

Public Health & Safety Risks of Oil and Gas Facilities in Los Angeles County

Angelo Bellomo, REHS, QEP Deputy Director for Health Protection

Katie Butler, MPH Staff Analyst, Toxics Epidemiology Program Los Angeles County Department of Public Health (DPH)



Outline

- I. Background
- II. Oil and Gas Strike Team
- III. Case Studies
 - I. AllenCo
 - II. Firmin Street
- IV. Research on Health Impacts of Oil and Gas
- V. Consultation with Other Jurisdictions
- VI. Conclusions
- VII. Next Steps





Oil and Gas in Los Angeles County

- 3,885 active wells
- 1,736 inactive wells



Los Angeles County Oil and Gas Strike Team



Source: Oil and Gas Facility Compliance Review Project Bi-Annual Report Number Three, County of Los Angeles Existing Oil Wells. Sept 2017. Available at: http://planning.lacounty.gov/assets/upl/project/oil-gas_20170926-report3.pdf



Los Angeles County Oil and Gas Strike Team

Recommendation Highlights:

- Removal of "by right" permitting
- Setback distances
- Well stimulation techniques (to reflect state regulations)
- Air quality and odor monitoring
- Transportation of chemicals in residential areas
- Pipeline monitoring and leak detection
- Abandonment of long idle wells
- Review of Emergency Response Plans
- Community communication



Strike Team Oil and Gas Site Visits

Which of these health checklist items was most often observed?

- A. High intensity of historical drilling
- B. High pressure operations
- C. High content hydrogen sulfide
- D. Proximity to sensitive land uses (e.g. schools, homes)
- E. All of the Above





Operations Near Sensitive Land Uses





Abandoned and Idle Wells





Research on Health Impacts of Oil and Gas

- Scientific literature:
 - Respiratory illnesses & cancer, plus a variety of neurological, gastrointestinal, dermatological, psychological, and reproductive effects studied.
 - Overall, limited/inconclusive findings from studies.
 - Need more high-quality studies and precautionary policies.
- Environmental Impact Reviews and Health Impact Assessments
 - Predict impacts from: air emissions, odors, noise & vibration.
 - Mitigation measures may reduce impacts, depending on:
 - **1**. Site specific operations
 - 2. Proximity to sensitive populations



Consultation with Other Jurisdictions

State	Jurisdiction	Year Adopted	Setback Distance (ft)
California	City of Carson	2015	750
California	Kern County	2015	1,500
Colorado	State	2013	500
Maryland	State	2016	1,000
New Mexico	Santa Fe County	2008	750
Oklahoma	Oklahoma City	2015	600
Texas	City of Arlington	2011	600
Texas	City of Dallas	2013	1,500
Texas	City of Flower Mound	2011	1,500
Texas	City of Fort Worth	2010	600



Conclusions

- DPH has documented health effects occurring alongside odors, often when emissions are within regional air quality standards.
- Health studies have found limited/inconclusive evidence of certain adverse health effects from living near oil and gas.
- Identified data gaps highlight need for more health research and monitoring.
- Other local and state jurisdictions have established setback distances ranging from 500 to 1,500 feet. Multiple environmental and political variables were considered.



Next Steps

DPH found sufficient evidence to support health protective guidance.

Guidance focuses on:

- 1. Setback Distances
- 2. Real-time Air Monitoring
- 3. Preventative Maintenance and Testing
- 4. Community Safety Plan
- 5. Enhanced Emergency Response Plans