


# Climate change, air pollution and the Latinx narrative

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The drought contributed “to over **\$10 billion** in direct losses to agriculture alone.” Temperature extremes were connected to manmade **climate change**, which **doubled** the chance that **heat waves** would occur.”

## Latinx cultural narratives...



### ENTRE GUADALUPE Y MALINCHE

TEJANAS IN LITERATURE AND ART

EDITED BY

INÉS HERNÁNDEZ-ÁVILA & NORMA ELIA CANTÚ

## What the data says...

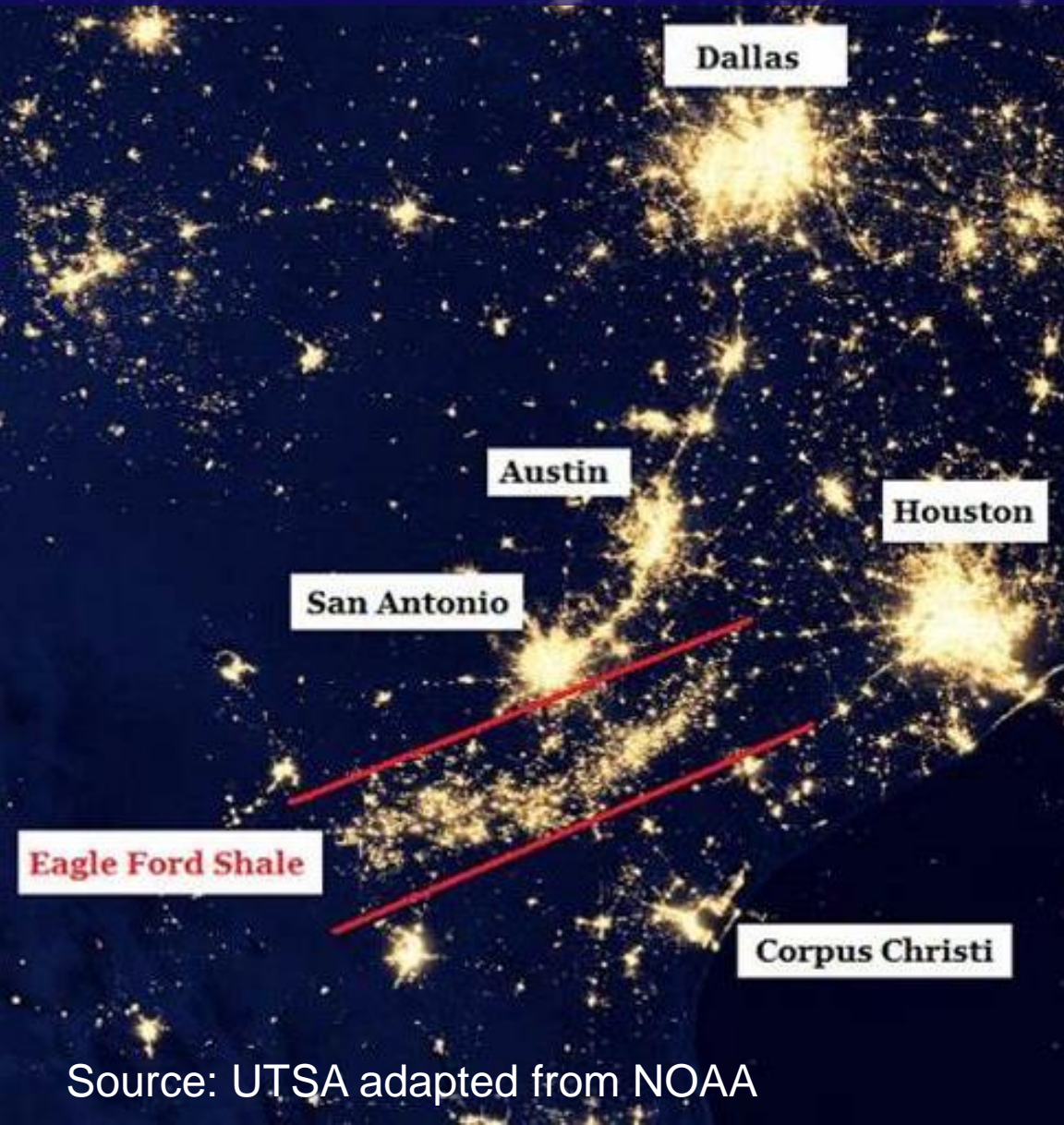
- **86%** of U.S. Latinxs are convinced that we have a moral duty to give our children a **clean planet**.<sup>1</sup>
- **85%** of Latinos believe it is important to reduce **smog and air pollution**.<sup>2</sup>
- **54% of U.S. Latinxs** find climate change to be a **critical national threat** on par with international terrorism and nuclear proliferation; compared with **32% of non-Latinos**.<sup>3</sup>

[1] Thompson, J., & Heyd, E. (2014). *Overwhelming Majority of Latinos Want Strong Presidential Action to Combat Climate Change, Poll Shows*. Retrieved from <https://www.nrdc.org/media/2014/140123-1>

[2] Segura, G. M., & Pantoja, A. (2015). *2015 Environmental Attitudes Survey*. Retrieved from <http://earthjustice.org/features/poll-latino-opinion>

[3] Smeltz, D. S., & Kafura, C. (2015). *Latinos Resemble Other Americans in Preferences for US Foreign Policy*. Chicago, IL. Retrieved from [https://www.thechicagocouncil.org/sites/default/files/Hispanics and Foreign Policy - Final.pdf](https://www.thechicagocouncil.org/sites/default/files/Hispanics%20and%20Foreign%20Policy%20-%20Final.pdf)

# Flaring in the Eagle Ford Shale, generating visible light comparable to urban areas



Source: UTSA adapted from NOAA



Methane is

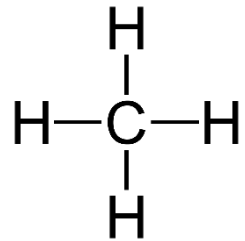
**84x more potent**

than CO<sub>2</sub> in the short term

[EDF.org/methane](https://www.edf.org/methane)

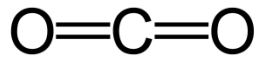


Methane



Methane

CH<sub>4</sub>



Carbon Dioxide

CO<sub>2</sub>



Ozone

O<sub>3</sub>

**About 25%** of the manmade global warming we are experiencing today is caused by **methane** emissions.

# OZONE IS...

**GOOD UP HIGH** in the stratosphere  
(upper atmosphere)

The ozone layer protects Earth from harmful UV radiation from the sun



Ground-level ozone is harmful to breathe and damages plants



Ozone is the main component of smog

**BAD NEARBY** in the troposphere



Santa Barbara County  
Air Pollution Control District

**OurAir.org**

@OurAirSBC

Not to Scale

## Climate change can lead to health impacts.

Source: Allen, J. (2004). Ozone and Climate at the Surface. NASA Goddard Institute for Space Studies.  
[http://www.giss.nasa.gov/research/features/200402\\_tango/](http://www.giss.nasa.gov/research/features/200402_tango/)



# Health implications for Latinx populations



- Nearly 1 in 2 Latinxs in the U.S. live in counties with the worst air pollution.<sup>1</sup>
- Puerto Ricans suffer the highest incidence of asthma -double the rate of non-Hispanic whites.<sup>3</sup>
- Latinx children are twice as likely to die from asthma as non-Latinx whites.<sup>2</sup>

[1] U.S. Environmental Protection Agency, cited in Quintero, A., Jaffee, V., Madrid, J., Ramirez, E., & Delgado, A. (2011). *U.S. Latinos and Air Pollution: A Call to Action*. Retrieved from <https://www.nrdc.org/sites/default/files/LatinoAirReport.pdf>

[2] Centers for Disease Control and Prevention. (2016). 2014 National Health Interview Survey (NHIS) Data. Atlanta, GA. Retrieved from <http://www.cdc.gov/asthma/nhis/2014/table2-1.htm>

[3] CDC. (2014). cited in U.S. Department of Health and Human Services Office of Minority Health. (2016). *Asthma and Hispanic Americans*. Retrieved from <http://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlID=60>



Proximity to power plants, access to healthcare, outdoor occupations, and language barriers are contributing factors.

# U.S. Drought Monitor California

**June 28, 2016**  
(Released Thursday, Jun. 30, 2016)  
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.00	100.00	83.59	59.02	42.80	21.04
<b>Last Week</b> <i>02/2/2016</i>	0.00	100.00	83.59	59.02	42.80	21.04
<b>3 Months Ago</b> <i>3/29/2016</i>	3.55	96.45	90.58	72.82	55.25	34.74
<b>Start of Calendar Year</b> <i>1/22/2015</i>	0.00	100.00	97.33	87.55	69.07	44.84
<b>Start of Water Year</b> <i>9/29/2015</i>	0.14	99.86	97.33	92.36	71.08	46.00
<b>One Year Ago</b> <i>6/30/2015</i>	0.14	99.86	98.71	94.59	71.08	46.73

Intensity

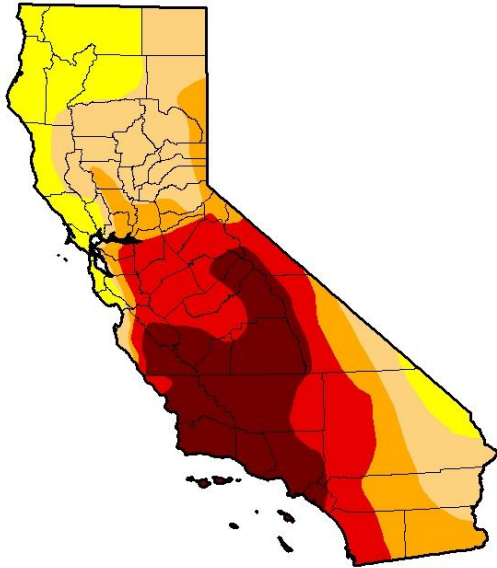
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

**Author:**  
Eric Luebbehusen  
U.S. Department of Agriculture

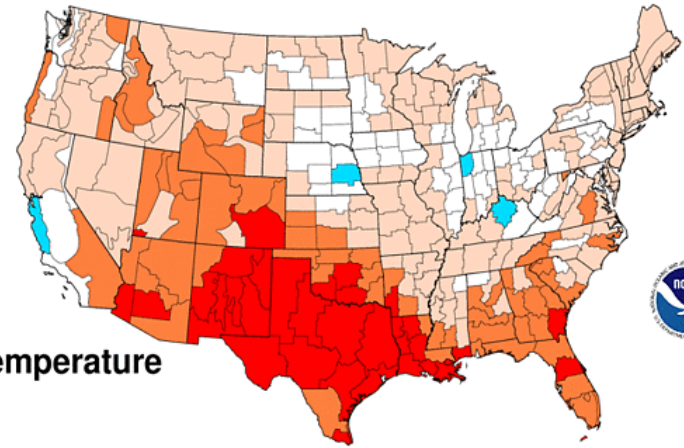


<http://droughtmonitor.unl.edu/>



# Aug 2011 Divisional Ranks

National Climatic Data Center/NESDIS/NOAA



## Temperature

- Record Coldest
- Much Below Normal
- Below Normal
- Near Normal
- Above Normal
- Much Above Normal
- Record Warmest



Photo credit: Steve Rothaus, Miami Herald

# Puerto Rico Sea Level Rise & Coastal Erosion

Rincón losing 3.3 feet of coast per year<sup>1</sup>

Palominos and Palominitos Islands<sup>2</sup>



[1] PRCCC, 2013: State of Puerto Rico's Climate 2010-2013 Executive Summary. Assessing Puerto Rico's Social-Ecological Vulnerabilities in a Changing Climate. ELECTRONIC VERSION. 27 pp., Puerto Rico Climate Change Council. Puerto Rico Coastal Zone Management Program, Department of Natural and Environmental Resources, Office of Ocean and Coastal Resource Management (NOAA-OCRM), San Juan, PR.

[2] 1959 Shoreline Survey US Coast Guard and Geodetic Survey.

Image: NOAA

# The Power of Narratives



# Taking your narrative to the next level

## 1. Find your story

- What are you experiencing? Your family?  
Your neighbors?

## 2. Use data to amplify

- How might your story be an example of broader trends?

## 3. Collaborate with allies

- Scientists, doctors, attorneys, faith leaders, environmental advocacy groups, etc.

## 4. Understand the levers of action

- Which agencies or decision makers enforce the rules? Learn the system.

# The Story

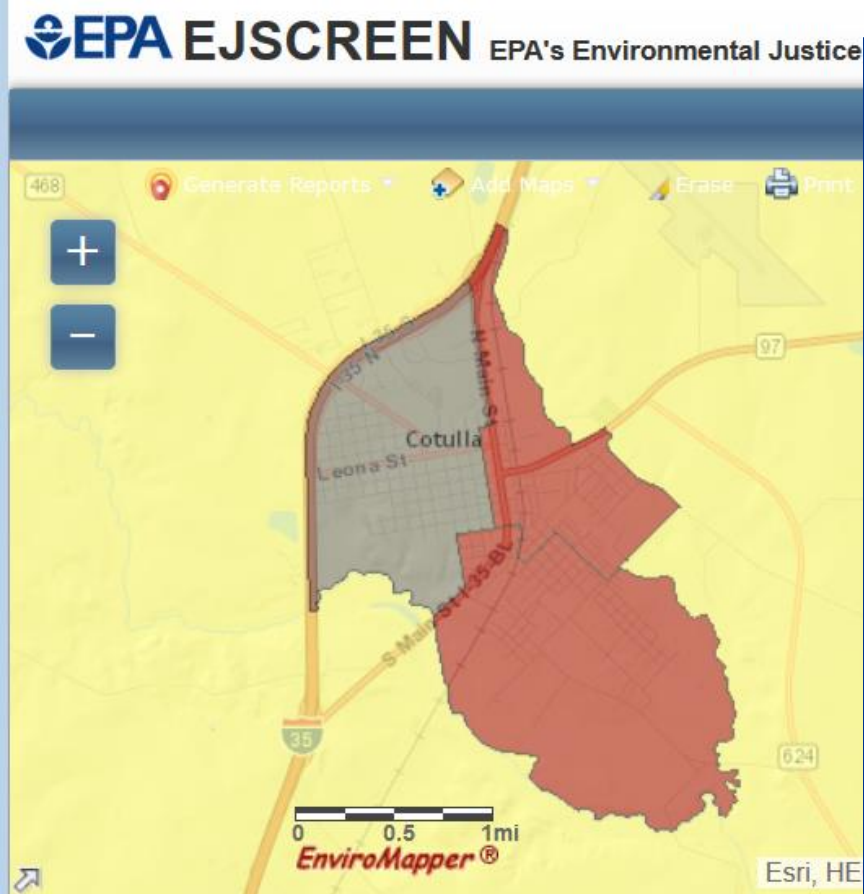
**Drilling Rig**

**Cotulla High School**

## Some oil and gas air pollutants and possible health impacts:

- **Volatile Organic Compounds**
  - Cancer, birth defects, neurological effects; irritation of the skin, eyes, and upper respiratory tract; dizziness, headaches, throat irritation, nausea, vomiting, and other health problems...
- **Sulfur dioxide and Nitrogen oxides**
  - Respiratory problems

# Data – EJSCREEN (Cotulla, TX)



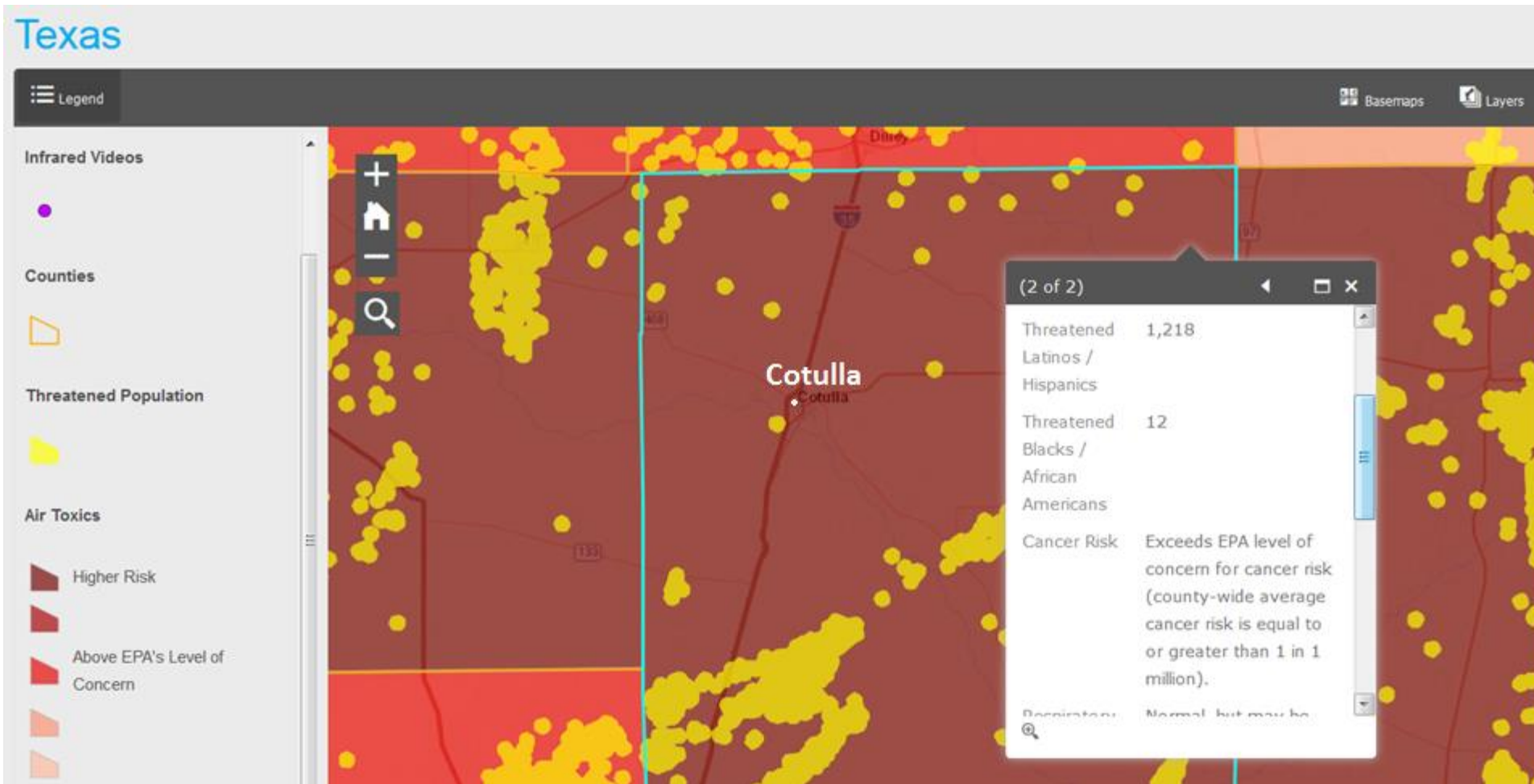
**Census blocks in red rank in 90<sup>th</sup> to 99<sup>th</sup> percentile, nationally, for populations that are:**

- Minority
- Low Income
- Linguistically Isolated
- With Less Than High School Education
- Under Age 5

Only 1% to 10% of census blocks in the nation have populations with a greater concentration of their population that meets these categories.

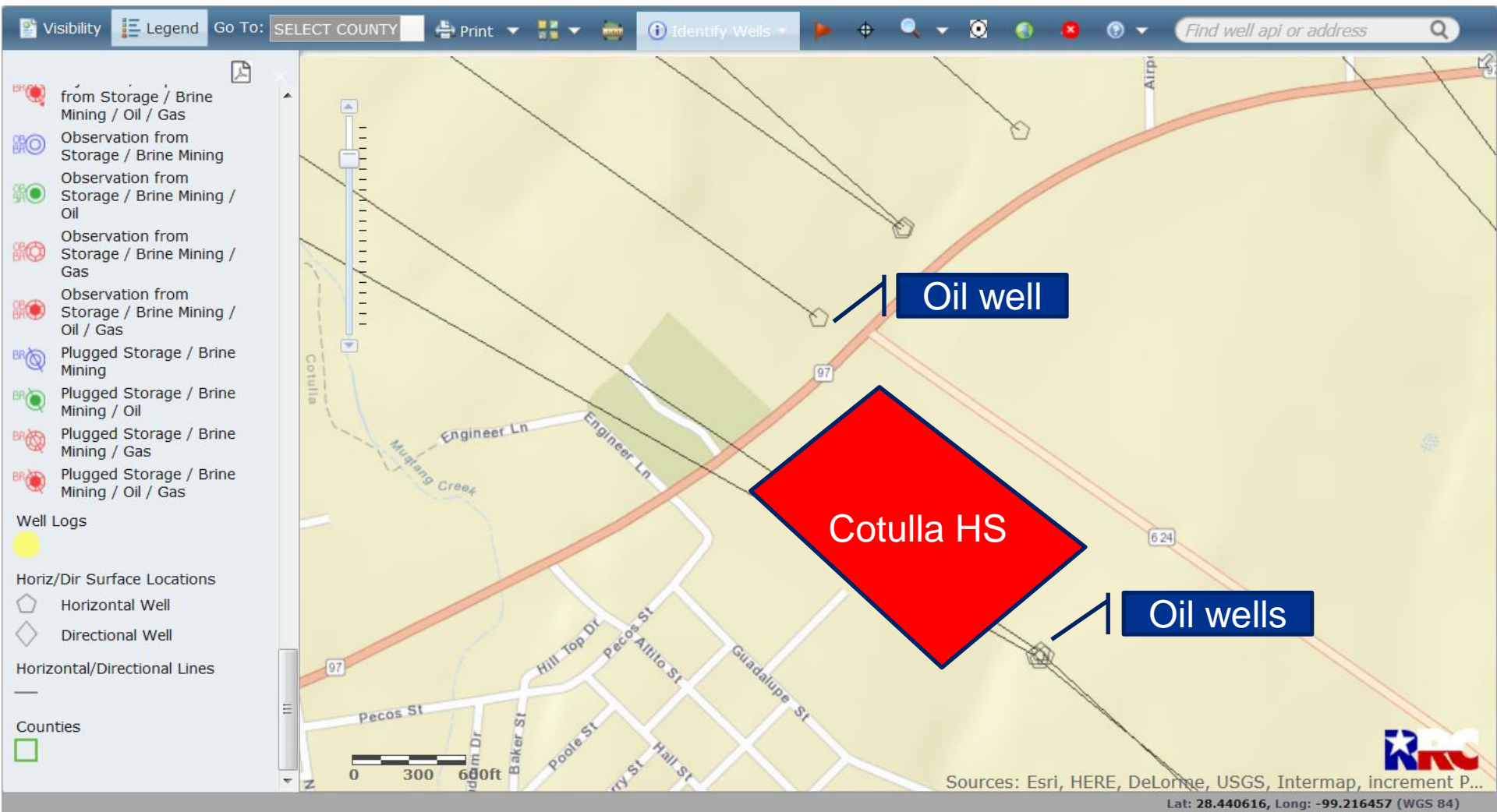


# Data – Oil and Gas Threat Map



Earthworks, Clean Air Task Force, Frac Tracker Alliance  
<http://oilandgasthreatmap.com/>

# Data – State agency



## Railroad Commission Public GIS Viewer

# Allies



Photo credit: David Martin Davies

# Levers of Action

[HOME](#) [ABOUT](#) [CONTACT](#) [RESOURCES](#) [NEWS](#)



[en Español](#)

Understanding and reporting oil and gas issues to protect your lands and community in the Eagle Ford Shale

[www.neighborsofoilandgas.org](http://www.neighborsofoilandgas.org)

# Sharing your narrative:

- Clean Power Plan
  - Lower energy bills
  - Jobs
  - Prevent 3,600 premature deaths, 1,700 heart attacks, and 90,000 asthma attacks every year.
  - Communities can help craft state plans
- Oil and Gas Methane Rule
  - Reduces methane & harmful air pollutants
  - Regulates new oil wells (not just new gas wells)
  - **Doesn't** regulate wells that were already operating



**Virginia E. Palacios**



Statistics

**For reference**



# Latino susceptibility to air pollution and climate change

- Latinos are more likely to hold jobs in outdoor occupations that expose workers to environmental health risks.<sup>1</sup>
- Latino populations are faced with lack of access to healthcare and agencies that don't provide resources in their language.<sup>2</sup>
- The majority of Latino-Americans live in three states<sup>3</sup> that are already experiencing serious effects related to climate change:
  - Historic drought in California,<sup>4</sup>
  - Record-breaking heat in Texas,<sup>5</sup>
  - Increased sea level rise and flooding in Florida.<sup>6</sup>

[1] Stepler, R., & Brown, A. (2016). *Statistical Portrait of Hispanics in the United States*. Washington, D.C. Retrieved from <http://www.pewhispanic.org/2016/04/19/statistical-portrait-of-hispanics-in-the-united-states/>

[2] Artiga, S., Damico, A., & Garfield, R. (2015). *The Impact of the Coverage Gap for Adults in States not Expanding Medicaid, by Race and Ethnicity*. Retrieved from <http://kff.org/disparities-policy/issue-brief/the-impact-of-the-coverage-gap-in-states-not-expanding-medicaid-by-race-and-ethnicity/>

[3] Brown, A., & Lopez, M. H. (2013). *Mapping the Latino Population by State, County and City - II. Rankin Latino Populations in the States*. Washington, D.C. Retrieved from <http://www.pewhispanic.org/2013/08/29/ii-ranking-latino-populations-in-the-states/>

[4] U.S. Global Change Research Program. (2014). *National Climate Assessment - Southwest*. Washington, D.C. Retrieved from <http://nca2014.globalchange.gov/report/regions/southwest>

[5] U.S. Global Change Research Program. (2014). *National Climate Assessment - Great Plains*. Washington, D.C. Retrieved from <http://nca2014.globalchange.gov/report/regions/great-plains>

[6] McNoldy, B. (2014). *Water, Water, Everywhere: Sea Level Rise in Miami*. Miami, FL. Retrieved from <http://www.rsmas.miami.edu/blog/2014/10/03/sea-level-rise-in-miami/>