

SOAH DOCKET NO. 582-11-3522  
TCEQ DOCKET NO. 2010-0837-WR

IN THE MATTER OF § BEFORE TEXAS COMMISSION  
APPLICATION NO. 4340A OF THE §  
CITY OF LUBBOCK TO AMEND § ON  
WATER RIGHTS PERMIT NO. §  
WRPERM 3985 § ENVIRONMENTAL QUALITY

JANES GRAVEL'S EXCEPTIONS TO THE PROPOSAL FOR DECISION

Janes Gravel files these Exceptions to the Proposal for Decision ("PFD") and would respectfully show:

I. INTRODUCTION

The PFD proposes to authorize the City of Lubbock to divert return flows that it is not entitled to divert for a number of reasons. First, the PFD would allow Lubbock to appropriate and divert state water it abandoned, and which is now a substantial part of the base flow of the North Fork of the Double Mountain Fork of the Brazos River ("North Fork"). Second, the permit would allow Lubbock to divert far more than it should because its carriage loss calculation is not only wrong, it is grossly understated and supported by no credible evidence. Third, the permit would include an illusory diversion point that will never be used, further skewing the carriage loss estimate. Finally, the permit would harm environmental quality by removing flows that have unquestionably become assimilated into the North Fork's natural flows.

Because the PFD recommends issuing Lubbock's requested permit despite all of these problems (as well as others), it violates the Water Code, Texas Supreme Court precedent, and the Commission's own precedent and rules. In so doing, it would allow Lubbock to threaten the livelihood of a local gravel company with a senior water right on the North Fork. This Commission's intervention to protect Janes Gravel's senior right is urgently needed. Lubbock's Application should be either denied, modified with a special condition to protect Janes Gravel or remanded to SOAH for further consideration of special conditions to protect Janes Gravel's senior water right.

## II. BACKGROUND

### A. Historic North Fork flows

The base flow of the North Fork has been sustained by effluent discharges from Lubbock for almost a century. Until the 1930's, Lubbock discharged its effluent directly into the North Fork.<sup>1</sup> In the 1930's, Lubbock stopped discharging directly into the North Fork and began land-applying effluent on a piece of property immediately adjacent to the North Fork known as the Lubbock Land Application Site ("LLAS").<sup>2</sup> It is undisputed that a significant portion of the land-applied effluent created an underground mound of effluent that flowed back into the North Fork as seeps, and runoff into the North Fork due to over-saturation, contributing a significant portion of base flow to the North Fork for many decades.<sup>3</sup> Kathy Alexander — the ED's sole testifying expert on the substantive issues related to Lubbock's Application — was not aware that Lubbock used the LLAS for disposal since the 1930's, and had no idea how much effluent from land application at the LLAS has runoff or seeped into the North Fork, thereby contributing to the base flow of the river.<sup>4</sup>

In the 1960s, Janes Gravel, located downstream from Lubbock, began to divert water from the North Fork.<sup>5</sup> Janes Gravel's Water Right, Certificate of Adjudication 12-3710, authorizes Janes Gravel to divert up to 450 acre-feet per year from the North Fork and to maintain a 196 acre-foot off-channel impoundment. Janes Gravel's priority date is April 17, 1968.<sup>6</sup> Because

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<sup>1</sup> Janes-B at 24:8-26:18 (Koch Prefiled). Prior to 1925, Lubbock discharged approximately 1,000 acre-feet per year of treated wastewater effluent to the North Fork. Janes- B at 24:8-26:18 (Koch Prefiled); Janes-26 at 1-1 (Lubbock Environmental Information Document for Wastewater Treatment).

<sup>2</sup> *Id.* Janes -B at 24:8-26:18 (Koch Prefiled).

<sup>3</sup> *Id.* Janes-B at 24:8-26:18; 27:13-18 (Koch Prefiled); Janes-26 at 1-3 (Lubbock's Environmental Information Documents for Wastewater Treatment). Janes-B at 24:8-26:18 (Koch Prefiled); Janes-26 at 2-18 (Lubbock's Environmental Information Documents for Wastewater Treatment).

<sup>4</sup> That fact is unsurprising. Despite her designation, Ms. Alexander did not prepare any of the technical memos admitted into evidence, and none of the TCEQ staff who did testified. Tr. at 302:12-21 (Kathy Alexander, October 19, 2011).

<sup>5</sup> *Id.*

<sup>6</sup> Janes-1 (Janes' Certificate of Adjudication); Janes-B at 29:20-30:22 (Koch Prefiled).

Janes Gravel's water right is senior to any right held by Lubbock,<sup>7</sup> Janes Gravel is entitled to capture and use state water along the North Fork before Lubbock does.<sup>8</sup> More specifically, Lubbock's water rights are subject to Janes Gravel's right to "call," *i.e.*, if Lubbock has available state water Janes Gravel needs, Lubbock must pass it down to Janes Gravel.<sup>9</sup>

In the 1970's, Lubbock began to pump approximately 1,300 acre-feet per year of the previously land-applied water out of the groundwater mound that had originated from Lubbock's effluent.<sup>10</sup> The Texas Water Commission authorized Lubbock to discharge that pumped water in six separate impoundments located on the North Fork upstream of Janes Gravel ("Lakes 1-6").<sup>11</sup> That authorization did not allow Lubbock to divert state water.<sup>12</sup> Accordingly, the Certificate required that suitable outlets be placed on each dam to allow the free passage of state water, which would be available to senior water right holders.<sup>13</sup> Importantly, that permit is subject to all superior and senior water rights in the Brazos River Basin, which includes Janes Gravel.<sup>14</sup>

On June 7, 1983, Lubbock obtained Permit No. 3985 — a direct reuse permit — which authorized Lubbock to directly reuse 22,910 acre-feet per year of its wastewater to provide 4,480

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<sup>7</sup> Janes-B at 31:8-9 (Koch Prefiled).

<sup>8</sup> Janes-B at 31:11-17 (Koch Prefiled).

<sup>9</sup> *Id.*

<sup>10</sup> Janes-B at 24:8-26:18 (Koch Prefiled) Janes-26 at 1-7, 2-10 (Lubbock's Environmental Information Documents for Wastewater Treatment). In the 1980's, Lubbock began to divert a portion of the treated effluent it disposed of at the LLAS to a second land application site, the Hancock Land Application Site ("HLAS"), located about 15 miles southeast of Lubbock just north of the City of Wilson. Janes-2 (Lubbock's Permit to Appropriate State Water); Janes-B at 29:20-30:22 (Koch Prefiled). Even with this new land application site, Lubbock continued to pump approximately 1,300 acre-feet per year of water out of the groundwater mound and discharge it directly into the North Fork. *Id.*

<sup>11</sup> Janes-27 (Lubbock's Certificate of Adjudication No. 12-3705); Janes-B at 24:8-26:18. Permit No. 2756 (Application No. 3001), issued August 2, 1972, authorized Lubbock to maintain six on-channel dams and reservoirs, totaling 865 acre-feet, referred to as "Lakes 1-6." Janes-B at 29:20-30:22 (Koch Prefiled). TCEQ also issued an amendment to that Permit, Permit No. 2756A, to allow Lubbock to redesign the locations of the reservoirs. Janes-B at 29:20-30:22 (Koch Prefiled). That permit was issued on July 8, 1974. Janes-B at 29:20-30:22 (Koch Prefiled). Those permits were recognized in Certificate of Adjudication 12-3705 retaining the priority dates of April 6, 1972 and July 8, 1974, respectively. Janes-27 (Lubbock's Certificate of Adjudication). Janes-B at 29:20-30:22 (Koch Prefiled).

<sup>12</sup> Janes-B at 24:8-26:18 (Koch Prefiled).

<sup>13</sup> *Id.*

<sup>14</sup> Janes-B at 29:20-30:22 (Koch Prefiled).

acre-feet per year to the Jones Power Plant and 18,430 acre-feet per year for irrigation in Lubbock and Lynn Counties prior to discharge.<sup>15</sup>

Lubbock's decades of disposal of effluent on LLAS caused oversaturation of LLAS, which led to an enforcement action against the City. The enforcement action against Lubbock resulted in a November 16, 1989 Texas Water Commission Enforcement Order requiring the City of Lubbock to increase the volume of water pumped from the groundwater mound from about 1,300 acre-feet per year to 2,600 acre-feet per year.<sup>16</sup>

On or about January 1990, Lubbock was considering options for future wastewater treatment and disposal to further address the groundwater contamination and mounding caused by over-application of effluent at the Land Application Sites.<sup>17</sup> Lubbock decided to continue land application at the LLAS<sup>18</sup> and to pursue a permit to resume discharging into the North Fork downstream of Lake Ransom Canyon — the eventual discharge point for Lubbock's Application in this case.<sup>19</sup> A report prepared for Lubbock setting out its options noted two key disadvantages to this choice. The report states, "the effluent that is discharged into the stream would probably be lost to the City of Lubbock for future reuse options" and, in addition, "much of the water discharged would be lost to evaporation before it reached an area where it could be used to meet existing and future water demands."<sup>20</sup>

In the 2000's, Lubbock revised its TPDES permit to allow it to discharge its effluent among several new outfalls.<sup>21</sup> One of these outfalls, Outfall 001, is located on the North Fork

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<sup>15</sup> Janes-2 (Lubbock's Permit to Appropriate State Water); Janes-B at 29:20-30:22 (Koch Prefiled).

<sup>16</sup> Janes-B at 24:8-26:18 (Koch Prefiled).

<sup>17</sup> Janes-B at 27:5-11 (Koch Prefiled); Janes-26 at 1-1 (Lubbock's Environmental Information Documents for Wastewater Treatment).

<sup>18</sup> Janes-B at 27:20-21:3; Janes 26 at 1-3 (Lubbock's Environmental Information Documents for Wastewater Treatment).

<sup>19</sup> *Id.*

<sup>20</sup> Janes-B at 28:10-15 (Koch Prefiled); Janes-26 at 3-6 (Lubbock's Environmental Information Documents for Wastewater Treatment).

<sup>21</sup> *Id.*

below Lake Ransom Canyon.<sup>22</sup> Discharges *via Outfall 001* into the North Fork began in early 2003.<sup>23</sup>

**B. Lubbock is not entitled to divert all of its historic return flows.**

On April 27, 2004, Lubbock submitted Application No. 4340A to amend permit No. 3985, requesting authorization to divert *all* of its historic and future discharges of surface and groundwater-based return flows, including up to 10,081 acre-feet per year from its TPDES permit No. 10353-002, and to convey the return flows via the bed and banks of North Fork to two diversion points upstream of nearly every senior permit and riparian right owner that has requested a hearing in this case.<sup>24</sup> Lubbock indicated that its Application only concerned water that has been discharged from Outfall 001 since 2003. However, not all of those flows are Lubbock's to divert, and they certainly are not limited to those discharged from Outfall 001. Rather, as set out above, Lubbock abandoned a significant portion of its return flows, which therefore became state water available for use by senior water right holders like Janes Gravel.

**C. Lubbock's Carriage Loss estimate**

While the PFD errs in recommending that Lubbock should be permitted to divert all of its historic return flows, it also recommends utilizing a clearly erroneous carriage loss rate. As a required component of its Application, Lubbock provided a carriage loss estimate. Lubbock relied on a single document, not supported by testimony, to support its carriage loss claims — a desk memo written by Chester Carthel, Lubbock's former Water Planning Manager on August 9, 2004 ("Carthel Memo"), who Lubbock did not even call as a witness in this case.<sup>25</sup>

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<sup>22</sup> *Id.*

<sup>23</sup> Janes-4 is the TPDES Permit in effect at the filing of the Application. Lubbock proposes to divert its wastewater discharges pursuant to that Discharge Permit, Janes-B at 32:17-18 (Koch Prefiled). Lubbock began discharging wastewater into the North Fork via *Outfall 001* pursuant to TPDES Permit No. WQ0010353002 in early 2003, over eight years ago. Janes-B at 33:1-8 (Koch Prefiled). Moreover, Exhibit Janes-4, the permit in effect at the time of Lubbock's filing is a consolidation of TPDES Permits No. WQ001353002 and WQ001353008 and NPDES Permit No. TX0106071. Janes-B at 32:20-22 (Koch Prefiled). It was issued April 18, 2001. *Id.*

<sup>24</sup> COL 3985A 4 (Application to Amend Water Use Permit 3985); Janes-B at 32:5-13 (Koch Prefiled).

<sup>25</sup> Janes-B at 40:11-41:18 (Koch Prefiled); Janes-12 (Lubbock - Public Works Interoffice Memo from Chester Carthel).

The Carthel Memo indicates that all carriage losses will be 0.47% — *less than one-half of one percent*.<sup>26</sup> Notably, the Carthel Memo was not even written to support Lubbock's Application to Amend Water Use Permit 3985.<sup>27</sup> It was written to support Lubbock's Amendment Application for Certificate of Adjudication No. 12-3705, which has no bearing on the issues in this case.<sup>28</sup> Further, as Mr. Carthel notes in the memo, "[t]he measurements [in his memo] only represent one day and *the measurements were not obtained using scientific standards*."<sup>29</sup> There was no colorable attempt made to measure any of the key factors such as seepage, river bank width and evapotranspiration, all of which are critical factors in determining carriage loss.<sup>30</sup>

The Carthel Memo is also premised on a crucial false assumption — that any discharge and diversion would be within "Lake 8," not an intermittent riverbed that is dry most of the year.<sup>31</sup> At the time Lubbock filed its Application in 2004, Lubbock was concurrently seeking authorization from TCEQ to construct a dam on the North Fork near its proposed Diversion Point that would impound water in a reservoir (Lake 8) that extended upstream all the way to Outfall 001.<sup>32</sup> So at that time, Lubbock planned to discharge effluent at one point on the

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<sup>26</sup> Janes-12 (Interoffice Memo from Chester Carthel).

<sup>27</sup> Janes-B at 40:11-41:18 (Koch Prefiled).

<sup>28</sup> Janes-B at 40:11-41:18 (Koch Prefiled). The majority of the memo addresses the estimated stream losses in the Jim Bertram Lake System. *Id.*

<sup>29</sup> Janes-12 at 2 (Lubbock Public Works Interoffice Memo) (emphasis added); *see also* Janes-B at 41:20-42:13 (Koch Prefiled); Tr. at 116-20 (David Dunn, October 18, 2011); Tr. at 50:10-12 (Aubrey Spear, October 19, 2011).

<sup>30</sup> Janes-B at 41:20-42:131 (Koch Prefiled). Ms. Alexander admitted that there was no other information submitted by Lubbock regarding carriage losses other than the Carthel Memo. Tr. at 311:3 (Kathy Alexander, October 19, 2011). Ms. Alexander further admitted that no one at the TCEQ independently calculated carriage loss calculations. Tr. at 310:2-8 (Kathy Alexander, October 19, 2011). Ms. Alexander never even talked with Mr. Carthel about his memo. Tr. at 318:14-16 (Kathy Alexander, October 19, 2011).

<sup>31</sup> Tr at 52:14-21 (Aubrey Spear, October 18, 2011)

<sup>32</sup> Janes-B at 37:18-38:3 (Koch Prefiled).

perimeter of Lake 8 and then pump that same volume of water at the same rate (less carriage losses) from another location on the perimeter of the same Lake 8.<sup>33</sup>

However, Lubbock abandoned its plan to build Lake 8.<sup>34</sup> Today, there is no application to discharge into a lake (Lake 8) at one point on the perimeter of the lake and withdrawing the same volume of water at the same rate (less carriage losses) from another point on the perimeter of the same lake.<sup>35</sup> Instead, both the discharge and proposed diversion will occur in a 2.7-mile long intermittent stream bed composed of fine grained, or loose, sand or silty-sand, that is dry 90% of the time.<sup>36</sup> That is a completely different hydrologic situation.<sup>37</sup> Carriage losses, particularly seepage, in a dry creek bed are substantially higher than in a lake saturated with water.<sup>38</sup> And in fact, under such conditions, the North Fork's dry bed must be completely saturated before it will even begin to flow.<sup>39</sup>

The Carthel Memo's invalid premise — that Lubbock's discharge and diversion will occur within Lake 8 — also explains why the Carthel Memo did not consider two of the three basic carriage loss components, seepage and evapotranspiration. The only component considered was the evaporation rate.<sup>40</sup> In reality, Mr. Carthel did not *measure* anything — let alone carriage losses

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<sup>33</sup> Mr. Spear admitted at the hearing that at the time Lubbock filed its Application, Lubbock intended to build Lake 8. Tr. at 52:5-13 (Aubrey Spear, October 18, 2011). Mr. Spear admitted that when Lubbock was planning on building Lake 8, the water that would be discharged from Outfall 001 was going to be the source of filling Lake 8. Tr. at 55:3-8 (Aubrey Spear, October 18, 2011). Lake 8 was also part of the Region O Plan and the State Water Plan. Janes-7 (2007 State Water Plan); Janes-8 (Region O 2006 Plan).

<sup>34</sup> Lubbock requested that Lake 8 be removed from the Region O Plan. Janes-14 (8/12/009 Texas Water Development Board Memo); Janes-B at 38:5-7 (Koch Prefiled); Tr. at 52:22-53:1 (Aubrey Spear, October 18, 2011).

<sup>35</sup> Janes-B at 38:9-17 (Koch Prefiled).

<sup>36</sup> Tr. at 281:11-282:2 (Thomas Koch, October 19, 2011); Janes- B at 42:15-22 (Koch Prefiled); COL 3985A 9 at 116:21-117:1, 117:22-118:3 (Dunn Prefiled); Tr. at 133:9-12 (David Dunn, October 18, 2011).

<sup>37</sup> Janes-B at 38:9-17 (Koch Prefiled); Tr. at 131:13-16; 133:2-8 (David Dunn, October 18, 2011).

<sup>38</sup> Tr. at 136:10-19 (David Dunn, October 18, 2011); *see* Tr. at 314:15-318:13 (Kathy Alexander, October 19, 2011); Janes-16 at 149:21-150:25 (Transcript of the Deposition of David Dunn); Janes-18 at 89:9-22 (Transcript of the Deposition of Aubrey Spear); Janes-B at 42:15-22 (Koch Prefiled).

<sup>39</sup> Janes-B at 42:15-22; Janes-18 at 89:23-11 (Transcript of the Deposition of Aubrey Spear).

<sup>40</sup> To arrive at that rate, Mr. Carthel calculated the arithmetic average annual precipitation rate using data from the Texas Water Development Board. He also calculated the average annual evaporation using Texas Water Development Board data. He then subtracted the average annual precipitation from the average annual evaporation and referred to the *Janes Gravel's Exceptions to the Proposal for Decision*

on the North Fork — he just provided an evaporation estimate based on a myriad of assumed figures.<sup>41</sup> Nonetheless, Mr. Carthel made no effort to determine evapotranspiration or seepage in a dry river bed; he simply “doubled” evaporation and left it at that.<sup>42</sup> No consideration was given to the losses caused by plants along the North Fork, such as mesquite and salt cedar, that take up enormous volumes of water and transpire it into the atmosphere.<sup>43</sup> Nor was there any consideration given to seepage — the amount of water that would be lost to the fine sand in the typically dry bed of the North Fork.<sup>44</sup>

Mr. Carthel’s 0.47% carriage loss estimate also conflicts with actual observed stream conditions and Lubbock’s own environmental documentation. First, 0.47% is inconsistent with Mr. Koch’s observations during his site visit when he observed streamflow in the North Fork that

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difference as the net evaporation. He indicated that the net evaporation was 3.63 feet per year. Then, Mr. Carthel simply “doubled” that figure to arrive at 7.26 feet per year. He then multiplied the surface area (6.68 acres) by the estimated total evaporation rate of 7.26 feet per year to arrive at an estimated average carriage loss in the reach of 47.67 acre-feet per year. He then divided the calculated 47.67 acre-feet per year carriage loss by the discharge rate of 10,081 acre-feet per year to arrive at a carriage loss of 0.47 %. Janes-B at 40:11-41:18 (Koch Prefiled).

<sup>41</sup> *Id.*

<sup>42</sup> Tr. at 48:9-49:7 (Aubrey Spear, October 18, 2011). Even more, the evaporation number that Mr. Carthel “doubled” was incorrect. When Mr. Carthel considered evaporation, he used net annual evaporation, not monthly net evaporation. Tr. at 134:3-19 (David Dunn, October 18, 2011); COL 3985A 9 at 22:1-3 (Dunn Prefiled). Mr. Carthel apparently assumed that every day of the year the *same* percent of water is “lost” to evaporation regardless of whether it is raining or hasn’t rained for months, and regardless of the season of the year. Janes-B at 39:19-40:9. (Koch Prefiled). Mr. Carthel failed to consider actual carriage loss ratios that will change at least from month to month, or more likely, day to day. Janes-B at 41:20-42:13 (Koch Prefiled); Tr. at 134:24-135:1 (David Dunn, October 18, 2011). Also, evaporation varies widely with the seasons, and is greater during the heat of the summer than in the cold of the winter. Janes-B at 43:1-3 (Koch Prefiled). Mr. Carthel could have (at least) used monthly data instead of the annual figures. He had it in his hands. The Texas Water Development Board data provides monthly data for evaporation and precipitation for the same respective time periods. Janes 23 (Evaporation/Rain Spreadsheet); Janes-B at 43:5-16 (Koch Prefiled). Janes-23 (Evaporation/Rain Spreadsheet) contains three worksheets. *Id.* One worksheet shows the monthly precipitation data in the Lubbock area between 1954 and 2010. A second worksheet shows the monthly lake evaporation rates for the Lubbock area during the same period. The third worksheet shows the calculated difference between the evaporation and the rainfall. *Id.* Even a cursory review of that information shows that the monthly data is scattered all over the place, and is wholly inconsistent with annual figures averaged out to result in an identical monthly figure. *Id.*

<sup>43</sup> Janes-B at 39:19-40:9 (Koch Prefiled); Tr. at 76:3-5 (Aubrey Spear, October 18, 2011).

<sup>44</sup> At the hearing on the merits, Lubbock only offered two witnesses in support of the Application, Aubrey Spear and David Dunn. Mr. Spear was not employed by Lubbock when the Application was filed, and had no part whatsoever in putting together and filing the Application in this case. Tr. at 29:3-4 (Aubrey Spear, October 18, 2011); Tr. at 29:15-18 (Aubrey Spear, October 18, 2011). Tr. at 30:7-9; 16-19 (Aubrey Spear, October 18, 2011); Tr. at 87:19-21 (David Dunn, October 18, 2011). None of the Lubbock representatives that *did* work on this Application were called as witnesses to support Lubbock’s case. Tr. at 30:20-24 (Aubrey Spear, October 18, 2011).

just “disappeared” as it moved downstream.<sup>45</sup> Second, 0.47% is totally different than the conclusion contained in Lubbock’s 1990 Environment Information Document for Wastewater Reclamation,<sup>46</sup> wherein Lubbock concluded that “the effluent that is discharged into the stream below Lake Ransom Canyon *would probably be lost to the City of Lubbock for future reuse options.*”<sup>47</sup>

**C. Lubbock’s requested diversion point is not genuine.**

Another shortcoming in the PFD is noteworthy because it directly conflicts with very recent Commission precedent. According to Lubbock’s Application and Draft Permit, Lubbock planned to divert its discharged effluent from the North Fork near CR 7300.<sup>48</sup> However, according to Lubbock’s proposed amendment to its Regional Water Plan (available at [www.llanoplan.org](http://www.llanoplan.org)) created after Lubbock filed the Application, Lubbock indicates that it does *not* intend to use the diversion point it has applied for in its proposed amendment to Permit No. 3985.<sup>49</sup> Therefore, as it stands now, Lubbock’s proposed permit contains an illusory diversion point that Lubbock will not use.

### III. DISCUSSION

In light of the above facts, the PFD contains several errors of law, most of which contradict not only the Water Code, Commission’s rules, and binding case law, but run awry of long-established water rights and environmental policies.

**A. The PFD failed to properly apply 11.042 of the Texas Water Code and the Texas Supreme Court’s recent precedent in *Edwards Aquifer Authority v. Day*.**

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<sup>45</sup> Janes-B at 39:19-40:9 (Koch Prefiled).

<sup>46</sup> Janes-26 (Lubbock’s Environmental Information Document for Wastewater Treatment); Janes-B at 39:19-40:9 (Koch Prefiled).

<sup>47</sup> Janes -26 (emphasis added); Janes-B at 39:19-40:9 (Koch Prefiled).

<sup>48</sup> Janes-B at 47:15-17 (Koch Prefiled).

<sup>49</sup> Janes-14 ( 8/12/2009 Texas Water Development Board Memo ); Janes-B at 48:1-6 (Koch Prefiled). Additionally, Lubbock has made no plans for construction, engineering, land acquisition, or financing pertaining to the Diversion Point or treatment lines to the WTP. Janes-18 at 80:7-81-2, 92:1-4 (Transcript of the Deposition of Aubrey Spear); Janes-B at 48:8-13 and 49:7-8 (Koch Prefiled); Janes-16 at 157:18-158:9 (Transcript of the Deposition of David Dunn); Janes-17 at 31:5-20 (Transcript of the Deposition of Wood Franklin). Janes-B at 47:19-22 (Koch Prefiled).

The PFD premises its finding that no state water would be diverted on its decision that the underground dome water created by the City's land application is groundwater, not state water, and that Lubbock is not obligated to maintain any flow in the North Fork attributable to groundwater levels underlying the LLAS. PFD at 16-17.<sup>50</sup> Thus, the PFD's errors of law primarily stem from the erroneous conclusion that Lubbock's Application does not seek an authorization to appropriate any state water. That conclusion results from a failure to apply long standing law on the changing nature of private water into state water in Texas. The Texas Supreme Court's recent opinion in *Edwards Aquifer Authority v. Day, inter alia*, explained the changing nature of private water into state water in Texas. In *Day*, the Texas Supreme Court recognized:

The Water Code defines state water — \*water owned by the State — \*as “[t]he water of ordinary flow, underflow, and tides of every flowing river, natural stream, and lake, and of every bay or arm of the Gulf of Mexico, and the storm water, floodwater, and rainwater of every river, natural stream, canyon, ravine, depression, and watershed in the state.”\*

*Edwards Aquifer Auth. v. Day*, 08-0964, 2012 WL 592729 at 3 (2012).

The Supreme Court also noted that the character of groundwater can change:

But *the character of water as groundwater or state water can change*. The Code recognizes this reality, providing, for example, that storm water or floodwater — \*state water — \*when “\*put or allowed to sink into the ground, . . . loses its character and classification . . . and is considered percolating groundwater.”\*<sup>30</sup> By the same token, irrigation runoff draining into a stream or other watercourse wholly loses its character as groundwater and becomes state water.

*Id.* at 3 (emphasis added).

Next, the Supreme Court noted an exception where a water owner has obtained authorization:

There is an exception. Groundwater can be transported through a natural watercourse without becoming state water. The Code specifically allows the Water Commission to authorize a person to discharge privately owned groundwater into a natural watercourse and withdraw it downstream.<sup>31</sup> But this exception proves the rule. The necessary implication is that *when the water owner has not obtained*

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<sup>50</sup> As an initial point, the fact that Lubbock may choose to cease discharging is irrelevant and hypothetical because that is simply not in any way consistent with what Lubbock has done in the past or intends to do in the future.

*the required authorization for such transportation, the water in the natural watercourse becomes state water.*

*Id.* at 4 (emphasis added).

Because *Day* had not yet obtained the required prior authorization to transport the water, the Supreme Court concluded that such water was state water. *See id.* For two independent reasons, *Day* plainly compels a finding that Lubbock's discharge of effluent became state water and, thus, the central premise of the PFD is erroneous as a matter of law.

First, Lubbock's direct discharge of effluent into the North Fork for the past eight years without obtaining *prior authorization* resulted in the discharge becoming state water. As *Day* reaffirms, water owned by the state is broadly defined to include, among other things, water in river or natural stream. *See id.* at 3. Plainly, the North Fork is a river, and the water within it is therefore state water. Thus, as *Day* makes clear, presumptively any water (regardless of whether it was originally privately-owned groundwater) becomes state water. *Id.* at 3 ("privately-owned groundwater draining into a stream or other water course wholly loses its character as groundwater and becomes state water.") As in *Day*, the exception to this general rule — using a state watercourse for transporting water — proves the general rule in this case. As *Day* explains, the Water Code's authorization for transport in 11.042(b) — the section Lubbock relies on here — only applies when the transporter obtains prior authorization. TEX. WATER CODE §§ 11.042(b) (requiring "prior authorization") and 11.042(c) (requiring "prior approval"); *Edwards Aquifer Auth. v. Day*, 08-0964, 2012 WL 592729 at 4 ("The necessary implication is that when the water owner has not obtained the required authorization for such transportation, the water in the natural watercourse becomes state water.")

Here, the material facts are undisputed. Lubbock has been directly discharging effluent into a state watercourse for eight years. Lubbock did not obtain authorization or approval to use the North Fork for transport prior to discharging effluent into the North Fork. Lubbock has not reused any of the water discharged into the North Fork over the past eight years. Thus, Lubbock's discharged effluent was abandoned and became state water. Janes Gravel, as a senior appropriator on the North Fork has used and relied on that state water for eight years. Although *Janes Gravel's Exceptions to the Proposal for Decision*

11.042(c) expressly requires consideration of the impact of proposed diversion on existing permits, the PFD contains no such consideration of the impact on Janes Gravel.

There is a second independent reason *Day* compels a finding that Lubbock's effluent became state water. For decades, Lubbock's disposal of effluent at LLAS created a groundwater mound that then seeped into the North Fork, where it became a substantial source of the base flow of the North Fork. The ALJ attributed no significance to this undisputed fact because the effluent became groundwater once it percolated below the earth's surface. PFD at 17. But under both § 11.042 and *Day*, the analysis does not stop there.

Under *Day*, regardless of whether the water underneath the LLAS was groundwater once that water seeped into the North Fork it became state water, and further became part of the North Fork's natural flow. Because Lubbock's effluent became a substantial component of the base flow, and Janes Gravel used and relied upon that flow, and its certificate of adjudication was issued in reliance of that state water, TEX. WATER CODE § 11.042(c) expressly requires consideration of the impact on "existing permits" so that those permits can be protected against harmful diversions through several conditions. As noted above, no consideration has been given to the impact of the proposed diversion on Janes Gravel in either the PFD or draft permit.

Moreover, the PFD fails to address the additional undisputed fact that groundwater has been pumped from the LLAS groundwater mound and discharged into Lake 1 since the early 1970's.<sup>51</sup> Under *Day*, once that water was discharged into Lake 1, it became state water. Here too, Lubbock's historic discharge and disposal of effluent has formed a substantial portion of the North Fork base flow. The PFD ignores that crucial fact and allows Lubbock to divert those historic return flows from Outfall 001 as well without any consideration given to the impact on Janes Gravel's senior water right. Accordingly, the PFD conflicts with § 11.042 of the Water Code and the Texas Supreme Court's opinion in *Day*, and thus is an error of law.

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<sup>51</sup> Janes-B at 24:8-26:18 (Koch Prefiled); Janes-26 ay 1-7, 2-10 (Lubbock's Environmental Information Documents for Wastewater Treatment).

**B. The PFD ignores senior claims to Lubbock's historic return flows in violation of the Water Code and Commission's rules.**

Not only were a significant volume of Lubbock's return flows state water, they were also appropriated by senior water right holders like Janes Gravel. The PFD's second significant error of law in this case is that it ignores this fact.

"The commission shall grant the application only if . . . the proposed appropriation . . . does not impair existing water rights or vested riparian rights . . ." TEX. WATER CODE §§ 11.134(b). A requested change in a water right "cannot cause adverse impact on other water right holders or the environment on the stream of greater magnitude than under circumstances in which the . . . certificate of adjudication that is sought to be amended was fully exercised according to its terms and conditions as they existed before the requested amendment." TEX. WATER CODE §§ 11.122(b). "The granting of an application for . . . an amended water right shall not cause an adverse impact to an existing water right . . . . An application for an amendment to a water right . . . shall not be granted unless the commission determines that such amended water right shall not cause adverse impact to the uses of other appropriators." 30 TEX. ADMIN. CODE § 297.45.

Adverse impact to another appropriator includes: "the possibility of depriving an appropriator of the equivalent quantity or quality of water that was available with the full, legal exercise of the existing water right before the change . . . or otherwise substantially affecting the continuation of stream conditions as they would exist with the full, legal exercise of the existing water right at the time the appropriator's water right was granted." *Id.*

The PFD concludes that Lubbock's Application only deals with water discharged from Outfall 001 since 2003. But that is not the only place Lubbock disposes of its wastewater.<sup>52</sup> Nor is 2003 when Lubbock began discharging effluent.<sup>53</sup> Lubbock has actually been discharging into the North

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<sup>52</sup> One is the Jones Power Plant, and another is right across the bank of the North Fork on a 4,000 acre irrigation site where Lubbock has disposed of its wastewater for many decades.

<sup>53</sup> Janes-A at 11:8-16 (Janes Prefiled).  
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Fork since the 1920's.<sup>54</sup> Lubbock has been discharging from an outfall to the LLAS since the 1930's.<sup>55</sup> And at least as early as the 1960's, it became evident that Lubbock's effluent disposal at the LLAS created a 65-foot mound of effluent that fed seeps and springs, and that discharged effluent flowed into the North Fork as early as the 1930's, long before Janes Gravel's 1968 priority date.<sup>56</sup> Lubbock also began pumping water out of the water mound and discharging it directly into the North Fork at Lake 1.<sup>57</sup> There has also been runoff from the LLAS located adjacent to the North Fork on the opposite side of the water treatment plant.<sup>58</sup>

All of these sources have contributed to the North Fork over time. And historically, because of the over-irrigation and over-saturation at LLAS, those flows contributed significantly to the North Fork and form part of its base flow that Janes Gravel (among others) has relied on for decades. In fact, those flows contributed to the North Fork and formed part of the base flow that Janes Gravel (among others) relied on to obtain their water rights, and still rely on today to exercise them.

Janes Gravel obtained its water right from the Water Commission on July 24, 1968, consistent with the requirements of the Water Rights Adjudication Act, which became effective in 1967.<sup>59</sup> It is undisputed that at that time, Lubbock's effluent discharge served as the basis for water rights recognized in the water rights adjudication process. Return flows were included in the water availability analysis for permitting on a case-by-case basis, and they were specifically recognized in the Commission's Regulatory Guidance Document as being available for appropriation and included in then-current WAMs.<sup>60</sup> Further, a 1984 Commission staff memorandum stated that municipal effluent

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<sup>54</sup> Janes-A at 10:14-18 (Janes Prefiled); Janes-A at 10:21-11:2 (Janes Prefiled). TPDES Permit No. WQ001353002 is actually a consolidation of other, much older, wastewater permits. (Janes-A at 10:14-18 (Janes Prefiled)).

<sup>55</sup> Tr. at 277:12-279:24 (Thomas Koch, October 19, 2011); Janes-22 (City of Lubbock's Water Rights Chart); Janes-26 (Lubbock's Environmental Information Document for Wastewater Treatment).

<sup>56</sup> Tr. at 277:12-279:24 (Thomas Koch, October 19, 2011).

<sup>57</sup> Janes-A at 11:8-16 (Janes Prefiled).

<sup>58</sup> Tr. at 95:25-96:3 (David Dunn, October 18, 2011).

<sup>59</sup> See Feb. 10, 1982 Salt Fork and Double Mountain Fork Final Determination; Acts 1967, 60th Leg. p. 86, c. 45, § 1.

<sup>60</sup> See BRA Proposal for Decision at 137-156 (*citing* Summary of Historical Treatment of Return Flows). *Janes Gravel's Exceptions to the Proposal for Decision*

flows were routinely considered in water availability models used to determine the availability of unappropriated water.<sup>61</sup> Moreover, in 1997, immediately prior to the legislative session that produced Senate Bill 1,<sup>62</sup> the Commission held a work session, considering the views of parties who had participated in a year-long working group on this issue, as well as staff recommendations, on the issue of reuse.<sup>63</sup> The Commission adopted the following policy, among others:

*Prior* to the discharge of “developed” water, the developer may obtain a “bed and banks” permit from the Commission for the conveyance of this water in a watercourse for subsequent diversion (less carriage losses such as evaporation, transpiration, seepage, etc.) and use by the developer. . . . Generally, a person may not, however, obtain a bed and banks permit *after the fact* to divert surface or ground water historically discharged by that person, including water that may have been considered developed water prior to its discharge.<sup>64</sup>

Thus, Lubbock’s historic discharges were abandoned and became state water later appropriated by Janes Gravel (among others), as they had become part of the normal flow of the North Fork.<sup>65</sup> Because Janes Gravel’s water right was adjudicated based on those normal flows, which consisted in part based on Lubbock’s abandoned discharges, Lubbock cannot divert it now.

In light of these undisputed facts, the PFD’s failure to consider these flows is erroneous.

**C. The PFD’s recommended authorization would amount to an improper collateral attack on a final agency order.**

Issuing Lubbock’s permit in this case would amount to an impermissible collateral attack on a final agency order. It is well established that an agency’s final order, like the judgment of a court of law, is immune from collateral attack, and exceptions to the general rule excluding collateral attacks

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<sup>61</sup> Indirect Reuse of Municipal Effluent: Senior Appropriator’s Perspective, Douglas G. Caroom, Texas Bar Journal (March 2004) (citing TRWD Interoffice Memorandum from Rogan to Schwartz of 2/10/84, “Secondary Use Permit Requirements,” at 15).

<sup>62</sup> Act of 1997, 75<sup>th</sup> Leg., R.S. ch. 1010. TEX. WATER CODE §§ 11.042(b) and (c) were added to the Water Code as part of Senate Bill 1 in 1997. Act of 1997, 75<sup>th</sup> Leg., R.S. ch. 1010. Pre-Senate Bill 1 case law provided that when return flow enters a watercourse, it again becomes state water subject to appropriation by others. Under *EAA v. Day*, that law has not changed. See *EAA v. Day*.

<sup>63</sup> Indirect Reuse of Municipal Effluent: Senior Appropriator’s Perspective, Douglas G. Caroom, Texas Bar Journal (March 2004)

<sup>64</sup> See **Exhibit A**, Memorandum from Mark Jordan to Reuse Committee of 2/3/97, at 1, 2, 4-5) (emphasis added).

<sup>65</sup> TEX. WATER CODE § 11.046(c), *City of San Marcos*, 128 S.W.3d at 275, *South Texas Water Co. v. Bieri*, 247 S.W.2d 268, 272-73 (Tex. Civ. App.-Galveston 1952, writ ref’d n.r.e).  
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both are limited and inapplicable here.<sup>66</sup> *Friends of Canyon Lake, Inc. v. Guadalupe-Blanco River Authority*, 96 S.W.3d 519 and 532 (Tex. App.–Austin 2002, pet. denied); *see also State v. Triax Oil and Gas, Inc.*, 966 S.W.2d 123 at 126 (Tex. App.–Austin 1998, no pet.).

It is undisputed in this case that Janes Gravel’s certificate of adjudication (a final agency order) was granted based on normal flows, which consisted, at least in part, of historic return flows Lubbock abandoned long ago. Moreover, pursuant to its certificate of adjudication, Janes Gravel has a senior right over Lubbock for state water it abandoned. If, as the PFD recommends, Lubbock is allowed to divert flows upon which Janes Gravel’s certificate of adjudication was based, it would impermissibly conflict with the agency’s prior order granting that certificate. Because the PFD recommends granting a permit that allows Lubbock to divert those flows, it is an impermissible collateral attack on Janes Gravel’s certificate of adjudication.

**D. The PFD ignores Commission precedent recognizing that diversion points cannot be hypothetical.**

30 TEX. ADMIN. CODE § 295.7 provides that “[t]he application shall state the location of point(s) of diversion . . .” 30 TEX. ADMIN. CODE § 295.7. According to commission precedent, that diversion point must be genuine. For example, SOAH recently recommended denial of a bed and banks permit because no genuine diversion point was identified. In SOAH Docket No. 582-10-4181; TCEQ Docket No. 2005-10-4181; *Concerning the Application by Brazos River Authority for Water Use Permit No. 5851* (“BRA”), the applicant included multiple potential diversion points in its application, without committing to actually using any of them. The ALJs referred to 30 TEX. ADMIN. CODE § 295.7,<sup>67</sup> and noted that the applicant did not intend for those points to be its actual diversion points.<sup>68</sup> The ALJs noted that the “Application either: (1) identifies *no* diversion points, or (2)

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<sup>66</sup> Collateral attacks upon an agency order may be maintained successfully on one ground alone - that the order is void. *Chocolate Bayou*, 124 S.W.3d at 853. So as to permit collateral attack, an agency order may be void in the requisite sense on either of two grounds: (1) the order shows on its face that the agency exceeded its authority; or (2) proof that the order was procured by extrinsic fraud. *See id.* As to the 2008 Final Order, neither ground exists.

<sup>67</sup> *See* BRA Proposal for Decision at 20.

<sup>68</sup> *See id.* at 22, 25.

identifies *infinite* diversion points. In either case, the Application does not meet the requirements of Section 295.7."<sup>69</sup>

The ALJs further noted that “the impacts of the diversions will differ based upon where, when, and how the diversions take place.”<sup>70</sup> They also noted that “without knowing the actual diversion points, the impacts the . . . permit may have on senior water rights cannot be known.”<sup>71</sup> The ALJs pointed out that “the amount of water available . . . depends significantly upon the location . . . at which the water is diverted.”<sup>72</sup> Finally, the ALJs concluded that the applicant “failed to comply with the clear requirement of 30 TEX. ADMIN. CODE § 295.7,” and that the ALJs “cannot assume that Section 295.7 is a nullity, or that the requirements of that section are satisfied by the use of fictional . . . diversion points.”<sup>73</sup> The Commission agreed and issued an order consistent with the PFD. *See* BRA Interim Order issued January 30, 2012.

In this case, Lubbock, like the BRA, has no genuine diversion point. When Lubbock filed its Application in 2004, it intended to build a reservoir — Lake 8. The diversion point was premised on the construction of Lake 8, near CR 7300.<sup>74</sup> But those plans have now changed. According to the proposed amendment to Lubbock’s Regional Water Plan, created after it filed the Application, Lubbock unequivocally states that it does *not* intend to use the diversion point it has applied for in its proposed amendment to Permit No. 3985.<sup>75</sup>

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<sup>69</sup> *Id.* at 28 (emphasis in original).

<sup>70</sup> *Id.* at 21.

<sup>71</sup> *Id.* at 28.

<sup>72</sup> *Id.* at 29.

<sup>73</sup> *Id.*

<sup>74</sup> Janes-B at 47:15-17 (Koch Prefiled).

<sup>75</sup> Janes-14 (8/12/2009 Texas Water Development Board Memo). Unsurprisingly, Lubbock has made no plans for construction, engineering, land acquisition, or financing pertaining to the Diversion Point or treatment lines to the WTP. Janes-18 at 80:7-81-2, 92:1-4 (Transcript of the Deposition of Aubrey Spear); Janes-B at 48:8-13 (Koch Prefiled); Janes-16 at 157:18-158:9 (Transcript of the Deposition of David Dunn). No engineering had been done in connection with Lubbock’s (bed and banks) application, and in particular, no work, other than filing an application, has been done in connection with building the diversion point or transmission line to the water plant. Janes-17 at 31:5-11 (Transcript of the Deposition of Wood Franklin); Janes-B at 49:7-8 (Koch Prefiled)

Although Janes Gravel briefed this issue extensively, the PFD is silent on this issue. Without a genuine diversion point, “the impacts of the diversions will differ based upon where, when, and how the diversions take place,” the true impacts Lubbock’s permit may have on Janes Gravel’s senior water right “cannot be known.”<sup>76</sup> Therefore, Lubbock’s Application cannot satisfy 30 TEX. ADMIN. CODE § 295.7 as a matter of law.<sup>77</sup> The PFD’s silence on this issue and recommendation to grant the permit despite this material deficiency is clearly erroneous.

**E. Lubbock provided no evidence supporting its requested carriage losses.**

While the lack of a genuine diversion point renders Lubbock’s carriage loss calculations speculative, that is only the beginning of Lubbock’s carriage loss fatal deficiencies. Under TEX. WATER CODE § 11.042(b), an authorization to “discharge and then subsequently divert and reuse the person’s existing return flows derived from privately owned groundwater” may only allow “for the diversion and reuse by the discharger of existing return flows, less carriage losses . . . .” TEX. WATER CODE § 11.042(b). And under TEX. WATER CODE § 11.042(c), an authorization to convey and subsequently divert water in a watercourse or stream “shall allow to be diverted only the amount of water put into a watercourse or stream, less carriage losses . . . .” TEX. WATER CODE § 11.042(c). In this case, Lubbock relies on a single document — the admittedly unscientific three page Carthel memo — to carry its burden of proof on carriage losses. The Carthel Memo, which indicates that all carriage losses will be 0.47% — *less than one-half of one percent* — is facially unreliable and is no evidence.<sup>78</sup>

- 1. The admittedly unscientific Carthel Memo is unreliable and thus is “no evidence” supporting carriage losses.**

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<sup>76</sup> See BRA Proposal for Decision at 21 and 28.

<sup>77</sup> Janes-B at 48:19-49:3; 48:15-17 (Koch Prefiled).

<sup>78</sup> The evidence in this case shows that this percentage is not only wrong — it is ridiculously wrong — for a myriad of reasons. Tr. at 197-11 (David Dunn, October 18, 2011)  
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Unreliable, irrelevant and unqualified expert opinions are inadmissible. *E. I. du Pont de Nemours v. Robinson*, 923 S.W. 2d 549, 556-57 (Tex. 1995).<sup>79</sup> Scientific evidence which is not grounded "in the methods and procedures of science" is no more than "subjective belief or unsupported speculation[.]" and is therefore unreliable. *Id.* at 557 (citing *Daubert*, 113 S. Ct. at 2795). Unreliable evidence is of no assistance to the trier of fact, and it is well-settled that unreliable scientific evidence is legally *no evidence* at all. *Merrill Dow Pharms. v. Havner*, 953 S.W.2d 706, 714 (Tex. 1997) ("If the foundational data underlying opinion testimony are unreliable, an expert will not be permitted to base an opinion on that data because any opinion drawn from that data is likewise unreliable."); *Cooper Tire and Rubber Co. v. Mendez*, 204 S.W.3d 801, 801 (Tex. 2006) (citing *Havner*); *Merck & Co. v. Garza* 347 S.W.3d 256, 262-263 (Tex. 2010).

Even a cursory review of the Carthel Memo reveals that it is *prima facie* unreliable. First, it was not even written to support the Lubbock's Application to Amend Water Use Permit 3985.<sup>80</sup> The memo was written to support Lake 8 — Lubbock's Amendment Application for Certificate of Adjudication No. 12-3705.<sup>81</sup>

But even pretending that the Carthel Memo was written for the Application in this case, it is based on a crucial false assumption. The Carthel Memo is premised on the fact that any discharge and diversion would be within Lake 8, and not an intermittent riverbed that is dry most of the year.<sup>82</sup>

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<sup>79</sup> In *Robinson*, the Supreme Court of Texas relied heavily upon the United States Supreme Court opinion of *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2c 469 (1993). Under what is commonly known as the *Daubert-Robinson* test, the trial court performs an essential role in determining whether expert testimony is admissible. The Supreme Court in *Robinson* noted that TEX. R. EVID. 702 contains three requirements for the admission of expert testimony: (1) the witness must be qualified; and (2) the proposed testimony must be "scientific . . . knowledge"; and (3) the testimony must "assist the trier of fact to understand the evidence or to determine a fact in issue." *Robinson*, 923 S.W.2d at 556-557 (citing TEX. R. EVID. 702). In order to constitute scientific knowledge which will assist the trier of fact, the proposed testimony must be relevant and reliable. *Robinson* at 556.

<sup>80</sup> Janes- B at 40:11-41:18 (Koch Prefiled); Janes-12 (Lubbock Public Works Interoffice Memo).

<sup>81</sup> Janes-B at 40:11-41:18 (Koch Prefiled); Janes-12 (Lubbock Public Works Interoffice Memo). That conclusion is supported by the fact that the majority of the memo addresses the estimated stream losses in the Jim Bertram Lake System that is not even related to this Application. *Id.*

<sup>82</sup> Tr. at 52:14-21 (Aubrey Spear, October 18, 2011). At the time Lubbock filed its Application in 2004, Lubbock was concurrently seeking authorization from TCEQ to construct a dam on the North Fork near its proposed Diversion Point that would impound water in a reservoir (Lake 8) that extended upstream all the way to Outfall 001. Janes-B at 37:18-38:3 (Koch Prefiled). At *that* time, Lubbock planned to discharge effluent at one point on the perimeter of Lake 8 and then pump that same volume of water at the same rate (less carriage losses) from another location on the perimeter of the same

Instead, the discharge and proposed diversion will occur in a 2.7-mile long intermittent stream bed composed of fine grained, or loose, sand or silty-sand, that is dry 90% of the time.<sup>83</sup> That is a completely different hydrologic situation.<sup>84</sup> Carriage losses, particularly seepage, in a dry creek bed are substantially higher than in a lake saturated with water.<sup>85</sup> Under such conditions, the North Fork's dry bed must be completely saturated before water will begin to flow downstream.<sup>86</sup> There is simply no evidence on record supporting carriage loss in anything other than a saturated lake bottom.

Second, there was no attempt made to actually *measure* any of the key factors such as seepage, river bank width and evapotranspiration, all of which are critical factors in determining carriage loss.<sup>87</sup> But most importantly, Mr. Carthel himself admitted in the memo that “[t]he measurements [in his memo] only represent one day and *the measurements were not obtained using scientific standards.*”<sup>88</sup> Based on these considerations, it is unsurprising that Lubbock chose not to call the memo's author, Chester Carthel, as a witness in this case.<sup>89</sup>

Because the Carthel Memo was not even written for Lubbock's Application, failed to measure or calculate any of the carriage loss factors, and is admittedly “unscientific,” it is not reliable, and

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Lake 8. Tr. at 52:5-13 (Aubrey Spear, October 18, 2011); Tr. at 55:3-8 (Aubrey Spear, October 18, 2011). However, Lubbock abandoned its plan to build Lake 8. Janes-14 (8/12/009 Texas Water Development Board Memo); Janes-B at 38:5-7 (Koch Prefiled); Tr. at 52:22-53:1 (Aubrey Spear, October 18, 2011). Today, there is no application to discharge into a reservoir (Lake 8) at one point on the perimeter of the reservoir and withdrawing the same volume of water at the same rate (less carriage losses) from another point on the perimeter of the same reservoir. Janes-B at 38:9-17 (Koch Prefiled).

<sup>83</sup> Tr. at 281:11-282:2 (Thomas Koch, October 19, 2011); Janes- B at 42:15-22 (Koch Prefiled); COL 3985A 9 at 116:21-117:1, 117:22-118:3 (Dunn Prefiled); Tr. at 133:9-12 (David Dunn, October 18, 2011).

<sup>84</sup> Janes-B at 38:9-17 (Koch Prefiled); Tr. at 131:13-16; 133:2-8 (David Dunn, October 18, 2011).

<sup>85</sup> Tr. at 136:10-19 (David Dunn, October 18, 2011); *see* Tr. at 314:15-318:13 (Kathy Alexander, October 19, 2011); Janes-16 at 149:21-150:25 (Transcript of the Deposition of David Dunn); Janes-18 at 89:9-22 (Transcript of the Deposition of Aubrey Spear); Janes-B at 42:15-22 (Koch Prefiled).

<sup>86</sup> Janes-B at 42:15-22; Janes-18 at 89:23-11 (Transcript of the Deposition of Aubrey Spear).

<sup>87</sup> Janes-B at 41:20-42:131 (Koch Prefiled).

<sup>88</sup> Janes-12 at 2 (Lubbock Public Works Interoffice Memo) (emphasis added); *see also* Janes-B at 41:20-42:13 (Koch Prefiled); Tr. at 116-20 (David Dunn, October 18, 2011); Tr. at 50:10-12 (Aubrey Spear, October 19, 2011).

<sup>89</sup> Janes-B at 40:11-41:18 (Koch Prefiled); Janes-12 (Lubbock Public Works Interoffice Memo).

therefore no evidence.<sup>90</sup> And since the Carthel Memo stands alone as Lubbock's sole evidence in support of its carriage losses, Lubbock offered "no evidence" at all in support thereof. Thus the PFD inappropriately considered the Carthel Memo, and erroneously concluded Lubbock met its burden to prove accurate carriage losses despite this critical deficiency.

**2. The PFD misapplied seepage principles in this case.**

One particular excerpt from the PFD bears noting because it underscores its erroneous analysis of carriage losses, particularly seepage, in this case. The PFD states:

[C]onsidering Janes Gravel's repeated argument that seepage losses would be significantly greater for flows entering a dry river bed, it is apparent that Janes Gravel . . . will receive a windfall benefit from the City's discharge of return flows . . . . Use of the bed and banks to transport the water to the diversion point will keep a 2.7 mile section of the North Fork saturated, thus less of the natural flow in the north Fork will soak into the ground, leaving more for the downstream water right holders."

PFD at 20.

This excerpt shows that the PFD fundamentally misunderstands Janes Gravel's point. First, Janes Gravel's point is that seepage — and therefore carriage loss — will be substantially greater for flows entering a dry river bed than a saturated lake bed. Lubbock's carriage losses, which wrongly assume the discharge and diversion will be into a saturated lake bed, will be substantially higher if the bed were intermittently dry. As a result of this simple indisputable fact, Lubbock's carriage losses are clearly understated. That understatement of carriage loss results in harm to Janes Gravel because Lubbock can divert more water than if carriage loss were correctly measured.

Second, the indication that Lubbock's discharges and diversions will keep the section in between saturated stands the record evidence on its head. The record evidence is undisputed that Lubbock's discharges and diversion will *not* keep that portion of the North Fork saturated. Carthel's memo wrongly assumed a saturated lake bed. Janes Gravel established that the North Fork is dry most of the time, and that Lubbock's discharges are irregular.<sup>91</sup> The PFD's conclusion that Janes

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<sup>90</sup> Janes-12 (Lubbock Public Works Interoffice Memo).

<sup>91</sup> Tr at 52:14-21 (Aubrey Spear, October 18, 2011). See Lubbock's discharge reports. Janes-13 (7/8/2004 Lloyd Gosselink Letter to TCEQ); Janes-B at 44:22-45:16; 45:18-46:5 (Koch Prefiled). Mr. Spear indicated in his prefiled testimony that Lubbock does not discharge continuously from Outfall 001, and in fact, the discharges often vary widely from a flow rate of zero to a rate and volume closer to the maximum rate and volume authorized by the TPDES Permit. *Janes Gravel's Exceptions to the Proposal for Decision* Page 21

Gravel will *benefit* from Lubbock's Permit could not be farther from the truth, and turns a blind eye to the fact that the City's carriage loss factor of *less than one-half of one percent* over a 2.7-mile stretch of dry, sandy river bed is patently absurd.

**3. The PFD's error on carriage losses likely stems from a misapplication of the applicable burden of proof.**

In analyzing the carriage loss issue, the PFD states, “[n]otably, although critical of the City's carriage loss calculation, Janes Gravel failed to submit an alternative loss factor that it could demonstrate as being more accurate. Moreover, Mr. Koch failed to rebut the opinions of the City's and the ED's experts that the methodology employed by the City to calculate the carriage loss was the industry standard . . . .” PFD at 19-20.

The PFD's analysis inverts the burden of proof in a water rights case, and disregards the evidence Janes Gravel submitted in this case. First, with an application for a water right, the applicant has the burden of proof. 30 TEX. ADMIN. CODE § 80.17(a), 30 TEX. ADMIN. CODE Chapter 297. Therefore, Lubbock — not Janes Gravel — had the burden to prove accurate carriage losses. It is true that Janes Gravel did not submit its own carriage loss factor. It is also irrelevant to the proper legal standards in this case. It was Lubbock's burden, alone, to meet its burden of proof. Janes Gravel was not required to supply an accurate carriage loss factor for Lubbock. *See id.* Second, the PFD's assertion that Janes Gravel did not challenge Carthel's methodology is astonishing. As Janes Gravel repeatedly pointed out, Carthel's carriage loss calculation suffered from the following methodology flaws:

- As Carthel himself acknowledged. The measurements were only taken on one day and were admittedly unscientific.<sup>92</sup>

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*See* COL 3985A 1 at 11:6-9 (Spear Prefiled); Janes-B at 45:18-46:5 (Koch Prefiled). Mr. Spear also testified during his deposition that Lubbock's discharge does not follow any pattern, and that there are times where there is little to no flow, and then others when there is a spike of flow with a higher volume. Janes-18 at 53:24-54:22 (Transcript of the Deposition of Aubrey Spear).

<sup>92</sup> Janes 12 at 2  
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- Carthel failed to measure or calculate evapotranspiration from plants along the riverbed.<sup>93</sup>
- Carthel used a methodology only arguably for lakes, not dry river beds.<sup>94</sup>
- Because Carthel wrongly assumed Lake 8 would be constructed, his “lake” methodology is fundamentally flawed when applied to a dry river bed.<sup>95</sup>
- Carthel failed to consider key elements of dry river bed carriage loss calculation such as antecedent rainfall and the effects of seasonal variation in temperature and rainfall.<sup>96</sup>

Carriage loss is a critical issue in this case, yet the PFD does not properly apply and analyze the burden of proof on carriage loss, resulting in an erroneous conclusion that Lubbock proved that carriage loss is only 0.47% in a dry, sandy river bed.

**F. There is no evidence that Lubbock’s Application meets applicable environmental requirements.**

Lubbock must prove that its proposed amendment will not harm surface water quality, existing instream uses of the stream or river, aquatic and wildlife habitat, and instream flows necessary to support recreation, navigation, and federally listed species. *See* TEX. WATER CODE § 11.042(c); 30 TEX. ADMIN. CODE §§ 297.47, 297.53-297.56. 30 TEX. ADMIN. CODE § 297.54(a) states, in pertinent part, that “the commission shall assess the effects . . . of the granting of the [bed and banks] application on water quality of the stream or river to which the application applies . . . . Assessment of water quality impacts shall consider the maintenance of State of Texas Surface Water Quality Standards . . . and the need for all existing instream flows to be passed up to that amount necessary to maintain the water quality standards for the affected stream . . . .” 30 TEX. ADMIN. CODE

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<sup>93</sup> Janes 12; Tr. at 48:9-49:7 (Aubrey Spear, October 18, 2011); Janes-B at 39:19-40:9 (Koch Prefiled); Tr. at 76:3-5 (Aubrey Spear, October 18, 2011).

<sup>94</sup> Janes 12; Janes-B at 40:11-41:18 (Koch Prefiled); Janes-12 (Lubbock Public Works Interoffice Memo). That conclusion is supported by the fact that the majority of the memo addresses the estimated stream losses in the Jim Bertram Lake System that is not even related to this Application. *Id.*

<sup>95</sup> Janes-B at 38:9-17 (Koch Prefiled); Tr. at 281:11-282:2 (Thomas Koch, October 19, 2011); Janes-B at 42:15-22 (Koch Prefiled); Janes-16 at 116:21-117:1, 117:22-118:3 (Transcript of the Deposition of David Dunn); Tr. at 133:9-12 (David Dunn, October 18, 2011).

<sup>96</sup> Janes-B at 44:22-45:16 (Koch Prefiled); Janes-B at 41:20-42:13 (Koch Prefiled).  
*Janes Gravel’s Exceptions to the Proposal for Decision*

§ 297.54(a). Moreover, “[a]ssessment of water quality impacts shall consider the need for all existing instream flows to be passed up to that amount necessary to . . . protect uses of existing, downstream water rights by providing water of a usable quality and to provide, in part, for the protection of vested riparian water rights and domestic and livestock uses.” 30 TEX. ADMIN. CODE § 297.54(a). TEX. WATER CODE §11.042(b) states that “[s]pecial conditions may also be provided to help maintain instream uses and freshwater inflows to bays and estuaries.” TEX. WATER CODE §11.042(b).

Lubbock did not submit *any* evidence, aside from testimony pointing to a single memo created by the ED’s staff, to demonstrate meeting the numerous above requirements.<sup>97</sup> Mr. Dunn did not perform any review for the Application’s effect on the environment.<sup>98</sup> In fact, Mr. Dunn admitted that he was not even qualified to speak as to effects on wildlife and effects on aquatic species and vegetation.<sup>99</sup> Therefore, Lubbock did not offer a single witness to show whether Lubbock’s Application met the water quality requirements. That alone is fatal to Lubbock’s Application because the applicant must meet its burden of proof by itself and without the assistance of the ED. *See* 30 TEX. ADMIN. CODE § 80.108(d).<sup>100</sup>

There is only a single memo concerning environmental issues in this case — the sole March 7, 2005 Interoffice Memo written by Adam Cohen (the “Cohen Memo”). Similar to the Carthel Memo, the Cohen Memo is unreliable and therefore is *no evidence* at all in support of Lubbock’s Application.<sup>101</sup> In the Cohen Memo, Adam Cohen — not a witness in this case — discusses that he believed approximately *one* year of Lubbock’s discharge into the North Fork had not likely affected

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<sup>97</sup> Janes-B at 54:1-22 (Koch Prefiled).

<sup>98</sup> Tr. at 186:15-17 (David Dunn, October 18, 2011); Tr. at 76:6-15 (Aubrey Spear, October 18, 2011).

<sup>99</sup> Tr. at 187:9-13 (David Dunn, October 18, 2011).

<sup>100</sup> Commission rules plainly spell out that, “[t]he executive director’s participation . . . shall be for the sole purpose of providing information to complete the administrative record.” 30 TEX. ADMIN. CODE § 80.108(d). Commission’s rules further dictate that “[w]hen the executive director participates as a party in a contested case hearing concerning a permitting matter before the commission or SOAH the executive director may not assist an applicant in meeting its burden of proof.” 30 TEX. ADMIN. CODE § 80.108(e). Applied here, the rule requires that Lubbock must carry its burden on its own; it may not rely on a memo from the ED to carry its burden of proof.

<sup>101</sup> *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2c 469 (1993); *E. I. du Pont de Nemours v. Robinson*, 923 S.W. 2d 549, 556-57 (Tex. 1995).

aquatic habitat in the North Fork, and therefore did not recommend a flow restriction in Lubbock's Draft Permit.<sup>102</sup>

The Cohen Memo is woefully out of date and therefore fatally flawed; the situation is simply not the same as it was in 2005.<sup>103</sup> Even if one only considers discharges from Outfall 001, Lubbock's historic discharges at *Outfall 001* span over almost eight years, not one.<sup>104</sup> The memo should have been updated to analyze the substantial time passage, and at a minimum, flow restrictions should have been included to retain historic flows.<sup>105</sup> Aside from the Cohen Memo, the ED offered no evidence of any other work that was done to address the water quality requirements. Ms. Alexander considered herself qualified to testify as to water quality matters — and therefore was the only witness in the entire case offered up to address water quality issues.<sup>106</sup> But Ms. Alexander admitted that she did not perform *any* environmental effects review for Lubbock's Application.<sup>107</sup> Nor did the ED's staff audit any reviews or otherwise review any environmental reviews from Lubbock.<sup>108</sup> In light of these facts, it's not surprising that Ms. Alexander also admitted that there was not even a single exhibit offered regarding a review for effects on *groundwater* quality.<sup>109</sup>

Because the unreliable Cohen Memo is the only evidence — and practically the only work done — concerning environmental and water quality issues, there is no evidence in support thereof.

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<sup>102</sup> Janes-24 (3/27/2005 TCEQ Interoffice Memo); Janes-B at 54:1-22 (Koch Prefiled).

<sup>103</sup> Janes-B at 54:1-22 (Koch Prefiled).

<sup>104</sup> *Id.*

<sup>105</sup> Janes-B at 54:1-22 (Koch Prefiled).

<sup>106</sup> Ms. Alexander's qualifications to testify as a water quality expert in this case are questionable in light of the fact that she did not know how long it takes for aquatic vegetation to rely on water in a watercourse. Tr. at 330:17-19 (Kathy Alexander, October 19, 2011). Further, Ms. Alexander did not know how long it takes for aquatic wildlife to rely on water in a watercourse, either. Tr. at 330:20-23 (Kathy Alexander, October 19, 2011).

<sup>107</sup> Tr. at 327:19-21 (Kathy Alexander, October 19, 2011)

<sup>108</sup> Tr. at 327:5-7 (Kathy Alexander, October 19, 2011).

<sup>109</sup> Tr. at 330:24-331:2 (Kathy Alexander, October 19, 2011).

Accordingly, the PFD's conclusion that Lubbock met its burden to prove that the environmental requirements were satisfied is devoid of any evidentiary support and is therefore erroneous.

**G. The PFD fails to recognize obvious and undisputed environmental reliance on historic return flows.**

As shown above, the Cohen Memo is fatally flawed because it only considers the effects of discharge from Outfall 001. The PFD's reliance on the Cohen Memo highlights another fatal flaw it suffers in this case — the PFD wholly fails to recognize the obvious and undisputed environmental reliance on Lubbock's historic return flows. Lubbock's discharged effluent formed a substantial part of the base flow of the North Fork at *least* seven years ago — not one year — and going back decades prior to that.<sup>110</sup>

The impact of removing years of assimilated historic return flows from existing surface water flows is likely the most important environmental issue associated with a bed and banks permit. Obviously, removing flows occurring as far back as the 1930's will adversely impact the water quality and flows in the North Fork. Any legitimate analysis of environmental and water quality effects must take Lubbock's long-term discharges and their effects on the North Fork into consideration.

Yet neither Lubbock nor the ED even *considered* how Lubbock's historic effluent discharge and its impact on stream flow have likely created different characteristics that will be impacted by Lubbock's proposed diversion if it is simply removed.<sup>111</sup> Despite extensive briefing on this issue by Janes Gravel and OPIC, the PFD is silent on this issue as well. Because analysis of this critical environmental issue is absent from Lubbock's proof and the PFD, the PFD is clearly erroneous.

**H. TEX. WATER CODE § 11.046 applies to this case.**

The PFD erroneously concluded, and in turn failed to apply, TEX. WATER CODE § 11.046. In the PFD, the ALJ cites to TEX. WATER CODE § 11.046, *subsection (a)*, and then concludes that § 11.046 does not apply to this case because none of the water Lubbock discharged into the North

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<sup>110</sup>

*Id.*

<sup>111</sup> Janes-B at 54:1-22 (Koch Prefiled).

Fork was diverted or taken from the North Fork. PFD at 8. To reach that conclusion, the ALJ states that “[u]se of the term ‘appropriator’ infers that surplus water returned to a watercourse is state water,” and since none of the water Lubbock plans to divert originated from the North Fork, it cannot be “surplus water.” *Id.*

This conclusion is erroneous. Section 11.046 contains no requirement — explicit, implicit or otherwise — that the use of the water occur in the same place in which it was obtained in order for it to be “surplus water.” *See* TEX. WATER CODE § 11.046. The definition simply states that surplus water is “water in excess of the initial or continued beneficial use of the appropriator.” TEX. WATER CODE § 11.002(10). Further, there are three subsections in § 11.046, and only subsection (a) refers to water being returned to the watercourse “from which it was taken.” *Cf.* TEX. WATER CODE § 11.046(a)-(c).

Notably, § 11.046(c) states that “water appropriated under a permit, certified filing, or certificate of adjudication may, prior to its release into a watercourse or stream, be beneficially used and reused by the holder . . . . Once water has been diverted . . . and then returned to a watercourse or stream, however, it is considered surplus water and therefore subject to reservation for instream uses or beneficial inflows or to appropriation by others unless expressly provided otherwise in the permit, certified filing, or certificate of adjudication.” TEX. WATER CODE § 11.046(c). The PFD in the recent BRA speaks to this point as well. In the BRA case, the ALJ’s concluded that “Section 11.046(c) simply codifies the long standing rule in Texas that water becomes state water once it enters a watercourse.”<sup>112</sup>

TEX. WATER CODE § 11.046 clearly applies to this case, and the PFD’s conclusion that it did not, and failure to apply it in this case, was an error of law.

**I. Special conditions to protect Janes Gravel and instream flows.**

The draft permit contains no provision to protect Janes Gravel or environmental instream flows. Although the Commission can properly deny Lubbock’s Application for any of the reasons

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<sup>112</sup> BRA PFD at 148-150.

outlined above, the Commission can alternatively grant the Application with special conditions to protect Janes Gravel and in stream flows. The draft permit contains a provision allowing Lubbock a 5% margin of error in measuring its diversion. As the ED's expert acknowledged, due to the 5% margin of error, it is possible that Lubbock could take 5% more water than it is supposed to take.<sup>113</sup> When Lubbock's expert, Mr. Dunn was asked to calculate how many acre-feet 5% of the total acre-feet in the permit would be, he acknowledge that the amount is 1, 649 acre-feet.<sup>114</sup> Then Mr. Dunn calculated what 5% of 9 million gallons per day (the discharge from Outfall 001) would be, and he got 504 acre-feet. Mr. Dunn admitted that such a "small" measuring error was 54 acre-feet more than the *total* right that Janes Gravel has.<sup>115</sup>

So what might be a small error to Lubbock in this case, is a potentially fatal deprivation of water rights to a senior downstream water holder — Janes Gravel. The Commission has the discretion to address this serious and troublesome issue in a manner that protects Janes Gravel's senior water right and provides protection for instream environmental flows as well. The Commission could reduce the amount Lubbock is permitted to divert by 5% to provide a protection against this "margin of error" thereby leaving more water in the North Fork. Alternatively, the Commission can place a special condition providing Janes Gravel with a senior call on the permit as the Commission has done in past indirect reuse permits.

#### IV. CONCLUSION

The Commission's intervention is urgently needed. Janes Gravel is a senior water right on the North Fork, yet those senior rights have not been given due consideration and protection. Because Lubbock failed to carry its burden of proof for the numerous reasons set forth above, the Commission would be well within its discretion to deny the City's Application. Alternatively, to protect Janes Gravel's senior water right — and thereby its existence as a business — the Commission

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<sup>113</sup> Tr. at 326:11-14 (Kathy Alexander, October 19, 2011).

<sup>114</sup> Tr. at 223:8-225:6 (David Dunn, October 18, 2011).

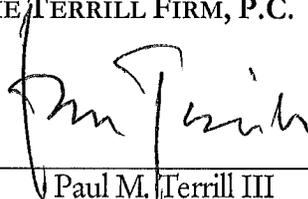
<sup>115</sup> Tr. at 225:7-18 (David Dunn, October 18, 2011)

can attach special conditions to any permit issued to Lubbock as set forth in Section III.I, above. Finally, the Commission can remand the matter to SOAH so that the glaring deficiencies in the Application regarding carriage loss and environmental impact can be properly assessed for the benefit of Janes Gravel and instream environmental flows.

Respectfully submitted,

THE TERRILL FIRM, P.C.

By:



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Paul M. Terrill III  
State Bar No. 00785094  
Scott R. Shoemaker  
State Bar No. 24046836  
810 W. 10<sup>th</sup> Street  
Austin, Texas 78701  
(512) 474-9100  
(512) 474-9888 (fax)

ATTORNEYS FOR R.E. JANES GRAVEL CO.

