanterman of our  3 field office was. I don't recall whether Doctor  4 Perkins was on staff at that point. I was also  5 part of a modeling committee for a precursor  6 model, the Min Ark model that the Kansas Geologic  7 Survey did for part of the area, so.  8 <b>Q. Okay. Has this model ever been approved</b>  9 <b>for use in connection with a change application?</b>  10 A. What do you mean by approved for use?  11 <b>Q. Is there any regulation that says that</b>  12 <b>this, this model is the standard that's used to</b>  13 <b>determine groundwater flows in connection with a</b>  14 <b>change application?</b>  15 A. We don't -- we don't do that, I guess.  16 <b>Q. Okay. So the answer is no?</b>  17 A. Well, we don't do it one way or the  18 other.  19 <b>Q. Okay.</b>  20 A. I mean.  21 <b>Q. Okay.</b>  22 A. We don't have an approved list of tools.  23 <b>Q. Okay. And there's not an approved list</b>  24 <b>of tools for change applications?</b>  25 A. Correct.</p>





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<p style="text-align: right;">Page 57</p> <p>1 <b>Q. Okay. Is there any sort of -- let me</b>  2 <b>rephrase.</b>  3 <b>What form does this model take? Is it a</b>  4 <b>written report, is it software?</b>  5 A. It is software. It's a model built on a  6 U.S. Geological Survey, has a modeling platform  7 called MODFLOW that is used extensively in  8 groundwater model development, so it is an  9 application of the U.S.G.S. MODFLOW program to  10 this specific hydrogeologic setting.  11 <b>Q. Okay. And Balleau, in consultation with</b>  12 <b>the modeling committee, modified it for this</b>  13 <b>setting?</b>  14 A. Right. Or built it for this setting.  15 Yeah.  16 <b>Q. Is there any description of how he did</b>  17 <b>that?</b>  18 A. Certainly.  19 <b>Q. Okay.</b>  20 A. He has a modeling report.  21 <b>Q. Okay. Have you reviewed this modeling</b>  22 <b>report?</b>  23 A. I have.  24 <b>Q. Do you recall if this modeling report</b>  25 <b>accounts for soil recharge rates?</b></p>	<p style="text-align: right;">Page 59</p> <p>1 identification.)  2 BY MR. SCHWALB:  3 <b>Q. Please take a second to review that.</b>  4 MR. TRASTER: Okay. What are we  5 numbering this one?  6 MR. SCHWALB: Six.  7 MR. TRASTER: Six?  8 MR. KITE: Yes, sir.  9 A. Okay.  10 BY MR. SCHWALB:  11 <b>Q. All right. If you would turn to page two</b>  12 <b>of Exhibit 6 marked KDA3402. Do you see the two</b>  13 <b>lines for Region 9?</b>  14 A. Yes.  15 <b>Q. Okay. Now, along the Y axis there, I</b>  16 <b>think that says inches per month recharge; is that</b>  17 <b>correct?</b>  18 A. Yes.  19 <b>Q. And then along the X axis, that says</b>  20 <b>inches per month precipitation; is that correct?</b>  21 A. That's correct.  22 <b>Q. And then we see the two Region 9 lines,</b>  23 <b>one of them says post 1970; is that correct?</b>  24 A. Yes.  25 <b>Q. And then another one does not; is that</b></p>
<p style="text-align: right;">Page 58</p> <p>1 A. It does. Yeah. It has recharge  2 functions that are functions of soils.  3 <b>Q. Okay. Does it account for soil recharge</b>  4 <b>rates predevelopment?</b>  5 A. How do you define predevelopment?  6 <b>Q. Before 1970.</b>  7 A. I believe so.  8 <b>Q. Okay. What about post development?</b>  9 A. Well, as I recall he does. In that  10 change there's these recharge functions that are  11 sort of curves, amount of precipitation versus  12 recharge, and there are changes that he  13 implemented over time based on land use practice  14 changes, for example.  15 <b>Q. Okay. So are there differences between</b>  16 <b>pre and post development for recharge rates?</b>  17 A. Well, there's changes over time, so I --  18 I guess the answer is yes.  19 <b>Q. Okay. Do you recall seeing, you</b>  20 <b>mentioned this graph would it be helpful to have a</b>  21 <b>copy of it?</b>  22 A. Certainly.  23 <b>Q. All right.</b>  24 (THEREUPON, the court reporter marked  25 Barfield Deposition Exhibit No 6 for</p>	<p style="text-align: right;">Page 60</p> <p>1 <b>correct?</b>  2 A. That is correct.  3 <b>Q. The one that doesn't have post 1970 on</b>  4 <b>it, does that show a lower or a higher rate of</b>  5 <b>recharge based on this graph?</b>  6 A. So it would have for the same precip a  7 lower recharge value.  8 <b>Q. Okay. So for predevelopment it's showing</b>  9 <b>a lower recharge value. Is that --</b>  10 A. That's right.  11 <b>Q. Okay.</b>  12 A. Than post development.  13 <b>Q. Okay.</b>  14 A. So these conservation practices tend to  15 hold water and create more recharge.  16 <b>Q. The conservation practices or the -- what</b>  17 <b>they're -- sorry. Conservation practices post</b>  18 <b>development or pre?</b>  19 A. Post development.  20 <b>Q. Okay. They hold more water?</b>  21 A. They --  22 <b>Q. In the crop?</b>  23 A. They hold more water in the soil and  24 create more recharge.  25 <b>Q. But predevelopment what sort of crops</b></p>



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<p style="text-align: right;">Page 61</p> <p>1 <b>would be there?</b></p> <p>2 A. Well, as I understand it, a lot of this</p> <p>3 happens to do with land treatment practices on</p> <p>4 nonirrigated land. Again, terraces and whatnot</p> <p>5 are put in place to reduce soil erosion.</p> <p>6 <b>Q. Um-hm?</b></p> <p>7 A. But they tend to also retain more</p> <p>8 moisture on the land and enhance recharge.</p> <p>9 <b>Q. Okay. But earlier you said that these</b></p> <p>10 <b>conservation practices post change are not</b></p> <p>11 <b>accounted for; is that correct?</b></p> <p>12 A. We weren't talking about conservation</p> <p>13 practices earlier.</p> <p>14 <b>Q. I'm sorry. Grassland is not accounted</b></p> <p>15 <b>for, conversion to grassland?</b></p> <p>16 MR. OLEEN: Object to the form of the</p> <p>17 question.</p> <p>18 A. And I guess I'm lost with respect to the</p> <p>19 context of your earlier discussion but what's your</p> <p>20 question right now?</p> <p>21 BY MR. SCHWALB:</p> <p>22 <b>Q. I guess the question is this graph is</b></p> <p>23 <b>showing predevelopment lower recharge rates. The</b></p> <p>24 <b>-- and post development, I guess, higher recharge</b></p> <p>25 <b>rates. Is it your testimony that the conservation</b></p>	<p style="text-align: right;">Page 63</p> <p>1 <b>Q. Um-hm?</b></p> <p>2 A. To estimate how much recharge gets into</p> <p>3 the groundwater system.</p> <p>4 <b>Q. Okay. Do you know if it was used by</b></p> <p>5 <b>Burns and McDonnell?</b></p> <p>6 A. Yes.</p> <p>7 <b>Q. Okay. Let's turn to the Burns and</b></p> <p>8 <b>McDonnell report real quick. Did you have a</b></p> <p>9 <b>chance to review that in advance of this</b></p> <p>10 <b>deposition?</b></p> <p>11 A. Very briefly.</p> <p>12 <b>Q. Okay. Do you recall if the Burns and</b></p> <p>13 <b>McDonnell report says anything about native</b></p> <p>14 <b>grassland?</b></p> <p>15 A. I don't recall that it does.</p> <p>16 <b>Q. I'm sorry?</b></p> <p>17 A. It do not recall that it does.</p> <p>18 <b>Q. Would it be helpful to review it real</b></p> <p>19 <b>quick?</b></p> <p>20 A. Apparently.</p> <p>21 <b>Q. Okay. And can we have your copy marked</b></p> <p>22 <b>as an exhibit, please?</b></p> <p>23 A. Sure.</p> <p>24 (THEREUPON, the court reporter marked</p> <p>25 Barfield Deposition Exhibit No 7 for</p>
<p style="text-align: right;">Page 62</p> <p>1 <b>practices are going to result in higher net water</b></p> <p>2 <b>in the soils?</b></p> <p>3 MR. TRASTER: I'm going to object to the</p> <p>4 form of the question and to the line of inquiry</p> <p>5 because there's -- there are a lot of factors that</p> <p>6 go into this that may or may not be accounted for</p> <p>7 in the question or on the document, for example,</p> <p>8 recharge post development, you know, there's more</p> <p>9 water, it's not just inches of rain, it's that the</p> <p>10 irrigation water that's being placed on it so --</p> <p>11 on there. So you can't really -- I would suggest</p> <p>12 that it's possible that you can't really correlate</p> <p>13 the two and I -- and there's no evidence in the</p> <p>14 record that nine is the region or the, what do we</p> <p>15 call it here? That nine is has anything to do</p> <p>16 with the ranch or anything else for that matter,</p> <p>17 but go ahead.</p> <p>18 MR. SCHWALB: I'll withdraw the question.</p> <p>19 BY MR. SCHWALB:</p> <p>20 <b>Q. Do you know if this graph was considered</b></p> <p>21 <b>in any of the modeling work that was done by your</b></p> <p>22 <b>staff?</b></p> <p>23 A. Well, this modeling work is part of the</p> <p>24 model. I mean, this is -- the model uses these</p> <p>25 recharge curves.</p>	<p style="text-align: right;">Page 64</p> <p>1 identification.)</p> <p>2 MR. TRASTER: Are you going to provide</p> <p>3 copies?</p> <p>4 MR. SCHWALB: Yep.</p> <p>5 MR. TRASTER: I wanted a copy of the</p> <p>6 exhibit that you're going to use.</p> <p>7 MR. SCHWALB: Let's use the exhibit that</p> <p>8 I'm going to use then.</p> <p>9 MR. TRASTER: I mean I'm not -- it may be</p> <p>10 the same, I don't know.</p> <p>11 MR. SCHWALB: Mine has highlighting on</p> <p>12 it.</p> <p>13 MR. TRASTER: Okay. I'd like to have a</p> <p>14 copy of the version that you're going to ask</p> <p>15 about.</p> <p>16 BY MR. SCHWALB:</p> <p>17 <b>Q. All right. Please take a moment to</b></p> <p>18 <b>review that exhibit which is marked as Exhibit 7.</b></p> <p>19 MR. TRASTER: This going to be 7?</p> <p>20 MR. SCHWALB: 7.</p> <p>21 A. What do you want me to review?</p> <p>22 BY MR. SCHWALB:</p> <p>23 <b>Q. Just the highlighted portions within the</b></p> <p>24 <b>text and then the charts at the end.</b></p> <p>25 MR. TRASTER: While you're doing that,</p>



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<p style="text-align: right;">Page 65</p> <p>1 just for the record, many, in fact most of these  2 exhibits are just excerpts and portions; they're  3 not complete documents but they are in the record.  4 MR. SCHWALB: Correct.  5 MR. TRASTER: And so the full document is  6 in the record, but just so we know that.  7 THE WITNESS: Okay.  8 BY MR. SCHWALB:  9 <b>Q. All right. Please refer to KDA 345, the</b>  10 <b>first page of that exhibit and the highlighted</b>  11 <b>portion. Do you see there where it says that the</b>  12 <b>revised groundwater model report does not address</b>  13 <b>the alternative approaches to groundwater</b>  14 <b>modeling?</b>  15 A. Yes.  16 <b>Q. Okay. What does that generally refer to</b>  17 <b>in your view, the alternative approaches?</b>  18 A. I would guess it principally addresses  19 not reducing recharge.  20 <b>Q. Not reducing recharge based on what?</b>  21 A. Based on Doctor Keller's analysis that  22 said recharge would be reduced under native grass.  23 <b>Q. Thank you. Let's jump to Figure 6, which</b>  24 <b>I believe is KDA 368 at the bottom. Are you</b>  25 <b>familiar with this graphic?</b></p>	<p style="text-align: right;">Page 67</p> <p>1 <b>depict?</b>  2 A. Those are irrigation wells in the region.  3 <b>Q. Okay. Any distinction between senior or</b>  4 <b>junior relative to the ranch depicted here?</b>  5 A. No.  6 <b>Q. Okay. Towards the middle of the graph</b>  7 <b>you'll see that there are some changes in color.</b>  8 <b>What do those changes depict?</b>  9 A. So are you talking about the green dots  10 being the proposed municipal well, or something  11 different?  12 <b>Q. No. I'm referring to the gradations in,</b>  13 <b>I guess it's purple or royal blue. What does that</b>  14 <b>depict?</b>  15 A. Well, they're contours that depict the  16 differences between the two runs.  17 <b>Q. Okay.</b>  18 A. Right. So for example, there's a  19 generally at the boundary of the ranch -- the  20 ranch is depicted with the irregular shape, looks  21 like a green boundary.  22 <b>Q. Okay.</b>  23 A. So, you know, they vary but, you know, on  24 the order at the ranch, you know, three tenths of  25 a foot, some places half of a foot difference.</p>
<p style="text-align: right;">Page 66</p> <p>1 A. Yes.  2 <b>Q. Okay. What does this graphic depict?</b>  3 A. So it depicts the difference in  4 groundwater levels in the aquifer, as modeled,  5 between Scenario 1, which was sort of the historic  6 pumping, irrigation pumping, and Scenario 2 which  7 was the irrigation pumping at 4,800 acre foot per  8 year.  9 <b>Q. Which is the proposed pumping rate for</b>  10 <b>the city's change application?</b>  11 A. That's the --  12 <b>Q. Or the TYRA limitation.</b>  13 MR. TRASTER: Object to the form of the  14 question.  15 A. Right. That's the limitation that we've  16 -- the ten-year limitation that would be placed on  17 diversions.  18 MR. TRASTER: That's the quantity, not  19 the rate.  20 THE WITNESS: The quantity, yes.  21 BY MR. SCHWALB:  22 <b>Q. All right. On this graphic are there</b>  23 <b>little blue dots there?</b>  24 A. There are little blue dots, yes.  25 <b>Q. Okay. What do those little blue dots</b></p>	<p style="text-align: right;">Page 68</p> <p>1 <b>Q. Okay.</b>  2 A. Some places less.  3 <b>Q. A difference in what?</b>  4 A. Difference in the water levels between  5 the two runs.  6 <b>Q. Okay.</b>  7 A. Irrigation, baseline and the municipal  8 maximum.  9 <b>Q. So less water based on municipal use?</b>  10 A. The water levels are, you know, three  11 tenths of a foot less at the end of the 17-year  12 simulation.  13 <b>Q. Okay.</b>  14 A. Or however -- yes. At the end of the  15 simulation.  16 <b>Q. All right. Let's jump to the next page.</b>  17 <b>That would be KDA 371 depicted as Figure 9. What</b>  18 <b>is this graphic describing or depicting?</b>  19 A. Again, it's similar but at different  20 runs, so it's subtracting the water level contours  21 at the end of 51 years in this case, between a  22 historic baseline that repeated the '91 to 2007  23 record for irrigation three times, versus the  24 irrigation -- I mean versus the municipal 4,800  25 maximum as well. Again showing the difference in</p>



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<p style="text-align: right;">Page 69</p> <p>1 head between -- that exists between those two  2 model runs at the end of the 51 year simulation.  3 THE REPORTER: 51 year?  4 THE WITNESS: 51 year simulation.  5 BY MR. SCHWALB:  6 <b>Q. With respect to the blue dots that also  7 appear on this graphic.</b>  8 A. Um-hm.  9 <b>Q. Are they being shown as getting less  10 water or is it stable with no change?</b>  11 A. Well, it shows the difference in head,  12 the difference in level being, again, on the order  13 of four tenths of a foot or less different at the  14 end of the 51 year simulation, so it's a -- it's  15 how deep is the water. It's not getting to how  16 much water they can take.  17 <b>Q. Okay.</b>  18 A. But it's a very small difference.  19 <b>Q. But there is a difference between  20 historic pumping versus proposed pumping depicted  21 here?</b>  22 A. By these very small amounts.  23 <b>Q. Okay.</b>  24 A. My characterization.  25 <b>Q. That's fine. Let's jump down to Figure</b></p>	<p style="text-align: right;">Page 71</p> <p>1 <b>you the overall trend for the light blue, the  2 modeled recharge?</b>  3 A. There is no line.  4 <b>Q. Okay. But the lines that are depicted,  5 are these anchored to years along the X axis?</b>  6 A. They are.  7 <b>Q. Okay. Did you discuss this with Burns  8 and Mac?</b>  9 MR. TRASTER: Discuss what?  10 BY MR. SCHWALB:  11 <b>Q. This graph.</b>  12 A. Well, I don't remember specifically  13 discussing this graphic with them. We had a  14 number of discussions with respect to what model  15 run should be done as part of the overall  16 evaluation, including the drought scenario.  17 <b>Q. Okay. Let's talk about the drought  18 scenario just for a minute. During droughts, in  19 your experience do farmers pump more or less?</b>  20 A. They pump more when it's dry.  21 <b>Q. Okay. What about --</b>  22 A. In a general matter. As a general  23 matter.  24 <b>Q. What about municipalities?</b>  25 A. They would as well.</p>
<p style="text-align: right;">Page 70</p> <p>1 <b>12 which is labeled KDA 374. What does this  2 depict?</b>  3 A. So again, similar overall graphic. This  4 is looking at a difference in runs.  5 <b>Q. And there's a dark blue line. What does  6 that depict?</b>  7 A. I think the dark blue line is the Ark  8 River. Is that the one you're talking about?  9 <b>Q. Oh, I'm sorry. We're looking at  10 different things, 374 at the very bottom, Figure  11 12.</b>  12 A. Right. Okay. So strike what I was  13 saying a moment ago. I was looking at the wrong  14 graphic. So Figure 12 is again from the Burns and  15 Mac model and it's depicting the amount of pumping  16 in the two different runs. No, I'm sorry. It's  17 depicting recharge in light blue and then the  18 pumping for this drought simulation run, Scenario  19 6.  20 <b>Q. Does the light blue line ever fall  21 underneath the dark blue line?</b>  22 A. Certainly at -- it does once in a while  23 but during the drought simulation throughout most  24 of the period.  25 <b>Q. Is there any averaging line that shows</b></p>	<p style="text-align: right;">Page 72</p> <p>1 <b>Q. Okay. Thank you.</b>  2 A. As a general matter.  3 <b>Q. Okay. All right.</b>  4 THE REPORTER: Are you at a good spot for  5 a break?  6 MR. SCHWALB: I sure am. Why don't we  7 take a break and everybody can tend to their  8 business or take cough medicine or anything along  9 those lines.  10 (THEREUPON, a recess was taken.)  11 BY MR. SCHWALB:  12 <b>Q. All right. We are -- everybody ready?  13 Okay. We are back on the record in Water PACK  14 vs. the deponent. I'd like to come back to the  15 exhibit that we were just reviewing which I  16 believe is Exhibit 7, the Burns and McDonnell  17 report, and I'd like to call your attention, Mr.  18 Barfield, to, again, that highlighting on the  19 first page, but just beneath it there's a list of  20 numbered paragraphs here. The first one refers to  21 4,800 acre feet of municipal pumping does it not?</b>  22 A. Yes.  23 <b>Q. Okay. Can you describe the -- why that  24 number is used here in this report?</b>  25 A. Well, 4,800 acre feet is the -- is the</p>



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<p style="text-align: right;">Page 73</p> <p>1 average use that's allowed pursuant to the ten-  2 year limitation of 48,000 acre feet in a ten year  3 period.  4 <b>Q. Okay. Can you expound upon that ten-year</b>  5 <b>rolling average I think is how it's referred to in</b>  6 <b>the master order?</b>  7 A. What do you want to know about it  8 specifically?  9 <b>Q. What's the -- what is the rationale for</b>  10 <b>including that in the order?</b>  11 MR. TRASTER: Let's go off the record for  12 a second.  13 (THEREUPON, an off the record discussion  14 was held.)  15 BY MR. SCHWALB:  16 <b>Q. All right. We're back on the record and</b>  17 <b>I was just asking about the rationale behind the</b>  18 <b>4,800 acre foot ten year rolling average that's in</b>  19 <b>the master order.</b>  20 A. Right. So, and again, there's a  21 significant section in the master order with  22 respect to the TYRA limitation, ten year rolling  23 average, rolling aggregate limitation and what it  24 is and why it is. It's unique to these change  25 approvals. Due to the unique nature of the change</p>	<p style="text-align: right;">Page 75</p> <p>1 <b>Q. And then there's an additional</b>  2 <b>requirement, the TYRA, that's dropping it to</b>  3 <b>4,800?</b>  4 A. That's -- that's a limitation that's  5 imposed by the -- by what I approved.  6 <b>Q. Okay.</b>  7 A. Yes.  8 <b>Q. So there's -- you approved, or you</b>  9 <b>contingently approved?</b>  10 A. Contingently approved, yes.  11 <b>Q. Okay. So you went from 7,600 acres feet</b>  12 <b>on an annualized basis to a rolling average of</b>  13 <b>4,800?</b>  14 A. Well, right.  15 MR. TRASTER: Object to the form of the  16 question.  17 A. On an annual basis they can use the  18 consumptive use determination, the 6,756.  19 BY MR. SCHWALB:  20 <b>Q. Okay.</b>  21 A. In any year or sequence of years, but  22 it's further limited by the 48,000 acre feet  23 limitation over ten years.  24 <b>Q. Okay. Why a limitation of 4,800 acre</b>  25 <b>feet per year, the rolling average?</b></p>
<p style="text-align: right;">Page 74</p> <p>1 approvals I required the cities to use the model  2 to determine the long-term yield of the ranch and  3 to limit it, their use, to that long-term amount.  4 <b>Q. Initially they wanted a higher amount; is</b>  5 <b>that correct?</b>  6 A. Well, they would have chosen not to have  7 this limitation, but to only be constrained by the  8 consumptive use determination.  9 <b>Q. Did they initially ask for something</b>  10 <b>above 7,000 acre feet though?</b>  11 MR. OLEEN: Sorry to interrupt. Could  12 you -- do you mean as a -- as a TYRA limitation  13 figure or a maximum annual authorized quantity  14 figure.  15 MR. SCHWALB: Maximum authorized annual  16 quantity.  17 A. I'm looking to this summary document that  18 we used for the public meeting. So the cities  19 originally asked for 7,640 seven acre feet of  20 water to be changed from municipal use to  21 irrigation use, so they later amended their  22 request and now asked for 6,756.3 acre feet.  23 BY MR. SCHWALB:  24 <b>Q. Okay. That's on an annual basis?</b>  25 A. On an annual basis, yes.</p>	<p style="text-align: right;">Page 76</p> <p>1 A. Well, the rationale I used to require  2 this is that the change must be reasonable and so  3 -- and again the city didn't -- cities didn't  4 completely agree with this but were willing to  5 agree to it, that it wasn't reasonable to approve  6 more than they could take out of the ranch long  7 term.  8 <b>Q. Okay. So does the 4,800 result from the</b>  9 <b>model?</b>  10 A. It is from the modeling analysis, yes.  11 <b>Q. Okay. And so the initial request, just</b>  12 <b>to be clear, was for 7,600 acre feet, the 4,800 is</b>  13 <b>written by the model. Is that a big difference,</b>  14 <b>the 7,600 to 4,800?</b>  15 MR. TRASTER: Object to the form of the  16 question.  17 A. I'd say it's significant, yes.  18 BY MR. SCHWALB:  19 <b>Q. Okay. Is it almost half of the original</b>  20 <b>amount?</b>  21 A. Well, it's somewhat more than half.  22 <b>Q. It's two-thirds maybe?</b>  23 A. That would be closer.  24 <b>Q. Okay. The original 7,600 number, was</b>  25 <b>that driven off of the model?</b></p>





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1 A. That's essentially the authorized  
 2 quantity.  
 3 **Q. Okay.**  
 4 A. The sum of the authorized quantity.  
 5 **Q. Okay. But still it's a pretty big**  
 6 **difference?**  
 7 A. Yes.  
 8 **Q. Okay. So why no site specific analysis**  
 9 **with that big of a difference?**  
 10 MR. TRASTER: Object to the form of the  
 11 question. Misstates facts not in evidence.  
 12 BY MR. SCHWALB:  
 13 **Q. I think the master order is part of the**  
 14 **record so let's just refer to that.**  
 15 A. Well, I think the modeling analysis was  
 16 site specific in terms of what does the model say  
 17 about the terms and conditions under which this  
 18 approval was granted and how would that affect the  
 19 ranch and its immediate vicinity.  
 20 **Q. But your regulations contemplate a site**  
 21 **specific analysis, do they not, for change**  
 22 **applications? If there's -- if you get**  
 23 **unreasonable numbers?**  
 24 A. So you're speaking, I mean you're  
 25 speaking to specifically to the consumptive use

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1 piece of this analysis, right?  
 2 **Q. Yep.**  
 3 A. And it allows for a site specific  
 4 determination under certain conditions.  
 5 **Q. Okay. And what are those conditions?**  
 6 A. Well, I wonder if we can go to the  
 7 regulation. I've got a copy of it here if you  
 8 don't already have it as an exhibit.  
 9 **Q. I don't think we've entered it into the**  
 10 **record here, but let me see if I've got a couple**  
 11 **here.**  
 12 MR. OLEEN: Off the record.  
 13 (THEREUPON, an off the record discussion  
 14 was held; WHEREUPON, the court reporter marked  
 15 Barfield Deposition Exhibit No 8 for  
 16 identification.)  
 17 BY MR. SCHWALB:  
 18 **Q. And I believe it's 5-5-9(c) that gets**  
 19 **into the authorized annual quantity. Does that**  
 20 **section use the word unrealistic?**  
 21 A. Just give me a moment to review.  
 22 **Q. Sure.**  
 23 A. Okay. Okay. So what was your question?  
 24 **Q. All right. Within 5-5-9(c), and I think**  
 25 **it's subparagraph -- no, it doesn't have a**

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1 **subparagraph. It refers to methods set forth in**  
 2 **subsection (A) and it says if the methods set**  
 3 **forth in subsection (A) produce an authorized**  
 4 **annual quantity of water which appears to be**  
 5 **unrealistic, and could result in impairment of**  
 6 **other water rights, the chief engineer shall make**  
 7 **a site specific net consumptive use analysis to**  
 8 **determine the quantity of water which was actually**  
 9 **beneficially consumed under the water right. Is**  
 10 **that an accurate restatement?**  
 11 A. I think you read it well.  
 12 **Q. Thank you. So let's focus on the word**  
 13 **unrealistic here. The initial request from the**  
 14 **cities was for 7,600 per year?**  
 15 MR. TRASTER: Objection. States facts  
 16 not in evidence.  
 17 BY MR. SCHWALB:  
 18 **Q. Over 7,600 acre feet which is referenced**  
 19 **in the master order is it not?**  
 20 A. Their original request? It may be.  
 21 **Q. Okay. And the TYRA limitation, also**  
 22 **defined in the master order, limits withdrawals to**  
 23 **a rolling average of 4,800 acre feet per year does**  
 24 **it not?**  
 25 A. It does.

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1 **Q. Okay. Is that -- and you testified**  
 2 **earlier that the, I believe the initial request**  
 3 **was based on modeling of net consumptive use; is**  
 4 **that correct?**  
 5 A. The initial request of 7,600? I don't --  
 6 **Q. Is that wrong?**  
 7 A. I don't have any knowledge it was based  
 8 on modeling?  
 9 **Q. Okay. What about the 4,800 acre feet?**  
 10 **Is that based on modeling?**  
 11 A. It is.  
 12 **Q. Okay. And that's substantially lower**  
 13 **than 7,600 acre feet?**  
 14 A. It is lower.  
 15 **Q. Is that an unrealistic difference?**  
 16 A. I don't -- I don't know what you're  
 17 asking.  
 18 **Q. Is it a huge difference?**  
 19 A. We've said it's a significant difference.  
 20 **Q. Okay. In terms of, let's jump to the**  
 21 **next part of this regulation where it says: And**  
 22 **could result in impairment of other water rights.**  
 23 **You testified earlier that you're assessing**  
 24 **impairment of seniors and juniors, correct?**  
 25 A. With respect to the change in -- with



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<p style="text-align: right;">Page 81</p> <p>1 respect to the change, yes.  2 <b>Q. With respect to the change. Okay.</b>  3 <b>Referring back to the Burns and Mac report which I</b>  4 <b>believe is Exhibit 7?</b>  5 A. That's correct.  6 <b>Q. Figure 6, I believe. That figure shows</b>  7 <b>surrounding water users outside the boundaries of</b>  8 <b>the ranch getting less water over time does it</b>  9 <b>not?</b>  10 A. No. It shows that there's on the order  11 of a tenth of a foot to a third of -- to three  12 tenths of a foot of difference in elevation in the  13 aquifer. I wouldn't expect that small difference  14 to produce anything but a de minimus reduction in  15 what they can pump.  16 <b>Q. Over that period of time?</b>  17 A. Yes.  18 <b>Q. Okay. Jumping back down to Figure 12 in</b>  19 <b>that same report, this is the simulated recharge</b>  20 <b>rate. Those light blue lines there show reduced</b>  21 <b>recharge relative to operations do they not?</b>  22 A. Yes. And throughout there's reduced  23 recharge.  24 <b>Q. Okay. So if there's reduced recharge</b>  25 <b>during drought. What about the years prior to</b></p>	<p style="text-align: right;">Page 83</p> <p>1 <b>Q. Thank you.</b>  2 A. But that doesn't follow to a reduced  3 ability to pump. I mean, that's what an aquifer,  4 that's the benefit of an aquifer versus a surface  5 water system. There's significant storage by  6 which they can continue to operate.  7 <b>Q. Did you make any specific findings of</b>  8 <b>fact as to specific junior users in that regard?</b>  9 A. Not to specific junior users but  10 certainly they're findings with respect to this  11 modeling demonstrating that the neighboring water  12 rights are not impaired.  13 <b>Q. With respect to the junior users?</b>  14 A. Well, with respect to all users.  15 <b>Q. Okay. And your staff specifically</b>  16 <b>examined whether or not this proposed change</b>  17 <b>application would impact junior users?</b>  18 A. Well, the modeling work assesses the  19 degree to which, you know, the -- what are the  20 impacts of the change.  21 <b>Q. Right.</b>  22 A. To the area.  23 <b>Q. Okay.</b>  24 A. That's what these maps demonstrate in my  25 view. There is -- the change does not have any</p>
<p style="text-align: right;">Page 82</p> <p>1 <b>that? Are you seeing reduced recharge there?</b>  2 A. No.  3 <b>Q. What does the light blue line show then?</b>  4 A. Well, it goes up and down with the normal  5 variation in precip.  6 <b>Q. Okay. Are there any drops below the dark</b>  7 <b>blue line of that light blue line?</b>  8 A. There are some minor ones, but yes.  9 <b>Q. Okay. So there's modeled recharge</b>  10 <b>falling below, based on modeled precip and</b>  11 <b>operation of the well field?</b>  12 A. Yes. And many, many years of  13 significantly more.  14 <b>Q. Um-hm. So in those years where it's</b>  15 <b>dropping, are junior users seeing more return</b>  16 <b>flows or fewer?</b>  17 A. Say that again.  18 <b>Q. In the years below the dark blue line --</b>  19 A. Um-hm.  20 <b>Q. -- do the junior users, based on this</b>  21 <b>model, or this figure, I should say, see more</b>  22 <b>recharge or less?</b>  23 A. Less.  24 <b>Q. More return flows or less?</b>  25 A. Less return flows.</p>	<p style="text-align: right;">Page 84</p> <p>1 appreciable effect on the neighboring water  2 rights.  3 <b>Q. Okay.</b>  4 A. Which is what we're after.  5 <b>Q. Was that modeling work provided to the</b>  6 <b>public, the actual model, after that report is</b>  7 <b>based upon for Exhibit 7, I believe, the November</b>  8 <b>28 Burns and McDonnell report?</b>  9 A. The modeling report was posted on our  10 website, the modeling files were provided to GMD 5  11 and Water PACK.  12 <b>Q. When were those provided to GMD 5 and</b>  13 <b>Water PACK?</b>  14 A. I don't have that date in front of me but  15 there is a transmittal letter that we found.  16 Before -- well, actually it may be on our website  17 here. Just a second. Well, we posted the model  18 report in February of 2018. I guess I don't see,  19 but I know we found in our records when we sent a  20 thumb drive with the model data files to both GMD  21 5 and to Water PACK. It was certainly well before  22 the public meeting that we had to allow them to  23 review those, and in fact Balleau did that review  24 and found some minor -- minor problems with the  25 model as a result of their review.</p>





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1 **Q. Okay. So there's a thumb drive provided**  
 2 **to the district, GMD 5?**  
 3 A. Correct.  
 4 **Q. Prior to the Greensburg meeting?**  
 5 A. Yes.  
 6 **Q. The Greensburg meeting occurs on June**  
 7 **21st, 2018, correct?**  
 8 A. Correct.  
 9 **Q. And then there is input from the GMD**  
 10 **received, I believe you testified earlier, August**  
 11 **30th of '18?**  
 12 A. Correct.  
 13 **Q. And then revised input from the GMD on**  
 14 **September 14th of 2018?**  
 15 A. I believe that's what I said, yes.  
 16 **Q. Okay. Did that revised input result to**  
 17 **in any changes to the modeling work?**  
 18 A. It did.  
 19 **Q. Okay. And did that -- did those changes**  
 20 **to the modeling work result in this report from**  
 21 **Burns and McDonnell?**  
 22 A. The revised report, yes.  
 23 **Q. What's the date of that revised report,**  
 24 **if you don't mind me asking?**  
 25 A. September 24, 2018.

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1 **Q. Okay. Was there any provision of their**  
 2 **adjustments to the model to the public, to the GMD**  
 3 **or to -- well, let's just focus on the public**  
 4 **first.**  
 5 A. So what was the question?  
 6 **Q. They do the analysis and reproduce the**  
 7 **report on September 28th you said?**  
 8 A. Yes.  
 9 **Q. And then they do that based upon**  
 10 **modifications to the model. Were the**  
 11 **modifications to the model provided to the public?**  
 12 A. Not to my knowledge. We would have if it  
 13 had been requested.  
 14 **Q. Okay. Were they provided to the GMD?**  
 15 A. I believe they were. Again, I didn't go  
 16 back to the records but I'm fairly sure that we  
 17 provided it both before the public meeting and the  
 18 final model as well.  
 19 **Q. Okay. Were they provided to Water PACK?**  
 20 A. They were offered to Water PACK. Again,  
 21 I remember sending the thumb drive to both.  
 22 **Q. Before the Greensburg meeting?**  
 23 A. You know, my recollection may not be  
 24 right. It may have been after and the before  
 25 might have been from Burns and Mac straight to

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1 those two entities.  
 2 MR. TRASTER: For the record, attached to  
 3 the Hays response, one of the Hays briefs, is a  
 4 March 9, 2018, letter addressed to the GMD signed  
 5 -- which you signed, it's Exhibit 7, and it says  
 6 with this letter I'm also sending one USB drive to  
 7 Richard Wenstrom. There were two sent to the GMD.  
 8 That's March 9th, 2018.  
 9 THE WITNESS: Okay. So that was the  
 10 model?  
 11 MR. TRASTER: And that's the original  
 12 model, not the revised model, but that's in the  
 13 court file.  
 14 A. Okay. So the USB was before the public  
 15 meeting.  
 16 BY MR. SCHWALB:  
 17 **Q. Does what Mr. Traster just said conform**  
 18 **to your recollection of what happened more or**  
 19 **less?**  
 20 A. It helps my recollection of what  
 21 happened, so yes, we sent a thumb drive before the  
 22 meeting with the model.  
 23 **Q. Okay.**  
 24 A. I guess I would have expected we would  
 25 have sent the final model to them as well in the

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1 same way but I don't -- I may be remembering  
 2 wrong, so.  
 3 **Q. All right. So does all modifications to**  
 4 **the model appear in the administrative record?**  
 5 A. I'm not certain.  
 6 **Q. What about the model runs? Do those**  
 7 **appear in the administrative record?**  
 8 MR. OLEEN: I would object to the form.  
 9 What do you mean by appear?  
 10 BY MR. SCHWALB:  
 11 **Q. Are the model runs in the administrative**  
 12 **record post the Greensburg meeting?**  
 13 MR. OLEEN: Like actual model  
 14 mathematical equations, reports about such, which?  
 15 BY MR. SCHWALB:  
 16 **Q. And adjustments to the model that were**  
 17 **made after the Greensburg meeting. Do those**  
 18 **appear in the administrative record outside of the**  
 19 **Burns and McDonnell report?**  
 20 MR. TRASTER: I didn't hear the response.  
 21 What -- you asked about model runs or reports. I  
 22 mean but what are you asking about?  
 23 MR. SCHWALB: I want to know if the model  
 24 runs, the adjusted model runs undertaken by Burns  
 25 and Mac, not the report, but the model runs appear



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1 in the administrative record?  
 2 MR. TRASTER: What form do the model runs  
 3 take? I mean what is it that you're asking? I  
 4 mean that's -- I don't know what you mean by model  
 5 runs. Are you asking about the software itself or  
 6 are you talking about, I mean, what is a model  
 7 run? That's, I guess I'm having a little problem  
 8 understanding what you're asking about.  
 9 MR. SCHWALB: Sure. Let me clarify.  
 10 BY MR. SCHWALB:  
 11 **Q. The specific adjustments to the model**  
 12 **that were made within the software and the**  
 13 **specific results therefrom, not the reports, but**  
 14 **the results, do those modifications and results**  
 15 **appear in the record outside of the Burns and Mac**  
 16 **report?**  
 17 MR. TRASTER: But what form? I mean  
 18 results. What -- what are you asking about? Are  
 19 you asking about the model document itself? Are  
 20 you -- I mean the results, how are results  
 21 reported other than in the report. And I'm really  
 22 asking. I'm not trying to play games, here.  
 23 MR. SCHWALB: Sure.  
 24 MR. TRASTER: Because I don't -- I'm not  
 25 sure what the, you know, what their answer is to

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1 that question but I -- we need to get -- have a  
 2 clear question on the table so that he can -- he  
 3 probably knows a hell of a lot more, excuse me, he  
 4 probably knows a little bit more about the  
 5 modeling than we do.  
 6 MR. SCHWALB: Fair enough. Let me  
 7 rephrase.  
 8 BY MR. SCHWALB:  
 9 **Q. We have a thumb drive, according to Mr.**  
 10 **Traster, from March that has a data set?**  
 11 MR. TRASTER: Object to the form of the  
 12 question. It's not according to me, it's  
 13 according to the document that's attached to the  
 14 -- to a -- I mean it's the document. I'm not --  
 15 I didn't sign the document, I just provided it.  
 16 BY MR. SCHWALB:  
 17 **Q. We have a thumb drive that goes out from**  
 18 **you in March of '18, correct?**  
 19 A. Yes.  
 20 **Q. That thumb drive has what on it?**  
 21 A. So it has the model data files, the input  
 22 files that are necessary to run the MODFLOW model  
 23 to produce the outputs of the model runs that  
 24 Burns and Mac developed.  
 25 **Q. Okay. And a configuration or other**

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1 **related files that would allow you to see what**  
 2 **changes they made to the model?**  
 3 A. So I'm sorry. Repeat that question  
 4 again. Sorry.  
 5 **Q. Is there anything on that thumb drive**  
 6 **that shows how they produce those results, either**  
 7 **in the form of changes to the model or any other**  
 8 **forms of instruction, that describe adjustments**  
 9 **made to the model to yield those results?**  
 10 A. Right. So there's -- that thumb drive  
 11 had everything that somebody who had MODFLOW, a  
 12 modeler who has MODFLOW, needs to replicate the  
 13 runs that the cities did to support the  
 14 application. So, you know, there's a set of data  
 15 files and they include -- they include data files,  
 16 they include configuration files that specify what  
 17 model runs and what boundary conditions,  
 18 everything it takes to take MODFLOW and produce  
 19 the model runs, that's what's on that USB drive  
 20 that I caused to be delivered to GMD 5 and Water  
 21 PACK.  
 22 **Q. Okay. So configuration files are on**  
 23 **that?**  
 24 A. That's right.  
 25 **Q. Okay. After that is delivered there are**

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1 **adjustments made to the model by Burns and Mac,**  
 2 **correct?**  
 3 A. There were some minor adjustments that  
 4 were made as a result of the Balleau Groundwater's  
 5 review. They found some minor errors in the  
 6 model.  
 7 **Q. Okay.**  
 8 A. That were made that actually benefitted  
 9 the cities. It actually made their case a little  
 10 stronger, but right, there was a -- there were  
 11 some errors that were corrected subsequent.  
 12 **Q. So when you correct errors within MODFLOW**  
 13 **does that require changing the configuration**  
 14 **files?**  
 15 A. It did require changing some of those  
 16 files.  
 17 **Q. Were those change configuration files**  
 18 **provided to Water PACK or any of the surrounding**  
 19 **users?**  
 20 A. And I'm not certain. I can't -- I would  
 21 think we would have -- we would have certainly  
 22 made them available. I'm not certain if we did or  
 23 didn't.  
 24 **Q. Okay. Are there any rules that you're**  
 25 **aware of that govern adjustments to this model**



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<p style="text-align: right;">Page 93</p> <p>1 <b>that are promulgated by DWR?</b>  2 A. We don't have any such rules.  3 <b>Q. Okay.</b>  4 A. We certainly would have provided the  5 model runs to anyone requesting them.  6 <b>Q. Okay. I want to come back to some of the</b>  7 <b>original modeling work. Just give me one second,</b>  8 <b>here. Earlier you referred to a series of</b>  9 <b>meetings that occurred between you and the cities</b>  10 <b>and their representatives; is that correct?</b>  11 A. That's correct.  12 <b>Q. Okay. Is there any documentation of</b>  13 <b>these meetings?</b>  14 A. A couple of the meetings resulted in  15 letters from me to the cities summarizing some of  16 the issues that were raised and sort of a path  17 forward with respect to those issues.  18 <b>Q. Okay. Was there any correspondence</b>  19 <b>relating to the documents that were exchanged by</b>  20 <b>the cities and DWR? Change applications, models?</b>  21 A. Well, there's certainly some as they  22 transmitted a new set of change applications,  23 those are documented in the records.  24 <b>Q. Okay.</b>  25 A. But.</p>	<p style="text-align: right;">Page 95</p> <p>1 consumptive use analysis. Again, staff reviewed  2 that and determined the consumptive use  3 appropriate from our rules.  4 <b>Q. So they did an initial review?</b>  5 A. I'm sure they did. I'm not sure to what  6 extent they relied on that information submitted  7 as opposed to just applying the rules.  8 <b>Q. Okay. Does that initial review appear in</b>  9 <b>the administrative record to your knowledge?</b>  10 A. Our administrative review of their --  11 <b>Q. Did your internal review of the</b>  12 <b>consumptive, the initial consumptive use analysis,</b>  13 <b>does that appear in the administrative record for</b>  14 <b>this case?</b>  15 A. Well, they're -- the work of Elizabeth  16 Fitch to sort of determine the acres and cropping  17 is in the administrative record. The result of  18 the consumptive use determination by water right  19 is also in the record.  20 <b>Q. But that specific initial analysis, is</b>  21 <b>that in the administrative record to your</b>  22 <b>knowledge?</b>  23 A. Which? The one the applicant provided?  24 <b>Q. The initial -- correct.</b>  25 A. Well, if it's part of the applications,</p>
<p style="text-align: right;">Page 94</p> <p>1 <b>Q. As those change applications came in,</b>  2 <b>what'd you do with them?</b>  3 A. Physically?  4 <b>Q. No, just what's your process for handling</b>  5 <b>them?</b>  6 A. Well, the attorney who is head of our  7 change application unit keeps, keeps a box of  8 them. There's a box of the various ones that he's  9 sort of the custodian of those records as it's  10 shepherded through the processes.  11 <b>Q. Okay.</b>  12 A. So we also -- again, we developed, at a  13 stage when the public was getting interested and  14 we had a -- we were moving forward a decision, we  15 developed a website where we scanned pertinent  16 information and made them available to the public,  17 so those three sets of applications are posted  18 there.  19 <b>Q. Okay. Within those applications was</b>  20 <b>there a consumptive use analysis? The initial</b>  21 <b>applications?</b>  22 A. I believe there was.  23 <b>Q. Okay. Did anyone complete a review of</b>  24 <b>that consumptive use analysis?</b>  25 A. We -- I didn't personally do the</p>	<p style="text-align: right;">Page 96</p> <p>1 which I think it was, it is.  2 <b>Q. Your internal review though?</b>  3 A. Oh, I'm sorry. Our internal review of  4 what they provided.  5 <b>Q. Initially?</b>  6 A. Not to my knowledge.  7 <b>Q. Okay. Did you rely on that while</b>  8 <b>processing the applications?</b>  9 A. I don't think we did. Again, I think we  10 did the determination of acres, appropriated  11 cropping, and then applied the rule.  12 <b>Q. Okay. Did the initial consumptive use</b>  13 <b>analysis require any -- did that translate into</b>  14 <b>the model in any way or any of the modeling work?</b>  15 A. Not to my knowledge.  16 <b>Q. Okay. Did Burns and Mac change the</b>  17 <b>modeling analysis during the course of this</b>  18 <b>proceeding more than once?</b>  19 A. Well, we met with them multiple times, as  20 is in the record, to frame the modeling analysis,  21 so certainly it developed over time.  22 <b>Q. Okay. Does the modeling analysis account</b>  23 <b>for the specific soil types and conditions at the</b>  24 <b>ranch?</b>  25 A. Soil types and what?</p>



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1 **Q. Soil types and conditions.**  
 2 A. Soil types?  
 3 **Q. Yeah.**  
 4 A. Well, I mean Burns and Mac used Balleau's  
 5 modeling which has the soil types that are  
 6 indicated on that map we looked at a little bit  
 7 ago.  
 8 **Q. Does it get down to specific -- well, let**  
 9 **me rephrase. What is the level of detail that it**  
 10 **gets down to in terms of feet or acres? What's**  
 11 **the cell level?**  
 12 A. I believe they're a mile square.  
 13 **Q. They're a mile square?**  
 14 A. I believe.  
 15 **Q. Okay. And that would account for the**  
 16 **soil types?**  
 17 A. That's the level at which they determined  
 18 it.  
 19 **Q. Okay. Let's switch gears just a little**  
 20 **bit here. This -- this model feeds the master**  
 21 **order and helps you reach conclusions in that**  
 22 **master order, correct?**  
 23 MR. OLEEN: Object. Could you please  
 24 clarify which model perhaps?  
 25 MR. SCHWALB: I'm sorry. Sure.

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1 BY MR. SCHWALB:  
 2 **Q. The final model referenced in the**  
 3 **September 28th, I think, 2018, revised Burns and**  
 4 **McDonnell report, did that serve as an input to**  
 5 **the master order?**  
 6 A. It certainly informed portions of the  
 7 master order, yes.  
 8 **Q. The final master order?**  
 9 A. Yes.  
 10 **Q. Okay. Did prior versions of the Burns**  
 11 **and Mac model inform the draft master order that**  
 12 **was initially released to the GMD?**  
 13 A. Well, the version that informed it was  
 14 the model report -- what was the -- so we posted  
 15 a model report February 19, 2018, of their earlier  
 16 work which is essentially the same model, the same  
 17 model runs except for this minor correction that  
 18 was done.  
 19 **Q. Um-hm?**  
 20 A. So that's the version of the model that  
 21 -- that's reported on February 2018 that informed  
 22 the draft proposed master order, and really the  
 23 final order as well.  
 24 **Q. Okay.**  
 25 A. The resort -- the difference in results

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1 did not change.  
 2 **Q. Okay.**  
 3 A. In an appreciable way so it didn't affect  
 4 the final version. The revised modeling didn't  
 5 change the results in the final order.  
 6 **Q. Understood. So thus far we have the**  
 7 **draft order and the final order. Were there other**  
 8 **versions of the order that were worked on by your**  
 9 **office?**  
 10 MR. TRASTER: Worked on by what?  
 11 MR. SCHWALB: By his office.  
 12 A. Yes. There were other versions.  
 13 BY MR. SCHWALB:  
 14 **Q. Do you have a sense of how many?**  
 15 A. No. I mean -- no, I don't know.  
 16 **Q. Okay. Who drafted the first version of**  
 17 **the master order?**  
 18 MR. BULLER: Counsel, can you identify  
 19 which topic under the court's order that you're  
 20 currently covering?  
 21 MR. SCHWALB: I am on topics E and F, E  
 22 as in echo, F as in foxtrot.  
 23 BY MR. SCHWALB:  
 24 **Q. Who drafted the first version of the**  
 25 **order?**

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1 A. Mr. Traster.  
 2 **Q. Can you tell me about the -- why did Mr.**  
 3 **Traster draft the first version of the order?**  
 4 A. Well, he offered at a point in time to --  
 5 to provide a draft for us to review, so it was  
 6 partially just economy of state resources for him  
 7 to provide initial draft. This is a pretty unique  
 8 set of circumstances and the city needed some  
 9 unique things. It's preparing the way for a water  
 10 transfer process later on where the city has a  
 11 burden so, you know, they wanted to help sort of  
 12 shape the document in terms of what -- what they  
 13 needed to meet their client's needs and all the  
 14 processes that they would have to go through. So  
 15 some very unique circumstances.  
 16 **Q. Is the version that Mr. Traster drafted**  
 17 **in the administrative record?**  
 18 A. No.  
 19 **Q. Okay. Would you be able to provide that**  
 20 **to us -- is it in your records?**  
 21 A. I'm sure it's in an e-mail somewhere.  
 22 **Q. Okay.**  
 23 A. Or in some form.  
 24 **Q. All right. Did Mr. Traster provide input**  
 25 **on any of the versions, multiple versions, of this**



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<p style="text-align: right;">Page 101</p> <p>1 <b>draft order between the version that was reviewed</b>  2 <b>by the GMD and the final order?</b>  3 A. What was your question?  4 <b>Q. Sorry.</b>  5 A. That's all right.  6 <b>Q. So earlier you testified we have, I'll</b>  7 <b>refer to these as versions A, B and C.</b>  8 A. Okay.  9 <b>Q. For purposes of the deposition. Version</b>  10 <b>A is the version that Mr. Traster provided?</b>  11 A. Um-hm.  12 <b>Q. Version B would be the version that was</b>  13 <b>put forth as the draft master order and reviewed</b>  14 <b>by the GMD</b>  15 A. Right.  16 <b>Q. Version C is the final order.</b>  17 A. Right.  18 <b>Q. The contingent order that was published</b>  19 <b>on this website, did Mr. Traster have input on</b>  20 <b>revisions to the order between versions B and C?</b>  21 A. So.  22 MR. BULLER: And I'm going to object.  23 This is beyond the scope of the order relating to  24 the scope of this discovery.  25 MR. SCHWALB: I'll get there.</p>	<p style="text-align: right;">Page 103</p> <p>1 reject it?  2 <b>Q. Correct.</b>  3 A. No.  4 <b>Q. Okay.</b>  5 A. Not to my knowledge.  6 <b>Q. And so version B stated that it complied</b>  7 <b>with applicable laws and regulations prior to the</b>  8 <b>publication of version C?</b>  9 A. I believe it probably did. I wouldn't  10 have proposed an order that I didn't think --  11 was compliant with state law.  12 <b>Q. Okay.</b>  13 A. And requirements.  14 <b>Q. But it presumed that it would be approved</b>  15 <b>in version B?</b>  16 MR. OLEEN: Object to the form of the  17 question.  18 BY MR. SCHWALB:  19 <b>Q. Go ahead.</b>  20 A. It didn't presume it would be approved  21 without any further changes or additional terms  22 and conditions, but I attempted to draft an order  23 that I thought could be approved. But again, the  24 whole purpose of the public process was to see if  25 I got it right, to see if it could be, or it</p>
<p style="text-align: right;">Page 102</p> <p>1 MR. BULLER: So I'm not clear about how  2 the different drafts of the master order relates  3 to the chief engineer's decision to permit the  4 cities to prepare the initial draft of the draft  5 master order, or how it could conceivably be  6 related to that topic.  7 MR. SCHWALB: We'll get there. Go ahead.  8 A. So, you know, we took full control of the  9 drafting of the document somewhere in the summer  10 of 2017, well before even the proposed draft  11 master order.  12 BY MR. SCHWALB:  13 <b>Q. Um-hm?</b>  14 A. But Mr. Traster did have an opportunity  15 to review what we were doing and had input into  16 it.  17 <b>Q. Okay. Were there conclusions within the</b>  18 <b>version B, shall we say, that the master order</b>  19 <b>complied with all laws and regulations?</b>  20 A. That's right. There were.  21 <b>Q. Were there any conclusions indicating</b>  22 <b>that you were going to reject the order, or the</b>  23 <b>application, I should say?</b>  24 A. Did the proposed draft master order have  25 any conclusions that I might -- that was going to</p>	<p style="text-align: right;">Page 104</p> <p>1 should only be under certain modifications to  2 those terms and conditions, but.  3 <b>Q. Was that also the purpose of version A?</b>  4 A. Well, version A was just a starting  5 point, sort of a framework for the discussion, so  6 it wasn't a full draft of the document by any  7 means.  8 <b>Q. Is it common to let counsel for a water</b>  9 <b>-- in a water transfer act proceeding draft the</b>  10 <b>order?</b>  11 A. Well, I've never been offered before.  12 <b>Q. Okay.</b>  13 A. So it's not common.  14 <b>Q. Okay.</b>  15 A. So nothing about this set of -- of change  16 applications and subsequent processes is common.  17 <b>Q. It's common for the lawyer for the</b>  18 <b>applicant to draft the order?</b>  19 A. No. I said.  20 <b>Q. It's not?</b>  21 A. It's not.  22 <b>Q. Okay.</b>  23 A. I said it's not. I've never been  24 offered.  25 <b>Q. Okay.</b></p>





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<p style="text-align: right;">Page 105</p> <p>1 A. Number one, so, and it's not common.  2 <b>Q. Okay.</b>  3 A. There's nothing common about this set of  4 change applications.  5 <b>Q. What about outside of the context of a</b>  6 <b>water transfer act proceeding? Is it -- has it --</b>  7 <b>is it common for counsel for the applicant to</b>  8 <b>draft the order?</b>  9 A. Not to my experience.  10 <b>Q. Has it happened a few times?</b>  11 MR. BULLER: Objection. Beyond the  12 scope.  13 BY MR. SCHWALB:  14 <b>Q. Go ahead.</b>  15 A. Well, I don't know if in my experience of  16 -- in my limited experience as a chief engineer, I  17 don't know that I've had an attorney offer or  18 draft an order. I mean we've -- we've engaged the  19 applicants on particular conditions that were  20 important to them to determine how those  21 conditions should be drafted. I mean that's --  22 that's happened before.  23 <b>Q. Okay. These conversations around</b>  24 <b>drafting of the order, were any of -- these</b>  25 <b>happened in meetings or telephone calls? What</b></p>	<p style="text-align: right;">Page 107</p> <p>1 <b>Q. Okay. Were these meetings announced to</b>  2 <b>the public?</b>  3 MR. BULLER: Objection. Beyond the  4 scope.  5 A. No. The meetings were not announced.  6 BY MR. SCHWALB:  7 <b>Q. Okay. So let's --</b>  8 A. Although Water PACK was privy to at least  9 one of the meetings because they showed up on my  10 doorstep, so.  11 <b>Q. So somehow they got word of it.</b>  12 A. Somehow they got word of it. I mean we  13 -- we certainly didn't keep it a secret that we  14 were working with the cities on this matter.  15 <b>Q. Um-hm?</b>  16 A. You know, I, you know, I met with Water  17 PACK on one occasion and updated them on the  18 process, so.  19 <b>Q. And they were part of this proceeding in</b>  20 <b>I guess maybe a disjointed fashion?</b>  21 A. They were certainly interested in what  22 was going on. So again, I attended one of their  23 annual meetings in, I don't remember exactly when  24 it was in this process, to provide them an update,  25 so we certainly weren't secretly meeting.</p>
<p style="text-align: right;">Page 106</p> <p>1 <b>form did these conversations take to the extent</b>  2 <b>you had them?</b>  3 MR. BULLER: Objection. Beyond the  4 scope.  5 MR. SCHWALB: Okay.  6 A. So again? Repeat the question.  7 BY MR. SCHWALB:  8 <b>Q. Sorry. So we're talking about the</b>  9 <b>decision to permit the cities to draft version A.</b>  10 A. Um-hm.  11 <b>Q. And you referenced the fact that this is</b>  12 <b>a unique proceeding; is that correct?</b>  13 A. I did.  14 <b>Q. And that there was an offer made it</b>  15 <b>sounds like --</b>  16 A. Um-hm.  17 <b>Q. -- from the cities to draft it. What was</b>  18 <b>the setting for that offer? Was it a meeting?</b>  19 <b>Was it e-mails?</b>  20 MR. BULLER: Objection. Beyond the  21 scope.  22 A. As I recall it was at the end of one of  23 our meetings, face-to-face meetings, Mr. Traster  24 offered to do an initial draft.  25 BY MR. SCHWALB:</p>	<p style="text-align: right;">Page 108</p> <p>1 <b>Q. Fair enough. And so this leads into</b>  2 <b>version B, I think you coined it, and version B</b>  3 <b>was finalized prior to the Greensburg meeting or?</b>  4 A. Yes.  5 MR. BULLER: Objection. Beyond the  6 scope.  7 BY MR. SCHWALB:  8 <b>Q. Okay.</b>  9 A. Version B being --  10 <b>Q. The draft master order --</b>  11 A. -- the draft proposed master order.  12 <b>Q. Correct.</b>  13 A. We provided that to GMD and the public,  14 put it on our website on February 7, 2018, about  15 six weeks ahead of the public meeting.  16 <b>Q. Okay. And did the draft proposed master</b>  17 <b>order serve as -- did you use it for the</b>  18 <b>Greensburg meeting?</b>  19 MR. BULLER: Objection. Beyond the  20 scope.  21 MR. SCHWALB: Item C in the order for  22 discovery.  23 A. We provided at the annual meeting a  24 summary --  25 BY MR. SCHWALB:</p>



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<p style="text-align: right;">Page 109</p> <p>1 <b>Q. Not the annual meeting, the Greensburg</b>  2 <b>meeting.</b>  3 A. Sorry. Yeah, I misspoke. At the public  4 meeting we provided a summary of the draft  5 proposed master order to the public.  6 <b>Q. Okay.</b>  7 A. To explain to them what this -- what was  8 being proposed, yes.  9 <b>Q. All right. Can we jump into your slides</b>  10 <b>from -- from that meeting?</b>  11 A. Sure.  12 <b>Q. And I forget exactly what exhibit we had</b>  13 <b>those marked for.</b>  14 MR. BULLER: Is that the entire set of  15 slides presented at the meeting or just an excerpt  16 selected by counsel?  17 MR. SCHWALB: It is an excerpt. It  18 appears in the administrative record at KDA 850.  19 MR. BULLER: And when you say it appears  20 in the administrative record, you mean the entire  21 slide show or just the excerpt?  22 MR. SCHWALB: Just the excerpts.  23 MR. BULLER: Let me interpose a running  24 objection to the use of all exhibits that are  25 excerpts and not complete copies of documents as</p>	<p style="text-align: right;">Page 111</p> <p>1 deposition, it would be helpful to have a copy.  2 MR. SCHWALB: Okay. Well, let's mark  3 those as Exhibit 10 then and it will just be the  4 first page, here.  5 MR. TRASTER: So 9 is what?  6 MR. SCHWALB: 9 is Mr. Barfield's version  7 that has all of the slides and No. 10 I guess  8 would be the version that Mr. Buller has objected  9 to that's marked as Depo Exhibit 16 by Water PACK  10 but for purposes of this depo for this deposition  11 would be marked as Exhibit 10.  12 MR. BULLER: And will you be using  13 Exhibit 10 during this deposition? Is that what  14 you're going to be discussing with Mr. Barfield  15 here?  16 MR. SCHWALB: Just that one slide, yes.  17 MR. BULLER: And just to clarify for the  18 record, I'm not objecting to Exhibit 10 for  19 purposes of this deposition.  20 MR. SCHWALB: Okay.  21 MR. BULLER: My objection is really just  22 I want to make sure that we're looking at the  23 documents as they exist in the administrative  24 record and not counsel's hand selected excerpts.  25 MR. SCHWALB: Fair enough. I will just</p>
<p style="text-align: right;">Page 110</p> <p>1 they exist in the administrative record.  2 MR. SCHWALB: All right.  3 MR. BULLER: If counsel will accept that  4 running objection I won't have to re-make it  5 whenever we refer to or were to use a document  6 excerpt.  7 MR. SCHWALB: Let's deal with it this  8 way. Would it be okay if we just marked his  9 presentation from that, from the Greensburg  10 meeting, as an exhibit?  11 MR. BULLER: That would be better, but  12 the objection also applies to other exhibits used  13 during this deposition that are excerpts and not  14 complete copies.  15 MR. SCHWALB: Fair enough. If we can get  16 that one marked as, I think as Exhibit 9.  17 (THEREUPON, the court reporter marked  18 Barfield Deposition Exhibit No 9 for  19 identification.)  20 THE WITNESS: Would you like me to have  21 copies made?  22 MR. SCHWALB: The whole presentation is  23 in the administrative record, I believe.  24 MR. BULLER: But to the extent you're  25 referring to portions of that slide show in this</p>	<p style="text-align: right;">Page 112</p> <p>1 represent that this is an accurate extract of Mr.  2 Barfield's presentation as it appears within the  3 administrative record and marked KDA 850.  4 THE REPORTER: Can we pause?  5 MR. SCHWALB: Sure.  6 (THEREUPON, the court reporter marked  7 Barfield Deposition Exhibit No 10 for  8 identification.)  9 MR. OLEEN: May I speak off the record.  10 (THEREUPON, an off the record discussion  11 was held.)  12 MR. BULLER: We want a copy of Exhibit 9,  13 a full copy.  14 MS. NAVINSKY-WENZL: We can work on that  15 over the lunch hour or next break.  16 MR. TRASTER: That's fine. I don't need  17 it today even, but it will come with the record.  18 MR. SCHWALB: Sorry. I was trying to  19 save some trees and be more sustainable.  20 THE WITNESS: Okay.  21 BY MR. SCHWALB:  22 <b>Q. Okay. All right. So we're back on the</b>  23 <b>record. We were talking about the meeting in</b>  24 <b>Greensburg. Mr. Barfield, I'll refer you to the</b>  25 <b>slide in your presentation marked as KDA 850 and</b></p>





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<p style="text-align: right;">Page 113</p> <p>1 for purposes of the Deposition Exhibit 10. The  2 third bullet there refers, I'm sorry, the fourth  3 bullet refers to contingent approval of the change  4 applications does it not?  5 A. Yes, it does.  6 <b>Q. It does not refer to a rejection does it?</b>  7 A. It does not. This is -- this is sort of  8 my closing slide of the presentation that  9 basically informs the public of how we anticipated  10 moving forward. Earlier in the presentation I  11 make a statement that no decision has been made.  12 Worked hard to develop a set of terms that meets  13 the city needs and statutory requirements but --  14 but so this was -- this was just a statement of  15 the anticipated process ahead, so.  16 <b>Q. But the word rejection does not appear on</b>  17 <b>the slide?</b>  18 A. That is true.  19 <b>Q. Okay. You mentioned some earlier</b>  20 <b>statements that you made and I'm sorry, I can't</b>  21 <b>remember which one of these exhibits it refers to,</b>  22 <b>there's a transcript from -- from the Greensburg</b>  23 <b>meeting that I'd like to jump back to, I think it</b>  24 <b>was marked Depo Exhibit 17. Mr. Barfield's</b>  25 <b>jumping through the pages here. There it is. And</b></p>	<p style="text-align: right;">Page 115</p> <p>1 A. It is -- I have to -- not that I can  2 object here but it is a little difficult to get  3 the full context of what's going on here with  4 this.  5 BY MR. SCHWALB:  6 <b>Q. Well, the first sentence says do you</b>  7 <b>agree with or concur with Mr. Meier's definition</b>  8 <b>of sustainability?</b>  9 MR. BULLER: Objection. Asked and  10 answered.  11 A. So this is an unidentified speaker  12 raising a question speaking about sustainability.  13 I'm not sure the word sustainability appears in  14 any of our documents.  15 BY MR. SCHWALB:  16 <b>Q. Okay.</b>  17 A. I mean that was not the basis of, you  18 know, the ten- year rolling average limitation,  19 so.  20 <b>Q. Okay. But the following sentence says we</b>  21 <b>have come to an agreement on what it means. Does</b>  22 <b>it not?</b>  23 MR. BULLER: Objection. Lack of  24 foundation. Asked and answered.  25 A. So again, that are the -- that's the</p>
<p style="text-align: right;">Page 114</p> <p>1 which exhibit is that, Mr. Barfield?  2 A. 3.  3 <b>Q. Exhibit 3. Okay. I'd like to draw your</b>  4 <b>attention to the first page of that. That refers</b>  5 <b>to -- and specifically the highlighted portion,</b>  6 <b>maybe even the sentence above that. That asks,</b>  7 <b>and I'm not sure who it was, it's labeled</b>  8 <b>unidentified speaker, it asks whether or not you</b>  9 <b>concurred with Mr. Meier's definition of</b>  10 <b>sustainability; is that correct?</b>  11 A. It does.  12 <b>Q. Okay. Whose Mr. Meier?</b>  13 A. There's more than one Meier around. It's  14 probably Brian Meier with Burns and Mac.  15 <b>Q. Okay. And then in the following sentence</b>  16 <b>it says that for purposes of this process we have</b>  17 <b>-- we have come to an agreement on what it means.</b>  18 <b>What's the "it" in that sentence? Is it</b>  19 <b>sustainability?</b>  20 A. There's a lot of unintelligibles in my  21 articulation of my response.  22 MR. BULLER: And I'm going to interpose  23 an objection to the use of this partial  24 transcript. It really lacks foundation for use in  25 this line of questioning.</p>	<p style="text-align: right;">Page 116</p> <p>1 words on the page, here. I'm not quite sure  2 without more context what I was trying to  3 communicate here.  4 BY MR. SCHWALB:  5 <b>Q. Okay. Was there any agreement on what</b>  6 <b>sustainability means with Burns and Mac?</b>  7 A. No. Again, we did modeling work to  8 determine the long-term yield.  9 <b>Q. Um-hm?</b>  10 A. Which is of the area.  11 <b>Q. So does yield equate to sustainability?</b>  12 A. No.  13 <b>Q. Okay. What does sustainability equate</b>  14 <b>to?</b>  15 A. Well, sustainability means the use that  16 can be sustained indefinitely.  17 <b>Q. The use sustained by whom?</b>  18 A. Well, whatever water user you're  19 determining.  20 <b>Q. The cities?</b>  21 A. You're asking about a general definition  22 of what does sustainability mean, right?  23 <b>Q. Within the context of this order. If</b>  24 <b>we're talking about sustainability, subject to his</b>  25 <b>objection, what does sustainability mean?</b></p>



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<p style="text-align: right;">Page 117</p> <p>1 A. The order doesn't talk about 2 sustainability, this question, or ask the 3 question. 4 <b>Q. Okay. And do you have a personal 5 definition of sustainability?</b> 6 MR. BULLER: Objection. Lack of 7 foundation. Calls for speculation. 8 MR. OLEEN: Objection. Outside the scope 9 of the deposition. 10 MR. BULLER: I join in that objection. 11 A. Well, sustainable use is that use that 12 can be sustained indefinitely. 13 MR. SCHWALB: All right. Could we take a 14 quick break. All right? Maybe ten minutes if 15 that works? 16 THE WITNESS: Do you want a lunch break? 17 It's ten to noon. 18 MR. BULLER: Yeah, I'd be fine with that. 19 I'm fine with working through lunch, I'm fine with 20 taking a lunch break. Whatever everybody else 21 wants to do is fine with me. Mr. Traster, just 22 for the record, is grasping his midsection. 23 MR. TRASTER: Let's take at least a short 24 lunch break. 25 MR. SCHWALB: Maybe 40 minutes?</p>	<p style="text-align: right;">Page 119</p> <p>1 <b>engineering firms other than Burns and McDonnell 2 relating to the R9 ranch?</b> 3 MR. BULLER: Same objection. And vague 4 and ambiguous. 5 A. And besides Doctor Keller's? 6 BY MR. SCHWALB: 7 <b>Q. Correct. Any of the parties not -- 8 beyond those that you've already referred to.</b> 9 MR. BULLER: Same objection. 10 A. So again, repeat the question just to 11 make sure. 12 BY MR. SCHWALB: 13 <b>Q. Sorry.</b> 14 A. No, that's all right. That's fine. 15 <b>Q. So I asked you whether or not there were 16 other engineering firms -- 17 A. Um-hm. 18 Q. -- that might have been involved here. 19 Were there any?</b> 20 MR. BULLER: Same objection. 21 A. Again, I'm not aware of it. 22 BY MR. SCHWALB: 23 <b>Q. Okay. So there would not be any reports 24 to your knowledge, other than those provided by 25 Burns and McDonnell, relating to the change</b></p>
<p style="text-align: right;">Page 118</p> <p>1 Reconvene at 12:30? 2 MR. TRASTER: That'd be fine. Can we go 3 -- we can go off the record for this discussion. 4 (THEREUPON, an off the record discussion 5 was held.) 6 BY MR. SCHWALB: 7 <b>Q. Are we back on the record? All right. I 8 want to come back to this notion of information 9 made available to you that was part of the 10 administrative record. You said earlier that the 11 ranch was -- was acquired, I believe in the early 12 1990's, was it not?</b> 13 A. I believe 1995. 14 <b>Q. Okay. So mid-'90s?</b> 15 A. Right. 16 <b>Q. All right. Do you know whether the 17 cities employed any engineers between acquisition 18 of the ranch and the initial change application to 19 assess how much water could be moved?</b> 20 MR. BULLER: Objection. Beyond the 21 scope. 22 MR. OLEEN: I join that. 23 A. I don't have any knowledge. 24 BY MR. SCHWALB: 25 <b>Q. Did you review any information from any</b></p>	<p style="text-align: right;">Page 120</p> <p>1 <b>application?</b> 2 MR. BULLER: Same objection. 3 A. Related to the changes or the ranch 4 itself? 5 BY MR. SCHWALB: 6 <b>Q. The change applications as they relate to 7 the ranch.</b> 8 A. Yeah. I'm not aware. I mean, there was 9 a reference, I mean one of, I don't remember if 10 it's Balleau or Keller, referenced some earlier 11 assessment of the yield of the ranch. 12 <b>Q. Okay.</b> 13 A. I can't remember who did that. 14 <b>Q. Was that assessment provided to you?</b> 15 A. Some summary of it was. I don't recall 16 beyond that, so. 17 <b>Q. Okay. Does that summary appear in the 18 record?</b> 19 A. Again, there's a reference to that work 20 and its conclusion. I don't know if -- I don't 21 recall the details of the assessment was in the 22 record. 23 <b>Q. Okay.</b> 24 A. I'm not sure. 25 <b>Q. And did you -- so you would not have</b></p>



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<p style="text-align: right;">Page 121</p> <p>1 reviewed that work in connection with the master 2 order? 3 A. No. 4 MR. SCHWALB: Okay. I think I'm done. 5 THE WITNESS: All right. 6 MR. SCHWALB: Thank you. 7 MR. OLEEN: Off the record for a lunch 8 break. 9 (THEREUPON, a recess was taken.) 10 CROSS-EXAMINATION 11 BY MR. OLEEN: 12 Q. Okay. Go back on the record. Mr. 13 Barfield, we're back on the record after a lunch 14 break and you understand that you're still under 15 oath like you were earlier in the day of this 16 deposition? 17 A. I understand. 18 Q. I want to hand you what I will mark as 19 depo Exhibit 11. 20 (THEREUPON, the court reporter marked 21 Barfield Deposition Exhibit No 11 for 22 identification.) 23 BY MR. OLEEN: 24 Q. And Mr. Barfield, please take your time 25 to review the first couple pages of Depo Exhibit</p>	<p style="text-align: right;">Page 123</p> <p>1 it contains some references to DWR having had some 2 discussions with the cities about the proposed R9 3 Ranch change applications doesn't it? 4 A. It does, yes. 5 Q. In response to this letter, do you recall 6 either Mr. or Mrs. Wenstrom or anybody else with 7 Water PACK objecting to the meetings that were 8 referenced in here? 9 A. No, I don't recall any objection or -- of 10 theirs to the meetings, no. 11 Q. In response to this letter do you recall 12 them asking to be involved in future meetings? 13 A. No, they did not make such a request to 14 my recollection. 15 Q. Did they ask to be put on some sort of e- 16 mail list? 17 A. You know, I think they -- they wanted to 18 be informed, and as I reference in the letter this 19 is one reason we created the website. Their open 20 record request I think initiated this phase of 21 interest and so we built the website as a way to 22 keep -- keep them and other water users informed 23 of, you know, the most pertinent things going on, 24 so. 25 Q. I'm going to hand you another document</p>
<p style="text-align: right;">Page 122</p> <p>1 11 which appears to be a letter dated April 18, 2 2016, and let me know when you've had a chance to 3 review that, please. 4 A. Okay. I think I've reviewed it 5 sufficiently. 6 Q. What's the date of this letter and who 7 purported to sign it? 8 A. So the date is April 18th, 2016, it's 9 written by me to Richard and Jane Wenstrom who are 10 members of Water PACK but also neighbors to the 11 ranch. 12 Q. Does this -- well, do you recall sending 13 this letter to the Wenstroms? 14 A. I do. 15 Q. Does this letter include some 16 attachments? 17 A. Yes. It includes a letter of April 6th, 18 2016, to Mr. Traster that responds to one of our 19 meetings that we had and the issues raised. 20 Q. And does it also have an -- a water 21 transfer act procedure overview document at the 22 end? 23 A. It does. 24 Q. Okay. So this package of documents that 25 was sent to the Wenstroms by you in April of 2016,</p>	<p style="text-align: right;">Page 124</p> <p>1 which I would like to be marked as Deposition 2 Exhibit 12, please. 3 (THEREUPON, the court reporter marked 4 Barfield Deposition Exhibit No. 12 for 5 identification.) 6 MR. SCHWALB: And I'm sorry. Aaron, 7 before you continue, I just want to object to the 8 admission of this Exhibit 11 on the basis that 9 it's outside the scope of the discovery order. 10 MR. OLEEN: Okay. 11 MR. KITE: Just to clarify, this is 12, 12 the one you just handed me? 13 MR. OLEEN: Yes. We just talked about 11 14 which was April, the April 16, 2016, letter and 15 now a new one circulating has been marked as 16 Deposition Exhibit 12. And for the record I 17 believe it's relevant to Mr. Schwalb's line of 18 questioning about Water PACK's notice of this or 19 that with respect to this matter. 20 MR. TRASTER: I have a question about 12. 21 The first page is on Department of -- I'm -- but 22 my signature is on the back and I'm not sure 23 that -- 24 THE WITNESS: That doesn't sound right. 25 MR. TRASTER: I'm happy to speak for --</p>



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<p style="text-align: right;">Page 125</p> <p>1 MR. OLEEN: Okay. I see what happened.  2 MR. KITE: David, I thought you worked  3 for DWR. Isn't that right?  4 MR. OLEEN: Let's go off the record for a  5 minute.  6 (THEREUPON, an off the record discussion  7 was held.)  8 MR. OLEEN: Okay. So for the record, I  9 realized that what I had asked to be marked as  10 Deposition Exhibit 12, I don't think it has  11 actually been marked yet.  12 THE REPORTER: It does have a sticker on  13 it.  14 MR. OLEEN: Does it? Okay. Is not the  15 correct document that I wanted to mark, so we are  16 going to get that complete document corrected and  17 come back to it. In the meantime I'll ask you  18 some other questions, Mr. Barfield.  19 BY MR. OLEEN:  20 <b>Q. Earlier Mr. Schwab asked you a line of</b>  21 <b>questioning about elected officials and what they</b>  22 <b>may have said to you regarding the cities'</b>  23 <b>proposed change -- changes regarding the R9 water</b>  24 <b>rights. Do you recall that line of questioning?</b>  25 A. I do.</p>	<p style="text-align: right;">Page 127</p> <p>1 A. That is correct.  2 <b>Q. Okay. And so if someone submits a change</b>  3 <b>application purportedly along -- let me rephrase.</b>  4 <b>If someone submits a change application to</b>  5 <b>change a water right, do you view it as DWR's job</b>  6 <b>to consider that application?</b>  7 A. Certainly. Yes.  8 <b>Q. And render some decision about it?</b>  9 A. Yes.  10 <b>Q. You -- you -- isn't it true that DWL</b>  11 <b>processes change applications all the time?</b>  12 A. Yes.  13 <b>Q. Has there ever been a set of change</b>  14 <b>application requests as extensive or complex as</b>  15 <b>the ones that the cities requested regarding the</b>  16 <b>R9 Ranch to your experience here, or knowledge?</b>  17 A. Well, not in my tenure as chief engineer  18 that I can think of.  19 MR. OLEEN: Okay. Now back to -- I guess  20 I'm not -- I'm probably not allowed to delete a  21 deposition exhibit so we will -- I would ask that  22 this be marked as Deposition Exhibit 13, please.  23 MR. BULLER: I think you can withdraw and  24 replace.  25 MR. KITE: You can withdraw it.</p>
<p style="text-align: right;">Page 126</p> <p>1 <b>Q. To your recollection were you ever told</b>  2 <b>by any state elected official to reach a</b>  3 <b>particular decision with respect to the cities'</b>  4 <b>pending change application regarding the R9 water</b>  5 <b>rights?</b>  6 A. I was not.  7 <b>Q. In your opinion are any of the</b>  8 <b>conclusions that you reached -- any of the</b>  9 <b>findings or conclusions that you put in the final</b>  10 <b>issued master order, were they impacted as far as</b>  11 <b>content by any sort of political pressure?</b>  12 A. They were not.  13 <b>Q. But the timing was certainly something</b>  14 <b>that was encouraged to you as far as something</b>  15 <b>that needed to progress, correct?</b>  16 A. That is correct.  17 <b>Q. You also earlier made a reference to</b>  18 <b>statute 82a-708b. Do you recall that?</b>  19 A. Um.  20 <b>Q. If not, that's --</b>  21 A. Well, I mean, we've talked about the  22 statute multiple times, so.  23 <b>Q. Okay. 708b, statute 708b, that is the</b>  24 <b>statute that primarily governs chain (sic)</b>  25 <b>applications -- change applications, correct?</b></p>	<p style="text-align: right;">Page 128</p> <p>1 MR. BULLER: Just withdraw and replace  2 it.  3 MR. OLEEN: I want to withdraw what you  4 had originally marked as Deposition Exhibit 12 and  5 ask that you re-mark this document instead.  6 MR. KITE: No objection.  7 MR. TRASTER: No objection.  8 (THEREUPON, the court reporter marked  9 Barfield Deposition Exhibit No 12 was re-marked  10 for identification.)  11 BY MR. OLEEN:  12 <b>Q. Regarding what -- regarding the replaced</b>  13 <b>document that's been marked as Deposition Exhibit</b>  14 <b>12, Mr. Barfield, if you'd please review that</b>  15 <b>letter and let me know when you're done.</b>  16 A. Okay.  17 <b>Q. Mr. Barfield, what is the date of this</b>  18 <b>letter and who apparently signed it?</b>  19 A. Well, it's dated February 19, 2018, and I  20 signed it.  21 <b>Q. And is this a letter that you wrote or</b>  22 <b>approved?</b>  23 A. It's a letter I wrote and approved.  24 <b>Q. And to whom did you send this letter?</b>  25 A. It's sent to GMD 5 and Water PACK.</p>



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<p style="text-align: right;">Page 129</p> <p>1 <b>Q. And did I ask you the date?</b>  2 A. You did.  3 <b>Q. Okay. Would you please read for the</b>  4 <b>record the first two sentences of the first</b>  5 <b>paragraph of this letter?</b>  6 A. All right. As you're aware we have been  7 in discussions with the cities of Russell, Hays  8 and Russell, regarding their proposed change  9 applications submitted in anticipation of their  10 desired water transfer from the R9 Ranch for  11 municipal use in their region. Our discussions  12 will culminate in a DWR -- in DWR completing a  13 draft master order and draft individual approvals  14 for the proposed changes, which final drafts will  15 be provided to GMD 5 for review and input and  16 posting on our website for the general public.  17 <b>Q. Thank you. In response to this letter</b>  18 <b>did you ever hear from Water PACK, some Water PACK</b>  19 <b>representative complaining about these referenced</b>  20 <b>discussions for the referenced draft documents in</b>  21 <b>this first paragraph?</b>  22 A. Not to my recollection.  23 <b>Q. Did they ever ask -- did anyone from</b>  24 <b>Water PACK, in apparent response to this letter,</b>  25 <b>ever ask to be involved in these referenced</b></p>	<p style="text-align: right;">Page 131</p> <p>1 <b>if so, how or how not?</b>  2 A. Well, this is the letter that accompanied  3 the flash drive that I spoke about, the USB drive  4 I spoke about.  5 <b>Q. Okay. And this USB drive contained what</b>  6 <b>again?</b>  7 A. Well, as the letter indicated, it says  8 backup files. Again, it's the files that are  9 necessary to run the model scenarios that were  10 used, that the city did for their modeling report.  11 <b>Q. And this letter, does it indicate whether</b>  12 <b>a copy of the USB drive was sent to Richard</b>  13 <b>Wenstrom with Water PACK or not?</b>  14 A. It does say that, that it is, was.  15 <b>Q. Earlier there was -- earlier this morning</b>  16 <b>I believe there was a discussion about some</b>  17 <b>corrections to the model that's referenced in this</b>  18 <b>letter. Do you recall that line of discussion?</b>  19 A. I do.  20 <b>Q. So this document here, Deposition Exhibit</b>  21 <b>13, which version of the -- well, let me make sure</b>  22 <b>I understand it correctly. This letter refers to</b>  23 <b>a model that was created by whom?</b>  24 A. By Burns and McDonnell -- well, right.  25 Burns and McDonnell based on GMD 5's model.</p>
<p style="text-align: right;">Page 130</p> <p>1 <b>discussions or drafts?</b>  2 MR. KITE: Object as outside the scope.  3 BY MR. TRASTER:  4 <b>Q. You may answer.</b>  5 A. Not to my recollection.  6 <b>Q. I will now hand you what I will ask be</b>  7 <b>marked as Deposition Exhibit 13.</b>  8 (THEREUPON, the court reporter marked  9 Barfield Deposition Exhibit No 13 for  10 identification.)  11 BY MR. SCHWALB:  12 <b>Q. Mr. Barfield, if you would please review</b>  13 <b>what's been marked as Deposition Exhibit 13 and</b>  14 <b>let me know when you're done.</b>  15 A. Okay.  16 <b>Q. Do you recall -- did you send out this</b>  17 <b>letter, Mr. Barfield?</b>  18 A. Yes, I did.  19 <b>Q. Earlier this morning there was a</b>  20 <b>discussion about sending some USB drives</b>  21 <b>containing some modeling files. Do you recall</b>  22 <b>that line of questioning?</b>  23 A. I do.  24 <b>Q. Given your recollection of that line of</b>  25 <b>questioning, is this letter related to that? And</b></p>	<p style="text-align: right;">Page 132</p> <p>1 <b>Q. Okay. And so at some point Burns and</b>  2 <b>McDonnell made some corrections to the model; is</b>  3 <b>that right?</b>  4 A. They did, later.  5 <b>Q. After -- after this letter was sent?</b>  6 A. After the letter was sent. After the  7 public comment was reviewed, after the error was  8 found by Balleau Groundwater.  9 <b>Q. Okay. And I thought you said earlier</b>  10 <b>something about the corrected model favored the</b>  11 <b>cities. Did you say something like that?</b>  12 A. Yes, I did say something like that.  13 <b>Q. Can you explain what you meant by that?</b>  14 A. So the fix of the model produced outputs,  15 results, that had reduced impacts from the change.  16 Let me try again.  17 I said they favored the city, I meant they  18 supported the cities' contention that the limits  19 that they found in their original work were  20 reasonable. Is that any -- any clearer?  21 <b>Q. I think so.</b>  22 A. The city did not -- and again there's a  23 -- I could go to the master order. There is a  24 discussion about this in the master order that  25 maybe is more thoughtful than my articulation</p>





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<p style="text-align: right;">Page 133</p> <p>1 here. It could have supported a slightly higher  2 limits if the city wanted to go back but the city  3 didn't change their limits based on the modeling  4 work, so it supported the cities' contention that  5 the results were reasonable. If you want a clear  6 articulation of that I can find the paragraph in  7 the order that says that better than I just did.  8 <b>Q. That's not necessary. I will hand you</b>  9 <b>what I would now like marked as Deposition Exhibit</b>  10 <b>14, please.</b>  11 A. I would note, I'm sorry, there's a word,  12 evolution in this letter here that I think should  13 be evaluation but it's probably not important.  14 <b>Q. And which letter are you referring to?</b>  15 <b>Which deposition exhibit?</b>  16 A. Exhibit 13, the first sentence says per  17 your request, please find enclosed two copies of a  18 USB drive each containing the MODFLOW modeling  19 files associated with the R9 Ranch evolution  20 regarding the pending application. I think it  21 should be evaluation.  22 (THEREUPON, the court reporter marked  23 Barfield Deposition Exhibit No 14 for  24 identification.)  25 BY MR. OLEEN:</p>	<p style="text-align: right;">Page 135</p> <p>1 <b>were you open to changing any terms in that draft</b>  2 <b>proposed master order?</b>  3 A. Well, that's what the review process is  4 about, was to provide GMD 5 specifically, as well  5 as the public, an opportunity to review and  6 comment on the sufficiency of that proposed draft  7 master order.  8 <b>Q. At the time you transmitted the proposed</b>  9 <b>draft master order that this was a cover letter</b>  10 <b>for, you did your -- well, did you think it</b>  11 <b>complied with applicable laws?</b>  12 A. Yes, I did.  13 <b>Q. Do you think it would be reasonable to</b>  14 <b>transmit something otherwise?</b>  15 A. I do not think it would be reasonable to  16 transmit something otherwise.  17 <b>Q. I'll hand you what I will ask be marked</b>  18 <b>as Deposition Exhibit 15.</b>  19 (THEREUPON, the court reporter marked  20 Barfield Deposition Exhibit No 15 for  21 identification.)  22 BY MR. TRASTER:  23 <b>Q. Please briefly review that document, Mr.</b>  24 <b>Barfield, and let me know when you're done.</b>  25 MR. TRASTER: So this is?</p>
<p style="text-align: right;">Page 134</p> <p>1 <b>Q. Mr. Barfield, please review what has been</b>  2 <b>marked as Deposition Exhibit 14 and let me know</b>  3 <b>when you're done.</b>  4 A. Okay.  5 <b>Q. Tell me what this document is, Mr.</b>  6 <b>Barfield, who signed it, when it was sent out and</b>  7 <b>to whom it was sent?</b>  8 A. All right. It was a letter by me dated  9 May 4, 2018, to GMD 5 and cc'd to Water PACK and  10 city officials essentially transmitting the draft  11 proposed master order and individual approvals  12 related to the Hays-Russell R9 Ranch change  13 applications.  14 <b>Q. So is this the transmittal letter that</b>  15 <b>you sent out that enclosed what we've referred to</b>  16 <b>as the, quote, draft proposed master order?</b>  17 A. It is, yes.  18 <b>Q. And would you read to me the last</b>  19 <b>sentence of the third paragraph of this Deposition</b>  20 <b>Exhibit 14?</b>  21 A. Nevertheless, these are only draft  22 proposed documents and I have made no official  23 decision about any of these issues.  24 <b>Q. At the time you disseminated the draft</b>  25 <b>proposed master order that this letter enclosed,</b></p>	<p style="text-align: right;">Page 136</p> <p>1 MR. OLEEN: 15.  2 MR. TRASTER: 15?  3 A. Okay.  4 BY MR. OLEEN:  5 <b>Q. So as a result of -- well, let me</b>  6 <b>rephrase. The draft proposed master order was</b>  7 <b>transmitted at least to the entities listed on</b>  8 <b>Deposition Exhibit 14, it was transmitted on May</b>  9 <b>4th, 2018, correct?</b>  10 A. Yes. And then posted on our website as  11 well.  12 <b>Q. Okay. And after that there was this</b>  13 <b>public informational meeting that we talked about</b>  14 <b>this morning, correct?</b>  15 A. That's correct.  16 <b>Q. And at that public informational meeting</b>  17 <b>you essentially heard input on the cities'</b>  18 <b>requested changes and the draft proposed master</b>  19 <b>order; is that right?</b>  20 A. That's correct. And then a lot of  21 written comments following, during the period  22 assigned for comments to be received.  23 <b>Q. As a result of the comments either oral</b>  24 <b>or written that you received, after disseminating</b>  25 <b>the draft proposed master order, did you make any</b></p>



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<p style="text-align: right;">Page 137</p> <p>1 <b>changes that -- that were shown in the final</b>  2 <b>master order that you issued on or about March</b>  3 <b>27th of 2019?</b>  4 A. Yes. The third to the last bullet is a  5 list of, you know, key revisions from the proposed  6 draft master order to the contingent approval.  7 <b>Q. So this Deposition Exhibit 15, what is</b>  8 <b>this document, I should ask?</b>  9 A. Yeah. So this is a summary of the  10 contingent approval, somewhat similar to the  11 version that I provided at the public meeting,  12 here is sort of an update that -- that this is  13 the document we put on our website at the time of  14 the contingent approval just to update the public  15 in terms of what had happened and what -- what  16 that approval meant and where the process was  17 going from there.  18 <b>Q. And so does the third bullet point from</b>  19 <b>the bottom of Deposition Exhibit 15, does that</b>  20 <b>summarize key revisions that were made as a result</b>  21 <b>of the public input that you had received?</b>  22 A. Yeah. That's its intent.  23 <b>Q. And what were some of those key</b>  24 <b>revisions?</b>  25 A. So the ten-year rolling aggregate</p>	<p style="text-align: right;">Page 139</p> <p>1 opportunity for -- an expanded opportunity for  2 comments from -- from the public. You know, we do  3 provide notice to the neighborhood, you know, to  4 neighboring water rights and obviously to GMD to  5 get their comments, as is normal part of our  6 process. So this is just an expanded opportunity  7 to understand this complex set of change  8 applications and, you know, some complexity in  9 terms of some of the unique terms and conditions  10 so they could provide meaningful feedback.  11 <b>Q. Would you say that you were open to</b>  12 <b>changing any provisions of the draft proposed</b>  13 <b>master order, depending on what information you</b>  14 <b>received as a result of the public informational</b>  15 <b>meeting process?</b>  16 A. Any is a pretty strong word there. You  17 know, we had done a lot of work on the document  18 and I mean, I was open to input and carefully  19 evaluated that input to ensure that the pack sent  20 still complied with state law and requirements.  21 <b>Q. And the final master order that was</b>  22 <b>issued around March 27, 2019, how much involvement</b>  23 <b>-- well, let me rephrase that.</b>  24 <b>After the public informational meeting, who</b>  25 <b>-- who drafted the -- the changes to the master</b></p>
<p style="text-align: right;">Page 138</p> <p>1 limitation, there was a provision in the draft  2 proposed master order that would allow that to be  3 dropped in the future under certain conditions.  4 That was not part of the approval I did in March  5 of 2019. I added a provision that required a  6 public hearing before there could be any increase  7 to the ten-year rolling aggregate limitation.  8 That was not explicitly required in the draft  9 proposed. We added a water quality component to  10 the cities' monitoring plan and then we corrected  11 errors in the cities' groundwater modeling that  12 were identified in the process.  13 <b>Q. This public informational meeting, is it</b>  14 <b>typical to hold a public informational meeting</b>  15 <b>before DWR approves any change application?</b>  16 A. It is not typical, but these were not  17 typical applications, as we already said.  18 <b>Q. So is it your understanding that DWR</b>  19 <b>would have just issued the final master order</b>  20 <b>without holding such a public information meeting?</b>  21 A. There's no explicit requirement.  22 <b>Q. And so why -- why did you want to hold</b>  23 <b>this public information meeting?</b>  24 A. Well, again, to ensure that what we were  25 proposing, you know, just to provide an</p>	<p style="text-align: right;">Page 140</p> <p>1 <b>order that -- these changes that you indicated</b>  2 <b>followed the public informational meeting, how</b>  3 <b>were they drafted? How and who drafted those?</b>  4 A. Well again, as I referenced earlier  5 today, we took control of the drafting process  6 well before this, but much of the material added  7 to the order was added by myself that included an  8 overview of the public review process, the places  9 and the input we got from that process generally  10 in the review of the specific pertinent comments  11 that were provided, and then several sections that  12 provide our evaluation, my evaluation, of that.  13 So virtually all of the significant additions to  14 the order that were done were authored by myself.  15 <b>Q. Have you read every word of the -- of the</b>  16 <b>issued master order?</b>  17 A. I have. Of the master order itself  18 multiple times. I have not read every word of the  19 attached approval documents.  20 <b>Q. Did you rely on staff to draft some of</b>  21 <b>those attached approval documents?</b>  22 A. The attorney was largely responsible for  23 implementing the individual approval documents  24 that were attached to the master order. But yes,  25 I take full responsibility for the master order.</p>





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<p style="text-align: right;">Page 141</p> <p>1 Q. To this day do you believe that it's 2 correctly issued, as it was issued on -- on or 3 about March 27 of 2019? 4 A. I do. 5 Q. This entire application consideration 6 process, it's gone on since some point in 2015, 7 correct? 8 A. June of 2015, yes. 9 Q. So, what, about four years or so, say 10 it's about four years from the time that the 11 applications were submitted to the time the master 12 order was -- the final master order was issued? 13 A. Most of that, yes. 14 Q. Okay. And so a lot of documents can be 15 generated in that amount of time; is that right? 16 A. Certainly. 17 Q. And were a lot of documents generated as 18 a result of this process? 19 A. They were. 20 Q. Do you believe that the documents 21 contained in the agency record include the salient 22 -- let me rephrase that. 23 Do you believe that the documents currently 24 in the filed agency record are the primary 25 documents upon which your decision was based, the</p>	<p style="text-align: right;">Page 143</p> <p>1 Q. Mr. Barfield, my name is David Traster. 2 I'm a lawyer with Foulston Siefkin. I represent 3 the City of Hays. Daniel Buller is here with me, 4 he also represents the City of Hays. As you know, 5 Ken Cole represents the City of Russell, and the 6 city manager for the city of Russell, Jon Quinday, 7 is here as well representing Russell. 8 I've handed you what's been marked as Exhibit 9 16 and I'll represent to you that this is a 10 document that is included in the agency record and 11 it is a letter dated -- undated but received by 12 DWR, according to this stamp, on July 16th of 2018 13 signed by Richard Wenstrom. Do you know Mr. 14 Wenstrom? 15 A. Yes, I do. 16 Q. He -- now, you received a number of 17 written and oral comments at the Greensburg 18 meeting and thereafter, correct? 19 A. Correct. 20 Q. Do you recognize this as being one of the 21 written comments that you received? 22 A. Yes. And it is dated July 11. There is 23 a date there. 24 Q. It is. Okay. Mr. Wenstrom has a PE 25 after his name. You're aware that he's an</p>
<p style="text-align: right;">Page 142</p> <p>1 decisions that you made in this master order? 2 MR. KITE: Object. Outside the scope. 3 BY MR. TRASTER: 4 Q. You may answer. 5 A. Well, that was certainly the intent was 6 to build -- you know, that was our intent was to 7 always provide that, yes. 8 MR. OLEEN: I don't have any further 9 questions. 10 MR. TRASTER: I have a few. So what 11 exhibit number are we on? 12 MR. OLEEN: 16. 13 MR. KITE: 16 is the next exhibit, 14 correct? 15 MR. OLEEN: That's right. 16 will be the 16 next. 17 MR. TRASTER: Will you mark this 16? 18 It's just one, yeah. 19 THE REPORTER: The top? 20 MR. TRASTER: Yeah. I guess we can ... 21 (THEREUPON, the court reporter marked 22 Barfield Deposition Exhibit No 16 for 23 identification.) 24 CROSS-EXAMINATION 25 BY MR. TRASTER:</p>	<p style="text-align: right;">Page 144</p> <p>1 engineer? 2 A. I am, yes. 3 Q. You've had dealings with him over the 4 years on water rights issues on his farm? Or not? 5 A. I actually first came to know him, he had 6 a firm called Pumping Plant Testing that we used 7 to do field inspections of water rights under a 8 program that I managed on behalf of the division, 9 so I got acquainted with him back in 1985, I 10 believe. 11 Q. Okay. 12 A. I don't know if I've had any specific 13 dealings with his water rights. 14 Q. But he's also a member of Water PACK and 15 he's been -- has he been on the board at the GMD, 16 if you know? 17 A. Not to my knowledge. 18 Q. Okay. You've had but -- he wrote you a 19 two and a quarter, two and a third page letter 20 expressing concern about the master order, the 21 draft master order did he not? 22 A. Yes, he did. 23 Q. And during your direct examination you 24 were asked about an engineering report for the 25 City of Hays done by the city -- for the city and</p>



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<p style="text-align: right;">Page 145</p> <p>1 you said that there was a summary and I'm -- my  2 guess is, is that that -- that summary that you  3 were asked about is in the middle of the second  4 page. But that's my question, is this the summary  5 that you were referring to?  6 A. Well, I didn't refer to it. I was trying  7 to be responsive to a question and I was  8 speculating a bit.  9 Q. Okay. I understood you to say that  10 somebody raised the issue and you thought maybe  11 there was a summary and I'm just asking you if  12 this is the summary that -- do you recall  13 receiving or reading this -- that second -- that  14 second paragraph on the second page of the letter  15 where it talks about Bob Vincent's report?  16 A. Correct. Yeah. This was my  17 recollection. This might not be the only  18 manifestation of it, but yes.  19 Q. Okay.  20 A. I think that's correct.  21 Q. So did you have a copy of Mr. Vincent's  22 report?  23 A. Not to my knowledge.  24 Q. Well, when you were considering this  25 master order, it may be someplace buried in files,</p>	<p style="text-align: right;">Page 147</p> <p>1 you.  2 THE WITNESS: The draft proposed master  3 order.  4 BY MR. TRASTER:  5 Q. After you received all the public  6 comments you closed the record for -- you closed  7 the record and said okay, I'm not taking any more  8 comments. Now I'm going to think about this and  9 I'm going to review all this. Recall that?  10 A. That is correct. I did.  11 Q. In the process of thinking about all of  12 that and reviewing Deposition Exhibit 16 and other  13 documents, the Keller report and other documents,  14 did you go back and look at the initial order that  15 I sent to you back in 2016 or '17?  16 A. No, I did not.  17 Q. Thank you. The changes that were made to  18 the -- so as I understand it, Berns and Mac  19 prepared a -- the model, it was sent to GMD and  20 Water PACK for review, both the report and the  21 actual model files. Mr. Balleau identified some  22 minor problems with the -- with the model that  23 Burns and Mac had reconstructed, I don't know  24 exactly the right word to use, but had -- that's  25 reflected in the report. Burns and Mac then</p>
<p style="text-align: right;">Page 146</p> <p>1 but my question really is when you were deciding  2 whether or not to issue, finally issue this master  3 order, did you review Bob Vincent's 1984 or '94  4 report, if you recall?  5 A. I don't recall having a copy to review.  6 Q. Okay. There were some questions about  7 the draft initial order that was prepared by my  8 law firm and sent to you. Was it -- was it  9 considered -- did you consider it and use it as a  10 basis for your -- the action of approving the  11 master order?  12 A. Repeat that again.  13 Q. The question is whether the document that  14 was sent to you in 2016 or '17, that initial  15 draft?  16 A. Um-hm.  17 Q. Was that something you considered and  18 used as a basis for the decision to issue the  19 master order?  20 A. Well, it was a starting point that was  21 used for drafting the master order.  22 Q. When you were --  23 A. The draft proposed master order.  24 Q. When you were --  25 THE REPORTER: Hang on. I didn't hear</p>	<p style="text-align: right;">Page 148</p> <p>1 corrected those errors. That resulted, and I'm  2 asking, that resulted in a little more water maybe  3 being available to the cities. Are the changes  4 that were made, you understood -- you understood  5 what -- let me back up.  6 You've dealt with models quite a bit as a  7 chief engineer, correct?  8 A. Yes, I have.  9 Q. What models are the -- what are the  10 significant models you've had to deal with?  11 A. Well, yeah. I've had quite a bit of  12 experience not in developing models, but in using  13 models to make water management decisions. The  14 first significant one was in 2001-2002 where I was  15 part of a modeling committee for the Republican  16 River Compact Administration as we were working to  17 settle our dispute with Nebraska and part of that  18 was the states collaboratively building a  19 groundwater model to quantify depletions to stream  20 flow from groundwater pumping. I was on that  21 modeling committee and worked with our modeling  22 experts and our data experts to make it something  23 that was credible and usable and worked for  24 Kansas.  25 Q. Let me ask you, I don't want to -- I want</p>



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<p style="text-align: right;">Page 149</p> <p>1 to get your answer. Did Nebraska think it was  2 usable and workable for them too?  3 A. All three states, all three states hired  4 expert modelers and data experts to fight one  5 another, and when we went to settle the lawsuit we  6 put them -- put us all in a room and said make  7 one model that's going to work for us and so  8 that's what we did and I was a part of that  9 process.  10 <b>Q. Okay.</b>  11 A. And actually from that collaborative  12 model development process, I sort of spearheaded  13 bringing those concepts to our intrastate model  14 development, and that actually began with the Mid  15 Ark model that was a precursor to the GMD 5 model,  16 so we formed a modeling committee and had not only  17 a committee, as the model was being developed,  18 comment on it and make it a better model including  19 a peer review modeler, Steve Larson, our expert in  20 the interstate litigations both the Republican and  21 the Ark River, was on that committee as well.  22 <b>Q. And Steve Larson is with?</b>  23 A. He's with a firm called Papadopoulos and  24 Associates but he's -- he's the state of Kansas  25 sort of expert in these interstate conflicts in</p>	<p style="text-align: right;">Page 151</p> <p>1 to our resource problems so Sam -- Doctor Perkins  2 is the one that's actually running the model.  3 <b>Q. Other than it takes a lot of time and  4 effort that you don't have, but I mean isn't it  5 true that somebody -- that it takes a particular  6 and significant training and understanding to  7 actually develop those -- a model from -- from  8 either a starting point with somebody else's or  9 from ground up? That would be fair wouldn't it?</b>  10 A. Yes.  11 <b>Q. Are you qualified to do that?</b>  12 A. To build a groundwater model?  13 <b>Q. Right.</b>  14 A. No.  15 <b>Q. Okay. So are the changes that were made  16 to the Burns and Mac model adequately documented  17 in the report so that you as a consumer of  18 groundwater models can understand what happened  19 and what changes were made?</b>  20 A. I believe so.  21 <b>Q. Okay.</b>  22 A. Again, you'd have to have some modeling  23 expertise and background.  24 <b>Q. To?</b>  25 A. To understand it. I mean it's -- the</p>
<p style="text-align: right;">Page 150</p> <p>1 both cases. I've also worked with -- we have an  2 expert modeler on staff, Dr. Sam Perkins, and I've  3 worked with him to take two USGS models, one of  4 the Ozark aquifer and one of the lower Ark, and  5 use it to determine the safe yields of those  6 particular aquifers. I've worked with GMD 4 in  7 northwest Kansas, GMD 4 on adapting the Republican  8 River model to help guide water management  9 decisions such as local enhanced management areas  10 in that GMD. You know, I've worked with GMD 3  11 has a groundwater model and applications of that  12 model to -- to water management decisions in GMD  13 3. So yes, I've had extensive experience with  14 using groundwater models.  15 <b>Q. So you've hired Mr. Perkins, Doctor  16 Perkins, was he on staff when you became chief  17 engineer?</b>  18 A. He -- he joined staff since I became  19 chief engineer and he remains on staff.  20 <b>Q. So if you know so much about models, why  21 did you hire somebody else? I mean, aren't you an  22 expert modeler?</b>  23 A. I'm not an expert at developing  24 groundwater models. I consider myself more an  25 expert in the application of groundwater modeling</p>	<p style="text-align: right;">Page 152</p> <p>1 layperson is not going to understand it.  2 <b>Q. They're not going to understand the  3 report or they're not going to understand how the  4 model got --</b>  5 A. Well, the changes. I mean, you know.  6 <b>Q. Okay.</b>  7 A. Again, they were not significant changes  8 really. The foundation that the master order and  9 the ten-year limitation is built on and was the --  10 remains as it was, in essence.  11 <b>Q. Are you aware of any documents that you  12 considered and used as a basis for your decision  13 to issue the master order that are not in the  14 agency record?</b>  15 MR. KITE: Object to form. Outside the  16 scope.  17 A. So as I said before in response to Mr.  18 Oleen's question, you know, we did our best to  19 create a complete record of what we relied upon  20 and what I relied upon to make this decision so  21 again, that doesn't mean there's not a document  22 out there.  23 BY MR. TRASTER:  24 <b>Q. Right.</b>  25 A. That got overlooked.</p>



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<p style="text-align: right;">Page 153</p> <p>1 Q. Well, the definition of the agency record  2 is narrow and it's -- you have to actually have  3 considered it and relied on it. And are the  4 documents that you actually relied on in the  5 record as far as you know?  6 A. To the best of my knowledge.  7 Q. Have we asked you, has anybody today  8 asked you any questions about documents other than  9 the draft initial order that I prepared and sent  10 to you, and this -- this -- there were questions  11 about the Hays engineer who evaluated the area  12 back in '94 or -5. Other than those two  13 documents, have you been asked about any documents  14 that are not in the record that you recall? I  15 don't know of any other documents that you were  16 asked about other than those two.  17 A. At today's deposition?  18 Q. At today's deposition.  19 A. That aren't in the record?  20 Q. This isn't a trick question.  21 A. That's not in the record. Yeah.  22 Q. Yeah. Just make sure that if there's  23 something that you've been asked about that oh,  24 yeah, I remember that document now.  25 A. No. Nothing's been triggered here like</p>	<p style="text-align: right;">Page 155</p> <p>1 issuance of the -- of the master order. Would  2 that be correct?  3 A. Sounds right.  4 Q. Okay. And one of the things that  5 interests me is the last paragraph, first sentence  6 of the last paragraph. Could you read that for  7 the record, please?  8 A. The first sentence of the last paragraph?  9 Q. Yes.  10 A. We look forward to working with you on  11 the significant set of applications and the  12 related draft proposed orders.  13 Q. And when you referred to you, who are you  14 referring to?  15 A. Well, GMD 5 specifically.  16 Q. Right. And a copy of this letter, it  17 seems -- it seems a copy of the letter was sent  18 to Water PACK as well. Would that be true?  19 A. Yes.  20 Q. And by extension were you offering the  21 same invitation to Water PACK?  22 MR. KITE: Object to form. Speculation.  23 Assumes facts not in evidence.  24 MR. TRASTER: Is somebody saying  25 something?</p>
<p style="text-align: right;">Page 154</p> <p>1 oh, I forgot to include this.  2 Q. Okay.  3 A. If that's your question.  4 Q. I'm just trying to --  5 A. Okay.  6 Q. We want to make sure that the record is  7 complete.  8 A. Right.  9 Q. And that the documents that you've  10 referred to that aren't in the record, aren't --  11 by definition shouldn't have been in the record,  12 so. All right.  13 MR. TRASTER: No further questions.  14 Okay.  15 MR. COLE: I may have just one, and I  16 know you've heard that before.  17 CROSS-EXAMINATION  18 BY MR. COLE:  19 Q. But I was interested in Deposition 14  20 which is your letter to Big Bend Groundwater  21 Management District No. 5. You have that in front  22 of you?  23 A. Yes, I do.  24 Q. And that's dated May 4, 2018, which was  25 -- is approximately 11 months prior to the</p>	<p style="text-align: right;">Page 156</p> <p>1 MR. KITE: I am. I'm just making  2 objections for the record.  3 MR. TRASTER: I'm not hearing them.  4 MR. KITE: Okay.  5 THE WITNESS: Did you hear him? Talking  6 to the court reporter. She apparently got it.  7 A. Well, certainly the GMD has a unique role  8 in these matters, so in particular it was -- that  9 statement was targeted to GMD 5 in the role they'd  10 been given, but certainly I also welcomed input  11 from Water PACK.  12 BY MR. COLE:  13 Q. So would it be reasonable to say that you  14 were not only open to input, you were inviting  15 input on the matter?  16 A. Yeah. Again the public meetings was --  17 was a even greater, I think, expression of that.  18 Q. And during those 11 months that passed,  19 was there any information provided, by either of  20 these entities, to you with respect to the  21 issuance of the final order that you didn't  22 consider and resolve in making your final order?  23 A. Well, carefully -- I read all the input  24 that I received and considered it all as  25 appropriate.</p>



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<p style="text-align: right;">Page 157</p> <p>1 MR. COLE: Okay. Thank you. No other 2 questions. 3 MR. BULLER: That was eleven questions. 4 Tenfold. That's not bad. 5 MR. SCHWALB: But who's counting. Could 6 we take a break? 7 THE WITNESS: Yeah. 8 MR. SCHWALB: All right. 9 (THEREUPON, a recess was taken.) 10 REDIRECT-EXAMINATION 11 BY MR. SCHWALB: 12 <b>Q. All right. We're back on the record.</b> 13 <b>Mr. Barfield, earlier we -- Mr. Oleen was asking</b> 14 <b>you about some of these exhibits, in particular</b> 15 <b>Exhibit 12. Do you recall that line of</b> 16 <b>questioning?</b> 17 A. Yes. 18 <b>Q. Okay. And then in the discussion of item</b> 19 <b>12, I think Mr. Oleen focused on this line about</b> 20 <b>awareness of discussions with the cities of Hays</b> 21 <b>and Russell on line one. Do you recall that --</b> 22 A. Yes. 23 <b>Q. -- conversation?</b> 24 A. Yes. 25 <b>Q. Okay. In terms of discussions with the</b></p>	<p style="text-align: right;">Page 159</p> <p>1 these letters -- to this letter in response to 2 this letter. 3 MR. SCHWALB: Fair enough. 4 MR. BULLER: I may be misremembering 5 that, but that's my recollection of his testimony. 6 MR. SCHWALB: You can go ahead. 7 A. So what was the question again? Sorry. 8 I got sidetracked. 9 MR. SCHWALB: So did I. Would you mind 10 reading back what I asked? 11 THE REPORTER: Question: Okay. What 12 about at the Greensburg meeting? Did anyone 13 complain about the meeting -- the prior meetings? 14 MR. SCHWALB: Okay. 15 BY MR. SCHWALB: 16 <b>Q. Within the context of the Greensburg</b> 17 <b>meeting, do you recall anyone objecting to the</b> 18 <b>process surrounding the change application?</b> 19 A. I don't recall anybody complaining about 20 the process. 21 <b>Q. Okay. Were there representatives of</b> 22 <b>Water PACK at that meeting?</b> 23 A. Certainly. 24 <b>Q. Okay. Do you recall who they were?</b> 25 A. Well, it's listed in the master order if</p>
<p style="text-align: right;">Page 158</p> <p>1 <b>cities of Hays and Russell in particular, I think</b> 2 <b>you also testified that those meetings were not</b> 3 <b>posted on the DWR website; is that correct?</b> 4 <b>Earlier in the day?</b> 5 A. Yeah. That's correct. 6 <b>Q. Okay. You also testified that there was</b> 7 <b>no objection to any of those meetings?</b> 8 A. Yeah. Nobody ever objected in fact that 9 we were meeting or asked explicitly to be a part 10 of it. The only exception to that that I did 11 have two gentlemen from Water PACK that showed up 12 at a particular meeting. 13 <b>Q. Okay.</b> 14 A. Fairly early in the process. 15 <b>Q. Do you recall who they were?</b> 16 A. I don't recall the names -- 17 <b>Q. Okay.</b> 18 A. -- of the individuals. 19 <b>Q. Okay. What about at the Greensburg</b> 20 <b>meeting? Did anyone complain about the meeting --</b> 21 <b>the prior meetings?</b> 22 MR. BULLER: And if I may interpose an 23 objection here. My recollection of his testimony 24 is not that he testified that nobody objected to 25 the meetings, it was whether anybody objected to</p>	<p style="text-align: right;">Page 160</p> <p>1 you want me to look at that. 2 <b>Q. Sure. Go ahead.</b> 3 A. I think I can find that fairly 4 efficiently. Let's see, at the public meeting 5 oral public comments were received from the 6 following: Richard Wenstrom, Kent Wetzel, Pat 7 Wetzel, John Janssen, Pat Janssen, George Hetzel 8 and Kim Gamble. 9 <b>Q. Okay. Let's unpack those just a little</b> 10 <b>bit. What's Richard's role with Water PACK?</b> 11 A. He's -- I think he's on the board. I 12 think he's been president. He may be the current 13 -- no, he's not the current president. He's on 14 the -- I think he's on the board. 15 <b>Q. Okay.</b> 16 A. He's one of the principals. 17 <b>Q. Okay. And does he own water rights in</b> 18 <b>the vicinity of the ranch?</b> 19 A. He does, yes. 20 <b>Q. Does he own senior water rights?</b> 21 A. He does. 22 <b>Q. How about junior water rights?</b> 23 A. I'm not certain of the suite of them but 24 he does have water rights that are adjacent to the 25 ranch, to the southeast.</p>





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<p style="text-align: right;">Page 161</p> <p>1 <b>Q. Is there any specific analysis of the</b>                  2 <b>impact of the change applications on his water</b>                  3 <b>rights, junior or senior?</b>                  4 A. Well, again, the modeling output shows                  5 the effect of the change on the whole area                  6 including, I mean he's some of those dots that are                  7 on the southeast side.                  8 <b>Q. Any specific findings on a well-by-well</b>                  9 <b>basis for his water rights?</b>                  10 MR. BULLER: Asked and answered.                  11 A. So, well, the report doesn't cite the                  12 effect that this particular water right, according                  13 to Figure 6 of the model run is Y feet, but the                  14 map shows the effect on the neighbor water rights.                  15 BY MR. SCHWALB:                  16 <b>Q. Okay. Let's stick with other Water PACK</b>                  17 <b>members. You mentioned the Wetzels?</b>                  18 THE REPORTER: Can I get the spelling on                  19 that name?                  20 MR. SCHWALB: W-E-T-Z-E-L, I believe.                  21 MR. TRASTER: Say it again?                  22 MR. SCHWALB: W-E-T-Z-E-L.                  23 MR. TRASTER: Thank you.                  24 BY MR. SCHWALB:                  25 <b>Q. Do they own water rights adjacent to the</b></p>	<p style="text-align: right;">Page 163</p> <p>1 <b>Q. Okay. Are the Wetzels, do you know what</b>                  2 <b>their role is with Water PACK?</b>                  3 A. I don't know.                  4 <b>Q. Okay. Let's come back to Richard just</b>                  5 <b>for a second. You mentioned you've known him</b>                  6 <b>since 1985 give or take?</b>                  7 A. Yes.                  8 <b>Q. And you also mentioned that he worked for</b>                  9 <b>or he had a company called?</b>                  10 A. Pumping Plant Testing.                  11 <b>Q. Let's just call it PPT.</b>                  12 A. PPT. Okay.                  13 <b>Q. What did Richard do in the context of PPT</b>                  14 <b>on behalf of DWR?</b>                  15 A. Well, his firm -- so at the time we were                  16 very behind in issuing certificates and one of the                  17 workload challenges we had at the time was not                  18 having enough field staff to -- to inspect -- to                  19 do the inspection that's part of issuing the                  20 certificate. We will go out and actually                  21 physically go to the water right and inspect the                  22 facility, review the records and prepare what's                  23 called a field inspection report and then that is                  24 one significant piece of the process of issuing                  25 certificates. So we contracted with several</p>
<p style="text-align: right;">Page 162</p> <p>1 <b>ranch?</b>                  2 A. I --                  3 MR. BULLER: I'm going to interpose an                  4 objection on the basis of vagueness and the fact                  5 that -- and adjoining or adjacent is a legal term                  6 so calls for a legal conclusion.                  7 MR. SCHWALB: Let me rephrase.                  8 MR. BULLER: Under Kansas law adjoining                  9 is a legal term.                  10 MR. SCHWALB: Okay. Let me rephrase.                  11 BY MR. SCHWALB:                  12 <b>Q. Do the Wetzles have water rights next to</b>                  13 <b>the R9 Ranch?</b>                  14 MR. BULLER: Same objection.                  15 A. I believe they have water rights on the                  16 north side just on the other side of the river, if                  17 I'm remembering correctly.                  18 BY MR. SCHWALB:                  19 <b>Q. Do you know if those water rights are</b>                  20 <b>senior or junior?</b>                  21 A. I'm not certain.                  22 <b>Q. Were there any specific findings of fact</b>                  23 <b>in the master order regarding their water rights</b>                  24 <b>and the impact of the change application?</b>                  25 A. My answer is the same as before.</p>	<p style="text-align: right;">Page 164</p> <p>1 engineering firms to actually do that work on our                  2 behalf, and his firm was one that did that.                  3 <b>Q. And you have to be a professional</b>                  4 <b>engineer to do that work or no?</b>                  5 MR. BULLER: So after having heard the                  6 chief engineer's response I'm going to object.                  7 This is far outside the scope of the topics of                  8 examination today.                  9 MR. SCHWALB: Okay. I will respond to                  10 that objection just by pointing to letter A. of                  11 the judge's order with regard to information made                  12 available to the chief engineer and I'll get                  13 there.                  14 BY MR. SCHWALB:                  15 <b>Q. So do you have to be a professional</b>                  16 <b>engineer to do that work?</b>                  17 MR. BULLER: Object to form. Same                  18 objection.                  19 A. No, but we did -- we use engineering                  20 firms to do that but our own people that do these                  21 inspections are not engineers.                  22 BY MR. SCHWALB:                  23 <b>Q. Okay. And earlier, I forget who, I'm</b>                  24 <b>going to say Mr. Traster, introduced this letter</b>                  25 <b>from Mr. Wenstrom designated Exhibit 16. Do you</b></p>





DAVID BARFIELD, P.E.

<p style="text-align: right;">Page 165</p> <p>1 recall that?  2 A. Yes, I do.  3 <b>Q. Okay. And within Exhibit 16, on page two</b>  4 <b>there was a discussion regarding this report from,</b>  5 <b>I believe it's Bob Vincent. Do you recall that?</b>  6 A. Yes.  7 <b>Q. And just to confirm, that report was</b>  8 <b>never provided to you by the cities?</b>  9 MR. BULLER: Object to form. Misstates  10 the testimony.  11 BY MR. SCHWALB:  12 <b>Q. Was that report ever provided to you by</b>  13 <b>the cities?</b>  14 A. I don't recall it being provided.  15 <b>Q. Okay. With respect, coming back to</b>  16 <b>Richard just for a minute. He's a professional</b>  17 <b>engineer. Does he have the expertise to -- well,</b>  18 <b>let me back up.</b>  19 <b>You said you don't have the expertise to</b>  20 <b>develop a model independently?</b>  21 A. Yes. That's true.  22 <b>Q. Okay. I think you also said that a</b>  23 <b>layperson wouldn't understand it?</b>  24 MR. BULLER: Object to form. Ambiguous.  25 A. Well, I was speaking specifically to the</p>	<p style="text-align: right;">Page 167</p> <p>1 <b>drive to Mr. Wenstrom; is that correct?</b>  2 A. Well, to Water PACK via Mr. Wenstrom,  3 yes. Well, I believe it was to Richard -- yes.  4 <b>Q. And then Exhibit 13, it says in line,</b>  5 <b>sorry, paragraph three: I am also sending one USB</b>  6 <b>drive to Richard Wenstrom; is that correct?</b>  7 A. Yes.  8 <b>Q. Okay. And earlier you testified Richard</b>  9 <b>Wenstrom would not have the capacity to understand</b>  10 <b>the changes to that model?</b>  11 MR. BULLER: Object to form. That  12 misstates his testimony.  13 MR. OLEEN: I join that objection.  14 A. I didn't say Richard -- I didn't  15 speculate about Richard in my statements.  16 BY MR. SCHWALB:  17 <b>Q. Okay.</b>  18 A. I was speaking about the -- I thought you  19 were talking about the general public, but.  20 <b>Q. Okay.</b>  21 A. So what's your question?  22 <b>Q. Why'd you only give it to Richard?</b>  23 A. I gave it to Water PACK via Richard who  24 was, I believe, the president at the time.  25 <b>Q. Okay. What about the Wetzels? Did you</b></p>
<p style="text-align: right;">Page 166</p> <p>1 change that was made to the model.  2 BY MR. SCHWALB:  3 <b>Q. Okay. So a layperson would not</b>  4 <b>understand the changes to the model?</b>  5 A. Well, the particular changes that were  6 done to the model.  7 <b>Q. Okay.</b>  8 A. Yeah. It's a pretty in-the-weeds kind of  9 change.  10 <b>Q. Okay.</b>  11 A. I'm not -- I guess my hesitation was I'm  12 not saying that the general public can't  13 understand groundwater models at all and  14 understand their basic function and what they do.  15 <b>Q. But the specific changes a layperson</b>  16 <b>would not understand?</b>  17 A. I think it would take -- my opinion is it  18 would take some expertise to understand.  19 <b>Q. Okay.</b>  20 A. That particular change.  21 <b>Q. Does Richard have that expertise?</b>  22 MR. BULLER: Object to form. Lack of  23 foundation. Calls for speculation.  24 BY MR. SCHWALB:  25 <b>Q. Let me back up. You provided this USB</b></p>	<p style="text-align: right;">Page 168</p> <p>1 <b>provide them with a copy of it?</b>  2 A. No. I provided a copy to Water PACK via  3 Richard Wenstrom.  4 <b>Q. Okay. And you did that, I believe this</b>  5 <b>letter says, on March 9th of 2018?</b>  6 A. Yes. That's right.  7 <b>Q. Okay. And then subsequent to that the</b>  8 <b>draft order was posted May 4th; is that correct?</b>  9 A. That sounds right.  10 <b>Q. Okay. Was it provided to the public</b>  11 <b>before May 4th?</b>  12 A. No. That's when we provided it on our  13 website.  14 <b>Q. Okay. But the cities had it before then,</b>  15 <b>correct?</b>  16 A. Well, it sort of became final right about  17 that time. I mean we were -- they had a form of  18 it.  19 <b>Q. Okay. And then earlier you testified</b>  20 <b>that, coming back to the order, you took control</b>  21 <b>of the draft after this Greensburg meeting?</b>  22 A. I said it was like --  23 <b>Q. The bulk of it.</b>  24 A. Ten months before Greensburg.  25 <b>Q. Okay.</b></p>



DAVID BARFIELD, P.E.

<p style="text-align: right;">Page 169</p> <p>1 A. Well, ten months before we issued -- the 2 summer of '17 we took control of it. 3 <b>Q. Okay.</b> 4 A. So. 5 <b>Q. And then coming out of the Greensburg 6 meeting, I think you testified earlier that the 7 maybe not the overwhelming bulk, but you made 8 substantial revisions to the order yourself?</b> 9 A. Correct. Substantial additions. Again, 10 that summary of what the public provided and sort 11 of the evaluation of that, including some work I 12 commissioned staff to do and, yes, that's correct. 13 <b>Q. Did you make any additions or changes to 14 the appendices?</b> 15 A. I'm sure there were some changes, maybe 16 even additions, but I'd have to -- I could take a 17 look if you want me to. 18 <b>Q. Do you recall making any of those 19 changes?</b> 20 A. I mean there was a -- I'd have to have 21 you take me specifically to what you're asking 22 about. 23 <b>Q. I'm just asking if you made any changes 24 to the appendices.</b> 25 MR. BULLER: I'm going to interpose an</p>	<p style="text-align: right;">Page 171</p> <p>1 MR. BULLER: Object to form. Outside the 2 scope of the topics identified. 3 MR. OLEEN: I'll join that objection. 4 Sorry to interrupt. You may continue. 5 A. I'm not aware of any one way or the 6 other. 7 BY MR. SCHWALB: 8 <b>Q. Okay.</b> 9 A. As I understand the question anyway. 10 <b>Q. Okay. All right. And then last two, 11 here, earlier you testified that you had closed 12 the record at some point after the Greensburg 13 meeting; is that right?</b> 14 A. Yes. 15 <b>Q. Okay. Did the Burns and McDonnell 16 revisions come in before you closed that record or 17 after?</b> 18 A. Well, I didn't start evaluating the 19 record -- the Burns and Mac model came after a 20 date I announced as closing the record. You know, 21 I basically told the public I'll take -- take 22 comment through this period, and I think it was 23 the end of September, if memory serves me 24 correctly. 25 <b>Q. Okay.</b></p>
<p style="text-align: right;">Page 170</p> <p>1 objection. This is starting to feel like a 2 fishing expedition. 3 MR. SCHWALB: What's the specific 4 objection? 5 MR. BULLER: The objection is is none of 6 this is inside the scope of the court's order. 7 The court specifically limited the questions that 8 are allowed at this deposition to the topics 9 pertaining to his order, the issues identified in 10 that order, and this is far beyond the scope of 11 those issues. 12 MR. SCHWALB: Okay. Let's see. 13 BY MR. SCHWALB: 14 <b>Q. Okay. Was there any back and forth -- 15 well, I think you already touched on this. I'm 16 sorry. Let's come back to the initial draft that 17 Mr. Traster provided, which I think you touched on 18 when Mr. Traster was asking you a few questions. 19 Are there any regulations that you're aware of 20 that provide for an applicant providing the 21 initial draft and getting feedback?</b> 22 A. There's -- no regulation speaks for or 23 against that. 24 <b>Q. What about in other regulatory contexts 25 that you're responsible for, LIMAs, for example?</b></p>	<p style="text-align: right;">Page 172</p> <p>1 A. And it may not be. 2 <b>Q. And the Burns and Mac report is dated, I 3 think?</b> 4 A. Early October. 5 <b>Q. I think September 28th?</b> 6 A. Was it? Okay. Well, maybe. 7 <b>Q. Well, is it or is it not?</b> 8 A. Well, maybe I'm not -- well, we know that 9 answer. I'd have to dig around to find out when 10 I asked for public comment. 11 <b>Q. Okay.</b> 12 A. One thing at a time, here. Let me -- so 13 the Burns and Mac report was September 24, 2018. 14 <b>Q. Okay.</b> 15 A. I guess I'm -- I don't have a document in 16 front of me, it seems like there was a document 17 that said when I wanted comments by. 18 <b>Q. Okay. But those comments were required 19 prior to receipt of the revised Burns and Mac 20 report?</b> 21 A. Again, I don't have the document in front 22 of me but that's my recollection. 23 MR. SCHWALB: Okay. Anybody want? 24 MR. TRASTER: Are you done? 25 MR. SCHWALB: I'm done.</p>



DAVID BARFIELD, P.E.

<p style="text-align: right;">Page 173</p> <p>1 MR. TRASTER: I didn't hear no further 2 questions. 3 MR. SCHWALB: No further questions. 4 MR. TRASTER: I have another question or 5 two but it's not my turn. 6 MR. OLEEN: Just a minute. 7 RECROSS-EXAMINATION 8 BY MR. OLEEN: 9 <b>Q. I do have another question or two. Since</b> 10 <b>-- because we're talking about this updated</b> 11 <b>modeling report, I want to ask you to look at your</b> 12 <b>time line which I think has been marked as</b> 13 <b>Deposition Exhibit 1; is that correct? Time line?</b> 14 <b>Is the time line Deposition Exhibit 1?</b> 15 A. Yes. Which is included in the web page. 16 <b>Q. Okay. So you just testified that the</b> 17 <b>date of the updated Burns and Mac modeling report</b> 18 <b>is what, to your knowledge?</b> 19 A. So, well, it's dated -- yeah. Just a 20 second, here. September 24th, 2018. 21 <b>Q. Okay. And this is the same revised</b> 22 <b>modeling report that we talked about earlier --</b> 23 <b>well, let me phrase it as a question. Sorry.</b> 24 <b>Is this the same revised modeling report that</b> 25 <b>you referred to earlier when you said that the</b></p>	<p style="text-align: right;">Page 175</p> <p>1 <b>this exhibit as they're posted online?</b> 2 A. No. 3 <b>Q. Okay.</b> 4 A. I mean, do I have a list of every change 5 we made to it? I don't. There may be a -- there 6 may be a log. I don't -- but no. 7 <b>Q. So this is the edition of the website as</b> 8 <b>it exists today or?</b> 9 A. Yes. 10 <b>Q. Okay.</b> 11 A. Yes. 12 MR. SCHWALB: Thank you. No further 13 questions. 14 MR. TRASTER: So -- 15 THE WITNESS: I'm sorry. Well, the 16 website, there is a date posted that's included so 17 we know when particular documents were posted. 18 MR. SCHWALB: Fair enough. Okay. 19 THE WITNESS: And this is today's version 20 of it, or. 21 MR. SCHWALB: Yesterday's. 22 THE WITNESS: Yesterday's when I printed 23 it out, yes. 24 MR. SCHWALB: All right. Thank you. 25 RECROSS-EXAMINATION</p>
<p style="text-align: right;">Page 174</p> <p>1 <b>change did not materially affect the conclusions</b> 2 <b>that you reached in the final master order that</b> 3 <b>you issued?</b> 4 A. That is correct. 5 <b>Q. So Mr. Schwalb had asked a line of</b> 6 <b>questioning about the timing of when this document</b> 7 <b>came out versus the timing of when you may have</b> 8 <b>closed the record to public comment, right? He</b> 9 <b>asked you -- he was asking you some timing</b> 10 <b>questions?</b> 11 A. He was, yes. 12 <b>Q. But -- but is it your testimony that the</b> 13 <b>errors corrected by this revised report were minor</b> 14 <b>and did not impact materially the final master</b> 15 <b>order that you issued?</b> 16 A. That is correct. 17 MR. OLEEN: No further questions. 18 MR. SCHWALB: Just have one follow up 19 here unless you-all want to go. 20 MR. BULLER: Go ahead. 21 MR. SCHWALB: All right. 22 REDIRECT-EXAMINATION 23 BY MR. SCHWALB: 24 <b>Q. Mr. Oleen was referring to this</b> 25 <b>Exhibit 1. Does DWR keep track of versions of</b></p>	<p style="text-align: right;">Page 176</p> <p>1 BY MR. TRASTER: 2 <b>Q. So Mr. Schwalb asked you a question about</b> 3 <b>taking control of the document that ended up being</b> 4 <b>the master order and in the course of that</b> 5 <b>question said something about it taking control a</b> 6 <b>few months before the master order was issued, as</b> 7 <b>I heard it. Maybe I'm mistaken. But my</b> 8 <b>understanding is that your testimony is that DWR</b> 9 <b>took control in the summer of 2017, which was</b> 10 <b>months before the draft proposed master order was</b> 11 <b>issued, correct?</b> 12 A. That is correct. The summer of '17 we 13 took control, approximately ten months before the 14 proposed draft master order, and we kept control 15 through the rest of the process. 16 <b>Q. I'm curious about how you remember it was</b> 17 <b>the summer of 2017 that you took control. I mean,</b> 18 <b>do you have a specific recollection of it being</b> 19 <b>the summer as opposed to the spring of 2017?</b> 20 A. Well, Mr. Oleen provided me with that 21 date. He was the one that was really -- I made 22 those additions we talked about from the proposed 23 master order on, but he was really shepherding the 24 document through that period of time, so. 25 <b>Q. Very good. So it was certainly at least</b></p>



DAVID BARFIELD, P.E.

<p style="text-align: right;">Page 177</p> <p>1 <b>ten months before the draft proposed master order</b>  2 <b>was released to the public that DWR was in full</b>  3 <b>and complete control?</b>  4 A. That's my understanding.  5 <b>Q. Do you recall -- never mind.</b>  6 MR. TRASTER: No further questions.  7 MR. COLE: No questions.  8 MR. TRASTER: We done?  9 MR. KITE: I would ask that you review  10 and sign your transcript.  11 THE WITNESS: I'll do that when she gets  12 it to me.  13 MR. SCHWALB: All right. Well, I guess  14 we didn't need the full eight hours, thank you  15 everybody.  16 THE WITNESS: Thank you.  17 (THEREUPON, the deposition concluded at  18 2:47 p.m.)  19 .  20 .  21 .  22 .  23 .  24 .  25 .</p>	<p style="text-align: right;">Page 179</p> <p>1 AFFIDAVIT  2 .  3 STATE OF _____:  4 COUNTRY/CITY OF _____:  5 .  6 Before me, this day, personally appeared,  7 DAVID BARFIELD, P.E., who, being duly sworn,  8 states that the foregoing transcript of his/her  9 Deposition, taken in the matter, on the date, and  10 at the time and place set out on the title page  11 hereof, constitutes a true and accurate transcript  12 of said deposition, along with the attached Errata  13 Sheet, if changes or corrections were made.  14 .  15 _____  16 DAVID BARFIELD, P.E.  17 .  18 SUBSCRIBED and SWORN to before me this  19 _____ day of _____, 2020 in the  20 jurisdiction aforesaid.  21 .  22 _____  23 My Commission Expires _____ Notary Public  24 .  25 .</p>
<p style="text-align: right;">Page 178</p> <p>1 SIGNATURE  2 .  3 The deposition of DAVID BARFIELD, P.E.  4 was taken in the matter, on the date, and at the  5 time and place set out on the title page hereof.  6 .  7 It was requested that the deposition be  8 taken by the reporter and that same be reduced to  9 typewritten form.  10 .  11 It was agreed by and between counsel and  12 the parties that the deponent will read and sign  13 the transcript of said deposition.  14 .  15 .  16 .  17 .  18 .  19 .  20 .  21 .  22 .  23 .  24 .  25 .</p>	<p style="text-align: right;">Page 180</p> <p>1 DEPOSITION ERRATA SHEET  2 .  3 RE: APPINO &amp; BIGGS REPORTING SERVICE, INC.  4 .  5 FILE NO.: 56894  6 .  7 CASE: WATER PROTECTION ASSN. OF CENTRAL KANSAS  8 vs. DAVID BARFIELD, P.E., ET AL.  9 .  10 DEPONENT: DAVID BARFIELD, P.E.  11 .  12 DEPOSITION DATE: 1/28/20  13 .  14 To the Reporter:  15 I have read the entire transcript of my Deposition  16 taken in the captioned matter or the same has been  17 read to me. I request that the following changes  18 be entered upon the record for the reasons  19 indicated. I have signed my name to the Errata  20 Sheet and the appropriate Certificate and  21 authorize you to attach both to the original  22 transcript.  23 .  24 .  25 .</p>



DAVID BARFIELD, P.E.

<p style="text-align: right;">Page 181</p> <p>1 PAGE:LINE FROM TO REASON</p> <p>2 .</p> <p>3 .</p> <p>4 .</p> <p>5 .</p> <p>6 .</p> <p>7 .</p> <p>8 .</p> <p>9 .</p> <p>10 .</p> <p>11 .</p> <p>12 .</p> <p>13 .</p> <p>14 .</p> <p>15 .</p> <p>16 .</p> <p>17 .</p> <p>18 .</p> <p>19 .</p> <p>20 .</p> <p>21 .</p> <p>22 .</p> <p>23 .</p> <p>24 SIGNATURE: _____ DATE: _____</p> <p>25 DAVID BARFIELD, P.E.</p>	
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<p style="text-align: right;">Page 182</p> <p>1 CERTIFICATE</p> <p>2 STATE OF KANSAS</p> <p>3 COUNTY OF SHAWNEE</p> <p>4 I, Ksenija M. Zeltkalns, a Certified</p> <p>5 Court Reporter, Commissioned as such by</p> <p>6 the Supreme Court of the State of</p> <p>7 Kansas, and authorized to take</p> <p>8 depositions and administer oaths within</p> <p>9 said State pursuant to K.S.A 60-228,</p> <p>10 certify that the foregoing was reported</p> <p>11 by stenographic means, which matter was</p> <p>12 held on the date, and the time and place</p> <p>13 set out on the title page hereof and</p> <p>14 that the foregoing constitutes a true</p> <p>15 and accurate transcript of the same.</p> <p>16 I further certify that I am not</p> <p>17 related to any of the parties, nor am I</p> <p>18 an employee of or related to any of the</p> <p>19 attorneys representing the parties, and</p> <p>20 I have no financial interest in the</p> <p>21 outcome of this matter.</p> <p>22 Given under my hand and seal this</p> <p>23 12th day of February, 2020.</p> <p>24 _____</p> <p>25 Ksenija M. Zeltkalns, C.C.R. No. 1461</p>	
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DAVID BARFIELD, P.E.


1 AFFIDAVIT

2 .  
3 STATE OF Kansas :  
4 COUNTRY/CITY OF Manhattan :

5 .  
6 Before me, this day, personally appeared,  
7 DAVID BARFIELD, P.E., who, being duly sworn,  
8 states that the foregoing transcript of his/her  
9 Deposition, taken in the matter, on the date, and  
10 at the time and place set out on the title page  
11 hereof, constitutes a true and accurate transcript  
12 of said deposition, along with the attached Errata  
13 Sheet, if changes or corrections were made.

14 .  
15 David Barfield  
16 DAVID BARFIELD, P.E.

17 .  
18 SUBSCRIBED and SWORN to before me this  
19 25<sup>th</sup> day of February, 2020 in the  
20 jurisdiction aforesaid.

21 .  
22   
23 My Commission Expires

Katie Anderson  
Notary Public

24 .  
25 .





DAVID BARFIELD, P.E.

1 DEPOSITION ERRATA SHEET

2 .

3 RE: APPINO & BIGGS REPORTING SERVICE, INC.

4 .

5 FILE NO.: 56894

6 .

7 CASE: WATER PROTECTION ASSN. OF CENTRAL KANSAS

8 vs. DAVID BARFIELD, P.E., ET AL.

9 .

10 DEPONENT: DAVID BARFIELD, P.E.

11 .

12 DEPOSITION DATE: 1/28/20

13 .

14 To the Reporter:

15 I have read the entire transcript of my Deposition  
16 taken in the captioned matter or the same has been  
17 read to me. I request that the following changes  
18 be entered upon the record for the reasons  
19 indicated. I have signed my name to the Errata  
20 Sheet and the appropriate Certificate and  
21 authorize you to attach both to the original  
22 transcript.

23 .

24 .

25 .



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DAVID BARFIELD, P.E.

	PAGE:LINE	FROM	TO	REASON
1				
2	. 14:25	"G5"	"GMD5"	typo
3	. 18:14	"aqua"	"aquifer"	typo
4	. 26:1	"undercurrent"	"under current"	typo
5	. 26:17	"82a-706b"	"82a-708b"	misstatement of legal citation
6	. 54:11	"McDonnell's"	"McDonnell"	typo
7	. 56:6	"Min"	"Mid"	typo
8	. 63:17	"It"	"I"	typo
9	. 94:6	"the attorney"	"Brent Turney"	typo
10	. 98:25	"resort"	"report"	typo
11	. 127:10	"DWL"	"DWR"	typo
12	. 130:11	"BY MR. SCHWALB"	"BY MR. OLEEN"	typo re questioner identity
13	. 135:22	"BY MR. TRASTER"	"BY MR. OLEEN"	typo re questioner identity
14	. 139:19	"pack"	"package"	typo
15	. 140:22	"The attorney"	"Brent Turney"	typo
16	. 147:18	"Berns"	"Burns"	typo
17	. 170:25	"LIMAs"	"LEMAs"	typo
18	.			
19	.			
20	.			
21	.			
22	.			
23	.			

24 SIGNATURE: David Barfield DATE: 2/25/2020

25 DAVID BARFIELD, P.E.



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