### Development of Model Criteria for Groundwater Monitoring Related to Oil and Gas Activities





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### **Presentation Overview**

- Purpose for Today's Meeting
- Background on Laws and Regulations
- SB 4 Requirements for Model Criteria
- Timeline for Development of Model Criteria



## **Purpose for Today's Meeting**

Present an overview of the proposed process for developing model criteria.

Gather stakeholder and public perspectives, ideas, and concerns.



# Background on Laws and Regulations

- DOGGR Draft Regulations January 2013
  - Focused primarily on well construction safeguards
  - Did not include groundwater monitoring
- > 2013 Well Stimulation Legislation
  - Public concern initiated several different bills in the state legislature
  - SB 4 (Pavley) ultimately passed and signed into law in late 2013



### **SB 4 Requirements**

- DOGGR to adopt regulations specific to well stimulation
  - Final regulations by 2015
  - Interim regulations (currently) include groundwater monitoring requirements
- State Water Board to implement regulatory program for groundwater monitoring of oil and gas-related activities
  - Develop "model criteria" for groundwater monitoring
  - Implement regional groundwater monitoring program by 2016
  - Funded by oil and gas operation fees



## SB 4 Development of Model Criteria

- Model criteria is being developed in consultation with:
  - DOGGR
  - Technical Experts
  - Public Stakeholders
- Lawrence Livermore National Laboratory (LLNL) to consult with experts and provide written recommendations to State Water Board staff
- U.S. Geological Survey collecting and analyzing data and information to help develop model criteria



# SB 4 Development of Model Criteria (cont.)

#### Model criteria covers:

- Operator-required groundwater monitoring near wells subject to well stimulation
- Regional-scale monitoring to be implemented by State Water Board

#### Model Criteria to include:

- Methods for monitoring
- Chemical analyses
- Frequency and duration of monitoring
- Areas to monitor



### **Proposed Timeline**

- August 2014 Public stakeholder kickoff meeting(s)
- Mid-Oct 2014 Public stakeholder meeting with technical experts to allow input to model criteria design issues (led by LLNL)
- January 2015 LLNL to submit written recommendation report to State Water Board staff to consider



### **Proposed Timeline** (cont.)

- Early 2015 State Water Board staff to release draft model criteria for public review
- By July, 1 2015 Water Board adoption of final model criteria
- January 1, 2016 State Water Board begin regional groundwater monitoring



#### **Additional Information**

- State Water Board Web Site http://www.waterboards.ca.gov/water\_issues/programs/gro undwater/sb4.shtml
- DOGGR Web Site http://www.conservation.ca.gov/dog/Pages/WellStimulation .aspx#ltem1
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