

# ENVIRONMENTAL EFFECTS OF PETROLEUM PRODUCTION: 2010-2011 TEXAS LEGISLATIVE DEVELOPMENTS

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## I. INTRODUCTION

The 2011 Sunset Advisory Commission (SAC) recommended changes to duties of the Texas Commission on Environmental Quality (TCEQ), the Texas Water Development Board (TWDB), and the Railroad Commission of Texas (RRC). Bills associated with the first two agencies became law; bills associated with the last failed. In addition and as directed by the legislation, the RRC passed regulations requiring disclosure of ingredients used in hydraulic fracturing fluid. Commissioner David Porter of the RRC formed the Eagle Ford Task Force to bring together stakeholders to discuss best practices for developing the Eagle Ford Shale. The TCEQ and local conservancy districts across the state, deeming hydraulic fracturing to be a process separate from drilling and exploration—activities excepted by statute from their permitting requirements—began to more closely scrutinize water use related to hydraulic fracturing.

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## II. SUNSET BILLS

Since 1977, the SAC has been charged with examining state agencies in an effort to eliminate repetitive or duplicative efforts, waste, and inefficiency.<sup>1</sup> On a rotating basis, each state agency is examined over three to eight months during periods when the state legislature is not in session.<sup>2</sup> Despite the name of the commission, the SAC is not only tasked with determining whether agencies under consideration should be merged or eliminated, but also promoting efficiency of coverage and streamlining of existing regulatory efforts both within and between agencies.<sup>3</sup> Once the SAC has compiled its recommendations for a particular agency, the legislature then can promulgate laws to implement the changes the SAC has recommended for the agency to achieve its objectives.

Before the 2011 legislative session, the SAC reviewed twenty-eight Texas agencies, including the TCEQ, the RRC, and the TWDB.<sup>4</sup> From the SAC's recommendations, various bills were introduced that altered the structure and mission of these four agencies. Bills covering changes to the TCEQ and the TWDB passed while all bills altering the RRC failed.

While the RRC is the primary regulator of oil and gas operations, other agencies' regulations can affect operations. From a substantive perspective, the TCEQ's jurisdiction over oil and gas production activities is generally limited to regulation of air quality; the RRC regulates virtually all other environmental aspects of oil and gas operations, including those that affect water quality.<sup>5</sup> The TCEQ regulates surface-water appropriation; however, groundwater appropriation is not directly regulated by any state agency and is subject to the Rule of Capture, though that common law rule has been largely preempted in most areas of the state by groundwater management districts that are authorized to allocate water based on equitable considerations.<sup>6</sup>

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1. SUNSET ADVISORY COMM'N, <http://www.sunset.state.tx.us/> (last visited Mar. 30, 2012).

2. SUNSET ADVISORY COMM'N, SUNSET IN TEXAS 4 (Jan. 2012), <http://www.sunset.state.tx.us/suntx.pdf>.

3. See TEX. GOV'T CODE ANN. § 325.008 (West Supp. 2011).

4. *Sunset Bills: 82nd Legislature*, SUNSET ADVISORY COMM'N, <http://www.sunset.state.tx.us/legislation11.htm> (last visited Apr. 3, 2012).

5. See *Air*, TEX. COMM'N ON ENVTL. QUALITY, [http://www.tceq.texas.gov/agency/air\\_main.html](http://www.tceq.texas.gov/agency/air_main.html) (last visited Mar. 30, 2012); *Oil & Gas*, R.R. COMM'N OF TEX., <http://www.rrc.state.tx.us/safety/og/index.php> (last visited Feb. 24, 2012).

6. See TEX. WATER CODE ANN. § 36.1071 (West Supp. 2011).

*A. Texas Commission on Environmental Quality (TCEQ)*

The Texas Legislature passed and codified the recommendations of the SAC for the TCEQ.<sup>7</sup> Thought to be one of the most influential Texas environmental laws passed in 2011, House Bill 2694 again authorizes the TCEQ to operate for another twelve years.<sup>8</sup> It also addresses other procedural and substantive changes in TCEQ operations and powers.<sup>9</sup>

Generally, the new law is designed to provide more transparency to the public about the TCEQ's actions (or inaction) and its plans to assess and respond to public concern about matters related to TCEQ control.<sup>10</sup> Specifically, the law modifies various portions of the Texas Water Code (§§ 5.239, 5.271 and 5.276) in an attempt to make the TCEQ more responsive to public concern and requires performance reports from the Office of Public Interest Counsel to be given annually to the TCEQ regarding its representation of the public interest in matters before the TCEQ.<sup>11</sup>

Changes were also made to elucidate the exact power of the TCEQ director to affect water use during drought. House Bill 2694 adds § 11.053 to the water code, which authorizes the TCEQ director to mandate temporary interruption or modification of a water-right use during drought conditions.<sup>12</sup> The TCEQ director's order of suspension of a water right must be designed to maximize the beneficial use of the water and minimize waste and the impact on water-right holders to develop.<sup>13</sup> It must also consider efforts by the owners of the suspended water right to design and employ their own water conservation and drought contingency schemes as required by Chapter 11 of the water code.<sup>14</sup> The TCEQ director's suspension or alteration of a water right cannot require the release of water stored under a water right.<sup>15</sup>

In order to promulgate these rules, the TCEQ has been directed to define what a "drought" and a "water shortage" are and the circumstances

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7. *See id.* § 36.117; Tex. S.B. 692, 82d Leg., R.S. (2011), available at <http://www.legis.state.tx.us/BillLookup/History.aspx?LegSess=82R&Bill=SB692> (regarding information relating to the passage of the bill).

8. *See* Tex. H.B. 2694, 82d Leg., R.S. (2011), available at <http://www.legis.state.tx.us/BillLookup/History.aspx?LegSess=82R&Bill=HB2694>.

9. *See id.*

10. *See id.*

11. Emily W. Rogers, *Update: TCEQ and the Texas Water Development Board*, 6TH ANN. ADVANCED TEX. ADMIN. L. SEMINAR 2-3 (Aug. 25-26, 2011), [http://www.bickerstaff.com/files/Update.\\_TCEQ\\_and\\_the\\_Texas\\_Water\\_Development\\_Board\\_for\\_web\\_site\\_2011\\_00557755\\_.PDF](http://www.bickerstaff.com/files/Update._TCEQ_and_the_Texas_Water_Development_Board_for_web_site_2011_00557755_.PDF) (providing an outstandingly detailed description of every SAC recommendation and the corresponding 2011 changes to the laws covering the TCEQ and the TWDB).

12. *See* TEX. WATER CODE ANN. § 11.053 (West Supp. 2011); Tex. H.B. 2694.

13. § 11.053(b).

14. *Id.*

15. *Id.*

under which the new suspension powers may be invoked and how long the suspension may last, along with the usual administrative processes of notice, hearing, comment, and appeals procedures.<sup>16</sup> The SAC recommended that water-right owners keep records of water use, and the bill requires that water-right owners keep a monthly record of the water-right use, which can be reviewed by the TCEQ upon declaration of a “drought” or “water shortage.”<sup>17</sup>

Rules associated with all of these portions of the TCEQ SAC law are currently being formulated and proposed. Stakeholder meetings, public hearings, and comment periods for these rules will continue through late 2011 and early 2012.<sup>18</sup>

The TCEQ continues to respond to the drought. More “senior” water rights (i.e., those established and recognized by the state first) are allowed “first draw” rights during times of drought, while more “junior” water rights (i.e., the most recently issued permits) may be suspended, altered, or curtailed by the TCEQ by priority date. For example, on November 14, 2011, in response to lowered watershed measurements, the director of the TCEQ notified certain Neches River Basin “junior” water-permit owners that their rights to divert the river’s water had been temporarily but immediately suspended.<sup>19</sup> “Suspended water rights include those with a priority date of Aug. 13, 1913 or later, term, and temporary water-right permits in the Neches River Basin.”<sup>20</sup> Water rights associated with municipal uses or for power generation have not been suspended. Landowners with property adjacent to watercourses in the Neches River Basin may continue to divert water for domestic and livestock/poultry use because of riparian rights.<sup>21</sup> This restriction follows similar restrictions in 2011 placed on permit rights affecting water draws from the San Saba, Llano, and Brazos rivers, among other surface water sources.<sup>22</sup>

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16. § 11.053(c).

17. *Id.* § 11.031(d)-(e).

18. *Rule Proposals and Adoptions*, TEX. COMM’N ON ENVTL. QUALITY, [http://www.tceq.texas.gov/rules/propose\\_adopt.html](http://www.tceq.texas.gov/rules/propose_adopt.html) (last visited Apr. 4, 2012) (maintaining a repository of the steps that are underway for rulemaking).

19. Press Release, TCEQ Restricts Junior Water Rights, Tex. Comm’n on Env’tl. Quality (Nov. 14, 2011), <http://www.tceq.texas.gov/news/releases/111411droughtnecheslnvacall>.

20. *Id.*

21. *Id.*

22. See *Newsroom*, TEX. COMM’N ON ENVTL. QUALITY, [http://www.tceq.texas.gov/news/aggregator/atct\\_topic\\_view?b\\_start:int=20&-C=](http://www.tceq.texas.gov/news/aggregator/atct_topic_view?b_start:int=20&-C=) (last visited Apr. 4, 2012) (containing press releases related to river water permit restrictions).

*B. Texas Water Development Board (TWDB)*

Although the SAC-sourced bill covering the TWDB passed,<sup>23</sup> little that was changed in the TWDB's scope and activities will have a direct impact on oil and gas operations<sup>24</sup> because of (1) the exception in Chapter 36 of the Texas Water Code,<sup>25</sup> which generally excepts oil and gas operations from oversight related to groundwater use, and (2) the purpose and activities of the TWDB. The TWDB's primary concern is administering the Texas Water Bank, established in 1993 to help communities transfer, sell, or lease water rights and to hold water rights for environmental flow maintenance purposes.<sup>26</sup> The TWDB also currently provides scientific assistance through modeling to communities planning future water use and conservation.<sup>27</sup>

*C. Railroad Commission of Texas (RRC)*

In September of 2009, the RRC submitted its "self-evaluation" to the SAC. In response, the SAC sent its "RRC questionnaire"—a survey requesting input by stakeholders on various aspects of the RRC—out on June 7, 2010. Once these responses were compiled, the SAC reported back to the RRC and held a public meeting in December 2010. Finally, on January 12, 2011, the SAC issued its findings to be taken up by members of the legislature. Unlike the bills related to the TCEQ and the TWDB, none of the proposed bills that would have changed the RRC passed. Because the versions of the two bills were close in substance, however, it is likely that eventual changes to the RRC will bear some resemblance to provisions common to the House and Senate bills.<sup>28</sup>

The Senate bill changed the name of the RRC to the "Texas Oil and Gas Commission," which would be controlled by one elected commissioner, as recommended by the SAC, to be elected in the 2012

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23. See TEX. WATER CODE ANN. § 15.975 (West Supp. 2011); *Texas Senate Bill SB 370*, OPEN GOV'T, <http://tx.opengovernment.org/sessions/82/bills/sb-370> (last visited Apr. 4, 2012) (reviewing information related to the passage of Senate Bill 370).

24. Telephone Interview with Wendy Foster, Dir. of Gov't Relations, Tex. Water Dev. Bd. (Nov. 8, 2011). The fracking fluid disclosure legislation, discussed below, was attached as an amendment to the TWDB's 2011 SAC bill. *Id.* This portion of the legislation will, of course, have a significant impact on oil and gas operations in Texas but is unrelated to the activities of the TWDB and, in fact, almost caused the larger TWDB SAC bill that encompassed it to fail. *Id.*

25. TEX. WATER CODE ANN. § 36.117 (West Supp. 2011).

26. See *Texas Water Bank*, TEX. WATER DEV. BD., <http://www.twdb.state.tx.us/publications/shells/WaterBank.pdf> (last visited Apr. 4, 2012).

27. See *Groundwater Availability Modeling*, TEX. WATER DEV. BD., <http://www.twdb.state.tx.us/publications/shells/GAM.pdf> (last visited Apr. 4, 2011).

28. Michael J. Nasi & Deidra Garcia, Presentation at 23rd Annual Env'tl. Superconference: "The Butter Battle: A Texas Legislative Update" (Aug. 4, 2011).

election cycle.<sup>29</sup> In the interim, the single RRC commissioner would be appointed by the governor.<sup>30</sup> The Senate bill also transferred enforcement and contested gas utility cases from the RRC to the State Office of Administrative Hearings.<sup>31</sup>

The House version of the bill also provided for changing the name of the RRC but differed in that three commissioners would be used, each with staggered six-year terms.<sup>32</sup> The commissioner would be elected in 2012 and every sixth year thereafter would serve as commission chairman.<sup>33</sup> The House bill did not transfer enforcement and contested gas utility cases from the RRC to the State Office of Administrative Hearings.<sup>34</sup>

One matter that delayed potential reconciliation of these two bills was an amendment to the Senate bill that would have made the RRC (as renamed) the *sole* regulatory agency in charge of oil and gas operations in Texas, including regulation and permitting related to air pollution caused by oil and gas operations.<sup>35</sup> Currently, the TCEQ is the sole agency that regulates air pollution under the EPA's Clean Air and Clean Water Acts, and the amendment to the Senate bill would have made Texas the only state that divides air pollution regulation between two agencies depending on whether the pollution was related to oil and gas development or not.<sup>36</sup> Typically, unless the EPA directs itself to enforce the provisions of the federal Clean Air and Clean Water Acts, it is required to appoint a state agency to do so. Previously, the EPA had delegated the TCEQ to carry out such duties.<sup>37</sup> Worry developed in the legislature (and among oil and gas industry lobbyists) that the portion of the air permitting processes for the Clean Air Act that would fall under the new RRC's control might cause the EPA to attempt to intercede, take control themselves of the regulatory power that was slated for the remodeled RRC, and start the delegation process again.<sup>38</sup> In recent years, Texas and the EPA have squabbled about air permitting rights, and concern that this might motivate the EPA to meddle with industry permitting delayed action on the bill.<sup>39</sup>

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29. Tex. S.B. 655 § 2, 82d Leg., R.S. (2011).

30. *Id.* § 55.

31. *Id.* § 22.

32. *Id.* §§ 2, 5.

33. § 5.

34. *Id.* § 12.

35. Citizen Carol, *Bill of the Day—SB 1655*, TEXASVOX (Mar. 31, 2011), <http://texasvox.org/2011/03/31/bill-of-the-day-sb-655>.

36. *See id.*

37. *See id.*

38. *See id.*

39. *See id.* The carve out of oil and gas production issues from TCEQ jurisdiction over environmental matters has caused other problems, for example, delaying TCEQ's delegation of authority from the EPA under the Clean Water Act to implement the National Pollutant Discharge Elimination System (NPDES) program. The EPA continues to have jurisdiction over air and water quality and hazardous waste, though for non-oil and gas production activities, that authority has been delegated to the TCEQ with the EPA retaining an oversight function.

In response to the failure of reconciliation of the bills, the House and Senate approved a stop-gap bill, which allowed the RRC to continue as it currently exists until prior to the 2012–2013 state legislative session when the SAC will conduct another full review of the RRC.<sup>40</sup> This second review will likely result in another round of bills in the next session of the state legislature and further haggling over what changes to the structure and mission of the RRC the SAC and state policies would like to implement.

### III. THE RAILROAD COMMISSION AND HYDRAULIC FRACTURING

Perhaps the most important recent environmental legislation considered and passed in Texas that relates to hydrocarbon production had to do with the practice of hydraulic fracturing. Hydraulic fracturing (known colloquially as “fracking,” “fracking” and, in this report, as “fracing”) is a process in which fluid is injected into a well at very high pressures in order to either widen and deepen existing cracks or create new fractures in the tight formation.<sup>41</sup> Generally, the use of fracturing technologies in vertical and horizontal well bores will allow more oil or gas to be produced from wells previously thought dry or in decline.<sup>42</sup> Petroleum companies vary the type of fluid used for fracing depending on the rock type, depth, or other factors.<sup>43</sup> The fluids used can include water, water mixed with solvents, or drilling mud.<sup>44</sup> The fluid is mixed with the “proppant,” which is typically sand, ceramic pellets, or other small granular material, that is carried into the fractures where it remains to prop the crack open, thereby allowing the oil or gas to flow.<sup>45</sup>

Hydraulic fracturing consists of pumping large volumes of water that contain sand or other proppant materials.<sup>46</sup> This water can be fresh or saltwater.<sup>47</sup> Use of surface water is regulated by the TCEQ.<sup>48</sup> The RRC

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40. *Agency Reviews 2012–2013: 83rd Legislature*, SUNSET ADVISORY COMM’N, <http://www.sunset.state.tx.us/2013.htm> (last visited Apr. 4, 2012).

41. See John Perez Graphics and Design, LLC, *Natural Gas Shale Horizontal Drilling Video*, API, [http://www.api.org/policy-and-issues/policy-items/hf/drilling\\_video.aspx](http://www.api.org/policy-and-issues/policy-items/hf/drilling_video.aspx) (last visited Mar. 31, 2012). The American Petroleum Institute (API) maintains a short video of current fracing techniques. *Id.*

42. *Id.*

43. See *Fracturing Fluid Management*, FRACFOCUS, <http://fracfocus.org/hydraulic-fracturing-how-it-works/drilling-risks-safeguards> (last visited Mar. 31, 2012).

44. See *Natural Gas Shale Horizontal Drilling Video*, *supra* note 41.

45. See OFFICE OF FOSSIL ENERGY, U.S. DEP’T OF ENERGY & NAT’L ENERGY TECH. LAB., STATE OIL AND NATURAL GAS REGULATIONS DESIGNED TO PROTECT WATER RESOURCES 22 (May 2009), [http://fracfocus.org/sites/default/files/publications/state\\_oil\\_and\\_gas\\_regulations\\_designed\\_to\\_protect\\_water\\_resources\\_0.pdf](http://fracfocus.org/sites/default/files/publications/state_oil_and_gas_regulations_designed_to_protect_water_resources_0.pdf) [hereinafter REGULATIONS DESIGNED TO PROTECT WATER RESOURCES].

46. See *Water Use in Association with Oil and Gas Activities Regulated by the Railroad Commission of Texas*, R.R. COMM’N OF TEX., <http://www.rrc.state.tx.us/barnettshale/wateruse.php> (last visited Apr. 2, 2012).

47. *Id.*

48. *Id.*

regulates the use of saline or brackish water drawn from underground reservoirs that are below the base of usable quality water.<sup>49</sup> The RRC “requires a permit for wells associated with oil and gas activities that draw such water from formations below the base of usable quality water.”<sup>50</sup> “[G]roundwater ownership rights are subject to regulation and control by courts and the [Texas] Legislature.”<sup>51</sup> The legislature authorized the creation of Groundwater Conservation Districts (GCD) “to conserve, preserve, protect, recharge, and prevent waste of groundwater resources within their boundaries.”<sup>52</sup> The drilling and use of an injection water supply well for oil and gas activity, or a water well for surface mining activity, may be subject to the rules promulgated by the controlling GCD.<sup>53</sup> Water well drillers “must submit drilling logs and other required information to the [Texas Department of Licensing and Regulation (TDLR)]” and “[t]he completion and plugging of [water] wells must comply with TDLR regulations.”<sup>54</sup>

Texas was not the first state to specifically address fracing or to require disclosure of fracing fluid.<sup>55</sup> Though specific state rules vary, common state law provisions include fracturing into existing laws and regulations and require that logs and pressure test results are included in disclosures to state authorities.<sup>56</sup> State rules also typically require information on what is in the frac fluid, what are the plans for disposal, what is the minimum depth for fracturing, and how a fresh water aquifer or surface water asset will be remediated or replaced.<sup>57</sup>

#### A. General Regulations that Affect Fracing

Some regulations that apply to fracing operations in Texas also apply to all other oil and gas operations. The RRC promulgates and enforces regulations related to oil and gas matters and has jurisdiction over all “oil and gas wells in Texas; persons owning or operating pipelines in Texas; and persons owning or engaging in drilling or operating oil or gas wells in Texas.”<sup>58</sup> Contrary to the practice in other states, where the agency in charge of making and enforcing environmental laws ultimately controls oil and gas development (perhaps through a specialized division), the TCEQ is

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49. *Id.*

50. *Id.*

51. *Id.*

52. *Id.*

53. *See id.*

54. *Id.*

55. *See* REGULATIONS DESIGNED TO PROTECT WATER RESOURCES, *supra* note 45, at 14.

56. *Id.* at 25.

57. *Id.* at 25, 30-31.

58. TEX. NAT. RES. CODE ANN. § 81.051(a)(2)-(4) (West 2008).

not the primary state regulatory agency with jurisdiction over oil and gas operations or the wastes produced during such operations.<sup>59</sup>

Like all oil and gas development in Texas, fracing operations require the RRC to issue a permit authorizing drilling, deepening of a well, or both.<sup>60</sup> Besides the standard permitting and the new chemical disclosure requirements, two key areas where the RRC's regulations have an impact on fracing operations are: title 16, § 3.8 of the Texas Administrative Code "Water Protection" and title 16, § 3.13 of the Texas Administrative Code "Casing, Cementing, Drilling, and Completion Requirements."<sup>61</sup>

In addition to permitting regulation, § 3.8 also regulates the storage, transfer, and disposal of oil and gas wastes.<sup>62</sup> Presumptively, this includes any fracing fluids that are brought back to the surface as part of oil and gas production.<sup>63</sup> Although § 3.46 is specifically intended to regulate injection of fluids as part of enhanced oil recovery or waste injection,<sup>64</sup> the language of § 3.46 could be interpreted to include fracing operations. Specifically, § 3.46 states that a special fluid-injection permit is required for "fluid injection operations in reservoirs productive of oil, gas, or geothermal resources."<sup>65</sup> In spite of this language, § 3.46 does not currently create duties *specific* to hydraulic fracturing for operators that engage in fracing within the State of Texas in actual practice.<sup>66</sup> However, if federal regulations are amended to include fracing within the definition of Class II underground injection wells, then the RRC may be forced to follow suit.<sup>67</sup>

Regulation of casing and cementing is the second way in which the RRC's standard oil and gas regulations affect fracing.<sup>68</sup> The key concern of fracing opponents is the potential for fracing fluids to contaminate groundwater.<sup>69</sup> The RRC is confident, however, that the current casing, cementing, drilling, and completion regulations in title 16, § 3.13 of the Texas Administrative Code are sufficient to protect the state's groundwater resources from being contaminated by fracing fluids.<sup>70</sup> Therefore, unlike many states, the RRC does not require fluid-injection permits for fracing

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59. 16 TEX. ADMIN. CODE § 3.30 (2012). This regulation, called the Memorandum of Understanding, sets forth the jurisdictional boundaries between the TCEQ and the RRC. *Id.*

60. *Id.* § 3.5.

61. *See id.* §§ 3.8, 3.13.

62. § 3.8.

63. *Id.* Section 3.8 regulates drilling fluid pits, saltwater and brine storage pits, flare pits, sediment pits, etc., for the storage of oil and gas waste (as defined in § 3.8). *Id.*

64. *See id.* § 3.46.

65. *Id.*

66. *See* ERNEST E. SMITH & JACQUELINE L. WEAVER, 3 TEX. LAW OF OIL AND GAS § 14.4(B), at 14-74 (2d ed. 2009).

67. *See* REGULATIONS DESIGNED TO PROTECT WATER RESOURCES, *supra* note 45, at 15, 30.

68. *Id.* at 17-20.

69. *Id.*

70. E-mail from Ramona Nye, Media Relations Dir., R.R. Comm'n of Tex., to J. Austin Frost, Assoc., Haynes and Boone, LLP (Apr. 13, 2010, 03:36 PM CDT) (on file with author).

similar to those required by title 16, § 3.46 of the Texas Administrative Code.<sup>71</sup> The RRC holds fast to its claim that state rules for well construction have prevented even a single documented case of groundwater contamination from the injected fluids.<sup>72</sup>

### *B. Regulations that Specifically Affect Fracing*

For some time (relative to some other states), Texas legislation directly related to hydraulic fracing law was nonexistent. In addition, both the RRC and the TCEQ remained relatively quiet regarding the matter. In 2011, however, the Texas Legislature and the RRC each took steps to enhance the regulatory regime for fracing. The year 2011 brought a flurry of statutory and thereafter regulatory action wherein the state legislators called upon the RRC to address fracing. The RRC then answered the call.

In May 2011, Texas legislators passed an amendment, signed by the Texas Governor in June, to make the state the first to require operators by law to disclose the chemicals used in their fracing fluids (so long as doing so would not reveal trade secrets).<sup>73</sup> Prior to this amendment, however, fracing was not formally regulated in Texas.<sup>74</sup> Under the new law, passed with broad industry support, well operators are required to “complete the form posted on the hydraulic fracturing chemical registry Internet website of the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission” with respect to the well in which fracing fluids are used.<sup>75</sup> The required disclosure includes both the volume of water used and the chemical ingredients of the fracturing fluids used.<sup>76</sup> The referenced website, FracFocus.org (FracFocus), has been operating for some time and is available for operators to post data about the chemical composition of their fracing fluids.<sup>77</sup> An operator, however, will be able to withhold from disclosure information for which it claims trade secret protections, but affected property owners and neighbors to the property owners will be able to challenge the trade secret designation.<sup>78</sup> In addition, a means will be

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71. See 16 TEX. ADMIN. CODE § 3.46 (2012).

72. See Email from Ramona Nye, *supra* note 70.

73. Act of June 17, 2011, 82d Leg., R.S., ch. 1179, § 1, 2011 Tex. Gen. Laws (codified at TEX. NAT. RES. CODE ANN. § 91.851 (West Supp. 2011)).

74. See *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 17 (Tex. 2008). “Though hydraulic fracturing has been commonplace in the oil and gas industry for over sixty years, neither the Legislature nor the [RRC] has ever seen fit to regulate it, though every other aspect of production has been thoroughly regulated. Into so settled a regime the common law need not thrust itself.” *Id.*; see SMITH & WEAVER, *supra* note 66, § 14.4(B), at 14-74 (“The Railroad Commission [has not yet] taken any action to assert jurisdiction over hydraulic fracturing.”).

75. TEX. NAT. RES. CODE ANN. § 91.851(a)(1)(A) (West Supp. 2011).

76. § 91.851(a)(1)(B).

77. See *What Chemicals Are Used*, FRACFOCUS, <http://fracfocus.org/chemical-use/what-chemicals-are-used> (last visited Apr. 4, 2012).

78. See § 91.851(a)(3)-(6).

provided to supply the information to health professionals and emergency responders in case of an injury or other accident.<sup>79</sup> While the statute became effective on September 1, 2011, the RRC must adopt implementing regulations before the statute's requirements become mandatory.<sup>80</sup> The statute expressly provides that it “applies only to a hydraulic fracturing treatment performed on a well for which an initial drilling permit is issued on or after the date the initial rules adopted by the Railroad Commission of Texas under [the hydraulic fracing] subchapter take effect.”<sup>81</sup>

On August 22, 2011, the RRC responded to the call of the state legislature, releasing proposed new hydraulic fracturing chemical disclosure requirements and asking for public comment.<sup>82</sup> Mandatory disclosure of fracing fluids on the publically available website FracFocus—an Internet archive jointly maintained by the Interstate Oil and Gas Compact Commission and the Groundwater Protection Council—is the proposed outlet for public disclosure.<sup>83</sup> Such disclosure would be required to be made by the operator no later than thirty days following the completion of a frac job.<sup>84</sup> Specifically, it is proposed that the operator will, before the well completion report for a fraced well is submitted to the RRC, disclose publically via FracFocus (or similar venue) the Chemical Disclosure Registry form detailing the following:

- (1) operator identity;
- (2) date of fracing;
- (3) county, API number, longitude/latitude of the well and depth;
- (4) volume of water (or other fluid) use for fracing;
- (5) each additive used in the fracing process, their trade names, supplier, and a brief (one line or so) description of the intended use or function of each additive;
- (6) each ingredient used in the fracing that is subject to the requirements of 29 C.F.R. § 1910.1200(g)(2), as provided by the chemical supplier, service company, or operator (“if the operator provides its own chemical ingredients”). 29 C.F.R. §1910.1200(g)(2), in turn, details the chemicals which must be described on “material safety data sheets” as required by the Occupational Safety and Health Administration;<sup>85</sup>

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79. § 91.851(a)(7).

80. Act of June 17, 2011, 82d Leg., R.S., ch. 1179, § 1, 2011 Tex. Gen. Laws (codified at TEX. NAT. RES. CODE ANN. § 91.851 (West Supp. 2011)).

81. *Id.*

82. See 36 Tex. Reg. 5765 (2011) (codified at 16 TEX. ADMIN. CODE § 3.29 (2012)) (proposed Sept. 9, 2011).

83. See *id.* at 5766, 5770.

84. See 16 TEX. ADMIN. CODE § 3.16(b) (2012); 36 Tex. Reg. at 5769-70.

85. See 29 C.F.R. § 1910.1200(g) (2011). Chemical manufacturers and importers are required to “obtain or develop a material safety data sheet for each hazardous chemical they produce or import.” *Id.*

- (7) all chemical ingredients added by operator; and
- (8) the actual or maximum concentration of each chemical ingredient disclosed per items 5, 6 and 7 on this list.<sup>86</sup>

Subsection (c)(2)(E) requires operators to disclose the “chemical family or other similar descriptor” of any chemical ingredient that the supplier, service company, or operator claims is entitled to trade secret protection.<sup>87</sup> If a supplier, service company, or operator, however, claims trade secret protection, the operator must provide contact information for the party claiming protection.<sup>88</sup> Further proposals require that the Chemical Disclosure Registry form must then be submitted to the RRC along with the well completion report and a supplemental list of all chemicals and their respective Chemical Abstracts Service (CAS) numbers that were not disclosed on the Chemical Disclosure Registry form.<sup>89</sup>

Under the RRC proposals, the operator, supplier, or service company is not required to disclose ingredients that are, in turn, not disclosed by the manufacturer, supplier, or service company or ingredients not intentionally added to the fracturing fluid or which occur incidentally or unintentionally in trace amounts.<sup>90</sup> Subsection (c)(3) provides that suppliers have no responsibility for inaccurate information third-party manufacturers provide them, while in turn, service companies have no responsibility for inaccurate information suppliers provide them and, completing the chain, operators have no responsibility for inaccurate information suppliers or service companies provide *them*.<sup>91</sup>

The RRC proposals provide that if the chemical ingredients of the additives are entitled to protection as trade secret information pursuant to the Texas Government Code Chapter 552, then disclosure may not be required, provided the trade secret claim is made clear on the Chemical Disclosure Registry form.<sup>92</sup> If a health professional, emergency responder, or both asks for information related to fracturing chemicals, all requested information—including that information protected by trade secret statutes—must be disclosed to the health professional or emergency responder.<sup>93</sup>

In addition, the proposals provide that the trade secret exception may be challenged within two years of the filing of the final well completion

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§ 1910.1200(g)(1). Material safety data sheets are required to be available for rig personnel. *Id.*

86. *See* 36 Tex. Reg. at 5769-70.

87. *Id.* at 5770 (protection for trade secret information is codified at TEX. GOV'T CODE ANN. § 552.110 (West 2004)).

88. *Id.*

89. *See id.*

90. *See id.* An example of this would be substances that arise as a result of chemical reactions in the ground. *Id.*

91. *Id.*

92. *See id.* at 5770-71.

93. *Id.* at 5770.

report by landowners upon whose land the well is located or whose land is adjacent<sup>94</sup> to the well, or a state agency with jurisdiction over a matter to which the claimed trade secret information is relevant.<sup>95</sup> A proposed form for such a challenge is included in the release.<sup>96</sup>

Some environmentalist groups have complained that the Texas disclosure law leaves too many loopholes because it is applied prospectively only and requires disclosure only of chemicals that pose a hazard in workspaces,<sup>97</sup> which is thought by one commentator to be, as applied in the disclosure regulation, “an under inclusive OSHA regulation intended to apply only to workplace hazards unrelated to where sensitive human populations or ecosystems live.”<sup>98</sup> Other worries include that the current disclosure rules do not require supplemental disclosure of chemicals that were not intentionally added but which appeared later, and that the new rule limits third-party challenges to trade secret exemptions.<sup>99</sup>

### C. Eagle Ford Task Force

In July of 2011, in response to a multitude of concerns regarding the meteoric rise of development in the Eagle Ford Shale in southwestern Texas (see Figure 1), David Porter, the RRC Commissioner, created the Eagle Ford Task Force, whose mission is threefold: open the lines of communication between all stakeholders, establish best practices for developing the Eagle Ford Shale, and promote economic benefits locally and in the statewide shale region of South Texas to ensure that the Commission can keep up with the development boom.<sup>100</sup>

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94. Note: “adjacent” is not defined in the proposed regulation. *See id.* at 5769.

95. *See id.* at 5771.

96. *See id.*

97. *See* 29 CFR § 1910.1200(g)(2) (2011).

98. Aaron Mintzes, *Texas Proposes Fracking Disclosure Rules with Texas Size Loopholes*, EARTHWORKS EARTH BLOG (Sept. 1, 2011), [http://www.earthworksaction.org/earthblog/detail/texas\\_proposes\\_fracking\\_disclosure\\_rules\\_with\\_texas\\_size\\_loopholes](http://www.earthworksaction.org/earthblog/detail/texas_proposes_fracking_disclosure_rules_with_texas_size_loopholes).

99. *See id.*

100. *See* Press Release, Texas Railroad Commissioner David Porter Announces Members of Eagle Ford Task Force (July 27, 2011), <http://www.rrc.state.tx.us/commissioners/porter/press/072711.php> (last visited Mar. 31, 2012).

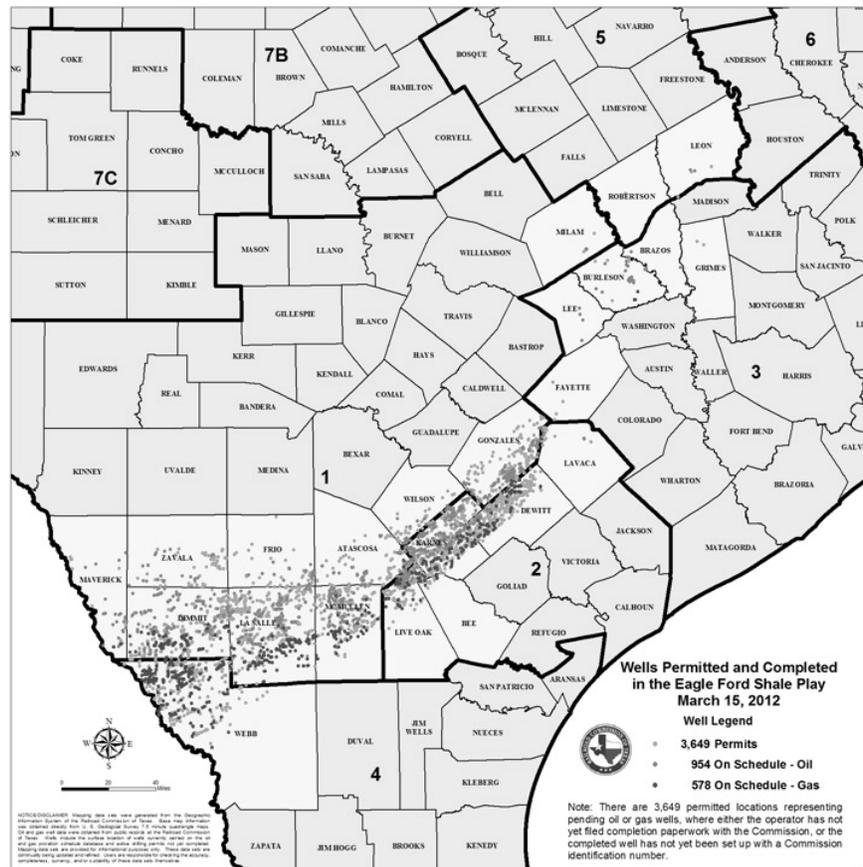


Figure 1<sup>101</sup>

While the RRC is not the agency that governs road use, housing, surface water use, and quality/quantity of groundwater, it has taken upon itself the responsibility of bringing together such public interested parties as well as members of industry, other state agencies, local universities, and citizens groups. The Task Force has thus far met approximately every month in a town affected by Eagle Ford development.<sup>102</sup>

101. *Eagle Ford Information*, R.R. COMM'N OF TEX., <http://www.rrc.state.tx.us/eagleford/> (updated April 3, 2012). Extending eastward from Maverick and Webb counties along the Rio Grande to a northwest-trending eastern extent running from McMullen to Gonzales counties, Texas, the Eagle Ford prospective fairway is approximately fifty miles wide, over 400 miles long, has an average thickness of 250 feet, and is found at a depth between 4,000 to 12,000 feet. *Id.*

102. See Press Release, *Eagle Ford Task Force Tackles Local Infrastructure Issues*, R.R. Comm'n of Tex. (Oct. 12, 2011), <http://www.rrc.state.tx.us/commissioners/porter/press/101211.php> (noting meetings have thus far been held in Beeville on Aug. 25, Cuero on Sept. 28, and San Antonio on Nov. 2, 2011).

The meetings have highlighted the four largest sources of public and state regulatory concerns encountered thus far in the Eagle Ford region, including water use for fracing, housing shortages caused by the sudden influx of oilfield workers,<sup>103</sup> excessive use of the limited road network in the Eagle Ford play caused by trucks carrying equipment and fracing fluid, and pipeline construction.<sup>104</sup> Pipelines are seen as both a blessing and a burden as they can replace fleets of trucks and thus save roads<sup>105</sup> but that also promote erosion and disrupt land use during their installation, use, and repair.<sup>106</sup>

Thus far, the Task Force has promulgated the following “advisements” regarding pipelines and roads:

- (1) Pipeline easements should avoid steep slopes and watercourses where possible.
- (2) Pipeline easements should run parallel to road rights-of-way to minimize surface disturbance.
- (3) When clearing is necessary for pipeline installation, the width of the “slash” should be minimized.
- (4) Unnecessary damage to trees and other slow-growing vegetation should be avoided.
- (5) Because revegetation is a slower process in the arid Eagle Ford region than in places that receive more precipitation, topsoil removed during pipeline installation should be piled near the pipeline easement so it can be used for reclamation as it can significantly accelerate successful revegetation.
- (6) After installation of a new line, all rights-of-way should be restored to conditions compatible with existing land use.
- (7) Trucking companies should cooperate with the Texas Department of Public Safety to establish a protocol for companies to receive notice when their drivers receive moving violations or license suspensions.
- (8) Trucking companies should avoid peak traffic hours, school bus hours, and community events.
- (9) Trucking companies should observe overnight quiet periods.

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103. In addition to the logistical concerns of housing new workers, concern exists as to the displacement of current low- or fixed-income tenants due to increasing rents.

104. Thomas E. Kurth, Michael J. Mazzone, Mary S. Mendoza & Chris S. Kulander, *American Law and Jurisprudence on Fracing—2012*, 47 ROCKY MTN. FOUND. J. 1, 60 (2010).

105. Press Release, Eagle Ford Task Force, *supra* note 102. Commissioner Porter has stated that one crude oil pipeline with a diameter of twenty inches can replace approximately 1250 tanker truck trips per day. *Id.*

106. See Kurth et al., *supra* note 104, at 60.

- (10) Drilling operators and trucking companies should ensure adequate parking and delivery areas located off of through road to avoid lane/road blockage.<sup>107</sup>

While these “advisements” do not come freighted with any regulatory authority, they will be presented to various state agencies for consideration for future rulemaking.

#### IV. GROUNDWATER MANAGEMENT DISTRICTS

Groundwater appropriation is generally subject to groundwater management districts that are authorized to allocate such water based on equitable considerations. Though the state water code exempts oil and gas drilling from some rules enacted by groundwater districts,<sup>108</sup> conservation districts are seeing changes in the water code and the perceived difference between drilling and fracing as excepting fracing operations from the larger permit exception for groundwater used in drilling and exploration.

Currently, § 117 of Chapter 36 of the Texas Water Code provides that a water conservancy district in Texas must provide an exception for any requirement by the district for a permit to drill a “water well used solely to supply water for a rig that is actively *engaged in drilling or exploration operations* for an oil or gas well permitted by the [RRC] provided that the person holding the permit is responsible for drilling and operating the water well.”<sup>109</sup> Until recently, this exception kept groundwater districts from permitting and (through permitting) curtailing the use of groundwater for oil and gas operations, including fracing.<sup>110</sup>

Partially because of increased fracing operations and the current drought, this stance is changing, primarily through subtle changes in § 117 of Chapter 36 wrought by the 2011 Legislature via Senate Bill 692 and a tighter reading of the statutes.<sup>111</sup> For example, conservancy districts are now distinguishing “drilling or exploration operations” from fracing operations and may require permitting for the second type of use.<sup>112</sup> Water districts are seeing fracing as a process separate from drilling and that should therefore be subject to the new water limits.<sup>113</sup> Support for this

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107. See Press Release, Eagle Ford Task Force, *supra* note 102.

108. See *id.* at 56.

109. TEX. WATER CODE ANN. § 36.117(b)(2) (West Supp. 2011) (emphasis added).

110. Telephone Interview with Jim Conkwright, Dir., High Plains Underground Water Conservation Dist. No. 1, Lubbock, Texas (Nov. 8, 2011).

111. Telephone Interview with Brian Sledge, Attorney, Gov’t Relations Practice Grp. Chairman, Lloyd Gosselink Rochelle & Townsend, P.C., Austin, Texas (Nov. 8, 2011).

112. *Id.*

113. *Id.* Jim Conkwright also supports this view. See Telephone Interview with Jim Conkwright, *supra* note 110.

interpretation can be found in § 117 of the water code.<sup>114</sup> For example, if the groundwater used that is exempted from permitting by this exception is no longer used solely to supply water for a drilling rig that is actively engaged in oil and gas drilling or exploration operations, the permitting exception ends—but hydraulic fracturing or secondary/tertiary recovery operations may not be included in “drilling or exploration” operations.<sup>115</sup> In addition, while water districts may not restrict the production from wells used for providing water to livestock or poultry,<sup>116</sup> no such express exemption exists.

Conservancy districts from around Texas are moving forward with regulation and curtailment of the use of groundwater for fracing operations. For example, the City of Grand Prairie, which is located on the eastern boundary of the Barnett Shale in (primarily) Dallas County, Texas, became in August 2011 the first municipality in Texas to ban the use of city water for fracing.<sup>117</sup> In July 2011, conservancy officials for the southernmost portions of the Ogallala Aquifer, which is located in the Permian Basin near Midland/Odessa, expressly included water used for hydraulic fracturing when they approved the district’s first-ever restrictions on water use.<sup>118</sup> The Evergreen Underground Water Conservation District, which directs aquifer use for Atascosa, Frio, Karnes, and Wilson Counties in South Texas, applied their preexisting water-use limits to hydraulic fracturing in 2008.<sup>119</sup> Others are considering similar action in the future. For example, Janet Guthrie, general manager of the Hemphill County Underground Water Conservation District in North Texas, suggested water limits may be imposed for use with fracing operations if the water table below Hemphill County drops significantly.<sup>120</sup> In the High Plains Underground Water Conservation District No. 1, which is based in Lubbock and covers an area bigger than Massachusetts, new water restrictions are being formulated to begin in 2012, and fracing operations will not be exempted.<sup>121</sup>

Further limiting the coverage of the permitting exception, groundwater withdrawn from a district and transported elsewhere is still subject to all applicable production and export fees.<sup>122</sup> Finally, such exempted wells must still be registered with the water district, and well integrity of exempted wells must still be maintained to prevent (1) the leaking of

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114. § 36.117.

115. *See id.*

116. *Id.*

117. Mike Lee, *Parched Texans Impose Water-Use Limits for Fracking Gas Wells*, BLOOMBERG BUSINESSWEEK (Oct. 6, 2011, 10:35 AM), <http://www.businessweek.com/news/2011-10-06/parched-texans-impose-water-use-limits-for-fracking-gas-wells.html>.

118. *Id.*

119. *Id.*

120. *Id.*

121. Telephone Interview with Jim Conkwright, *supra* note 110.

122. TEX. WATER CODE ANN. § 36.117(k) (West Supp. 2011).

groundwater from an aquifer to a non-aquifer and (2) groundwater contamination.<sup>123</sup>

## V. ANALYSIS AND CONCLUSIONS

Some doubt exists as to whether the level of disclosure currently required by the regulations for release on FracFocus or similar sites used in the future will ultimately pass muster with the state legislature and the public.<sup>124</sup> If the number and identity of ingredients released to the public are significantly impacted by the trade secret exception, it is easy to envision that some will desire that more information be required to be released. This might include more “plain English” explanations of the uses of the ingredients instead of the somewhat cryptic uses currently listed on the site.<sup>125</sup> In any event, the FracFocus website is easily navigable and is full of clear, seemingly unbiased information regarding the practice of hydraulic fracturing.

Given the wide areas under which shale gas is found and how widespread drought conditions can be, it was only a matter of time before a significant play like the Eagle Ford was coincident with a large area affected by severe drought. This brings the use of surface-water rights to provide frac fluid under scrutiny, particularly if allegations arise of surface residents or municipalities indirectly facing higher costs in providing water because of it. This nexus of production and drought, and the expanded powers of the TCEQ, may bring water use by oil and gas operations under greater scrutiny by the TCEQ. One alternative, trucking in water, raises other problems concerning road disintegration and congestion and safety issues on a limited road grid. GCDs are claiming similar expansion of water-use control over fracing operations that use groundwater. The exact extent of the control the TCEQ and the conservancy districts will have over water use for fracing will take shape in the next couple of years.

Use of surface-water permits for fracing operations is subject to curtailment like any other use when the TCEQ curtails the use of junior permits to allow senior permits full use of their rights. Operators hoping to rely on permitted surface-water use are cautioned that draws of surface water may be curtailed should the TCEQ respond to complaints by senior permit holders and curtail use by junior permittees. Operators must be aware that their use of groundwater will also come under increased scrutiny

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123. § 36.117(h)(1)-(2).

124. Mark K. Boling, Exec. Vice President and Gen. Counsel, Southwestern Energy, Speech to Center for Energy and Sustainable Development: “Drilling Down on Regulatory Challenges: Balancing Preservation and Profitability in the Development of Shale Gas Resources” (Oct. 28, 2011).

125. See *What Chemicals Are Used*, *supra* note 77. The author notes that many disclosures on FracFocus include uses like “breaker,” “treat frac water” and “biocide.” *Id.* These uses may not be understood by the public, although FracFocus does contain a glossary table that attempts to explain the names and uses. *Id.*

from groundwater districts and that their fracing operations will now face permitting and, through such permitting, possible curtailment of use of groundwater for fracing.

The problems being heard by the Eagle Ford Task Force are analogous to another shale gas boom currently underway in remote and sparsely populated western North Dakota wherein the Bakken Shale is found.<sup>126</sup> Housing is short, roads are seeing traffic for which they were not constructed, and communities are being adversely affected by noise and traffic. It is believed that the Eagle Ford Task Force will become a primary vector for rulemaking designed to alleviate these problems.

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126. See OFFICE OF RESEARCH & DEV., U.S. ENVTL. PROT. AGENCY, DRAFT PLAN TO STUDY THE POTENTIAL IMPACTS OF HYDRAULIC FRACTURING ON DRINKING WATER RESOURCES 20 (Feb. 7, 2011), [http://www.fracfocus.org/sites/default/files/publications/hfstudyplandraft\\_sab\\_020711.pdf](http://www.fracfocus.org/sites/default/files/publications/hfstudyplandraft_sab_020711.pdf).