

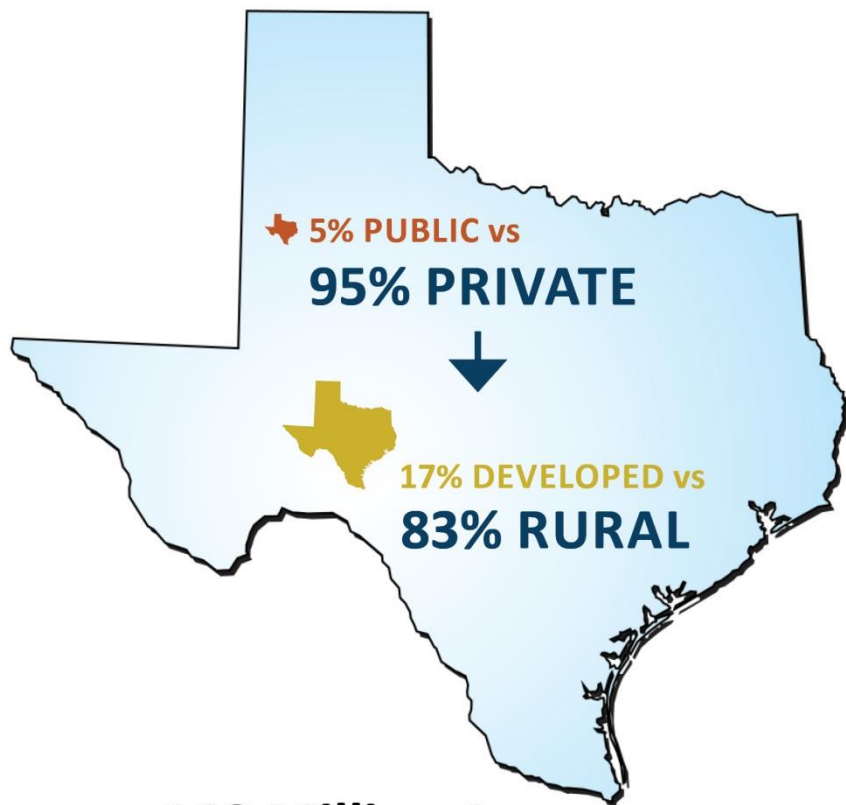


Assessing Natural Resource and Water Challenges in Rural Texas



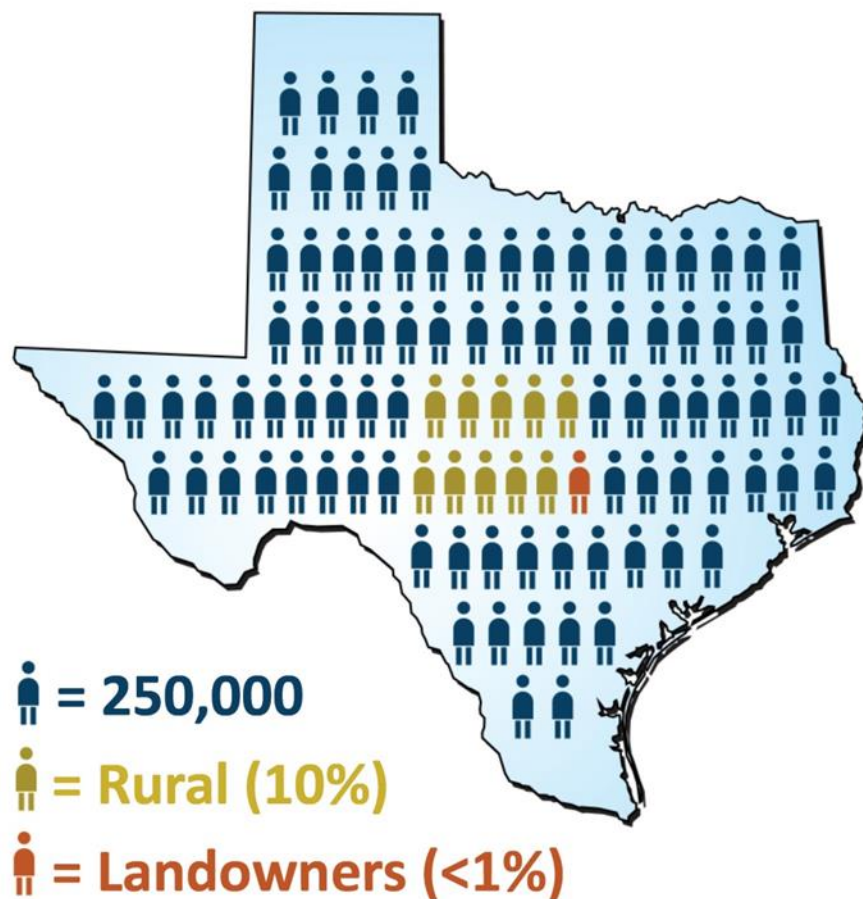
Changing Texas

171 Million Acres...



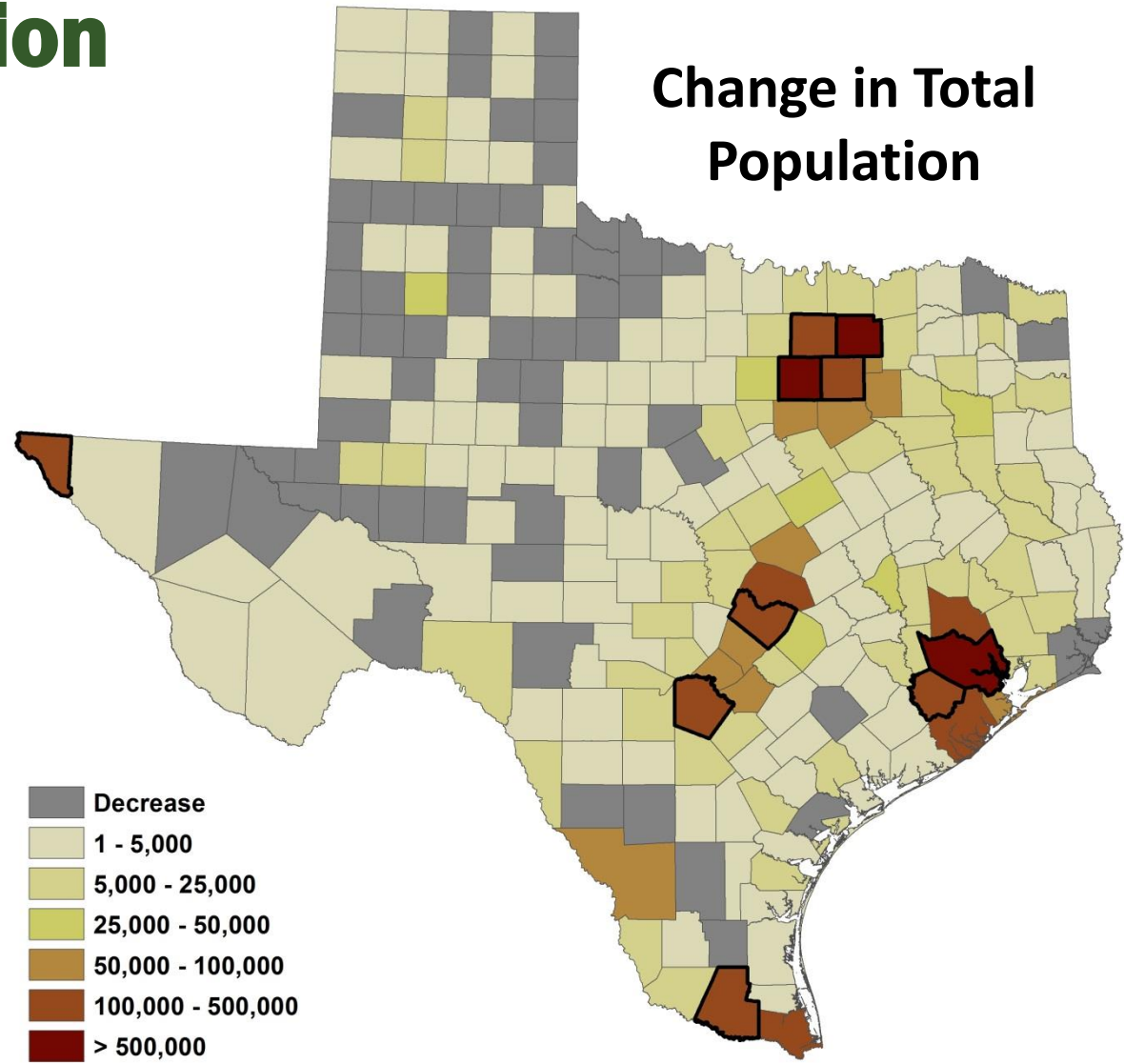
...142 Million Acres
Private Working Lands

Population: 28 Million...

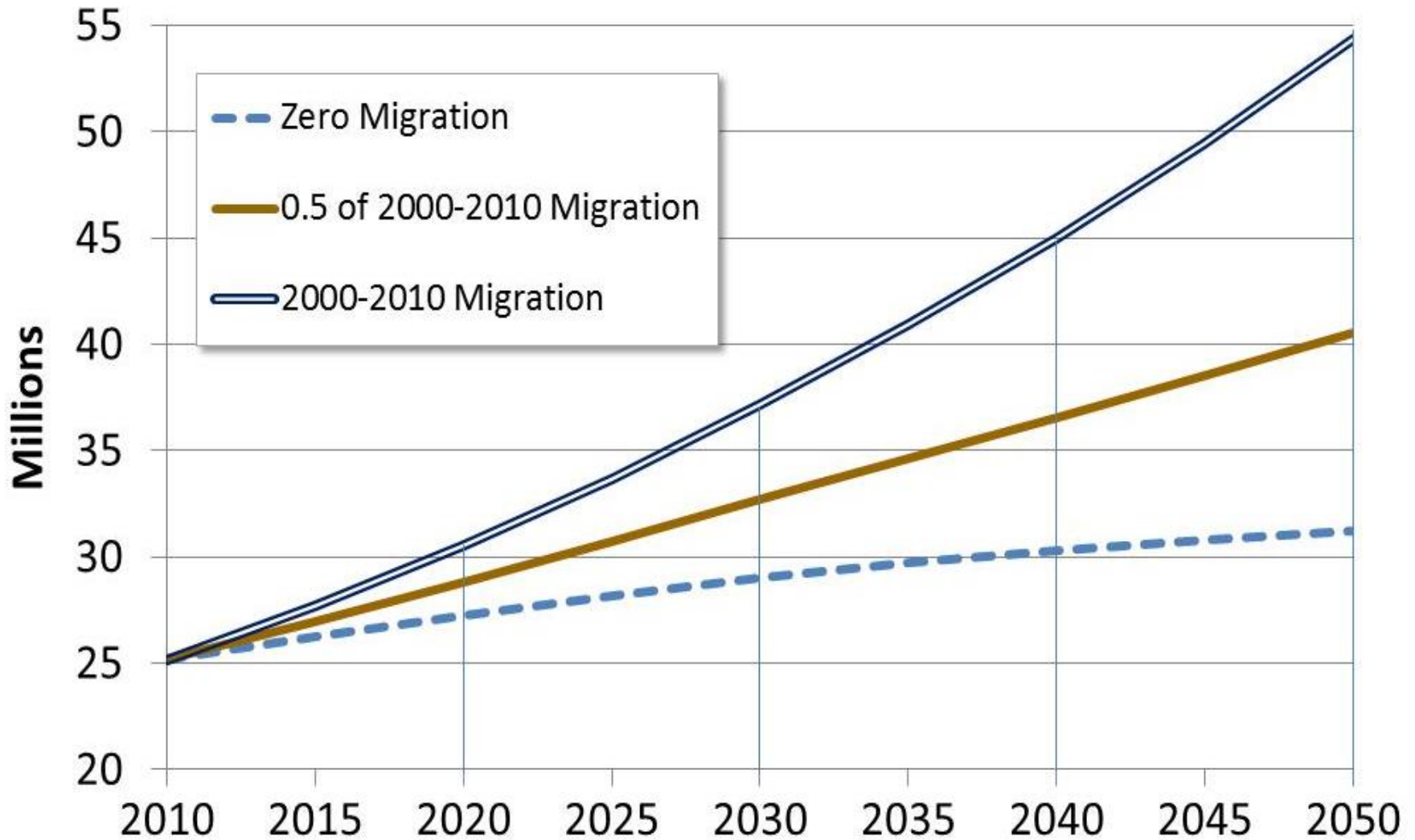


Texas Population

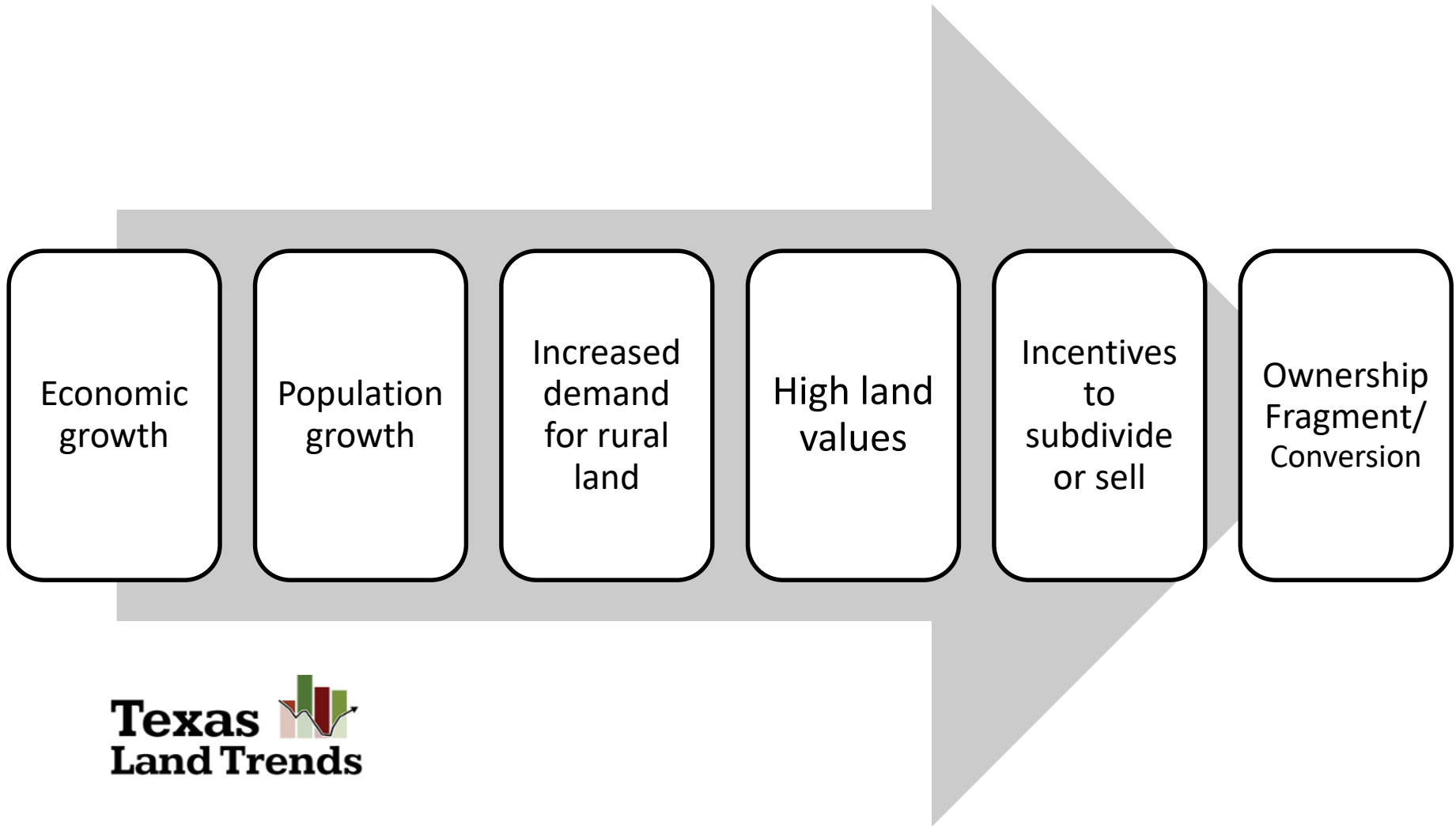
- 1997 – 19 Million
- 2017 – 28 Million
- 36% increase
- 500,000/year
- 65% of increase occurred within *Top Ten Populated Counties*



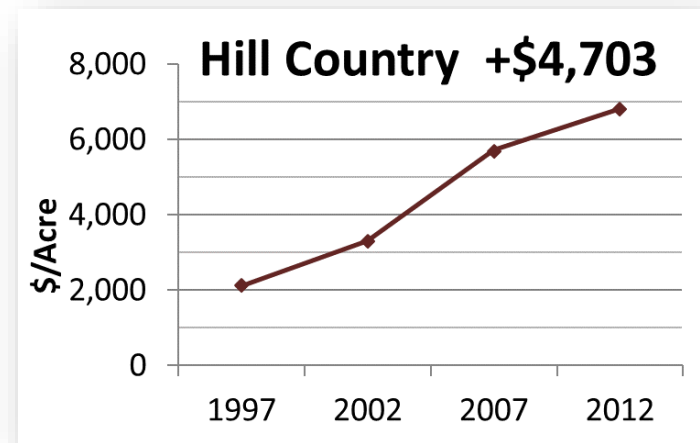
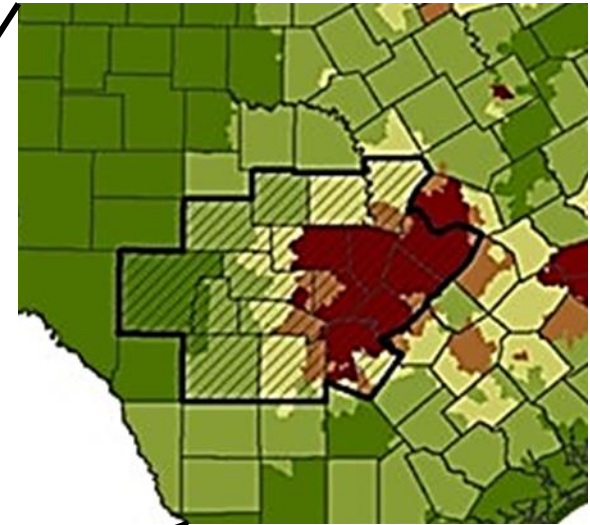
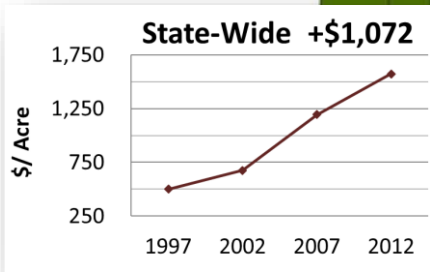
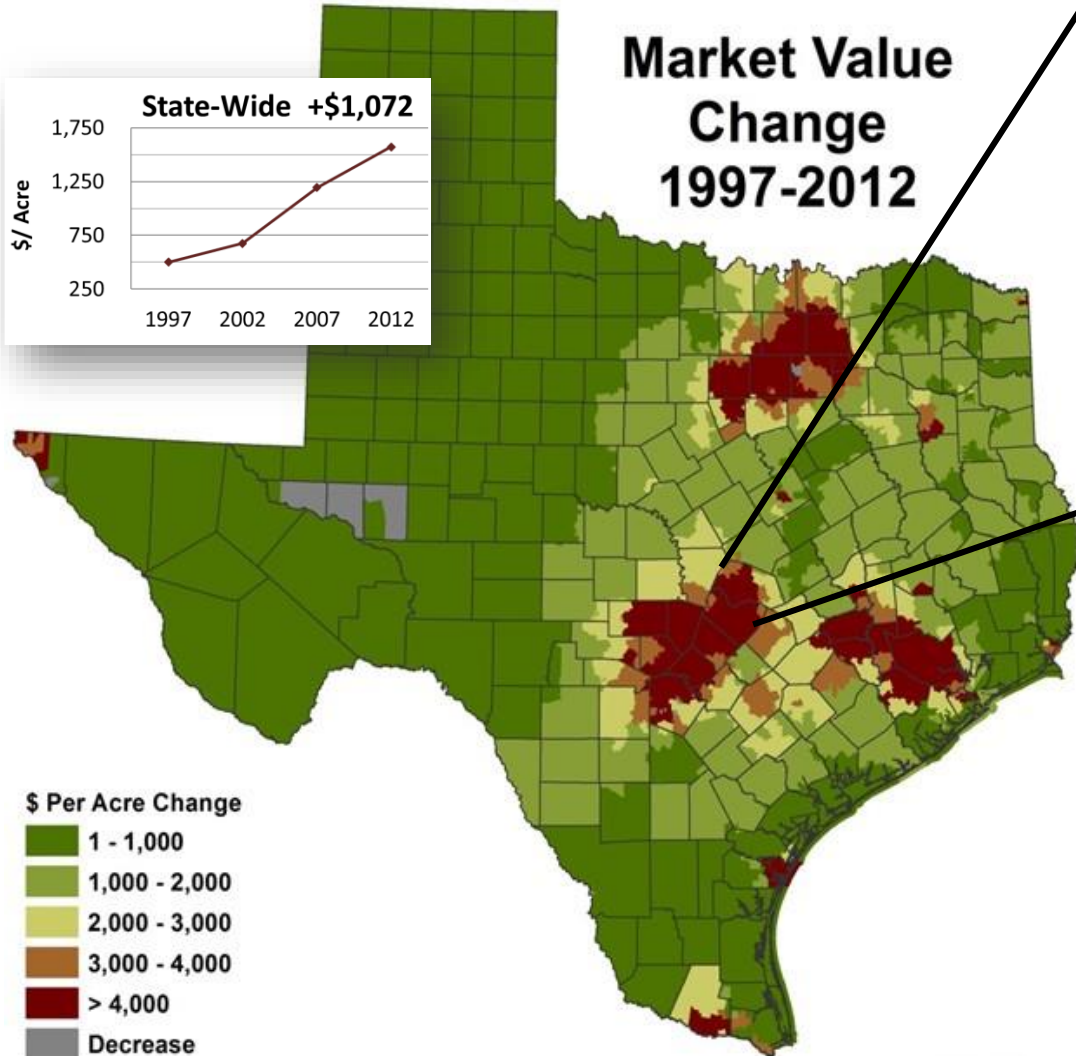
Texas Projections (2010–2050)



Change in Working Lands – Process

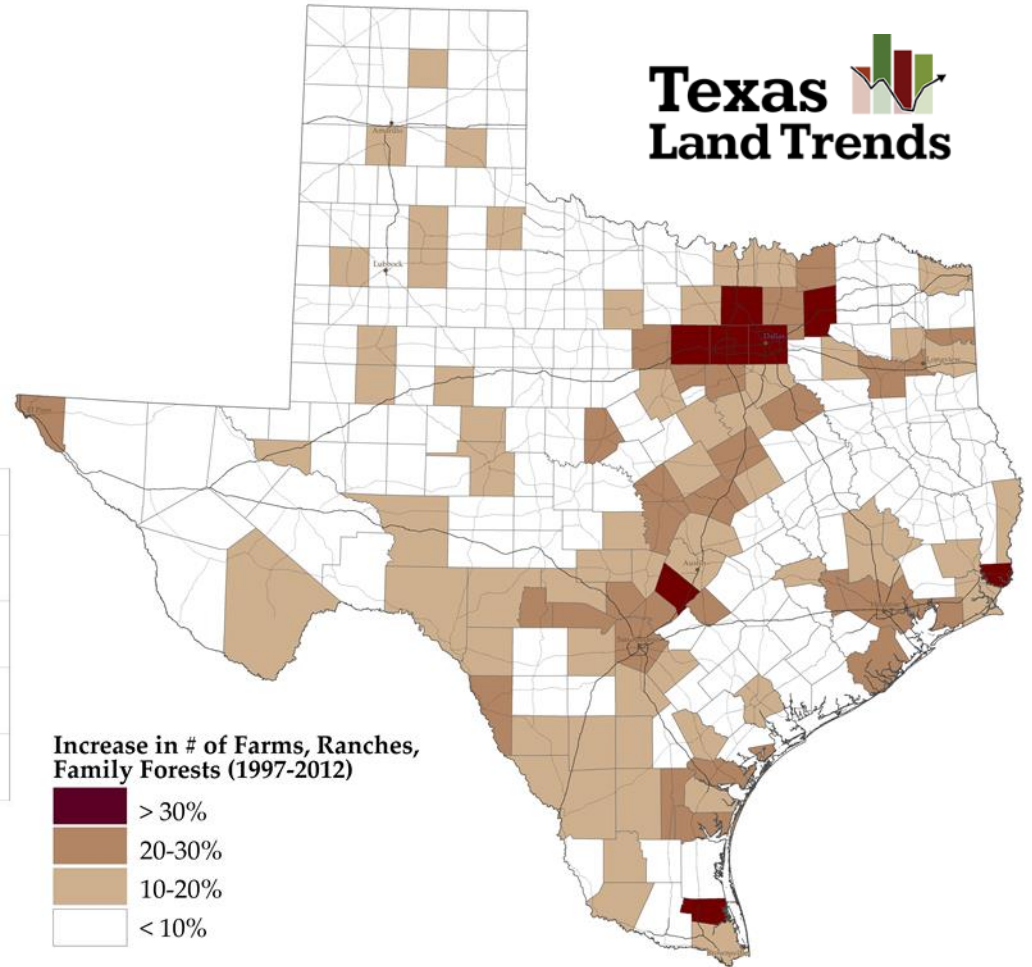
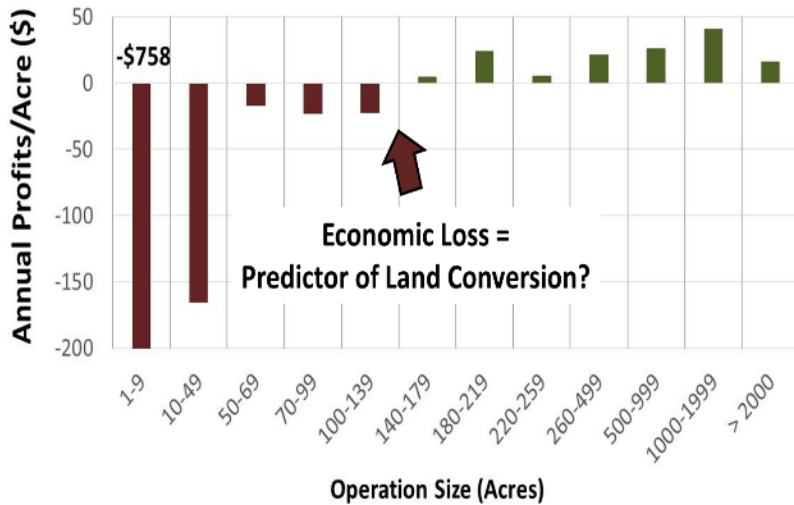


Market Value – Driver



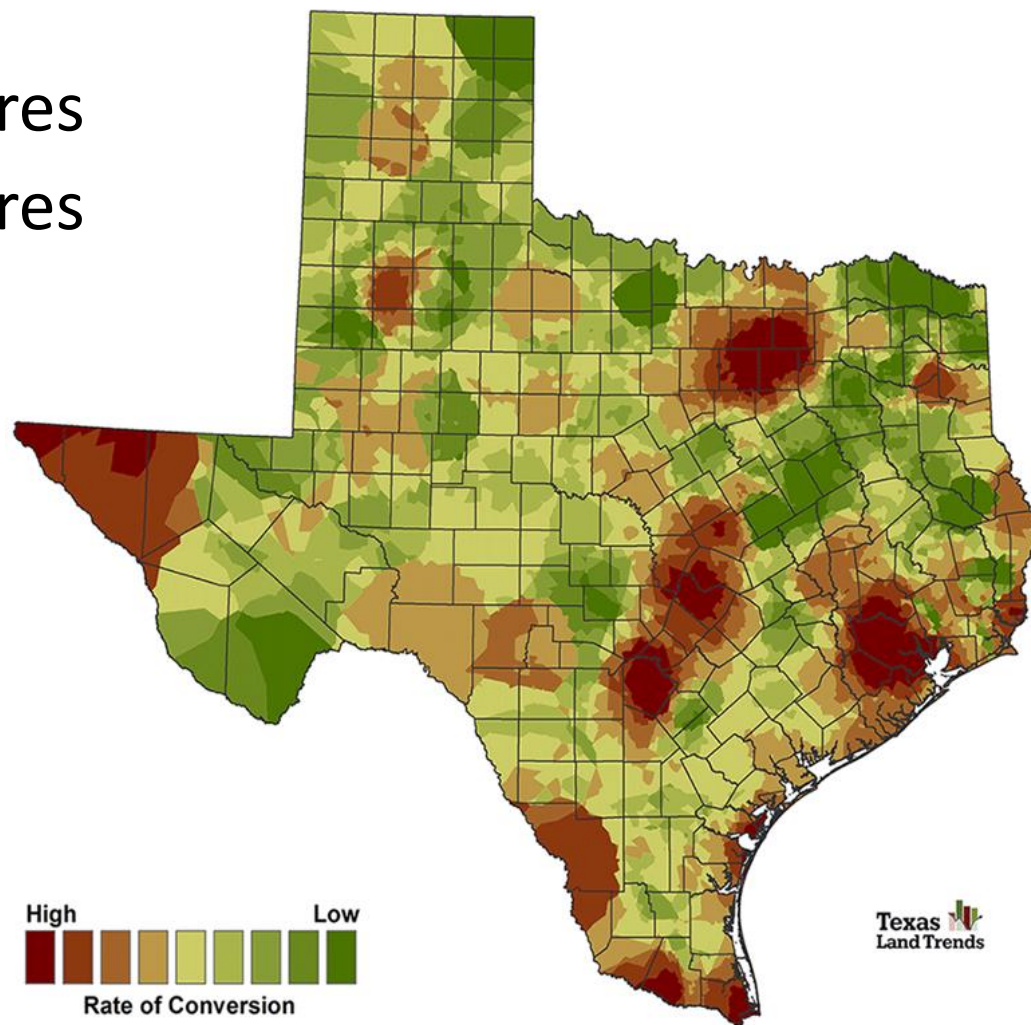
Working Land Loss – Fragmentation

- 25,000+ new farms and ranches
- 4.5M acres impacted



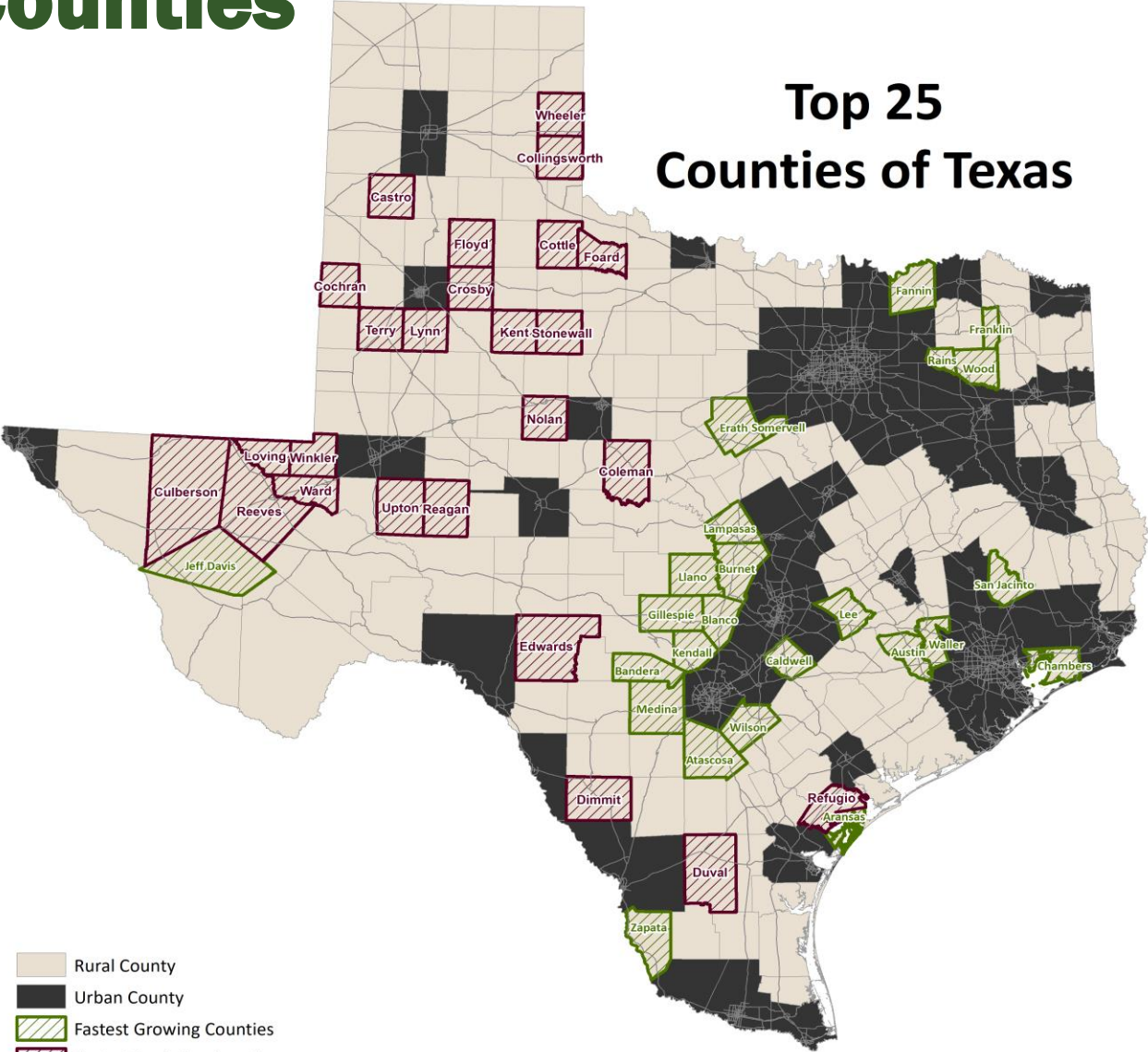
Working Land Loss – Conversion

- 1997 – 143 Million acres
- 2012 – 142 Million acres
- Loss ~1 Million acres



Rural Counties

Top 25 Counties of Texas



- Rural County
- Urban County
- Fastest Growing Counties
- Fastest Declining Counties

Rural Texas Project

- Engage with rural community leaders to understand needs and specific challenges (LEADER SURVEY)
- Compile geospatial information to illustrate factors influencing changes in rural communities based on identified needs and challenges (RURAL MAPS)
- Share work collectively to foster a broader dialogue of challenges and opportunities for rural communities over the next several decades (WORKSHOPS)
- Characterize rural community challenges and opportunities with an emphasis on *natural and water resources* (TODAY)

County Leaders Survey

Land Management Needs

- What do you consider to be your county's top 3 land management needs and challenges?



Natural Resource Needs

- What do you consider to be your county's top 3 natural resource needs and challenges?

Water Needs

- What do you consider to be your county's top 3 water needs and challenges?

Land Management – Rural “Voices”

Manage Quarry Activity

Abandoned Mobile Homes & Vehicles

Drought

Authority to Manage Growth

Chronic Wasting Disease

Regulate/Permit Commercial

Forestry Production

Conservation Reserve Program Wildfire Fuel Sources

Rezone Ag Land

Farming & Oilfield Waste

Zoning Land for Oilfield Waste

Tourism

Subdividing Rules & Regulations

Sand Mines

Waste Management

Agricultural Land Productivity

County Zoning Ordinance Authority

Aging Landowners

Minerals

Ecotourism

Forest Lands

Land Rights

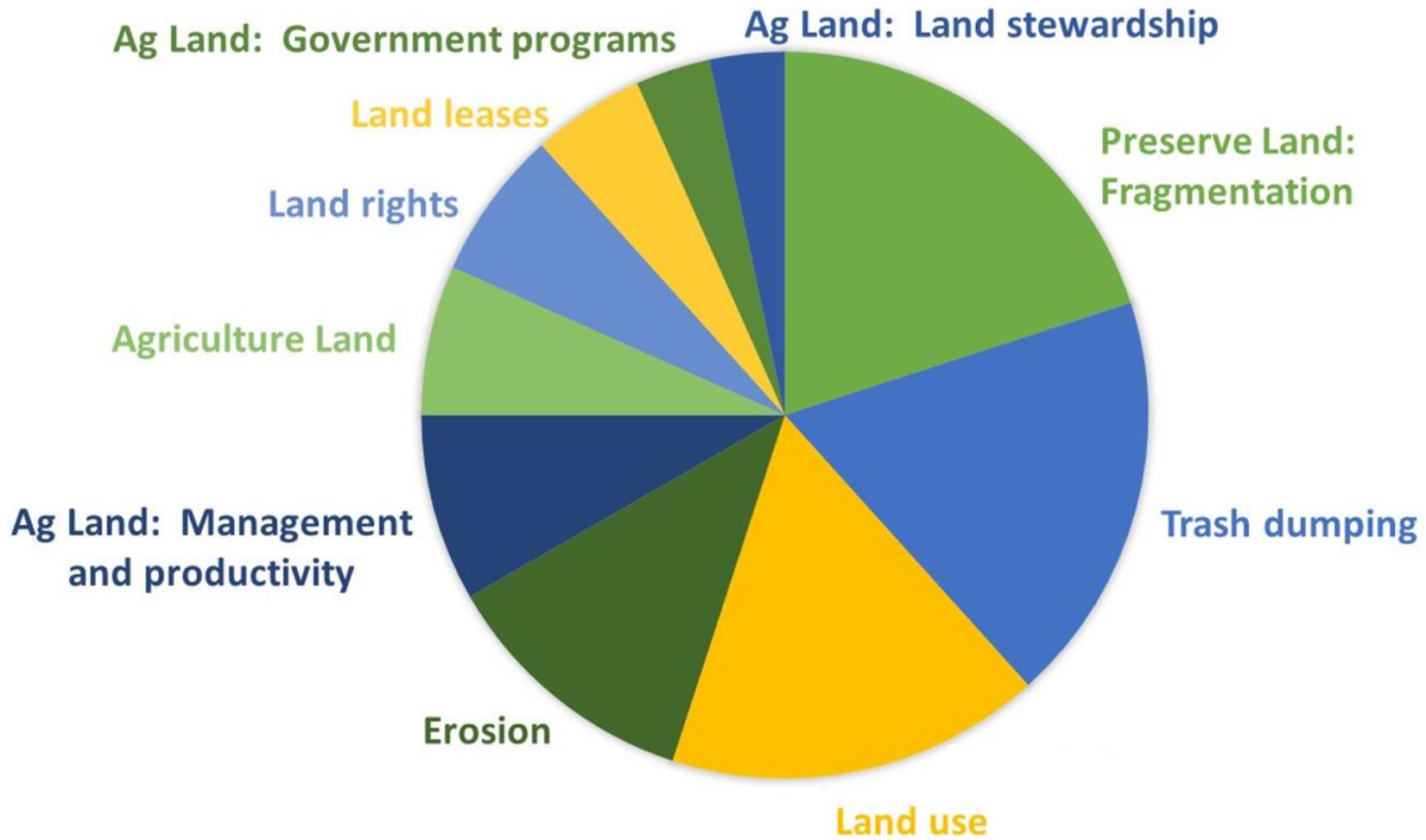
Road Improvement

Water Runoff

Ground Water Restoration and Protection Strategies

Wind Farms

Land Management – Top 10



Growth – Top 10

Spatial Growth: Ordinance authority

Spatial Growth: Staff

Spatial Growth: Encroachment

General Growth:
Urban, Rural

Spatial Growth: Zoning

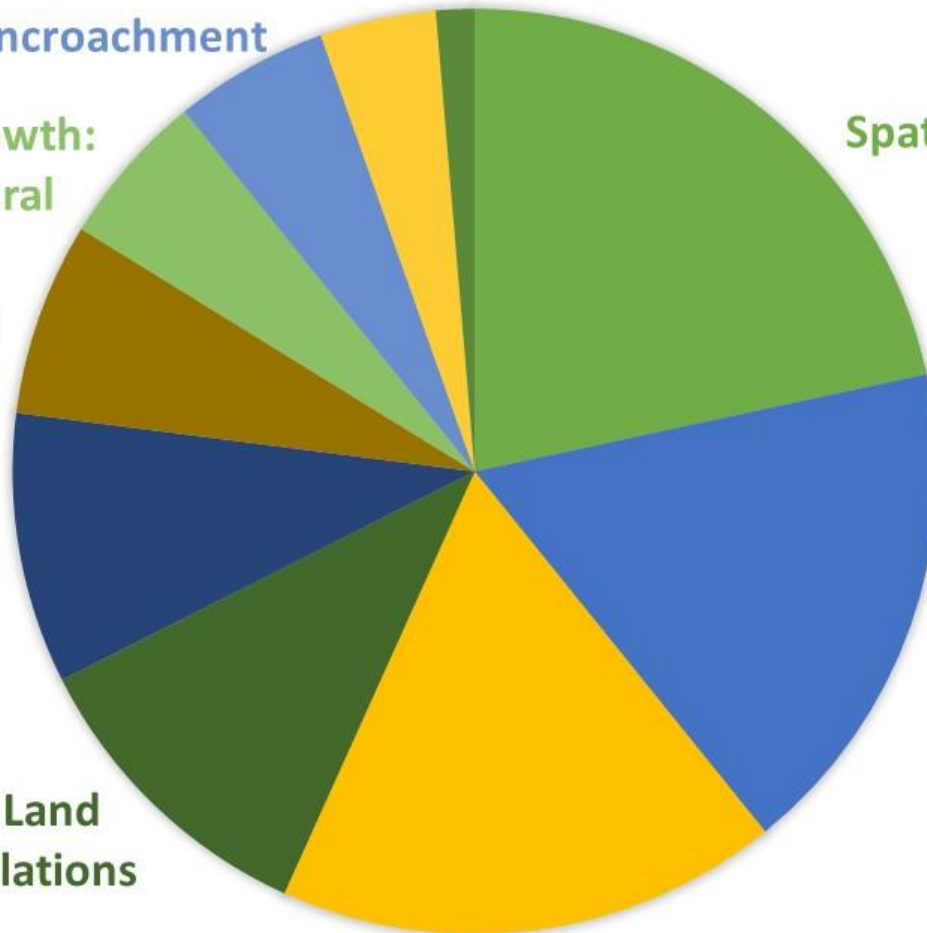
Spatial Growth:
Development

General Growth:
Strategic plan

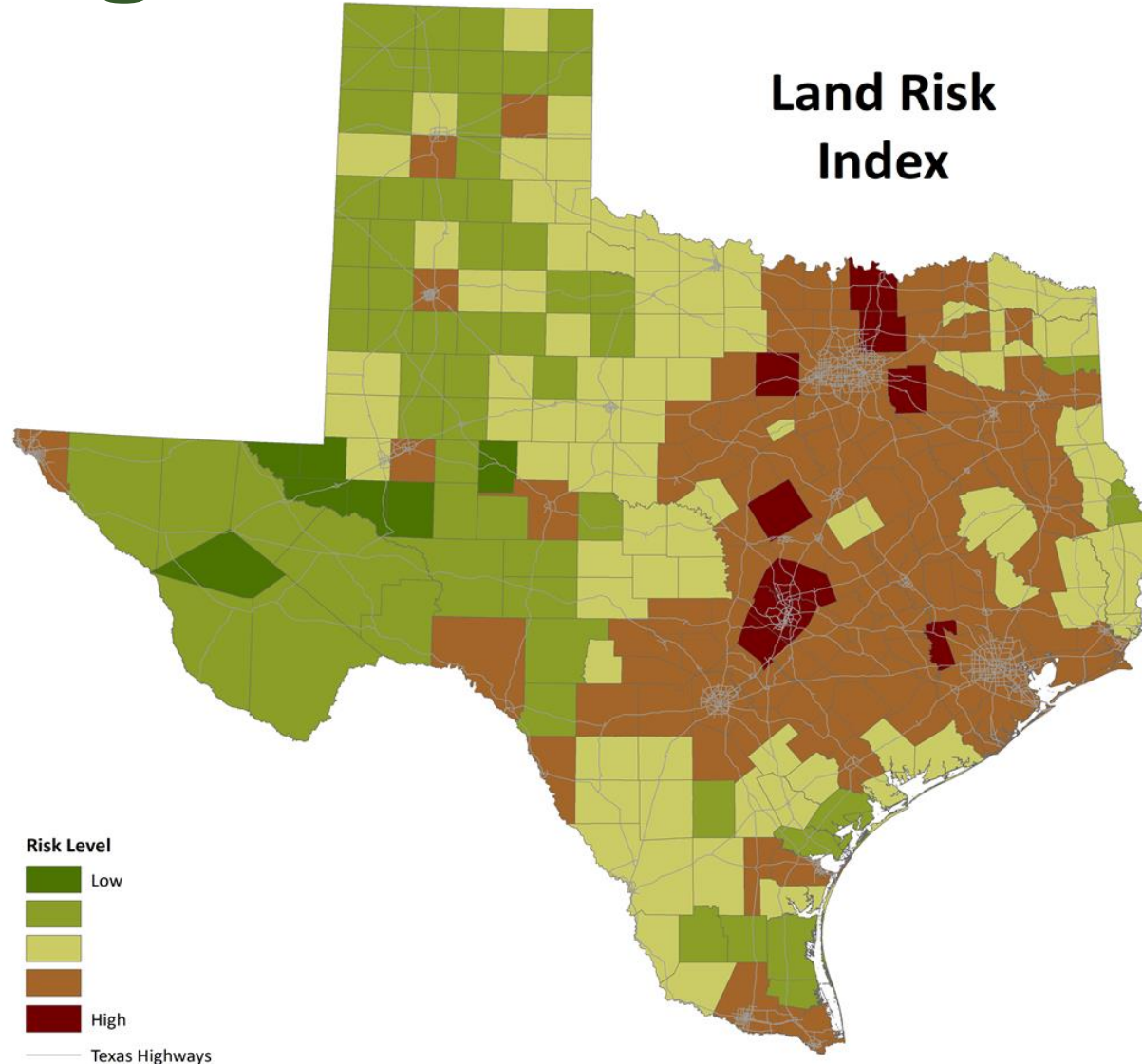
Population Growth

Spatial Growth: Land
development regulations

Spatial Growth: Subdivision



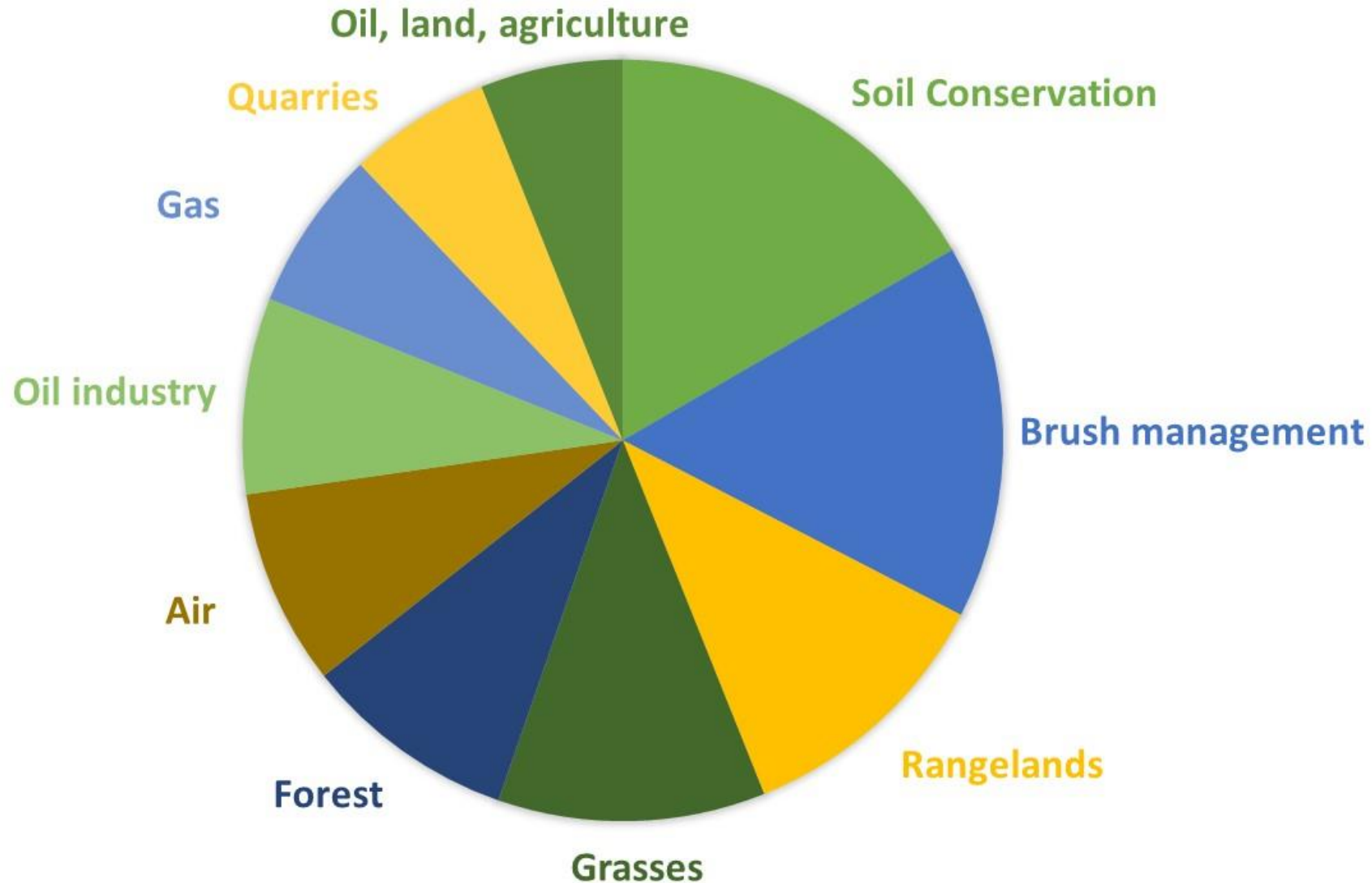
Land Fragmentation



Natural Resources – Rural “Voices”

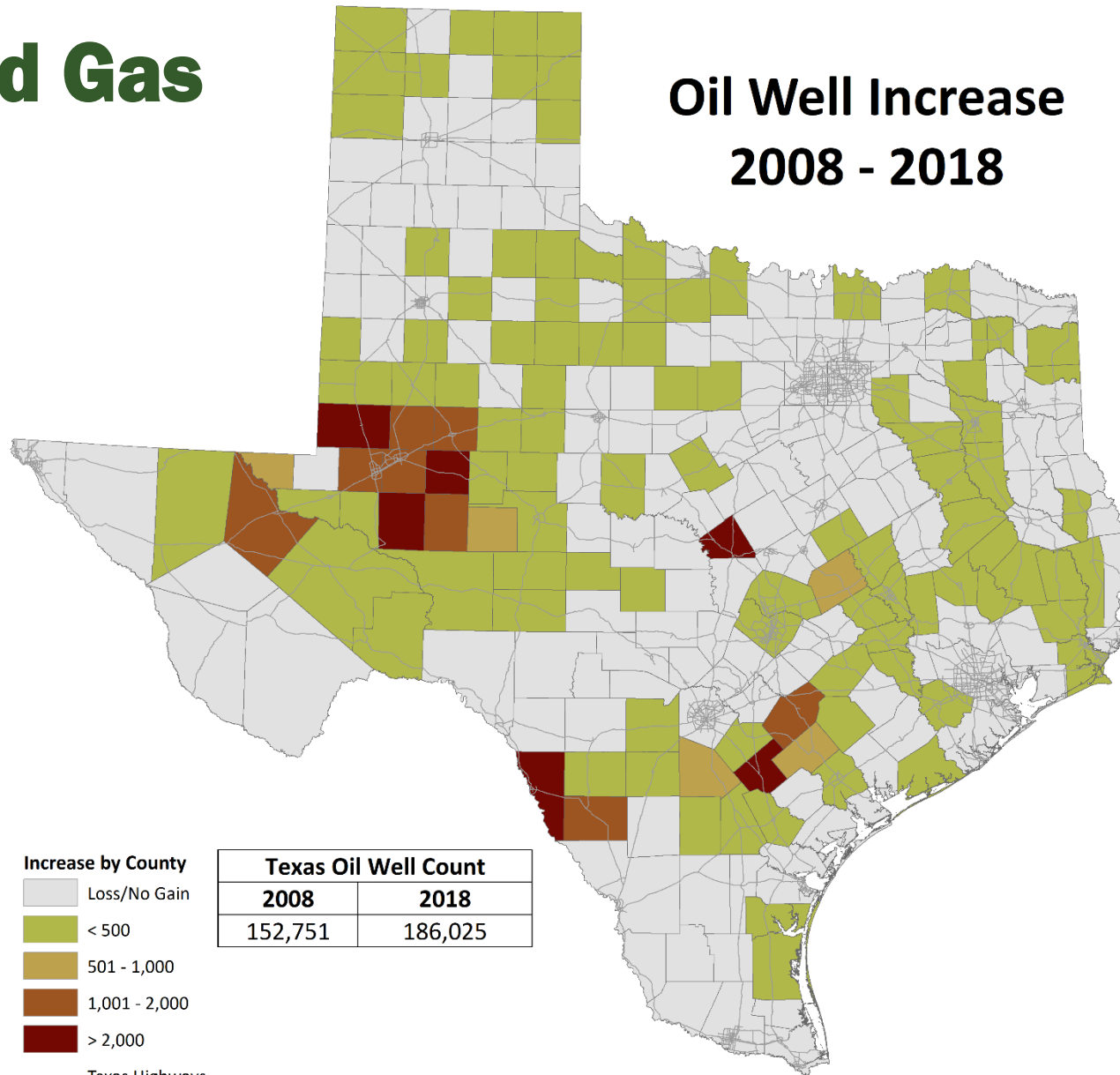


Natural Resources – Top 10



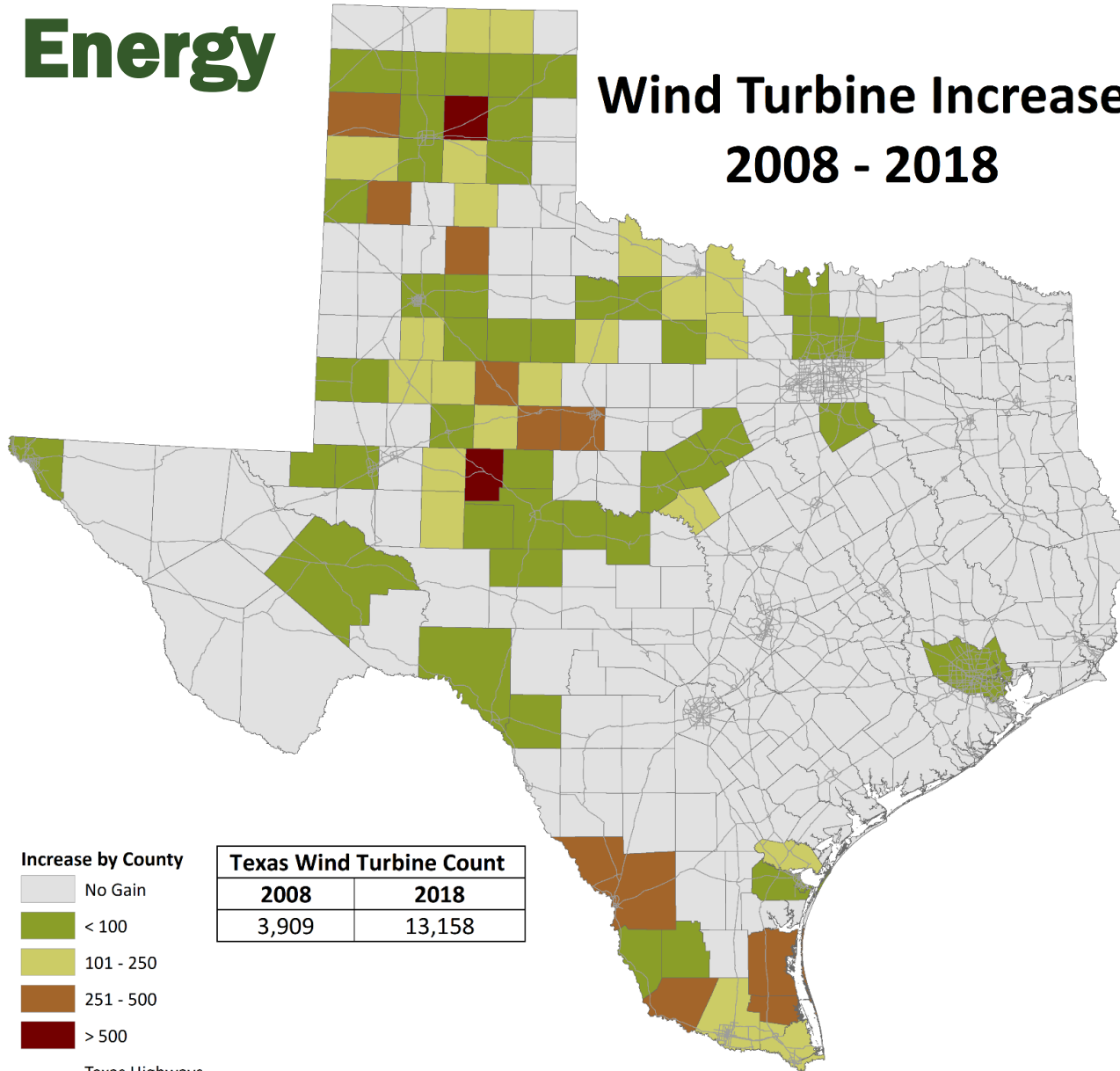
Oil and Gas

Oil Well Increase 2008 - 2018

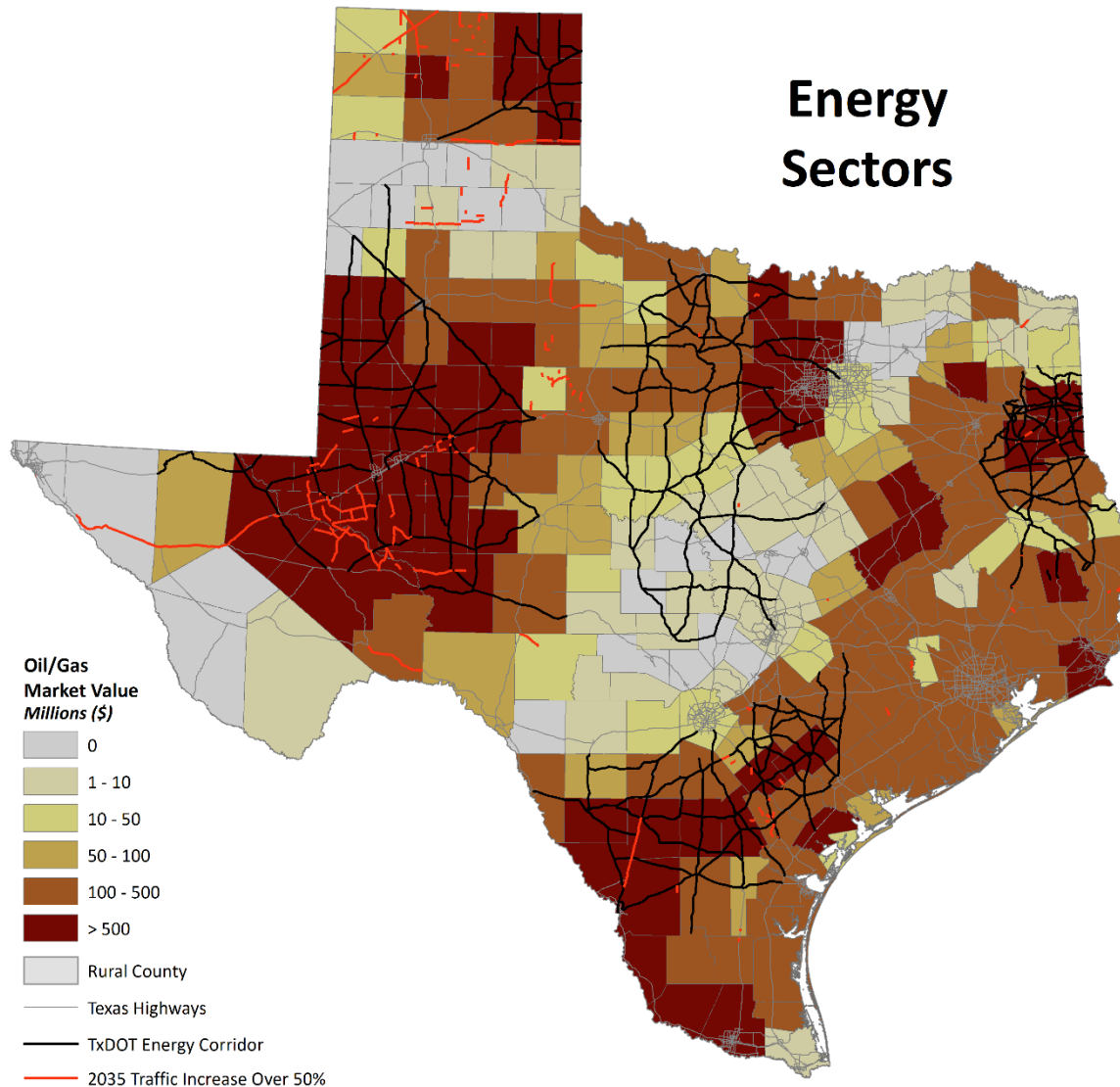


Wind Energy

Wind Turbine Increase 2008 - 2018



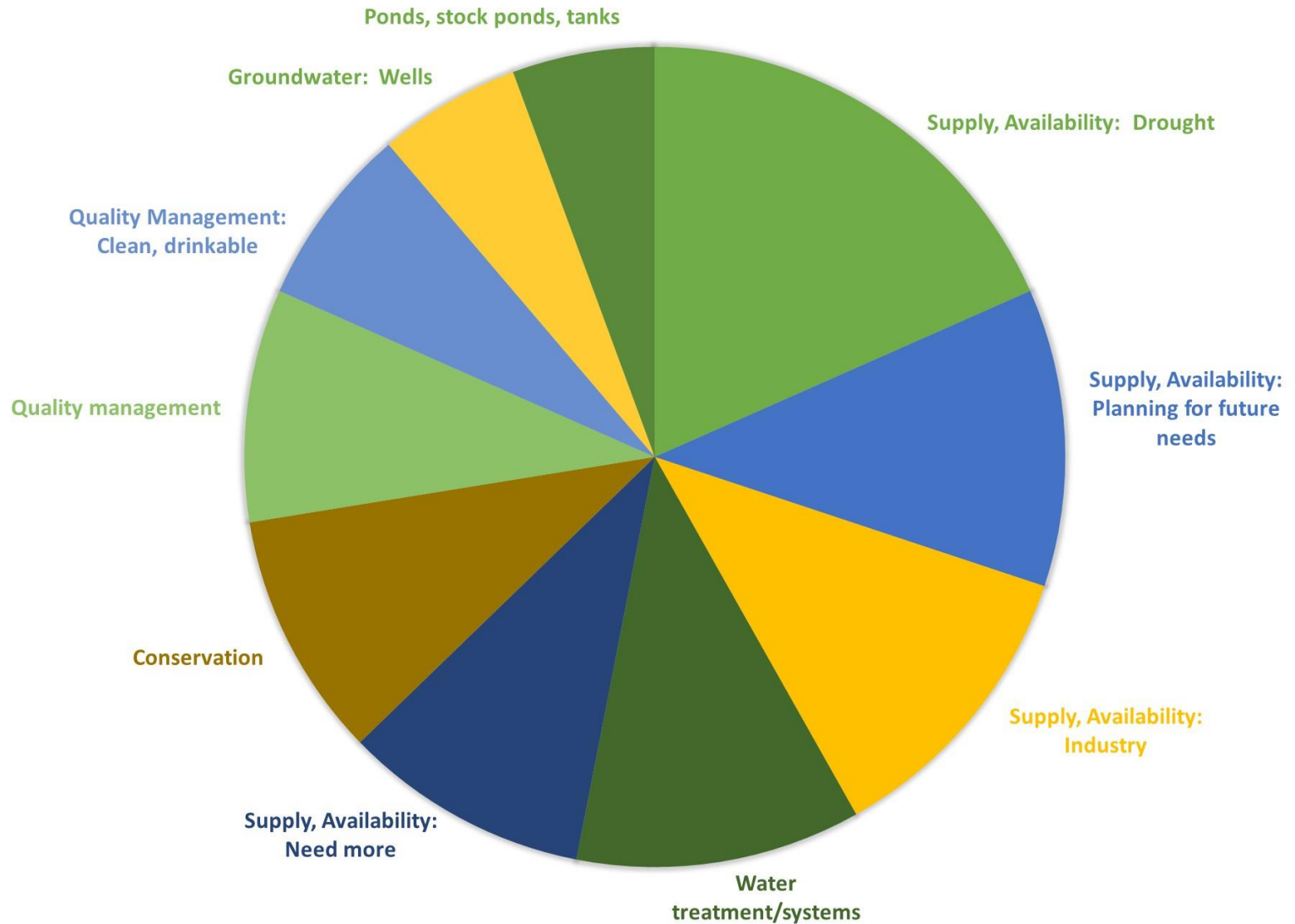
Oil and Gas Market Value



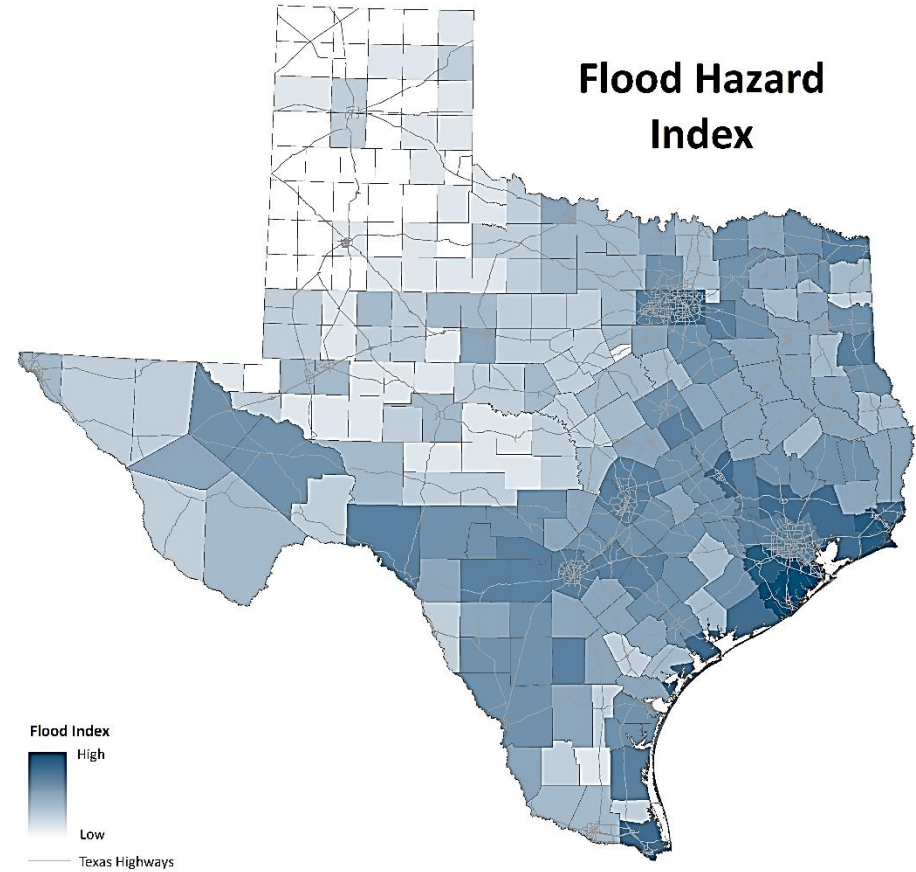
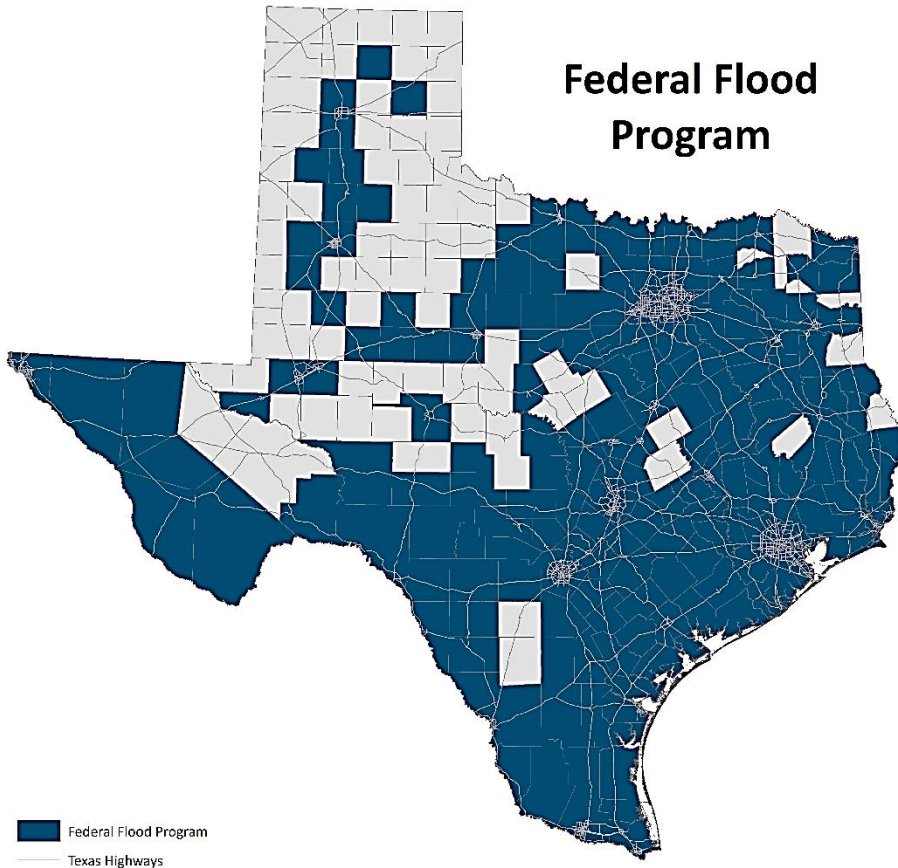
Water – Rural “Voices”



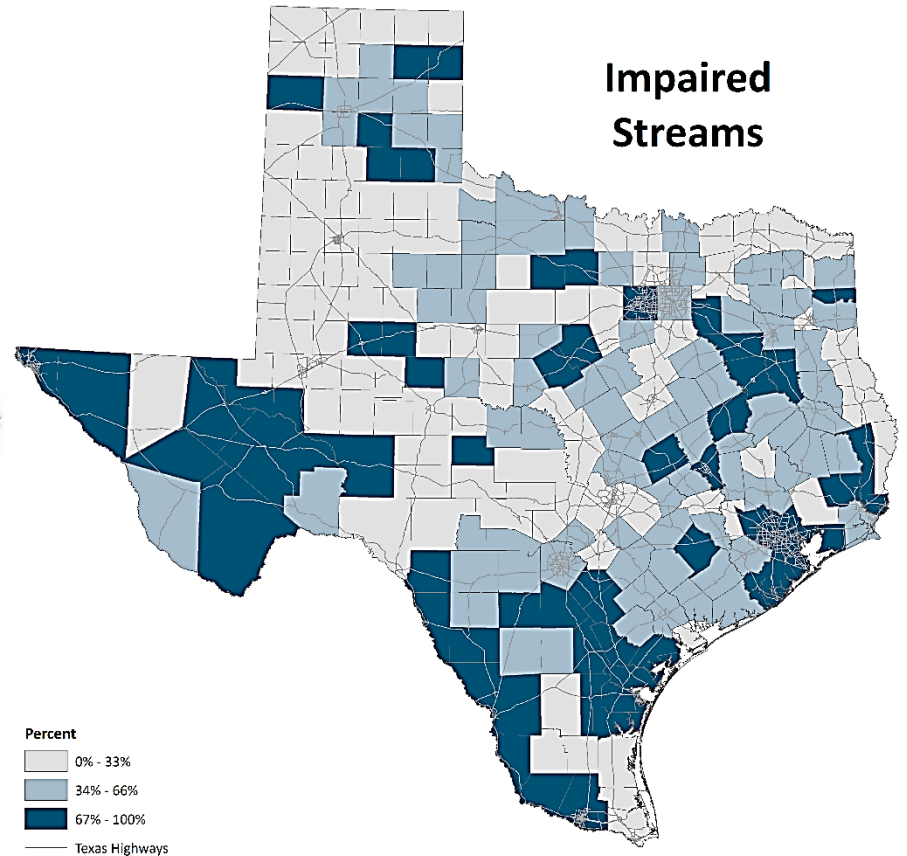
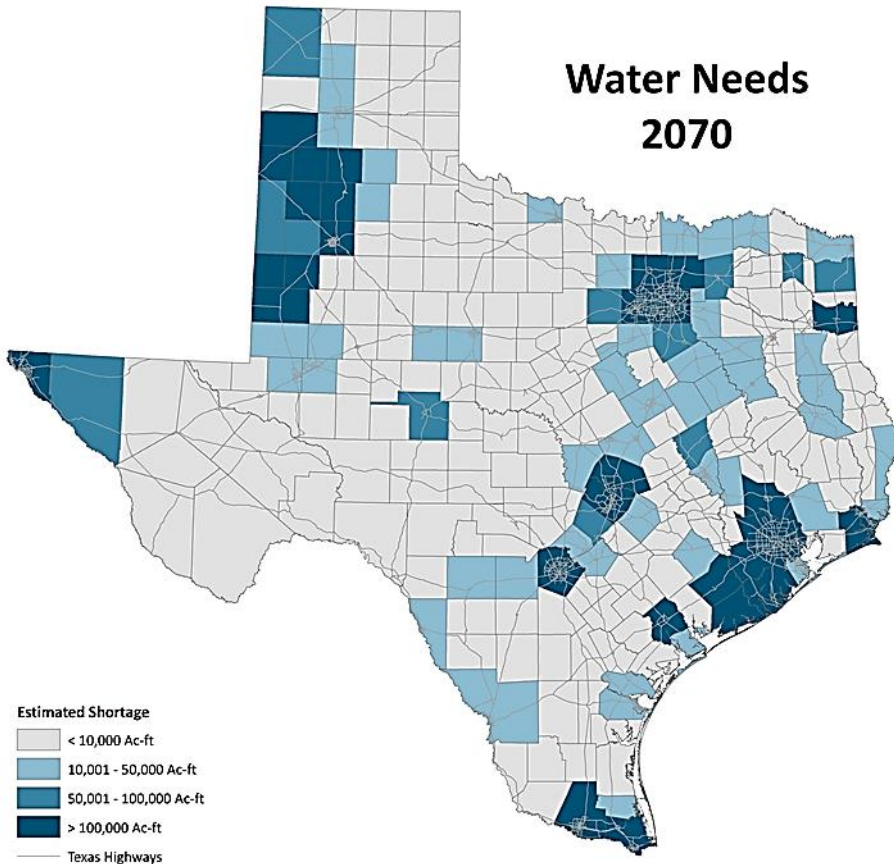
Water – Top 10



Flooding

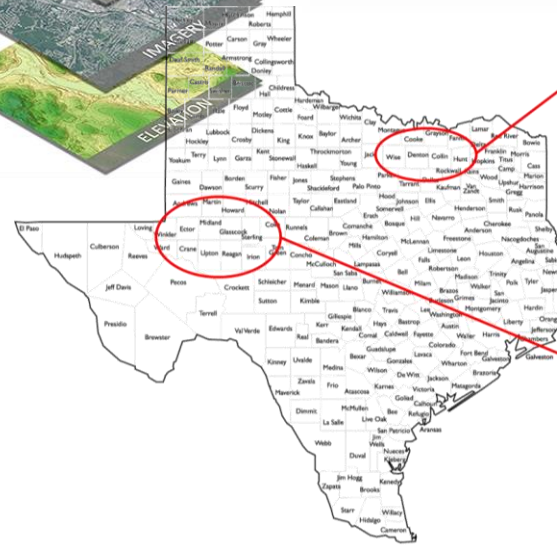
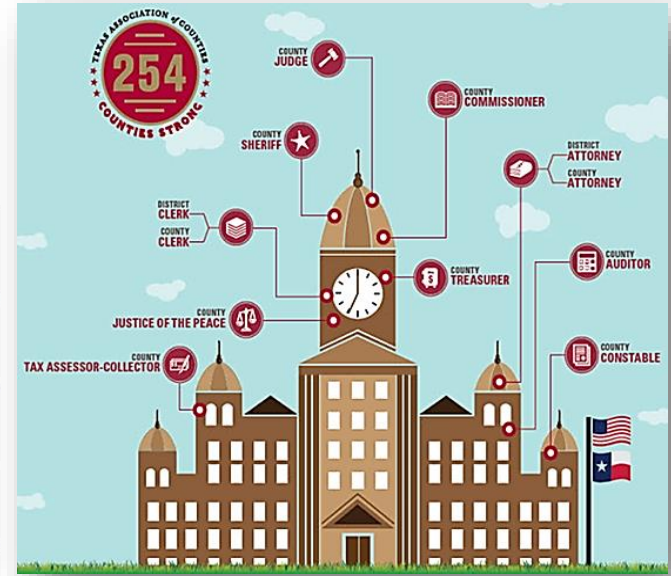
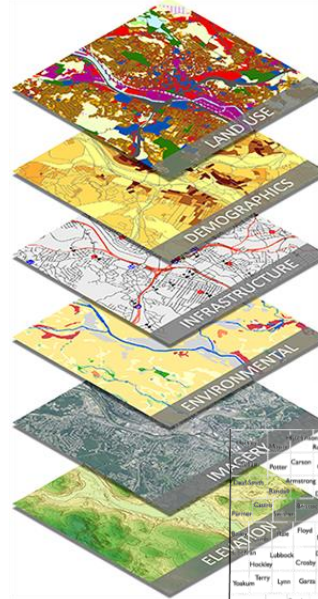


Water Availability



The Issues...

- Complicated issues, many are inter-related and with no cookie cutter solutions
- General issues emerged in 3 areas: water, energy, and land.
- Discuss potential approaches or policies



Authority to Manage Growth
 Subdividing Rules & Regulations
 Regulate/Permit Commercial
 Wind Turbines
 Native Rangelands
 County Water Plan
 Adequate Supply
 Drought
 Future Water Use

Road Improvement
 Zoning Land for Oilfield Waste
 Waste Management
 Sand Mining
 Oil & Gas Damage
 Clean Water
 Fracking
 Adequate Supply
 Water Rights

Questions?



<http://nri.tamu.edu/>
<http://txlandtrends.org/>