

Memorandum



CITY OF DALLAS

DATE October 21, 2011

TO Members of the Transportation and Environment Committee:
Linda L. Koop (Chair), Sheffie Kadane (Vice Chair), Sandy Greyson,
Delia Jasso, Vonciel Jones Hill, Pauline Medrano

SUBJECT Update on Dallas Gas Drilling Task Force

On October 24, 2011, Chairwoman Lois Finkelman will present an informational briefing to the Committee with an update on the Dallas Gas Drilling Task Force. Please find attached a copy of the presentation, and feel free to contact me if you need additional information.

A handwritten signature in cursive script, reading "Jill Jordan".

Jill A. Jordan, P.E.
Assistant City Manager

c: The Honorable Mayor and Members of the City Council
Mary K. Suhm, City Manager
Thomas P. Perkins, Jr. City Attorney
Rosa Rios, Acting City Secretary
Craig Kinton, City Auditor
Judge C. Victor Lander, Administrative Judge
A.C. Gonzalez, First Assistant City Manager
Ryan S. Evans, Assistant City Manager
Forest Turner, Assistant City Manager
Joey Zapata, Interim Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Edward Scott, Director, Controller's Office
Frank Libro, Public Information Office
Theresa O'Donnell, Director, Sustainable Development and Construction
Helena Stevens-Thompson, Assistant to the City Manager – Council Office

Update on Dallas Gas Drilling Task Force

October 24, 2011



photo by Taryn Walker



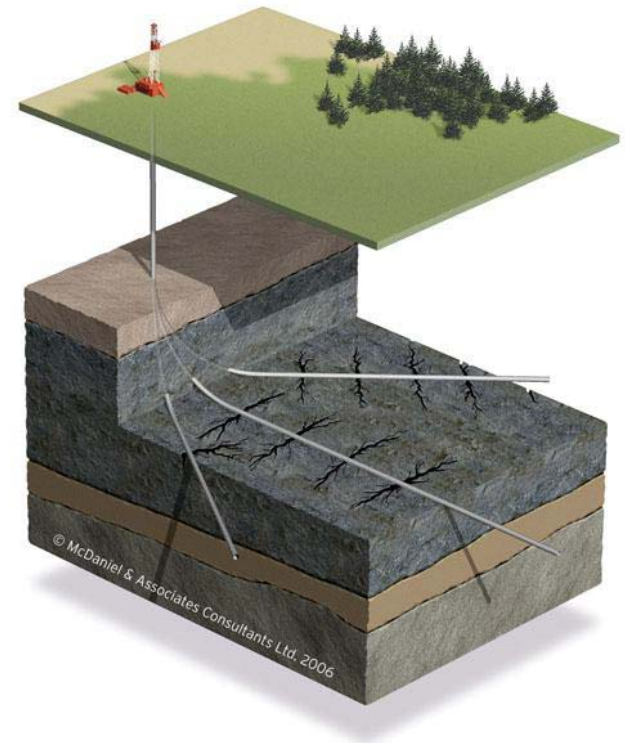
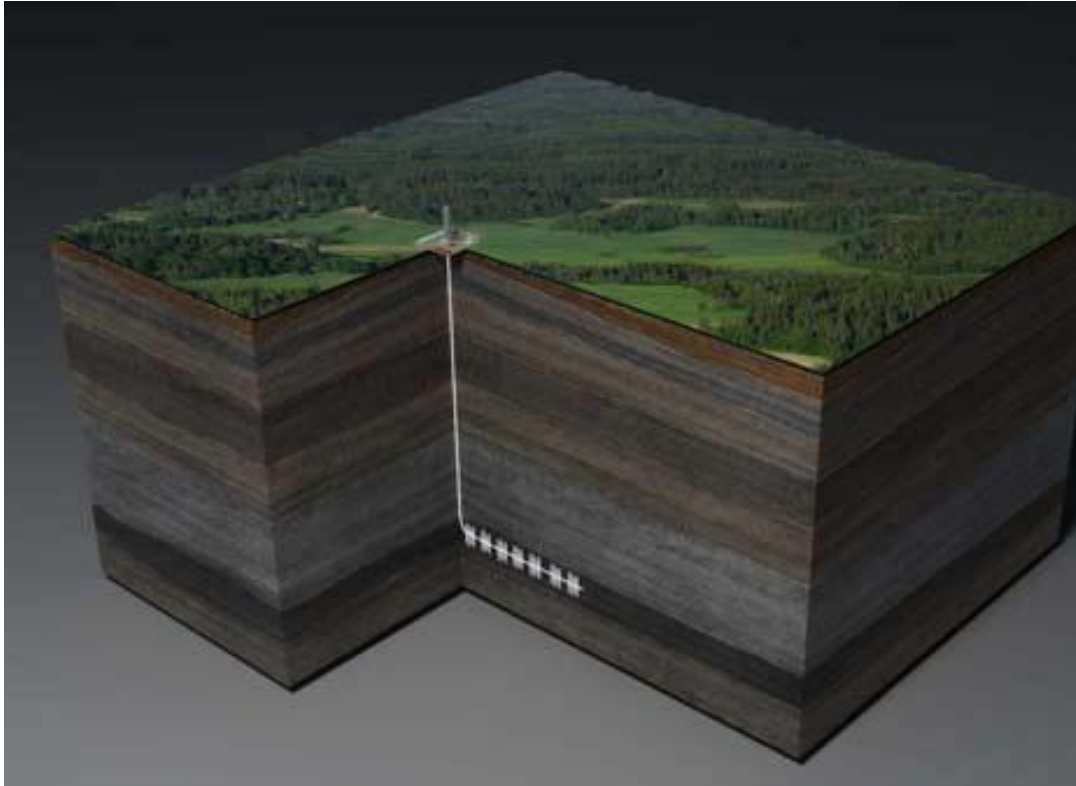
Mission

- The Dallas Gas Drilling Task Force is responsible for making recommendations to the Dallas City Council regarding proposed revisions to the City's gas drilling zoning and permitting ordinances. In forming recommendations, the following topics will be reviewed, including, but not limited to:
 - Zoning requirements
 - Permitting requirements
 - Air quality issues
 - Water-related issues

Members

- In June 2011, the Dallas City Council created the Dallas Gas Drilling Task Force with the following appointments:
 - Chair
 - **Lois Finkelman**
 - Park Board Representative
 - **Joan Walne**
 - Three (3) Industry/Business Representatives
 - **David Biegler** – Chairman and CEO of Southcross Energy
 - **Bruce Bullock** – Director of SMU's Maguire Energy Institute
 - **Patrick Shaw** – Attorney, Woodward & Shaw
 - Three (3) Subject Matter Experts
 - **Dr. David Sterling** – Professor and Chair, UNT Health Science Center, Department of Environmental and Occupational Health
 - **Terry Welch** – Attorney, Brown & Hofmeister
 - **Margaret Keliher** – Executive Director of Texas Business for Clean Air
 - Three (3) Citizens and/or Environmental Group Representatives
 - **Dr. Ramon Alvarez** – Environmental Defense Fund
 - **Cherelle Blazer** – Director, You Can't Live in the Woods
 - **John McCall Jr.** – Law Office of John McCall Jr.

Natural Gas Drilling



Geology of the Barnett Shale

Geologic Cross Section

Aquifers

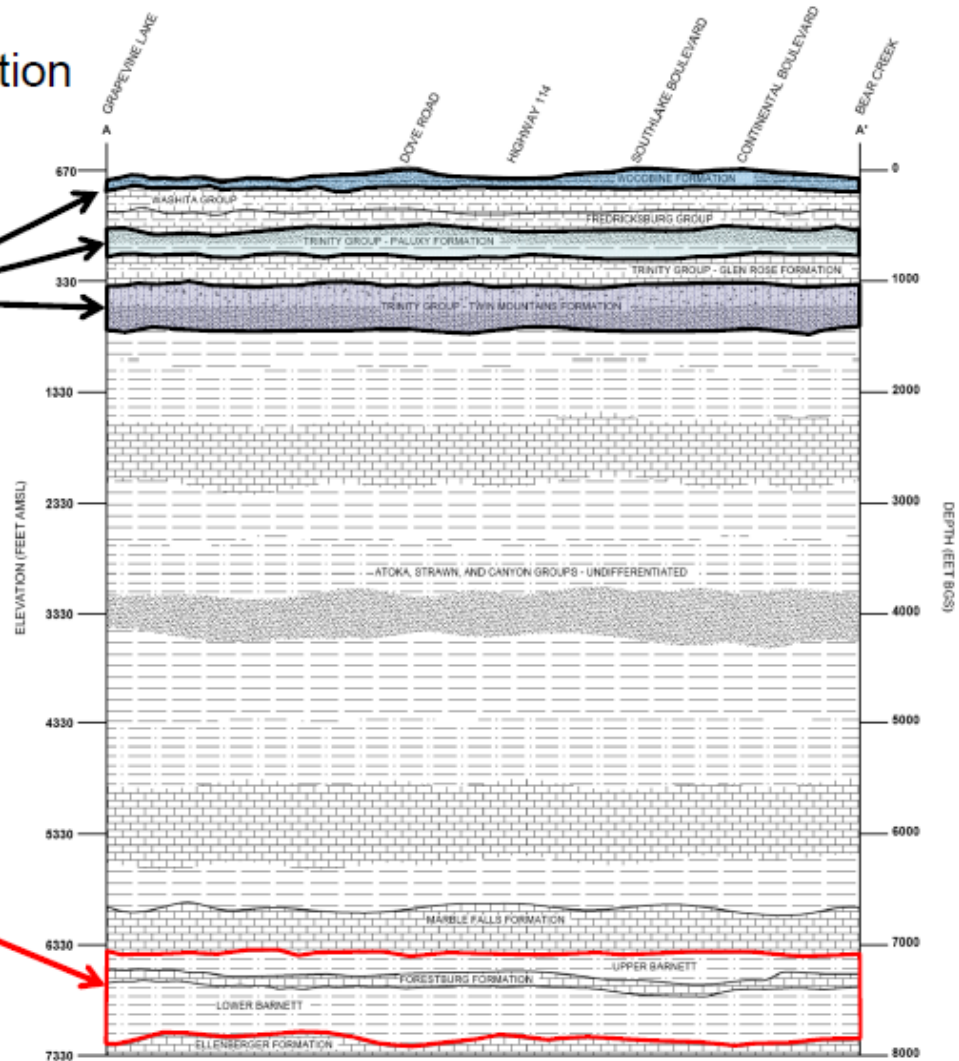
Woodbine
Paluxy (Trinity)
Twin Mountain (Trinity)

Sample diagram
from Southlake, TX

**Barnett
Shale**

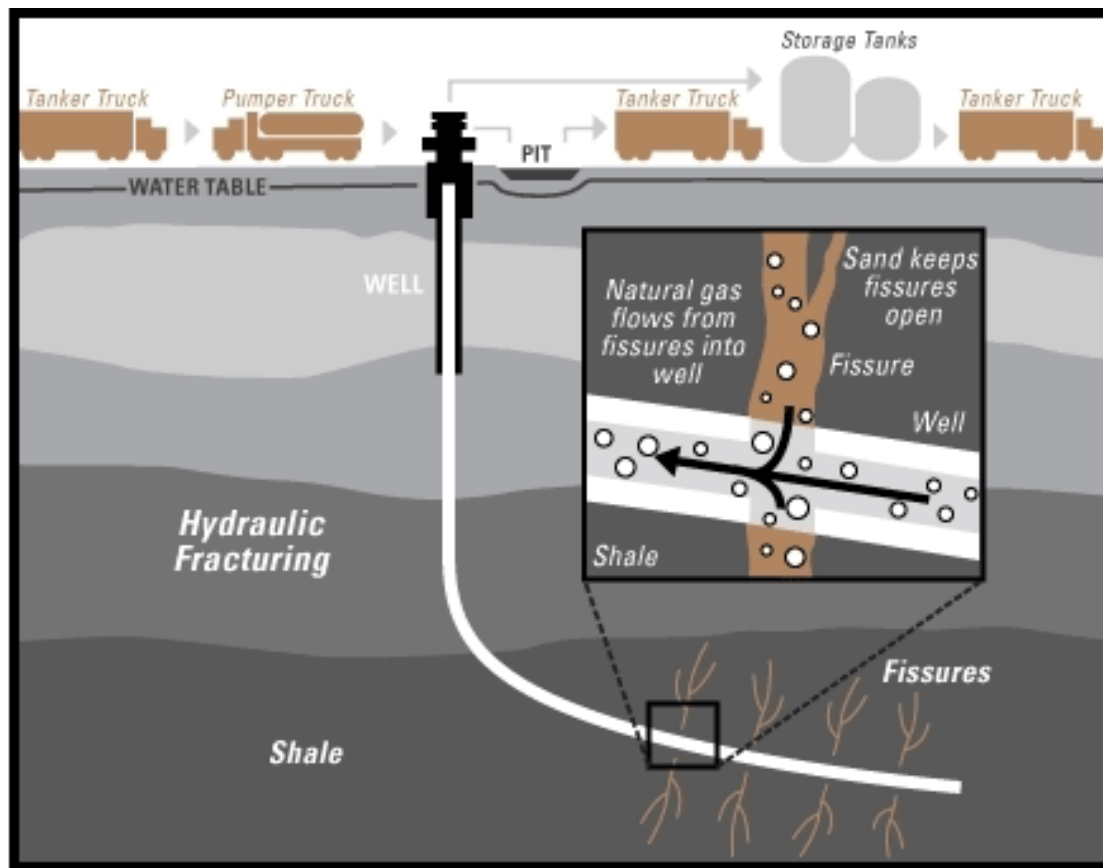
MODERN GEOSCIENCES

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Hydraulic Fracturing ("Fracking")

Hydraulic fractures are created when a mixture of water, sand, and chemicals is pumped down production wells at high pressure for short periods of time (hours).



Sample Site During Drilling Stage



Sample Pad Site



Production

Gas continues to flow from the wells and into gathering pipelines, to compressor stations, and distribution lines for use.

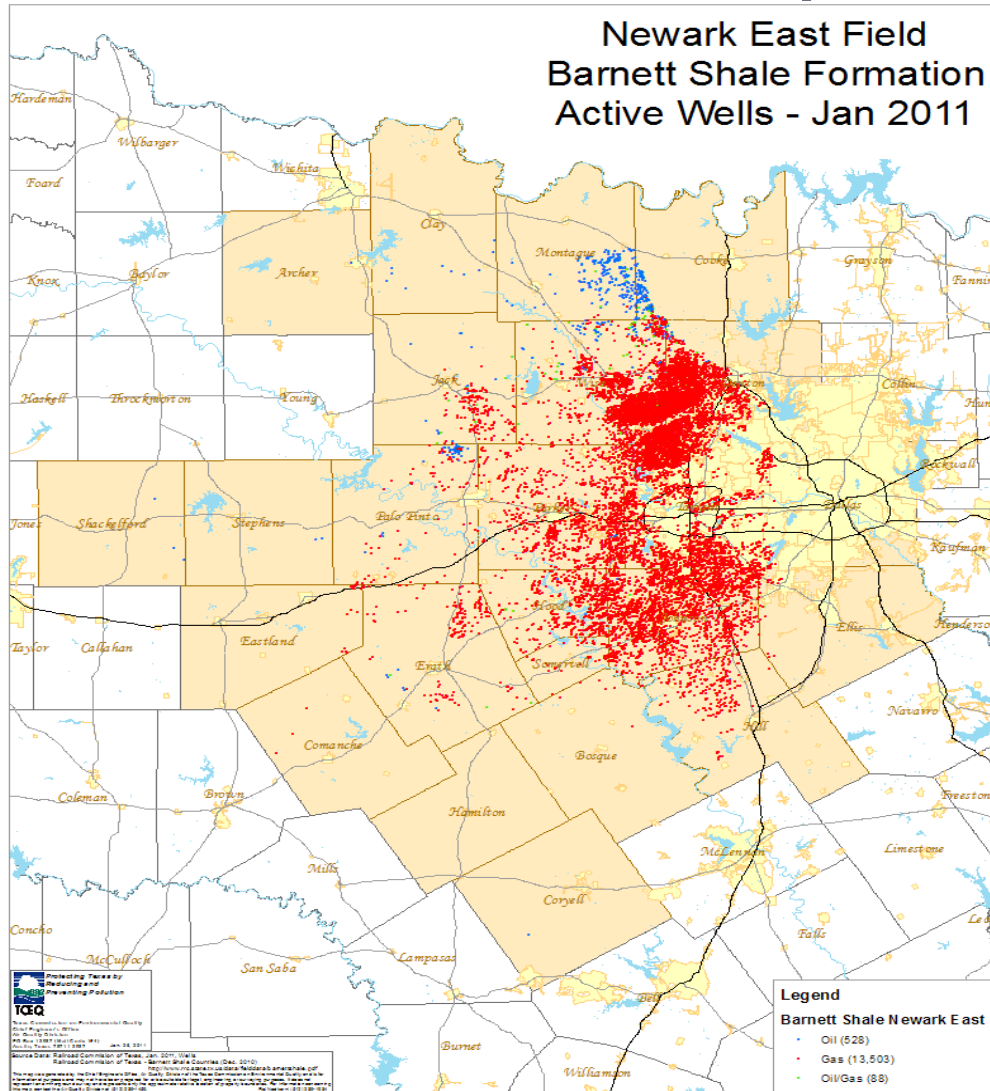


Sample Compressor Station



photo by Taryn Walker

Barnett Shale Map



Fewer applications in Dallas than in areas farther west due to the uncertainty of Barnett Shale this far east

15,000 active oil & gas wells in the Barnett Shale;
1,500 in Ft. Worth;
0 in Dallas

Task Force Meetings

1. July 12, 2011
 - Gas Drilling Overview 101 – Rick Trice, City of Fort Worth
 - Review Dallas' Gas Drilling and Production Ordinances (Zoning and Permitting) and Status of SUPs – City of Dallas Staff
2. July 19, 2011
 - Field Trip to Gas Drilling Sites in Arlington
3. July 26, 2011
 - Regulatory Reviews
 - a. Environmental Protection Agency (EPA) – Rob Lawrence
 - b. Texas Railroad Commission – Michael O'Quinn
 - c. Texas Commission on Environmental Quality (TCEQ) – Keith Sheedy

Task Force Meetings (cont.)

4. August 2, 2011
 - Public Hearing to Receive Citizen Input
5. August 23, 2011
 - Briefings from Industry Representatives
 - a. Masterplan – Dallas Cothrum
 - b. Barnett Shale Energy Education Council – Ed Ireland
 - c. Encana Oil & Gas (USA) – John Keil
 - d. Chesapeake Energy – Brian Boerner

Task Force Meetings (cont.)

6. August 30, 2011

- Briefings from Neighborhood and/or Environmental Group Representatives
 - a. Raymond Crawford, Dallas Area Residents for Responsible Drilling
 - b. Kathy Martin, Oklahoma Environmental Engineer
 - c. Melanie Sattler, Air Pollution Consultant
 - d. Judith Jordan, Colorado Hydrogeologist
 - e. Sharon Wilson, Earthworks' Texas Oil and Gas Accountability Project
 - f. Deborah Rogers, Financial Analyst and Land Owner
 - g. Gary Hogan, North Central Texas Communities Alliance

Task Force Meetings (cont.)

7. September 6, 2011

- Real Estate Value Impacts from Drilling – Dan Wright, Integra Realty Resources
- Noise/Sound and Mitigation – Don Behrens, Environmental Noise Control
- Geology of the Shale – Ken Morgan, TCU Energy Institute

8. September 13, 2011

- Briefings on Air Quality Issues
 - a. North Texas Clean Air Steering Committee and Ozone State Implementation Plan (SIP) Impacts – Chris Klaus
 - b. Fort Worth Air Quality Study Results
 - c. Long Term Site Monitoring Options for Air Quality – Kenneth Tramm, Modern Geosciences

Task Force Meetings (cont.)

9. September 20, 2011

- Briefings on Water-related Issues
 - a. Environmental Protection Agency – Philip Dellinger
 - b. Dallas Water Utilities – Jody Puckett

10. October 4, 2011

- Perspectives on Fort Worth Experience
 - a. Libby Willis – Fort Worth League of Neighborhoods
 - b. Jim Bradbury – Environmental Attorney and Member of Fort Worth's Air Quality Study Committee
- Preemption and the City's Environmental Regulatory Role – Lemuel Thomas, Assistant City Attorney

Task Force Meetings (cont.)

11. October 11, 2011

- City of Dallas Zoning and Permitting
- Review Ordinances of Other Texas Cities and Identify “Best Practices”
 - a. Grand Prairie – Jim Cummings
 - b. Fort Worth – Rick Trice
 - c. Hurst – Cathy Cunningham
 - d. Southlake – Ken Baker

Upcoming Task Force Meetings

12. October 27, 2011

- Public Hearing to Receive Citizen Input

13. November 8, 2011

- Develop Draft Recommendations

14. November 15, 2011

- Develop Draft Recommendations (Continued)

15. November 29, 2011

- Vote on Task Force Recommendations

Major Concerns

- Based on what the Task Force has heard so far, the following appear to be the areas of most concern
 - Air emissions
 - Water
 - Noise
 - Traffic
 - Lack of clear roles in regulation and enforcement

Appendix

Working List of Issues for Consideration

- Air quality
 - Fugitive emissions
 - Equipment/Engine requirements
 - Baseline ambient air measures
 - Monitoring requirements
 - Mitigation of emissions
- Water
 - Groundwater (nearby monitoring)
 - Surface water
 - Quantity, source, pricing
 - Recycling water
 - Disposal of produced water and other wastes
 - Frack ponds and requirements
 - Waste storage on site
 - Use of tracers
 - Disclosure of fracking fluid
- Physical pad site
 - Multi-well pad sites
- Pad site operations
 - Hours of operation
 - Lighting
 - Dust
 - Signage
 - Noise
 - Truck/Equipment traffic
 - Landscaping, fencing
 - Post-frack clean-up, ready for long term production
 - Sediment & erosion control plan
- Pipelines
 - Advance planning for pipeline routing
- Compressor stations
 - Locations
- Setback requirements
 - Required distance from receptors
- Variance procedures

Working List of Issues for Consideration (cont.)

- Best practices
 - Low-bleed pneumatic valves, storage tanks, etc.
 - Green completion / venting
 - Single point of contact/ responsibility for sub-contractors
 - ISO 14001 or similar
 - Length of cement casing in the bore hole, potentially requiring full cementing
- Emergency response plan
 - Spills and spill response
- Soil sampling
 - Baseline and ongoing sampling
- Insurance requirements
- Economic impact and tax revenue analysis
- Required plans
 - Emergency, landscaping, traffic, seismic, ambient air/noise, environmental, etc.
- City oversight
 - Monitoring activities, the schedule to check each site (if they have one) and how many staff members they have and what's the dollar amount in the city budget
- Outsourced activities
 - What activities (monitoring, inspecting, etc.) have other municipalities outsourced?
- Ordinance updates
 - Built-in requirement to review ordinances after certain amount of time?
- Time requirements
 - After receiving a lease or permit to drill, is there a specific time during which they must commence or lose their permission?
- Bond requirements
 - Require a performance bond of any kind, for what purpose and how long does it stay in effect? After the actual drilling is over and if the company is sold or goes under, who's responsible for ongoing maintenance? Require a restoration bond?
- Operator sub-contractors
 - Require disclosure of all operator sub-contractors as part of SUP/permit