Here Today & Fracked Tomorrow:
A Rollercoaster Year for SB 4 Implementation

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Hydraulic Fracturing: A Brief History

- 1875: State’s first commercially viable oil field (Los Angeles)
- 1916: Oil & gas exceeds the value of gold in California
- 1965: 1st well fracked in California, Kern County
- 2003: California becomes 4th largest oil producer in U.S.
- 2013: California is 3rd largest oil producer in U.S.
- September 2013: SB 4 Enacted
The Year in Review: Statistics

- 100-150 wells per month fracked in Cal.
- 2,900 wells per month fracked in U.S.
U.S. Statistics

- 2012: U.S. became leading natural gas producer, overtaking Russia
- 2013: U.S. became leading oil producer, beating out Saudi Arabia
Fracking is Occurring in these Regions
The Year in Review: Water Data

California: fracking operations require 130,000 - 210,000 gallons of water per well

Texas: ~ 4 million gallons per well

Pennsylvania: 4.5 million gallons per well
The Year in Review: Water Data

As of August 2014, there have been no publicly reported instances of potable water contamination from subsurface hydraulic fracturing operations in California.
Fracking Fluid

90% water + 0.5% chemicals + 9.5% sand
SB 4: Regulatory Scheme Overview

- Robust permitting system
- Disclosure requirements
- Broad landowner notification requirements
- Groundwater monitoring plans
- Well integrity testing before & after fracturing
SB 4: Regulatory Scheme Overview (cont.)

- Independent scientific study
- Environmental Impact Report (EIR)
  - Statewide EIR
  - Draft EIR should be released by end of 2014 - ???
Regulatory Actions: Timeline

Jan. 1: SB 4 Interim Regulations Finalized

June 3: Steven Bohlen appointed Oil & Gas Supervisor of DOGGR

June 13: 1st Revision of Proposed Regulations
Regulatory Actions: Timeline

June 27: Readopted SB 4 Interim Regulations

Oct. 9: Second Revision of Proposed Final Regulations
SB 4 Interim Regulations Finalized – January 1, 2014

• January 1, 2014 - July 1, 2015
• No “permit” required yet, if operators comply with specified provisions
Revised Proposed Permanent Regulations – June 13

- Regulations now govern well stimulation treatments onshore and offshore
- Inter-agency information sharing
- More detailed water testing requirements
- Public disclosures of water use & testing
SB 4 Interim Well Regulations – Readopted June 27

• Water testing requirements added:

  “If a notified property owner makes a timely, written request for water sampling and testing, the well stimulation will not commence until requested baseline water testing is complete.”
Senate Bill 1281 – Sept. 2014

- Operators must report to DOGGR the volume, source, and use of all water and wastewater.
- DOGGR must post this information publicly.
Second Revision: Proposed Permanent Regulations – Oct. 9

Major Changes:

• Well stimulation treatment not permitted until written approval from the Water Board
• Water testing must be monitored by the Regional Water Board
• Testing to determine whether a well failure has occurred after stimulation treatment
Groundwater Monitoring

• SB 4: State Water Resources Control Board (Water Board) must develop groundwater monitoring model criteria
• Interim Regulations: provide model criteria
• Permanent Regulations: wells subject to regional groundwater monitoring program
DOGGR

- Division of Oil, Gas, and Geothermal Resources (“DOGGR”): the main regulatory agency
- Within the Department of Conservation (“DOC”)
- Oil & Gas Supervisor: Steven Bohlen
- Staff has grown by over 50% since 2008
New Agencies Involved in Regulation

- State & Regional Water Boards
- Department of Toxic Substances Control
- Air Resources Board & Air Quality Management Districts
- And any other local agencies with jurisdiction over the well
Role of Water Board

- Greatly expanded regulatory role
- Designate third-party water testing contractors
- Audit & review sampling & testing conducted by the third-party contractors
- Enter formal agreement with DOGGR re: responsibilities of regulation under SB 4
Role of Water Board (cont.)

- Approve operators’ groundwater monitoring plans
- Develop model groundwater monitoring criteria by July 1, 2015
- Implementation of regional groundwater monitoring program begins: January 1, 2016
- New Staff Position: Oil & Gas Specialist
Future Regulatory Action:
July 1, 2015

- Final Regulations in Effect
- Final EIR Certified
- Water Board: Model Groundwater Monitoring Criteria
Future Projections: Production

- Expanded production primarily in & near existing oil fields in the San Joaquin Basin
- 600 million barrels of oil can be extracted from Monterey Shale
About 3.1 billion barrels of undiscovered oil in California
Oil Reserves in California

Crude Oil Proved Reserves, Reserves Changes, and Production

Source: U.S. Energy Information Administration
Fracking Bans

Successful:
• Mendocino County (Nov. 2014)
• San Benito County (Nov. 2014)
• Beverly Hills (May 2014)

Failed:
• Santa Barbara (Nov. 2014)
• Los Angeles (proposed - 2014)
Recent Legal Challenges

Offshore fracking in Santa Barbara:

• Dec. 3: Environmental Defense Center filed a lawsuit against the Bureau of Safety and Environmental Enforcement

• Dec. 4: Center for Biological Diversity filed a notice of intent to sue the U.S. Department of the Interior
Questions?

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