



Briefing on Oil and Gas Wastewater Injection Wells in Santa Barbara County

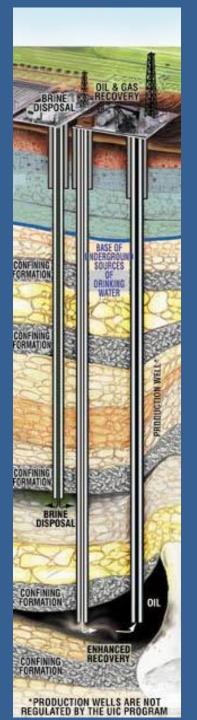
May 12, 2015

Today's Presentation

- Presentation by Energy and Minerals Staff
- Dr. Steve Bohlen, State Oil and Gas Supervisor, available to answer questions

Issue

- DOGGR approval of injection wells in zones that have potential to be sources of drinking water
- DOGGR regulates underground injection in ~50,000 wells statewide.
- County only regulates associated surface operations.
- No injection wells in Santa Barbara County are impacting groundwater



Injection Wells

- Wastewater Injection wells

 inject brines and other fluids associated with the production of oil and natural gas.
- Enhanced oil recovery wells

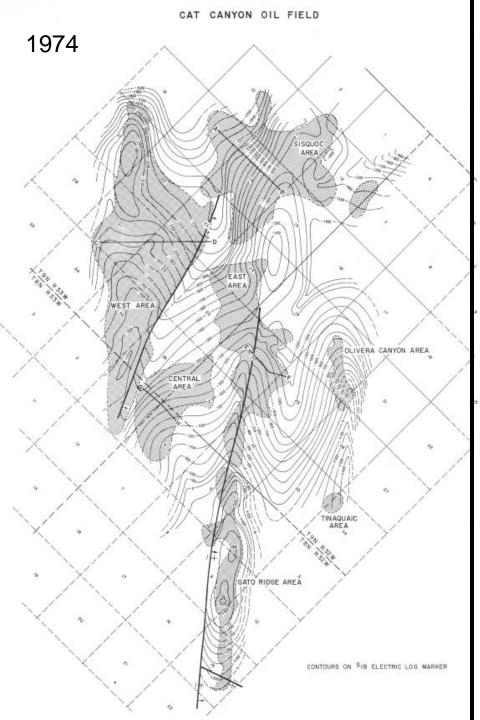
 inject brine, water, steam, polymers, or carbon dioxide into oil-bearing formations to recover residual oil and natural gas.

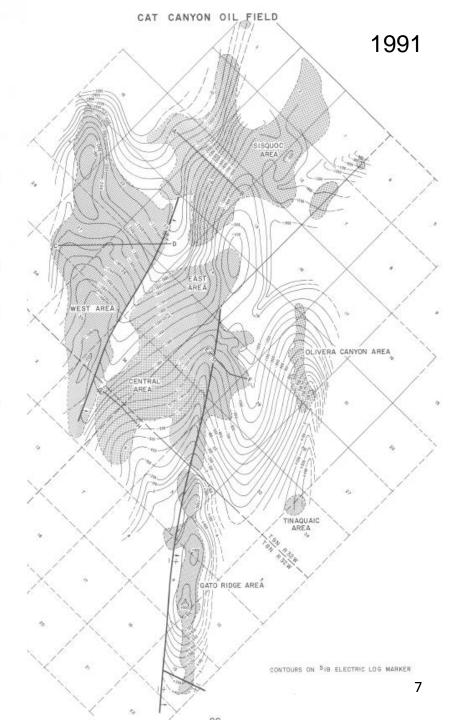
Regulatory History

- U.S. EPA Underground Injection Control (UIC) program
- DOGGR primary regulator for UIC since 1983
- DOGGR identified aquifers as exempt based on 1983 productive areas
- 11 aquifers statewide incorrectly permitted for drilling as exempt (None in Santa Barbara County)

Primary Causes of Wells Permitted in Non-Exempt Aquifers

- Border Confusion
- Expanding Productive Limits
- Depth Confusion
- Partial Exemption



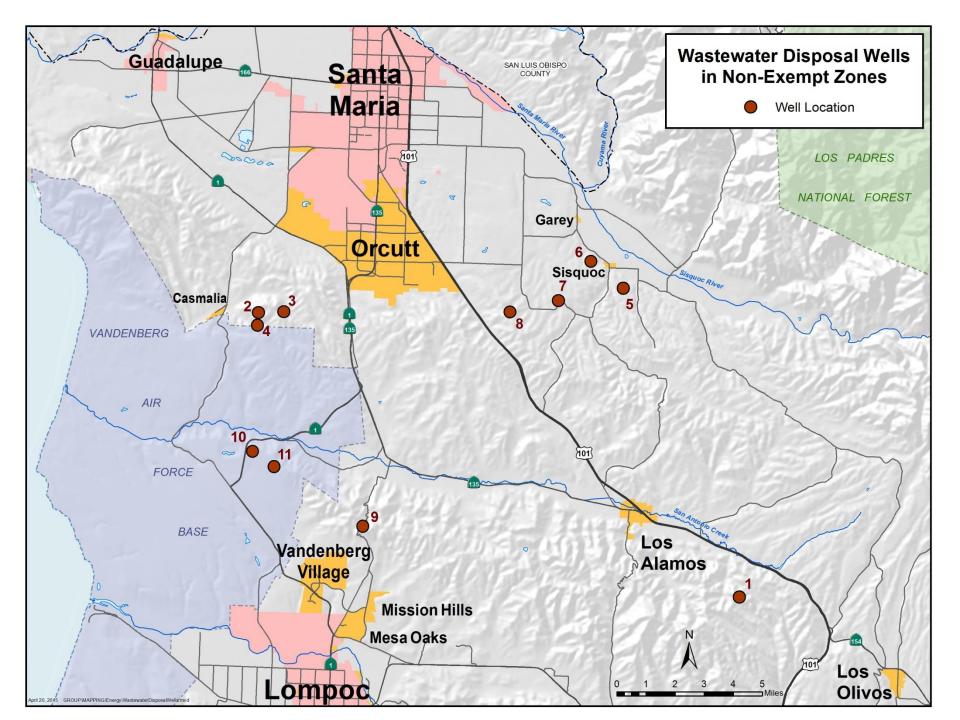


Statewide Investigation

- 2,500 wells under investigation statewide
- 140 active wells injecting into underground drinking water sources (none in Santa Barbara County)
- 12 high risk wells shut down in Kern County

Santa Barbara County Investigation

- 219 wastewater disposal wells (66 active, 38 idle, 110 abandoned, 5 proposed)
- 11 under investigation (7 active, 3 idle, 1 proposed)
- All drilled outside of official boundaries in 1983 Primacy Agreement
- All inject into oil-bearing zones



Statewide Compliance Timeline

- October 15, 2015: Deadline to stop injecting for non-exempt aquifers with less than 3,000 mg/L TDS.
- February 15, 2017: Deadline to obtain an exemption or stop injecting in non-exempt aquifers between 3,000 to 10,000 mg/L TDS

Recommendations

- Receive and file this report.
- Determine that this report does not constitute a project under the California Environmental Quality Act (CEQA), pursuant to CEQA Guidelines Section 15378(b)(5).

End of Staff Presentation

Questions?