

# **Strategic Planning the Big Picture: Learning from the Positive Experiences from Companies Operating in Shale Plays\***

**Gary Hanson<sup>1</sup>**

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Posted May 23, 2016

\*AAPG Geoscience Technology Workshop (GTW), Marcellus and Utica Point Pleasant, June 17-19, 2014, Pittsburgh, Pennsylvania

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## **Abstract**

Currently, the oil and gas industry is providing critical skills and technology to discover and produce vital natural resources for society. However, the industry has now recognized that regardless of the technology, wells will not get drilled without properly dealing with the social issues that are vital to the public. Corporate social responsibility (CSR) and sustainability are not just topics emanating from the HR office, but are values and real world tools that must be embraced by all individuals and leadership in the oil and gas culture. For if this is not done, the oil and gas industry as it exists today may not survive. The industry/public relationship is at a stage now where the public is demanding that in order for the industry to continue to operate it must recognize that a social license to per-form is required.

CSR has its roots in the early days of oil and gas boom towns. Those legacy actions by responsible operators has grown over the decades and now strategic planning utilizing well thought-out internal policies that address these public issues have resulted in successes by many corporations during the current cycle of shale gas and tight oil booms. The industry has been building on decades of interaction with local communities. Philanthropy alone is not sufficient today. Recognition of ongoing efforts, support of these efforts and the ability to bring assistance to education and other elements that empower the community, even after the boom has receded, are vital components of a successful CSR and sustainability programs. One established program in the Haynesville Shale area involved a watershed institute at a local university where adaptive management approaches are being utilized to enhance socio-economic resilience within the community. A case study of a major operator in the Haynesville Shale play is reviewed so that other operators may profit from their efforts and positive experiences.



# Marcellus and Utica Point Pleasant AAPG Geosciences Technology Workshop

Pittsburgh, Pennsylvania

June 17-19, 2014

Strategic Planning the Big Picture:  
Learning from the Positive Experiences  
for Companies Operating in Shale Plays

Gary M. Hanson, Director  
Red River Watershed Management Institute  
Louisiana State University Shreveport



# OTC 2014: Offshore Conference Panel Talks Unconventionals

By Richard Mason, Hart Energy

May 7, 2014

*Different technologies are integral to deepwater and unconventional. But the more common issue for both will be social license.*

Rising volumes of unconventional oil are offsetting declines in conventional oil and benefiting the domestic energy balance in the U.S. While deepwater oil will add to conventional totals with large volumes from a small number of wells, lead times remain daunting.

Meanwhile, lurking in the background is the issue of social licensing, or the level of acceptance and approval a local community provides industrial endeavors.

“Getting it right in terms of public acceptance is actually more important than technology itself,” said Greg Guidry, executive vice president of upstream Americas for Shell. “If our activity is not accepted, frankly the technology doesn’t matter.”

[http://www.epmag.com/Technology-Operations/OTC-2014-Offshore-Conference-Panel-Talks-Unconventionals\\_133202?utm\\_source=sp&utm\\_medium=em&utm\\_campaign=8594084-May%2015,%202014&utm\\_term=EP%20Buzz%20May%2015%202014%20](http://www.epmag.com/Technology-Operations/OTC-2014-Offshore-Conference-Panel-Talks-Unconventionals_133202?utm_source=sp&utm_medium=em&utm_campaign=8594084-May%2015,%202014&utm_term=EP%20Buzz%20May%2015%202014%20)



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# 2011

# The New Shale Gas & Tight Oil Booms - Haynesville

THE WALL STREET JOURNAL. ≡ U.S.

POLITICS AND POLICY

## U.S. Gas Fields Go From Bust to Boom

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By Ben Casselman  
April 30, 2009

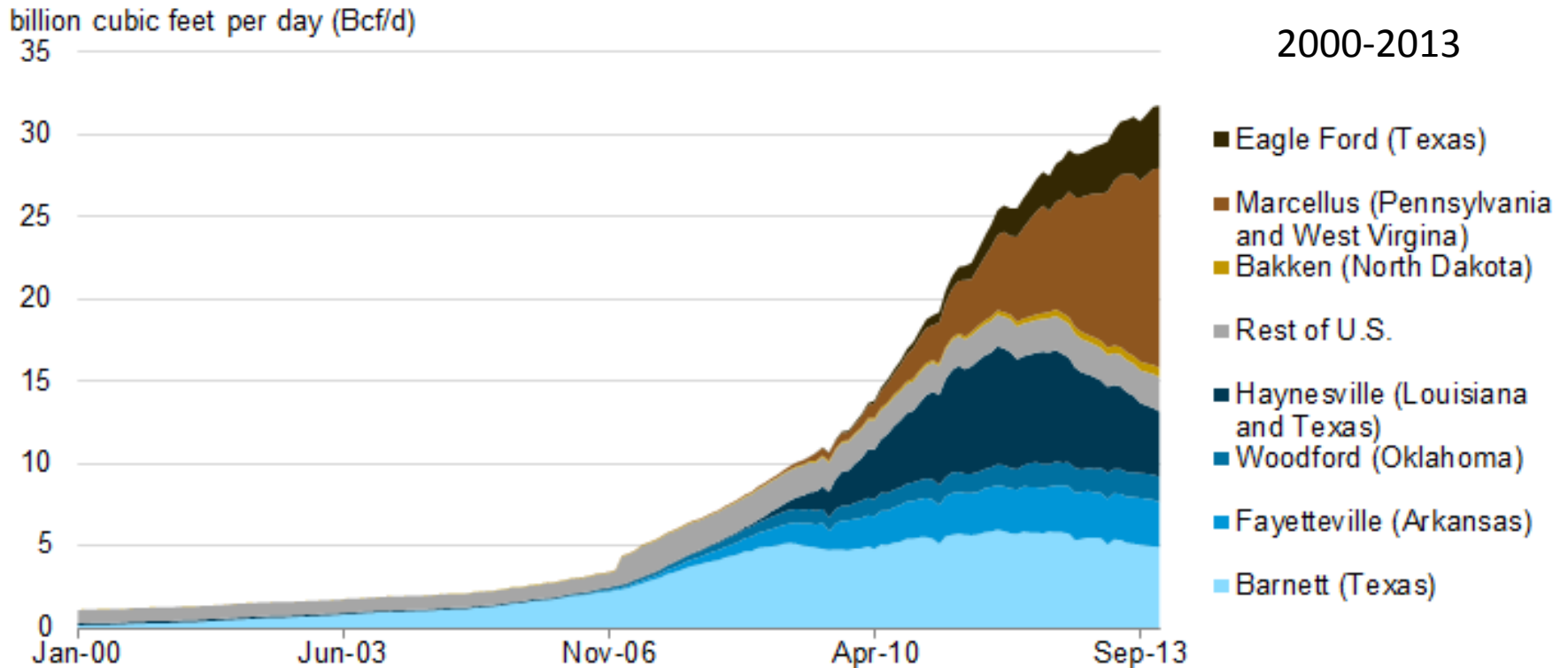
CADDO PARISH, La. — A massive natural-gas discovery here in northern Louisiana heralds a big shift in the nation's energy landscape. After an era of declining production, the U.S. is now swimming in natural gas.

Even conservative estimates suggest the Louisiana discovery — known as the Haynesville Shale, for the dense rock formation that contains the gas — could hold some 200 trillion cubic feet of natural gas. That's the equivalent of 33 billion barrels of oil, or 18 years' worth of current U.S. oil production. Some industry executives think the field could be several times that size.

"There's no dry hole here," says Joan Dunlap, vice president of Petrohawk Energy, standing beside a drilling rig near a former Shreveport amusement park.

# Shale Gas & Tight Oil Booms – Bust to Boom

**Figure 2: Monthly dry gas production from U.S. shale plays**  
January 2000-December 2013



Source: Calculations based on data from Drillinginfo and EIA's Drilling Productivity Report.

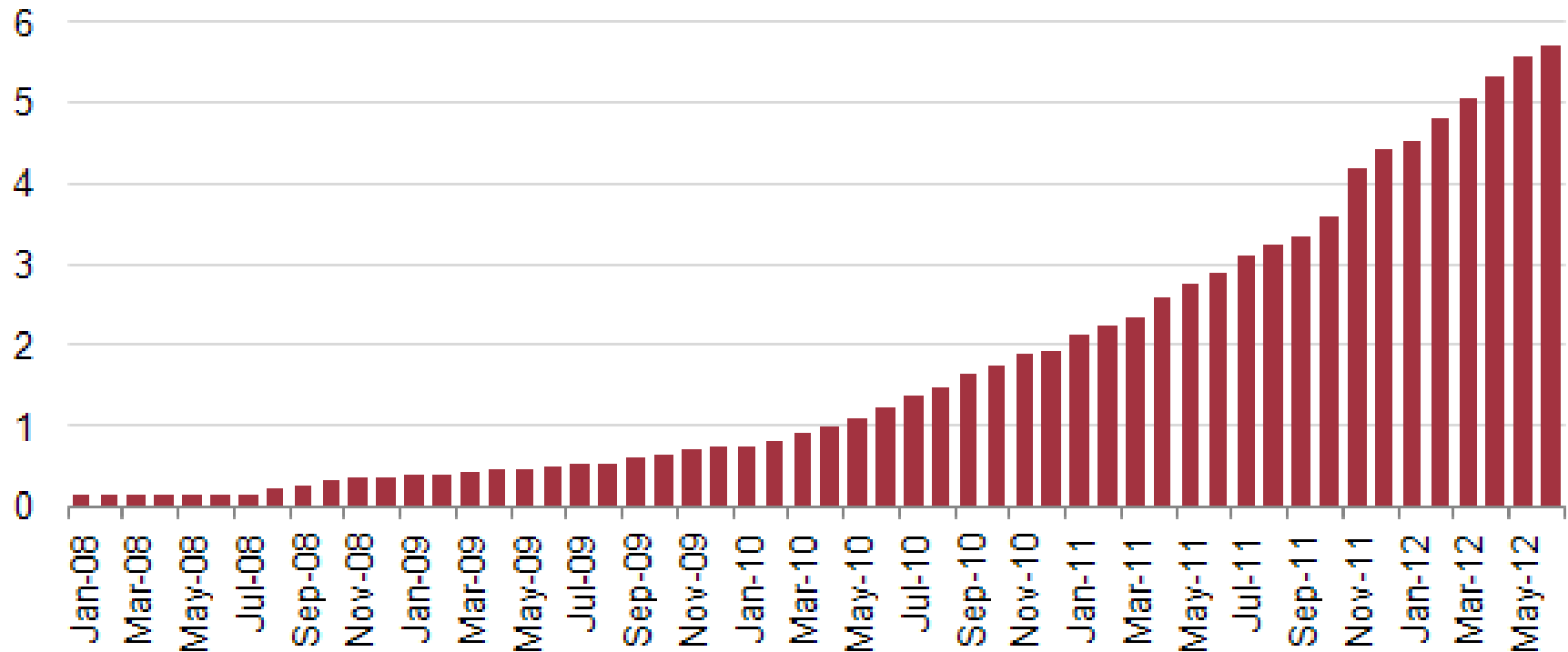
Note: EIA calculations from Drillinginfo from wells within a geological shale formation are available through November 2013. December 2013 is estimated by multiplying the November 2013 number by the change from November 2013 to December 2013 in each shale play's aggregated county totals contained in the Drilling Productivity Report.

# Shale Gas & Tight Oil Booms – Bust to Boom

## Marcellus Production ( Billion cubic feet per day)

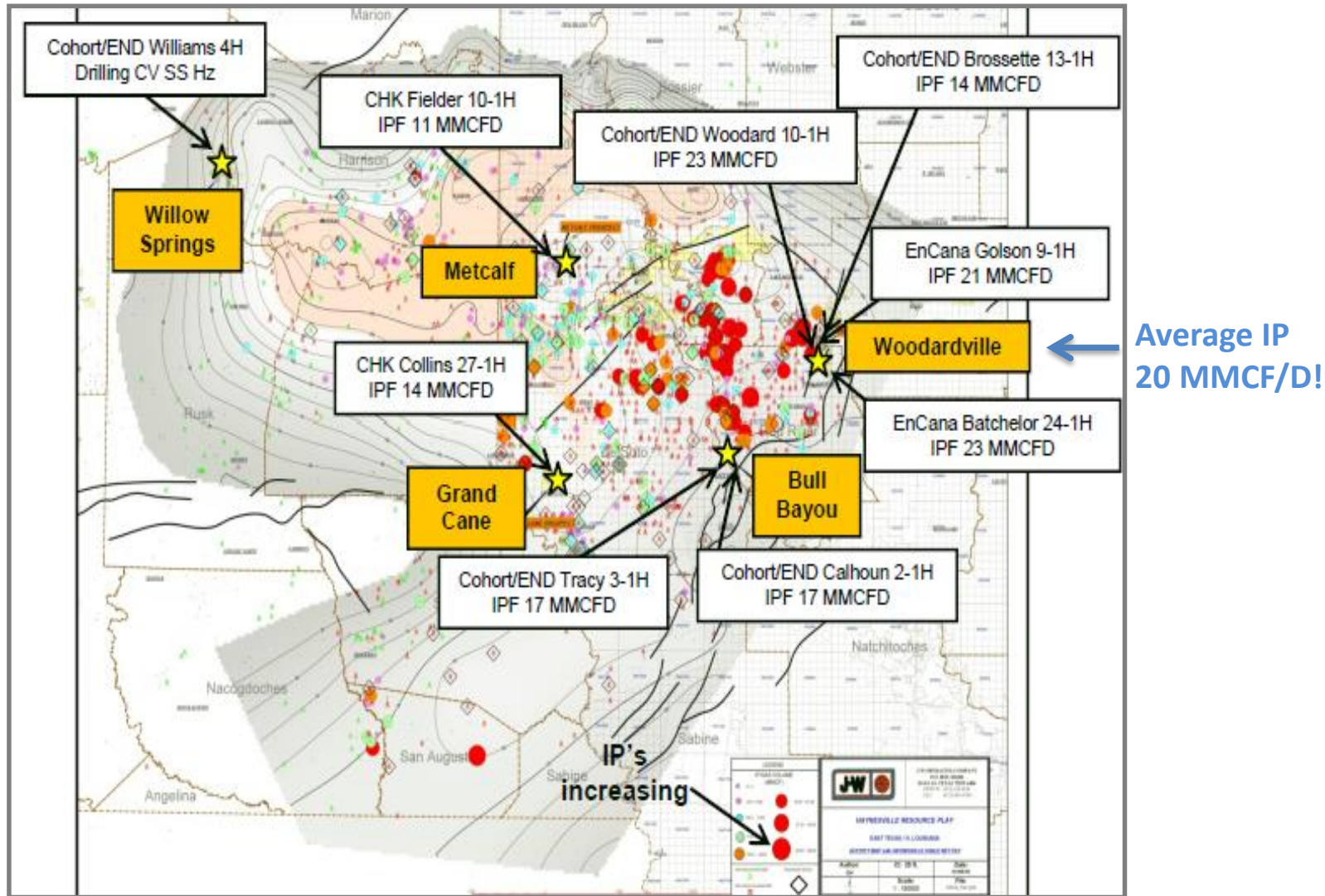
Estimated average monthly dry natural gas production in Pennsylvania,  
January 2008 - June 2012

billion cubic feet per day

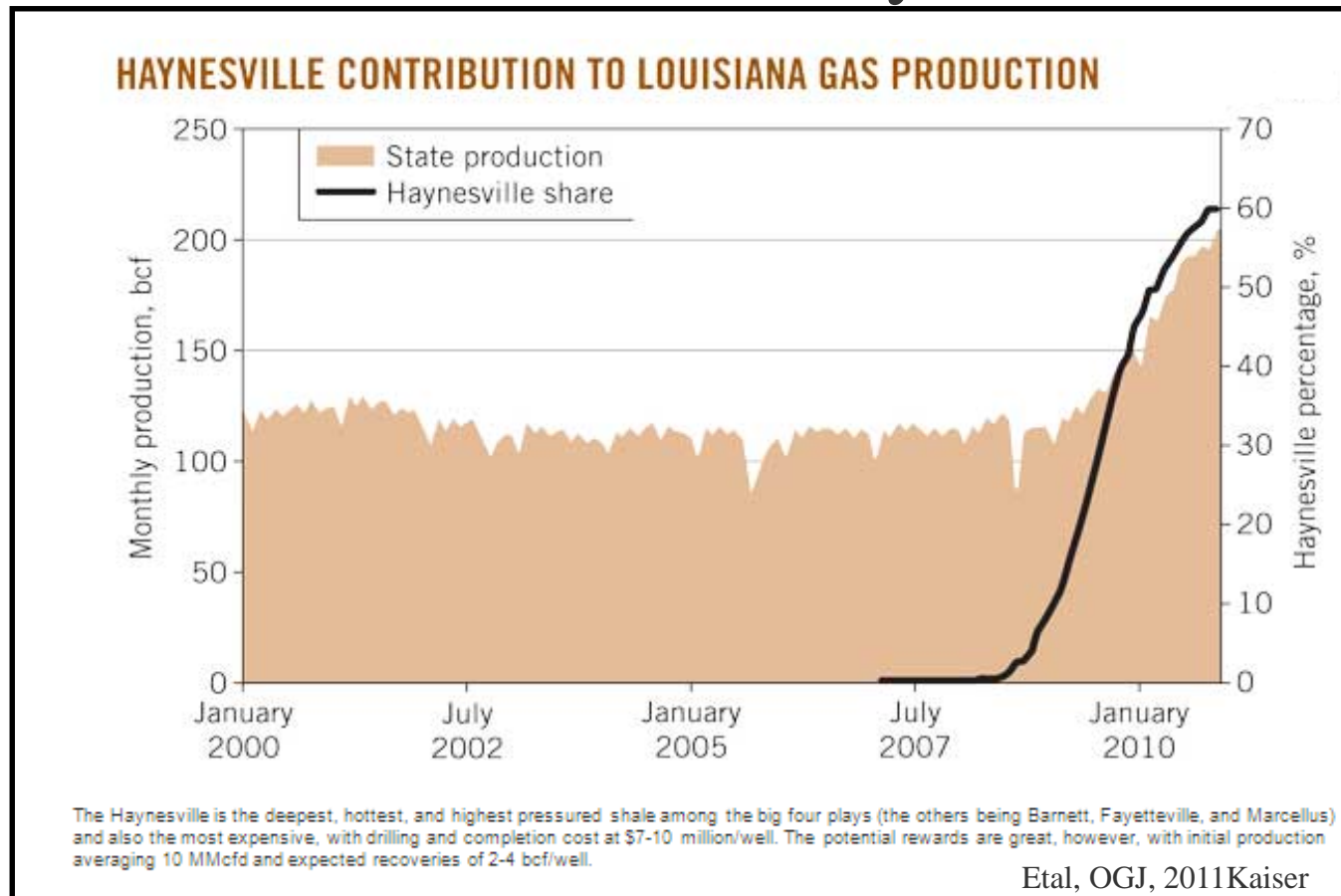




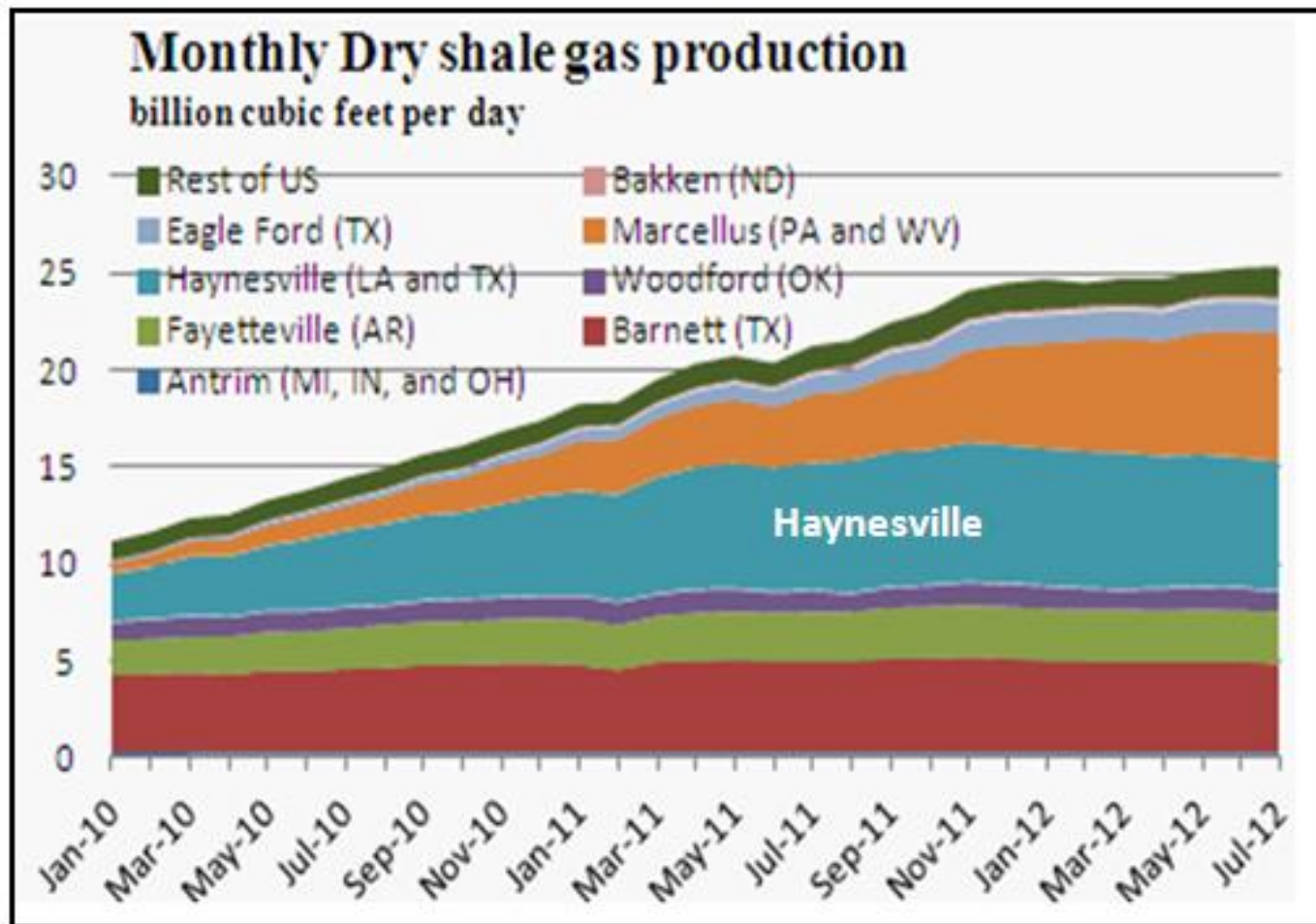
# Representative Haynesville Shale IP's in Haynesville Play Sweet Spots



Haynesville production greatly increased Louisiana's state-wide production. After just three years, 60% of the state's output is sourced from the Haynesville.



# Monthly U.S. Dry Shale Production EIA, 2012



# The New Shale Gas & Tight Oil Booms - Haynesville

The Forbes logo, consisting of the word "Forbes" in a white serif font on a dark gray rectangular background.

5/22/2009

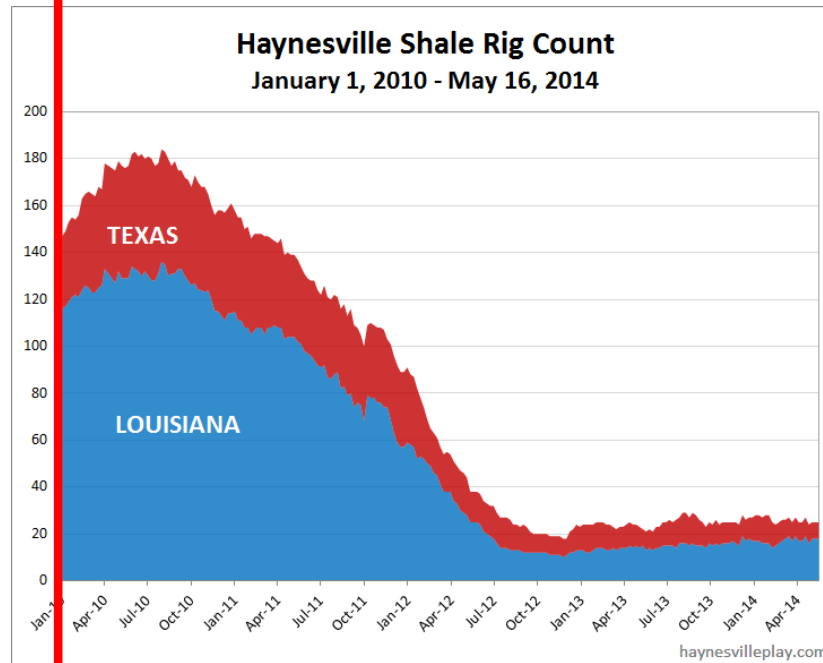
## Too Much Gas

HOUSTON — As crude oil grabs headlines for trading above \$60 a barrel, little brother natural gas seemed to be following. Since the end of April, gas climbed out of its \$3.15-per-thousand-cubic-feet ditch to a recent \$4.42.

But two bullies in the market—weak demand and unrelenting supply—suffocated a 40% gain this week. Thursday, the Energy Information Administration reported that natural gas inventories continue to climb faster than expected. Supply in storage is a third higher than it was this time last year, 22% above the five-year average. Small exploration and production companies have fallen by the wayside, seeking bankruptcy protection, while others teeter on stock prices measured in nickels and dimes. Gas traded Friday at \$3.54, back in the trough where analysts say it belongs.

“Three words: Too. Much. Gas,” says energy analyst David Pursell, of Tudor, Pickering, Holt & Co.

# Shale Gas & Tight Oil Booms – Haynesville



**Dry Gas**

**Too Much  
Success**

[http://haynesvilleplay.com/HV-runningrigcountchart\(large\).png](http://haynesvilleplay.com/HV-runningrigcountchart(large).png)

NG - Natural Gas - Weekly Nearest OHLC Chart



**Natural Gas  
Prices**

<https://images.angelpub.com/2012/34/15816/large-gas-8-21.png>



# Shale Gas & Tight Oil Development

## Positive Experiences

- Jobs
- Economic Development
- Infrastructure
- Education Funding
- Infrastructure
- Water management
- Environment

# Shale Gas & Tight Oil Development

## Positive Experiences

Fracking has unlocked new supplies of oil and natural gas that increase our country's energy security and improve our ability to:

- generate electricity,**
- heat homes and**
- power vehicles.**

Hydraulic fracturing has also boosted local economies:

- generating royalty payments to property owners**
- providing tax revenues to the government and**
- creating much-needed high-paying American jobs.**

- Engineering and surveying**
- construction**
- hospitality**
- equipment manufacturing and**
- environmental permitting**

<http://www.energyfromshale.org/fracking-benefits>



# **Eagle Ford Shale Economic Impact in 2011**

**In 14 Texas counties directly involved in production**

- \$20 billion in total economic output generated
- 38,000 full-time jobs supported
- \$2.6 billion in salaries and benefits paid
- \$310 million in state revenues generated
- \$211 million in local government revenues generated

Source: Center for Community and Business Research, UT-San Antonio Institute for Economic Development

# Shale Booms: Industry Challenges and Solutions?

## Housing

Midland Reporter-Telegram

### South Texas boom offers opportunities in housing

By Jennifer Hiller

The housing business remains emphatically average across the major cities in Texas, as home builders continue to pull themselves up from the recession's lows. But in many small South Texas communities, where oil and gas drilling is booming, housing - of any sort, be it RVs or single-family homes - can't be added quickly enough. Then there's the commercial space - or, more accurately, the lack of space for lease or purchase.

**Now more developers and builders are moving into the sparsely populated Eagle Ford Shale counties to build everything from housing to pipe yards to warehouses.**

# Shale Booms: Industry Challenges and Solutions

## Housing



The banner features a stylized illustration of an oil rig on the left, a row of colorful houses (blue, green, and brown) in the center, and a green hill on the right. The text 'Oilfield Housing Solutions' is in a large, serif font, with '2nd Annual Conference' in a smaller, red, sans-serif font below it. The 'PETROLEUM connection' logo is on the right side of the banner.

May 1-2, 2014 | Houston, TX

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# Corporate Social Responsibility – Education Philanthropy

## ConocoPhillips Donates More Than \$1 Million to The University of Texas at Austin

May 16, 2014

AUSTIN, Texas — ConocoPhillips continued its commitment to funding higher education at The University of Texas at Austin yesterday with a contribution of \$1.185 million.

A portion of the donation, \$685,000, will support programs and activities at the Cockrell School of Engineering, the McCombs School of Business, the College of Natural Sciences and the Jackson School of Geosciences.

The remaining \$500,000 is half of a \$1 million pledge to support and name the ConocoPhillips Student Project Laboratory within the Cockrell School's new Engineering Education and Research Center. This investment will provide funding for five years to support multidisciplinary student engineering projects, which will enable collaboration and hands-on training to prepare students to launch their careers. ConocoPhillips will contribute the other \$500,000 toward the \$1 million pledge in 2015.

"ConocoPhillips continues to be an outstanding partner, and we are grateful for its support of our engineering students," said Sharon L. Wood, interim dean of the Cockrell School. "When completed, the ConocoPhillips Student Project Laboratory will offer our students an extraordinary opportunity to formulate and test their innovative ideas by working together."

# Drilling-rich watershed district looking to reduce assessment paid by 500,000 Ohio landowners

By Bob Downing  
Beacon Journal staff writer

Property owners from Akron to the Ohio River could see a reduction in the annual assessment paid to the Muskingum Watershed Conservancy District starting next year.

The reason: The district is flush with cash from Utica Shale leases and royalties paid on natural gas and liquids produced from wells on district-owned land.

Reducing the assessment — about \$12 a year for most landowners — will be recommended Friday when the district's five-member governing board meets at 9 a.m. in New Philadelphia.

"We believe it is not only prudent, but a responsibility of the conservancy district to return some of the benefits the oil and gas leases have generated for the MWCD to the property owners in the form of a reduction in their annual assessments," said John M. Hoopingarner, the district's executive director/secretary.

Last year, the board directed staff to review the annual assessment paid by the owners of nearly 500,000 parcels in the 18 counties that drain into the Tuscarawas and Muskingum rivers. Next year is the earliest the fee could be reduced.

The assessment was first levied in 2009 amid protests from some vocal landowners. It covers landowners in Summit, Stark, Wayne and 15 other counties. The district collects about \$11 million a year from the assessment to ensure the safety of 14 dams and reservoirs in eastern Ohio. The district's board must review and approve the assessment annually.





## Hydraulic Fracturing: Staying Afloat in Times of Tightening Water Supply

by Gene Lockard | Rigzone Staff | Wednesday, April 16, 2014

One of the criticisms levied against hydraulic fracturing, particularly during recent periods of drought, is the amount of water used in the process. However, energy companies are seeking to reduce water use during hydraulic fracturing, even as research shows more water is used in other activities.



Fracking trails other uses for water as the energy industry works to further reduce water use.

# Devastating Drought Throughout Texas and Western Louisiana

## Drought disaster

Crops and cattle suffering during the lack of rain

By Adam Duvernay  
aduvernay@shreveporttimes.com

The drought started early and the rain never came — now it's too late.

The north Louisiana growing season is essentially over, and although farmers are still praying for rain, at this point, it could do more harm than good.

"The crops, they're done. If the rains come now, all the crops are already done," LSU AgCenter Caddo Agent Johnny LaVasseur said.

"It's going to be a losing situation all the way around this year."

Whatever has already grown is what farmers expect to pull from the ground, LaVasseur said, and yields are down all around.

Irrigation costs already put dents in profit margins, and ranchers with livestock to feed are struggling to find affordable alternatives to hay.

The National Weather Service in Shreveport has recorded 17.82 inches of rain this year when 32.23 inches is the average for this season.

There were 23.71 inches of rainfall by this time last year, and it only got worse as 2010 went on.

Four inches below the surface, soil temperatures are still about 96 degrees, according to National Weather Service meteorologist Brandi Richardson.

### INSIDE

See the effects of the heat wave around the country.  
12A



Trevor Williams, of Vivian, helps put in an irrigation system Thursday on a farm off of state Highway 71 north of Shreveport. Drought conditions are drying up many of the ponds that are usually used by livestock. VAL HORVATH DAVIDSON/THE TIMES

If there was any moisture in the soil at all, she said, that temperature would be much lower.

And there aren't significant storms on the horizon, she said.

While south Louisiana and south Oklahoma are starting to see some storms, there's only some hope they'll shift to the northwest Louisiana region in any significant way, she said.

### Crops

If it should be green, it's brown.

Crops across Caddo and Bossier parishes are brown, dry and struggling from lack of rainfall and extreme temperatures.

Cotton crops matured

faster without rain, and an earlier harvest will have a significantly reduced yield, LaVasseur said.

Steve Logan, owner of Logan Farms, said almost everyone has stopped irrigating cotton fields because the crops have reached their potential for the season.

He said harvesting should begin soon — about two weeks ahead of schedule.

Irrigation costs are extremely high, Logan said, because it's difficult to beat the evaporation rate.

And if the rains came to stay tomorrow — which is highly unlikely — fungus and rot could overtake the fields, he said. Rain could also damage

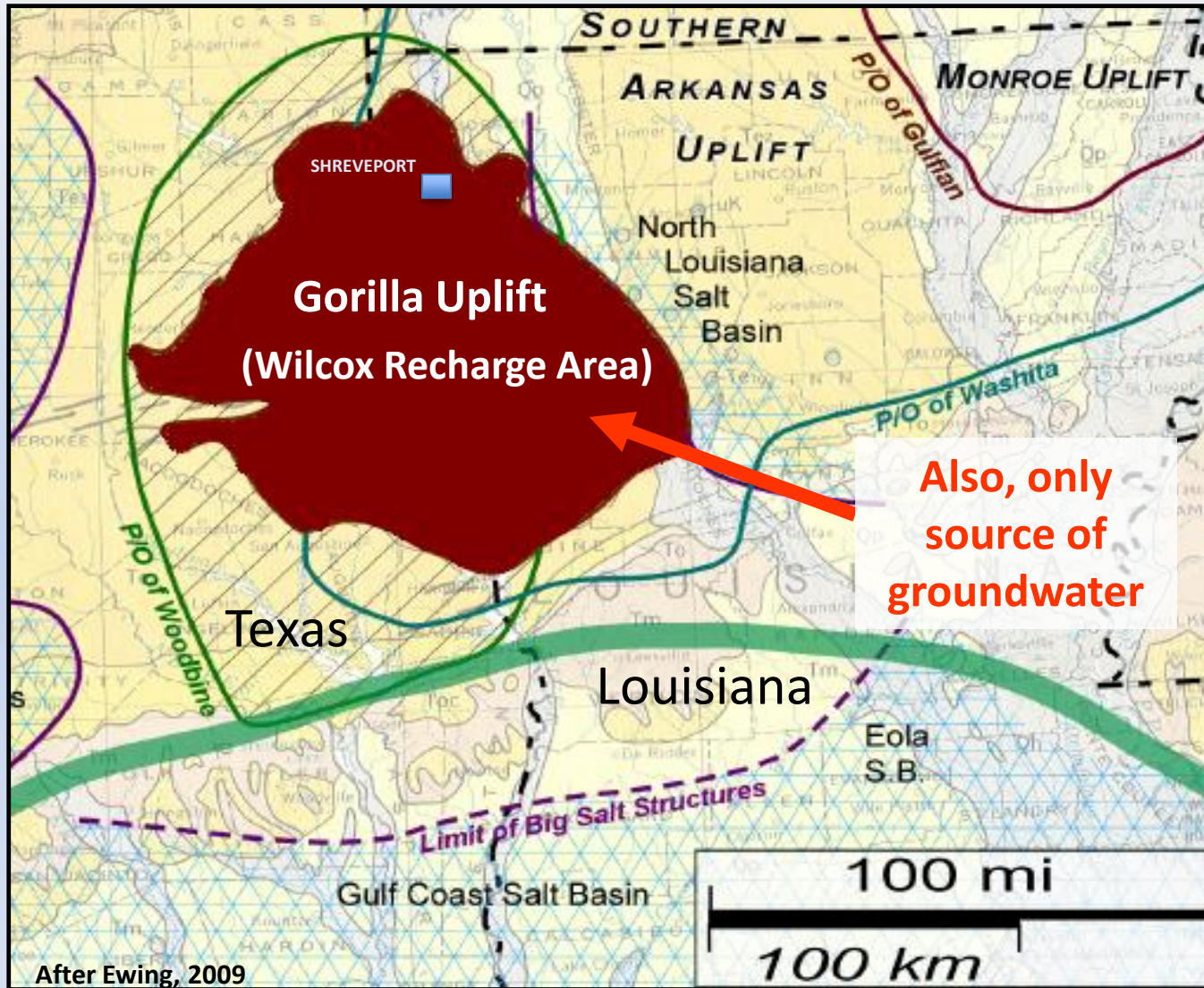


Irrigation ponds in the area, such as this one off state Highway 71 north of Shreveport, are drying up because of drought conditions. VAL HORVATH DAVIDSON/THE TIMES

See DROUGHT, Page 18



# "Gorilla Uplift" - Sabine Uplift



**Boundaries of the Sabine Uplift  
based on Wilcox outcrop**



# Red River Watershed Management Institute, LSU Shreveport, LA.

Gary Hanson

*Aerial view of the LSU Shreveport Campus and Red River Education and Research Park in Louisiana, backed by the Red River with classic meanders and oxbow lakes.*

## Water Management & Water Policy Changes to Address Sustainability



# TRUTHLAND MOVIE

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THE STORY

THE EXPERTS

THE FACTS

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## THE FACTS

Anderson Watershed Research Station  
LSU Shreveport



WATCH TRUTHLAND

SCREENINGS

### THE FACTS ON FRACTURING (AND OTHER STUFF TOO)

The history of fracturing technology's safe use in America extends all the way back to the Truman administration, with more than 1.2 million wells completed via the process since 1947. But only recently has the term "hydraulic fracturing" entered the public's vocabulary, a function of the enormous opportunities that the application of fracturing and horizontal drilling are making possible all around the country through the development of abundant resources from shale.



Truthlandmovie.com

twitter facebook YouTube tumblr.

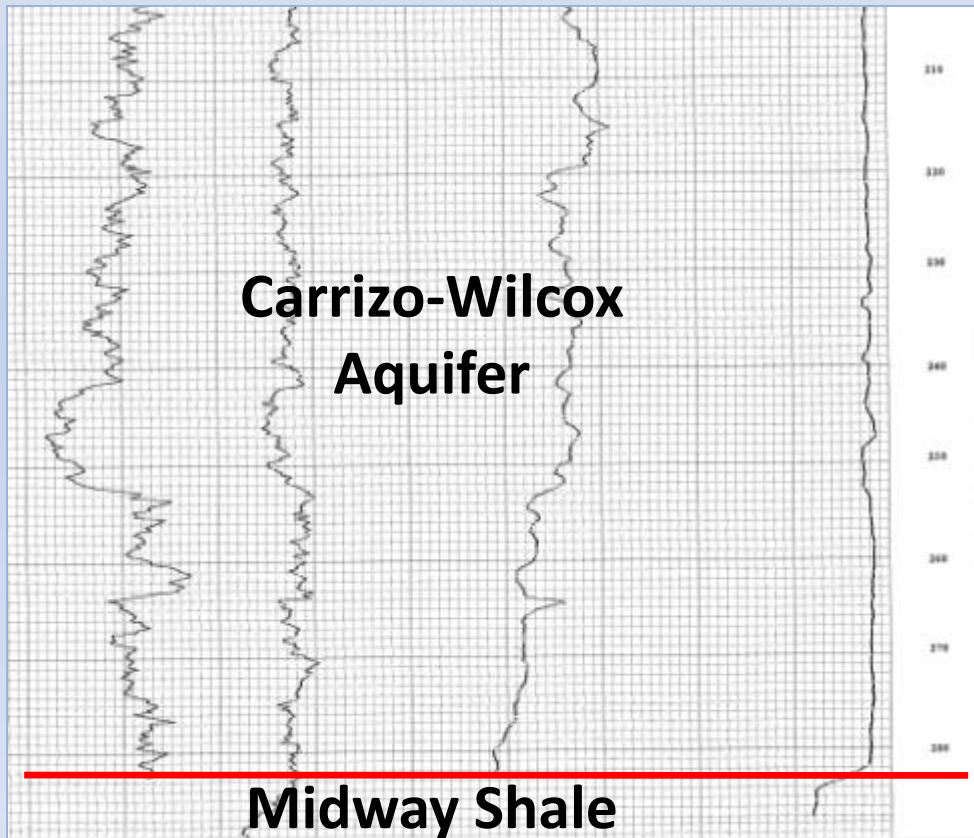
TRUTH LAND

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# Caddo Parish/ LSUS Carrizo-Wilcox Aquifer Monitoring Well Project

(Program initiated prior to Haynesville Shale Discovery)

## Electric Log

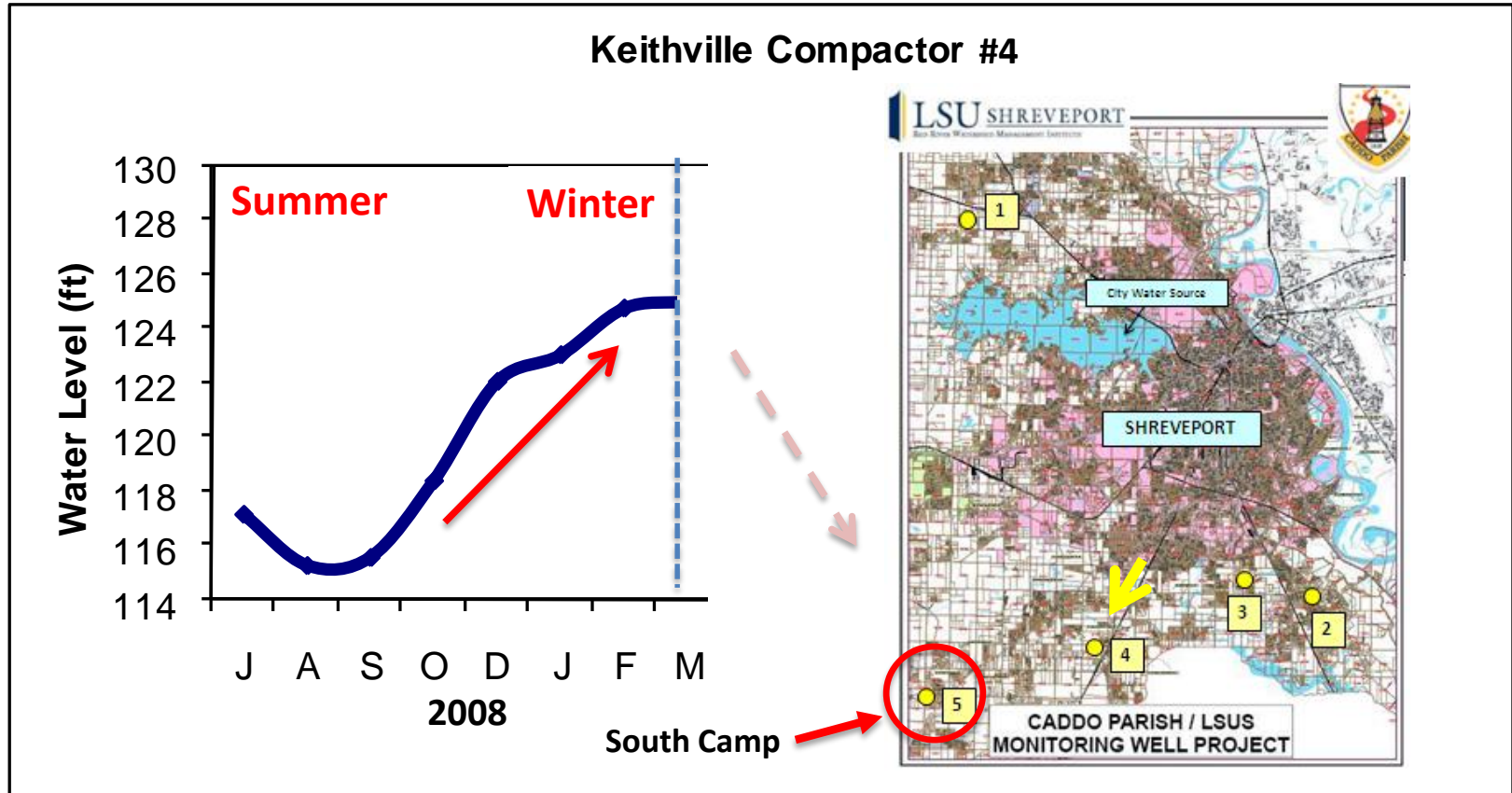


**Hanna Park Site**



# Caddo Parish/LSUS GW Monitoring

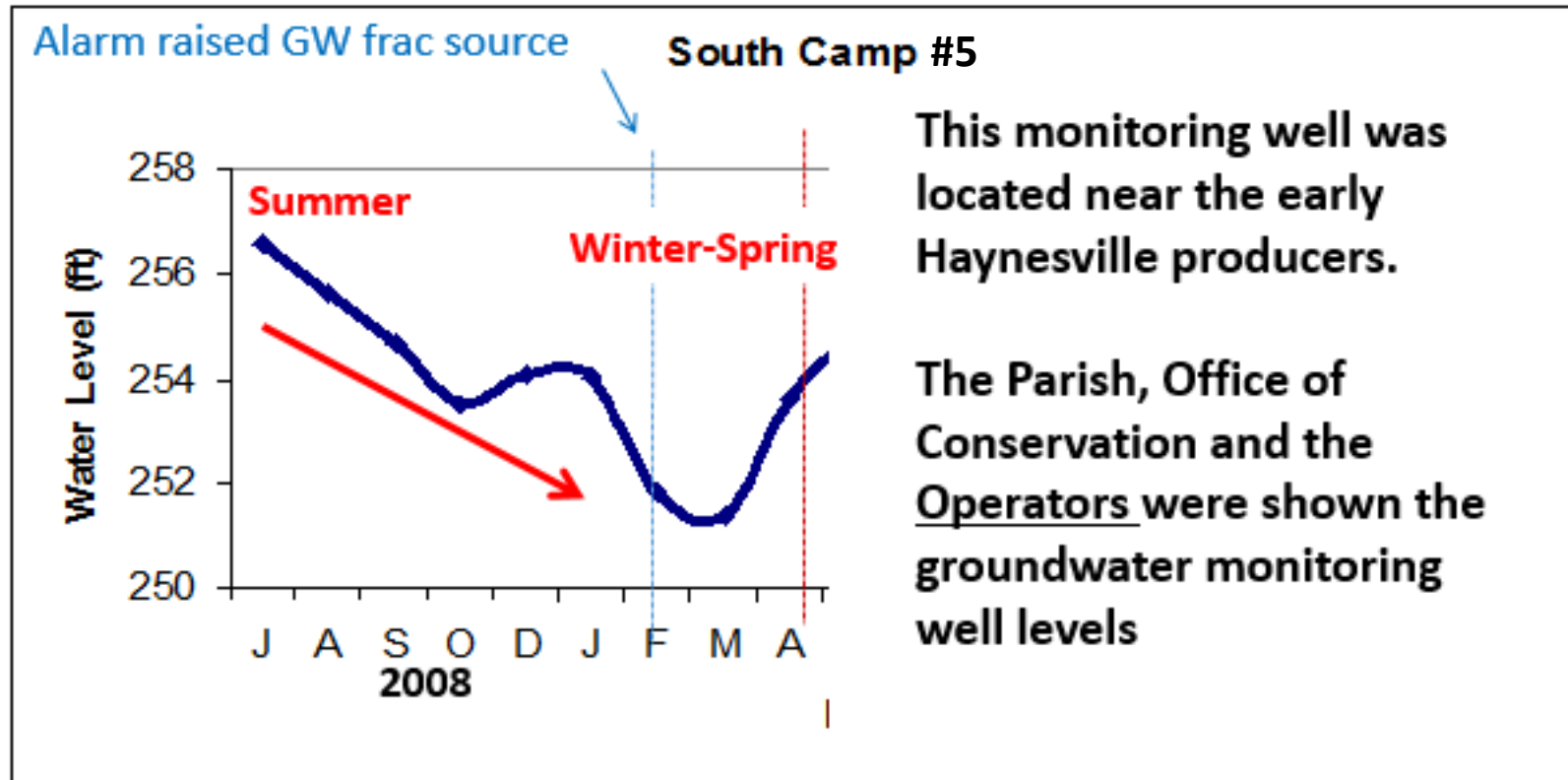
## Carrizo-Wilcox Aquifer



*After initial monitoring of the Carrizo-Wilcox water levels, it was hypothesized that lower water levels recorded in Summer months would be offset by higher levels in Winter and a seasonal pattern would continue into the future. This high resolution (monthly) monitoring program made this possible.*



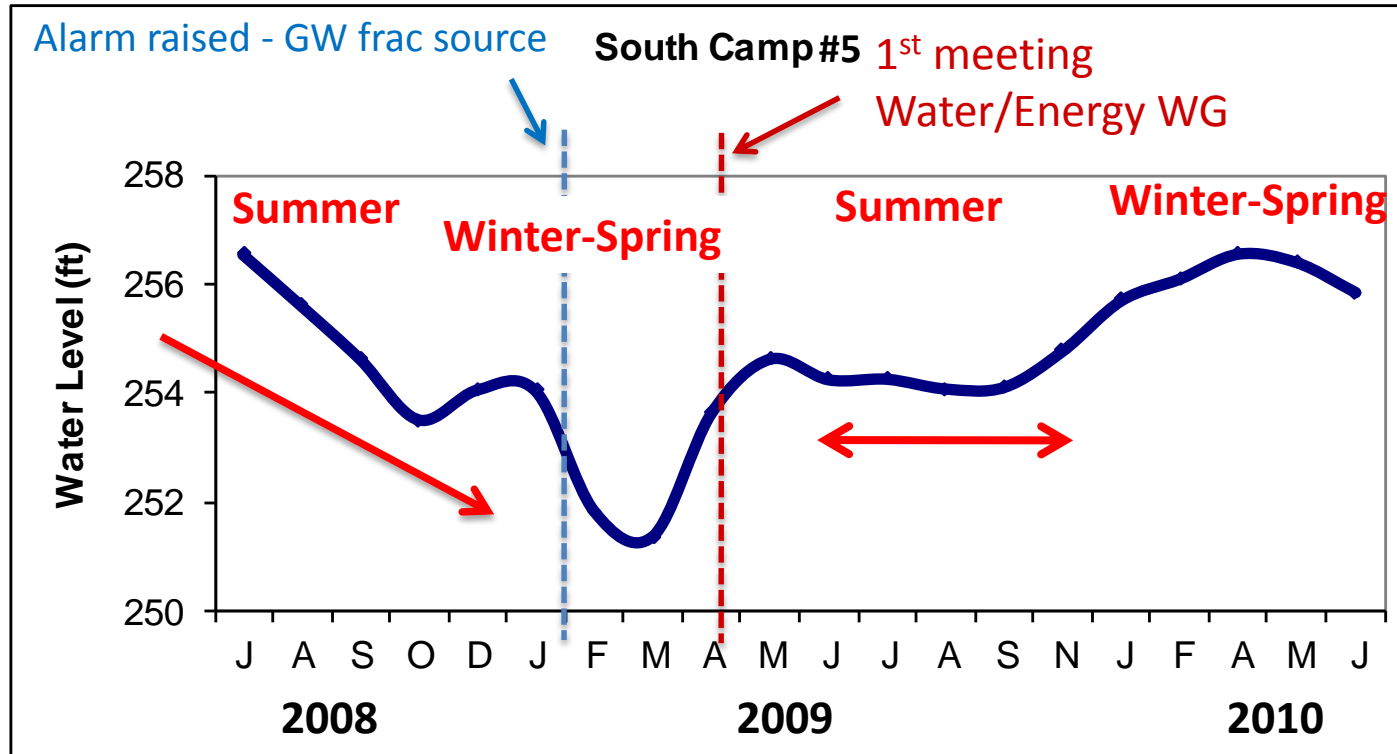
## Caddo Parish/LSUS GW Monitoring



***After drastic drop, water level appeared to be rebounding as operators voluntarily began to switch to mostly surface water for hydraulic fracturing***

# Caddo Parish/LSUS GW Monitoring

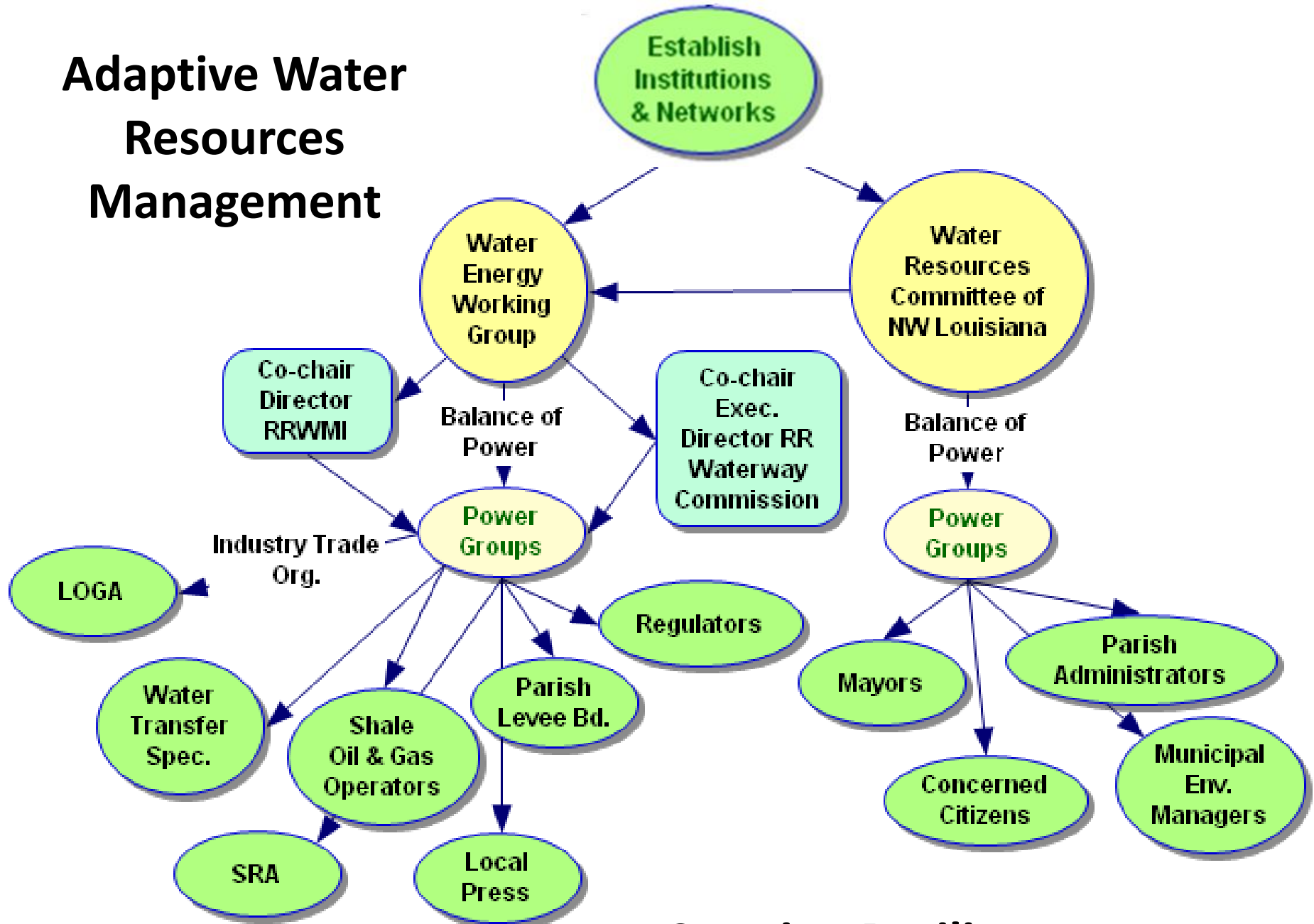
## Carrizo-Wilcox Aquifer



After 1<sup>st</sup> meeting of the Water/Energy Working Group, operators started to voluntarily reduce the use of groundwater

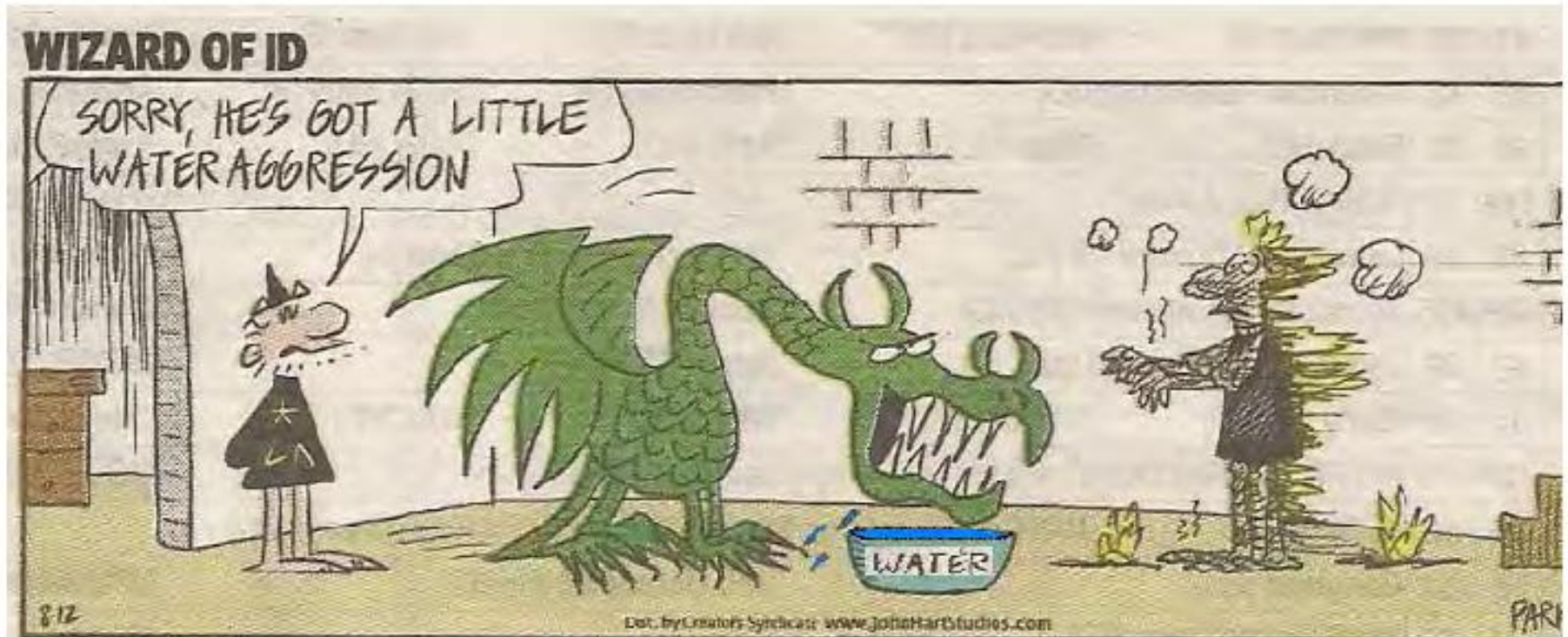
*This South Camp well presented an anomalous initial water level pattern when compared to other MW's, with a sharp decline extending into the Winter. This is the closest MW to initial Haynesville development and hydraulic fracturing (HF). Expected "normal" water level pattern returned over next two years as industry moved to surface water to source HF.*

# Adaptive Water Resources Management



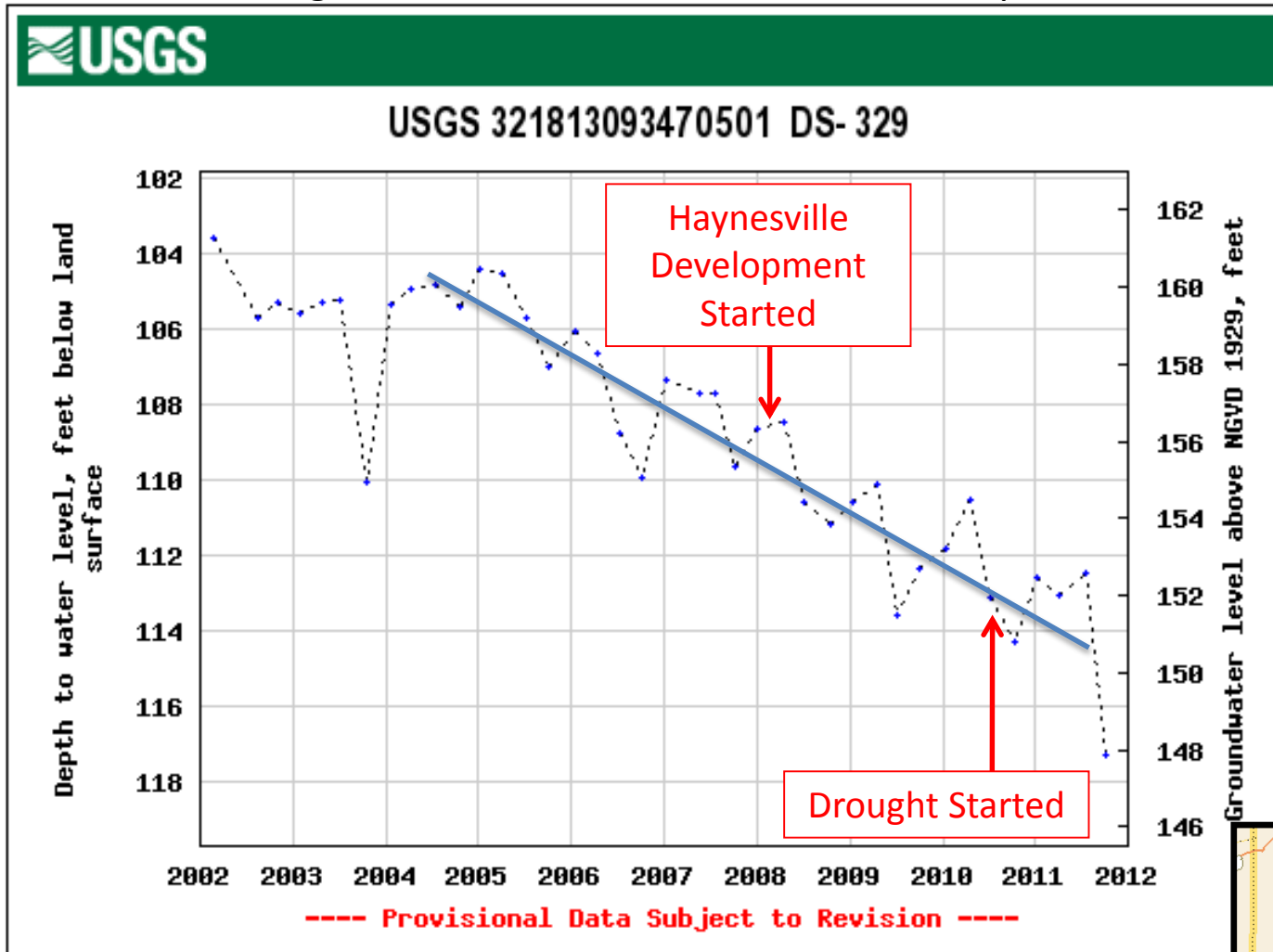
**Creating Resilience**

"TRUST ME. I AM FROM THE  
GOVERNMENT AND I AM HERE TO  
HELP YOU"



PLEASE DON'T \_\_\_\_\_ THE  
MESSENGER!

First public meeting  
since water wells  
started going dry  
because of drought.

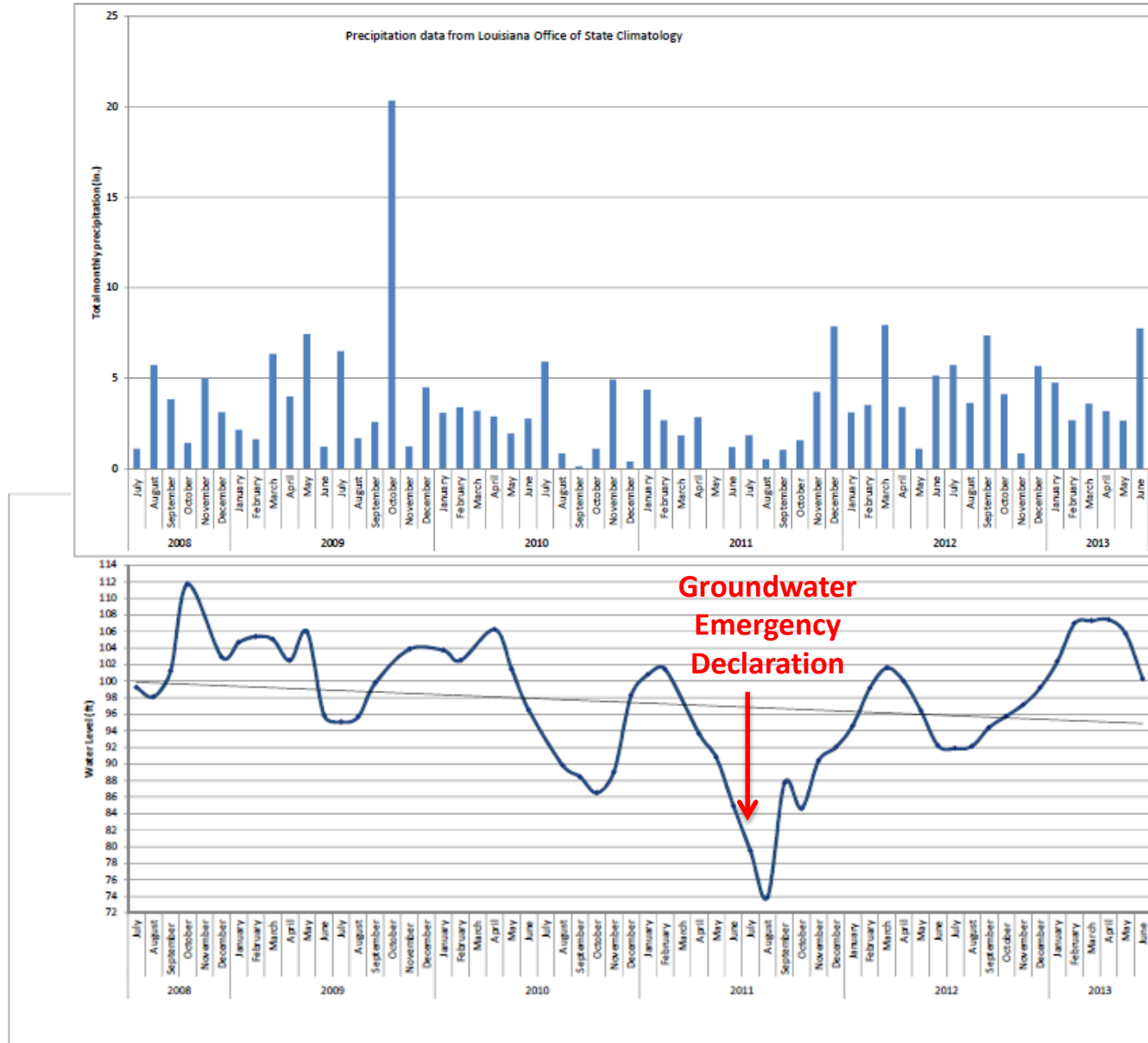


Desoto  
Parish  
MW



Again, what would have happened to the Carrizo-Wilcox Aquifer if the natural gas industry had not voluntarily switched to surface water sources?

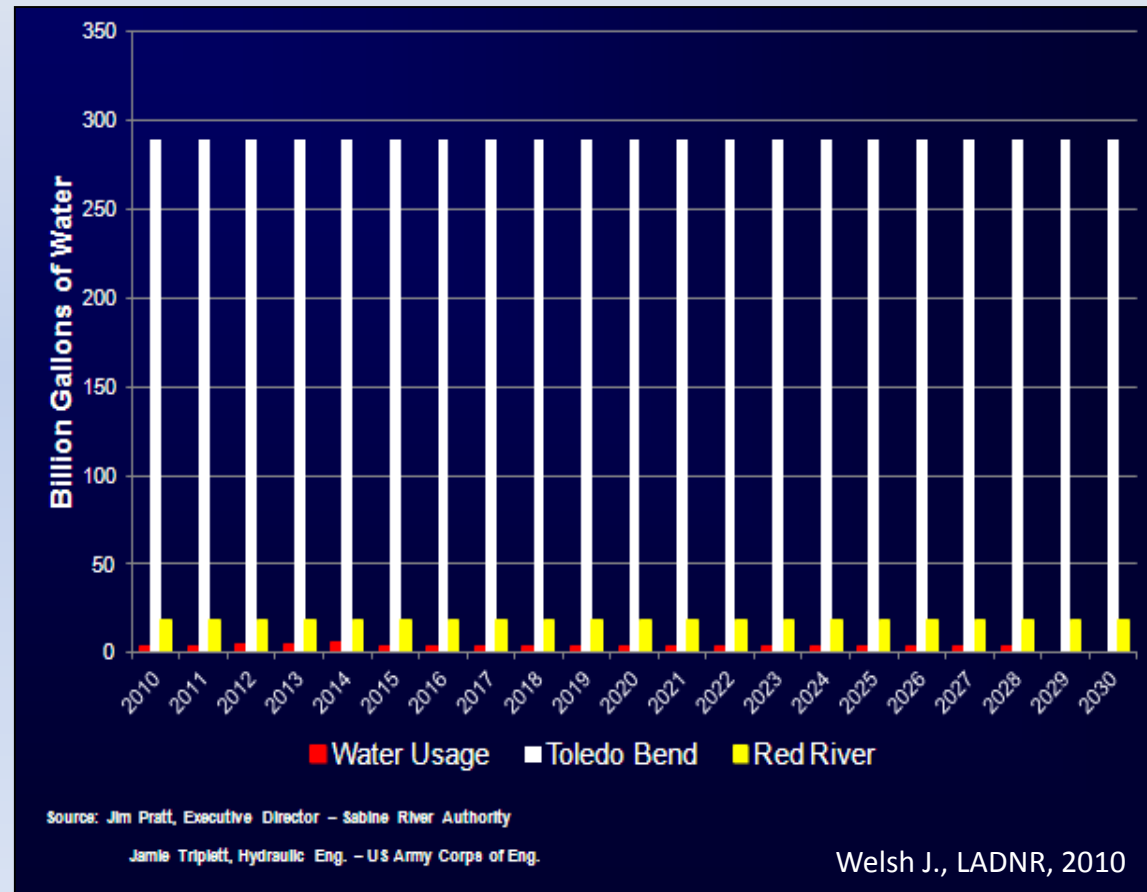
# Mayo Rd. Water Levels as of July 1, 2013



The Louisiana DNR Groundwater Emergency Declaration is still in place

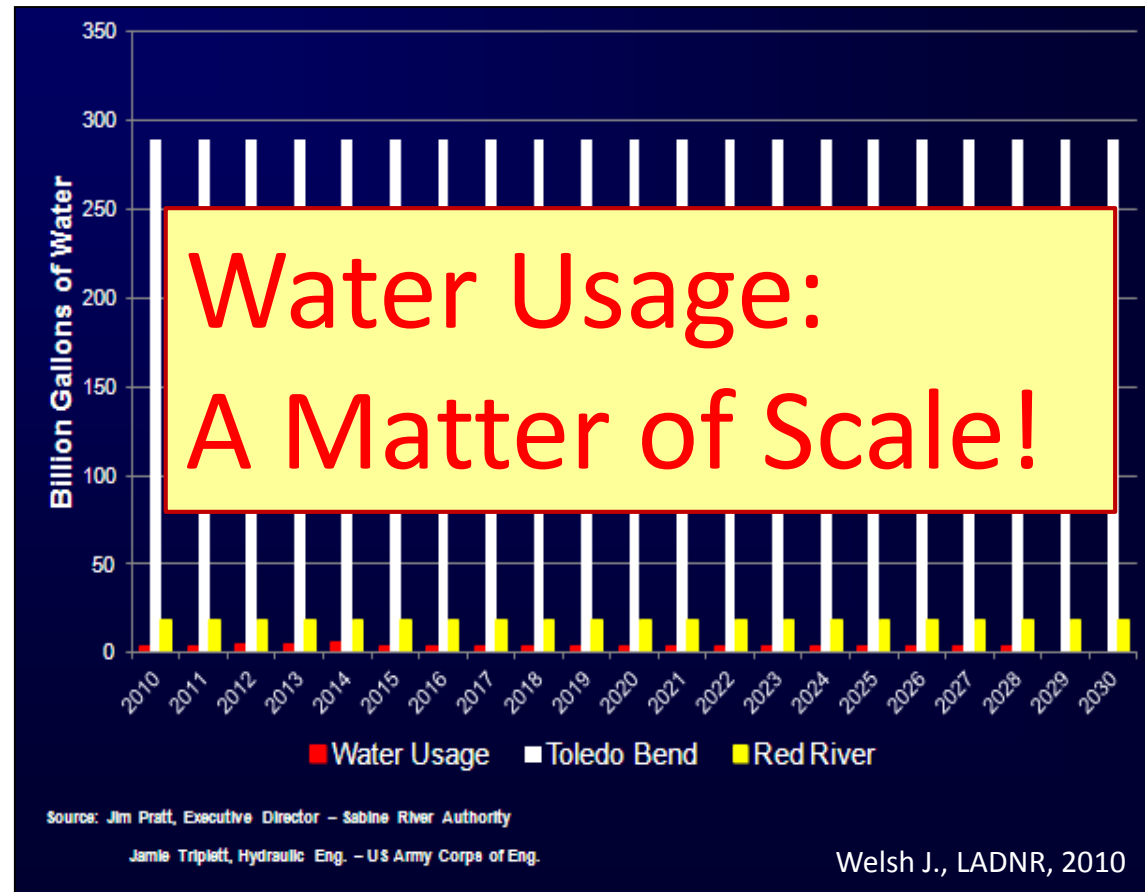


# Red River & Toledo Bend Reservoir yield capacity vs. projected surface water usage at 70% level – **Haynesville Frac Water Sources**



Water Footprint

# Red River & Toledo Bend Reservoir yield capacity vs. projected surface water usage at 70% level – **Haynesville Frac Water Sources**



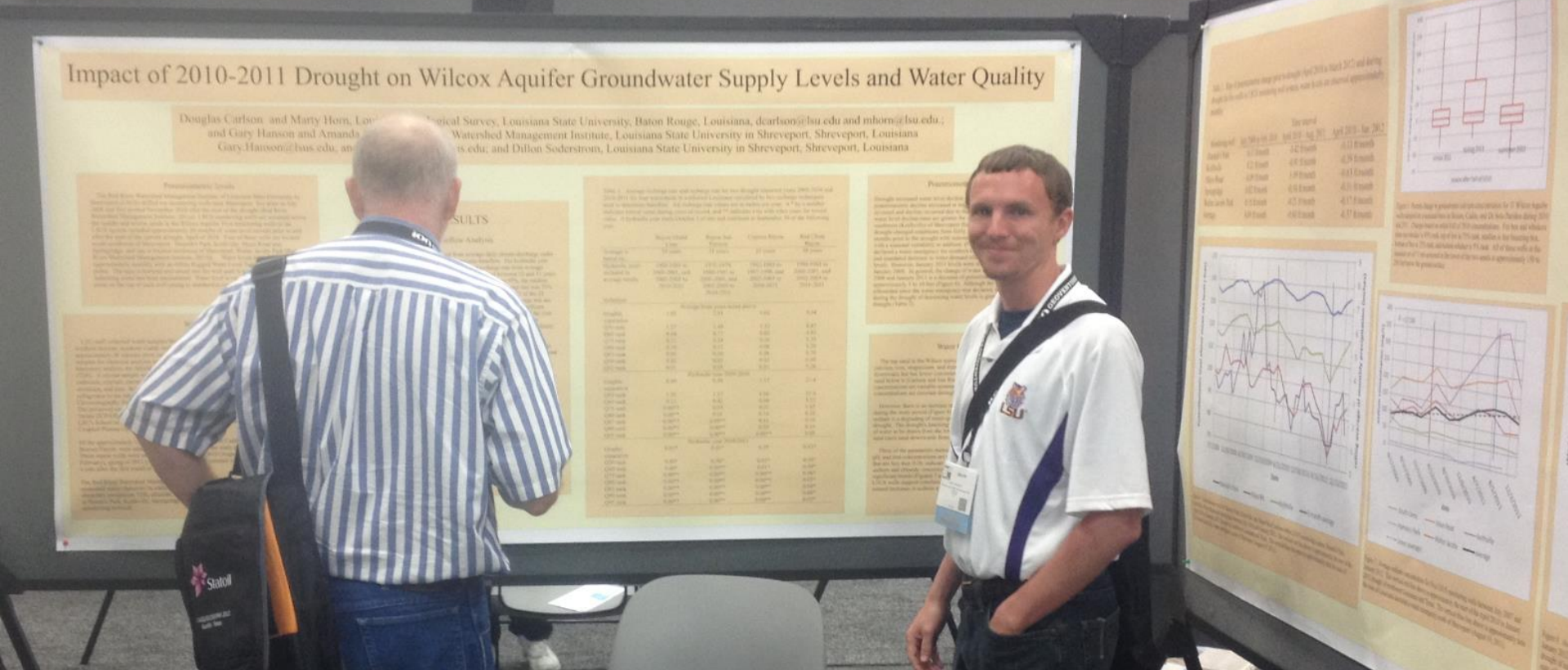
Water Footprint

# Water Sourcing Solutions - Alternative surface water frac sources

EXCO has built a 9 mile pipeline in order to use treated wastewater from International Paper Co. at Mansfield, La.



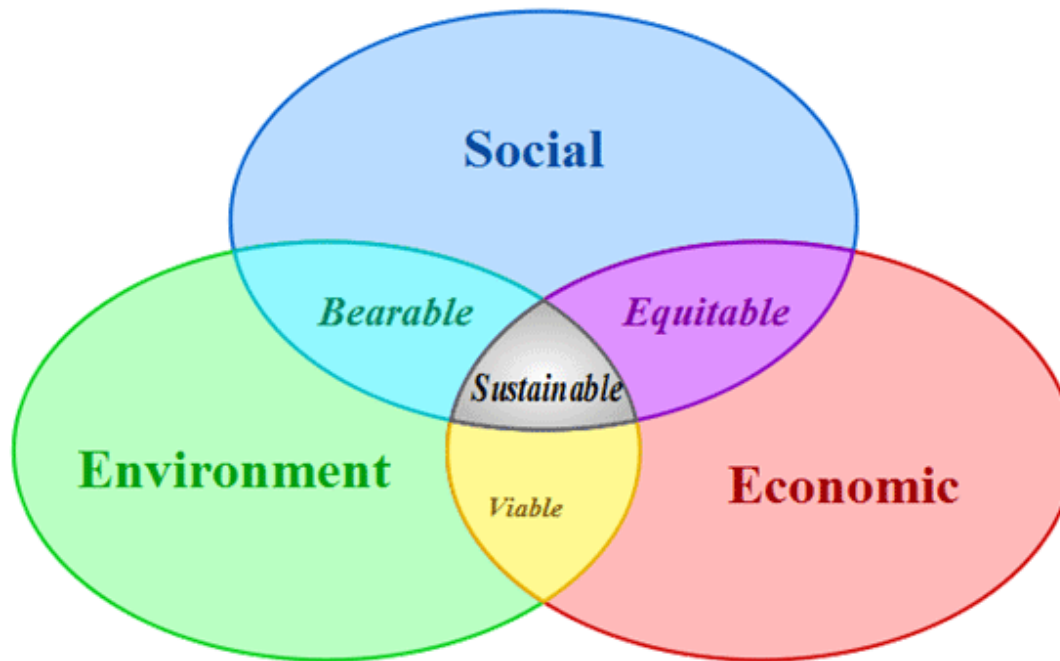
12 million gallons/day of non-potable frac water



Study of only significant freshwater aquifer in northwest Louisiana. Severe drought of 2010-2011 was a cause of major stress on Wilcox Aquifer. Shale gas industry had voluntarily switched from groundwater to predominantly surface water prior to start of drought. LSU Shreveport student Dillion Soderstrom explaining study at Gulf Coast Association of Geological Society meeting in Austin, Texas

# Corporate Social Responsibility (CSR) and Sustainability

A company needs to **replace** a single-financial bottom line with a more balanced triple-bottom line encompassing economic, social and environmental objectives into its business practices.

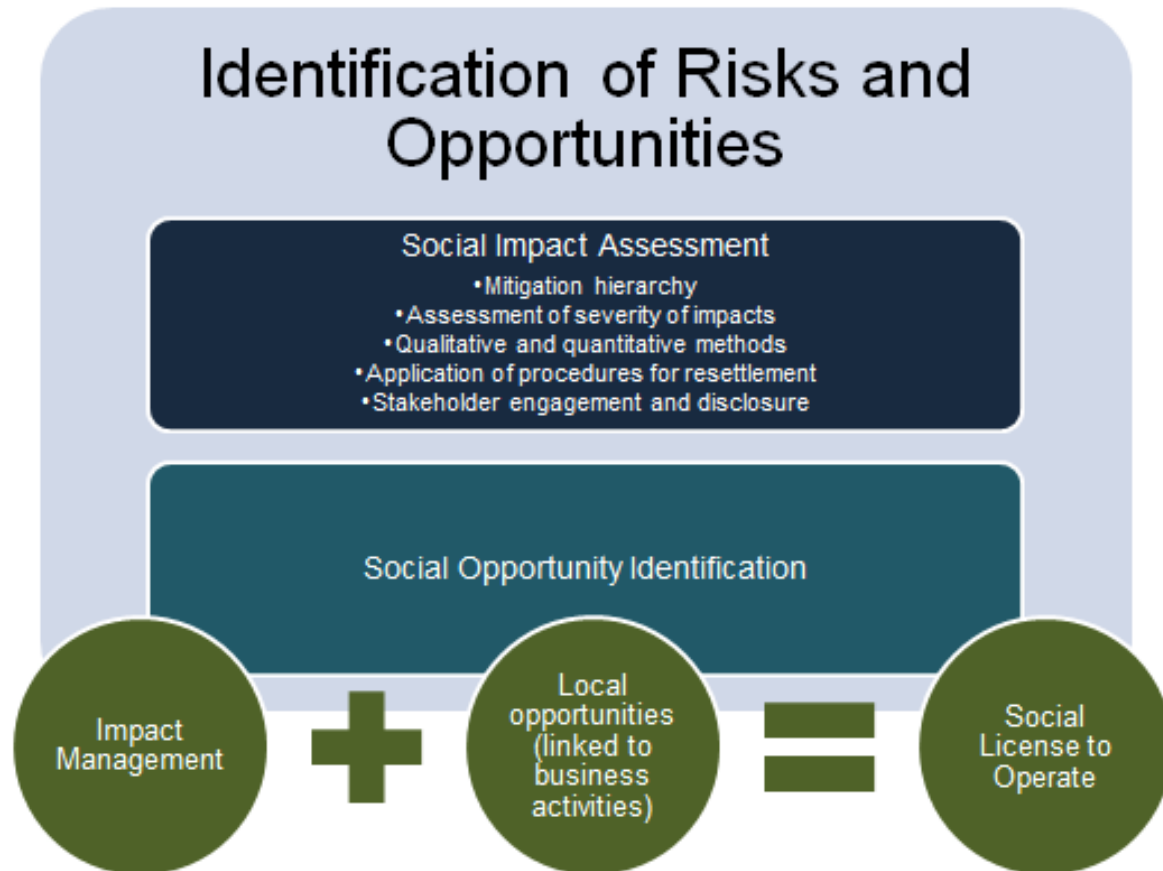


A global study examining the **relationship between corporate social responsibility and company stock valuation** across **three regions of the world** over a **10 year period** revealed that **socially responsible firms** in the **United States, Europe and Asia** **outperformed** their **long-term financial performance expectations**. Source: Caroline Ganun



# Example of a Formalized Social Performance Management System

## Elements of Social Performance Management System Impact Assessment, Opportunity Identification and Management



# Resilience

**Resilience** - the capacity of a system to deal with change/disruptions and continue to develop

**Corporate/Governmental Resilience** - formalized, deliberate, resilience-directed government and private sector practices that are mobilized by the public safety officials charged with overseeing responses and recovery to disruptions.

# Resilience

**Inherent or Community Resilience** – practices that natural resource-dependent residents deploy to cope with disruptions and that are retained in their collective memory (Loss of – Macondo Spill).

**Resilient communities** are those locales that maintain **four key elements** that enable:

- (1) the ability to anticipate disruptive events,
- (2) the capability to respond to them effectively,
- (3) the mechanisms to recover from them equitably and efficiently, and take steps to
- (4) reduce vulnerabilities to future events.

# Developing Community/ Educational Resilience



Red River Watershed Management Institute

[About the Basin](#)

[About the Institute](#)

[Red River Education and  
Research Park](#)

[Research Projects](#)

[Academic Courses](#)



In response to the job creation associated with the Haynesville Shale natural gas discovery, Bossier Parish Community College, in conjunction with energy exploration and production companies operating in northwest Louisiana, developed this program to meet the E & P companies' specific needs for qualified employees.



## THE PROGRAM:

- Coursework is specific to the industry
- Learn in both lecture and lecture/lab environments
- Master the required theory and hands-on skills
- Earn degree (credential) in only 5 semesters
- Courses built upon the previously mastered material
- Work at technologist level positions upon graduation



Member of the Louisiana Community & Technical College System (LCTCS)



Shell Oil Company







## Red River Education & Research Park





# Resilience

Inherent  
Resilience  
(Community)

The  
Bridge  
?

Government  
and  
Corporate  
Resilience

We need  
both!



# Déjà vu All Over Again!

Developing only Corporate/ Governmental Resilience is  
Not the Solution?



St. Tammany  
being drafted

Faced with  
handling of  
President Pa  
on Monday  
ordinances



St. Tammany  
Committee

The St. Tammany Democratic Parish Executive Committee has voted to oppose a company's proposal to drill a deep well near Mandeville and use the hydraulic fracturing, or fracking, process to extract oil. The panel this week unanimously approved a resolution...



NOLA.com

## Louisiana?

**Fracking in St. Tammany Parish would bring environmental, health problems, activist says**

Evident by the numerous anti-fracking signs they held and T-shirts they wore, many of the St. Tammany Parish residents who attended Monday night's informational meeting had already made up their minds about the controversial method of oil and gas extraction....

Helis Oil & Gas Co., whose plans to track for oil near Mandeville has led to an outpouring of citizen opposition, has agreed to a phased approach to its project, starting only with a conventional vertical well, St. Tammany Parish...

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ked state and  
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fon

# Déjà vu All Over Again!

Developing only Corporate/ Governmental Resilience is  
Not the Solution?

**Louisiana?**

**Fracking in St. Tammany Parish would bring  
environmental, health problems, activist says**

**Developing  
Inherent/Community  
Resilience is Vital!**

St. Tammany  
being drafted

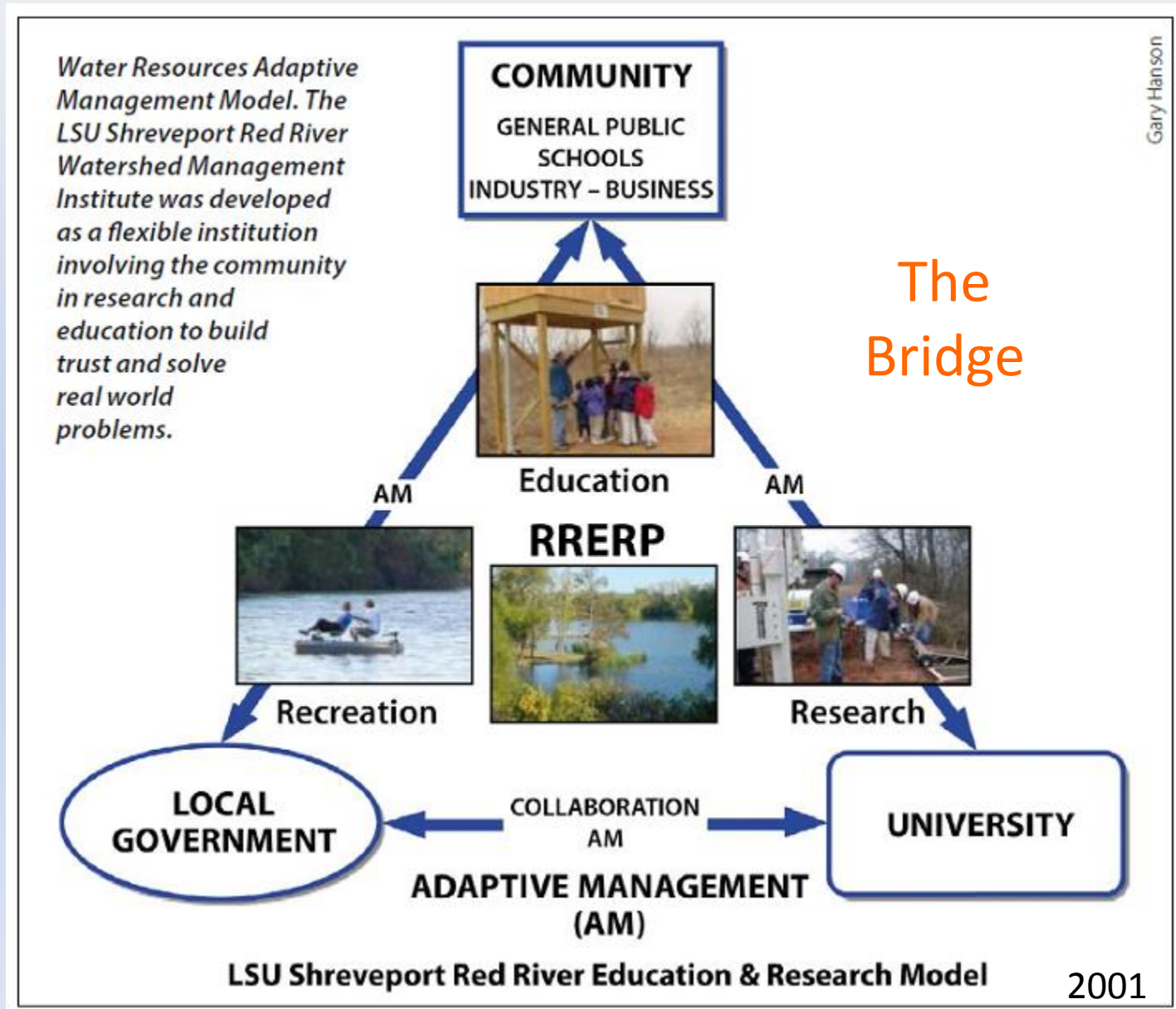
Faced with  
handling of  
President Pa  
on Monday  
ordinances

St. Tammany  
Committee

The St. Tammany Democratic Parish Executive Committee has voted to oppose a company's proposal to drill a deep well near Mandeville and use the hydraulic fracturing, or fracking, process to extract oil. The panel this week unanimously approved a resolution...

Helis Oil & Gas Co., whose plans to track for oil near Mandeville has led to an outpouring of citizen opposition, has agreed to a phased approach to its project, starting only with a conventional vertical well, St. Tammany Parish...

# A Proven Adaptive Management Model...

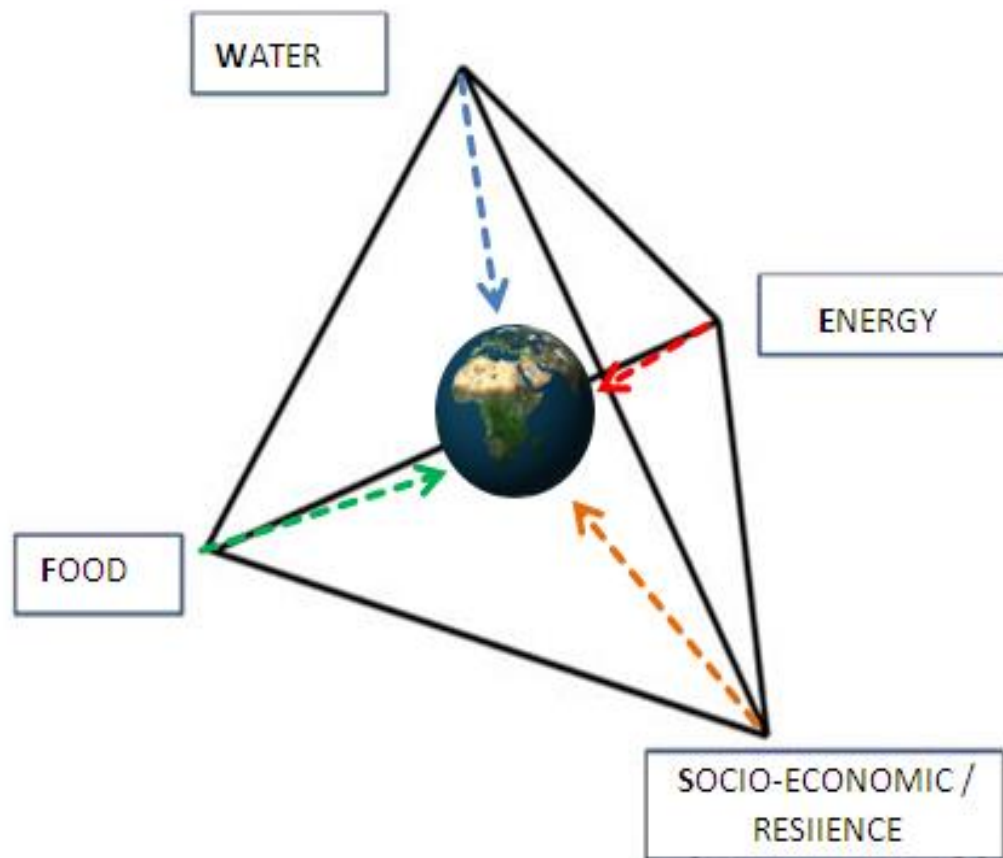


## A Pathway to Resilience

Source: GeoExPro May 2014



## FOOD, ENERGY, WATER, SOCIO-ECONOMIC/RESILIENCE NEXUS TETRAHEDRON



## Haynesville Shale drilling showing new signs of life

Sunday, June 9, 2013

It's no secret the Haynesville Shale isn't what it used to be — but it's showing signs of coming back.

Five years ago, other parts of the nation were envious of the activity in the Haynesville Shale, which stretches from Northeast Texas into Northwest Louisiana.

Billed as the largest natural gas field in the U.S., it was the hottest energy property in the nation. At its peak in 2010, nearly 190 drilling rigs were operating.



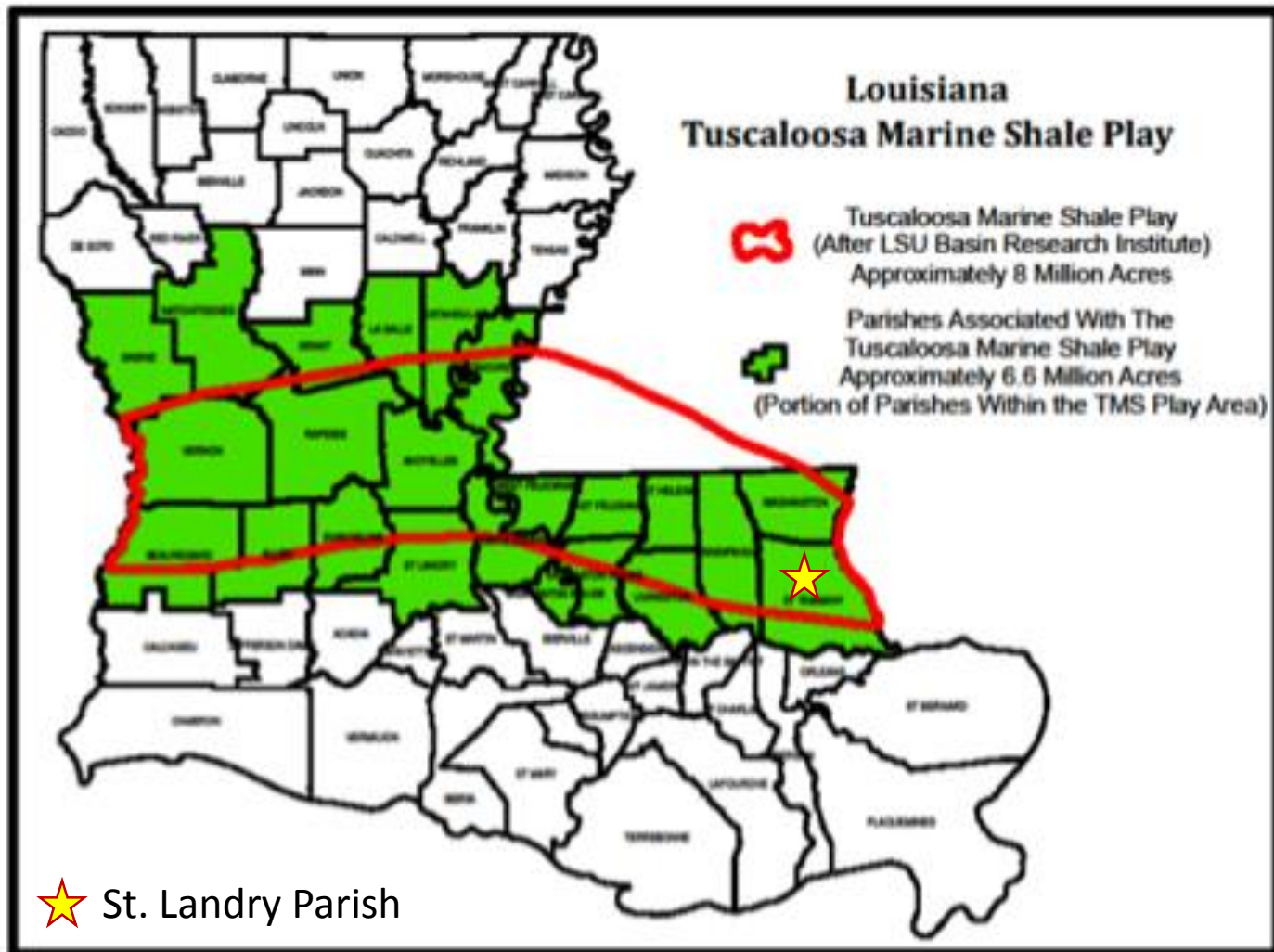
## Haynesville Shale drilling showing new signs of life

Sunday, June 9, 2013

**Abundant and less volatile-priced natural gas supplies** are leading to a **renaissance of manufacturing** announcements and industrial activity throughout the country. That is increasing demand and starting to elevate prices.

This is particularly true in **Louisiana**, where more **than \$62.3 billion** in a variety of **new capital investments** has been announced during the **past 12 months**. Playing a factor in the projects is **the proximity** to the **Haynesville**, which remains one of the **nation's largest sources of supply**, said David Dismukes, professor and associate executive director for the LSU Center for Energy Studies.

# Anti-Fracking Activism in Louisiana?



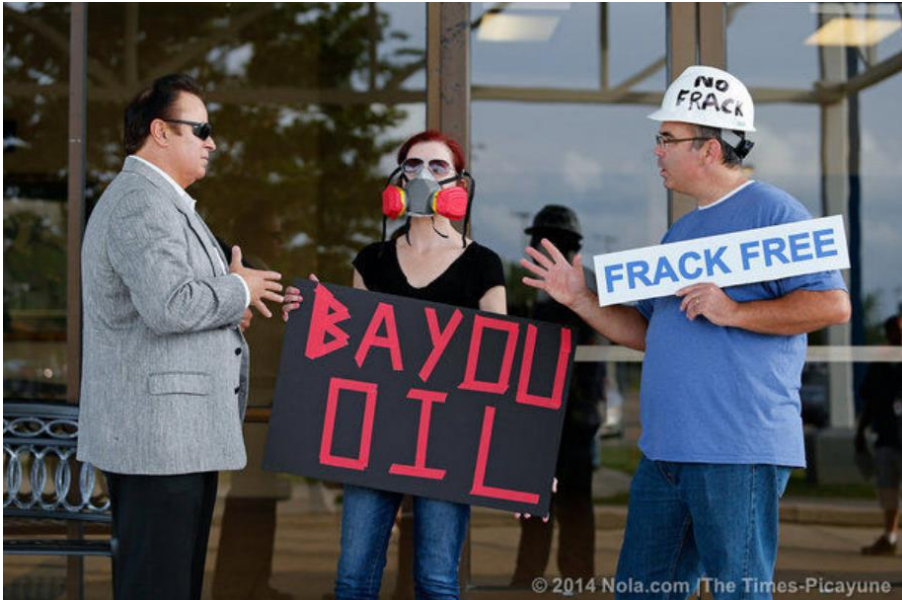


# Anti-Fracking Activism

## If fracking is safe, where is the insurance?

### Letter

Clean air and water should not be a partisan issue. But fracking is an issue of private profit at public expense. If fracking is so safe, an insurance policy should be easy for drilling and mineral rights owners to obtain, and at an affordable premium. That insurance policy should be sufficient to cover losses due to environmental damage and loss of life, quality of life, property values, business values, tax revenues to municipalities due to reduced property values, losses to municipalities to repair public infrastructure, and unforeseeable events.



Such a policy should be a **minimum of \$1 billion** due to so many uncertainties, such as potential sinkholes, earthquakes or polluted aquifers. Likewise, personal and corporate guarantees of indemnity from drillers and mineral rights owners to those affected should be required.

We will hear cries that "we need energy." Yes we do. But why not first pursue clean, renewable, sustainable energy, and only then resort to fossil fuels?

What good is energy, or a job, if either kills us or our quality of life?

B. Charles Goodwin  
Mandeville, LA

**Anti-Fracking Activism - Only in one  
Louisiana Parish**

**Truth About Shale Gas & Tight Oil Development:  
How do we inform the public & media?**



**Truth About Shale Gas & Tight Oil Development:  
How do we inform the public & media?**

**Geologists**

**Engineers**



**Geophysicists**

**I Want You!**



# Early Oil & Gas Booms & Beginnings of Corporate Social Responsibility

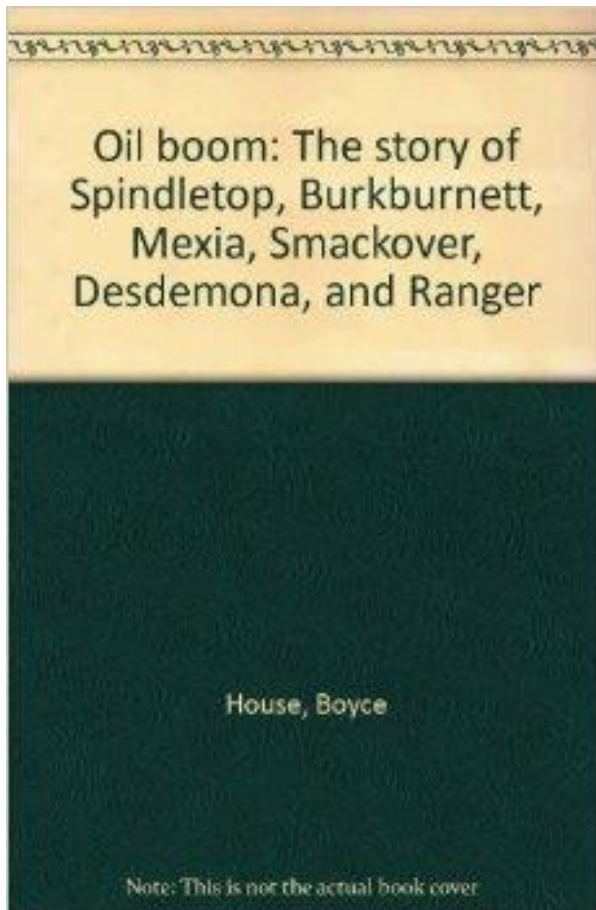
**Oil boom:** the story of Spindletop, Burkburnett, Mexia, Smackover, Desdemona, and Ranger





# Oil & Gas Booms

**Oil boom:** the story of Spindletop, Burkburnett, Mexia, Smackover, Desdemona, and Ranger



**BOYCE HOUSE BOOK**  
**'OIL BOOM' IS OUT**

You read his column, "I Give You Texas", in these column each week, now you'll enjoy Boyce House's new book, "Oil Boom".

It contains true stories of Burkburnett, Mexia, Spindletop, Ranger, Desdemona and Smackover (Arkansas) and has 34 pages of photographs.

House is considered one of the best writers of oil stories in the nation, a few years ago being called to Hollywood to give technical information for the filming of "Boom Town".

You may order one of these books for \$3 through Chester Evans at The Advocate.

6/16/1941



# Oil & Gas Booms

## Smackover



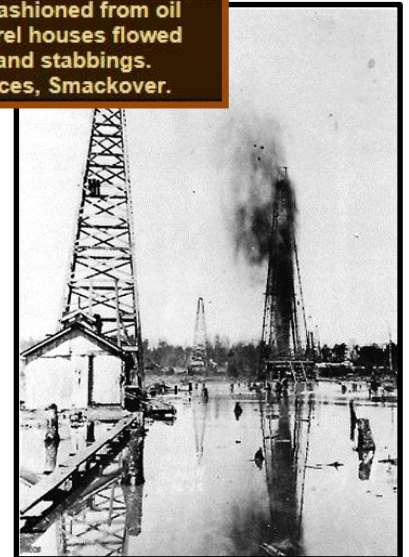
Old-time Driller – Cleaned-up  
& ready to head into town



The interior of a "barrelhouse" in the Smackover oil field. Fashioned from oil barrels and rough-sawn lumber with sheet-metal roofs, barrel houses flowed freely with liquor and were frequently scenes of shootings and stabbings. Photo courtesy of the Arkansas Museum of Natural Resources, Smackover.



Smackover's existence is a result of one of the largest and most dramatic oil discoveries in the nation. Its sixty-eight-square-mile oil field led the nation's oil output in the mid 1920s. Prior to the discovery of oil, economy in the area initially relied upon cotton and a successful timber industry due to the vast forests of southern Arkansas.

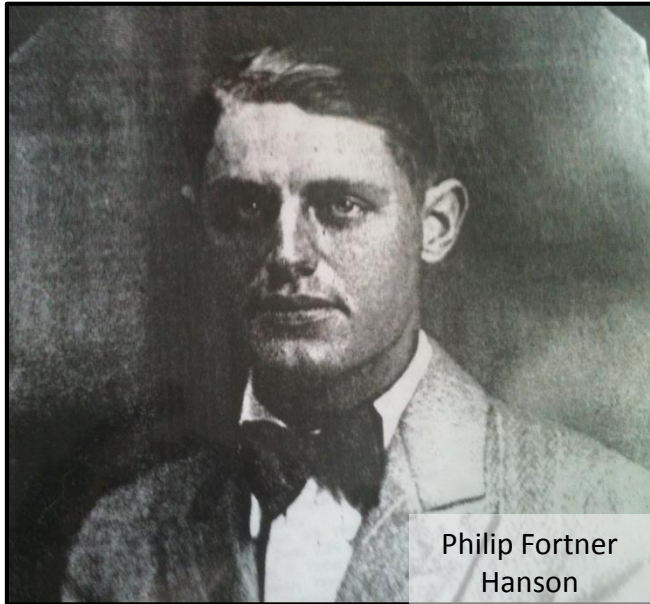


Oil Heritage Center, Smackover, Ark.



# Oil & Gas Booms

## Smackover

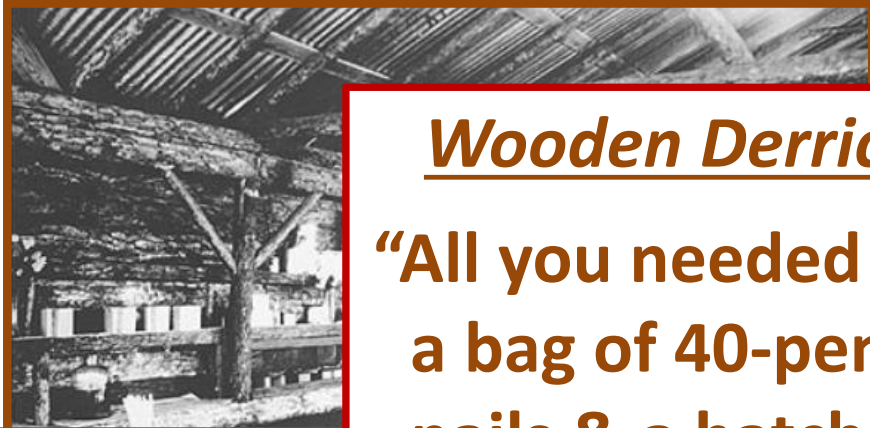


Philip Fortner  
Hanson

Old-time Driller – Cleaned-up  
& ready to head into town



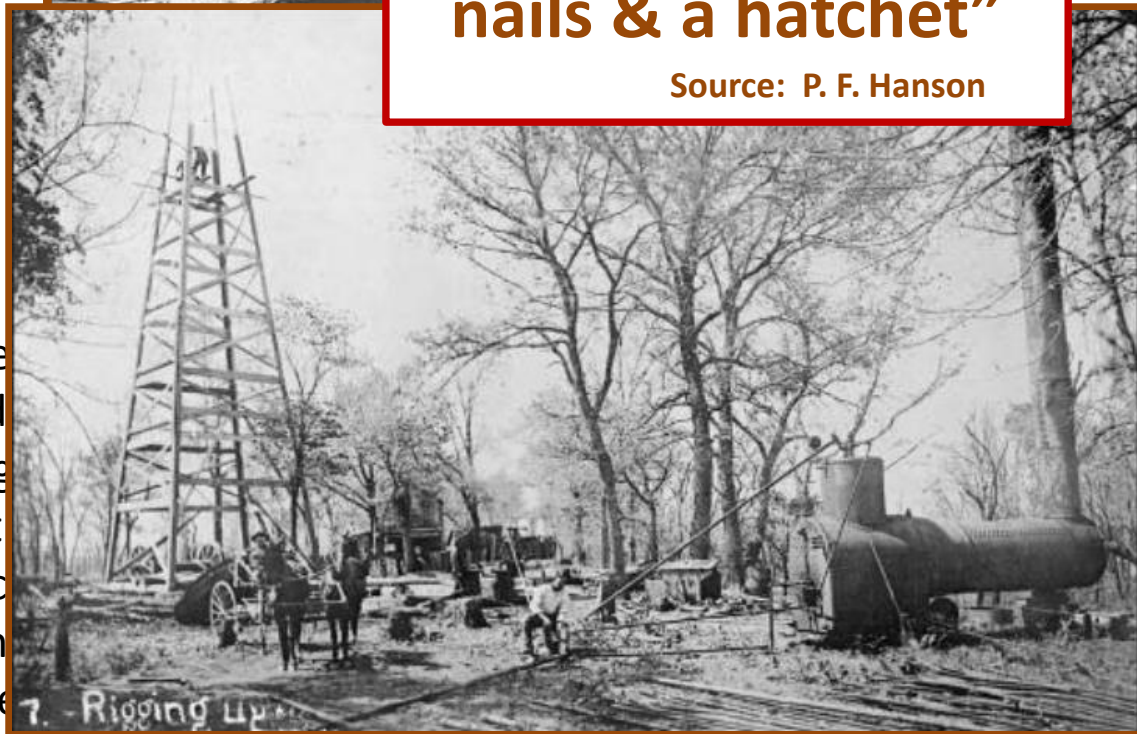
Smackover's existed the  
largest and most d  
nation. Its sixty-eig  
nation's oil output  
discovery of oil, ec  
relied upon cotton  
industry due to the  
Arkansas.



### Wooden Derricks

**“All you needed was  
a bag of 40-penny  
nails & a hatchet”**

Source: P. F. Hanson



Oil Heritage Center, Smackover, Ark.

# Oil & Gas Booms – Jobs!

## Early on, Vigilante Justice Prevailed



Although on many occasions in the Smackover Field local citizens took vigilante action against the criminal element under the cloak of the Ku Klux Klan's sheets, at other times they acted openly, as apparently is the case here. The photograph was labeled "Smackover's reception committee for hi-jackers." Max Taylor Collection, Arkansas Oil Heritage Center.



# Oil & Gas Booms – Emergence of a Unique Culture

## Oil Field Camps & Towns

Smackover, Ark – Oil Field “Camps” OK, TX, AR & LA

Trees City, LA – Oil Field “Towns”

- In 1908 a well-off farmer near Oil City and leased about 130,000 acres to **Oklahoma natives Joe C. Trees and Mike Benedum**. A few shallow wells had been drilled in the area, but had yielded no oil. Trees Oil Company drilled just six feet deeper than where the Texas Company had abandoned their tests, and struck oil.
- After noting that the **shack-like saloons in the rough towns of Oil City and Mooringsport** were causing the employees of Trees Oil Company to get too **caught up in revelry**, He established his own town in 1909. **He constructed a dance hall, pool hall, church, and school**. Prostitutes and men selling whiskey were not allowed in the community, and it wasn't long before **Trees City was known as the most orderly oil town in the nation. The city was possibly the first town to be built by an oil company.**

# Oil & Gas Booms – Emergence of a Unique Culture

## Oil Field Camps & Towns

Smackover, Ark – Oil Field “Camps” OK, TX, AR & LA

Trees City, LA – Oil Field “Towns”

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# The World's Most Reputable Companies

The **best companies** are the ones who **invest in local activities**; doing more than just selling their product. “The **winners**, in many cases, also **produce locally, employ local people, and engage themselves in solving local issues**. But, you are unable to **build a strong reputation through philanthropy or CSR actions alone.**”

*Jacquelyn Smith, Forbes*



## Water Management Vital for Oil and Gas Industry

By Adam Wilson | 7 May 2014

The increasing global scarcity of water means more companies need to see and begin treating water as an asset, said Emmanuel Garland, environmental expert with Total, at the [Offshore Technology Conference](#) in Houston.

"Water is already a crucial issue and will shape the future," he said. "Water is a need before being a waste."

Garland spoke at a topical luncheon titled "Water Management—Change of Paradigm: Water as an Asset" on Tuesday.

Globally, 1.1 billion people do not have access to clean drinking water, Garland said, "and climate change will probably make it even worse in the future."

As the global need for energy increases, oil and gas companies will continue to expand operations to meet this demand. And "production of oil and gas requires ... huge quantities of water," Garland said.

"Consequently," he said, "it is the responsibility of the oil and gas industry to ensure that water is adequately considered ... in the decisions of the companies." The industry's handling of this responsibility—its ability to develop innovative means to reduce water uptake and maximize use and recycling—could affect companies' social license to operate, he said.

As responsible users of clean water for oil and gas production, companies need to work on reducing the need for clean water in their operations, Garland said, adding, "That's a real challenge."





# Question & ...Answers?

