

Workshop of Governance of Risks of Unconventional Shale Gas Development

National Research Council

Washington, DC

August 15-16, 2013

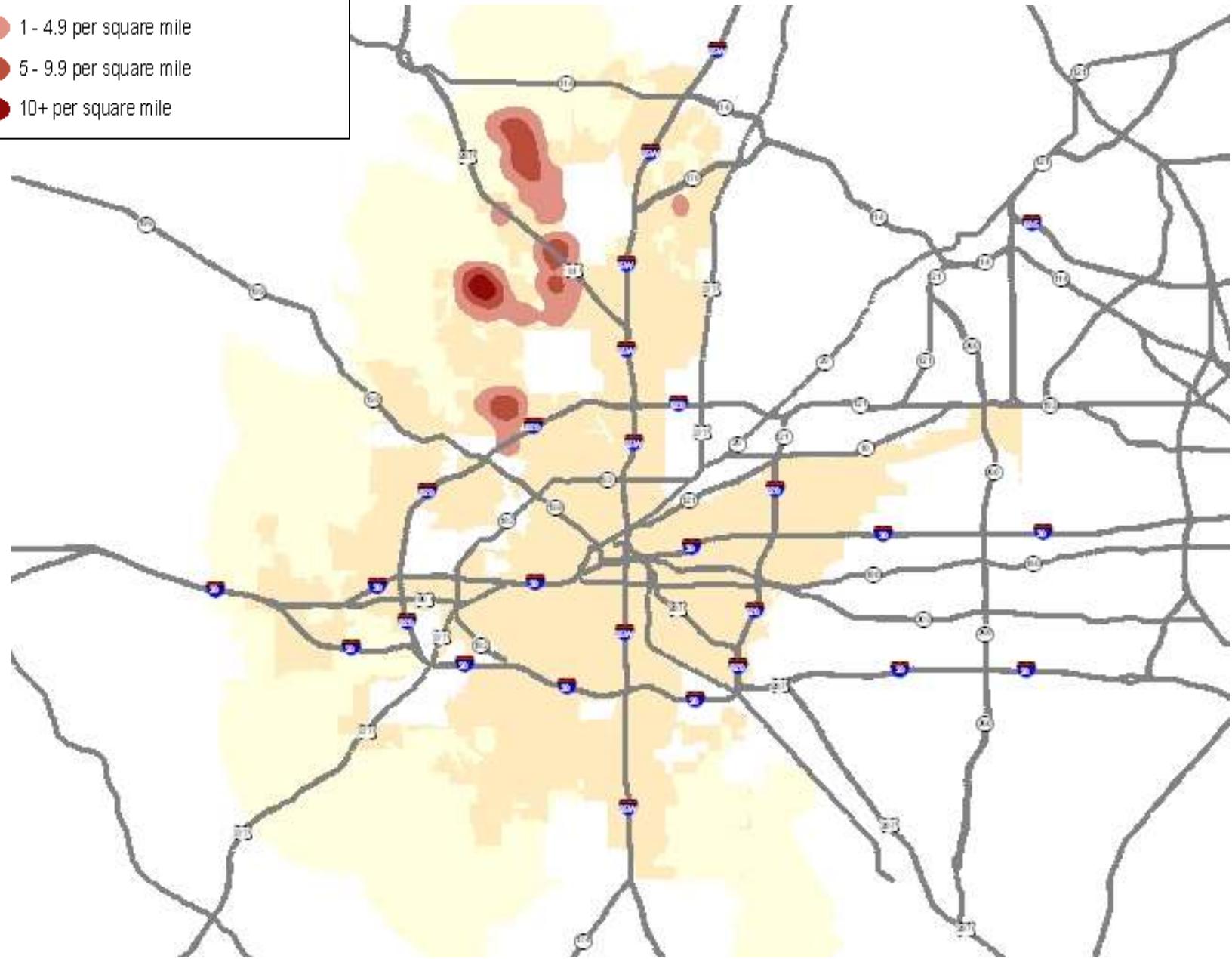
Sarah Fullenwider, City Attorney

Fort Worth, Texas

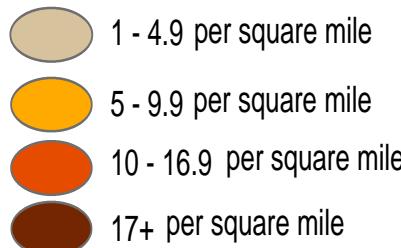
Fort Worth - 2003

No color represents Less than 1 per square mile

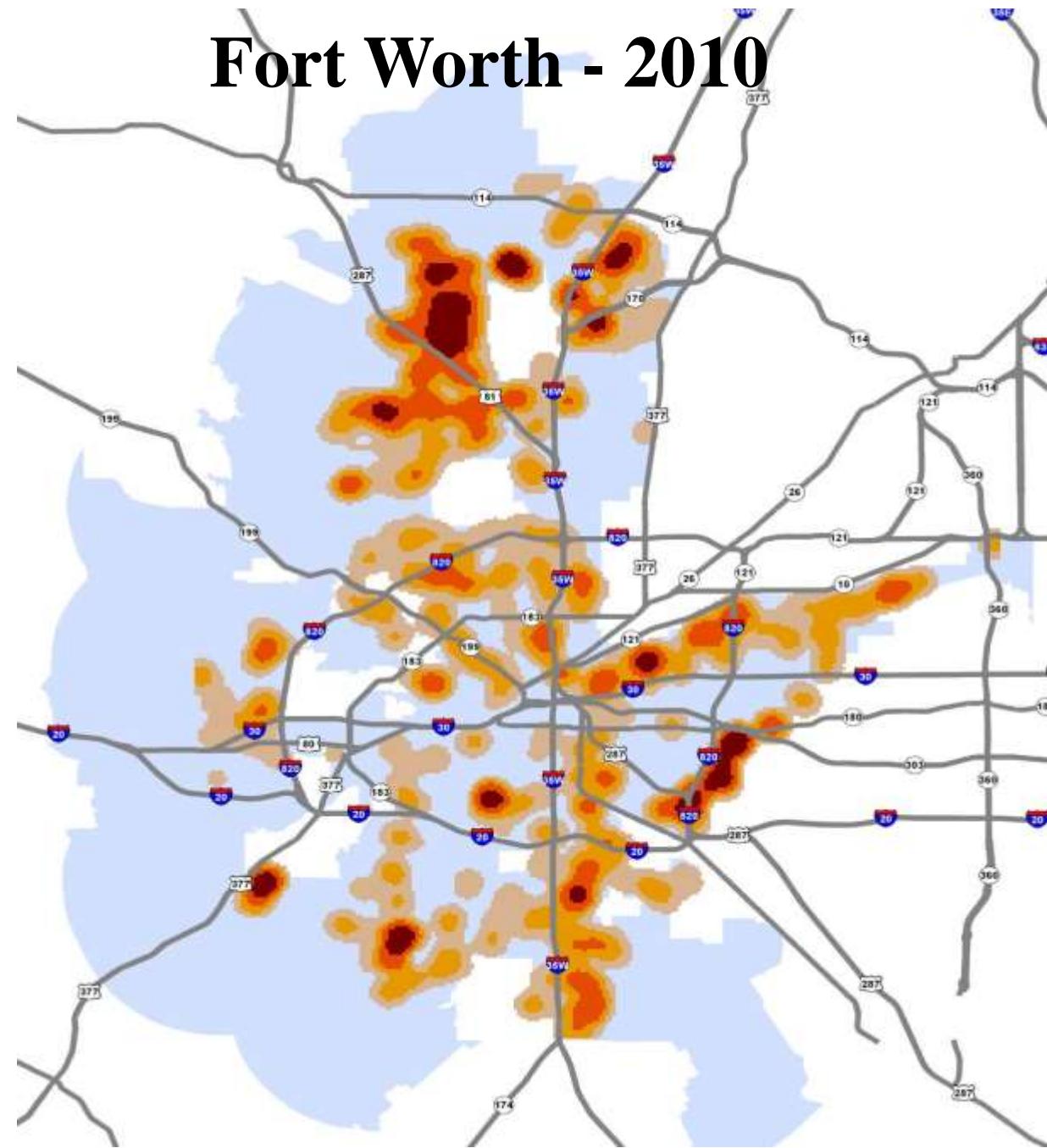
- 1 - 4.9 per square mile
- 5 - 9.9 per square mile
- 10+ per square mile

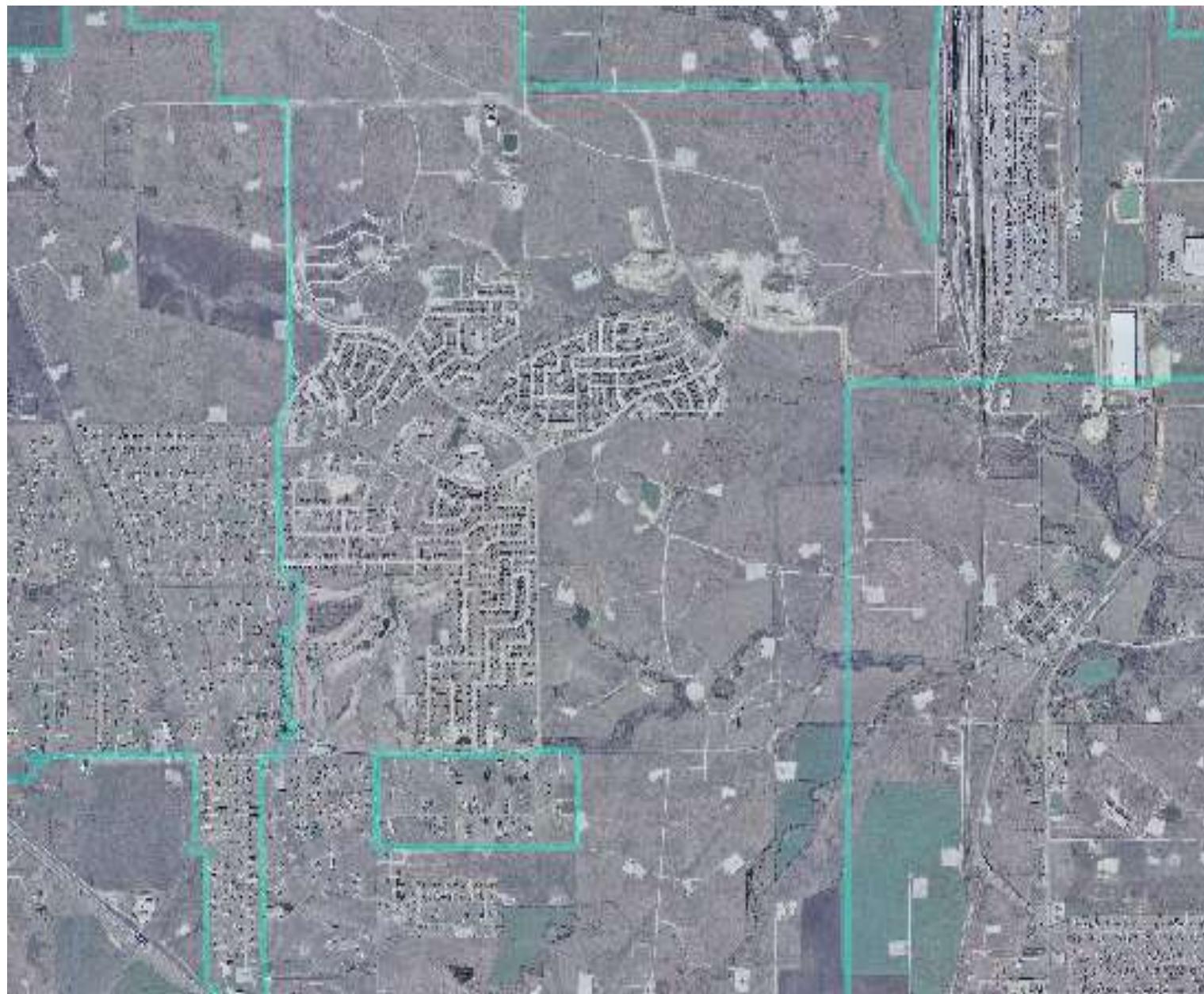


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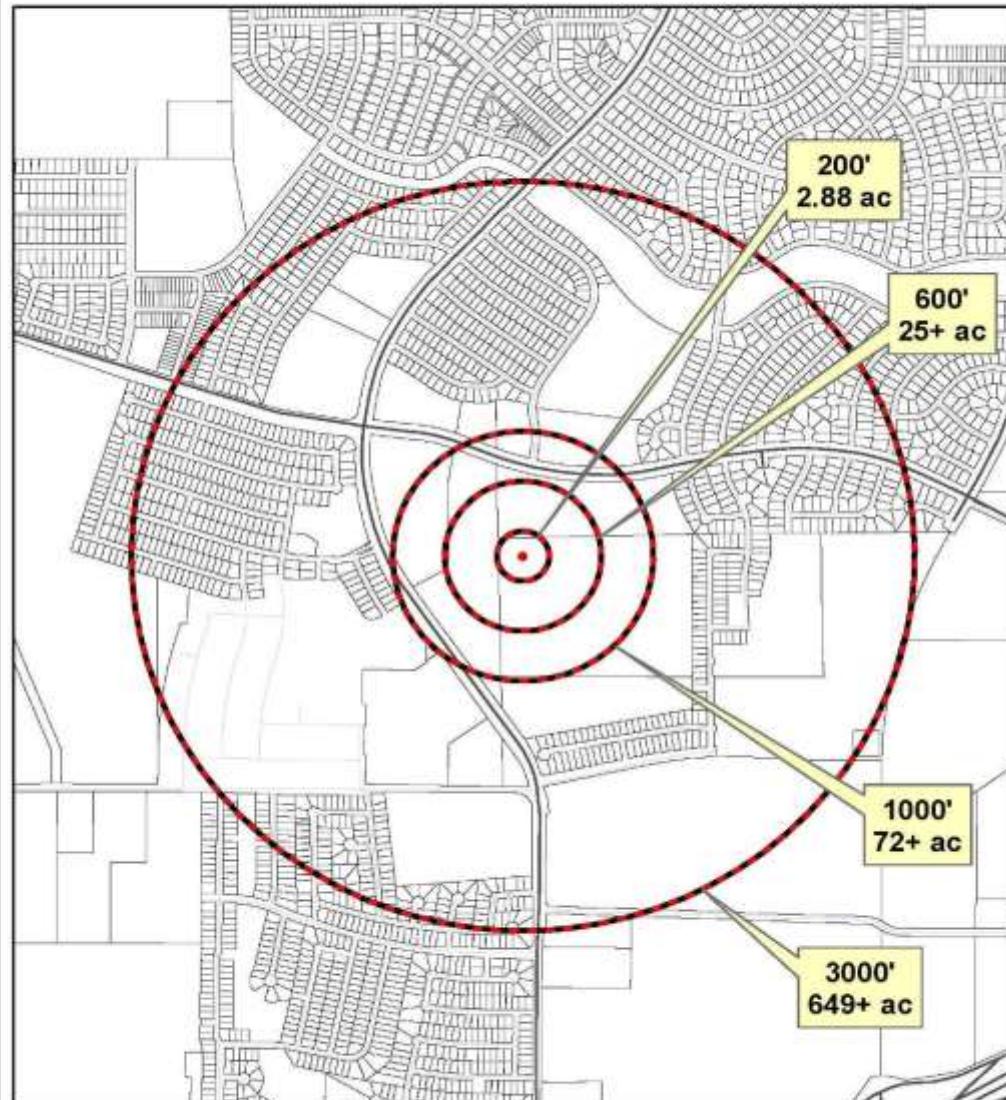


Fort Worth - 2010





CITY OF FORT WORTH TASK FORCE
SETBACK DISTANCE ISSUE



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THE ACTUAL YARDAGE TO BE TAKEN IS USED AS A BASE PRODUCT FOR
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0 3,000 Feet

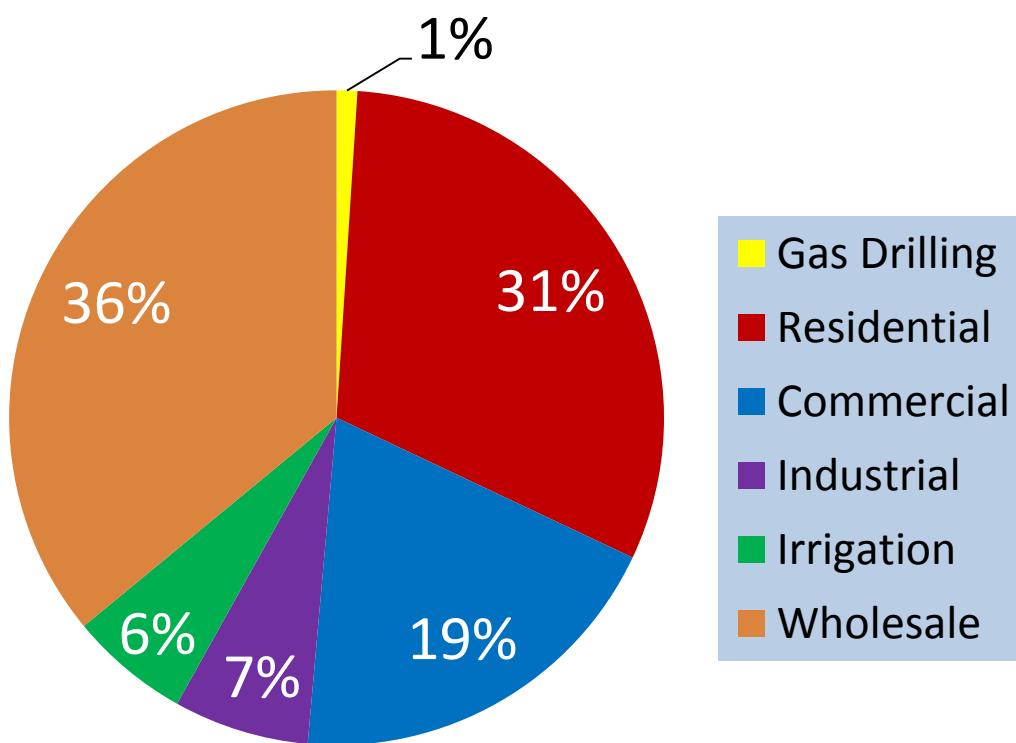




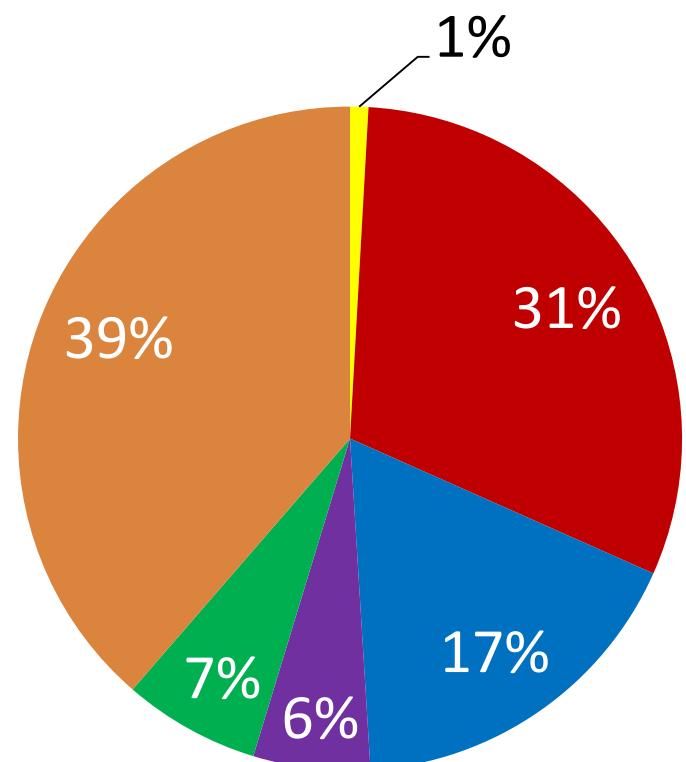
Photos Courtesy of the Star Telegram

Gas Drillers' Water Use

2005



2012





Gas Drilling Usage

	Million Gallons	% of All Billed Consumption
FY 2005	431.8	0.79
FY 2006	627.7	0.94
FY 2007	425.7	0.82
FY 2008	337.5	0.56
FY 2009	524.0	0.89
FY 2010	409.7	0.74
FY 2011	680.8	1.03
FY 2012	538.7	0.89

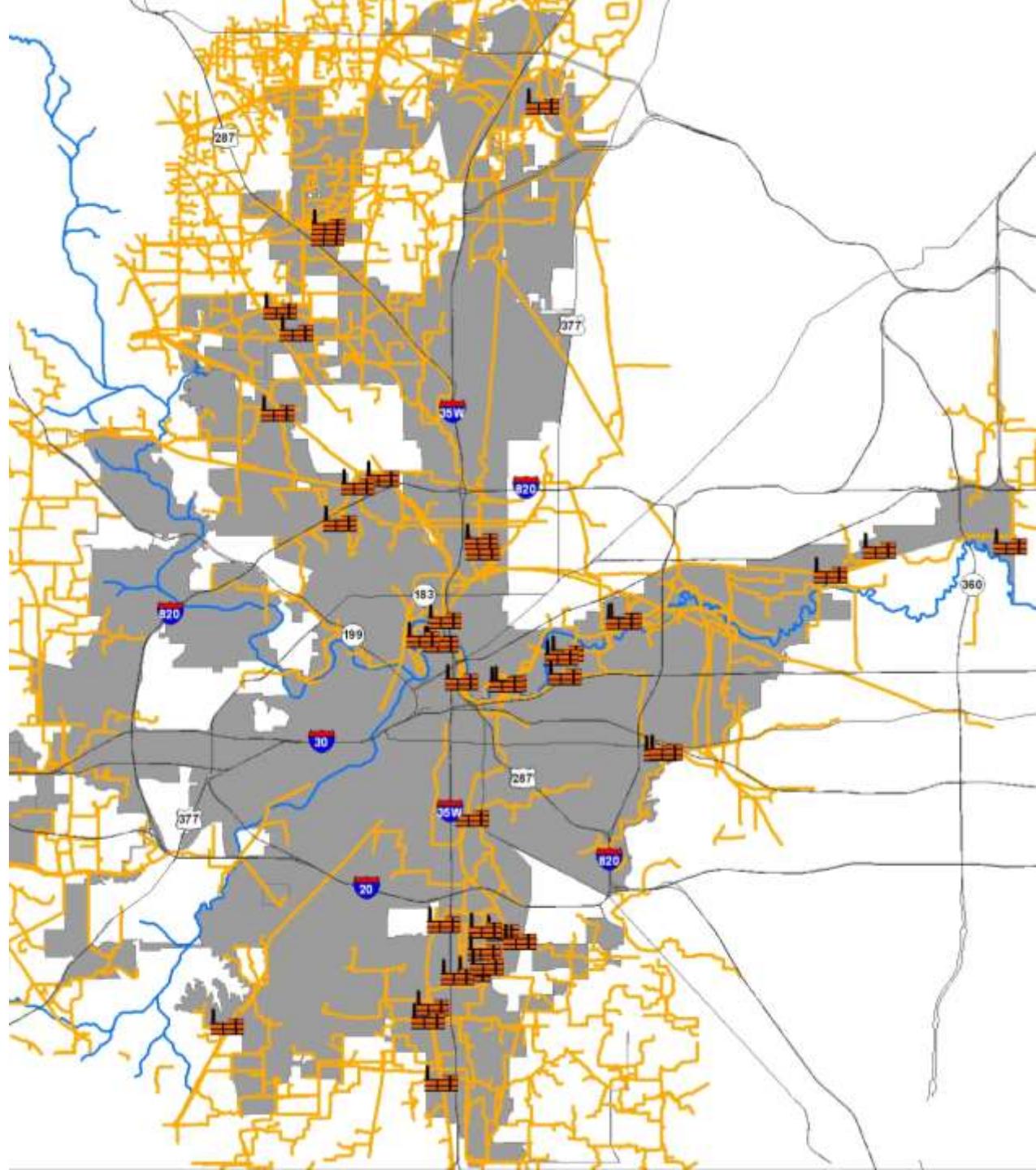
Pipelines and Compressor Stations

- Pipelines are required to get the gas to market, however:
 - Companies have power of eminent domain creating issues for private property owners; and
 - Pipelines are being placed in front yards of neighborhoods close to homes
- Large compressor stations located in urbanized areas create:
 - Noise issues
 - Aesthetic/incompatibility issues



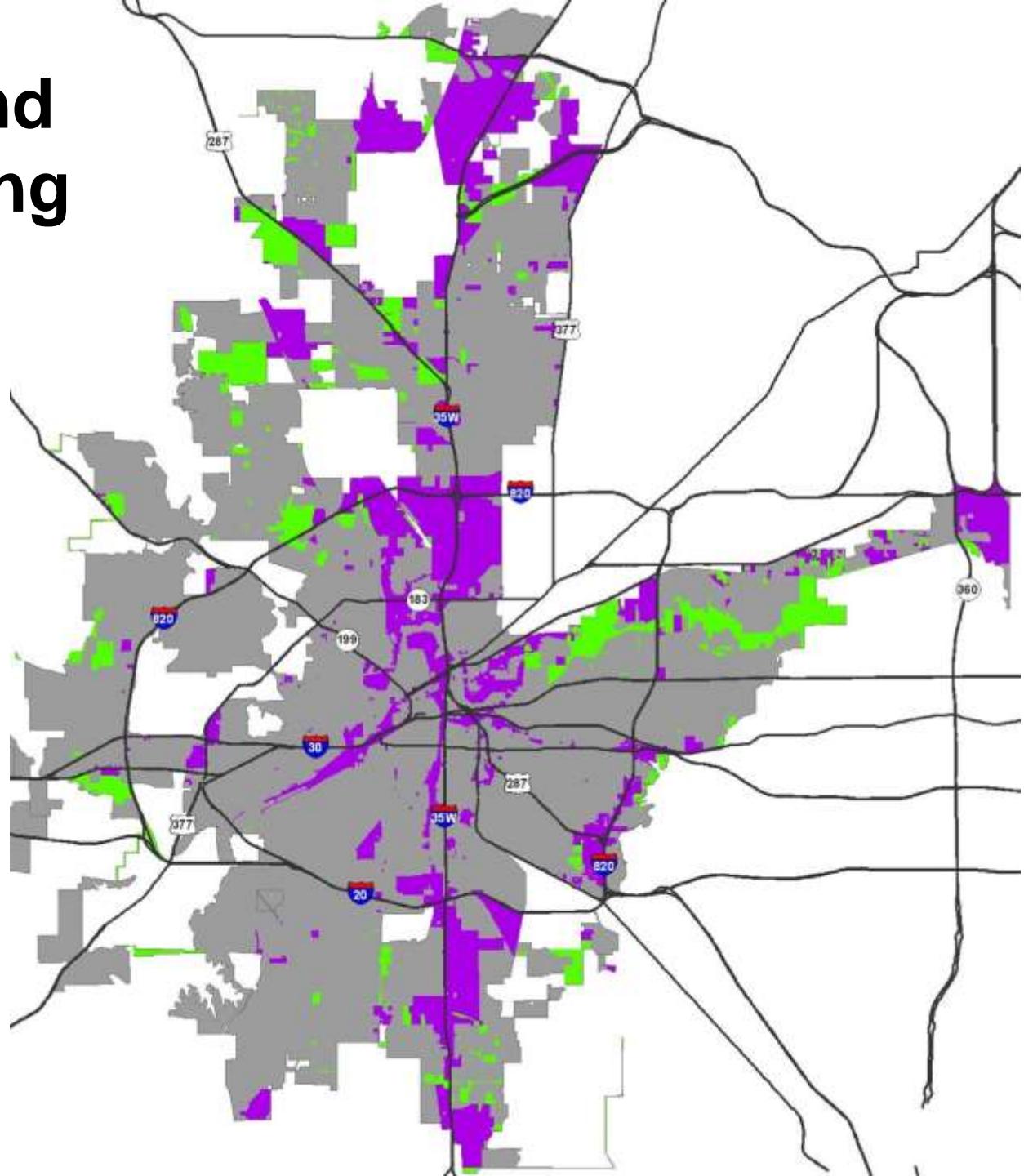
Compressors and Gas Pipelines

Total sites = 41



Agricultural and Industrial Zoning

- █ Agricultural
- █ Industrial



State and Federal Oversight- What Citizens Are Saying...

- Give **counties enforcement authority**
- Need State and Federal controls over **environmental issues**
- Require **setbacks from residential uses** for gas wells, compressor stations, tank batteries and gas pipelines
- Consider adopting stringent **state rules for** the location and use of salt water disposal wells
- Regulate the transportation of drilling mud
- Require **property valuation information** to be provided for property acquired by eminent domain
- **Require permits** from the state regulatory agency **before condemning property** for gas pipelines
- Required **notice to adjoining surface property** owners, county commissioners and applicable ground water districts of an application **for a permit to dispose** of oil and gas waste in a commercial disposal well

In Hindsight We Could Have....

- Created a mechanism earlier to provide current information on the status of permits and locations of drilling sites
- Created a **proactive city website Q&A** page earlier in the process
- **Saturated the public with information**
- Held **more city organized educational public meetings** with citizens, the industry and the Railroad Commission
- **Engaged the local bar association earlier** to educate citizens on the legal impacts of signing leases and mineral ownership
- **Required bilingual information** to be distributed from gas companies
- Required landmen to register with the city and provide contact information
- **Educated gas companies** about differences of drilling in urban areas
- Involved local real estate companies and HUD

Could Have / Should Have

Changing the Past for Cities in the Barnett Shale Would Have Required:

- Citizen Awareness and Understanding of Drilling and Leasing Issues Early in the Process
- The Ability to Work Within the City's Current Land Uses
- County, State and Federal Involvement
- A Perfect World versus the Real One

