



# ENVIRONMENTAL STRATEGIES FOR THE BARNETT SHALE

## 2011 ENERGY SYMPOSIUM

Howard L. Gilberg  
Michael R. Goldman

**GUIDA, SLAVICH & FLORES, P.C.**

*The Environmental Law Firm <sup>SM</sup>*

# DISCLAIMER

- This presentation was prepared in March 2011 as a general discussion of the issues presented and is not to serve, or to be relied upon, as legal advice in connection with specific matters.
- The views expressed in this presentation are those of the authors and not of Guida, Slavich & Flores, P.C. or its clients.

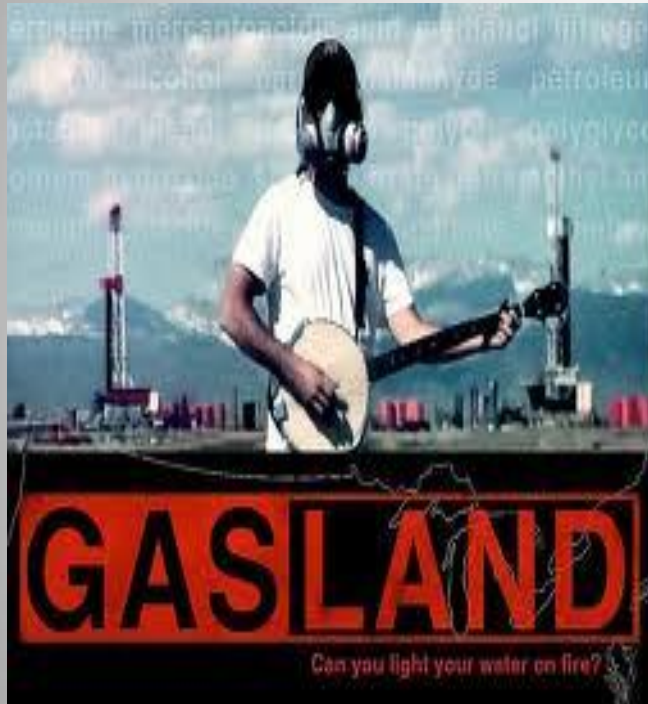
# ABOUT GUIDA, SLAVICH & FLORES

- We solve the industry's environmental issues and manage its inherent environmental risks
  - Regulatory compliance (RRC, TCEQ, EPA)
  - Litigation
  - Transactional
  - National presence based in Dallas and Austin
- Founded in 1991

# PRESENTATION OUTLINE

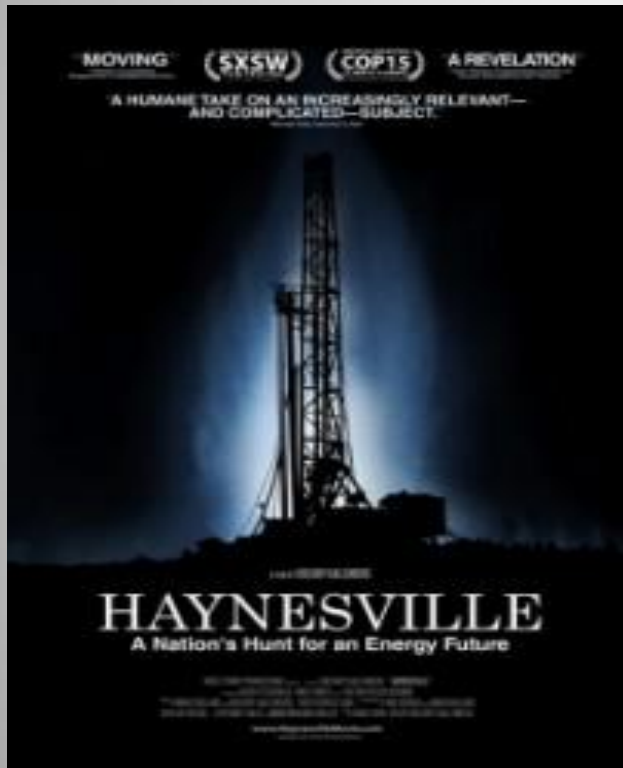
- Litigation defense and preparation
- Regulatory issues
- Transactional concerns

# GREATER MEDIA SCRUTINY



- No longer “Favored Industry”
- 2010 documentary
- Claimed that fracking caused water contamination in Pennsylvania & NY
- Nominated for Oscar

# HAYNESVILLE DOCUMENTARY



- Independent film
- Shows the benefits from shale exploration
  - U.S. abundance
  - Foreign oil dependence
  - Cleaner/global warming
  - Bridge fuel
- Movie is gaining momentum

# GREATER REGULATORY SCRUTINY



- June 2010 - Director of EPA's Office of Groundwater & Drinking Water said that EPA is examining alternative authorities to regulate fracking operations

# STATUTORY AUTHORITY

- CERCLA and Texas SWDA
  - Petroleum excluded from definition of “hazardous substances”
- Safe Drinking Water Act
  - Energy Policy Act of 2005 exempted fracking from regulation under Section 300h(d)
  - However, Section 300(i)(a) provides “emergency powers” to address contamination that is an imminent and substantial endangerment
- Clean Water Act
  - Fracing fluid brought back to the surface (“flowback”) could be regulated under CWA
- Endangered Species Act
  - Golden-cheeked Warbler and Black-capped Vireo



# RANGE RESOURCES ORDER (12/7/10)

ENVIRONMENTAL PROTECTION AGENCY  
REGION VI

IN THE MATTER OF: )  
RANGE RESOURCES CORPORATION ) Docket Number: SDWA-06-2011-1208  
and )  
RANGE PRODUCTION COMPANY )  
Respondents. ) EMERGENCY ADMINISTRATIVE  
 ) ORDER  
(Texas RRC Operator I.D. No. 691703) )  
 )  
Proceedings Under Section 1431(a) of the )  
Federal Safe Drinking Water Act, 42 U.S.C. )  
§ 300(i)(a). )

## STATUTORY AUTHORITY

The following findings are made and Order issued under the authority vested in the Administrator of the United States Environmental Protection Agency ("EPA") pursuant to the authority of Section 1431 of the Safe Drinking Water Act ("SDWA" or "Act"), 42 U.S.C. § 300(i).

EPA may issue such Orders upon receipt of information that contaminants are present in or are likely to enter an underground source of drinking water and may present an imminent and substantial endangerment to the health of persons, and EPA has determined that appropriate State and local authorities have not taken sufficient action to address the endangerment described herein and do not intend to take such action at this time, as described in Section 1431(a) of the Act, 42 U.S.C. § 300(i)(a).

The Administrator delegated the authority to issue this Order to the Regional Administrator of EPA Region 6, who further delegated such authority to the Director of the Compliance Assurance and Enforcement Division.

Federal law provides that violation of any terms of this Order may subject Respondents to a civil penalty of up to \$16,500 per day of violation, assessed by an appropriate United States District Court, under SDWA § 1431(b), 42 U.S.C. § 300i(b), as modified by the Debt Collection Improvement Act, 31 U.S.C. § 3701 and codified at 40 C.F.R. § 19.4.

- Issued under Safe Drinking Water Act
- Homes in Parker Co.
- Claimed methane in water wells created imminent & substantial endangerment

# **RANGE RESOURCES ORDER (12/7/10) (CONT.)**

- Ordered Range to monitor the soil and air for contamination, provide drinking water and methane monitors
- Range has sued the EPA for underlying data
- EPA has sued Range for non-compliance up to \$16,500 penalty a day
- Suit will test EPA's use of SDWA to regulate fracking

# HYDRAULIC FRACTURING LITIGATION



# RECENT TEXAS LAWSUITS

- 8/11/10      *Scoma v. Chesapeake* (N. D. Tex.)
- 9/30/10      *Brock v. Jack Grace Production*  
(Montague County)
- 12/15/10      *Mitchell v. Encana and Chesapeake*  
(N. D. Tex.)
- 12/15/10      *Harris v. Devon Energy* (N. D. Tex.)
- 2/28/11      *Town of Dish v. Atmos Energy,*  
*Crosstex, Enbridge, Energy Transfer,*  
*Texas Midstream* (Denton County)

# TYPICAL CAUSES OF ACTION

- Nuisance
- Trespass
- Negligence
- Negligence per se

# NUISANCE

- Most common theory
- Do not have to prove negligent or intentional
- Instead, abnormal or out of place in its surroundings
- Usually limited to diminished value to property
- Circumvent caps with punitive damages

# NUISANCE (CON'T)

- Eastland court has held that aesthetics are not enough (wind farms)
- Houston court held “Using property in a way that causes reasonable fear in those who own, lease, or occupy property nearby.”
  - Contaminants released on neighboring property
  - A leaking dam upstream from plaintiff’s property
  - Powder magazine within 400 feet of house

# TRESPASS

- Historically surface (top down) contamination
- Recently subsurface (lateral) contamination
  - In *RRC v. Manziel*, the Supreme Court held that secondary recovery with salt water was a permissible trespass because it was permitted by RRC
  - In *Coastal Oil v. Garza*, the Supreme Court declined to rule on whether fracing was a trespass - no damages due to rule of capture
  - In *FPL Farming v. Environmental Processing*, Beaumont court held that waste water injection was a permissible trespass because it was also permitted by RRC



# TRESPASS (CON'T)

- Unclear about unintentional consequences
  - (i.e. contamination of groundwater)
- Contrary to related authority
  - In *Atlas Chemical Industries v. Anderson*, Texarkana court held that fact that defendant had been granted a permit to discharge pollutants into a stream would not defeat an action for trespass or nuisance.
  - However such evidence is admissible to mitigate damages
  - In *Manchester Terminal Corp.*, the owner sued neighboring refinery for nuisance and trespass for dust on property
  - Refinery claimed it was a collateral attack on their air permit.
  - Court disagreed and permitted common law claims.

# TRESPASS (CON'T)

- Things might be changing
  - New legislation?
    - Senate Bill 875 introduced by Senator Troy Fraser, Chairman of Natural Resources Committee
    - Establishes an affirmative defense to a nuisance or trespass claim if the defendant's actions were authorized by rule, permit, order, license, for which the defendant is in compliance
  - U.S. Supreme Court case?
    - In *North Carolina v. TVA* (4<sup>th</sup> Cir.), the court ordered TVA to install emission control devices on four power plants
    - Held that TVA's permit prevented a public nuisance claim
    - North Carolina is appealing to the US Supreme Court

# NEGLIGENCE

- Standard of care is a moving target
  - Reasonably prudent operator
  - Past conduct analyzed under past or present standards?
  - Some pollution is unavoidable (spills occur, lines break, tanks leak, etc.)

# NEGLIGENCE PER SE

- In *Meith v. Ranchquest* permitted for violation of Statewide Rule 8 which provides:
  - “No person conducting activities subject to regulation by the commission may cause or allow pollution of surface or subsurface water in the state”
- Concerns current activities not historical conditions
  - Prohibits active leaks or ongoing practices
  - No express requirement for the operator to investigate and remediate historical conditions

# KEY DEFENSES

- Permanent vs. Temporary Injury
  - Statute of limitations
  - Damages
- Standing
- Causation
- State action levels

# PERMANENT VS. TEMPORARY INJURY

## ■ Permanent

- Constant and continuous
- Presumed to last indefinitely
- Jury can determine impact on value

## ■ Temporary

- Intermittent, sporadic or recurrent
- Contingent on some irregular force such as rain
- Impact on value of property is speculative

# STATUE OF LIMITATIONS

- Governed by Section 16.003(a)
- Permanent
  - Within two years of discovery of first actionable injury
  - Even if extent of damages is unknown
- Temporary
  - Only recover for damages within two years of filing suit
- Is injunctive relief available if monetary damages are barred?

# STATUTE OF LIMITATIONS (con't)

- *DBMS Investments, L.P. v. Exxonmobil Corp*
  - The court granted MSJ on limitations
  - The court found the plaintiff was on constructive notice of contamination based upon records with TCEQ, TRRC, old aerial photographs, and an appraisal report
- *Crofton v. Amoco Chemical*
  - The court granted MSJ on limitations
  - The court found the plaintiffs were on constructive notice based upon several newspaper articles about the contamination even though the plaintiffs claimed they never read them



# DAMAGES

- *Mieth v. Ranchquest*
  - Jury awarded \$509,000 to restore land even though the land was only worth \$85,000
  - Permanent damages
    - Measured as the “diminution in value”
    - Difference in value of property before and after injury
  - Temporary damages
    - Measured by the cost of restoration
    - If economically unfeasible, the proper measure is diminution in value
    - Restoration is economically unfeasible if it exceeds the diminution in value

# CONTRACT CAN MODIFY DAMAGES

- *Corbello v. Iowa Production (Louisiana)*
  - Jury awarded \$33 million to restore land which was only worth \$108,000
  - Lease provided that the operator would “reasonably restore premises” at termination
  - Contract damages not limited to market value
- *Fenner v. Samson Resources Co.*
  - Landowner sued for contamination
  - Lease required operator to only restore surface – not subsurface of land
  - Contamination was subsurface; therefore operator was not liable

# STANDING

- *Senn v. Texaco*
  - Landowners sued for nuisance claiming Texaco contaminated aquifer during exploration
  - Exploration occurred prior to their ownership
  - Cause of action for injury to property belongs to owner of property at the time of the injury
  - Temporary or permanent injury is irrelevant
  - Need an assignment or express provision in deed
  - Discovery rule does not apply if lack standing

# CAUSATION

- *Mitchell Energy Corp. v. Bartlett*
  - Landowners sued for nuisance, negligence, trespass for contamination of water wells
  - Expert said contamination *could* have come from Mitchell's wells
  - Expert did not rule out of other possible sources (Mitchell was one of 22 operators in the area)
  - Expert testimony was insufficient for causation
  - \$200 million judgment reversed and rendered

# CAUSATION

- *FPL Farming v. Environmental Processing*
  - Landowner that owned tracts near nonhazardous wastewater injection well alleged trespass and negligence
  - MSJ granted because evidence did not support that plaintiff suffered any injury as a result of injections at such deep levels
  - No evidence that migrated to surface or impacted drinking water

# CAUSATION (CONT.)



## ■ Causation

- EPA did not think that gas in the water wells before Range was “germane or relevant to issue at hand”
- EPA did not evaluate the geology or consider Strawn formation
- Does not know the pathway
- Did not consider nitrogen levels

# STATE ACTION LEVELS

- *Taco Cabana v. Exxon*
  - Trespass and negligence per se for leak from UST
  - Common law duties displaced by Water Code for appropriate clean up standard
  - No duty or causation because below state action levels
- *Stevenson v. DuPont*
  - Neighbor sued manufacturer claiming heavy metal airborne contaminants contaminated land
  - Court distinguished *Taco Cabana* because Texas has not set required levels of contamination for airborne metal contaminants
  - Extended to gases? Benzene?
- RRC Field Guide provides maximum contaminant levels for oil and gas spills

# PRESENTATION OUTLINE

- DFW Air Quality
  - Where Does The Region Stand?
  - Where Does the Industry Fit in?
- Strategic Responses
- Transactional Strategies
- DFW Water Availability



# 1990 CLEAN AIR ACT AMENDMENTS

## NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

### Criteria Pollutants:

- Carbon Mono (CO)
- Sulfur Dioxide (SO<sub>2</sub>)
- Particulate Matter (PM<sub>2.5</sub> & PM<sub>10</sub>)
- Nitrogen Dioxide (NO<sub>2</sub>)
- Lead (Pb)
- Ozone (O<sub>3</sub>)

### Future:

- Greenhouse Gas Emissions?  
(i.e. Carbon Dioxide)

# Federal Ozone Standards: DFW Nonattainment Area

**1-Hour Ozone Standard: 125 ppb**  
**4 North Texas Counties Designated**

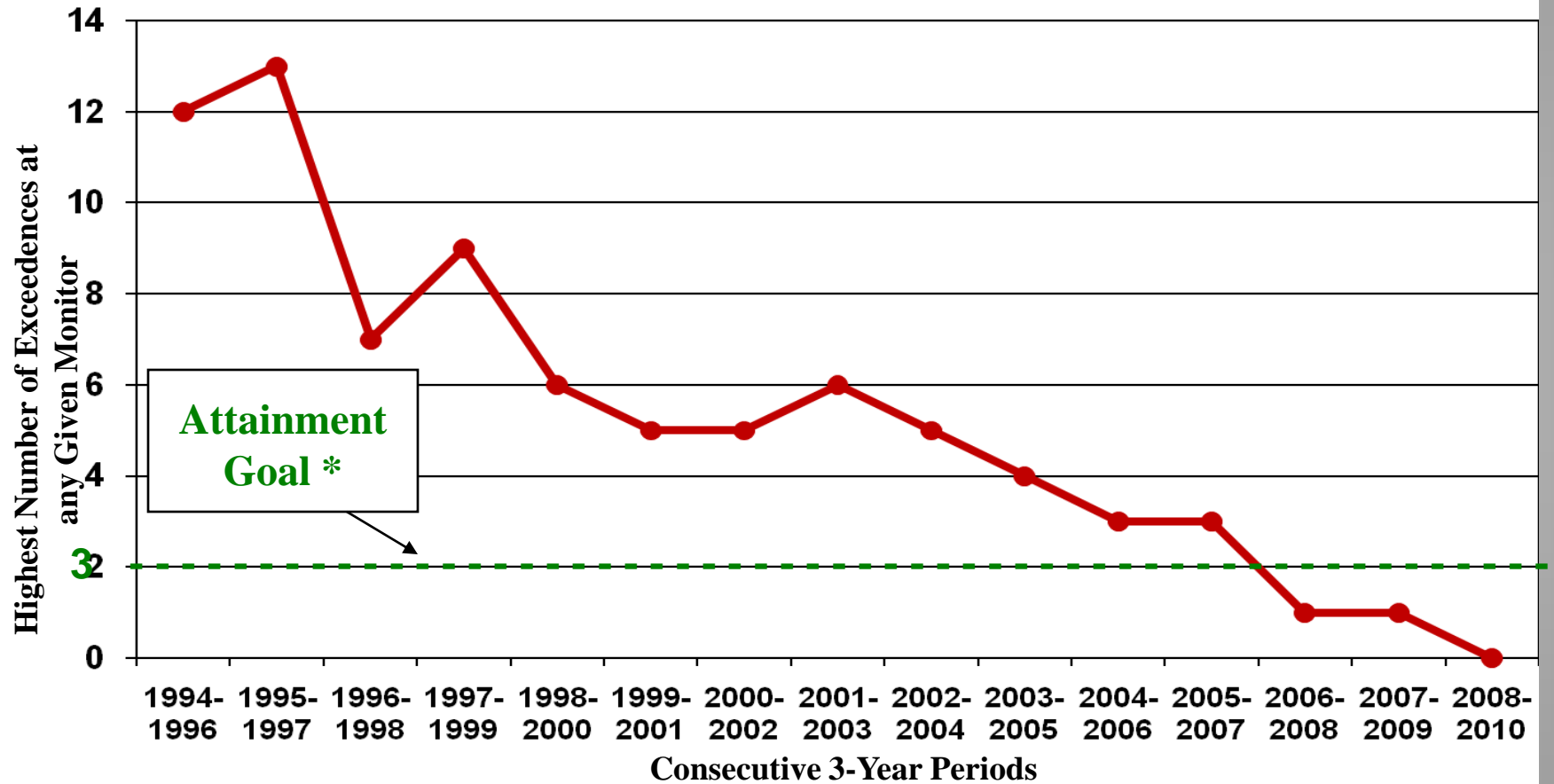
**1997 8-Hour Ozone Standard: < 85 ppb**

1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

**9 North Texas Counties Designated**  
**Deadline to Reach Attainment: June 2010**

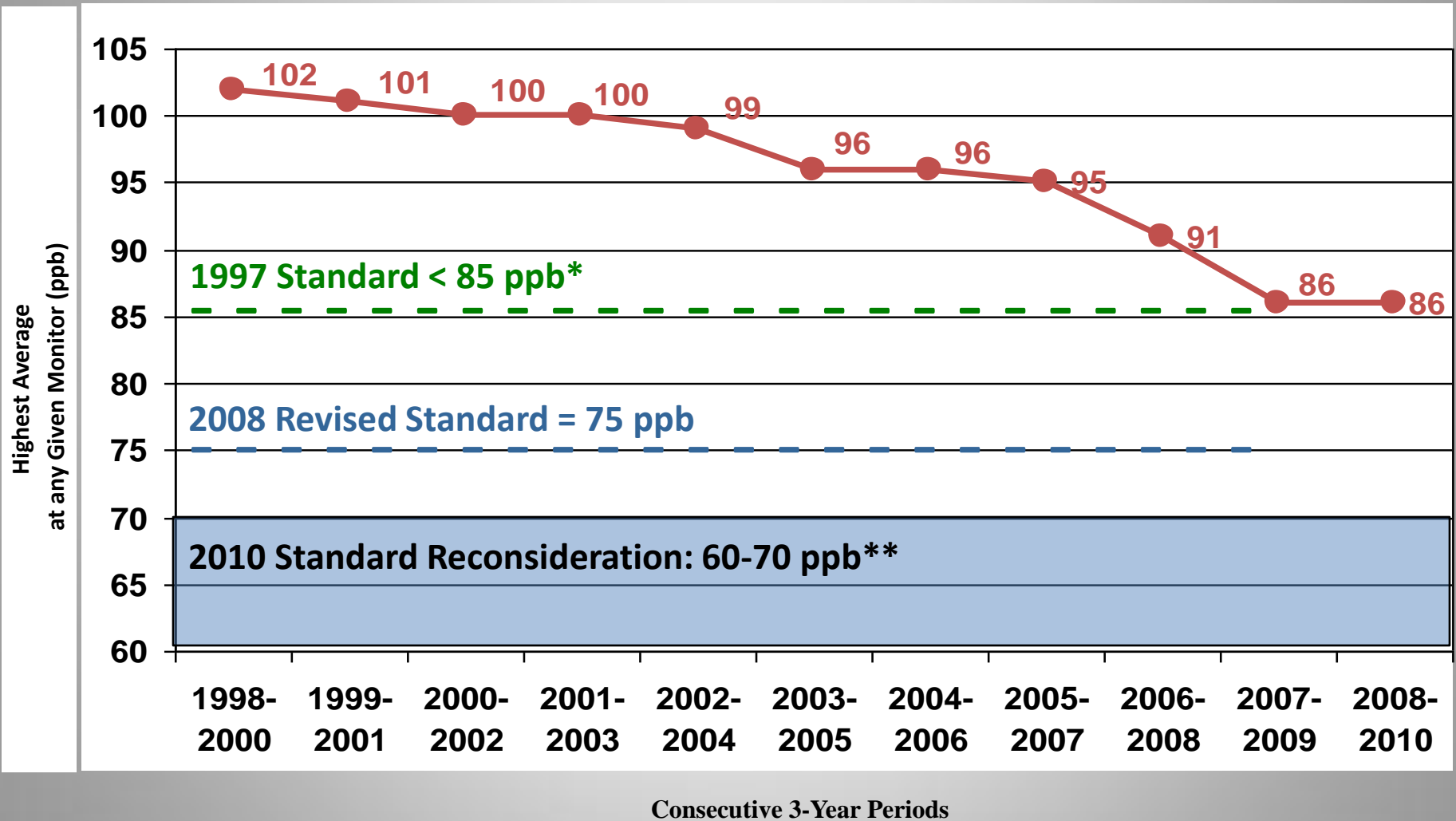
**Revised 8-Hour Ozone Standard Proposed: 60-70 ppb**  
**EPA is Anticipated to Make Final Decision by July 2011**

# 1-Hour Ozone Standard DFW Nonattainment Area



\* Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when there are no more than 3 exceedences per monitor within a consecutive 3-year period. An exceedence occurs when the ozone concentration  $\geq$  125 parts per billion averaged over a one hour period.

# 2010 End of Ozone Season 8-Hour Ozone Historical Trends



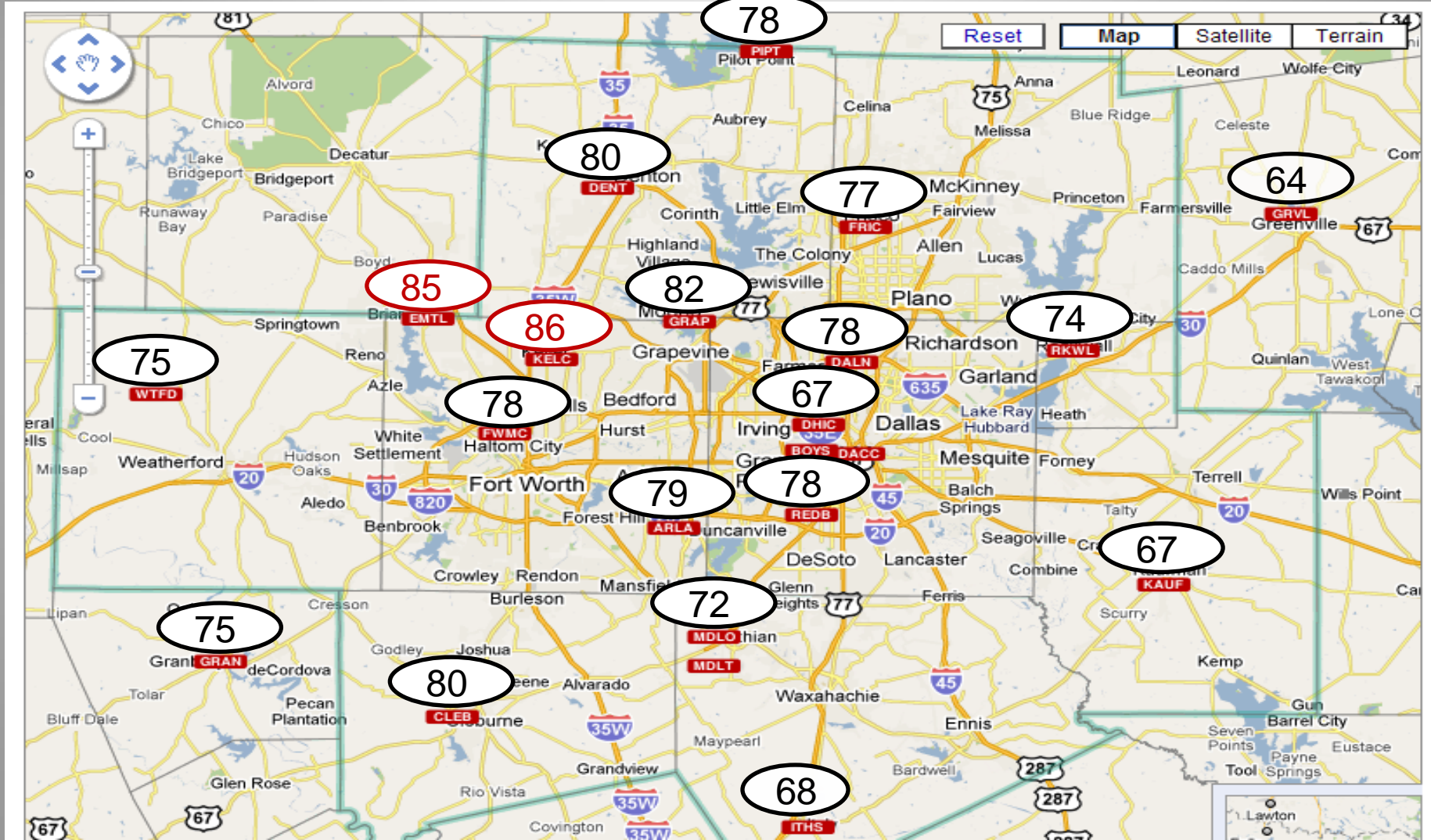
\* 2010 Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than 85 parts per billion (ppb).

\*\* Ozone Standard is currently under reconsideration by the EPA and will likely be revised in August 2010 to between 60 and 70 ppb.

# INCREASING FOCUS: BARNETT SHALE NATURAL GAS ASSETS

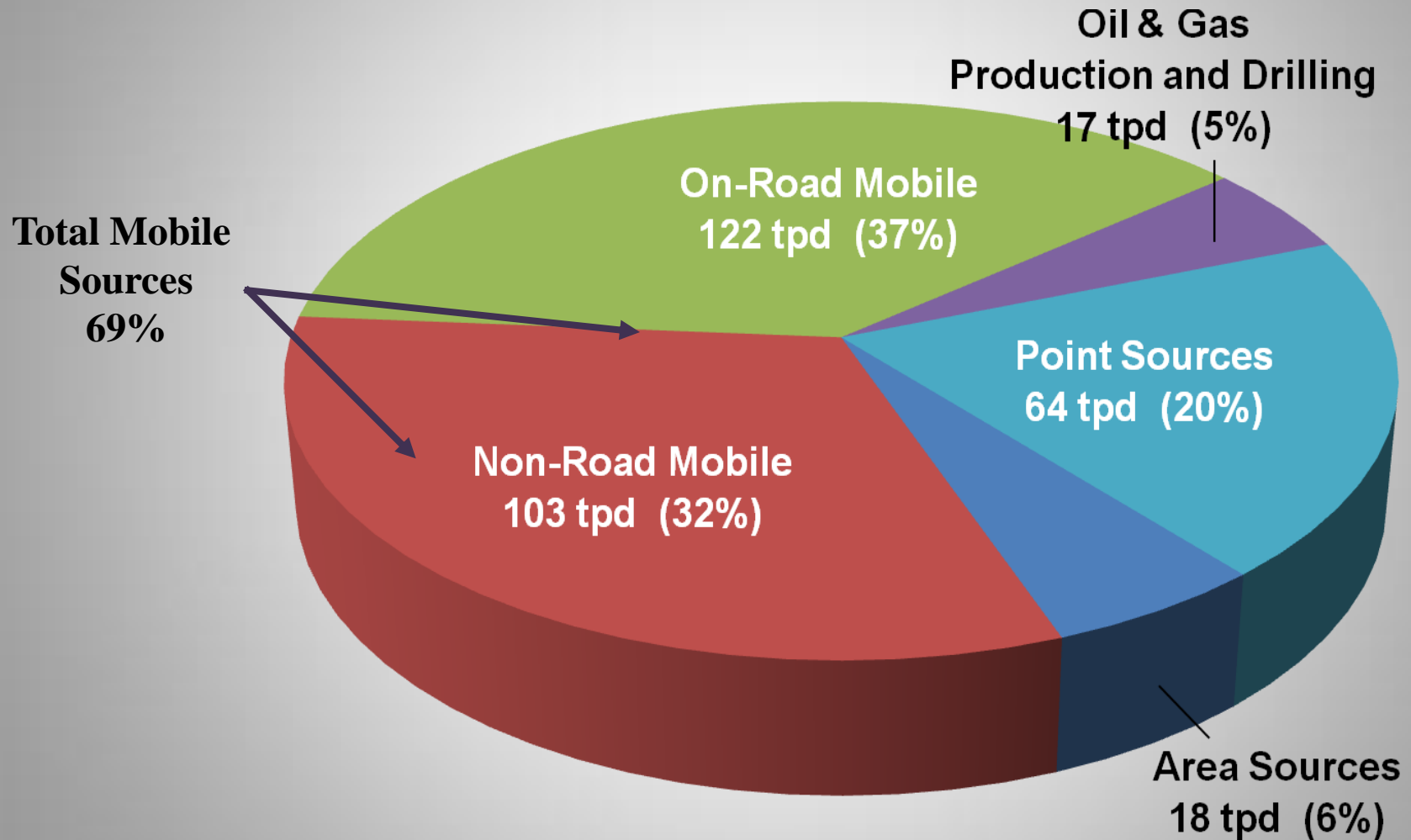
- TCEQ and EPA, not TRRC
- Reclassification of DFW Nonattainment: December 20, 2010
- Lower ozone standard: July 2011
- Why Barnett Shale Natural Gas Assets?
  - TCEQ PBR and Standard Permit January 26, 2011; 30 TAC 106 and 116
  - North Texas Clean Air Steering Committee's Barnett Shale Subcommittee March 30, 2011
- More aggressive enforcement
  - TCEQ 12-Hour Response to Citizen Complaints
  - Find it, Fix it?

# INCREASING BARNETT SHALE FOCUS JUSTIFIED?



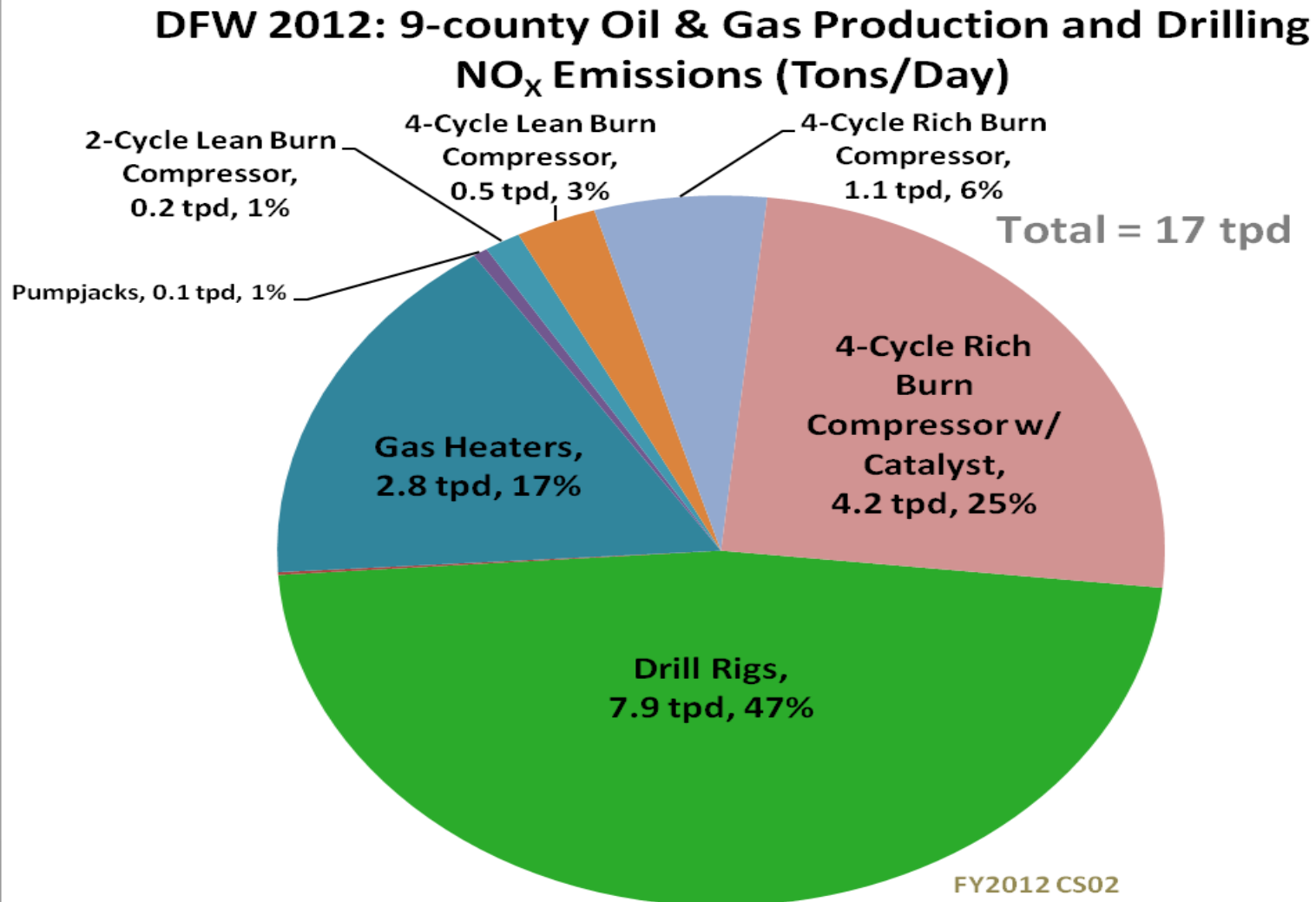
\*2010 Design values as November 4, 2010 and are subject to change

# 2010 DFW NO<sub>x</sub> EMISSION INVENTORIES



**Total NO<sub>x</sub> = 324 Tons Per Day (tpd)**

# PRELIMINARY 2012 DFW EMISSIONS: Oil and Gas NO<sub>x</sub> Detail





# PRELIMINARY DESIGN VALUES 2012

Monitor	2006 Baseline Design Value	Prelim. 2012 Future Design Value (DV <sub>F</sub> )*	Updated 2012 DV <sub>F</sub> *
Denton	93.3	77.0	76.0
Eagle Mountain Lake	93.3	<b>80.0</b>	<b>76.8</b>
Keller	91.0	77.0	75.8
Grapevine Fairway	90.7	76.6	75.9
Fort Worth Northwest	89.3	75.9	74.5
Frisco	87.7	74.1	73.3
Parker County	87.7	74.4	72.1
Dallas North	85.0	70.7	70.0
Dallas Exec Airport	85.0	70.9	69.8
Cleburne	85.0	71.7	70.8
Arlington	83.3	70.6	69.5
Dallas Hinton	81.7	67.6	66.8
Pilot Point	81.0	67.3	66.4
Midlothian Tower	80.5	67.1	65.8
Rockwall Heath	77.7	63.7	62.9
Midlothian OFW	75.0	62.4	61.6
Kaufman	74.7	61.2	59.5
Granbury	83.0	72.4	69.5
Greenville	75.0	61.1	59.3

\* 2012 Future Design Values are preliminary and expected to change.

# AIR STRATEGIES AND OPTIONS

- Texas Environmental, Health and Safety Audit Privilege Act TEX.REV.CIV. STAT. 4447cc. 1-13
  - Civil and Admin. Penalty Immunity
  - Confidentiality, 5(a) and (b) and its Limitations
  - Role of Counsel
  - USEPA: Irrelevant; distinct Auditing Program
- Transactional Issues: “Environmental Defects”
- Contract Review Issues
  - Mineral Leases
  - Equipment Leases

# CONCLUSIONS AND OPEN QUESTIONS

- The DFW 2012 NO<sub>x</sub> design values are projected by TCEQ to easily meet the 2010 85 ppb standard **taking no further actions.**
  - Fails to consider positive impact on regional air quality of new TCEQ permit by rule and Standard Permit.
- Has TCEQ gone further than is technically justified?  
Than is politically justified?

# WATER AVAILABILITY

- Is water present? It is available?
- Environmental permits today
  - Which uses require an environmental permit and which do not?
- Future of environmental permitting
  - Could water be made legally less accessible?
- Hydraulic Fracing
- Business implications
  - Pre-acquisition due diligence or water availability, permitting, and disposal

# GROUNDWATER CONSERVATION DISTRICTS

- Legislative intent:
  - Provide local water basin control
  - Conserve, protect, reuse, recycle
- Inconsistent with decades-old O & G rights to unlimited water usage
  - Dominant estate
  - Rule of Capture

# WATER AVAILABILITY

- Is its use subject to permitting? Yes and no, depending on the source and the use.
  - Surface Water
    - Water rights from the State through TCEQ
    - Chapter 11, Texas Water Code
  - Groundwater
    - Rig supply water wells are exempt from Groundwater Conservation Districts (GCD's) permitting but not regulation. TWC, Section 36.117
    - Other uses may be subject to GCD permitting.

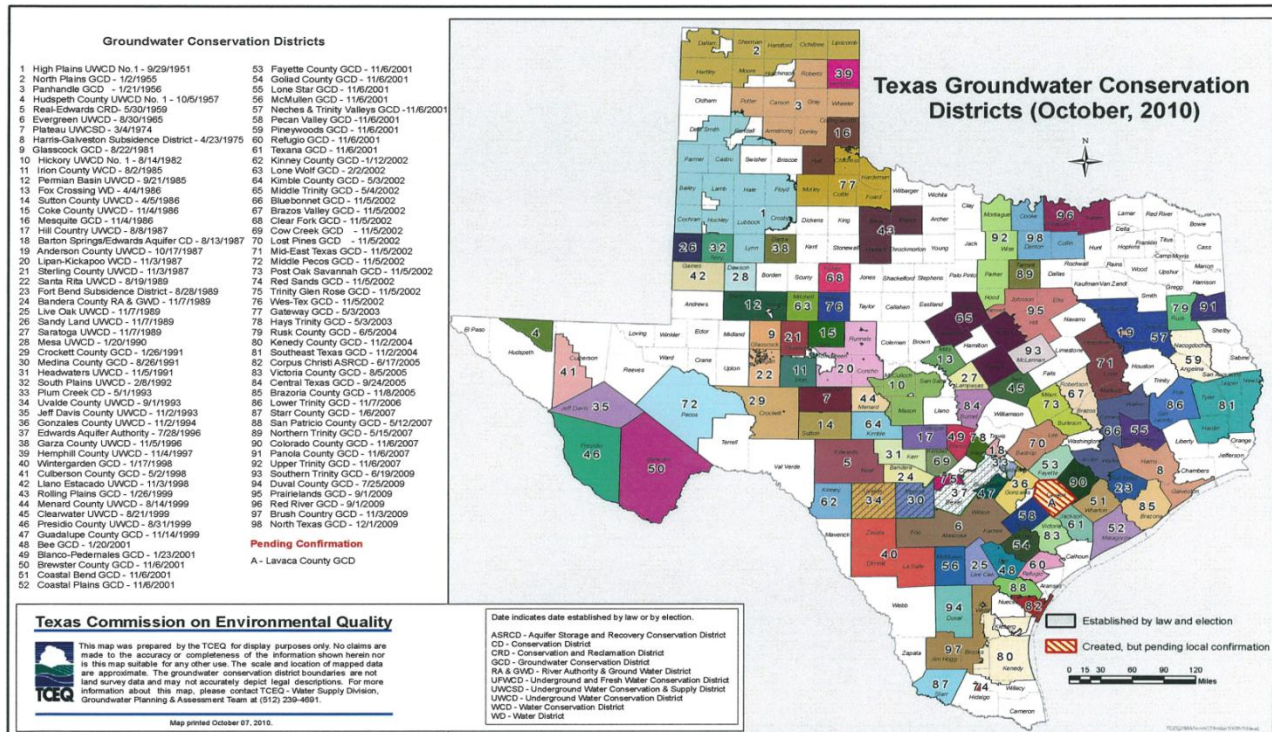
# **GROUNDWATER CONSERVATION DISTRICTS**

Water uses not exempt from GCD permitting requirements.

- Enhanced recovery
- Cavern creation: hydrocarbon storage
- Hydrostatic testing: pipelines and tanks
- Boiler make-up
- Engine coolant: rigs, compressors, other
- Rig, truck and other cleaning
- Sanitary
- Laboratory

# TEXAS'

# GROUNDEWATER CONSERVATION DISTRICTS





# RELATIONSHIP BETWEEN HYDRAULIC FRACING AND WATER AVAILABILITY

- Texas Water Development Board North Texas 50-Year Water Usage Projections
  - Clash of water uses with no clear winners
    - Government allocation through permitting
  - Disposal/Recycling/re-use of waters
    - Tax incentives
    - New technologies
- Marcellus and elsewhere: objections are real and now
  - N.Y. moratorium

# QUESTIONS?

